

CMS			530HP	520C											
Typ			642 643	647											
Circuit diagram 223			X	X											

ELECTRICAL DATA OF CMS MACHINES

Mains voltage : 230/400V
 ±10% 50/60 Hz
 Phase number : 1 or 2
 Rated current F0 : 10A
 Main fuse (of customer) : 16 A slow-blow fuse

Mains connection:

Caution! Before connecting check for the mains voltage which is at the operating place of the machine.

The connection of external electrical and electronic assemblies to the internal wiring of the machine is generally not allowed.

A guarantee for a faultless function of the machine cannot be ensured in those cases.

When operating the machine via a generator take care that the requirement to the mains voltage is carried out according to EN 60204-1 paragr. 4.3.1.

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Spalte X: eine automatisch erzeugte Seite wurde manuell nachbearbeitet

ESSJ010D

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21	comb		24.06.14	KEH	
22	auxiliary take down		24.06.14	KEH	
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24	outputs I/O-card		23.06.14	KEH	
25	inputs I/O-card		23.06.14	KEH	
26	inputs I/O-card		23.06.14	KEH	
27	fluff elemination + central lubrication		24.06.14	KEH	

			Datum		H.Stoll GmbH & Co. KG	STOLL	contents	Id.Nr. 267956	=	+	Ae.St.00	Bl. 2
			Bearb.	KEH								
			Gep.	18.07.14								
Änderung	Datum	Name	Norm	Urspr.	Ers.f.	Ers.d.						27 Bl.

Identification of the plug connectors, sensors and actuators

A__	Assemblies
B	Switches
E__	Lighting; Ventilator
F__	Fuses
J__	The card plug connector of the wiring system __ stands for the last three numbers of the respective Ident. number (example: Id.301023→ J023)
K__	Relays
M__	Motors
P__	Signal equipment
Q__	Brakes, magnets
T__	Transformers
W__	cable
V__	Interference suppressors
XR__	Plug connectors on the wiring systems in the left control unit (cable outlets)
XT__	Plug connectors on the transformer
XZ__	Plug connectors on the consumer or switch gear

Circuit diagram 223

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Computer OKC5, Ident. No.: 267 956.00

Identifier EN 61346-2	Designation	Value/funktion	Ident No. CMS 530, 520C	
A1	Control cabinet.		265 464 (530) 265 556 (520)	
A6	Battery plug-in unit		301 027	
A7	Card Engaging		259 000	
A8	Magnet switch shrouding covers outside		264 696	
A10	Yarn control device		237 124	
A12	Impulse giver auxiliary take-down		217 462	
A14	Magnet switch shrouding covers in the middle		264 695	
A15	Racking – limit switch jack		229 396	
A21	Main switch		265 631	
A22	Central oil lubricating pump	Partly optional	235 068	
A23re	Length measuring device	optional	257 282	
A23li	Length measuring device	optional	257 283	
A24	Shock stop motion (Piezo)		220 011	
A26	Slack tensioner left.		241 345	
A27	Slack tensioner right.		241 346	
A28	Safety relay light curtain		----	
A29	Card rectifier transformer		267 335	
A30	posifeed	optional		
B10	Switch Protective hood on the right		223 350	
B12	Switch Protective hood on the left		223 350	
B_S14	Switch take-down closed		026 259	
B15li	Slack tensioner on the left	in group A26	x	
B15re	Slack tensioner on the right	in group A27	x	
B_S16	Microswitch Winding plate		267 012	
B_S16a	Microswitch front winding plate		222 063	
B20	Comb reference at the top		231 516	
B21	Comb reference bottom		231 520	
B22	Comb Light barrier		243 355	
B_S23	Switch Cover plate Comb		026 259	
B_S24	Switch comb hook		026 259	
B_27	Float switch central lubrication	in group A22	x	
B_28	Oil pressure switch central lubrication	in group A22	x	
B_S30	Switch auxiliary take-down open		026 259	
B31	Thermoswitch fluff absorption turbine	in M 9	x	
B32	Switch winding plate feed wheel		008 529	
B41li	Thermoswitch feed wheel left	in M 7	x	
B41re	Thermoswitch feed wheel right	in M 7	x	
B48	Release signalling switch of main switch	in group A21	236 065	
B_S49	Cover plate Comb depressed		026 259	
B50	Safety light curtain cascade		----	
B51	Safety light curtain end device		----	
B52	Thermoswitch rectifier	in group A29	x	
E1	Machine lighting at the top		264759	
E3	Ventilator drive motor		254 872	
E4	Ventilator control unit on the right (servo)	in group A2	229 059	
Q1	Protective motor switch	in group A21	235 115	
F 8	Servo	8AT / 440V	241 866	
F11	Power supply	20AT / 80V	267 336	
F12	Power supply	20AT / 80V	267 336	
F20	Fluff absorption (FLENT)	8AT / 440V	241 866	

Circuit diagram 223

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Computer OKC5, Ident. No.: 267 956.00

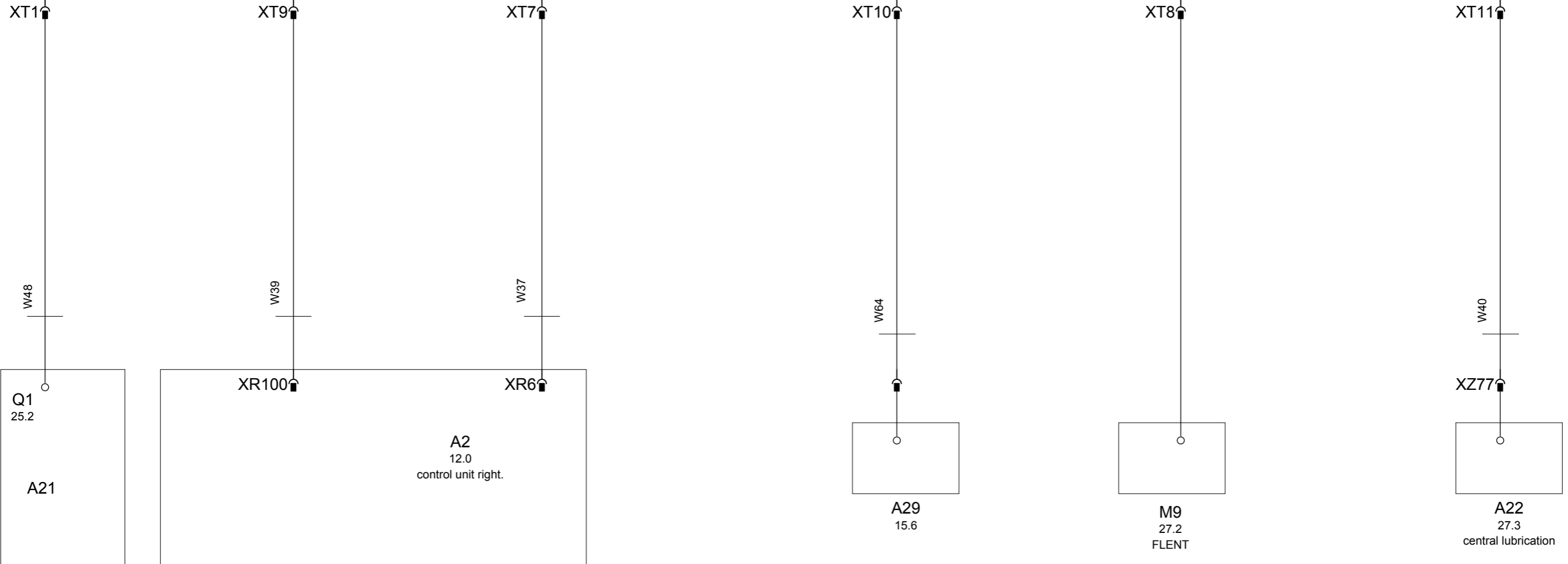
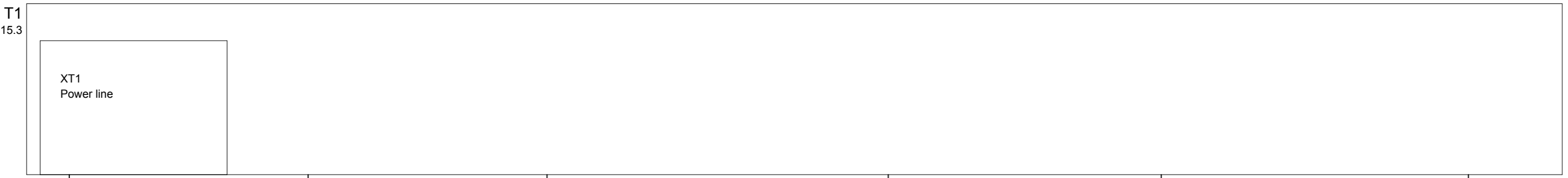
Identifier EN 61346-2	Designation	Value/funktion	Ident No. CMS 530, 520C
F_Si1	28V protected (switch)	1,0 AF	008 748
F_Si2	28V Length measuring device	1,0 AF	008 748
F_Si3	Fuse of yarn control unit	1,0 AF	008 748
F_Si5	Ballast servo (on relay card J953/J007)	1,6 AT /440V	236 229
F_Si6	Fuse of battery plug-in unit	6,3AT	026 809
P1	Warning light complete		240 395
P2	Warning light green	in group P1	x
P2.1	Warning light yellow	in group P1	x
P3	Signal transmitter (horn)	in group P1	x
K15A	Relay fluff absorption	in group T1	267 334
K16A	Relay fluff absorption	in group A22	x
M 1	Drive motor		240 740
M 2	Rear racking motor		259 115
M 3	Take-down motor		259 655
M 4	Comb motor		259 655
M 5	Auxiliary take-down motor		264 923
M 6	Comb hook motor		259 009
M 7	Friction feed wheels		219 800
M 9	Suction turbine fluff absorption (FLENT)		262 592
M 14	Central lubrication of motor pump	in group A22	x
Q1	Magnet machine execute	in group A21	235 116
Q2	Magnet Engaging rod		026 233
Q5	Brake motor take-down	in Motor M3	x
Q6	Brake motor comb	in Motor M4	x
T1	Main transformer		262 020
W 1	Cable drive motor		262 235
W 2	Cable resolver drive		262 236
W 3	Cable racking motor		262 237
W 4	Cable resolver racking		262 238
W 9	Cable fabric take-down motor		240 291
W11	Cable comb motor		260 324
W12	Cable auxiliary take-down motor		260 326
W13	Cable comb hook motor		265 676
W14	Cable feed wheel on the left		260 328
W15	Cable feed wheel on the right		240 464
W20	Cable switch main take-down		240 294
W22	Cable racking limit switch		262 240
W25	Cable protective units on the right		240 292
W26	Cable yarn tensioner , warning light , horn		265 694
W27	Cable piezo sensor		266 268
W28	Cable switch comb		240 518
W29	Cable encoder auxiliary take-down		262 241
W30	Cable engaging		265 698
W31	Cable Length measuring device	optional	252 538
W36	Cable lighting LED		257 239
W37	Cable Power supply SERVO		257 239
W39	Cable Power supply		261 351
W40	Cable power supply central lubrication	Partly optional	254 098
W41	Cable control central lubrication	Partly optional	254 099
W42	Cable switch auxiliary take down		240 472

