

Operating instructions

	Туре	Computer type	Component type
CMS 830 S	633	OKC	000 - 003
CMS 730 S	625	OKC	000 - 003



 $(\in$



Date: 2012-08-22 Translation of the original operating instructions Operating system of the machine: V_OKC_002.007.00x_STOLL (or higher) H. STOLL GmbH & Co. KG, Stollweg 1, D-72760 Reutlingen, Germany Our products are being developed further continuously. They are therefore subject to technical modifications.

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Installation of the programs

The exact installation instructions for the software are contained in the manual.

Software license for Windows XP

The license number is located on the left or on the right control cabinet.



Fig. 1 Software license for Windows XP on the left control cabinet

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11 Key word directory

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1.1 Function of this document



1 About this document

This chapter contains information on:

- Function of this document [-> 13]
- Target groups of this document [-> 13]
- Information in this document [-> 14]
- Symbols in this document [-> 16]

1.1 Function of this document

This document explains how to operate your knitting machine.

This section contains the information about:

- Operation
- Maintenance in normal operation
- Elimination of faults
- Maintenance
- Troubleshooting

1.2 Target groups of this document

The individual chapters of this document are directed at persons with different tasks and qualifications:

Target groups and qualifications	Chapter		
everybody: Knowledge on the	1	About this document	
workplace	2	Description of knitting machine	
User: Knowledge of the basic principles	all the above-mentioned chapters		
or hat knitting	3	Producing with the knitting machine	
	4	Adjusting knitting machine	
	6	Maintenance of the knitting machine	
	7	Repairing the knitting machine	
Technician: Knowledge of the current electrotechnical safety guidelines and completed professional training in the field of textile mechanics	All o	chapters	

Allocation of target groups and chapters

Information in this document 1.3

1.3 Information in this document

This document contains all information on assembly, operation, servicing and maintenance of the knitting machine.

Additional information is provided by the following separate documents:

Document	Information contained
Spare Parts Catalog	Illustration of all spare parts with their order numbers
Manual for the STOLL pattern preparation unit	Using the STOLL pattern preparation unit
ASCON instructions STIXX instructions	Special attachments for measuring and controlling stitch length
Stoll-knit report 2 (SKR2)	Software for operational and machine data acquisition
Order Management Software (OMS)	Software for the distribution, control and management of knitting orders

Overview of the documents for the knitting machine and STOLL pattern preparation unit

Additional information is available via:

- the Stoll branch office or Stoll dealer in your country
- the Stoll helpline:
 - Tel: +49-(0)7121-313-450
 - Fax: +49-(0)7121-313-455
- E-mail: helpline@stoll.com
- Internet: http://www.stoll.com
- Training courses at the Stoll training centers

1.3 Information in this document

Type plate Some information and descriptions depend on the component and computer type. There may be differences in the design depending on the manufacturing date of the machine. The type plate and the table, which are located on the front page of these operating instructions, indicate which machine model is concerned.



Machine type plate

The second column of numbers in the "Type" field indicates the component type. In the above example the machine in question is the component type "000".

1.4 Symbols in this document

Some information in this document are marked with special symbols to make it easier to access this information quickly.

★ The additional equipment of your machine can deviate from this description depending on the machine type (type of machine, scope of supply, special equipment).

i	Background information is provided here.	
×	Tips for optimal procedure are provided here.	

DANGER A warning is given here! A warning protects you from death or injuries and the knitting machine from serious damage.

 Always read warnings carefully and observe them exactly.

One-step action Carry out an one-step action:

- ✓ Condition for the following action.
- → Carry out one-step action.

Multi-step action Carry out a multi-step action:

- Condition for the following actions.
- 1. Carry out first action.
- 2. Carry out second action.

 \triangleright Result of the action carried-out.

3. Carry out third action.

- or -

- → Carry out the alternative action for point 3.
- Result of the action sequence.



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KNIT AHEAD

2 Description of knitting machine

This chapter contains information on:

- Components of the knitting machine [-> 18]
- Yarn guide [-> 23]
- Carriage assembly [-> 33]
- Knitting system [-> 38]
- Control devices [-> 43]
- Needle beds [-> 45]
- Fabric take-down [-> 48]
- Display and operating elements [-> 52]



Components of the knitting machine 2.1

2.1 Components of the knitting machine

2.1.1 Front side



	Label	Explanation
1	Signal light	It displays the operating condition of the knitting machine (green, yellow)
2	Yarn control unit	Tensions and controls the thread.
3	Bobbin board	The bobbins are placed on it.
4	Carriage	It moves over the needle beds. It controls the work positions of each yarn carrier and each and every needle in the needle bed.
5	Safety door (left, right)	The reversing position of the carriage is secured by the safety door.
6	Covers	The entire traversing path of the carriage is secured with a safety door. You have to forbid everyone from reaching out into the running machine.
7	Control (right-hand side of the machine)	It controls the carriage run and the racking of the needle bed.
8	Main switch	Switching on and off of the machine. EMERGENCY-STOP switch.

Overview machine elements 1

2.1 Components of the knitting machine



	Label	Explanation
9	Engaging rod	It activates and stops the carriage run.
10	Fabric take-down (main take-down, auxiliary take-down, comb take- down)	Main take-down: Pulls the stitches away from the needle downwards to the fabric container. Auxiliary take-down: Grasps the fabric directly under the needle bed. Comb take-down: With the comb take-down fabric pieces are automatically started and press off after completion.
11	Fabric collection chamber	The fabric take-down guides the finished fabric into the fabric collection chamber. There the fabric is protected from soiling.
12	Control (left side of the machine)	It controls the knitting process. It saves the data of the knitting program. It controls the needle selection and the motors in the carriage.
13	Touch screen	The touch screen enables communication with the machine control
14	USB connection	Connection for a removable data carrier, containing knitting programs, operating systems and machine data. Recommendations: Use USB Memory Stick. Also possible: Floppy disk drive, CD drive, DVD drive, external hard disk.

Overview machine elements 2

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Components of the knitting machine 2.1

Inside

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	Label	Explanation
1	Carriage	It moves over the needle beds. It controls the work positions of each yarn carrier and each and every needle in the needle bed.
2	Needle Bed	Every machine has a front and a rear needle bed. There are grooves in the needle bed which are run by needles.
3	Thread clamping and cutting device (left, right)	The thread clamping and cutting device holds the thread of a yarn carrier not used for knitting at the moment.
4	Yarn carrier	It gets pulled by the carriage over the needle bed and leads the thread into the needle.
5	Yarn carrier rail	Four rails are attached to the upper part of the needle bed. The yarn carrier glides on this rail.

Overview machine elements 3

2.1 Components of the knitting machine

2.1.2 Lateral view (right)



	Label	Explanation
1	Yarn control unit	Tensions and controls the thread.
2	Yarn guide system	On this the yarn control units and the friction feed wheels are mounted.
3	Friction feed wheel (special attachment)	It pulls the thread from the bobbin and feeds it to the yarn carrier with a constant tension.
4	Lateral yarn tensioner	It monitors and tensions the thread.
5	Safety door (left, right)	The reversing position of the carriage is secured by the safety door.

Overview machine elements 4

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Components of the knitting machine 2.1

2.1.3 Rear side



	Label	Explanation
1	Carriage	It moves over the needle beds. It controls the work positions of each yarn carrier and each and every needle in the needle bed.
2	Rear Needle Bed	Every machine has a front and a rear needle bed. There are grooves in the needle bed which are run by needles.
3	Trailing cable (energy chain)	The cables for the carriage that travels hence and forth are fed along with in the energy chain.
4	Transformer (Fuses)	The knitting machine can be operated with various mains voltages.
5	Fluff absorption	The fluff absorption removes the yarn fluff from the upper area of the needle beds.
6	Control (right-hand side of the machine)	It controls the carriage run and the racking of the needle bed.
7	Main drive	The carriage is driven by the drive motor via a toothed belt.
8	Racking device	Racks the rear needle bed laterally.

Overview machine elements 5

2.2 Yarn guide



2.2 Yarn guide

The yarn guide has the following tasks:

- Guiding knitting yarn
 - from the bobbin to the yarn carrier
 - as friction-free as possible
 - without the threads touching or crossing over each other
- Controlling knitting yarn for
 - yarn end
 - Yarn breakage
 - Knots
- Controlling yarn tension
- Preventing sagging threads with yarn tensioning

2.2.1 Courses of yarn

Various courses of yarn are provided for threading up the yarn on the knitting machine. The optimal course of yarn depends on the yarn and pattern.

Yarn	Course of yarn
Seldom used threads, e.g. elastic yarns	Course of yarn 1
Seldom used threads, e.g. draw threads	Course of yarn 2
Frequently used threads	Simple patterns: Course of yarn 2 Difficult patterns: Course of yarn 3
Difficult-to-process threads	Course of yarn 3
Equally long fabrics	Course of yarn 4

Determining the course of yarn

Yarn guide 2.2



The following pictures show the four possible courses of yarn.

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2.2 Yarn guide





Yarn guide 2.2

STOLL

2.2.2 Yarn control unit



Yarn control unit

1

- Thread break control
- 4 Yarn brake disc

LED

- 2 Knot detector for large knots
 - large knots 5
- 3 Knot detector for small knots

The elements of the yarn control device can individually be adjusted to the yarn being processed.

The yarn break control (1) monitors the yarn ends and switches off the machine in case of a yarn breakage or end. The error is indicated by the LED (5) on the yarn control device, the signal light and on the touch screen.

In the case of large knots in the yarn, the knot detector switches off the knitting machine. The error is indicated by the LED (5) on the yarn control device, the signal light and on the touch screen.

In the case of small knots in the yarn, the machine knits a programmed number of rows at reduced speed.

The yarn brake setting (4) regulates the yarn tension and prevents the thread from hanging through.

2.2 Yarn guide

2.2.3 Lateral yarn guide

The friction feed wheel, the active thread clamp, the lateral yarn tensioner and the permanent brake work together.



The machine is equipped with 3 feed wheels on each machine side as standard. It is also possible to mount 4 feed wheels on request.

Further information:

Symbols in this document [-> 16]

Active thread clamp The active thread clamp is found under the friction feed wheel. It is integrated in the lateral safety door. The thread clamp is positioned in such a manner that each track of the friction feed wheel is arranged corresponding to a track of the thread clamp. In all there are 8 tracks available.



Lateral yarn guide

- 1 Friction feed wheel
- 2 Active thread clamp
- 3 Lateral yarn tensioner
- 4 Permanent brake

In the case of a friction feed wheel sometimes a problem appears: When a thread is not knitted over a longer period of time it is possible that the friction feed wheel releases some threads because of the friction and thereby the lateral yarn tensioner swivels so mush outwards that the machine stops. This hinders the thread clamp. If the yarn tensioner swivels over the angle by approx. 45 degree, the clamp closes automatically. If the thread is knitted again the yarn tensioner swivels inwards and the clamp is open.

Lateral yarn tensioner The lateral yarn tensioner has two tasks:

Function	Description
Control the thread	Switch off the knitting machine in case of a thread break or yarn end.
Tension the thread	When the yarn carrier moves on the yarn tensioner, it can hold the threads that are not yet being knitted in a tensioned state. The yarn tensioner swivels and holds the threads tensioned.

In the case of a yarn breakage the side yarn tensioner swivels outwards and switches off the knitting machine. On the upper end of the yarn tensioner a magnet is fixed that releases a contact in the lateral safety door without touching it.

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2.2.4

2.2 Yarn guide





Thread clamping and cutting device

Thread clamping and cutting device

- 1 Clamping
- 2 Catch hook

The thread clamping and cutting devices are mounted on the left and right next to the needle bed. Each one works with eight clamping devices (1).

The thread clamping and cutting device holds the thread of a yarn carrier not used for knitting at the moment. If the yarn carrier is not needed anymore, it is positioned at its clamping position. The catch hook (2) pulls the thread downward. Then the thread is clamped and cut off. When the yarn carrier is used again, the clamp opens after knitting a few rows and the yarn end is released. The number of rows knitted until the clamping device opens up, is programmed in the knitting program.

Yarn guide system On the left and right-hand side of the needle bed is the yarn guide system. It works together with the thread clamping and cutting device. The yarn guide system comprises of two yarn carrier bows and the thread clamp.



Yarn guide system

- 3 Thread clamping and cutting device
- 4 Yarn guide bow
- 5 Thread clamp

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With the help of a stroke magnet the yarn carrier system is raised into working position. It has the following tasks:

Yarn guide bow: When the yarn carrier moves in the clamping and cutting position, the thread is held securely by the thread clamping and cutting device.

When the yarn carrier is used again, a bow holds the thread deep so that it can be securely grasped by the needle also when the yarn carrier was stopped outside the thread clamping and cutting device.

Thread clamp: When the yarn carrier is used again the thread is inserted in the thread clamp. It holds the thread firmly so long till it gets pulled from the clamp by the tensile force of the fabric. The thread clamp prevents the thread ends getting caught by the rollers of the auxiliary take-down and winding themselves around the rollers. The column width (clamping force) of the yarn brake is adjustable through a screw. The thread clamp is opened through a command in the Sintral program.

2.2 Yarn guide



2.2.5 Intarsia yarn carrier *

Intarsia yarn carriers can be installed to produce intarsia patterns.



Pattern with 21 intarsia yarn carriers

Depending on the machine type, the intarsia yarn carrier type 1 or 2 will be inserted.



	Intarsia yarn carrier	Machine
1	Type 1	CMS 830 C CMS 520 C CMS 730 S CMS 830 S
2	Type 2	CMS 933 CMS 822 CMS 740 CMS 730 T CMS 530 T CMS 530 CMS 520

Further information:

Symbols in this document [-> 16]

Yarn guide 2.2

2.2.6 Plating yarn carriers *

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Plating yarn carrier

- 1 Double bow yarn carrier
- 2 Double eyelet yarn carrier
- All gauges except E 3, E 4 E 3, E 4

It is possible to knit color and quality platings with these yarn carriers.



Colored plating pattern

Further information:

Symbols in this document [-> 16]

2.3 Carriage assembly



2.3 Carriage assembly

2.3.1 Drive, speed and operating path



Carriage assembly

The carriage assembly is driven by the drive motor via a toothed belt. The speed is infinitely programmable, and can therefore be adapted to the yarn material, pattern and working step.

Limit switches control the path of the carriage assembly. If the carriage assembly moves too far outward, the limit switch stops the knitting machine.

The operating path of the carriage is controlled by the knitting program and may differ for each knitting or transfer row The carriage assembly reverses when the last working needle leaves the system.

Carriage assembly 2.3



2.3.2 Suction and cleaning row

Suction



Fluff absorption and lint container

The suction removes the yarn fluff from the upper area of the needle beds. The fluff is collected in a container.

Cleaning row



Brushes on the needle bed

After a programmable number of knitting rows, the carriage assembly carries out a cleaning row over the entire needle bed during which the fluff is extracted from the needle bed. Some brushes are fixed on the exterior part of the needle bed.

- The brushes (1) clean the selection systems.
- The brushes (2) clean the pressure parts.

Further information:

Switching on and off aggregates [-> 177]

2.3 Carriage assembly

2.3.3 Central lubrication



Central lubrication on carriage, on the right: Oil supply

It lubricates the working butts of the holding-down jacks, the coupling part and the intermediate slider with oil. All other lubrication points must be lubricated manually.



Lubrication points of the central lubrication

Carriage assembly 2.3

STOLL

2.3.4 Presser Foot



Presser foot with step motor

- 1 Presser foot in operation
- 2 Presser foot out of operation

The presser foot (1) supports the knitting and transfer process in difficult knitting situations. It presses the fabric away from the needles on the one hand and on the other hand it prevents the finished fabric from getting pulled upwards during the upward movement of needles. In working position it is found between the front and the rear needle bed, beneath the needles.

Two presser feet are allocated for every front and rear knitting system that work according to the direction of carriage. In the carriage direction rightwards the rear presser foot is active, in the carriage direction leftwards the front presser foot is active. The presser feet of the front and rear carriage parts can be switched on and off independent of each other. The instructions for this are in the knitting program.

The presser foot can take three positions:

- Deactivated
- Knitting
- transfer (by approx. 1 mm higher than the knitting position)

The control automatically selects the knitting or the transfer position.

The movement of presser foot is carried out with a step motor. The swingin in the working position of the presser foot is carried out shortly after the carriage reversal. The swinging out is carried out shortly after the last knitting needle has left the system. The motor also controls the movement of needle brushes as this would obstruct the swing-in and swing-out of the presser foot.
2.3 Carriage assembly

i	If the carriage is standing in the needle bed and the carriage part is removed from the machine then you must check whether a presser foot is active. If this is the case, then the presser foot must be dismantled.
i	A special presser foot is available for very loose fabrics.

Further information:

■ Settings K&W [-> 172]

2.4 Knitting system

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2.4.1 Knitting system design



Knitting system

- 1 Stitch cam (First stitch tension or reclaiming)
- 4 Pressure parts
- 5 Selection system

3 Knitting and transfer part

2 Stitch cam (Second stitch tension)

Each knitting system can knit using the three-way technique without limitation.

Each needle can be controlled in eight positions:

- Stitch
- Short stitch (Second stitch tension)
- Tuck
- Short tuck (Second stitch tension)
- Not loop-sunken tuck
- out of operation
- Transfer
- Take-over

This results in the following possibilities during stitch formation:

- Stitch
- Tuck
- out of operation
- Transfer of stitches and tuck loops from the front to the rear needle bed or vice-versa, even simultaneously in both directions

The selection system selects only those needles that work. All other needles are not selected and do not sink the stitches.

2.4 Knitting system



2.4.2 The step motors in the carriage

Each knitting system has 4 step motors for controlling the stitch tension and the needles. The step motors are controlled by the knitting program.



Step motors in the carriage

	Carriage direction to the left	Carriage direction to the right
1	Reclaiming	First tension
2	Second tension, knitting and transfer part	Second tension, knitting and transfer part
3	First tension	Reclaiming
4	Pressure part control	Pressure part control

First and second tension The stitch tension can be adjusted individually in each knitting system

- for individual areas in the fabric which are subjected to particular loading, e.g. narrowing edges or pattern motifs
- for individual stitch cams
- for different yarns (yarn count correction)
- Second stitch tension: Individual needles or areas are knitted with a smaller stitch tension (stitch short, tuck short).

During knitting, changes can also be made via the touch screen.

Knitting and transfer part The knitting and transferring cam is activated by the middle step motor (2). In one knitting row the cams are in their upper position, the needles are led from the bottom of the cams. In one transfer row the cams are in their lower position, the needles are led from the top of the cams into the transfer position.

Reclaiming The holding-down jacks are closed in their home position on this machine. In the case of larger racking movements it is possible, that the stitches get pulled out from under the holding-down jacks. This may impair the fabric look or the knitting reliability. In order to prevent this, reclaiming is used. The needles are grasped by the first (leading) stitch cam when entering the knitting system, and sunk again, that is pulled downwards. The holding-down jacks open simultaneously and therefore the stitches are positioned exactly under the holding-down jacks. Finally the actual knitting process for these needles is carried out. Pressure part control The pressure part control consists of 5 pressure parts that are switched on and off depending on the carriage direction. The pressure parts guide the needles into the tuck, stitch take over, no loop sinking and second stitch tension positions. The pressure part fulfills the task of pressing the intermediate slider (and with it the coupling part and the needle) into the needle bed until the corresponding cam is reached in the knitting system.

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2.4 Knitting system



2.4.3 Holding-down function

Holding-down jacks

The holding-down jacks (1) are closed in their home position springmounted. They press the fabric downwards and prevent it from getting pulled upwards accidentally.

When the carriage moves over the needle bed, the holding-down jacks are opened only in specific areas of the knitting system (reclaiming, taking over of the stitches, after the stitch formation). Depending on the knitting situation different toggle are inserted that are automatically switched on by the holding-down jack control.



Holding-down jack control

- 2 Motor of the holding-down jack control
- 3 Tilting lever

Knitting system 2.4

2.4.4 Position of the needles outside the carriage

On very loose fabrics it may be necessary to change the position of the needles outside the carriage. The stitches are then so long that the holdingdown jacks can no longer hold them reliably. For this reason, the needles should be in a lower position in the needle bed than in the standard setting.

When the needles leave the carriage, they are brought to a certain height in the needle bed by the last cam. By default the needle hook is at the same height as the upper end of the needle bed. This is also called "Comb level". Starting from this position, there are two additional positions that are located 2 and 3 mm lower.

This can be adjusted on the lock lever (1). It is connected to the last cam.



Lock lever on carriage

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2.5 Control devices



2.5 Control devices

2.5.1 Impulse sensor



Impulse sensor

The impulse sensor (1) scans the grooves and trick walls on the impulse sensor rail on the front and rear guide rail for the carriage assembly. It recognizes the position of the carriage assembly and specifies the time for the selection of the selection jacks by the selection systems.

Depending on the machine gauge, there is a front and a rear impulse sensor rail.

Machine gauge	Impulse sensor rail
E 18 (E 9.2)	at the front and at the rear
E 16 (E 8.2)	
E 14 (E 7.2)	
E 12 (E 6.2)	
E 10 (E 5.2)	
E 8	rear
E 7 (E 3,5.2)	
E 5 (E 2,5.2)	
E 4	
E 3.5	
E 3	

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2.5.2 Stop resistance

If the power consumption of the drive motor differs from a stored value, the knitting machine is stopped. The reason for a higher power consumption may, for example, be a sticky needle.

2.5.3 Shock stop

In the case of a shock on the needle bed, e.g. in the case of needle breakage, the piezo-electric shock stop switches off the knitting machine. The piezo-electric shock stop is located below the needle beds.

2.5.4 Needle detector

The needle detector checks the height of the fabric in the needle area.



Needle detector

If needles are defective (e.g. latch breakage), there is a danger of the fabric not being taken down downward and gathering in the needle area. The machine will then stop automatically to prevent from a major damage.

2.6 Needle beds



2.6 Needle beds

2.6.1 Structure

The front needle bed is screwed to the needle bed support tightly. The rear needle bed can laterally be racked relative to the front needle bed by the racking device.



The moveable parts (1) to (4) are fixed by several rails in the needle bed. To replace a part, the corresponding rail must be pulled to the side. This takes place with the help of the extraction hook. It is included in the accessories.

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2.6.2 Racking device

The front needle bed is screwed to the needle bed support tightly. The rear needle bed can laterally be racked relative to the front needle bed by the racking device.



Racking motor

The racking motor (1) is located on the right-hand side below the needle bed support. It laterally racks the rear needle bed. It is controlled by the knitting program. The racking movement is infinitely programmable.

Racking course The racking course may be up to 4 inches (approx. 10 cm). Depending on the machine gauge, this is a maximum racking course over 12 to 72 needles.

Machine gauge	Maximum racking course
E18 (E9.2)	72 needles
E16 (E8.2)	64 needles
E14 (E7.2)	56 needles
E12 (E6.2)	48 needles
E10 (E5.2)	40 needles
E8	32 needles
E7 (E3,5.2)	28 needles
E5 (E2,5.2)	20 needles
E4	16 needles
E3.5	14 needles
E3	12 needles

Maximum racking course in dependence on the machine gauge

2.6 Needle beds

Transferring	During transfer the rear needle bed is racked until the needles of the front and rear needle beds almost touch. The needle dips into the pelerine spring of the needle opposite.
Overracking	The overracking mechanism pre-stretches the stitches prior to transfer so, that they are somewhat enlarged. Then the needle bed is reset to the programmed racking. As a result, the stitches are also transferred very reliably even at a high carriage speed.
Slow racking	To protect the yarn, the needle bed can be racked very slowly. The carriage assembly then waits at the reversing point until the needle bed is racked.

Fabric take-down 2.7

2.7 Fabric take-down

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The fabric take-down consists of three units:

- Main take-down
- Auxiliary take-down
- Comb take-down

Each unit is driven by a separate motor. The motor can individually be adapted to the knitting situation.

2.7.1 Main take-down



Main take-down

- 1 Take-down rollers
- 2 Knurled screws
- 3 Scale

A motor drives the take-down rollers (1). The take-down rollers guide the finished fabric into the fabric collection chamber. There the fabric is protected from soiling.

Take-down tension The take-down tension consists of:

- Pre-tensioning when the carriage assembly is at the reversing point
- Take-down tension during knitting

Both tensions are independently set of each other. The optimum value for the take-down tension is dependent on the working width, yarn material and pattern.

The pressure of the take-down rollers (1) is individually adjusted with the knurled screws (2). The regulation acts on two take-down rollers. A scale (3) simplifies the adjustment of the take-down roller.

2.7 Fabric take-down



Premature wear of the takedown roller The roller rubber of the take-down roller (1) is prematurely worn by:

- Fabric take-down values too high (roller spins)
- Contact pressure too high
- Yarns harmful to rubber, e.g. abrasive, sanding yarns or yarn finishes such as greases or oils
- UV radiation
- Cleaning agents harmful to rubber, e. g. ether or fuels.
 Recommendation: Use cleaning petrol for cleaning

2.7.2 Auxiliary take-down



- 1 Main take-down
- 2 Auxiliary take-down

The auxiliary take-down grasps the fabric directly under the needle bed.

The auxiliary take-down supports:

- Stitch formation
- Adjustment of the fabric take-down to requirements typical of the fabric
- Narrowing or widening

If the fabric is only taken down with the main take-down, the rollers of the auxiliary take-down are pivoted apart.

The take-down force and the take-down speed are programmable.

Fabric take-down 2.7

2.7.3 Comb take-down

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Comb take-down

With the comb take-down fabric pieces are automatically started and press off after completion.



Comb hooks of comb take-down with sliders (left closed, right open)

When starting a new fabric, a net course is knitted with the elastic thread (comb thread). The main and auxiliary take-down open and the comb takedown moves upward. The sliders open the holding-down recesses on the comb hooks.

The comb thread is automatically laid in the holding-down recesses and the sliders close the holding-down recesses again.

After two stitch rows, the draw thread is inserted and the knitting machine begins with the fully fashioned article. The comb take-down adopts the settings of the main take-down and pulls the fabric off downward.

As soon as the comb hooks are below the main take-down, the take-down rollers close and the fabric is transferred to the fabric take-down. The sliders open the holding-down recesses on the comb hooks. The comb take-down releases the fabric and moves into the home position.

The sliders can open the comb hooks at any point. Therefore, short shape parts, e. g. collars or trimmings, can only be taken down by the comb takedown. They are knitted without the main or auxiliary take-down.

2.7 Fabric take-down



2.7.4 Control devices (fabric take-down)

The following parameters are controlled on the fabric take-down:

Parameter	Control
Speed of the take-down roller	The rotating speed of the take-down rollers is constantly measured. If the deviation from the upper or lower limit is too large, the knitting machine stops. The limit values are infinitely programmable.
Wrapping around loose threads (1)	Four yarn deflectors (accessory) prevent loose threads from wrapping around the fabric take-down rollers.
Wrapping around of fabric (1)	A winding plate prevents the fabric from wrapping around the fabric take-down rollers. If the fabric nevertheless wraps around, the knitting machine stops.
Throwing off of fabric (1)	Four fabric sensors (accessory) scan the fabric between the needle bed and the fabric take-down. They can be moved as desired over the entire working width. If the fabric is ejected, the knitting machine stops.

Control devices on the fabric take-down

(1) not in the case of machines with comb take-down

Further information:

■ Adjusting sensor mechanism [-> 181]

2.8 Display and operating elements

2.8.1 Main switch



Main switch

The main switch (1) is located on the front of the machine above the right control cabinet.

In position "1 - On" the main switch is switched on, in position "0 - Off" it is switched off.

Switch-off process When the main switch is turned from "1" to "0", the machine is immediately switched off. Dangerous movements are immediately stopped. However, the machine data are not lost, as they are saved with a battery. This takes approx. 60 seconds. In the process, messages appear on the touch screen. Once the process has been completed, the touch screen becomes dark and a signal sounds.

Even with the main switch switched off, the mains supply up to the main switch still carries current with extremely high voltage. The mains supply must be disconnected and secured against being switched on again before working on the main switch unit.

Emergency-stop The main switch is also the emergency-stop switch. The main switch has to be locked during maintenance and service work. This prevents the main switch from being switched on accidentally.



2.8 Display and operating elements

2.8.2 Engaging rod



- 1 Carriage stopped
- 2 reduced speed
- 3 normal speed

The carriage assembly, and therefore also knitting, is started and stopped with the engaging rod. The engaging rod can be moved into three positions.

Please observe in position 3:

1. When the covers are closed, the engaging rod is held by a magnet (production at normal speed).



DANGER

Danger by parts of needles which have broken off!Danger of injury to eyes by parts of needles.→ Wear safety glasses.

2. When the covers hoods are open (e.g. during set-up and checking work) the engaging rod is not held by a magnet and must be held in position 3 by hand. If the engaging rod is released, it immediately falls into position 1 and stops the machine (dead man's switch in accordance with EN 11 111). The maximum carriage speed with open safety doors can be set.

Further information:

■ Setting machine parameters [-> 184]



2.8.3 Signal light



Signal light

The signal light (1) displays the operating status of the knitting machine. Depending on the machine type, the signal lamp is mounted either on the left or on the right machine side.

Color	Status of the knitting machine
green	Knitting machine is producing
green (flashes)	Knitting machine is stopped with engaging rod
yellow	Knitting machine is not producing, as an error has occurred during knitting
green, yellow	Both lamps light up during the shutdown process. Duration is approximately 60 seconds - from switching off main switch until machine is completely shut down.
off	Main switch is off

Signal light colors

2.8 Display and operating elements



2.8.4 Input unit



Input unit

The input unit (1) enables communication with the machine control:

- Display of operating data
- Calling up help information
- Changing machine settings and pattern data
- Input of commands

The input unit can be moved over the entire width of the needle bed.

To carry out a function, tap one of the symbols (keys) on the touch screen. We recommend using the touch pen (2) to prevent the touch screen from becoming dirty or damaged.

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Display and operating elements 2.8

2.8.5 User Interface

Design of the user interface



Design of the user interface

Do not touch the touch screen with sharp objects and do not subject it to direct sunlight, which will destroy the picture tubes.

The user interface displays information on the current operating situation. It is always divided into three areas:

■ Upper area (1)

i

- Menu
- Input and output of information
- Middle area (2)
 - Status display
 - Additional input elements
 - Selection elements
- Lower area (3)
 - Function keys

2 Description of knitting machine

2.8 Display and operating elements

Functions of user interface The following is possible on the touch screen:

- Calling up pages, menus and input masks
- Calling up help information
- Displaying the operating data of the knitting machine
- Accessing the functions of the knitting machine
- Inputting values for controlling the knitting machine
- Processing the knitting program

These functions are called up with the following keys and elements:

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- Function keys
- Input elements

Function keys In the following sections two groups of functions keys are shown:

- Standard function keys; these are displayed in standard configuration
- Additional function keys; these can be called up with a switchover key

Display and operating elements 2.8



Function keys in the main

menu

Main menu

Image: Image:

Function keys in the "Main menu"

Key	Function	Key	Function
	Load/save data	e	Fabric take-down
The second secon	Editing the knitting program		Same SEN area size
	Carriage speed	N •N	Stitch tension
	Racking Correction		Yarn carrier
	Setting up the pattern	▓	Clamping and cutting
	Setup2 Editor		Settings K&W
	Machine start		Service
	Machine stop		Machine settings
	Changeable monitoring		Order menu
# 0 ,	Cycle counters		Sequence knitting (see programming manual)
	Manual interventions		ASCON (special attachment with its own instructions)
A AAA	Comb take-down		

2.8 Display and operating elements

Standard function keys		
	Key	Function
	₩€	return to "Main menu"
	<	Return to previous page
	>	Proceed to the next page
	?	Calling up help
	?←	Return to previous help page
	0	Display list of the last messages and references
	\checkmark	Confirm input
	Charles and the second	Call up command line and output window for direct commands
	ST2=0	Order menu: Reset counter of already fabrics to "0"
	<u></u>	Switch over to 100 % of programmed carriage speed
		Switch over to 75 % of programmed carriage speed
		Switch over to status line
		Switch over to selection/input elements
		Confirm message
		Switch over to "additional function keys"

Standard function keys

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Display and operating elements 2.8

Additional function keys The additional function keys can be called up from any window with the "Additional function keys" key.

These additional function keys are described in the corresponding chapters.

The following additional function keys are displayed in all windows.

Key	Function	
Call up input window for a direct Sintral command. This is out within a menu or window, i.e. you do not need to leave th or call up the "Direct command" window.		
The second secon	Editing the knitting program	
Ļ	Switch over to standard function keys	

Additional function keys in all windows

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2.8 Display and operating elements

Input elements In the following sections three groups of input elements are shown:

Standard input elements; these are displayed when an input field is activated by briefly touching in

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- Selection elements; these are displayed when a selection field is activated by briefly touching it
- Virtual keyboard; this can be displayed for inputs

Standard input elements

Element	Function
-	Reduce value by one step
+	Increase value by one step
\mathbf{r}	Undo a change, the last value saved is displayed again
5	Undo a change, the previous value is displayed again
\checkmark	Confirm input, save changes, end setting process
DEL	Delete character to left of cursor
НОМЕ	Position the cursor at the start of the line
END	Position the cursor at the end of the line

Standard input elements

Display and operating elements 2.8

Element	Function
99	Only one switch can be active at a time
	Position switch (on/off)
	Check box (on/off)
	Arrow switch (left/right) or (up/down)
Ū	Slider
र	Reduce current value by one step
+	Increase current value by one step

Switches and linear regulators

Element	Function
	Fold open selection field
	Fold closed selection field
1	Move cursor: one line upwards
t	Move cursor: one line downwards
←	Move cursor: one character to left
\rightarrow	Move cursor: one character to the right
	Move cursor: to first input of selection field
	Move cursor: to last input of selection field

Selection elements

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Selection elements

2.8 Display and operating elements



Virtual keyboard To input letters and numbers, the virtual keyboard can be displayed. Either a number block appears for inputting numbers or an alphanumeric keyboard appears for entering letters and numbers.

The virtual keyboard contains three switchover keys:

- SHIFT key
- CPS LCK key
- CTRL key

To use a switchover key, e.g. to enter a special character, first press the switchover key and then the key with the special character. To return to normal characters, press the switchover key again.

Key	Function
1 2 3 q w e	Switch on virtual keyboard
	Switch off virtual keyboard
SHIFT	SHIFT key: switch over between uppercase and lowercase letters and between numbers and special characters
CPS LCK	CPS LCK key: switch over between uppercase and lowercase letters; the setting of numbers or special characters is maintained
CTRL	CTRL key: switch over to function keys F1 to F10 and keyboard codes (short cuts)

Switchover keys

Description of knitting machine 2

Display and operating elements 2.8



3.1 Preparing production and shift changes

3 Producing with the knitting machine

STOLL

KNIT AHEAD

This chapter contains information on:

- Preparing production and shift changes [-> 65]
- Threading up yarn [-> 76]
- Production [-> 83]
- Producing with knitting orders (order menu) [-> 100]
- Eliminating errors in the fabric [-> 105]
- Starting the machine after a fault [-> 111]

3.1 Preparing production and shift changes

This chapter contains information on:

- Loading files, libraries and pattern folders [-> 66]
- Entering piece number or number of courses [-> 71]
- Configuring automatic machine switching off [-> 72]
- Setting touch screen [-> 73]

3.1.1 Loading files, libraries and pattern folders

Files (Sintral, Jacquard, Setup), libraries (Auto-Sintral) and folders can be loaded from the following sources (data carriers):

- Removable data carrier (on the USB socket) for example: USB-Memory-Stick, floppy disk drive, CD drive, DVD drive, external hard disk
- Hard disk of the computer in the knitting machine
- Online

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Network drive



The socket for the USB-Memory-Stick is located on the left side of the machine above the cover.



USB-socket

3.1 Preparing production and shift changes

- Loa	ad & save
205	
Path:	d:\muster
Machine type	e File name Type Chane david-RT jac 2005 PAT SIN JAC SET LIB
CMS530	david-RT set 2005
Key	Function
EALL	Delete previous pattern
EAY	Delete all yarn carrier positions
Ø SP1	After the pattern is loaded, the function is automatically executed "Start Program from Line 1". This means that you need not take the "detour" over the window "Machine start" in order to start the knitting program with the "SP from Line 1" key.
i	The "Activate EALL" function is only executed when a Sintral file is loaded. Not only the entire previous pattern (Sin, Jac, Set) is deleted from memory, but also the contents of cycle counters, counters and NP values are reset to their home position.

Always set these settings before reading in:

Preparing production and shift changes 3.1

Loading knitting program:

- 1. From the "Main menu" call up the "Load & Save" window.
- 2. Set the desired path with one of the "Direct pattern folder selection" keys.
- 3. Use the PAT/SIN/JAC/SET/LIB keys to select whether the entire pattern of the current machine (PAT) or individual file types are to be listed.
- 4. Select a file from the file list by tapping it.
- 5. Press the "Load" key.
- 6. For the following prompt, press "1" to confirm
 - or -
- → tap the "0" key to cancel.
- 7. Call up "Main menu".



Setup1 or Setup2 You can quickly recognize whether it is a pattern with Setup1 or Setup2 data

	ŀ	Load	& save		
			· · · · · · · · · · · · · · · · · · ·		
	Pat	:h:	d:\muster\muster_gross		
		Machine type	File name	Type	Change
	сą.	CMS530	DAVID-BACK	zip	2010-03
(2L)	-12	CMS530	DAVID-FRONT	zip	2009-10
	-1	CMS530	DAVID-SLEEVE	zip	2009-10
1	-	CMS530	david-ARM	sin	2005-11
	-	CMS530	david-bp	sin	2005-11
		CMS530	david-RT	sin	2005-11
	1	1 5	Setup1 pattern		
	2	<u>2</u> 📺 S	Setup2 pattern		

A Setup2 pattern is saved in a zip file. The icon of compressed (zipped) folder is displayed in front of the pattern.

Load data (Setup2)

ŀ	Load	& save				STOLL THE RIGHT WAY TO KNIT
		N * #	⇔≝⇔≝⊛≝⊛			
Pat	:h:	d:\muster\muster_gr	ross			
-	Machine type	File name		Type	Chan(^	PAT SIN JAC SET LIB
	CMS530	DAVID-FRONT		zip	2009-	Pattern:
-12	CMS530	DAVID-SLEEVE		zip	2009-	DAVID-BACK
	CMS530	david-bp		set	2005	Jacquard:

STOLL

KNIT AHEAD

Key	Function
	Call up the "Load & save" window
<>≚	Load pattern
	Load the pattern with selected Setup data
У Д	Display the content of the Zip file
<u>لَحْ</u>	Close the zip file
₩€	Call up "Main menu"

Keys for loading a knitting program

Preparing production and shift changes 3.1

📙 Loa	d & save					STOL
7og		ſ¢ĽŢ		\$3 \	?	
Path:	d:\muster					
Machine type	File name		Type	Chang		
	david-RT		jac	2005	PAT SIN JAC SET	г ЦВ
CMS530	david-RT		set	2005	-	
CMS530	david-RT		sin	2005	Pattern:	
	david-bp		jac	2005		
СМS530	david-bp		sin	2005	Jacquard:	
CMS530	david-bp		set	2005		
	david-ARM		jac	2005		
СМ\$530	david-ARM		set	2005	Setup:	
СМS530	david-ARM		sin	2005		
					1.1	
2				>	Library:	
Tataly 0	4650	0005 11 1	0.00.10.01	<u> </u>		

"Load & save" window

Key	Function
	Call up the "Load & save" window
⇔⊻	Load pattern
₩€	Call up "Main menu"

Keys for loading a knitting program

"Invalid character" error message (Setup1, Setup2)

STOLL

KNIT AHEAD

Load data (Setup1

Check the knitting program for special or foreign language characters. Only the characters of the ASCII character set may be used.



ASCII character set

Further information:

- Selecting the current folder [-> 250]
- Working with files, libraries and folders [-> 238]
- Go to help in function and error list [-> 261]
- Overview of the Setup2 Editor of the CMS [-> 281]
- KnitLAN connection [-> 262]

3.1 Preparing production and shift changes



3.1.2 Entering piece number or number of courses

Key	Function
#0}	Call up the "Cycle counters & counters" window
₩←	Call up "Main menu"

Keys for entering the piece number or number of courses

Entering piece number or number of courses:

1. Call up the "Cycle counters & counters " window from the "Main menu".

# <mark>0</mark> } Cyc	#IL Cycle switch & counters STOLL						STOLL THE RIGHT WAY TO KNIT
	Pie	ce number	0		Still to b	e knitted	0
RS1:	0	RS6:		RS11:	0	RS16:	0
RS2:	0	RS7:	0	RS12:	0	RS17:	0
RS3:	0	RS8:	0	RS13:	0	RS18:	0
RS4:	0	RS9:	0	RS14:	0	RS19:	0
RS5:	0	RS10:	0	RS15:	0	MT:	0
		-		_			
#L:	0	#LM:	0	#RM:	0	#R:	0
#51:	0	#53:	0	#54:	0	#52:	• 0

"Cycle counters & counters" window

2. If you produce pieces, enter the "piece number".

- or -

- → If you produce yard goods, set the maximum number of courses with the "MT" counter to define the length of the fabric.
- 3. Call up "Main menu".

Preparing production and shift changes 3.1

3.1.3 Configuring automatic machine switching off

When the machine switches off, the main switch moves from "1" to "0".

📴 Machine stop		STOLL THE RIGHT WAY TO KNIT
Conditional stop	Machine stop	
 Stop in minutes Stop in Sintral line Stop in Jacquard line Stop with #/RS Stop at fabric end Switch off machine 	0 1 1 RS1 7 0	
If stopped	If fabric piece complete	
If piece counter =0	If stopped: Waiting time	17.0 hours

"Machine stop" window

Switch in "Switch off machine" field	Machine switches off automatically
"If stopped"	Each time machine stops
"When piece counter = 0"	After completing the set number of pieces
"If fabric piece complete"	after completing the current fabric
"If stopped: Waiting time"	If the machine has stopped, then the main switch is automatically switched off at the end of the set time (in hours).

Configuration of the automatic switching off in the "Machine stop" window

Key	Function
ŧ	Call up "Machine stop" window
₩€	Call up "Main menu"

Keys for configuring the automatic machine switching off

Configuring automatic machine switching off:

- 1. Call up "Machine stop" window from "Main menu".
- 2. Set the switches to "0" or "1" in the "Switch off machine" field.
- 3. Call up "Main menu".
While switching off the main switch, the fabric remains tensioned in the fabric take-down. This can lead to a visible stretching on a delicate fabric. To prevent this, the fabric take-down can be released.

Further information:

■ Setting machine parameters [-> 184]

3.1.4 Setting touch screen

Calibrating touch screen The calibration is particularly important when persons of different heights work at the same machine. In the case of different viewing angles, the position of the keys may change. So that you always press the proper keys, calibrate the touch screen at the beginning of your shift.

Key	Function
	Call up the "Service" menu
	Call up the "Set touch screen" window.
₽ ^m h	"Calibrate" key
₩€	Call up "Main menu"

Keys for calibrating the touch screen

Calibrating touch screen:

٨	CAUTION
<u>/!\</u>	Incorrect adjustment of the touch screen!
	Permanent incorrect adjustment: If you set the touch screen incorrectly, the keys on the screen are no longer accessible. The program can only be readjusted with a keyboard (Stoll helpline).
	During calibration, touch the touch screen within the target circles only!

- 1. Call up the "Service" menu from the "Main menu".
- 2. Call up the "Set the touch screen" window from the "Service" menu.

STOLL

Preparing production and shift changes 3.1

L Set the touch screen	STOLL THE REGHT WAY TO KNIT
Set the touch screen	F

 \triangleright The "Set touch screen" window appears.

"Set touch screen" window

- 3. Tap the "Calibrate" key.
 - ▷ The setting window appears. A target circle is located on the upper, left side.

Touch the targets from a position of normal use.	

Setting window with target circle

- 4. Tap exactly on the target circle.
 - \triangleright A second target circle appears on the lower right-hand side.
- 5. Tap exactly on the target circle.
 - \triangleright A third target circle appears on the upper, right-hand side.
- 6. Tap exactly on the target circle.
 - ▷ A message box appears. The request in the message box is not important, as there is no mouse cursor here.
- 7. Press on the "Yes" key.
- 8. Call up "Main menu".



3.1 Preparing production and shift changes

Setting screen brightness Two key buttons for brightness setting are located on the rear of the input unit.



Setting screen brightness

The screen display is made brighter with key button (1) and darker with key button (2).

3.2 Threading up yarn

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Various courses of yarn are provided for threading up the yarn on the knitting machine. The optimal course of yarn depends on the yarn and pattern.

Further information:

■ Courses of yarn [-> 23]

3.2.1 Calling up yarn carrier assignment

Key	Function
	Call up "Machine start" window
₩€	Call up "Main menu"
	Call up the "Yarn carrier" window

Keys for calling up the assignment of the yarn carriers

Calling up yarn carrier assignment:

1. Call up the window "Machine start" from the "Main menu".

🕮 Machine start		STOLL THE RUDHT WAY TO KNIT
Start		Needle selection
SP from line 1		Off On Needle selection
G SF om line	0	
SPF SO		On Left carriage
SPF row fixed	999	Off On Right carnage
P.aft. press-off from row	950	Yam carrier
		Delete positions (EAY)

"Machine start" window

- 2. Type "SP from line 1" key.
 - ▷ The computer searches in the knitting program to see which yarn carriers are required.
- 3. Call up "Main menu".

			anno										
n	car	rier									Ţ	STO	
:=n	0/1	YG	YP	Ka	Kb	K <i>a</i>	K <i>b</i>	Туре	I<>	Ba	Bb	Ua	Ub 🔨
A	1	1	1	0.0	0.0			N		0	0	14.5	14.
A	1	1	1	0.0	0.0			Ν		0	0	14.5	14.5
А	1	1	1	0.0	0.0			Ν		0	0	14.5	14.5
А	1	1	1	0.0	0.0			Ν		0	0	14.5	14.5
А	1	1	1	0.0	0.0			Ν		0	0	14.5	14.5
А	1	1	1	0.0	0.0			Ν		0	0	14.5	14.5
А	1	1	1	0.0	0.0			Ν		0	0	14.5	14.5
А	1	1	1	0.0	0.0			Ν		0	0	14.5	14.5
А	1	1	1	0.0	0.0			Ν		0	0	14.5	14.5
А	1	1	1	0.0	0.0			Ν		0	0	14.5	14.5
А	1	1	1	0.0	0.0			Ν		0	0	14.5	14.5 🗸

Current YCI:

STOLL

Current YDI:

Yarn carrier at needle bed border (EAY!)

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4. Call up the "Yarn carrier" window.

Yar SEN1

 1B
 1

 1C
 1

 1D
 1

 2A
 1

 2B
 1

 2C
 1

 3A
 1

 3B
 1

 3C
 1

Yarn carrier allocation in the "Yarn carrier" window

5. Call up "Main menu".

1A

3.2.2 Putting up bobbins

7/

YDF 7

When the threads of several bobbins are led to one yarn carrier, supply approximately the same number of threads to the yarn carrier from each side.

→ Put up the bobbins on the knitting machine or on the additional bobbin board.

3.2.3 Threading threads through yarn guide bracket

- 1. Push the yarn guide brackets to the side so that a yarn guide bracket hangs over each bobbin.
- 2. Thread each thread through a yarn guide bracket.

3.2.4 Threading threads through yarn control device





Path of the thread through the yarn control device

- Bring thread break control in work position. Pull thread break control a little towards left till it is not held by the stopping cam anymore.
- 2. Thread each thread through a yarn control device as shown in the picture.



Path of the thread through the yarn length measuring device

→ Push thread upward with both hands through the threading gap and lay it around the measuring wheel.

Further information:

Symbols in this document [-> 16]

3.2.6 Threading up threads into friction feed wheel *

Course of yarn



Further information:

- Symbols in this document [-> 16]
- Adjusting yarn delivery on friction feed wheel * [-> 143]

3.2.5 Thread the yarns through the yarn length measuring device *

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3.2 Threading up yarn



3.2.7 Threading up the threads into the VECTOR feed wheel *

1. Switch off the feed wheel.



- 2. Push the threading needle upwards through the eyelet (1) until it reappears on the top side of the feed wheel.
- 3. Push the threading needle downwards through the eyelet (3) and (4).
- 4. Lay the thread into the hook of the threading needle (2) and pull the needle downwards out of the feeding wheel.
- 5. Switch on the feed wheel.
- ► The feed wheel winds on the yarn.

Further information:

- Symbols in this document [-> 16]
- Adjusting storage feed wheel VECTOR * [-> 144]

3.2.8 Threading threads through safety door

Depending on the machine gauge and the component type there are different types.

Type 1

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Path of the thread through the lateral safety door





Path of the thread through the lateral safety door

:	Make sure that you thread the thread vertically through the
.1	lateral safety door.

- 1. Bring the Lateral yarn tensioner in still position (anchoring). Thereby the active thread clamp is open.
- 2. Thread the thread through one of the eyelets (1) on the lateral safety door.

Use Eyelet number 3 to10 when the thread is coming from the friction feed wheel. So the clamp positions of the active thread clamp are positioned exactly under it.

Use Eyelet number 1 and 2 or from eyelet no.11: for the thread if you working without the feed wheel.

3.2 Threading up yarn



- 3. Thread the thread vertically downwards in the eyelet (2) of the lateral yarn tensioner. For quicker orientation a vertically running riffle is attached in the safety door.
- 4. Feed the thread through the yarn deflector (3) to the yarn carrier.
- 5. Bring lateral yarn tensioner in work position.
- 6. With type 2: Pull the thread in the open eyelet (4) of the permanent brake.

3.2.9 Threading up yarns into yarn carrier



3.2.10 Threading up thread clamping and cutting device

Key	Function
**	Call up "C

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Call up "Clamping & cutting" window

Key for threading up thread clamping and cutting device



Threading up yarn

- 1. Take the yarn from the yarn carrier and pull it up to the thread clamp.
- 2. Hold yarn.
- 3. Call up "Clamping & cutting" window.



"Clamping & cutting" window

4. Press the key of the corresponding clamping point in the "Clamping" line.

The thread is laid in the thread clamping and cutting device and held in place.

5. Repeat the process for each required thread separately.



3.3 Production

This chapter contains information on:

- Starting machine [-> 83]
- Calling up report and shift counters [-> 87]
- Stopping machine [-> 92]
- Monitoring the running time [-> 94]
- Measuring the running time [-> 98]

3.3.1 Starting machine



Keys for starting the machine

- ✓ A pattern is loaded.
- 1. Call up the window "Machine start" from the "Main menu".

💵 Machine start		
Start		Needle selection
SP from line 1		On Needle selection
G SP com line	0	· · · · · ·
G SPF SO		On Left carriage
SPF row fixed	999	Off On Right carriage
P.aft. press-off from row	950	Yam carrier
		Delete positions (EAY)

"Machine start" window

- 2. In "Start" field, tap on "SP from line 1" key.
- 3. Call up "Additional function keys".
- 4. Call up the "Changeable monitoring" window.
 - Machine data and the program sequence are displayed in the "Changeable Monitoring" window during production.



5. Start the machine with the engaging rod.



Engaging rod 1 Carriage stopped 2 reduced speed

3 normal speed

Pattern changes - Apply shape counters

i

Use this function only for the following machines:

- Machine without comb take-down
- → Machine with comb take-down but without using the comb

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The machine compars automatically the shape counters (old-new) in order to e able to adjust the new knitting width (widening or narrowing) with the pattern change. The values of the shape counters of the previous pattern are necessary for this.



You can enter the values of the previous pattern manually or simply apply them by the "Apply shape counter" key.

The condition is that the pattern was created as Fully Fashion knitting program on the M1plus.

Also with a basic pattern (pattern without shape) you can use this helpful function (see the tip at the end of the section).

Key	Function
	Call up "Machine start" window
	Call up "Additional function keys"
#L #R	"Apply shape counter" key

Keys to apply the shape counters

Apply shape counter:

- 1. Call up the window "Machine start" from the "Main menu".
- 2. Tap on "Additional function keys".
- Tap the "Apply shape counter" key. Confirm the prompt that follows with "YES".
 - ▷ The values of the shape counter are applied to the new pattern.
- 4. Tap the "SP from line 1" key.

Production 3.3

Key	Function
	Call up "Machine start" window
	Call up "Additional function keys"
#L #R	"Apply shape counter" key

Keys to apply the shape counters

Apply shape counter:

i

- 1. Call up the window "Machine start" from the "Main menu".
- 2. Tap on "Additional function keys".
- Tap the "Apply shape counter" key. Confirm the prompt that follows with "YES".
 - \triangleright The values of the shape counter are applied to the new pattern.
- 4. Tap the "SP from line 1" key.

