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Manual # 99906365

42684

Technical Specifications

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WARNING

Operating, servicing and maintaining this vehicle or equipment can expose you to chemicals including engine exhaust, carbon monoxide, phthalates, and lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. To minimize exposure, avoid breathing exhaust, do not idle the engine except as necessary, service your vehicle or equipment in a well-ventilated area and wear gloves or wash your hands frequently when servicing. For more information go to www.P65Warnings.ca.gov.

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42684 Technical Specifications

Section - 1

42684 Specifications

Performance				
	Unit	42684	Unit	42684
Loading group	B4-	B4	B4	B4
Crane Rating	ft-lb	305,580	kg-m	42248
Horizontal Reach	ft-in	82' 10"	mm	25251
Vertical Reach	ft-in	93' 6"	mm	28510
Lifting Capacity, Horizontal	lb-ft	48'4" - 2577	mm-kg	14630 - 1169
	lb-ft	57'1" - 1824	mm-kg	17374 - 827
	lb-ft	65'9" - 1347	mm-kg	20117 - 611
	lb-ft	74'5" - 1073	mm-kg	22555 - 487
	lb-ft	82'10" - 914	mm-kg	25298 - 415
Max. Lifting Capacity	lb-ft	10,500	kg-m	4763
Lifting Height	ft-in	94' 5"	mm	28770
Hydraulic Extension 1st Boom	ft-in	20' 3"	mm	6168
Hydraulic Extension 2nd Boom	ft-in	34' 6"	mm	10513
Operation Weight	lb	13,201	kg	5988
Crane Storage Height	ft-in	13'6"	mm	4115
Mounting Space	in	41	mm	1050
Rotational Torque	ft-lb	48,678	tm	6.73
Rotation	°	420	°	420
Optimum Pump Capacity	gpm	31.7	L/min	120
Oil Reservoir Capacity	gal	66	L	250
Stabilizer Extension Span	ft-in	25' 3"	mm	7700
Weights				
Crane without stabilizers	lb	12,231	kg	5548
Stabilizers	lb	683	kg	310
Stabilizers with Cylinder	lb	143	kg	65
Mounting Kit (4 bolts)	lb	132	kg	60
Mounting Kits (8 bolts)	lb	176	kg	80
Oil in the Crane (parked)	lb	165	kg	75

Weights ±5% due to tolerances on the plate thickness.