Circuit diagram 223

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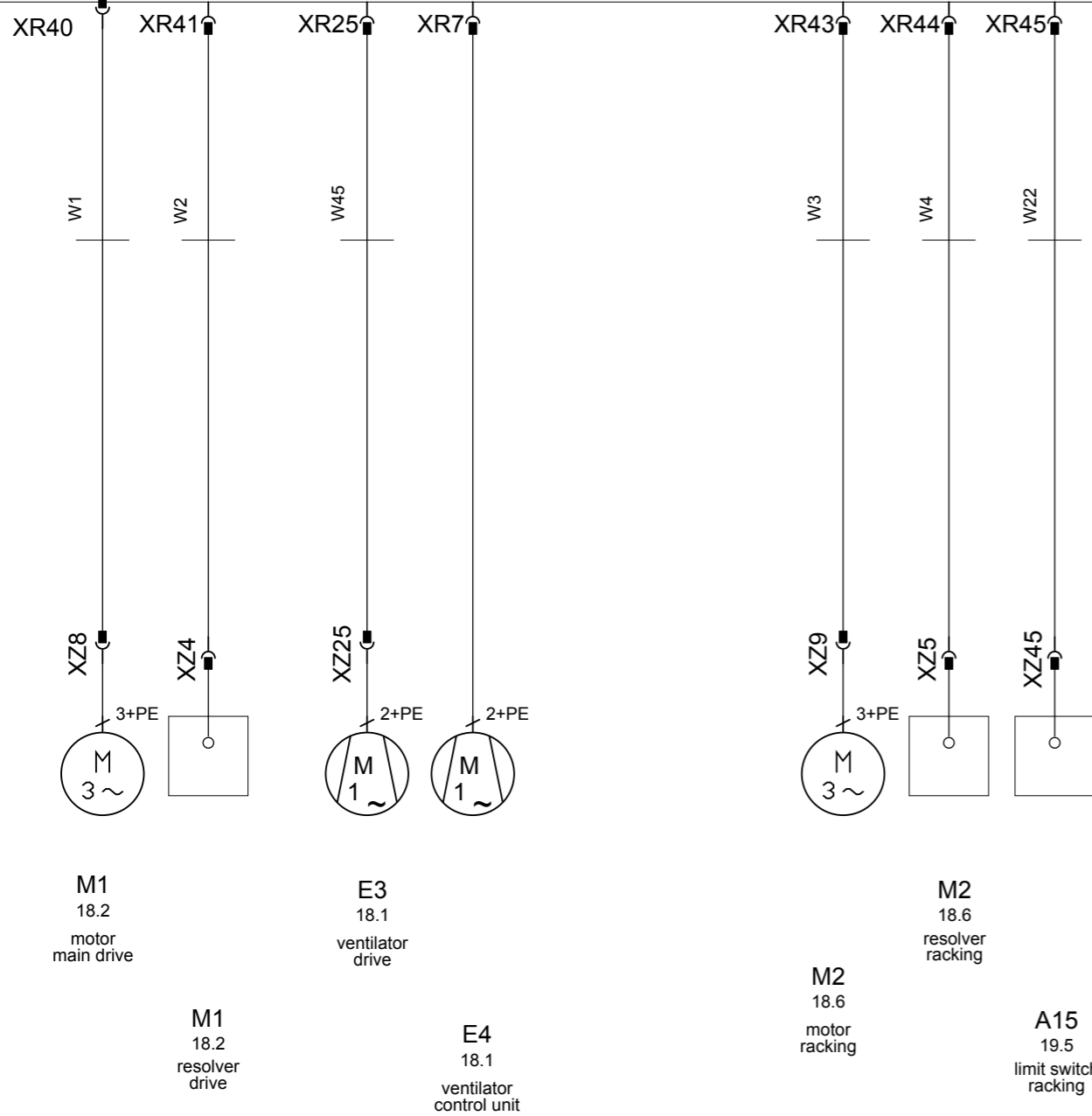
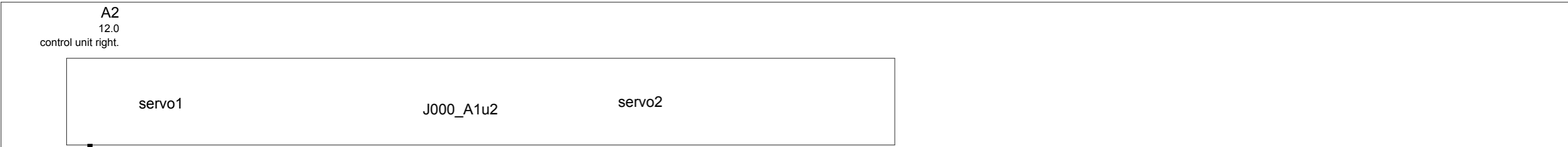
Computer OKC5, Ident. No.: 267 956.00

Identifier EN 61346-2	Designation	Value/funktion		Ident No. CMS 530, 520C	
W43	Cable switch Comb hook			240 309	
W44	Cable signals main switch			240 517	
W45	Cable ventilator drive			240 293	
W47	Cable protective units left			253 620	
W48	Cable mains supply transformer			250 364	
W49	Cable mains supply yarn control device, warning light			239 749	
W50	Cable DUT			235 283	
W51	Cable Displayport			242 421	
W57	Cable batterie pug-in unit			260 330	
W58	Cable resolver take Down			260 325	
W59	Cable resolver comb			260 327	
W60	Cable +40V ADF			----	
W61	Cable data Servo ADF			----	
W62	Cable safety curtain ADF			----	
W63	Cable protective cover right			265 696	
V1	Power line filter			265 315	



main switch
54VDC power supply
240V servo
motor FLENT
supply lead central lubrication

			Datum		H.Stoll GmbH & Co. KG	STOLL	block diagram power line transformer	Id.Nr. 267956		=		
			Bearb.	KEH				Ae.St.00				
			Gep.	18.07.14				circuit diagram 223				
Änderung	Datum	Name	Norm		Urspr.	Ers.f.	Ers.d.			Bl. 7		
									27 Bl.			

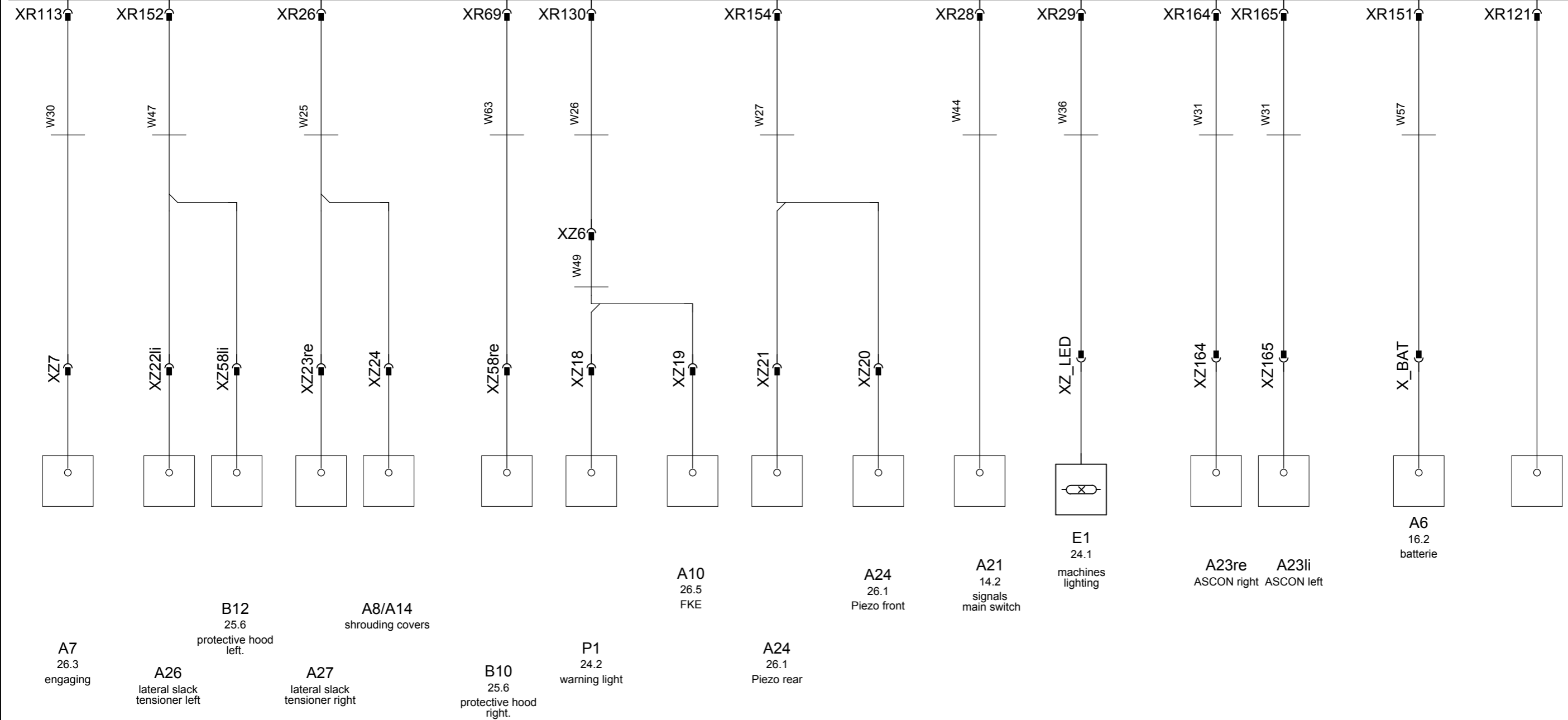


main drive

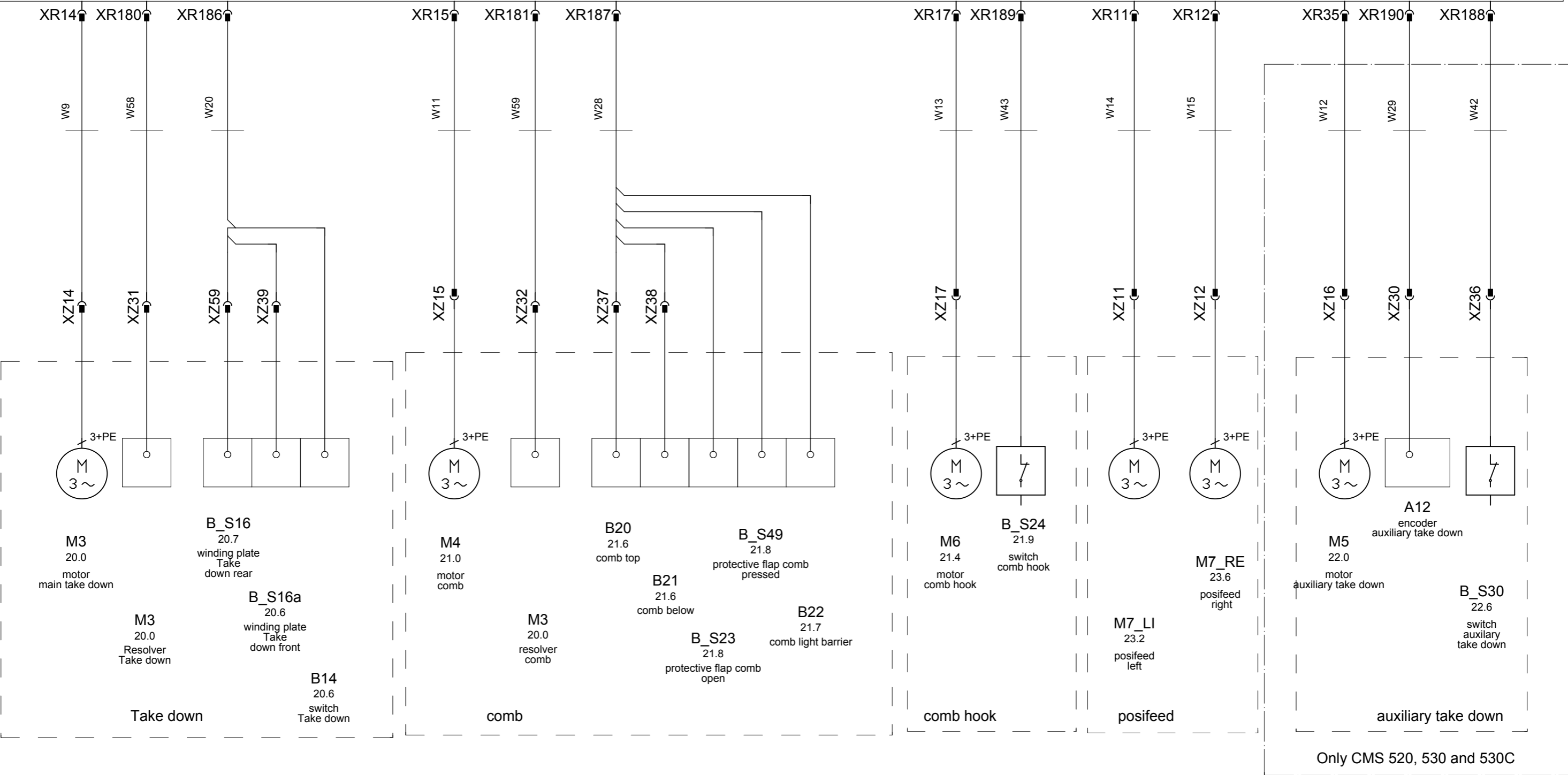
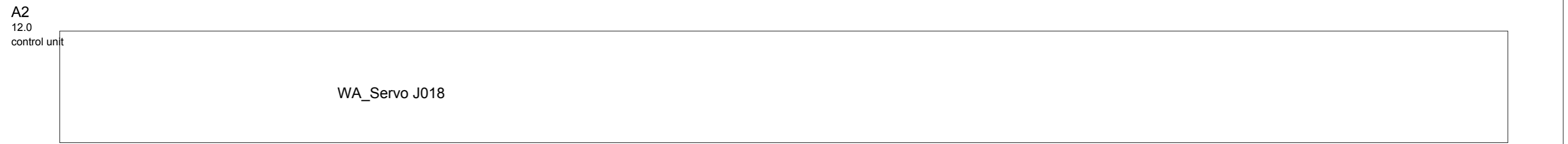
racking

