Teil Part	Beschreibung Description	Sachnummer Code no	Position Sheet Pos	Ort Loc
A01	Motorsteuergerät ECU engine controller ECU	LF Yanmar	29/10	
A01	Motorsteuergerät ECU engine controller ECU	LF Yanmar	30/12	
A01	Motorsteuergerät ECU engine controller ECU	LF Yanmar	31/10	
A04	Steuergerät Hydraulik controller hydraulic valves	90646647	8/11	
A04	Steuergerät Hydraulik controller hydraulic valves	90646647	10/21	
A04	Steuergerät Hydraulik controller hydraulic valves	90646647	13/10	
A04	Steuergerät Hydraulik controller hydraulic valves	90646647	14/14	
A04	Steuergerät Hydraulik controller hydraulic valves	90646647	15/1	
A06	Steuergerät Spiegelheizung controller mirror heating	90550393	20/12	
A10	Sicherungskasten fusebox side console right	97152920	5/16	
A10	Sicherungskasten fusebox side console right	97152920	6/11	
A11	Steuerung Fahrpumpe hydraulic traction pump	92042910	26/1	
A20	Fleetrecorder fleetrecorder	92060623	23/14	
A21	Gateway gateway	92067180	32/14	
B03	Öldruckschalter oil pressure switch	LF Yanmar	29/52	
B04	Niveausensor Kraftstofftank fuel level sensor	92052778	14/51	
B04	Niveausensor Kraftstofftank fuel level sensor	92052778	29/39	
B05	Druckschalter Klimaanl. (Var.Comfort) pressure switch AC (var.Comfort)	90679416	18/37	
B06	Einfrierschutz Klimaanl. (Var.Comfort) freeze switch AC (var.Comfort)	90679416	18/37	
B08	Fahrersitz Cabo driver seat Cabo	90619578	8/2	
oder/or	Fahrersitz Grammer driver seat Grammer	90608761	8/11	
oder/or	Fahrersitz König driver seat König	92027267	8/11	
B09	Winkelsensor Fahrpedal vorwärts angle sensor throttle pedal forward	92013135	26/25	
B10	Winkelsensor Fahrpedal rückwärts angle sensor throttle pedal backward	92017904	26/33	
B12	Thermosensor Hydrauliköl temperature sensor hydraulic oil	90614769	14/46	
B13	Tachosensor rechts vehicle speed sensor right	92072719	27/30	
B14	Tachosensor links vehicle speed sensor left	92067040	27/46	
B15	Reed-Sensor Behälter oben hopper reed switch	90501073	14/22	
B15	Reed-Sensor Behälter oben hopper reed switch	90501073	29/26	
B16	Reed-Sensor Geräteträger oben front carrier reed switch	90501073	14/18	
B21	Lautsprecher links loudspeaker left	90462375	21/48	
B22	Lautsprecher rechts loudspeaker right	90462375	21/48	
B26	Sensor Überlast sensor overload	-	21/37	
B27	Rückfahrkamera reverse drive camera	92701325	22/4	
B28	Zusatzkamera additional camera	92701325	22/17	
B29	Füllstandsensor Hydrauliköltank level sensor hydraulic oil tank	90846781	8/24	
B30	I-Button-Reader i-button-reader	97131429	23/46	
C1	Hydraulikventil Fahrpumpe hydraulic valve traction pump	zu A11	26/48	
C2	Hydraulikventil Fahrpumpe hydraulic valve traction pump	zu A11	26/53	
CC3	Steckverbinder 2pol. (W1<->A11 Fahrpumpe) connector 2 pole (W1<->A11 traction pump)		26	
E01	Frontscheinwerfer links (Rechtsverkehr) headlight left (right-hand driving)	90609066	11/2	
oder/or	Frontscheinwerfer links (Linksverkehr) headlight left (left-hand driving)	90612870	11/2	
E02	Frontscheinwerfer rechts (Rechtsverkehr) headlight right (right-hand driving)	90609066	11/6	
oder/or	Frontscheinwerfer rechts (Linksverkehr) headlight right (left-hand driving)	90612870	11/6	

Teil Part	Beschreibung Description	Sachnummer Code no	Position Sheet Pos	Ort Loc
E03/E04	Blink/Begrenzungsleuchten Standard LH/RH front indicator/position LH/RH	92036417	28/35	
E05	Schlußleuchte links tail light left	90425786	19/3	
oder/or	LED Mehrkammerleuchte hinten links multi-chamber lights left	92042811	19/28	
E06	Schlußleuchte rechts tail light right	90425786	19/12	
oder/or	LED Mehrkammerleuchte hinten rechts multi-chamber lights right	92042811	19/42	
E09	Arbeitsscheinwerfer oben links work lamp top left	92708841	21/18	
E10	Arbeitsscheinwerfer oben rechts work lamp top right	92708841	21/22	
E11/E12	Arbeitsscheinwerfer A-Säule LH/RH work lamps A-pillar LH/RH	92708841	28/50	
E14	Nebelschlußleuchte (SOW) rear fog lamp	97126304	19/12	
E15	Kennzeichenleuchte number plate light	92065580	16/14	
E18	Rundumkennleuchte Standard rotating beacon lamp	90552548	12/19	
oder/or	Rundumkennleuchte LED flashing beacon lamp LED	00004150007	12/19	
E19	Innenleuchte Standard interior lamp standard	97161509	12/31	
oder/or	Innenleuchte LED interior lamp LED	97161491	12/31	
E21	Rückfahrleuchte reversing light	97126296	19/18	
E22/E23	Hauptscheinwerfer LED LH/RH headlight LED LH/RH	92053073	28/48	
E27	Arbeitsscheinwerfer Kabine hinten links working light cabin back left	92708841	28/9	
E31	Arbeitsscheinwerfer Saugmund working light sucction mouth	92708841	28/25	
E32/E33	Positionsleuchte LED LH/RH navigation lights LED LH/RH	97155436	28/44	
E34/E35	Blinker vorn LED LH/RH indicator lamps front LED LH/RH	97158265	28/38	
F01	Sicherung 20A (30) fuse 20A (30)	19731058	6/6	
F02	Sicherung 10A (30) fuse 10A (30)	19731082	6/9	
F03	Sicherung Reserve (30) fuse not used (30)	-	6/12	
F04	Sicherung 10A (15) fuse 10A (15)	19731082	6/6	
F05	Sicherung 5A (15) fuse 5A (15)	19731181	6/9	
F06	Sicherung 15A (15) fuse 15A (15)	19731090	6/12	
F07	Sicherung 15A (15) fuse 15A (15)	19731090	6/15	
F08	Sicherung 15A (75) fuse 15A (75)	19731090	6/33	
F09	Sicherung 10A (75) fuse 10A (75)	19731082	6/36	
F10	Sicherung 15A (75) fuse 15A (75)	19731090	6/39	
F11	Sicherung 15A (75) fuse 15A (75)	19731090	6/42	
F12	Sicherung 15A (75) fuse 15A (75)	19731090	6/45	
F13	Sicherung 10A (58) fuse 10A (58)	19731082	6/39	
F14	Sicherung 15A (30) fuse 15A (30)	19731090	6/15	
F15	Sicherung 7,5A (57) fuse 7,5A (57)	19731066	6/48	
F16	Sicherung 7,5A (57) fuse 7,5A (57)	19731066	6/51	
F17	Sicherung 50A Vorsicherung 15/75 fuse 50A pre-fuse 15/75	19731512	5/13	
F18	Sicherung 50A Vorsicherung 30 fuse 50A pre-fuse 30	19731512	5/10	
F18	Sicherung 50A Vorsicherung 30 fuse 50A pre-fuse 30	19731512	30/46	
F20	Sicherung 7,5A (50) fuse 7,5A (50)	19731066	5/16	
F21	Sicherung 10A (30) fuse 10A (30)	19731082	6/18	
F22	Sicherung 5A (30) fuse 5A (30)	19731181	6/21	
F23	Sicherung 15A (58) fuse 15A (58)	19731090	6/42	
F24	Sicherung 5A (58) fuse 5A (58)	19731181	6/45	

Teil Part	Beschreibung Description	Sachnummer Code no	Position Sheet Pos	Ort Loc
F25	Sicherung 10A (75) fuse 10A (75)	19731082	6/48	
F26	Sicherung 15A (30) fuse 15A (30)	19731090	6/24	
F27	Sicherung 15A (15) fuse 15A (15)	19731090	6/18	
F28	Sicherung 10A (75) fuse 10A (75)	19731082	6/51	
F29	Sicherung 5A (15) fuse 5A (15)	19731181	6/21	
F30	Sicherung für SOW (75) fuse for SOW (75)	-	6/54	
F31	Sicherung 5A (30) fuse 5A (30)	19731181	6/27	
F32	Sicherung für SOW (30) fuse for SOW (30)	-	6/30	
F33	Sicherung für SOW (30) fuse for SOW (30)	-	6/33	
F34	Sicherung 10A (15) fuse 10A (15)	19731082	6/24	
F35	Sicherung für SOW (57) fuse for SOW (57)	-	6/54	
F40	Sicherung 20A fuse 20A	19731058	29/4	
F40	Sicherung 20A fuse 20A	19731058	5/3	
F41	Sicherung 20A fuse 20A	19731058	29/12	
F41	Sicherung 20A fuse 20A	19731058	5/6	
F42	Sicherung 60A fuse 60A	19731348	30/17	
F42	Sicherung 60A fuse 60A	19731348	5/17	
F43	Sicherung 80A fuse 80A	19731520	30/29	
F43	Sicherung 80A fuse 80A	19731520	5/31	
G01	Starterbatterie 12V starter battery 12V	19410026	5/3	
G02	Generator 12V alternator 12V	LF Yanmar	5/25	
G02	Generator 12V alternator 12V	LF Yanmar	29/35	
H01	Hupe horn	90422619	8/44	
H02	Signaltongeber buzzer	92045913	21/28	
H03	Kontrollleuchten Motor/Vorglühen pilot lamps engine / preheating	19256692	7/22	
H13	Batterieladekontrolleuchte pilot lamps engine / preheating	19256635	14/52	
K01	Relais Anlasser relay starter	90539271	30/17	
K01	Relais Anlasser relay starter	90539271	5/17	
K02	Relais Vorglühen relay preheating	90539271	30/29	
K02	Relais Vorglühen relay preheating	90539271	5/31	
K03	Relais EGR Ventil relay EGR valve	90539271	29/14	
K05	Relais Versorgung 75 relay supply 75	90539271	30/6	
K05	Relais Versorgung 75 relay supply 75	90539271	5/22	
K08A	Relais Scheibenwischer relay windscreen wiper	90539305	10/43	
K08B	Relais Nebelschlußleuchte relay fog light	90539305	11/40	
K09	Relais Klimaanlage (Var.Comfort) relay AC system (var. comfort)	00004149102	18/27	
K10A	Entlastungsrelais 1 (15) release relay 1 (15)	90539305	5/43	
K10B	Entlastungsrelais 2 (15) release relay 2 (15)	90539305	9/45	
K11A	Relais Scheibenwaschpumpe relay windscreen washer pump	90539305	24/24	
K12A	Relais relay	90539305	29/52	
K12A	Relais relay	90539305	7/43	

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

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Teil Part	Beschreibung Description	Sachnummer Code no	Position Sheet Pos	Ort Loc
K14A	Relais Bremslicht relay brake light	90539305	16/16	
M01	Anlasser starter	LF Yanmar	30/15	
M01	Anlasser starter	LF Yanmar	5/12	
M02	Kraftstoffpumpe fuel pump	LF Yanmar	29/30	
M03	Sprühwasserpumpe spraying pump	97092258	15/18	
M04	Kondensatorlüfter (Var.Comfort) condensor fan (var.Comfort)	90679416	18/32	
M05	Scheibenwischermotor windscreen wiper motor	90603762	10/46	
M06	Scheibenwaschpumpe windscreen washer pump	90783408	10/34	
M07	Heizungsgebläse (Var. Classic) heating fan (var. Classic)	90782780	18/4	
oder/or	Heizungsgebläse (Var. Comfort) heating fan (var. Comfort)	90679416	18/4	
P01	Anzeigeeinheit multifunction display	90686403	9/1	
P02	Bildschirm display	90850876	22/10	
R10-12	Vorglühkerzen glow plugs	LF Yanmar	30/29	
R10-12	Vorglühkerzen glow plugs	LF Yanmar	5/31	
R13	Widerstand 120R resistor 120Ohm	-	15/23	
R14	Widerstand 120R resistor 120Ohm (CAN external)	-	32/23	
R17	Spiegelheizung links mirror heating left	97118723	20/17	
R18	Spiegelheizung rechts mirror heating right	97118723	20/21	
R20	Widerstand 1k resistor 1kOhm	-	14/46	
R21	Widerstand 1k resistor 1kOhm	-	14/41	
R22	Widerstand 120R resistor 120Ohm	-	29/52	
R102	Widerstand 1k resistor 1kOhm	-	23/46	
R105	Widerstand 470R resistor 470R	-	26/4	
R106	Widerstand 1k resistor 1kOhm	-	26/8	
R107	Widerstand 1k3 resistor 1k30hm	-	26/12	
R108	Widerstand 1k resistor 1kOhm	-	26/16	
R109	Widerstand 1k resistor 1kOhm	-	14/29	
S01	Zündstartschalter starter switch	90432998	5/14	
S02	Warnblinkschalter switch warning flasher	92050673	8/8	
S03	Lenkstockschalter steering wheel switch	90122219	8/38	
S04	Schalter Arbeitsscheinwerfer switch work lights A-pillar a. cabin top	19256551	12/10	
S05	Taster Spiegelheizung pushbutton mirror heating	19256577	20/5	
S06	Schalter Rundumkennleuchte switch beacon lamp	19256643	12/22	
S07	Taster Motordrehzahl Tip-Up / Down push-button engine speed tip-up / down	19256478	10/4	
S08	Lichtschalter switch light	19256650	11/6	
S09	Lenkstockschalter Komfort steering wheel switch comfort	92709096	24/13	
S10	Schalter Scheibenwischer switch windscreen wiper	19256601	10/30	
S11	Taster Behälter heben/senken pushbutton switch hopper up/down	19256619	14/5	
S12	Schalter Nebelschlußleuchte switch rear fog light	19256585	11/46	
S13	Schalter Klimaanlage (Var.Comfort) switch AC (var.Comfort)	19256668	18/15	
S14	Drehschalter Heizungsgebläse rotary switch heating fan	90791146	18/6	
S15	Schalter Bremse switch brake	46604140002	26/43	
S16	Taster Tempomat/Limiter push-button cruise control/limiter	19256676	26/10	

Teil Part	Beschreibung Description	Sachnummer Code no	Position Sheet Pos	Ort Loc
S19	Batterietrennschalter battery main switch	92021278	5/6	
S21	Kreuztaster Hydraulikfunktionen joystick switch hydraulics	90623547	14/30	
S22	Taster Arbeitsbetrieb pushbutton switch working mode	90505686	14/11	
S23	Drehencoder mit Taste encoder switch with pushbutton	90600115	14/15	
S29	Schalter Arbeitssch. Kabine hinten switch working lights cabin back	19256684	28/11	
S30	Schalter Arbeitssch. Saugmund switch working light suction mouth	19256684	28/24	
S31	Taster Behälter 2. Hand Fahrgestell pushbutton container 2nd hand	97095608	22/47	
S32	Taster Behälter heben Fahrgestell pushbutton switch hopper up	97095608	22/48	
S33	Taster Behälter senken Fahrgestell pushbutton switch hopper down	97095608	22/41	
T01	USB Steckdose USB plug socket	92053040	12/52	
V02	Diode diode	-	14/31	
V05	Diode diode	-	5/25	
V05	Diode diode	-	30/9	
V06	Diode diode		5/28	
V06	Diode diode	-	29/42	
	Yanmar Steckverbinder im Kabelbaum W9 Yanmar connectors in wire harness W9			
ST5	Anschlussstecker 6pol. (W9) connector 6 pole (W9)		30	
ST7	Anschlussstecker 2pol. (W9) connector 2 pole (W9)		30	
ST8	Anschlussstecker 2pol. (W9) connector 2 pole (W9)		30	
ST30	Anschlussstecker 1pol. (W9) connector 1 pole (W9)		30	
ST36	Steckverbinder 8pol. (W9<-->Motor KB) connector 8 pole (W9<->motor wh)		30	
ST37	Steckverbinder 12pol. (W9<-->Motor KB) connector 12 pole (W9<->motor wh)		30	
ST38	Steckverbinder 12pol. (W9<-->Motor KB) connector 12 pole (W9<->motor wh)		31	
ST39	Steckverbinder 12pol. (W9<-->Motor KB) connector 12 pole (W9<->motor wh)		31	
ST53	Anschlussstecker 2pol. (W9) connector 2 pole (W9)		29	
ST64	Anschlussstecker 6pol. (W9) connector 6 pole (W9)		29	
X06	Steckverbinder 6pol.für SOW (W5) connector 6 pole for SOW (W5)		6	
X07	Steckverbinder 2pol. (W1<->W5) connector 2 pole (W1<->>W5)		5	
X08	Steckverbinder 16pol. (W3<-W5) connector 16 pole (W3<->W5)		14	
X09	Steckverbinder 8pol. (W1<-W2) connector 8 pole (W1<->W2)		26	
X10	Steckverbinder 8pol. (W1<-W5) connector 8 pole (W1<->W5)		5	
X10	Steckverbinder 8pol. (W1<-W5) connector 8 pole (W1<->W5)		7	
X10	Steckverbinder 8pol. (W1<-W5) connector 8 pole (W1<->W5)		9	
X10	Steckverbinder 8pol. (W1<-W5) connector 8 pole (W1<->W5)		13	
X10	Steckverbinder 8pol. (W1<-W5) connector 8 pole (W1<->W5)		18	
X10	Steckverbinder 8pol. (W1<-W5) connector 8 pole (W1<->W5)		26	
X11	Steckverbinder 24pol. (W1<-W5) connector 24 pole (W1<->W5)		7	
X11	Steckverbinder 24pol. (W1<-W5) connector 24 pole (W1<->W5)		8	
X11	Steckverbinder 24pol. (W1<-W5) connector 24 pole (W1<->W5)		10	
X11	Steckverbinder 24pol. (W1<-W5) connector 24 pole (W1<->W5)		11	
X11	Steckverbinder 24pol. (W1<-W5) connector 24 pole (W1<->W5)		12	
X11	Steckverbinder 24pol. (W1<-W5) connector 24 pole (W1<->W5)		13	

Teil Part	Beschreibung Description	Sachnummer Code no	Position Sheet Pos	Ort Loc
X11	Steckverbinder 24pol. (W1<-W5) connector 24 pole (W1<->W5)		14	
X11	Steckverbinder 24pol. (W1<-W5) connector 24 pole (W1<->W5)		15	
X11	Steckverbinder 24pol. (W1<-W5) connector 24 pole (W1<->W5)		16	
X11	Steckverbinder 24pol. (W1<-W5) connector 24 pole (W1<->W5)		26	
X12	Steckverbinder 10pol. (W1<-W6) connector 10 pole (W1<->W6)		7	
X12	Steckverbinder 10pol. (W1<-W6) connector 10 pole (W1<->W6)		8	
X12	Steckverbinder 10pol. (W1<-W6) connector 10 pole (W1<->W6)		10	
X12	Steckverbinder 10pol. (W1<-W6) connector 10 pole (W1<->W6)		26	
X13	Steckverbinder 22pol. (W6<-W5) connector 22 pole (W6<->W5)		8	
X13	Steckverbinder 22pol. (W6<-W5) connector 22 pole (W6<->W5)		10	
X13	Steckverbinder 22pol. (W6<-W5) connector 22 pole (W6<->W5)		11	
X13	Steckverbinder 22pol. (W6<-W5) connector 22 pole (W6<->W5)		12	
X14	Steckverbinder 1pol. (W5<-W10) connector 1 pole (W5<->W10)		15	
X15	Steckverbinder 14pol. (W10<-W5) connector 14 pole (W10<->W5)		11	
X15	Steckverbinder 14pol. (W10<-W5) connector 14 pole (W10<->W5)		13	
X15	Steckverbinder 14pol. (W10<-W5) connector 14 pole (W10<->W5)		14	
X15	Steckverbinder 14pol. (W10<-W5) connector 14 pole (W10<->W5)		15	
X15	Steckverbinder 14pol. (W10<-W5) connector 14 pole (W10<->W5)		28	
X17	Steckverbinder 4pol. (W2<-W5) connector 4 pole (W2<->W5)		8	
X17	Steckverbinder 4pol. (W2<-W5) connector 4 pole (W2<->W5)		26	
X18	Steckverbinder 20pol. (W4<-W5) connector 20 pole (W4<->W5)		5	
X18	Steckverbinder 20pol. (W4<-W5) connector 20 pole (W4<->W5)		9	
X18	Steckverbinder 20pol. (W4<-W5) connector 20 pole (W4<->W5)		11	
X18	Steckverbinder 20pol. (W4<-W5) connector 20 pole (W4<->W5)		12	
X18	Steckverbinder 20pol. (W4<-W5) connector 20 pole (W4<->W5)		15	
X18	Steckverbinder 20pol. (W4<-W5) connector 20 pole (W4<->W5)		18	
X18	Steckverbinder 20pol. (W4<-W5) connector 20 pole (W4<->W5)		20	
X18	Steckverbinder 20pol. (W4<-W5) connector 20 pole (W4<->W5)		28	
X19	Steckverbinder 6pol. (W5<-W4) connector 6 pole (W5<->W4)		11	
X19	Steckverbinder 6pol. (W5<-W4) connector 6 pole (W5<->W4)		12	
X19	Steckverbinder 6pol. (W5<-W4) connector 6 pole (W5<->W4)		18	
X24	Steckverbinder 4pol. (W4<-W15) connector 4 pole (W4<->W15)		20	
X28	Steckverbinder 6pol. (W14<-W5) connector 6 pole (W14<->W5)		21	
X31	Steckverbinder 16pol. (W1<-W9) connector 16 pole (W1<->W9)		7	
X31	Steckverbinder 16pol. (W1<-W9) connector 16 pole (W1<->W9)		14	
X31	Steckverbinder 16pol. (W1<-W9) connector 16 pole (W1<->W9)		18	
X31	Steckverbinder 16pol. (W1<-W9) connector 16 pole (W1<->W9)		29	
X32	Steckverbinder 12pol. (W1<-W9) connector 12 pole (W1<->W9)		5	
X32	Steckverbinder 12pol. (W1<-W9) connector 12 pole (W1<->W9)		7	
X32	Steckverbinder 12pol. (W1<-W9) connector 12 pole (W1<->W9)		29	
X32	Steckverbinder 12pol. (W1<-W9) connector 12 pole (W1<->W9)		30	
X33	Steckverbinder 18pol. (W1<-W7) connector 18 pole (W1<->W7)		8	
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	Drawing Number: 91039362
						Drawn by	21.08	DK	Replacem. for		
						Verified			Change No		
A2	No.	Number appears	Change No.	Date	Name	Standard				For this drawing we reserve all rights (acc. DIN ISO 16016) KABI 472	Type 1470 Dep. DS / No. of Sh. 38 / Sheet 2