Converting a basic pattern into a shaped pattern

STOLL

KNIT AHEAD



A small trick - with an impressive effect

Using a small trick you can easily convert a basic pattern into a fully fashion pattern on the M1plus. Converting a basic pattern into a shaped pattern:

- Open the basic pattern on the M1plus.
 (The technical processing has not yet been done.)
- Select the "Generate Pure Shape" function in the "Shape" menu.
 An empty, rectangular shape with the size of the pattern will be opened.
- → Carry out technical processing
- The basic pattern is automatically converted into a fully fashion pattern, the corresponding specifications are entered into the knitting program (PF0, "ff-trans" function, this function contains the casting-off and widening until the new knitting width).

Further information:

■ Configuring monitoring [-> 160]



3.3.2 Calling up report and shift counters

The control collects all operating data recorded since the operating system was first read in and since the current knitting program was started. These data help you optimize the performance and loading of the knitting machine.

Report The individual types of operating data (1) are listed on the left side. The lefthand table (2) shows the continuing listing of all data accrued after loading the operating system. The data of this table cannot be deleted. The data of the right table (3) can be deleted with the "Report0" key.

The production data can be listed during a certain period of time. This may consist of part of a shift, day or week.

Repo	rt							STC THE PIGHT V	
15.11.2005	1110	lavid-ARM						Rep	oort0
	U	F	%	н	М	F	%	н	M
	SIN	0		37	18			37	18
Report0	RUN *	0	100.00	37	18		100.00	37	18
	$\vee = \vee$	0	0.00	0	0	0	0.00	0	0
	1-1	0	0,00	0	0	0	0,00	0	0
	000	0	0.00	0	0	0	0.00	0	0
	>!	0	0.00	0	0	0	0.00	0	0
	-/)	0	0.00	0	0	0	0.00	0	0
	%	0	0.00	0	0	0	0.00	0	0
	PR	0	0.00	0	0	0	0.00	0	0
Am	MS~	0	0.00	0	0	0	0.00	0	0
令 圖	->/	0	0,00	0	0	0	0.00	0	0
	V[]	0	0.00	Q	0	0	0.00	0	0
	#<>		0		0		0		0
	#ML		(2)		0		(3)		0
	ST		9		0		0		0

"Report" window

Label	Data shown
"F"	No. of errors or no. of stop motions
"%", "H", "M"	Percent, hours, minutes
"SIN"	Working time of the control unit (SINTRAL)
"RUN"	Production period
"V=V"	Stop by stopping at the engaging rod
"/-\"	Stop by yarn control device, yarn feed
"000"	Stop by piece counter
">!"	Stop by stop resistance
"-/)"	Stop by position needle sensor
"%"	Stop by fabric take-down
"PR"	Stop by programming
"MS~"	Machine stop (further causes of the stoppage)

Data in "Report" window

Label	Data shown
"->/"	Stop by shock stop motion
"V[]"	Stop by racking error
"#<>"	Total number of strokes
"#ML"	Number of strokes at reduced speed
"ST"	Number of produced fabric pieces

Data in "Report" window

Key	Function
	Call up the "Service" menu
Înnî,	Call up "Statistics" menu
	Call up "Report" window
~	Save report
₩€	Call up "Main menu"

Keys for calling up the report

Calling up or saving report:

- 1. Call up the "Service" menu from the "Main menu".
- 2. Call up "Statistics" menu.
- 3. Call up the "Report" window.
- 4. To delete the operating data in the report, tap the "Report0" key.

- or -

- → To save the operating data, tap the "Save Report" key.
 - The data will be saved on the selected data carrier. It will be saved on the data carrier that is set in the "Copy service data" window.
 File name: STOLL machine number and the file name extension ".rep" (e. g. "5320081234.rep").
- 5. Call up "Main menu".

Further information:

■ Copying service data [-> 188]

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Shift counter A total of five shift counters are available. A complete report is generated for each shift. The table has the same structure as the report. Column "F" shows the number of stop motions during the shift.



"Shift counter" window

Key	Function
	Call up the "Service" menu
Înnî,	Call up "Statistics" menu
	Call up "Shift counter" window
₩€	Call up "Main menu"

Keys for calling up the shift counter

Calling up or saving shift counter:

- 1. Call up the "Service" menu from the "Main menu".
- 2. Call up "Statistics" menu.
- 3. Call up "Shift counter" window.
- 4. To activate a shift, tap the corresponding key in the "Shift On" field.
- 5. If data of an earlier shift are displayed, tap the corresponding key in the "Delete shift" field (reset shift counter).

- or -

→ To delete all shift counters at once, tap the key (1).

- Production 3.3
- 6. To save the shift data, tap the key (2).
 - The data will be saved on the selected data carrier. It will be saved on the data carrier that is set in the "Copy service data" window.
 File name: STOLL machine number, date, time and the file name extension ".sft" (e. g. "56600101234_31_10_08_1105.sft").
- 7. Call up "Main menu".

Further information:

■ Copying service data [-> 188]

Automatic shift changeover

er Once the start time and the ending time of each shift have been entered, the shift changeover automatically occurs after the entered time.

🏵 Aut	omatio	c shift chang	e		STOLL THE RIGHT WAY TO KNIT
		Change shift to determ	nined times a	automatically	
ol ::			Start	End	
Shif	t		hh : mm	hh : mm	
	S# 1	06:00		14:00	
V	S# 2	14:00		22:00	
	S# 3	22:00		06:00	
	S# 4	00:00		00:00	
	S# 5	00:00		00:00	

Key	Function
	Call up the "Service" menu
Înnî,	Call up "Statistics" menu
	Call up "Shift counter" window
	Call up "Additional function keys"

Keys for setting the automatic shift change

Key	Function
	Call up the "Automatic shift change" window
\checkmark	Confirm entries
₩€	Call up "Main menu"

Keys for setting the automatic shift change

Setting the automatic shift change:

- 1. Call up the "Service" menu from the "Main menu".
- 2. Call up "Statistics" menu.
- 3. Call up "Shift counter" window.
- 4. Call up "Additional function keys".
- 5. Call up the "Automatic shift change" window.
- 6. Turn off the switch (1) so that no checking is carried out during the input and no error messages are displayed.
- 7. Set the time.
- Tap on the corresponding field and set the desired time using the slider.
- 8. Activate the checkbox of the desired shift.
- 9. Set the time for all the shifts; to do so repeat the steps 7 to 8.
- 10. Confirm entries.
- 11. Turn on the switch (1).
 - \triangleright The entries are automatically checked.
- 12. Call up "Main menu".

:	→	The shift times may not overlap.
1	→	The total time is to be 24 hours. If the actual working time is less than 24 hours, then an additional shift that covers the remaining time is to be determined.
	→	Set the time and the time zone on the knitting machine if necessary, see page [414].

Further information:

■ Copying service data [-> 188]

Production 3.3

3.3.3 Stopping machine

STOLL

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The knitting machine can be stopped in the following ways:

- Disengage the engaging rod
- Actuate the stop motion device, e.g. open a cover
- Disconnect machine main switch
- Stop the machine in the "Machine stop" window

Key	Function
₩€	Call up "Main menu"
	Call up "Machine stop" window
1 = 0 2 = 1 3 = 1 4 = 0	Reset conditions to standard values (Reset).
√←	End setting process and save changes

Keys for stopping the knitting machine

Stop the knitting machine in the "Machine stop" window:

1. Call up "Machine stop" window from "Main menu".

🏥 Machine stop		STOLL THE RIGHT WAY TO KNIT
- Conditional stop	Machine stop	
 Stop in minutes Stop in Sintral line Stop in Jacquard line Stop with #/RS Stop at fabric end Switch off machine 	0 1 1 RS1 ¥ 0	
If stopped If piece counter =0	If fabric piece complete If stopped: Waiting time	17.0 hours

- "Machine stop" window
- 2. If the knitting machine is to stop at the next reversing point of the carriage assembly, tap the key "Machine stop".

- STOLL
- 3. If the knitting machine is to stop when a certain condition is fulfilled, select a condition in the field "Conditional stop".

Stop in minutes	Remaining running time in minutes
Stop in Sintral line	When the set Sintral line is reached
Stop in Jacquard line	When the set jacquard line is reached
Stop with #/RS	When the counter or cycle counter has reached the set value
Stop at fabric end	When the fabric is knitted completely

4. Enter corresponding value for the condition. Confirm setting.

When a conditional stop is activated, a stop icon is displayed in the status line.

3.3.4 Monitoring the running time

In order to display the "Running time control" window it must be activated in the "Knit report configuration" window. (BootOkc --> Restart and Configuration --> Knit report configuration --> Additional function keys)

The running times of sequence lists, sequences or orders, their individual elements or individual patterns are recorded and displayed in the "Running time control" window.

This adds extensive knitting process data to the commands **MIN**, **MINSEQ** and **MINSEQEL**:

Display of the running time of a pattern (sequence, sequence element, order).

The current, last, minimum, maximum and average running times are displayed respectively.

- Display of the expected remaining running time of a pattern (sequence, sequence element, order).
- Display of the number of pieces that have been knitted and are still to be knitted.

Key	Function
	Call up the "Service" window
Înnî,	Call up "Statistics" window
tal,	Call up the "Running time control" window
	Call up the "Running time data sequence" window or the "Running time data pattern" window
	Call up the "Catalog running time data" window
<	Returning to the previous window
₩€	Call up the "Main menu"

Display of running time with or without loading and standby times.

Keys for the "Running time control" window

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Open the "Running time control" window

- 1. Call up the "Service" window in the "Main menu".
- 2. Call up the "Running time control" window in the "Service" window.

The "Running time control" window can alternatively be called up by using the additional functions keys in the "Sequence menu" or "Sequence list" window.

Running t	STOLL THE RIGHT WAY TO KNIT					
Total running time (I			Disp	olayed v	values (2 Gross Net
No. Sequence name	current last	Min	Max	ø	pieces	Entirely
No. Pattern name	current last	Min	Max	ø	pieces	Entirely
4						

"Running time control" window

Field/ Key	Meaning					
1	Total running time	Display of the estimated total running time				
2	gross	Display of the total production time including loading and standing times as well as manua interventions.				
	Net	Display of the pure machine running time from SP (Start Program) to piece finished .				
3/4	No.	Current number				
	Sequence/ Sequence element name	Name of the pattern or the sequence				
	current	Previous running time				
	last	Running time of last knitted panel				
	min.	Minimum running time.				
	max.	Maximum running time				
	Ø	Average running time				
	pieces	Number of pieces knitted				
	Total	Total number of pieces to be knitted.				

Meaning of the elements in the "Running time control" window.

Production 3.3

Functional description for the "Catalog running time data" window

KNIT AHEAD

STOLL

Catalog running time data								
	C	ata older tha	in 6 weeks [Leep Delete				
Current configuration:	A123_050120_09	39						
Path:	F:							
File name		Туре	Changed on					
Total: 0								

"Catalog running time data" window

Key	Meaning
♦₩	"Load" selected file and corresponding data
€∐	"Save" selected file in the current folder
X	"Delete file" that was selected
X	delete all files
43y	"Update": Re-determine the contents of the current folder
R	"Select current folder": Dialog box for selecting the current storage folder
Data older than 6 weeks	Delete (activated by default) The data are deleted automatically when they get older than 6 weeks. This saves storage space. Keep: The files are not deleted.

Keys in the "Catalog running time data" window



- 1. Call up the "Service" window in the "Main menu".
- 2. Call up the "Running time control" window in the "Service" window.
- 3. Call up "Additional function keys".
- 4. Call up the "Catalog running time data" window.
- 5. Select the desired path with the "Current folder selection" key.
- 6. Select file.
- 7. Select action (load, save, delete).
- 8. If an additional prompt appears, tap the "1" key to confirm.
 - or -
- ➔ Press the key "0" to cancel.

Display of the remaining running time

Display of the expected remaining running time (net) of a pattern(sequence, sequence element, order).

Depending on the file you selected in the "Running time control" window, the title of the window changes.

- For a sequence, the title is "Running time data sequence".
- For a single pattern or a sequence element, the title is "Running time data pattern".

Running time data of pattern							
Name							
Remaining running time estimated (mm:ss) Final time estimated:							
Run.time piece	time piece No. Date Start Complete Running time						
<							

"Running time data sequence" ("Running time data pattern") window

Entry	Meaning
Name	Name of sequence, sequence element or pattern
Remaining running time	Display of the remaining running time (average net remaining running time x fabrics which are still to be knitted = remaining running time). Format: Minutes, seconds
End time	Display of the end time. Format: Date, time Possible only after a run-through
Run.time piece	The shortest and the longest running times are displayed to facilitate the evaluation of the expected remaining running time.

Data in the "Running time data sequence" window or in the "Running time data pattern" window

Production 3.3

- 1. Call up the "Service" window in the "Main menu".
- 2. Call up the "Running time control" window in the "Service" window.
- 3. Select sequence, sequence element or pattern.
- 4. Call up "Additional function keys".
- 5. Call up the "Running time data sequence" window or the "Running time data pattern" window
- The "Running time data sequence" or the "Running time data pattern" window is displayed with the associated data.
- 6. Close the window by using the "Return to previous window" key.

Further information:

 Carrying out restart with machine configuration (Restart and Configuration) [-> 444]

3.3.5 Measuring the running time

i	In order to display the "Running time control" window it must be activated in the "Knit report configuration" window.
	(BootOkc> Restart and Configuration> Knit report configuration> Additional function keys)

Manual measurements of running time can be carried out (stop watch function) in the "Measurements of running time" window. The functions start, stop and backup are deleted with the additional function keys.



"Measurement of running time" window

Key	Function
	Call up the "Service" window
Înnî,	Call up "Statistics" window
	Call up "Measurement of running time" window
\mapsto	Start measurement of running time (start)
\rightarrow	Stop measurement of running time (Stop)
$\rightarrow 0$	Set display at 0 (Reset)
₩	Call up the "Main menu"

Keys for the "Measurement of running time" window

Stopping the running time:

- ✓ A pattern file has to be loaded (1).
- 1. If necessary set display with "Reset" at 0.
- 2. Tap on "Start".
 - ▷ In the "Running time" (2) field time that has passed since "Start" was activated is shown in the format hh:mm.ss.
- 3. Starting the knitting process.
- 4. After the knitting process has been completed, tap"Stop".
- ▶ The stopped time is displayed in the "Running time" (2) field.

Further information:

 Carrying out restart with machine configuration (Restart and Configuration) [-> 444]



Producing with knitting orders (order menu) 3.4

3.4 Producing with knitting orders (order menu)

This chapter contains information on:

- Creating and managing order menu [-> 100]
- Setting or changing counters for order menu [-> 102]
- Saving/loading order menu [-> 103]

3.4.1 Creating and managing order menu

Using the order menu, the various making-up sizes of an item (knitting program) in a list are gather together and processed one after another. The number of pieces and cycle counters are specified for each making-up size.

A knitting order (line) is processed until the number of fabrics in the "ST1" and "ST2" columns are the same. The machine automatically switches over to the next size and produces the set piece number. Knitting is carried out line by line from top to bottom.

ABC 1 2 3	Order I	menı	l								S . The R	TOL	
	Order n	ame: d	avid-AF	١M									
No.	Name	ST1	ST2	RS1	RS2	RS3	RS4	RS18	RS19	#50	#51	#52	^
1	SIZE-50	36	0	8	56	0	0	0	0	0	1	450	
2	SIZE-48	36	0	8	56	0	0	0	0	0	1	450	
з	SIZE-46	30	0	6	52	0	0	0	0	0	1	405	
4		0	0	0	0	0	0	0	0	0	0	0	
5		0	0	0	0	0	0	0	0	0	0	0	
6		0	0	0	0	0	0	0	0	0	0	0	
7		0	0	0	0	0	0	0	0	0	0	0	
8		0	0	0	0	0	0	0	0	0	0	0	
9		0	0	0	0	0	0	0	0	0	0	0	
10		0	0	0	0	0	0	0	0	0	0	0	~
1													
							SI	tart line	9		1		

"Order menu" window

Column	Data shown
1	Current order number
2	Name of the order
3 ("ST1")	Number of pieces to be produced
4 ("ST2")	Piece number already produced
5 to 11	Cycle counters and counters
12 ("#51")	left border
13 ("#52")	right border

Data in the "Order menu" window

3.4 Producing with knitting orders (order menu)

Key	Function
	Call up the "Order menu" window
\checkmark	Confirm entries
	Call up "Additional function keys"
ST2=0	Reset values in column "ST2" (counter for the previously produced pieces) to "0".
	delete all information in the order menu
	"Copy line" contents
	"Insert line" contents
	"Activate knitting order"

Keys for processing the "Order menu" Processing the order menu:

- 1. Call up the "Order menu" window from the "Main menu".
- 2. Touch the line to be edited.
 - \triangleright The line appears at the bottom edge of the window.
- 3. Tap the fields of the selected line and enter the desired values and name.

- or -

- → Call up "Additional function keys", copy contents of a line and insert it at desired location again.
- ▶ If the order is active, "ORDER" appears in the status line.

>> ST=36 / 36 T=0 L 0	RS0 = 0 MSEC1 =	/ °C		WM = 0/0	F1 WM	=5.5 XX 0
?		F	0	2	J	

Status line with active knitting order

Missing pieces of an order can be knitted afterward by changing "ST2". When the last order is carried out, a check is performed to determine whether any parts are still to be knitted. The machine will not be stopped until all orders have been completed.

Producing with knitting orders (order menu) 3.4

3.4.2 Setting or changing counters for order menu

In the Sintral program, the knitting of different pieces or sizes can be controlled from a program via counters.

Key	Function
	Call up the "Order menu" window
✓←	End setting process and save changes

Keys for setting the counters

Use another cycle counter or counter:

- Do not use the counters "#1" to "#39", as they are set to "0" during start-up!
- 1. Call up the "Order menu" window from the "Main menu".
 - \triangleright The "Order menu" window appears.
- 2. Tap the desired column (cycle counter or counter) in the header of the table.
 - \triangleright The setting window appears.

Order 1	nenu			S . The R		
Order na	ame: da	/id-ARM				
No. Name	ST1	ST2 RS1 RS2 RS3 RS4 RS18 RS19	#50	#51	#52	^
1 SIZE-50	36		0	1	450	
2 SIZE-48	36	Туре:	0	1	450	=
3 SIZE-46	30	#45	0	1	405	
4	0	#46	0	0	0	
5	0	#47	0	0	0	
6	0	#48	0	0	0	
7	0	#49	0	0	0	
8	0	#50	0	0	0	
9	0		0	0	0	
10	0	Value already used	0	0	0	~
1	 	←		1		

Setting window for changing cycle counters and counters

- 3. Assign a cycle counter or a counter.
- 4. Confirm entries.
- 5. The "Order menu" appears again.
 - The values of the cycle counters and counters are copied from the machine at the beginning of an order. If they are modified during knitting, they will take effect starting with the next piece.

3.4 Producing with knitting orders (order menu)

3.4.3 Saving/loading order menu

The information in the order menu can be saved, loaded and deleted in the "Catalog order data" window.

Key	Function
	Call up the "Order menu" window
	Call up "Additional function keys"
	Call up the "Catalog order data" window

Keys for the "Catalog order data" window

Functional description for working in the "Catalog order data":

- 1. Call up the "Order menu" window from the "Main menu".
- 2. Call up "Additional function keys".
- 3. Call up the "Catalog order data" window.

🔚 Catalog order dat	ta	STOLL THE RIGHT WAY TO KNIT
┨╸┨ ┣₩«		
Path: d:\muster		
File name	Type	6
david-ARM	ord	2
		Pattern name
		Order name:
<		
Total: 1 7437	2005-11-16 09:31:43	

"Catalog order data" window

- 4. Set the desired path with one of the "Direct pattern folder selection" keys.
- 5. Select file.
- 6. Select action.
- 7. If an additional prompt appears, tap the "1" key to confirm,

- or -

- → tap the "0" key to cancel.
- 8. Call up "Main menu".



Producing with knitting orders (order menu) 3.4

Actions in "Catalog order data" window	🔚 Catalog order da	ata STOLL THE RIGHT WAY TO KNIT
	Path: d:\muster	Туре С
	Gavig-ARM	Pattern name
		Order name:
	"Catalog order data" wind	w
	Кеу	Function
		"Direct folder selection": predefined folder selection
	Z	
	<⇒∐	"Load" selected file and corresponding pattern elements
		"Save" selected pattern elements in the current folder



Keys in "Catalog order data" window

Further information:

- Selecting the current folder [-> 250]
- Displaying file in pattern editor [-> 243]

3.5 Eliminating errors in the fabric



3.5 Eliminating errors in the fabric

If the fabric piece is not to be completed properly, two options in the "Machine start" window can be used.

Key	Function
	Call up "Additional function keys"
ctrl W	The cycle currently being knitted is aborted and the other cycles will be knitted as programmed.
ctrl Z	The machine automatically begins with a new fabric if the following conditions are met:
	The racking device is in the home position
	The yarn carriers are in starting position
	The carriage direction allows beginning again.
	As long as these conditions are not met, cycles will only be knitted once.

Keys to interrupt a fabric

This chapter contains information on:

- Starting again after pressing off fabric [-> 106]
- Threading up thread into yarn carrier [-> 109]
- Removing fabric winding around fabric take-down [-> 110]

3.5.1 Starting again after pressing off fabric

Key	Function
	Call up "Machine start" window
\checkmark	Confirm entries

Keys for starting again after pressing off fabric

For machines without a comb take-down After pressing off fabric, a problem arises where stitches are pressed off and therefore further knitting is not possible. To be able to continue, we recommend calling up the "Picking up after pressing off" function. It allows you to begin knitting even without fabric.

Normally, each knitting program includes the "Picking up after pressing off" function. With older knitting programs, this function is found from line 950 on; with the pattern workstation M1, it is activated via "#90".

The machine detects which pattern workstation was used to generate the pattern. A knitting program of M1 contains the ID "<M1>" on line 1. Likewise, program point "P.aft. press-off" in the "Machine start" window is adapted automatically.

- 1. If threads are broken, thread them up again.
- 2. Call up "Machine start" window.
- 3. Call up the "Picking up after pressing off" function. Tap the "P.aft. pressoff from row" key for this purpose.



"Machine start" window

4. Start the machine with the engaging rod.

"Picking up after pressing off" function with older knitting programs (e.g. SIRIX)

STOLL

KNIT AHEAD

3.5 Eliminating errors in the fabric



CAUTION

If you notice defective needles while picking up after pressing off:

- → Stop picking up after pressing off and replace the defective needles.
- 5. When the fabric is long enough to be placed in the main take-down, stop the machine with the engaging rod.
- 6. Open the main take-down, place the fabric in the main take-down and close the main take-down.
- 7. To start the knitting program, tap the "SP from line 1" key.
- 8. Start the machine with the engaging rod.

"Picking-up after pressingoff" function with an M1 pattern Requirements:

- The knitting program was generated on M1
- When the pattern is generated, the "P.aft.press-off" menu item is activated

👫 Machine start		S T O L L THE RIGHT WAY TO KNIT
Start		- Needle selection
SP from line 1		Off On Needle selection
SP from line	0	
SPF SO		On Left carriage
SPF row fixed	999	Off On Right carriage
P.aft. press-off M1 from #90	0	– Yarn carrier –
#L:	#51	Delete positions (EAY)
* R:	#52	Ŭ

"Machine start" window

Setting	Function
#90=0	"Picking up after pressing off" function is deactivated
#90=1	"Picking up after pressing off" function is activated. A specific row number (gauge x 4) is knitted, depending on the gauge of the machine. A total of 40 knitting rows are processed for a machine of gauge E10.
#90=n	If this is too many knitting rows, "#90" can be set to another number. Two knitting rows, similar to the "Picking up after pressing off" function, are repeated as often as "#90" is set. Example: #90=15. A total of 30 knitting rows (2 x 15) are processed.
#L, #R	Setting the fabric width for the "Picking up after pressing off" function. Standard setting: Starting width (#L=#51, #R=#52)

Eliminating errors in the fabric 3.5

- 1. If threads are broken, thread them up again.
- 2. Call up "Machine start" window.
- 3. Call up the "Picking up after pressing off" function. Tap the "P.aft. pressoff M1 from row" key for this purpose.
- 4. Tap the input fields. Enter values and confirm inputs.
- 5. Start the machine with the engaging rod.

CAUTION
If you notice defective needles while picking up after pressing off:
 Stop picking up after pressing off and replace the defective needles.

- 6. When the set number of knitting rows has been processed, the machine stops automatically.
 - ▷ The "Place fabric in fabric take-down" message appears.
- 7. When the fabric is long enough to be placed in the main take-down, open the main take-down, place the fabric in the main take-down and close main take-down.
- 8. If the fabric cannot yet be placed in the main take-down, repeat points 2 through 8.
- 9. Start the machine with the engaging rod. The knitting program is started automatically.

Further information:

■ Threading up yarn [-> 76]
3.5 Eliminating errors in the fabric



3.5.2 Threading up thread into yarn carrier

Key	Function
	Call up "Manual interventions" window
	Call up "Machine start" window

Keys for threading up thread into yarn carrier

- 1. Call up "Manual interventions" window.
- 2. Tap the "YC bolt up" key.
- 3. Note the position of the yarn carriers, push the yarn carriers below the carriage and thread.
- 4. Push the yarn carriers into their previous position again.
- 5. Tap the "YC bolt bottom" key.
- 6. To move the carriage assembly slowly, pull the engaging rod slightly toward the front.
- 7. When knitting slowly, make sure that the thread is laid in the needles.
- 8. To continue knitting, start the machine with the engaging rod.

- or -

→ If the fabric is defective, call up the "Machine start" window and tap the "SP from line 1" key to knit the fabric again.

3.5.3 Removing fabric winding around fabric take-down

Key	Function
	Call up "Take-down" window

Key for removing fabric winding around fabric take-down

Fabric winding in main takedown

1. To remove the fabric winding, call up the "Take-down" window.

Pake-down	(* .		STOLL	
Actual WM 0. Main take-down	0 Change in line	0 Actual V	VMF: 1	
Take-down value (W	M) 0.0	Aux,take-down speed (W	+=) 1	0
Take-down Impulse (VMI) 0	Contact pressure (W+P)	0	9
Correction % (WM%)	0			1
Main take-down		Auxiliary take-down	Clo.	
Main take-down	2 23	Auxiliary take-down	00	2
Fabric sensor	Badkw, Forw.		Backw. Forw.	1.0

"Take-down" window

- 2. Tap the "Main take-down Op." key (1).
- 3. Pull the fabric smooth and free the take-down rollers from loose threads and fabric remainders

- or -

- → Press the "Main take-down Backw." (2) key until the fabric winding can be removed.
- 4. Tap the "Main take-down Clo." key to close the main take-down.
- 5. To continue knitting, start the machine with the engaging rod.

Fabric winding in auxiliary take-down

- 1. To remove the fabric winding, call up the "Take-down" window.
- 2. Remove needle bed or position it at an angle.
- 3. Tap the "Auxiliary take-down Op." key (3).
- 4. Press the "Auxiliary take-down backw." key until the fabric winding can be removed.
- 5. Free the take-down rollers from loose threads and fabric remainders.
- 6. To close the auxiliary take-down, tap the "Auxiliary take-down Clo." key.
- 7. Screw on the needle bed again tight.
- 8. To continue knitting, start the machine with the engaging rod.

Further information:

■ Remove needle bed or position it at an angle [-> 363]

3.6 Starting the machine after a fault

3.6 Starting the machine after a fault

The knitting machine control constantly controls the yarn, the fabric, all movable parts of machine, the motors and the electronic components. If an error occurs, the machine stops. The signal light glows yellow, a pictogram appears on the touch screen and a horn goes off. The most common error causes are shown in the pictographs on the touch screen. If an error occurs, one pictograph appears, and in the case of several errors the corresponding pictographs appear consecutively. Errors which occur seldom (e. g. hardware errors) are shown with a common pictograph.

Key	Function
? ?	"Information on error remedies" A big and a small mark appear alternatively
	Confirm error message

Keys for starting machine after a fault

Starting the machine after a fault:

- 1. To get detailed information on an error, tap the pictograph.
 - The "Current messages" window appears. If the error can be remedied by changing the settings, a function key appears in the middle of the lower screen bar.



2. To change the settings, tap the function key in the middle of the bottom line of the screen and eliminate the error.

- or -

➔ If additional information is required, tap the desired error message and tap the "Information on error remedies" key.

The possible fault causes and their remedy are displayed.

	Message	<u>_</u>
Number:	01029	
Text:	Overtemperature mains supply step 1	
Detailed text:	Overtemperature mains supply step 1	
Possible cause:	Temperature control of the power supply unit is responding Ventilator defective (if existing) Power supply unit is defective Battery card is defective	
Possible remedy:	Clean filter of mains supply Blow out radiator of mains supply Replace power supply Replace battery card	

Further information for an error message

- 3. Eliminate the error.
- 4. Confirm the error message.
- 5. To continue knitting, start the machine with the engaging rod.

3.6.1 Message and tip retrospective view

Message history If an e

If an error occurs, it is not only displayed in the "Current messages" window, it is also written into an additional memory. The error messages for the respective day are saved in this memory.

A new memory is automatically selected for each day. There are a total of seven memories so that the error messages of the last 7 days are available. As a result, you can create an overview of which error messages have occurred over the past several days.

When switching off the machine main switch, the error messages currently present in the "Current messages" window are deleted, however the daily memories with the error messages are not deleted.

3.6 Starting the machine after a fault

Key	Function
0	Call up "Info" window
	Call up "Additional function keys"
	Call up message retrospective view:
	Key for daily message retrospective view (the key for the message retrospective view of the past day is shown in the picture)

Keys for calling up retrospective view of error messages

Call up message retrospective view:

- 1. Call up "Info" window.
- 2. Call up "Additional function keys".
- 3. Call up message retrospective view:
- 4. Call up "Additional function keys".
 - \triangleright A list of the keys of the message retrospective views appears.



List of message retrospective views

5. Call up the desired daily retrospective view.

Starting the machine after a fault 3.6

Tips history The tips for the error messages are also saved. As with the message retrospective view, there are seven daily memories so that the tips of the last 7 days are available. As a result, you can create an overview of which tips have occurred over the past several days.

Key	Function
0	Call up "Info" window
	Call up "Additional function keys"
O ^D	Display tip retrospective view
0 1	Key for daily tip retrospective view (the key for the tip retrospective view of the past day is shown in the picture)

Keys for displaying tip retrospective view

Displaying tip retrospective view:

- 1. Call up "Info" window.
- 2. Call up "Additional function keys".
- 3. Display tip retrospective view.
- 4. Call up "Additional function keys".
 - \triangleright A list of the keys of the tip histories appears.
- 5. Call up the desired daily retrospective view.

3.6 Starting the machine after a fault



3.6.2 Suppressing error messages

If, for example, a change is made to a knitting program and an error message is present, the knitting program or other windows are covered by the current error message. This may interrupt your work. To prevent this from happening, the error message can be suppressed. Only the display on the touch screen is suppressed, not the stop motion of the knitting machine.

Key	Function
	Call up "Additional function keys"
Ex	Suppress error messages ("Activating setting-up operation")
<	Returning to the previous window
漸	"Setting-up operation active" symbol
	Enabling error messages again ("Deactivating setting-up operation")

Keys for suppressing error messages

Suppressing error messages

1. If an error message is displayed, call up the "Additional function keys" button.



Suppressing error messages

Starting the machine after a fault 3.6

- 2. Press the "Suppress error message" key.
 - The "Setting-up operation" message appears. The error messages are suppressed until this is changed back. You are automatically brought back to the previous window and can continue working.
- 3. As a reminder that the error messages are being suppressed, the "Setting-up operation active" symbol appears in the upper right corner of each window.
- 4. The currently active and suppressed error messages can be viewed. Tap the "Setting-up operation active" symbol for this.

Enabling suppressed error messages again

- 1. Touch "Setting-up operation active" symbol.
- 2. Call up "Additional function keys".
 - 3. Press the "Enable error messages again" key.

Automatic enabling If there are no more stop motions, set-up mode is deactivated automatically.

4 Adjusting knitting machine

This chapter contains information on:

- Basic settings [-> 117]
- Advanced adjustments [-> 176]
- Working with files [-> 228]
- Working with the Sintral editor [-> 255]
- KnitLAN connection [-> 262]
- Defining user profile [-> 265]

4.1 Basic settings

This chapter contains the adjustment instructions and other information on:

- Adjusting carriage speed [-> 118]
- Setting stitch tension [-> 121]
- Adjusting yarn carriers [-> 132]
- Staggering yarn carriers [-> 137]
- Adjusting yarn tension [-> 140]
- Adjusting yarn delivery on friction feed wheel * [-> 143]
- Adjusting storage feed wheel VECTOR * [-> 144]
- Adjusting knitting areas [-> 145]
- Adjusting take-down [-> 146]
- Processing fabric take-down menu [-> 149]
- Setting Cycle Counter and Quantity of Fabrics [-> 152]
- Adjusting shape counters [-> 153]
- Setting counters [-> 155]
- Switch illumination on and off [-> 156]
- Setting value for releasing thread clamp [-> 157]
- Configuration symbol bar [-> 158]
- Configuring monitoring [-> 160]
- Setting up the pattern [-> 164]
- Settings K&W [-> 172]
- Racking correction [-> 173]

4.1.1 Adjusting carriage speed

Different carriage speeds can be entered for different knitting situations. The indirect carriage speed only becomes effective when it is slower than the normal speed.

Key	Function
The second	Call up "Carriage speed" window
\checkmark	Confirm entries
₩€	Call up "Main menu"

Keys for entering the carriage speed

Adjusting carriage speed:

- 1. Call up the "Carriage speed" window.
- 2. Tap the input fields for the carriage speed and enter the desired values.
- 3. Confirm entries.
- 4. Call up "Main menu".

Further information:

■ Setting machine parameters [-> 184]

Carriage speed (Setup2)

Name	Value	Comment	Jake-down
MSEC	0.70		
MSECO	0.00	Standard-S0	<u>₹</u>
MSEC1	0.00	Standard-Umhängen	Yarn carrier
MSECI	0.70		~ <u>`</u> 0
MSECC	0.30		Stitch length
Name	Value	Number of Rows Comment	
MSECK	0.00	1	Speed
Name	Value	Comment	
MSEC2	1.00	Standard-Stricken	#06
MSEC3	0.70	Stricken3	Cycle counter
MSEC4	1.00	Stricken6	, T
MSEC7	0.05		Yarn length
MSEC8	0.05		

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"Carriage speed" window

	Explanation	Value range (meters/second)
MSECK	Carriage speed for small knots over m rows, standard: 1 row	Minimum value: 0.05 Maximum value: 1.20 Step width: 0.05
MSEC	Speed (normal speed)	Minimum value: 0.05 Maximum value: 1.20 Step width: 0.05
MSEC0	Speed for empty rows (S0)	Minimum value: 0.05 Maximum value: 1.40 Step width: 0.05
MSEC1	Speed for transfer rows	Minimum value: 0.05 Maximum value: 1.20 Step width: 0.05
MSECI	Speed with Intarsia Yarn Carrier	Minimum value: 0.05 Maximum value: 1.00 Step width: 0.05
MSECC	Speed outside the needle bed when the yarn carrier is brought in the clamp or taken out of the clamp.	Minimum value: 0.05 Maximum value: 0.50 Step width: 0.05

MSEC2-20	Speed for knitting rows	Minimum value: 0.05 Maximum value: 1.20 Step width: 0.05
Comment	Comment	ASCII Characters

Carriage speed (Setup1)

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🗞 Carriage speed			STOLL THE RIGHT WAY TO KNIT
Normal MSEC	0.05 0.05		
Intarsia MSECI	0.05	MSECNPJ	0.05
Knot selectable MSECK	0.00	for	1 Row(s)
MSECC	0.00		
MSEC0 (Empty row)	0.00	MSEC5	0.05
MSEC1 (Transfer)	0.00	MSEC6	0.05
MSEC2	0.05	MSEC7	0.05
MSEC3	0.05	MSEC8	0.05
MSEC4	0.05	MSEC9	0.05

"Carriage speed" window

Input field	Meaning	Input values
"Normal MSEC"	Carriage speed with normal yarn carriers	0.05 to 1.20 m/s Step width: 0.05
"Intarsia MSECI"	Carriage speed with intarsia yarn carriers	0.05 to 1.00 m/s Step width: 0.05
"Knot selectable MSECK"	Carriage speed after small knots	0.05 to 1.20 m/s Step width: 0.05
"for row (s)"	Number of rows with reduced carriage speed after small knots	1 to 12 rows Step width: 1
"MSECC"	Carriage speed outside the needle bed when the yarn carrier is brought in the clamp or taken out of the clamp.	0.05 to 0.50 m/s Step width: 0.05
"MSECNPJ=n"	Display of the carriage speed for NPJ	
"MSEC0=n"	Indirect carriage speed "n" with empty rows ("S0")	"n" = 0.05 to 1.40 m/s Step width: 0.05
"MSEC1=n"	Indirect carriage speed "n" with transfer rows	"n" = 0.05 to 1.20 m/s Step width: 0.05
"MSEC2=n" to "MSEC9=n"	Indirect carriage speed "n" with knitting rows	"n" = 0.05 to 1.20 m/s Step width: 0.05

Input fields in "Carriage speed" window

4.1.2 Setting stitch tension

The stitch tension and thus the stitch size depend on the stitch cam values. It is possible to specify either the stitch tension as an absolute value or the stitch length.

Key	Function
<u>noll</u>	Call up "Stitch length" window
\checkmark	Confirm entries
₩€	Call up "Main menu"

Keys for setting the stitch tension

Setting stitch tension:

- 1. Call up the "Stitch length" window.
- With Setup1: Set the switch in the "NP value/(mm)" field to "NP value" or "(mm)".
- With Setup1 and Setup2: Tap on the input field that is to be edited and enter the value.
- 4. Confirm entries.
- 5. Call up "Main menu".

Further information:

- Stitch tension range [-> 451]
- Stitch lengths [-> 452]

Stitch tension (Setup2)

STOLL

NP				Q
Name	Value	Value [mm]	Comment	Take-down
NPK	0.00			T.
Name	Value	Value [mm]	Comment	∜ Yarn carrier
NP1	9.00		Netz	
NP2	10.00		Schlauchnetz	กษ์ใ
NP3	10.00		2x1/2x2-Rapport	Stitch length
NP4	11.00		Übergang	
NP5	12.00		Struk. einflächig vorne	Speed
NP6	12.00		Struk. einflächig hinten	
NP8	12.50			#06
NP9	12.00		Schutzreihen	Cycle counter
NP20	9.00		Anfang1	<u>_</u>
NP21	10.00		Anfang2	Yarn length
NP22	12.50		Anfang3	
NP24	12.00		Anfang5	THE
NP25	18.00		Kammfaden	Racking

	Explanation	Value range
NPK	Correction for all stitch cams	Minimum value: -2 Maximum value: 2 Step width: 0.05
NP1 - NP100	Stitch cam position 1 to 100	
Value	Stitch length in NP values or mm	
Value [mm]	Specification in NP values.	Minimum value: 6.5 Maximum value: 22.5 Step width: 0.05
Value [mm]	Settings in millimeters. Setting the yarn length per stitch (Yarn Length Control).	Minimum value: 2.20 Maximum value: 33.00 Step width: 0.01
Comment	Comment	ASCII Characters

Stitch tension (Setup1) STOLL Stitch length (NP 1-30) 11.0 11.0 NP11: 12.5 NP1: NP21: 12.5 NPK: 0.0 NP2: 11.5 NP12: 12.5 NP22: 12.5 NP3: 12.0 NP13: 12.5 NP23: 12.5 NP4: 12.5 NP14: 12.5 NP24: 12.5 NP15: NP5: 13.0 12.5 NP25: 12.5 NP6: 12.5 NP16: 12.5 NP26: 12.5 NP7: 12.5 NP17: 12.5 NP27: 12.5 NP value [mm] NP8: 12.5 NP18: 12.5 NP28: 12.5 NP9: 12.5 NP19: 12.5 NP29: 12.5 NP10: 12.5 NP20: 12.5 NP30: 12.5 NP1in mms: 2.00

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"Stitch length" window

Input field	Meaning
"NP#"	Stitch cam value (NP1-NP 100). Step width: 0.05. Call up NP31-NP100 with the help of the additional function keys.
"NPK"	Stitch cam correction value for all stitch cam positions. Step width: 0.05.
"NP value"	Setting stitch tension in NP values
"(mm)"	Setting the yarn length per stitch

Input fields for setting the stitch tension

Reclaiming When reclaiming, prior to forming a new stitch or to transferring, the needle is sunk again in order to tighten or to pre-stretch the "old" stitch. In order to avoid over-stretching of the stitch, we recommend to use the previous take-down value (or a slightly smaller value) also for reclaiming.

The stitch cam value for reclaiming is specified relatively to the "normal" stitch tension. The difference to the "normal" stitch tension is named "Offset". The offset value can be positive or negative.

If the reclaiming and the second stitch tension are used in the same knitting system, then the reclaiming will be indicated relatively to the second stitch tension.

Further information:

■ The step motors in the carriage [-> 39]

Reclaiming (Setup2)

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NP	PNP	NPS			P
Name	Value	Value	[mm]	Comment	Take-down
PNP1	0.0				1
PNP2	0.0				Yarn carrier
PNP3	0.0				
PNP4	0.0				୍ୟୁ
PNP8	0.0	Г			Stitch length

"Reclaiming" window

	Explanation	Value range
PNP1 - PNP100	Stitch cam position for reclaiming 1 to 100	
Value	Value for reclaiming as NP values or mm	
Value [mm]	Specification in NP.	Minimum value: 6.5 Maximum value: 22.5 Step width: 0.1 Standard: 0.0
Value [mm] ▼	Specification in millimeters. Setting the yarn length per stitch (Yarn Length Control).	Minimum value: 2.20 Maximum value: 33.00 Step width: 0.01
Comment	Comment	ASCII Characters

Key	Function
<u>noll</u>	Call up "Stitch length" window
\checkmark	Confirm entries
₩€	Call up "Main menu"

Keys for setting the take-down value (Reclaiming)

Setting reclaiming:

- 1. Call up the "Stitch length" window.
- 2. Call up the "PNP" tab.
- 3. Tap on the input field that is to be edited and enter the value.
- 4. Confirm entries.
- 5. Call up "Main menu".

Further information:

■ The step motors in the carriage [-> 39]

Reclaiming (Setup1)

STOLL

anning ((PNP 1-	-30)			STOLL THE RIGHT WAY TO KNIT
0.0 0.0	PNP11:	0.0	PNP21:	0.0	
0.0	PNP12:	0.0	PNP22:	0.0	
0.0	PNP13:	0.0	PNP23:	0.0	
0.0	PNP14:	0.0	PNP24:	0.0	
0.0	PNP15:	0.0	PNP25:	0.0	
0.0	PNP16:	0.0	PNP26:	0.0	
0.0	PNP17:	0.0	PNP27:	0.0	NP value
0.0	PNP18:	0.0	PNP28:	0.0	[mm]
0.0	PNP19:	0.0	PNP29:	0.0	DND lis many 0.00
0.0	PNP20:	0.0	PNP30:	0.0	PNPIII IIIIIS: 0.00
		0.0 0.0 PNP11: 1.0 PNP12: 1.0 PNP13: 1.0 PNP13: 1.0 PNP14: 1.0 PNP15: 1.0 PNP16: 1.0 PNP17: 1.0 PNP18: 1.0 PNP19:	0.0 PNP11: 0.0 0 PNP12: 0.0 0 PNP13: 0.0 0 PNP14: 0.0 0 PNP15: 0.0 0 PNP16: 0.0 0 PNP16: 0.0 0 PNP17: 0.0 0 PNP18: 0.0 0 PNP19: 0.0	1.0 0.0 PNP11: 0.0 PNP21: 1.0 PNP12: 0.0 PNP22: 1.0 PNP13: 0.0 PNP23: 1.0 PNP14: 0.0 PNP24: 1.0 PNP15: 0.0 PNP25: 1.0 PNP16: 0.0 PNP26: 1.0 PNP17: 0.0 PNP27: 1.0 PNP18: 0.0 PNP28: 1.0 PNP19: 0.0 PNP29: 1.0 PNP20: 0.0 PNP30:	1.0 0.0 PNP11: 0.0 PNP21: 0.0 1.0 PNP12: 0.0 PNP22: 0.0 1.0 PNP13: 0.0 PNP23: 0.0 1.0 PNP14: 0.0 PNP24: 0.0 1.0 PNP15: 0.0 PNP25: 0.0 1.0 PNP16: 0.0 PNP26: 0.0 1.0 PNP17: 0.0 PNP27: 0.0 1.0 PNP18: 0.0 PNP28: 0.0 1.0 PNP19: 0.0 PNP29: 0.0

"Reclaiming" window

Input field	Meaning
"PNP#"	Take-down value (Reclaiming) (PNP1-PNP100). Step width: 0.05. Call up PNP31-PNP100 using the additional function keys.
"NP value"	Setting take-down values (Reclaiming) in NP values
"(mm)"	Setting the yarn length per stitch

Input fields for setting the take-down value (Reclaiming)

Кеу	Function
<u>nol</u>	Call up "Stitch length" window
	Call up "Additional function keys"
†∩↓ J	Call up the "Reclaiming" window
\checkmark	Confirm entries
₩€	Call up "Main menu"

Keys for setting the take-down value (Reclaiming)



Setting reclaiming:

- 1. Call up the "Stitch length" window.
- 2. Call up "Additional function keys".
- 3. Call up the "Reclaiming" window
- 4. Set the switch in the "NP value/(mm)" field to "NP value" or "(mm)".
- 5. Tap on the input field that is to be edited and enter the value.
- 6. Confirm entries.
- 7. Call up "Main menu".

Further information:

■ The step motors in the carriage [-> 39]

Second stitch tension Individual needles or areas are knitted with a smaller stitch tension (stitch short, tuck short).

The stitch cam value for the second stitch tension is specified relatively to the "normal" stitch tension. The difference to the "normal" stitch tension is named "Offset".

The second stitch tension cannot be higher than the "normal" stitch tension. This means, that the offset value for the second stitch tension is always negative.

Value range: -8.00...0 . Step width: 0.05

Further information:

■ The step motors in the carriage [-> 39]

Second stitch tension (Setup2)

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"Second stitch tension" window

	Explanation	Value range
NPSK	Correction for all stitch cams for the second stitch tension	Minimum value: -2 Maximum value: 2 Step width: 0.05
NPS1 - NPS100	Stitch cam position 1 to 100 for the second	stitch tension
Value	Value for the second stitch tension as NP v	values ormm
Value [mm]	Specification in NP.	Minimum value: -8.0 Maximum value: 0.0 Step width: 0.05
Value [mm] ✔	Specification in millimeters. Setting the yarn length per stitch (Yarn Length Control).	Minimum value: 2.20 Maximum value: 33.00 Step width: 0.01
Comment	Comment	ASCII Characters

Key	Function
<u>sol</u>	Call up "Stitch length" window
\checkmark	Confirm entries
₩€	Call up "Main menu"

Keys for setting the values for the second stitch tension

Setting stitch tension:

- 1. Call up the "Stitch length" window.
- 2. Call up the "NPS" tab.
- 3. Tap on the input field that is to be edited and enter the value.
- 4. Confirm entries.
- 5. Call up "Main menu".

Further information:

■ The step motors in the carriage [-> 39]

n Sec	cond sti	tch tens	ion (NI	PS 1-30)		STOLL THE RIGHT WAY TO KNIT
			0.0		0.0	
NPS2:	0.0	NPS12:	0.0	NPS22:	0.0	NPSK: 0.0
NPS3:	0.0	NPS13:	0.0	NPS23:	0.0	
NPS4:	0.0	NPS14:	0.0	NPS24:	0.0	
NPS5:	0.0	NPS15:	0.0	NPS25:	0.0	
NPS6:	0.0	NPS16:	0.0	NPS26:	0.0	
NPS7:	0.0	NPS17:	0.0	NPS27:	0.0	NP value
NPS8:	0.0	NPS18:	0.0	NPS28:	0.0	[mm]
NPS9:	0.0	NPS19:	0.0	NPS29:	0.0	NPS1in mms: 0.00
NPS10:	0.0	NPS20:	0.0	NPS30:	0.0	

"Second stitch tension" window

Input field	Meaning
"NPS#"	Stitch cam values (Second stitch tension) (NPS1-NPS100). Call up NPS31-NPS100 using the additional function keys.
"NPSK"	Stitch cam correction value for all stitch cam positions
"NP value"	Setting stitch tension in NP values
"(mm)"	Setting the yarn length per stitch

Input fields for setting the values for the second stitch tension

Key	Function
<u>nol</u>	Call up "Stitch length" window
	Call up "Additional function keys"
<u>n N</u>	Call up the "Second stitch tension" window
\checkmark	Confirm entries
₩€	Call up "Main menu"

Keys for setting the values for the second stitch tension

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Second stitch tension

(Setup1)



Setting stitch tension:

- 1. Call up the "Stitch length" window.
- 2. Call up "Additional function keys".
- 3. Call up the "Second stitch tension" window
- 4. Set the switch in the "NP value/(mm)" field to "NP value" or "(mm)".
- 5. Tap on the input field that is to be edited and enter the value.
- 6. Confirm entries.
- 7. Call up "Main menu".

Further information:

■ The step motors in the carriage [-> 39]

STOLL

4.1.3 Adjusting yarn carriers

Adjusting yarn carriers

Key	Function
	Call up the "Yarn carrier" window
*	Call up the "Adjusting yarn carrier" window
	Call up "Additional function keys"
SEN 1	Call up desired knitting area
\checkmark	Confirm entries

Keys for adjusting the yarn carriers

*	Ya	rn (car	rier									Ţ		
Y	SEN1	Y:=n	0/1	YG	YP	Ka	КЬ	K <i>a</i>	K <i>b</i>	Туре	I<>	Ba	Bb	Ua	Ub 🔼
1A	1	A	1	1	1	0.0	0.0			N		0	0	14.5	14.!
1B	1	А	1	1	1	0.0	0.0			N		0	0	14.5	14.5
1C	1	А	1	1	1	0.0	0.0			Ν		0	0	14.5	14.5
1D	1	А	1	1	1	0.0	0.0			Ν		0	0	14.5	14.5
2A	1	А	1	1	1	0.0	0.0			Ν		0	0	14.5	14.5
2B	1	А	1	1	1	0.0	0.0			Ν		0	0	14.5	14.5
2C	1	А	1	1	1	0.0	0.0			N		0	0	14.5	14.5
2D	1	А	1	1	1	0.0	0.0			Ν		0	0	14.5	14.5
ЗA	1	А	1	1	1	0.0	0.0			Ν		0	0	14.5	14.5
ЗВ	1	А	1	1	1	0.0	0.0			Ν		0	0	14.5	14.5
ЗC	1	А	1	1	1	0.0	0.0			Ν		0	0	14.5	14.5 🗸
<															>
		1A					Cu	rrent YCI	[;			(Curre	nt YDI:	
YDF	7							Y	arn carri	er at ne	eedle l	bed ł	oorde	er (EAY!) 🕞

"Yarn carrier" window

Column	Data shown
Y	Specification of yarn carrier
SEN	Specification of SEN area in which yarn carrier works
Y: =n	Specification of yarn type
0/1	Yarn type switched on or off
YG	Home position of the yarn carrier for needle
YP	Current yarn carrier position for needle

Data in the "Yarn carrier" window

Column	Data shown
Ка	Yarn carrier correction value (left) for not swiveled yarn carrier if the yarn carrier is positioned within the fabric. Value range: -1200120 . Step width: 0.5=1/32 inch=0.8 mm
Kb	Yarn carrier correction value (right) for not swiveled yarn carrier if the yarn carrier is positioned within the fabric. Value range: -1200120 . Step width: 0.5=1/32 inch=0.8 mm
K <i>a</i>	Intarsia yarn carrier correction value (left) for swiveled intarsia yarn carrier Value range: -1200120 . Step width: 0.5=1/32 inch=0.8 mm
K <l>b</l>	Intarsia yarn carrier correction value (right) for intarsia swiveled yarn carrier Value range: -1200120 . Step width: 0.5=1/32 inch=0.8 mm
Туре	Display of the yarn carrier type: Normal yarn carrier (N), plating yarn carrier (P), double bow yarn carrier (PA), intarsia yarn carrier (I)
<>	Swiveling direction of intarsia yarn carrier
Ва	Display of the yarn carrier braking value a (left)
Bb	Display of the yarn carrier braking value b (right)
Ua	Adjust the engaging width a (left) (when plating with normal yarn carriers).
Ub	Adjust the engaging width b (right) (when plating with normal yarn carriers).
MSEC	Carriage speed when this yarn carrier is used (technical fabrics)
V	Number of selvedge needles until first knitting needle (technical fabrics)
YDF	Additional distance of yarn carrier from fabric selvedge when knitting fully fashion. Value range: 1-20 needles.

Data in the "Yarn carrier" window

Adjusting yarn carriers:

- 1. Call up the "Yarn carrier" window.
 - ▷ In the default setting the yarn carriers are displayed in all knitting areas (SEN areas).
- 2. If only the yarn carriers of a certain SEN area are to be displayed, then call up "additional function keys" and tap the desired SEN area.
- 3. Tap the line (yarn carrier) that is to be processed.
 - ▷ The number of the yarn carrier appears at the bottom edge of the window, on the right of the "Adjusting yarn carriers" key.
- 4. Tap the "Adjusting yarn carriers" key.
- 5. Tap on the input field that is to be edited and enter the value.
- 6. Confirm entries.
- 7. Return to the "Yarn carrier" window.