42684 Lifting Capacity Chart

Section - 2

42684 - Lifting Capacity Chart,

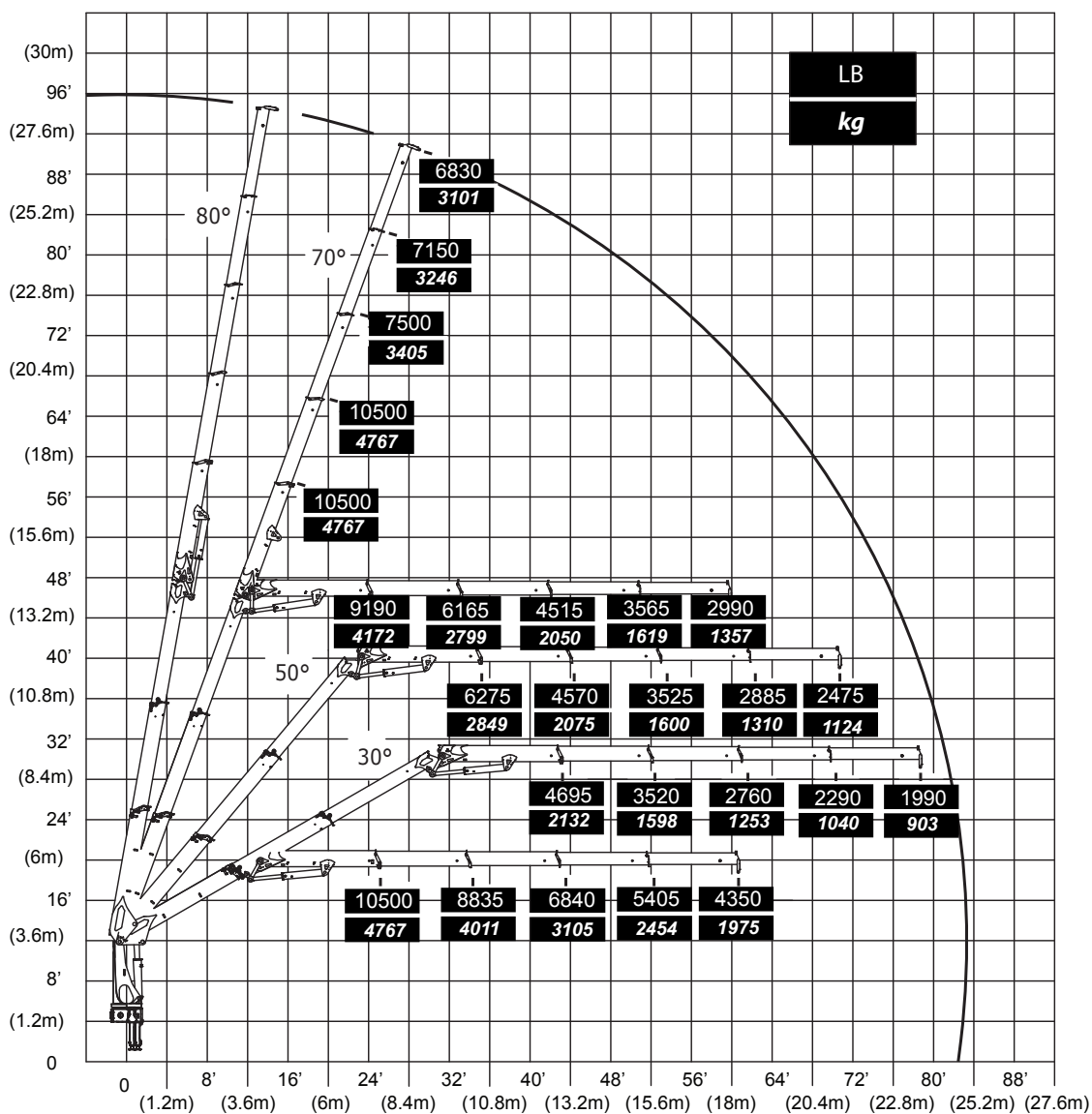
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MATERIAL HANDLING SYSTEMS

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Model 42684

- Limit working loads to those shown. Deduct the weight of load handling devices.
- *El peso propio (tara) de los dispositivos de manipulación de cargas es parte de la carga levantada y se debe descontar de la capacidad nominal.*