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Änderung	Datum	Name	Norm	Urspr.	Ers.f.	Ers.d.			Bl.	8	
										27 Bl.	

A2
12.0
control unit

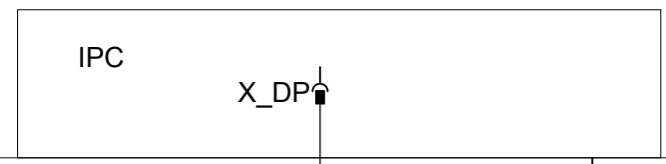


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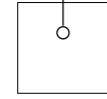
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Änderung	Datum	Name	Norm	Urspr.	Ers.f.	Ers.d.			27 BI.

A2
12.0
control unit



X_DP

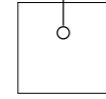
W51



Displayport

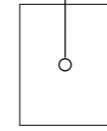
XR216

W50



XR161

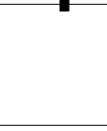
XZ83FFre



FF
YC

XR136

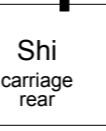
XZ136



encoder rear

XR332

XD325



Shi
carriage
rear

carriage rear

XR137

XZ137



encoder front

XR333

XD333



Svo
carriage
front

carriage front

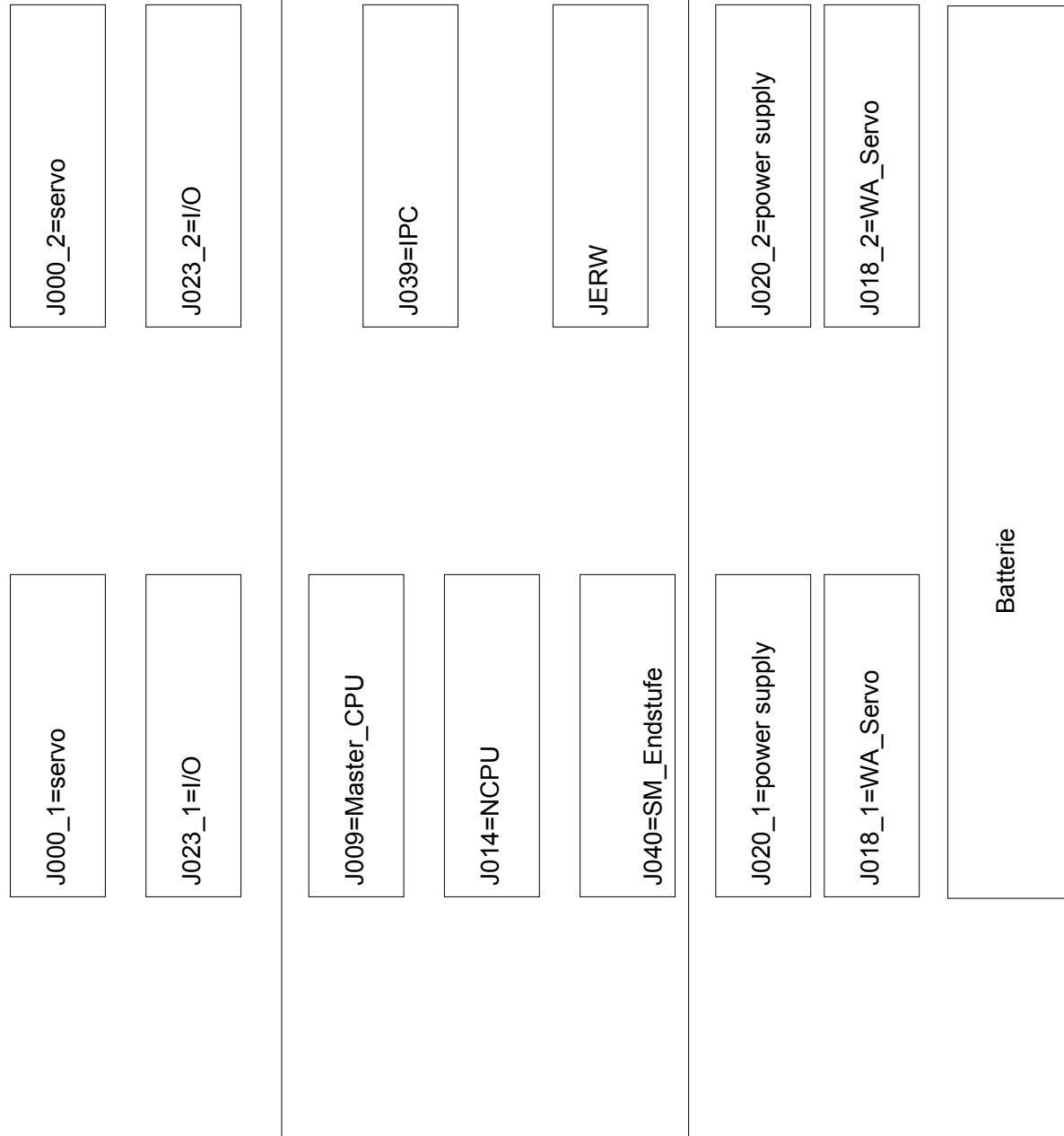
XR133

CAN-BUS

			Datum		H.Stoll GmbH & Co. KG	STOLL	block diagram	Id.Nr. 267956	=	
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			Gep.	18.07.14			carriage	Ae.St.00		Bl. 11
Änderung	Datum	Name	Norm		Urspr.	Ers.f.	Ers.d.			27 Bl.

A2
11.0

wiring system



back side

- XR6=power supply servo
- XR7=ventilator_1_control unit
- XR11=posifeed left
- XR12=posifeed right
- XR14=motor take down
- XR15=motor comb
- XR17=motor comb hook
- XR25=ventilator main drive motor
- XR26=protectiv devices
- XR28=signals main switch
- XR29=lighting
- XR35=motor auxiliary take down
- XR40=motor Servo1
- XR41=resolver Servo1
- XR43=motor Servo2
- XR44=resolver Servo2
- XR45=limit switch Servo2
- XR68=central lubrication
- XR69=light curtain
- XR100=power supply supply lead 54V DC
- XR113=engaging rod
- XR121=reserve
- XR130=FKE, lamp
- XR133=CAN
- XR136=needle impuls rear
- XR137=needle impuls front
- XR151=batterie
- XR152=signals, limit switch left.
- XR154=piezo
- XR161=YarnCarrier left
- XR164=ASCON right
- XR165=ASCON left
- XR176=data left/right--ADF
- XR177=40V left--ADF
- XR180=resolver main take down
- XR181=resolver comb
- XR186=switch main take down
- XR187=switch comb
- XR188=switch auxiliary take down
- XR189=switch comb hook
- XR190=resolver auxiliary take down

11

13

				H.Stoll GmbH & Co. KG		STOLL	connector definition wiring system		Id.Nr. 267956				
				circuit diagram 223									
		Datum											
		Bearb.	KEH										
		Gepr.	18.07.14										
Änderung	Datum	Name	Norm	Urspr.	Ers.f.	Ers.d.			Ae.St.00		Bl. 12		
											27 Bl.		