Further information:

 Intarsia yarn carrier - Adjust stopping point (basic setting, braking value) * [-> 211]

Adjusting yarn carriers (Setup2)

YD / YDI	YC / Y0	ı	Ŷ	":Ua-b / ነ	r:Nec				
Name	Y	Ka	КЬ	K <i>a</i>	K <i>b</i>	MSEC	۷	Comment	Take-down
A YCI6	Y-1A	0.0	0.0	0.0	0.0	0.00	0		
	Y-2A	0.0	0.0	0.0	0.0	0.00	0		¥
	Y-3A	0.0	0.0	0.0	0.0	0.00	0		Tarii Carrier
	Y-6A	0.0	0.0	0.0	0.0	0.00	0		a:0
								·	Stitch length

Key	Function
\checkmark	Confirm entries
<	Return to the "Yarn carrier" window

Keys for adjusting the yarn carriers

	Explanation	Value range
A K C	Direct yarn carrier correction Collapse	
YCI	Yarn carrier correction index YCI1 to YCI20 Collapse (reduced display) Expand (expanded display)	
Y	Corrections of yarn carrier 1A to 8D	

4 Adjusting knitting machine

4.1 Basic settings

	Explanation	Value range
Ка	Yarn carrier correction value (left) for not swiveled yarn carrier if the yarn carrier is positioned within the fabric.	Minimum value: -120 Maximum value: 120 Step width: 0.5=1/32 inch=0.8 mm
Kb	Yarn carrier correction value (right) for not swiveled yarn carrier if the yarn carrier is positioned within the fabric.	Minimum value: -120 Maximum value: 120 Step width: 0.5=1/32 inch=0.8 mm
K <i>a</i>	Intarsia yarn carrier correction value (left) for swiveled intarsia yarn carrier	Minimum value: -120 Maximum value: 120 Step width: 0.5=1/32 inch=0.8 mm
K <l>b</l>	Intarsia yarn carrier correction value (right) for intarsia swiveled yarn carrier	Minimum value: -120 Maximum value: 120 Step width: 0.5=1/32 inch=0.8 mm
MSEC	Carriage speed if this yarn carrier is used (technical fabrics).	
V	 Reduce carriage speed (n) for yarn carrier (n = 03). The speed is reduced to 75% from carriage reversal point until achievement of the operating range of the yarn carrier. Finally it can be chosen between the following possibilities: 1 = Acceleration up to 100% 2 = Braking down to 50%, maintain speed over a fabric width of 2 inches, acceleration up to 100% 	
	 3 = Braking down to 50%, maintain speed over a fabric width of 5 inches, acceleration up to 100% 0 = Capaelling out of corrigge speed 	
	specific to yarn carrier	
Comment	Comment	ASCII Characters

i Change engaging width (Ua, Ub) For this call up the Y:Ua-b tab.

Further information:

Intarsia yarn carrier - Adjust stopping point (basic setting, braking value) * [-> 211]

Adjusting yarn carriers (Setup1)

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"Adjust yarn carriers" window

Key	Function
✓←	Save changes and end setting process
<	End setting process without saving changes Return to the "Yarn carrier" window

Further information:

Intarsia yarn carrier - Adjust stopping point (basic setting, braking value) * [-> 211]



4.1.4 Staggering yarn carriers

Staggering the yarn carriers at the fabric selvedge.

Key	Function
	Call up the "Yarn carrier" window
	Call up "Additional function keys"
	Call up "YC staggering" window
\checkmark	Confirm entries

Keys for staggering the yarn carriers

Staggering the yarn carriers:

- 1. Call up the "Yarn carrier" window.
- 2. Call up "Additional function keys".
- 3. Call up the "YC staggering" window.
- 4. Tap on the input field that is to be edited and enter the value.
- 5. Confirm entries.

Staggering yarn carriers YC staggering STOLL \$ (Setup2) Current YDI: 68.0 **1** 9.0 7 58.0 44.0 **]** 33.0 16.0 37.0 30.0 23.0 **]** 30.0 **1** 16.0 9.0 51.0 27.0 1 44.0 51.0 ŝ

"YC staggering" window

The yarn carrier staggering is displayed in the window. If you want to change the staggering, call up the Setup2 editor.

YD / YDI	YC / YC	οι γιυ	la-b / Y:Ncc		P
Name	YD	Left	Right	Comment	Take-down
YD	YD8	32.0	32.0		
	YD7	27.0	18.0		
	YD6	9.0	4.0		farn carrier
	YD5	15.0	22.0		av.0
	YD4	22.0	15.0		Stitch length
	YD3	18.0	27.0		
	YD2	4.0	9.0		
	YD1	8.0	12.0		Speed
YDI6	YD8	32.0	32.0		#04
	YD7	27.0	18.0		Cycle counter

	Explanation	Value range	
≈ YD	Distance between yarn carriers and fabric selvedge Collapse ≈ (reduced display) Expand ∞ (expanded display)		
YD1 : YD8	Distance of the yarn carriers on track 1 to 8 from the left and right fabric selvedge	Minimum value: 0 Maximum value: 160 Step width: 0.5=1/32 inch=0.8 mm	
∗ YDI	Additional, indirect yarn carrier staggering (YDI1 to YDI20) Collapse ≈ (reduced display) Expand ∞ (expanded display)	Minimum value: 0 Maximum value: 160 Step width: 0.5=1/32 inch=0.8 mm	
Comment	Comment	ASCII Characters	

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4 Adjusting knitting machine

4.1 Basic settings

Staggering yarn carriers		
(Setup2)	Key	Function
		Call up the Setup2 Editor
	\checkmark	Confirm entries
	<	return to the "YC staggering" window

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Keys for staggering the yarn carriers

- 1. Call up the Setup2 editor in the "YC staggering" window.
- 2. Tap on the input field that is to be edited and enter the value.
- 3. Confirm entries.
- 4. Return to the "YC staggering" window.

Staggering yarn carriers (Setup1)



"YC staggering" window

- 1. Tap the input fields next to the yarn carriers and enter the values. Value range: 0-160. Step width: 0.5=1/32 inch=0.8 mm
- 2. Confirm entries.

4.1.5 Adjusting yarn tension

Depending on the machine gauge and the component type there are different types.

Type 1



Adjustment of yarn tension





Adjustment of yarn tension



	The adjustment of yarn tension is done in the following sequence:		
		Lateral yarn tensioner: Adjusting the restoring force on the linear regulator (2).	
		Opening permanent brake	
		Adjusting yarn control device	
		Adjusting permanent brake	
		Lateral yarn tensioner: Adjusting the yarn tensioning path on the lock segment (3)	
		This sequence should help you to find the optimal adjustment of the yarn tension. Depending upon the type of fabric and the yarn characteristics it is possible that you may have to change the adjustments many times before you find the optimal adjustment. These adjustments are the easiest to undertake while the machine is knitting. Make sure that the braking and restoring force on all elements is set at the lowest possible.	
Adjusting restoring force	1.	Remove lateral yarn tensioner (1) from the stay.	
	2.	Linear regulator (2) is to be set in a manner that the lateral yarn tensioner has enough strength to hold the thread tensioned always.	
	3.	Control the setting while the machine is knitting. In this case the thread must not sag rather it should always be tensioned by the yarn tensioner.	
Opening permanent brake	→ Type 1: Open the rotary knob (5) of the permanent brake (4) as wide as possible.		
	- 0	r -	
		Type 2: Push lever (5) of the permanent brake (4) in the lowest position.	

- Adjusting yarn control device
- 1. Yarn brake (8) to be adjusted in such a manner that the thread break control does not move too much underneath such that the stop impulse gets released.



2. Adjust knot detectors for large knots (7) and for small knots (9) depending on yarn thickness and knots so, that they are triggered by an undesirable knot size.

Adjusting permanent brake

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→ Adjust the permanent brakes (4) in such a manner that the lateral yarn tensioner swivels only a bit (approx. 25 degrees), when the yarn guide achieves it's left or right stopping position.
 If a thread loop is formed between the friction feed wheel and the permanent brake then the thread brake on the yarn control device should be set a little stronger and the permanent brake should be set a little stronger and the permanent brake should be set a little weaker.

Set the maximum slack takeup path of the yarn tensioner If desired the maximum slack take-up path of the yarn tensioner can be set from 80 to 35 degrees. This will be set with the lock segment (3). It has four lock positions (A - D).



Position	max. angle	Explanation
A	80	Home position of the lock segment. Active thread clamp in action Largest yarn tensioning path
В	65	Active thread clamp in action
С	50	Active thread clamp in action
D	35	Active thread clamp out of action Smallest yarn tensioning path



4.1.6 Adjusting yarn delivery on friction feed wheel *

The friction rollers have a constant peripheral speed and feed the maximum amount of thread consumed by the knitting machine. To adjust the yarn delivery to the actual consumption, the winding angle of the thread is modified. If the winding angle is enlarged, then the friction force increases and the friction feed wheel delivers more thread. The friction feed wheel should always feed somewhat more thread than the yarn carriers consume.

→ If the yarn delivery is to be reduced, then lead the yarn through the eyelet (1).



Adjusting the yarn delivery on the friction feed wheel

With very coarse yarn

The distance between stop motion rail and friction roller is too small so that the yarn comes into contact with the stop motion rail and releases a stop impulse, then the machine stops.

Modifying the distance:

1. Remove the screw (5) and the stop motion rail (4).



Set the distance between stop motion rail and friction roller

- 2. Turn the stop motion rail by 180 degrees and assembly it again.
- A bigger distance (6) is between the stop motion rail and the friction roller.

Further information:

Symbols in this document [-> 16]

4.1.7 Adjusting storage feed wheel VECTOR *

The yarn tension is set with the setting knob (1).



You will find further information on the storage feed wheel VECTOR in the operating instructions which are enclosed.

Further information:

Symbols in this document [-> 16]
4.1.8 Adjusting knitting areas

In the Sintral program up to four knitting areas (SEN areas) can be defined and switched on and off separately. If the knitting areas are not defined in the Sintral program, they can be adjusted in the "Knitting areas" window.

Key	Function
	Call up "Knitting areas" window
\checkmark	Confirm entries
₩€	Call up "Main menu"

Keys for adjusting the knitting areas

1. Call up the "Knitting areas" window.

Knitting a	areas		STOLL THE RIGHT WAY TO KNIT
		Selection	Selection
SEN from needle	to needle	(manual)	(Program)
1 1	1 200	Off Off	Off
,			On On
2 0	0	Off Off	Off Op
3 0	0	Off Off	Off Off
4 0	0	Off	Off
05514		On	On
SENI			
0			0

"Knitting areas" window

- 2. Assign each knitting area ("SEN") a needle area.
- 3. Confirm entries.

 \triangleright The assigned areas are graphically shown.

- 4. To switch individual knitting areas on or off, tap the switch in the "Selection (manual)" column.
- 5. Call up "Main menu".

4.1.9 Adjusting take-down

Adjusting fabric take-down values

KNIT AHEAD

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Key	Function
	Call up "Take-down" window
\checkmark	Confirm entries
₩€	Call up "Main menu"

Keys for setting the fabric take-down values

Setting the fabric take-down values:

- 1. Call up the "Take-down" window.
 - \triangleright The current fabric take-down values are shown.

P Take-down					STOLL THE RIGHT WAY TO KNIT
Actual WM 0.0) Char	nge in line:	0	Actual WMF:	1
Main take-down					
Take-down value (WN	4) 0.0	0	Aux.take-down	speed (W+=)	1
Take-down impulse (VMI) (0	Contact pressu	re (W+P)	0
Correction % (WM%)	(0 🚺			
Main take-down	1		Auxiliary take-o	down	Clo.
	Clo.	Op.		L	
Main take-down			Auxiliary take-	down	
	Backw	r. Forw.		В	ackw. Forw.
Fabric sensor		Off On			

"Take-down" window

- 2. To enter the fabric take-down values, tap the input fields and enter the desired values.
- 3. Confirm entries.

Adjusting the control of the fabric take-down:

During production, the control of knitting machine compares the current values with threshold values. If a threshold value is exceeded, the knitting machine stops and displays a fault.

Key	Function
	Call up "Additional function keys"
	Call up "Fabric take-down Control" window
\checkmark	Confirm entries
<	Return to "Take-down" window

Keys for adjusting fabric take-down control

Adjusting fabric take-down control:

- 1. Call up the "additional function keys" in the "Take-down" window.
- 2. Call up the "Fabric take-down Control" window.

n 😓 Fab	ric take-down Control	STOLL THE RIGHT WAY TO KNIT
	Control	
	Control main take-down (WM+C)	0
	Turning control of the take-down system (WMC)	0
	Additional take-down control (W+C)	0
	Comb control (WMK+C)	0

"Fabric take-down Control" window

- 3. Enter the threshold values.
- 4. Confirm entries.
- 5. Return to the "Take-down" window.

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Control comb take-down It is always only possible to carry out one comb function.

Key	Function
	Call up "Additional function keys"
BBBB	Call up "Comb" window
<	Return to "Take-down" window

Keys for controlling comb take-down

Control comb take-down:

- 1. Call up the "additional function keys" in the "Take-down" window.
- 2. Call up the "Comb" window.

ţ	N Comb			STOLL THE RIGHT WAY TO KNIT
	Catch elastic thread $(=^=)$		Abort function	
	Onto lower limit switch (=0=)	\bigcirc	🕐 Up	
	In waiting position (=-=)		Down	
	Loosen brake (=X=)	G	Reference run (=R=)	9
	Close brake (=%=)		Upwards (=S=)	
	Open hook (=H=)		Light barrier	Off On

"Comb" window

- 3. To activate a function, touch a key.
- 4. Return to the "Take-down" window.



4.1.10 Processing fabric take-down menu

In the fabric take-down menu (WMF menu), the fabric take-down commands are combined into a single function which concerns a knitting situation.

Key	Function
Q	Call up "Take-down" window
	Call up "Additional function keys"
ø	Call up "WMF menu" window
\checkmark	Confirm entries

Keys for adjusting the fabric take-down menu

Adjusting fabric take-down menu:

- 1. Call up the "additional function keys" in the "Take-down" window.
- 2. Call up the "WMF menu" window.
- 3. Touch the line to be edited.
 - \triangleright The line appears at the bottom edge of the window.
- 4. Tap the fields of the selected line and enter the desired values.

- or -

- → Copy contents of a line and insert at desired location again.
- 5. Confirm entries.
- 6. Return to the "Take-down" window.

Save fabric take-down menu If you save the pattern, the changes in the fabric take-down menu are saved in the setup file.

Further information:

■ Working with files, libraries and folders [-> 238]

STOLL

Fabric take-down menu (Setup2)

WMF	WM% /	WMK%								P
Name	WM min	WM max	N min	N max	WMI	WM^	WMC	₩M+C	Comment	Take-down
WMF1	2.0	3.8	0	100	3	0	0	20	Vorwärts	W
WMF2	0.0	0.0	0	0	0	0	0	10	Entlasten	₹
WMF3	0.0	0.0	0	0	0	0	0	0		Tarn carrier
WMF4	0.0	0.0	0	0	0	0	0	0		aii 0
<									>	Stitch length

	Explanation	Value range
WMF	Fabric take-down function	WMF1 to WMF50
WM min	Minimum fabric take-down value (with Fully Fashion)	Minimum value: 0 Maximum value: 31.5 Step width: 0.1
WM max	Maximum fabric take-down value (value must always be specified)	Minimum value: 0 Maximum value: 31.5 Step width: 0.1
N min	Minimum number of needles (with Fully Fashion)	Minimum value: 0 Maximum value: Needle number of the CMS Step width: 1
N max	Maximum number of needles (with Fully Fashion)	Minimum value: 0 Maximum value: Needle number of the CMS Step width: 1
WMI	Fabric take-down impulse	Minimum value: 0 Maximum value: 15 Step width: 1
WM^	Open the brake of the active take-down system (main take-down or comb take- down) for a maximum of 2.5 seconds, take-down roller or comb take-down turn back by a maximum number of the indicated degrees (depending on the fabric tension and the fabric take-down value). CMS 5xx, 7xx, 8xx: 9-60 degrees CMS 9xx: 9-120 degrees If either of both the conditions is fulfilled, then the brake is closed again. Fabric take-down value (n=0-31.5) becomes active again at the reversion.	No turning back: 0 Minimum value: 9 Maximum value: 120 Step width: 1
WMC	Set the speed control of the active take- down system (main take-down or comb take-down) to the value n (0-32). If the take-down system turns too quickly, the machine is stopped. 0= no stop motion, 1= insensitive, 32= very sensitive	Minimum value: 0 Maximum value: 32 Step width: 1

	Explanation	Value range
WM+C	Monitoring of main take-down. If the take-down has not been used after n (0- 100) knitting rows, the machine will stop. (0 = no supervision)	Minimum value: 0 Maximum value: 100 Step width: 1
WMK+C	Controlling the comb. If the comb has not moved after n (0-100) knitting rows, the machine will stop. ($0 = no$ supervision)	Minimum value: 0 Maximum value: 100 Step width: 1
Comment	Comment	ASCII Characters

Further information:

■ Working with files, libraries and folders [-> 238]

Fabric take-down menu (Setup1)

ا ^م م	WМ	IF m	enu										S THE F	TOLL RIGHT WAY TO KNIT
	W	/M	FF Ne	edles										
WMF	Min	Max	Min	Max	WMI	WM^	WMC	W+C	WM+C	WMK+C	W+=	₩+P	Comment	
1	0.0	0.0	0	0	0	0	0		0	0				
2	0.0	0.0	0	0	0	0	0		0	0				
3	0.0	0.0	0	0	0	0	0		0	0				
4	0.0	0.0	0	0	0	0	0		0	0				
5	0.0	0.0	0	0	0	0	0		0	0				
6	0.0	0.0	0	0	0	0	0		0	0				
7	0.0	0.0	0	0	0	0	0		0	0				
8	0.0	0.0	0	0	0	0	0		0	0				
1														
		Activ	/e WMF:	1										

Key	Function
= 0 = 0 = 0	Delete all information in the fabric take-down menu
	"Copy line" contents
	"Insert line" contents
\checkmark	Confirm entries
(Return to "Take-down" window

Keys for adjusting the fabric take-down menu

Further information:

■ Working with files, libraries and folders [-> 238]

4.1.11 Setting Cycle Counter and Quantity of Fabrics

The cycle counter specifies how often a pattern area is to be repeated. Which cycle counter controls which pattern area is defined in the knitting program.

The piece number specifies how many pieces are to be knitted. During production, the piece number is decreased by "1" as soon as a complete piece has been produced.

Key	Function
# 0 }	Call up the "Cycle counters & counters" window
\checkmark	Confirm entries
₩€	Call up "Main menu"

Keys for adjusting the cycle counter and the piece number

Setting cycle counter and piece number:

1. Call up the "Cycle counters & counters" window.

# <mark>0</mark> ! Сус	cle switc	:h & cou	Inters				STOLL THE RIGHT WAY TO KNIT
	Pie	ece number	0		Still to b	e knitted	0
RS1:	0	RS6:		RS11:	0	RS16:	0
RS2:	0	RS7:	0	RS12:	0	RS17:	0
RS3:	0	RS8:	0	RS13:	0	RS18:	0
RS4:	0	RS9:	0	RS14:	0	RS19:	0
RS5:	0	RS10:	0	RS15:	0	MT:	0
#L:	0	#LM:	0	#RM:	0	#R:	
#51:	0	#53:	0	#54:	0	#52:	0

"Cycle counters & counters" window

- 2. Set the cycle counters "RS1" to "RS19".
- 3. Set the piece number.
- 4. Confirm entries.
- 5. Call up "Main menu".

4.1.12 Adjusting shape counters

During fully fashion knitting the knitting edges are controlled by the shape counters. When the values of the shape counters changes, then the fabric becomes broader or narrower. The alteration in the fabric width is mentioned in the knitting program. The shape counters should be changed manually only in exceptional cases, for example during designing.

Key	Function
#0}	Call up the "Cycle counters & counters" window
	Call up "Additional function keys"
#LM #RM #L #R	Call up "Shape counters" window
\checkmark	Confirm entries
₩←	Call up "Main menu"

Keys for setting the shape counters

Setting the shape counters:

- 1. Call up the "Cycle counters & counters" window.
- 2. Call up "Additional function keys".
- 3. Call up "Shape counters" window.

RLM RL	🗖 Sha	ape co	unter					STOLL THE RIGHT WAY TO KNIT
	#L:	0 🧕	#LM:	0	#RM:	0	#R:	0
	#51:	0	#53:	0	#54:	0	#52:	O
	#L1:	0	#LM1:	0	#RM1:	0	#R1:	0
	#55:	0	#57:	0	#58:	0	#56:	0
	#L2:	0	#LM2:	0	#RM2:	0	#R2:	0
	#59:	0	#61:	0	#62:	0	#60:	0

"Shape counters" window

- 4. Set the counters to the desired value.
- 5. Confirm entries.
- 6. Call up "Main menu".

	Shape counter	Counters for the start-width
#LM #RM	#L	#51
	#R	#52
	#LM	#53
#L #R	#RM	#54
	#L1	#55
	#R1	#56
	#LM1	#57
#L1 #R1 #L2	#RM1	#58
	#L2	#59
	#R2	#60
	#LM2	#61
	#RM2	#62

In the case of single-piece knitting, up to 4 shape counters can be used, in the case of double-piece knitting up to 8 shape counters.

The counters for start-width can be changed only in the knitting program or in the pattern preparation unit.

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4.1.13 Setting counters

In addition to the piece counter and the cycle counters, there are also other counters. On the one hand, they can be used in the knitting program, e.g. to request conditions. On the other hand, they indicate various machine states.

Key	Function
# 0 }	Call up the "Cycle counters & counters" window
	Call up "Additional function keys"
#001 #035	Call up desired counter group
₩€	Call up "Main menu"

Buttons for setting the counters

Setting counters:

- 1. Call up the "Cycle counters & counters" window.
- 2. Call up "Additional function keys".
- 3. Tap the key for the desired counter group.
- 4. Set counter to the desired value.
- 5. Call up "Main menu".

4.1.14 Switch illumination on and off

Key	Function
	Call up "Machine start" window
	Call up "Additional function keys"
	Switch on lighting
P	Deactivate lighting
₩€	Call up "Main menu"

Keys for switching the lighting on and off

Switch the lighting on and off:

- 1. Call up "Machine start" window.
- 2. Call up "Additional function keys".
- 3. Switch on the lighting.
 - or -
- → Switch off the lighting.
- 4. Call up "Main menu".

Automatic switching off of the illumination

he If the lighting is switched on, then you can set the duty cycle (window "Machine parameters").

Standard setting: Function active, duty cycle: 10 minutes (standard), value range: 0...60 minutes

With closed cover hoods	If the lighting is switched on, then it will switch off automatically at the end of the set time.					
When opening and closing the cover boods	The lighting is switched on automatically when opening the covers.					
	If the duty	covers are closed again, then it is checked whether the cycle has been reached.				
	Yes	The illumination will be switched off.				
	No	The illumination will continue switched on until the remaining time is finished				

Further information:

■ Setting machine parameters [-> 184]

4.1.15 Setting value for releasing thread clamp

The thread clamping and cutting device holds the thread of a yarn carrier not used for knitting at the moment. When the yarn carrier is used again, the clamp opens after knitting a few rows and the yarn end is released. The clamp is released after 19 knitting rows as standard. This value can be set individually for each yarn carrier in the "Release clamps" window.

+ Rel	ease cla	amps					STOLL THE RIGHT WAY TO KNIT
		Number o	f YC moven	nents until r	eleasing cl	amp	
1A:	5 🖪	ЗА:	5	5A:	5	7A:	5
iB:	5	3B:	5	5B:	5	7B:	5
10:	5	3C:	5	5C:	5	70:	5
1D:	5	3D:	5	5D:	5	7D:	5
2A:	5	4A:	5	6A:	5	8A:	5
2B)	5	4B;	5	68:	5	8B:	5
20:	5	4C:	5	6C;	5	8C.	5
2D:	5	4D:	5	6D;	5	8D:	5

"Release clamps" window

Key	Function
**	Call up "Clamping and cutting" window
	Call up "Additional function keys"
	Call up "Release clamps" window
\checkmark	Confirm entries
₩€	Call up "Main menu"

Keys for entering the value for releasing thread clamp

Setting value for releasing thread clamp:

- 1. Call up the "Clamping and cutting" window from the "Main menu".
- 2. Call up "additional function keys".
- 3. Call up "Release clamps" window.
- 4. Tap the input field of the corresponding yarn carrier and enter a value. In the default setting the value "20" which corresponds to 19 knitting rows (value - 1) is set.
- 5. Confirm entries.
- 6. Call up "Main menu".

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4.1.16 Configuration symbol bar

The configurable toolbar allows you to jump directly to the individual windows without having to take the "Detour" through the main menu or using the "Additional functions" key. The toolbar is the headline or title bar of a window. You can include the symbols of those windows which you use most often in the toolbar.

The symbols can be called up in any window. To do so, tap the symbol on the top left of the title bar and the symbols are displayed. (Exception: Tap on "Go to mask" key in SINTRAL editor). To close the symbols again, tap the empty field next to them.

	Configur	atio	n symbol bar	STOLL THE RIGHT WAY TO KNIT
[
G	Selection		Title of mask	<u>^</u>
14	シー			
		77	Central lubrication	
	X/		Changeable monitoring	
	(T)	4444	Comb	
	\mathbf{Y}		Configuration symbol bar	
			Copying service data	
			Correct. of front addition. bed	
		WWW	Correction of rear addition. bed	~

"Configuration toolbar" Window

Field/Key	Function
1	List of the windows which can be selected for the toolbar.
2	The toolbar contains the symbols of the selected windows. In the above figure the carriage speed has been selected.
3	Key used to set a symbol in the toolbar (2).
4	Key used to remove a symbol from the toolbar (2).
5	Change the position of a symbol in the toolbar (2). To do so, tap the symbol in the toolbar and use the corresponding key to move it forwards or backwards.
6	If there are more than 11 symbols in the toolbar, the display can be moved to the left or right with the arrow keys.

Key	Function
	Call up the "Service" window
	Call up "Configuration toolbar" window
₩€	Call up "Main menu"

Keys for configuring the toolbar

Configuring toolbar:

- 1. Call up the "Service" window.
- 2. Call up "Configuration toolbar" window.
- 3. Tap the desired symbol (1).
- 4. Press the (3) key.

- or -

- → Double-click on the symbol.
 - The symbol is displayed in the toolbar (2). The character "X" before the symbol indicates that the symbol has been selected from the list (1) for the toolbar.
- 5. Call up "Main menu".

4.1.17 Configuring monitoring

The current Sintral line and the corresponding values for the cycle counters, Jacquards, stitch tension and counters are displayed in the "Changeable monitoring" window for each carriage stroke during productions.

You can specify yourself which values are to be displayed or have them determined automatically. (Exception: Those counters and repeat switches which are used exclusively in the Auto-Sintral program are not displayed.)

Changeable monitoring													
Act. line						_	16.11.2005 15:26						
NP^		12.5	12.5		12.5			NP1:	11.0				
NPV		12.5	12.5		12.5								
NP46:	12.5	NP51: 12.5	NP41: 12.5	NP52:	12.5	NP60:	12.5	NP56:	12.5	NP65:	12.5	NP88:	12.5
NP94:	12.5	(2)	NPr 2.5	NP74:	12.5	NP82:	12.5	NP24:	12.5	NP23:	12.5		
NP55:	12.5		NP	NP45:	12.5	NP42:	12.5					NP21:	12.5
NP19:	12.5	NP73: 12.5	NP81: 12.5							NP31:	12.5		
	4)	WM Max FF I	Min FF Max V	VMI WM 0 0	^ WM	c w+c	WM+0	с WMK	+c W	+= ₩+	·P	Kommer	ntar
		NP58: 12.5	NP38: 12.5										
						RS10:	0						
						RS2:	56			#17:	0	RS8:	0
RS1:	8					NP17:	12.5			#19:	0	JA3:	0

"Changeable monitoring" window

Field	Function
1	Display of the current Sintral line
2	White field with frame. The field can be linked to a value. The value is then displayed in this field.
	A thick frame around the field indicates that it cannot be covered by a function block (4).
3	Gray field. If a field (2) is limited to a value, the color changes from white to gray.
4	White field without frame. This is a function block. The display of a function block can be activated and deactivated.

Linking a field to a value

4.1 Basic settings

Key	Function
	Call up the "Changeable monitoring" window
	Call up "Additional function keys"
	"Automatic configuration"
	"Clear all fields" (reset)
✓←	End setting process and save changes
÷	End setting process without saving changes
₩€	Call up "Main menu"

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Keys for linking a field

Linking a field to a value:

- 1. Call up the "Changeable monitoring" window from the "Main menu".
- 2. Touch a white field with a frame. The setting window appears.

Type: 🔨	Value: 🔼
	1
RS	2
AL	з
NP	4
# 💙	5 💌
Selected:	RS4
←	✓←

Window for linking a field

- 3. Select the type of the value in the left column.
- 4. Select the value in the right column.

 \triangleright The selected value is displayed in the lower line.

- 5. Confirm entries.
- 6. If necessary, link further fields to a value.
- 7. Call up "Main menu".
 - If only one value is to be deleted, select the empty (white) field above "RS".

Activating the function block

Various function blocks can furthermore be displayed for the configurable values. The selected function blocks are positioned at fixed positions over the existing fields. They do not delete these, but just cover them, so that the fields are visible again when the function block is deactivated.

Key	Function
Rey	
	Call up the "Changeable monitoring" window
	Call up "Additional function keys"
त.ी •••••	Activate and de-activate the "Stitch tension" function block
	Activate and de-activate the "SEN area" function block
	Activate and de-activate the "Yarn carrier" function block
FBEG:	Activate and de-activate the "Function name" function block
	Activate and de-activate the "Fabric take-down values" function block
	(Can only be activated, if the "STIXX" function block is deactivated.)
"Print"	Activate and de-activate the "Sintral print line" function block
	Activate/deactivate "STIXX" function block
	(Can only be activated, if the "Fabric take-down values" function block is deactivated.)
₩€	Call up "Main menu"

Keys for activating a function block

- 1. Call up the "Changeable monitoring" window from the "Main menu".
- 2. Call up "Additional function keys".
- 3. Activate the desired function blocks.
- 4. Call up "Main menu".

Saving, loading, deleting settings ...

The configuration carried out by you can be saved, loaded and deleted.

STOLL

KNIT AHEAD

	-
Key	Function
	Call up the "Changeable monitoring" window
	Call up "Additional function keys"
	Call up "Catalog Monitoring" window
₩€	Call up "Main menu"

Keys for calling up the "Catalog Monitoring" window

- 1. Call up the "Changeable monitoring" window from the "Main menu".
- 2. Call up "Additional function keys".
- 3. Call up "Catalog Monitoring" window.

Catalog monitoring STOL				
(1)-				
Current configuratio	n:			
Path:	Local data			
File name		Туре	Changed on	
DAVID		mon	06.12.2005 15:57:07	
Total: 1				

"Catalog Monitoring" window

- 4. Select the desired program point (1) (loading, saving, deleting ...).
- 5. Call up "Main menu".

4.1.18 Setting up the pattern

This menu can be used for fine adjustment of a pattern at the knitting machine. While the machine is knitting, the corresponding data of the knitting program are displayed for every carriage stroke. If required, changes can be carried out directly in this menu via setting windows, or the corresponding menu is opened for your input. To do so, touch the corresponding field.

Key	Function
	Call up the "Setting up the pattern" menu

Key for calling up the "Setting up the pattern" menu

The window is structured into various areas:



"Setting up the pattern" window

Area	Explanation
1	Display of: Carriage direction, cycle counters, SEN area, coupling width (for tandem machine), counters. The active cycle counter is highlighted. The values cannot be modified.
2	Setting up of the knitting systems: Needle action, stitch tension, yarn carrier, jacquard line.
3	Current Sintral line
4	Fabric take-down values or fabric take-down function
5	Status line: Here the individual values can be changed or the corresponding setting menu called up.

Area	Explanation
6	Actions for yarn carrier plunger, fabric take-down, comb take-down and auxiliary take-down
7	Call up "Stitch length" window
8	Additional yarn carrier distance for fully fashion knitting

Changing a value The values are changed by means of a virtual keyboard. If a value can be changed, a keyboard bar which allows a value to be entered, is displayed in the title bar of the menu.

1	2	3	4	5	6	7	8	9	0		-	DEL	+	(-)	(+)	+	→
---	---	---	---	---	---	---	---	---	---	--	---	-----	---	-----	-----	---	----------

Numerical keyboard

Element	Function
<	End setting process without saving changes
5	Undo a change, the previous value is displayed again
√ ←	End setting process and save changes

Input elements

Changing a value:

1. Tap the corresponding field. The setting window appears, for example:



"Yarn carrier" window

- 2. The keyboard bar appears in the title bar. Use it to carry out the changes.
- 3. Confirm input.

Setting up of the knitting systems

KNIT AHEAD

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The stitch tension, needle action, yarn carrier and jacquard line are displayed for every knitting system. The corresponding menu is opened if the yarn carrier, stitch tension or jacquard line is touched.



"Change NP value" window

Area Display	Modify
1 Stitch tension (rear knitting system)	Value can be changed at indirect specification (NP6=9.2)
2 Needle action (rear knitting system)	
3 Number of the knitting system Presser foot in operation	
4 Yarn carrier	Yarn Carrier Correction Yarn carrier stopping position
5 Needle action (front knitting system)	
6 Stitch tension (front knitting system)	Value can be changed at indirect specification (NP5=9.2)
7	Jacquard line



Stitch tension Not only the value of the stitch tension is displayed, but also the type of specification.



"Display of the stitch tension" window

Туре	Explar	nation	Setting possibility	
1	Direct s	specification: "" (NP=12.5)		
2	Indirect	t specification: "5" (NP5=9.2)	Value can be changed	
3	Jacqua "J1" (N flexible	rd-controlled stitch tension: PJ1=12.5). Presentation at stitch: J1!		
4	Severa	I stitch tension specifications:		
	13.5	Normal stitch tension		
	11.5	Second stitch tension (Offset: -2.0 relatively to the normal stitch tension)		
	16.0	Value for reclaiming (Offset: +4.5 relatively to the second stitch tension)		
	^	Reclaiming	Value can be changed	
	X Second stitch tension		Value can be changed	
5	Change the stitch tension		The "Stitch length" window appears. All the values can be changed.	

Symbols for the needle actions

KNIT AHEAD

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The needle actions are represented by symbols so that you know immediately which needle action is being carried out in one knitting system. Several symbols can also be displayed.

Symbol	Meaning	Symbol	Meaning
	Do not knit	*	Cast off
6	Front stitch	0	Stitch at the front (second stitch tension)
٩	Rear stitch	٩	Rear stitch (second stitch tension)
V	Front tuck	\bigvee	Front tuck (second stitch tension)
0	Front tuck (not sunken)	∧	Rear tuck
٨	Rear tuck (second stitch tension)	0	Rear tuck (not sunken)
	Transfer to rear		Transfer to front

Symbols of the needle actions

Yarn carrier If this field is touched, the "Yarn carrier" window opens up.



"Yarn carrier" window

Area	Explanation
1	Display of the current yarn carrier specification. After this specification (End character " : ") further information is available about this yarn carrier: N = Normal yarn carrier I = Intarsia yarn carrier S = Selected H = Home C = Yarn carrier is clamped and cut off ! = Yard carrier is stopped outside the SEN area PA = Plating yarn carrier (double bow) P = Plating yarn carrier (double eyelet) < = Intarsia yarn carrier swivels to the left > = Intarsia yarn carrier swivels to the right
2	Definition of the yarn carrier (display only)
3	Yarn carrier correction with an application (selected knitting) at the left or right edge.
4	Correction for swiveled intarsia yarn carrier on the left and on the right selvedge.
5	Yarn carrier stopping position at the left or right fabric selvedge.
6	Activate or deactivate the yarn carrier plunger.

Jacquard line

If this field is touched, the "Sintral editor" window opens up. The cursor is automatically positioned before the current jacquard line. The jacquard is displayed by default as compressed.

If the jacquard is unpacked, then depicted uncompressed and the jacquard line exceeds 1,200 characters, it can no longer be displayed. An error message indicates this condition.

Window with selection possibilities

KNIT AHEAD

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Actions can be selected in the following windows:

- Comb actions
- Fabric take-down, auxiliary take-down and yarn carrier plunger
- State Line
- Sintral line

Comb actions

Various actions for the comb take-down can be selected by tapping the key (1).



"Comb actions" window

The "Select comb actions" window appears.



"Select comb actions" window

Key	Explanation
= ^ =	Comb take-down upwards, grip elastic yarn
= - =	Comb take-down in waiting position
= R =	Comb take-down reference run
= S =	Comb take-down at upper limit switch
= H =	Opening the comb hooks
= X =	Open the comb brake
= % =	Close the comb brake
= 0 =	Comb take-down at lower limit switch
Cancel	This key can be used to cancel an action as long as it is being carried out.

Actions for fabric take-down, auxiliary take-down, yarn carrier plunger The keys (1) can be used to select actions for the fabric take-down, auxiliary take-down and the yarn carrier plungers. The possible action is always displayed on the key.

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"Actions for fabric take-down, ... " window

Key	Explanation
= C =	Close fabric take-down
= W =	Open fabric take-down
Υ^	De-activate all the yarn carrier plungers
Yv	Activate all the yarn carrier plungers
W+1	Close auxiliary take-down
W+0	Open auxiliary take-down

State Line The elements displayed in gray in the status line can be selected. To do so, tap one of the gray fields.



At some elements the gray field is divided. This means: If the front field is touched, the complete setting menu for this element appears. If the rear part of the gray field is touched, the window for changing the value appears.

Sintral line If this field is touched, the "Sintral editor" window opens up. The cursor is automatically positioned before the current Sintral line.

4.1.19 Settings K&W



"Settings K&W" window

This menu can be used for fine adjustment of a pattern at the knitting machine.

If you have created the pattern without presser foot, for example, and you want to test it with presser foot, then activate the presser foot with this menu.

Observe the following points:

- The settings are effective only for the current fabric.
- The settings are not entered in the knitting program.
- When a new fabric is started (START-specification in the knitting program) the specifications of this menu are no longer effective.

	Explanation				
Presser foot unit (Sintral)	If the presser foot is used in the knitting program, this menu point is active.				
	Off	The presser feet are switched off.			
	On	The presser feet are always switched on.			
Presser foot (manual)	If no presser foot is used in the knitting program, this menu point is active.				
	Off	The presser feet are switched off.			
	On	The presser feet are always switched on.			
Reclaiming Reclaiming is switched on or off in each knitting setting stitch length for reclaiming.		ming is switched on or off in each knitting system. g stitch length for reclaiming.			

4.1.20 Racking correction

To achieve the optimum transfer position even with different stitch tensions, the racking specification can be provided with a correction. Usually, the correction value is provided with a "?" when writing the knitting program.

During knitting, the machine automatically stops in the reversing position before the line with the correction specification is knitted. Now the optimum value can be entered.

Key	Function
1111	Call up the "Racking correction" window
\checkmark	Confirm entries

Button for calling up the "Racking correction" window

Adjusting racking correction value:

- 1. Call up the "Racking correction" window from the "Main menu".
- 2. Press the input field for the racking correction and enter the value.

- or -

- → If a racking correction is to be changed, then press the corresponding button and enter the value in the input field.
- 3. Confirm input.

Racking correction (Setup2)

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	Explanation	Value range
VCI	Racking function	VCI1 to VCI50
VK	Racking correction by m steps (0-10)	Step width: 1/70 of the needle distance
Dir	Direction of the racking correction < - to the left > - to the right ? - not defined, will be defined on the machine	
VV	Racking speed n (1-32), without an instruction VV=32	
V+/-	V+ - Overracking, in addition to the racking specification positive value: Overracking in racking direction negative value: Overracking in opposite to the racking direction	(n=1-24, step width: 1/8 of the needle distance)
Comment	Comment	ASCII Characters

Racking correction (Setup1)

4.1 Basic settings

n Ra	icking	correct	ion			STOLL THE RIGHT WAY TO KNIT
	VKA VKB VKC VKC VKC VKC VKF VKG VKI VKI VKI VKI VKL VKL VKL	VKN VKO VKP VKQ VKR VKR VKR VKS VKT VKU VKU VKU VKV VKV VKX VKX VKY VKZ		Racking correction active Current sintral line	VKA O	Ο

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"Racking correction" window

Saving/loading racking corrections (Setup1)

The racking corrections are not only pattern-dependent, but also machinedependent. As a result, these settings can be saved on the hard disk or copied back from it.

Key	Function
	Call up "Additional function keys"
= 0 = 0 = 0	Delete all racking corrections
	Save racking corrections on hard disk
	Copy back racking corrections from hard disk to machine memory

Buttons for saving/loading racking corrections

- 1. Call up the "Additional function keys" in the "Racking correction" window.
- 2. Tap the desired button.

Advanced adjustments 4.2

4.2 Advanced adjustments

This chapter contains information on:

- Switching on and off aggregates [-> 177]
- Setting language [-> 179]
- Adjusting sensor mechanism [-> 181]
- Setting needle bed parameters [-> 183]
- Setting machine parameters [-> 184]
- Setting switch-off time when a power failure occurs [-> 186]
- Copying service data [-> 188]
- Carry out the reference run [-> 190]
- Adjusting racking position correction VPK [-> 193]
- Adjusting basic racking correction VGK [-> 195]
- Correcting position of stitch cams [-> 198]
- Adjusting needle brushes [-> 200]
- Adjust thread clamp [-> 201]
- Assembling and adjusting presser foot [-> 202]
- Adjusting needle detector [-> 205]
- Adjusting yarn carriers [-> 205]
- Adjusting yarn carrier limiters [-> 207]
- Adjusting yarn carrier guide [-> 208]
- Adjusting the brushes of the central lubrication [-> 208]
- Adjusting intarsia yarn carriers * [-> 209]
- Shifting intarsia yarn carriers in area of carriage assembly * [-> 210]
- Intarsia yarn carrier Adjust stopping point (basic setting, braking value) * [-> 211]
- Intarsia yarn carrier check the pressure plates * [-> 220]
- Intarsia yarn carrier Correct stopping point (correction value) * [-> 221]
- Plating the different possibilities [-> 222]
- Plating Double bow yarn carrier [-> 223]
- Plating Plating yarn carrier carriage [-> 225]

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4.2 Advanced adjustments



4.2.1 Switching on and off aggregates

Key	Function
	Call up the "Machine settings" window.

Keys for calling up the "Machine settings" window

Light	Fluff absorption	Clean selection systems
	active	After 100 Cydes
Feed wheel on the left	interval	carriage direction
Feed wheel on the right	After 0 Cycles	
Thread air injection	For	
Clamping & cutting	Course	

"Machine settings" window

	Explanation
1	Switch on or off lighting in machine area
2	Switching right or left feed wheel on or off.
	If the feed wheel is not required, we recommend switching it off. This saves
	energy.
3	Switch thread clamping and cutting device on or off.
	If the knitting program contains clamping and cutting commands, the thread clamping and cutting device must be switched on ("1"). If the knitting program does not contain clamping and cutting commands, it must be switched off ("0"). This must correctly be adjusted, as otherwise an error message occurs and the machine cannot be started.

Advanced adjustments 4.2

	Explanation				
4	Switch fluff absorption on or off.				
	The needle beds in the knitting area are vacuumed off with the fluff absorption automatically. This does not interrupt ongoing knitting. We recommend switching on the fluff absorption permanently.				
	The settings for the fluff absorption always remain saved, even when the operating system is loaded again.				
	Interval	Period	odic switch on and off of the suction device.		
		After n courses: Number of courses without suction (1 course = 2 rows)			
		For n o	ourses: Number of courses with suction		
	Stroke	"optimised": The cleaning row is carried out only in SEN area. "maximum": The cleaning row is carried out over the entire needle bed.			
E Clean the selection systems			ome		
5	Some brushes are fixed on the exterior part of the needle bed. The carriage runs so far outwards that the brushes of the selection systems clean it, Suction and cleaning row. This does not interrupt ongoing knitting.				
	After n courses		Number of courses till the selection systems get cleaned (1 course = 2 rows)		
	Carriage direction		"< >": to left and right "<": to left only		

Further information:

- Central lubrication [-> 35]
- Suction and cleaning row [-> 34]

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4.2 Advanced adjustments

4.2.2 Setting language

The windows and the messages on the touch screen can be displayed in different languages.

Key	Function
	Call up the "Service" menu
	Call up the "Basic settings" menu
	Call up the "Language" window
R	Tap the "Select Path" key.
\checkmark	Confirm input
√←	Save changes and end setting process
<	End setting process without saving changes
₩←	Call up "Main menu"

Keys for setting the language

Set language:

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- 1. Call up the "Service" menu.
- 2. Call up the "Basic settings" menu.
- 3. Call up the "Language" window.

🌑 Language			STOL THE RIGHT WAY TO K	L
 deutsch english italiano español 	2	 english français italiano español česky túrkce 中文 	 Эхлт=-Х korean русский polski 	

"Language" window

- 4. Select a language present in the machine from the column on the left. Confirm input.
- 5. If the language has not been loaded yet, it must be reloaded now. The languages are, for example, saved on a floppy disk, the USB memory stick or the M1. To select the storage location, the corresponding source directory must be selected. Tap the "Select path" key. Select the new path. Save changes and end setting process.
- 6. Select the language in the right column. If the language is loaded, it appears in the column on the left. Repeat step 4.
- 7. Call up the "Main menu".
4.2.3 Adjusting sensor mechanism

*** Sensors	STOLL THE RIGHT WAY TO KNIT
Resistance monitor	Horn Intermittent tone Light barrier comb
Control main take-down (WM+C) (5)	0
Turning control of the take-down system (WMC)) • 🗖
Auxiliary take-down control (W+C)	0
Syst. run through until lubrit 832500	lo stop motion
1	65535

"Sensors" window

Field	Data shown
1	Stop resistance Value range: 1-32, 1=not sensitive, 32=very sensitive
2	Carriage speed after small knots
3	Activating/deactivating of horn and selection of volume in three degrees: 0=off 1=low, 2=middle, 3=loud Intermittent tone Switching on/off an intermittent tone for the horn.
4	If the comb take-down moves upward for fabric transfer, a light barrier checks whether the previously produced knitted panel has completely been ejected.
5	Monitoring of main take-down. If the fabric take-down roller has not turned after "n" (0-100) knitting rows, a stop motion is carried out (0=monitoring off).
6	Monitoring of main take-down. If the roller turns too quickly, a stop motion is carried out (e.g. when the fabric is ejected). Value range: 1-32, 1=not sensitive, 32=very sensitive
7	Monitoring of auxiliary take-down. If the auxiliary take-down has not turned after "n" (0-100) knitting rows, a stop motion is carried out (0=monitoring off).
8	Setting lubricating interval for needle bed

Advanced adjustments 4.2

Key	Function
	Call up the "Machine settings" window.
	Call up "Additional function keys"
•	Call up "Sensors" window
\checkmark	Confirm input
₩€	Call up "Main menu"

Keys for adjusting the sensor mechanism

Adjusting sensor mechanism:

- 1. Call up the "Machine settings" window.
- 2. Call up "Additional function keys".
- 3. Call up the "Sensors" window.
- 4. Enter the value on the appropriate line.
- 5. Confirm input.
- 6. Call up "Main menu".

Further information:

- Stop resistance [-> 44]
- Adjusting carriage speed [-> 118]
- Setting lubricating interval for needle bed [-> 337]

4.2.4 Setting needle bed parameters

The needle bed parameters are used to make the needle-bed-specific settings. They serve for the fine adjustment of the needle beds. The needle bed parameters always remain saved, even when the operating system is read in again.

📲 Reedle bed parameters	STOLL THE RIGHT WAY TO KNIT
Selection displacement vI 0 bl 0 fr	0 br 0
Racking ground correction (VGK) 0	
Racking position correction (VPK) 2 0	
Piezo at the front 3 20 Back	20
\smile	

"Needle bed parameters" window

Field	Data shown
1	Racking ground correction (VGK)
2	Racking position correction (VPK)
3	Shock stop motion for the front and rear needle beds and additional needle bed. Value range: 1-32, 1=not sensitive, 32=very sensitive

Key	Function
\checkmark	Confirm input
	Call up the "Service" menu
	Call up the "Basic settings" menu
	Open the "Needle bed parameters" window
₩€	Call up "Main menu"

Keys for setting the needle bed parameters

Advanced adjustments 4.2

Setting needle bed parameters:

- 1. Call up "Main menu".
- 2. Call up the "Service" menu.
- 3. Call up "Basic Settings" menu.
- 4. Open the "Needle bed parameters" window.
- 5. Enter the value on the appropriate line.
- 6. Confirm input.
- 7. Call up the "Main menu".
- 8. Save the change in the machine adjustments on the USB memory stick.

Further information:

- Adjusting basic racking correction VGK [-> 195]
- Adjusting racking position correction VPK [-> 193]
- Shock stop [-> 44]
- Saving all machine data on the USB-Memory-Stick [-> 423]

4.2.5 Setting machine parameters

The machine parameters are used to make the machine-specific settings. They serve for the fine adjustment of the machine. The machine parameters always remain saved, even when the operating system is loaded again.

📲 Machine parame	ters		S T O L L THE RIGHT WAY TO KNIT
Correction take-down (WAK)	31	Corr.comb t	ake-down (WKK) 31
Comb adj. position (ACV)	0	0	
Release fabric take-down w	hen switching		
Slow rows after machine stop		(2)	0
Extension of power failure (sec)		U	30
Switch off lighting	3) after (min)	10
MSEC out of SEN	(4)	~	1.20
Slow course when covers a	re open	(5)	MSECCO 0.00
A Reducing to		70 %	6)

"Machine parameters" window

Field	Data shown
1	Releasing fabric take-down when switching off the main switch. With a delicate fabric no stitch elongations then occur.
2	Following a machine stop the machine runs for several rows at reduced speed. Value range: 0-6, 0=off

Field	Data shown
3	Automatic deactivation of lighting after a certain time. Duty cycle: 10 minutes (standard), value range: 060 minutes Recommendation: LED lamp: 0 minutes, fluorescent lamp 10 minutes
4	Speed outside the SEN area (MSECOS) Standard: 1.2 m/sec (maximal speed)
5	Maximum carriage speed with open cover hoods if the engaging rod is held in position 3 (production). Value range in input field "MSECCO": 0.00 to 0.20 m/s, standard: 0.05, step width: 0.05, 0.00=carriage does not move.
6	carriage speed, if key 🔊 is active. Reduction of normal speed to percentage specification "n". Default: 70 %

Key	Function
\checkmark	Confirm input
	Call up the "Service" menu
	Call up the "Basic settings" menu
	Call up "Machine parameters" window
₩€	Call up "Main menu"

Keys for setting the machine parameters

Set machine parameters:

1. Call up "Main menu".

- 2. Call up the "Service" menu.
- 3. Call up "Basic Settings" menu.
- 4. Call up the "Machine parameters" window.
- 5. Enter the value on the appropriate line.
- 6. Confirm input.
- 7. Call up the "Main menu".
- 8. Save the change in the machine adjustments on the USB memory stick.

Further information:

- Engaging rod [-> 53]
- Saving all machine data on the USB-Memory-Stick [-> 423]

4.2.6 Setting switch-off time when a power failure occurs

The machine is immediately stopped when a power failure (longer than 45 milliseconds) occurs. The knitting program, operating system and the machine-specific data are not lost. The battery card (with the accumulators) ensures this. A pictograph indicating the power failure appears on the touch screen.



"Power failure" pictograph

Δ.	DANGER
14	Life-threatening high voltage!
	Electrical shock may cause death or serious injuries.
	→ Even in the case of power failure, do not work on the electrical system of the machine without interrupting the power supply .

→ Set machine main switch to "0".

Longer power failure If the power failure lasts more than 30 seconds (standard setting), the computer of the knitting machine is automatically shut down. The time until the computer shuts down can be set from 2 to 180 seconds.

If you are sure that the power failure has been in effect for a longer period of time, you can switch off the main switch with "Switch off main switch".

The set time always remain saved, even when the operating system is loaded again.

Shorter power failure If the power supply is restored within the set time, confirm the power failure message with the "Confirm message" key. To continue knitting, start the machine with the engaging rod.

Conditions If the battery voltage is too low ("Battery voltage low" message appears), it is not possible to extend the power failure time.

If a STIXX device is used with the machine, a check is automatically performed to determine which device it is.

- The extension of the power failure time is possible with an ASCON device and a new STIXX device (ID 236 275).
- This is not possible with an older device, as the STIXX correction values cannot be saved and are therefore lost during a power failure. The power failure time is automatically reduced to 2 seconds. If a higher time is set, a message appears stating that this is not possible.