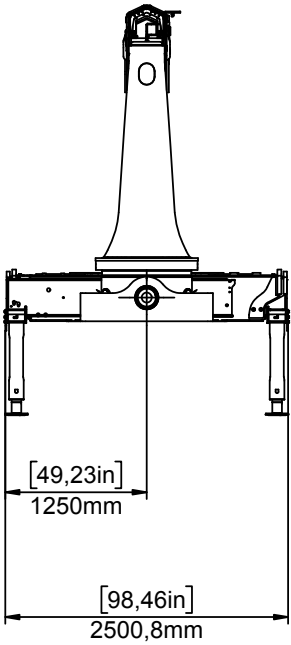
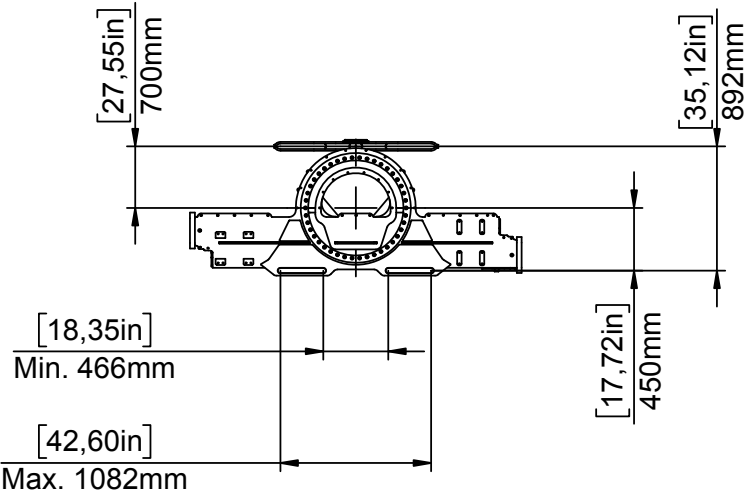
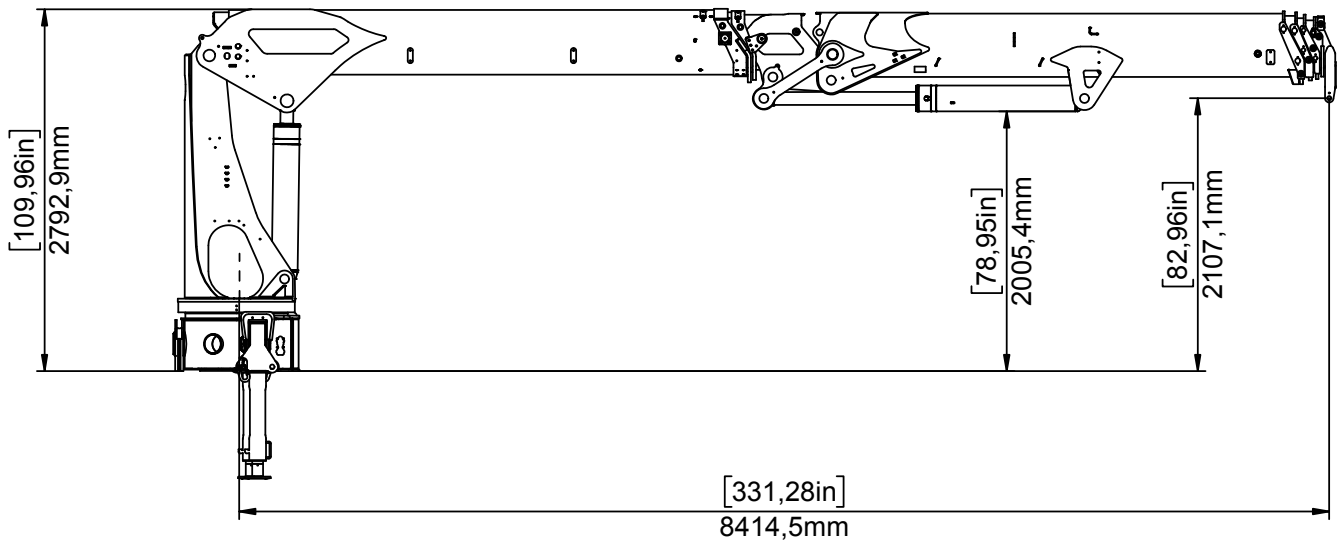