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Teil Part	Beschreibung Description	Sachnummer Code no	Position Sheet Pos	Ort Loc
X33	Steckverbinder 18pol. (W1<-W7) connector 18 pole (W1<->W7)		16	
X33	Steckverbinder 18pol. (W1<-W7) connector 18 pole (W1<->W7)		21	
X34	Steckverbinder 14pol. (W1<-W7) connector 14 pole (W1<->W7)		8	
X34	Steckverbinder 14pol. (W1<-W7) connector 14 pole (W1<->W7)		13	
X34	Steckverbinder 14pol. (W1<-W7) connector 14 pole (W1<->W7)		16	
X37	Steckverbinder 12pol. (W1<-W10) connector 12 pole (W1<->W10)		14	
X37	Steckverbinder 12pol. (W1<-W10) connector 12 pole (W1<->W10)		27	
X39	Steckverbinder 4pol. (W7<-W30) connector 4 pole (W7<->W30)		22	
X40	Massebolzen M10 Fahrgestell ground bolt M10 chassis fail		25	
X41	Massebolzen M6 Elektrokasten ground bolt M6 electric box		25	
X42	Massebolzen M6 Seitenx. rechts ground bolt M6 console right		25	
X43	Massebolzen M5 Kabinendach ground bolt M6 cabin roof right		25	
X44	Masseanschluß M6 Kehrvorsatz ground bolt M6 sweeper		17	
X45	Masseanschluß M6 Kombi-Kehreinheit ground bolt M6 hydr. driven comb.sweeper		17	
X46	Massebolzen M10 Motor ground bolt M10 motor		29	
X48	Masseanschluß M6 Anb. unkodiert ground bolt M6 attachment uncoded		17	
X49	Masseanschluß M6 Mäh-Saugkombi. ground bolt M6 mower suction		17	
X50	Steckverbinder 8pol. (W1<-W5) connector 8 pole (W1<-W5)		14	
X50	Steckverbinder 8pol. (W1<-W5) connector 8 pole (W1<-W5)		26	
X51	Steckverbinder 4pol. (W4<->W8/W42) connector 4 pole (W4<->W8/W42)		11	
X51	Steckverbinder 4pol. (W4<->W8/W42) connector 4 pole (W4<->W8/W42)		12	
X51/X52	Steckverbinder 4pol. (W4<->W8/W42) connector 4 pole (W4<->W8/W42)		28	
X51/X52	Steckverbinder 4pol. (W4<->W8/W42) connector 4 pole (W4<->W8/W42)		28	
X52	Steckverbinder 4pol. (W4<->W8/W42) connector 4 pole (W4<->W8/W42)		11	
X52	Steckverbinder 4pol. (W4<->W8/W42) connector 4 pole (W4<->W8/W42)		12	
X53	Steckverbinder 2pol. (W15<-R17) connector 2 pole (W15<-R17)		20	
X54	Steckverbinder 2pol. (W15<-R18) connector 2 pole (W15<-R18)		20	
X57	Steckverbinder 1pol. (W5<-W6) connector 1 pole (W5<->W6)		12	
X58	Steckdose 6pol. (Progr. Displ.) connector 6-pole (progr. disp.)		9	
X59	Steckdose 6pol. Diagnose Yanmar diagnosis Yanmar socket 6 pole		9	
X60	Steckdose 16pol. Diagnose diagnosis socket 16 pole		9	
X61	Steckdose 3pol. (W6) socket 3 pole (W6)		12	
X63	Steckdose 19pol. Frontaggregat socket 19 pole front attachment		15	
X63B	Stecker 19pol. 2-Besen (W11) plug 19 pole 2-brooms (W11)		17	
X63D	Stecker 19pol. Mäh.-Saugkombi. plug 19 pole mower suction (W23)		17	
X63F	Stecker 19pol. Anbauger. unkodiert attechment uncoded (W29)		17	
X63G	Stecker 19pol. Kombi-Kehreinheit plug 19 pole hydr. driven comb.sweeper (W35)		17	
X64	Steckdose 7pol. Heckaufbau (W7) socket 7 pole rear (W7)		16	
X65	Anhängersteckdose 7pol. trailer socket 7 pole (W7)		16	
X67	Steckdose 12pol. Streuer Lenksäule connector 12 pole spreader steering pillar		20	
X68	Steckdose 7pol. Streuer Kabinenrückwand connector 7 pole spreader cabine back		20	
X69	Steckverbinder 8pol. (W7<-W18/W19) connector 8 pole (W7<->W18/W19)		16	
X69A	Steckverbinder 8pol. (W7<-W18) connector 8 pole (W7<->W18)		19	

Teil Part	Beschreibung Description	Sachnummer Code no	Position Sheet Pos	Ort Loc
X69B	Steckverbinder 8pol. (W7<-W19) connector 8 pole (W7<->W19)		19	
X71	Buchse 8pol. Radio ISO-A (W14) jack 8 pole radio ISO-A (W14)		21	
X72	Buchse 8pol. Radio ISO-B (W14) jack 8 pole radio ISO-B (W14)		21	
X73	Steckverbinder 3pol. Video (W6) connector 3 pole camera (W6)		12	
X73A	Steckverbinder 3pol. Video connector 3 pole camera		22	
X75	Steckverb. 13pol. Bildschirm connector 13 pole display		22	
X76	Steckverb. 4pol. Kamera 1 connector 4 pole camera 1		22	
X77	Steckverb. 4pol. Kamera 1 connector 4 pole camera 1		22	
X79	Steckverb. 4pol. Kamera 2 connector 4 pole camera 2		22	
X80	Steckverbinder 8pol. (W44<->W44) connector 8 pole (W44<->W44)		20	
X82	Steckverbinder 2 pol. (W9<-W1) connector 2 pole (W9<->W1)		30	
X82	Steckverbinder 2 pol. (W9<-W1) connector 2 pole (W9<->W1)		5	
X83A	Steckverbinder 1pol. (W4) connector 1 pole (W4)		18	
X83B	Steckverbinder 1pol. (WS4) connector 1 pole (WS4)		18	
X84A	Steckverbinder 1pol. (W4) connector 1 pole (W4)		18	
X84B	Steckverbinder 1pol. (WS4) connector 1 pole (WS4)		18	
X91	Steckverbinder 8pol. (W5<->W77/W79) connector 8 pole (W5<->W77/W79)		23	
X91A	Steckverbinder 8pol. (W5<->W79) connector 8 pole (W5<->W79)		32	
X92	Steckverbinder 6pol. (W77/W79<->W44) connector 6 pole (W77/W79<->W44)		23	
X92A	Steckverbinder 6pol. (W77/W79<->W44) connector 6 pole (W77/W79<->W44)		20	
X92D	Steckverbinder 6pol. (W79<->W44) connector 6 pole (W79<->W44)		32	
X93	Steckverbinder 12pol. (W10<-W40) connector 12 pole (W10<->W40)		15	
X94	Steckverbinder 8pol. (W10<-W40) connector 8 pole (W10<->W40)		15	
X96	Steckverbinder 4pol. (W6<->W22) connector 4 pole (W6<->W22)		24	
X100	Steckverbinder 1pol. (W1<->W5) connector 1 pole (W1<->W5)		7	
X104	Steckverbinder 3pol. (W4<->W41/W43) connector 3 pole (W4<->W41/W43)		11	
X104/X105	Steckverbinder 3pol. (W4<->W41/W43) connector 3 pole (W4<->W41/W43)		28	
X104/X105	Steckverbinder 3pol. (W4<->W41/W43) connector 3 pole (W4<->W41/W43)		28	
X105	Steckverbinder 3pol. (W4<->W41/W43) connector 3 pole (W4<->W41/W43		11	
X106	Steckverbinder 1pol. (W14) connector 1 pole (W14)		21	
X107	Steckverbinder 1pol. (W4) connector 1 pole (W4<->W4)		12	
X110	Stecker 6pol. Diagnose Fleet (W77) diagnosis socket 6 pole Fleet (W77)		23	
XB26	Steckverb. 4pol. Überlast connector 4 pole overload		21	
XS01	USSP 30 (W5) ussp 30 (W5)		6	
XS02	USSP 30 (W5) ussp 30 (W5)		6	
XS04	USSP 58 (W5) ussp 58 (W5)		6	
XS05	USSP (W10) ussp (W10)		25	
XS06	USSP (W7) ussp (W7)		25	
XS07	USSP (W7) ussp (W7)		25	
XS08	USSP (W5) ussp (W5)		9	
XS09	USSP (W1) ussp (W1)		8	
XS10	USSP (W5) ussp (W5)		13	
XS11	USSP (W5) ussp (W5)		13	

Teil Part	Beschreibung Description	Sachnummer Code no	Position Sheet Pos	Ort Loc
XS12	USSP (W5) ussp (W5)		8	
XS14	USSP (W5) ussp (W5)		13	
XS15	USSP 58 (W5) ussp 57 (W5)		6	
XS16	USSP 15 (W5) ussp 15 (W5)		6	
XS20	USSP (W5) ussp (W5)		13	
XS21	USSP (W1) ussp (W1)		14	
XS24	Stossverbinder (W11) butt joint (N/W11)		17	
XS25	USSP (W10) ussp (W10)		15	
XS26	USSP (W10) ussp (W10)		15	
XS28	USSP (W5) ussp (W5)		25	
XS29	USSP (W1) ussp (W1)		25	
XS31	USSP (W10) ussp (W10)		13	
XS34	USSP (W2) ussp (W2)		26	
XS35	USSP (W2) ussp (W2)		26	
XS36	USSP (W4) ussp (W4)		9	
XS37	USSP (W4) ussp (W4)		20	
XS39	USSP (W1) ussp (W1)		16	
XS40	USSP 75 (W5) ussp 75 (W5)		6	
XS41	USSP (W5) ussp (W5)		5	
XS42	USSP (W5) ussp (W5)		11	
XS43	Stossverbinder (W30) butt joint (W30)		22	
XS44	USSP (W5) ussp (W5)		11	
XS45	USSP (W5) ussp (W5)		5	
XS46	USSP (W5) ussp (W5)		8	
XS48	Stossverbinder (W35) butt joint (N/W35)		17	
XS53	USSP (W7) ussp (W7)		16	
XS54	USSP (W7) ussp (W7)		16	
XS56	Stossverbinder (W23) butt joint (W23)		17	
XS58	USSP (W1) ussp (W1)		5	
XS59	USSP (W1) ussp (W1)		5	
XS60	USSP (W77) ussp (W77)		23	
XS61	USSP (W10) ussp (W10)		15	
XS62	USSP (W10) ussp (W10)		15	
XS63	USSP (W7) ussp (W7)		16	
XS64	USSP (W7) ussp (W7)		16	
XS65	USSP (W7) ussp (W7)		16	
XS67	USSP (W18) ussp (W18)		19	
XS68	USSP (W18) ussp (W18)		19	
XS69	USSP (W19) ussp (W19)		19	
XS70	USSP (W19) ussp (W19)		19	
XS71	USSP (W19) ussp (W19)		19	
XS72	USSP (W19) ussp (W19)		19	
XS73	USSP (W6) ussp (W6)		25	

	0	Integrated acc.	4000-34	20.01.20	DK	2019	Date	Name	CM650	Name: Schaltplan / circuit diagram	Drawing Number: 91039362
						Drawn by	21.08	DK			
						Verified			Replacem. for		
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 / Sheet 3

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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 Gebläse 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 Gerätetr.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 (Armlehne) 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 (lighting/hydr.valves)	97149306		
W8	Kabelbaum W8 (Arbeitsscheinwerfer) 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 attachement 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.-Frontmähwerk) wire harness W23 (universal front mower)	97134134		
W29	Kabelbaum W29 (Anbaug. unkodiert) wire harness W29 (attatchment uncoded)	97127591		
W30	Kabelbaum W30 (Behälter Heckbetätigung) wire harness W30 (container switch rear)	97126809		
W35	Kabelbaum W35 (Frontkehrmaschine) wire harness W35 (front sweeping mashine)	97721070		
W40	Kabelbaum W40 (Steckdose X63) wire harness W40 (socket X63)	97142814		
W41	Kabelbaum W41 (Blink/Posl. Std.) wire harness W41 (front indicator/posl. Std.)	97154157		
W42	Kabelbaum W42 (Hauptscheinwerfer LED) wire harness W42 (headlights LED)	97156822		
W43	Kabelbaum W43 (Blink/Posl. LED) wire harness W43 (front indicator/posl. 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	Kabelbaubaum 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		

						2019	Date	Name	CM650	Name	Drawing Number
	0	Integrated acc.	4000-34	20.01.20	DK	Drawn by	21.08	DK		Schaltplan / circuit diagram	91039362
						Verified			Replacem. for		
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 / Sheet 4

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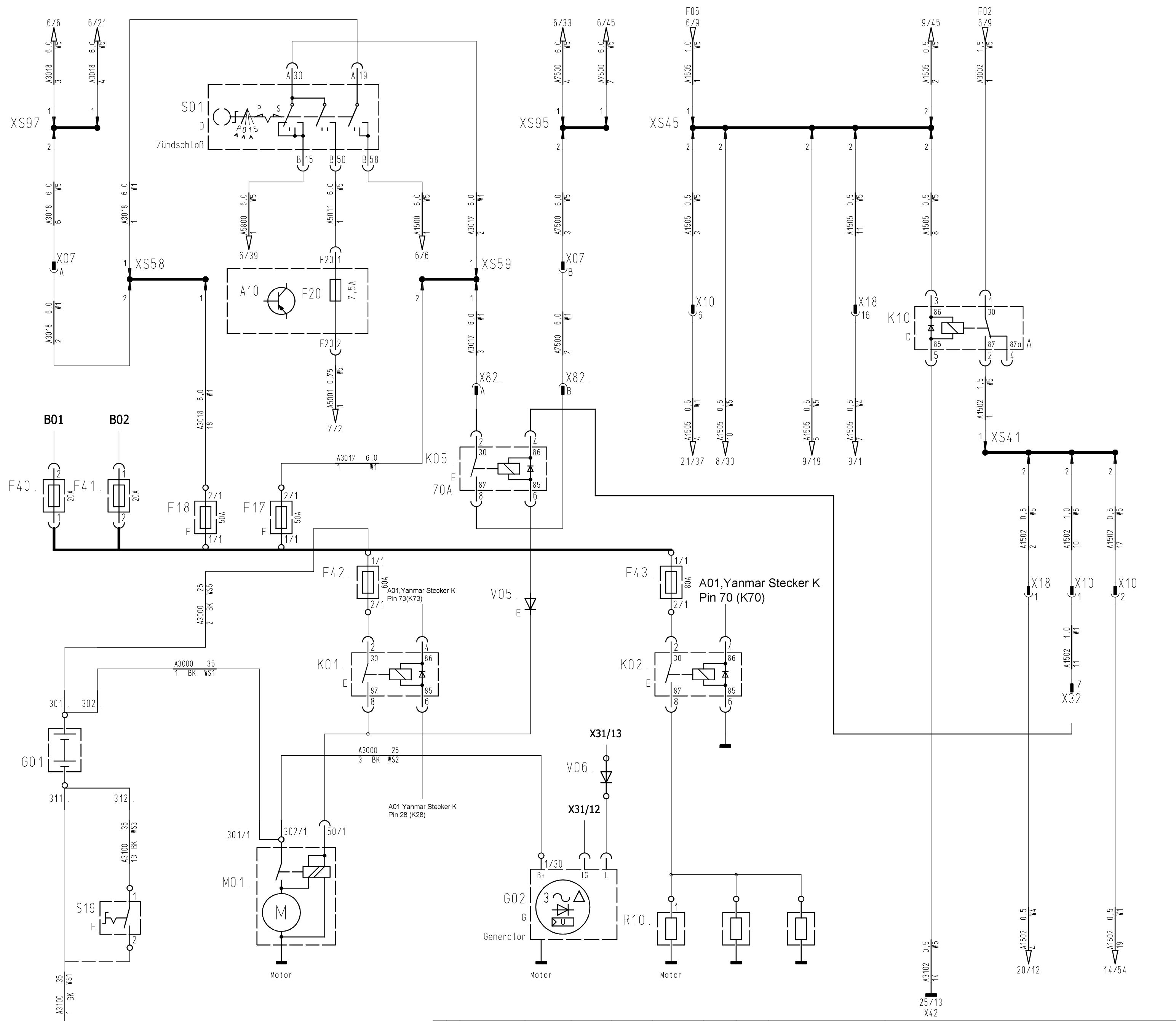

Legende

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	Zündstartschalter starter switch
S19	Batterietrennschalter 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

A2 No Number appears Change No Date Name

2019 Date 21.08 Name DK — Drawn by DK — Verified — Standard

CM650 Replacem. for Change No

Name: Schaltplan / circuit diagram

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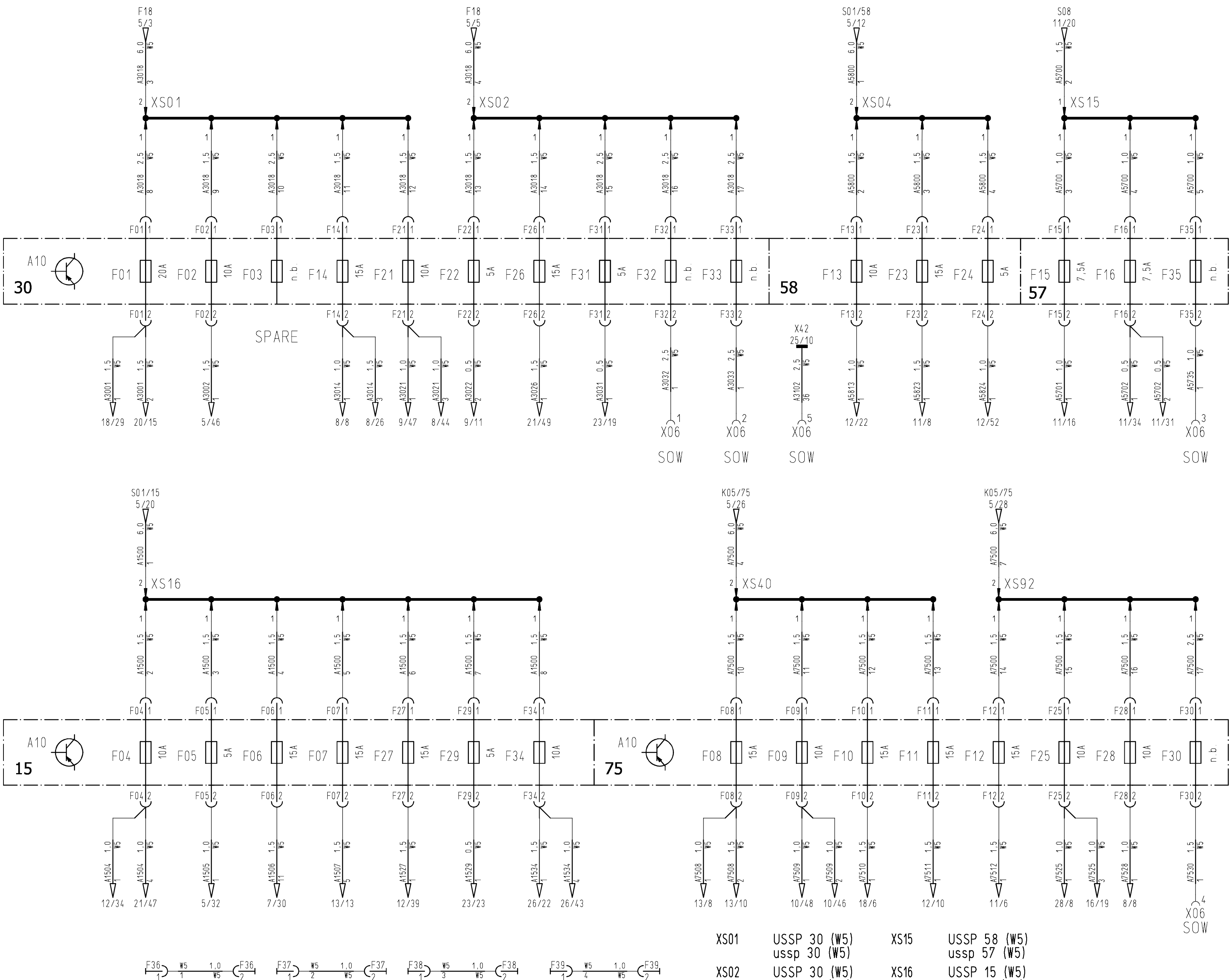
KABI 472

Hako GmbH D-23840 Bad Oldesloe

Type 1470 Dep DS

Drawing Number 91039362

No. of Sh. 38 Sheet 5



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)		
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)	XS92	USSP 75 (W5) ussp 75 (W5)

A2	No	Number appears	Change No	Date	Name
	0	Integrated acc	4000-34	20.01.20	DK

2019 | Date 24.04 | Name DK
Drawn by | Verified | Standard
CM650
Replacem. for same no.
Change No 9245-08

Name: Schaltplan / circuit diagram

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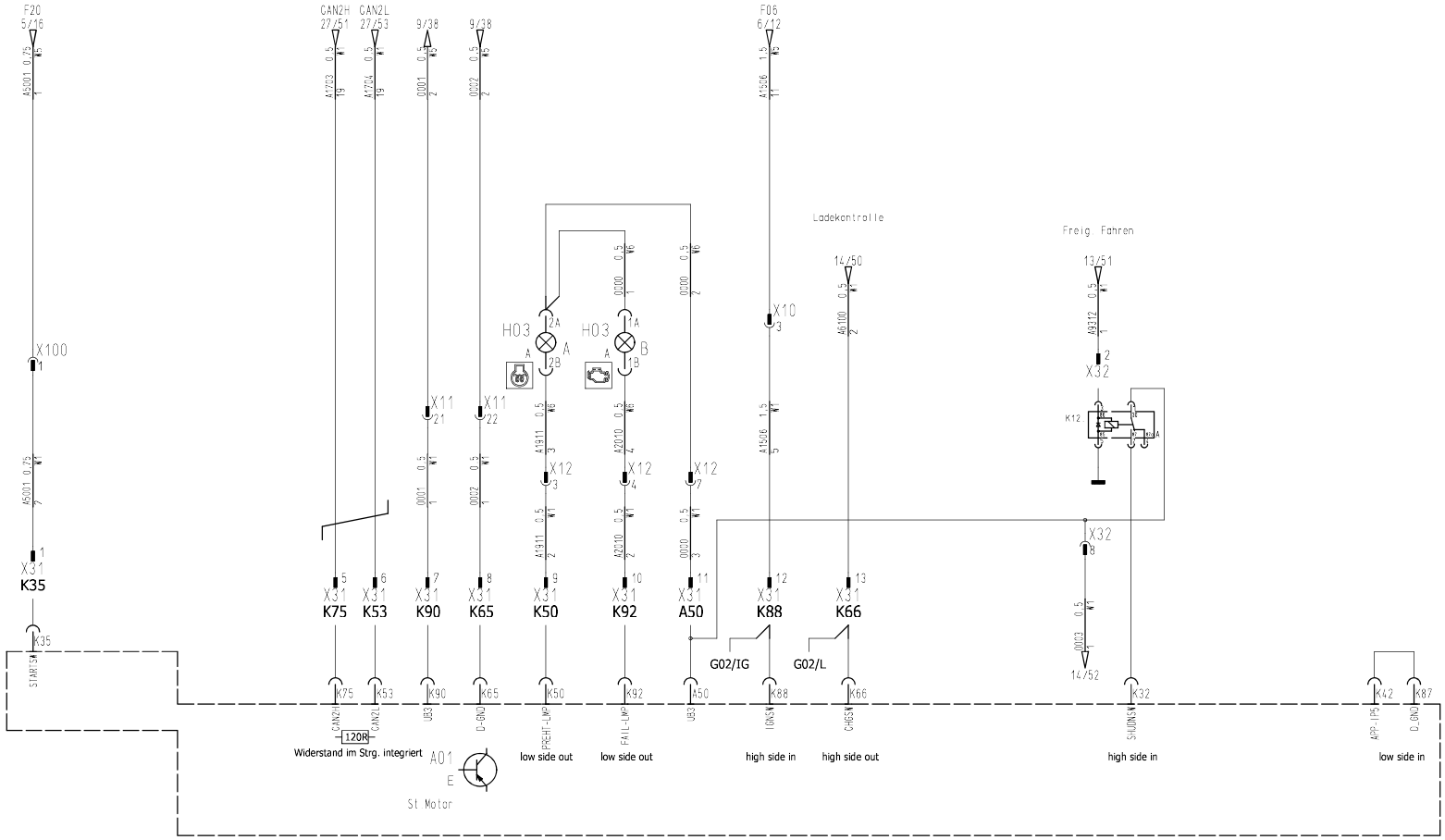
KABI 472