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Key	Function
	Confirm message
	Switch off main switch
	Call up the "Service" menu
	Call up the "Basic settings" menu
	Call up "Machine parameters" window
\checkmark	Confirm input
₩€	Call up "Main menu"

Keys for adjusting the power failure time

Set power failure time:

- 1. Call up the "Service" menu from the "Main menu".
- 2. Call up the "Machine parameters" window from the "Basic settings" menu.



- 3. Enter the desired time.
- 4. Confirm input.
- 5. Call up "Main menu".

4.2.7 Copying service data

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With this menu the service data can be copied on a data carrier.



"Copy service data" window

Label	Explanation
Copy Logfiles	If the machine computer has serious problems, e.g it does not react to any entries or the program crashes any longer, the cause is very important for Stoll. The computer saves the data up to the fault internally in so-called "Logfiles". These files can be saved and sent to the Stoll helpline so that Stoll can carry out an exact error diagnostics.
Copy Dongle	The machine settings do not only contain the machine data, but also the machine options, the machine configuration, the report and other internal control information. It is important to back up the data, e.g. when the hard disk is replaced.
Copy Print	For the Stoll technician only
Copy Report	The operating data are saved with the STOLL machine number.
Сору Мс	The machine data include the machine-specific settings (correction values). The data will be saved in a zip-file. When the knitting machine was shipped, the machine data was printed out and put on the right control cabinet.
Select language	With next switching on of the machine, the language selection

with next startup appears. The setting is reset after switching on.

Keys in the "Copy service data" window

Key	Function
	Call up the "Service" menu
	Call up "Copy service data" window
₩←	Call up "Main menu"

Keys for copying the service data

Copy service data:

- 1. Call up the "Service" menu from the "Main menu".
- 2. Call up the "Copy service data" window.
- 3. Select the desired data carrier e.g. . USB memory stick (Drive F:).
- 4. Tap the desired button.
- The data are saved.
- 5. Call up "Main menu".

Further information:

- Calling up report and shift counters [-> 87]
- Saving all machine data on the USB-Memory-Stick [-> 423]

4.2.8 Carry out the reference run

Following all repair and conversion work on the carriage assembly or on the needle bed, a reference run must be carried out.

The reference run is carried out with the following steps:

- Calling up and noting the machine data
- Carrying out the reference run
- Calling up and correcting the machine data
- Loading the knitting program and determining the racking reference data

Key	Function
	Call up the "Service" menu
	Call up the "Basic settings" menu
←	Returning to the previous window
	Call up "Machine parameters" window
	Open the "Needle bed parameters" window
	Call up "NPK values" window
	Call up "Needle selection" window
	Call up "Reference runs" window
₩€	Call up "Main menu"
	Call up "Machine start" window

Keys for carrying out a reference run

Call up and note machine data

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- 1. Call up the "Service" menu.
- 2. Call up "Basic Settings" menu.
- 3. Call up the "Machine parameters" window.



- 4. Compare the displayed values with the values on the machine data sheet. If necessary, correct the values on the machine data sheet.
- 5. Switch back to the previous window.
- 6. Call up the "Needle bed parameters" window.
- 7. Compare the displayed values with the values on the machine data sheet. If necessary, correct the values on the machine data sheet.
- 8. Switch back to the previous window.
- 9. Call up the "NPK values" window.
- 10. Compare the displayed values with the values on the machine data sheet. If necessary, correct the values on the machine data sheet.
- 11. Switch back to the previous window.
- 12. Call up the "Needle selection" window.
- 13. Compare the displayed values with the values on the machine data sheet. If necessary, correct the values on the machine data sheet.
- 14. Call up "Main menu".
- Carry out the reference run
 - e run 1. If the racking device is not in the home position, press off the stitches of a needle bed.
 - 2. Call up the "Service" menu.
 - 3. Call up the "Reference runs" window.
 - If the carriage assembly is stopped in the left reversing position, tap the "SR!>" key.
 - or -
 - → If the carriage assembly is stopped in the right reversing position, tap the "SR!<" key.</p>

:	The carriage moves automatically in both directions
1	Starting with the operating system V 2.2 there is an automatic reference run. The carriage can move automatically in both directions.

- 5. Start the machine with the engaging rod.
 - ▷ The carriage assembly carries out a reference run and stops after having loaded the reference data.
- 6. Press the engaging rod downward.
- 7. To stop the carriage assembly on the left side outside the needle bed, tap the "S<" or "S>" key and start the machine with the engaging rod.
- To move the carriage assembly a few centimeters to the right, tap the "S>" key, start the machine with the engaging rod and stop it again immediately. The carriage assembly must still be positioned outside the needle space.
- 9. Switch back to the previous window.

Advanced adjustments 4.2

Calling up and correcting	1.	Call up the "Basic settings" menu.
machine data	data 2. 3.	Call up the "Machine parameters" window.
		Compare the displayed values with the target values on the machine data sheet and if necessary correct the values in the window "Machine parameter" and confirm them.
	4.	Switch back to the previous window.
	5.	Call up the "Needle bed parameters" window.
	6.	Compare the displayed values with the values on the machine data sheet. If necessary, correct the values on the machine data sheet.
	7.	Switch back to the previous window.
	8.	Call up the "NPK values" window.
	9.	Compare the displayed values with the target values on the machine data sheet. If necessary, correct the values in the "NPK values" window and confirm them.
	10	. Switch back to the previous window.
	11	. Call up the "Needle selection" window.
	12	. Compare the displayed values with the target values on the machine data sheet. If necessary, correct the values in the "needle selection" window and confirm them.
	13	. Call up the "Main menu".
Load knitting program and	1.	Load the knitting program.
determine racking reference	2.	Call up the "Machine start" window.
data	data 3.	Tap on the key "SP from line 1".
	4.	Start the machine with the engaging rod.
		The carriage assembly moves slowly and stops in the right reversing position.

- 5. Wait until the "Racking finished" Message appears on the touch screen.
- 6. To switch on the needle selection, tap the needle selection "On" key in the "Machine start" window.
- ▶ The reference run is complete, the machine is ready to knit.

Further information:

■ Loading files, libraries and pattern folders [-> 66]

STOLL

KNIT AHEAD

4.2.9 Adjusting racking position correction VPK

The fine adjustment of the transfer racking is carried out by means of the VPK value. With the "Racking position correction (VPK)" the rear needle bed is aligned exactly relative to the front needle bed. The VPK value always remains saved, even if the operating system is

imported again.

Key	Function
	Call up the "Service" menu
H.C.	Call up the "Service Racking" window
\checkmark	Confirm input
₩	Call up "Main menu"

Keys for setting VPK value

Adjusting VPK:

- 1. Program an empty row with transfer racking and fix the knitting instruction.
- 2. Push up two opposing needles in the center of the needle bed.
- 3. Check whether the needle hook of the front needle dips into the pelerine spring of the rear needle.
- 4. If this is not the case: Push back needles and correct racking device.
- 5. Call up "Main menu".
- 6. Call up the "Service" menu.

7. Call up the "Service Racking" window.



"Service Racking" window

8. Enter the value in the "VPK" line using the linear regulator.

-18	Correction to the left (1 step = $0.18 - 0.25$ mm, according to the machine gauge)
+1+8	Correction to the right (1 step = $0.18 - 0.25$ mm, according to the machine gauge)

- 9. Confirm input.
 - \triangleright The needle bed moves lightly to the left or right.
- 10. Repeat steps 2 to 9 until the needle hook of the front needle dips into the pelerine spring of the rear needle.
- 11. The NPK values are automatically saved in the data specific to the machine (dongle data).
- ► The setting process is complete.



- → on a USB memory stick [■ 423]
- → on a network drive (button "Copy Dongle") [
 188]

Further information:

■ Helpful knitting rows [-> 350]



4.2.10 Adjusting basic racking correction VGK

The position of the rear needle bed relative to the front needle bed is set with the VGK value (factory setting).

If part of the racking device is replaced, e.g. the racking motor or the racking belt, the VGK value has to be set anew. During installation, make sure that the front and rear needle beds are opposite each other.

The VGK value always remains saved, even if the operating system is imported again.

Key	Function
	Call up the "Service" menu
	Call up the "Service Racking" window
\checkmark	Confirm input
₩€	Call up "Main menu"

Keys for setting VGK value

Setting VGK:

- ✓ Cast-off the stitches on both needle beds.
- 1. Call up "Main menu".
- 2. Call up the "Service" menu.
- 3. Call up the "Service Racking" window.



"Service Racking" window

4. Enter and confirm the value "0" in the line "VPK".

- 5. Tap the "Racking adjusting run" key. A message appears, answer this with "Yes".
 - ▷ The needle bed moves to the left and right. The racking will be synchronized.
- Tap the "Reference run V>REF" key. A message appears, answer this with "Yes".
 - ▷ The needle bed moves to the left and right. The racking is carrying out a reference run.
- 7. Program an empty row with half racking and fix the knitting instruction.
- 8. Push up several opposing needles at various positions of the needle bed (left, center, right) on both needle beds until the needle hooks touch each other.
- 9. Check whether the needle heads of the front and rear needle bed are exactly in a line.
- 10. If this is not the case: Push back needles somewhat so that they do not touch each other anymore. In the "VGK" line, enter the value using the linear regulator.

-1150	Correction to the left (1 step = 0.01 mm)
+1+150	Correction to the right (1 step = 0.01 mm)

11. Confirm input.

 \triangleright The needle bed moves lightly to the left or right.

- 12. Check whether the needle heads of the front and rear needle bed are exactly in a line.
- 13. If this is not the case, repeat steps 10 to 12 until the needle hooks of the front and rear needle beds are exactly positioned in one line.
- 14. The VGK value is automatically saved in the data specific to the machine (dongle data).
- 15. Adjust VPK value (see [
 193]). (To be able to determine the VGK value you had to set the VPK value to "0" (in step 4). After having determined the VGK value you must set the VPK value again.)
- ► The setting process is complete.

If you want, you can save the VGK-value additionally:

- → on a USB memory stick [
 423]
- → on a network drive (button "Copy Dongle") [
 188]

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Wrong selection - individual needles miss-knit

If a wrong selection occurs, then the synchronisation "Impulse sensor – control – selection system" is not optimal anymore. This has been caused by the big difference between the old and new VGK values.

→ The test "Needle selection displacement" must be carried out for re-establishing the synchronisation [■ 397].

Further information:

■ Helpful knitting rows [-> 350]

4.2.11 Correcting position of stitch cams

Each stitch cam can be corrected for each carriage direction

- for knitting with the normal stitch tension
- for knitting with to the second stitch tension

Reduce stitch tension: Value without sign or with "+" sign

Increase stitch tension: Value with "-" sign

The second stitch cam of a system is always corrected, as only it is active.

The stitch cams are numbered consecutively from left to right, regardless of the carriage direction.



Numbering of stitch cams for a 3-system machine

	Meaning
System 1 - n	Number of knitting system counted from left to right
<<	Carriage direction to the left
>>	Carriage direction to the right
NPK	Correction value for knitting (Normal stitch tension)
NPSK	Correction value for knitting (Second stitch tension)

Meaning of displays in "NPK / NPSK" window

STOLL

KNIT AHEAD

Key	Function
	Call up the "Service" menu
	Call up the "Basic settings" menu
	Call up "NPK / NPSK" window
-	Reduce current value by one step
+	Increase current value by one step
\checkmark	End the setting process and save the changed values.
₩€	Call up "Main menu"

Keys for correction of stitch cam position (NPK and NPSK value)

Correcting position of stitch cams:

1. Call up "Main menu".

÷.

- 2. Call up the "Service" menu.
- 3. Call up the "Basic settings" menu.
- 4. Call up "NPK / NPSK" window.
- 5. Enter the correction values and confirm the changes.
 - The values are automatically saved in the data specific to the machine (dongle data).
- The setting process is complete.
 - If you want, you can additionally save the values:
 - → on a USB memory stick [
 423]
 - → on a network drive (button "Copy Dongle") [
 188]

STOLL

4.2.12 Adjusting needle brushes

The needle brushes must be adjusted when errors occur during stitch formation, e.g. drop stitches.

The needle brushes open the needle latches for laying in the thread. They are swivel-mounted so, that they are always inclined in the direction of travel of the carriage assembly.



Inclination of needle brushes

The needle brushes are correctly adjusted when

- the brushes project an equal distance over both sides of the holder The markings on the brush are visible on both sides.
- the canted surfaces (3) opposite each other
- the brushes do not touch the needle hooks of the fully raised needles (RR). The distance (4) is to be 0.5 mm to 1 mm.

Key	Function
	Call up "Manual interventions" window

Key for calling up "Manual interventions" window

Adjusting needle brushes:

- 1. Release hexagon nut (1).
- 2. Adjust needle brush at screw (2).
- 3. Retighten hexagon nut (1).
- 4. Adjust needle brushes on all systems.
- 5. Call up "Manual interventions" window.
- 6. Move carriage assembly at low speed. To do this, press "Move stepwise" button and check the setting of the needle brushes.

4.2.13 Adjust thread clamp

The thread clamp comprises of a plate spring that presses against a clamping piece. The thread clamp can take up a specific number of threads. If this is exceeded the other threads are not clamped. In order to avoid this, the gap width (clamping force) of the clamping plate is adjustable.

The optimal column width is dependent on:

- the gauge of the machine
- the thickness of the inserted threads
- the number of threads that are clamped

Adjust thread clamp:

- ✓ The thread clamp is closed.
- 1. Loosen the screw (1) on the clamping piece.



Adjusting thread clamp

- 2. Adjusting gap width. For this purpose, set the position of the clamping piece with a feeler gauge (standard setting: 0.1 mm ± 0.05).
- 3. Tighten the screw (1).
- 4. Control the setting while the machine is knitting.

Setting	Explanation
correct	 When the thread clamp holds all the threads securely in the clamp, till they get pulled from the clamp by the tensile force of the fabric. the clamping plate is opened through a command in the knitting program.
false	The thread jumps on the needle bed and creates interruptions.

4.2.14 Assembling and adjusting presser foot

Assemble presser foot

STOLL

KNIT AHEAD

bot For doing this, proceed as follows:

- 1. Program an empty row and fix the knitting instruction.
- 2. Start machine with the engaging rod and stop again when the carriage is located over the needle bed.
- 3. Assemble the corresponding presser foot.



Adjust the presser feet

- 4. Place the presser foot on the support. Tighten the screws (1) only slightly as the presser foot must still be adjusted exactly.
- 5. The distance from the presser foot to the upper edge of the holder (2) is about 1.2 to 2 mm.

The presser wire (3) is located exactly between the two needle beds.

Adjust presser foot		
	Key	Function
	₩€	Call up "Main menu"
		Call up the "Service" menu
	NK&W	Call up the "Service K&W" menu

Keys for adjusting the presser feet

For doing this, proceed as follows:

- 1. Call up the "Service" menu from the "Main menu".
- 2. Call up the "Service K&W" menu.
- 3. Switch on the corresponding presser foot.

😰 Service K&W		STOLL THE RIGHT WAY TO KNIT
Rear presser foot unit active		
Yes No Yes No Yes		
Front presser foot unit active		
No Yes Yes Yes		
Test yarn guide bow	left 🍚	right 🌍
Test clamping plate	left 🍚	right 🍚

"Service K&W" menu

4. The presser wire must not touch the holding-down jacks.



Adjust presser foot

5. In order to check this, you can take two spacing plates (4) (thickness 0.2 mm) and insert these between the holding-down jacks and the presser wire.



Check position of the presser foot.

6. Tighten the screws (1).



4.2.15 Adjusting needle detector

The needle detector is correctly adjusted if:



Adjusting the needle detector

- it is near the holding-down jacks of the rear needle bed, however does not tap them
- the lower end of the needle detector is at the level of the needle hooks

^	CAUTION
<u>/!\</u>	Damage to the needle detector!
_	If several yarn carriers are stopped at the same place, the needle detector will be damaged, as the yarn carriers cannot avoid the needle detector.
	➔ Always stagger yarn carriers.

Staggering yarn carriers.

Further information:

Staggering yarn carriers [-> 137]

4.2.16 Adjusting yarn carriers

The yarn carriers are correctly adjusted if

- the distance between the cam center of the knitting system and the yarn carrier in each system is identical in both carriage directions
- the thread is laid on the open latch at exactly the same point by each yarn carrier for both selvedge needles
- the yarn carrier tips move exactly between the needle beds in the needle cross and the distance between yarn carrier tips and the closed needle latch is 0.5 mm to 1 mm
- the yarn carriers of the track 1 and 8 are also set 0.5 mm higher so that they do not touch the limiters (3)

Key	Function
	Call up "Manual interventions" window

Key for calling up "Manual interventions" window

Adjusting yarn carriers:

1. Remove needle brushes by loosening screws (1).



Screws of needle brushes

- 2. Park the carriage assembly in needle space.
- 3. Adjust yarn carriers if necessary. When doing so, the carriage assembly must be stopped in the needle area.





Adjusting yarn carriers

- 4. Call up "Manual interventions" window.
- 5. Move carriage assembly at low speed. To do this, press "Move stepwise" button and check adjustment of yarn carriers.

Further information:

■ Replacing yarn carrier [-> 381]



4.2.17 Adjusting yarn carrier limiters

Set the yarn carrier limiter so that they are positioned staggered after the yarn clamping and cutting device.

Adjusting yarn carrier limiters:



Adjusting yarn carrier limiters

- 1. Push the yarn carrier (1) on track 1 so far outwards that it is positioned after the bow (2).
- 2. Loosen the screws (3) on the yarn carrier limiter.
- 3. Displace the yarn carrier limiter until it is about 8 mm away from the yarn carrier (1).

At this distance, the edge of the yarn carrier carriage and the start of the bevel at the yarn carrier limiter are located at the same height.



- 4. Retighten the screws (3).
- 5. Push the yarn carrier limiter (8) on the track 8 so far outwards that it is positioned shortly before the replacement point (A).
- 6. Position the yarn carrier limiter of the track 2 to the track 7 staggered.

4.2.18 Adjusting yarn carrier guide

The yarn carrier guide must be adjusted if the yarn carrier can be lifted from the yarn carrier rail or a yarn carrier plunger is not put out of action.

Adjusting yarn carrier guide:

1. To check whether the yarn carrier can be lifted from the yarn carrier rail, take the left and right sides of the yarn carrier housing in both hands and move the yarn carrier housing upward and downward.



Adjusting yarn carrier guide

- 2. If necessary push the setting key inwards with the adjusting key from the accessories till the yarn carrier cannot be raised erect any more.
- 3. Turn the setting key back by one-eighth of a turn.

4.2.19 Adjusting the brushes of the central lubrication

The brushes have been adjusted correctly if they touch the working butts lightly.



Brushes of the central lubrication

Adjusting the brushes of the central lubrication:

- 1. Release hexagon nut (2).
- 2. Adjust brushes on hexagon nut (1).
- 3. Retighten hexagon nut (2).
- 4. Adjust all brushes.

STOLL

KNIT AHEAD



4.2.20 Adjusting intarsia yarn carriers *

The yarn carriers are correctly adjusted if

- an unswiveled yarn carrier passes by a swiveled yarn carrier
- the distance between the cam center of the knitting system and the yarn carrier in each system is identical in both carriage directions
- the thread is laid on the open latch at exactly the same point by each yarn carrier for both selvedge needles
- the yarn carrier tips move exactly between the needle beds in the needle cross and the distance between yarn carrier tips and the closed needle latch is 0.5 mm to 1 mm
- the yarn carriers of the track 1 and 8 are also set 0.5 mm higher so that they do not touch the limiters (3)

Adjusting intarsia yarn carriers:

1. Remove needle brushes by loosening screws (1).



Screws of needle brushes

2. Park the carriage assembly in needle space.



Adjusting the intarsia yarn carriers

- 3. To adjust the height of the yarn carrier, loosen the screw (1).
- 4. Adjust the height of the yarn carrier and retighten the screw (1).
- 5. To adjust the position of the yarn carrier head relative to the needle beds, loosen the screw (2).

6. Adjust the position of the yarn carrier head relative to the needle beds, retighten the screw (2) and coat it with a screw locking compound (e.g. Loctite 221).

Further information:

STOLL

KNIT AHEAD

- Symbols in this document [-> 16]
- Mount intarsia yarn carrier * [-> 381]

4.2.21 Shifting intarsia yarn carriers in area of carriage assembly *

Intarsia yarn carriers located in the area of the carriage assembly cannot be shifted by hand. They are shifted with the shifting device from the accessories.

Shift yarn carriers in area of carriage assembly:



Shifting device

→ Press the lifters inward with the shifting device from the accessories and shift one or more yarn carriers out of the area of the carriage assembly.

Further information:

Symbols in this document [-> 16]

4.2.22 Intarsia yarn carrier - Adjust stopping point (basic setting, braking value) *

With an intarsia yarn carrier it is important that it is stopped exactly above the last needle of its knitting area. Otherwise the following error possibilities will be:

During the knitting it may cause erroneous switchings as the control calculated the yarn carrier on another position than it is actually located on.

Consequence: The yarn carrier is not swivelled or it is not taken along.

The yarn can be knitted-in and this way an uncleaned colour edge would be the result.



Stopping position (on the left: wrong, on the right: correct)

If the intarsia yarn carrier does not stop exactly above the last needle, you have to correct the braking value and **not** the correction value.

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Difference: braking value - correction value

Braking value: mechanical adjustment of the yarn carrier Correction value: knitting-technical and pattern related correction of the yarn carrier

An adjusting program is available for controlling the stopping positions. With this program you can easily check and adjust the braking values of the intarsia yarn carrier.

When creating the intarsia pattern on the M1plus (starting with version 5.3) you specify that the adjusting program is to be integrated in the pattern.

On the knitting machine you run the adjusting program before or also during the production. An embroidery stitch line is knitted with all the Intarsia yarn carriers used in the pattern for you to be able to check the correct stopping position quickly and easily.

You can correct the stopping position of the yarn carrier changing the braking values for the yarn carrier.

Further information:

Symbols in this document [-> 16]

Advanced adjustments 4.2

Which yarn carriers are located on the machine.

KNIT AHEAD

STOLL

Carry out this section:

- with machines without clamping and cutting bed
- if the clamping and cutting bed is switched off
 - 1 Only with these machines you can change the yarn carrier equipment.

With all the other machines there is predefined a permanent yarn carrier equipment that cannot be changed. The functions "Move", "Delete", "Activate" are deactivated (grayed out). -> Skip this section. It continues on Page [
215].

Check the yarn carrier equipment before the production starts. It is possible that the number of the yarn carriers has changed:

- several yarn carriers were removed for the previous pattern
- more (or less) yarn carriers are needed for the new pattern

The computer has to know about the new yarn carrier equipment to be able to allocate its specific braking value to every yarn carrier and also to a new yarn carrier.

Key	Function
	Call up the "Yarn carrier" window
	Call up the "Yarn carrier braking values" window
✓←	Save changes and end setting process
	Call up "Additional function keys"
	Reset the default setting of yarn carrier arrangement
₩€	Call up "Main menu"

Keys for calling up the yarn carrier braking values

STOLL

Correcting the stopping position of the yarn carrier:

- ✓ The knitting program must not be started (the "SP from line 1" key in the "Machine start " window must not be activated)
- 1. Call up the "Yarn carrier" window.
- 2. Call up the "Yarn carrier braking values" window.
 - \triangleright The last yarn carrier equipment saved is displayed.

Straking	values				STOLL THE RIGHT WAY TO KNIT
8	8.1 YB: 0 0	8.2 YB: 0 0	8.3 YB:0 0	8.4 YB: 0_0	
7	7.1 YB: 0 0	7.2 YB:0 0	7.3 YB:00	7.4 YB: 0_0	
6	6.1 YB:00	6.2 YB:0 0	6.3 YB:0 0	6.4 YB: 0 0	
5	5.1 YB:00	5.2 YB:0 0	5.3 YB:00	5.4 YB: 0 0	
4	4.1 YB: 0 0	4.2 YB:0 0	4.3 YB:0 0	4.4 YB: 0 0	
3	3.1 YB: 0 0	3.2 YB: 0 0	3.3 YB:00	3.4 YB: 0_0	
2	2.1 YB: 0 0	2.2 YB:0 0	2.3 YB:0 0	2.4 YB: 0_0	
1	1.1 YB: 0 0	1.2 YB:0 0	1.3 YB:0 0	1.4 YB: 0 0	

"Yarn carrier braking values window"

2.1 YB:0 0	Yarn carrier present.
7.3	The yarn carrier is not present. It has been deleted manually.

- A maximum of 4 yarn carriers can be located on each yarn carrier track. The counting is carried out from the left to the right: n.1, n.2, n.3, n.4. (This is called a physical numbering.)
- If a yarn carrier is present, then its braking values are displayed.
- In the middle of the window you can see a vertical separating line. at the left of the separating line: The yarn carriers are positioned on the left machine side at the right of the separating line: The yarn carriers are positioned on the right machine side
- 3. Check the displayed yarn carrier equipment.
- 4. If necessary adapt the yarn carrier equipment to the new pattern (yarn carrier home position).

5. Cick the required yarn carrier.

 \triangleright The setting window appears.



	the left hand-side.
to the right	Only possible if no other yarn carrier is located on the right hand-side.
Only the rig	htest yarn carrier can be deleted.
Delete from	h the right to the left.
i: Delete the r	he yarn carrier only if you really are going to remove
it from the r	machine. Its braking values are deleted.
If you reass	wembly the yarn carrier, then the braking values must
be redetern	nined.
Reactivate	a deleted yarn carrier.
Activate fro	m the left to the right.
If two or mo	re yarn carriers are to be activated, then activate the
yarn carrier	furthest to the left first.
	to the right Only the rig Delete from i : Delete th it from the r If you reass be redetern Reactivate Activate fro If two or mo yarn carrier

i: If an action is not possible, the key is inactive (gray)

- 6. Save changes and end setting process for this yarn carrier.
- 7. Repeat the steps 5 to 6 until all the yarn carriers are located on their correct positions (yarn carrier home position).
- 8. Call up "Main menu".

Further information:

■ Checking the braking values with the adjusting program [-> 215]

Checking the braking values with the adjusting program

An adjusting program is available for controlling the stopping positions. An embroidery stitch line is knitted with all the Intarsia yarn carriers used in the pattern for you to be able to check the correct stopping position quickly and easily.



When creating the intarsia pattern on the M1plus (starting with version 5.3 or higher) you specify that the adjusting program is to be integrated in the pattern. For this purpose activate the "Generate adjusting program" check box ("Pattern parameters" -> "Configuration" -> "Intarsia tab" -> "Valuate braking values for Intarsia yarn carriers" section).

On the knitting machine you run the adjusting program before or also during the production.

- All the intarsia yarn carriers, which are used in the pattern and swivel, are included in the adjustment program.
- Depending on the number of yarn carriers and the fabric width, the intarsia yarn carriers will be distributed on one or more partial programs.
- Program start: Set the cycle counter "RS39" ("RS18" with Setup1) to "1" After the program start the "RS39" is automatically set to the value "99" to ensure that a sufficient number of knitting rows is knitted for the adjustment of the yarn carriers.
- Proceed to the next partial program: with the "ctrl W" key
- Program end: set with the "ctrl W" key or the cycle counter "RS39" to "0".

What is the structure of the adjustment program?



Advanced adjustments 4.2

Check the braking values

Key	Function
	Call up "Machine start" window
#05	Call up the "Cycle counters & counters" window
	Call up the "Yarn carrier" window
	Call up the "Yarn carrier braking values" window
√←	Save changes and end setting process
<	End setting process without saving changes return to the "Yarn carrier braking values" window
	Call up "Additional function keys"
YB:#→00 YB:#→00 YB:#→00 YB:#→00	Reset the braking values to standard values (with the machine stopped only)
ctrl W	 proceed to the next partial program. Exit the adjustment program.

Keys to check the braking values

Checking the braking values:

- ✓ If there are yarn carrier correction values entered in the knitting program, they have to be set to "0" temporarily. The correction value affects the stopping time and falsifies the checking of the braking value. (Note the correction values so that they can be entered again later on).
- 1. The knitting program is loaded and started (the "SP from line 1" key in the "Machine start " window)
- 2. Call up the "Cycle counters & counters" window, and set "RS 39" to "1" (Start adjustment program) (Setup1: RS18=1).
 - \triangleright The adjustment program is called up.
- 3. Start the machine with the engaging rod.
 - \triangleright The first part of the adjustment program is started.
4.2 Advanced adjustments

- 4. Knit some rows.
- 5. Check the stopping position of the different yarn carriers.



- 3 Correct stopping position (right color field edge) The yarn is located vertically, at the right of the needle center.
- 6. If the stopping position is wrong correct the braking value for the yarn carrier.
- 7. Call up the "Yarn carrier" window.
- 8. Call up the "Yarn carrier braking values" window.

ë YC braking	values				STOLL THE RIGHT WAY TO KNIT
8	8.1 YB: 0 0	8.2 YB:00	8.3 YB:00	8.4 YB: 0_0	
7	7.1 YB: 0 0	7.2 YB: 0 0	7.3 YB: 0 0	7.4 YB: 0_0	
6	6.1 YB: 0 0	6.2 YB:00	Y-6A N A YB: 0 0	6.4 YB: 0 0	
5	5.1 YB: -4 -6	5.2 YB: 9 9	Y-5A N A YB: 0 0	5.4 YB: 0 0	
4	4.1 YB: 9 9	Y-4A N A YB: 9 9	Y-4B N A YB: 0 0	4.4 YB: 0 0	
3	3.1 YB: 0 0	3.2 YB:00	Y-3A N A YB: 2 3	3.4 YB: 0_0	
2	2.1 YB:0 0	Y-2A N A YB: 0 0	Y-2B N A YB: 0 0	2.4 YB: 0 0	
1	1.1 YB: 0 0	Y-1A N A YB: 0 0	1.3 YB:00	1.4 YB: 0 0	

"Yarn carrier braking values" window

Y-3A N A YB: 2 3	Yarn carrier designation (Y-3A) (Sintral numbering)
	Display of the yarn carrier type (N)
	Display of the yarn type (A)
	Braking value (YB) left: 2, right: 3
2.1 YB: 0 0	The yarn carrier is present (is not used in the current knitting program)

9. Tap on the corresponding yarn carrier.

Advanced adjustments 4.2



\triangleright The setting window appears.

Ba: braking value leftValue range: -9...0...9.Bb: braking value rightStep width: 1=1/32 inch=0.8 mmDefault: 0

i: In case of large deviations from the default value appears a note prompting you to check the yarn carrier.

- 10. Enter the braking value (Ba, Bb).
 - -1...-9: if the yarn carrier is stopped to late (after the needle)
 - +1...+9: if the yarn carrier is stopped to early (before the needle)



- 11. Save changes and end setting process for this yarn carrier.
- 12. If the stopping position of further yarn carriers is wrong repeat the steps 9 to 11.
- 13. Knit some rows.
- 14. Check the stopping positions. If necessary, repeat the steps 9 to 11.
- 15. Repeat several times the checking of both swivel directions of the intarsia yarn carrier.
- 16. If there are further yarn carriers to be checked, then proceed to the next partial program. (Additional function keys ->"ctrl W" key).
- 17. Repeat the steps 9 to 15.

4.2 Advanced adjustments



18. If all of the yarn carriers are checked, tap the "ctrl W" key. It will be proceeded to the next partial program automatically.

- or -

- → If all the partial programs are processed, the adjustment program is automatically exited and the production is started.
- The checking is completed.

i	If you have set the yarn carrier correction values to "0", then enter the noted values in the knitting program.		
i	→ If some braking values are modified, then the data are automatically saved in the data specific to the machine (dongle data).		
	→ The braking values do not depend on the patterns, but on the machine. These data are therefore not deleted when a new knitting program is loaded.		
	• The bushing a selection of the second		

- The braking values always remain saved, even when the operating system is loaded again.
- → If the braking values are no longer required, they have to be reset to "0" manually.
- → Check the braking values from time to time as the conditions may change.
- → With tandem operation: Separate braking values cannot be entered for the yarn carriers in the right carriage.

Possible reasons for the wrong stopping position

- Different lubrication
- Different cleaning of the yarn carrier rails
- Temperature variation during the production
- Adjusting yarn carrier guide
- Pressure plates are worn
- The yarn carrier is bent (very different braking values for the left and the right-hand side)

- Adjusting yarn carrier guide [-> 208]
- Intarsia yarn carrier check the pressure plates * [-> 220]

4.2.23 Intarsia yarn carrier - check the pressure plates *

Turning over or replacing the small pressure plates (intarsia yarn carrier type 1)

KNIT AHEAD

STOLL

1. Dismantle yarn carrier.



Dismantling of small pressure plate

- 2. Loosen but do not remove the screws (1).
- 3. Lift the clamping lever (2)out of the locating screw (3) and remove it. When doing this, make sure that the spring pin (5) remains in the housing (4).
- 4. Check whether the thickness designation 2.04 or 2.06 is visible on the built-in pressure plate.
- 5. Remove the pressure plate from the clamping lever.



CAUTION

Complicated adjustment work is required when replacing the pressure plates!

If the various thicknesses and positions of the pressure plates are interchanged, complicated adjustment work is required to set the stopping point of the yarn carrier correctly.

- → Do not interchange the various thicknesses and positions of the pressure plates!
- 6. If the marking 2.04 or 2.06 was visible on the built-in pressure plate, turn over the pressure plate and reinsert it.

- or -

- → If the marking 2.04 or 2.06 was not visible on the built-in pressure plate, insert a new pressure plate of the same thickness with the marking facing upward.
- 7. Press the spring pin (5) into the spring part (4) and insert the clamping lever (2).
- 8. Tighten the screws (1).
- 9. Make sure that the lifter (6) moves smoothly.

- Replacing yarn carrier [-> 381]
- Symbols in this document [-> 16]

4.2 Advanced adjustments



4.2.24 Intarsia yarn carrier - Correct stopping point (correction value) *

Key	Function
	Call up the "Yarn carrier" window
T	Call up the "Adjusting yarn carrier" window

Keys for correcting the stopping point

- 1. Call up the "Yarn carrier" window.
- 2. Tap the "Adjusting yarn carriers" key.
- 3. Enter the yarn carrier correction value.
- 4. Confirm entries.
- 5. Return to the "Yarn carrier" window.

- Adjusting yarn carriers [-> 132]
- Intarsia yarn carrier Adjust stopping point (basic setting, braking value) * [-> 211]
- Intarsia yarn carrier check the pressure plates * [-> 220]
- Adjusting yarn carriers (Setup2) [-> 134]
- Adjusting yarn carriers (Setup1) [-> 136]
- Symbols in this document [-> 16]

Advanced adjustments 4.2

		Remarks	Gauge / Machine
1 yarn carrier (assembled on one yarn carrier rail)	Double bow yarn carrier	 For thin, elastic yarn (e.g. lycra) adjustable engaging width The left and right engaging widths may be different Special yarn carrier Clamping/cutting (setting: 2x8) 	All gauges, except E3, E4 Further information [
2 yarn carriers (assembled on two yarn carrier rails)	Yarn carrier carriage with adjustable engaging width	 Engaging width individually adjustable (26 to 46 mm) The left and right engaging widths may be different 	All gauges, except E3, E4 not for: CMS 520 C CMS 830 C Further information [🗎 225]
2 yarn carriers (assembled on two yarn carrier rails)	2 yarn carrier carriages	 The cheapest solution: Only one additional yarn carrier carriage (43 or 46 mm) has to be bought. The yarn carrier bow will be taken from a normal yarn carrier. Different yarn thicknesses can be processed (different yarn carrier bows are usable). Non-adjustable engaging width 	E5 E7 E8 E2,5.2 E3,5.2 E5.2 CMS 730 S CMS 830 S

4.2.25 Plating – the different possibilities

Further information:

Symbols in this document [-> 16]

STOLL

KNIT AHEAD

4.2 Advanced adjustments



4.2.26 Plating - Double bow yarn carrier

Clamping and cutting bed 2x16

When using 16 times clamping / cutting, every other clamping / cutting point has to be deactivated to ensure that both threads are reliably clamped and cut.

Carry out the settings in the "Machine Configuration 2" window. (BootOkc --> Restart and Configuration --> Machine configuration 2) Setting: 2x16/8

Further information:

Adjust the double bow yarn carrier



1	Central bow (fixed)	Plating Yarn
2	Follower bow (movable, following the central bow)	Basic Yarn

- Central bow (1) adjust height:
- 1. Loosen the screw (3) (turn by 90 degrees).
- 2. Adjust the central bow the same way as the normal yarn carrier.
- 3. Retighten the screw.
- Follower bow (2) adjust height:
- 1. Loosen both screws (4) (turn by 90 degrees).
- Adjust the height turning the screw (5).
 Standard setting: 2 mm higher than the central bow.
- 3. Retighten both screws (4).
- 4. Turn the screw (5) enough to prevent it from touching the upper or lower edge. If the screw is making contact, then the yarn carrier does not move smoothly and will be damaged.

Advanced adjustments 4.2

Follower bow (2) - carry out the lateral adjustment:

Thread the double bow yarn

carrier

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- 1. A screw is located in the boring (6). Adjust it with an Allen key (2 mm) (Setting range: 0 2 mm).
- 2. The distance from the bow (2) to the bow (1) can be set individually on each side. A scale simplifies the setting of the distance.



Adjusting the distance for the left side (distance visible on the right scale)





Colored plating pattern

The light, visible thread on the fabric front side is the plating yarn (threaded in the fixed central bow)

The dark thread is the basic yarn (threaded in the movable follower bow)

i When an elastic thread is knitted, it is said that it is plated which is technologically not quite correct. The yarn is actually knitted with the plating process, and from the technological point of view, the elastic thread is the basic yarn, and the visible one is the plating yarn.

4.2 Advanced adjustments



4.2.27 Plating - Plating yarn carrier carriage

Not for CMS 520 C, CMS 830



Two yarn carriers which differ depending on the engaging width (1) on the yarn carrier carriage, are used for plating with normal yarn carriers. The engaging width is adjustable individually (23-46 mm) on this yarn carrier carriage.

Combination possibilities of the yarn carriers:

- 2 plating yarn carrier carriages
- 1 standard yarn carrier, and 1plating yarn carrier carriage

Example for a plating pattern



Colored plating pattern

The light, visible yarn on the fabric front side is the plating yarn (yarn carrier with the smaller engaging width)

The dark yarn is the basic yarn (yarn carrier with the larger engaging width)

When an elastic thread is knitted, it is said that it is plated which is technologically not quite correct. The yarn is actually knitted with the plating process, and from the technological point of view, the elastic thread is the basic yarn, and the visible one is the plating yarn.

Clamping and cutting bed 2x16

When using 16 times clamping / cutting, every other clamping / cutting point has to be deactivated to ensure that both threads are reliably clamped and cut.

Carry out the settings in the "Machine Configuration 2" window. (BootOkc --> Restart and Configuration --> Machine configuration 2) Setting: 2x16/8

Advanced adjustments 4.2

Setting

STOLL

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Adjust engaging width:

- 1. Loosen both screws (1).
- 2. Push insert (2) into the desired position. A scale simplifies the adjustment.
- 3. Retighten both screws (1).
- 4. Repeat the setting process for the other side.

The entire engaging width consists of the value for the left (Ua) and the right (Ub) hand-side.

Both values may be equal (symmetrical setting) or may differ.

Recommended engaging width (specifications in millimetres)

Gauge	ahead	following
E10 E12 E14	29	43
E16 E18 E6.2	Ua: 14.5	Ua: 21.5
E7.2 E8.2 E9.2	Ub: 14.5	Ub: 21.5
E5 E7 E8	29	46
E2,5.2 E3,5.2	Ua: 14.5	Ua: 23.0
E5.2	Ub: 14.5	Ub: 23.0
CMS 730 S CMS 830 S	33 Ua: 16.5 Ub: 16.5	42 Ua: 21.0 Ub: 21.0

The engaging width of the standard yarn carrier is 29 mm (CMS 730 S, CMS 830 S: 33 mm).

4.2 Advanced adjustments



Settings on the knitting If you change the engaging width, you have to enter the changed values machine (Ua, Ub).

- Setup2: "Yarn carrier" window ->"Adjust yarn carrier" window-> "Y:Uab / Y:Ncc" tab
- Setup1: "Yarn carrier" window -> "Adjust yarn carrier" window



<u>/!\</u>	

CAUTION Computer viruses!

Loss of data or production. Computer viruses can creep into the machine through unscanned data via USB port or network.

→ Bring in only virus free data on to the knitting machine.

This chapter contains information on:

- Help on working in the windows [-> 228]
- File manager [-> 234]
- Working with files, libraries and folders [-> 238]
- Displaying file in pattern editor [-> 243]
- Clear knitting memory [-> 245]
- Copying files [-> 247]
- Selecting the current folder [-> 250]
- Carrying out a program check [-> 253]

4.3.1 Help on working in the windows

The following help items should be heeded so that you may work in the various windows.

Call up direct help

Key	Function
▶?	Call up "Direct Help" for the key pressed next

"Direct help" key

→ To receive direct help on a specific key in the menu, first tap the "direct help" key and then the key for which you want help.

Positioning cursor The text is entered at the point at which the cursor (insert mark) is located.

→ To move the cursor to a certain position, touch that position.



Marking text A word or a text block is marked for being copied, moved or deleted.

- 1. To mark a word, tap the word twice.
- 2. To mark a line, tap the line three times.
- 3. To mark a text block, drag your finger from the starting position to the end position.

- or -

On the 1st level of the SINTRAL editor, use both keys "Set beginning of a marking" and "Set end of a marking".

- Deactivating marking
- → To cancel a marking, touch any spot.

Setting/deactivating write protection

Key	Function
	"Set Write Protection": Set write protection of the selected file
×	"Deactivate Write Protection": Deactivate write protection of the selected file

"Activate write protection" and "Deactivate write protection" key

→ If a write-protected file is loaded, the information "Write protection" appears in the status line of the SINTRAL editor.

Entries in selection window

Selection windows are open when some keys are selected. The following entry is possible:

- a text can be entered with the virtual keyboard
- a selection occurs manually by tapping a key

The entries must be confirmed by the "Confirm entry" key.

Key	Function	Key	Function
+	Return to the 1st level in the SINTRAL editor	✓←	Confirm input and run in the SINTRAL editor

Function keys in the selection windows

STOLL

Call up "Search" selection window

The corresponding location is sought when you enter line numbers or text and select the keys.

Key	Function
#	"Search": search for a specific term
<u></u>	"Carry on searching": Continue searching for a certain term

"Search" and "Continue" keys

- 1. Call up the "Search" selection window with the "Search" key.
 - \triangleright The "Search for" window appears.

Search for:		√←
with upper/lowercase	Search direction	
Search from beginn	Upwards Downwards	←

"Search" selection window

- 2. Enter the line number or text to be searched for with the virtual keyboard.
- 3. Select options for uppercase/lowercase letters and the search direction.
- 4. To start the "Search from begin", select the "Yes" key.

- or -

- → Select the "No" key if you only want to search from here.
- 5. To activate the search, tap the top arrow key,

- or -

- → To exit the window, tap the bottom arrow key.
- 6. To find other instances of the text, tap the "Continue" key,

- or -

➔ To start the next search, enter a new line number or text with the virtual keyboard.



Call up "Replace" selection window

This is replaced in the loaded file by entering line numbers and commands and selecting the keys.

Key	Function
	"Replace": search for a certain term and replace it by a new one

"Replace" key

- 1. Call up the "Replace" selection window. Answer the safety prompt.
 - \triangleright The "Replace by" window appears.

Search for:		✓←
with upper/lowe All	rcase Search direction Upwards Downwards	~

"Replace" selection window

- 2. Enter the text to be replaced via "Search for" with the virtual keyboard.
- 3. Enter the text to be inserted via "Replace by" with the virtual keyboard.
- 4. Selecting the "All" key, the text (without prompt in Item 7) is replaced throughout the entire file.
- 5. Select options for uppercase/lowercase letters and the search direction.
- 6. To activate the search, tap the top arrow key,

- or -

➔ To exit the window, tap the bottom arrow key.



 Answer the question in the newly opened selection window. Press the key "1" to confirm.

- or -

→ For repeated prompting, press the "0" key if the term is only to be replaced once.

- or -

→ Press the "ESC" key to cancel.

Call up "Go to" selection window

KNIT AHEAD

STOLL

You can jump to the corresponding point in the loaded file by entering line numbers or names and selecting the keys.

Key	Function
	"Go to" a certain position

"Go to" key

- 1. Call up the "Go to" selection window with the "Go to" key.
 - \triangleright The "Go to" window appears.

	 Sintral line Editor line Label
Go to:	← ✓←

Selection window for "Go to" function key

- 2. Enter the line number or name to be searched for with the virtual keyboard.
- 3. To go to Sintral line numbers, tap the "Sintral line" key,

- or -

→ To execute a real line jump, tap the "Editor line" key,

- or -

- → To jump to the named line, tap the "Label" key.
- 4. To activate the search, tap the right arrow key,

- or -

→ To exit the window, tap the left arrow key.

Automatic calling of virtual keyboard is automatically activated when various function keys are selected. Either a number block appears for inputting numbers or an alphanumeric keyboard appears for entering letters and numbers.

The virtual keyboard contains three switchover keys:

- SHIFT key
- CPS LCK key
- CTRL key

To use a switchover key, e.g. to enter a special character, first press the switchover key and then the key with the special character. To return to normal characters, press the switchover key again.

STOLL

KNIT AHEAD

Key	Function
1 2 3 q w e	Switch on virtual keyboard
t 3 t we	Switch off virtual keyboard
SHIFT	SHIFT key: switch over between uppercase and lowercase letters and between numbers and special characters
CPS LCK	CPS LCK key: switch over between uppercase and lowercase letters; the setting of numbers or special characters is maintained
CTRL	CTRL key: switch over to function keys F1 to F10 and keyboard codes (short cuts)

Switchover keys

4.3.2 File manager

Files and folders (directories and images) are managed in "File -Manager" window.



"File manager" window

All actions pertaining to folders are mentioned on the left side. A new folder can be created, for example.

You have access to the following data media:

- USB Memory Stick
- Hard disk of the computer in the knitting machine
- Online
- Network

On the right hand-side the files from the selected folders are displayed. This list of files appears in alphabetical order (standard setting), and the number of existing files is displayed on the status line (Total:).

Setting the sort sequence

The sort sequence can individually be adjusted. To do so, click on the header line (1). Select and confirm the sort sequence in the "Sort by" window.

	cording to	
🍯 File name		
🕑 Туре		
🕝 Machine type		
🕝 Changed on		
Descending		
G Ascending		

Setting the sort criteria

Key	Function
	Call up the "Load & save" window
	Call up "Additional function keys"
	Call up "File manager" window
₩←	Call up "Main menu"

Keys for the "File manager" window

Call up "File manager" window:

- 1. From the "Main menu" call up the "Load & Save" window.
- 2. Call up "Additional function keys".
- 3. Call up the "File Manager" window.

Working with files 4.3

Actions in the "File manager" window

KNIT AHEAD

STOLL



"File manager" window

Key	Function	Key	Function
1¢	"Update": Refresh the contents of all the folders	X	"Delete all": Delete all files in the selected folder
×	"Create folder": Create folder in the selected directory		"Display file": Display selected file
	"Copy folder": Copy selected folder, including contents (subfolders, files) to the target folder.	R CHO	"Rename file": Change name of selected file
×	"Delete folder": Delete selected folder, including contents (subfolders, files)		"Set Write Protection": Set write protection of the selected file
R CHE	"Rename folder": Change the name of the selected folder	×	"Deactivate Write Protection": Deactivate write protection of the selected file
€3	"Update": Update the contents of the folder	?	Call up "Direct Help" for the key pressed next
x	"Delete file": Delete selected file		

Keys in the "File manager" window



Call up the selection window "Create folder" With the selection of a drive or a folder in the list on the left side, the key "Create folder " appears.



"Create folder"key in window "File-Manager"

- 1. Tap the desired folder in the list on the left in which the new folder is to be created.
- 2. Call up the selection window with the key "Create folder".
 - ▷ The window "Create new folder" appears

	Create new folder
Input new name	
	← ✓←

Selection window "Create new folder"

- 3. Enter the name of the new folder with the virtual keyboard.
- 4. To save the new folder, press the right arrow key,

```
- or -
```

→ To exit the window, tap the left arrow key.

- KnitLAN connection [-> 262]
- Selecting the current folder [-> 250]

STOLL

4.3.3 Working with files, libraries and folders

Working with files (Sintral, jacquard, setup), libraries (Auto-Sintral) and pattern folders occurs in the "Load & save".

The file list is divided into machine type, file name, type and changed_on:. Sorting is possible in each of the 4 columns by pressing the column header. In the status line of the list, the number of existing files (total:), the file size and the date/time of the last change to the selected file are displayed.

You have access to the following data media:

- Removable data carrier (on the USB socket) for example: USB-Memory-Stick, floppy disk drive, CD drive, DVD drive, external hard disk
- Hard disk of the computer in the knitting machine
- Online

i

Network drive

If "EALL" is activated when loading, the previously loaded pattern is completely deleted.

Keys	Function
	Call up the "Load & save" window
₩€	Call up "Main menu"

Keys for "Load & save" window

Work with files and folders:

٨	WARNING	
<u>/!\</u>	Data loss!	
	Files and folders might be deleted accidentally if you do not proceed carefully!	
	→ Create a back-up copy of each folder!	

- STOLL H Load & save 코ㅋ코뭐 ◇M & M 🚽 🚽 🖛 SET/ . **\?** EALL EAY SP1 Path: d:\muster Machine type File name Туре Chan PAT SIN JAC SET LIB david-RT jac 2005 СМ\$530 david-RT set 2005 Pattern: CMS530 2005 david-RT sin david-bp jac 2005 2005 Jacquard: david-bp CMS530 sin CMS530 david-bp set 2005 david-ARM jac 2005 2005. Setup: CMS530 david-ARM set david-ARM 2005 CMS530 sin Library: Total: 9 4658 2005-11-16 09:18:31
- "Load & save" window
- 2. Set the desired path with one of the "Direct pattern folder selection" keys.
- 3. Use the PAT/SIN/JAC/SET/LIB keys to select whether the entire pattern of the current machine (PAT) or individual file types are to be listed.
- 4. Select file.
- 5. Select action.
- 6. If an additional prompt appears, tap the "1" key to confirm,

- or -

- → Press the key "0" to cancel.
- 7. Call up "Main menu".

1. From the "Main menu" call up the "Load & Save" window.

Working with files 4.3

Actions in "Load & save" window

KNIT AHEAD

STOLL

📙 Load	& save				STOLL THE RIGHT WAY TO KNIT
코ㅋ코	♠∭♦	ĭ 🔽 🚽 🗗 SEV		?	EALL EAY SP1
Path:	d:\muster				
Machine type	File name	Туре	Chang		
	david-RT	jac	2005	PAT SIN JAC SET	LIB
CMS530	david-RT	set	2005	Detterne	
CMS530	david-RT	sin	2005	Pattern:	
	david-bp	jac	2005		
CMS530	david-bp	sin	2005	Jacquard:	
CMS530	david-bp	set	2005		
	david-ARM	jac	2005		
CMS530	david-ARM	set	2005	Setup:	
СМS530	david-ARM	sin	2005		
				1.1	
1			3	Library:	
Total: 9	4658	2005-11-16 09:18:31	<u> </u>		

"Load & save" window

Кеу	Function
	"Direct folder selection": predefined folder selection
	"Current folder selection": Open the dialog box for definition of the current folder
у Э	Display the content of the Zip file (for Setup2)
<u>F</u>	Close the zip file (for Setup2)
⇔∐	Load selected file and accompanying pattern elements
	Load pattern with selected setup data (for Setup2)
⊛ ∐	Save selected pattern parts in the current folder

Keys in "Load & save" window

Key		Function
		Save pattern with selected setup data (for Setup2)
X		Delete selected file
		Display selected file
		"Add": add selected file and corresponding pattern elements to pattern already loaded
SET		Editing the setup data (for Setup1)
£}		"Update": Update the contents of the folder
\?		Call up "Direct Help" for the key pressed next
PAT ■	PAT	Activate/deactivate "Entire pattern selection".
⊠ SIN		Activate/deactivate "Sintral selection"
JAC	JAC	Activate/deactivate "Jacquard selection"
⊠ SET	SET	Activate/deactivate "Setup selection"
∐ LIB	LIB	Activate/deactivate "Library selection"
EALL	EALL	Activate/deactivate "EALL selection"

Keys in "Load & save" window

STOLL

Working with files 4.3

Key	Function
EAY EAY	Activate/deactivate "EAY selection"
SP1	Activate/deactivate "SP1 selection"
YLC YLC	Activate/deactivate "YLC selection"

Keys in "Load & save" window

Further information:

- KnitLAN connection [-> 262]
- Selecting the current folder [-> 250]
- Copying files [-> 247]
- Displaying file in pattern editor [-> 243]
- Setup2 Editor [-> 281]
- Setup1 Editing the setup file [-> 310]

STOLL

KNIT AHEAD

4.3.4 Displaying file in pattern editor

The selected file from the "Load & save" window is displayed in the "Pattern editor" window (preview).