transformer

XT7=servo

XT8=FLENT

XT9=power supply

XT10=posifeed

XT11=central lubrication

main switch

XH0=main connection main switch

XH1=power transformer

XH2=main connection main switch

XH3=230V

XH4=400V

XH5=EMI-Filter

sensors / actuator external

XZ4=resolver main drive

XZ5=resolver racking

XZ6=connector FKE,warning light

XZ8=motor main drive

XZ9=motor racking

XZ11=posifeed left

XZ12=posifeed right

XZ14=motor Take down

XZ15=motor comb

XZ16=motor auxiliary take down

XZ17=motor comb hook

XZ18=warning light

XZ19=FKE

XZ20=Piezo NB front

XZ21=Piezo NB rear

XZ23re=lateral slack tensioner right

XZ24=shrouding covers

XZ31=encoder Take down

XZ32=encoder comb

XZ34=brake /temperature comb

XZ35=brake /temperature Take down

XZ37=position comb top

XZ38=position comb below

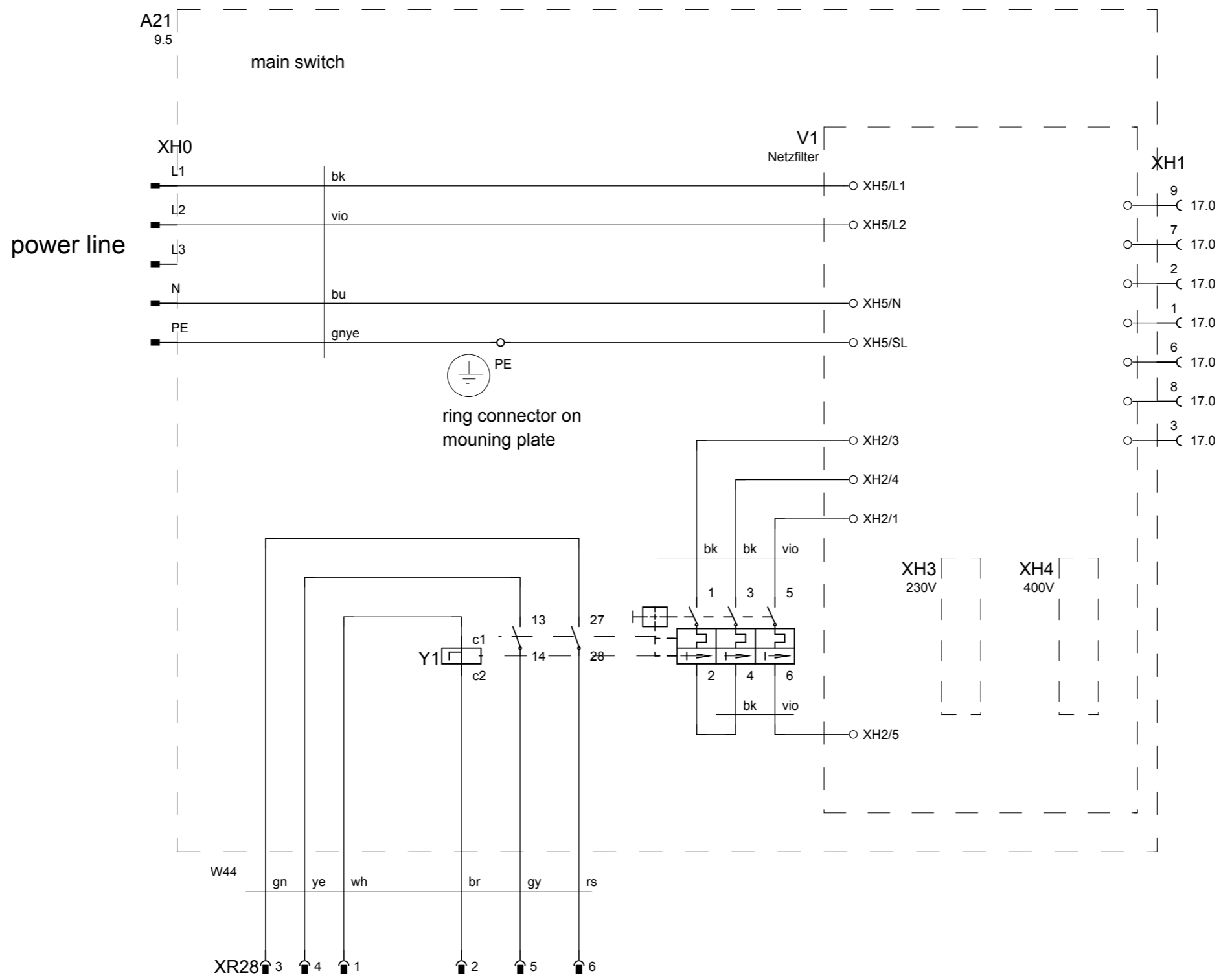
XZ39=winding plate Take down rear.

XZ58re=protective hood right

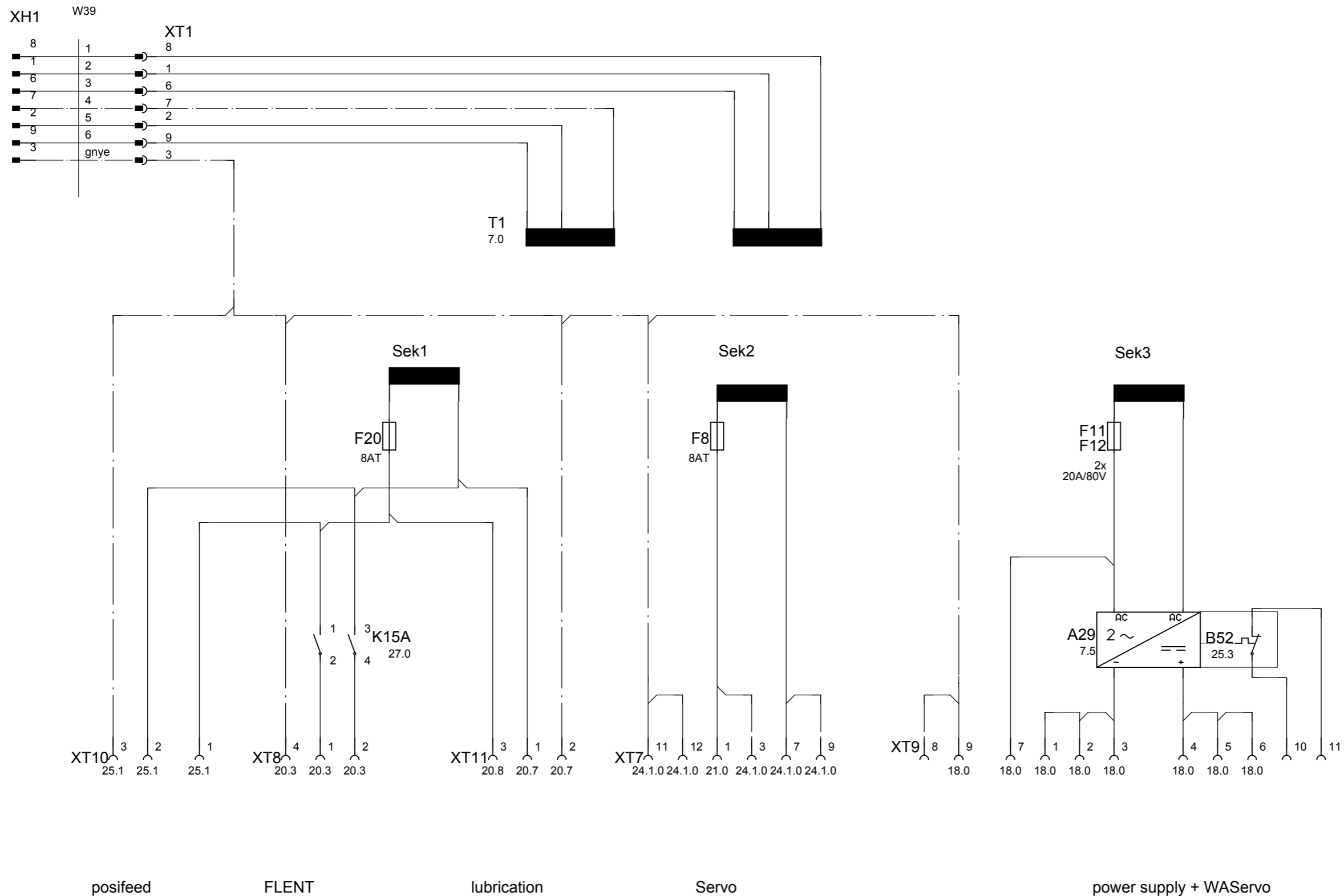
XZ59=winding plate Take down front.

XZ45=limit switch racking

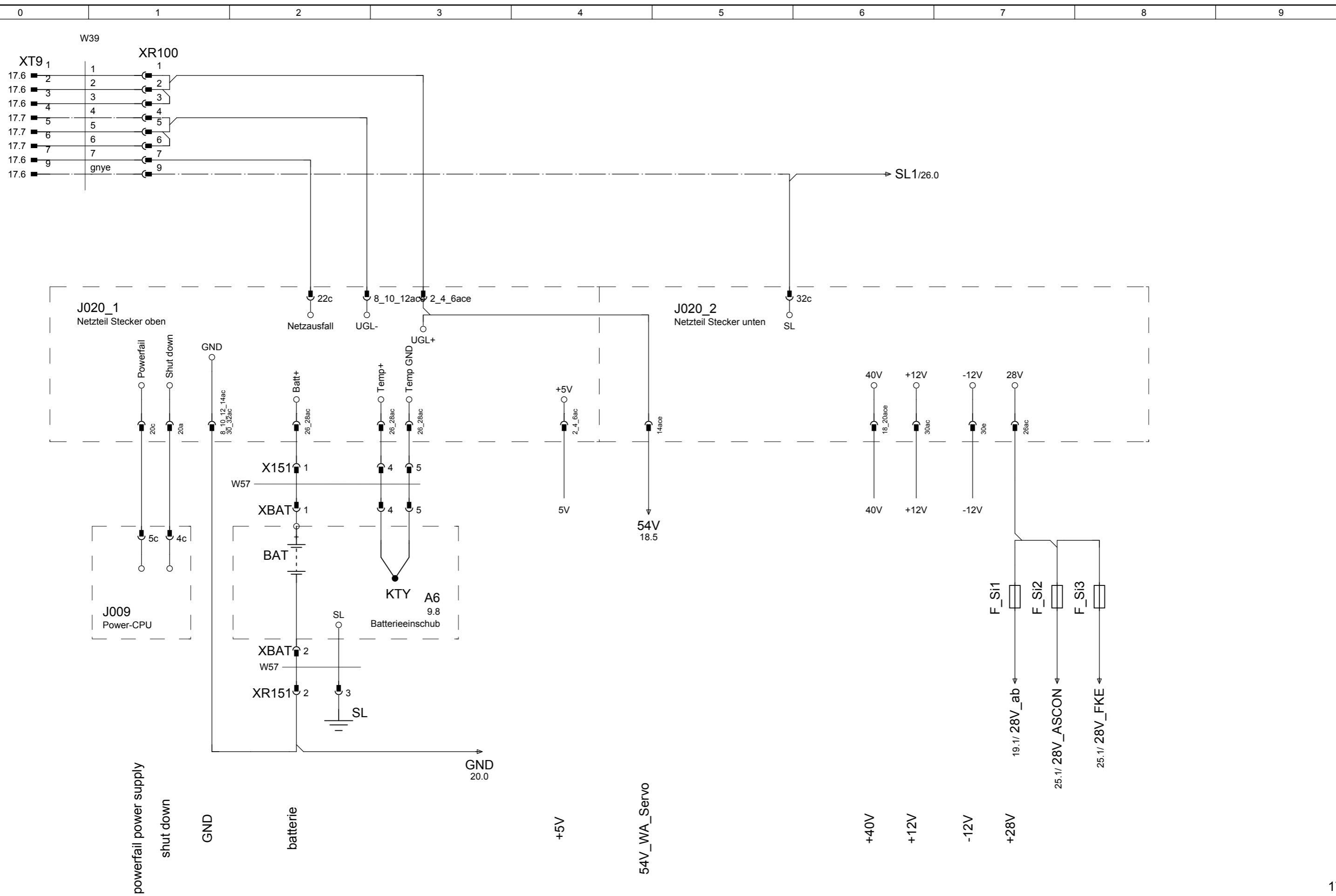
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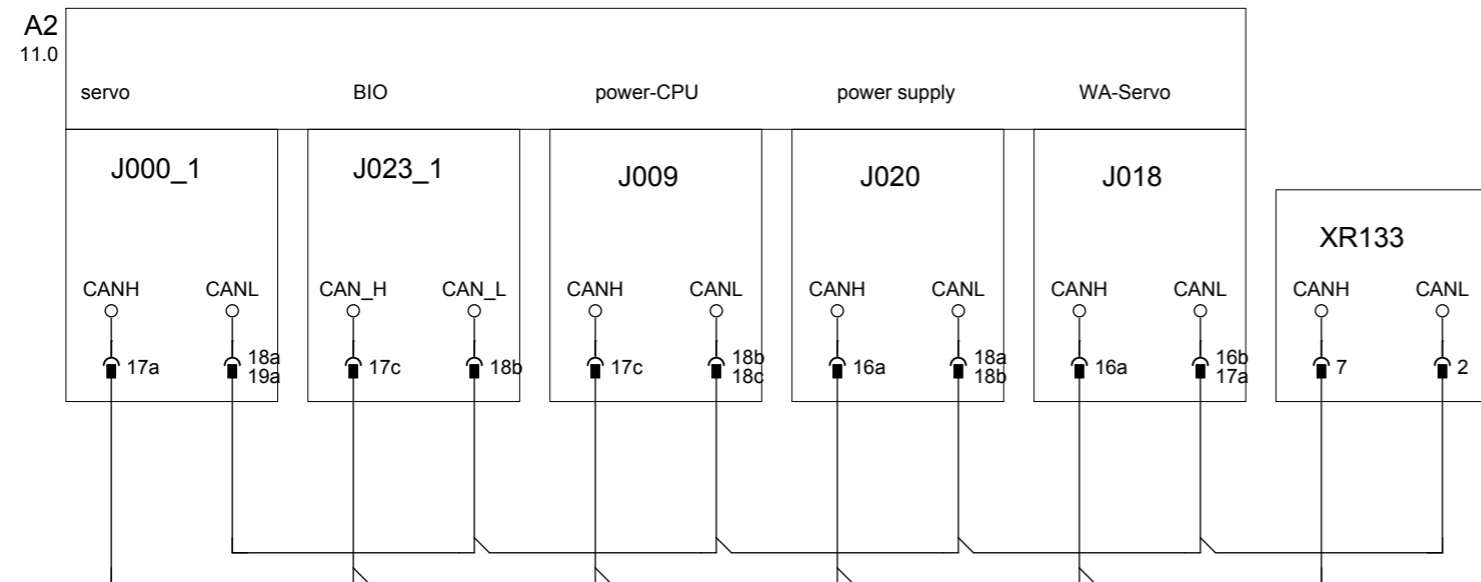
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Datum				Name		Norm		Urspr.		Ers.f.	