Hako GmbH
D-23840 Bad Oldesloe

Type 1470 | Dep. DS

Drawing Number 91039362

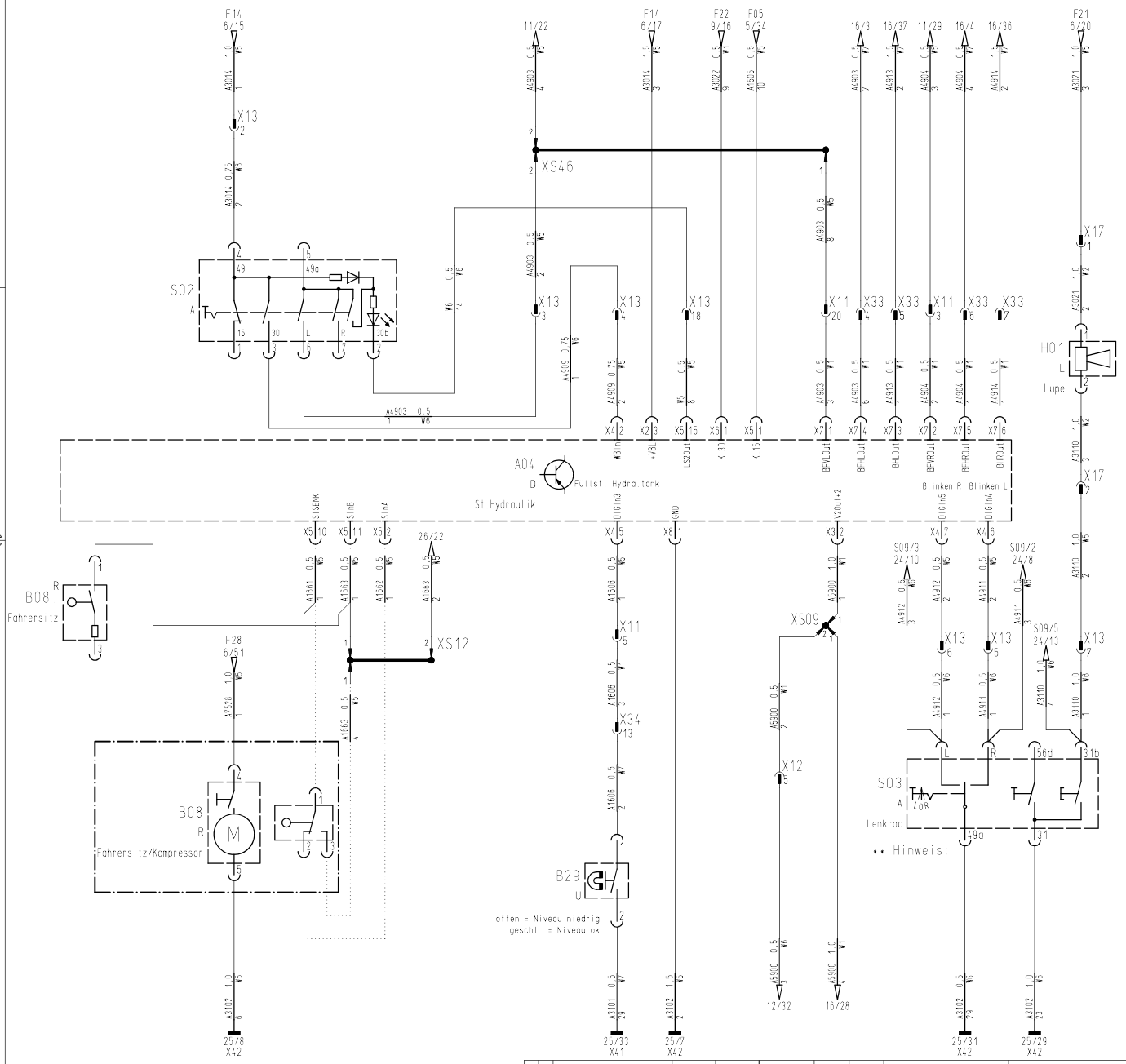
No. of Sh. 38 | Sheet 6



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)

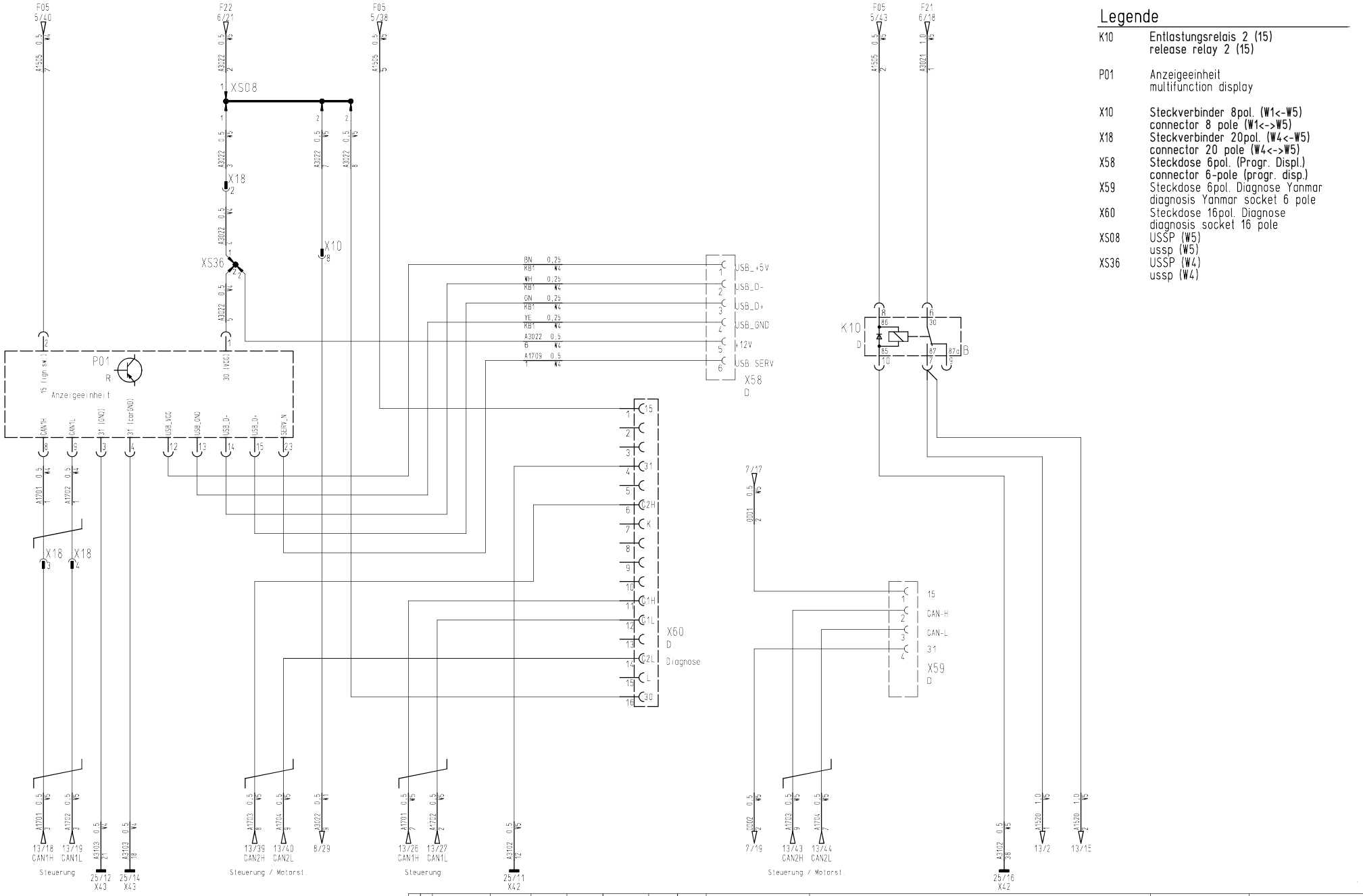
	0	Integrated acc.	4000-34	20.01.20	DK	2019	Date	Name	CM650	Name: Schaltplan / circuit diagram	Hako GmbH D-23840 Bad Oldesloe	Drawing Number: 91039362
						Drawn by	21.08	DK	Replacem. for			
A2	No.	Number appears	Change No.	Date	Name	Verified			Change No.	For this drawing we reserve all rights (acc.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



Legende

A04	Steuergerät Hydraulik controller hydraulic valves
B08	Kompressor Fahrersitz seat switch/compressor
B08.	Sitzkontaktschalter seat switch
B29	Füllstandsensor Hydrauliköltank level sensor hydraulic oil tank
H01	Hupe horn
S02	Warnblinkschalter switch warning flasher
S03	Lenkstockschalter 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)

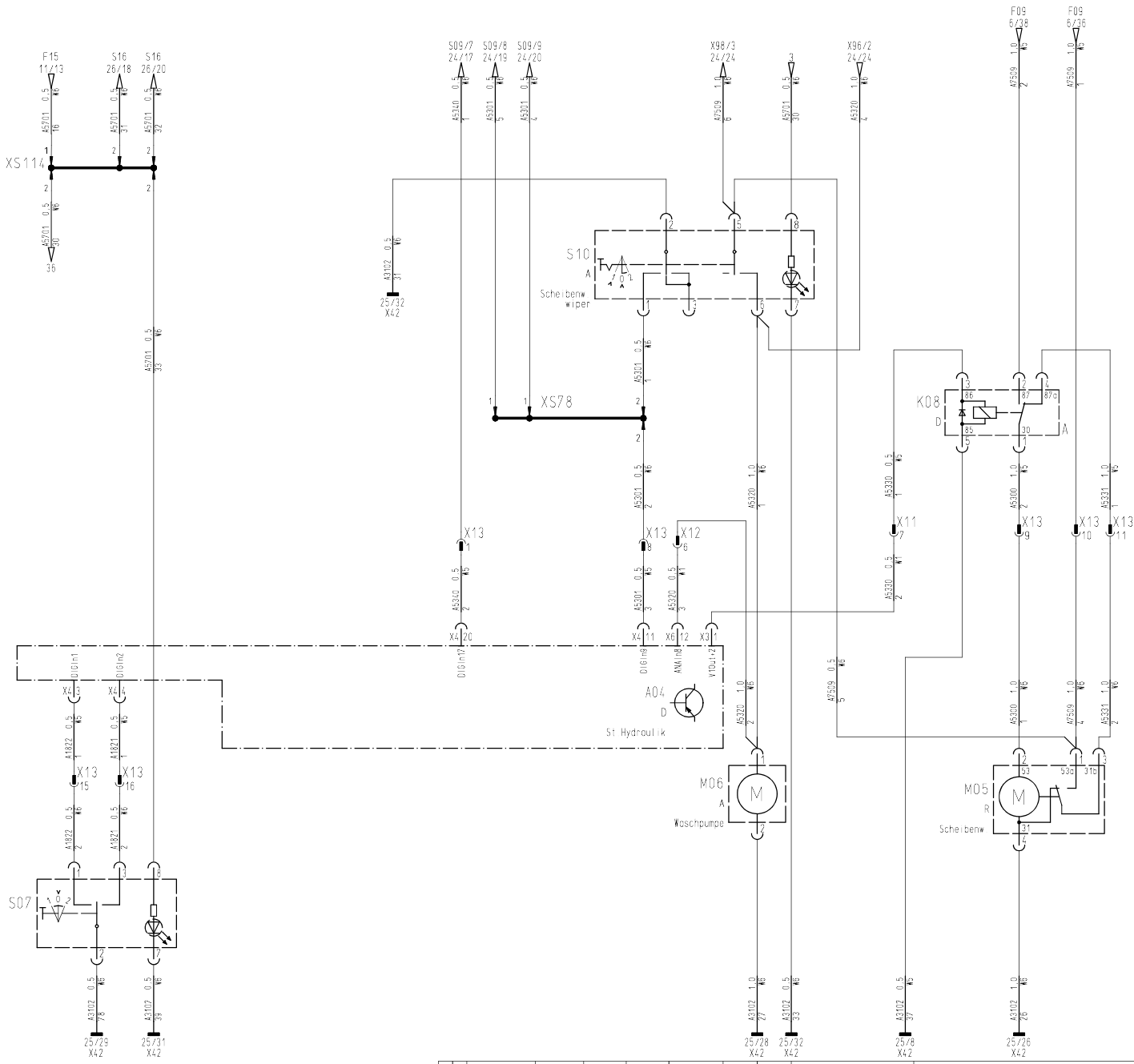
	0	Integrated acc.	4000-34	20.01.20	DK	2019	Date	Name	CM650	Name	Hako GmbH D-23840 Bad Oldesloe	Drawing Number	
						Drawn by	21.08	DK		Schaltplan / circuit diagram		91039362	
						Verified			Replacem. for				
A2	No.	Number appears	Change No.	Date	Name	Standard			Change No.	For this drawing we reserve all rights (acc. DIN ISO 16016)	KABI 470	Type 1470 Dep. DS	No. of Sh. 38 Sheet 8



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 Yanmar socket 6 pole
X60	Steckdose 16pol. Diagnose diagnosis socket 16 pole
XS08	USSP (W5) ussp (W5)
XS36	USSP (W4) ussp (W4)

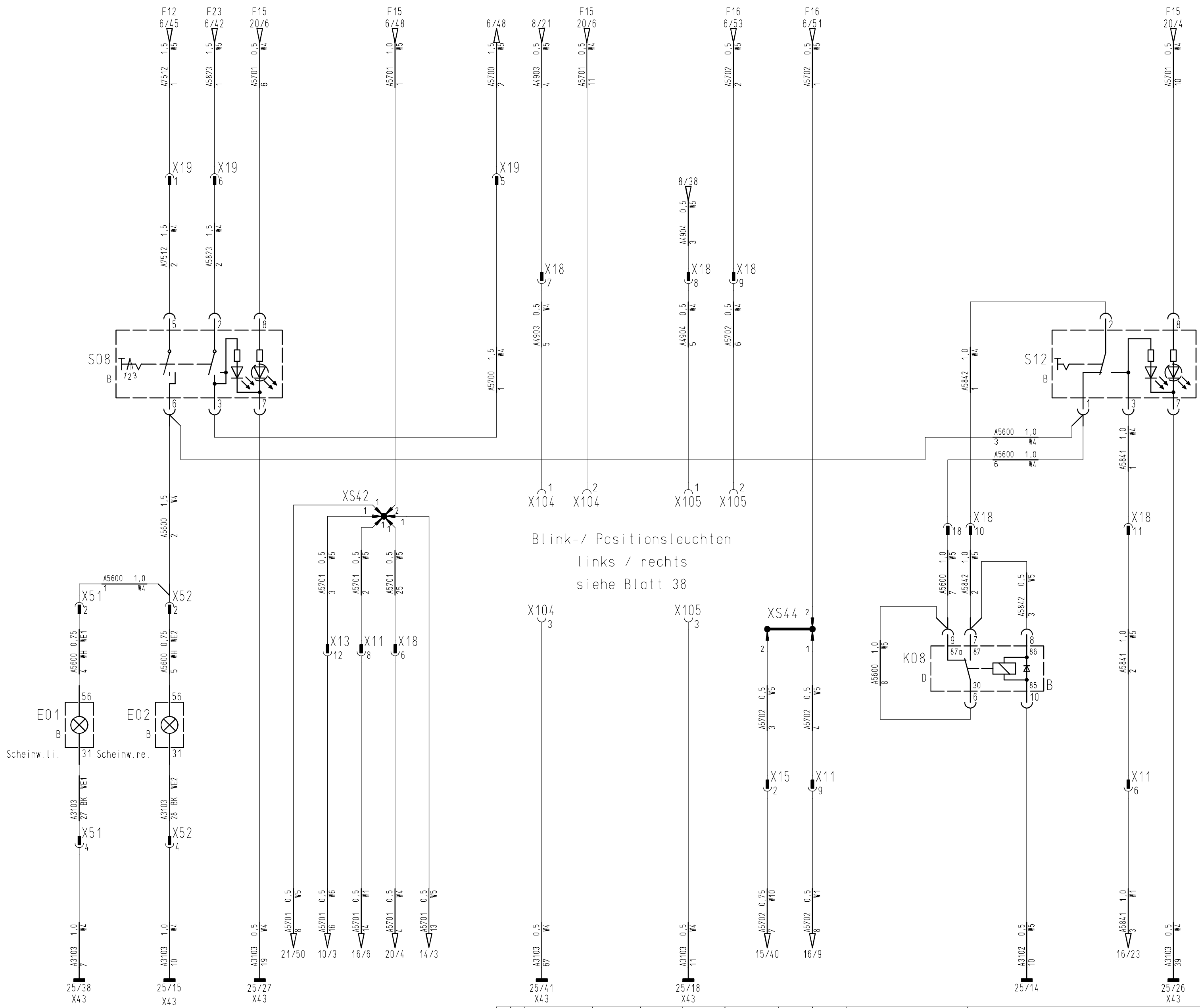
	0	Integrated acc	4000-34	20.01.20	DK	2019	Date	Name	CM650	Name	Hako GmbH D-23840 Bad Oldesloe	Drawing Number	
						Drawn by	21.08	DK		Schaltplan / circuit diagram		91039362	
A2	No	Number appears	Change No	Date	Name	Verified			Replacem. for				
						Standard			Change No	For this drowing we reserve all rights (acc. DIN ISO 16016)	KABI 470	Type 1470 Dep. DS	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)

A2	No	Number appears	Change No	Date	Name	2019	Date	Name	CM650	Name	Hako GmbH D-23840 Bad Oldesloe	Drawing Number
	0	Integrated acc	4000-34	20.01.20	DK	Drawn by	21.08	DK	Replacem for	Schaltplan / circuit diagram		91039362
						Verified			Change No			
						Standard				For this drawing we reserve all rights (acc DIN ISO 16016)	KABI 472	Type 1470 Dep DS	No of Sh 38 Sheet 10



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)

0	Integrated acc	4000-34	20.01.20	DK	2019	Date	Name	CM650	Name: Schaltplan / circuit diagram
					Drawn by	21.08	DK	Replacem. for	
					Verified				
A2 No	Number appears	Change No	Date	Name	Standard			Change No	

Schaltplan / circuit diagram

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KABI 470

Hako GmbH D-23840 Bad Oldesloe

Type 1470 Dep. DS

Drawing Number 91039362

No. of Sh. 38 Sheet 11

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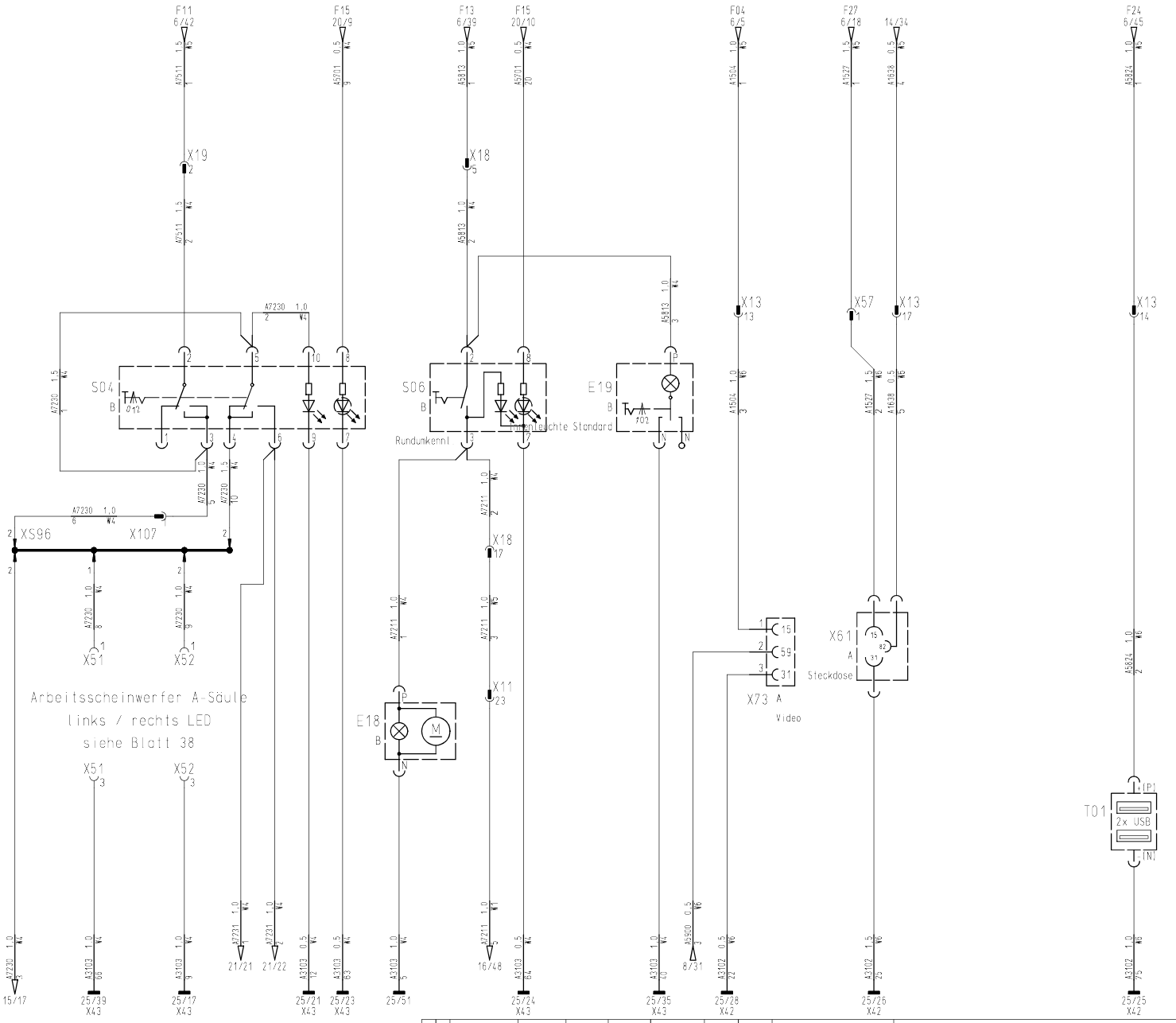