Key	Function
	Call up the "Load & save" window
	"Display file" key
and a second sec	Call up "Pattern editor" window

Keys for the "Pattern editor" window

Displaying file in pattern editor:

- 1. From the "Main menu" call up the "Load & Save" window.
- 2. Select the file to be viewed in the file list.
- 3. Tap the "Display file" key.
- 4. The "Pattern editor" window is open.

Actions in the "Pattern editor" window

194 July	P	attern editor STO	
ø	17.		
	1	C CMS330TC.DAVID-RT E7 /USER 28.07.1999 09:58 JSA V5.08	~
	2	C SIRIX SINTRAL	
	3	C	
	4	C VERWENDETE RAPPORTSCHALTER ZAEHLER #1 #2 #80-#99 AUTO_SINTRAL	
	5	C RS1= 2X1/1X1/ SCHLAUCH #51-#54 ANFANGSBREITE	
	2	C DELE 0 - 2V1 / 1 - 1V1 / 2 - SCH MICH 2 - MC 2V1 / 4 - MC 1V1 / E - MC SCH MICH	
	á	C RS15 0 - 2A1 / 1 - IAI / 2 - SCHLAGOR 5 - RG 2A1 / 4 - RG IAI / 5 - RG SCHLAGOR	
	ä	C RS18= SYSTEMZAHL, FUER 2X1/1X1/SCHLAUCH/ GUMMTFADEN	
	10	c	
	11	NP1=10.0 C NETZ	
	12	NP2=11.0 C NETZ-SCHLAUCH	
	13	NP3=11.5 C 1X1 / 2X1 / SCHLAUCH	
	14	NP4=12.0 C UEBERGANG	
	15	NP5=13.0 C STRUKTUR / VORNE	
	16	NP6=13.0 C STRUKTUR / HINTEN	
	17	NP7=13.0 C SCHUTZREIHE / VORNE	
	18	NP8=13.0 C SCHUTZREIHE / HINTEN	
	25	NP15=12.5 C REFEITELN	
	20	NP10-9.0 C SAUDERSTRUCKEN	
	30	NP25-10.0 C ANFANGADENTRICKEN	
	31	MP21=12.8 C ANFANGSPETHEN	
	32	NP22=12.1 C ANFANGSREIHEN	~
	1	1 [1] +0% CHS530.david-RT.sin	

"Pattern editor" window

STOLL

Working with files 4.3

Key	Function
#	search for a specific term
A	"Continue": Continue to find a certain term
	"Go to" a certain position
	Carry out the "Quick jump" corresponding mark (e.g. from FBEG to FEND)
Ð	"Enlarge": Display text enlarged
Q	"Reduce": Display the text decreased
FBEG	"Function list": Toggle on/off the display of pattern functions.
▶?	Call up "Direct Help" for the key pressed next

Keys in the "Pattern editor" window

4.3.5 Clear knitting memory

The current knitting program with which your knitting machine works is saved in the knitting memory. When you delete the knitting memory, this has no influence on the saved patterns and files on the data carriers.

Key	Function
	Call up the "Load & save" window
	Call up "Additional function keys"
Ê	Call up "Delete knitting memory"
₩€	Call up "Main menu"

Keys for deleting the knitting memory

- Clear knitting memory
- 1. Call up the "Load & save" window.

📙 Load	& save					STOLL THE RIGHT WAY TO KNIT
ł		ĭ, , , , , , , , , , , , , , , , , , ,	SET	\$-	?	EALL EAY SP1
Path:	d:\muster					
Machine type	File name		Туре	Chang		
	david-RT		jac	2005	PAT SIN JAC SET	LIB
СМS530	david-RT		set	2005	-	
CMS530	david-RT		sin	2005-	Pattern:	
	david-bp		jac	2005		
CMS530	david-bp		sin	2005-	Jacquard:	
CMS530	david-bp		set	2005-		
	david-ARM		jac	2005		
CMS530	david-ARM		set	2005	Setup:	
CMS530	david-ARM		sin	2005		
					1. Iburran in	
1				>	Library:	
Total: 9	4658	2005-11-16 09::	L8:31	<u> </u>		

"Load & save" window

- 2. Call up "Additional function keys".
- 3. Call up "Delete knitting memory".
- 4. Call up "Main menu".



Deleting individual files in the knitting memory:

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1. Call up the "Load & save" window.



"Load & save" window

- 2. Select the file via the SIN or JAC key.
- 3. Call up "Additional function keys".
- 4. Call up "Delete knitting memory".
- 5. Call up "Main menu".

4.3.6 Copying files

Files are copied from one drive to another in the "Copying catalog" window. This list of files appears in alphabetical order, the number of existing files is displayed on the status line (Total:) of the list.

In the following example, the files are copied from the hard disk to the USB memory stick (backup copy).

Key	Function
	Call up the "Load & save" window
	Call up "Additional function keys"
- CFI	Call up the "Copying catalogue" window

Keys for the "Copying catalog" window

Copy file from the hard disk to the USB memory stick :

- 1. Insert the USB memory stick into the USB socket.
- 2. From the "Main menu" call up the "Load & Save" window.
- 3. Call up "Additional function keys".
- 4. Call up the "Copying catalog" window.



Path specifications in the "Copying catalog" window

- 5. Check whether the path in the "Source" and "Target" lists is correctly displayed. The path is displayed at the end of each list.
- 6. If this is not so, change the path with the "Select current folder" key.
- 7. Tap the desired file in the left-hand list ("Source").



- 8. Tap the "Copy file" key.
 - \triangleright When the file is copied, it appears in the right list ("Target").
- 9. To copy other files, repeat steps 7 and 8.

Actions in "Copying catalog" window

🖪 Copying catalog			STOLL THE RIGHT WAY TO KNIT
Source		Destination	
CMS530.david-RT.sin		CMS530.david-RT.sin	
CMS530.david-bp.sin		CMS530.david-RT.set	
CMS530.david-ARM.sin		david-RT.jac	
CMS530.david-RT.set	X		
CMS530.david-bp.set			
CMS530.david-ARM.set	X		
DAVIDseq			
david-ARM.ord	RR		
DAVID.mon	*		
david-RT.jac			
david-bp.jac	3		
david-ARM.jac	A		
	?		
Total: 12 2005-11-16 09:18:21		Total: 3 2005-11	L-16 09:18:21
d:\muster		f:	

Path specifications in the "Copying catalog" window

Key	Function	Key	Function
	"Copying a file": Copy file selected in Source to Target	×	"Deactivate Write Protection": Deactivate write protection of the selected file
	"Copy all": Copy all files from Source to Target	\mathbf{R}	"Current folder selection": Open the dialog box for definition of the current folder
x	Delete selected file	?	Call up "Direct Help" for the key pressed next
x	"Delete all": Delete all files in the selected folder	÷	"Change content": Exchange contents of Source and Target; Source is always on the left, Target on the right
	"Set Write Protection": Set write protection of the selected file	€ ₉ Ш	"Update": Update the contents of the folder

Keys in the "Copying catalog" window

Execute the action:

- 1. Tap the list for which the action is to be carried out.
- 2. Tap the desired button.
- 3. To carry out additional actions, repeat steps 1 and 2.



Setting the sort sequence

The sort sequence can individually be adjusted. To do so, click on the header line (1).

Copying	catalog		STOLL THE RIGHT WAY TO KNIT
Source CMS530.david-RT.sin CMS530.david-bp.sin CMS530.david-ARM.sir CMS530.david-ARM.set CMS530.david-bp.set CMS530.david-ARM.se DAVIDseq david-ARM.ord DAVID.mon david-RT.jac david-ARM.jac	t (1)	Destination CMS530.david-RT.sin CMS530.david-RT.set david-RT.jac	1
Total: 12	2005-11-16 09:18:21	Total: 3	2005-11-16 09:18:21
d:\muster		f:	

"Copying catalog" window

Select and confirm the sort sequence in the "Sort by" window.

File name Type Machine type Changed on	
Type Machine type Changed on	
Achine type	
Changed on	
Decending	
J Ascending	

Setting the sort criteria

Further information:

■ Selecting the current folder [-> 250]

Working with files 4.3

4.3.7 Selecting the current folder

General information Pattern files can be saved to various drives (memory locations) of the knitting machine or to another computer on the network.

To load a file into the knitting machine from another drive, the entire path must be specified. By path, we mean the specification of where the file is located, for example on a drive of the M1 pattern workstation.

A path contains the following information:

- 1. Drive letter (or computer name) (e. g.: "D:" or "\\SERVER01")
- Specification of the subdirectories (e. g.: "\PATTERN" or "Stoll\M1\Extract\")

Standard setting Following drives are set by default in the keys of "Direct folder selection":

Key	Drive	Explanation
	F:\	USB Memory Stick
	D:\	Hard disk
	Name:\	Network drive

Standard settings of the drives

Selecting the current folder

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der The selection of the patterns from the "Load & save" window is applied in the "Catalog order data ", "Catalog Sequence data" and "Catalog Sequence lists" windows.

(Exception: The specification in the "Copying catalog" window is only effective for this window.)

Using the "Select current folder" key, you specify the drive to which the 3 "Direct folder selection" keys are linked.

Key		Function		
		Call up the "Load & save" w	vindow	
		"Direct folder selection" key		
		The symbols of the 3 keys "Direct folder selection" are adapted based on the linked drive:		
	Knit	 USB Memory Stick 	Hard disk	
: <u></u> _:	LAN	 Network drive 	 KnitLAN 	
	9	 CD drive (USB) 	 Floppy disk drive (USB) 	
R		"Select the current folder" k	ey	
√←	End setting process and save changes		ve changes	
<		End setting process without saving changes		

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Keys for changing a path

Change the path of "Direct folder selection" key:

- 1. From the "Main menu" call up the "Load & Save" window.
- 2. Tap "Direct folder selection" key for which the path is to be changed.
- 3. Tap on the key "Current folder selection".
 - ▷ The input window "Select new folder " appears.

Select new folder	
e d:\muster	
muster	
USB	
Ent KnitLAN / ftp	
BootFiles	
Mc-ReadOnly	
Mc-ReadWrite	
← ✓←	

"Select new folder" window

4. Select the new path.

- 5. End setting process and save changes.
- ► In the "Load & Save " window, the display of the key "Direct folder selection" is adapted to the new path. The path is displayed below it.

📕 Load	🎾 save				STOLL THE RIGHT WAY TO KNIT
2-2	₽ ◇¥≪		5° 🖹	?	EALL EAY SP1
Path:	d:\muster				
Machine type	File name	Туре	Chan		
	david-RT	jac	2005-	PAT SIN JAC SET	LĪB
CMS530	david-RT	set	2005	-	
CMS530	david-RT	sin	2005-	Pattern:	
	david-bp	jac	2005-		
CMS530	david-bp	sin	2005-	Jacquard:	
CMS530	david-bp	set	2005-		
	david-ARM	jac	2005-		
CMS530	david-ARM	set	2005-	Setup:	
CMS530	david-ARM	sin	2005-		
				1.1	
<			>	Library:	
Total: 9	4658	2005-11-16 09:18:31			

Display of the set path
4.3 Working with files



4.3.8 Carrying out a program check

If you carried out changes in the knitting program you can have your inputs checked. With it the knitting program will be checked for its knitting ability. If an error is detected, an error message will be displayed in the lower area of the window. Tapping the "?" key will display notes about the reason and remedy of the problem.

Please note that only program errors, so-called syntax errors can be found. Errors in the jacquard area cannot be detected.

During the program test, the pattern is displayed in the upper area and the TP messages in the lower area. The window size of both areas can be changed.

Key	Function
₩€	Call up "Main menu"
The second secon	Call up "Editor" window
	Call up "Additional function keys"
TP 10110→020 10011→323	Call up "Program test" window

Keys for the "Program test" window

Call up "Program test" window:

- ✓ A knitting program is being loaded.
- 1. From the "Main menu" call up the "Editor" window.
- 2. Call up "additional function keys".
- 3. Call up the "Program Test" window.

Actions in "Program test" window

10→(11→3	₹ T	P											S The F		
	TP	TP :)	8) 💾			\ ?							
	1 2 3 4 5 11 1 2 13 14 15 16 26 Mele	C CMS C #13 RS1=5 RS2=1 C RS1 C NP1 C NP2 C NP4 C NP5 C NP6 6 Jungen OK	530.2 7= 9.0 =10.0 =10.0 =11.0 =12.0 =12.0	opf-	LL_Ripp C Zus. C 2x1 C R52 C Abwe Netz Schlau 2x1/2x Ueberg Struk. Struk.	-530-E12 Anfangsr. Rapport rfen (RS1 chnetz 2-Rapport einflaec einflaec	E12 E20 (#1 	37=16.	29.	10.2005	10:43:27	· <m1></m1>	4.0.020	Build	3 F
Aktu	elle 2	Zeile:				Warn	ungen:		(0	Anzah	l Toure	n:	0	

"Program test" window

STOLL

Working with files 4.3

Key	Function
	"Start program test": Start program test from 1st line
<i>TP</i>	"Start program test": Start program test from a certain line on
77 	"Interrupt program test": Interrupt program test and restart it
TP	"End program test"
	"Go to" a certain position
	Carry out the "Quick jump" corresponding mark (e.g. from FBEG to FEND)
	"Display warning": Activate/deactivate presentation of warnings during a program test
Ð	"Enlarge": Display text enlarged
Q	"Reduce": Display the text decreased
	"Change size": Change window size of pattern and error output
R ?	Call up "Direct Help" for the key pressed next

Keys in the "Program test" window

4.4 Working with the Sintral editor

4.4 Working with the Sintral editor

Minor changes or additions to the knitting programs are processed with the Sintral editor. To be able to process a knitting program with the Sintral editor, the knitting machine must be stopped. During production you can view the knitting program only.

Further information:

■ Help on working in the windows [-> 228]

4.4.1 Activating Sintral editor

Key	Function
The second secon	Call up the "SINTRAL-editor" window

Key for the "Sintral Editor" window

→ Call up the "SINTRAL-editor" window.

The window of the first level in the "SINTRAL Editor" appears. The file currently loaded is shown in this window.

1 C CMS530	Zopf-LL-Rippe-530-E12 E12 29.10.2005 10:43:27 <m1> 4.0.020 Build 3 Release (de</m1>	-
2 C #137=	C Zus.Anfangsr.E20 (#137=1618)	\equiv
3 RS1=5	C 2x1 Rapport	
4 RS2=10	C RS2	
5 C RS17=	C Abwerfen (RS17=0)	
11 C NP1=9.	Netz	
12 C NP2=10) Schlauchnetz	
13 C NP3=10	0 2x1/2x2-Rapport	
14 C MD4-11	n ##=1= = = = = = = = = = = = = = = = = =	

Window of the first level in the "SINTRAL editor"

Key	Function	Key	Function
	"Switch toolbar": Switch over toolbar to second level	2	search for a specific term
	Display the toolbar for "Mask jump".		"Continue": Continue to find a certain term
	"Start of marking": Set the beginning of a marking. An existing marking is removed.		"Replace": search for a certain term and replace it by a new one
>	"End of marking": Set the end of a selection		"Go to" a certain position
X	"Cut": Cut selected area	•	"Go to" submenu is opened
	"Copy": copy selected area	(8)	Carry out the "Quick jump" corresponding mark (e.g. from FBEG to FEND)
Ê	"Insert": reinsert copied or cut area	1 2 3 QWE A S	Activate and deactivate display of "Keyboard"
5	"Undo action": the previous action is undone (also possible several times)	\ ?	Call up "Direct Help" for the key pressed next
<u>C</u>	"Redo": Restore an undone action (also possible several times).		

Keys of the first level in the "SINTRAL editor"

4.4 Working with the Sintral editor

STOLL

2nd level of "SINTRAL Pressing the "Switch over toolbar" key, the window goes to the 2nd level of Editor" the "SINTRAL Editor".

ſ	1 C CMS530.Zo	pf-LL-Rippe-530-E12 E12 29.10.2005 10:43:27 <m1> 4.0.020 Build 3 Release</m1>	(de 🔺
	2 C #137=	C Zus.Anfangsr.E20 (#137=1618)	· =
	3 RS1=5	C 2x1 Rapport	
	4 RS2=10	C RS2	
	5 C RS17=	C Abwerfen (RS17=0)	
	11 C NP1=9.0	Netz	
	12 C NP2=10.0	Schlauchnetz	
	13 C NP3=10.0	2x1/2x2-Rapport	

Window of the second level in the "SINTRAL-Editor"

Key	Function	Key	Function
	"Switch toolbar": Switch over toolbar to first level		"Pack and unpack jacquard": Pack or unpack selected jacquard lines
Ð	"Enlarge": Display text enlarged	↓ ::: 1100	"Set jacquard start": Set start of jacquard on current line
ସ୍	"Reduce": Display the text decreased	!-]	Switch over between current pattern and "Auto-Sintral"
2115	"Remove tile window": Remove tile window (horizontally or vertically)	X	"Delete all": delete the complete pattern
:: ::	"Tile window horizontally": Tile window horizontally	•	"Delete" submenu is opened
	"Tile window vertically": Tile window vertically	↓ ¹⁰ 15 15	"Sort" marked area ascending by line numbers
FBEG	"Function list": Toggle on/off the display of pattern functions.	1 10 2 20	"Renumber": Reissue line numbers in the selected area
	Activate and deactivate display of Sintral "error messages"	₹?	Call up "Direct Help" for the key pressed next

Additional keys of the second level of the "SINTRAL editor"



Working with the Sintral editor 4.4

"Auto-Sintral" function key

To activate this key, "Auto-Sintral" must be loaded. In the editor now one can switch between the currently loaded pattern and "Auto-Sintral".

Key	Function
!-]	Switch over between current pattern and "Auto-Sintral"

"Auto-Sintral" key

"Tile window horizontally" function key This function makes two editors available which work independently of one another. When opening, the jacquard is jumped to in the lower editor. The size of the division is changed via both arrow keys on the left or right sides at the bottom edge of the screen.

	<pre>1 C CMS530.2opf-LL-Rippe-530-E12 E12 29.10.2005 10:43:27 <m1> 4.0.020 Build 3 Release (de) 2 C #137= C Zus.Anfangsr.E20 (#137=1618) 3 RS1=5 C Zx1 Rapport 4 RS2=10 C PS2 5 C PS17= C Abwerfen (RS17=0) 11 C NP1=9.0 Netz 12 C NP2=10.0 Schlauchnetz 13 C NP3=10.0 Schlauchnetz 14 C NP4=11.0 Uebergang 15 C NP4=11.0 Uebergang 15 C NP4=12.0 Struk. einflaechig vorne 16 C NP5=12.0 Struk. einflaechig vinten 17 C NP7=9.5 Abwerfen/Machkulieren × 18 C NP8=9 5 Abwerfen/Machkulieren × </m1></pre>	
JAC	1101 160.27/H162599.=599. 1101 160.277H162599.=599.	
	1102 160.277H162599.=599.	
	1103 160.277H162599.=599.	
	105 160.277Å162160.277*162.=599.	_
	1106 160.277Å162160.277*162.=599.	
	1107 160.277Å162160.277*162.=599.	
	1108 160.138(.A)163160.2777162.=599.	
	110 160.138()163160.277*162599.	
	1111 159.139(.A) 162160.277*162.=599.	
	$1112 \ 164.4(.+) \\ 2(4.+4.) \\ .4(.+) \\ 2(2(4.+.)) \\ 11.2(4.+.) \\ 4.) \\ 3(+.) \\ +2(5.+.) \\ +.+ \\ +2(2(5.+.)) \\ 11.2(5.+.) \\ 4.) \\ 4(.+) \\ 4(.$	
	$1113 \ 163.4(.+)2(4.+.+.).4(.+)2(4.+.+3.11(.+)4.+.+4.)4(+.)2(4.+.+).+.+2(5.+.+3.11(.+)4.+.+3.)2(4.+.+).+.+2(5.+.+3.11(.+)4.+.+3.)2(4.+$	
	1114 100.48072 (383738) 8572 (3738) 8770 (78) 2 (3748) 483748770 (78) 2 (2 (3748) 57) 372 (483748770 (78) 2 (37 1115 145 2 (10 4/ T)) 73 2 (11 4/ T)) 65 2 (20 4/ T)) 166 - 500 - 500	
	1116 126.2 $(19.4(.7))74.2(11.4(.7))66.2(20.4(.7))167599599.$	
	1117 160.942 (6A3Y) 2 (7A2 (8A3Y4AYY8 (YA) 3Y4A3Y) 16A3YA) 5A3Y16A162160.277*162.=157*2 (27*2 (28*15+	1
A	1 1 [1] +0* Zopf-LL-Rippe-530-B12	\mathbf{A}

Window for the function "Tile window horizontally"

Key	Function	Key	Function
A	enlarge lower part	¥	enlarge upper part

Function keys for the function "Tile window horizontally"

4.4 Working with the Sintral editor

"Tile window vertically" function key This function makes two editors available, which both always show the same lines. Vertical scrolling in one editor changes the second editor simultaneously. Horizontal scrolling only changes one editor, and the start of a long line can be displayed in the left editor and the rest on the right one. Selections will immediately be copied in the other editor. The size of the division is changed via both arrow keys on the left or right sides at the bottom edge of the screen.

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Window for the "Tile window vertically" function

Key	Function	Key	Function
\triangleleft	enlarge right part	\checkmark	enlarge left part

Function keys for the function "Tile window vertically"



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Call up "Go to" submenu

Press the arrow key next to the "Go to" key. You can jump to the start or the end of the file or line using this submenu.



Window "Go to" submenu

Key	Function	Key	Function
↑	Go to the start of the file	←	Go to the start of the line
⊻	Go to the end of the file	→	Go to the end of the line
JAC	Go to the begin of jacquard		

Function keys in "Go to" submenu

Call up "Delete" - submenu

Press the arrow key next to the "Delete" key. Sintral, jacquard or a line from the loaded file can be deleted via this submenu.



Window "Delete" submenu

Key	Function	Key	Function
SIN	Delete Sintral from file	X 10	Delete specified line from file
JAC	Delete jacquard from file		

Function keys in "Delete" submenu

4.4 Working with the Sintral editor



4.4.2 Go to help in function and error list

After loading and checking a file, the corresponding functions and error messages can be displayed in the "SINTRAL editor". You can jump in these lists using the following keys.

Key	Function
FBEG: L FBEG: FBEG:	"Go to help for next"
FBEG: 1 FBEG: 1 FBEG:	"Go to help for previous"

Keys for go to help

→ To jump to the next function / to the next error in the knitting program, tap the "Go to help for next" key.

- or -

→ To jump to the previous function / to the previous error in the knitting program, press the "Go to help for previous" key.

4.5 KnitLAN connection

Valid for:

This description applies only to machines for which the connection to the Stoll Nameserver is not active.

If the connection to the Stoll Nameserver is active, the "Network favorites" key is not available since the KnitLAN connection will be configured on the Stoll Nameserver.

The KnitLAN connection helps in the transmission of data and patterns between the machine and an M1 or an FTP-Server (FTP = File Transfer Protocol, network protocol for data transmission).

The KnitLAN connection takes the place of the previous online program. In this chapter the setting of the KnitLAN connection is described. The selection of computers for "My network" is described in the MCNET2 manual.

You can use the KnitLAN connection for:

- Transmitting knitting programs
- Monitoring production

Collecting machine data

Requirements:

- Machine and M1 are networking
- Operating system of the machine: V 1.2 (or higher)
- Software version of M1: V 3.9 (or higher)

Configure	the	KnitLAN
	cor	nnection:

Key	Function
	Call up the "Service" menu
	Call up the "Basic settings" menu
<u>a</u>	Call up the "Network favorites" window
	Opens the understructure of the marked network.
	Closes the substructure of the marked network.
	Transfers the selected computer in the field "KnitLAN / ftp"
X	Deletes the selected computer

Keys for setting the KnitLAN connection

4.5 KnitLAN connection

Key	Function
₩€	Call up "Main menu"

Keys for setting the KnitLAN connection

- 1. Call up the "Service" menu.
- 2. Call up the "Basic settings" menu.
- 3. Call up the "Network favorites" window.



"Network favorites" window

- 1 Display of network environment which machine is integrated in.
- 2 Opens the understructure of the marked network.
- Computers which are used for KnitLAN (e. g. pattern workstations) or computers on which a FTP server is installed.
 FTP = File transfer protocol (network protocol for data transmission).
- From the entire network (1) select the computer of the M1. If only the entire network is displayed, then open the substructure with the (2) key.
- 5. Transfer the selected computer into the "KnitLAN / ftp" (3) field.
- 6. If another computer needs to be selected, repeat steps 4 and 5.
- 7. Call up the "Main menu".

You can apply the KnitLAN connection to one of the "Direct folder selection" keys. The key is indicated with the symbol "KnitLAN". You can see the contents of the folder on the M1 in the selection field.

📙 Load	& save				STOLL THE RIGHT WAY TO KNIT
Knit	▓ॳऀड़ॏड़ॖऀड़ॸ		?		EALL EAY SP1
Path:	ftp:WXP22911\pattern				
Mach [:] a type	File name	Type	Chane		
	A123-38RT	jac	2006	PAT SIN	JAC SET LIB
CMS530	A123-38RT	set	2006-		
СМ\$530	A123-38RT	sin	2006-		

Working on the M1:

- The access to the KnitLAN directories
 ("D:\\Stoll\\M1\\KnitLAN\\Bootfiles" and "Mc-ReadWrite") must be open
 to run the online connection from the M1 to the OKC machines.
 Select the directory, call up the Context Menu, Properties, Share tab,
 Share Folder
- In the Windows firewall you have to call up the firewall settings and allow the Stoll FTP service as an exception. (Start > Control panel > Windows firewall, tab: Exceptions).

The program "Stoll FTP service" can be found under the installation path of the M1 (e.g. "C:\Program Files\Stoll\M1\Bin\ftpservice.exe")

Further information:

■ Selecting the current folder [-> 250]

4.6 Defining user profile



4.6 Defining user profile

In the standard configuration each knitting machine user can open and make changes to any window of the user interface. However, in some cases this is not desirable and not every user is to be able to change data and machine settings. This can be set with the "User profile" window. In this window, rights as to which changes may be carried out and which may not, can be assigned to a user or a user group. If a window is blocked, it can be called up and the data viewed, however changes are not possible (exception: the password is known to the user and he/she can enable the window).

The operating elements in a blocked window are shown on a light gray background.

🖄 Manual	interventions		STOLL THE RIGHT WAY TO KNIT
Rel. main drive b	rake	Needle selection	Off On
		Step by step move	\bigcirc
Carr.revers.outs.r	n.bed	Step width:	1
Bolts: Y in use	Delete direct data input (all	ATM)	SP 😡
YF bolts	Position for all front ATM	6.0	
👚 Up	Position for all back ATM	6.0	SPF999
*Botton	Delete YF positions (EAY)	9	SP950

Blocked window "Manual interventions"

The assignment of the rights is reserved for an authorized person and protected by a password.

Any number of user profiles can be defined, for example for:

- Knitters
- Personnel of the night shift
- Setup personnel (technicians)
- Foremen/Forewomen

Defining user profile 4.6



Note the password and keep it in a safe place. →

If the password is lost, the Stoll Helpline can help with a



special password.



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"User profile" window

Field	Function
1	Selection list of the window to be enabled or disabled. It is possible to scroll down/up in the selection list with the scroll bar (2). Additional windows are then available for selection.
3	Switch for blocking or enabling a window
4	Reset all changes
5	Operations for the selected user profile
6	Select or define user profile

Defining user profile

_

4.6 Defining user profile

Key	Function
	Call up the "Service" window
	Call up "User profile" window
✓←	Confirm password
←	Return to previous window (cancel process)
X	Block window
	Enable window
	Call up "Additional function keys"
	Enable all windows
X X X X X X	Block all windows
₩€	Call up "Main menu"

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Keys for defining "User profile"

Defining user profile:

- 1. Call up the "Service" window.
- 2. Call up "User profile" window.

Use	er profile	ST (The right	OLL WAY TO KNIT
→ M ◆ M File name		Title of mask	
MEISTI STRICK	Enter password:	✓← ←	

Entering password

3. Enter and confirm the password with the keyboard. In the standard configuration, the first password is "MASK.ACCESS". It is written in uppercase letters and without quotation marks.

Defining user profile 4.6



"User profile" window

4. Block window: Tap the corresponding window in the selection list (1) and tap on the "Block window" (3) switch.

- or -

- → Tap the corresponding window in the selection list with a double click.
- 5. Enable window: If a window is blocked, then enable it again with a double click.

- or -

- → Tap the switch (3).
- 6. Only enable a few windows: First block all windows ("Additional function keys" key and "Block all windows" key) and then enable the few windows again.
- 7. Enable all windows: Tap the "Additional function keys" key and enable all windows again with the "Enable all windows" key.
- 8. Give a name to the user profile and save it.
- 9. Define another user profile if necessary.
- 10. For the user profile to become effective, it must be activated with the "Load" key.
- 11. Call up "Main menu".

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4 Adjusting knitting machine

4.6 Defining user profile

Saving, loading, deleting user profiles ... So that the same user profiles are active on all knittle

So that the same user profiles are active on all knitting machines, save the user profiles to USB memory stick or a network drive and load them in each machine.

Key	Function
	Call up the "Service" window
	Call up "User profile" window
✓←	Confirm password
\checkmark	Confirm selection
₩€	Call up "Main menu"

Keys for "Saving, loading, exporting user profile ..."

Saving, loading, deleting user profiles ...:

- 1. Call up the "Service" window.
- 2. Call up "User profile" window.



"User profile" window

- 3. Enter and confirm the password with the keyboard.
- 4. Select the desired program point (5) (loading, saving, deleting ...).
- 5. Select a user profile. Tap on the desired user profile in the field (6).
- 6. Confirm selection.
- 7. If additional user profiles are to be called up, repeat the steps 4 to 6.
- 8. Call up "Main menu".



Enabling blocked window

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During production it may be necessary to open a blocked window and carry out a change or action. Or you find that it is necessary for this window to be enabled for the active user. Naturally, this is only possible for a person who knows the password.

Key	Function
	Call up "Additional function keys"
	Tap "Password"
✓←	Confirm password
<	Return to previous window (cancel process)
	Call up "User profile" window

Keys for "Enabling blocked window"

Enabling blocked window:

- 1. Display the "additional function keys" in the blocked window.
- 2. Tap the "Password" key.
- 3. Enter the password with the keyboard.

Release locked mask	temporary	permanent	
Enter password:	✓←		←
	·		

"Enabling blocked window" window

4. Enable window once by tapping the "Confirm password" key.

- or -

→ Change the user profile by tapping the "User profile" key.

4.6 Defining user profile

Change password From time to time you should change the password to be sure that it has not become known. Carry out this activity on all knitting machines.

If the knitting machine is connected with the STOLL pattern workstation, the password can be changed simultaneously on all the knitting machines with the help of on-line connection (see section "On-line commands" at the end of this chapter).

Key	Function
	Call up the "Service" window
	Call up "User profile" window
√←	Confirm password
	Call up "Additional function keys"
	"Change password"
₩€	Call up "Main menu"

Keys for "Change password"

Modify password:

- 1. Call up the "Service" window.
- 2. Call up "User profile" window.
- 3. Enter and confirm the password with the keyboard.
- 4. Call up "Additional function keys"
- 5. Tap the "Change password" key.

Modify password: + Please enter new password again:	
---	--

"Change password" window

- 6. Type in the new password in the top line.
- 7. Type in the new password again in the bottom line.
- 8. Confirm the password.
- 9. Call up "Main menu".



Examples of how a user profile can be specified

Example 1:

The machine settings are to be blocked. To do this, block the four windows in the selection list.



"User profile" window

Example 2:

When beginning work with user profiles, there is an uncertainty as to which windows are required for daily work and which are not. We suggest using the following procedure:

- 1. First block all windows.
- 2. The knitter begins working with the machine.
- 3. If it is necessary to change something in a window, the knitter reports this and the window is enabled in the user profile.
- 4. Save the user profile.
- 5. Continue this stepwise determination of the user profile for a certain period of time. This may, for example, be for a working day or a week.

4.6 Defining user profile

Online commands If the knitting machine is connected with the STOLL pattern workstation, the password and the user profile can be changed simultaneously on all the machines with the help of the on-line connection. The condition is that the password is written in uppercase letters.

Commands	Function
setuserlevel Password User profile name	Activate the same user profile on all knitting machines
Example: The password is "JOE", the user profile is "david". The complete command is: setuserlevel JOE david	
setulword OldPassword NewPassword	Activate the same password on all knitting machines
Example: The old password is "JOE", the new one is "JOHN". The complete command is: setulpassword JOE JOHN	

Commands for activating user profile and password

To enter the commands on the pattern preparation unit the following steps are necessary:

- 1. Activate program"Online".
- 2. Select the "Display call-round ->" program point in the "NET" program.
 - \triangleright The "call-round" window appears.
- 3. Type in the corresponding command and confirm.

Defining user profile 4.6





5 Setup Data

The knitting program consists of:

- Sintral program (*.sin)
- Jacquard program (*.jac)
- Information about production:
 - Specification of the stitch length
 - Distance between yarn carriers and fabric selvedge
 - Carriage Speed...

You can handle this information about production as follows:

- define it with every pattern anew
- define it in a separate file which you can reuse with every pattern This file is called Setup file

Your advantages working with a setup file:

- The setup-data are centralized in one setup-file
- Clear operation of all setup data on the machine.
- Clear separation of variable pattern parameters and constant Sintral knitting specifications.
- All the parameters that are relevant when knitting-in the pattern are located in the setup file.
- The complete pattern (Sintral, Jacquard, Setup) can be transferred to another machine.

You can reduce the machine set-up time of the pattern by this.

The Setup file can be applied to other pattern. You can reduce the machine set-up time of the pattern by this.

Background 5.1

5.1 Background

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A short review Setup-data were introduced for CMS machines (starting with ST 711) in 1998.

Following data can be saved to the setup-file:

- WMF(Fabric take-down menu)
- NP (All NP values)
- YD (Position of yarn carriers at the fabric selvedge)
- MSEC (indirect MSEC-setting)
- YLC (Yarn Length Control STIXX/ASCON)

This was the first step to write the pattern related parameters into a separate file. The purpose is to reduce the time of setting up the machine. Some pattern related parameters were still written in Sintral functions. Leading to setup work when converting the pattern for other machines.

You can use the extended setup-data from now. In order to distinguish them they will be called Setup2 and the previous data Setup1.

The target of Setup2 Transferring a pattern from one machine to another without changing the Sintral program.

Setup2 is extended by the following parameters:

- Yarn carrier staggering (YD / YDI)
- Correcting the Normal Yarn Carriers (YC / YCI)
- Cycle counters
- Racking Corrections
- Correction of the stitch length of the right carriage with tandem operation (NPR)
- Yarn length control at the left and right-hand side
- Correction of the loop sinking depth (NCC)
- Comments

5.2 Comparing Setup1 to Setup2

5.2 Comparing Setup1 to Setup2

	Setup1	Setup2	
Fabric take-down functions (WMF)	8 functions	50 fabric take-down functions (WMF)	
		50 Auxiliary take-down functions (W+F) Switching auxiliary take- down on and off (W+1, W+0)	
		Tabs for WM% and WMK%	
Yarn carrier staggering YD	One staggering (YD)	21 staggerings (YD, YDI1-YDI20)	
Yarn carrier corrections	One correction	20 corrections (YCI1-YCI20)	
		Some corrections for all 32 yarn carriers can be defined with each function.	
	The Setup file does not contain the correction of the normal yarn carriers	All yarn carrier corrections (normal and intarsia) are part of the YCI tab	
	 Correction of Intarsia yarn carrier in the KI / K<i> tab</i> 	with tandem operation: the correction values for the right carriage are part of the Y:Oa-b tab	
Correction values for stitch cam position (NP)	100	100	
Specifications for the carriage speed (MSEC)	9	20	
Correction of the loop sinking depth (NCC)	no part of the setup-file	A correction value per yarn carrier is possible	
Yarn length	Indications for yarn length control on the right	Indications for yarn length control on the right and left	
Cycle counters	no indications possible	39 cycle counters	
Racking Corrections	VKA to VKZ, no part of the setup-file	50 Indices for racking corrections (VCI)	
Comments	no indications possible	for each indication possible	

Comparing Setup1 to Setup2 5.2

	Setup1	Setup2
Correction of stitch length for right carriage in tandem operation (NPR)	Not possible	possible
Additional information such as:Machine NumberOnline NumberHost Name	Not possible	possible
File Extension (File Extension)	.set	.setx (XML file)
File extensions for extracted patterns (File Extension)	.sin; .jac and .set	.sin; .jac and .setx files in a compressed folder (.zip file)

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5.3 Using Setup1 or Setup2

5.3 Using Setup1 or Setup2

Setup1	usable for all machines (OKC, ST 468, ST 268, ST 168, ST 811, ST 711)			
Setup2	usable with all OKC machines (starting with V 2.1)			
Converting Setup2> 1	Possible with M1plus (starting with V. 5.2) only. Example:			
	a CMS 330:			
	1. Load the pattern and call up the "Change Machine/Gauge/ Setup Type" menu.			
	2. Set the corresponding setup type for the machine in the "Machine Explorer".			
	3. Start technical processing.			
	🚧 or 🌠			
	4. Run the "Generate MC Program" function.			
	5. Run the "Extract MC Program" function.			
	The sin; jac and set files will be generated.			
Converting Setup1> 2	Setup1 patterns cannot be converted automatically into Setup2.			
	Example:			
	How to convert a Setup1 pattern for a CMS 330 to a Setup2 pattern for a CMS 530:			
	1. Load the pattern and call up the "Change Machine/Gauge/ Setup Type" menu.			
	2. Set the corresponding setup type for the machine in the "Machine Explorer".			
	3. Modify and complete the parameters and functions corresponding to Setup2.			
	4. Start technical processing.			
	5. Run the "Generate MC Program" function.			
	6. Run the "Extract MC Program" function.			
	► The sin; jac and setx-files will be saved to a zip-file.			

How to generate a setup-file?

- Generating it together with the pattern on the M1plus.
 Starting with the 5.2 version of the M1plus you can choose among
 Setup in Sintral, Setup1, Setup2
- Generating it manually (with Setup1 only)

Loading knitting program 5.4

5.4 Loading knitting program

You can quickly recognize whether it is a pattern with Setup1 or Setup2 data



A Setup2 pattern is saved in a zip file. The icon of compressed (zipped) folder is displayed in front of the pattern.

5.5 Setup2 Editor

5.5 Setup2 Editor

5.5.1 Overview of the Setup2 Editor of the CMS

The Setup2 data will be displayed in the "Setup2 Editor".



	Explanation
1	Row
2	Tabs of a menu
3	Table
4	Call-up the individual menus
5	Switch on or off the virtual keyboard
	i: The menu keys are covered by the active virtual keyboard.
	Switch off the virtual keyboard in order to switch to another menu.
6	Activate and deactivate the state line (only display of the values, no window call up possible)
7	Switch on or off the table tools
8	Undo the last editing of a line
9	Undo the last editing of a cell
10	Save all values of the actual tab (table)
11	Call up the online help of the selected tab.
i :W	ith file mode only

Save the Setup2 file (setx)

Setup2 Editor 5.5

Calling up the Setup2 Editor on the machine

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How to call up the Setup2 Editor with the Setup data of the actual pattern:

Key	Function
	Call up the "Setup2 Editor" window

Key to call-up the "Setup2 Editor" window

- 1. Call up the "Setup2 Editor" in the "Main menu".
 - \triangleright The "Setup2 Editor" window appears.

YD / YD	I YC	YCI	Y:Ua-b / Y:Ncc			ø
Name	YD	Left.	Right.	Comment		Take-down
A YD	YD8	32.0	32.0			1
	YD7	27.0	18.0			Yarn carrier
	YD6	9.0	4.0			Turn corrier
	YD5	15.0	22.0			000
	YD4	22.0	15.0			Stitch length
	YD3	18.0	27.0			(A)
	YD2	4.0	9.0			
	YD1	8.0	12.0			Speeu
YDI6	YD8	32.0	32.0			#01
	YD7	27.0	18.0			Cycle counter
	YD6	9.0	4.0			(TTTT)
	YDS	15.0	22.0			0
	YD4	22.0	15.0			Yarn length
	YD3	18.0	27.0			here
	YD2	4.0	9.0			Racking
	YD1	8.0	12.0			
						Miscellaneous
4	?				1	2×37+0 y 1 2 1=0 L 0 J 5

How to open the Setup2 file in the Setup2 Editor:

You can edit Setup2 data independently to the running production by the file mode.

- 1. Call up the "Load & save" window.
- 2. Get the Zip file displayed.



- 3. Tap the Setup2 file (*.setx).
- ▶ The "Setup2 Editor" window appears in the file mode.

5.5 Setup2 Editor

Helpers for Input Depending on the active input field appears:

- the numeric keyboard
- the alpha-numeric keyboard (for comments)
- the input helper for list fields
- The input helper for NP measure units

Explanation
Switch on the virtual keyboard
Switch off virtual keyboard

The numeric keyboard

		Explanation
31.5 (3)	1	Slider
+	2	Shows the maximum value of the selected field
	3	Shows the minimum value of the selected field
-	4	Increase or decrease the value by one step
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	5	Apply value from the previous row The applied value will not be displayed. An entry field without entry has the "Don't Care" property. An entry field with "Don't Care" is empty. : "0" does not correspond to "Don't Care"
$6 \leftarrow \rightarrow 8$	6	Move cursor: one field to the left
	7	Delete the number to the left of the cursor
	8	Move cursor: one field to the right
	9	Confirm input. The cursor jumps to the next field.

Setup2 Editor 5.5

The alpha-numeric keyboard _

Кеу	Function
· 1 2 3 4 5 6	7 8 9 0 - = +
TAB q w e r t y	u i o p [] +
CPSLCK a s d f g	h j k l ; ' \ ←
SHIFT Z X C V	b n m , . / →

ТАВ	ТАВ	Jump to the next field.
CPS LCK	CPS LCK	Shift between uppercase and lowercase letters; the setting of numbers or special characters is maintained
SHIFT	SHIFT	Shift between uppercase and lowercase letters and between numbers and special characters
+	BACKSPACE	Move the cursor by one step to left and delete the character there
4	ENTER	Confirm input
+	LEFT	Move the cursor by one step to left
+	RIGHT	Move the cursor by one step to right

5.5 Setup2 Editor

The input helper for list fields

Element		Function
		Fold open selection field
11		Fold closed selection field
	1	Move cursor: one line upwards
	T	Move cursor: one line downwards
$\leftarrow \rightarrow$	+	Move cursor: one character to left
	→	Move cursor: one character to the right
		Move cursor: to first input of selection field
		Move cursor: to last input of selection field
	ţ	Confirm input

The input helper for NP measure units

Element	Function
NP	Switch all values to NP
mm रारा	Switch all values to millimeters
N	Switch a single value to mm
	Switch a single value to NP



Setup2 Editor 5.5

The Input Helper for Yarn		
Carriers (YLC tab)	Element	Function
	1	Enter yarn carrier specification Example: 3A
	2	
	3 A	
	4 B	
	5 C	
	6 D	
	7	
	8	
	Clear	Delete entry
	←	Move cursor: one character to left
	→	Move cursor: one character to the right
	4	Confirm input





Adding a table row You will find only those entries in the selection list which are not yet part of the table.

Example:

Γ

NP				_
Varne	Wert	Wert [mm]	NP1	I
ІРК	0.00		NP2	
Vame	Wert	Wert [mm]	NP4	
IP7	12,50		NP5]
IP9	12.50		NP6 NP8	
IP10	12.50		NP11	
IP12	12.50		NP13	
IP14	12.50		NP15	
IP16	12.50		NP19	
IP18	12.50		NP21	1
IP20	12.50		NP23	
IP22	12.50		NP24	d
	_		NP26	
			NP27	
			NP28	ł
			NP30	1
			NP31	
			NP32	
			NP33	1
			←	ŧ
				_

Some NP are part of the table.

Select NP indices in the "Add Rows" dialog box from those not yet listed in the table.

Multiple selections are possible.

Apply the selected NP indices to the table with



You can cancel the procedure with



Setup2 Editor 5.5

Switching on or off the table			
tools	Explanation		
	Switch on the table tools		
	Switch off the table tools		
Table Tools			
	Explanation		
	Go to row. Select the desired line in the selection list The cursor jumps to the desired line of the table. 1 : Active with more than 21 lines.		
	Adding a table row		
	Delete the selected line		
	Copying the values (of a line)		
	Inserting the copied values		
	Copying several lines ("Yarn Carrier", "YD/YDI" and "YC/YCI" tab)		
	Pasting the copied lines ("Yarn Carrier", "YD/YDI" and "YC/YCI" tab)		
File tools			
------------	----------------	---	--
		Explanation	
	Æ	Display the content of the Zip file	In the "Load & save" window
	۶ <u>٦</u>	Close the zip file	
	♦	Load pattern	
		Load the pattern with selected Setup data	
	€∐	Save Pattern	
		 Save the pattern with selected Setup data. → Select the desired Setup data in the "Save with configuration" dialog box 	
	X	Deleting file Delete selected file	
		Display selected file With a Setup2 file (.setx) the Setup2 Editor appears in the file mode	
	-	Add Add selected file and corresponding pattern elements to pattern already loaded.	
	& ŵ	Save the setup file	In the file mode of the "Setup2 Editor" only

Setup2 Editor 5.5

5.5.2 Take-down

WMF (tab)

	Explanation	Value range		
WMF	Fabric take-down function	WMF1 to WMF50		
WM min	Minimum fabric take-down value (with Fully Fashion)	Minimum value: 0 Maximum value: 31.5 Step width: 0.1		
WM max	Maximum fabric take-down value (value must always be specified)	Minimum value: 0 Maximum value: 31.5 Step width: 0.1		
N min	Minimum number of needles (with Fully Fashion)	Minimum value: 0 Maximum value: Needle number of the CMS Step width: 1		
N max	Maximum number of needles (with Fully Fashion)	Minimum value: 0 Maximum value: Needle number of the CMS Step width: 1		
WMI	Fabric take-down impulse	Minimum value: 0 Maximum value: 15 Step width: 1		
WM^	Open the brake of the active take-down system (main take-down or comb take- down) for a maximum of 2.5 seconds, take-down roller or comb take-down turn back by a maximum number of the indicated degrees (depending on the fabric tension and the fabric take-down value). CMS 5xx, 7xx, 8xx: 9-60 degrees CMS 9xx: 9-120 degrees If either of both the conditions is fulfilled, then the brake is closed again. Fabric take-down value (n=0-31.5) becomes active again at the reversion.	No turning back: 0 Minimum value: 9 Maximum value: 120 Step width: 1		
WMC	Set the speed control of the active take- down system (main take-down or comb take-down) to the value n (0-32). If the take-down system turns too quickly, the machine is stopped. 0= no stop motion, 1= insensitive, 32= very sensitive	Minimum value: 0 Maximum value: 32 Step width: 1		

	Explanation	Value range
WM+C	Monitoring of main take-down. If the take-down has not been used after n (0-100) knitting rows, the machine will stop. $(0 = no \text{ supervision})$	Minimum value: 0 Maximum value: 100 Step width: 1
WMK+C	Controlling the comb. If the comb has not moved after n (0-100) knitting rows, the machine will stop. ($0 = no$ supervision)	Minimum value: 0 Maximum value: 100 Step width: 1
Comment	Comment	ASCII Characters

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Setup2 Editor 5.5

W+F (tab)

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		Explanation	Value range	
W+F		Auxiliary Take-down function	W+F1 - W+F50	
W+F On		Switch on auxiliary take-down. The auxiliary take-down will be closed. The speed of the auxiliary take-down W+=n is active		
		Switch off the auxiliary take-down. The auxiliary take-down will be opened.		
W+=		Input of the speed of the auxiliary take-down Turning value n (1-15)	Minimum value: 1 Maximum value: 15 Step width: 1	
W+P		Contact pressure n (0-10), only for machines with 72 and 84 inch working width	Minimum value: 0 Maximum value: 10 Step width: 1	
W+C		Monitoring of auxiliary take-down. If the auxiliary take-down has not been used after n (0-100) knitting rows, the machine will stop. ($0 = no$ supervision)	Minimum value: 0 Maximum value: 100 Step width: 1	
Comment		Comment	ASCII Characters	

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WM% WMK% (tab)

	Explanation	Value range
WM%	Modify the fabric take-down value by n percent	-80 to 80

	Explanation	Value range		
WMK%	Changing the fabric take-down value by n percent while the comb take- down is working. The value is active till the fabric is taken down by the main take-down.	-80 to 80		
Comment	Comment		ASCII Characters	
			All characters and numbers (UTF-8)	

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5.5.3 Yarn carrier

	1 – L – L		41		- 4 4 1	fals ut a	
\mathbf{Y} \mathbf{I} \mathbf{J} \mathbf{J} \mathbf{Y} \mathbf{I} \mathbf{J} \mathbf{I}	tanı :	Standering	the varn	carriers	attne	Tanric	Selvenne
	iub /	oluggoning	uno yunn	ouniors	attilo	labilo	July Cuyo.
、 、							

	Explanation	Value range
∢ YD	Distance between yarn carriers and fabric selvedge Collapse ≈ (reduced display) Expand ∞ (expanded display)	
YD1 : YD8	Distance of the yarn carriers on track 1 to 8 from the left and right fabric selvedge	Minimum value: 0 Maximum value: 160 Step width: 0.5=1/32 inch=0.8 mm
≈ YDI	Additional, indirect yarn carrier staggering (YDI1 to YDI20) Collapse ≈ (reduced display) Expand ∞ (expanded display)	Minimum value: 0 Maximum value: 160 Step width: 0.5=1/32 inch=0.8 mm
Comment	Comment	ASCII Characters

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	Explanation	Value range
<u>≈</u> YC	Direct yarn carrier correction Collapse « (reduced display) Expand « (expanded display)	
A A CI	Yarn carrier correction index YCI1 to YCI20 Collapse ≈ (reduced display) Expand ≈ (expanded display)	
Y	Corrections of yarn carrier 1A to 8D	
Ка	Yarn carrier correction value (left) for not swiveled yarn carrier if the yarn carrier is positioned within the fabric.	Minimum value: -120 Maximum value: 120 Step width: 0.5=1/32 inch=0.8 mm
Kb	Yarn carrier correction value (right) for not swiveled yarn carrier if the yarn carrier is positioned within the fabric.	Minimum value: -120 Maximum value: 120 Step width: 0.5=1/32 inch=0.8 mm
K <i>a</i>	Intarsia yarn carrier correction value (left) for swiveled intarsia yarn carrier	Minimum value: -120 Maximum value: 120 Step width: 0.5=1/32 inch=0.8 mm
K <l>b</l>	Intarsia yarn carrier correction value (right) for intarsia swiveled yarn carrier	Minimum value: -120 Maximum value: 120 Step width: 0.5=1/32 inch=0.8 mm
MSEC	Carriage speed if this yarn carrier is used (technical fabrics).	
V	Reduce carriage speed (n) for yarn carrier (n = 03). The speed is reduced to 75% from carriage reversal point until achievement of the operating range of the yarn carrier. Finally it can be chosen between the following possibilities:	
	 1 = Acceleration up to 100% 2 = Braking down to 50%, maintain speed over a fabric width of 2 inches, acceleration up to 100% 	
	 3 = Braking down to 50%, maintain speed over a fabric width of 5 inches, acceleration up to 100% 	
	 0 = Cancelling out of carriage speed specific to yarn carrier 	
Comment	Comment	ASCII Characters

YC / YCI (tab) Yarn carrier corrections

Setup2 Editor 5.5

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Y:Oa-b (tab) Tandem machine: Correction of the yarn carriers in the right carriage

	Explanation	Value range
Y-1AR : Y-8DR	Specification of the yarn carrier in the right carriage.	
Oa	Right carriage during tandem operation: Yarn carrier correction value a (stopping position on the left). The correction value refers to the stop value of the left carriage.	Minimum value: -8 Maximum value: 8 Step width: 0.5=1/32 inch=0.8 mm
Ob	Right carriage during tandem operation: Yarn carrier correction value b (stopping position on the right).	Minimum value: -8 Maximum value: 8 Step width: 0.5=1/32 inch=0.8 mm
Comment	Comment	ASCII Characters

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Y:Ua-b / Y:Ncc (tab) ■	Adjusting the engaging width when plating with normal yarn carriers	3.
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■ Control the loop sinking depth of the clamping and cutting needles

		1
	Explanation	Value range
Y	Corrections of yarn carrier 1A to 8D	
Ua	Adjust the engaging width (left) when plating with normal yarn carriers.	Minimum value: 11.5 mm Maximum value: 23 mm (CMS-C: 35 mm)
Ub	Adjust the engaging width (right) when plating with normal yarn carriers.	Step width: 0.5 mm
NCC	Only for machines with clamping-cutting bed: Control of the loop sinking depth of the clamping and cutting needles.	Minimum value: -10 Maximum value: 10 Step width: 1
	Standard setting: n=0 e.g.: sink the cutting needles by 5 steps deeper: NCC=5	
Comment	Comment	ASCII Characters

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- Width (tab) The M1plus enters the width of the inlay yarn carrier in the "Yarn carrier carriage width" field.