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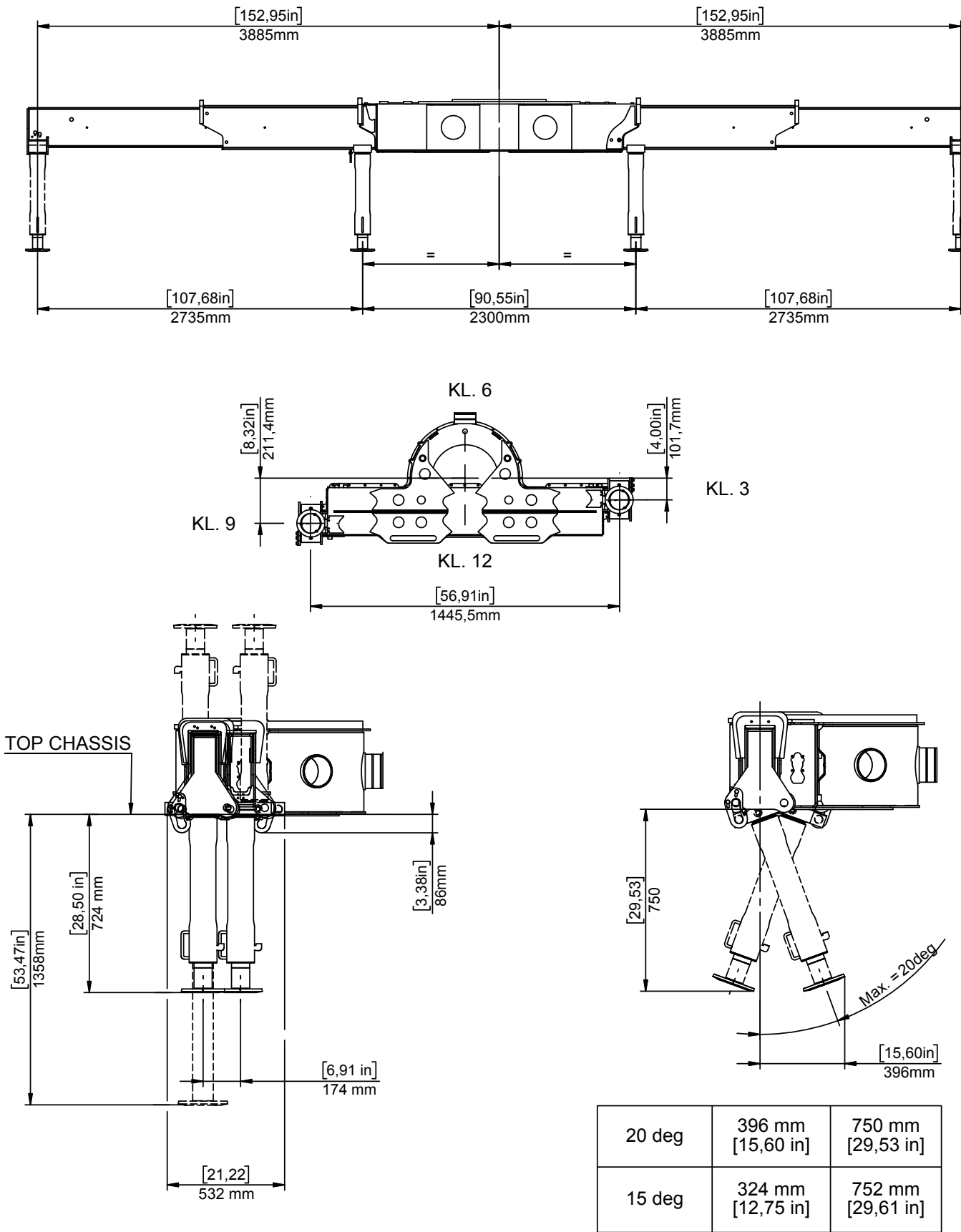
42684 Technical Dimensions