Legende

E18	Rundumkennleuchte Standard rotaing 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)

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

A2	No	Number appears	Change No	Date	Name	0	Integrated acc	4000-34	20.01.20	DK	2019	Date	Name	CM650	Name: Schaltplan / circuit diagram
											Drawn by	21.08	DK	Replacem. for	
											Verified			Change No	
											Standard				

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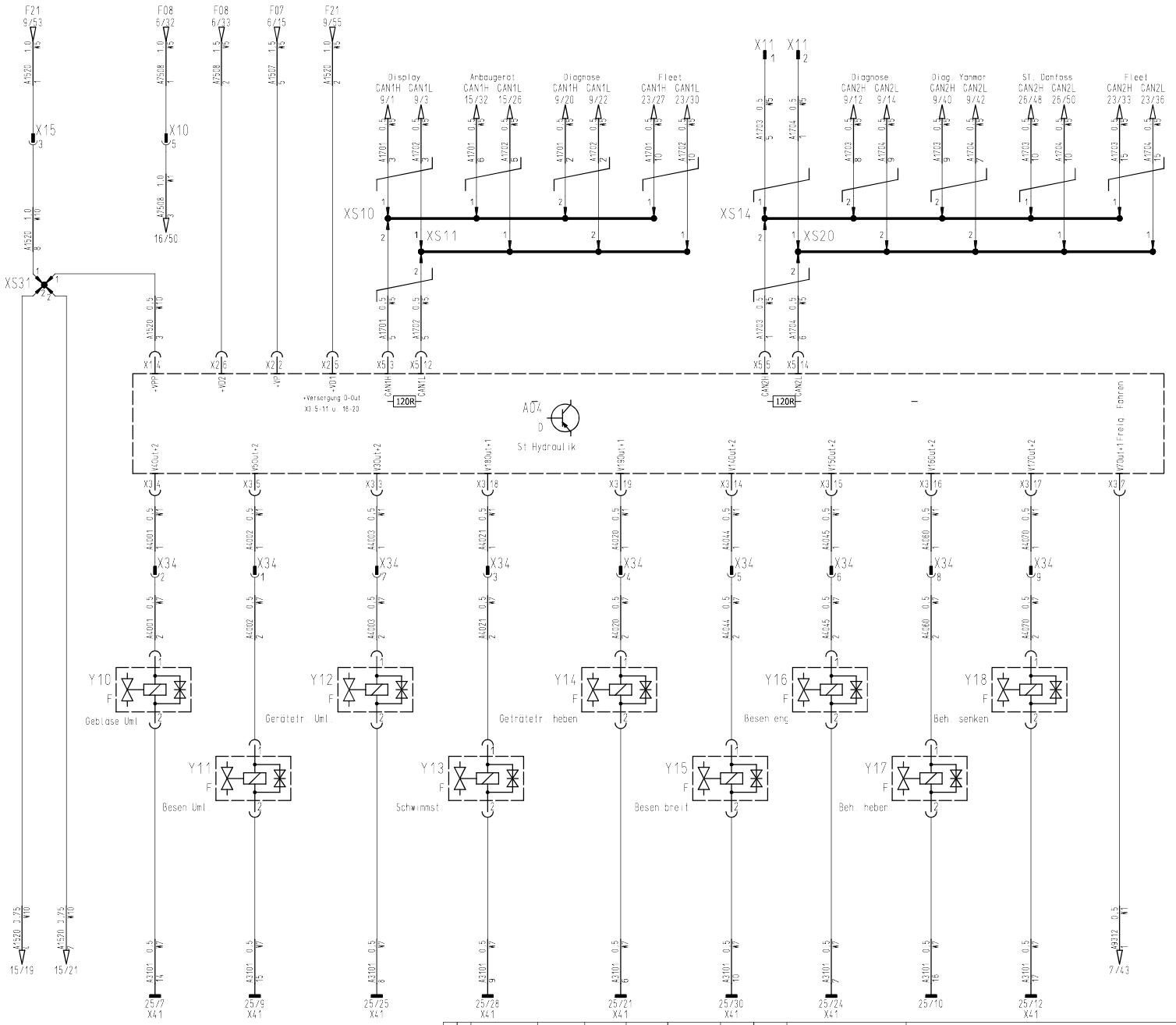
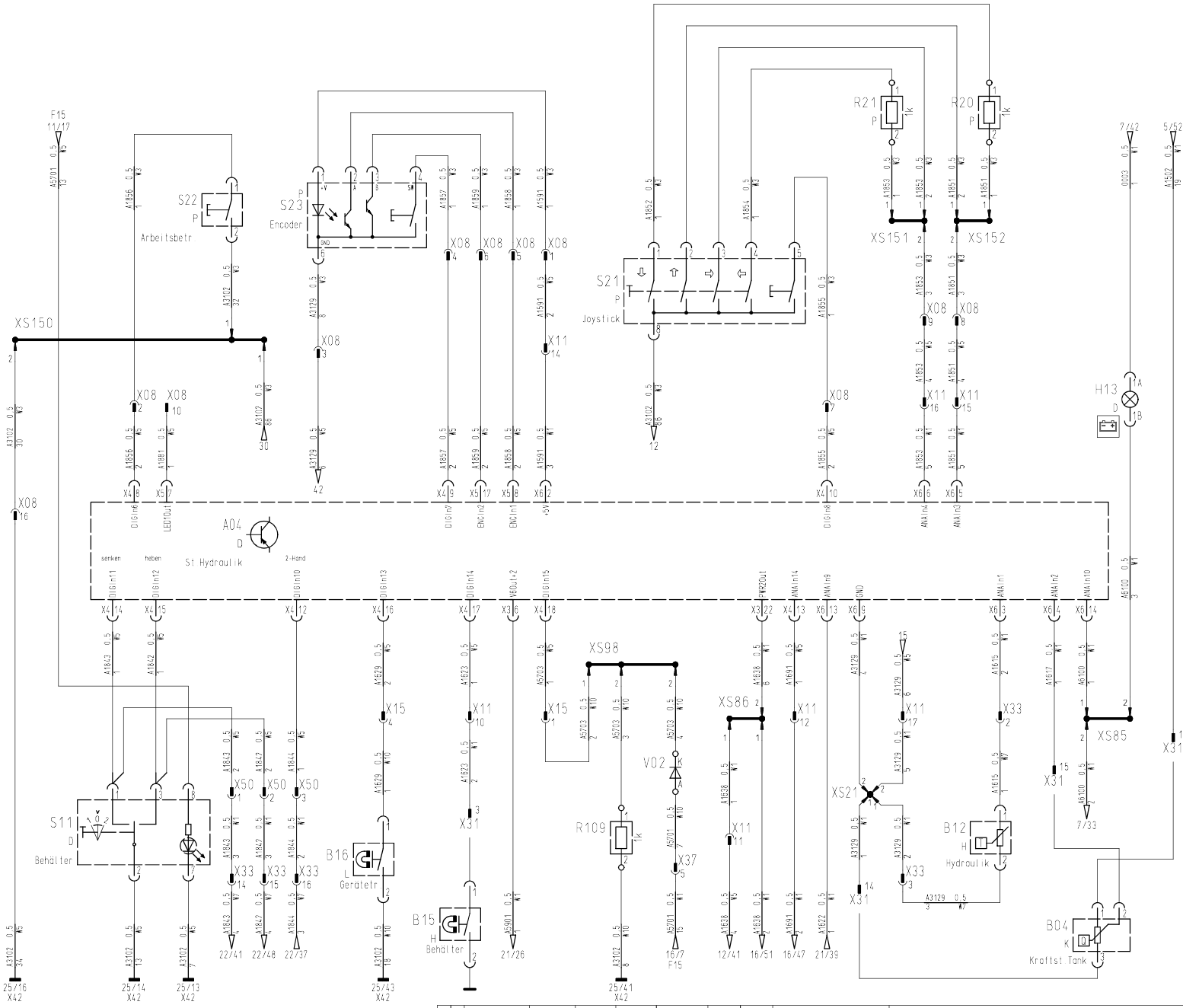


Legende

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

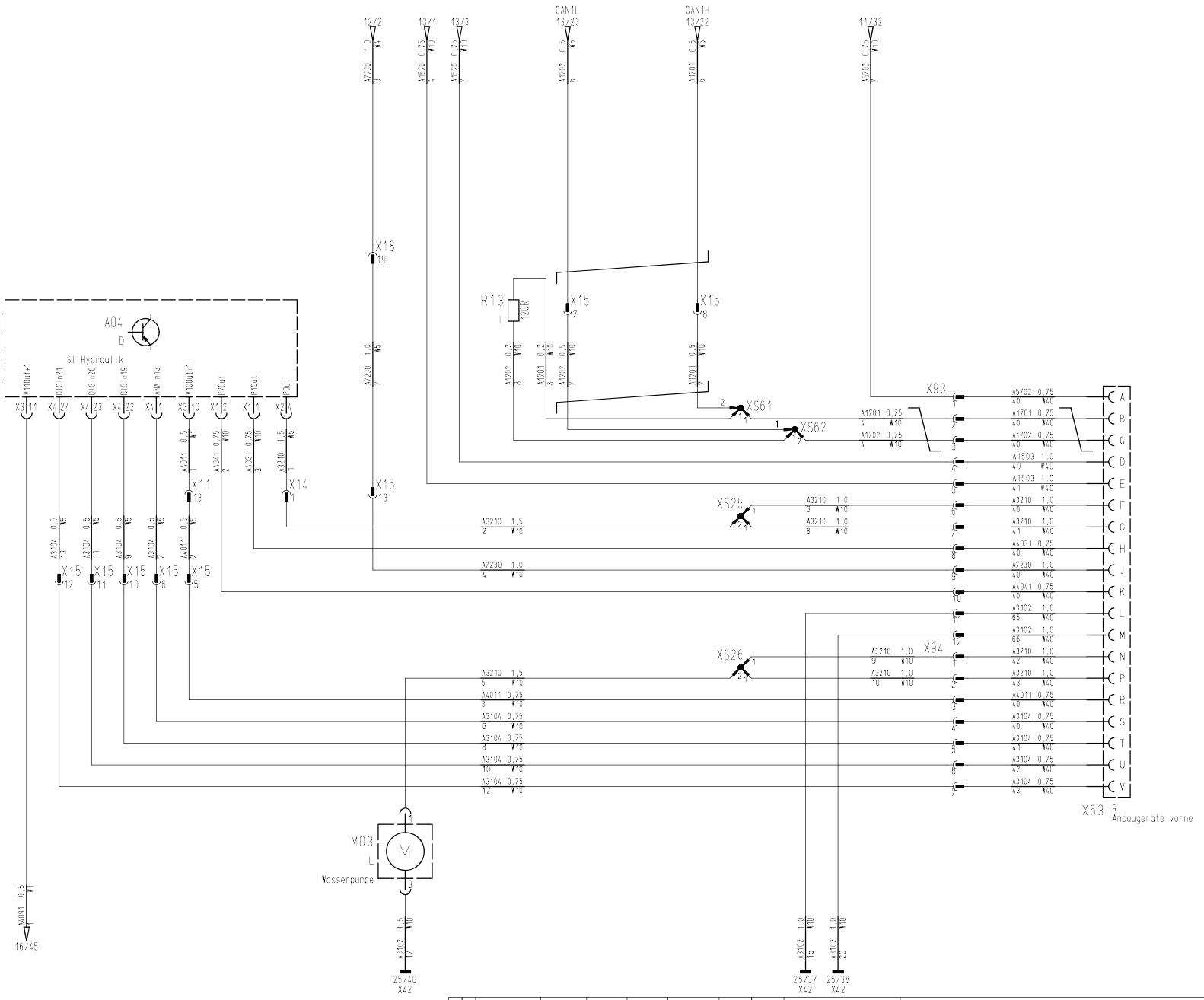
	0	Integrated acc.	4000-34	20.01.20	DK	2019	Date	Name	CM650	Name: Schaltplan / circuit diagram	Hako GmbH D-23840 Bad Oldesloe	Drawing Number: 91039362	
						Drawn by	21.08	DK					
						Verified			Replacem. for				
A2	No.	Number appears	Change No.	Date	Name	Standard			Change No.	For this drawing we reserve all rights (acc. DIN ISO 16016)	KABI 470	Type 1470 Dep. DS	No. of Sh. 38 Sheet 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)

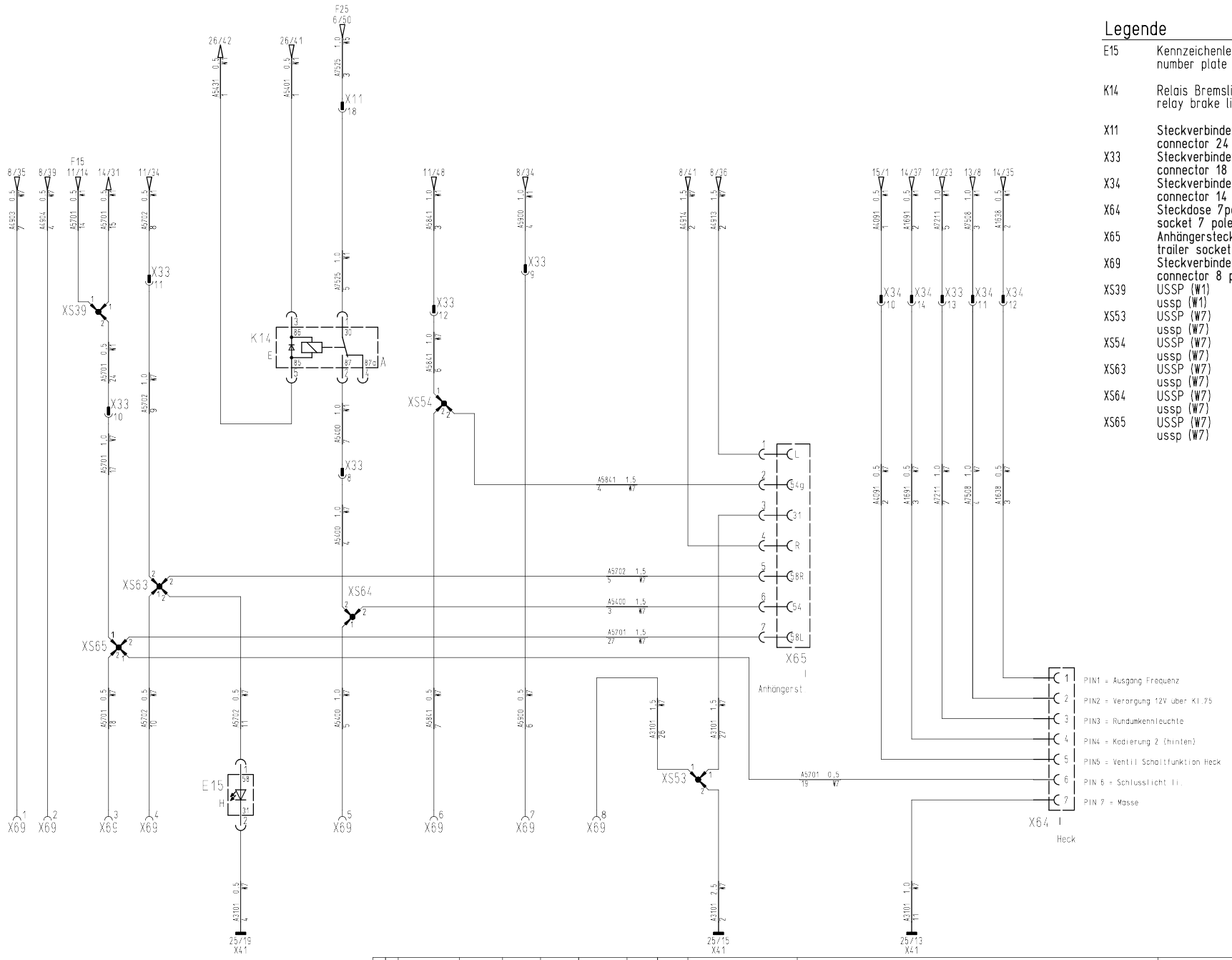
A2	0	Integrated acc	4000-34	20.01.20	DK	2019	Date	Name	CM650	Name: Schaltplan / circuit diagram	Hako GmbH D-23840 Bad Oldesloe	Drawing Number: 91039362	
	No.	Number appears	Change No.	Date	Name	Drawn by	21.08	DK	Replacem. for				
						Verified			Change No.	For this drawing we reserve all rights (acc. DIN ISO 16016)	KABI 470	Type 1470 Dep. DS	No. of Sh. 38 Sheet 14
						Standard							



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	2019	Date	Name	CM650	Name	Hako GmbH D-23840 Bad Oldesloe	Drawing Number
						Drawn by	21.08	DK		Schaltplan / circuit diagram		91039362
A2	No.	Number appears	Change No.	Date	Name	Verified			Replacem. for		Type 1470 Dep. DS	No. of Sh. 38 Sheet 15
						Standard			Change No.	For this drawing we reserve all rights (acc. DIN ISO 16016)	KABI 470	



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)

	0	Integrated acc	4000-34	20.01.20	DK	2019	Date	Name	CM650	Name	Drawing Number
						Drawn by	21.08	DK		Schaltplan / circuit diagram	91039362
A2	No.	Number appears	Change No.	Date	Name	Verified			Replacem. for		
						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 16

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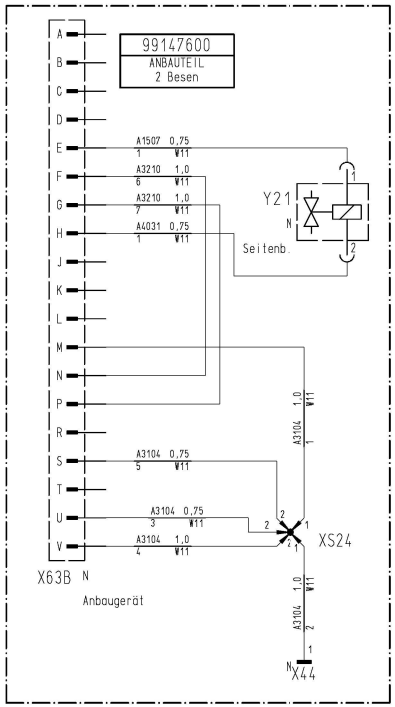

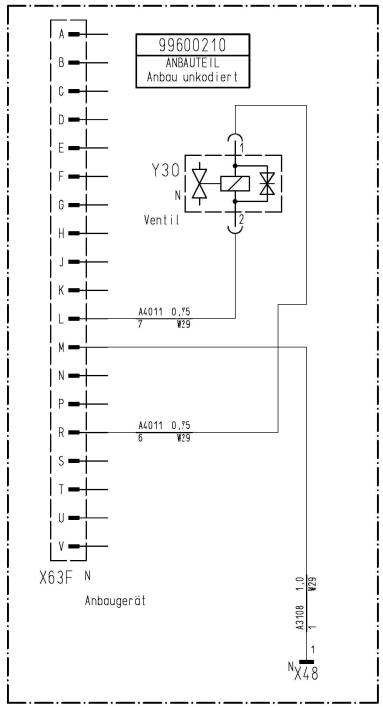

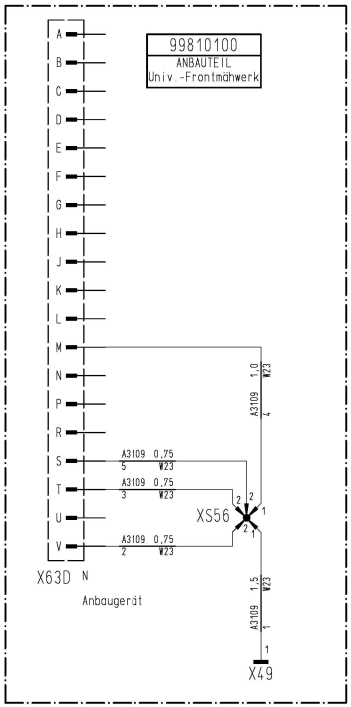

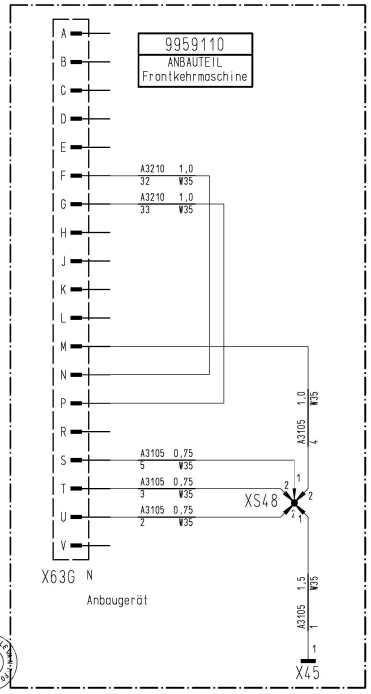

Legende

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 sucction
X63B	Stecker 19pol. 2-Besen (W11) plug 19 pole 2-brooms (W11)
X63D	Stecker 19pol. Mäh.-Saugkombi. plug 19 pole mower sucction (W23)
X63F	Stecker 19pol. Anbauger. unkodiert cttechment 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

A2	0	Integrated acc.	4000-34	20.01.20	DK	2019	Date	Name	CM650	Name: Schaltplan / circuit diagram	Drawing Number: 91039362
						Drawn by	21.08.	DK			
						Verified			Replacem. for		
	No.	Number appears	Change No.	Date	Name	Standard			Change No.		