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Setup2 Editor 5.5

5.5.4 Stitch lengths

NP 1-100 (tab)

	Explanation	Value range
NPK	Correction for all stitch cams	Minimum value: -2 Maximum value: 2 Step width: 0.05
NP1 - NP100	Stitch cam position 1 to 100	
Value	Stitch length in NP values or mm	
Value [mm]	Specification in NP values.	Minimum value: 6.5 Maximum value: 22.5 Step width: 0.05
Value [mm] ☑	Settings in millimeters. Setting the yarn length per stitch (Yarn Length Control).	Minimum value: 2.20 Maximum value: 33.00 Step width: 0.01
Comment	Comment	ASCII Characters

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- File tools [-> 289]
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- Overview of the Setup2 Editor of the CMS [-> 281]

PNP (tab) Only with CMS 730 S and CMS 830 S.

Before forming a new stitch or transferring, the needle is sunk again when reclaiming, in order to tighten or stretch the "old" stitch. In order to avoid over-stretching of the stitch, we recommend to use the previous take-down value (or a slightly smaller value) also for reclaiming.

The stitch cam value for reclaiming is specified relatively to the "normal" stitch tension. The difference to the "normal" stitch tension is named "Offset". The offset value can be positive or negative. If the reclaiming and the second stitch tension are used in the same knitting system, then the reclaiming will be indicated relatively to the second stitch tension.

	Explanation	Value range
PNP1 - PNP100	Stitch cam position for reclaiming 1 to 100	
Value	Value for reclaiming as NP values or mm	
Value [mm]	Specification in NP.	Minimum value: 6.5 Maximum value: 22.5 Step width: 0.1 Standard: 0.0
Value [mm]	Specification in millimeters. Setting the yarn length per stitch (Yarn Length Control).	Minimum value: 2.20 Maximum value: 33.00 Step width: 0.01
Comment	Comment	ASCII Characters

Value [mm] 🗹



You can not use mm values in Setup Editor of the M1plus. **1**: Use only NP values on the CMS as well!

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NPS (tab) Only with CMS 730 S and CMS 830 S.

Individual needles or areas are knitted with a smaller stitch tension (stitch short, tuck short).

The stitch cam value for the second stitch tension is specified relatively to the "normal" stitch tension. The difference to the "normal" stitch tension is named "Offset". The second stitch tension cannot be higher than the "normal" one. This means, that the offset value for the second stitch tension is always negative.

	Explanation	Value range	
NPSK	Correction for all stitch cams for the second stitch tension	Minimum value: -2 Maximum value: 2 Step width: 0.05	
NPS1 - NPS100	Stitch cam position 1 to 100 for the second stitch tension		
Value	Value for the second stitch tension as NP values ormm		
Value [mm]	Specification in NP.	Minimum value: -8.0 Maximum value: 0.0 Step width: 0.05	
Value [mm] ✔	Specification in millimeters. Setting the yarn length per stitch (Yarn Length Control).	Minimum value: 2.20 Maximum value: 33.00 Step width: 0.01	
Comment	Comment	ASCII Characters	

Value [mm] 🗹

You can not use mm values in Setup Editor of the M1plus. 1: Use only NP values on the CMS as well!

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5.5.5 Carriage speed

Different carriage speeds can be entered for different knitting situations. The indirect carriage speed only becomes effective when it is slower than the normal speed.

	Explanation	Value range (meters/second)
MSECK	Carriage speed for small knots over m rows, standard: 1 row	Minimum value: 0.05 Maximum value: 1.20 Step width: 0.05
MSEC	Speed (normal speed)	Minimum value: 0.05 Maximum value: 1.20 Step width: 0.05
MSEC0	Speed for empty rows (S0)	Minimum value: 0.05 Maximum value: 1.40 Step width: 0.05
MSEC1	Speed for transfer rows	Minimum value: 0.05 Maximum value: 1.20 Step width: 0.05
MSECI	Speed with Intarsia Yarn Carrier	Minimum value: 0.05 Maximum value: 1.00 Step width: 0.05
MSECC	Speed outside the needle bed when the yarn carrier is brought in the clamp or taken out of the clamp.	Minimum value: 0.05 Maximum value: 0.50 Step width: 0.05

MSEC2-20	Speed for knitting rows	Minimum value: 0.05 Maximum value: 1.20 Step width: 0.05
Comment	Comment	ASCII Characters

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5.5.6 Cycle counters

The cycle counter specifies how often a pattern area is to be repeated. Which cycle counter controls which pattern area is defined in the knitting program.

	Explanation	Value range
RS1 - RS39	Cycle counters 1 to 39	1-99999
Comment	Comment	ASCII Characters

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5.5.7 Yarn length

YLC		
		Explanation
	"YLC-mode for	Determine the yarn length control mode.
	patterns"	i: On the CMS the mode can be changed here.
		Reasonable input: 0, 1, 5, 7, 8
		<u></u>
	"Correction for all measuring wheels"	Enter a correction value for all measuring wheels
	"Maximum deviation of the target value per knitting row"	Stopping the machine when exceeding the correction value (Standard = 15%).
	_	
	"Wheel"	right device: Select measuring wheel (n=1 to 8). left device: Select measuring wheel (n=9 to 16).
"Y"		Select the yarn carrier (1A to 8D) working with this measuring wheel.
	"Yarn Quality"	"Yarn Quality"
	for yarn disposition only	Example:
		Nm 28/2
		Enter 28 here
		"Number of Yarn Threads"
		Enter the number of individual threads.
		"Number of Threads " Enter the number of threads per yarn carrier here
		NM/TEX Select unit for the yarn thickness. Enter NM here
	"Correction > +/- [%]"	Enter correction value for an additional thread from the from the left. The correction value has an effect in the carriage direction to the right.



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	_
Fabric Type	Explanation
0-R	Single jersey fabric knit on the rear needle bed.
R-0	Single jersey fabric knit on the front needle bed.
D-1x1	Double jersey, 1x1 knitting mode
D-2x1	Double jersey, 2x1 knitting mode
D-2x2	Double jersey, 2x2 knitting mode
D-RR	Double jersey, DJ knitting mode
Value	Setting the yarn length per stitch.
Value [mm]	Specification of the mm value.
	Specification of the NP value
Comment	Comment (ASCII Characters)

YLC3 (tab) Determining the correction values by a test fabric

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YLC5 (tab)

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i: This tab appears on the CMS only.

An original piece is generated for the YLC5 mode (Masterpiece). The data will be saved in a separate file (<pattern name>.stx).

- You can see the path specification of the YLC5 data in this tab.
- If you want to use the valuated YLC5 data (Masterpiece) also for differing yarns, enter the deviation of the yarn elongation in percentage in the "Yarn correction" cell.
- Changing the minimum width.
 Change the minimum width only if the error message "YLC: deviation from set value of measuring wheel x too large" is displayed.
 Enter the change in the "Minimum width" line.
 Value range: 2 E...0...+ 2 E (E = Number of needles per inch = Gauge of the machine)
 Example for E16: -32...0...+32 needles
 Afterwards you need to knit the original piece again.

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5.5.8 Racking

The racking instructions are valid for one carriage stroke.

	Explanation	Value range
VCI	Racking function	VCI1 to VCI50
VK	Racking correction by m steps (0-10)	Step width: 1/70 of the needle distance
Dir	Direction of the racking correction < - to the left > - to the right ? - not defined, will be defined on the machine	
VV	Racking speed n (1-32), without an instruction VV=32	
V+/-	V+ - Overracking, in addition to the racking specification positive value: Overracking in racking direction negative value: Overracking in opposite to the racking direction	(n=1-24, step width: 1/8 of the needle distance)
Comment	Comment	ASCII Characters

- Table Tools [-> 288]
- Helpers for Input [-> 283]
- File tools [-> 289]
- Overview of the Setup2 Editor of the CMS [-> 281]
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5.5.9 Miscellaneous

General data about the machine are displayed.

Data about the machine cannot be modified here.

	Explanation	
#137	Needle gauge	These data derive
#195	Needle hook gauge	Machine" dialog
#156	Coupling width (with tandem machines)	box of the M1plus

Machine-No.	Stoll machine number:	These data are entered automatically at the machine.
Hostname	Name of the computer within the network	
Online-ID	KnitLAN-ID	

Comment	General comment about the Setup file	ASCII Characters
		Display only

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5.5.10 Data Mode and File Mode

The "Setup2 Editor" of the CMS and of the M1plus differs between the editing of Setup2 files (.setx) and of data of the loaded pattern (.mdv / .zip).

		Data Mode	File Mode
Origin of the data		Loaded pattern	Setup2 files (.setx)
Calling up		By the "Pattern Parameters" / "Setup- Data…" menu	By the "MC-Program" / "Display MC Program" / "MC-Setup" menu
			In / .setx
Save		Button	Menu
		"Apply"	Save"
		\checkmark	& ©
Effect of editing		Direct in the pattern Direct in the fabric	Modified Setup2 file
Difference in editing		Restricted possibilities due to the situation	Restricted possibilities due to the situation
File Tools		Not available	Menus "File" "Edit" "?"
		Not available	،
Title		" <pattern name=""> - <cms> - Setup2"</cms></pattern>	"Sintral Editor - <file name>.setx"</file

Setup1 - Editing the setup file 5.6

5.6 Setup1 - Editing the setup file

The Setup data editor allows setup data to be edited without loading them into the machine beforehand. It is thus possible to edit another setup file while the machine is knitting a pattern. Each group of setup data has its own tab with the corresponding input fields in the "Setup data editor" window.

i	If no STIXX device is connected to the machine, the "STIXX" and "STIXX3" tabs are not displayed although the setup file
	contains STIXX data.
	The STIXX data cannot be edited.
	If the set-up data are saved, then existing STIXX data (not
	displayed) are also saved.

The following events can prevent a correct saving of setup data:

- The setup file is write protected. This is displayed by a touch. The write protection can be deactivated by the additional function key "Deactivate write protection".
- Limiting values do not agree with each other. The limiting values of the entered setup data are compared to data of current machine and checked. Conflicts may therefore arise if a setup file of a different machine is being edited on the machine.
- The tabs "NP1..50", "NP51..100", "WMF" and "MSEC" can contain empty input fields.

This is because of the M1 that only deposits the used NP, WMF and MSEC data into setup file.

When saving data from setup data editor, only the used NP, WMF and MSEC data are also saved in setup file.

5.6 Setup1 - Editing the setup file

Key	Function
	Call up the "Load & save" window
SET	Activate the "Setup selection"
SET	Call up the "Setup data editor" window
	Call up "Additional function keys"
	"Activate write protection" key
×	"Deactivate write protection" key
₩←	Call up "Main menu"

Keys for the "Setup data editor" window

- Activating the Setup data editor
- 1. Call up the "Load & save" window.

- Load	& save			STOLL THE RIGHT WAY TO KNIT
코ㅋ코			400 K	eall eavy spi
Path:	d:\muster	(3)		
Machine type	File name	Туре	Chan	
	david-RT	jac	2005-	PAT SIN JAC SET LIB
СМ\$530	david-RT	set / set	2005	
CMS530	david-RT	() sin	2005-	Pattern:
	david-bp	jac jac	2005-	U
CMS530	david-bp	sin	2005-	Jacquard:
CMS530	david-bp	set	2005-	and any at
1	david-ARM	jac	2005-	
CMS530	david-ARM	set	2005-	Setup:
CMS530	david-ARM	sin	2005-	
				Library:
<	111		(2)	ALC: NOT THE OWNER OF THE OWNER OWNER OF THE OWNER OWNER OWNER OWNER OWNER OWNER OWNER OWNER OWNER OWNE
Total: 9	4658	2005-11-16 09:18:31	-	

"Load & save" window

- 2. Activate the "Setup selection" key (1).
- 3. Select the desired setup file (2).
 - \triangleright The "Setup data" editor key is displayed (3).
- 4. Tap the "Setup data editor" key (3).

Setup1 - Editing the setup file 5.6

- STOLL 🔜 Setup data editor NP 1..50 NP 51..100 WMF YD KI/K<I> MSEC STIXX STIXX 3 Α [mm] NP11: 12.5 [mm] [mm] NP21: 12.5 11.0 NP31: 12.5 12.5 NPK: 0.0 NP1: NP41: 11.5 NP12: 12.5 NP22: 12.5 NP32: 12.5 12.5 NP2: NP42: NP23: 12.5 NP33: 12.5 12.0 NP13: 12.5 12.5 NP3: NP43: NP4: 12.5 NP14: 12.5 NP24: 12.5 12.5 NP44: 12.5 NP34: NP5: 13.0 NP15: 12.5 NP25: 12.5 B 12.5 NP45: 12.5 T NP6: 12.5 NP16: 12.5 NP26: 12.5 12.5 12.5 NP46: ■ NP17: 12.5 ■ NP27: 12.5 ■ NP37: 12.5 NP7: 12.5 NP47: 12.5 12.5 NP18: 12.5 NP28: 12.5 NP38: 12.5 12.5 NP8: NP48: NP19: 12.5 MP29: 12.5 MP39: 12.5 12.5 NP9: 12.5 NP49: NP10: 12.5 NP20: 12.5 NP30: 12.5 NP40: 12.5 NP50: 12.5 С File name CMS530.david-RT.set
- \triangleright The "Setup data editor" window is open.

"Setup data editor" window

A Total of 8 tabs:

The STIXX and STIXX3 tabs are only displayed if a STIXX device is connected.

- B Working area changes, depending on the selected card.
- C Status bar: with the file name of the loaded setup file.

The "Setup data editor" window contains a maximum of 8 tabs:

Card	Meaning
NP 150	Stitch cam position with index 1 to 50
NP 51100	Stitch cam position with index 51 to 100
WMF	Specifications for take-down value
YD	Distance between yarn carriers and fabric selvedge
KI/K <i></i>	Correction value of yarn carriers in fabric area
MSEC	Specifications for carriage speed in m/sec
STIXX	Specifications for the STIXX yarn length measuring device (STIXX menu)
STIXX3	Specifications for the STIXX yarn length measuring device (STIXX3 menu)

Tabs in the "Setup data editor" window

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5.6 Setup1 - Editing the setup file

editor



Working with the setup data Set/deactivate write protection:

- ✓ The Setup data editor window is open.
- 1. Call up "Additional function keys".
- 2. Tap the "Activate write protection" key in order to activate the write protection.

- or -

→ Tap the "Deactivate write protection" key in order to deactivate the write protection.

Editing the setup file:

- 1. Tap the tab to be edited.
- 2. Select the desired field.
- 3. Overwrite the value.
- 4. Confirm input.
- 5. Repeat steps 1 or 2 to 4 for further inputs.

- or -

→ Call up "Main menu".



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6.1 Minimize wear

6 Maintenance of the knitting machine

This chapter contains information on:

- Minimize wear [-> 315]
- Cleaning the knitting machine [-> 317]
- Lubricate knitting machine [-> 335]

6.1 Minimize wear

All parts of the knitting machine have carefully been selected and checked by Stoll. Nevertheless, they are subject to wear due to wear. You can keep the wear to a minimum if you lubricate, clean and check the machine regularly.

The following table contains an overview of the wearing parts and the possible causes for excessive wear.

Wearing part	Possible causes of increased wear
Fabric take-down rollers	Excessive fabric take-down values
	 Contact pressure too high/low
	 Yarns harmful to rubber, e.g. abrasive, sanding yarns or yarn finishes such as greases or oils
	 UV radiation (including direct sunlight)
	 Cleaning agents harmful to rubber, e.g. ether or fuels. Recommendation: Use cleaning petrol for cleaning
Needle brushes, brushes of the central lubrication	 Incorrect adjustment
Feed wheel rollers	Sanding yarn
	 Allowing the feed wheel to run unnecessarily
Needle bed elements,	 Excessive fabric take-down values
cams	Yarn too thick
	Insufficient lubrication
	Insufficient cleaning
Yarn guiding parts (deflectors, yarn control device, etc.)	 Sanding yarn
Yarn carrier, yarn carrier	Insufficient lubrication
slide block	 Sanding yarn

Wearing parts

Wearing part	Possible causes of increased wear		
Yarn carrier magnet	 Magnet may not come into contact with grease or oil 		
Belt on auxiliary take- down	 Following a fault on the auxiliary take-down (fabric winding device), the residual threads were not removed carefully 		
Belts (drive, racking, comb take-down, auxiliary take- down)	 Belt tension too high: Danger of bearing damage (adjustment with measuring device by Stoll technician) Belt tension too low: Danger of position errors (racking, auxiliary take- down) 		
Blade of the thread clamping and cutting device	Yarn too thickSanding yarn		
Energy chain trailing cable	 Heavy soiling Laying down of objects Damage to depositing gutter Not moved into position carefully after work at the rear of the machine 		

Wearing parts

Further information:

- Adjusting needle brushes [-> 200]
- Yarn table [-> 454]
- Lubricate knitting machine [-> 335]
- Cleaning the knitting machine [-> 317]
- Adjusting the brushes of the central lubrication [-> 208]

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6.2 Cleaning the knitting machine

6.2 Cleaning the knitting machine

To retain the operability of the knitting machine and ensure the quality of the fabric, the knitting machine must be cleaned regularly.

Cleaning interval	Cleaning work
if necessary	Cleaning the touch screen
6 to 24 operating hours	Clean vacuum device and lint container
daily	Vacuuming off knitting machine
	Cleaning needle bed
	Cleaning the active thread clamp
	Cleaning the permanent brakes
	Cleaning the friction feed wheel
100 operating hours	Cleaning main drive fan
once a month	Cleaning fan and radiators in right control unit
	Cleaning filter mat of power supply unit
2 months	Quick cleaning of the thread clamping and cutting device
3 to 6 months	Thoroughly cleaning needle bed
	Clean transport segment
6 months	Clean the knitting systems
	Clean thread clamping and cutting device thoroughly

Cleaning plan

We recommend the use of following cleaning agent:

Cleaning agent	Cleaning work
Cloth, suction, compressed air	on the entire knitting machine
Special cleaning agent for plexiglas (note the manufacturer's specifications)	Touch screen and covers
Cleaning petrol (note the manufacturer's specifications)	Roller rubber of the take-down roller

Cleaning agent

i

Plastics, in particular the transparent covers, may not be cleaned with alcohol or spirit, but instead only with a special cleaning agent for plexiglas.



- Do not remove metallic parts and fragments (e.g. broken needle latch or hook) with a magnetic tool. There is a danger that the needle bed or cams can be magnetized, leading to incorrect selection.
- Cleaning the touch screen [-> 319]
- Clean vacuum device and lint container [-> 320]
- Vacuuming off knitting machine [-> 321]
- Cleaning needle bed [-> 322]
- Cleaning the active thread clamp [-> 322]
- Cleaning the permanent brakes [-> 323]
- Cleaning the friction feed wheel * [-> 323]
- Cleaning main drive fan [-> 324]
- Cleaning fan and radiators in right control unit [-> 324]
- Cleaning filter mat of power supply unit [-> 325]
- Cleaning thread clamping and cutting device [-> 326]
- Clean transport segment [-> 328]
- Clean the knitting systems [-> 330]
- Clean thread clamping and cutting device thoroughly [-> 331]

6.2 Cleaning the knitting machine



6.2.1 Cleaning the touch screen

Use a clean, soft cloth for cleaning. If heavy soiling is present, use a cleaning agent suitable for plexiglas. To prevent menus and function keys from being activated when cleaning, two options are available:

- Disconnect machine main switch
- Deactivate touch screen using the "Block input" key

Key	Function
	Call up the "Service" menu
	"Block input" key

Keys for cleaning the touch screen

Cleaning the touch screen:

- 1. Call up the "Service" menu from the "Main menu".
- 2. Tap the "Block input" key.
- 3. Clean the touch screen.
- 4. Reactivate the screen again after cleaning. For this purpose, trigger a manual stop, e.g. by pushing open a cover over the needle bed.

6.2.2 Clean vacuum device and lint container

- 1. Stop knitting machine when carriage is located on right half of needle bed.
- 2. Slide on cover over needle bed.
- 3. Push locking of lint container inwards and pull away container upwards.





Lint container and filter

- 4. Empty the lint container.
- 5. Clean filter (1) of lint container.
- 6. Reinstate the lint container.
- 7. Remove left rear panel segment.
- 8. Clean motor cover.



Cleaning motor cover

9. Swivel the central lubrication on the left side of the carriage into the mounting position.

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- 10. Swivel the holder outwards with a screwdriver until the holder can be pulled out of the carriage.



11. Blow out the brush on the suction tube with compressed air.

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- 12. Reassemble the suction tube with the holder. Press both lock positions of the holder tightly into the carriage.
- ▶ The holder is correctly engaged, if it clicks twice.

6.2.3 Vacuuming off knitting machine

In order to avoid any dust being deposited on the inaccessible points of the machine, we recommend that the dust should be vacuum cleaned and the machine not to be cleaned by compressed air.



- 1. Stop the knitting machine.
- 2. Vacuum fluff and dust off the knitting machine.

6.2.4 Cleaning needle bed

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The pelerine springs of the needles should be cleaned daily, however at least once a week. The entire needle bed is cleaned every 12 to 26 weeks.

Cleaning needle bed:

- 1. Transfer all stitches to the rear needle bed.
- 2. Slide open all covers over the needle bed.



Cleaning the needle bed

- 3. Push up all needles of the front needle bed completely.
- 4. Vacuum off dirt in the area of the needle hook/pelerine spring (1) and in the area of the needle bed (2).
- 5. Close all covers over the needle bed again.
- 6. Transfer all stitches to the front needle bed and clean the rear needle bed in the same way.

Further information:

■ Helpful knitting rows [-> 350]

6.2.5 Cleaning the active thread clamp

1. Bring the lateral yarn tensioner in still position. Thereby the active thread clamp is open.



Cleaning the active thread clamp

2. Blow the eyelets in the lateral safety door by compressed air.

6.2 Cleaning the knitting machine



6.2.6 Cleaning the permanent brakes



Cleaning the permanent brake

→ Clean both the brake settings of each permanent brake with a cloth.

In case it is very dirty, then the permanent brake can be dismantled and can be blown out with compressed air.

- Pull the adjusting lever of the permanent brake outwards and simultaneously press the lug of the permanent brake on the inner side of the safety door. The permanent brake flaps underneath.
- 2. Blow out the permanent brake with the compressed air.

6.2.7 Cleaning the friction feed wheel *



Cleaning the friction feed wheel

- 1. Suck in the fluff and dust from the friction feed wheel.
- 2. Remove dirt (e. g. paraffin) from the friction rollers.

Further information:

Symbols in this document [-> 16]

6.2.8 Cleaning main drive fan

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- 1. Switch off the machine and wait until the machine is currentless.
- 2. Swing open the cover on the right-hand control unit.



Main drive fan

- 3. Clean fan.
- 4. Close the cover on the right control unit.
- 5. Switch on machine.



6.2.9 Cleaning fan and radiators in right control unit

- 1. Switch off the machine and wait until the machine is currentless.
- 2. Swing open the cover on the right-hand control unit.



Control unit

- 3. Vacuum-off and blow-out the fan (1) and heat sink (2).
- 4. Close the cover on the right control unit.
- 5. Switch on machine.
 - The fan is temperature-controlled.
6.2 Cleaning the knitting machine



6.2.10 Cleaning filter mat of power supply unit

1. Swing open the cover on the control unit.



Fan power supply unit

- 2. Remove screw (1) and hinge down the housing toward the front.
- 3. Remove filter mat and blow it out with compressed air.
- 4. If heavy soiling is present, vacuum off and blow out the radiator (2).
- 5. Replace filter mat.
- 6. Swing in the cover on the left control unit.

Cleaning the knitting machine 6.2

6.2.11 Cleaning thread clamping and cutting device

The thread clamping and cutting device and the clamping pinion should be cleaned every 2 months. The more often cleaning is carried out, the less dirt will work into the thread clamping and cutting device.

Cleaning can be carried out while installed on the knitting machine.

Key	Function
**	Call up "Clamping & cutting" window
	Call up "Additional function keys"
Č*X	Call up "Motor correction values" window
\checkmark	Confirm input
₩€	Call up "Main menu"

Keys for cleaning thread clamping and cutting device

- 1. Call up the "Clamping & cutting" window in the main menu.
- 2. Call up "Additional function keys".
- 3. Call up "Motor correction values" window.

ở [≭] Motor correct	ion va	lues		S TI	STOLL HE RIGHT WAY TO KNIT
Unit on th	ie left		Unit on t	he right	
Selection motor	S	0 🚺	Selection motor	S	0
Tucking motor	F	0	Tucking motor	F	0
Clamping motor	К	0	Clamping motor	К	0
Cleaning position of	lamping r	needle	Cleaning position	clamping r	needle
Adju any position	tucking n	notor	Adju an j positio	n tucking r	notor
Off On			f		

"Motor correction values" window

4. Move the clamping and cutting needles into the cleaning position by entering the desired needle for "Cleaning position of clamping needle" and confirm the input.

The needle moves upward into the cleaning position.

6.2 Cleaning the knitting machine



5. Remove any dirt on the clamping and cutting needles 1 to 8 thoroughly.

Clamping/cutting needle and clamping pinion

- 6. Remove any dirt on clamping pinions 1 to 8. Make sure that the clamping pinion is cleaned around its entire circumference. To do this, the clamping and cutting needle can be pulled upward slightly.
- 7. Clean the clamping pinion and finish by pressing in the needle slightly.
- Deactivate the cleaning position. For this purpose, set the "Cleaning position of clamping needle" to "off" and confirm input ("off" can be found above the "1").
 The clamping and cutting needle automatically carries out a reference run.
- 9. Thread up the thread clamping and cutting device again.
- 10. Call up "Main menu".

Further information:

■ Threading up thread clamping and cutting device [-> 82]

6.2.12 Clean transport segment

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If the transport segment is sticky, the error message "(F) Motor reference fault" appears on the display. Check whether a thread has wrapped itself around the transport segment.

- 1. Place carriage on opposite side.
- 2. Remove the screws (1).



Screws of the finger support

- 3. Remove the finger support (2).
- 4. Remove the thread residues from the intermediate shaft (3) and the gearwheel of the transport segment (4). Remove the winding guard (5) if necessary.



Finger support elements



6.2 Cleaning the knitting machine

Installing the finger support:

1. Turn the transport segment (4) into the home position.



Home position of transport segment

2. Tension toothed belt. To do this, push the toothed belt slightly upward.



Tensioning toothed belt in direction of arrow

3. Carefully insert the finger support and tighten the screws (1).

6.2.13 Clean the knitting systems

STOLL

KNIT AHEAD

- 1. Stop the knitting machine.
- 2. Move the carriage assembly into the left reversing position.
- 3. Set the main switch to "0" and wait until the touch screen is switched off.
- 4. Remove the carriage part.

^	CAUTION
<u>/!\</u>	Damage to the knitting systems!
	Dirt will be blown into the guides of the movable parts and the knitting systems will be damaged if they are blown out with compressed air.
	 Always vacuum off the knitting systems, never blow them out

5. Vacuum off the knitting systems and selection systems.

٨	CAUTION
<u>/!\</u>	Damage to the selection systems and impulse givers!
_	The selection systems and impulse givers will be damaged if they are cleaned with acetone or trichlorethylene (Tri).
	→ Clean the selector systems and pulse generators with a clean cloth.

- 6. Clean the selector systems and pulse generators with a clean cloth.
- 7. Check the cams for wear and damage.
- 8. Apply oil to the cams with a brush.
- 9. Set the carriage part on the needle bed again.
- 10. Repeat step 4 to 9 for all carriage parts.
- 11. Set the main switch to "1".
- ► The carriage position is re-referenced.

Further information:

Removing and mounting carriage part [-> 368]

6.2 Cleaning the knitting machine



6.2.14 Clean thread clamping and cutting device thoroughly

The intensive cleaning of the thread clamping and cutting device must be carried out approx. every 6 months. This includes the following cleaning and maintenance work:

- Brushing or blowing out the clamping and cutting needles
- Brushing or blowing out the clamping pinions
- Blowing out the crankcase
- Blowing out the connecting rod slide and checking the drive rockers for smooth movement
- Blowing out the guide plate for the connecting rod slide
- Cleaning the finger support and the intermediate shaft

To carry out the intensive cleaning, the thread clamping and cutting device must be removed and partially dismantled.



Housing of thread clamping and cutting device

1 Crankcase

- 3 Selector housing
- 2 Finger support
- 4 Intermediate plate

Further information:

Dismantling thread clamping and cutting device [-> 378]

Cleaning the knitting machine 6.2

Dismantle thread clamping and cutting device

KNIT AHEAD

STOLL

1. Remove the screws (5).



Thread clamping and cutting device

2. Remove the sensor screw (6).



Sensor screw

- 3. Take the selector housing (3) off the crankcase (1).
- 4. Remove the screws (7).
- 5. Take the finger support (2) off the crankcase (1).



Intermediate plate

6. Take the intermediate plate (4) off the crankcase (1).

6.2 Cleaning the knitting machine





Crankcase

- 1. Remove the connecting rod slide (8) from the guide plate (9).
- 2. Remove the crank journal sleeves (10).
- 3. Blow out the crankcase (1).
- 4. Blow out the connecting rod slide (8) and check the rockers for smooth movement.

STOLL

KNIT AHEAD

- 5. Blow out the guide plate for the connecting rod slide (8).
- 6. Lightly oil the slideways (9) for the connecting rod slide (8).
- 7. Lightly oil the crank journal sleeves (10) and place them on the toothed washers.
- 8. Lay the connecting rod slide (8) in the guide plate while making sure that the cross groove of the connecting rod slide is positioned on the crank journal sleeves (10) on the toothed washer.



Selector housing

- 9. Always blow and brush out the clamping and cutting needles (12), but do not remove if possible.
- 10. Always blow or brush out the clamping pinion (11).
- 11. Blow out the selector housing (3).
- 12. Lightly oil the slideways of the clamping and cutting needles.

Cleaning the knitting machine 6.2



Finger support

- 13. Blow out the finger supports (2) and intermediate shaft (14).
- 14. Remove the thread residues from the intermediate shaft (14) and the gearwheel of the transport segment (16).
- 15. Remove housing (18), for this, remove screws (19) and (20).
- 16. Clean the intermediate plate thoroughly (4).



Intermediate plate

- 1. Lightly oil the front and rear of the intermediate plate (4).
- 2. Screw the intermediate plate (4) onto the crankcase (1).
- 3. Position the finger support (2).
- Position the selector housing (3) on the crankcase (1) over the two setting pins. When doing so, the sensor cable must be laid into the notch on the crankcase (1) between the blade holder and the finger support (2).
- 5. Screw on both cases with the screws (5) tight.
- 6. Only slightly tighten (0.5 Nm) the sensor with the screw (6).
- Screw on the finger support (2) and the securing clips of the sensor cable with the screws (7) tight. In the process the sensor cable must be strain-relieved from the securing clip to the sensor.

Install thread clamping and cutting device:

6.3 Lubricate knitting machine



6.3 Lubricate knitting machine

This chapter contains information on:

- Lubrication interval [-> 336]
- Setting lubricating interval for needle bed [-> 337]
- Setting of central lubrication [-> 338]
- Restarting lubricating interval [-> 342]
- Oiling jack bed [-> 342]
- Oiling yarn carrier rods [-> 343]
- Oiling carriage guide rail [-> 343]
- Greasing impulse sensor rails [-> 344]
- Greasing racking device [-> 345]
- Greasing adjustment pieces [-> 346]

Lubricate knitting machine 6.3

6.3.1 Lubrication interval

To retain the operability of the knitting machine and ensure the quality of the fabric, the knitting machine must regularly be lubricated.

Lubrication interval	Lubricating work
adjustable	Oiling the needle bed
Recommendation: Every 6 - 10 operating hours; select shorter interval if necessary	
10 operating hours	Oiling the jack bed, oiling the yarn carrier rods
100 operating hours	Oiling the carriage guide rail, greasing the impulse sensor rails, oiling the needle latch hinges
6 months	Greasing the racking device, greasing the adjustment pieces

Lubrication schedule

- Only the named lubricants or others recommended by Stoll may be used. Other lubricants may damage the machine, e. g. due to insufficient lubricating action, rust on metal parts or damage to the electrical cable insulation and the plastic parts. We point out here that failure to observe this, will void our warranty services.
- Lubricants

Use only the lubricants found with the accessories of the machine or those listed in the lubricating schedule.

	Label	Gauge	ID
Oil	Silvertex T46	E 3,5.2 E 5.2 E 6.2 E 7.2	230 614
	Silvertex T32	E 9.2	005 341
Grease	OKS 270		229 372
	OKS 475		005 351
	Klueber Staburags NBU 12/300 KP		231 191

In the first weeks after setting up the knitting machine, select shorter lubricating intervals.

6.3 Lubricate knitting machine



6.3.2 Setting lubricating interval for needle bed

For the needle bed a lubricating interval of between 1 and 65.535 courses can be set. A mean value for a three-system machine is 25,000 courses. However, this value depends highly on: Machine speed, temperature and number of knitting systems. We recommend: Selecting a shorter lubricating interval instead of a longer one. After the lubricating interval expires, a message appears stating that the needle bed must be oiled.

Key	Function
	Call up the "Machine settings" window.
	Call up "Additional function keys"
0- \$ \$	Call up "Sensors" window
\checkmark	Confirm input
₩€	Call up "Main menu"

Keys for setting the lubricating interval Set lubricating interval:

- 1. Call up the "Machine settings" window.
- 2. Call up "Additional function keys".
- 3. Call up the "Sensors" window.

** Sensors		STOLL THE RIGHT WAY TO KNIT
Posistance monitor	Horn	() 2 •
	Intermittent tone	
	Light barrier comb	
Control main take-down (WM+C)		0
Turning control of the take-down system (WMC)		0
Auxiliary take-down control (W+C)		0
Syst. run through until lubric. 32500) stop motion	
Remaining system run through: 32500 1		65535

"Sensors" window

- 4. Input "Syst. run through until lubric.".
- 5. If the machine is to be stopped after reaching the system run-throughs, then deactivate the check box.



- 6. Confirm input.
- 7. Call up "Main menu".

6.3.3 Setting of central lubrication



Lubrication points of the central lubrication

The central lubrication can be activated/deactivated. If it is deactivated, monitoring of the lubrication interval is automatically activated.

When central lubrication is deactivated, the following lubrication tasks must be performed manually again:

- Oil needle bed
- Oiling jack bed

i

The needle bed and jack bed must be oiled manually before a new machine has been set up and for a machine which has been out of operation for a longer period of time or which has just had a gauge conversion. Then use the "Initial lubrication" setting for approx. 15 minutes.

Key	Function
	Call up the "Machine settings" window.
	Call up "Additional function keys"
	Call up the "Central lubrication" window
₩€	Call up "Main menu"

Keys for adjusting the central lubrication



6.3 Lubricate knitting machine

Central lubrication		STOLL THE RIGHT WAY TO KNIT
Central lubrication	1) 📮 Off On
Adjustments First lubrication Stoll inputs User adjustments	Lubricat. process after system run through Lubric. processes until lubric. of all needle	ns: 5000 3 es: 3
System run throughs since	last lubrication proce	0
Releasing a lubrica	tion process (5) Aeratio	on 📕 Off 6

"Central lubrication" window

Field	Explanation
1	Switch on/off the central lubrication
2	Three settings are available for the lubrication interval:
	Initial lubrication: This setting is used for the initial lubrication of a new machine at the Stoll stoll factory. The values cannot be modified. (Caution - risk of soiling the fabric)
	Select this setting for approx. 15 minutes after a gauge conversion or with a machine which has been out of operation for a longer period of time.
	STOLL inputs: This setting can be used for production. The values cannot be modified. The values cannot be modified.
	User settings: In this mode, the values can be changed by the user. (Attention: An improper setting could lead to insufficient oiling. Ensure that the central lubrication applies sufficient oil to the needle bed.)
3	Each setting consists of two values.
	Lubricat. process after system run-throughs:
	Setting of the number of knitting systems after which lubrication occurs. The lubrication procedure stretches across the current traversing path of the carriage.
	Lubric. processes until lubric. of all needles:
	Setting of the number of lubrication procedures after which the entire needle bed is to be lubricated.
4	Number of system run-throughs since the last lubrication process
5	A lubrication procedure is triggered in the next carriage return. The entire needle bed is lubricated.

"Central lubrication" window

Lubricate knitting machine 6.3

Field	Explanation
6	The oil line is de-aerated with this switch. The oil pump is switched on for max. 30 seconds. Use this switch for ventilation only, not for lubrication (Caution - risk of soiling the fabric).

"Central lubrication" window

i	All lubrication processes and operating actions are logged. The inputs can be read. For this purpose, call up the
	"additional function keys" and the "Central lubrication log" key in the "Central lubrication" window.

Error messages If an error occurs in the area of the central lubrication, it is displayed on the touch screen.

Error Message	Explanation	
Central lubrication oil reservoir almost empty	If a certain level is undershot, this message appears. It is always displayed until the oil is filled up or the oil level reaches the "Min" mark. The machine then stops and the "Oil reservoir empty" error message appears.	
Central lubrication oil reservoir empty	Fill oil reservoir with oil until the "Max" mark has been reached. E3,5.2 E5.2 E6.2 E7.2: SILVERTEX T46, ID 230 614 E9.2: SILVERTEX T32, ID 005 341	
Central lubrication pressure switch	The oil pressure is monitored. If it is too low, this error message appears. Check oil line. If the oil line is OK, set the "Ventilation" switch to "On" and then to "Off" again. This switches the oil pump on again. If the error occurs again, the oil line must be deaerated.	

Error messages for central lubrication

Further information:

- Setting lubricating interval for needle bed [-> 337]
- Oiling jack bed [-> 342]
- Oiling carriage guide rail [-> 343]
- Deaerating oil line [-> 386]
- Oil needle bed [-> 341]



6.3.4 Oil needle bed

When the lubricating interval for the needle bed expires, a pictograph appears stating that the needle bed must be oiled.



1. Apply oil with a brush or spray bottle.



Oiling needle bed (top: without central lubrication, bottom: with central lubrication)

- 2. Brushes are attached at the side of the needle bed. Put some oil in the upper brush so that the cams near the coupling parts are oiled.
- 3. Restarting lubricating interval.

Further information:

Restarting lubricating interval [-> 342]

6.3.5 Restarting lubricating interval

- 1. Tap display for "Lubricate needle bed" message.
 - \triangleright The "Current message" window appears.
- 2. Tap"624 Lubricate needle bed (OIL)" message.
 - ▷ The message is marked with a frame. The function key for opening the "Sensors" window appears at the bottom of the touch screen.
- 3. Call up the "Sensors" window.
- 4. Input "Syst. run through until lubric.".
- 5. Confirm input.
- 6. Call up "Main menu".

6.3.6 Oiling jack bed



Oiling the jack bed



→ Use a brush to apply oil to the jack bed (1).

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KNIT AHEAD

6.3 Lubricate knitting machine

6.3.7 Oiling yarn carrier rods



Oiling the yarn carrier rods

- 1. Use a brush or a spray bottle to apply oil to the yarn carrier rods (1).
- 2. If intarsia yarn carriers are used, wipe off the oil with a cloth until the notch on the yarn carrier rod (2) is only coated with a residual lubricating film.

6.3.8 Oiling carriage guide rail



Oiling the carriage guide bar

 \rightarrow Use a cloth to apply oil to the carriage guide bar (1).

Lubricate knitting machine 6.3

6.3.9 Greasing impulse sensor rails

Depending on the machine gauge, there is a front and a rear impulse sensor rail.

Machine gauge	Impulse sensor rail
E18 (E9.2)	at the front and at the rear
E16 (E8.2)	
E14 (E7.2)	
E12 (E6.2)	
E10 (E5.2)	
E8	rear
E7 (E3,5.2)	
E5 (E2,5.2)	
E4	
E3.5	
E3	



Greasing the impulse sensor rails

→ Use a brush to apply grease to the impulse giver rails (1).

6.3 Lubricate knitting machine



6.3.10 Greasing racking device

Greasing racking device

- 1. Position the rear needle bed at an angle.
- 2. Remove the cover over the racking spindle.
- 3. Apply grease to the racking strip and to the sliding guidance with a brush.
- 4. Grease the lubricating nipple (1) with a grease gun (Klueber Staburags NBU 12/300 KP, ID 231 191)

Further information:

■ Remove needle bed or position it at an angle [-> 363]

STOLL

KNIT AHEAD

Lubricate knitting machine 6.3



6.3.11 Greasing adjustment pieces



Greasing the adjustment pieces

- 1. Position the needle beds at an angle.
- 2. Vacuum off fluff and dust.
- 3. Apply grease to adjustment pieces with a brush.

Further information:

■ Remove needle bed or position it at an angle [-> 363]

7.1 Supplementary activities during maintenance

7 Repairing the knitting machine

This chapter contains information on:

- Supplementary activities during maintenance [-> 347]
- Helpful knitting rows [-> 350]
- Replacing parts [-> 352]
- Eliminating faults in electronics system [-> 389]
- Needle selection shifting [-> 397]

7.1 Supplementary activities during maintenance

This chapter contains information on:

- Switching power supply 40 V off and on [-> 347]
- Central lubrication mounting and working position [-> 349]

7.1.1 Switching power supply 40 V off and on

The power supply of the carriage (step motors, selection systems, yarn carrier plunger) can be switched off for assembling works. This eliminates the switching off and on of the main machine switch and thereby the waiting time until the computer of the knitting machine has shut down and rebooted.

The machine cannot be started with the engaging rod when the power supply is switched off.

Key	Function
	Call up the "Service" menu
11	Call up window "Manual interventions Service"
	Confirm message
₩€	Call up "Main menu"

Keys for switching power supply 40 V off / on

Supplementary activities during maintenance 7.1

Switch power supply off and on again:

- 1. Call up the "Service" menu from the "Main menu".
- 2. Call up from "Service" window "Manual interventions Service".

ी Manual inputs se	rvice	STOLL THE RIGHT WAY TO KNIT
Switch power supply 40 volt		Off On
	Test of holding-down jacks	
Left magnet Clo. Op.	Right magnet	

Window "Manual interventions Service"

3. Tap the "Off" switch if the power supply is to be switched off. Answer the message "Switch off?" with "Yes".

- or -

- → Tap the "On" switch if the power supply is to be switched on. Tap the "Confirm message" key. The machine is ready for operation.
- 4. Call up "Main menu".

STOLL

KNIT AHEAD

7.1 Supplementary activities during maintenance

7.1.2 Central lubrication - mounting and working position

Only on machines with central lubrication

Mounting position

The central lubrication can be swiveled upward for mounting activities, e.g. to remove the carriage part.

STOLL

KNIT AHEAD

Swivel central lubrication into mounting position:

1. Swivel central lubrication upward (approx. 100 degrees).



Mounting position of central lubrication

Swivel central lubrication into working position:

2. Move central lubrication downward somewhat until it stops.

Working position

DANGER

Central lubrication in mounting position!

If the machine is started and the carriage moves outward, the side safety door could be thrown open.

- → Swivel central lubrication into working position.
- 1. Move central lubrication upward somewhat until the lock is released.



Swiveling central lubrication into working position

2. Swivel central lubrication downward until it touches the carriage.

STOLL

7.2 Helpful knitting rows

When carrying out cleaning, adjustments and repair work, it is helpful to set a certain knitting situation immediately. The following table lists the knitting specifications mentioned in the operating instructions.

	Knitting specifications
Empty row	< > \$0 W0
	Or: Tap in window "Machine start" on the key "SPF S0".
Empty row with transfer racking	< > VU S0 W0
Empty row with half racking	< > V# S0 W0
Transfer row to the rear (R = all needles)	< > S:U^SR; S1
Transfer row to the front	< > S:UVSR; S1

Knitting specifications

Key	Function
	Switch on Sintral editor
	Call up "Machine start" window
₩€	Call up "Main menu"

Keys for entering a knitting row

Enter and fix a knitting row:

- 1. Stop the carriage shortly after the left reversing position.
- 2. Call up the Sintral Editor.
- 3. Position the cursor accordingly (e.g. on line 998) in the Sintral program.
- Enter the knitting row using the virtual keyboard.
 For example, you may want to enter a transfer row to the rear on line 998.

The specifications are as follows: 998 <> S:U^SR; S1

5. Confirm input and return to the "Main menu".

7.2 Helpful knitting rows

- 6. Call up the "Machine start" window.
- 7. In the "SPF line fixed" line, tap the "Line: 999" field and enter the line number "998".



"Machine start" window

- 8. Fix this line by tapping the "SPF line fixed" key and engaging the machine.
 - ▷ The knitting specification is carried out after the next reverse.
- 9. Stop the carriage if it is in the left reverse again.
- 10. Carry out work on the knitting machine.
- 11. To resume production tap in the window "Machine start" on the key "SP from line 1" and engage the machine.
 - An empty row is entered on line 999 in a STOLL knitting program.
 - **i** For the first 2 knitting rows after "SPF", the carriage moves over the entire needle bed.

Replacing parts 7.3

7.3 Replacing parts

STOLL

KNIT AHEAD

This chapter contains information on:

- Replacing needle and coupling part [-> 353]
- Replacing intermediate slider [-> 355]
- Replacing selection jack [-> 356]
- Replacing holding-down jack [-> 357]
- Replace spring of holding-down jack [-> 358]
- Replace the yarn guide jack [-> 359]
- Replacing needle guide [-> 360]
- Replacing wire support [-> 361]
- Remove needle bed or position it at an angle [-> 363]
- Repair the needle bed [-> 366]
- Removing and mounting carriage part [-> 368]
- Removing cam plate [-> 376]
- Dismantling thread clamping and cutting device [-> 378]
- Replacing yarn carrier [-> 381]
- Mount intarsia yarn carrier * [-> 381]
- Replacing yarn control unit [-> 383]
- Replacing drive belts and friction roller of friction feed wheel [-> 384]
- Deaerating oil line [-> 386]
- Replacing comb hook [-> 388]

7.3 Replacing parts



7.3.1 Replacing needle and coupling part

Replacing needle and coupling part

- Use extraction hook with red spherical handle only.
- 1. Pull-out the needle rail (1) with the extraction hook (7).
 - The needle rail is secured on the left and right-hand side of the needle bed with a positioning pin. It extends into the boring (2). If the needle rail is pulled out the positioning pin must be pressed downwards otherwise it will get damaged.
- Press the positioning pin with the extraction hook downwards and simultaneously push needle rail to the side.
 If the needle rail is pushed even slightly to the side, it itself presses the positioning pin downwards.
- 3. Pull coupling part (3) upwards, thereby, the needle (4) will also be pulled upwards.
- 4. When butt (5) of the coupling part bumps into the needle guide (6) the needle guide is opened automatically.
- 5. Pull out the needle and coupling part upward.
- 6. Assemble the new needle and coupling part.
- 7. Slide both parts in the needle bed, take care of the connection needlecoupling part while doing so.

8. Check whether the needle and the coupling part are properly connected with each other. If the connection is not proper, the carriage will block at this point and will damage the coupling part or needle bed.

Push the relevant coupling part and some coupling parts on it's left and right slightly upwards (8).



Check needle and coupling part

- 8 Control area
- 9 The coupling parts are at the same height the connection needlecoupling part is correct
- 10 The coupling parts are at a different height the connection needlecoupling part is not correct
- 9. If the connection is not correct, repeat steps 5 to 8.
- 10. Close needle guide (6) again and push the needle rail (1) back.

7.3 Replacing parts



7.3.2 Replacing intermediate slider



Replacing the intermediate slider

- 1. Transfer or cast off all stitches of the affected needle bed.
- 2. The cover rail (2) is stiff as it is under spring pressure of the coupling parts (3).
- 3. Push all coupling parts (3) as upward as possible.
- 4. Remove the screw (1).
- 5. Push the cover rail (2) to the side.
- 6. Push the intermediate slider (4) upwards, lift it over the wire (5) and pull it upwards from the needle bed.
- 7. Install the new intermediate slider in the reverse order.
- 8. Slide the coupling part in home position.

Replacing parts 7.3

7.3.3 Replacing selection jack



Replacing selection jack

- 1. Push the intermediate slider (1) upwards until it bumps into the wire (2).
- 2. Push the selection jack (3) upward until it bumps into the cover rail (4).
- 3. Press the butt (3) of the selection jack into the needle bed while at the same time sliding the selection jack further upward.
- 4. Pull the selection jack on the upper butt (5) from the needle bed.
- 5. Install new selection jack.
- Hold the intermediate slider and push the selection jack downward. Fixing the intermediate slider is important so that the butt of the selection jack (6) slides behind the butt of the intermediate slider.
- 7. Slide the intermediate slider in home position.

Replacing many selection jacks

STOLL

KNIT AHEAD

If many selection jacks should be replaced, then proceed as follows:



- 1. Pull the cover rail (4) to the side.
- 2. Remove the spacing plate (7).
- 3. Remove the selection jack (3).
- 4. Insert new selection jacks.
- 5. Insert spacing plate.
- 6. Close the cover rail again.

7.3 Replacing parts



7.3.4 Replacing holding-down jack

- 1. Transfer all stitches of the needle bed in which the jack is replaced to the other needle bed.
- 2. Pull the needle rail to the side (1) with the extraction hook.



Replacing a holding-down jack

- 3. Remove the screws (2) on both sides of the needle bed.
- 4. Remove the limiter (3) on both sides.
- 5. Pull out the wire (4) up to the point of repair.
- 6. Open needle guide (5).
- 7. Press the butt of the holding-down jack (arrow).
- 8. Remove the holding-down jack (6) upward
- 9. Insert the new holding-down jack parallel to the needle bed.



- Press the holding-down jack by the butt (7) into the needle bed. Then press the upper end (8) into the needle bed. If necessary, repeat the process several times until the holding-down jack engages in its bearing (9).
- 11. Close the needle guide (5).
- 12. Slide the wire (4) back in.

- 13. Screw the limiters back in tightly. While doing so, make sure that the limiter rests on the last trick wall of the needle bed.
- 14. Slide in the needle rail (1) again.

Further information:

STOLL

KNIT AHEAD

■ Helpful knitting rows [-> 350]

7.3.5 Replace spring of holding-down jack

1. Pull out completely the needle rail (1) with the extraction hook. This way the springs of the holding-down jacks are relieved.



Replacing a spring of the holding-down jack

- 2. Remove the screws (2) on both sides of the needle bed.
- 3. Remove the limiter (3) on both sides.
- 4. Pull out the wire (4) until the repair point using pliers.
- 5. Pull the spring (5) out in a downward direction using pliers or a small hook.
- 6. Insert a new spring and push it in an upward direction until it touches the wires (6).
- 7. Slide the wire (4) back in.
- 8. Screw the limiters back in tightly. While doing so, make sure that the limiter rests on the last trick wall of the needle bed.
- 9. Slide in the needle rail (1) again.

7.3 Replacing parts



7.3.6 Replace the yarn guide jack

- 1. Transfer all stitches of the needle bed in which the jack is replaced to the other needle bed.
- 2. Pull the needle rail to the side (1) with the extraction hook.



Replacing a yarn guide jack

- 3. Remove the screws (2) on both sides of the needle bed.
- 4. Remove the limiter (3) on both sides.
- 5. Pull out the wire (4) up to the point of repair.
- 6. Pull out the wire (5) up to the point of repair.
- 7. Remove yarn guide jack (6) upwards and insert new yarn guide jack.
- 8. Slide the wires back in.
- 9. Screw the limiters back in tightly. While doing so, make sure that the limiter rests on the last trick wall of the needle bed.
- 10. Slide in the needle rail (1) again.

Further information:

Helpful knitting rows [-> 350]

7.3.7 Replacing needle guide

STOLL

KNIT AHEAD

1. Pull the needle rail to the side (1) with the extraction hook.



Replacing a needle guide

- 2. Remove the screws (2) on both sides of the needle bed.
- 3. Remove the limiter (3) on both sides.
- 4. Remove the holding-down jack
- 5. Pull the wires (4) to the side only until an open area results at the repair point.

For this purpose, pull out a wire toward the left and up to the repair point. Pull out the other wire toward the right and up to the repair point.

- 6. Reassemble holding-down jack.
- 7. Remove the needle guide (5) upwards and insert the new needle guide.
- 8. Slide in the wires (4) again.
- 9. Screw the limiters back in tightly. While doing so, make sure that the limiter rests on the last trick wall of the needle bed.

10. Slide in the needle rail (1) again.

Further information:

■ Replacing holding-down jack [-> 357]


7.3.8 Replacing wire support

- 1. Transfer all stitches of the needle bed in which the wire support is replaced to the other needle bed.
- 2. Pull the needle rail to the side (1) with the extraction hook.