				H.Stoll GmbH & Co. KG		STOLL		transformer		Id.Nr. 267956			
				circuit diagram 223				Ae.St.00				=	
				Datum		Ers.d.						Bl. 15	
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			Datum	H.Stoll			power supply		Id.Nr. 267956		=
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			Gedr.	circuit diagram 223							
			Gepr.	Urspr.			Ers.f.		Ers.d.		Bl. 16
Änderung	Datum	Name	Norm	Urspr.			Ers.f.		Ers.d.		27 Bl.



A2
11.0

servo BIO power-CPU power supply WA-Servo

J000_1

J023_1

J009

J020

J018

XR133

CANH

CANL

CAN_H

CAN_L

CANH

CANL

CANH

CANL

CANH

CANL

CANH

CANL

17a

18a
19a

17c

18b

17c

18b
18c

16a

18a
18b

16a

16b
17a

7

2

Änderung	Datum	Name	Norm

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Gep.	18.07.14

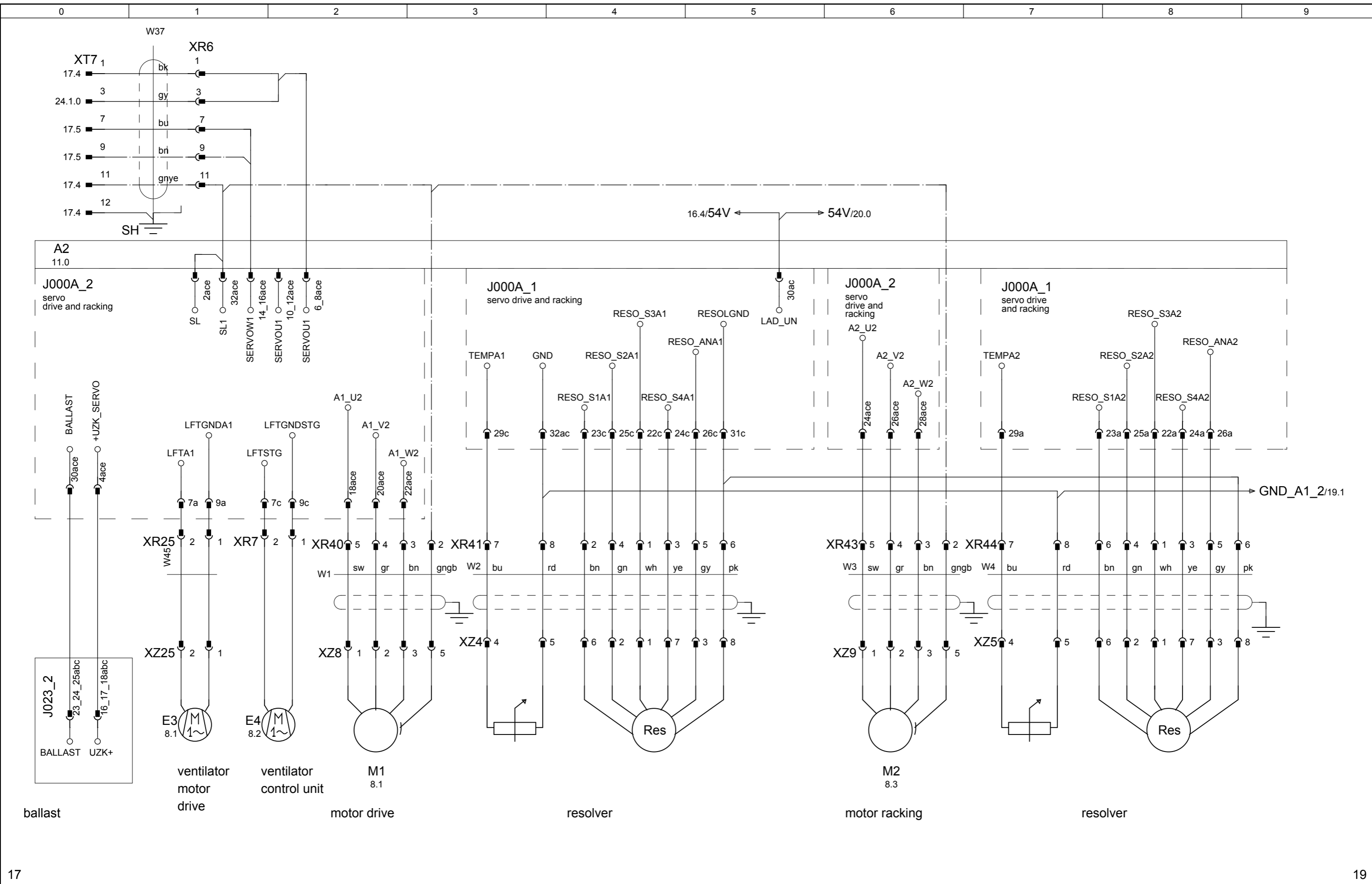
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circuit diagram 223	
Urspr.	Ers.f.



