

Teil Part	Beschreibung Description	Sachnummer Code no.	Position Sheet Pos.	Ort Loc.	Teil Part	Beschreibung Description	Sachnummer Code no.	Position Sheet Pos.	Ort Loc.	Teil Part	Beschreibung Description	Sachnummer Code no.	Position Sheet Pos.	Ort Loc.
A01	Motorsteuergerät ECU engine controller ECU	LF Yanmar	29/10		E03/E04	Blink/Begrenzungsleuchten Standard LH/RH front indicator/position LH/RH	92036417	28/35		F25	Sicherung 10A (75) fuse 10A (75)	19731082	6/48	
A01	Motorsteuergerät ECU engine controller ECU	LF Yanmar	30/12		E05	Schlußleuchte links tail light left	90425786	19/3		F26	Sicherung 15A (30) fuse 15A (30)	19731090	6/24	
A01	Motorsteuergerät ECU engine controller ECU	LF Yanmar	31/10		oder/or	LED Mehrkammerleuchte hinten links multi-chamber lights left	92042811	19/28		F27	Sicherung 15A (15) fuse 15A (15)	19731090	6/18	
A04	Steuergerät Hydraulik controller hydraulic valves	90646647	8/11		E06	Schlußleuchte rechts tail light right	90425786	19/12		F28	Sicherung 10A (75) fuse 10A (75)	19731082	6/51	
A04	Steuergerät Hydraulik controller hydraulic valves	90646647	10/21		oder/or	LED Mehrkammerleuchte hinten rechts multi-chamber lights right	92042811	19/42		F29	Sicherung 5A (15) fuse 5A (15)	19731181	6/21	
A04	Steuergerät Hydraulik controller hydraulic valves	90646647	13/10		E09	Arbeitsscheinwerfer oben links work lamp top left	92708841	21/18		F30	Sicherung für SOW (75) fuse for SOW (75)	-	6/54	
A04	Steuergerät Hydraulik controller hydraulic valves	90646647	14/14		E10	Arbeitsscheinwerfer oben rechts work lamp top right	92708841	21/22		F31	Sicherung 5A (30) fuse 5A (30)	19731181	6/27	
A04	Steuergerät Hydraulik controller hydraulic valves	90646647	15/1		E11/E12	Arbeitsscheinwerfer A-Säule LH/RH work lamps A-pillor LH/RH	92708841	28/50		F32	Sicherung für SOW (30) fuse for SOW (30)	-	6/30	
A06	Steuergerät Spiegelheizung controller mirror heating	90550393	20/12		E14	Nebelschlußleuchte (SOW) rear fog lamp	97126304	19/12		F33	Sicherung für SOW (30) fuse for SOW (30)	-	6/33	
A10	Sicherungskasten fusebox side console right	97152920	5/16		E15	Kennzeichenleuchte number plate light	92065580	16/14		F34	Sicherung 10A (15) fuse 10A (15)	19731082	6/24	
A10	Sicherungskasten fusebox side console right	97152920	6/11		E18	Rundumkennleuchte Standard rotating beacon lamp	90552548	12/19		F35	Sicherung für SOW (57) fuse for SOW (57)	-	6/54	
A11	Steuerung Fahrpumpe hydraulic traction pump	92042910	26/1		oder/or	Rundumkennleuchte LED flashing beacon lamp LED	00004150007	12/19		F40	Sicherung 20A fuse 20A	19731058	29/4	
A20	Fleetreccorder fleetreccorder	92060623	23/14		E19	Innenleuchte Standard interior lamp standard	97161509	12/31		F40.	Sicherung 20A fuse 20A	19731058	5/3	
A21	Gateway gateway	92067180	32/14		oder/or	Innenleuchte LED interior lamp LED	97161491	12/31		F41	Sicherung 20A fuse 20A	19731058	29/12	
B03	Öldruckschalter oil pressure switch	LF Yanmar	29/52		E21	Rückfahrleuchte reversing light	97126296	19/18		F41.	Sicherung 20A fuse 20A	19731058	5/6	
B04	Niveausensor Kraftstofftank fuel level sensor	92052778	14/51		E22/E23	Hauptscheinwerfer LED LH/RH headlight LED LH/RH	92053073	28/48		F42	Sicherung 60A fuse 60A	19731348	30/17	
B04.	Niveausensor Kraftstofftank fuel level sensor	92052778	29/39		E27	Arbeitsscheinwerfer Kabine hinten links working light cabin back left	92708841	28/9		F42.	Sicherung 60A fuse 60A	19731348	5/17	
B05	Druckschalter Klimaonl. (Var.Comfort) pressure switch AC (var.Comfort)	90679416	18/37		E31	Arbeitsscheinwerfer Saugmund working light suction mouth	92708841	28/25		F43	Sicherung 80A fuse 80A	19731520	30/29	
B06	Einfrischschutz Klimaonl. (Var.Comfort) freeze switch AC (var.Comfort)	90679416	18/37		E32/E33	Positionsluchte LED LH/RH navigation lights LED LH/RH	97155436	28/44		F43.	Sicherung 80A fuse 80A	19731520	5/31	
B08	Fahrersitz Cobo driver seat Cobo	90619578	8/2		E34/E35	Blinker vorn LED LH/RH indicator lamps front LED LH/RH	97158265	28/38		G01	Starterbatterie 12V starter battery 12V	19410026	5/3	
oder/or	Fahrersitz Grammer driver seat Grammer	90608761	8/11		F01	Sicherung 20A (30) fuse 20A (30)	19731058	6/6		G02	Generator 12V alternator 12V	LF Yanmar	5/25	
oder/or	Fahrersitz König driver seat König	92027267	8/11		F02	Sicherung 10A (30) fuse 10A (30)	19731082	6/9		G02.	Generator 12V alternator 12V	LF Yanmar	29/35	
B09	Winkelsensor Fahrpedal vorwärts angle sensor throttle pedal forward	92013135	26/25		F03	Sicherung Reserve (30) fuse not used (30)	-	6/12		H01	Hupe horn	90422619	8/44	
B10	Winkelsensor Fahrpedal rückwärts angle sensor throttle pedal backward	92017904	26/33		F04	Sicherung 10A (15) fuse 10A (15)	19731082	6/6		H02	Signaltongeber buzzer	92045913	21/28	
B12	Thermosensor Hydrauliköl temperature sensor hydraulic oil	90614769	14/46		F05	Sicherung 5A (15) fuse 5A (15)	19731181	6/9		H03	Kontrollleuchten Motor/Vorglühen pilot lamps engine / preheating	19256692	7/22	
B13	Tachosensor rechts vehicle speed sensor right	92072719	27/30		F06	Sicherung 15A (15) fuse 15A (15)	19731090	6/12		H13	Batterieladepilotleuchte pilot lamps engine / preheating	19256635	14/52	
B14	Tachosensor links vehicle speed sensor left	92067040	27/46		F07	Sicherung 15A (15) fuse 15A (15)	19731090	6/15		K01	Relais Anlasser relay starter	90539271	30/17	
B15	Reed-Sensor Behälter oben hopper reed switch	90501073	14/22		F08	Sicherung 15A (75) fuse 15A (75)	19731090	6/33		K01.	Relais Anlasser relay starter	90539271	5/17	
B15.	Reed-Sensor Behälter oben hopper reed switch	90501073	29/26		F09	Sicherung 10A (75) fuse 10A (75)	19731082	6/36		K02	Relais Vorglühen relay preheating	90539271	30/29	
B16	Reed-Sensor Geräteträger oben front carrier reed switch	90501073	14/18		F10	Sicherung 15A (75) fuse 15A (75)	19731090	6/39		K02.	Relais Vorglühen relay preheating	90539271	5/31	
B21	Lautsprecher links loudspeaker left	90462375	21/48		F11	Sicherung 15A (75) fuse 15A (75)	19731090	6/42		K03	Relais EGR Ventil relay EGR valve	90539271	29/14	
B22	Lautsprecher rechts loudspeaker right	90462375	21/48		F12	Sicherung 15A (75) fuse 15A (75)	19731090	6/45		K05	Relais Versorgung 75 relay supply 75	90539271	30/6	
B26	Sensor Überlast sensor overload	-	21/37		F13	Sicherung 10A (58) fuse 10A (58)	19731082	6/39		K05.	Relais Versorgung 75 relay supply 75	90539271	5/22	
B27	Rückfahrkamera reverse drive camera	92701325	22/4		F14	Sicherung 15A (30) fuse 15A (30)	19731090	6/15		K08A	Relais Scheibenwischer relay windscreen wiper	90539305	10/43	
B28	Zusatzkamera additional camera	92701325	22/17		F15	Sicherung 7,5A (57) fuse 7,5A (57)	19731066	6/48		K08B	Relais Nebelschlußleuchte relay fog light	90539305	11/40	
B29	Füllstandsensor Hydrauliköltank level sensor hydraulic oil tank	90846791	8/24		F16	Sicherung 7,5A (57) fuse 7,5A (57)	19731066	6/51		K09	Relais Klimaanlage (Var.Comfort) relay AC system (var. comfort)	0000414910e	18/27	
B30	I-Button-Reader i-button-reader	97131429	23/46		F17	Sicherung 50A Vorsicherung 15/75 fuse 50A pre-fuse 15/75	19731512	5/13		K10A	Entlastungsrelais 1 (15) release relay 1 (15)	90539305	5/43	
C1	Hydraulikventil Fahrpumpe hydraulic valve traction pump	zu A11	26/48		F18	Sicherung 50A Vorsicherung 30 fuse 50A pre-fuse 30	19731512	5/10		K10B	Entlastungsrelais 2 (15) release relay 2 (15)	90539305	9/45	
C2	Hydraulikventil Fahrpumpe hydraulic valve traction pump	zu A11	26/53		F18.	Sicherung 50A Vorsicherung 30 fuse 50A pre-fuse 30	19731512	30/46		K11A	Relais Scheibenwaschpumpe relay windscreen washer pump	90539305	24/24	
CC3	Steckverbinder 2pol. (W1<->A11 Fahrpumpe) connector 2 pole (W1<->A11 traction pump)		26		F20	Sicherung 7,5A (50) fuse 7,5A (50)	19731066	5/16		K12A	Relais relay	90539305	29/52	
E01	Frontscheinwerfer links (Rechtsverkehr) headlight left (right-hand driving)	90609066	11/2		F21	Sicherung 10A (30) fuse 10A (30)	19731082	6/18		K12A	Relais relay	90539305	7/43	
oder/or	Frontscheinwerfer links (Linksverkehr) headlight left (left-hand driving)	90612870	11/2		F22	Sicherung 5A (30) fuse 5A (30)	19731181	6/21						
E02	Frontscheinwerfer rechts (Rechtsverkehr) headlight right (right-hand driving)	90609066	11/6		F23	Sicherung 15A (58) fuse 15A (58)	19731090	6/42						
oder/or	Frontscheinwerfer rechts (Linksverkehr) headlight right (left-hand driving)	90612870	11/6		F24	Sicherung 5A (58) fuse 5A (58)	19731181	6/45						



0	Integrated acc.	4000-34	20.01.20	DK	2019	Date	Name	CM650	Name	 Hako GmbH D-23840 Bad Oldesloe	Drawing Number			
A2	No. Number appears	Change No.	Date	Name	Standard	21.08.	DK	Replacem. for	Schaltplan / circuit diagram		91039362			
For this drawing we reserve all rights (acc. DIN ISO 16016)										KABI 472	Type 1470	Dep. DS	No. of Sh. 38	Sheet 1

Teil Part	Beschreibung Description	Sachnummer Code no.	Position Sheet Pos.	Ort Loc.	Teil Part	Beschreibung Description	Sachnummer Code no.	Position Sheet Pos.	Ort Loc.	Teil Part	Beschreibung Description	Sachnummer Code no.	Position Sheet Pos.	Ort Loc.
K14A	Relais Bremslicht relay brake light	90539305	16/16		S19	Batterietrennschalter battery main switch	92021278	5/6		X11	Steckverbinder 24pol. (W1<-W5) connector 24 pole (W1<->W5)		14	
M01	Anlasser starter	LF Yanmar	30/15		S21	Kreuztaster Hydraulikfunktionen joystick switch hydraulics	90623547	14/30		X11	Steckverbinder 24pol. (W1<-W5) connector 24 pole (W1<->W5)		15	
M01.	Anlasser starter	LF Yanmar	5/12		S22	Taster Arbeitsbetrieb pushbutton switch working mode	90505686	14/11		X11	Steckverbinder 24pol. (W1<-W5) connector 24 pole (W1<->W5)		16	
M02	Kraftstoffpumpe fuel pump	LF Yanmar	29/30		S23	Drehencoder mit Taste encoder switch with pushbutton	90600115	14/15		X11	Steckverbinder 24pol. (W1<-W5) connector 24 pole (W1<->W5)		26	
M03	Sprühwasserpumpe spraying pump	97092258	15/18		S29	Schalter Arbeitssch. Kabine hinten switch working lights cabin back	19256684	28/11		X12	Steckverbinder 10pol. (W1<-W6) connector 10 pole (W1<->W6)		7	
M04	Kondensatorlüfter (Var.Comfort) condensor fan (var.Comfort)	90679416	18/32		S30	Schalter Arbeitssch. Saugmund switch working light suction mouth	19256684	28/24		X12	Steckverbinder 10pol. (W1<-W6) connector 10 pole (W1<->W6)		8	
M05	Scheibenwischermotor windscreen wiper motor	90603762	10/46		S31	Taster Behälter 2 Hand Fahrgestell pushbutton container 2'nd hand	97095608	22/47		X12	Steckverbinder 10pol. (W1<-W6) connector 10 pole (W1<->W6)		10	
M06	Scheibenwaspumpe windscreen washer pump	90783408	10/34		S32	Taster Behälter heben Fahrgestell pushbutton switch hopper up	97095608	22/48		X12	Steckverbinder 10pol. (W1<-W6) connector 10 pole (W1<->W6)		26	
M07	Heizungsgebläse (Var. Classic) heating fan (var. Classic)	90782780	18/4		S33	Taster Behälter senken Fahrgestell pushbutton switch hopper down	97095608	22/41		X13	Steckverbinder 22pol. (W6<-W5) connector 22 pole (W6<->W5)		8	
oder /or	Heizungsgebläse (Var. Comfort) heating fan (var. Comfort)	90679416	18/4		T01	USB Steckdose USB plug socket	92053040	12/52		X13	Steckverbinder 22pol. (W6<-W5) connector 22 pole (W6<->W5)		10	
P01	Anzeigeeinheit multifunction display	90686403	9/1		V02	Diode diode	-	14/31		X13	Steckverbinder 22pol. (W6<-W5) connector 22 pole (W6<->W5)		11	
P02	Bildschirm display	90850876	22/10		V05	Diode diode	-	5/25		X13	Steckverbinder 22pol. (W6<-W5) connector 22 pole (W6<->W5)		12	
R10-12	Vorglühkerzen glow plugs	LF Yanmar	30/29		V05	Diode diode	-	30/9		X14	Steckverbinder 1pol. (W5<-W10) connector 1 pole (W5<->W10)		15	
R10-12	Vorglühkerzen glow plugs	LF Yanmar	5/31		V06.	Diode diode	-	5/28		X15	Steckverbinder 14pol. (W10<-W5) connector 14 pole (W10<->W5)		11	
R13	Widerstand 120R resistor 120Ohm	-	15/23		V06	Diode diode	-	29/42		X15	Steckverbinder 14pol. (W10<-W5) connector 14 pole (W10<->W5)		13	
R14	Widerstand 120R resistor 120Ohm (CAN external)	-	32/23		Yanmar Steckverbinder im Kabelbaum W9 Yanmar connectors in wire harness W9									
R17	Spiegelheizung links mirror heating left	97118723	20/17		ST5	Anschlusstecker 6pol. (W9) connector 6 pole (W9)		30		X15	Steckverbinder 14pol. (W10<-W5) connector 14 pole (W10<->W5)		15	
R18	Spiegelheizung rechts mirror heating right	97118723	20/21		ST7	Anschlusstecker 2pol. (W9) connector 2 pole (W9)		30		X15	Steckverbinder 14pol. (W10<-W5) connector 14 pole (W10<->W5)		28	
R20	Widerstand 1k resistor 1k0hm	-	14/46		ST8	Anschlusstecker 2pol. (W9) connector 2 pole (W9)		30		X17	Steckverbinder 4pol. (W2<-W5) connector 4 pole (W2<->W5)		8	
R21	Widerstand 1k resistor 1k0hm	-	14/41		ST30	Anschlusstecker 1pol. (W9) connector 1 pole (W9)		30		X17	Steckverbinder 4pol. (W2<-W5) connector 4 pole (W2<->W5)		26	
R22	Widerstand 120R resistor 120Ohm	-	29/52		ST36	Steckverbinder 8pol. (W9<->Motor KB) connector 8 pole (W9<->motor wh)		30		X18	Steckverbinder 20pol. (W4<-W5) connector 20 pole (W4<->W5)		5	
R102	Widerstand 1k resistor 1k0hm	-	23/46		ST37	Steckverbinder 12pol. (W9<->Motor KB) connector 12 pole (W9<->motor wh)		30		X18	Steckverbinder 20pol. (W4<-W5) connector 20 pole (W4<->W5)		9	
R105	Widerstand 470R resistor 470R	-	26/4		ST38	Steckverbinder 12pol. (W9<->Motor KB) connector 12 pole (W9<->motor wh)		31		X18	Steckverbinder 20pol. (W4<-W5) connector 20 pole (W4<->W5)		11	
R106	Widerstand 1k resistor 1k0hm	-	26/8		ST39	Steckverbinder 12pol. (W9<->Motor KB) connector 12 pole (W9<->motor wh)		31		X18	Steckverbinder 20pol. (W4<-W5) connector 20 pole (W4<->W5)		12	
R107	Widerstand 1k3 resistor 1k30hm	-	26/12		ST53	Anschlusstecker 2pol. (W9) connector 2 pole (W9)		29		X18	Steckverbinder 20pol. (W4<-W5) connector 20 pole (W4<->W5)		15	
R108	Widerstand 1k resistor 1k0hm	-	26/16		ST64	Anschlusstecker 6pol. (W9) connector 6 pole (W9)		29		X18	Steckverbinder 20pol. (W4<-W5) connector 20 pole (W4<->W5)		18	
R109	Widerstand 1k resistor 1k0hm	-	14/29							X18	Steckverbinder 20pol. (W4<-W5) connector 20 pole (W4<->W5)		20	
S01	Zündstartschalter starter switch	90432998	5/14		X06	Steckverbinder 6pol.für SOW (W5) connector 6 pole for SOW (W5)		6		X18	Steckverbinder 20pol. (W4<-W5) connector 20 pole (W4<->W5)		28	
S02	Warnblinkschalter switch warning flasher	92050673	8/8		X07	Steckverbinder 2pol. (W1<->W5) connector 2 pole (W1<->W5)		5		X19	Steckverbinder 6pol. (W5<-W4) connector 6 pole (W5<->W4)		11	
S03	Lenkstockscharter steering wheel switch	90122219	8/38		X08	Steckverbinder 16pol. (W3<-W5) connector 16 pole (W3<->W5)		14		X19	Steckverbinder 6pol. (W5<-W4) connector 6 pole (W5<->W4)		12	
S04	Schalter Arbeitsscheinwerfer switch work lights A-pillar a. cabin top	19256551	12/10		X09	Steckverbinder 8pol. (W1<-W2) connector 8 pole (W1<->W2)		26		X19	Steckverbinder 6pol. (W5<-W4) connector 6 pole (W5<->W4)		18	
S05	Taster Spiegelheizung pushbutton mirror heating	19256577	20/5		X10	Steckverbinder 8pol. (W1<-W5) connector 8 pole (W1<->W5)		5		X24	Steckverbinder 4pol. (W4<-W15) connector 4 pole (W4<->W15)		20	
S06	Schalter Rundumkennleuchte switch beacon lamp	19256643	12/22		X10	Steckverbinder 8pol. (W1<-W5) connector 8 pole (W1<->W5)		7		X28	Steckverbinder 6pol. (W14<-W5) connector 6 pole (W14<->W5)		21	
S07	Taster Motordrehzahl Tip-Up / Down push-button engine speed tip-up / down	19256478	10/4		X10	Steckverbinder 8pol. (W1<-W5) connector 8 pole (W1<->W5)		9		X31	Steckverbinder 16pol. (W1<-W9) connector 16 pole (W1<->W9)		7	
S08	Lichtschalter switch light	19256650	11/6		X10	Steckverbinder 8pol. (W1<-W5) connector 8 pole (W1<->W5)		13		X31	Steckverbinder 16pol. (W1<-W9) connector 16 pole (W1<->W9)		14	
S09	Lenkstockscharter Komfort steering wheel switch comfort	92709096	24/13		X10	Steckverbinder 8pol. (W1<-W5) connector 8 pole (W1<->W5)		18		X31	Steckverbinder 16pol. (W1<-W9) connector 16 pole (W1<->W9)		18	
S10	Schalter Scheibenwischer switch windscreen wiper	19256601	10/30		X10	Steckverbinder 8pol. (W1<-W5) connector 8 pole (W1<->W5)		26		X31.	Steckverbinder 16pol. (W1<-W9) connector 16 pole (W1<->W9)		29	
S11	Taster Behälter heben/senken pushbutton switch hopper up/down	19256619	14/5		X11	Steckverbinder 24pol. (W1<-W5) connector 24 pole (W1<->W5)		7		X32	Steckverbinder 12pol. (W1<-W9) connector 12 pole (W1<->W9)		5	
S12	Schalter Nebelschlussleuchte switch rear fog light	19256585	11/46		X11	Steckverbinder 24pol. (W1<-W5) connector 24 pole (W1<->W5)		8		X32	Steckverbinder 12pol. (W1<-W9) connector 12 pole (W1<->W9)		7	
S13	Schalter Klimaanlage (Var.Comfort) switch AC (var.Comfort)	19256668	18/15		X11	Steckverbinder 24pol. (W1<-W5) connector 24 pole (W1<->W5)		10		X32.	Steckverbinder 12pol. (W1<-W9) connector 12 pole (W1<->W9)		29	
S14	Drehwähler Heizungsgebläse rotary switch heating fan	90791146	18/6		X11	Steckverbinder 24pol. (W1<-W5) connector 24 pole (W1<->W5)		11		X32.	Steckverbinder 12pol. (W1<-W9) connector 12 pole (W1<->W9)		30	
S15	Schalter Bremse switch brake	46604140002	26/43		X11	Steckverbinder 24pol. (W1<-W5) connector 24 pole (W1<->W5)		12		X33	Steckverbinder 18pol. (W1<-W7) connector 18 pole (W1<->W7)		8	
S16	Taster Tempomat/Limiter push-button cruise control/limiter	19256676	26/10		X11	Steckverbinder 24pol. (W1<-W5) connector 24 pole (W1<->W5)		13		X33	Steckverbinder 18pol. (W1<-W7) connector 18 pole (W1<->W7)		14	



0	Integrated acc.	4000-34	20.01.20	DK	2019	Date	Name	CM650	Name	Schaltplan / circuit diagram	 Hako GmbH D-23840 Bad Oldesloe	Drawing Number		
A2	No. Number appears	Change No.	Date	Name	Standard	21.08.	DK	Replacem. for	For this drawing we reserve all rights (acc. DIN ISO 16016)			KABI 472	Type 1470	Dep. DS

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X33	Steckverbinder 18pol. (W1<-W7) connector 18 pole (W1<->W7)		16		X69B	Steckverbinder 8pol. (W7<-W19) connector 8 pole (W7<->W19)		19		XS12	USSP (W5) ussp (W5)		8	
X33	Steckverbinder 18pol. (W1<-W7) connector 18 pole (W1<->W7)		21		X71	Buchse 8pol. Radio ISO-A (W14) jack 8 pole radio ISO-A (W14)		21		XS14	USSP (W5) ussp (W5)		13	
X34	Steckverbinder 14pol. (W1<-W7) connector 14 pole (W1<->W7)		8		X72	Buchse 8pol. Radio ISO-B (W14) jack 8 pole radio ISO-B (W14)		21		XS15	USSP 58 (W5) ussp 57 (W5)		6	
X34	Steckverbinder 14pol. (W1<-W7) connector 14 pole (W1<->W7)		13		X73	Steckverbinder 3pol. Video (W6) connector 3 pole camera (W6)		12		XS16	USSP 15 (W5) ussp 15 (W5)		6	
X34	Steckverbinder 14pol. (W1<-W7) connector 14 pole (W1<->W7)		16		X73A	Steckverbinder 3pol. Video connector 3 pole camera		22		XS20	USSP (W5) ussp (W5)		13	
X37	Steckverbinder 12pol. (W1<-W10) connector 12 pole (W1<->W10)		14		X75	Steckverb. 13pol. Bildschirm connector 13 pole display		22		XS21	USSP (W1) ussp (W1)		14	
X37	Steckverbinder 12pol. (W1<-W10) connector 12 pole (W1<->W10)		27		X76	Steckverb. 4pol. Kamera 1 connector 4 pole camera 1		22		XS24	Stossverbinder (W11) butt joint (N/W11)		17	
X39	Steckverbinder 4pol. (W7<-W30) connector 4 pole (W7<->W30)		22		X77	Steckverb. 4pol. Kamera 1 connector 4 pole camera 1		22		XS25	USSP (W10) ussp (W10)		15	
X40	Massebalzen M10 Fahrgestell ground bolt M10 chassis tail		25		X79	Steckverb. 4pol. Kamera 2 connector 4 pole camera 2		22		XS26	USSP (W10) ussp (W10)		15	
X41	Massebalzen M6 Elektrokasten ground bolt M6 electric box		25		X80	Steckverbinder 8pol. (W44<->W44) connector 8 pole (W44<->W44)		20		XS28	USSP (W5) ussp (W5)		25	
X42	Massebalzen M6 Seitenk. rechts ground bolt M6 console right		25		X82	Steckverbinder 2 pol. (W9<-W1) connector 2 pole (W9<->W1)		30		XS29	USSP (W1) ussp (W1)		25	
X43	Massebalzen M5 Kabinendach ground bolt M6 cabin roof right		25		X82.	Steckverbinder 2 pol. (W9<-W1) connector 2 pole (W9<->W1)		5		XS31	USSP (W10) ussp (W10)		13	
X44	Masseanschluß M6 Kehrvorsatz ground bolt M6 sweeper		17		X83A	Steckverbinder 1pol. (W4) connector 1 pole (W4)		18		XS34	USSP (W2) ussp (W2)		26	
X45	Masseanschluß M6 Kombi-Kehreinheit ground bolt M6 hydr. driven comb.sweeper		17		X83B	Steckverbinder 1pol. (WS4) connector 1 pole (WS4)		18		XS35	USSP (W2) ussp (W2)		26	
X46	Massebalzen M10 Motor ground bolt M10 motor		29		X84A	Steckverbinder 1pol. (W4) connector 1 pole (W4)		18		XS36	USSP (W4) ussp (W4)		9	
X48	Masseanschluß M6 Anb. unkodiert ground bolt M6 attachment uncoded		17		X84B	Steckverbinder 1pol. (WS4) connector 1 pole (WS4)		18		XS37	USSP (W4) ussp (W4)		20	
X49	Masseanschluß M6 Mäh-Saugkombi. ground bolt M6 mower suction		17		X91	Steckverbinder 8pol. (W5<->W77/W79) connector 8 pole (W5<->W77/W79)		23		XS39	USSP (W1) ussp (W1)		16	
X50	Steckverbinder 8pol. (W1<-W5) connector 8 pole (W1<->W5)		14		X91A	Steckverbinder 8pol. (W5<->W79) connector 8 pole (W5<->W79)		32		XS40	USSP 75 (W5) ussp 75 (W5)		6	
X50	Steckverbinder 8pol. (W1<-W5) connector 8 pole (W1<->W5)		26		X92	Steckverbinder 6pol. (W77/W79<->W44) connector 6 pole (W77/W79<->W44)		23		XS41	USSP (W5) ussp (W5)		5	
X51	Steckverbinder 4pol. (W4<->W8/W42) connector 4 pole (W4<->W8/W42)		11		X92A	Steckverbinder 6pol. (W77/W79<->W44) connector 6 pole (W77/W79<->W44)		20		XS42	USSP (W5) ussp (W5)		11	
X51	Steckverbinder 4pol. (W4<->W8/W42) connector 4 pole (W4<->W8/W42)		12		X92D	Steckverbinder 6pol. (W79<->W44) connector 6 pole (W79<->W44)		32		XS43	Stossverbinder (W30) butt joint (W30)		22	
X51/X52	Steckverbinder 4pol. (W4<->W8/W42) connector 4 pole (W4<->W8/W42)		28		X93	Steckverbinder 12pol. (W10<-W40) connector 12 pole (W10<->W40)		15		XS44	USSP (W5) ussp (W5)		11	
X51/X52	Steckverbinder 4pol. (W4<->W8/W42) connector 4 pole (W4<->W8/W42)		28		X94	Steckverbinder 8pol. (W10<-W40) connector 8 pole (W10<->W40)		15		XS45	USSP (W5) ussp (W5)		5	
X52	Steckverbinder 4pol. (W4<->W8/W42) connector 4 pole (W4<->W8/W42)		11		X96	Steckverbinder 4pol. (W6<->W22) connector 4 pole (W6<->W22)		24		XS46	USSP (W5) ussp (W5)		8	
X52	Steckverbinder 4pol. (W4<->W8/W42) connector 4 pole (W4<->W8/W42)		12		X100	Steckverbinder 1pol. (W1<->W5) connector 1 pole (W1<->W5)		7		XS48	Stossverbinder (W35) butt joint (N/W35)		17	
X53	Steckverbinder 2pol. (W15<-R17) connector 2 pole (W15<->R17)		20		X104	Steckverbinder 3pol. (W4<->W41/W43) connector 3 pole (W4<->W41/W43)		11		XS53	USSP (W7) ussp (W7)		16	
X54	Steckverbinder 2pol. (W15<-R18) connector 2 pole (W15<->R18)		20		X104/X105	Steckverbinder 3pol. (W4<->W41/W43) connector 3 pole (W4<->W41/W43)		28		XS54	USSP (W7) ussp (W7)		16	
X57	Steckverbinder 1pol. (W5<-W6) connector 1 pole (W5<->W6)		12		X104/X105	Steckverbinder 3pol. (W4<->W41/W43) connector 3 pole (W4<->W41/W43)		28		XS56	Stossverbinder (W23) butt joint (W23)		17	
X58	Steckdose 6pol. (Progr. Displ.) connector 6-pole (progr. disp.)		9		X105	Steckverbinder 3pol. (W4<->W41/W43) connector 3 pole (W4<->W41/W43)		11		XS58	USSP (W1) ussp (W1)		5	
X59	Steckdose 6pol. Diagnose Yanmar diagnosis Yanmar socket 6 pole		9		X106	Steckverbinder 1pol. (W14) connector 1 pole (W14)		21		XS59	USSP (W1) ussp (W1)		5	
X60	Steckdose 16pol. Diagnose diagnosis socket 16 pole		9		X107	Steckverbinder 1pol. (W4) connector 1 pole (W4<->W4)		12		XS60	USSP (W77) ussp (W77)		23	
X61	Steckdose 3pol. (W6) socket 3 pole (W6)		12		X110	Stecker 6pol. Diagnose Fleet (W77) diagnosis socket 6 pole Fleet (W77)		23		XS61	USSP (W10) ussp (W10)		15	
X63	Steckdose 19pol. Frontaggregat socket 19 pole front attachment		15		XB26	Steckverb. 4pol. Überlast connector 4 pole overload		21		XS62	USSP (W10) ussp (W10)		15	
X63B	Stecker 19pol. 2-Besen (W11) plug 19 pole 2-brooms (W11)		17		XS01	USSP 30 (W5) ussp 30 (W5)		6		XS63	USSP (W7) ussp (W7)		16	
X63D	Stecker 19pol. Mäh.-Saugkombi. plug 19 pole mower suction (W23)		17		XS02	USSP 30 (W5) ussp 30 (W5)		6		XS64	USSP (W7) ussp (W7)		16	
X63F	Stecker 19pol. Anbauger. unkodiert attachment uncoded (W29)		17		XS04	USSP 58 (W5) ussp 58 (W5)		6		XS65	USSP (W7) ussp (W7)		16	
X63G	Stecker 19pol. Kombi-Kehreinheit plug 19 pole hydr. driven comb.sweeper (W35)		17		XS05	USSP (W10) ussp (W10)		25		XS67	USSP (W18) ussp (W18)		19	
X64	Steckdose 7pol. Heckaufbau (W7) socket 7 pole rear (W7)		16		XS06	USSP (W7) ussp (W7)		25		XS68	USSP (W18) ussp (W18)		19	
X65	Anhängersteckdose 7pol. trailer socket 7 pole (W7)		16		XS07	USSP (W7) ussp (W7)		25		XS69	USSP (W19) ussp (W19)		19	
X67	Steckdose 12pol. Streuer Lenksäule connector 12 pole spreader steering pillar		20		XS08	USSP (W5) ussp (W5)		9		XS70	USSP (W19) ussp (W19)		19	
X68	Steckdose 7pol. Streuer Kabinenrückwand connector 7 pole spreader cabine back		20		XS09	USSP (W1) ussp (W1)		8		XS71	USSP (W19) ussp (W19)		19	
X69	Steckverbinder 8pol. (W7<-W18/W19) connector 8 pole (W7<->W18/W19)		16		XS10	USSP (W5) ussp (W5)		13		XS72	USSP (W19) ussp (W19)		19	
X69A	Steckverbinder 8pol. (W7<-W18) connector 8 pole (W7<->W18)		19		XS11	USSP (W5) ussp (W5)		13		XS73	USSP (W6) ussp (W6)		25	



0	Integrated acc.	4000-34	20.01.20	DK	2019	Date	Name	CM650	Name	Schaltplan / circuit diagram	 Hako GmbH D-23840 Bad Oldesloe	Drawing Number		
A2	No. Number appears	Change No.	Date	Name	Standard	21.08.	DK	Replacem. for	For this drawing we reserve all rights (acc. DIN ISO 16016)			KABI 472	Type 1470	Dep. DS