Replacing a wire support

- 3. Remove the screws (2) on both sides of the needle bed.
- 4. Remove the limiter (3) on both sides.
- 5. Pull out the wire (4) up to the point of repair.
- Pull out the wire (5) up to the point of repair.
 When doing so, guide in the spare wire from the accessories step by step after it from the other machine side. If no spare wire (6) is available, pull out the wire and use it as a spare wire.
- Pull the wires (7) to the side only until an open area results at the repair point.
 For this purpose, pull out a wire toward the left and up to the repair point.

Pull out the other wire toward the right and up to the repair point.

8. In order to make this work easier, remove the holding-down jack, the spring of the holding-down jack, the yarn guide jack and the needle guide to the left and to the right of the wire support.

- 9. Pull the wire support (8) out in an upward direction using pliers or a small hook.
- 10. Insert a new wire support.
- 11. Reinsert the holding-down jack, the yarn guide jack and the needle guide.
- 12. Slide in the needle rail and the wires.
- 13. Reinsert the spring of the holding-down jack.
- 14. Screw the limiters back in tightly. While doing so, make sure that the limiter rests on the last trick wall of the needle bed.
- 15. Slide the needle rail back in.

Further information:

- Helpful knitting rows [-> 350]
- Replacing holding-down jack [-> 357]
- Replace the yarn guide jack [-> 359]
- Replacing needle guide [-> 360]
- Replace spring of holding-down jack [-> 358]



7.3.9 Remove needle bed or position it at an angle

This chapter contains instructions on:

- Releasing needle bed
- Removing needle bed
- Positioning the needle bed at an angle
- Screwing on the needle bed tight

Key	Function
E	Call up "Manual interventions" window

Key for calling up "Manual interventions" window

Releasing needle bed

- 1. Transfer all stitches of the needle bed to be removed or positioned vertically to the other needle bed.
- 2. When the carriage assembly is in the left reversing position, stop the machine with the engaging rod. If a central lubrication is present, the carriage must be in the left reversing position.
- 3. Tap the "Rel. drive brake" key in the "Manual interventions" window and slide the carriage assembly to the left up to the stop.



Releasing needle bed

4. Remove two screws (1) on each side of the machine.



5. Releasing the rear needle bed for gauge E 10 - E 18: Remove the screws (3). Push the connection (4) to the side. While doing so, the impulse sensor rail is pushed to the side.



Link of the impulse sensor rail

- Remove needle bed or position it at an angle
- 1. Front needle bed: Swivel towards the front carefully and lean it against the machine covering.
- 2. Rear needle bed: Remove the needle bed from the machine with two persons.



Screwing on needle bed tight

Reassemble the needle bed in the reverse order.

→ The front needle bed must rest on the pin (1).



Assembling the front needle bed

→ The rear needle bed must rest on the roll (2).



Assembling the rear needle bed

Replacing parts 7.3

7.3.10 Repair the needle bed

STOLL

KNIT AHEAD



Damaged needle bed

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If the carriage is blocked, the needle bed may be damaged. This means that the movable parts (needles, coupling part, intermediate slider and selection jack) do not move smoothly or are blocked. This damage must be eliminated carefully and conscientiously before the machine is started up again. If it is not, a risk of the carriage blocking again immediately and damaging the needle bed again is present.

Repairs must be carried out very carefully and without the use of force.

For doing this, proceed as follows:

- 1. If the carriage blocks, then separate the connection of the carriage part to the carriage. Move carriage to the next reversal point. Lift carriage part from needle bed. Check cam parts for damage and remove broken working butts from the moving parts.
- 2. Find the channel chisel and channel file accessories.
- 3. Remove the movable parts (needle, coupling part etc.) at the point of damage.
- 4. Set damaged stays into a vertical position again using the channel chisel and straighten them. The chisel may only be struck with light hammer blows in the damaged groove. Do not strike the chisel in too deep, as the needle bed foundation will be damaged.



Positioning stays vertically

5. Take a needle or selector jack from this machine and place it into the repaired groove. Push the needle up and down in the groove. If it moves easily, check whether the moving parts of the neighboring grooves move easily as well.



- 6. If this is not the case, repeat Steps 4 and 5.
- 7. Do this for all damaged grooves. The grooves to the left and right of the point of damage must move easily as well.
- 8. If the damaged stays are bent upward, knock them even (smooth) again using the channel chisel.



Smoothing surface

9. Check whether the needle bed elements move easily in the grooves. Repeat step 5.



10. Check whether the edges of the damaged stays have burrs. If this is the case, carefully remove these burrs with the channel file.



Removing burrs

- 11. Check whether the needle bed elements move easily in the grooves. Repeat step 5.
- 12. If everything is in order, carefully polish the needle bed with the channel file. Place the channel file flat on the needle bed and lightly move it back and forth perpendicular to the needle channel.

- 13. The metal debris must be removed from the needle channels. For this purpose, clean the area of repair with a brush.
- 14. If everything is in order, reinsert the moving parts into the needle bed.

Further information:

- Removing and mounting carriage part [-> 368]
- Replacing needle and coupling part [-> 353]
- Replacing intermediate slider [-> 355]
- Replacing selection jack [-> 356]

7.3.11 Removing and mounting carriage part

Removing carriage part

STOLL

KNIT AHEAD

- The carriage part is removed when:
 - The cams must be replaced
 - if a carriage part is blocked, it is separated (separating point) with the integrated device

The carriage assembly is stopped (support surface) outside the needle bed and the carriage part is lowered again.

This chapter contains information on:

- Remove the carriage part to replace the cams [-> 368]
- Remove the carriage part when the carriage assembly is blocked in the needle bed [-> 371]
- Assembling carriage part and carriage assembly [-> 374]

Remove the carriage part to replace the cams

- 1. Swivel central lubrication into mounting position.
- 2. Move the carriage assembly outward up to the support surface.
- 3. Switch off 40 V power supply.



Cover of carriage assembly

4. Remove the carriage assembly cover (1).



STOLL

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Needle detector

- 6. Remove the needle detector on the corresponding carriage part.
- 7. Remove the suction tube on the carriage assembly.
- 8. Unscrew the shoulder screws (2) and screws (4) on the left and right sides.



Opened carriage assembly

9. Swivel left and right swiveling plates (5) inward.



Swiveling plate

- 10. Loosen the screws on the plugs (3) and pull out the plugs.
- 11. Push away the carriage assembly.

Replacing parts 7.3



STOLL

KNIT AHEAD

If the carriage assembly is blocked:

The drive brake has automatically closed.

→ Release the drive brake again and continue pushing the carriage assembly in the original direction.

CAUTION

12. Lift the carriage part off the support surface.

- or -

→ Open the side safety door hood and lift out the carriage part to the side.

Further information:

- Switching power supply 40 V off and on [-> 347]
- Central lubrication mounting and working position [-> 349]
- Removing cam plate [-> 376]

Remove the carriage part when the carriage assembly is blocked in the needle bed

Key	Function
Em	Call up "Manual interventions" window

STOLL

KNIT AHEAD

Key for calling up "Manual interventions" window

- 1. Call up "Manual interventions" window.
- 2. To switch off the needle selection, set the "Needle selection" switch to "Off".
- 3. To switch off all yarn carriers, tap the "YC bolt Up" key.
- 4. Push all yarn carriers outward.
- 5. Swivel central lubrication into mounting position.
- 6. Switch off 40 V power supply.



Cover of carriage assembly

- 7. Remove the carriage assembly cover (1).
- 8. Mark the position of the needle detector so that it can be reassembled in the same position.



Needle detector

- 9. Remove the needle detector on the corresponding carriage part.
- 10. Remove the suction tube on the carriage assembly.
- 11. Check whether the presser feet are switched on, on the corresponding carriage part.

If this is the case, mark the position of the presser foot, so that it can be reassembled on the same position.



Active presser foot

- 12. Remove the screws (6). Remove the presser foot.
- 13. loosen the shoulder screws (2) and screws (4) on the left and right sides.



Opened carriage assembly

14. Swivel left and right swiveling plates (5) inward.



Swiveling plate

- 15. Tighten shoulder screws (2) and screws (4) evenly; the carriage part is raised off the needle bed in the process.
- 16. To release the drive brake, tap the "Rel. drive brake" key.



- 17. Loosen the screws on the plugs (3) and pull out the plugs.
- 18. To lower the carriage part again, loosen the shoulder screws (2) and screws (4) on the left and right-hand sides.
- 19. Remove the shoulder screws (2) and screws (4).



CAUTION

Damage to needles and knitting system!

There are still needles in the knitting system. If the direction is changed when moving the carriage assembly, the needles and knitting system will be damaged.

→ Never change the pushing direction of the carriage assembly.

20. Push away the carriage assembly.

CAUTION
If the carriage assembly is blocked:
The drive brake has automatically closed.
→ Release the drive brake again and continue pushing the carriage assembly in the original direction.

21. Lift carriage part from needle bed.

Do not remove metallic parts and fragments (e.g. broken needle latch or hook) with a magnetic tool. There is a danger that the needle bed or cams can be magnetized, leading to incorrect selection.

Further information:

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- Central lubrication mounting and working position [-> 349]
- Switching power supply 40 V off and on [-> 347]



Replacing parts 7.3

Assembling carriage part and carriage assembly

	-
Key	Function
	Call up "Manual interventions" window
	Confirm the repair
	Call up "Machine start" window
₩€	Call up "Main menu"

Keys for assembling carriage part and carriage assembly



Support surface of carriage part

- 1. Mount the carriage part on the left or right outside the needle bed in such a way that it contacts the support surface (1).
- 2. Call up "Manual interventions" window.
- 3. To release the drive brake, tap the "Rel. drive brake" key.
- 4. Push the carriage assembly directly over the carriage part.



5. Screw in the shoulder screws (2) until the carriage assembly is raised somewhat.



Fastening carriage assembly on carriage part

- 6. Swivel the left and right swiveling plates outward below the carriage assembly.
- 7. Tighten both shoulder screws (2) for fastening the carriage assembly.
- 8. Tighten screws (4) evenly.
- 9. Plug in the plugs (3) while watching the plug coding.
- 10. Tighten the safety screws on the plugs.
- 11. Assemble presser foot.
- 12. Place the yarn carriers in their starting positions.
- 13. Mount the carriage assembly cover.
- 14. Mount the suction tube on the carriage assembly.
- 15. Swivel central lubrication into working position.
- 16. Switch on 40 V power supply.
- 17. Call up "Main menu".
- 18. Call up "Machine start" window.
- 19. Tap the "SPF line fixed" key.
- 20. Start the machine with the engaging rod.
- 21. Only if the carriage assembly was blocked: If the carriage stops after the left reversion, set the needle selection to "On" in the "Machine start" window.
- 22. Tap in "Machine start" window on key "SP from line 1" to start production.

Further information:

- Assembling and adjusting presser foot [-> 202]
- Switching power supply 40 V off and on [-> 347]
- Central lubrication mounting and working position [-> 349]

7.3.12 Removing cam plate

STOLL

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The cam plate is removed for cleaning, checking or replacing cams or step motors.

- 1. Switch off 40 V power supply.
- 2. Remove the carriage part.



Plugs (step motors, selection systems)

- 3. Unplug plugs (1) (step motors, selection systems).
- 4. Remove screws (2) (a total of 15 items).



Screws for cast body on cam plate

5. Remove both cams (3). The screws (4) are located under these cams.



Screws under cams

6. Remove screws (4) (a total of 2 items).



- 7. Turn over the carriage part so that the cam plate is located at the bottom, making sure that the cam plate and the carriage part (cast body) do not separate.
- 8. Remove the carriage part.
- 9. Carry out work on cams or step motors.
- 10. Reassemble the cam plate and carriage part in the reverse order.

Further information:

- Switching power supply 40 V off and on [-> 347]
- Removing carriage part [-> 368]

Replacing parts 7.3

7.3.13 Dismantling thread clamping and cutting device

In case of a fault in the thread clamping and cutting device, the device must be replaced or removed and cleaned.

Key	Function
₩€	Call up "Main menu"
**	Call up "Clamping & cutting" window
\$*X	Call up "Motor correction values" window
\checkmark	Confirm input

Keys for removing thread clamping and cutting device

- 1. Place carriage on opposite side.
- 2. Switch off main switch and wait until machine is currentless.



Cover of thread clamping and cutting device

3. Remove cover (3) by removing screws (2).



Cable and screws of thread clamping and cutting device

- 4. Disconnect both plugs (4).
- 5. Remove the screws (5).



- 6. Take out thread clamping and cutting device.
- 7. Install new thread clamping and cutting device.



Sticker with correction values

- 8. Read off and note correction values (6) of new thread clamping and cutting device.
- 9. Enter the motor correction values of the new device in the machine book.
- 10. Mount cover (3).
- 11. Switch on main switch.
- 12. Call up "Main menu".
- 13. Call up "Clamping & cutting" window.

- STOLL KNIT AHEAD
- 14. Call up "Motor correction values" window.

15. Enter the noted correction values for the new unit and confirm.

δ^{\star} Motor correction values	STOLL THE RIGHT WAY TO KNIT
Unit on the left Selection motor S 0	Unit on the right Selection motor S 0 Tucking motor F
Cleaning position clamping needle	Cleaning position clamping needle
Adjusting position tucking motor	Adjusting position tucking motor

"Motor correction values" window

∳	If the thread clamping and cutting device must be replaced, and no new one is available, this must be reported to the control. To do this, carry out a "Restart with machine configuration" and deactivate the missing thread clamping and cutting device in the "Machine options" window. If it is not done, the machine cannot continue knitting. In the knitting program no clamping and cutting commands may be specified for the missing thread clamping and cutting device, as otherwise an error message will be output and the machine cannot be started.
----------	--

→ Carrying out "Restart with machine configuration"

Further information:

 Carrying out restart with machine configuration (Restart and Configuration) [-> 444]



7.3.14 Replacing yarn carrier

X

When replacing the yarn carrier bow, ensure that the punch mark is located on the inside when mounting shim (2).

1. Stop the carriage assembly into the left reversing position.



Screws of the yarn carrier limiter

- 2. Loosen the screws (1) of the yarn carrier limiter.
- 3. To remove the yarn carrier limiters, turn the screws (1). The yarn carrier limiters can be removed and mounted in any position.
- 4. Shift yarn carrier to the right or left to the replacement point (A) and remove it.
- 5. Place new yarn carriers on the rails.
- 6. Place the yarn carrier limiters of yarn carriers on the rails, position them in a staggered way and screw them on tight.
- 7. Check the adjustment the yarn carrier.

Further information:

X

Adjusting yarn carriers [-> 205]

7.3.15 Mount intarsia yarn carrier *

Normal and intarsia yarn carriers can be used side by side.



Possible combinations for normal and intarsia yarn carriers.

Each combination can be used with itself or with another combination.

Equip the yarn carrier tracks from inward to outward. With the allocation from inward to outward no track must be kept empty when using intarsia and normal yarn carriers. STOLL

Assembling intarsia yarn carriers:

1. Stop the carriage assembly into the left reversing position.



Yarn carrier limiter and yarn deflector

- 2. Loosen the screws (3) of the yarn carrier limiter.
- 3. To remove the yarn carrier limiters, turn the screws (3). The yarn carrier limiters can be removed and mounted in any position.
- 4. Shift normal yarn carrier to the right to replacement point (A) and remove it.
- 5. Mount the intarsia yarn carriers and push them into their starting positions. To do this, press the clamp (1) outward or the lifter (2) inward.



Intarsia yarn carrier

6. Place the yarn carrier limiter on the rails so that the ramp faces outward.





- 7. Position the yarn carrier limiters of yarn carriers in a staggered way and screw them on tight.
- 8. Check the adjustment the yarn carrier.

Further information:

- Symbols in this document [-> 16]
- Intarsia yarn carrier * [-> 31]
- Adjusting intarsia yarn carriers * [-> 209]

7.3.16 Replacing yarn control unit



Dismantling a yarn control unit

- 1. Mark the position of the old yarn control unit.
- 2. Remove the screw (1).
- 3. Lift the yarn control unit in the front until the contact pins are free. Push the yarn control unit to the rear and remove it.
- 4. Mount the new yarn control device exactly at the position (marking) of the old yarn control device.

- or -

- → Mount an additional yarn control unit at a distance of 90 mm (minimum 75 mm) from the next yarn control unit.
- 5. Hook in the new yarn control unit in the rear guide rail. Pull the yarn control unit to the front and press it downwards simultaneously.
- 6. Pull the yarn control unit to the front and screw it tightly with the screw (1).

7.3.17 Replacing drive belts and friction roller of friction feed wheel

The drive belts and the friction roller of the friction feed wheel are replaced with the following steps:

- Preparations
- Replace the drive belt
- Change position of friction roller
- Replacing the friction roller

Preparations 1. Remove the lug (1) by loosening the knurled screws somewhat.



Friction feed wheel

- 2. Remove screws (2) and take off the stop motion rails.
- 3. Release the couplings of the arms (3) so that they can swing downward.
- 4. Remove the screws (4) and take off the housing cover (5).
- 1. Turn the V-ribbed belt pulley (6) by hand until both Allen screws can be released through the holes (7).



- Drive belt
- 2. Remove the belt (8).

Replace the drive belt

STOLL

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- 3. Mount the new belt in such a way that it runs in the grooves of the drive pulley.
- 4. Press the motor (9) upward and tighten the screws of holes (7)
- 5. Check the belt tension.
- The belt can be pushed through by approx. 2 to 4 mm when light pressure is applied.

Change position of friction The surface roller Then the fri

The surface of the friction roller is worn over the course of time by the yarn.
 Then the friction roller does not need to be replaced immediately, but its position can be shifted by 11 mm. This doubles its service life.

1. Remove the screws (12).



Screws for friction rollers

- 2. Remove the spacer (11).
- 3. Take off both friction rollers (10).
- 4. To assemble: Push the spacer (11) onto the axis of the friction roller (10)
- 5. Reinstate the friction rollers (10).
- 6. Retighten the screws (12) without the spacers.

Replacing the friction roller

- 1. Remove the screws (12).
- 2. Take off the friction rollers (10).
- 3. Lay down the new friction roller.
- 4. Tighten the screws (12).

STOLL

7.3.18 Deaerating oil line

Only on machines with central lubrication



"Central lubrication" window

Key	Function
	Call up the "Machine settings" window.
	Call up "Additional function keys"
Reference for the second secon	Call up the "Central lubrication" window
₩€	Call up "Main menu"

Keys for deaerating the central lubrication

Deaerate oil line:

- 1. Stop carriage outside needle bed.
- 2. Loosen vent screw (7) somewhat.



Deaerating central lubrication

3. Swivel central lubrication into mounting position. Recommendation: Place a cleaning cloth under the central lubrication, as oil will be fed.



- 4. Call up the "Machine settings" window from the "Main menu".
- 5. Call up "Additional function keys".
- 6. Call up the "Central lubrication" window.
- 7. Set "Ventilation" switch to "On".
 - \triangleright The pump feeds oil into the oil line.
- 8. If oil comes out of the hole of the vent screw, set "Ventilation" (6) switch to "Off".
- 9. Tighten vent screw again (9.5 Nm).
- 10. Repeat the ventilation process at all lubrication units.
- 11. Call up "Main menu".

7.3.19 Replacing comb hook

Key	Function
₩€	Call up "Main menu"
A B B B	Call up "Comb" window

Keys for replacing comb hooks

- 1. Open the comb cover plate.
- 2. Call up the "Comb" window from the "Main menu".
- 3. Tap on the "Release brake (=X=)" key.
- 4. Push the comb take-down manually upwards (about 8 cm).
 - ▷ The cover rails of the comb take-down are located above the left and right control unit.
- 5. Push the cover rails (1) to the side only until an open area results at the repair point.

For this purpose, push the upper cover rails to the left until the repair point.

Push the lower cover rails to the right until the repair point.



- 6. Tilt the comb hook to the rear and remove it.
- 7. Insert the new comb hook.
- 8. Close the cover rails.
- 9. Close the comb cover plate.
- 10. Tap the "Reference run (=R=)" key.

7.4 Eliminating faults in electronics system

7.4 Eliminating faults in electronics system

This chapter contains information on:

- Overview of the electronic control (control cabinet left and right) [-> 389]
- Power supply unit [-> 392]
- Control of yarn carrier magnets [-> 392]
- Replacing electronic card [-> 393]
- 7.4.1 Overview of the electronic control (control cabinet left and right)

The machine control is located in the left and right control cabinet under the covers. The card for controlling the yarn carrier magnets is located in the carriage.



Eliminating faults in electronics system 7.4

Left control cabinet *



Left control cabinet

- 1 Industrial PC and hard disk
- 2 Electronic cards
- 3 Power supply unit with LEDs
- 4 Battery plug-in unit
- 5 Ethernet cable, if the machine is networked.

Card	Function
010 (ID 301 010)	Controlling the input unit and the touch screen. Controlling hard disk. The hard disk is integrated on the board.
009 (ID 301 009)	Main computer; collecting all messages from the other cards. Output of instructions to the other cards. Control of the knitting sequence. Controlling the carriage (main drive) and the racking position of the rear needle bed.
965 (ID 300 965)	Monitoring of the carriage assembly positions. Actuation of the selection systems and the step motors. Forwarding of the information to the board 943.
951 (ID 300 951)	Checking the charging state of the batteries. Activating charging. Controlling horn, lighting, piezo elements, and central lubrication.
943 (ID 300 943)	Motor driver of the step motors of the stitch cams. Cooperation with the card 965.

Electronic cards

7.4 Eliminating faults in electronics system

Right control cabinet *



Right control cabinet

- 1 Drive and racking control unit
- 4 Capacitor card

STOLL

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- 5 Fan
- 2 Relay board, fuse for (1)3 Fabric take-down card
- Function Card 954 Controlling the drive and racking motor. Passing on the error (ID 300 954) messages from the motors to card 009. 953 The relay card ensures that the machine cannot be started as (ID 300 953) long as an error is present. Switching off main switch: • if the automatic switching off of the machine is activated in case of extreme overvoltage • if the servos are not ready for operation Controlling the feed wheel, fluff absorption and fault lamp. Ballast fuse for servo drive and racking. 929 Controlling the fabric take-down motors (main take-down, (ID 300 929) auxiliary take-down, comb, contact motor). Passing on the error messages from the fabric take-down motors to board 009. 936 Motor capacitors for fabric take-down motors (for needle bed widths 72", 84", and 96") (ID 300 936) 948 Motor capacitors for fabric take-down motors (for needle bed (ID 300 948) width 50")

Electronic cards

Further information:

- Configuring automatic machine switching off [-> 72]
- Symbols in this document [-> 16]

Eliminating faults in electronics system 7.4

7.4.2 Power supply unit



Power supply unit

The LEDs on the power supply unit indicate which voltages are generated and at which voltage an error occurs. While switching on the main switch, the lower three LEDs light up immediately, and the +28 V approx. 1 second later, followed by the +40 V. The order in which the LEDs light up when switching on may provide information on fault causes.

7.4.3 Control of yarn carrier magnets

Each knitting system has got an electronic board (1) for controlling yarn carrier magnets.



Electronic cards for controlling yarn carrier magnets

Card	Function
960	Activating of the yarn carrier magnets after the time for switching
(ID 300 960)	the yarn carrier magnets has been announced by the board 966.

Electronic cards

7.4 Eliminating faults in electronics system

7.4.4 Replacing electronic card

- 1. Set main switch to "0" and wait until the LEDs on the power supply unit go out (approx. 60 seconds).
- 2. Open the cover of the left control cabinet.

CAUTION

STOLL

KNIT AHEAD



- ➔ First discharge yourself by touching "ground", e.g. a water pipe or the machine frame, then touch a card.
- → Only touch cards on the edge or the front side.

Image: Constraint of the constraint of the pins on the rear of the board CAUTION If the electronic boards can be damaged by damage to the pins on the rear of the board! If the pins of the cards are bent or broken off at the rear, new cards must be used. → When replacing the cards, make sure that the pins are not damaged.

- 3. Remove the card.
- 4. Plug in the new card.
- 5. Close the cover of the left control cabinet.
- 6. Set the main switch to "1" and acknowledge the error remedy.

Check fuses 7.5

STOLL

7.5 Check fuses

7.5.1 Checking fuse (right and left control cabinet)

Valid for:
CMS 530 T
CMS 730 S
CMS 730 T
CMS 740
CMS 822
CMS 830 C
CMS 830 S
CMS 933

DANGER		
Life-threatening high voltage!		
Electrical shock may cause death or serious injuries.		
Set the main switch to "0" and wait until the touch screen is dark and an alarm signal sounds.		

- 1. Set machine main switch to "0".
- 2. Wait until the touch screen is dark and an alarm signal sounds.
- 3. Check fuses (1) to (4) at the rear of the left control unit.



Fuses at rear of left control unit

- 1 28 V (stop motions) (1A, slowblowing)
- 2 STIXX (1A, slow-blowing)
- 3 Yarn control device (1A, slowblowing)
- 4 Battery charging (1A, slow blowing)

7.5 Check fuses



4. Check fuse (12) on the left control unit. For this purpose, pull out plug (13), remove both screws (14) and pull out battery insert.



Battery fuse (12) below the power supply unit



5. Check fuse (5) on the right control unit. For this purpose, remove the screws at the top and bottom and pull out the board.



Ballast fuse (5) for servo drive and racking on the control unit

- 6. Check fuses on the transformer at the rear of the machine.

Fuses on transformer at the rear of the machine .

F1-F3	Fabric take-down		
F4-F6	Friction feed wheel	F20-F22	Fluff absorption
F8-F10	Servos	F20	Central lubrication
F11-F13	Power supply unit		

- 7. Eliminate the cause.
- 8. Insert new fuse.

Use a replacement fuse from the accessories. Use only a i fuse with the same specifications. Specifications of the fuse: see sticker (impression) or circuit diagram. The circuit diagram is located in the spare parts catalogue which has been delivered with this machine.
7.6 Needle selection shifting



7.6 Needle selection shifting

Condition:

 Operating system of the knitting machine: Operating system OKC V 2.5 (or higher).

With this test the interaction of the impulse sensor, the control unit and the different selection systems is synchronized. This takes place with the help of a test row. With different reaction times it is checked whether the needles are driven out to the "stitch" position for knitting or not. You have to check this in both carriage directions. You enter these test results in a table. From these test results the optimum reaction time is calculated.

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Time required

Manually: If you carry out the test row manually, you will need between 2 and 4 hours depending on the machine gauge.

Automatically:

The measuring system "JNA" (Setup-Needle-Selection) is available at your agency or at Stoll. With this measuring system the test row is carried out automatically. Time required: 30 - 60 minutes.

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"JNA" measuring system

With the "JNA" measuring system you will get instructions on how to carry out a needle selection shifting. You do not need to carry out the section "Determine manually the needle selection shifting" of this instructions.

The needle selection shifting is carried out with the following steps:

- Setting the impulse sensor type [-> 398]
- Preparations [-> 401]
- Reset reference values of impulse sensor, carry out carriage reference run [-> 402]
- Determining the needle selection shifting manually [-> 403]

7.6.1 Setting the impulse sensor type

This is only necessary with older OKC machines:

- OKC 2.0 machines (2005 until February 2009)
- OKC 3.0 (March 2009 until June 2010)

On newer machines (OKC 3.0, from July 2010 on), this is not necessary as only the new impulse sensor type can be built-in. You may skip this section. It continues on Page [\blacksquare 401].

		Туре	Component
			type
OKC 3.0 (March 2009 until	CMS933	771 773	000
June 2010)	CMS830 S	633	000
	CMS830 C	631	000
	CMS822	623	000
		632	000
	CMS740	630	000
	CMS730 T	588	000
	CMS730S	625	000
	CMS530 T	587	000
	CMS530	621	000 - 001
		627	000
	CMS520 C	629	000
	CMS520	620	000
		628	000
	CMS502	626	000
OKC 2.0	CMS933	769	000 - 004
(2009)	CMS922	770	000 - 004
	CMS830 C	573	000 - 004
	CMS822	574	000 - 005
	CMS740	572	000 - 004
	CMS730 T	586	000 - 004
	CMS730 S	554	000 - 004
	CMS530 T	585	000 - 004
	CMS530	566	000 - 004
	CMS520 C	570	000 - 004
	CMS520	567	000 - 004
	CMS420 E	579	000 - 004

Machines for which the impulse sensor type has to be set.

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7.6 Needle selection shifting

If you are not sure about the machine type, check the machine type plate.



The first column of numbers in the "Type" field indicates the machine type and the second column of numbers indicates the component type. In the above example, the machine in question is the "621" type, and the "000" component type.

Setting the impulse sensor type

You need to inform the control unit about the impulse sensor type you installed in the machine. It is possible to install two different impulse sensor types in older OKC machines. You will find the ID in the spare parts delivery.

Impulse sensor type	ID	
1	240 562	Impulse sensor of OKC machines until June 2010
2	260 396	Replacement for the previous impulse sensor (ID 240 562)

Key	Function
>	Continue on to the next window
	Call up "Additional function keys"
P	Call up "Machine parameters 2" window
\checkmark	Confirm input
<	return to the "Machine parameters"

Keys for setting the machine parameters

Carry out restart with machine configuration:

- ✓ The machine is switched off.
- 1. To switch on the machine, set the main switch to **1**.
 - ▷ The "BootOkc" window is displayed on the touch screen.

👹 Boot(Jkc						
	Waiti	ng for Conne	ection to Master				
		Ins	stallation		Installation and Co	onfiguration	
	Restart				Restart and Con	figuration	
	Warmstart				Basic Sett	ings	
			с	onnectir	ig		
	No	Condor	MassageTout			Data and Time	
		l Sender	Messagerext	1 MCk	accol 004 ab 0Mi 0	Date and Time	
	82	BO_DEBUG	Auspraegung: STOKC15-L-	1 MCK	asse, 904 ab bin, 0 asse, 905 ab BM, 0	22.12.2005 11.5	
	83	BO DEBUG	TelegramHandler Started	1 MORI		22.12.2005 11:5	
	84	BO DEBUG	CommunicationHandler Sta	rted		22.12.2005 11:5	
	85	BO_STATUS	Connection to Master faile	d		22.12.2005 11:5	
	86 BO_DEBUG Application successfully initialized 22.12.2005 11:5						
	87 BO_DEBUG Waiting for Connection: StatusMasterOnline = False 22.12.2005 11:5						
	•					>	
	Ċ			⇒	(h) 🗣	?	

"BootOkc" window

- 2. Touch the "Restart and Machine Configuration" key.
- Tap repeatedly on the "Continue on to the next window" key until the "Machine parameters" window is displayed. ("Language" -> "Machine configuration" -> "Machine configuration 2" -> "Machine options" -> "Machine parameters")
- 4. In the "Machine parameters" window tap on the "Additional function keys" key.
- 5. Call up the "Machine parameters 2" window.

Machine parameters 2			STOL THE RIGHT WAY TO K
Holding-down jack amplit. correct. in front	-8	Back	-8
Impulse sensor type	2 - 1	D 260 396	2 - ID 260 396 <u>*</u> 1 - ID 240 562

- Select the impulse sensor type "2 ID 260 396". Select this setting also with mixed operation (old and new impulse sensor type).
- 7. Confirm input.
- 8. Return to the "Machine parameters" window.
- 9. Advance till the Main menu appears.

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7.6 Needle selection shifting



7.6.2 Preparations

- Stop the carriage after the left reversing position.
- With tandem machine: Couple carriage narrow.
- Cast-off the stitches on both needle beds.
- Remove the needle brushes on the front and rear carriage part.
- The test series is required for all the impulse sensors of the machine with a tandem machine there are four impulse sensors.
- For the check you need a small knitting program. Example for a 3-system machine.

```
10 START
15 MSEC=0.15
20 SEN=1-#138
30 <> S:R-0; Y:0; S1 S2 S3
40 <> S:0-R; Y:0; S1 S2 S3
50 END
```

Line 30: Check of the front impulse sensor Line 40: Check of the rear impulse sensor If you have a 2-system machine simply leave out the indication "S3" for the third knitting system in the lines 30 and 40.

7.6.3 Reset reference values of impulse sensor, carry out carriage reference run

Before determining the new values you have to delete the "old" values of the impulse sensors.

Key	Function
	Call up the "Service" menu
	Call up the "Basic settings" menu
ļ	Call up "Machine parameters" window
	Call up "Additional function keys"
Pe ļ	Call up "Machine parameters 2" window

Keys for deleting the reference values

- 1. Call up the "Service" menu from the "Main menu".
- 2. Call up "Basic Settings" menu.
- 3. Call up the "Machine parameters" window.
- 4. Call up "Additional function keys".
- 5. Call up the "Machine parameters 2" window.

Machine parameters 2			STOLL THE RIGHT WAY TO KNIT
Holding-down jack amplit, correct, in front	-8	Back	-8
Holding-down jack posit, in front	0	Back	0
Impulse sensor type		2-10 280 595	E
0	1	Back	N
Reset reference values of impulse sens	or (Front	
1			
U			

- 6. Select all impulse sensors (activate control box). On a tandem machine there are four impulse sensors.
- 7. Confirm input tapping on the (1) key.
- 8. You will be asked whether the values are to be deleted. Confirm this message with "OK".
 - \triangleright The values are deleted.
- 9. Carry out carriage reference run.

7.6 Needle selection shifting



7.6.4 Determining the needle selection shifting manually

Key	Function
	Call up the "Service" menu
	Call up the "Basic settings" menu
	Call up the "Adjustment of needle selection" menu
	Call up the "Automatic" menu
	Call up the "Manually coarse" menu

Keys for determining the needle selection shifting

Determine the needle selection shifting:

- Fix knitting row. For checking the front impulse sensor enter "SPF30".
- 2. Engage the machine, stop the carriage in the right reversing point.
- 3. Call up the "Service" menu from the "Main menu".
- 4. Call up "Basic Settings" menu.
- 5. Call up the "Adjustment of needle selection" menu.
- 6. Call up the "Manually coarse" menu.

7. Carry out the test series.



- A Test for the front needle bed
- 1 Reset Delete the test results for the front needle bed.
- 2 Current line of the test series
- 3 Enter the test result (carriage direction: >>)
 Switch setting "1" OK
 Switch setting "0" F (Error)
- B Test for the rear needle bed
- 4 Enter the test result (carriage direction: <<)
- 5 Proceed to the next line
- 6 Calculating the optimal reaction time
- 7 Reset
 - Delete the test results for the rear needle bed.
- Tap the "Reset" (1) key. The active line (2) of the test series is highlighted.
- 9. Engage the machine.
 - ▷ The carriage moves very slowly from right to left (MSEC=0.15).
- 10. While the carriage is running you perform a visual inspection. Check whether all the needles are driven out for knitting or not.
- 11. Stop the carriage in the left reversing point.
- 12. Enter the test result in the table.If all the needles are driven out, you do not need to enter anything, as "OK" is entered by default in the active line.

- or -

- → If one or more needles are not driven out, set the (4) switch to "0". An "F" is entered in the table.
- 13. Engage the machine and check the needle selection in the other carriage direction.

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	14. Stop th the hel	e carriage in the reversing position and enter the test result with p of the switch (3).
	i	If you are not sure that no error occurred, repeat the check for both carriage directions.
	15. Resum	ne the test series. Press the (5) key for this.
	▷ The the	e next line of the test series is selected automatically. Internally, reaction time is increased by "1".
	16. Resum (steps	ne the test series until one error occurs in both carriage directions 9 to 15).
	⊳ No	w you have reached the limit for the "positive" reaction time.
	17. The se The te	cond part of the test follows. Press the (5) key for this. st will be carried out automatically with "negative" reaction times.
	18. Repea carriag	t the steps 9 to 15 until one incorrect selection occurs in both e directions.
	⊳ Th	e switches automatically get inactive (grey).
	19. The te	st series for this impulse sensor is finished.
	20. Calcula Tap the takes a appear	ating the reaction time. e (6) key for this. The optimum reaction time is calculated. This about 10 seconds. When the calculation is finished a message rs on the touch screen.
	21. Repea For this Attent key, th Repea	t the test series for the rear impulse sensor. s fix the knitting row 40 - enter "SPF40". ion : With step 8 tap on the "Reset" (7) key. (If you tap on the (1) e recently determined values are deleted.) t the steps 8 to 20.
	22. With a the oth	tandem machine: switch the option in the "Right/left carriage" to er carriage. Repeat the steps 8 to 21.
	The de	termination of the needle selection shifting is finished.
	i	If you accidentally tap the (5) key twice, one line of the test series is skipped. The test series is not valid. You have to execute again the entire test series (step 8).
Concluding activities	■ The da It is au additio	ta of the needle selection shifting is part of the machine settings. tomatically saved in the dongle data. You can save this data nally on a USB memory stick if necessary.



Needle selection shifting 7.6

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8 Software - Installation and basic settings

In this chapter the description of how can one install and set the Stoll operating system is given.

It is important thereby that one gets to know the boot process (the booting of software and the activation of control) on the knitting machine.

One has to engage in this boot process during installation and setting of the Stoll operating system.

Thereby call up various windows e.g. the "Basic Settings Menu" window. For the setting of the Stoll operating system more windows are open in which the changes can be made.

If your knitting machines are interconnected or are connected with a pattern unit, you can configure the on-line connection.

Save the machine data against any data losses before every installation of Stoll operating system or before any changes in the configuration.

This chapter contains information on:

- Boot process [-> 408]
- Saving all machine data on the USB-Memory-Stick [-> 423]
- Saving pattern after a big fault [-> 424]
- Installing the Stoll operating system [-> 426]
- Diagnose Control [-> 449]

Boot process 8.1

8.1 Boot process

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The following figure shows a schematic representation of the boot process of the knitting machine (with control OKC).



Schematic representation of the boot process

Description of the boot process

After switching on knitting machine (main switch **1**) windows XP gets started. The opening screen is displayed on the touch screen.

Thereafter the individual control components start their boot programs i. e. the different drivers and the applications of the System Control Unit (SCU) are loaded.



8.1 Boot process



During this time, the following window is displayed on the touch screen:

Start the System Control Unit (SCU)

If this process is closed, then the "BootOkc" window is displayed.



"BootOkc" window

- 1 Symbol and status bar show the connection status.
- 2 Keys for carrying out definite actions.
- 3 Activity and progress display show the present progress of the boot process.
- 4 Lists that number the status and error messages and show the date and time. Further debug information can be connected to, if needed. This information is also saved in a log file and can be copied with **Copy Logfiles**, if needed.
- 5 Keys for setting the touch screen.

First of all, only the keys "Installation", "Installation and Configuration" and "Basic Settings" are released. As soon as the connection to control is made, more keys are released based on the control information.

If a warm start is possible, then this is automatically carried out after a waiting time that can be set (basic setting: 30 seconds).

Thereafter, the main menu and the last opened window are displayed.



Main menu

The knitting machine is now ready to knit.

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8.1 Boot process

Interrupt warm start	The warm start of the knitting machine can be interrupted. This happens by tapping the keys in the "BootOkc" window.

Кеу	Meaning
Installation	Start the installation process of a Stoll operating system. The storage location of the Stoll operating system can be selected in the "Basic Settings" window.
Installation and Configuration	Starts the installation process of a Stoll operating system including configuration of the machine. The storage location of the Stoll operating system can be selected in the "Basic Settings" window.
Restart	Starts the software anew (Reboot).
Restart and Configuration	Starts the software anew (Reboot) with configuration of the machine inclusive.
Warmstart	Carries out a manual warm start.
Basic Settings	Calls up the "Basic Settings Menu" window.
C	Set the screen brightness infinite.
	Set screen brightness one step darker.
	Set the screen one step brighter.
	Calibrate touch screen.

Possibilities for interrupting a warm start

Further information:

■ Setting touch screen [-> 73]

Boot process 8.1

8.1.1 Basic Settings

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Call up "Basic Settings Menu" window:

- ✓ The knitting machine is switched off.
- 1. Set the main switch to "1".
 - \triangleright The "BootOkc" window is displayed.
- 2. Type in within the waiting time for the warm start on the "Basic Settings" key.

\triangleright	The "Basic	Settings	Menu"	window	is	display	ved
	The Dasic	Settings	Menu	window	13	uispia	yeu.

Boot Source					
O Current Version (HD)		O Network	쿶	USB-Device	~
O New Version (HD)		O User Defined Path		O Previous Version (HD)	8
Change Path	R	f:\myfolder\			
Delay Time for automatic	: Warmsta	rt		. 0255 sec	30
Configure Machine		Configure Network		Disable Debug Output	⊡_s
Load Dongle	⇔	Save Dongle	æ	Copy Logfiles	
Restore Last Version		Show Current Version	Í	Version History	69
←				14 ×	2

"Basic Settings Menu" window

Area	Explanation
Boot Source	Keys for selecting a source for the installation data.
Delay Time for automatic Warmstart	Enter the waiting time till the automatic warm start.
Service Activities	Keys for service purposes.

Areas of the "Basic Settings Menu" window

Selecting the source of the installation data (Boot Source)

In the "Boot Source" area of the "Basic Settings Menu" window ascertain the source from where the installation of the Stoll operating system is done.

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Selection of the source in "Basic Settings Menu" window

Key	Explanation
Current Version (HD)	Renewed installation of the existing version.
New Version (HD)	Installation of a new version.
Previous Version (HD)	Installation of the previous version.
Network	Installation of a version from a network drive.
USB Device	Installation of a version from a device which is connected to the USB socket.
User Defined Path	Installation of a version from a user-defined storage location.
Change Path	Key for selection of a storage location.

Keys in the "Boot Source" area of the "Basic Settings Menu" window

Setting waiting time until warm start

In this area of the "Basic Settings Menu" window, the waiting time that is spent in between the display of the "BootOkc" window, and the automatic warm start (display of the main menu) is entered.



Waiting time for warm start in the " Basic Settings Menu" window



The waiting time can be interrupted at anytime by pressing any key in the "Basic Settings" window.

Set waiting time:

- 1. Pull the slide to the desired position.
 - \triangleright The waiting time is displayed in the input field.
- 2. Confirm input.

Configure machine

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Configure Machine

Defined by the concept of control OKC some basic information about the machine should be known right from the start. Enter this information in the "Machine Configuration" window.

- → Tap on the "Machine configuration" key.
- ▶ The "Machine Configuration" window is displayed.

ontroller Configuration			
Machine Classification		Component Type	
566	~	3	*
Controller Characteristic			
STORG17-N-1			
Date		Time	
Freitag , 11. Februar 2011	4.4	12:48:53	0
Current time zone: Westeuropäische I	Normalzeit	Ioim, Wien Y [] Autoadjust clock	for daylight savin
(GMT+01:00) Amsterdam, Benin, Bern Current time zone: Westeuropäische I Motor Types	Normalzeit		for daylight savin
Current time zone: Westeuropäische I Motor Types Main Drive	Normalzeit	Racking Drive	for daylight savin
(GMT 401:00) Amsterdam, Benn, Bern Current time zone: Westeuropäische I Motor Types Main Drive 241395	Normalzeit	Racking Drive 241396	for daylight savin
(Mi 1401:00) Amsterbann, berinn, berinn Current time zone: Westeuropäische I Motor Types Main Drive 241395 Auxiliary Takedown 254994	Normalzeit	Racking Drive 241396	for daylight savin

"Machine Configuration" window

Label	Description
Machine Classification	Enter the machine classification.
Component Type	Enter the component type.
Controller Characteristic	Name of the control unit (only display)
Date	Entry of the date
Time	Entry of the time
Time Zone	Entry of the time zone
Autoadjust clock for daylight saving	Automatically switch the clock to summer- or wintertime.
Motor Types	Select which motor (different motors with different ID) is installed in the machine. (Might be necessary after replacing a motor)

Components of the "Machine Configuration" window

8.1 Boot process

Entering the machine classification and the component type:

- 1. In the "Machine Classification" list field, select the machine classification.
- 2. In the "Component Type" list field, select the component type.
 - ▷ In the "Controller Characteristic" field, the controller type is displayed.
- 3. Confirm input.

Enter the date, time and time zone:

- 1. In the "Date" list field, enter current date.
- 2. In the "Time" list field, enter current time.
- 3. In the "Time Zone" list field, select the time zone.
- 4. Confirm input.

Configuring network

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Configure Network

If you wish to connect the knitting machine with another knitting machine or a pattern unit, you must set up and switch on the network on the knitting machine. The "Network Configuration" window is used for it.

- → Tap on the "Configure Network" key.
- ► The "Network Configuration" window is displayed.

letwork Identificatio	in	Network Acco	unt
Computer Name:	STOKC	User Name:	lusee
Workgroup:	OKCWORKGROUP	Password:	
Description:	Steuerschrank	eMail	
My Network Js# ']' as separator)//wxp22398j//wxp2;	F Enabin	Configure
External LAN	Totemai LAN		
IP Address:	1	Use DNS:	172 . 17 . 4 . 234
Subnet Maska	Pr 0 0 00	Vise WINS:	172 . 17 . 4 .234
V Use DHCP:	172 . 17 . 4 234	F Gateway:	172.17.250.2
MAC Address:	00-E0-48-08-82-26		
Nama	DAVICOM Still-Bared	DCI East Ethernat	Adapter #2

"Network Configuration" window

In this window all the necessary network parameters are entered. The values are entered with the internal keyboard (virtual keyboard) or with an external keyboard.

Label	Description
Computer Name	The input of a (machine) name is necessary in order to enable the other network users an access to this machine. This machine is identified with this name in the network. Enter descriptions of this machine in the "Description" field.
Workgroup	All knitting machines should be located in the same "Workgroup" so that the machines can communicate with each other. This input field must be filled up. Ask for your corresponding Work group name from your Network administrator in case of a network spanning your firm/LAN.
Description	The input of a description is optional, but it helps in identifying a machine better in larger networks, e. g. Machine type, gauge and other specifications of this machine . This input appears as a comment in the Windows Explorer.
My Network	Here are listed the computers that have been defined in "My Network" field, see KnitLAN connection [262].
	If you wish to supplement the lists manually, take note of the spelling when multiple computers are used: \\computer name;\\computer name;\\computer name As a separator between the individual computers the semicolon (";") must be used.

Components of the "Network Configuration" window

8.1 Boot process

Label	Description
User Name	This user must be familiar with his password in the network so that the shared drives and folders can be used
Password	Your Network administrator will create a user name and a password for you so that you can access the network resources.
E-Mail	Input an e-mail address (Configure). The messages of the control unit are sent to this address, when the "Enable" check box is activated.
IP Address	Each machine (computer) should have a unique IP address within a network. The network protocol TCP/IP communicates with the individual machines by this IP address. The division of the network is done in the so-called network classes. An individual Network-address is assigned to each machine automatically by the program and it is displayed here.
Subnet Mask	This field is automatically filled up by the program with a value for the shared network Class B .
Use DHCP	The DHCP (Dynamic Host Configuration Protocol) enables with the help of a corresponding server the dynamic allocation of an IP address and the further configuration parameters to the computers (machines) in a network.
MAC Address	Media Access Control Address.
Name	Name of the network board.
Use DNS	Domain Name Services via a DNS Server. Enter the name of the IP address of the server, if necessary.
Use WINS	Windows Internet Name Services. Enter the name of the IP address of the server, if necessary.
Gateway	A Gateway enables the connection between the shared networks. Enter the IP-Address of the active component, if necessary.

Components of the "Network Configuration" window

i	Settings in the "Network Configuration" window, especially the settings for External LAN , are to be done by a Network Administrator. The settings for Internal LAN serve developers purposes only and may not be altered. The Ethernet IP addresses 192.168.0.0 to 192.168.0.255 are reserved for Stoll knitting machines and may not be used in
	the company network.
	The reason for this: The cards 963 (IPC) and 966 (Power
	CPU) in the knitting machine use these IP addresses to communicate with each other. But if both these addresses are used in the company network, the cards cannot work correctly with each other anymore and the machine does not function any longer.

Boot process 8.1

Display/hide screen keyboard	➔ In order to keep the virtual keyboard constantly open, activate the check box before "Use Touch Screen Keyboard". By clicking on an input field the virtual keyboard opens.		
	- or -		
	➔ In order to close the virtual keyboard deactivate the check box before "Use Touch Screen Keyboard".		
Enter the machine name	1. Touch the "Computer Name" entry field.		
(Computer-Name)	\triangleright The virtual keyboard is displayed.		
	Tap into the "Computer Name" by any desired name (5-15 characters) for the respective knitting machine.		
	- or -		
	→ Maintain the standard setting.		
Enter the user name and the			
password	Your Network administrator must create a user name and a password before you can access the network resources.		
	1. In the "User Name" input field, tap the user name (5-15 characters).		
	2. In the "Password" input field, tap the corresponding password (5-15 characters).		
	 A * (asterisk) appears for each character you enter. 		
Enter Workgroup	➔ In the "Workgroup" input field, tap the name of the work group and the machine group for this machine (5-15 characters).		
	- OF -		
	 Market all a state of a set of a se		

→ Maintain the standard setting.

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8.1 Boot process

Enter the description of the machine (Description)

Enter E-Mail-Address

→ Enter a meaningful description of this machine (maximum 50 characters) in the "Description" input field.

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- 1. Activate the "Enable" check box.
- 2. Tap on the "Configure" key.
 - ▷ The "E-Mail Configuration" window is displayed.

🚽 config eMail	
Events:	
Exceptions	-
Exceptions Installation eMail address:	
	set
Ok	

- 3. Select the cases in the Events field by the appearance of which the email should be sent.
- 4. Enter the e-mail address in the "E-Mail address" field
- 5. Confirm input.

Further information:

■ KnitLAN connection [-> 262]

Debug output on/off

Enable Debug Output

With this key an extended output of debug messages can be switched on or off in the "Logging" window.

- 1. To give out extended debug messages in the "Logging" window, tap on the key "Enable Debug Output".
 - ▷ The marking of the key in "Disable Debug Output" is altered.
- 2. Confirm input.

- or -

- 1. To give no extended debug messages, tap on the "Disable Debug Output" key.
 - ▷ The marking of the key in "Enable Debug Output" is altered.
- 2. Confirm input.

Load the machine settings in the machine computer

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The machine settings do not only contain the machine data, but also the machine options, the machine configuration, the report, the network settings, and other internal control information. This data is referred as **Dongle**. Dongle-Data are saved in a file with the **mcnumber.dgl** (mcnumber = machine number) name.

- ✓ A file with dongle data is available.
- 1. Tap the "Load Dongle" key.
 - \triangleright A selection window for opening a file is displayed.
- 2. Select Dongle-file (mcnumber.dgl).
 - **1** The current machine settings will be overwritten! When you copy the machine settings to the hard disk, the current machine settings are overwritten. Only carry out the following steps if you want to replace the current machine settings with the settings saved on the file.
- 3. Confirm input.
- 4. When the network settings are available, the question appears whether these should be read also. If you answer this question with "Yes" the network settings are loaded and a Reboot is automatically run.
- The machine settings are copied to the machine. After the copying is complete, a message appears.

```
Saving dongle data
```

Save Dongle

*

The machine settings do not only contain the machine data, but also the machine options, the machine configuration, the report, the network settings, and other internal control information. This data is referred as **Dongle**. Dongle-Data are saved in a file with the **mcnumber.dgl** (mcnumber = machine number) name. It is important to back up the data, e.g. when the hard disk is replaced.

- 1. Tap on the key "Save Dongle".
 - \triangleright A selection window for saving a file is displayed.
- 2. Select the saving location.
- 3. Confirm input.
- The machine settings are copied on the target medium (file name: mcnumber.dgl).



Error diagnostics with Copy Logfiles If the machine computer has serious problems, e.g. it does not react to any inputs or the program crashes any longer, the cause is very important for Stoll. The computer saves the data up to the fault internally in so-called **Logfiles**. For an exact error diagnosis, we want to ask you to save these files and to send them to the Stoll-Helpline.

- 1. Tap on the key "Copy Logfiles".
 - \triangleright A selection window for saving a file is displayed.
- 2. Select the saving location.
- 3. Confirm input.
- The log files are zipped, and saved on the target medium (file name:Log_date_time_mcnr.zip).
- 1. Tap on the key "Restore Last Version".

Restore the last version of the Stoll operating system

Restore Last Version

- \triangleright A dialog window for confirming the restoration appears.
 - The current operating system version will be overwritten! When you restore the saved operating system version, the current operating system version is overwritten. Only carry out the following steps if you want to replace the current operating system by the previous version.
- 2. Confirm message.
 - The "BootOkc" window is displayed. The source (Boot Source) "Previous Version (HD)" is automatically set.
- 3. When the Stoll operating system is to be installed without the final configuration tap on the key "Installation".
 - or -
- → When the Stoll operating system is to be installed with the final configuration, tap on the key "Installation and Configuration".
- The Stoll operating system gets installed.

Displaying current software version

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Show Current Version

For diagnostics purposes it is important to know which software is installed on the computer. In the "Info" window, the version numbers of the currently installed Stoll operating system are displayed. In the case of error messages, these version numbers should also be provided to Stoll-Helpline, if possible.

→ Tap on the key "Show Current Version".

file Log_date_time_mcnr.zip.

i

The "Info" window is displayed. Here the current version numbers of the Stoll operating system are displayed.