Section - 3

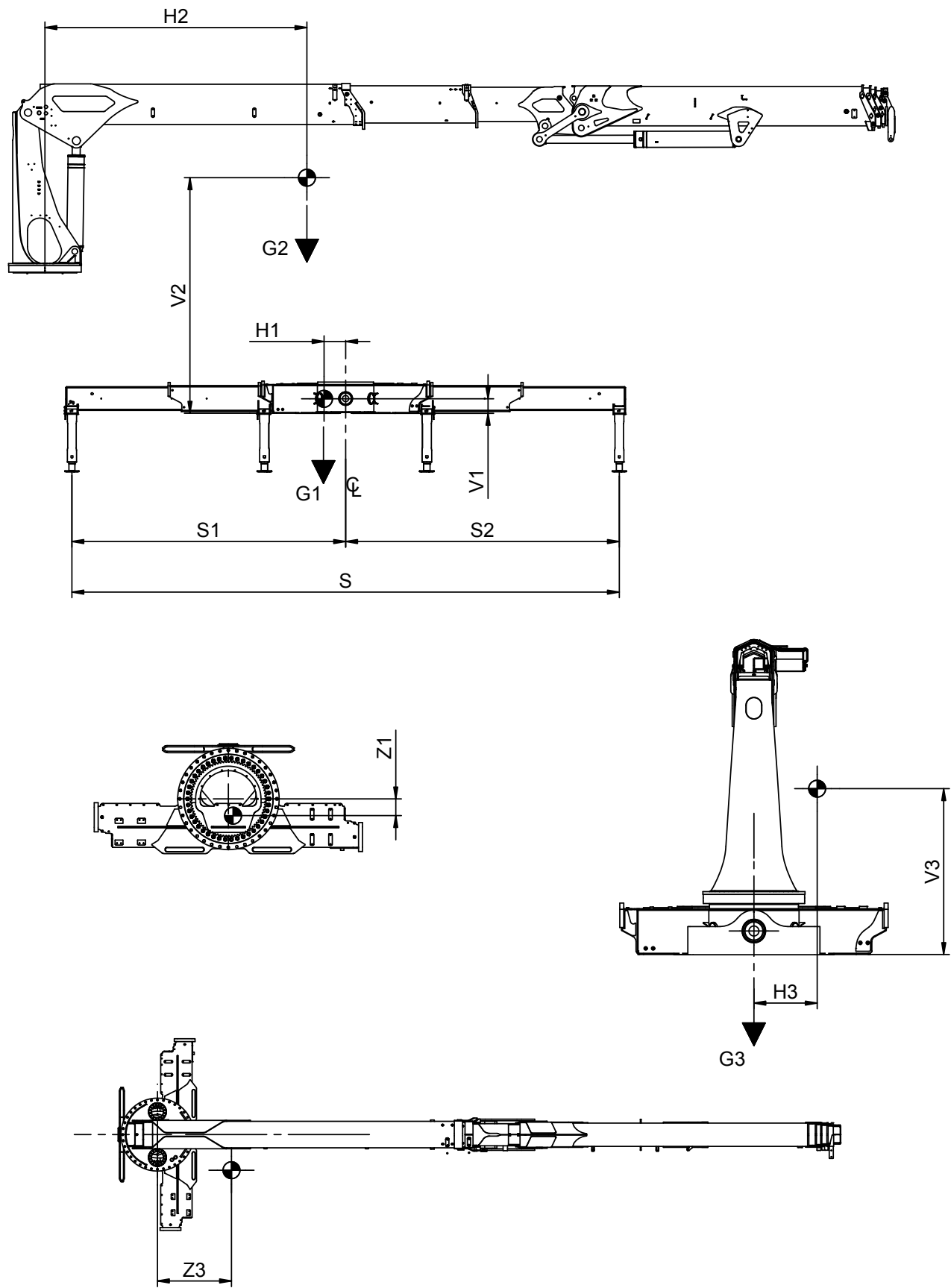
42684 - Dimension Sketch T2-K4



42684 - Dimension Sketch - Stabilizer Legs



42684 - Center of Gravity

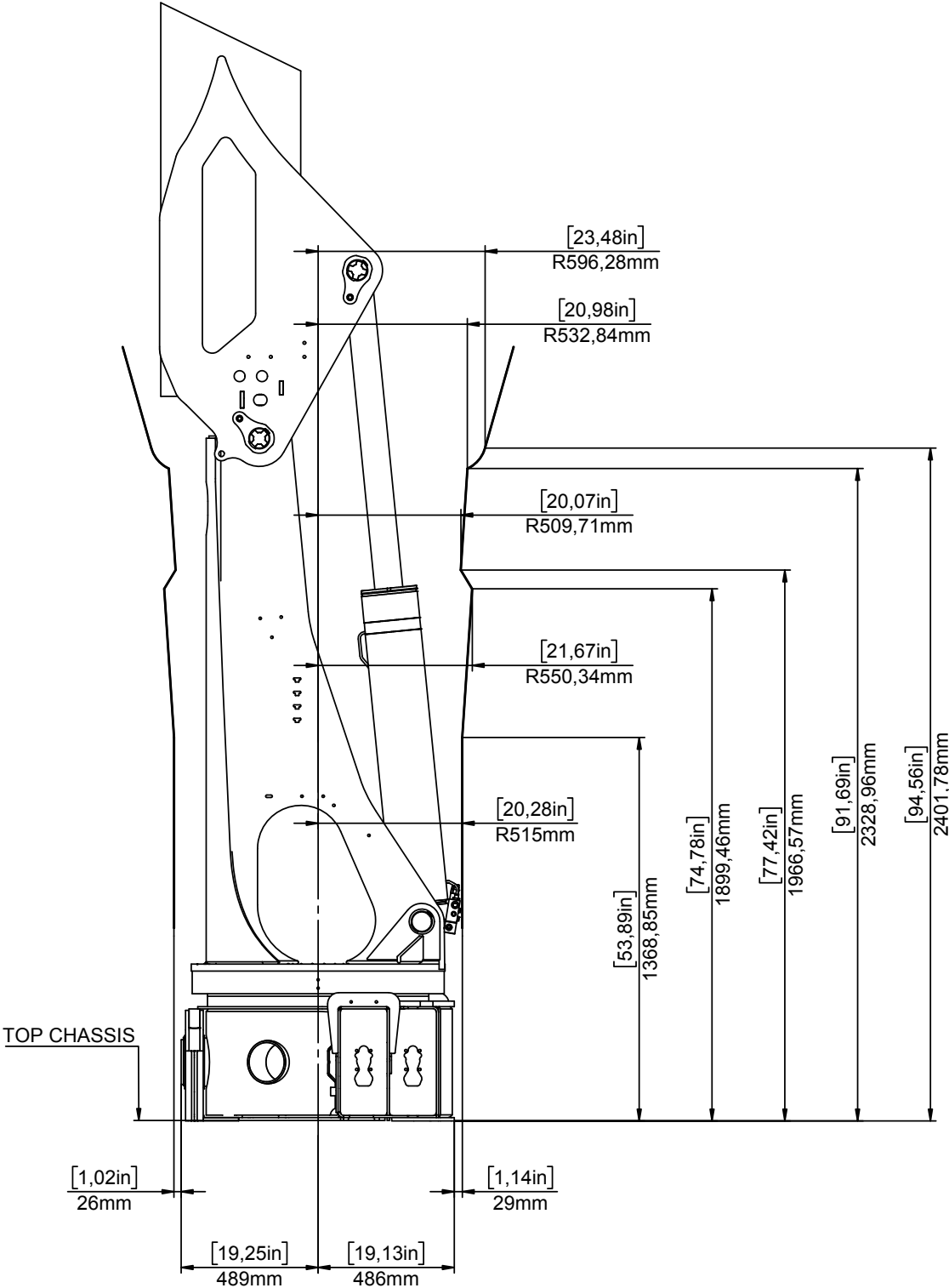


42684 - Center of Gravity Tables

42684 - CENTER OF GRAVITY																	
Arm Positions		UNITS															
		in	in	in	in	in	in	lb	in	in	in	in	lb	in	in	in	lb
1st Boom	2nd Boom	S	S1	S2	H1	V1	Z1	G1	f	H4	H2	V2	G2	H3	V3	Z3	G3
T0	K0	306	153	153	5	10	6	3759	0	149	149	88	9442	1	65	106	13201
T0	K1	306	153	153	5	10	6	3759	0	149	176	88	9442	1	65	106	13201
T0	K2	306	153	153	5	10	6	3759	0	149	196	88	9442	1	65	106	13201
T0	K3	306	153	153	5	10	6	3759	0	149	207	88	9442	1	65	106	13201
T0	K4	306	153	153	5	10	6	3759	0	149	213	88	9442	1	65	106	13201
T2	K0	306	153	153	5	10	6	3759	0	149	293	88	9442	1	65	106	13201
T2	K1	306	153	153	5	10	6	3759	0	149	320	88	9442	1	65	106	13201
T2	K2	306	153	153	5	10	6	3759	0	149	340	88	9442	1	65	106	13201
T2	K3	306	153	153	5	10	6	3759	0	149	351	88	9442	1	65	106	13201
T2	K4	306	153	153	5	10	6	3759	0	149	357	88	9442	1	65	106	13201