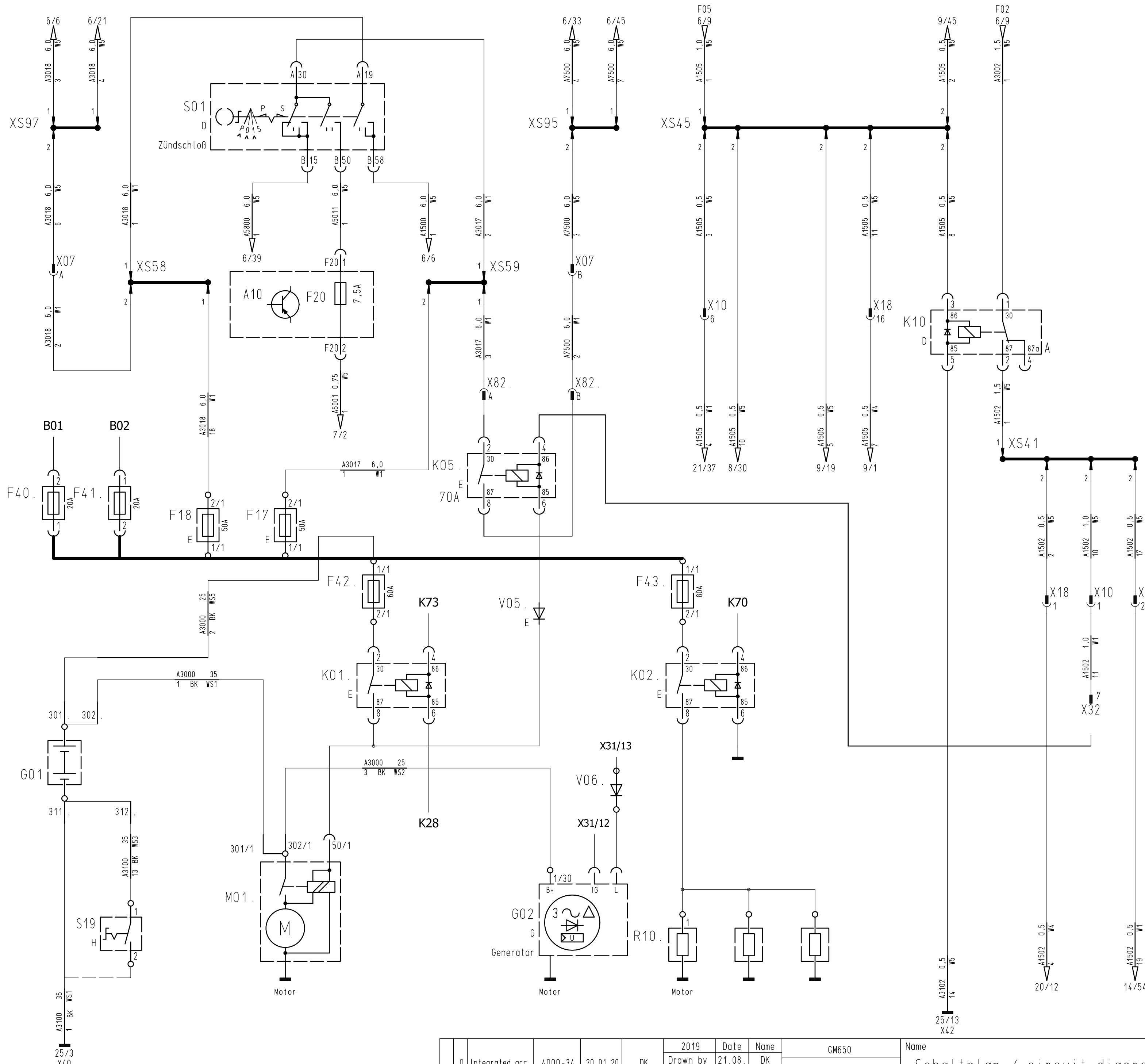
Teil Part	Beschreibung Description	Sachnummer Code no.	Position Sheet Pos.	Ort Loc.
XS78	USSP (W6) ussp (W6)		10	
XS79	USSP (W10) ussp (W10)		27	
XS80	USSP (W10) ussp (W10)		27	
XS81	USSP (W10) ussp (W10)		27	
XS82	USSP (W10) ussp (W10)		27	
XS83	USSP (W10) ussp (W10)		27	
XS84	USSP (W10) ussp (W10)		27	
XS85	USSP (W1) ussp (W1)		14	
XS86	USSP (W1) ussp (W1)		14	
XS87	USSP (W1) ussp (W1)		26	
XS88	USSP (W1) ussp (W1)		26	
XS90	USSP (W9) ussp (W9)		29	
XS91	USSP (W9) ussp (W9)		29	
XS92	USSP 75 (W5) ussp 75 (W5)		6	
XS95	USSP (W5) ussp (W5)		5	
XS96	USSP (W4) ussp (W4)		12	
XS97	USSP (W5) ussp (W5)		5	
XS98	USSP (W10) ussp (W10)		14	
XS101	USSP (W4) ussp (W4)		25	
XS105	USSP (W4) ussp (W4)		25	
XS110	USSP (W9) ussp (W9)		31	
XS111	USSP (W9) ussp (W9)		31	
XS114	USSP (W6) ussp (W6)		10	
XS118	USSP (W4) ussp (W4)		25	
XS122	USSP (W43) ussp (W43)		28	
XS123	USSP (W1) ussp (W1)		26	
XS124	USSP (W1) ussp (W1)		26	
XS125	USSP (W77) ussp (W77)		23	
XS126	USSP (W77) ussp (W77)		23	
XS128	USSP (W79) ussp (W79)		32	
XS129	USSP (W79) ussp (W79)		32	
XS130	USSP (W79) ussp (W79)		32	
XS131	Stossverbinder (W79) butt joint (W79)		32	
XS132	Stossverbinder (W79) butt joint (W79)		32	
XS133	USSP (W2) ussp (W2)		26	
XS150	USSP (W3) ussp (W3)		14	
XS151	USSP (W3) ussp (W3)		14	
XS152	USSP (W3) ussp (W3)		14	
1XS01	USSP (W9) ussp (W9)		29	
1XS04	USSP (W9) ussp (W9)		29	
1XS05	USSP (W9) ussp (W9)		29	
1XS06	USSP (W9) ussp (W9)		29	
1XS08	USSP (W9) ussp (W9)		30	
1XS09	USSP (W9) ussp (W9)		30	

Teil Part	Beschreibung Description	Sachnummer Code no.	Position Sheet Pos.	Ort Loc.
1XS10	USSP (W9) ussp (W9)		31	
1XS11	USSP (W9) ussp (W9)		31	
1XS12	USSP (W9) ussp (W9)		29	
2XS1	USSP (W9) ussp (W9)		31	
2XS2	USSP (W9) ussp (W9)		31	
2XS3	USSP (W9) ussp (W9)		31	
2XS4	USSP (W9) ussp (W9)		31	
2XS5	USSP (W9) ussp (W9)		31	
2XS6	USSP (W9) ussp (W9)		31	
Y09	Kupplung Klimakompressor clutch compressor AC (var.Comfort)	LF Yanmar	18/37	
Y09.	Kupplung Klimakompressor clutch compressor AC (var.Comfort)	LF Yanmar	29/21	
Y10	Hydraulikventil Umlauf Geblöse hydraulic valve vacuum fan circulation		13/7	
Y11	Hydraulikventil Umlauf Besen hydraulic valve brooms circulation		13/12	
Y12	Hydraulikventil Umlauf Geräteträger hydraulic valve front carrier circ.		13/17	
Y13	Hydraulikventil Geräteträger Schwimmst. hydr.valve front carrier released		13/22	
Y14	Hydraulikventil Geräteträger heben hydraulic valve front carrier up		13/28	
Y15	Hydraulikventil Besen breit hydraulic valve brooms wide		13/33	
Y16	Hydraulikventil Besen eng hydraulic valve brooms narrow		13/38	
Y17	Hydraulikventil Behälter heben hydraulic valve hopper up		13/42	
Y18	Hydraulikventil Behälter senken hydraulic valve hopper down		13/47	
Y21	Proportionalventil Seitenbesen (Var.2 Besen) prop.valve broom speed (var. 2 brooms)		17/12	
Y30	Hydraulikventil hydraulic valve		17/36	

Teil Part	Beschreibung Description	Sachnummer Code no.	Position Sheet Pos.	Ort Loc.
W1	Kabelbaum W1 (Knick) wire harness W1 (joint)			97149298
W2	Kabelbaum W2 (Kabinenboden) wire harness W2 (cabine floor)			97150767
W3	Kabelbaum W3 (Arملهne) wire harness W3 (arm rest)			97159974
W4	Kabelbaum W4 (Kabinendach) wire harness W4 (cabine roof)			97154520
W5	Kabelbaum W5 (Sicherungskasten) wire harness W5 (fuse box)			97150098
W6	Kabelbaum W6 (Lenksäule) wire harness W6 (steering pillar)			97150106
W7	Kabelbaum W7 (Beleuchtung/Ventile) wire harness W7 (lightning/hydr.valves)			97149306
W8	Kabelbaum W8 (Arbeitscheinwerfer) wire harness W8 (work lamps)			97158273
W9	Kabelbaum W9 (Motor) wire harness W9 (engine)			97149314
W10	Kabelbaum W10 (Vorderwagen) wire harness W10 (front section)			97154587
W11	Kabelbaum W11 (Kehrvorsatz 2 Besen) wire harness W11 (sweeper attachment 2 broos)			97120661
W14	Kabelbaum W14 (Radio) wire harness W14 (radio)			97154256
W15	Kabelbaum W15 (Spiegelheizung) wire harness W15 (mirror heating)			97122337
W18	Kabelbaum W18 (Heckleuchte Standard) wire harness W18 (rear lights standard)			97151906
W19	Kabelbaum W19 (Heckleuchte LED) wire harness W19 (rear lights LED)			97151914
W22	Kabelbaum W22 (Komfortlenksäule) wire harness W22 (comfort steering pillar)			97142244
W23	Kabelbaum W23 (Univ.-Frontmäherwerk) wire harness W23 (universal front mower)			97134134
W29	Kabelbaum W29 (Anbaug. unkodiert) wire harness W29 (attachment uncoded)			97127591
W30	Kabelbaum W30 (Behälter Heckbetätigung) wire harness W30 (container switch rear)			97126809
W35	Kabelbaum W35 (Frontkehrmaschine) wire harness W35 (front sweeping machine)			97721070
W40	Kabelbaum W40 (Steckdose X63) wire harness W40 (socket X63)			97142814
W41	Kabelbaum W41 (Blink/Postl. Std.) wire harness W41 (front indicator/postl. Std.)			97154157
W42	Kabelbaum W42 (Hauptscheinwerfer LED) wire harness W42 (headlights LED)			97156822
W43	Kabelbaum W43 (Blink/Postl. LED) wire harness W43 (front indicator/postl. LED)			97156830
W44	Kabelbaum W44 (Streuervorbereitung) wire harness W44 (spreader preliminary)			97158844
W77	Kabelbaum W77 (Fleetrecorder) wire harness W77 (fleetrecorder)			97158851
W78	Kabelbaum W78 (Fleetrecorder Erweiter.) wire harness W78 (Fleetrecorder expansion)			97158869
W79	Kabelbaum W79 (Gateway) wire harness W79 (gateway)			97161426
WS1	Kabelsatz loom of wires			97152003
WS2	Kabelsatz loom of wires			97152011
WS3	Kabelsatz Batterieschalter loom of wires battery main switch			97152029
WS4	Kabelsatz Classic loom of wires classic			97125157
WS5	Kabelsatz E-Kasten loom of wires			97154603



0	Integrated acc.	4000-34	20.01.20	DK	2019	Date	Name	CM650	Name	 Hako GmbH D-23840 Bad Oldesloe	Drawing Number			
A2	No. Number appears	Change No.	Date	Name	Standard			Replacem. for	Schaltplan / circuit diagram		91039362			
								Change No.	For this drawing we reserve all rights (acc. DIN ISO 16016)		KAB1 472	Type 1470	Dep. DS	No. of Sh. 38



Legende

- A10 Sicherungskasten
fusebox side console right
- F17 Sicherung 50A Vorsicherung 15/75
fuse 50A pre-fuse 15/75
- F18 Sicherung 50A Vorsicherung 30
fuse 50A pre-fuse 30
- F20 Sicherung 7,5A (50)
fuse 7,5A (50)
- F40. Sicherung 20A
fuse 20A
- F41. Sicherung 20A
fuse 20A
- F42. Sicherung 60A
fuse 60A
- F43. Sicherung 80A
fuse 80A
- G01 Starterbatterie 12V
starter battery 12V
- G02 Generator 12V
alternator 12V
- K01. Relais Anlasser
relay starter
- K02. Relais Vorglühen
relay preheating
- K05. Relais Versorgung 75
relay supply 75
- K10 Entlastungsrelais 1 (15)
release relay 1 (15)
- M01. Anlasser
starter
- R10. Vorglühkerzen
glow plugs
- S01 Zündstartscharter
starter switch
- S19 Batterietrennscharter
battery main switch
- V05. Diode
diode
- V06. Diode
diode
- X07 Steckverbinder 2pol. (W1<->W5)
connector 2 pole (W1<->W5)
- X10 Steckverbinder 8pol. (W1<->W5)
connector 8 pole (W1<->W5)
- X18 Steckverbinder 20pol. (W4<->W5)
connector 20 pole (W4<->W5)
- X32 Steckverbinder 12pol. (W1<->W9)
connector 12 pole (W1<->W9)
- X82. Steckverbinder 2 pol. (W9<->W1)
connector 2 pole (W9<->W1)
- XS41 USSP (W5)
ussp (W5)
- XS45 USSP (W5)
ussp (W5)
- XS58 USSP (W1)
ussp (W1)
- XS59 USSP (W1)
ussp (W1)
- XS95 USSP (W5)
ussp (W5)
- XS97 USSP (W5)
ussp (W5)



0	Integrated acc.	4000-34	20.01.20	DK	2019	Date	Name	CM650	Name
A2	No. Number appears	Change No.	Date	Name	Standard	Drawn by	Verified	Replacem. for	Schaltplan / circuit diagram
								Change No.	

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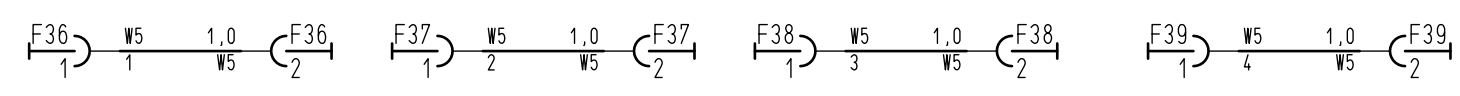
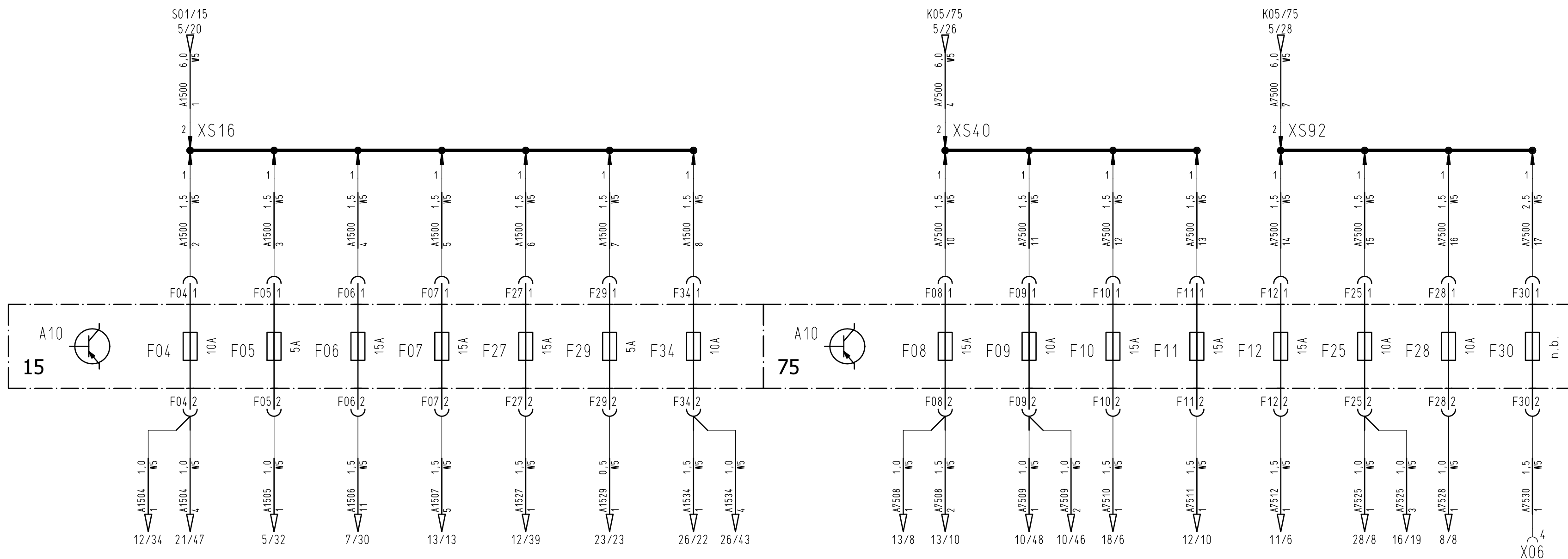
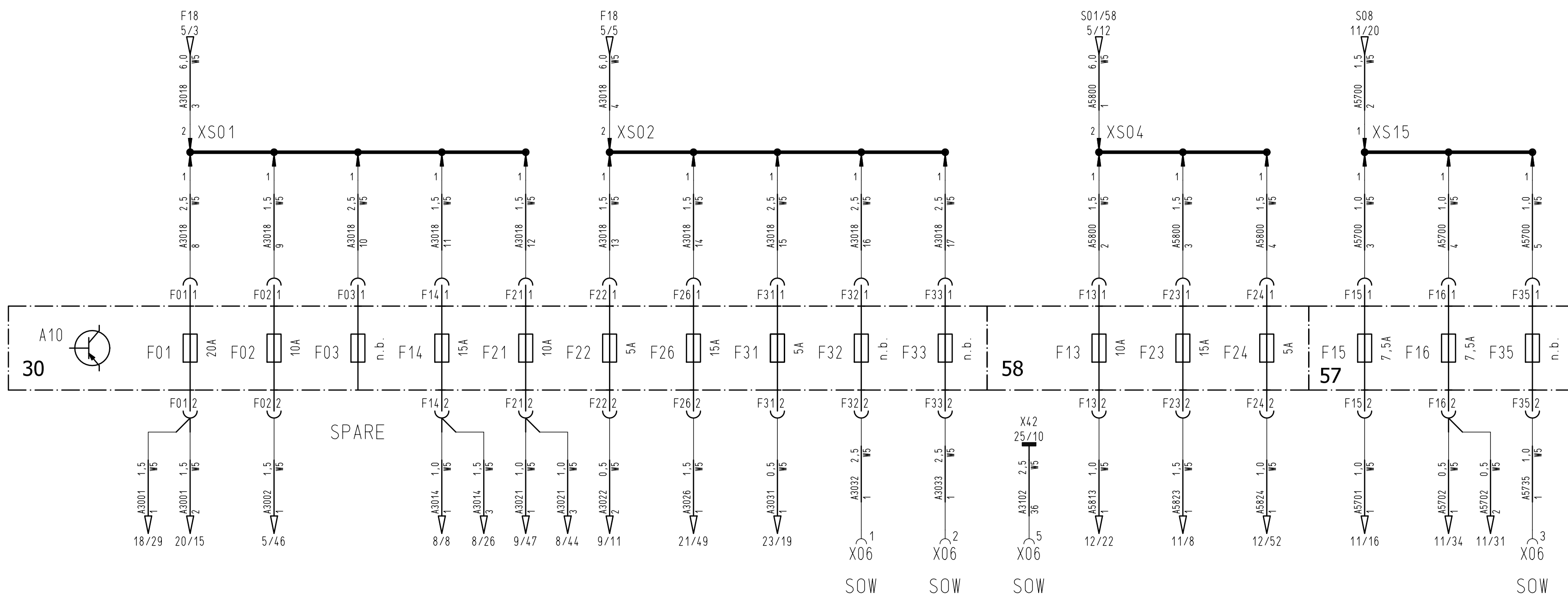
KAB1 472 Type 1470 Dep. DS No. of Sh. 38 Sheet 5

Drawing Number 91039362

Hako GmbH
D-23840 Bad Oldesloe

Legende

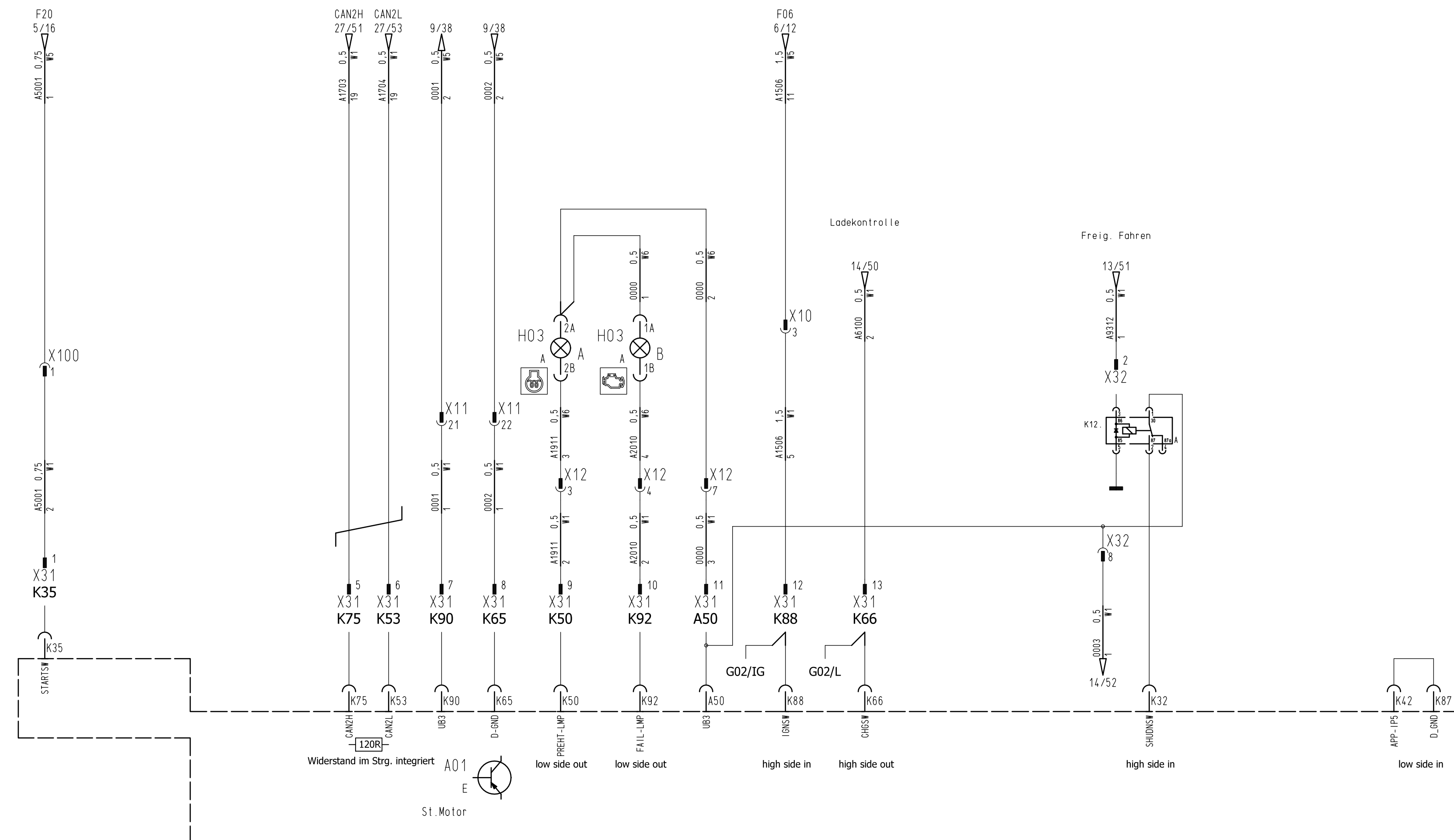
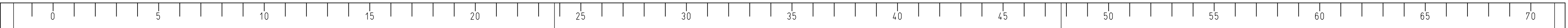
- A10 Sicherungskasten
fusebox side console right
- F01 Sicherung 20A (30)
fuse 20A (30)
- F02 Sicherung 10A (30)
fuse 10A (30)
- F03 Sicherung Reserve (30)
fuse not used (30)
- F04 Sicherung 10A (15)
fuse 10A (15)
- F05 Sicherung 5A (15)
fuse 5A (15)
- F06 Sicherung 15A (15)
fuse 15A (15)
- F07 Sicherung 15A (15)
fuse 15A (15)
- F08 Sicherung 15A (75)
fuse 15A (75)
- F09 Sicherung 10A (75)
fuse 10A (75)
- F10 Sicherung 15A (75)
fuse 15A (75)
- F11 Sicherung 15A (75)
fuse 15A (75)
- F12 Sicherung 15A (75)
fuse 15A (75)
- F13 Sicherung 10A (58)
fuse 10A (58)
- F14 Sicherung 15A (30)
fuse 15A (30)
- F15 Sicherung 7,5A (57)
fuse 7,5A (57)
- F16 Sicherung 7,5A (57)
fuse 7,5A (57)
- F21 Sicherung 10A (30)
fuse 10A (30)
- F22 Sicherung 5A (30)
fuse 5A (30)
- F23 Sicherung 15A (58)
fuse 15A (58)
- F24 Sicherung 5A (58)
fuse 5A (58)
- F25 Sicherung 10A (75)
fuse 10A (75)
- F26 Sicherung 15A (30)
fuse 15A (30)
- F27 Sicherung 15A (15)
fuse 15A (15)
- F28 Sicherung 10A (75)
fuse 10A (75)
- F29 Sicherung 5A (15)
fuse 5A (15)
- F30 Sicherung für SOW (75)
fuse for SOW (75)
- F31 Sicherung 5A (30)
fuse 5A (30)
- F32 Sicherung für SOW (30)
fuse for SOW (30)
- F33 Sicherung für SOW (30)
fuse for SOW (30)
- F34 Sicherung 10A (15)
fuse 10A (15)
- F35 Sicherung für SOW (57)
fuse for SOW (57)
- X06 Steckverbinder 6pol.für SOW (W5)
connector 6 pole for SOW (W5)



XS01	USSP 30 (W5) ussp 30 (W5)	XS15	USSP 58 (W5) ussp 57 (W5)	XS92	USSP 75 (W5) ussp 75 (W5)
XS02	USSP 30 (W5) ussp 30 (W5)	XS16	USSP 15 (W5) ussp 15 (W5)		
XS04	USSP 58 (W5) ussp 58 (W5)	XS40	USSP 75 (W5) ussp 75 (W5)		



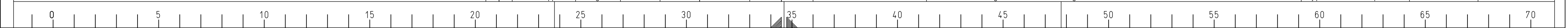
0	Integrated acc.	4000-34	20.01.20	DK	2019	Date	Name	CM650	Name		Drawing Number	
					Drawn by	24.04.	DK			Schaltplan / circuit diagram	91039362	
A2	No. Number appears	Change No.	Date	Name	Standard			Replacem. for same no.			No. of Sh. 38	Sheet 6
								Change No. 9245-08	For this drawing we reserve all rights (acc. DIN ISO 16016)			



- ### Legende
- A01 Motorsteuergerät ECU
engine controller ECU
 - H03 Kontrollleuchten Motor/Vorglühen
pilot lamps engine / preheating
 - K12. Relais
relay
 - X10 Steckverbinder 8pol. (W1<->W5)
connector 8 pole (W1<->W5)
 - X11 Steckverbinder 24pol. (W1<->W5)
connector 24 pole (W1<->W5)
 - X12 Steckverbinder 10pol. (W1<->W6)
connector 10 pole (W1<->W6)
 - X31 Steckverbinder 16pol. (W1<->W9)
connector 16 pole (W1<->W9)
 - X32 Steckverbinder 12pol. (W1<->W9)
connector 12 pole (W1<->W9)
 - X100 Steckverbinder 1pol. (W1<->W5)
connector 1 pole (W1<->W5)

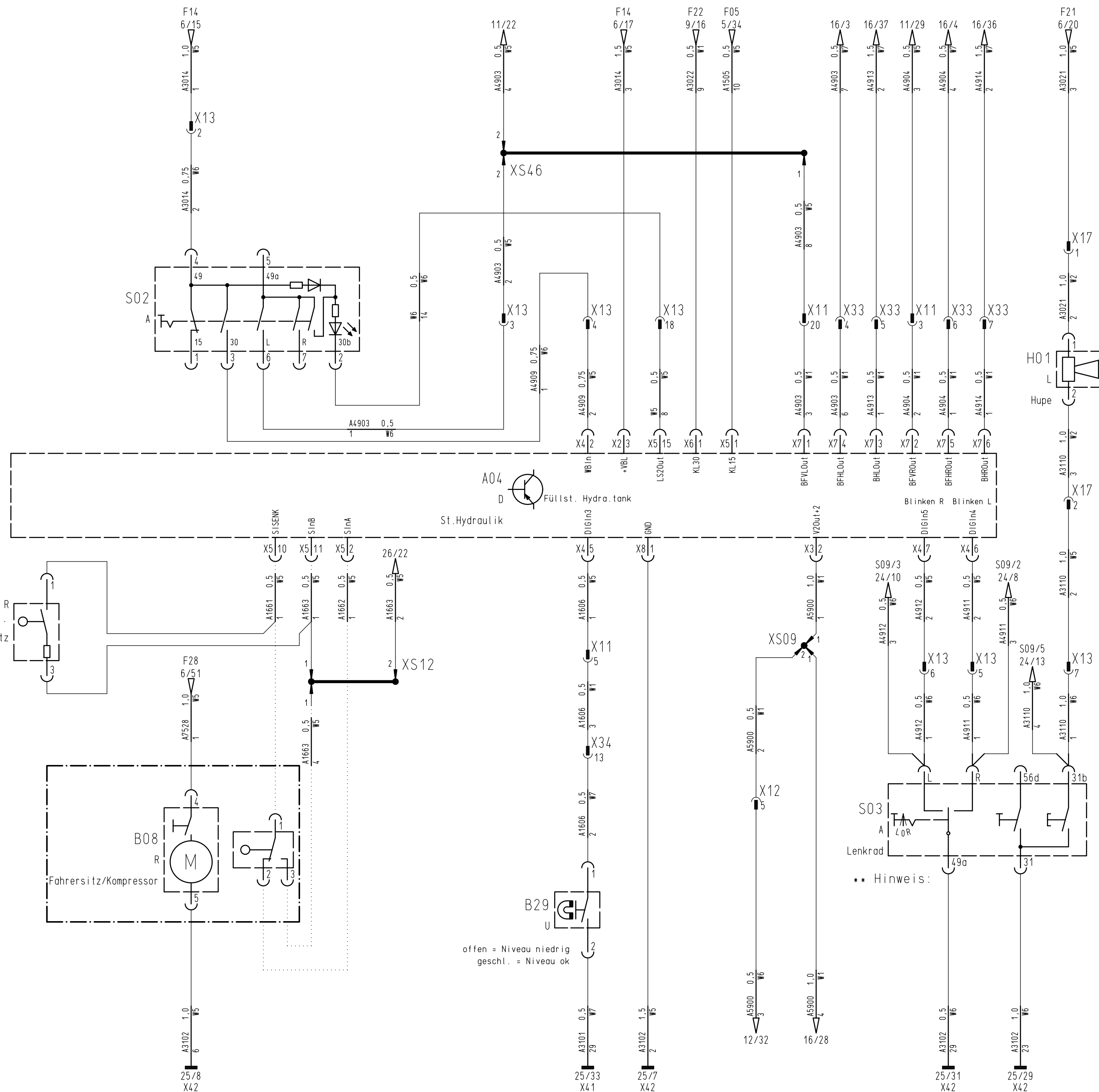


0	Integrated acc.	4000-34	20.01.20	DK	2019	Date	Name	CM650	Name	 Hako GmbH D-23840 Bad Odesloe	Drawing Number			
A2	No. Number appears	Change No.	Date	Name	Standard	21.08.	DK	Replacem. for	Schaltplan / circuit diagram		91039362			
For this drawing we reserve all rights (acc. DIN ISO 16016)										KAB1 472	Type 1470	Dep. DS	No. of Sh. 38	Sheet 7



Legende

- A04 Steuergerät Hydraulik
controller hydraulic valves
- B08 Kompressor Fahrersitz
seat switch/compressor
- B08. Sitzkontaktschalter
seat switch
- B29 Füllstandsensur Hydrauliköltank
level sensor hydraulic oil tank
- H01 Hupe
horn
- S02 Warnblinkschalter
switch warning flasher
- S03 Lenkstockscharter
steering wheel switch
- X11 Steckverbinder 24pol. (W1<->W5)
connector 24 pole (W1<->W5)
- X12 Steckverbinder 10pol. (W1<->W6)
connector 10 pole (W1<->W6)
- X13 Steckverbinder 22pol. (W6<->W5)
connector 22 pole (W6<->W5)
- X17 Steckverbinder 4pol. (W2<->W5)
connector 4 pole (W2<->W5)
- X33 Steckverbinder 18pol. (W1<->W7)
connector 18 pole (W1<->W7)
- X34 Steckverbinder 14pol. (W1<->W7)
connector 14 pole (W1<->W7)
- XS09 USSP (W1)
ussp (W1)
- XS12 USSP (W5)
ussp (W5)
- XS46 USSP (W5)
ussp (W5)



**** Hinweis:**
 Lenkstockscharter wird verdreht
 eingebaut ==> Funktion vertauscht
 Pin L = Blinken rechts
 Pin R = Blinken links
 (nach Bedruckung anschliessen)

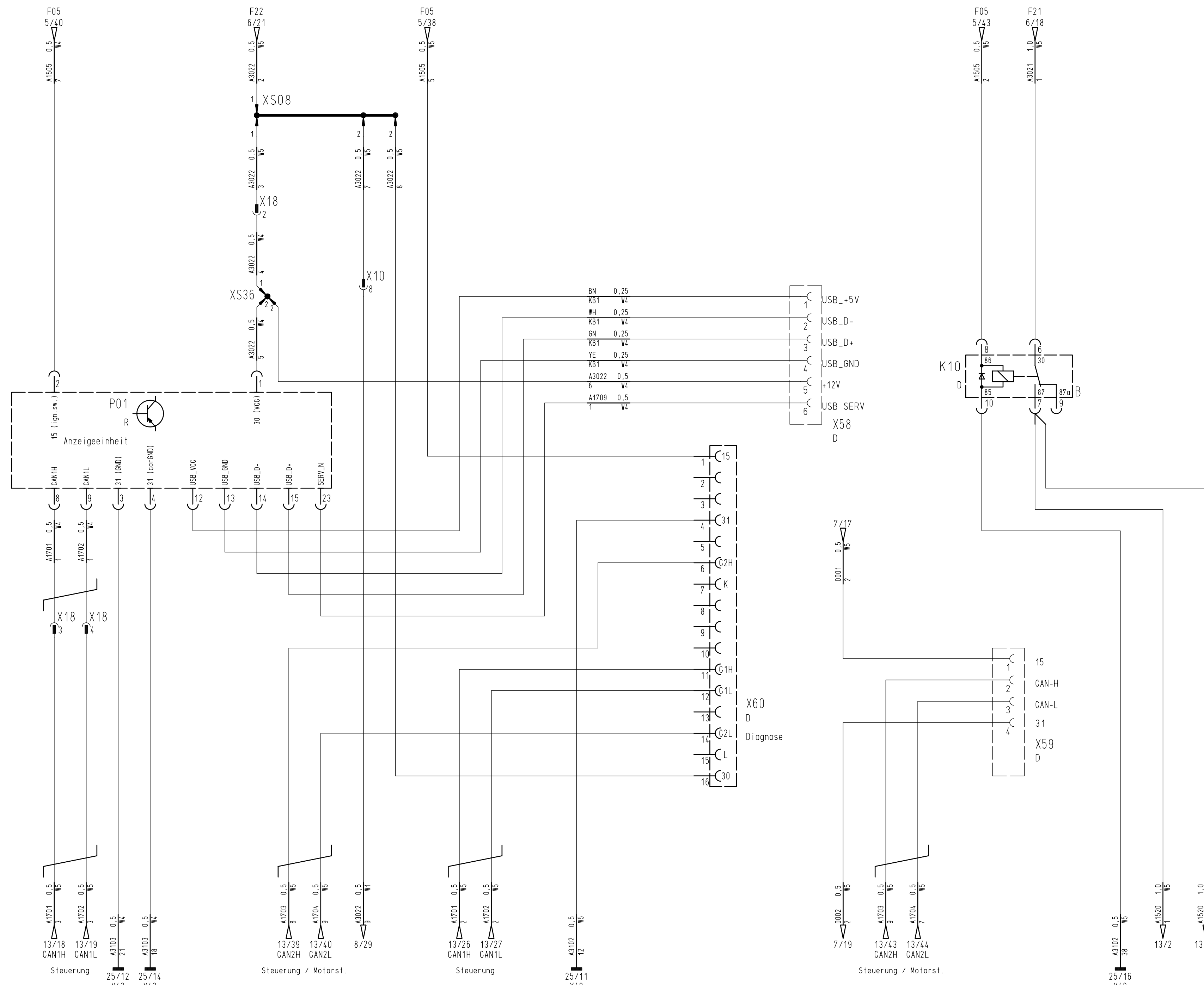
offen = Niveau niedrig
 geschl. = Niveau ok



	0 Integrated acc.	4000-34	20.01.20	DK	2019	Date	Name	CM650	Name
						21.08.	DK		Schaltplan / circuit diagram
								Replacem. for	
								Change No.	