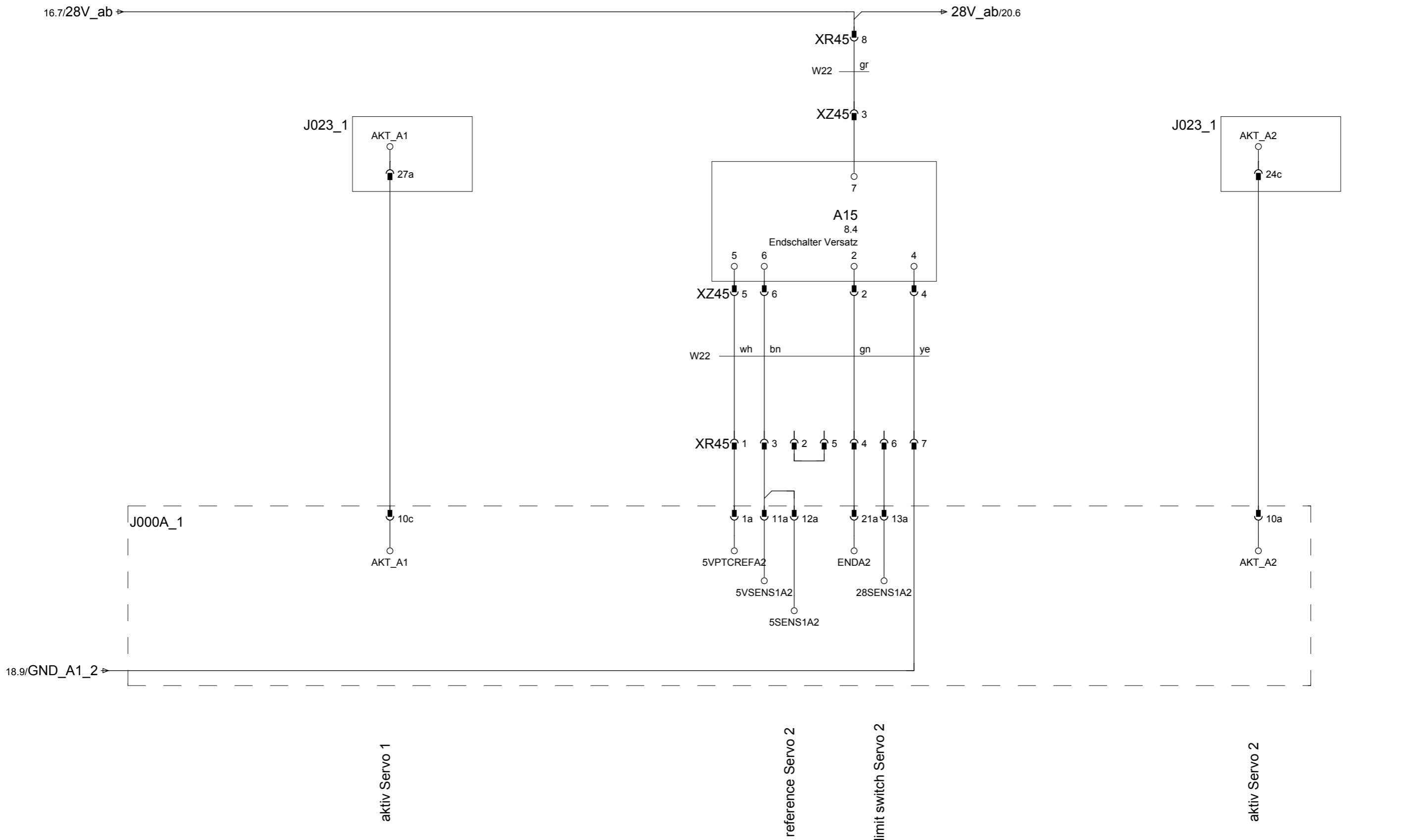
CAN-BUS	

Id.Nr. 267956	
Ae.St.00	

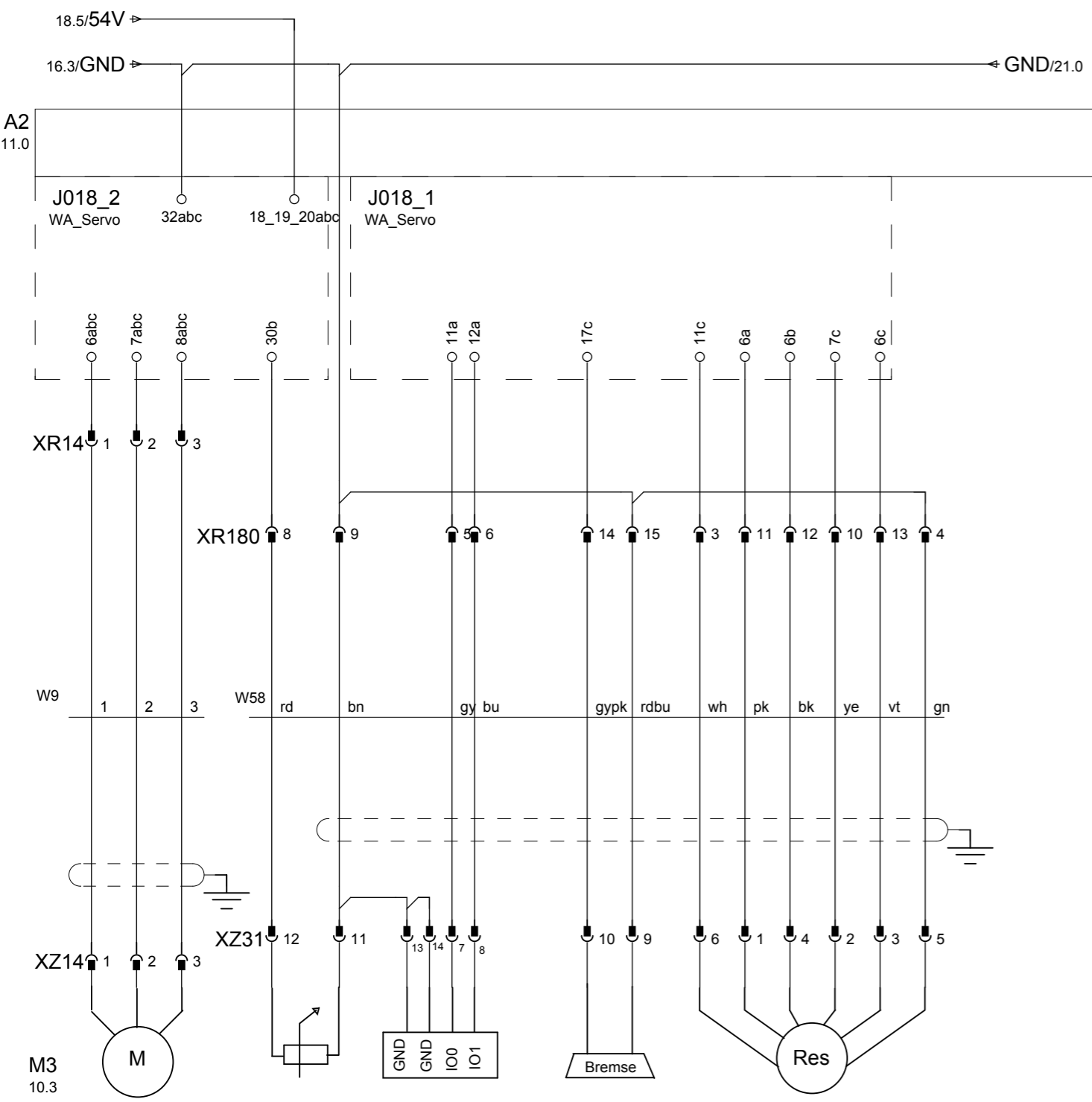
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+	
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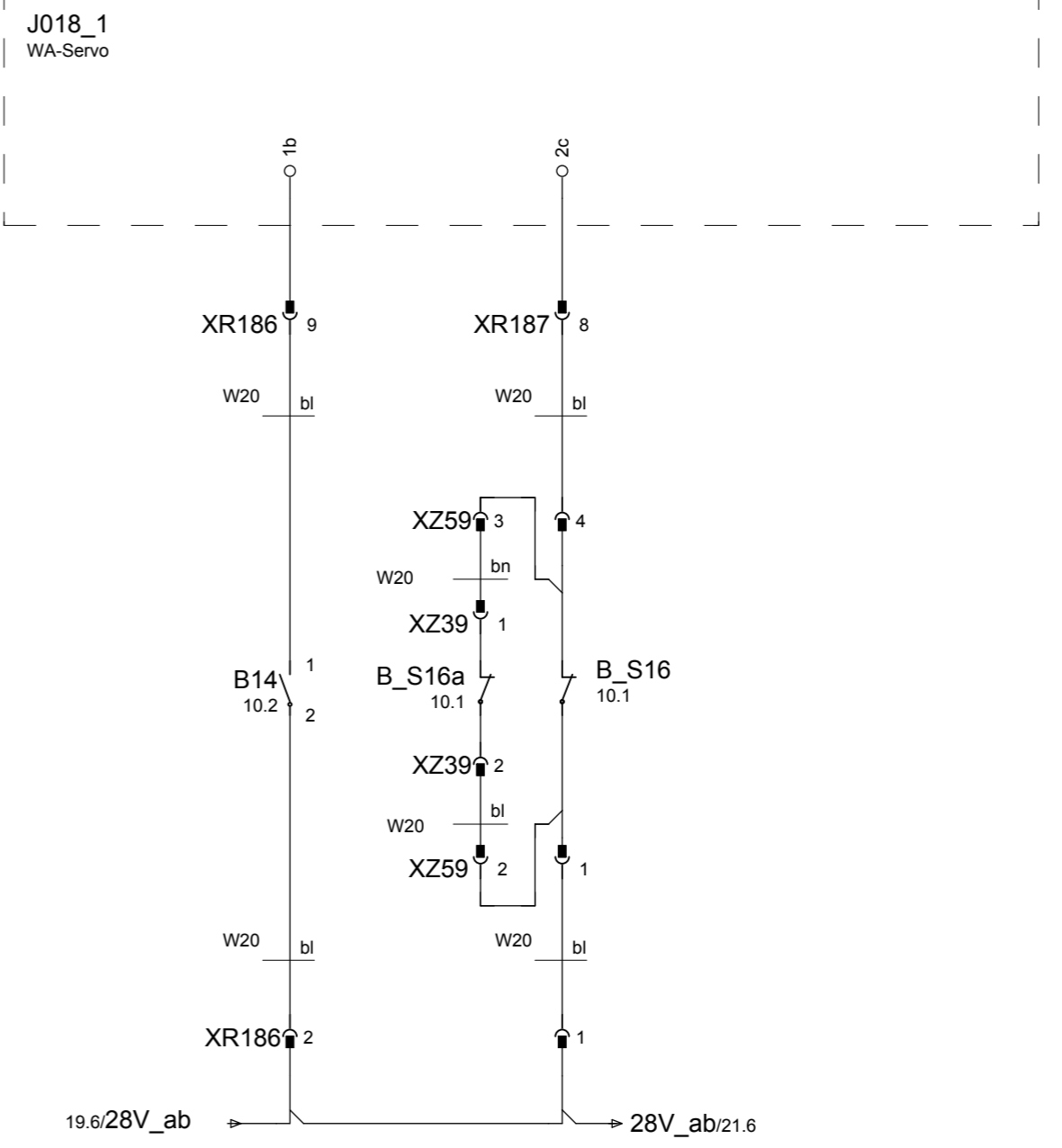
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			Gepr.	18.07.14							
Änderung	Datum	Name	Norm	Urspr.	Ers.f.	Ers.d.			Ae.St.00		Bl. 18
											27 Bl.



				H.Stoll GmbH & Co. KG		STOLL		inputs servo HA+V		Id.Nr. 267956		=		
				circuit diagram 223				Ae.St.00				+		
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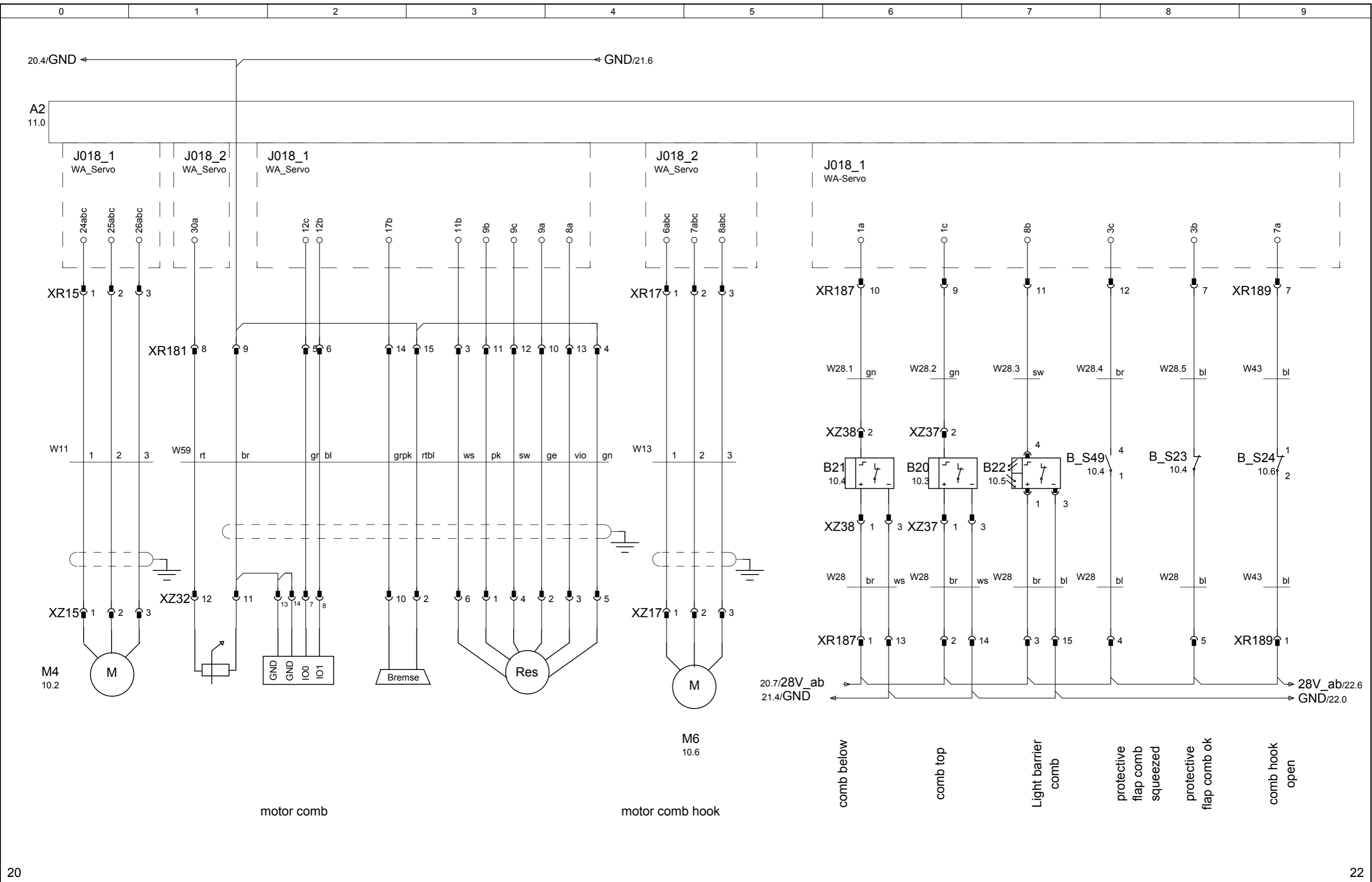