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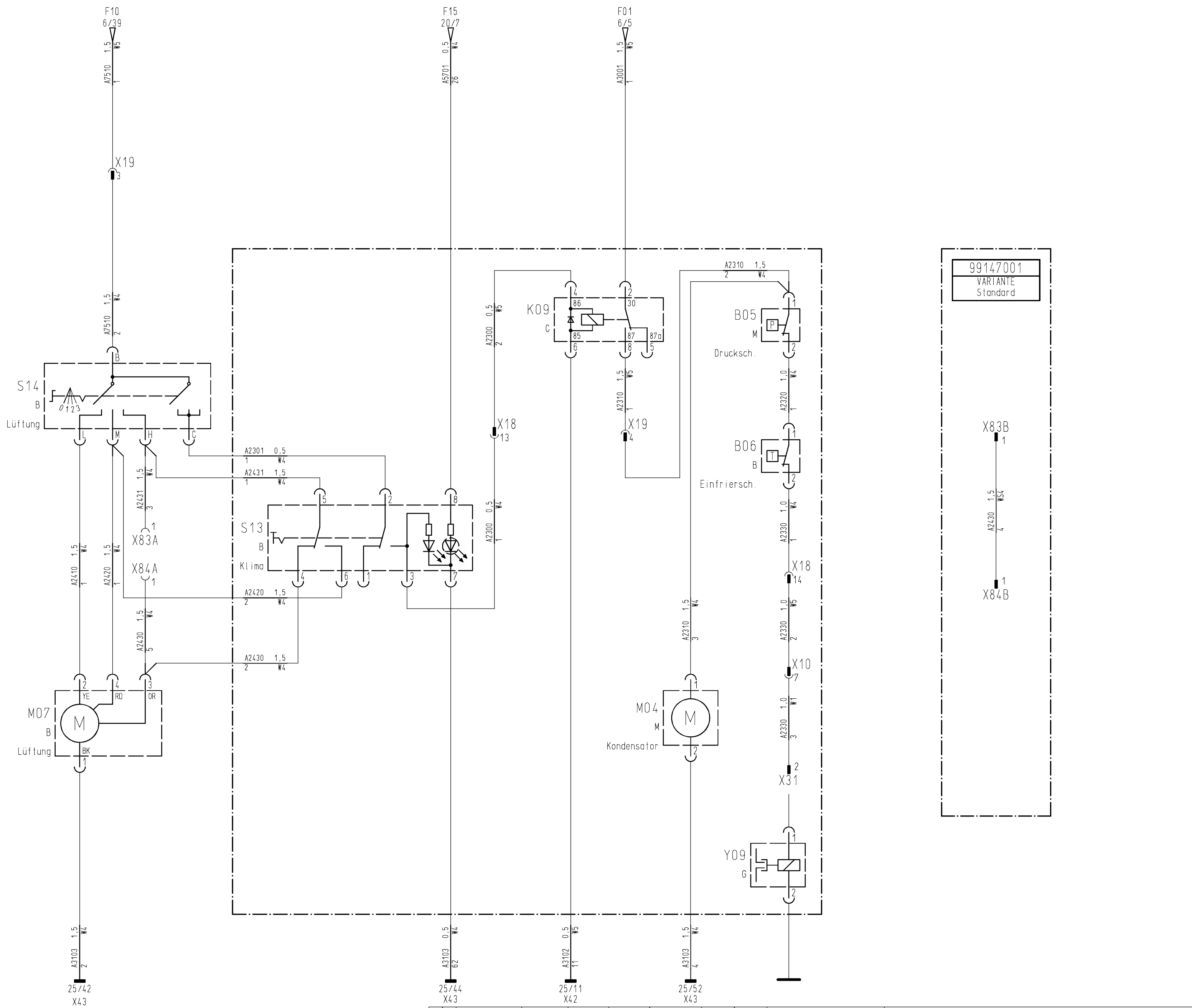

Legende

B05	Druckschalter Klimaanl. (Var.Comfort) pressure switch AC (var.Comfort)
B06	Einfrierschutz Klimaanl. (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)

A2	No	Number appears	Change No	Date	Name					
	0	Integrated acc	4000-34	20.01.20	DK	2019	Date	Name	CM650	
						Drawn by	21.08	DK	Replacem. for	
						Verified			Change No	
						Standard				

Name: Schaltplan / circuit diagram

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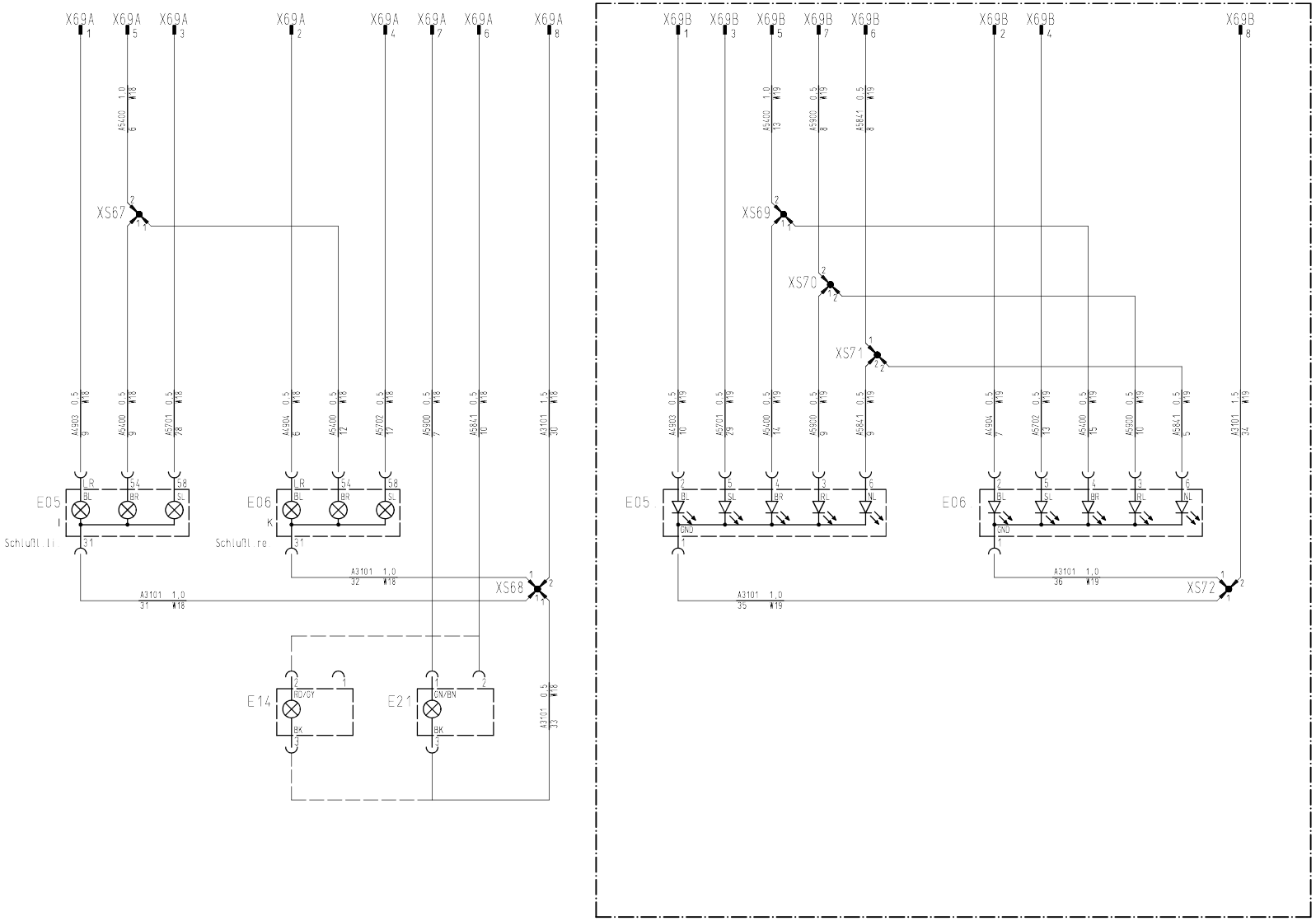
KABI 470

Hako GmbH D-23840 Bad Oldesloe

Type 1470 Dep. DS

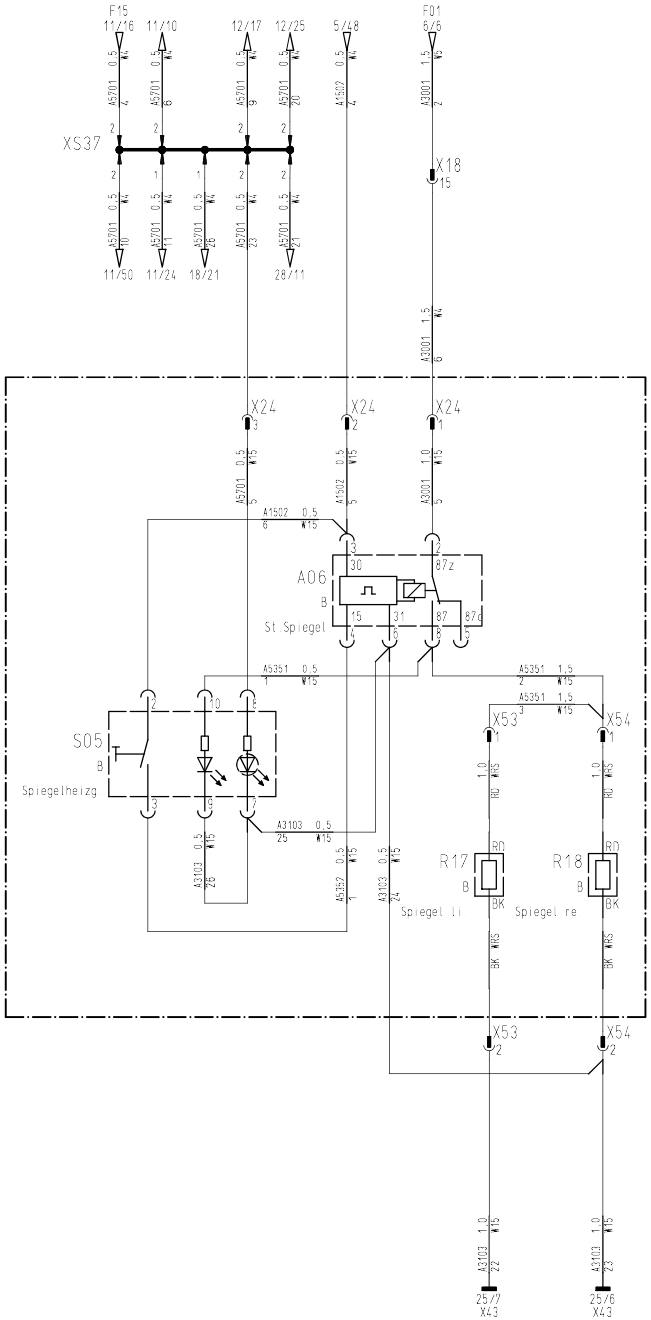
Drawing Number 91039362

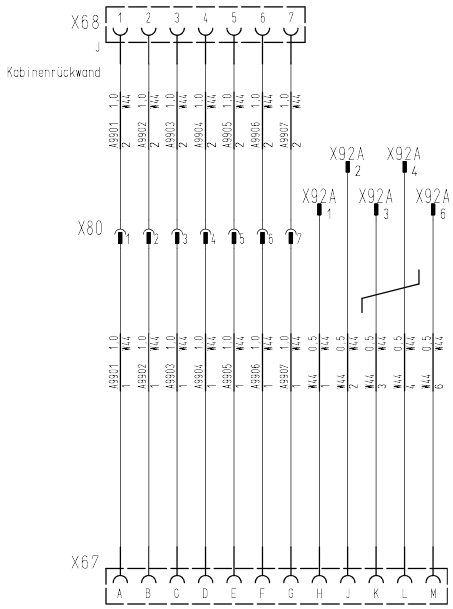


Legende

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	CM65C	Name	Hako GmbH D-23840 Bad Oldesloe	Drawing Number	
						Drawn by	21.08	DK		Schaltplan / circuit diagram		91039362	
A2	No.	Number appears	Change No.	Date	Name	Verified			Replacem. for				
						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 19

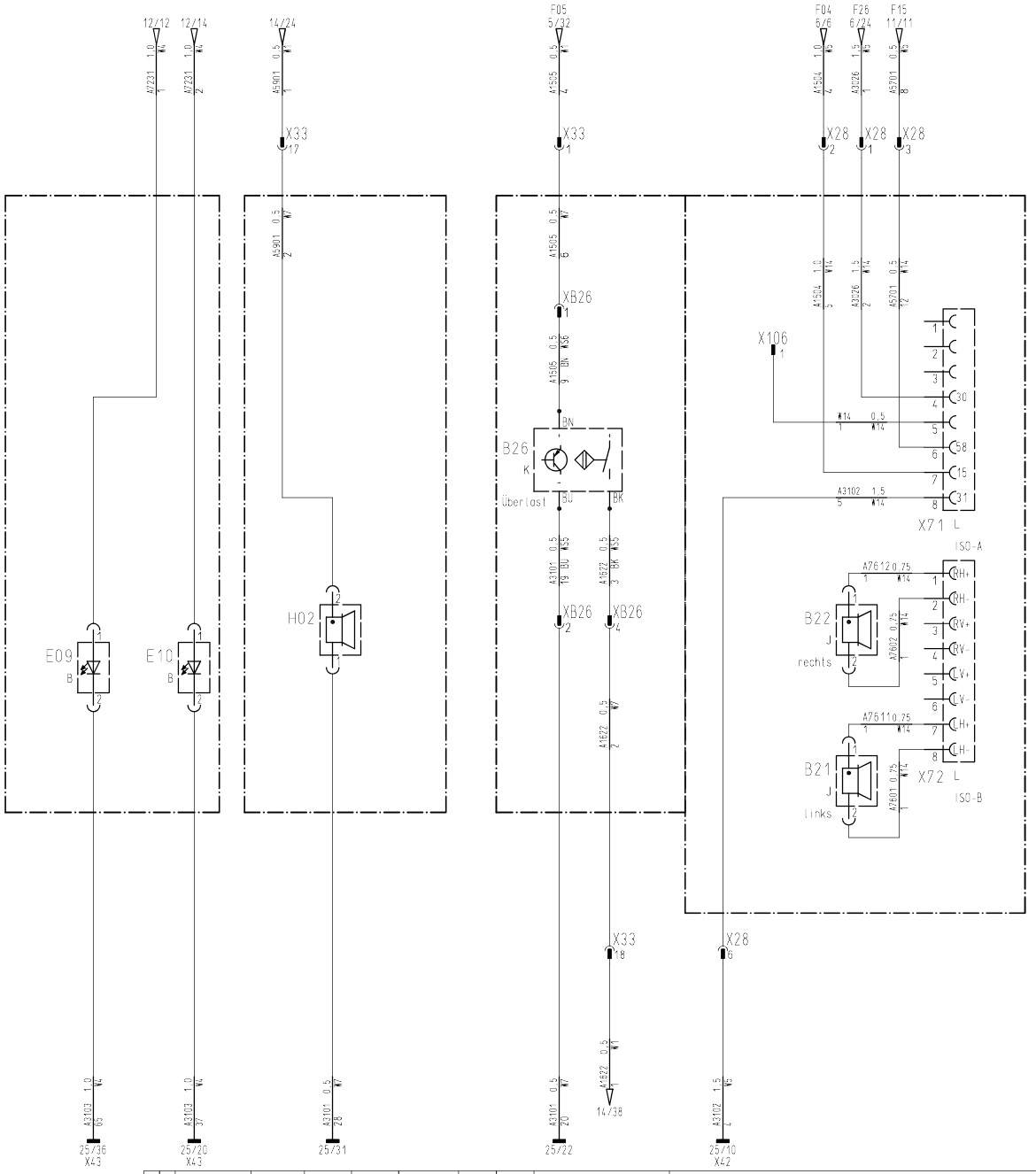




Legende

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)

	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		Schaltplan / circuit diagram		91039362	
						Verified			Replacem. for				
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 20



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

								2019	Date	Name	CM650	Name	Drawing Number
	0	Integrated acc.	4000-34	20.01.20	DK			Drawn by	21.08	DK		Schaltplan / circuit diagram	91039362
								Verified			Replacem. for		
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 / Sheet 21

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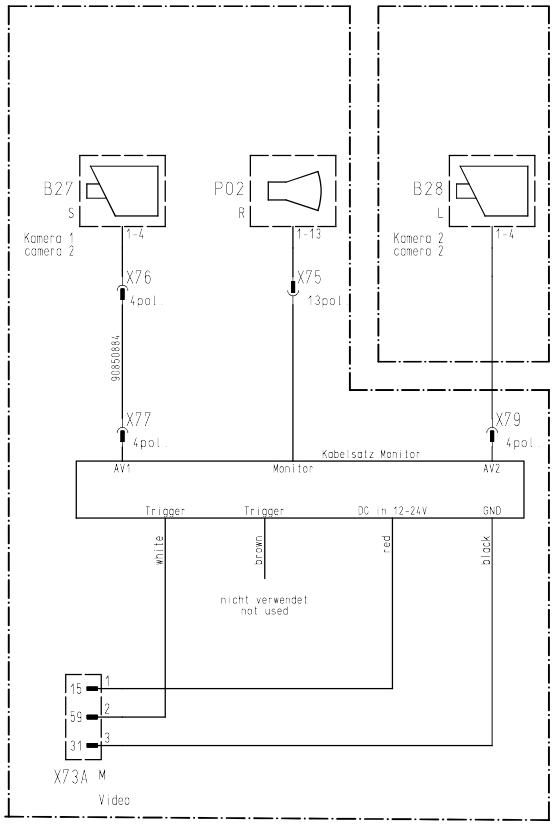
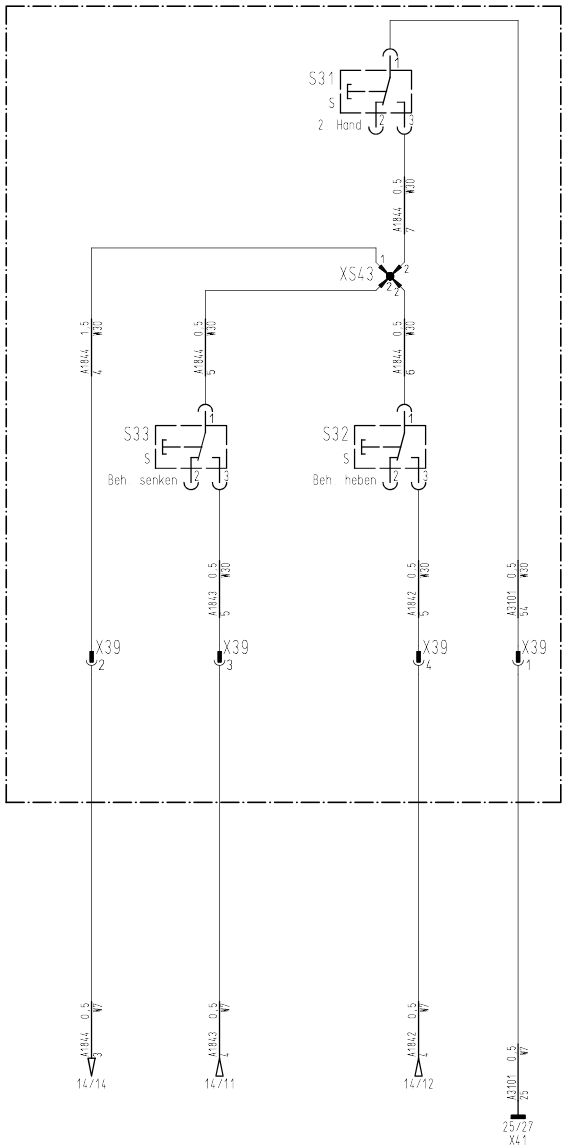


Funktionshinweis:
Option Rückfahrkamera
wahlweise Daueranzeige oder Einschaltung bei Rückwärtsfahrt.

zusätzlich Option mit Zusatzkamera
Zusatzkamera m. automatischer Umschaltung bei Rückwärtsfahrt

Function note:
Option reverse drive camera
Optional permanent display or intervention when reversing

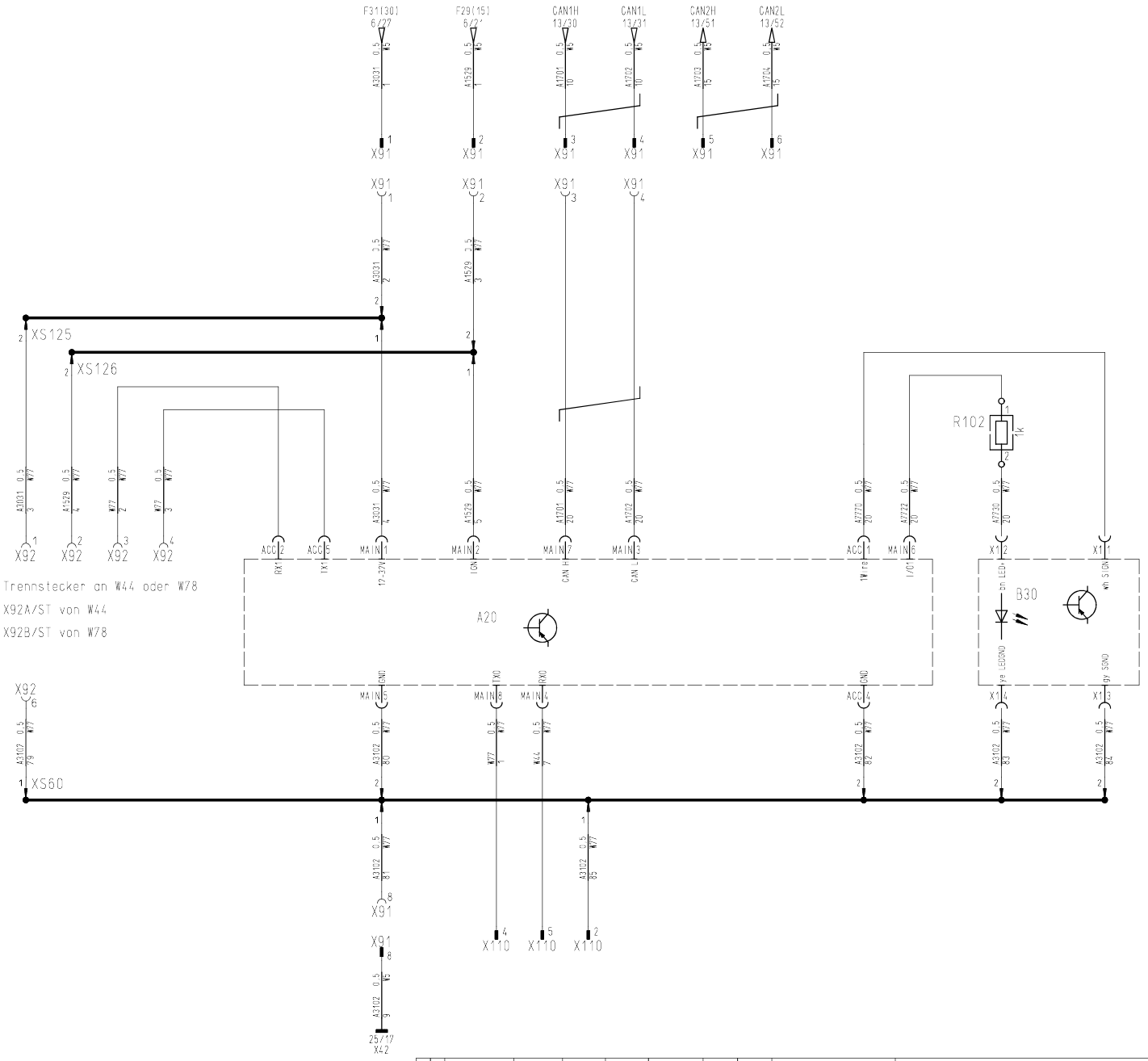
Additional option with additional camera
Additional camera with automatic switch reversing