Hako GmbH
D-23840 Bad Oldesloe

Drawing Number
91039362



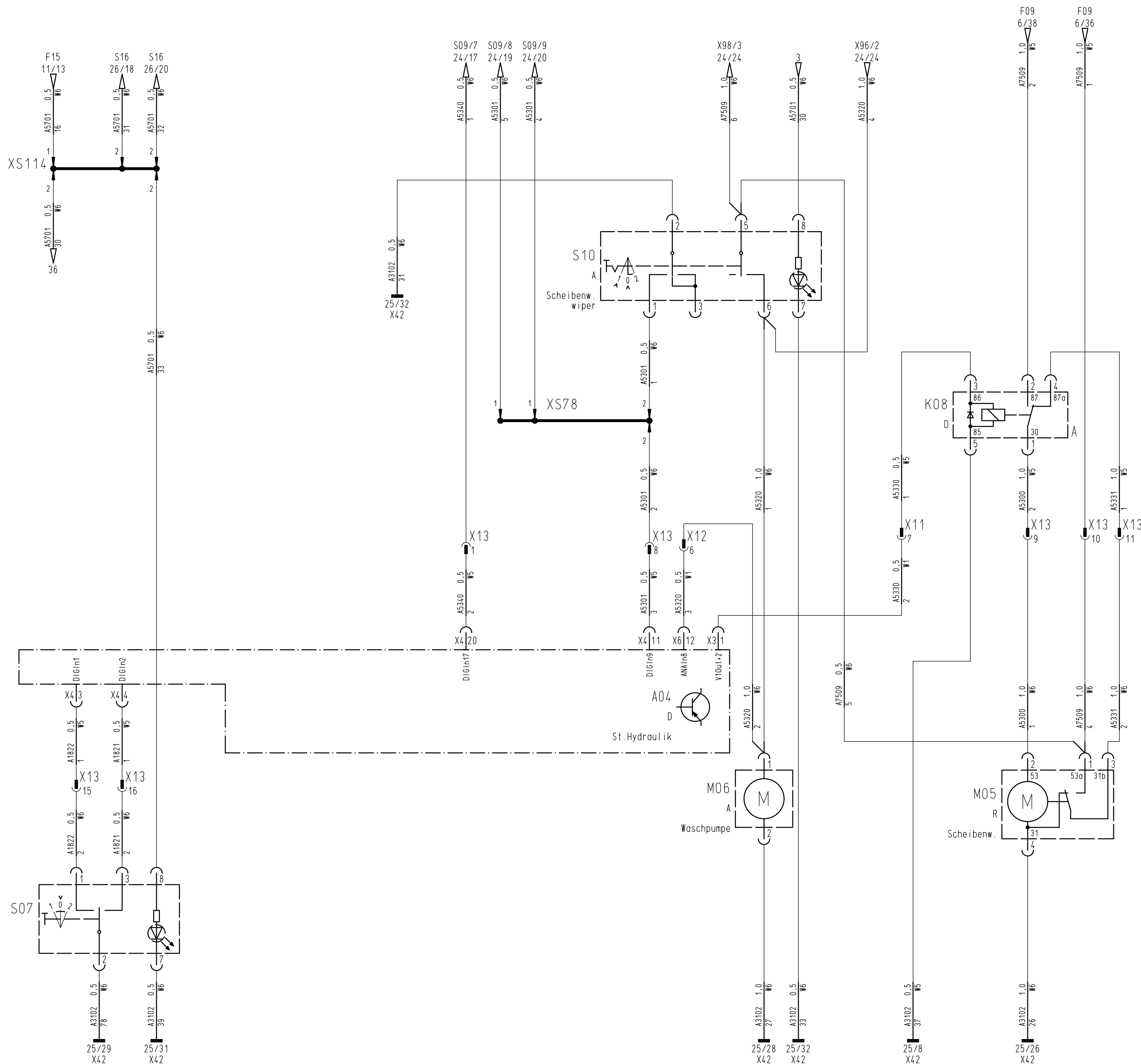
- ### Legende
- K10 Entlastungsrelais 2 (15)
release relay 2 (15)
 - P01 Anzeigeeinheit
multifunction display
 - X10 Steckverbinder 8pol. (W1<->W5)
connector 8 pole (W1<->W5)
 - X18 Steckverbinder 20pol. (W4<->W5)
connector 20 pole (W4<->W5)
 - X58 Steckdose 6pol. (Progr. Displ.)
connector 6-pole (progr. disp.)
 - X59 Steckdose 6pol. Diagnose Yanmar
diagnosis socket 6 pole
 - X60 Steckdose 16pol. Diagnose
diagnosis socket 16 pole
 - XS08 USSP (W5)
ussp (W5)
 - XS36 USSP (W4)
ussp (W4)



0	Integrated acc.	4000-34	20.01.20	DK	2019	Date	Name	CM650	Name	Schaltplan / circuit diagram	 Hako GmbH D-23840 Bad Oldesloe	Drawing Number	
A2	No. Number appears	Change No.	Date	Name	Standard	21.08.	DK	Replacem. for	For this drawing we reserve all rights (acc. DIN ISO 16016)			KAB1 470	Type 1470
										No. of Sh. 38			Sheet 9

Legende

- A04 Steuergerät Hydraulik
controller hydraulic valves
- K08 Relais Scheibenwischer
relay windscreen wiper
- M05 Scheibenwischermotor
windscreen wiper motor
- M06 Scheibenwaschpumpe
windscreen washer pump
- S07 Taster Motordrehzahl Tip-Up / Down
push-button engine speed tip-up / down
- S10 Schalter Scheibenwischer
switch windscreen wiper
- X11 Steckverbinder 24pol. (W1<-W5)
connector 24 pole (W1<->W5)
- X12 Steckverbinder 10pol. (W1<-W6)
connector 10 pole (W1<->W6)
- X13 Steckverbinder 22pol. (W6<-W5)
connector 22 pole (W6<->W5)
- XS78 USSP (W6)
ussp (W6)
- XS114 USSP (W6)
ussp (W6)



0	Integrated acc.	4000-34	20.01.20	DK	2019	Date	Name	CM650	Name	 Hako GmbH D-23840 Bad Oldesloe	Drawing Number			
					Drawn by	21.08.	DK	Replacem. for	Schaltplan / circuit diagram		91039362			
A2	No. Number appears	Change No.	Date	Name	Standard			Change No.	For this drawing we reserve all rights (acc. DIN ISO 16016)		KABI 472	Type 1470	Dep. DS	No. of Sh. 38

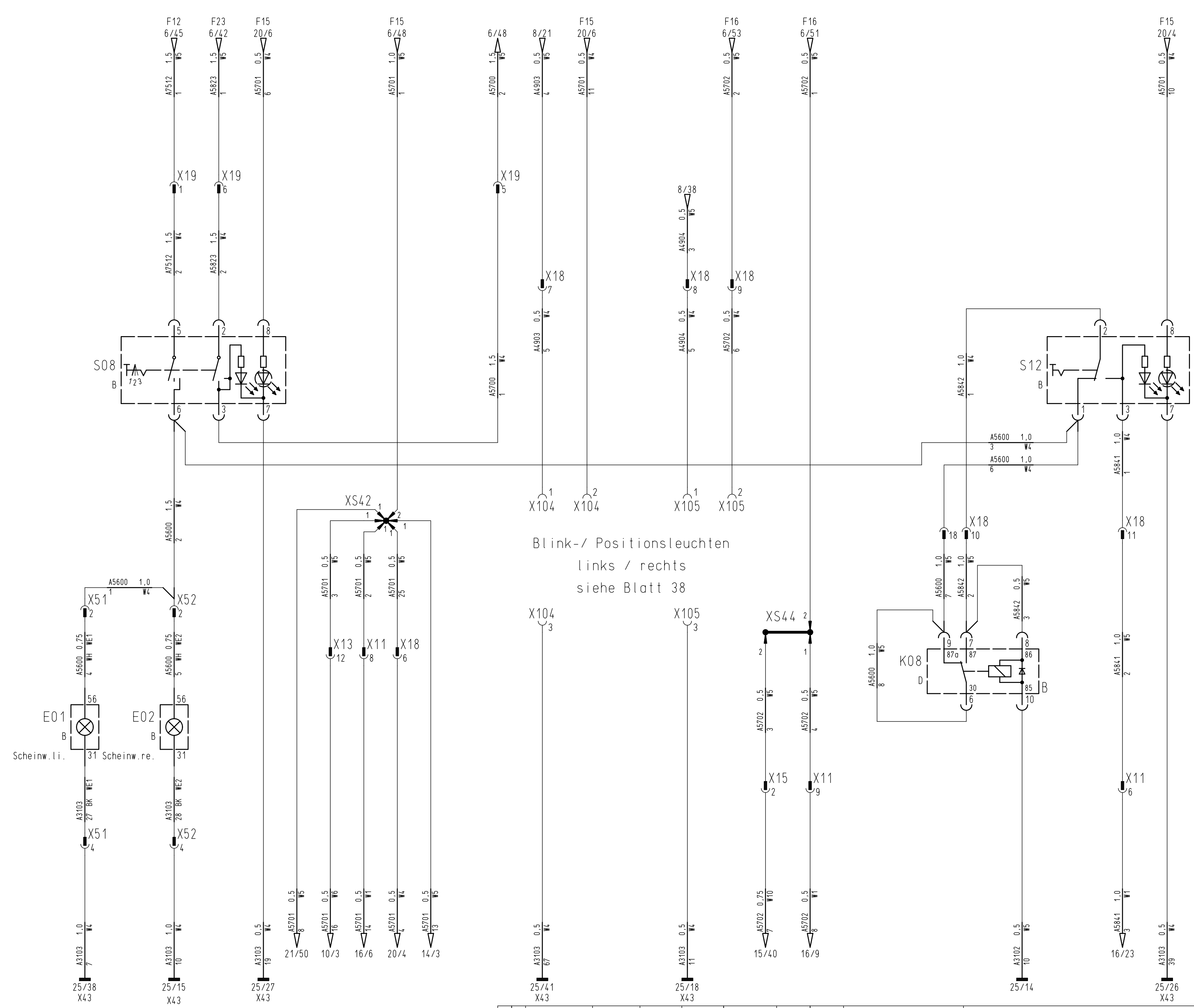
Legende

- E01 Frontscheinwerfer links
headlight left
- E02 Frontscheinwerfer rechts
headlight right

- K08 Relais Nebelschlußleuchte
relay fog light

- S08 Lichtschalter
switch light
- S12 Schalter Nebelschlußleuchte
switch rear fog light

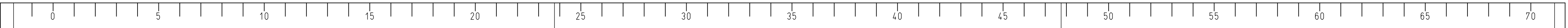
- X11 Steckverbinder 24pol. (W1<->W5)
connector 24 pole (W1<->W5)
- X13 Steckverbinder 22pol. (W6<->W5)
connector 22 pole (W6<->W5)
- X15 Steckverbinder 14pol. (W10<->W5)
connector 14 pole (W10<->W5)
- X18 Steckverbinder 20pol. (W4<->W5)
connector 20 pole (W4<->W5)
- X19 Steckverbinder 6pol. (W5<->W4)
connector 6 pole (W5<->W4)
- X51 Steckverbinder 4pol. (W4<->W8/W42)
connector 4 pole (W4<->W8/W42)
- X52 Steckverbinder 4pol. (W4<->W8/W42)
connector 4 pole (W4<->W8/W42)
- X104 Steckverbinder 3pol. (W4<->W41/W43)
connector 3 pole (W4<->W41/W43)
- X105 Steckverbinder 3pol. (W4<->W41/W43)
connector 3 pole (W4<->W41/W43)
- XS42 USSP (W5)
ussp (W5)
- XS44 USSP (W5)
ussp (W5)



Blink-/ Positionsleuchten links / rechts siehe Blatt 38

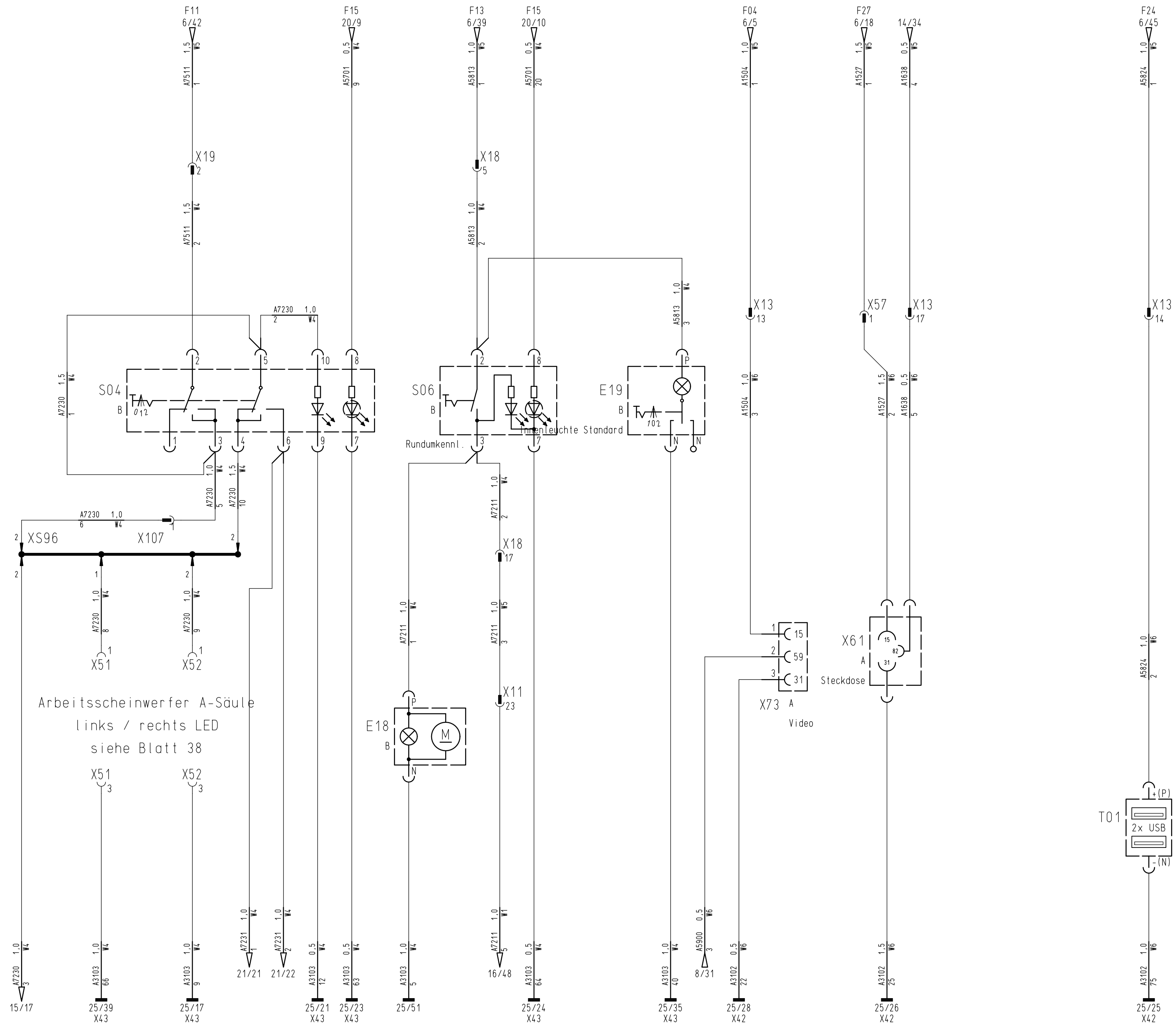


	0 Integrated acc.	4000-34	20.01.20	DK	2019	Date	Name	CM650	Name		Drawing Number
						21.08.	DK		Schaltplan / circuit diagram		91039362
	A2 No. Number appears	Change No.	Date	Name	Standard			Replacem. for Change No.	For this drawing we reserve all rights (acc. DIN ISO 16016)	KABI 470	Type 1470
										Dep. DS	No. of Sh. 38
											Sheet 11



Legende

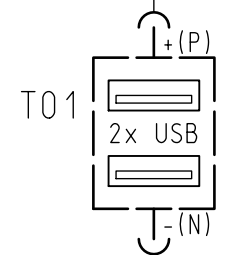
- E18 Rundumkennleuchte Standard
rotating beacon lamp
- E19 Innenleuchte Standard
interior lamp standard
- S04 Schalter Arbeitsscheinwerfer
switch work lights A-pillar a. cabin top
- S06 Schalter Rundumkennleuchte
switch beacon lamp
- T01 USB Steckdose
USB plug socket
- X11 Steckverbinder 24pol. (W1<->W5)
connector 24 pole (W1<->W5)
- X13 Steckverbinder 22pol. (W6<->W5)
connector 22 pole (W6<->W5)
- X18 Steckverbinder 20pol. (W4<->W5)
connector 20 pole (W4<->W5)
- X19 Steckverbinder 6pol. (W5<->W4)
connector 6 pole (W5<->W4)
- X51 Steckverbinder 4pol. (W4<->W8/W42)
connector 4 pole (W4<->W8/W42)
- X52 Steckverbinder 4pol. (W4<->W8/W42)
connector 4 pole (W4<->W8/W42)
- X57 Steckverbinder 1pol. (W5<->W6)
connector 1 pole (W5<->W6)
- X61 Steckdose 3pol. (W6)
socket 3 pole (W6)
- X73 Steckverbinder 3pol. Video (W6)
connector 3 pole camera (W6)
- X107 Steckverbinder 1pol. (W4)
connector 1 pole (W4<->W4)
- XS96 USSP (W4)
ussp (W4)



Arbeitsscheinwerfer A-Säule
links / rechts LED
siehe Blatt 38

Schalter S04

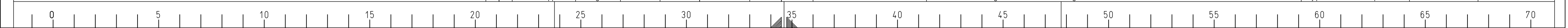
- bei Verwendung 0/1 Schalter
X107 BU-Gehäuse mit
X107 ST-Gehäuse zusammenstecken
- bei Verwendung 0/1/2 Schalter als Zuschaltung
X107 BU-Gehäuse mit
X107 ST-Gehäuse zusammenstecken
- bei Verwendung 0/1/2 Schalter als Wechselschaltung
X107 BU-Gehäuse mit
X107 ST-Gehäuse nicht zusammenstecken

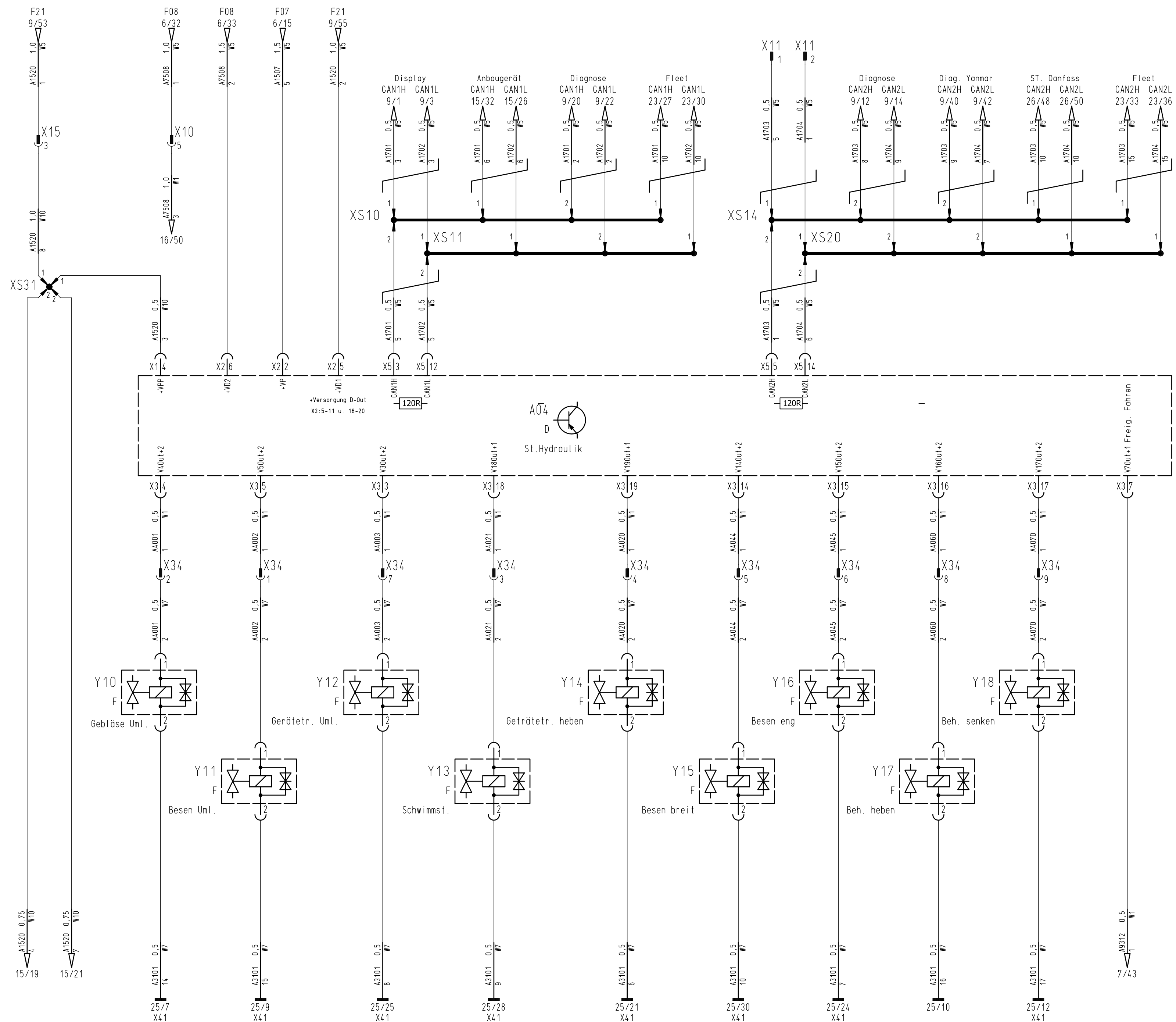
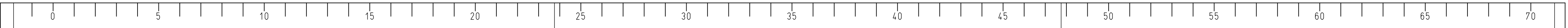


0	Integrated acc.	4000-34	20.01.20	DK	2019	Date	Name	CM650	Name
						21.08.	DK		Schaltplan / circuit diagram
A2	No. Number appears	Change No.	Date	Name	Standard			Replacem. for	
								Change No.	For this drawing we reserve all rights (acc. DIN ISO 16016)

Drawing Number
91039362

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 D-23840 Bad Oldesloe





Legende

- A04 Steuergerät Hydraulik
controller hydraulic valves
- X10 Steckverbinder 8pol. (W1<->W5)
connector 8 pole (W1<->W5)
- X11 Steckverbinder 24pol. (W1<->W5)
connector 24 pole (W1<->W5)
- X15 Steckverbinder 14pol. (W10<->W5)
connector 14 pole (W10<->W5)
- X34 Steckverbinder 14pol. (W1<->W7)
connector 14 pole (W1<->W7)
- XS10 USSP (W5)
ussp (W5)
- XS11 USSP (W5)
ussp (W5)
- XS14 USSP (W5)
ussp (W5)
- XS20 USSP (W5)
ussp (W5)
- XS31 USSP (W10)
ussp (W10)
- Y10 Hydraulikventil Umlauf Gebläse
hydraulic valve vacuum fan circulation
- Y11 Hydraulikventil Umlauf Besen
hydraulic valve brooms circulation
- Y12 Hydraulikventil Umlauf Geräteträger
hydraulic valve front carrier circ.
- Y13 Hydraulikventil Gerätetr. Schwimmst.
hydr.valve front carrier released
- Y14 Hydraulikventil Geräteträger heben
hydraulic valve front carrier up
- Y15 Hydraulikventil Besen breit
hydraulic valve brooms wide
- Y16 Hydraulikventil Besen eng
hydraulic valve brooms narrow
- Y17 Hydraulikventil Behälter heben
hydraulic valve hopper up
- Y18 Hydraulikventil Behälter senken
hydraulic valve hopper down



0	Integrated acc.	4000-34	20.01.20	DK	2019	Date	Name	CM650	Name
					Drawn by	21.08.	DK		Replacem. for
					Verified				Change No.

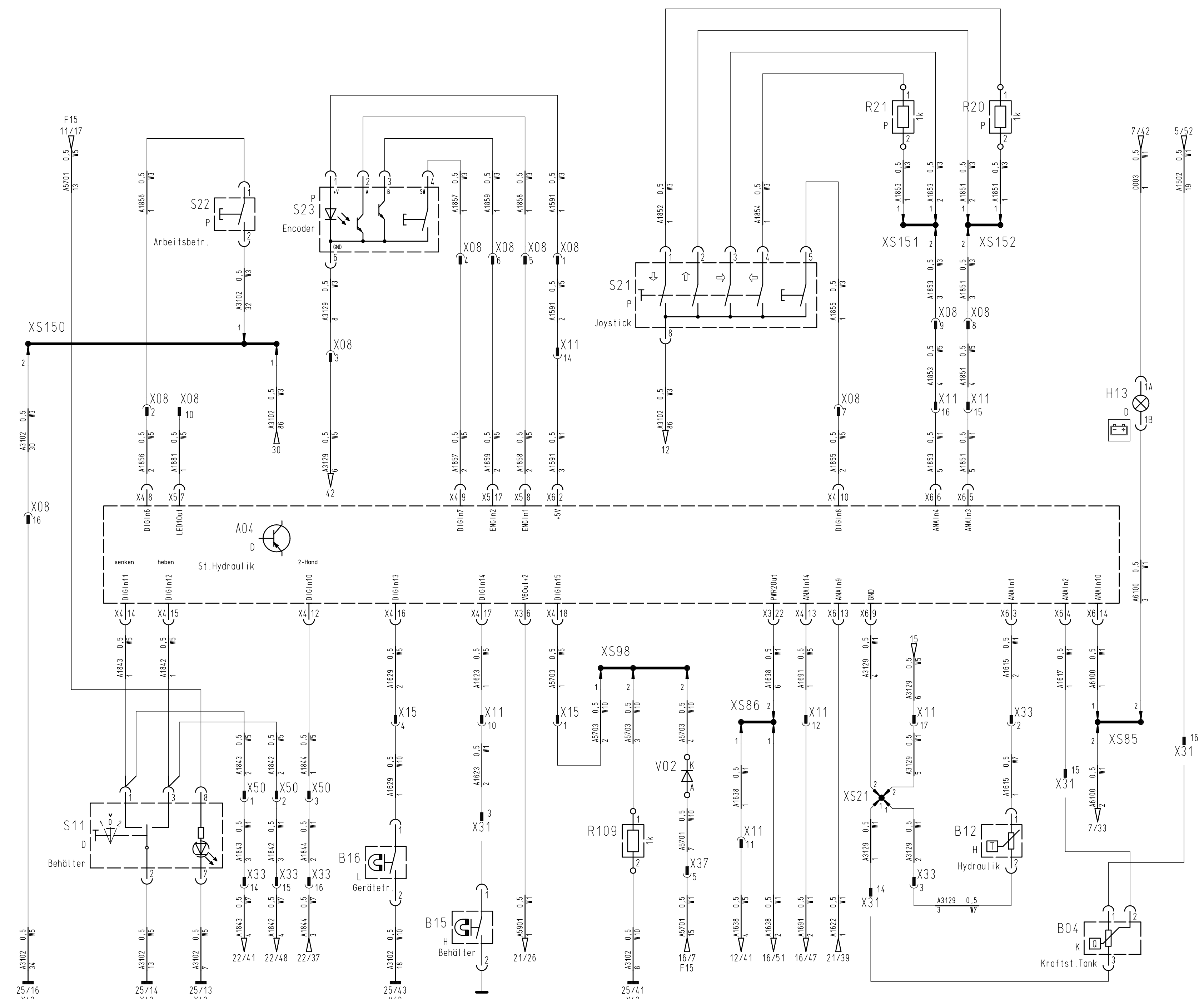
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Drawing Number
91039362

No. of Sh. 38 Sheet 13





Legende

- A04 Steuergerät Hydraulik
controller hydraulic valves
- B04 Niveausensor Kraftstofftank
fuel level sensor
- B12 Thermosensor Hydrauliköl
temperature sensor hydraulic oil
- B15 Reed-Sensor Behälter oben
hopper reed switch
- B16 Reed-Sensor Geräteträger oben
front carrier reed switch
- H13 Batterieladekontrollleuchte
pilot lamps engine / preheating
- R20 Widerstand 1k
resistor 1kOhm
- R21 Widerstand 1k
resistor 1kOhm
- R109 Widerstand 1k
resistor 1kOhm
- S11 Taster Behälter heben/senken
pushbutton switch hopper up/down
- S21 Kreuztaster Hydraulikfunktionen
joystick switch hydraulics
- S22 Taster Arbeitsbetrieb
pushbutton switch working mode
- S23 Drehencoder mit Taste
encoder switch with pushbutton
- V02 Diode
diode
- X08 Steckverbinder 16pol. (W3<->W5)
connector 16 pole (W3<->W5)
- X11 Steckverbinder 24pol. (W1<->W5)
connector 24 pole (W1<->W5)
- X15 Steckverbinder 14pol. (W10<->W5)
connector 14 pole (W10<->W5)
- X31 Steckverbinder 16pol. (W1<->W9)
connector 16 pole (W1<->W9)
- X33 Steckverbinder 18pol. (W1<->W7)
connector 18 pole (W1<->W7)
- X37 Steckverbinder 12pol. (W1<->W10)
connector 12 pole (W1<->W10)
- X50 Steckverbinder 8pol. (W1<->W5)
connector 8 pole (W1<->W5)
- XS21 USSP (W1)
ussp (W1)
- XS85 USSP (W1)
ussp (W1)
- XS86 USSP (W1)
ussp (W1)
- XS98 USSP (W10)
ussp (W10)
- XS150 USSP (W3)
ussp (W3)
- XS151 USSP (W3)
ussp (W3)
- XS152 USSP (W3)
ussp (W3)

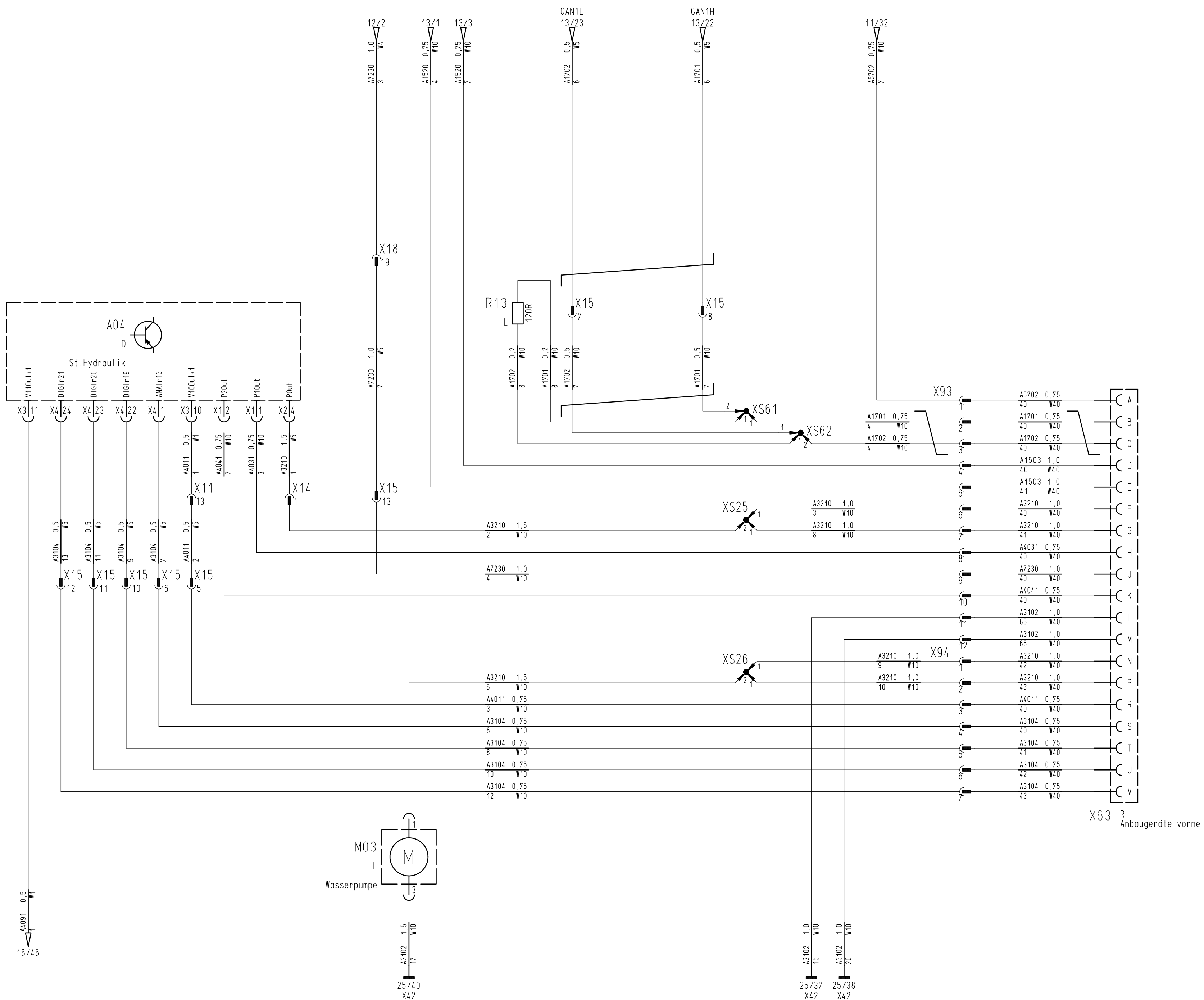
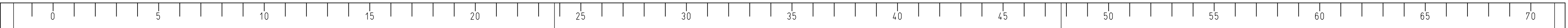