42684 - CENTER OF GRAVITY																	
Arm Positions		METRIC UNITS															
		S	S1	S2	H1	V1	Z1	G1	f	H4	H2	V2	G2	H3	V3	Z3	G3
T0	K0	7772	3886	3886	127	250	143	1705	0	3785	3790	2237	4283	30	1662	2694	5988
T0	K1	7772	3886	3886	127	250	143	1705	0	3785	4472	2237	4283	30	1662	2694	5988
T0	K2	7772	3886	3886	127	250	143	1705	0	3785	4980	2237	4283	30	1662	2694	5988
T0	K3	7772	3886	3886	127	250	143	1705	0	3785	5267	2237	4283	30	1662	2694	5988
T0	K4	7772	3886	3886	127	250	143	1705	0	3785	5405	2237	4283	30	1662	2694	5988
T2	K0	7772	3886	3886	127	250	143	1705	0	3785	7442	2237	4283	30	1662	2694	5988
T2	K1	7772	3886	3886	127	250	143	1705	0	3785	8123	2237	4283	30	1662	2694	5988
T2	K2	7772	3886	3886	127	250	143	1705	0	3785	8632	2237	4283	30	1662	2694	5988
T2	K3	7772	3886	3886	127	250	143	1705	0	3785	8918	2237	4283	30	1662	2694	5988
T2	K4	7772	3886	3886	127	250	143	1705	0	3785	9056	2237	4283	30	1662	2694	5988

42684 - Slewing Radius



42684 Hydraulic Diagrams

Section - 4

Pressure Setting Diagram, WB 42684 RC

Working Pressure on Main-Relief Valve & Port- Relief Valves						
Function	Direction	Port	Port-relief valves [BAR]	LS-pressure adjustment [BAR]	Port-relief valves [PSI]	LS-pressure adjustment [PSI]
Main-relief valve			370		5366	
Slewing system	Right	A	175	145	2538	2103
	Left	B	175	145	2538	2103
Boom cylinder	Down	A	125	95	1813	1378
	Up	B	380	355	5511	5149
Jib cylinder	Up	A	190	160	2756	2321
	Down	B	365	345	5294	5004
Extension cylinders 1	Extend	A	P	300	P	4351
	Retract	B	P	300	P	4351
Extension cylinders 2	Extend	A	P	300	P	4351
	Retract	B	P	300	P	4351
Grab	Open	A	P	200	P	2901
	Close	B	P	200	P	2901
Rotator	Right	A	P	175	P	2538
	Left	B	P	175	P	2538
Separate stabilizer valve		All	180 (Bar)		2611 (psi)	

Working Pressure on Load-holding Valves				
Function	Direction	Port	Opening pressure [BAR]	Opening pressure [PSI]
Slewing system	Right	A-B	195	2828
	Left	B-A	195	2828
Boom cylinder	Up		380	5511
	Down		-	-
Jib cylinder	Up		380	5511
	Down		210	3045
Extension cylinders 1	Retract		210	3046
	Extend		410	5947
Extension cylinders 2	Extend		210	3046
	Retract		410	5947

Pressure setting for Load Moment Limitation (LMB)		
Load moment limitation (LMB)	335 [Bar]	4859 [psi]
0	343 (Bar)	4975 (psi)
0	175 (Bar)	2538 (psi)
HDL	270 [Bar]	4061 [psi]

Max. pump performance				
CHOICE OF PUMP	1 x Fixed	1 x Variable	1 x Fixed	1 x Variable
Pump performance	70 (L/min)	120 (L/min)	18.5 (gpm)	31.7 (gpm)