motor main take down



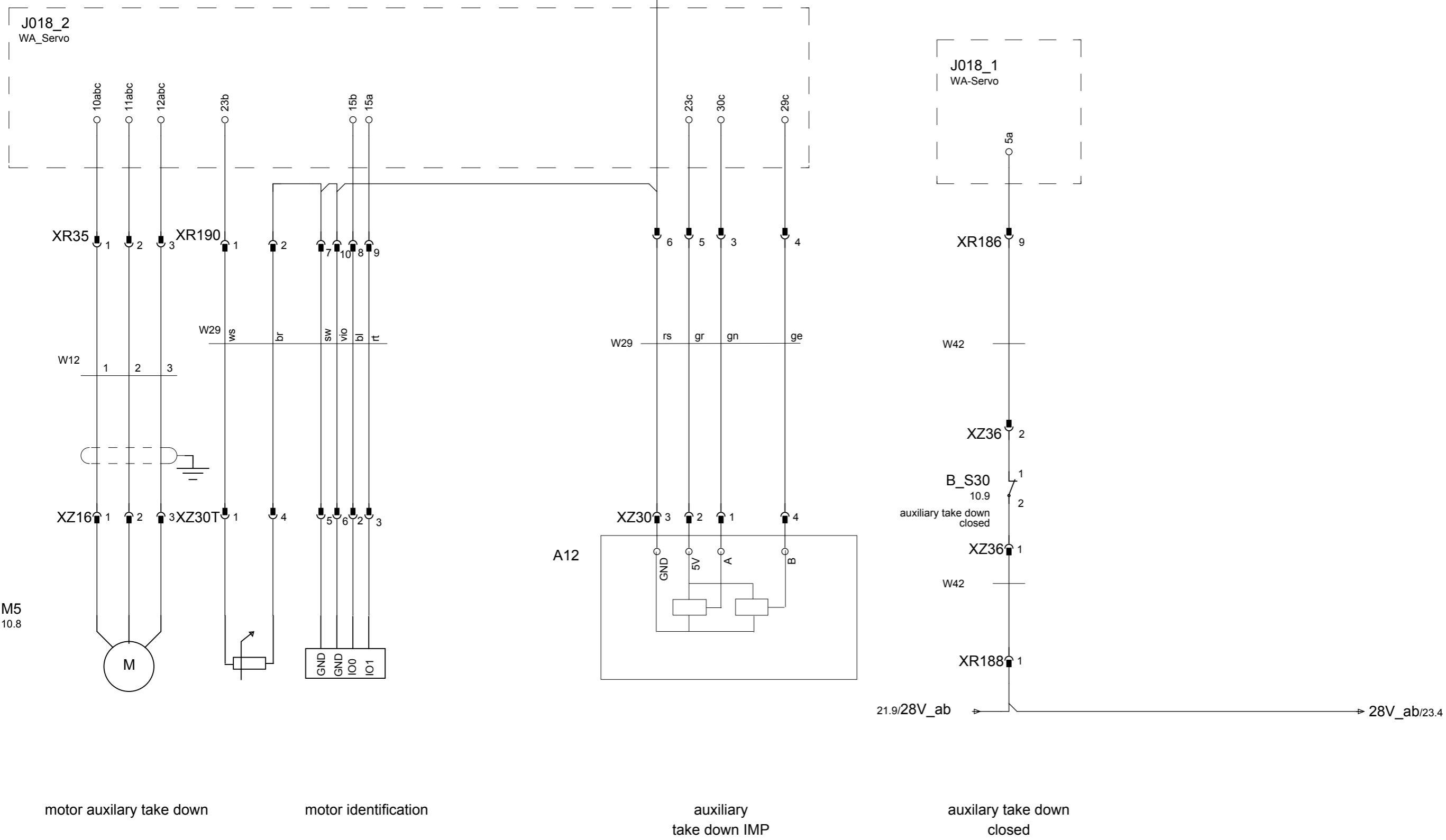
Take down open winding plate
Take down

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			Norm	STOLL							
Änderung	Datum	Name	Norm	Urspr.	Ers.f.	Ers.d.			Ae.St.00	Bl. 20	
										27 Bl.	



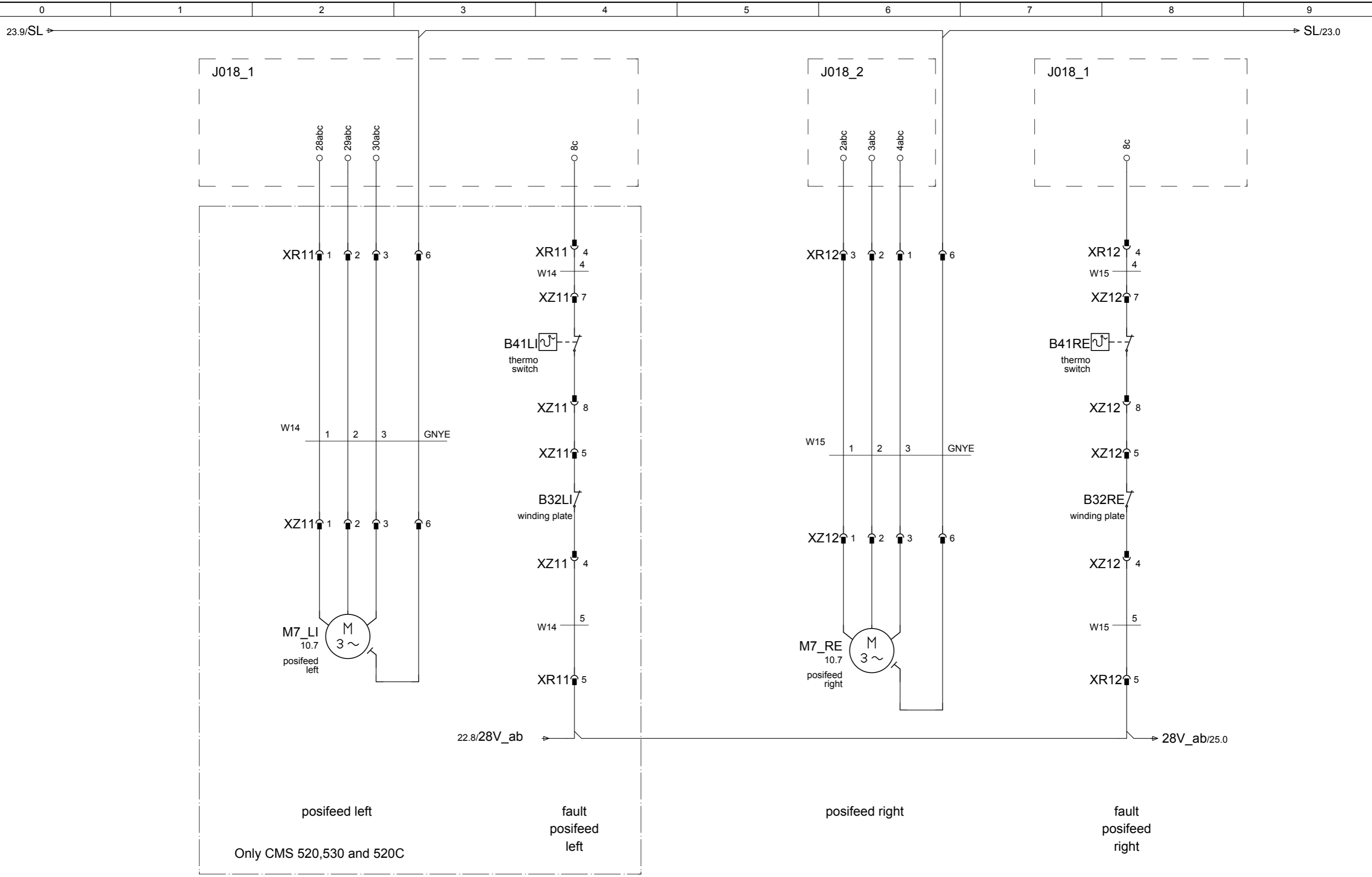
			Datum	H.Stoll			comb		Id.Nr. 267956		=
			Bearb.	GmbH & Co. KG							+
			Gedr.	circuit diagram 223							
			Urspr.	Ers.f.			Ers.d.		Ae.St.00		Bl. 21
Änderung			Datum	Name			Norm				27 Bl.

21.9/GND → GND/24.1

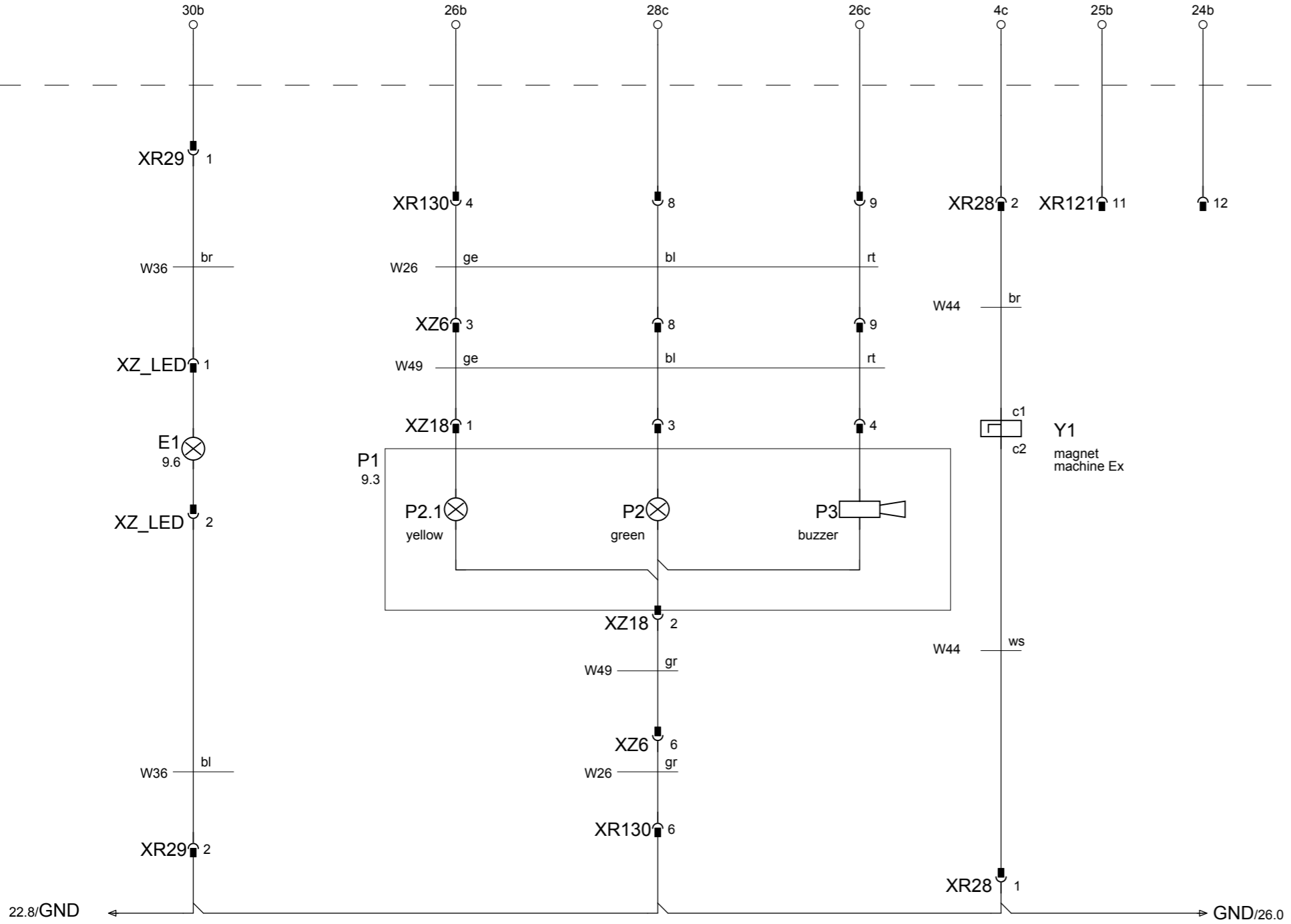
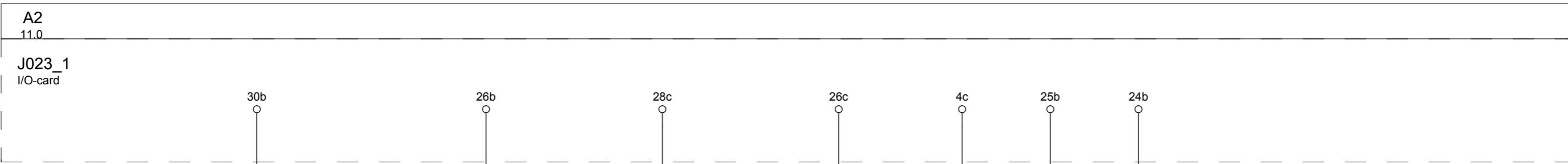


M5
10.8

			Datum	H.Stoll			auxiliary take down		Id.Nr. 267956		=
			Bearb.	GmbH & Co. KG							+
			Gep.	circuit diagram 223			STOLL		Ae.St.00		Bl. 22
			Norm	Urspr.			Ers.f.		Ers.d.		27 Bl.
Änderung	Datum	Name	Norm	Urspr.			Ers.f.		Ers.d.		