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						21.08.	DK		Schaltplan / circuit diagram
A2	No. Number appears	Change No.	Date	Name	Standard			Replacem. for	For this drawing we reserve all rights (acc. DIN ISO 16016)
								Change No.	KABI 470 Type 1470 Dep. DS

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D-23840 Bad Oldesloe

Drawing Number
91039362

No. of Sh. 38 Sheet 14

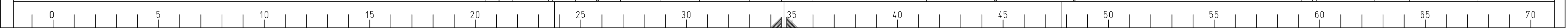


Legende

- A04 Steuergerät Hydraulik
controller hydraulic valves
- M03 Sprühwasserpumpe
spraying pump
- R13 Widerstand 120R
resistor 120Ohm
- X11 Steckverbinder 24pol. (W1<->W5)
connector 24 pole (W1<->W5)
- X14 Steckverbinder 1pol. (W5<->W10)
connector 1 pole (W5<->W10)
- X15 Steckverbinder 14pol. (W10<->W5)
connector 14 pole (W10<->W5)
- X18 Steckverbinder 20pol. (W4<->W5)
connector 20 pole (W4<->W5)
- X63 Steckdose 19pol. Frontaggregat
socket 19 pole front attachment
- X93 Steckverbinder 12pol. (W10<->W40)
connector 12 pole (W10<->W40)
- X94 Steckverbinder 8pol. (W10<->W40)
connector 8 pole (W10<->W40)
- XS25 USSP (W10)
ussp (W10)
- XS26 USSP (W10)
ussp (W10)
- XS61 USSP (W10)
ussp (W10)
- XS62 USSP (W10)
ussp (W10)

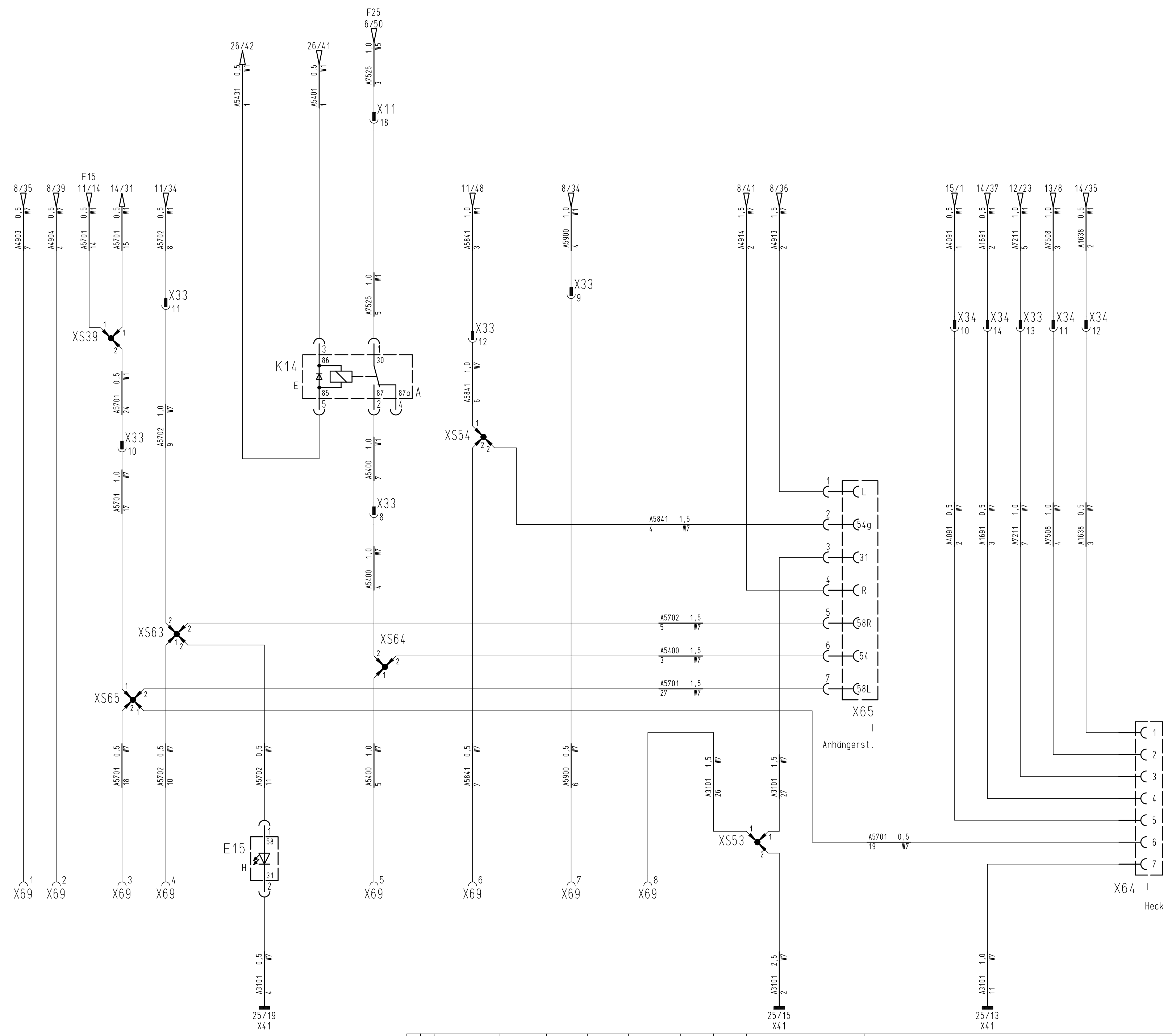


	0	Integrated acc.	4000-34	20.01.20	DK	Date	21.08.	Name	DK	CM650	Name	Schaltplan / circuit diagram		Drawing Number	91039362			
A2	No.	Number appears	Change No.	Date	Name	Standard		Replacem. for		Change No.	For this drawing we reserve all rights (acc. DIN ISO 16016)			KABI 470	Type 1470	Dep. DS	No. of Sh. 38	Sheet 15



Legende

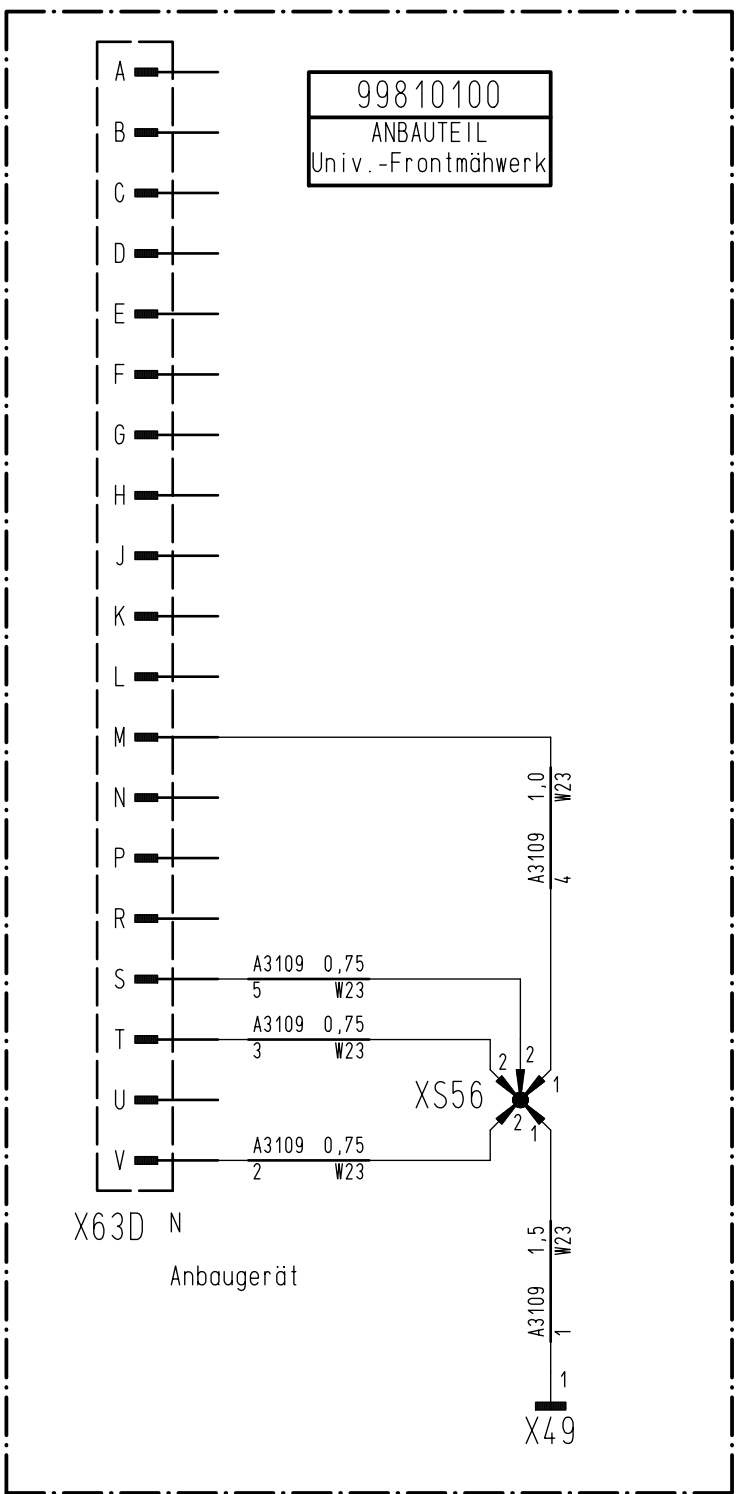
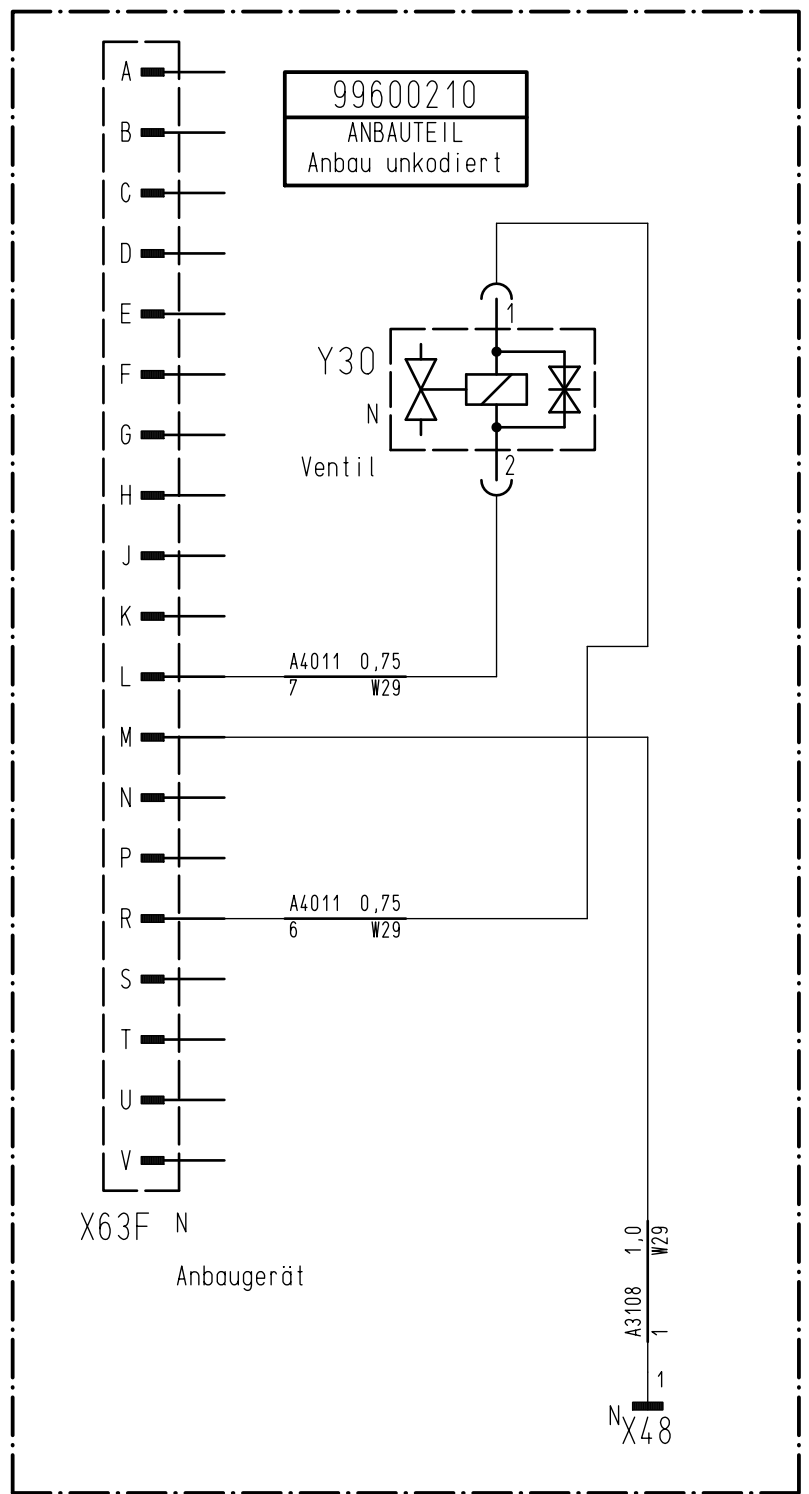
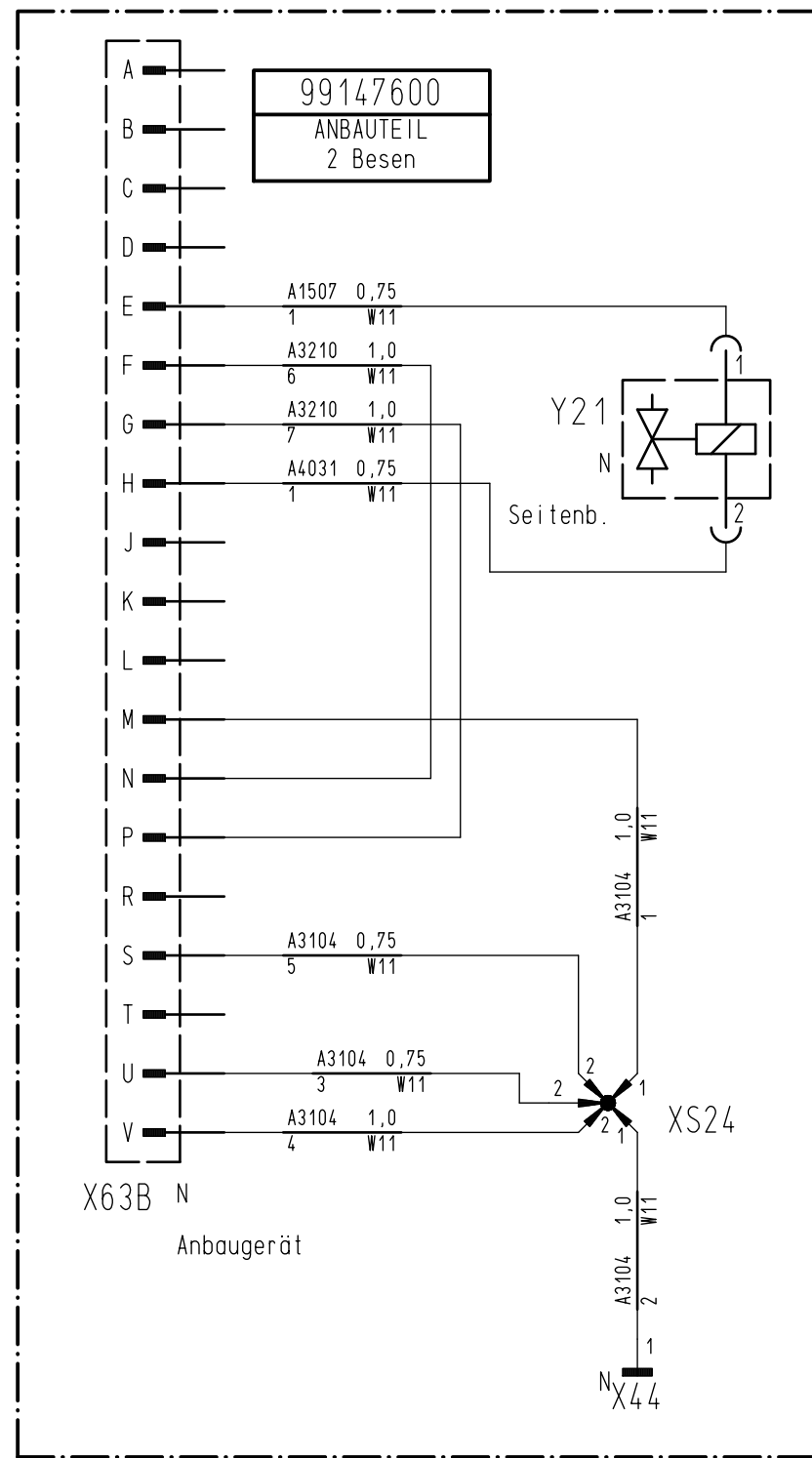
- E15 Kennzeichenleuchte
number plate light
- K14 Relais Bremslicht
relay brake light
- X11 Steckverbinder 24pol. (W1<-W5)
connector 24 pole (W1<->W5)
- X33 Steckverbinder 18pol. (W1<-W7)
connector 18 pole (W1<->W7)
- X34 Steckverbinder 14pol. (W1<-W7)
connector 14 pole (W1<->W7)
- X64 Steckdose 7pol. Heckaufbau (W7)
socket 7 pole rear (W7)
- X65 Anhängersteckdose 7pol.
trailer socket 7 pole (W7)
- X69 Steckverbinder 8pol. (W7<-W18/W19)
connector 8 pole (W7<->W18/W19)
- XS39 USSP (W1)
ussp (W1)
- XS53 USSP (W7)
ussp (W7)
- XS54 USSP (W7)
ussp (W7)
- XS63 USSP (W7)
ussp (W7)
- XS64 USSP (W7)
ussp (W7)
- XS65 USSP (W7)
ussp (W7)



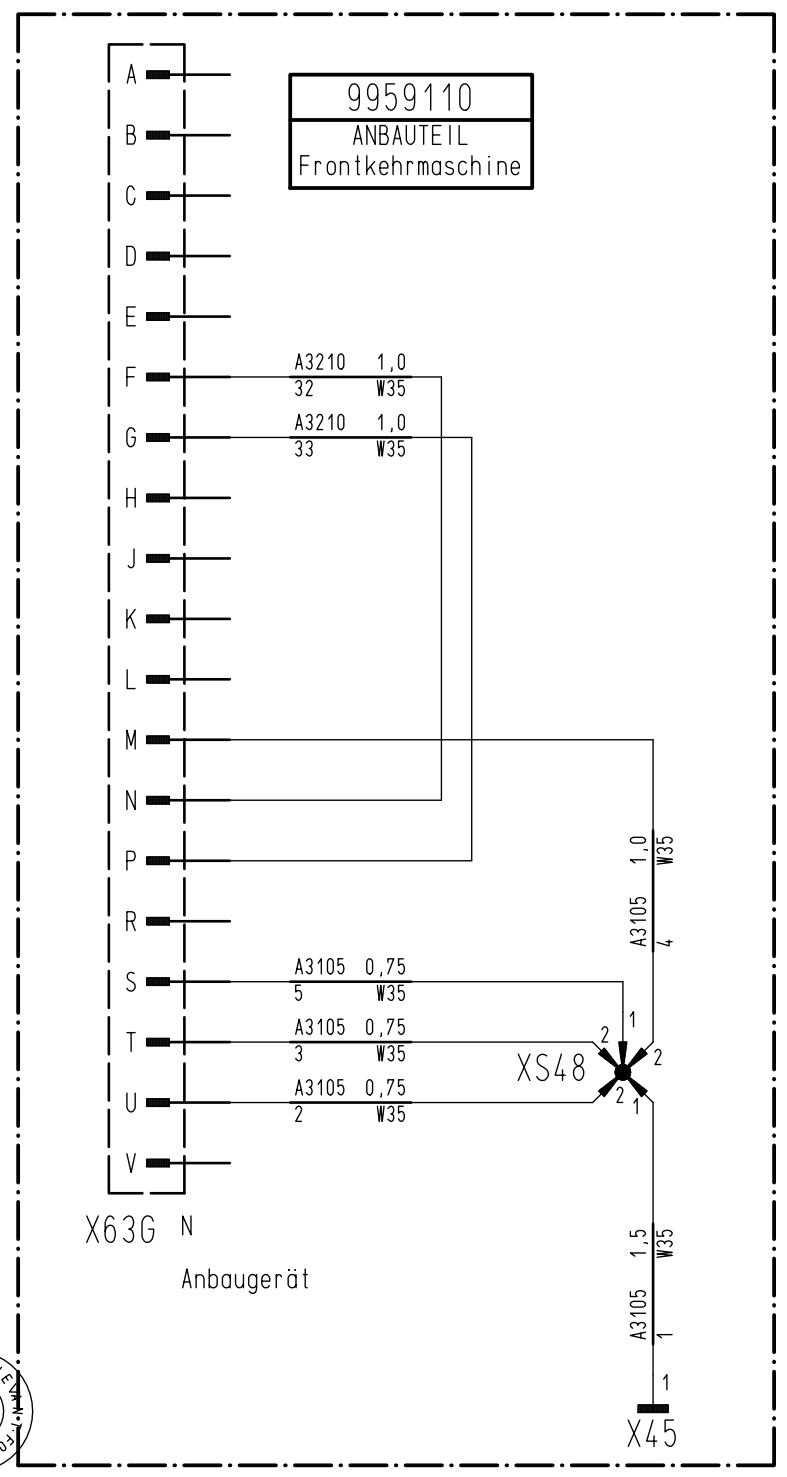
- PIN1 = Ausgang Frequenz
- PIN2 = Verorgung 12V über Kl.75
- PIN3 = Rundumkennleuchte
- PIN4 = Kodierung 2 (hinten)
- PIN5 = Ventil Schaltfunktion Heck
- PIN 6 = Schlusslicht li.
- PIN 7 = Masse



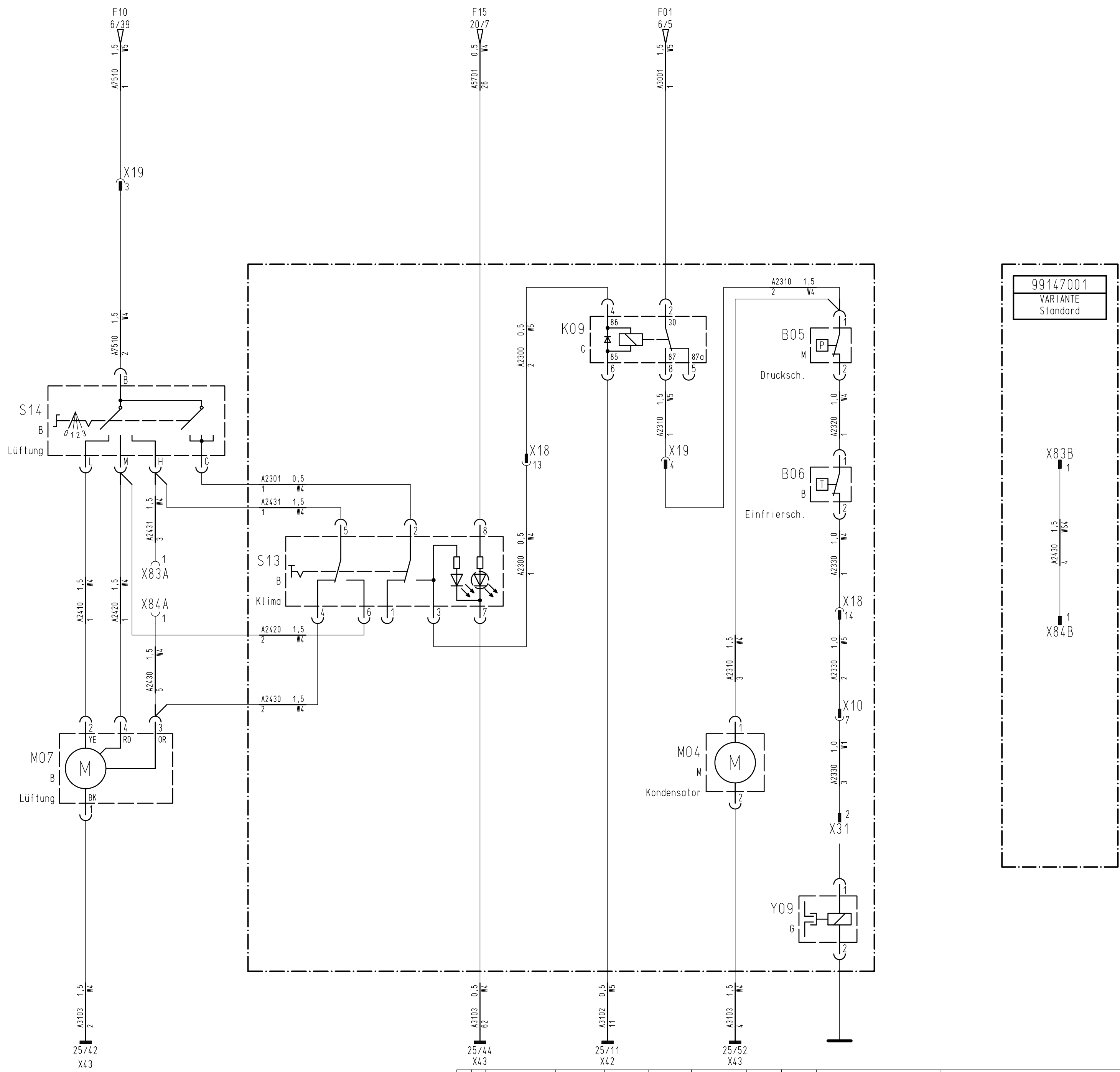
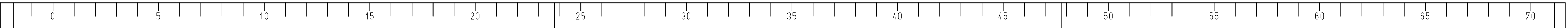
0 Integrated acc.		4000-34	20.01.20	DK	2019	Date	Name	CM650	Name	Schaltplan / circuit diagram			 Hako GmbH D-23840 Bad Oldesloe		Drawing Number	
A2 No. Number appears		Change No.	Date	Name	Standard			Replacem. for	For this drawing we reserve all rights (acc. DIN ISO 16016)			KABI 470			Type 1470	Dep. DS



- ### Legende
- X44 Masseanschluß M6 Kehrvorsatz
ground bolt M6 sweeper
 - X45 Masseanschluß M6 Kombi-Kehreinheit
ground bolt M6 hydr. driven comb.sweeper
 - X48 Masseanschluß M6 Anb. unkodiert
ground bolt M6 attachment uncoded
 - X49 Masseanschluß M6 Mäh-Saugkombi.
ground bolt M6 mower suction
 - X63B Stecker 19pol. 2-Besen (W11)
plug 19 pole 2-brooms (W11)
 - X63D Stecker 19pol. Mäh.-Saugkombi.
plug 19 pole mower suction (W23)
 - X63F Stecker 19pol. Anbauger. unkodiert
attachment uncoded (W29)
 - X63G Stecker 19pol. Kombi-Kehreinheit
plug 19 pole hydr. driven comb.sweeper (W35)
 - XS24 Stossverbinder (W11)
butt joint (N/W11)
 - XS48 Stossverbinder (W35)
butt joint (N/W35)
 - XS56 Stossverbinder (W23)
butt joint (W23)
 - Y21 Proportionalventil Seitenbesen (Var.2 Besen)
prop.valve broom speed (var. 2 brooms)
 - Y30 Hydraulikventil
hydraulic valve

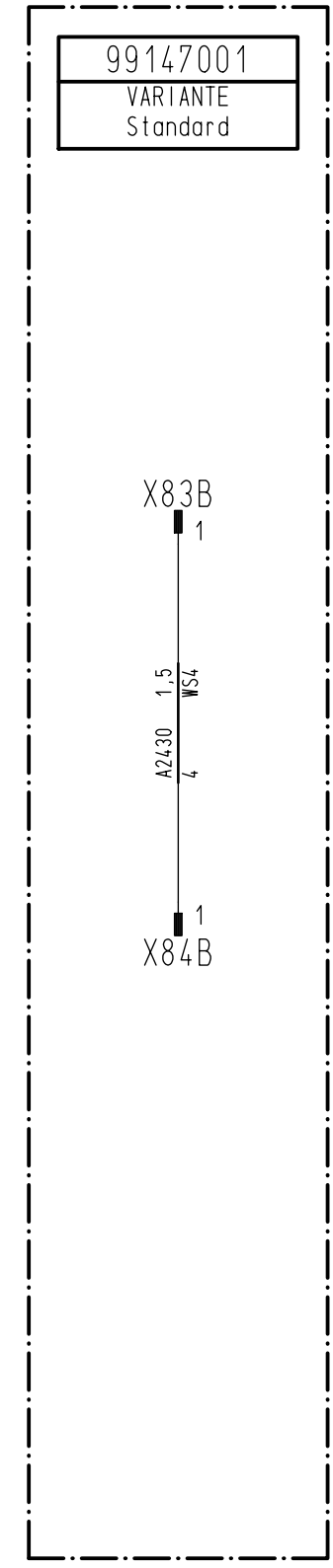


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A2		No. Number appears	Change No.	Date	Name	Standard	21.08.	DK	Replacem. for	Schaltplan / circuit diagram			91039362		
									Change No.	For this drawing we reserve all rights (acc. DIN ISO 16016)			No. of Sh.	Sheet	
										KABI 470	Type 1470	Dep. DS	38	17	

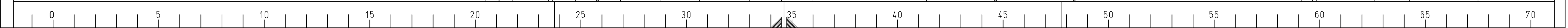


Legende

- B05 Druckschalter Klimaanlage (Var.Comfort)
pressure switch AC (var.Comfort)
- B06 Einfrierschutz Klimaanlage (Var.Comfort)
freeze switch AC (var.Comfort)
- K09 Relais Klimaanlage (Var.Comfort)
relay AC system (var. comfort)
- M04 Kondensatorlüfter (Var.Comfort)
condensor fan (var.Comfort)
- M07 Heizungsgebläse (Var. Classic)
heating fan (var. Classic)
- S13 Schalter Klimaanlage (Var.Comfort)
switch AC (var.Comfort)
- S14 Drehschalter Heizungsgebläse
rotary switch heating fan
- X10 Steckverbinder 8pol. (W1<->W5)
connector 8 pole (W1<->W5)
- X18 Steckverbinder 20pol. (W4<->W5)
connector 20 pole (W4<->W5)
- X19 Steckverbinder 6pol. (W5<->W4)
connector 6 pole (W5<->W4)
- X31 Steckverbinder 16pol. (W1<->W9)
connector 16 pole (W1<->W9)
- X83A Steckverbinder 1pol. (W4)
connector 1 pole (W4)
- X83B Steckverbinder 1pol. (WS4)
connector 1 pole (WS4)
- X84A Steckverbinder 1pol. (W4)
connector 1 pole (W4)
- X84B Steckverbinder 1pol. (WS4)
connector 1 pole (WS4)
- Y09 Kupplung Klimakompressor
clutch compressor AC (var.Comfort)