With Copy Logfiles this data is automatically saved with the

Displaying the history of the software versions

Version History

For diagnostics purposes it is important to know which software is installed on the computer. In the "Version Info" window, the current versions and all previously installed software programs are logged. In the case of error messages, these version numbers should also be provided to Stoll-Helpline, if possible.

- → Tap on the key "Show Version History".
- The "Version Info" window is displayed. Here the current version numbers and all the software installations of Stoll operating system executed so far are displayed.
 - With Copy Logfiles this data is automatically saved with the file Log_date_time_mcnr.zip.

The machine settings do not only contain the machine data, but also the machine options, the machine configuration, the report, the network settings, and other internal control information. This data is referred as **Dongle**. Dongle-Data are saved in a file with the **mcnumber.dgl** (mcnumber = machine number) name.

STOLL

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The Machine data can be copied on a USB-Memory-Stick. After installing a new operating system version or following data loss or the change of the hard disk the machine data can be copied back from the USB Memory-Stick to the machine computer.

Key	Function
	Call up the "Service" menu
	Call up "Copy service data" window
₩€	Call up "Main menu"

Keys for saving the machine data on a USB-Memory-Stick

- 1. Insert the USB memory stick into the USB socket.
- 2. Call up the "Service" menu from the "Main menu".
- 3. Call up the "Copy service data" window.

📙 Copying service data	STOLL THE RIGHT WAY TO KNIT
Path: F:	
A:\ [Floppy]	
E:\ [CD/DVD]	Copy Logines
F:\ [\\hesekiel\schematd]	Copy Dongle
F:\ [USB]	
M1	Copy Print
Netz	
	Copy Report
tdtools	
tmp	Сору МС
Werkzeuge	
G:\ [\\hesekiel\schematd1]	Select language with hext startup

"Copy service data" window

4. Select the desired data carrier e.g. . USB memory stick (Drive F:).

- 5. Tap on the "Copy Dongle" key.
 - ▷ The entire machine data are saved under the mcnumber.dgl on the USB-Memory-Stick (mcnumber = machine number) file name.
- 6. Call up "Main menu".
- 7. Take out the USB-Memory-Stick.

i Loading of the machine settings with the "Load Dongle" key in the "Basic Settings" window.

Further information:

- Copying service data [-> 188]
- Load the machine settings in the machine computer [-> 420]

8.3 Saving pattern after a big fault

No "Warm start" can be made after a big fault of the control (e.g. system crash). You have to carry out a "Restart". You will be asked whether the logfiles and the pattern which has been loaded recently are to be saved.

In	stallation	Installation and	Configuration
	🚺 User Message		
	COPY LOGFILES?		ifiguration
	Warmstart not possible! You are requested to copy logfiles and pattern! Copy now?	i last loaded	ings
No Sender 25 BO_STATUS 26 BO_STATUS 27 BO_STATUS			Date and Time 3/31/2010 1:28 3/31/2010 1:28 2/21/2010 1:28
27 BO_STATUS 28 BO_STATUS 29 BO_STATUS	YES	ND	3/31/2010 1:28 3/31/2010 1:28 3/31/2010 1:28
31 BO STATUS	WISSING REDUCED WATTISTATIONE: U.S.M.	enounnerounwein	3/31/2010 1:28

If you do not want to save the logfiles and the pattern, then tap on the "NO" key. The "Restart " is carried out. Load the new knitting program.

8.3 Saving pattern after a big fault

Save pattern:

- 1. If you want to save the logfiles and the pattern, then tap on the "YES" key.
- 2. You will be asked where the logfiles and the pattern which has been loaded recently are to be saved. We recommend to save the pattern on a USB-Memory-Stick or network drive.

Select Target Directory to Copy Logfiles	
🛅 stollglob	^
🛅 stollversions	
system	
🛅 System Volume Information	
temp	
F: [USB]	_
Network Favorites	
	~
✓	

- 3. Confirm the path specification.
- The selected files will be saved under a new name. Saved_pattern.sin (.jac, .set, .setx, .seq) with a sequence: Saved_pattern1.sin, Saved_pattern2.sin, etc.
- 5. Once the data are saved, a message is displayed. Confirm this message with "OK"

User Message	
ATTENTION !	
Copy logfiles and patternfiles successfull!	~
ОК	

- 6. Carry out the "Restart".
- 7. Rename files. You cannot carry out this on the knitting machine. For this purpose go to the M1plus or a PC.
- In order to be able to load the pattern into the machine, you have to add the machine type to the pattern name. For example for a CMS 530: CMS530.Saved_pattern.sin
- 9. Rename all the .sin and .set files, do not rename the .jac file.
- 10. For Setup2: Compress the files (zip), the name of the zip file has to be identical to the name of the .sin file.
- 11. Loading the files into the knitting machine.

Installing the Stoll operating system 8.4

8.4 Installing the Stoll operating system

The Stoll operating system can be installed in two ways:

Direct Installation:

After switching on the main switch, the "BootOkc" window gets displayed. Type in within the waiting time for the warm start on the "Basic Settings" key, and select the memory location of the new Stoll operating system in the "Basic Settings Menu" window. Go back to the "BootOkc" window, and type on the "Installation" key or "Installation and Configuration". The installation process is triggered.

When you tap on the "Installation" key, the installation is run through till the "Reference run" window.

When you tap on the "Installation and Configuration" key, the machine can be configured afresh for stopping the installation.

Indirect Installation:

During the production the new Stoll operating system is copied on the hard disk. You use the "Updating software" window for this purpose. When the machine is switched on again the software can determine that a new Stoll operating system is available for installation. You will be asked in one window whether you want to install the new Stoll operating system and whether you wish to configure the machine anew simultaneously. If you acknowledge this process with "Yes" the installation process gets started with or without configuration.

In the next sections the different types of installations will be discussed at length.

- Direct installation [-> 427]
- Indirect installation [-> 433]
- Updating software [-> 439]
- Carrying out a restart (Restart) [-> 443]
- Carrying out restart with machine configuration (Restart and Configuration) [-> 444]
- Setting online connection [-> 446]
- Overview of all system data [-> 448]
- Setting touch screen [-> 73]
- Setting machine parameters [-> 184]
- Basic Settings [-> 412]

8.4 Installing the Stoll operating system



8.4.1 Direct installation

For the **Direct Installation** the installation process is started directly in the "BootOkc" window.

Overview:

- Start the installation process by switching on the machine. In the "BootOkc" window, tap on the "Basic Settings" key to select memory location in which the installation data is available (**Boot Source**).
- In the "BootOkc" window, start the installation with the "Installation and Configuration" or "Installation" keys.
- Configure the machine after having selected the "Installation and Configuration" key or start a reference run after having selected the "Installation" key.
 - Select the "Installation and Configuration" key, if along with the installation of the new Stoll operating system the machine parameters are also to be altered. Select the "Installation" key, if the machine parameters are not to be altered. This shortens the installation process.
 - The current operating system version will be overwritten! When you install a new Stoll operating system version the current one is overwritten. Carry out the following steps only if you want to replace the current operating system by the previous version. Save the machine data and the files specifically the ones you have created before the installation process.

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Installing the Stoll operating system 8.4

- Select Boot Source 🗸 The machine is switched off.
 - 1. Set the main switch to 1.
 - ▷ The "BootOkc" window is displayed on the touch screen.

Boot	Jkc						<u>_ ×</u>
	Waiti	ing for Conne	ction to Master				
		Ins	stallation		Installation and Co	onfiguration	
		F	Restart		Restart and Con	figuration	
	Warmstart			Z	Basic Setti	ings	
			c	onnectir	ig		
	No	Sender	MessageText			Date and Time 🔺	I
	81	BO_DEBUG	Auspraegung: STOKC15-L-	1 MCkl	asse: 904 ab BM: 0	22.12.2005 11:5	
	82	BO_DEBUG	Auspraegung: STOKC15-L-	1 MCkl	asse: 905 ab BM: 0	22.12.2005 11:5	
	83	BO_DEBUG	TelegramHandler Started			22.12.2005 11:5	
	84	BO_DEBUG	CommunicationHandler Sta	rted		22.12.2005 11:5	
	85	BO_STATUS	Connection to Master faile	d		22.12.2005 11:5	
	86	BO_DEBUG	Application successfully ini	tialized		22.12.2005 11:5	
	87	BO_DEBUG	Waiting for Connection: St	atusMa	asterOnline = False	22.12.2005 11:5	
	•						
	Ċ			⇒	*	?	

"BootOkc" window

- 2. For the automatic warm start, tap on the "Basic Settings" key within the waiting time.
 - ▷ The "Basic Settings Menu" window is displayed.
- 3. Select a source for the installation data in the "Boot Source" section.
- 4. Confirm input.
- ► The "BootOkc" window is displayed.
- 5. Continue with the next section.

Start installation 1. When you want to execute the installation with the final configuration, tap in the "BootOkc" window on the "Installation and Configuration" key.

```
- or -
```

- → When you want to execute the installation without the final configuration, tap in the "BootOkc" window on the "Installation" key.
 - ▷ In the "User Message" window (INSTALLATION STARTED!) the path to the installation data is displayed.

8.4 Installing the Stoll operating system

🚯 User Message	
INSTALLATION STARTED!	
Install new software from: d:\mybootfolder\ Check Option <force installation="">?</force>	*
□ FORCE INSTALLATION	
YES	NO

"User Message" window (INSTALLATION STARTED!)

 If only the files that have got altered are to be installed anew during the installation deactivate the "FORCE INSTALLATION" check box (expedites the installation process).



- 3. To confirm the Installation press on the "YES" key.
 - ▷ In the "User Message" window (CAUTION!), the version number of the Stoll operating system version selected earlier gets displayed.





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The current operating system version will be overwritten! When you install a new Stoll operating system version the current one is overwritten. Carry out the following step only if you want to replace the

current operating system by the previous version.

Installing the Stoll operating system 8.4

- 4. To confirm the installation, tap on the "YES" key.
 - ▷ When the installation file of the Stoll operating system has several languages, the "Install Languages" window is open.



"Install Languages" window

Key	Function
<	End selection process without saving modifications
√←	Confirm selection
√ ()	Key "All languages"
**	Key "No language"

Keys for language selection

5. Select the desired language(s).

8.4 Installing the Stoll operating system



6. Confirm selection.

"Installation" key.

- The installation process gets started. The "Language" window is displayed after having selected the "Installation and Configuration" key.
 or -The "Reference runs " window is displayed after having selected the
- 7. If the "Language" window is displayed, continue with the **Machine configuration** section.

- or -

- → If the "Reference runs" window is displayed, continue with the Start Reference runs section.
- Configure machine ✓ The "Language" window is displayed.
 - 1. Select the dialog language and confirm the selection.
 - 2. Proceed to the next window.
 - ▷ The "Machine configuration" window is displayed. The data have been set at the factory and will not be changed.
 - 3. Proceed to the next window.
 - ▷ The "Machine configuration 2" window is displayed. The data have been set at the factory and will not be changed.
 - 4. Proceed to the next window.
 - The "Machine Options" window is displayed. The data is set at the factory.

i	Machine fault! The presence or lack of machine options must correctly be specified, as otherwise a fault may occur on the machine.
	Always specify the machine options correctly.

- 5. If necessary, change the data and confirm the changes.
- 6. Proceed to the next window.
 - ▷ The "Machine Parameter" window is displayed. The data is set at the factory.
- 7. If necessary, change the data and confirm the changes.
- 8. Proceed to the next window.
 - \triangleright The "Needle bed parameters" window is displayed. The data is set at the factory.
- 9. If necessary, change the data and confirm the changes.
- 10. Proceed to the next window.
 - ▷ The "NPK-Values" window is displayed. The data is set at the factory.

- 11. If other NPK values are to be used, change the values and confirm the changes.
- 12. Proceed to the next window.
 - ▷ The "Knit Report Configuration" window is displayed.
- 13. If other settings are to be used, change the settings and confirm the changes. Use the "additional function keys" to activate/deactivate the running time control and/or running time measurement.
- 14. Proceed to the next window.
- The configuration is complete. The "Reference runs" window is displayed.
- 15. Continue with the next section.
- Start reference runs V The "Reference runs" window is displayed.
 - 1. If the racking device is not in the home position, press off the stitches of a needle bed.
 - 2. Carry out reference run(s).
 - 3. Proceed to the next window.
 - ▶ The installation process is complete and the "Main menu" is displayed.

Further information:

- Selecting the source of the installation data (Boot Source) [-> 413]
- Setting waiting time until warm start [-> 413]
- Configure machine [-> 414]
- Configuring network [-> 416]
- Load the machine settings in the machine computer [-> 420]
- Saving dongle data [-> 420]


8.4.2 Indirect installation

In the case of **Indirect Installation** the new Stoll operating system is immediately transmitted on the hard disk of the knitting machine ("Software update" window).

Overview:

Start the installation process by switching on the machine. A message prompt displays that a new Stoll operating system is available for installation.

You have to make a decision here whether you wish to install the new Stoll operating system or wish to continue with the old one.

- Determine with the "Installation without configuration" check box whether the new Stoll operating system should be installed with simultaneous configuration of the machine parameter.
- Configure the machine if you have deactivated the "Installation without configuration" check box or carry out a reference run if you have activated the "Installation without configuration" check box.

*	Deactivate the "Installation without configuration" check box, if the machine parameters are also to be altered simultaneously with the installation of the new Stoll operating system. Activate the "Installation without configuration" check box, if you do not want to alter any machine parameters. This shortens the installation process.
i	The current operating system version will be overwritten! When you install a new Stoll operating system version the current one is overwritten. Carry out the following steps only if you want to replace the current operating system by the previous version. Save the machine data and the files specifically the ones you have created before the installation process.

Start installation The Stoll operating system was updated.

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- ✓ The machine is switched off.
- 1. Set the main switch to **1**.
 - The "BootOkc" window is displayed with the following message on the touch screen:

User Message					
START UPDATE NOW?					
New Operating System available! Update will change your actual system! Do you really want to update now?	*				
, ☑ Installation without configuration					
YES	10				

"User Message" window (START UPDATE NOW?)

2. Deactivate the "Installation without configuration" check box, if the machine parameters are also to be altered simultaneously with the installation of the new Stoll operating system.

```
- or -
```

i

- → Activate the "Installation without configuration" check box, if you do not want to alter any machine parameters.
- 3. To start installation process tap on "YES".
 - ▷ In the "User Message" window (INSTALLATION STARTED!) the path to the installation data is displayed.

To proceed with the old Stoll operating system, tap on "NO".

	TARTER
INSTALLATION S	TARTED!
Install new software d:\mybootfolde	e from: 🗾
Check Option <force in<="" td=""><td>stallation>?</td></force>	stallation>?
	<u>_</u>
FORCE INSTALLATION	

"User Message" window (INSTALLATION STARTED!)

 If only the files that have got altered are to be installed anew during the installation deactivate the "FORCE INSTALLATION" check box (expedites the installation process).

When you take up an installation in order to repair your operating system, activate the "FORCE INSTALLATION" check box so that the damaged files do not get overwritten subsequently.

- 5. To confirm the Installation press on the "YES" key.
 - In the "User Message" window (CAUTION!), the version number of the Stoll operating system version selected earlier gets displayed.



"User Message" window (CAUTION!)

- i The current operating system version will be overwritten! When you install a new Stoll operating system version the current one is overwritten. Carry out the following step only if you want to replace the current operating system by the previous version.
- 6. To confirm the installation, tap on the "YES" key.
 - ▷ When the installation file of the Stoll operating system has several languages, the "Install Languages" window is open.

"Install Languages" window

Key	Function
<	End selection process without saving modifications
✓←	Confirm selection
√)	Key "All languages"
×()	Key "No language"

Keys for language selection

- 7. Select the desired language(s).
 - If you want to have all languages available simultaneously, tap the "All languages" key. If you only want to carry on working in **German**, end selection process.

STOLL

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- 8. Confirm selection.
- The installation process gets started.
 The "Language" window is displayed after having selected the "Installation without configuration" check box.
 or -

The "Reference runs" window is displayed after having selected the "Installation without configuration" check box.

9. If the "Language" window is displayed, continue with the **Machine configuration** section.

- or -

- → If the "Reference runs" window is displayed, continue with the Start Reference runs section.
- Configure machine ✓ The "Language" window is displayed.
 - 1. Select the dialog language and confirm the selection.
 - 2. Proceed to the next window.
 - ▷ The "Machine configuration" window is displayed. The data have been set at the factory and will not be changed.
 - 3. Proceed to the next window.
 - ▷ The "Machine configuration 2" window is displayed. The data have been set at the factory and will not be changed.
 - 4. Proceed to the next window.
 - The "Machine Options" window is displayed. The data is set at the factory.

i	Machine fault! The presence or lack of machine options must correctly be specified, as otherwise a fault may occur on the machine.
	Always specify the machine options correctly.

- 5. If necessary, change the data and confirm the changes.
- 6. Proceed to the next window.
 - ▷ The "Machine Parameter" window is displayed. The data is set at the factory.
- 7. If necessary, change the data and confirm the changes.
- 8. Proceed to the next window.
 - \triangleright The "Needle bed parameters" window is displayed. The data is set at the factory.
- 9. If necessary, change the data and confirm the changes.
- 10. Proceed to the next window.
 - ▷ The "NPK-Values" window is displayed. The data is set at the factory.

- 11. If other NPK values are to be used, change the values and confirm the changes.
- 12. Proceed to the next window.
 - ▷ The "Knit Report Configuration" window is displayed.
- 13. If other settings are to be used, change the settings and confirm the changes. Use the "additional function keys" to activate/deactivate the running time control and/or running time measurement.
- 14. Proceed to the next window.
- The configuration is complete. The "Reference runs" window is displayed.
- 15. Continue with the next section.
- Start reference runs V The "Reference runs" window is displayed.
 - 1. If the racking device is not in the home position, press off the stitches of a needle bed.
 - 2. Carry out reference run(s).
 - 3. Proceed to the next window.
 - ▶ The installation process is complete and the "Main menu" is displayed.

Further information:

- Configure machine [-> 414]
- Configuring network [-> 416]
- Load the machine settings in the machine computer [-> 420]
- Saving dongle data [-> 420]
- Updating software [-> 439]



8.4.3 Updating software

A new Stoll operating system can also be copied on the hard disk while the machine is producing. No data is overwritten here; the operating system is loaded into a separate memory area.

This saves a few minutes time, as copying occurs during production. The updating is not carried out until later, i.e. when the machine is switched off and on again at the main switch. A prompt appears, asking you whether the new operating system shall be loaded.

- If the question is answered with **YES**, then the new Stoll operating system is installed.
- If it is answered with NO, then this question is asked again the next time you switch on whether the new Stoll operating system should be installed.

For the software update the source from where the new Stoll operating system should be copied can be selected.

Key	Function
	Call up the "Service" menu
	Call up the "Software updating" window
R	Key "Select source folder"
\Rightarrow	Key "Carry out update"
€g	Key "Update display"
√←	Save changes and end setting process
<	End setting process without saving changes
₩€	Call up "Main menu"

Keys for updating the software

Updating software

- 1. Call up the "Service" menu from the "Main menu".
- 2. Call up "Software updating" window.



"Software updating" window

- 3. Select source folder.
 - If multiple Stoll operating systems are found on the data carrier, these are listed.



- 4. If several Stoll operating systems are listed, the Stoll operating system (Type OS) that is to be copied should be marked.
- 5. Press the "Carry out update" key.
- The installation files are copied on the hard disk of the machine in a separate storage location.

The "Update successfully installed" appears.

When the Stoll operating system is copied, two more program points are displayed in the "Software update" window.

🔄 Software updating	STOLL THE RIGHT WAY TO KNIT
Path: G:\cms-468\BO-Ordner	
cms-468	
BO-Ordner Available updates	Туре
sprachen E_OKC_001.178.000_	STOLL OS
co_cms	
expand	
export	
export_3xx	8.000_STOLL
— export_4xx (1) 🍚 Undo updatin	g
export_E_2005_struktur	tallation

"Software updating" expanded window

Key	Function					
1	The data	The data in the separate memory area are deleted.				
2	Selection of whether the installation should be executed automatically or manually when the machine is switched on next.					
	On	After a waiting time of 10 seconds the installation is automatically carried out till the "Reference runs" window (like in the case of "Installation"). Within the waiting time the installation can be cancelled by tapping on "Cancel".				
		Select this setting if only the operating system should be updated.				
	Off	Installation like in the case of "Installation and Configuration". Select this setting if machine data have been modified. For example after a gauge conversion or if a special equipment has been assembled.				

Other functions in the "Software update" window

Reset update:

- → Tap on the key "Reset update" (1).
- The data is deleted in a separate storage location on the hard disk of the machine.

Select type of installation:

- If the new Stoll operating system is to be installed after a waiting time of 10 seconds automatically, set the switch "Automatic Installation" (2) to On.
 - or -
- → If the new Stoll operating system is to be installed manually, set the switch "Automatic Installation" (2) to Off.

More data on a network drive or USB-Memory-Stick

In addition to the operating system, other data can be present on the
 network drive and the USB Memory Stick. Which data is available can be
 displayed by activating the key "Carry out updating".

Туре	Meaning
OS	Operating system (OS)
IMG	Hard disk image
HDA	HD Analyst
UPT	Update of Windows XP Embedded (OPTION)
REP	Update of repair image

Selection of individual installation types

Further information:

Indirect installation [-> 433]



8.4.4 Carrying out a restart (Restart)

A restart is carried out when the software no longer reacts to inputs following an error.

Carry out a restart:

- 1. Set machine main switch to **0**.
 - The switch-off process takes approx. 60 seconds. When the process is complete, the touch screen becomes dark and a signal sounds.
- 2. Set the main switch to 1.
 - ▷ The "BootOkc" window is displayed on the touch screen.

BootUkc					
Waiting for Conne	ection to Master				
In	stallation		Installation and Co	onfiguration	
	Restart		Restart and Con	figuration	
W	'armstart	Z	Basic Sett	ings	
	c	onnectir	ig.		
No Sender	MessageText			Date and Time]
B1 B0_DEBUG B2 B0_DEBUG B3 B0_DEBUG B4 B0_DEBUG B5 B0_DEBUG B7 B0_DEBUG B7 B0_DEBUG	Auspraegung: STOKC15-L- Auspraegung: STOKC15-L- TelegramHandler Started CommunicationHandler Started Connection to Master faile Application successfully ini Waiting for Connection: St	-1 MCkl -1 MCkl d tialized atusMa	asse: 904 ab BM: 0 asse: 905 ab BM: 0 asterOnline = False	22.12.2005 11:5 22.12.2005 11:5 22.12.2005 11:5 22.12.2005 11:5 22.12.2005 11:5 22.12.2005 11:5 22.12.2005 11:5 22.12.2005 11:5	

"BootOkc" window

- 3. For the automatic warm start within the waiting time tap on the key "Restart".
 - The machine is configured.
 Finally the window "Reference runs " is displayed.
- 4. Carry out reference run(s).
- 5. Proceed to the next window.
- The restart is complete and the "Main menu" is displayed. The machine is ready to knit.

Further information:

- Setting touch screen [-> 73]
- Setting waiting time until warm start [-> 413]

8.4.5 Carrying out restart with machine configuration (Restart and Configuration)

A restart with the machine configuration is carried out after a gauge conversion or after attaching special attachments.

Carry out restart with machine configuration:

- ✓ The machine is switched off.
- 1. To switch on the machine, set the main switch to **1**.
 - ▷ The "BootOkc" window is displayed on the touch screen.

Boot)kc						
	Waiti	ing for Conne	ction to Master]
	Installation Installation and Configuration						
	Restart Restart and Configuration						
	Warmstart Basic Settings						
			с	onnectir	g		
							1
	No	Sender	MessageText			Date and Time 🔺]
	81	BO_DEBUG	Auspraegung: STOKC15-L-	1 MCkl	asse: 904 ab BM: 0	22.12.2005 11:5	
	82	BO_DEBUG	Auspraegung: STOKC15-L-	1 MCkl	asse: 905 ab BM: 0	22.12.2005 11:5	
	83	BO_DEBUG	TelegramHandler Started			22.12.2005 11:5	
	84 BO_DEBUG CommunicationHandler Started 22.12.2005 11:5					22.12.2005 11:5	
	85	BO_STATUS	30_STATUS Connection to Master failed 22.12.2			22.12.2005 11:5	
	86	BO_DEBUG	DEBUG Application successfully initialized 22.12.2005 11:5				
	87 BO_DEBUG Waiting for Connection: StatusMasterOnline = False 22.12.2005 11:5						1
	•						J
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"BootOkc" window

- 2. For the automatic warm start within the waiting time tap on the "Restart and Configuration" key.
 - The Restart Process gets started. After the process is shut, the "Language" window is displayed.
- 3. Select the dialog language and confirm the selection.
- 4. Proceed to the next window.
 - ▷ The "Machine configuration" window is displayed. The data have been set at the factory and will not be changed.
- 5. Proceed to the next window.
 - ▷ The "Machine configuration 2" window is displayed. The data have been set at the factory and will not be changed.
- 6. Proceed to the next window.
 - ▷ The "Machine Options" window is displayed. The data is set at the factory.

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	1	Machine fault! The presence or lack of machine options must correctly be specified, as otherwise a fault may occur on the machine. Always specify the machine options correctly.		
7.	lf n	ecessary, change the data and confirm the changes.		
8.	Pro	bceed to the next window.		
	\triangleright	The "Machine Parameter" window is displayed. The data is set at the factory.		
9.	If necessary, change the data and confirm the changes.			
10.). Proceed to the next window.			
	\triangleright	The "Needle bed parameters" window is displayed. The data is set at the factory.		
11.	1. If necessary, change the data and confirm the changes.			
12.	2. Proceed to the next window.			
	\triangleright	The "NPK-Values" window is displayed. The data is set at the factory.		
13.	3. If other NPK values are to be used, change the values and confirm the changes.			

14. Proceed to the next window.

- ▷ The "Knit Report Configuration" window is displayed.
- 15. If other settings are to be used, change the settings and confirm the changes. Use the "additional function keys" to activate/deactivate the running time control and/or running time measurement.
- 16. Proceed to the next window.
 - \triangleright The configuration is complete. The "Reference runs" window is displayed.
- 17. Carry out reference run(s).
- 18. Proceed to the next window.
- The restart is complete and the "Main menu" is displayed. The machine is ready to knit.

Further information:

- Setting touch screen [-> 73]
- Setting machine parameters [-> 184]
- Setting waiting time until warm start [-> 413]
- Configure machine [-> 414]
- Configuring network [-> 416]

8.4.6 Setting online connection

The knitting machine (s) and the STOLL pattern preparation unit can be connected to an Ethernet connection.

Key	Function
1 2 3 q w e	Switch on virtual keyboard
✓←	Confirm input
>	Continue on to the next window
\checkmark	Confirm selection

Keys for setting online connection

Setting online connection:

- ✓ The knitting machine is switched off.
- 1. To switch on the machine, set the main switch to **1**.
 - ▷ The "BootOkc" window is displayed on the touch screen.

💽 Boot	Okc						
	Wait	ing for Conne	ection to Master]
		In	stallation		Installation and Co	onfiguration	
	Restart				Restart and Con	figuration	
	Warmstart			Z	Basic Sett	ings	
	connecting						
							I
	No	Sender	MessageText			Date and Time 🔺]
	81 82 83 84 85 86 87	BC_DEBUG Auspraegung: STOKC15-L-1 MCklasse: 904 ab BM: 0 22.12.2005 11:5' BO_DEBUG Auspraegung: STOKC15-L-1 MCklasse: 905 ab BM: 0 22.12.2005 11:5' BO_DEBUG Auspraegung: STOKC15-L-1 MCklasse: 905 ab BM: 0 22.12.2005 11:5' BO_DEBUG TelegramHandler Started 22.12.2005 11:5' BO_DEBUG CommunicationHandler Started 22.12.2005 11:5' BO_DEBUG Connection to Master failed 22.12.2005 11:5' BO_DEBUG Application successfully initialized 22.12.2005 11:5' BO_DEBUG Waiting for Connection: StatusMasterOnline = False 22.12.2005 11:5'					
	•						-
	C			⇒	(¹) +	?	

"BootOkc" window

2. For the automatic warm start within the waiting time tap on the "Restart and Configuration" key.

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- The Restart Process gets started. After the process is shut, the "Language" window is displayed.
- 3. Proceed to the next window.
 - ▷ The "Machine configuration" window is displayed.

🔁 Machine configurat	ion		STOLL THE RIGHT WAY TO KNIT
Machine classification		554	
Version		0	
Machine type		CMS 530	
Specification of control		STOKC15-L-1	
Knit and wear machine		Yes 💌	x.2 KW 💌
Serial number	3455		
Needle gauge		4.2	
Needle hook gauge		4	
Online ID	0	6	
Date	07.12.2005 13:15:29		

"Machine configuration" window

- 4. Tap in the "Online Id" field.
- 5. Enter the online ID of the knitting machine with the help of the virtual keyboard.
- 6. Confirm input.
- 7. Advance till the "Main menu" appears.
- The restart is finished.
 - If network problems occur and these are impairing the production, then the online ID can be set at **0** (switched off). In the "Service/Basic settings" menu call up the window "Machine-configuration" and alter the Online ID for this purpose.

8.4.7 Overview of all system data

All important hardware and software data of the control are displayed in the "System info" window.

🔊 Systen	STOLL THE RIGHT WAY TO KNIT		
Controller Characteristic		STOKC17-N-1	
Configuration	OS MC-NR Machine type Gauge K&W Technical fabrics Tandem with Comb Yarn carrier driving type	E_OKC_002.038.000_STOLL 56600300012 CMS530 7.2 ON OFF NO 2	
Master-C	HW-ID Memory	231 of 2494 kBytes used (9%)	
лрс 3	HW_ID Memory Operating System Service Pack HD Image	300976 0 of 2097151 kbytes used (0.0 %) Windows XP Service Pack 3 P8X_003_004	

"System info" window

Field	Data shown
1	Stoll operating system (OS) that is loaded, the machine number, machine type, gauge, yarn carrier type, etc.
2	"Memory" line: Display of the amount of memory this pattern occupies
3	Hardware and software data Network data

Key	Function
	Call up the "Service" window
\$	Call up "Diagnostics" window
B	Call up the "System info" window
₩€	Call up "Main menu"

Keys for calling up the "System info" window

8.5 Diagnose Control

Displaying System data:

- 1. In the "Main menu", tap on the "Service" key.
 - \triangleright The "Service" window is displayed.
- 2. Tap on the "Diagnostics" key.
 - \triangleright The "Diagnostics" window is displayed.
- 3. Tap on the "System Info" key.
- The "System Info" window with all the important hardware and software data of the control is displayed.

8.5 Diagnose Control

You can activate different diagnoses for service purposes and for troubleshooting. The diagnoses protocol additional information in one log file which can be analysed by the service technician or the helpline.

🔀 Diagnostic control	STOLL THE RIGHT WAY TO KNIT
Takedown: Main, Auxilliary, Comb	
Anin Drive, Racking, Stop Motion	
Carriage Position, Stitch Cam Motor, Needle Selection	
Clamping Cutting, Holding down Jack Ctrl, 2nd Stitch Tension, Presser Foot, Pr	essure Part Ctrl
S YLC	
Copy All Logfiles (to service data copy path F:)	
<	>

"Diagnostic control" window

Field	Data shown
1	Take-down system: Main take-down, auxiliary take-down, comb take-down.
2	Main take-down, racking, stop motions
3	Carriage position, step motor, needle selection
4	Clamping and cutting, holding-down jacks, 2nd stitch tension, presser foot, pressure part
5	Yarn Length Control
Copy All Logfiles	Saving the data (logfiles)

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Diagnose Control 8.5

Key	Function
	Call up the "Service" window
\$	Call up "Diagnostics" window
	Call up "Diagnostic control" window
₩€	Call up "Main menu"

Buttons for calling up the "Diagnostic control" window

Carry out diagnoses:

- 1. In the "Main menu", tap on the "Service" key.
 - \triangleright The "Service" window is displayed.
- 2. Tap on the "Diagnostics" key.
 - \triangleright The "Diagnostics" window is displayed.
- 3. Tap on the "Diagnostic control" key.
 - ▷ The "Diagnostic control" window is displayed.
- 4. Tap the desired button. The diagnose is starting, you can see the work progress in the message window.
- 5. If other diagnoses are needed, then tap the corresponding button.
- 6. When all diagnoses are generated, tap on the "Copy All Logfiles" key.
- The data (Logfiles) are saved on the selected data carrier. It will be saved on the data carrier that is set in the "Copy service data" window.

Further information:

■ Copying service data [-> 188]



9 Yarns and stitch tension

9.1 Stitch tension range

The specifications in the table show the minimum and maximum NP values for the normal stitch tension and the second stitch tension.

	min. NP	max. NP
E 3,5.2	3.0	23.0
E 5.2	5.0	25.0
E 6.2	5.9	25.9
E 7.2	6.7	26.7
E 9.2	7.9	27.9

Stitch tension range

9.2 Stitch lengths

The specified values serve as a guideline. Depending on the yarn, these values may differ, as the quality and the specific weight of the material influence the stitch length.



NP	E 5.2	E 6.2	E 7.2
3.0	3,82	2,67	2,67
3.5	3,82	2,67	2,67
4.0	3,82	2,67	2,67
4.5	3,82	2,67	2,67
5.0	3,82	2,67	2,67
5.5	4,29	2,67	2,67
6.0	4,77	2,76	2,67
6.5	5,24	3,21	2,67
7.0	5,72	3,66	2,94
7.5	6,19	4,11	3,39
8.0	6,67	4,56	3,84
8.5	7,14	5,01	4,29
9.0	7,62	5,46	4,74
9.5	8,09	5,91	5,19
10.0	8,57	6,36	5,64
10.5	9,04	6,81	6,09
11.0	9,52	7,26	6,54
11.5	9,99	7,71	6,99
12.0	10,47	8,16	7,44
12.5	10,94	8,61	7,89
13.0	11,42	9,06	8,34
13.5	11,89	9,51	8,79
14.0	12,37	9,96	9,24
14.5	12,84	10,41	9,69

Stitch length - yarn consumption per stitch (mm) with R/L fabric (Table 1)

Stitch lengths 9.2

NP	E 5.2	E 6.2	E 7.2
15.0	13,32	10,86	10,14
15.5	13,79	11,31	10,59
16.0	14,27	11,76	11,04
16.5	14,74	12,21	11,49
17.0	15,22	12,66	11,94
17.5	15,69	13,11	12,39
18.0	16,17	13,56	12,89
18.5	16,64	14,01	13,29
19.0	17,12	14,46	13,74
19.5	17,59	14,91	14,19
20.0	18,07	15,36	14,64
20.5	18,54	15,81	15,09
21.0	19,02	16,26	15,54
21.5	19,49	16,71	15,99
22.0	19,97	17,16	16,44
22.5	20,44	17,61	16,89
23.0	20,92	18,06	17,34
23.5	21,39	18,51	17,79
24.0	21,87	18,96	18,24
24.5	22,34	19,41	18,69
25.0	22,82	19,86	19,14
25.5	22,82	20,31	19,59
26.0	22,82	20,67	20,04
26.5	22,82	20,67	20,49
27.0	22,82	20,67	20,67
27.5	22,82	20,67	20,67

Stitch length - yarn consumption per stitch (mm) with R/L fabric (Table 2)

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9.3 Yarn table

The specified values serve as a guideline. The quality and the specific weight of a yarn must also be taken into account. Instead of a simple yarn, we recommend twisted yarn. With coarser machines it is advisable to use several twisted threads.

assembled processing [Nm]	Final count [Nm]
Several fine threads are assembled and fed as a thick yarn to the yarn carrier.	Yarn thickness of the assembled threads Example: 6 x 16/2 16/2=8 8:6=1,33
3 x 14/2	1.5 – 2.5
5 x 28/2	
3 x 28/2	3 – 4.5
4 x 28/2	
2 x 28/2	4.5 – 7
3 x 28/2	
2 x 28/2	6 - 8
2 x 30/2	
2 x 40/2	10 – 16
2 x 44/2	
2 x 60/2	
3 x 60/2	
	assembled processing [Nm] Several fine threads are assembled and fed as a thick yarn to the yarn carrier. 3 x 14/2 5 x 28/2 3 x 28/2 4 x 28/2 2 x 28/2 3 x 28/2 2 x 28/2 3 x 28/2 2 x 28/2 3 x 28/2 3 x 28/2 3 x 28/2 3 x 28/2 2 x 28/2 3 x 28/2 2 x 30/2 2 x 40/2 2 x 40/2 2 x 60/2

Yarn table - Allocation of machine gauge and yarn thickness

Conversion table 9.4

9.4 Conversion table

The following table is used for the conversion of one yarn gauge to another. The named yarn gauges mean:

TEX (Tt) Grams per kilometer

COTTON (NeC) Number of strands at 840 yds. per lb.

WORSTED (NeW) Number of strands at 560 yds. per lb.

METRIC (Nm) Meters per gram

DENIER (den) Grams per 9000 meters

DECITEX (dtex) Grams per 10000 meters

Due to the great variety of natural and synthetic fibers, it must be noted that yarns with a low specific weight are often more voluminous than yarns with a high specific weight. Therefore, the relationship dtex / den / Nm does not necessarily correspond to the conversion result.

EX (Tt)	1 15 2 3 4 5 6 7 8 9 10 15 20 30 40 50 60 800 100 Lititititititititititititititititititit
OTTON (Nec)	200 150 150 100 80 70 60 50 40 30 20 15 10 9 8 7 6 5 4 3 2 75 10 15 10 10 10 10 10 10 10 10 10 10 10 10 10
VORSTED (Nev	() 100 00 00 00 00 00 00 00 00 00 00 00 00
AETRIC (Nm)	300 200 150 150 100 50 50 50 50 50 50 20 30 20 15 15 16 20 15 5 4 3 2 15 1 1111 1111 1111 11111 1111 111 111 11
)ENIER (den)	0 15 20 30 40 55 20 30 40 55 60 70 80 90 100 150 200 300 400 500 800 1000 150 200 800 1000 1500 2000 3000 4000 900
ECITEX (dtex)	0 15 20 30 40 55 60 70 80 90 100 150 200 300 150 200 300 400 500 300 400 500 60 700 800 9001000 1500 2000 3000 400 5000 7000 10000

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Conversion table 9.4



10.1 Machine Management Tools window

10 Machine Management Tools

In our world the fast exchange of information has achieved a high level of significance. In order that the knitting machines lives up to the growing requirements, a series of auxiliary tools in the software have been taken up with the control OKC that can prove to be more efficient while working with the knitting machine and they are referred under the "Machine Management Tools" term comprehensively.

This chapter contains information on:

- Machine Management Tools window [-> 457]
- Display the virtual keyboard [-> 459]
- Remote control with the software VNC [-> 460]
- Send email directly from the machine [-> 468]

10.1 Machine Management Tools window



"Machine Management Tools" window

- 1 Opens the "VNC Properties (Service-Mode)" window for configuration of the remote control VNC.
- 2 Opens the "Send email" window to send the emails directly from the machine.
- 3 A virtual keyboard opens.

Machine Management Tools window 10.1

Key	Function
	Call up the "Service" window
\$	Call up "Diagnostics" window
× s	Call up "Machine Management Tools" window

Keys for calling up the machine management tools

Call up machine management tools:

- 1. In the "Main menu", tap on the "Service" key.
- 2. In "Service" window, tap on "Diagnostics" key.
- 3. In "Diagnostics" window, tap on the "Machine Management Tools" key.
 - \triangleright The "Machine Management Tools" window opens.
- 4. Call up the desired machine management tools.

In the following sections is described how to set up the different tools and how to use them.

Further information:

- Display the virtual keyboard [-> 459]
- Remote control with the software VNC [-> 460]
- Send email directly from the machine [-> 468]

10.2 Display the virtual keyboard

For inputs that are not integrated in the user interface, an external keyboard or a virtual keyboard is required.

Display the virtual keyboard

Key	Function
	Call up the "Service" window
\$	Call up "Diagnostics" window
× S	Call up "Machine Management Tools" window
₩€	Call up "Main menu"

Keys for calling up "Send email" window

- 1. Call up the "Service" window.
- 2. Call up "Diagnosis" window.
- 3. Call up "Machine Management Tools" window.
- 4. Tap on the "Virtual keyboard" switch.
 - \triangleright The virtual keyboard is open.

💷 On	-Sc	ree	en k	(e	ybo	ard																			- 10	×
File	K	(ey	bo	ar	d	Se	ett	ing	ļS	H	lel	р														
esc		F 1	F	2	F3	F	ŧ		F5	F	5	F7	F	8		F9	F1	0	F11 F12	psc	slk	brk				
	1	2		3	4	5	Ι	6	7	,	8	9	•	0	Ι	-	=	Ι	bksp	ins	hm	pup	nlk	7	*	-
tab		1	w		е	r I	t	Τ	Y	U	Ι	i	(•	р	Γ	[]]	1		del	end	pdn	7	8	9	
loci	k	а	I •	;	d	f	Ι	g	ŀ	۱I	j	Γ	¢	Т	Ι	;	•	Ι	ent				4	5	6	+
sh	ft		z	ж		c	v	Г	ь	n	Γ	m	,	Τ		Γ,	'		shft		†		1	2	3	
ctrl		9	alt	:										a	lt		9		ctrl	÷	I	→		D	•	ent

Virtual keyboard

With the virtual keyboard you can make inputs as if an external keyboard has been connected.

You can find information for usage of the virtual keyboard in the "Help" menu.

Tips for working with the virtual keyboard:

- A locked key (e. g. alt) must be activated finally again to achieve a double key function.
- Various key layouts can be selected ("Keyboard" menu).

Remote control with the software VNC 10.3

10.3 Remote control with the software VNC

You can use the remote control VNC to control a networked machine (VNC Server) by a remote computer (VNC client) as if you were standing in front of the machine and entering data via the touch screen.

Requirements:

- Network
- Networked and correctly configured ready-to-use machine
- Computer that serves as a client, is also networked (e.g. a note-book)
- Software VNC Viewer for the client
- Software for the client:

VNC Viewer or the Java Runtime Engine from Sun Microsystems Inc.

The VNC Viewer software for the client can for e.g. be obtained from the following manufacturer websites:

- www.realvnc.com
- www.tightvnc.com
- www.ultravnc.sourceforge.net

The Java Runtime Engine for the client can be obtained from the manufacturer website www.java.com.

In the following sections is described how to activate and use the remote control VNC:

- Activating the remote control VNC on the machine [-> 461]
- Configuring the remote control VNC on the machine [-> 462]
- Determine the IP address of the machine [-> 463]
- Installing software VNC Viewer on the computer (e.g. a note-book) [-> 463]
- Remote control with the VNC Viewer [-> 464]
- Remote control via a web browser [-> 466]

10.3 Remote control with the software VNC

10.3.1 Activating the remote control VNC on the machine

The remote control VNC is deactivated on the knitting machine by default.

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Key	Function
	Call up the "Service" window
S	Call up "Diagnostics" window
× s	Call up "Machine Management Tools" window
	Call up "Additional function keys"
	Activate/deactivate "Remote control VNC"
₩€	Call up "Main menu"

Keys to activate the remote control VNC on the machine

- 1. Call up the "Service" window.
- 2. Call up "Diagnosis" window.
- 3. Call up "Machine Management Tools" window.
- 4. Call up "Additional function keys".
- 5. Tap on "Remote control VNC" key.
- The activation of the remote control VNC gets is acknowledged by a message.



Remote control with the software VNC 10.3

10.3.2 Configuring the remote control VNC on the machine

- ✓ The remote control VNC is activated on the machine.
- ✓ The "Machine Management Tools" window is displayed.
- 1. Tap on the "Remote operation settings" switch.
 - ▷ The "VNC Server Properties (service mode)" window opens with different tabs.

🖑 VNC Serv	er Properti	es (Ser <mark>?</mark> ×
Desktop	Hooks	Legacy
Authentication	Connections	Inputs Sharing
Accept connection: Disconnect idle clie	s on port: nts after (seconds): wer via HTTP on port:	5900 3600 5800
+		Add
		Remove
		Move Up
		Move Down
		Edit

"VNC Server Properties (service mode)" window with the "Connections" tab

- Activate "Connections" tab.
 Here all the fields are set to their default values.
- 3. Should another port be activated as the standard port**5900** the number of the port is to be entered in the "Accept connections on port:" field.
- 4. If the machine has to be controlled remote also via a web browser, activate the check box "Serve Java viewer via HTTP on port:" and enter **5800** as port.

i	Any other adjustments on the various tabs are not necessary.
*	The value in the "Disconnect idle clients after (seconds):" field causes the automatic disconnection of a VNC connection when the value entered here is exceeded and within the mentioned time no operation is carried out. Thereafter, the connection can be established again without any problem. By default one hour = 3600 seconds is adjusted.

10.3 Remote control with the software VNC

10.3.3 Determine the IP address of the machine

Key	Function
	Call up the "Service" window
چ	Call up "Diagnostics" window
6	Call up the "System info" window
₩€	Call up "Main menu"

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Keys for determining the IP address of the machine

- ✓ The main menu is displayed.
- 1. In the "Main menu", tap on the "Service" key.
- 2. In "Service" window, tap on "Diagnostics" key.
- 3. In "Diagnostics" window, tap on the "System Info" key.
 - ▷ The "System Info" window opens.



"System info" window

4. Note IP address (2) and host name (1).

10.3.4 Installing software VNC Viewer on the computer (e.g. a note-book)

- ✓ The software VNC Viewer was obtained from the internet.
- 1. Start installation program.
- 2. Follow instructions of the installation program.
- ▶ Thereafter the software VNC Viewer is installed on the computer.

Remote control with the software VNC 10.3

10.3.5 Remote control with the VNC Viewer

- 1. Start the software VNC Viewer on the computer.
 - ▷ The "VNC Viewer: Connecting Details" window opens.



i

"VNC Viewer: Connection Details" window

- 2. Enter the noted IP address of the machine in the "Server" field.
 - When your network makes the **Naming Service** available, instead of the IP address the host name can also be entered. If another port as **5900** was entered during configuration of the remote control VNC on the machine, the port must be entered along with e. g. 172.17.12.54:5903.
- 3. In order to configure the software VNC Viewer when needed, click on the "Options" button.

ur & Encoding	Inputs	Misc	Load / Save	1
Auto select		Color	ur level	
Preferred encod	ing	OE	ull (all available (colours)
ZRLE		OM	edium (256 colo	iurs)
Hestile		OL	ow (64 colours)	
Raw		OV	ery low (8 colou	is)

▷ The "VNC Viewer Options" window opens.

"VNC Viewer Options" window, "Colour & Encoding" tab

- In order that all colors are displayed, activate the "Full (all available colours)" option on the "Colour & encoding" tab under "Colour level".
- 5. In order to make a small square visible as the mouse pointer alternative, deactivate the "Render cursor locally" check box on the "Misc" tab.
- 6. To save the option adjustments, click on the "Save" button on the "Load / Save" tab under "Defaults".



10.3 Remote control with the software VNC



- 7. Click on the "OK" button.
 - \triangleright The "VNC Viewer: Connection Details" window opens.
- 8. Click on the "OK" button.
- Now the user interface of the selected machine gets displayed.



Display of the user interface of the machine

- 9. Operate the machine now from this window.
 - The machine can be operated simultaneously through the user interface of the machine or through the computer (VNC Client).

Further information:

Configuring the remote control VNC on the machine [-> 462]

Remote control with the software VNC 10.3

10.3.6 Remote control via a web browser

When the Java Runtime Engine from Sun Microsystems Inc. is installed on the controlling computer (client), the access to a machine can be also be done through the web browser without the software VNC Viewer being installed.

By default the port **5800** is adjusted for this access on the VNC server on the machine and is activated in the server adjustment under **Serve Java Viewer**.

Start remote control:

- 1. Start web browser e.g. the Internet Explorer.
- Enter the following address as URL: http://<IP address of the machine>:5800
 - A Java applet is run which is obtained as a alternative for the software VNC Viewer from VNC Server (machine).
 Then the web browser appears as follows:



Web browser with the Java applet from VNC

 Above opens the window "VNC Viewer: Connection Details". The IP address is entered automatically.

VNC server:	172.17.12.54:0	
	About Options OK Ca	ancel

"VNC Viewer: Connection Details" window

4. Click on "Options".

10.3 Remote control with the software VNC

- 👙 VNC Viewer: Connecti... 🔳 🗖 🔀 Encoding and Colour Level: Auto select 🔹 Full (all available colours) C ZRLE C Medium (256 colours) C Low (64 colours) Raw C Very low (8 colours) Inputs: View only (ignore mouse & keyboard) Accept clipboard from server 🔽 Send clipboard to server Misc: Shared (don't disconnect other viewers) Render cursor locally 🗹 Fast CopyRect OK Cancel Java Applet Window
- ▷ The "VNC Viewer: Connection Details" window opens.

"VNC Viewer: Connection Details" window

- 5. In order that all colors are displayed, activate the "Full (all available colours)" option on the "Encoding and Colour Level:".
- 6. In order to activate the mouse pointer alternative, deactivate the "View only (ignore mouse & keyboard)" check box under "Inputs".
- 7. Click "OK".

×

The user interface of the machine is opened in the web browser and can now be operated from here.



Display of user interface of the machine in the "Java applet" window

The machine can be operated through the user interface of the machine or in the "Java applet" window simultaneously.



Send email directly from the machine 10.4

10.4 Send email directly from the machine

In the "Send email" window emails can be written and sent directly from the machine.

For this purpose the machine must be connected to the internet or to a network with a mail server. Call up your network administrator in order to install this function.

Call up Send email window

Key	Function
	Call up the "Service" window
٩	Call up "Diagnostics" window
× S	Call up "Machine Management Tools" window
M	Call up "Send email" window
₩€	Call up "Main menu"

Keys for calling up "Send email" window

- 1. Call up the "Service" window.
- 2. Call up "Diagnosis" window.
- 3. Call up "Machine Management Tools" window.
- 4. The "Send email" window opens.


10.4 Send email directly from the machine

Send email			STOLL THE RIGHT WAY TO KNIT
From: To: Subject:	<name>@StollReport.com</name>		
<			
Mail attachement		_	
File name			hanged on
D:\bo_temp\installer.log		52 KB 20	106-04-07 15:06:24
D:\bo_temp\screenshot_1.bmp		90 KB 20	05-10-14 15:41:57
Total: 2, (Max:20)	142 KB		

 \triangleright The "Send email" window opens.

"Send email" window on the machine

Inputs	Explanation	
	"Delete all entries" key (except the entry in the "from" field).	
→	"Send email" key.	
From	Sender of message. The machine name is entered here as a sender as standard. If you are expecting an answer to the email, enter a valid email address here as the machine cannot receive any emails.	
То	addressee of message. Several addressee names are to be separated by a semicolon (;).	
Subject	Subject of the message.	
	Field for entering message text.	
Mail appendix		
	"Unzipped" key: In the "File name" field, displayed files are attached unzipped to the message. "Zipped" key:	
۲ <u>ا</u>	The files which are displayed in the "File name" field are zipped before they are attached to the message.	

Entries in the "Send email" window

Send email directly from the machine 10.4

Inputs	Explanation
k	"Delete marked entry" key (in the "File name " field).
U	"Mail attachment" key: Opens the "Mail attachment" window for selection of files (for example bitmaps, log files, zip files) that can be attached to the message. The file names are displayed in the "File name" field subsequently.
File name	Display of file (s) which are attached to the message.

Entries in the "Send email" window

Write email

Use the virtual keyboard for input.

1. Enter a sender address in the "from" field.

If you are expecting an answer to the email, enter a valid email address here as the machine cannot receive any emails.	ł
---	---

- In the "To" field, enter the email address of the receiver. Several addressee names are to be separated by a semicolon (;).
- 3. In the "Subject" field, enter the subject of the message.
- 4. In the field below the "Subject" field, enter the content of the message.

With the "Delete all inputs" key, you can delete the inputs in all the fields of the "Send email" window (except the entry in the "from" field).

10.4 Send email directly from the machine

Attach files to the email You can attach any files to an email which are sent with the message. In order to reduce the size of the file, the files to be attached can be zipped (compressed).

- 1. Tap on "Mail attachment" key.
 - ▷ The "Mail attachment" window opens.

Mail attachement				
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"Mail attachment" window

- 2. In "Mail attachment" window, select the file that has to be attached.
- 3. Confirm selection.

 \triangleright The file is displayed in the "File name" field.

- 4. If additional files are to be attached, repeat the steps 1 to 3.
- 5. If the files in the "File name" field are to be attached zipped to the email, tap on "Zipped" key.

- or -

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- → If the files in the "File name" field are to be attached unzipped to the email, tap on "Unzipped" key.
 - In order to remove a file from the "File name" field, mark this file and then tap on the "Delete marked entry" key.

Send email

- email
 Sender and receiver addresses have been entered correctly.
 - ✓ The message is entered.
 - ✓ The email attachments are selected.
 - → Tap on "Send email" key.
 - The email is sent with the attachments.

Send email directly from the machine 10.4

11 Key word directory

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