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)

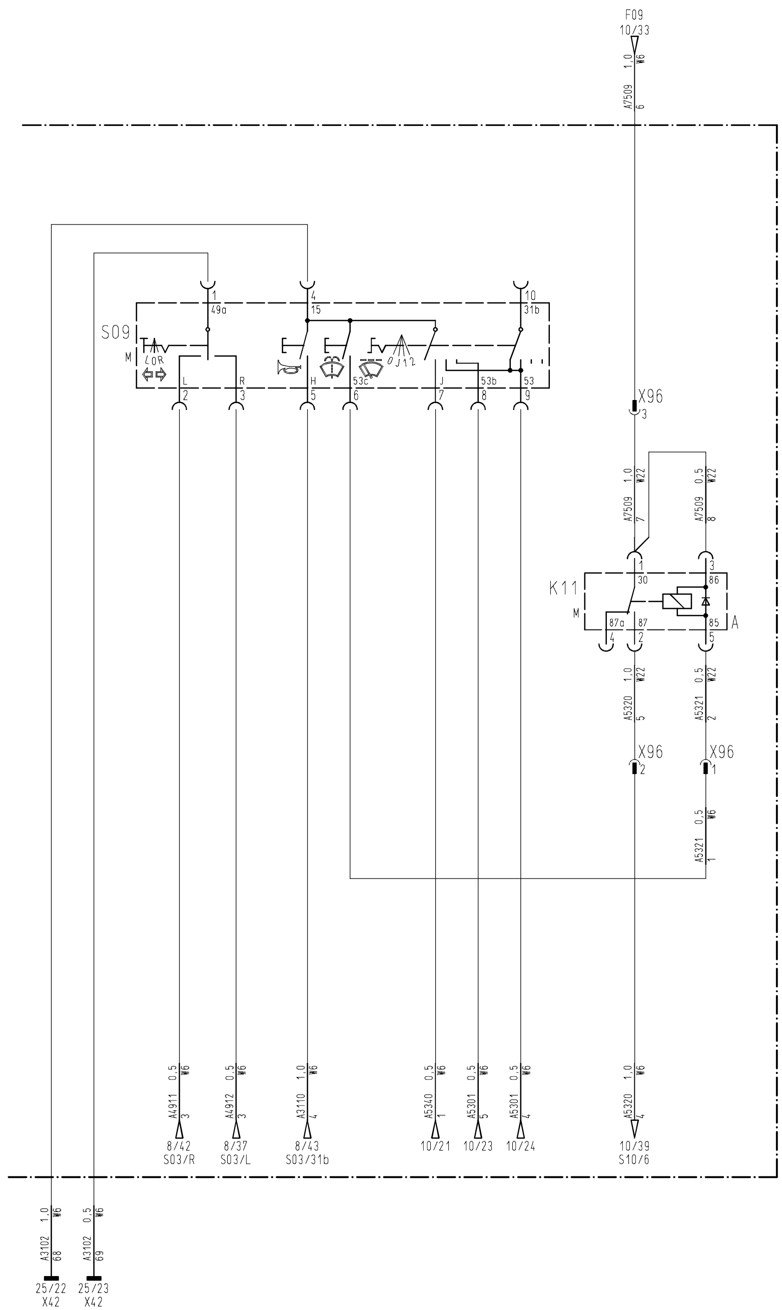
	0	Integrated acc.	4000-34	20.01.20	DK	2019	Date	Name	CM650	Name: Schaltplan / circuit diagram (Optionen)	Hako GmbH D-23840 Bad Oldesloe	Drawing Number: 91039362
						Drawn by	21.08	DK	Replacem. for			
						Verified			Change No.			
A2	No.	Number appears	Change No.	Date	Name	Standard				For this drawing we reserve all rights (acc. DIN ISO 16016) KABI 472	Type 1470 Dep. DS	No. of Sh. 38 Sheet 22



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)

	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		Schaltplan / circuit diagram (Optionen)		91039362	
A2	No.	Number appears	Change No.	Date	Name	Verified			Replacem. for				
						Standard			Change No.	For this drawing we reserve all rights (acc. DIN ISO 16016) KABI 472	Type 1470 Dep. DS	No. of Sh. 38	Sheet 23



Legende

K11 Relais Scheibenwaschpumpe
relay windscreen washer pump

S09 Lenkstockschalter Komfort
steering wheel switch comfort

X96 Steckverbinder 4pol. (W6<->W22)
connector 4 pole (W6<->W22)

A2	No	Number appears	Change No	Date	Name					
	0	Integrated acc	4000-34	20.01.20	DK	2019	Date	Name	CM650	
						Drawn by	21.08	DK	Replacem. for	
						Verified			Change No	
						Standard				

Name
Schaltplan / circuit diagram (Optionen)

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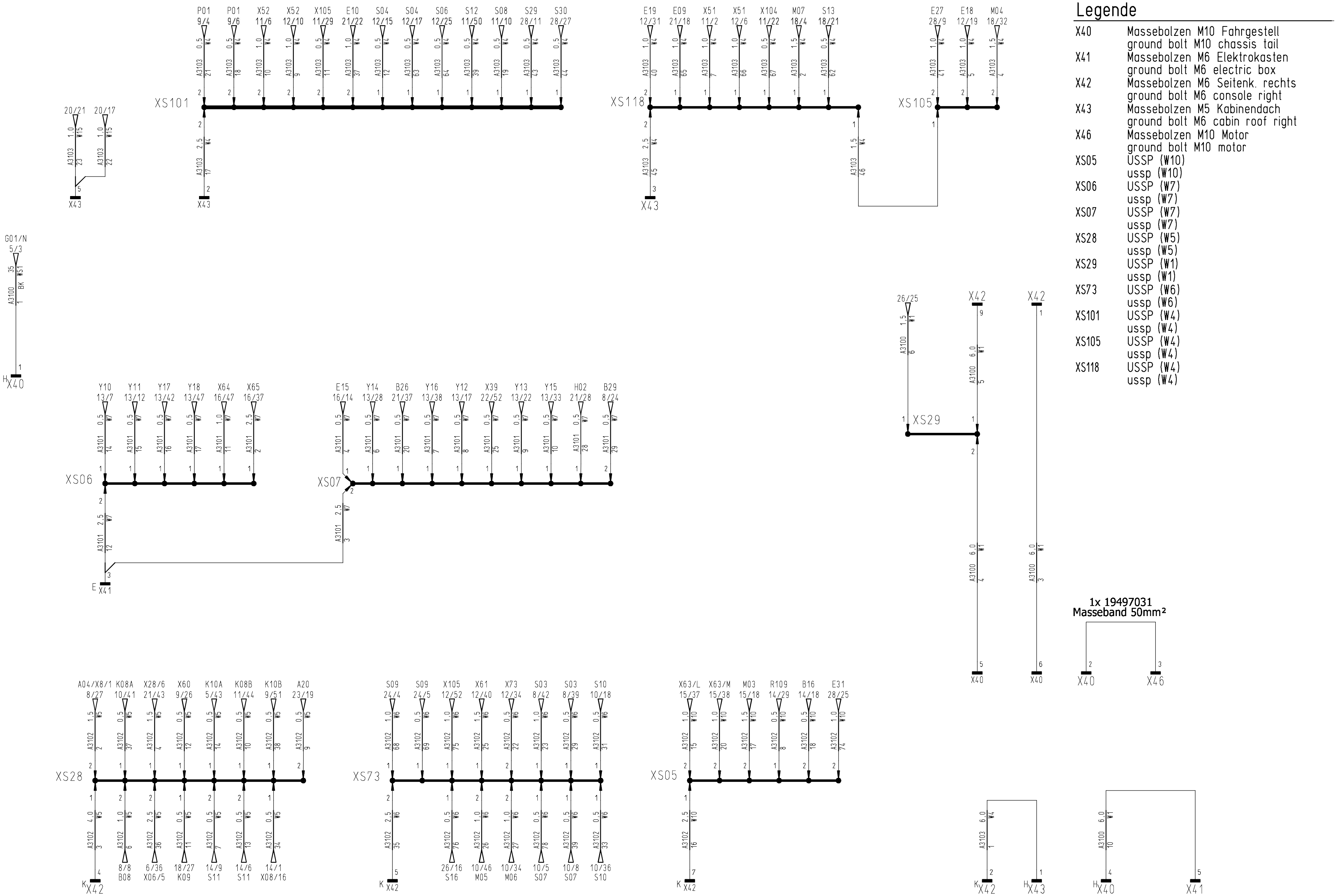
KABI 472

Hako
Hako GmbH
D-23840 Bad Oldesloe

Type 1470 Dep. DS

Drawing Number
91039362

No. of Sh. 38 Sheet 24



Legende

X40	Masseband 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)

	0	Integrated acc	4000-34	20.01.20	DK	2019	Date	Name	CM650
						Drawn by	21.08	DK	Replacem. for
						Verified			
A2	No	Number appears	Change No	Date	Name	Standard			Change No

Name: Schaltplan / circuit diagram

Hako GmbH, D-23840 Bad Oldesloe

Drawing Number: 91039362

KABI 470 | Type 1470 | Dep. DS | No. of Sh. 38 | Sheet 25

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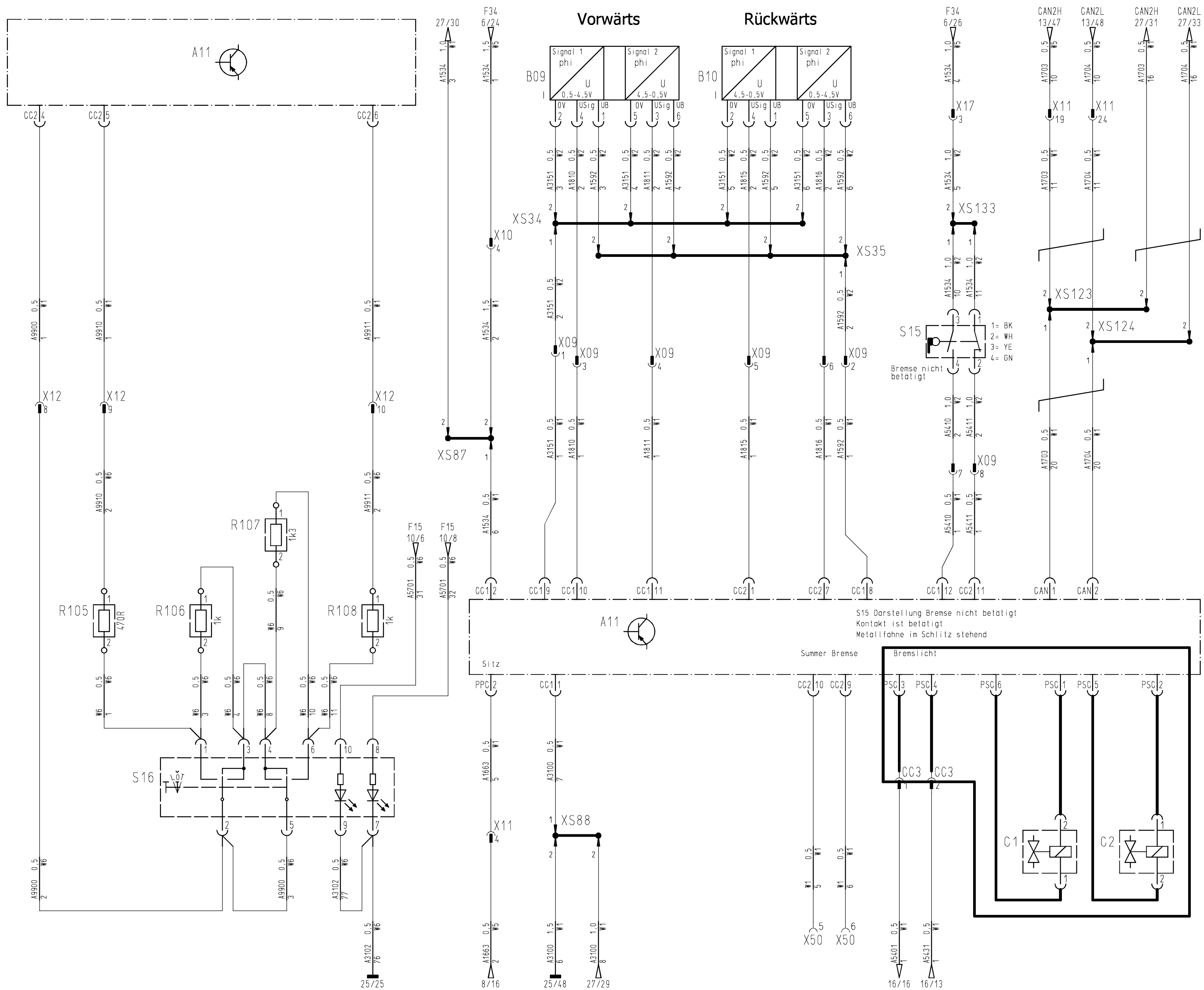

Legende

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 1kOhm
R107	Widerstand 1k3 resistor 1k3Ohm
R108	Widerstand 1k resistor 1kOhm
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)
XS87	USSP (W1) ussp (W1)
XS88	USSP (W1) ussp (W1)
XS123	USSP (W1) ussp (W1)
XS124	USSP (W1) ussp (W1)
XS133	USSP (W2) ussp (W2)

A2	No	Number appears	Change No	Date	Name
	0	Integrated acc	4000-34	20.01.20	DK

2019	Date	Name
Drawn by	21.08	DK
Verified		
Standard		

CM650
Replacem. for
Change No

Name: Schaltplan / circuit diagram (Optionen)

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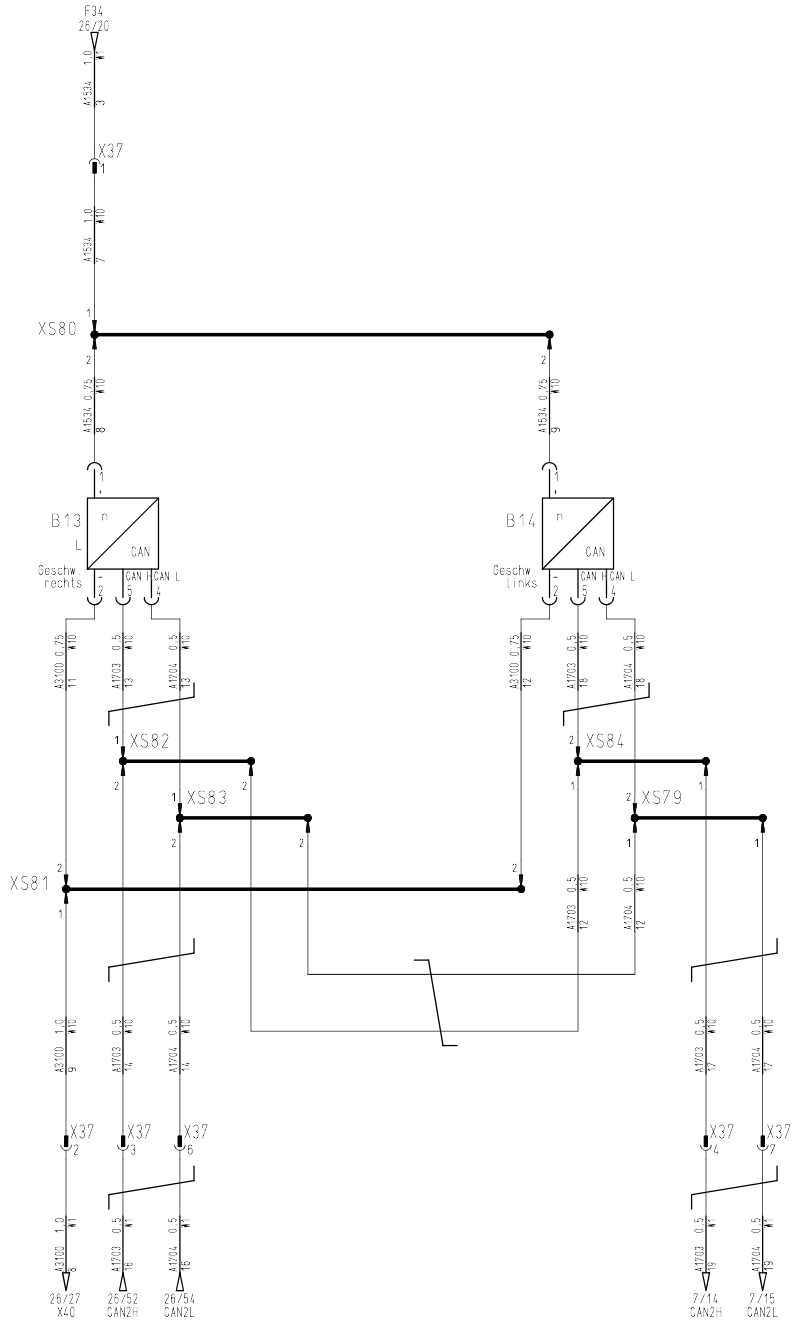
KABI 472

Hako GmbH, D-23840 Bad Oldesloe

Type 1470 Dep. DS

Drawing Number 91039362

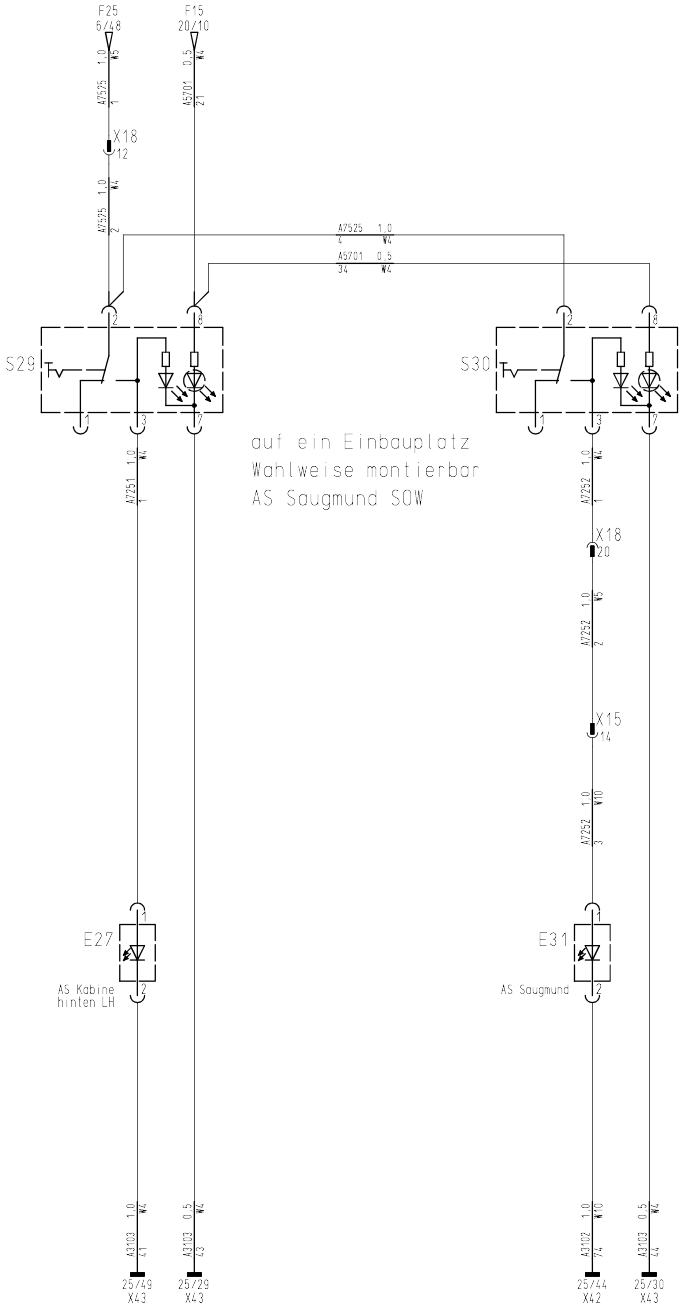
No. of Sh. 38 Sheet 26



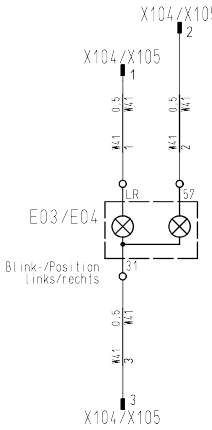
Legende

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)

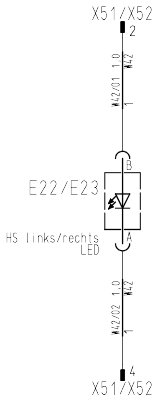
	0	Integrated acc.	4000-34	20.01.20	DK	2019	Date	Name	CM650	Name	Hako GmbH D-23840 Bad Oldesloe	Drawing Number	
						Drawn by	21.08	DK		Schaltplan / circuit diagram (Optionen)		91039362	
A2	No.	Number appears	Change No.	Date	Name	Verified			Replacem. for Change No.				
						Standard				For this drawing we reserve all rights (acc. DIN ISO 16016) KABI 472	Type 1470 Dep. DS	No. of Sh. 38	Sheet 27



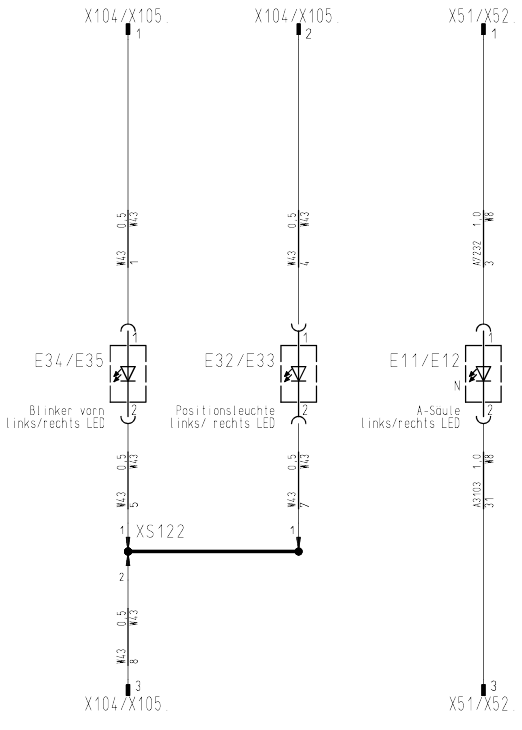
Blink-/Positionsleuchte Std.