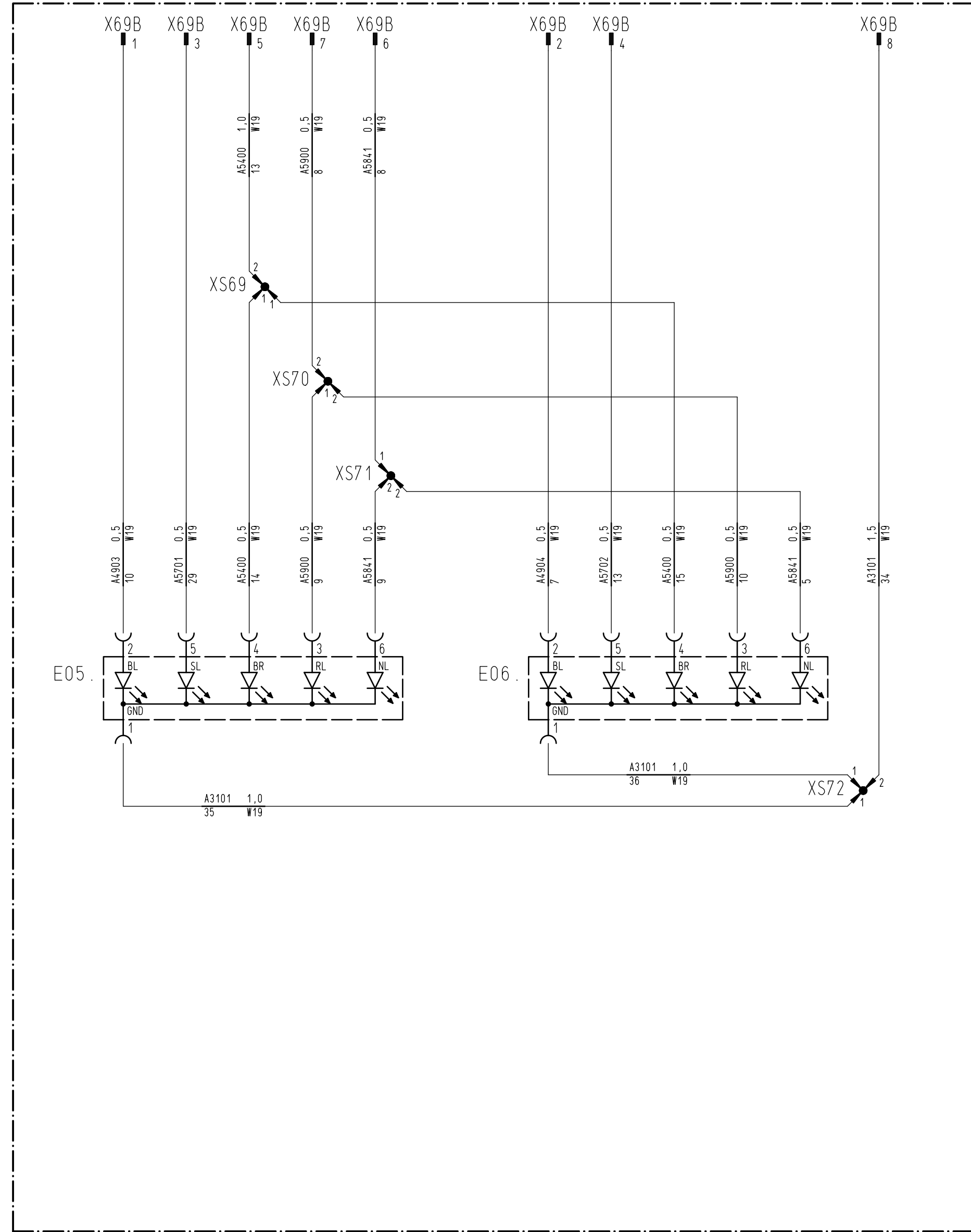
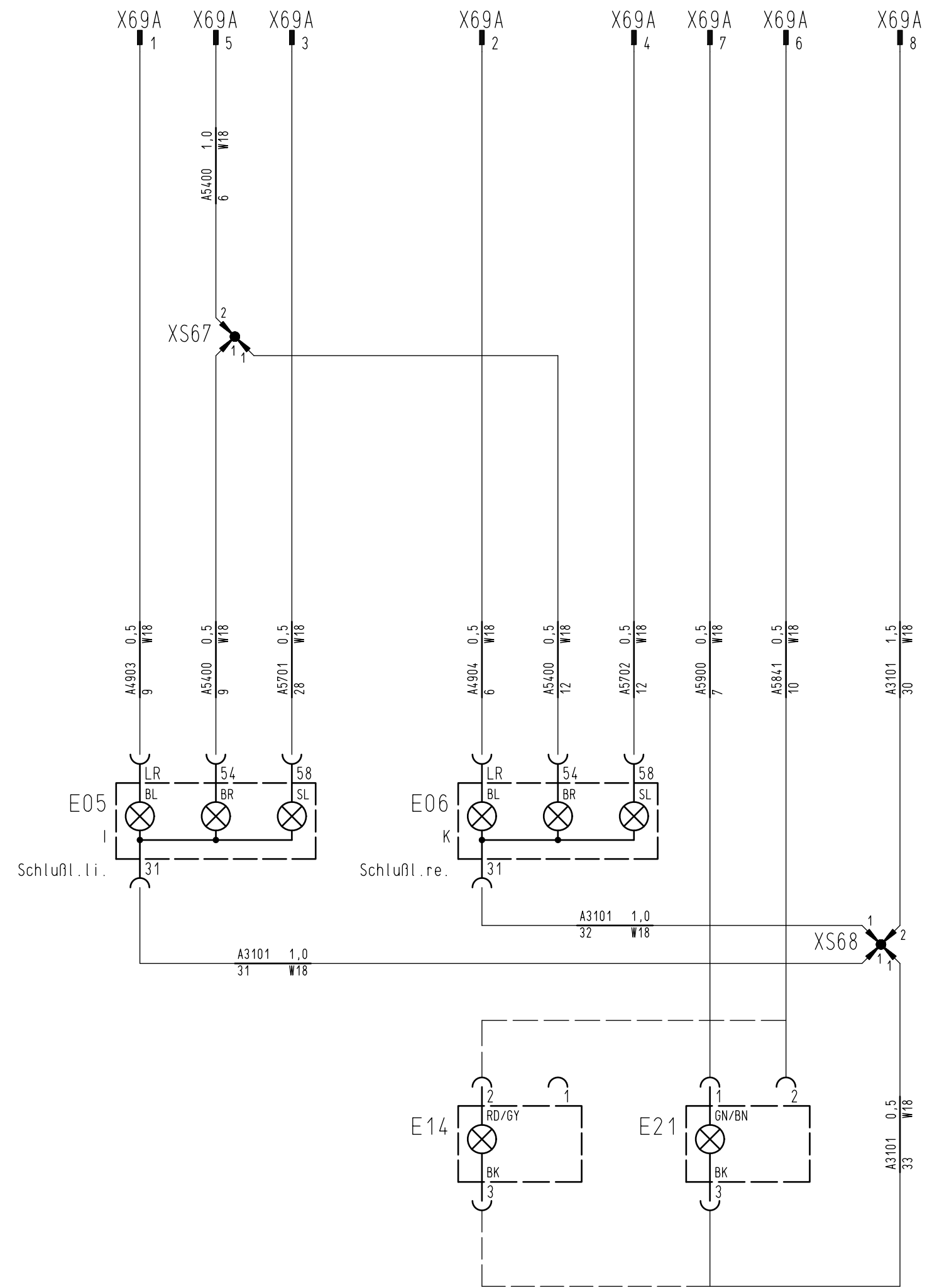
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					Verified			Replacem. for		Hako Hako GmbH D-23840 Bad Oldesloe
A2	No. Number appears	Change No.	Date	Name	Standard			Change No.	For this drawing we reserve all rights (acc. DIN ISO 16016)	
									KABI 470	Type 1470 Dep. DS
									No. of Sh. 38	Sheet 18



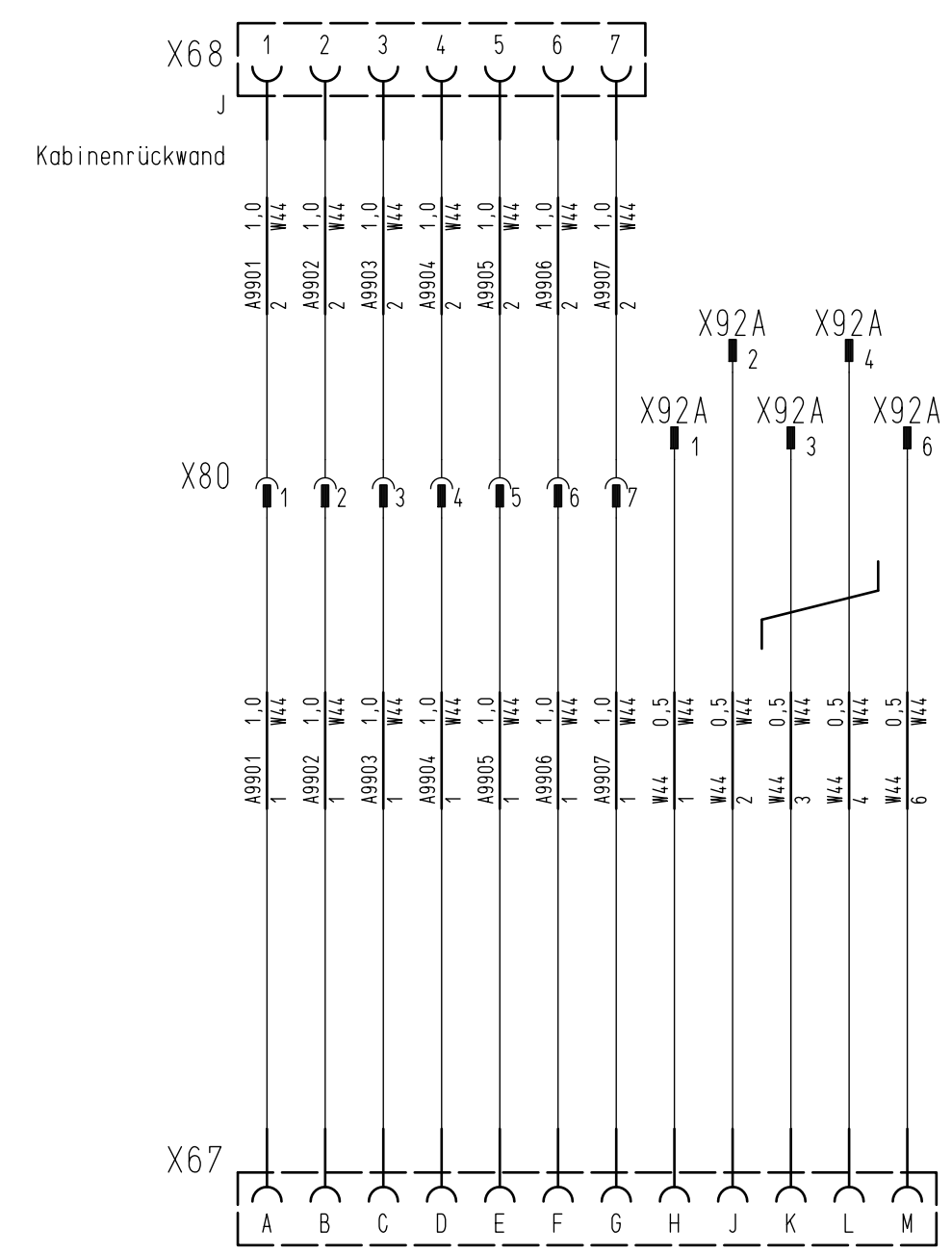
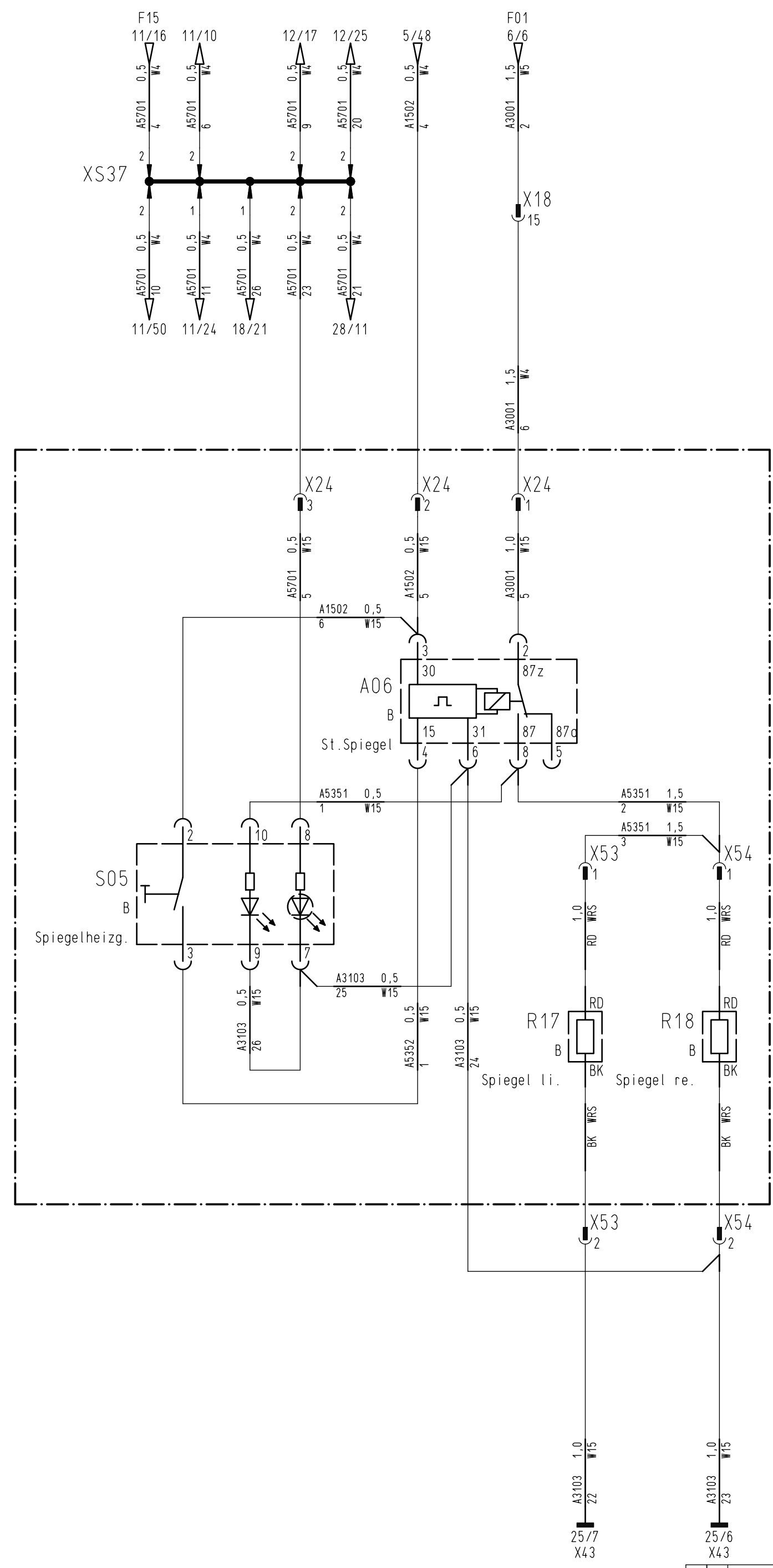
Legende

- E05 Schlußleuchte links
tail light left
- E05. LED Mehrkammerleuchte hinten links
multi-chamber lights left
- E06 Schlußleuchte rechts
tail light right
- E06. LED Mehrkammerleuchte hinten rechts
multi-chamber lights right
- E14 Nebelschlußleuchte (SOW)
rear fog lamp
- E21 Rückfahrleuchte
reversing light

- X69A Steckverbinder 8pol. (W7<-W18)
connector 8 pole (W7<->W18)
- X69B Steckverbinder 8pol. (W7<-W19)
connector 8 pole (W7<->W19)
- XS67 USSP (W18)
ussp (W18)
- XS68 USSP (W18)
ussp (W18)
- XS69 USSP (W19)
ussp (W19)
- XS70 USSP (W19)
ussp (W19)
- XS71 USSP (W19)
ussp (W19)
- XS72 USSP (W19)
ussp (W19)




0	Integrated acc.	4000-34	20.01.20	DK	2019	Date	Name	CM650	Name	Schaltplan / circuit diagram	 Hako GmbH D-23840 Bad Odesloe	Drawing Number	
A2	No. Number appears	Change No.	Date	Name	Standard	21.08.	DK	Replacem. for	For this drawing we reserve all rights (acc. DIN ISO 16016)			KAB1 470	Type 1470
										No. of Sh. 38		Sheet 19	

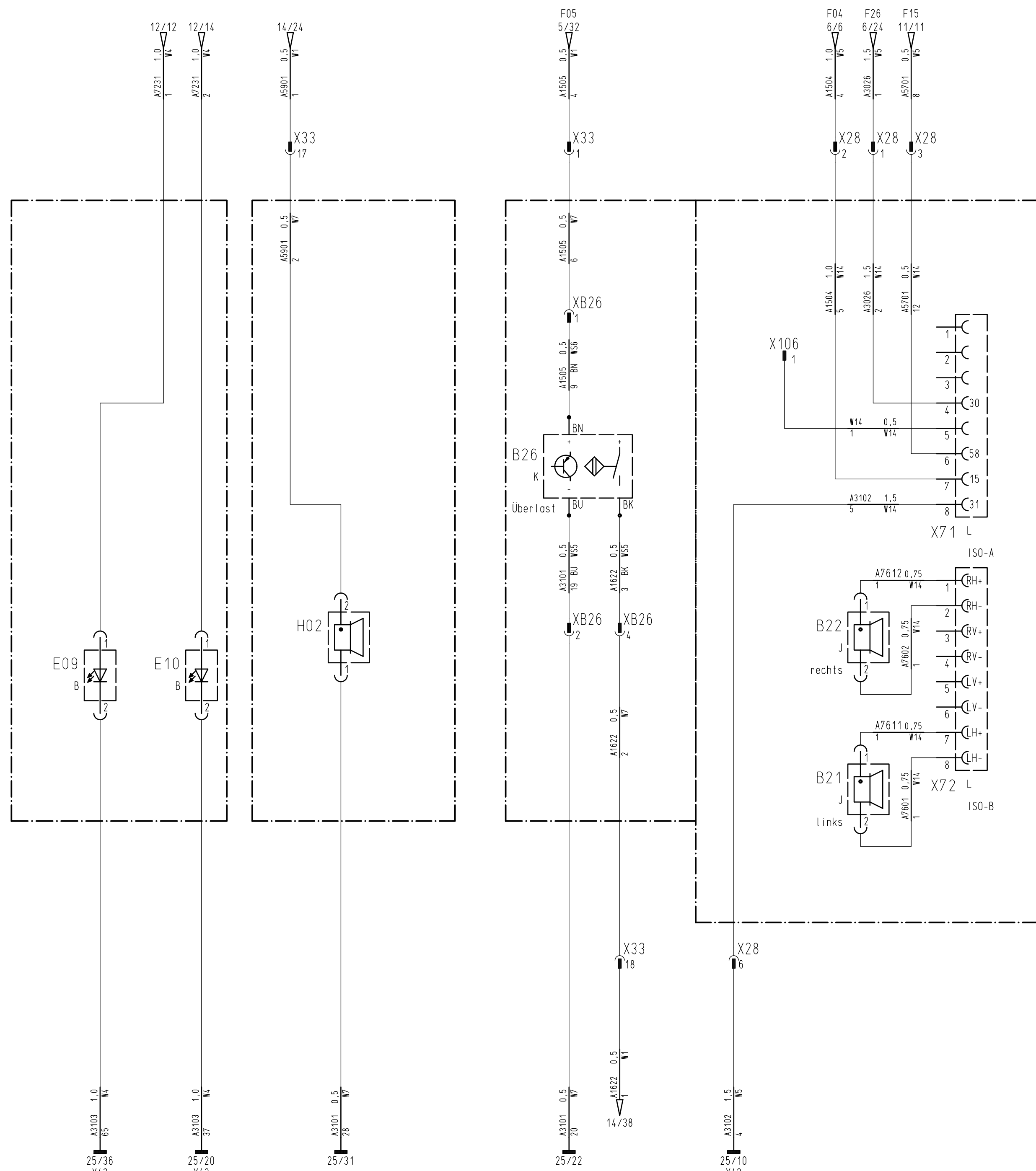


H = F31 (30)
 J = F29 (15)
 K = Bus
 L = Bus
 M = Masse

- ### Legende
- A06 Steuergerät Spiegelheizung controller mirror heating
 - R17 Spiegelheizung links mirror heating left
 - R18 Spiegelheizung rechts mirror heating right
 - S05 Taster Spiegelheizung pushbutton mirror heating
 - X18 Steckverbinder 20pol. (W4<->W5) connector 20 pole (W4<->W5)
 - X24 Steckverbinder 4pol. (W4<->W15) connector 4 pole (W4<->W15)
 - X53 Steckverbinder 2pol. (W15<->R17) connector 2 pole (W15<->R17)
 - X54 Steckverbinder 2pol. (W15<->R18) connector 2 pole (W15<->R18)
 - X67 Steckdose 12pol. Streuer Lenksäule connector 12 pole spreader steering pillar
 - X68 Steckdose 7pol. Streuer Kabinenrückwand connector 7 pole spreader cabine back
 - X80 Steckverbinder 8pol. (W44<->W44) connector 8 pole (W44<->W44)
 - X92A Steckverbinder 6pol. (W77/W79<->W44) connector 6 pole (W77/W79<->W44)
 - XS37 USSP (W4) ussp (W4)



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0	No. Number appears	Change No.	Date	Name	Standard	21.08.	DK	Replacem. for	For this drawing we reserve all rights (acc. DIN ISO 16016)			KABI 470	Type 1470
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Legende

- B21 Lautsprecher links
loudspeaker left
- B22 Lautsprecher rechts
loudspeaker right
- B26 Sensor Überlast
sensor overload
- E09 Arbeitsscheinwerfer oben links
work lamp top left
- E10 Arbeitsscheinwerfer oben rechts
work lamp top right
- H02 Signaltongeber
buzzer
- X28 Steckverbinder 6pol. (W14<->W5)
connector 6 pole (W14<->W5)
- X33 Steckverbinder 18pol. (W1<->W7)
connector 18 pole (W1<->W7)
- X71 Buchse 8pol. Radio ISO-A (W14)
jack 8 pole radio ISO-A (W14)
- X72 Buchse 8pol. Radio ISO-B (W14)
jack 8 pole radio ISO-B (W14)
- X106 Steckverbinder 1pol. (W14)
connector 1 pole (W14)
- XB26 Steckverb. 4pol. Überlast
connector 4 pole overload



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A2	No. Number appears	Change No.	Date	Name	Standard	21.08.	DK	Replacem. for	For this drawing we reserve all rights (acc. DIN ISO 16016)			KABI 472	Type 1470	Dep. DS

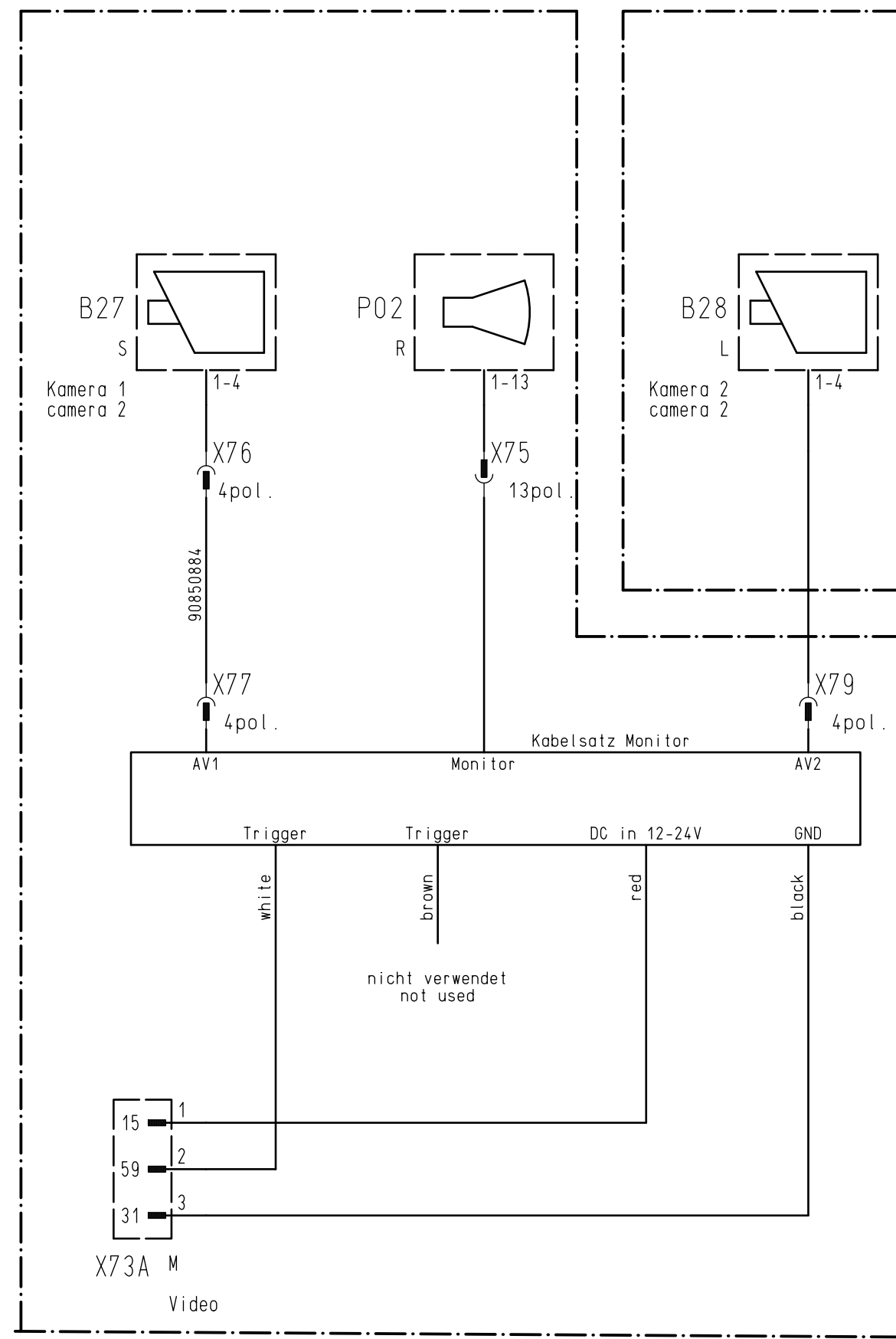
Legende

- B27 Rückfahrkamera
reverse drive camera
- B28 Zusatzkamera
additional camera

- P02 Bildschirm
display

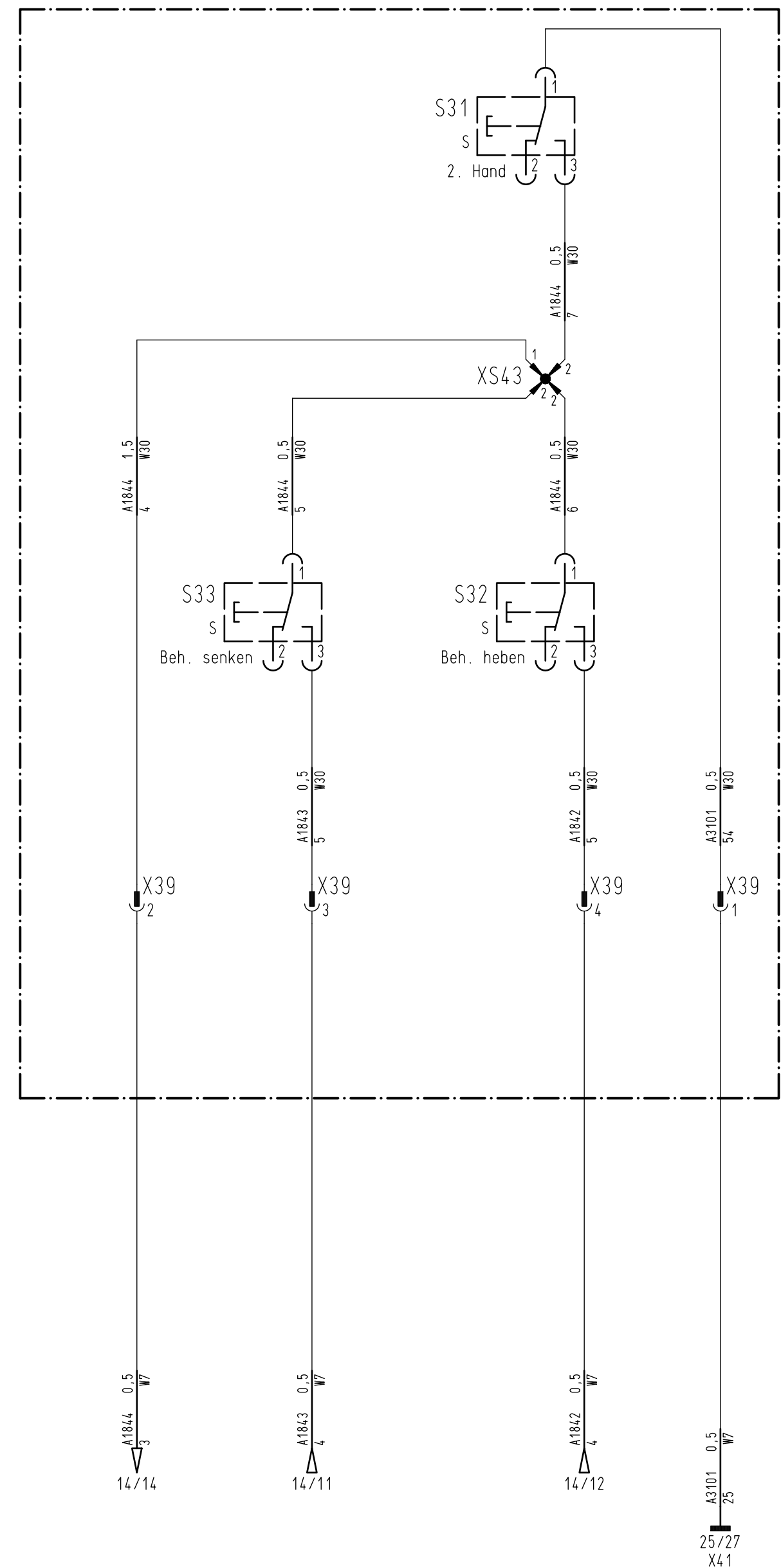
- S31 Taster Behälter 2 Hand Fahrgestell
pushbutton container 2'nd hand
- S32 Taster Behälter heben Fahrgestell
pushbutton switch hopper up
- S33 Taster Behälter senken Fahrgestell
pushbutton switch hopper down

- X39 Steckverbinder 4pol. (W7<->W30)
connector 4 pole (W7<->W30)
- X73A Steckverbinder 3pol. Video
connector 3 pole camera
- X75 Steckverb. 13pol. Bildschirm
connector 13 pole display
- X76 Steckverb. 4pol. Kamera 1
connector 4 pole camera 1
- X77 Steckverb. 4pol. Kamera 1
connector 4 pole camera 1
- X79 Steckverb. 4pol. Kamera 2
connector 4 pole camera 2
- XS43 Stossverbinder (W30)
butt joint (W30)



Funktionshinweis:
Option Rückfahrkamera
wahlweise Daueranzeige oder Einschaltung bei Rückwärtsfahrt.
zusätzlich Option mit Zusatzkamera
Zusatzkamera m. automatischer Umschaltung bei Rückwärtsfahrt

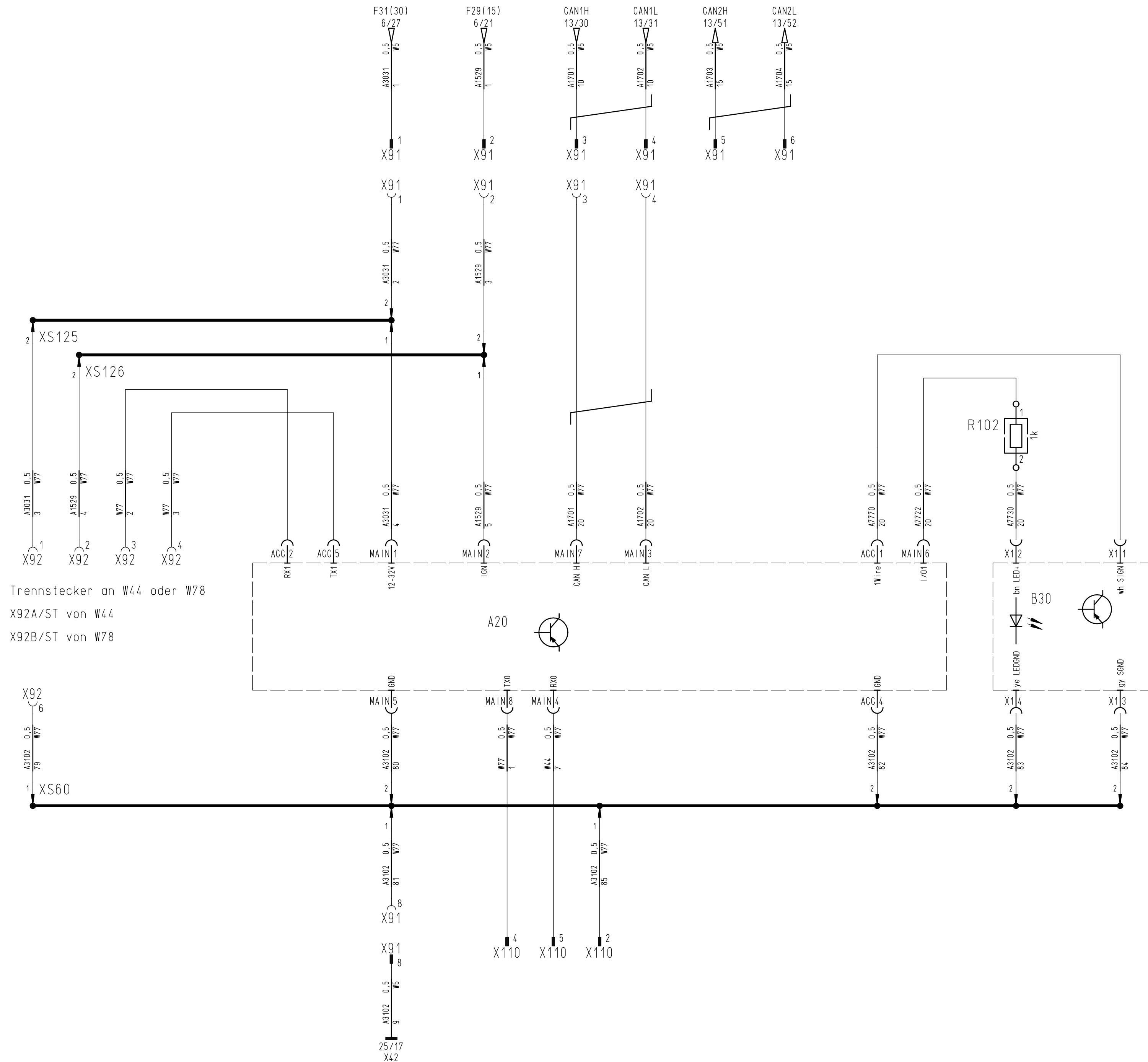
Function note:
Option reverse drive camera
Optional permanent display or intervention when reversing.
Additional option with additional camera
Additional camera with automatic switch reversing.



0	Integrated acc.	4000-34	20.01.20	DK	2019	Date	Name	CM650	Name	Schaltplan / circuit diagram (Optionen)	Hako	Hako GmbH	D-23840 Bad Oldesloe	Drawing Number	91039362
					Drawn by	21.08.	DK								
A2	No. Number appears	Change No.	Date	Name	Standard	Change No.									