				H.Stoll GmbH & Co. KG		posifeed		Id.Nr. 267956		=	
				circuit diagram 223		STOLL		Ae.St.00		+	
				Urspr.						Bl. 23	
Änderung	Datum	Name	Norm	Urspr.	Ers.f.	Ers.d.			27 Bl.		



lighting on

warning light yellow

warning light green

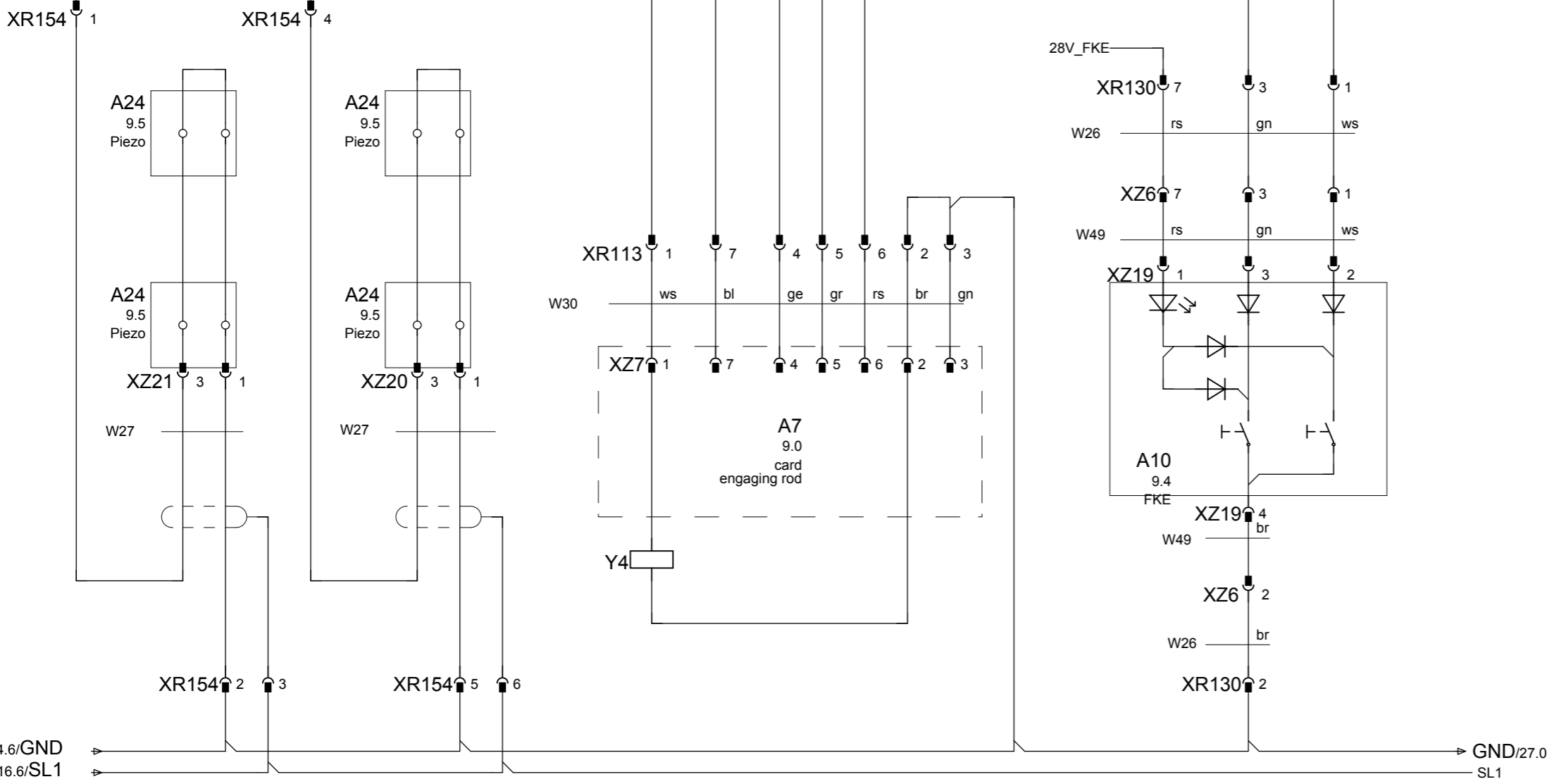
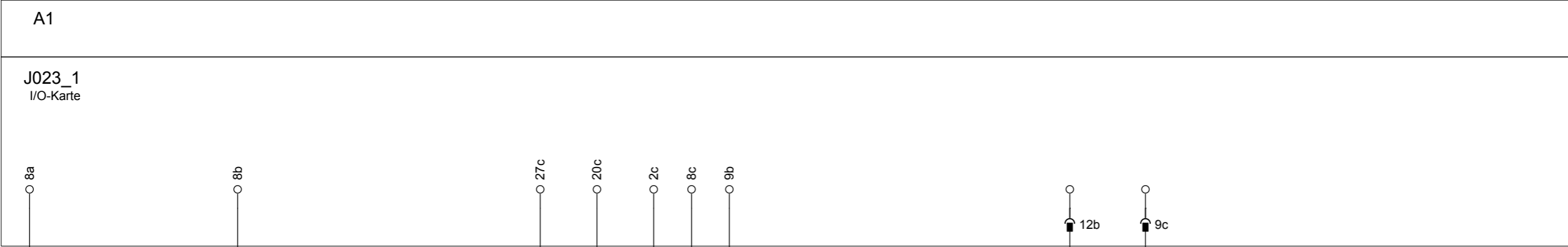
buzzer

machine Ex

Sintral OUT1

Sintral OUT2

				H.Stoll GmbH & Co. KG		STOLL	outputs I/O-card		Id.Nr. 267956		=
				circuit diagram 223							+
				Datum				Ae.St.00			
				Bearb. KEH							
				Gep. 18.07.14							
				Urspr.		Ers.f.		Ers.d.			
Änderung				Datum		Name		Norm			
										Bl. 24	
										27 Bl.	



Piezo NB rear

Piezo NB front

magnet engaging rod

Hardware-switch

5VPTC

potentiometer engaging rod

SW-switch

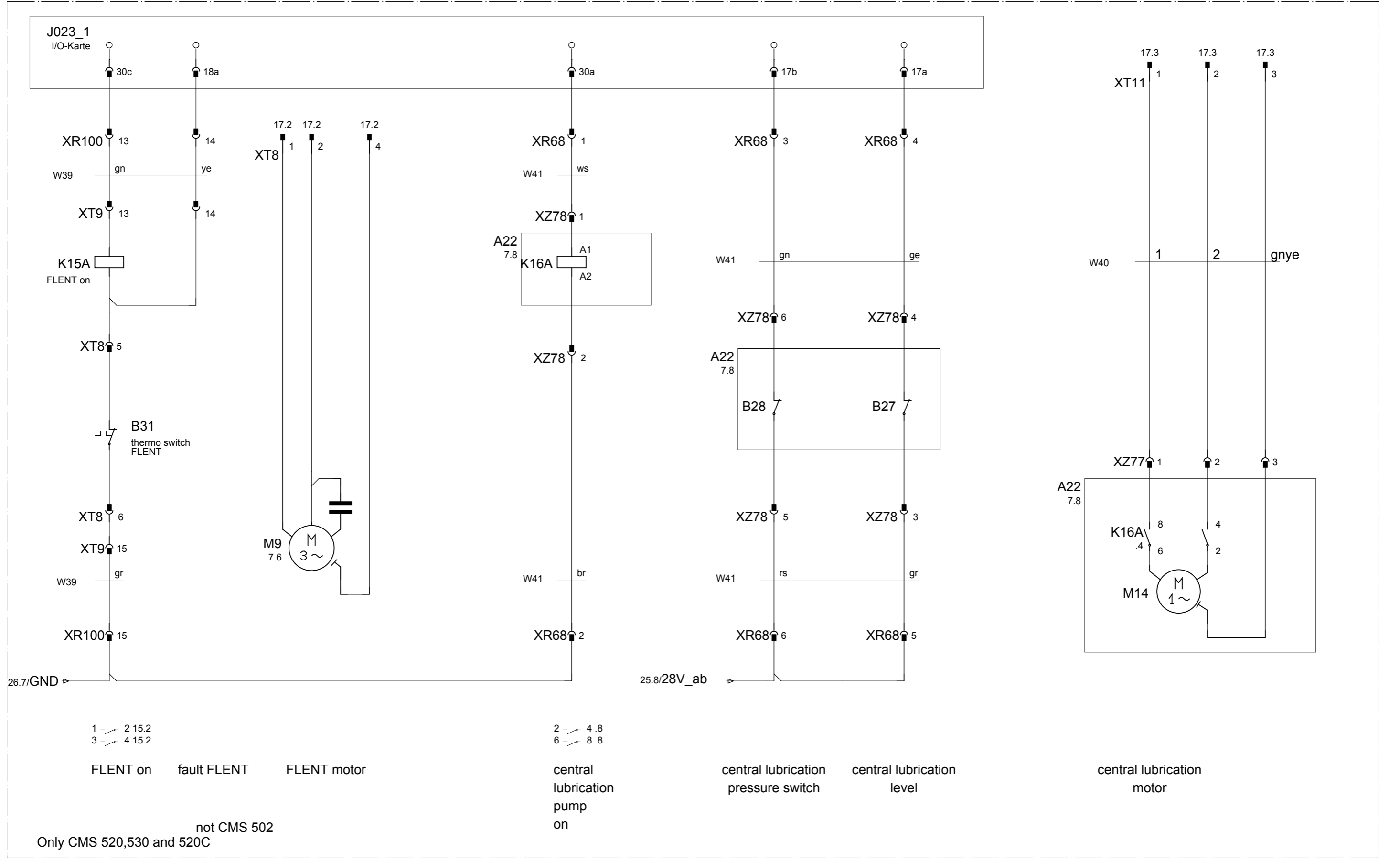
magnet GND

DGND

burl big

burl small

			Datum	H.Stoll			inputs I/O-card		Id.Nr. 267956		=
			Bearb.	GmbH & Co. KG							+
			Gep.	circuit diagram 223							
			Norm	Urspr.	Ers.f.	Ers.d.					
Änderung	Datum	Name	Norm	Urspr.	Ers.f.	Ers.d.			Ae.St.00	Bl. 26	
									27 Bl.		



1 -> 2 15.2
3 -> 4 15.2

FLENT on fault FLENT FLENT motor

2 -> 4 4.8
6 -> 8 8.8

central lubrication pump on central lubrication pressure switch central lubrication level

central lubrication motor

not CMS 502
Only CMS 520,530 and 520C

			Datum	H.Stoll			Id.Nr. 267956	
			Bearb.	KEH	fluff elimination + central lubrication			=
			Gepr.	18.07.14	circuit diagram 223			+
			Urspr.		Ers.f.			Bl. 27
			Name		Ers.d.			27 Bl.
Änderung	Datum	Name	Norm	Urspr.	Ers.f.	Ers.d.	Ae.St.00	