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 sucction 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 sucction 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)

	0	Integrated acc.	4000-34	20.01.20	DK	2019	Date	Name	CM650	Name	Hako GmbH D-23840 Bad Oldesloe	Drawing Number	
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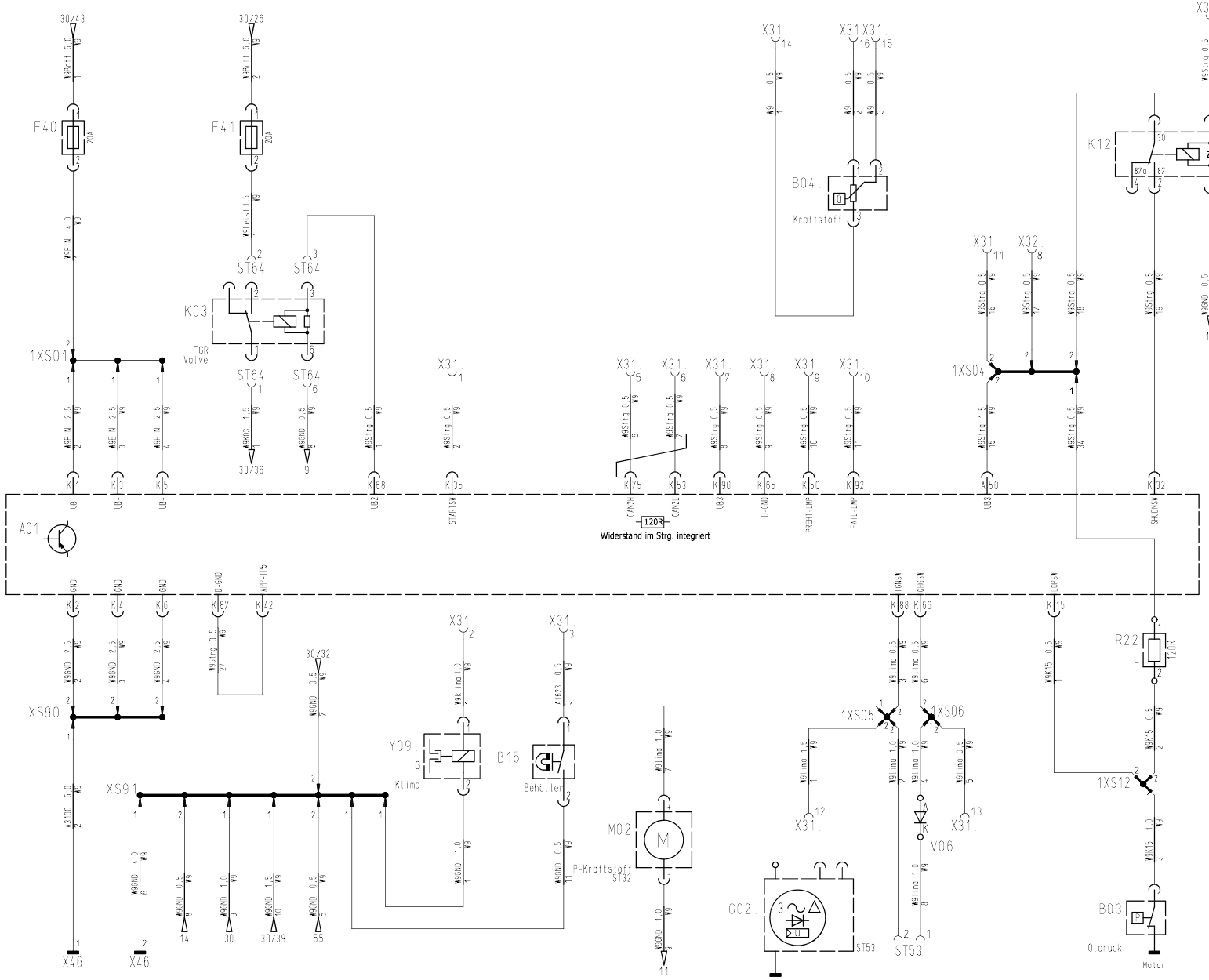
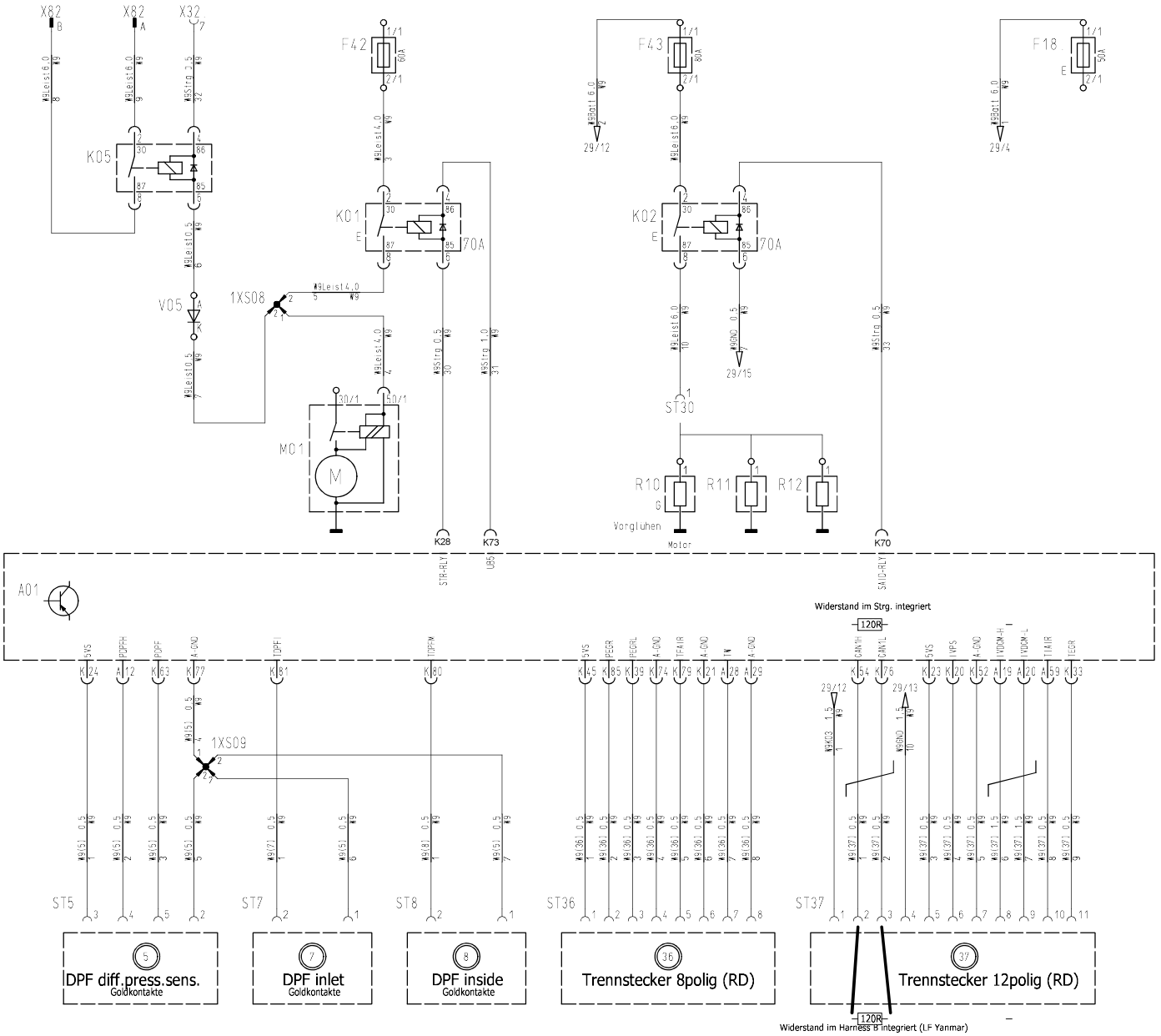
A2	No.	Number appears	Change No.	Date	Name	Verified			Replacem. for Change No.				
						Standard				For this drawing we reserve all rights (acc. DIN ISO 16016) KABI 472	Type 1470 Dep. DS	No. of Sh. 38	Sheet 28



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)

A2	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: 91039362	
	No.	Number appears	Change No.	Date	Name	Drawn by	21.08	DK	Replacem. for				
						Verified			Change No.	For this drawing we reserve all rights (acc. DIN ISO 16016)	KABI 472	Type 1470 Dep. DS	No. of Sh. 38 Sheet 29
						Standard							

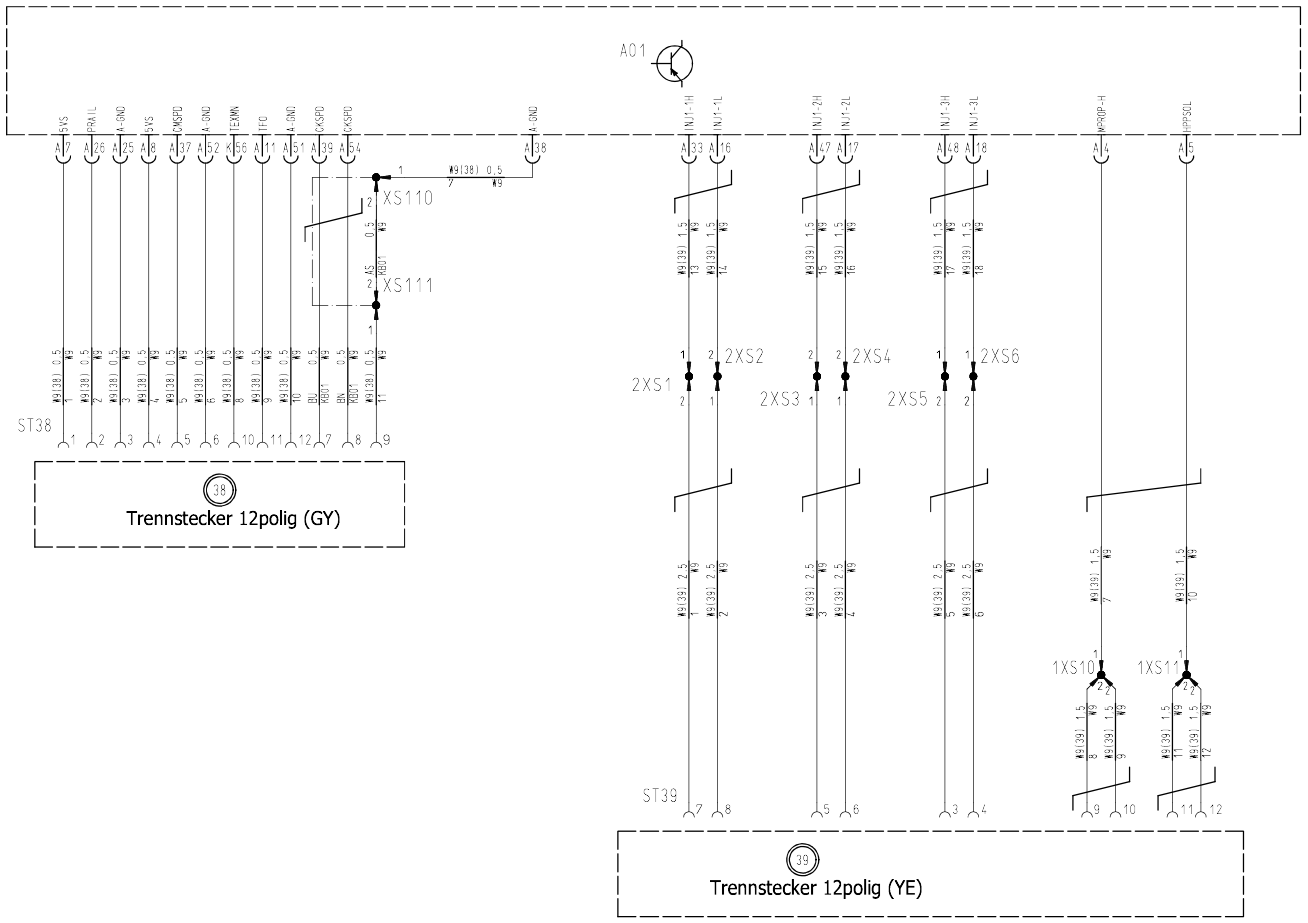


Legende

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	Vorglühkerze glow plug
R11	Vorglühkerze glow plug
R12	Vorglühkerze 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: 91039362		
						Drawn by	21.08	DK						
						Verified			Replacem. for					
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	Sheet 30

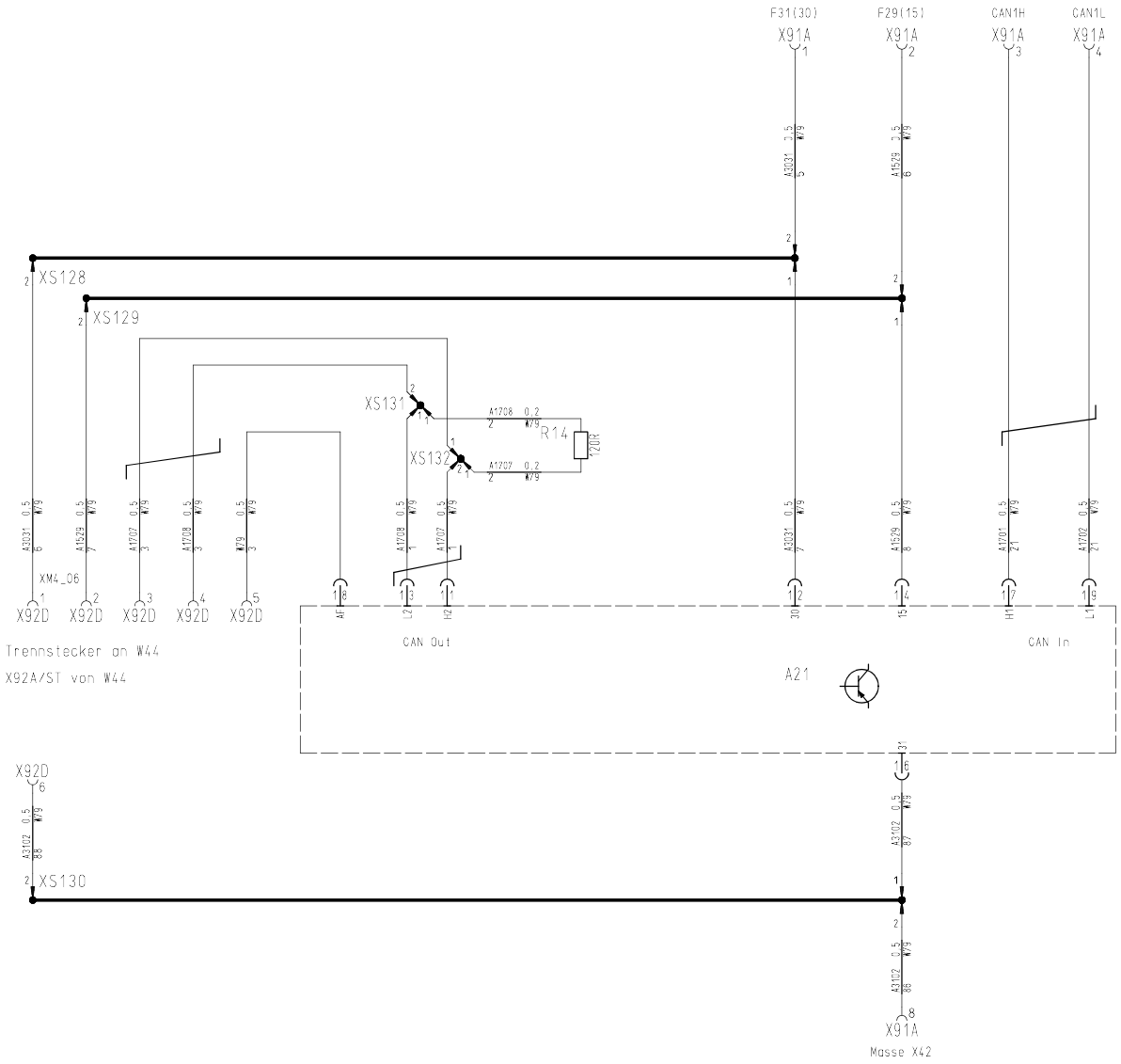


Legende

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: Schaltplan / circuit diagram	Hako GmbH D-23840 Bad Oldesloe	Drawing Number: 91039362	
						Drawn by	21.08	DK					
						Verified			Replacem. for				
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	Sheet 31



Legende

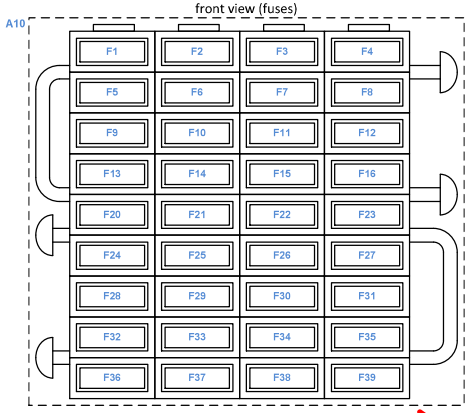
A21	Gateway gateway
R14	Widerstand 120R resistor 120Ohm (CAN external)
X91A	Steckverbinder 8pol. (W5<->W79) connector 8 pole (W5<->W79)
X92D	Steckverbinder 6pol. (W79<->W44) connector 6 pole (W79<->W44)
XS128	USSP (W79) ussp (W79)
XS129	USSP (W79) ussp (W79)
XS130	USSP (W79) ussp (W79)
XS131	Stossverbinder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

	0	Integrated acc	4000-34	20.01.20	DK	2019	Date	Name	CM650	Name	Hako GmbH D-23840 Bad Oldesloe	Drawing Number	
						Drawn by	24.04	DK		Schaltplan / circuit diagram		91039362	
						Verified			Replacem. for				
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 1491 Dep. DS	No. of Sh. 38	Sheet 32

Seitenkonsole rechts
side console right

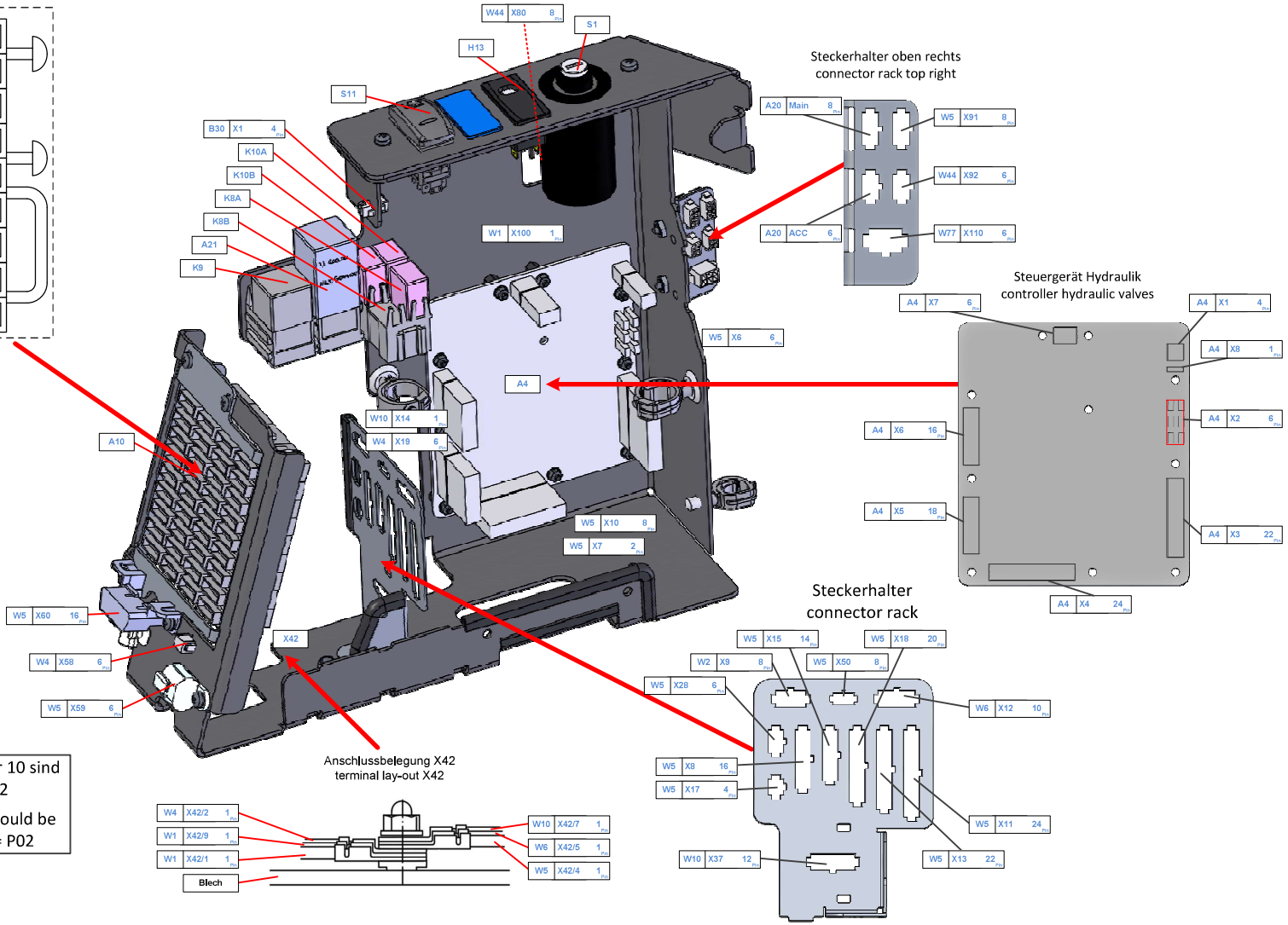
Sicherungskasten
fuse box

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



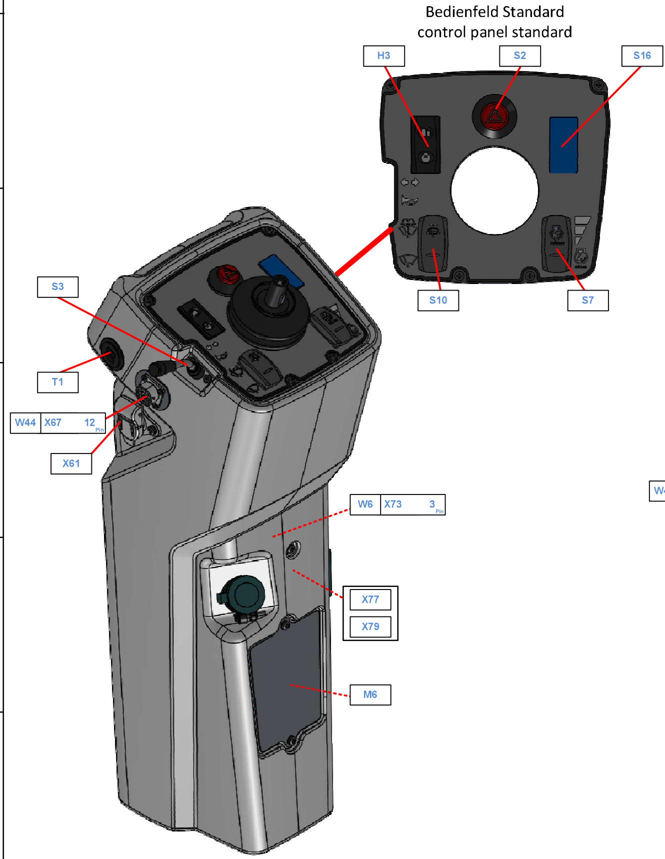
Alle Betriebsmittelkennzeichen unter 10 sind wie folgt zu deuten, Beispiel: P2 = P02

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

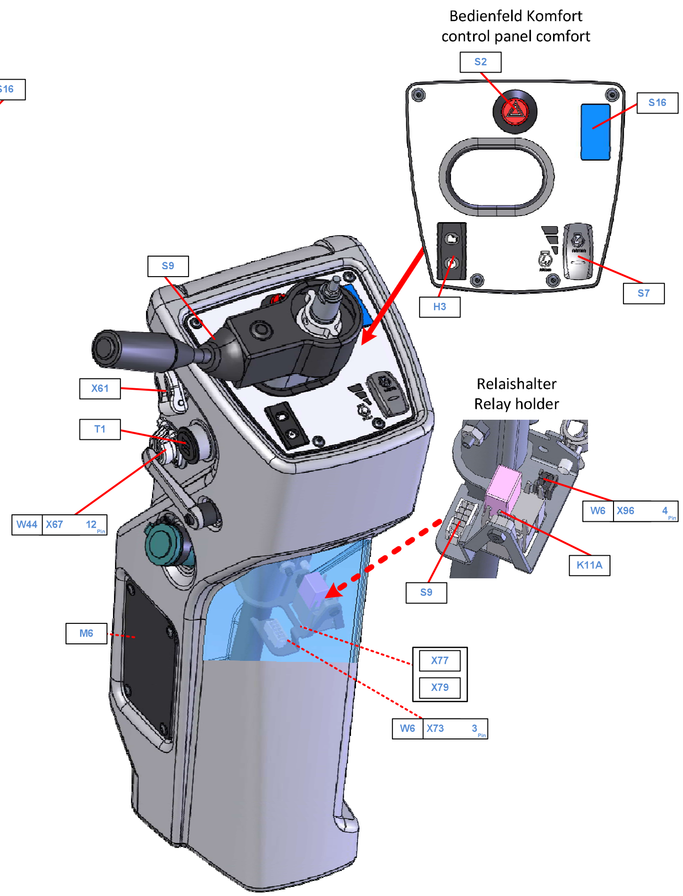
Anschlussbelegung X42
terminal lay-out X42

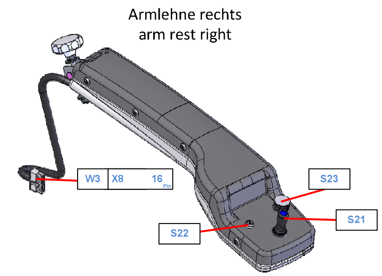
Freigabevermerk:	A2	0	Integrated acc.	4000-34	20.01.2020	DK / LK	Drawn	12.01.2020	LK	CM650	Name: Schaltplan circuit diagram	Hako GmbH D-23840 Bad Oldesloe	Drawing Number: 91039362
							Verified			Replacem. for			
		No.	Number appears	Change No.	Date	Name	Standard			Change No.	For this drawing we reserve all rights (acc. DIN ISO 16016)	Engineering Base 6.8.2 Type 1470 Dept.DS	No of Sheets38 Sheet 33

Lenksäule Standard
steering columns standard



Lenksäule Komfort
steering columns comfort





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
						Verified			Replacem. for
No	Number appears	Change No.	Date	Name	Standard				Change No.