Legende

- A20 Fleetrecorder
fleetrecorder
- B30 I-Button-Reader
i-button-reader
- R102 Widerstand 1k
resistor 1kOhm
- X91 Steckverbinder 8pol. (W5<->W77/W79)
connector 8 pole (W5<->W77/W79)
- X92 Steckverbinder 6pol. (W77/W79<->W44)
connector 6 pole (W77/W79<->W44)
- X110 Stecker 6pol. Diagnose Fleet (W77)
diagnosis socket 6 pole Fleet (W77)
- XS60 USSP (W77)
ussp (W77)
- XS125 USSP (W77)
ussp (W77)
- XS126 USSP (W77)
ussp (W77)



Trennstecker an W44 oder W78

X92A/ST von W44

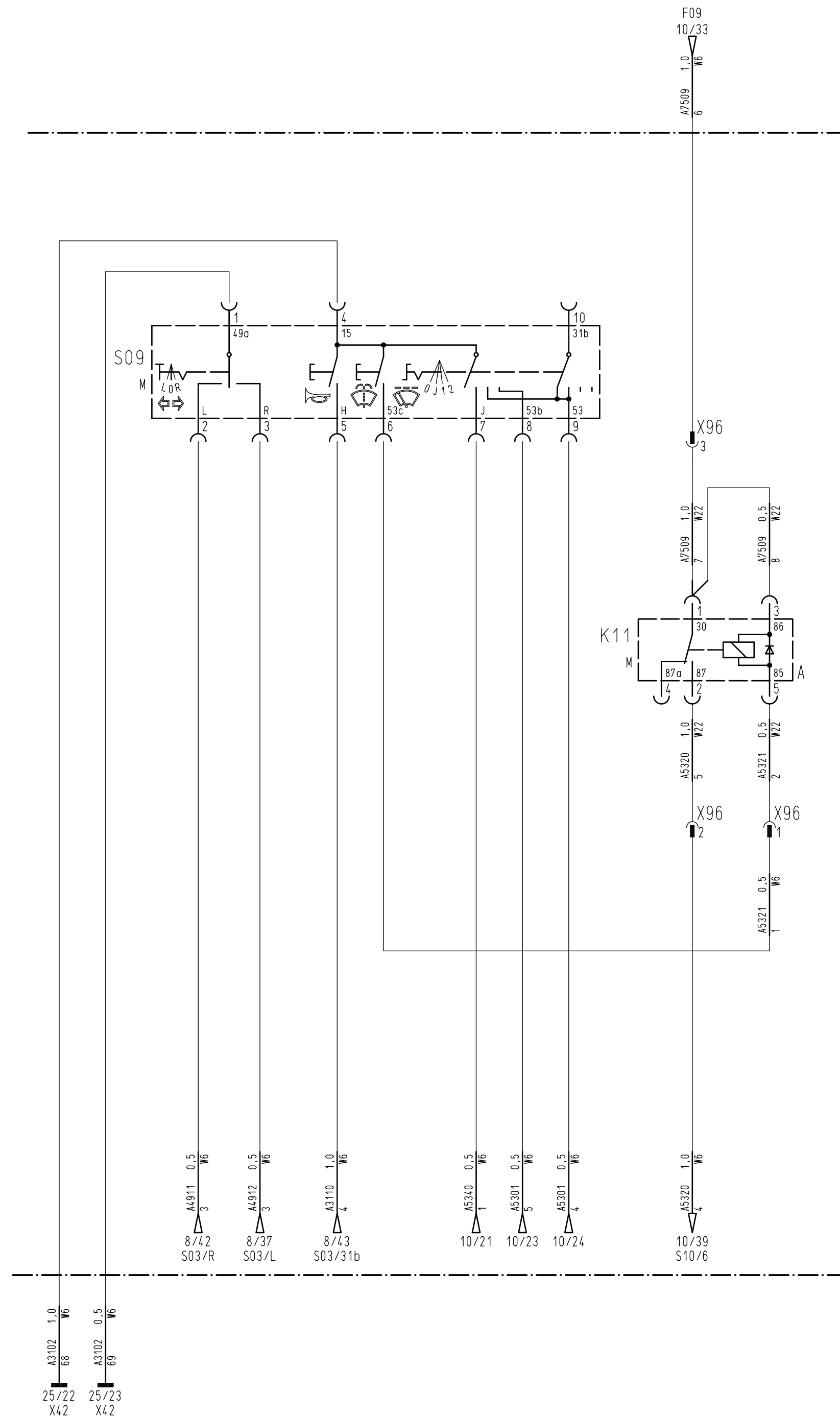
X92B/ST von W78



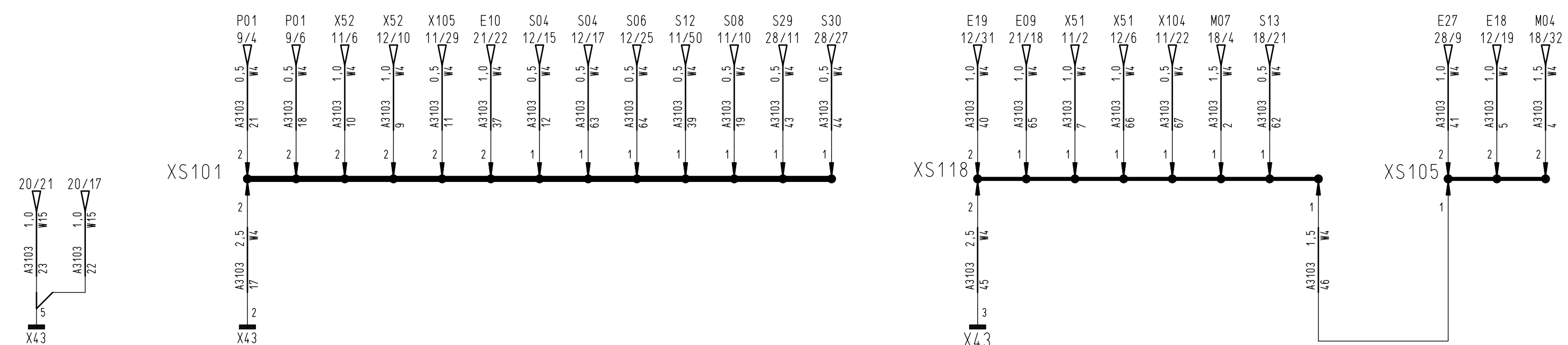
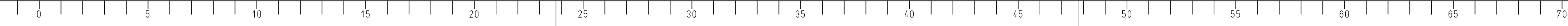
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	No.	Number appears	Change No.	Date	Name	Standard	21.08.	DK	Replacem. for	Schaltplan / circuit diagram (Optionen)		91039362		
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Legende

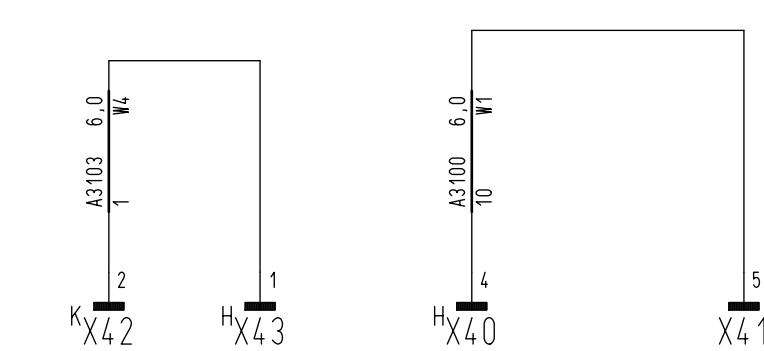
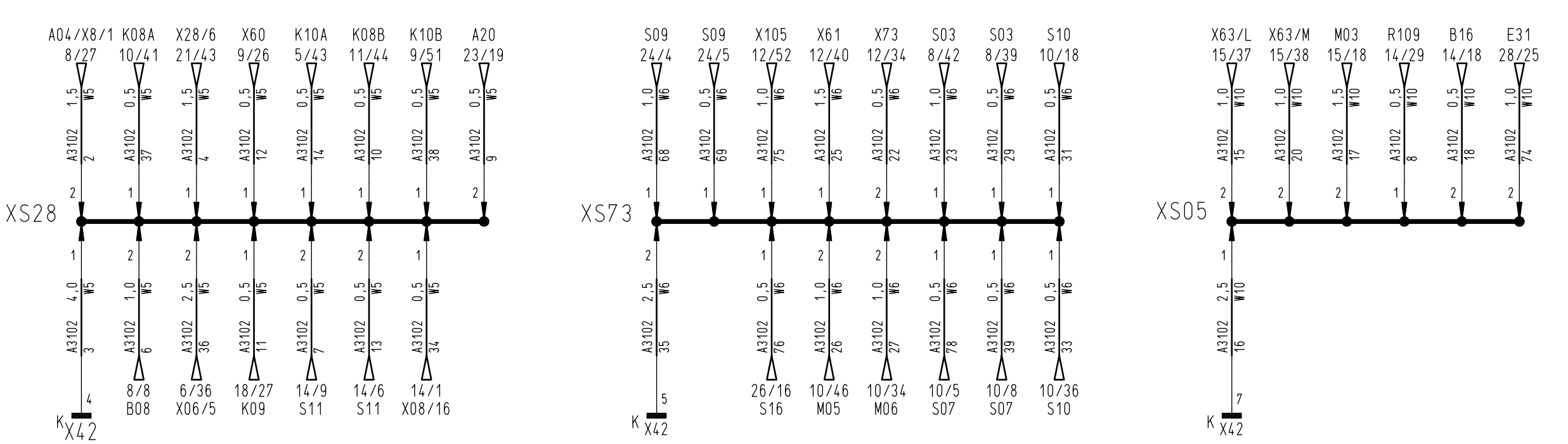
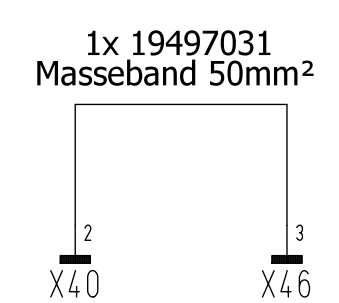
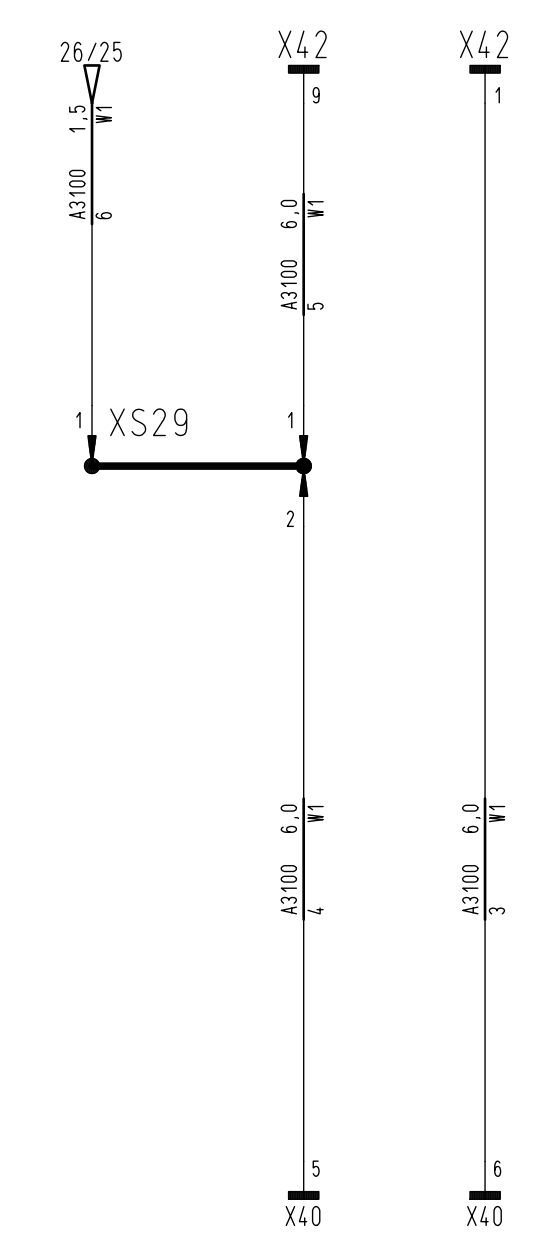
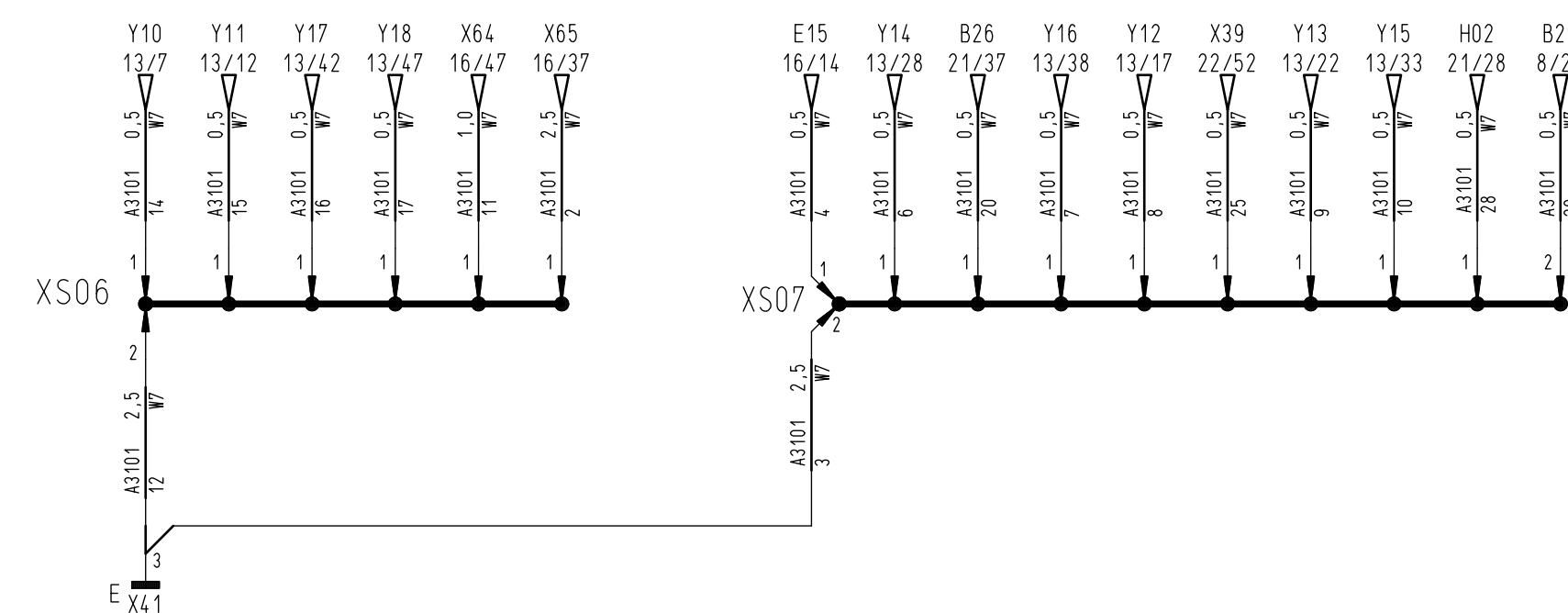
- K11 Relais Scheibenwaschpumpe
relay windscreen washer pump
- S09 Lenkstockscharer Komfort
steering wheel switch comfort
- X96 Steckverbinder 4pol. (W6<->W22)
connector 4 pole (W6<->W22)



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A2	No. Number appears	Change No.	Date	Name	Standard	21.08.	DK	Replacem. for	For this drawing we reserve all rights (acc. DIN ISO 16016)			KABI 472	Type 1470	Dep. DS

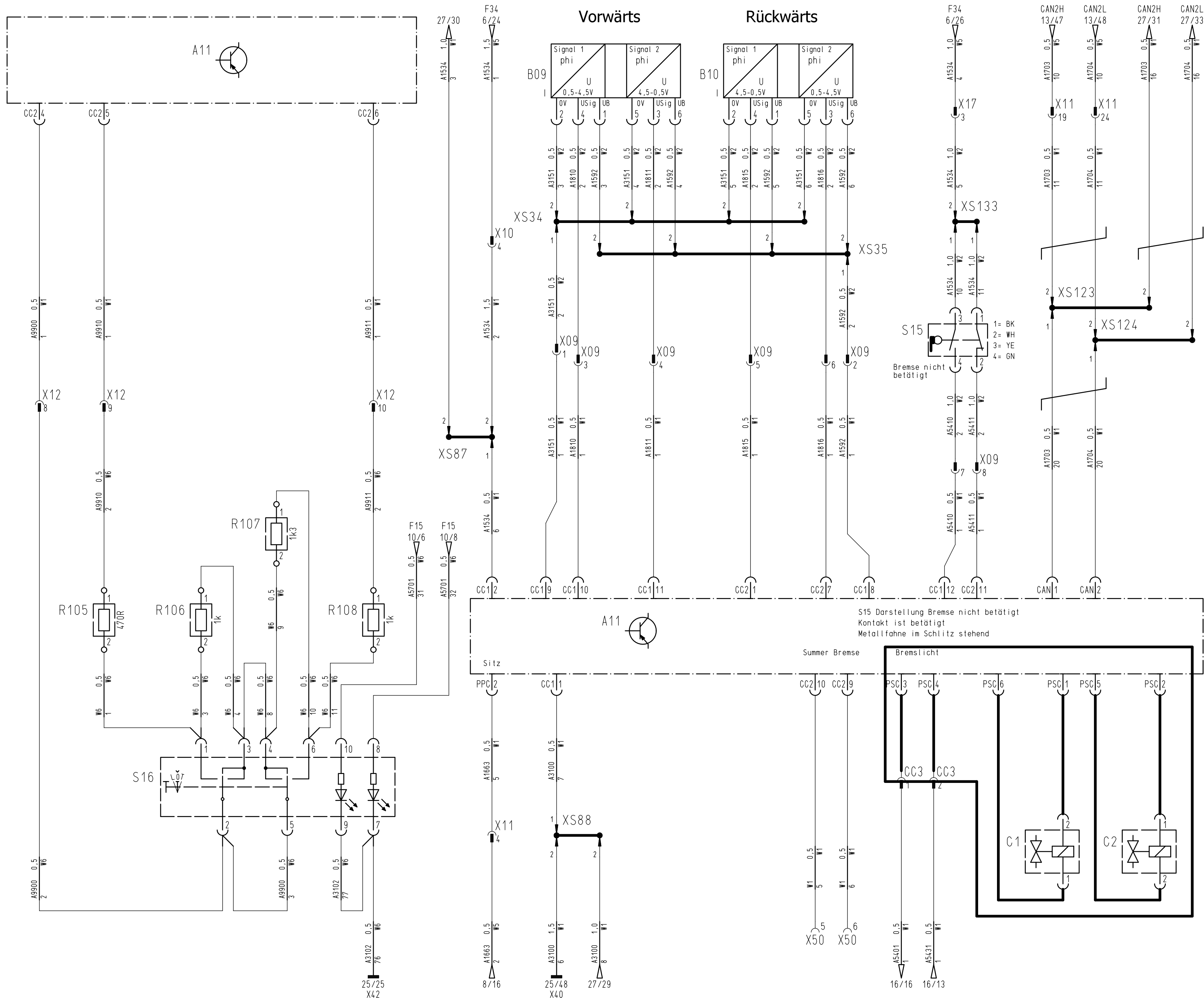


- ### Legende
- X40 Massebolzen M10 Fahrgestell ground bolt M10 chassis tail
 - X41 Massebolzen M6 Elektrokasten ground bolt M6 electric box
 - X42 Massebolzen M6 Seitenk. rechts ground bolt M6 console right
 - X43 Massebolzen M5 Kabinendach ground bolt M6 cabin roof right
 - X46 Massebolzen M10 Motor ground bolt M10 motor
 - XS05 USSP (W10) ussp (W10)
 - XS06 USSP (W7) ussp (W7)
 - XS07 USSP (W7) ussp (W7)
 - XS28 USSP (W5) ussp (W5)
 - XS29 USSP (W1) ussp (W1)
 - XS73 USSP (W6) ussp (W6)
 - XS101 USSP (W4) ussp (W4)
 - XS105 USSP (W4) ussp (W4)
 - XS118 USSP (W4) ussp (W4)



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					Drawn by	21.08.	DK	Replacem. for	For this drawing we reserve all rights (acc. DIN ISO 16016)			KAB1 470	Type 1470	Dep. DS	No. of Sh. 38	Sheet 25
A2	No. Number appears	Change No.	Date	Name	Standard			Change No.				KAB1 470	Type 1470	Dep. DS	No. of Sh. 38	Sheet 25

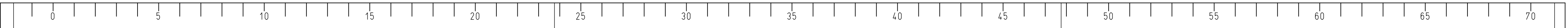




- ### Legende
- A11 Steuerung Fahrpumpe
hydraulic traction pump
 - B09 Winkelsensor Fahrpedal vorwärts
angle sensor throttle pedal forward
 - B10 Winkelsensor Fahrpedal rückwärts
angle sensor throttle pedal backward
 - C1 Hydraulikventil Fahrpumpe
hydraulic valve traction pump
 - C2 Hydraulikventil Fahrpumpe
hydraulic valve traction pump
 - CC3 Steckverbinder 2pol. (W1<->A11 Fahrpumpe)
connector 2 pole (W1<->A11 traction pump)
 - R105 Widerstand 470R
resistor 470R
 - R106 Widerstand 1k
resistor 1k0hm
 - R107 Widerstand 1k3
resistor 1k30hm
 - R108 Widerstand 1k
resistor 1k0hm
 - S15 Schalter Bremse
switch brake
 - S16 Taster Tempomat/Limiter
push-button cruise control/limiter
 - X09 Steckverbinder 8pol. (W1<-W2)
connector 8 pole (W1<->W2)
 - X10 Steckverbinder 8pol. (W1<-W5)
connector 8 pole (W1<->W5)
 - X11 Steckverbinder 24pol. (W1<-W5)
connector 24 pole (W1<->W5)
 - X12 Steckverbinder 10pol. (W1<-W6)
connector 10 pole (W1<->W6)
 - X17 Steckverbinder 4pol. (W2<-W5)
connector 4 pole (W2<->W5)
 - X50 Steckverbinder 8pol. (W1<-W5)
connector 8 pole (W1<->W5)
 - XS34 USSP (W2)
ussp (W2)
 - XS35 USSP (W2)
ussp (W2)
 - XS78 USSP (W1)
ussp (W1)
 - XS88 USSP (W1)
ussp (W1)
 - XS123 USSP (W1)
ussp (W1)
 - XS124 USSP (W1)
ussp (W1)
 - XS133 USSP (W2)
ussp (W2)

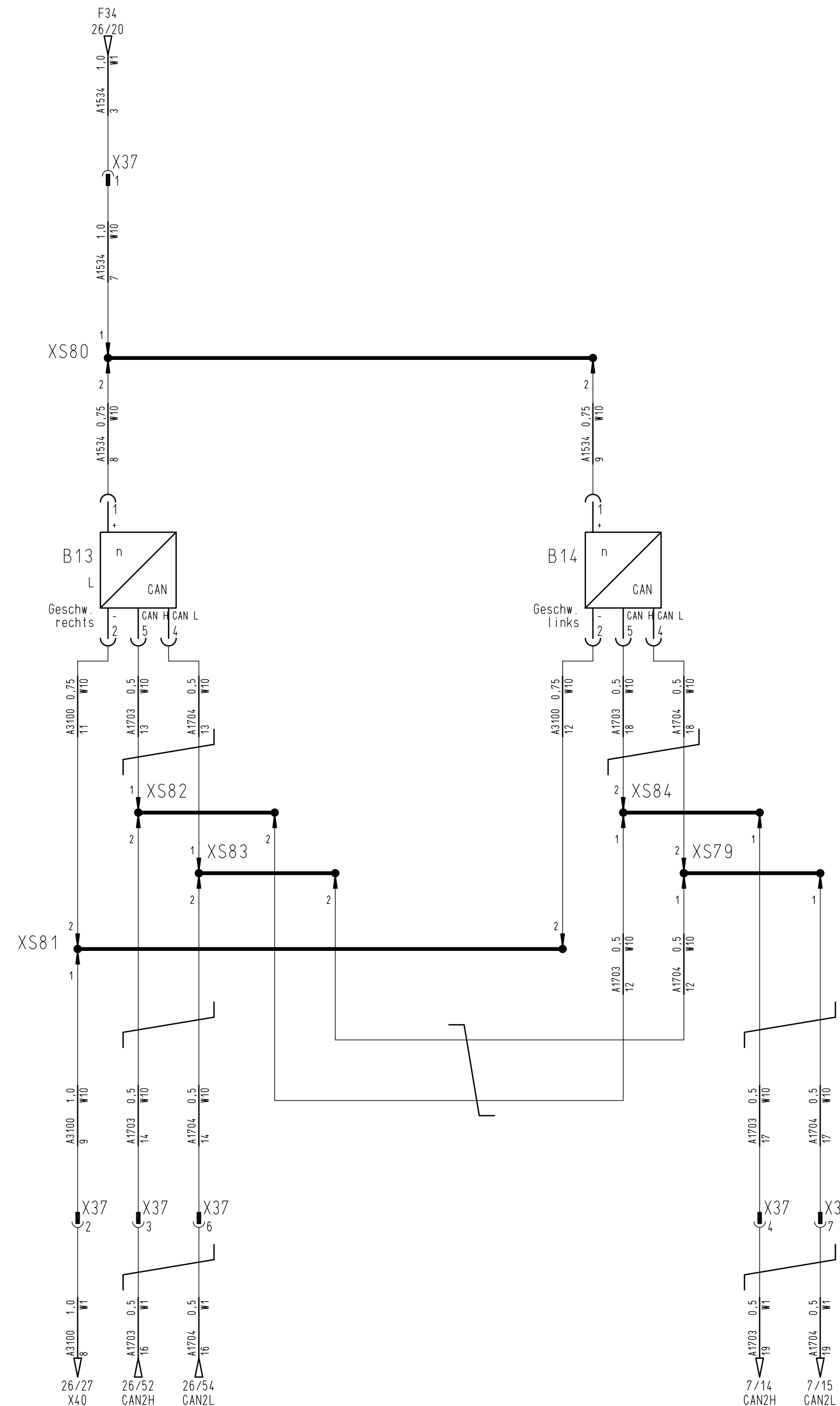


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						21.08.	DK		Schaltplan / circuit diagram (Optionen)	Drawing Number 91039362			
A2	No. Number appears	Change No.	Date	Name	Standard			Replacem. for	For this drawing we reserve all rights (acc. DIN ISO 16016)				
								Change No.	KABI 472	Type 1470	Dep. DS	No. of Sh. 38	Sheet 26

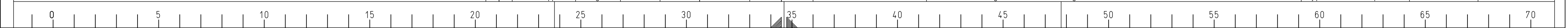


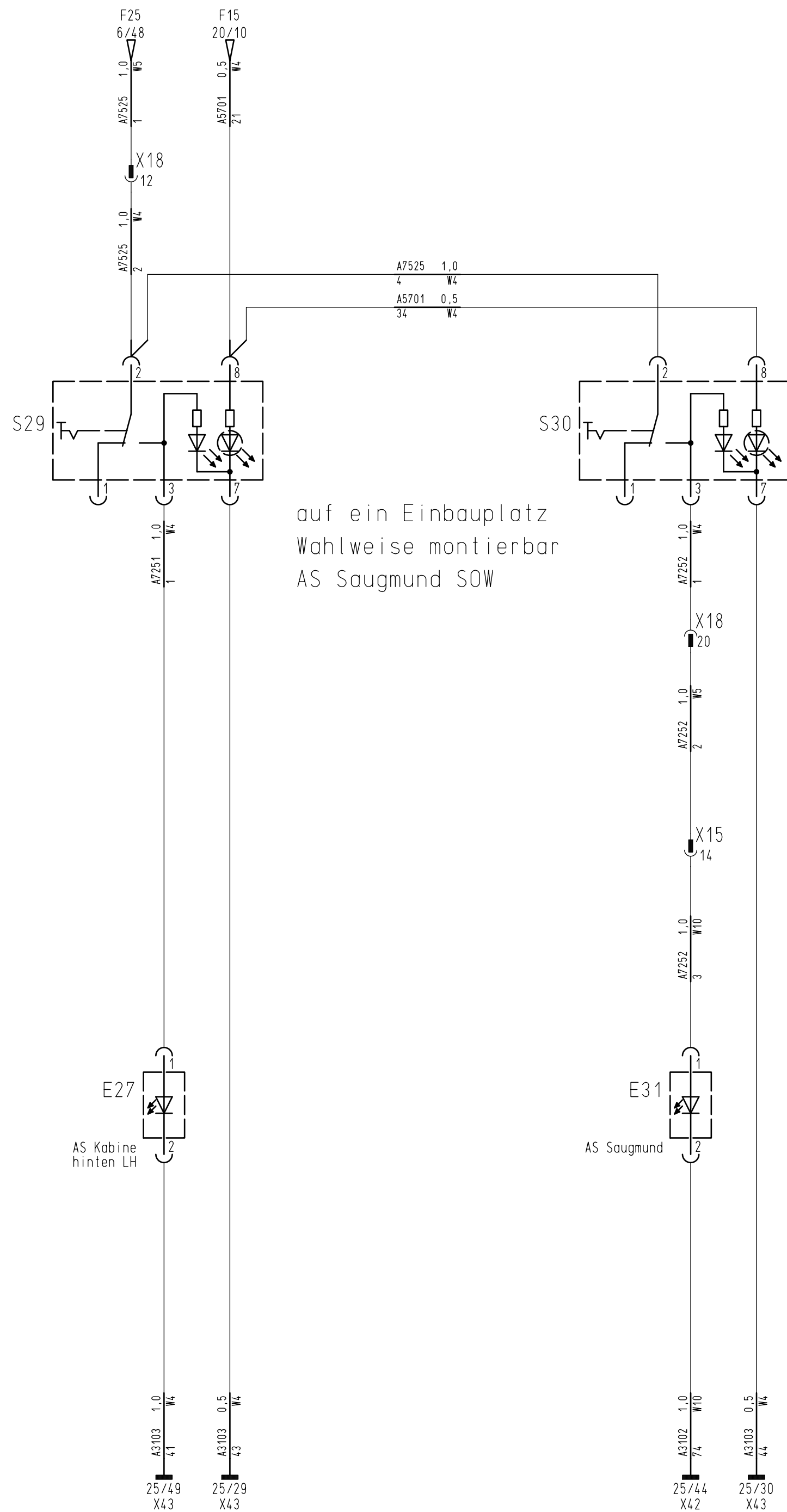
Legende

- B13 Tachosensor rechts
vehicle speed sensor right
- B14 Tachosensor links
vehicle speed sensor left
- X37 Steckverbinder 12pol. (W1<-W10)
connector 12 pole (W1<->W10)
- XS79 USSP (W10)
ussp (W10)
- XS80 USSP (W10)
ussp (W10)
- XS81 USSP (W10)
ussp (W10)
- XS82 USSP (W10)
ussp (W10)
- XS83 USSP (W10)
ussp (W10)
- XS84 USSP (W10)
ussp (W10)

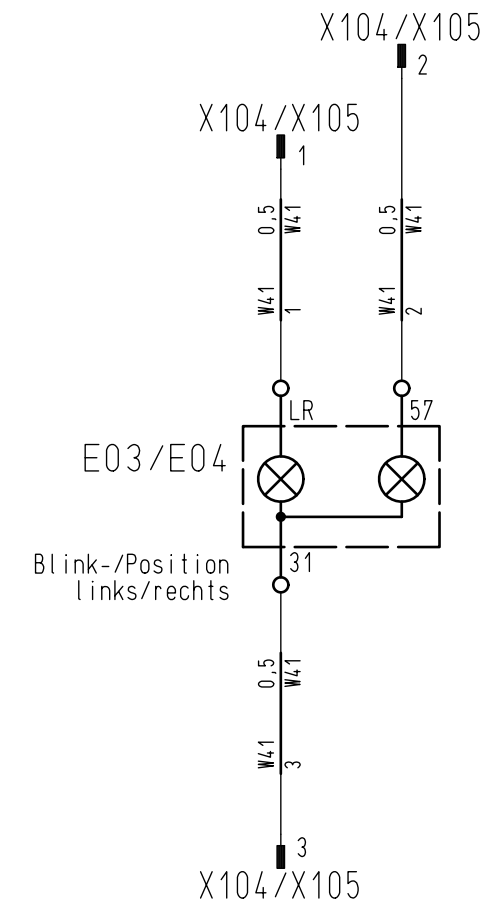


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A2 No. Number appears		Change No.	Date	Name	Standard	21.08.	DK	Replacem. for	For this drawing we reserve all rights (acc. DIN ISO 16016)			KAB1 472	Type 1470
										No. of Sh. 38		Sheet 27	

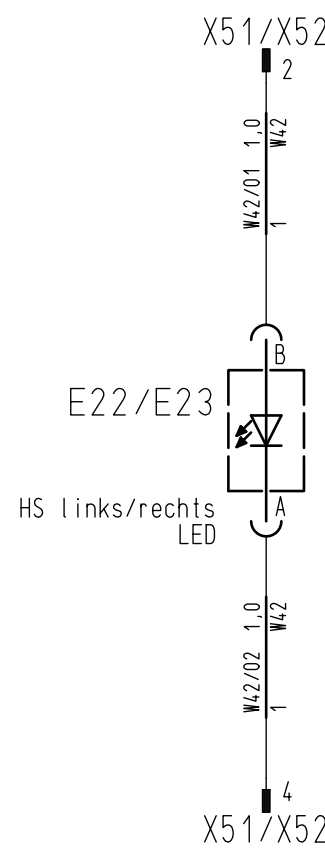




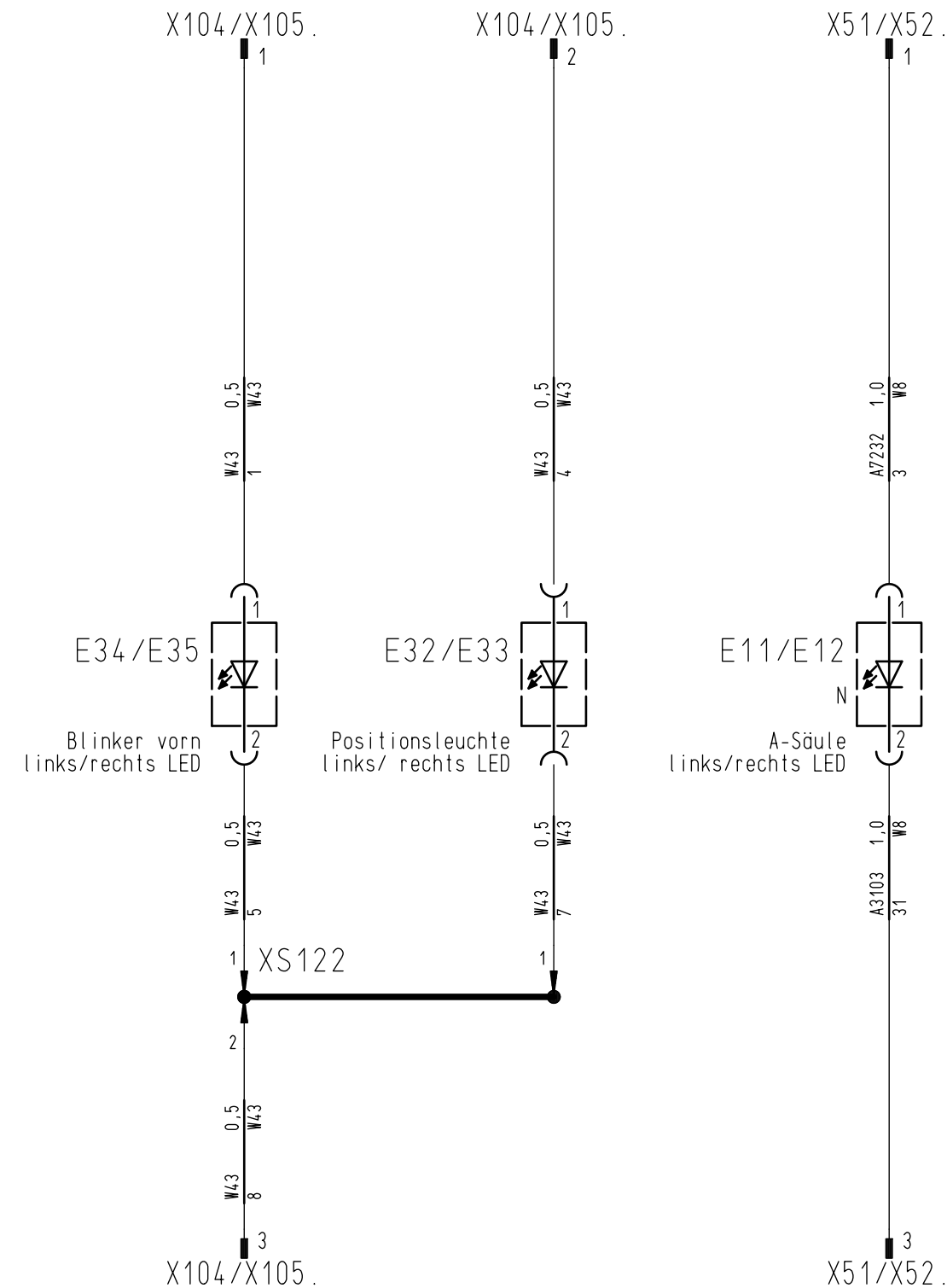
Blink-/Positionsleuchte Std.



Abblendlichtscheinwerfer LED



Blink- /Positionsleuchte LED

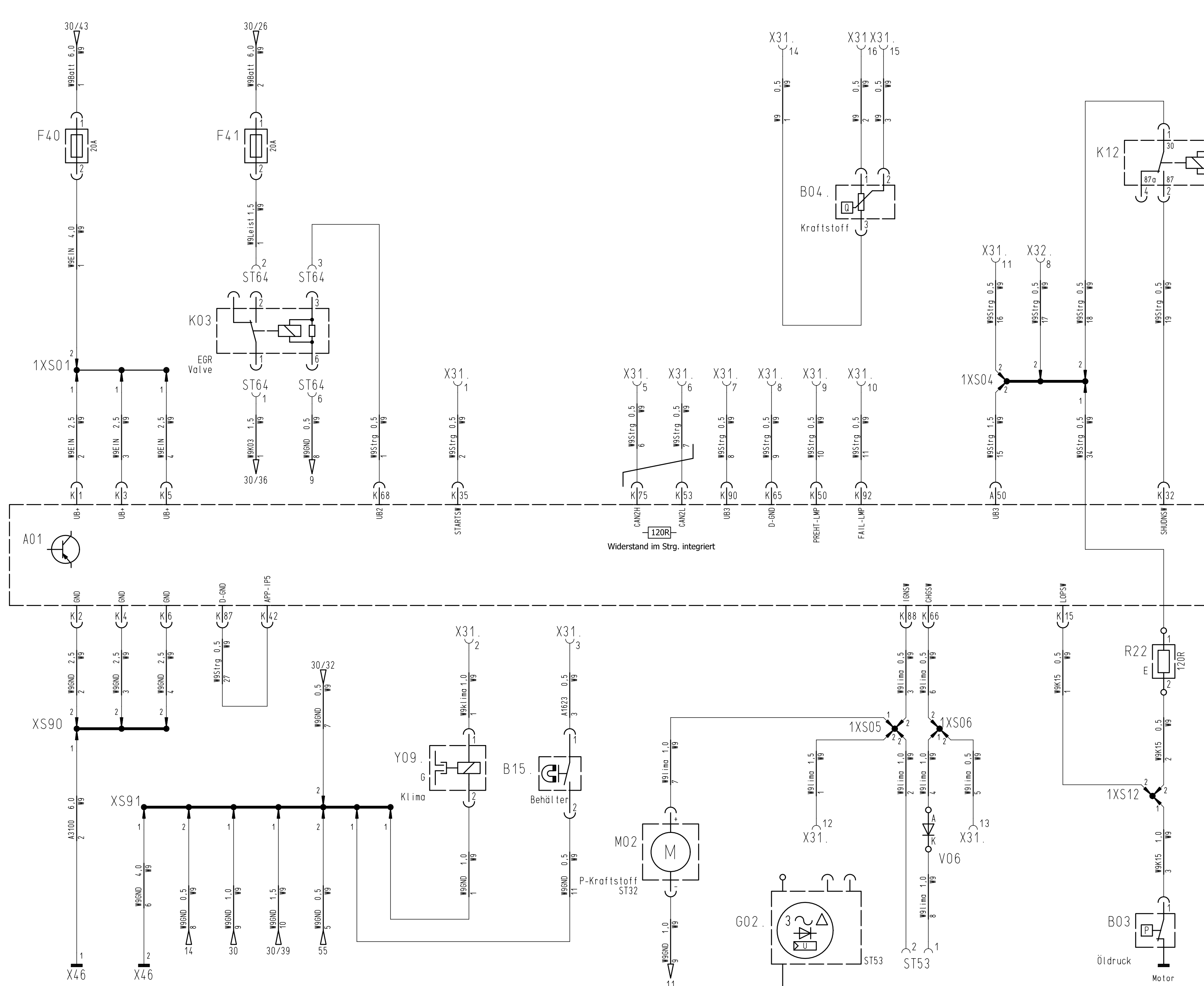


Legende

- E03/E04 Blink/Begrenzungsleuchten Standard LH/RH front indicator/position LH/RH
- E11/E12 Arbeitsscheinwerfer A-Säule LH/RH work lamps A-pillar LH/RH
- E22/E23 Hauptscheinwerfer LED LH/RH headlight LED LH/RH
- E27 Arbeitsscheinwerfer Kabine hinten links working light cabin back left
- E31 Arbeitsscheinwerfer Saugmund working light suction mouth
- E32/E33 Positionsleuchte LED LH/RH navigation lights LED LH/RH
- E34/E35 Blinker vorn LED LH/RH indicator lamps front LED LH/RH
- S29 Schalter Arbeitssch. Kabine hinten switch working lights cabin back
- S30 Schalter Arbeitssch. Saugmund switch working light suction mouth
- X15 Steckverbinder 14pol. (W10<->W5) connector 14 pole (W10<->W5)
- X18 Steckverbinder 20pol. (W4<->W5) connector 20 pole (W4<->W5)
- X51/X52 Steckverbinder 4pol. (W4<->W8/W42) connector 4 pole (W4<->W8/W42)
- X51/X52. Steckverbinder 4pol. (W4<->W8/W42) connector 4 pole (W4<->W8/W42)
- X104/X105 Steckverbinder 3pol. (W4<->W41/W43) connector 3 pole (W4<->W41/W43)
- X104/X105. Steckverbinder 3pol. (W4<->W41/W43) connector 3 pole (W4<->W41/W43)
- XS122 USSP (W43) ussp (W43)



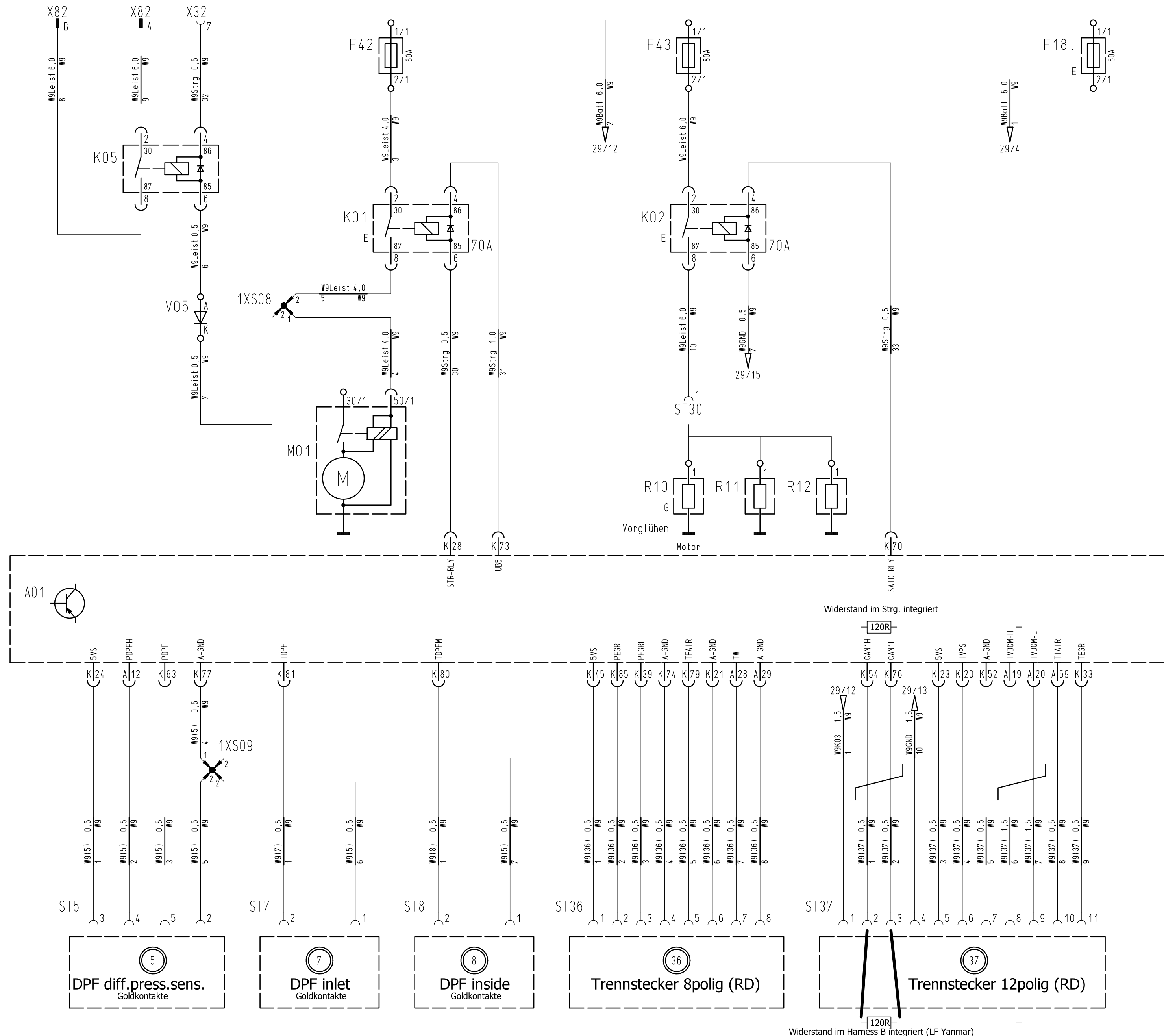
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A2	No. Number appears	Change No.	Date	Name	Standard	24.04.	DK	Replacem. for	For this drawing we reserve all rights (acc. DIN ISO 16016)			KABI 472	Type 1470	Dep. DS



- ### Legende
- A01 Motorsteuergerät ECU engine controller ECU
 - B03 Öldruckschalter oil pressure switch
 - B04 Niveausensor Kraftstofftank fuel level sensor
 - B15 Reed-Sensor Behälter oben hopper reed switch
 - F40 Sicherung 20A fuse 20A
 - F41 Sicherung 20A fuse 20A
 - G02 Generator 12V alternator 12V
 - K03 Relais EGR Ventil relay EGR valve
 - K12 Relais relay
 - M02 Kraftstoffpumpe fuel pump
 - R22 Widerstand 120R resistor 120Ohm
 - ST53 Anschlussstecker 2pol. (W9) connector 2 pole (W9)
 - ST64 Anschlussstecker 6pol. (W9) connector 6 pole (W9)
 - V06 Diode diode
 - X31 Steckverbinder 16pol. (W1<->W9) connector 16 pole (W1<->W9)
 - X32 Steckverbinder 12pol. (W1<->W9) connector 12 pole (W1<->W9)
 - X46 Massebolzen M10 Motor ground bolt M10 motor
 - 1XS01 USSP (W9) ussp (W9)
 - 1XS04 USSP (W9) ussp (W9)
 - 1XS05 USSP (W9) ussp (W9)
 - 1XS06 USSP (W9) ussp (W9)
 - 1XS12 USSP (W9) ussp (W9)
 - XS90 USSP (W9) ussp (W9)
 - XS91 USSP (W9) ussp (W9)
 - Y09 Kupplung Klimakompressor clutch compressor AC (var.Comfort)



0	Integrated acc.	4000-34	20.01.20	DK	2019	Date	Name	CM650	Name	Schaltplan / circuit diagram	 Hako GmbH D-23840 Bad Olsesloe	Drawing Number		
A2	No. Number appears	Change No.	Date	Name	Standard	21.08.	DK	Replacem. for	For this drawing we reserve all rights (acc. DIN ISO 16016)			KAB1 472	Type 1470	Dep. DS



- ### Legende
- A01 Motorsteuergerät ECU
engine controller ECU
 - F18. Sicherung 50A Vorsicherung 30
fuse 50A pre-fuse 30
 - F42 Sicherung 60A
fuse 60A
 - F43 Sicherung 80A
fuse 80A
 - K01 Relais Anlasser
relay starter
 - K02 Relais Vorglühen
relay preheating
 - K05 Relais Versorgung 75
relay supply 75
 - M01 Anlasser
starter
 - R10 Vorglühkерze
glow plug
 - R11 Vorglühkерze
glow plug
 - R12 Vorglühkерze
glow plug
 - ST5 Anschlussstecker 6pol. (W9)
connector 6 pole (W9)
 - ST7 Anschlussstecker 2pol. (W9)
connector 2 pole (W9)
 - ST8 Anschlussstecker 2pol. (W9)
connector 2 pole (W9)
 - ST30 Anschlussstecker 1pol. (W9)
connector 1 pole (W9)
 - ST36 Steckverbinder 8pol. (W9<->Motor KB)
connector 8 pole (W9<->motor wh)
 - ST37 Steckverbinder 12pol. (W9<->Motor KB)
connector 12 pole (W9<->motor wh)
 - V05 Diode
diode
 - X32. Steckverbinder 12pol. (W1<->W9)
connector 12 pole (W1<->W9)
 - X82 Steckverbinder 2 pol. (W9<->W1)
connector 2 pole (W9<->W1)
 - 1XS08 USSP (W9)
ussp (W9)
 - 1XS09 USSP (W9)
ussp (W9)

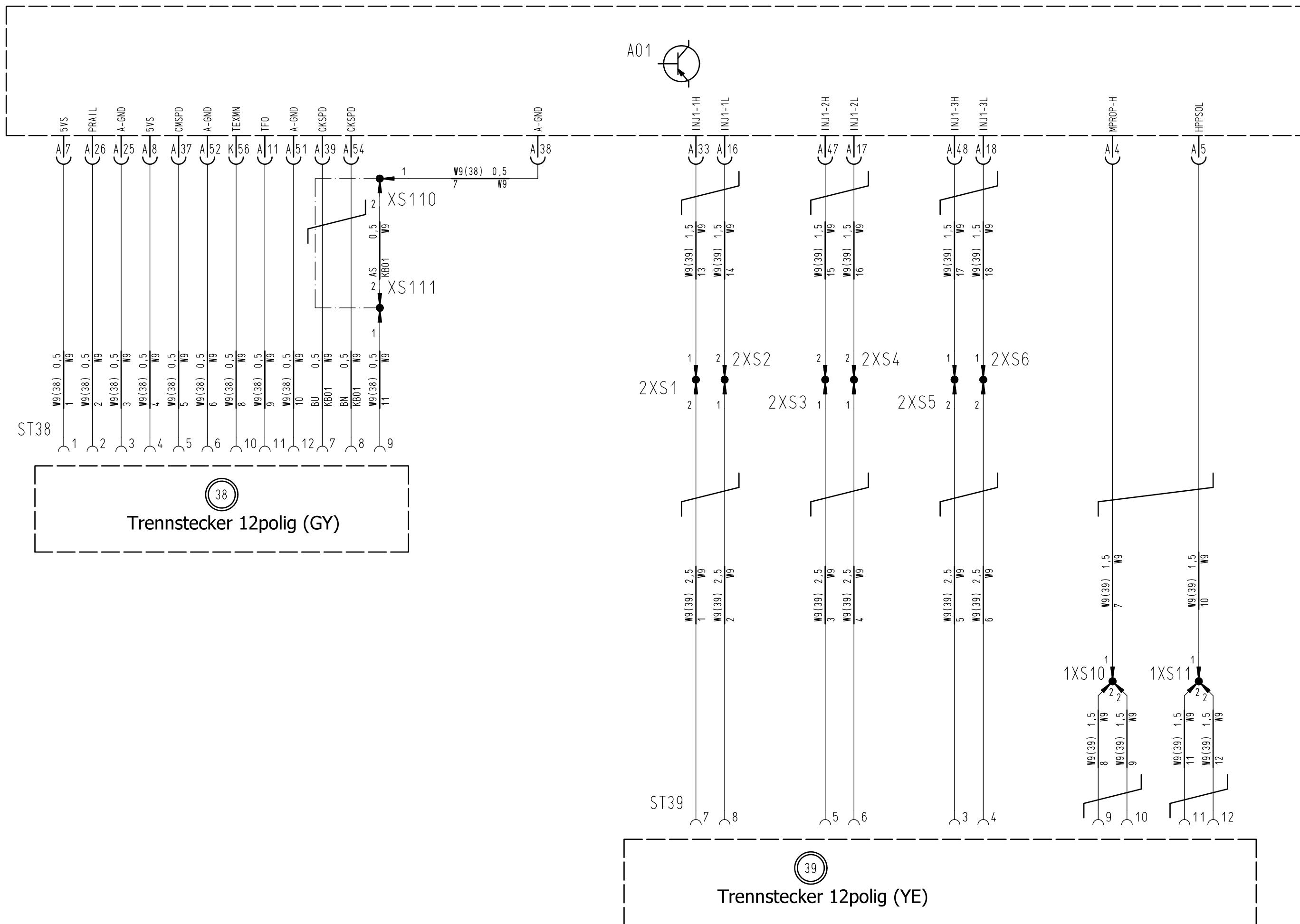
siehe 91041764 Schaltplan Yanmar Motor Harness B



0	Integrated acc.	4000-34	20.01.20	DK	2019	Date	Name	CM650	Name	Schaltplan / circuit diagram	 Hako GmbH D-23840 Bad Oldesloe	Drawing Number		
A2	No. Number appears	Change No.	Date	Name	Standard	21.08.	DK	Replacem. for	For this drawing we reserve all rights (acc. DIN ISO 16016)			KAB1 472	Type 1470	Dep. DS

Legende

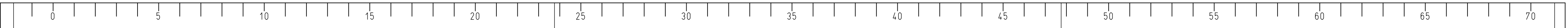
- A01 Motorsteuergerät ECU
engine controller ECU
- ST38 Steckverbinder 12pol. . (W9<-->Motor KB)
connector 12 pole (W9<-->motor wh)
- ST39 Steckverbinder 12pol. . (W9<-->Motor KB)
connector 12 pole (W9<-->motor wh)
- 1XS10 USSP (W9)
ussp (W9)
- 1XS11 USSP (W9)
ussp (W9)
- 2XS1 USSP (W9)
ussp (W9)
- 2XS2 USSP (W9)
ussp (W9)
- 2XS3 USSP (W9)
ussp (W9)
- 2XS4 USSP (W9)
ussp (W9)
- 2XS5 USSP (W9)
ussp (W9)
- 2XS6 USSP (W9)
ussp (W9)
- XS110 USSP (W9)
ussp (W9)
- XS111 USSP (W9)
ussp (W9)



siehe 91041764 Schaltplan Yanmar Motor Harness B

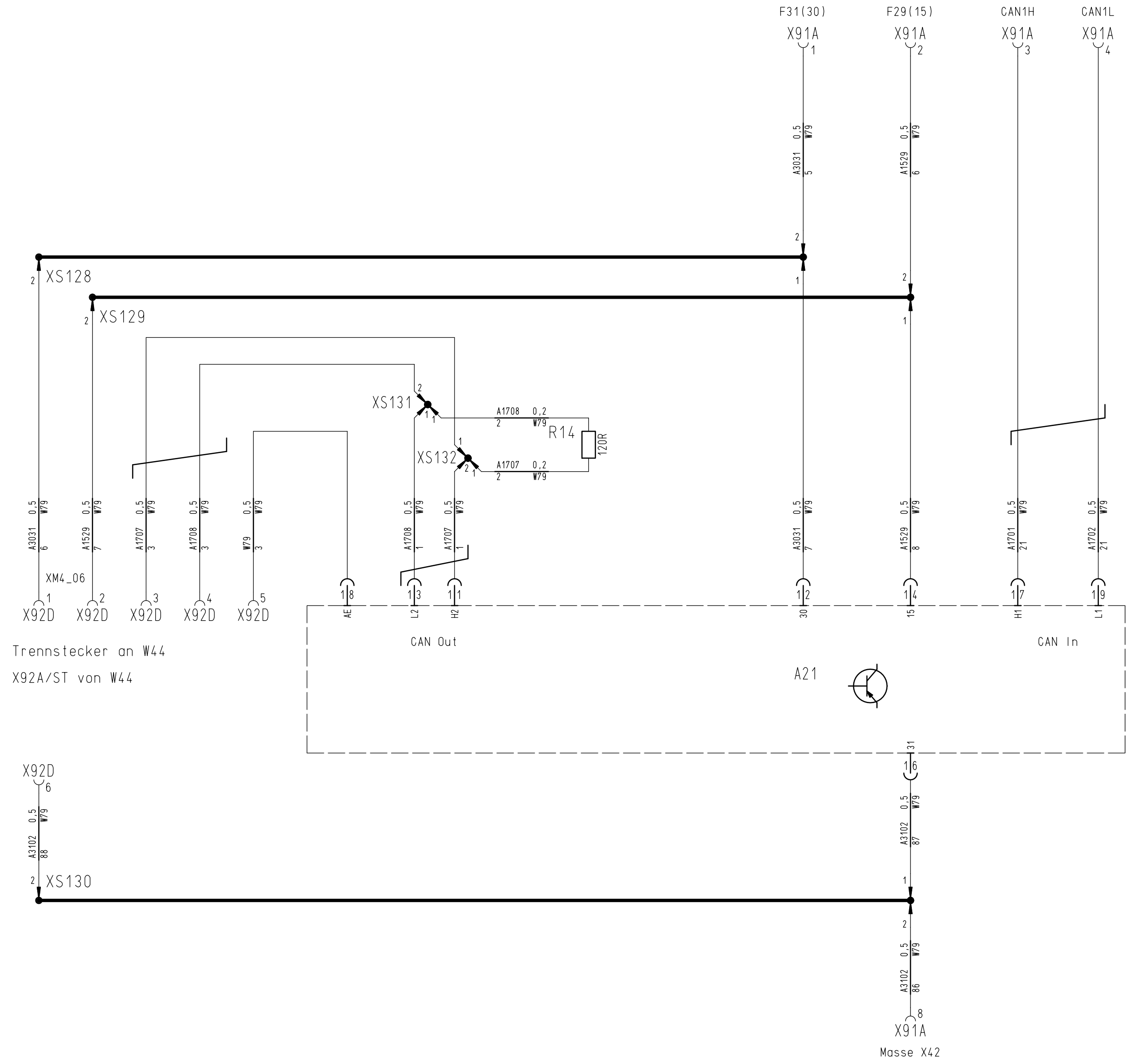


0	Integrated acc.	4000-34	20.01.20	DK	2019	Date	Name	CM650	Name	 Hako GmbH D-23840 Bad Odesloe	Drawing Number			
A2	No. Number appears	Change No.	Date	Name	Standard	21.08.	DK	Replacem. for	Schaltplan / circuit diagram		91039362			
For this drawing we reserve all rights (acc. DIN ISO 16016)										KAB1 472	Type 1470	Dep. DS	No. of Sh. 38	Sheet 31



Legende

- A21 Gateway gateway
- R14 Widerstand 120R resistor 120Ohm (CAN external)
- X91A Steckverbinder 8pol. (W5<->W79) connector 8 pole (W5<->W79)
- X92D Steckverbinder 6pol. (W79<->W44) connector 6 pole (W79<->W44)
- XS128 USSP (W79) ussp (W79)
- XS129 USSP (W79) ussp (W79)
- XS130 USSP (W79) ussp (W79)
- XS131 Stossverbinder (W79) butt joint (W79)
- XS132 Stossverbinder (W79) butt joint (W79)

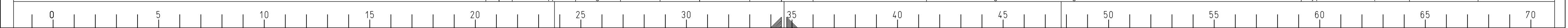


Trennstecker an W44
X92A/ST von W44

Masse X42



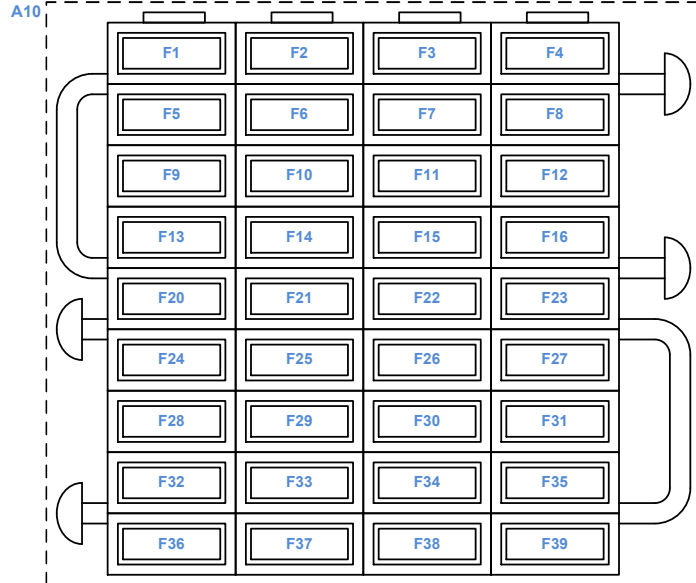
	0	Integrated acc.	4000-34	20.01.20	DK	2019	Date	Name	CM650	Name	Hako Hako GmbH D-23840 Bad Oldesloe	Drawing Number	91039362
							24.04.	DK	Replacem. for	Schaltplan / circuit diagram		No. of Sh. 38	Sheet 32
A2	No. Number appears	Change No.	Date	Name	Standard				Change No.	For this drawing we reserve all rights (acc. DIN ISO 16016)	KAB1 472	Type 1491	Dep. DS



Seitenkonsole rechts side console right

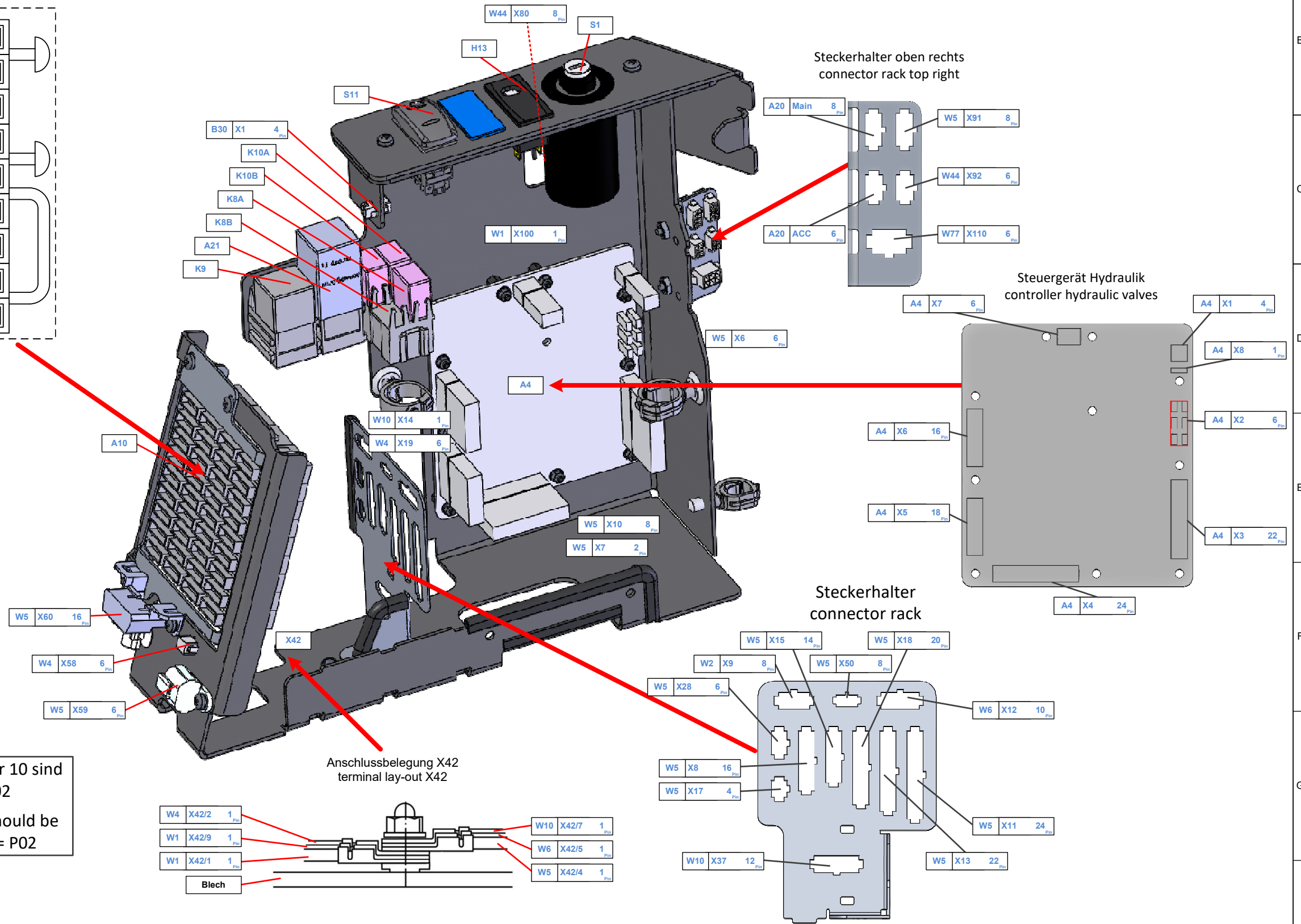
Sicherungskasten fuse box

Sicht von vorne (Sicherungsseite)
front view (fuses)



F1	20A	F2	10A	F3	n.a.	F4	10A
F5	5A	F6	15A	F7	15A	F8	15A
F9	10A	F10	15A	F11	15A	F12	15A
F13	10A	F14	15A	F15	7,5A	F16	7,5A
F20	7,5A	F21	10A	F22	5A	F23	15A
F24	5A	F25	10A	F26	15A	F27	15A
F28	10A	F29	5A	F30	n.a.	F31	5A
F32	n.a.	F33	n.a.	F34	10A	F35	n.a.
F36	5A	F37	7,5A	F38	10A	F39	15A

F30, F32, F33 und F35 für SOW



Alle Betriebsmittelkennzeichen unter 10 sind wie folgt zu deuten, Beispiel: P2 = P02
all equipment indicators below 10 should be interpreted as follows, example: P2 = P02