Name: Schaltplan
circuit diagram

For this drawing we reserve all rights (acc. DIN ISO 16016)

Engineering Base 6,8,2

Hako GmbH D-23840 Bad Oldesloe

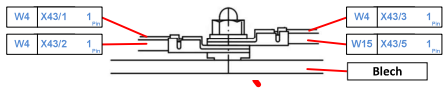
Type 1470 Dept.DS

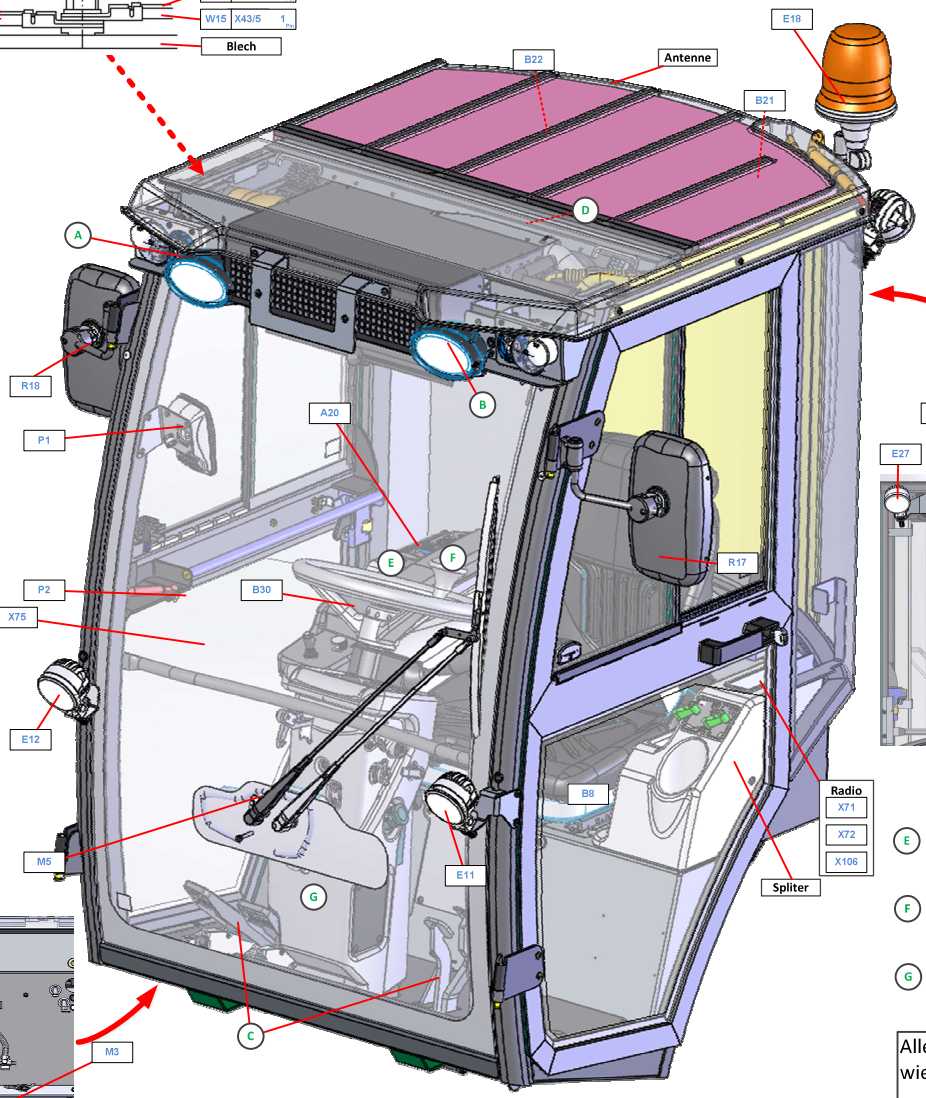
Drawing Number: 91039362

No of Sheets38 Sheet 34

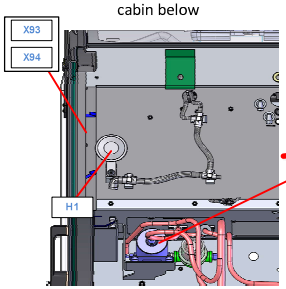
Kabine komplett
Cabin complete

Anschlussbelegung X43
terminal lay-out X43

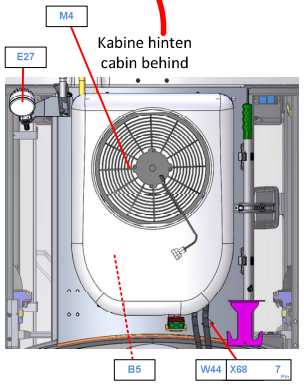




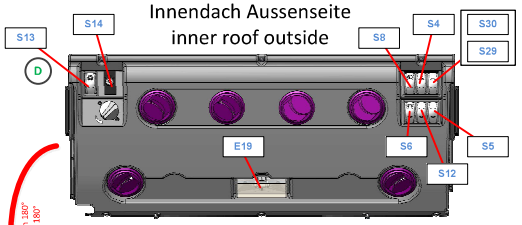
Kabine unten
cabin below



Kabine hinten
cabin behind

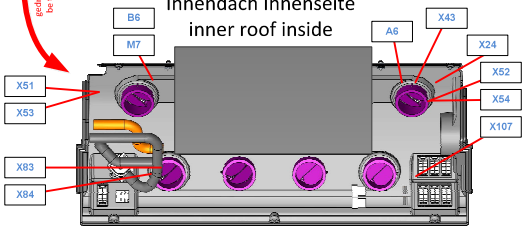


Innendach Aussenseite
inner roof outside

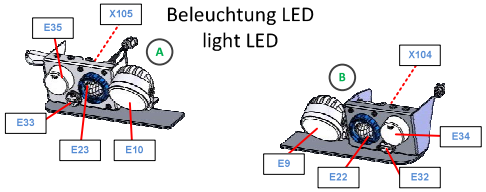


gedreht um 180°
be turned 180°

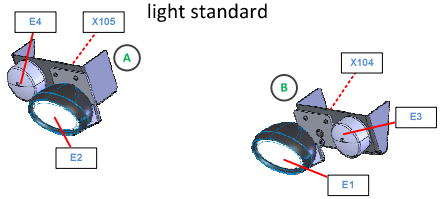
Innendach Innenseite
inner roof inside



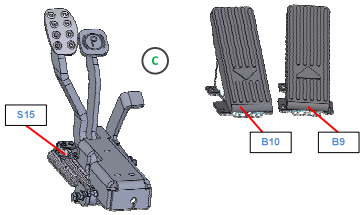
Beleuchtung LED
light LED



Beleuchtung Standard
light standard



Pedale
pedals



E Siehe: Seitenkonsole rechts
show: side console right

F Siehe: Armlehne
show: arm rest

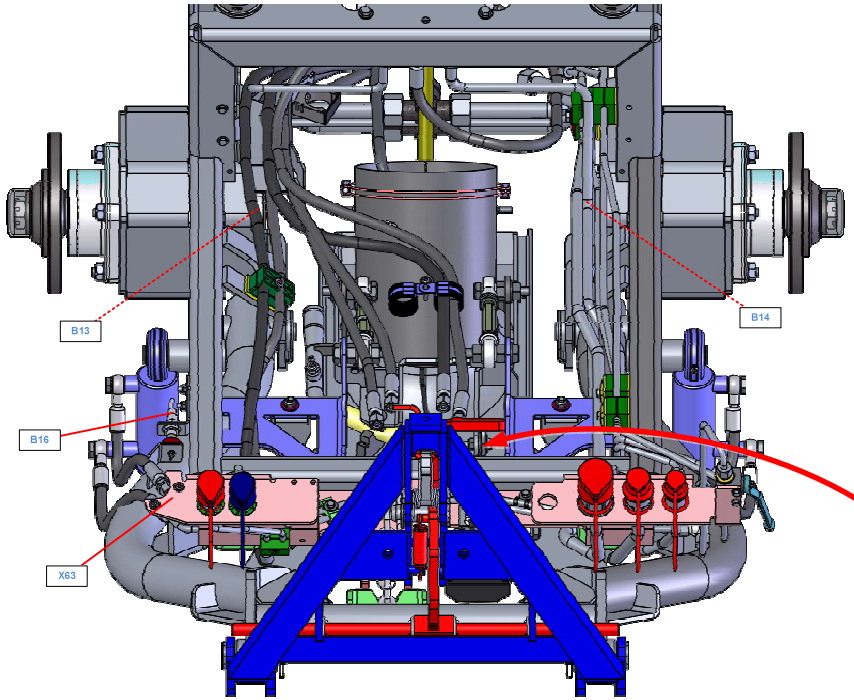
G Siehe: Lenksäule
show: steering columns

Alle Betriebsmittelkennzeichen unter 10 sind wie folgt zu deuten, Beispiel: P2 = P02

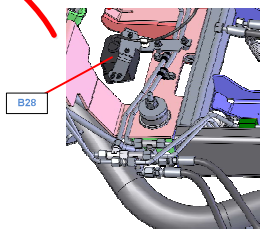
all equipment indicators below 10 should be interpreted as follows, example: P2 = P02

Freigabevermerk:		A2	0	Integrated acc.	4000-34	20.01.2020	DK / LK		Date	Name	CM650	Name: Schaltplan circuit diagram	Hako GmbH D-23840 Bad Oldesloe	Drawing Number: 91039362					
								Drawn	12.01.2020	LK									
								Verified			Replacem. for								
		No.		Number appears	Change No.	Date	Name	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 Sheets38	Sheet 35		

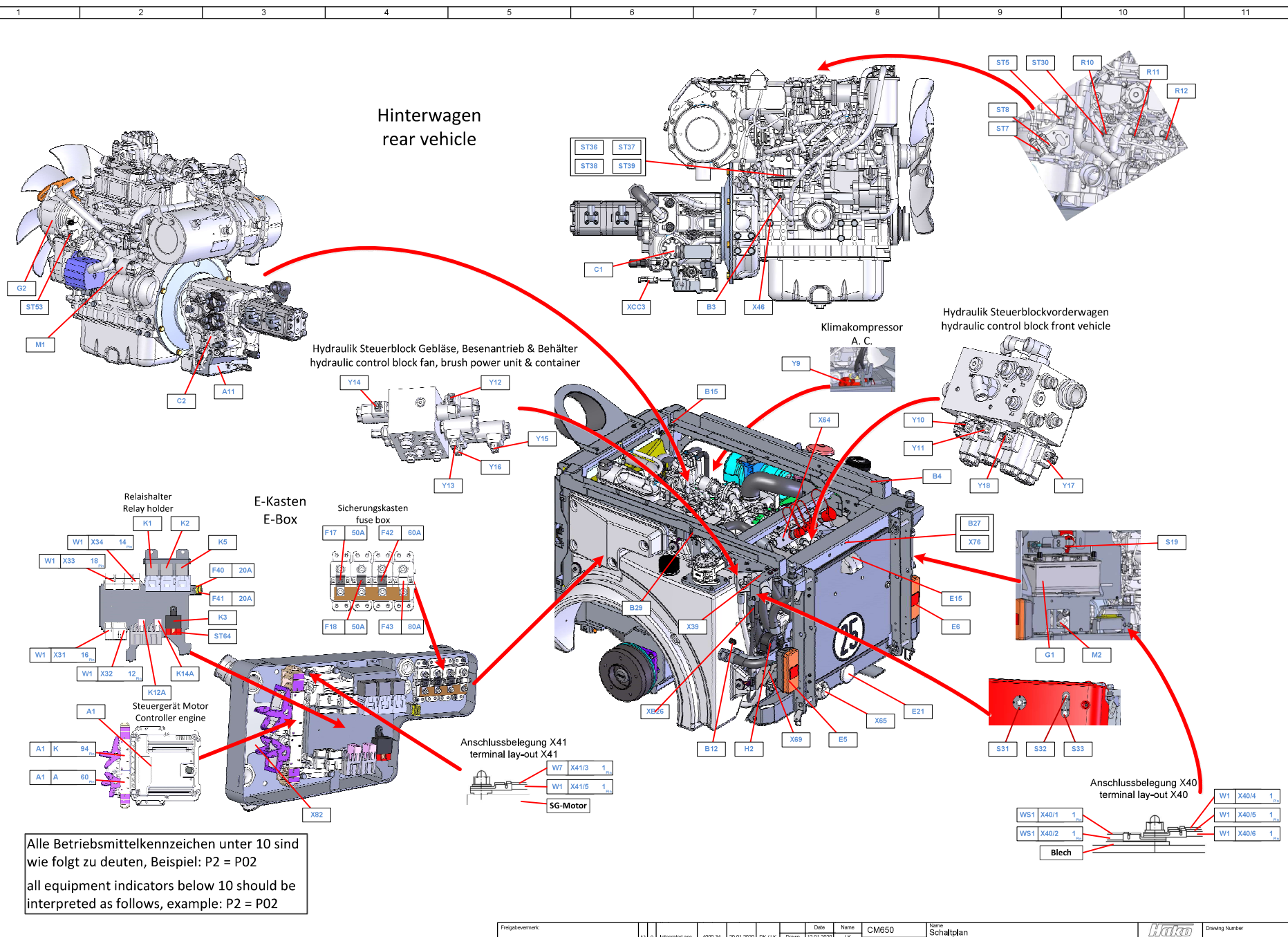
Vorderwagen
front vehicle



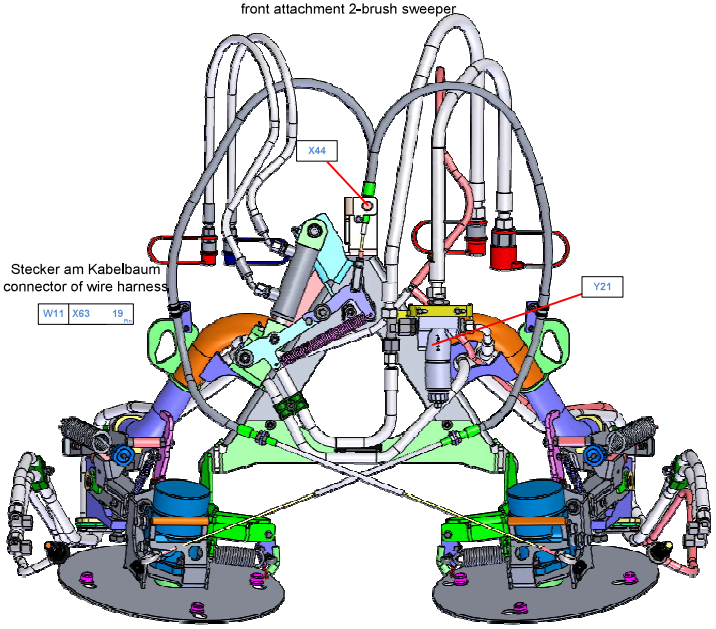
Saugmundkamera
nozzle absorption camera



Freigabevermerk:	A2	0	Integrated acc.	4000-34	20.01.2020	DK / LK		Date	Name	CM650	Name: Schaltplan circuit diagram	Hako GmbH D-23840 Bad Oldesloe	Drawing Number 91039362
							Drawn	12.01.2020	LK				
							Verified			Replacem. for			
	No.		Number appears	Change No.	Date	Name	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 36


Hinterwagen
rear vehicle
G2
ST53
M1
A11
C2
ST36
ST37
ST38
ST39
C1
XCC3
B3
X46
ST5
ST30
R10
R11
R12
ST8
ST7
Hydraulik Steuerblock Gebläse, Besenantrieb & Behälter
hydraulic control block fan, brush power unit & container
Y14
Y12
Y15
Y16
Y13
Klimakompressor
A. C.
Y9
Hydraulik Steuerblockvorderwagen
hydraulic control block front vehicle
Y10
Y11
Y18
Y17
B15
X64
B4
B27
X76
E15
E6
B29
X39
XB26
X65
E21
B12
H2
X69
E5
S19
G1
M2
S31
S32
S33
Relaishalter
Relay holder
K1
K2
K5
W1 X34 14
W1 X33 18
F40 20A
F41 20A
K3
ST64
W1 X31 16
W1 X32 12
K14A
K12A
E-Kasten
E-Box
Sicherungskasten
fuse box
F17 50A
F42 60A
F18 50A
F43 80A
Steuergerät Motor
Controller engine
A1
A1 K 94
A1 A 60
X82
Anschlussbelegung X41
terminal lay-out X41
W7 X41/3 1
W1 X41/5 1
SG-Motor
Anschlussbelegung X40
terminal lay-out X40
W1 X40/4 1
W1 X40/5 1
W1 X40/6 1
WS1 X40/1 1
WS1 X40/2 1
Blech
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
No.
Number appears
Change No.
Date
Name
Standard
Drawn
12.01.2020
LK
Verified
Replacem. for
Change No.
CM650
Name
Schaltplan
circuit diagram
For this drawing we reserve all rights (acc. DIN ISO 16016)
Engineering Base 6.8.2
Type 1470
Dept.DS
Drawing Number
91039362
No of Sheets38
Sheet 37

Frontaggregat 2-Besen Kehrvorsatz
front attachment 2-brush sweeper



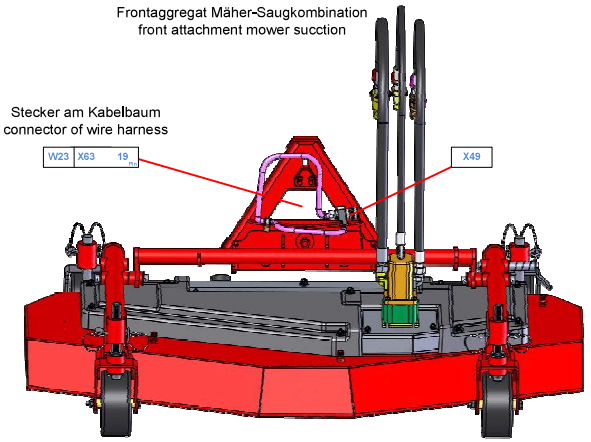
Stecker am Kabelbaum
connector of wire harness

W11	X63	19 Pin

Frontaggregat Mäher-Saugkombination
front attachment mower sucction

Stecker am Kabelbaum
connector of wire harness

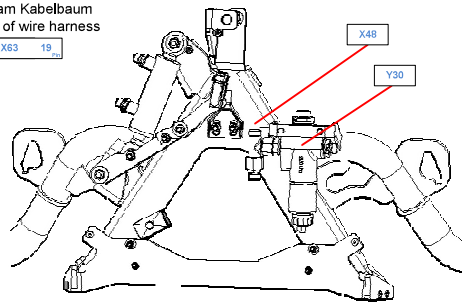
W23	X63	19 Pin



Frontaggregat unkodiert
front attachment uncoded

Stecker am Kabelbaum
connector of wire harness

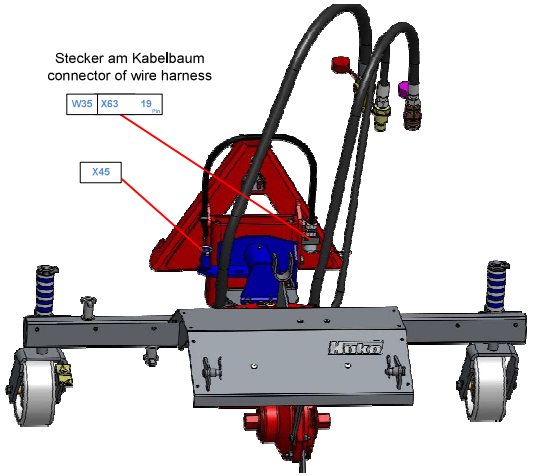
W29	X63	19 Pin



Frontaggregat Kombination-Kehreinheit
front attachment hydraulic driven combination sweeper

Stecker am Kabelbaum
connector of wire harness

W35	X63	19 Pin



Freigabevermerk:	A2	0	Integrated acc.	4000-34	20.01.2020	DK / LK		Date	Name	CM650	Name: Schaltplan circuit diagram	Hako GmbH D-23840 Bad Oldesloe	Drawing Number 91039362
							Drawn	12.01.2020	LK				
							Verified			Replacem. for			
		No.	Number appears	Change No.	Date	Name	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