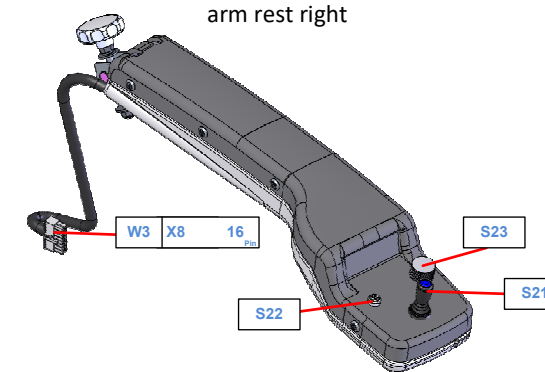
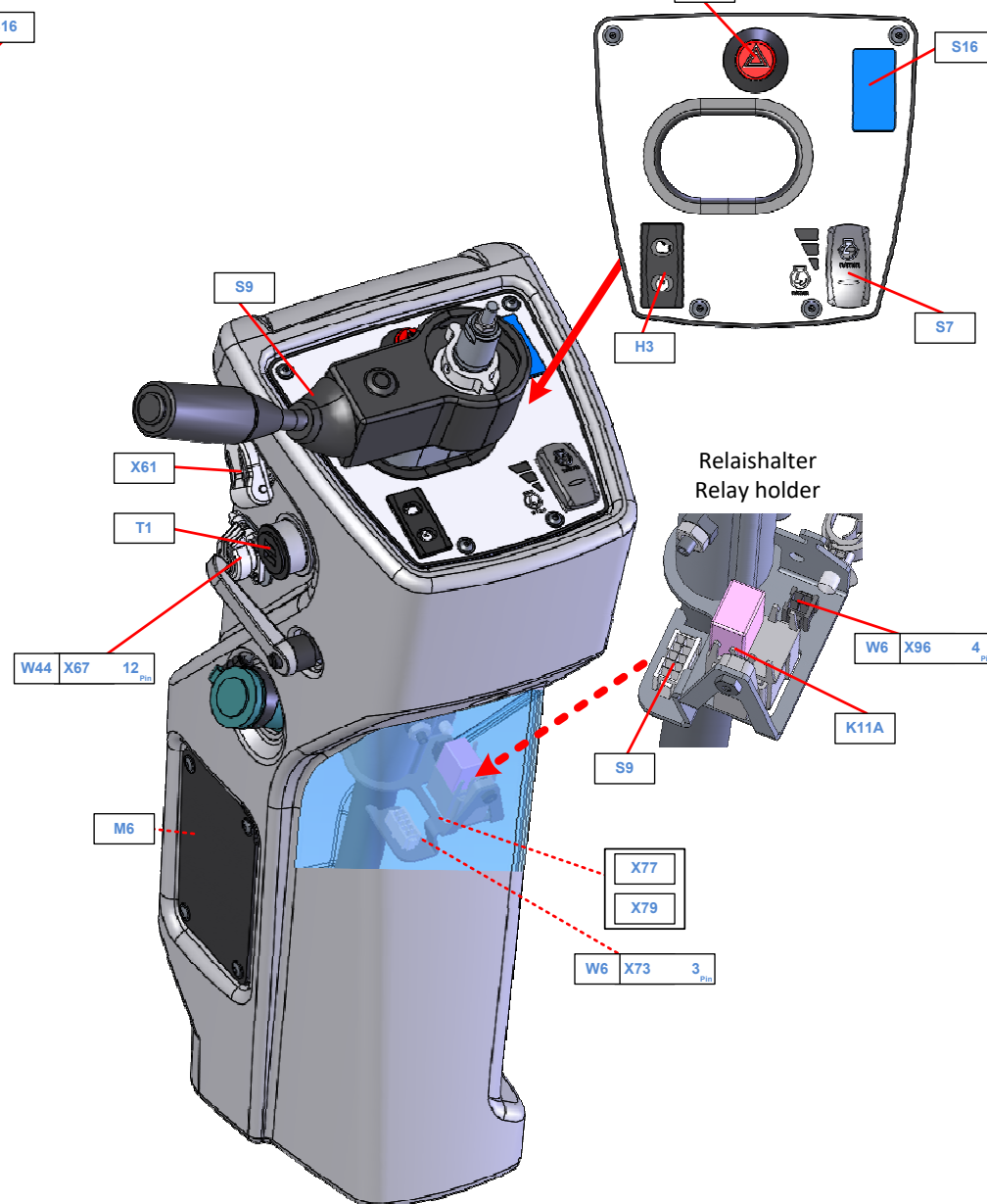
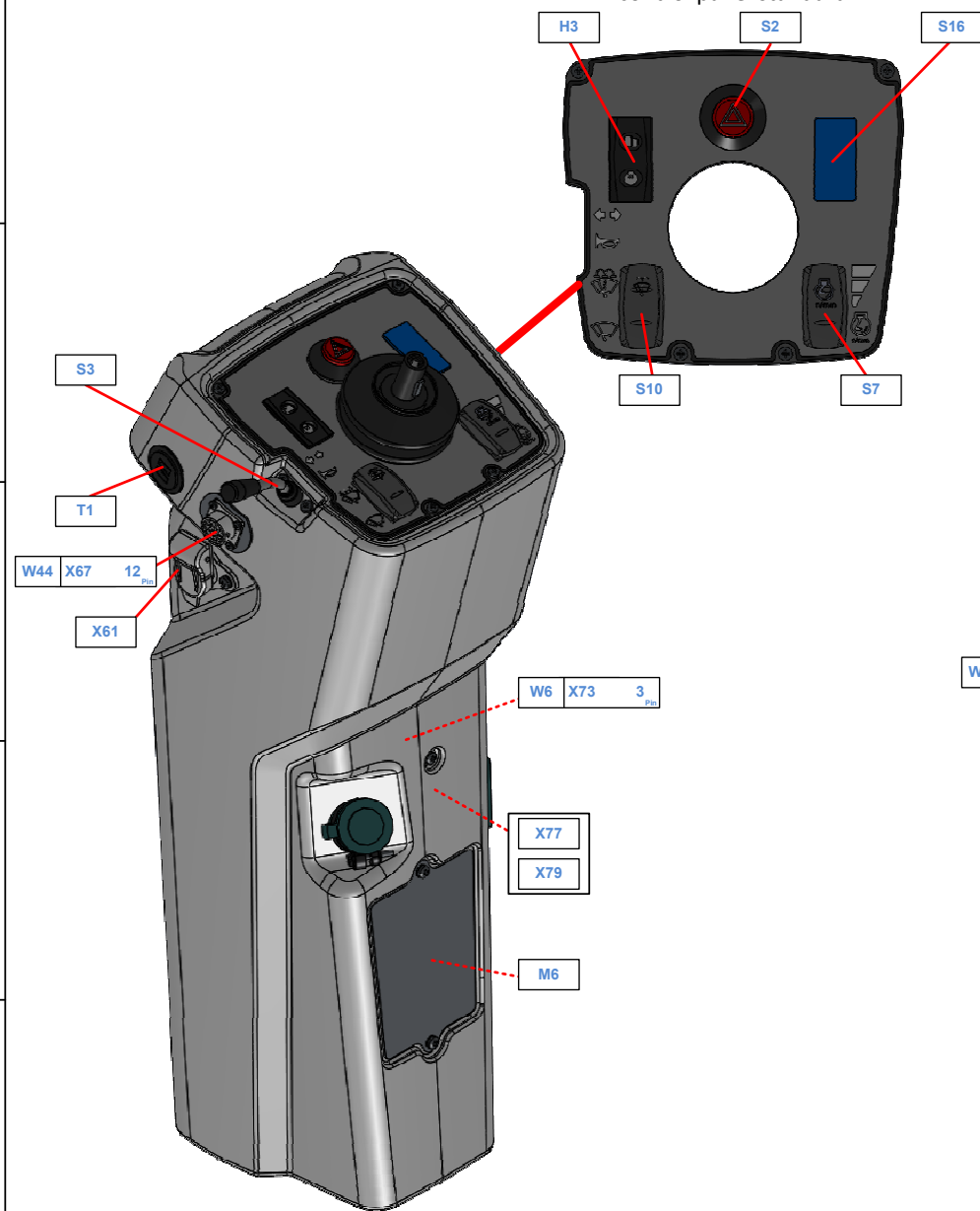
Lenksäule Standard steering columns standard

Lenksäule Komfort steering columns comfort

Bedienfeld Standard
control panel standard

Bedienfeld Komfort
control panel comfort

Armlehne rechts
arm rest right

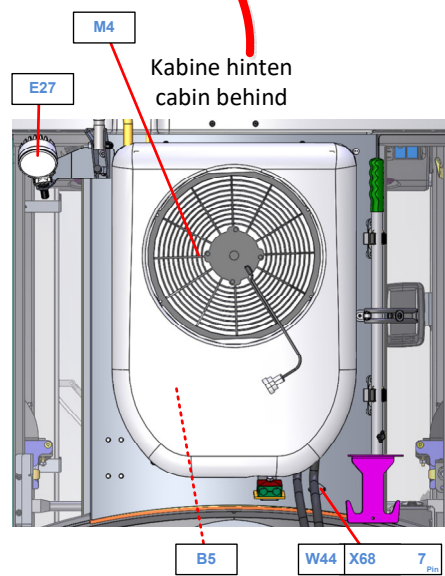
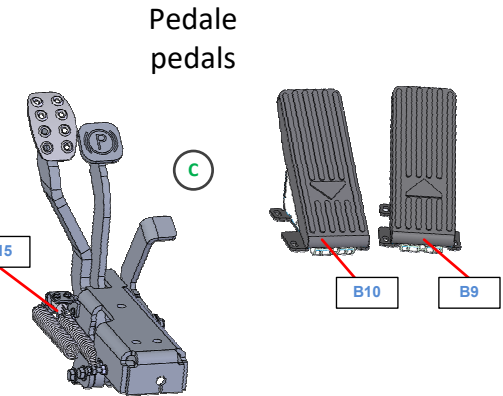
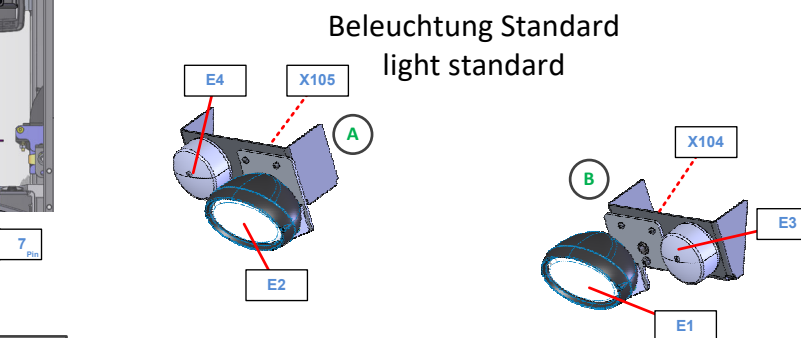
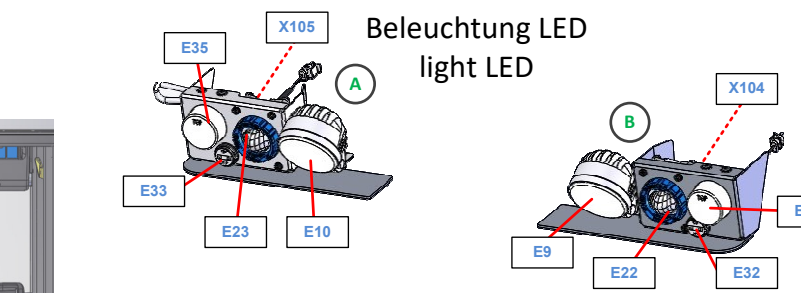
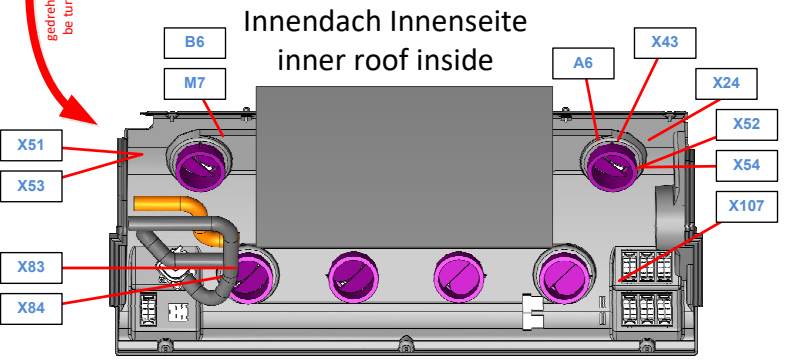
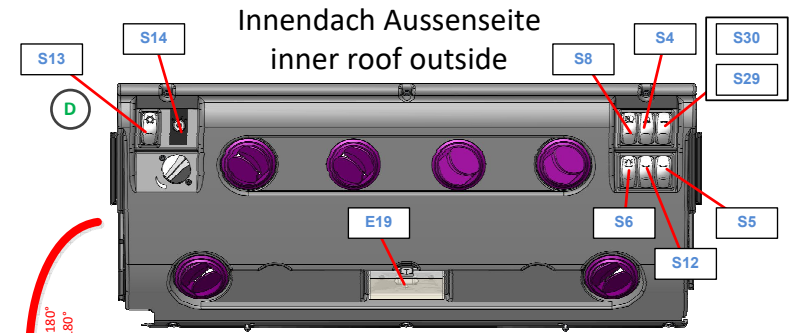
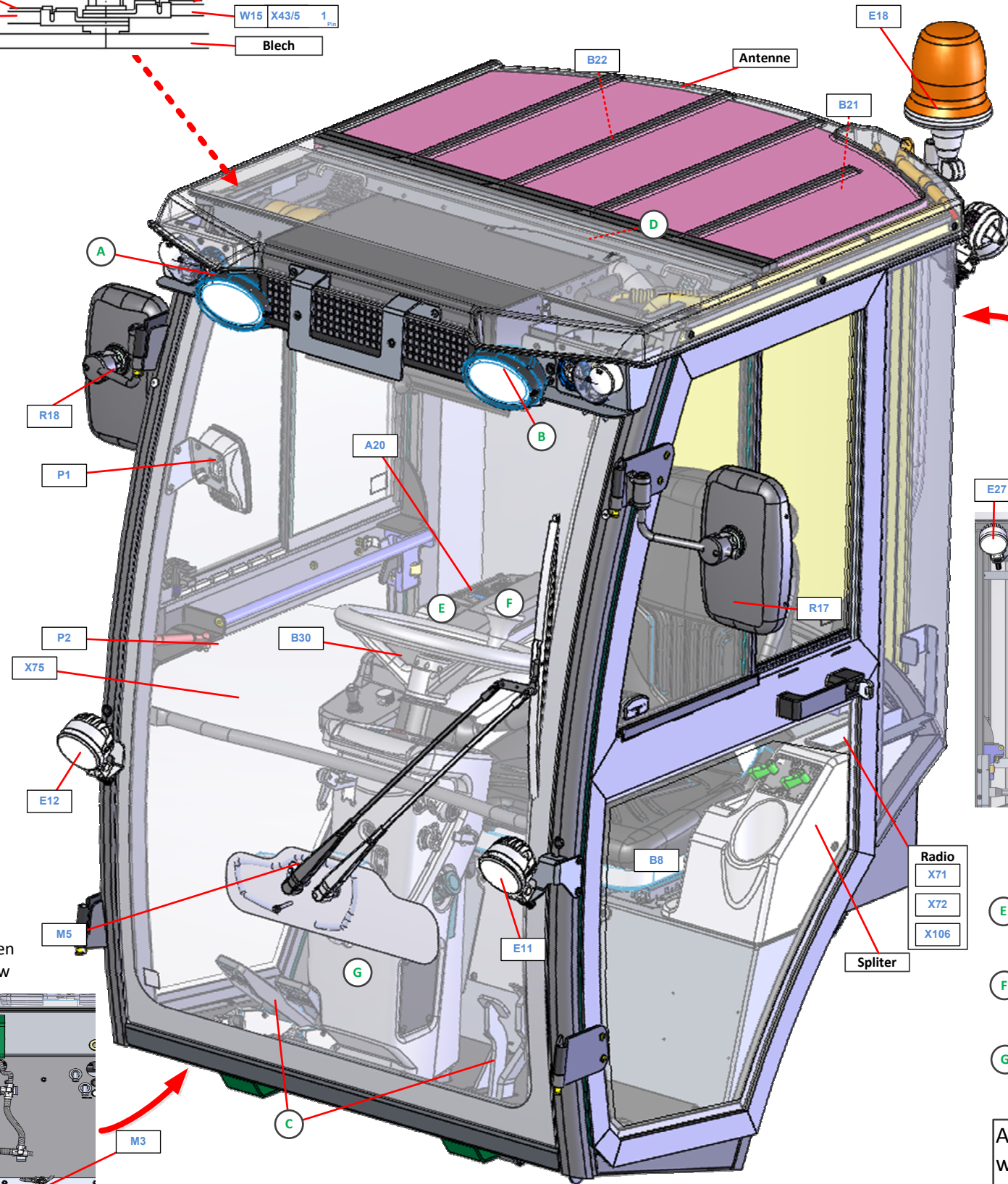
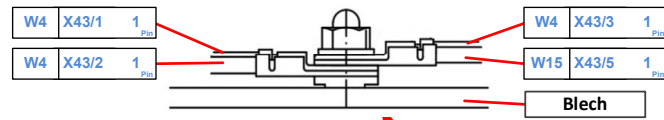


Alle Betriebsmittelkennzeichen unter 10 sind wie folgt zu deuten, Beispiel: P2 = P02
all equipment indicators below 10 should be interpreted as follows, example: P2 = P02

Freigabevermerk:		A2	0	Integrated acc.	4000-34	20.01.2020	DK / LK	Drawn	12.01.2020	LK	CM650	Name	Schaltplan	91039362
No	Number appears	Change No.	Date	Name	Standard	Change No.	Replacem. for	For this drawing we reserve all rights (acc. DIN ISO 16016)		Engineering Base 6.8.2	Type 1470	Dept.DS	No of Sheets	38
													Sheet	34

Kabine komplett
Cabin complete

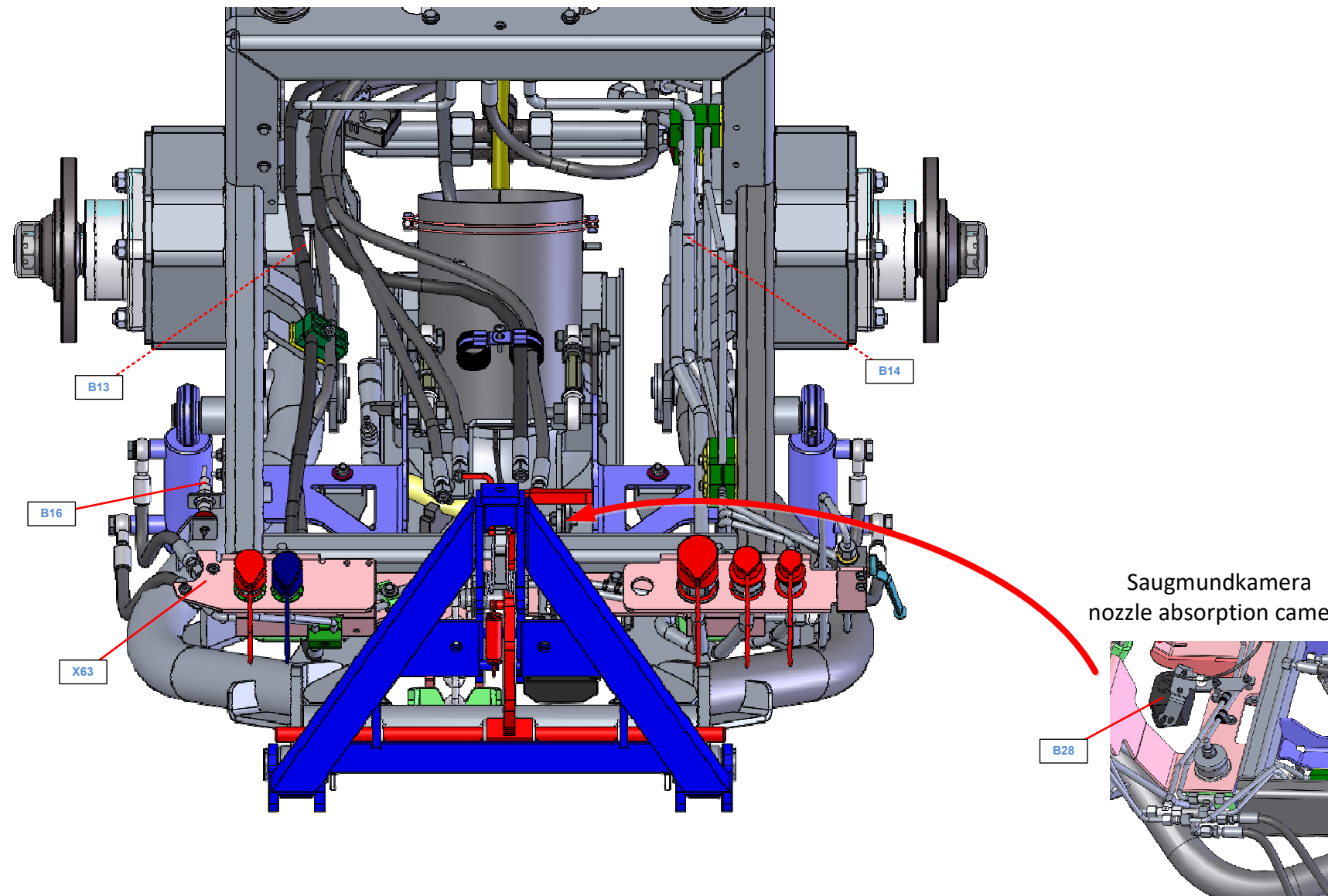
Anschlussbelegung X43
terminal lay-out X43



- (E) Siehe: Seitenkonsole rechts
show: side console right
- (F) Siehe: Armlehne
show: arm rest
- (G) Siehe: Lenksäule
show: steering columns

Alle Betriebsmittelkennzeichen unter 10 sind wie folgt zu deuten, Beispiel: P2 = P02
all equipment indicators below 10 should be interpreted as follows, example: P2 = P02

Vorderwagen
front vehicle

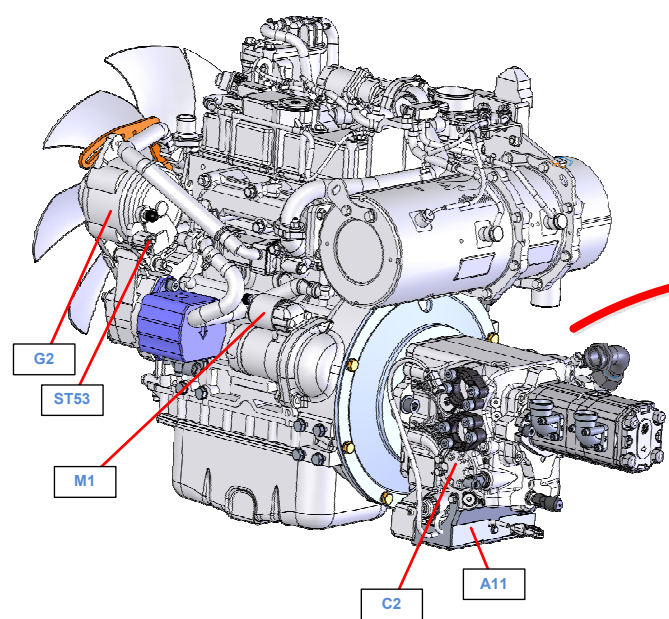


Saugmundkamera
nozzle absorption camera

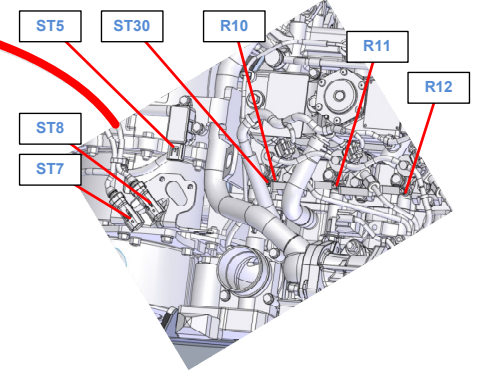
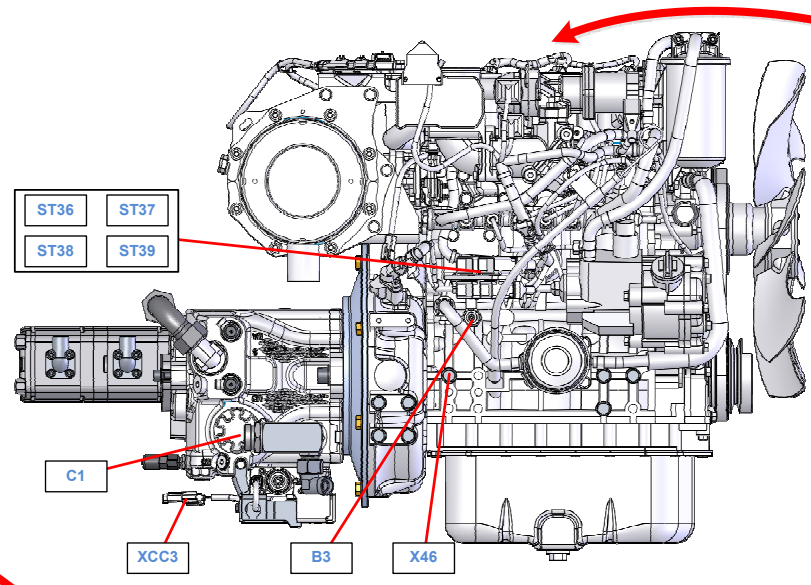
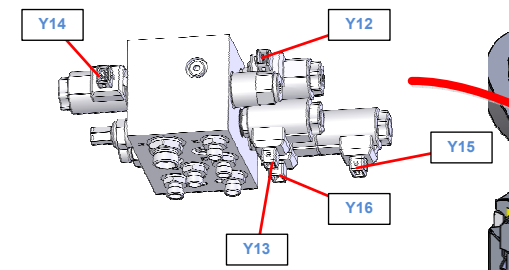
Freigabevermerk:		A2	0	Integrated acc.	4000-34	20.01.2020	DK / LK	Drawn	12.01.2020	LK	CM650	Name	Schaltplan	Drawing Number	91039362			
No	Number appears	Change No.	Date	Name	Standard	Verified		Replacem. for		Change No.			For this drawing we reserve all rights (acc. DIN ISO 16016)	Engineering Base 6.8.2	Type 1470	Dept.DS	No of Sheets38	Sheet 36



Hinterwagen
rear vehicle

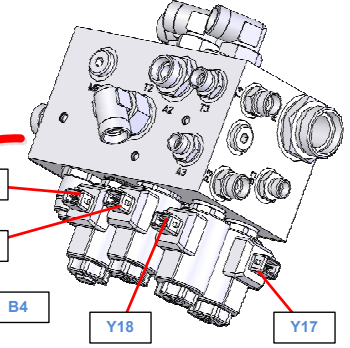
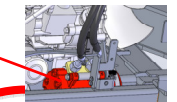


Hydraulik Steuerblock Gebläse, Besenantrieb & Behälter
hydraulic control block fan, brush power unit & container

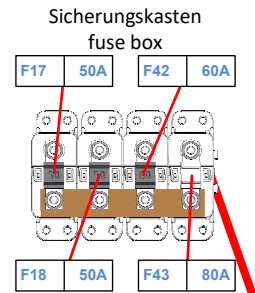
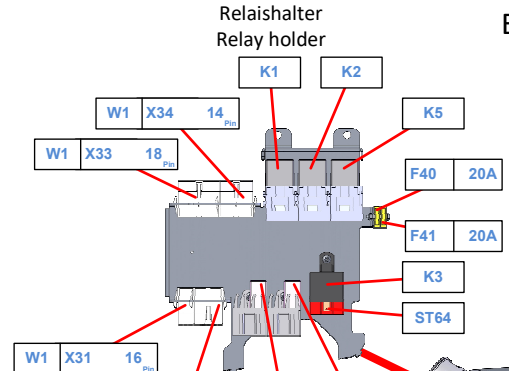


Hydraulik Steuerblockvorderwagen
hydraulic control block front vehicle

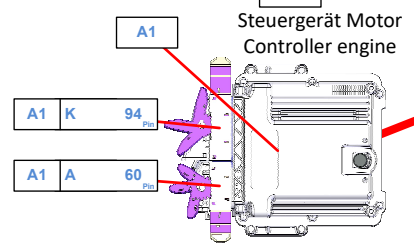
Klimakompressor
A. C.



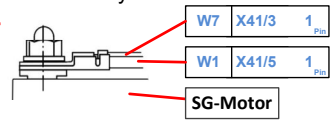
E-Kasten
E-Box



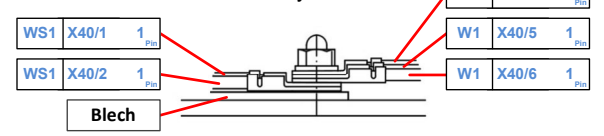
Steuergerät Motor
Controller engine



Anschlussbelegung X41
terminal lay-out X41



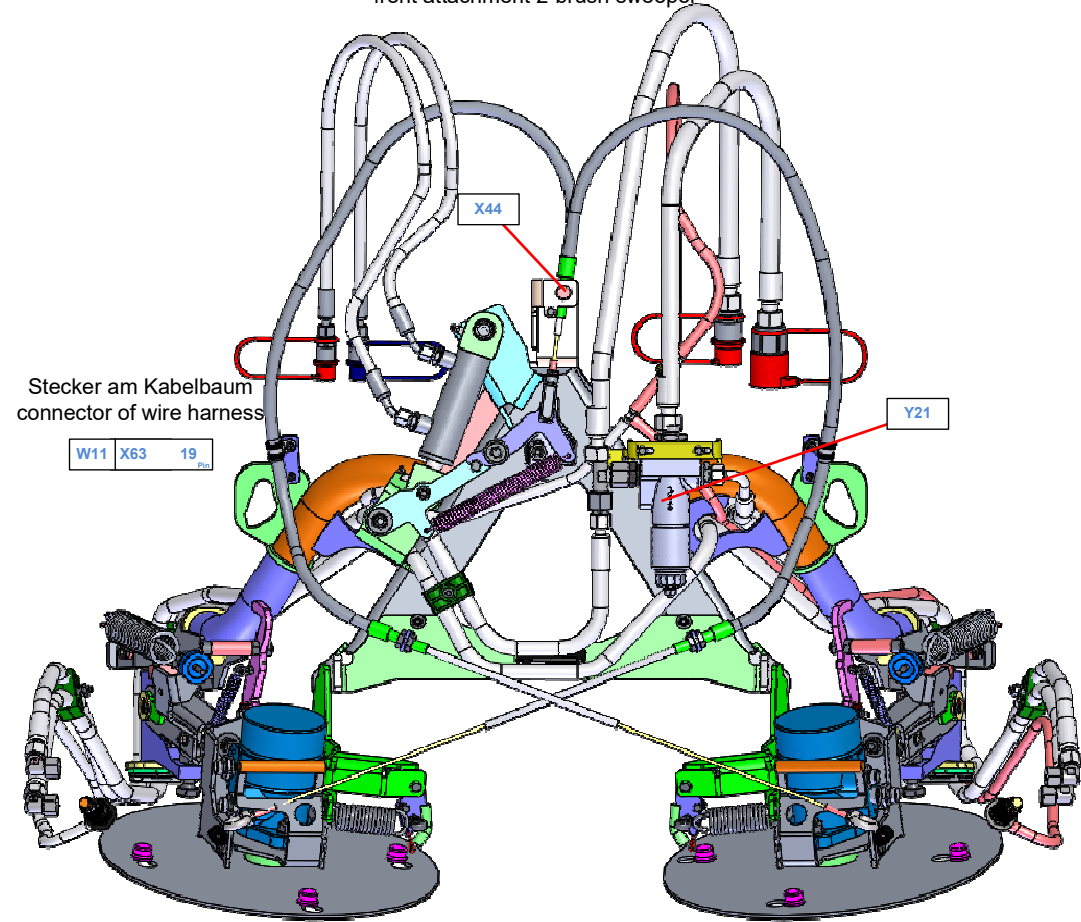
Anschlussbelegung X40
terminal lay-out X40



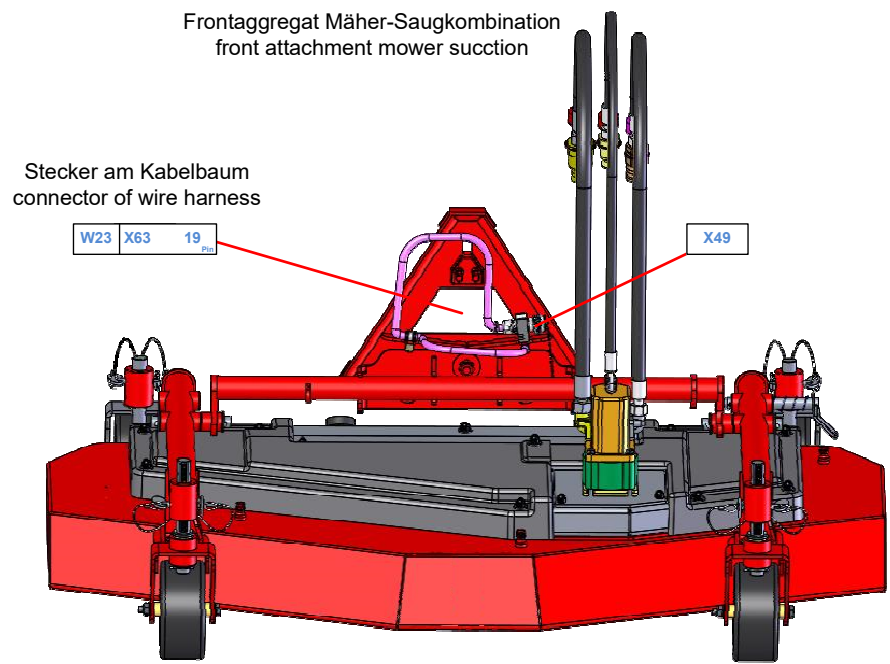
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all equipment indicators below 10 should be interpreted as follows, example: P2 = P02

Freigabevermerk:		A2		0		Integrated acc.		4000-34		20.01.2020		DK / LK		Date		Name		CM650		Name		Schaltplan		Hako		Drawing Number							
		No		Number appears		Change No.		Date		Name		Standard		Drawn		Verified		Replacem. for		Change No.		circuit diagram		Hako GmbH		91039362							
														12.01.2020		LK						For this drawing we reserve all rights (acc. DIN ISO 16016)		Engineering Base 6.8.2		Type 1470		Dept.DS		No of Sheets38		Sheet 37	

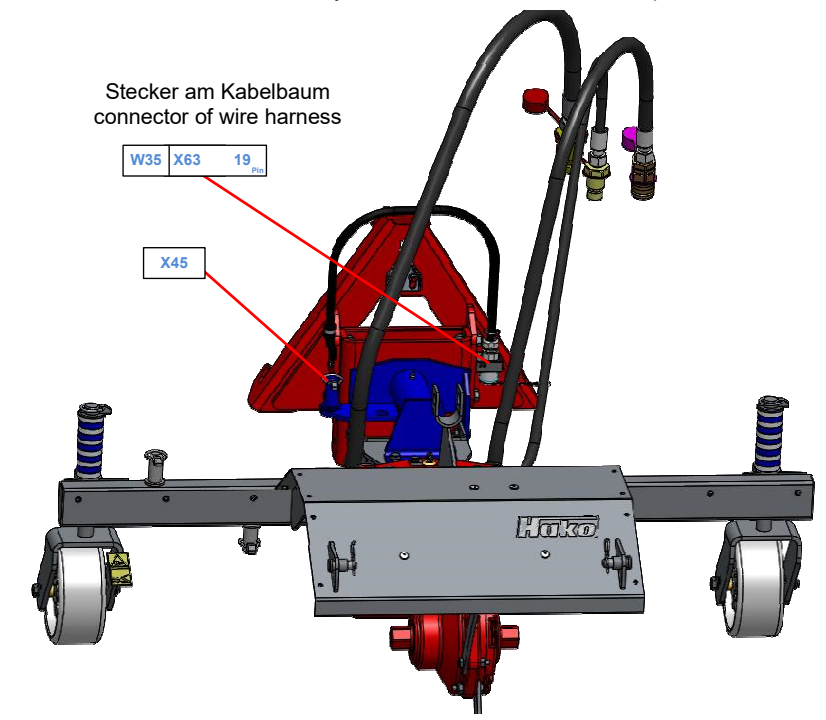
Frontaggregat 2-Besen Kehrvorsatz
front attachment 2-brush sweeper



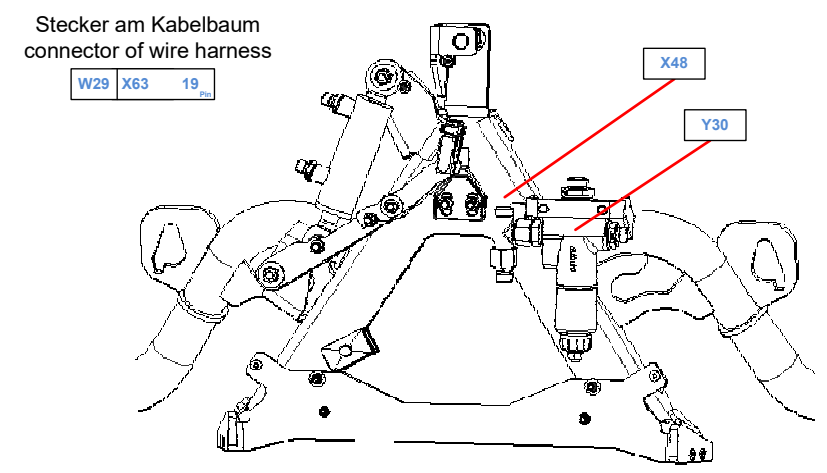
Frontaggregat Mäher-Saugkombination
front attachment mower suction



Frontaggregat Kombination-Kehreinheit
front attachment hydraulic driven combination sweeper



Frontaggregat unkodiert
front attachment uncoded



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A2	0	Integrated acc.	4000-34	20.01.2020	DK / LK	Drawn	12.01.2020	LK				Schaltplan	91039362	
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						Standard			Change No.			For this drawing we reserve all rights (acc. DIN ISO 16016)		
												Engineering Base 6.8.2		
												Type 1470	Dept.DS	
												No of Sheets	38	
												Sheet	38	