42684 - Working Pressure on Main Relief Valve & Port Relief Valves

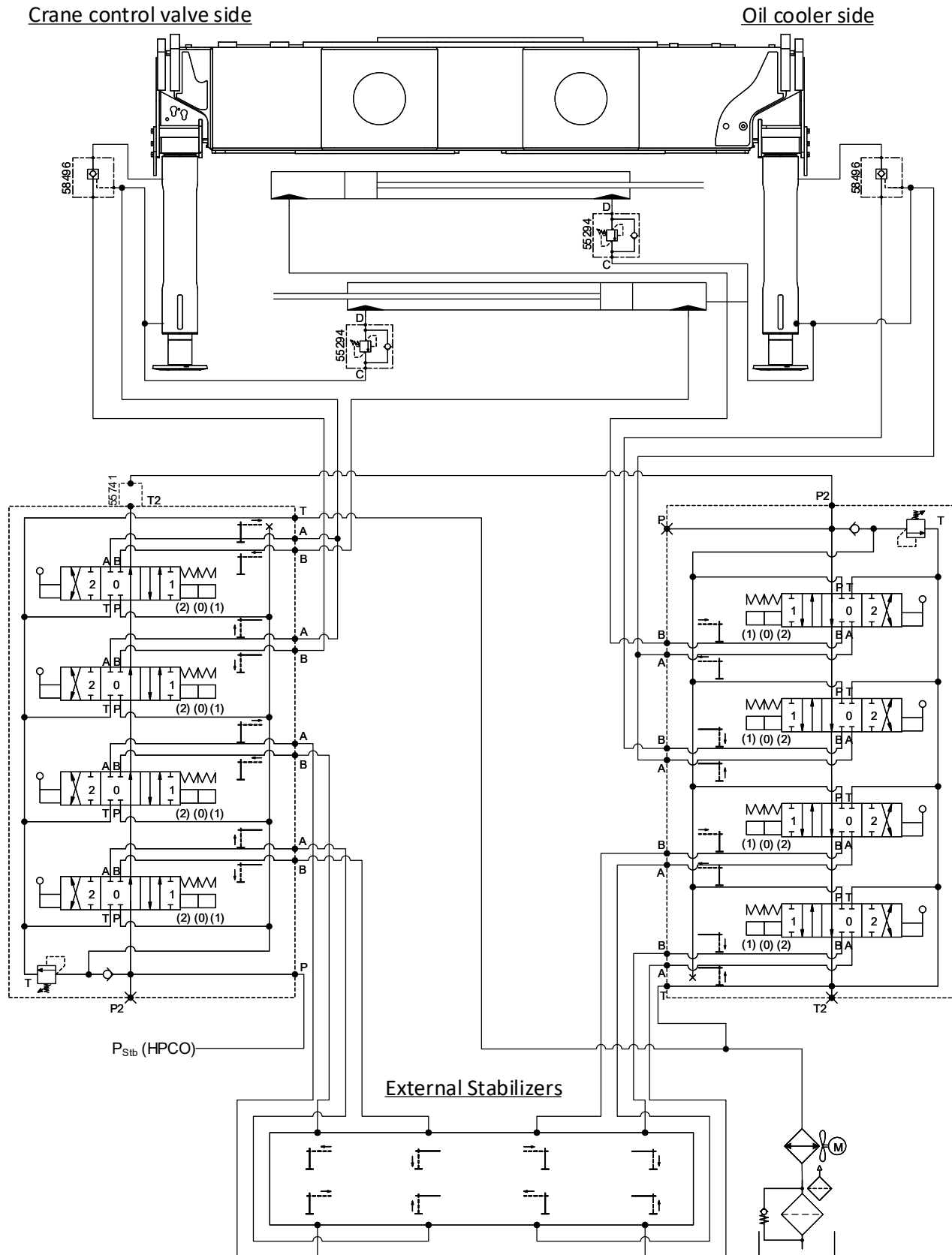
Working Pressure on Main-Relief Valve & Port- Relief Valves						
Function	Direction	Port	Port-relief valves [BAR]	LS-pressure adjustment [BAR]	Port-relief valves [PSI]	LS-pressure adjustment [PSI]
Main-relief valve			370		5366	
Slewing system	Right	A	140	115	2031	1668
	Left	B	140	115	2031	1668
Boom cylinder	Down	A	125	95	1831	1813
	Up	B	365	338	5294	4902
Jib cylinder	Up	A	365	350	5294	5076
	Down	B	190	160	2756	2321
Extension cylinders 1	Extend	A	P	300	P	4351
	Retract	B	P	300	P	4351
Extension cylinders 2	Extend	A	P	300	P	4351
	Retract	B	P	300	P	4351
Grab	Open	A	P	200	P	2901
	Close	B	P	200	P	2901
Rotator	Right	A	P	175	P	2538
	Left	B	P	175	P	2538
Separate stabilizer valve		All	180 (Bar)		2611 (psi)	

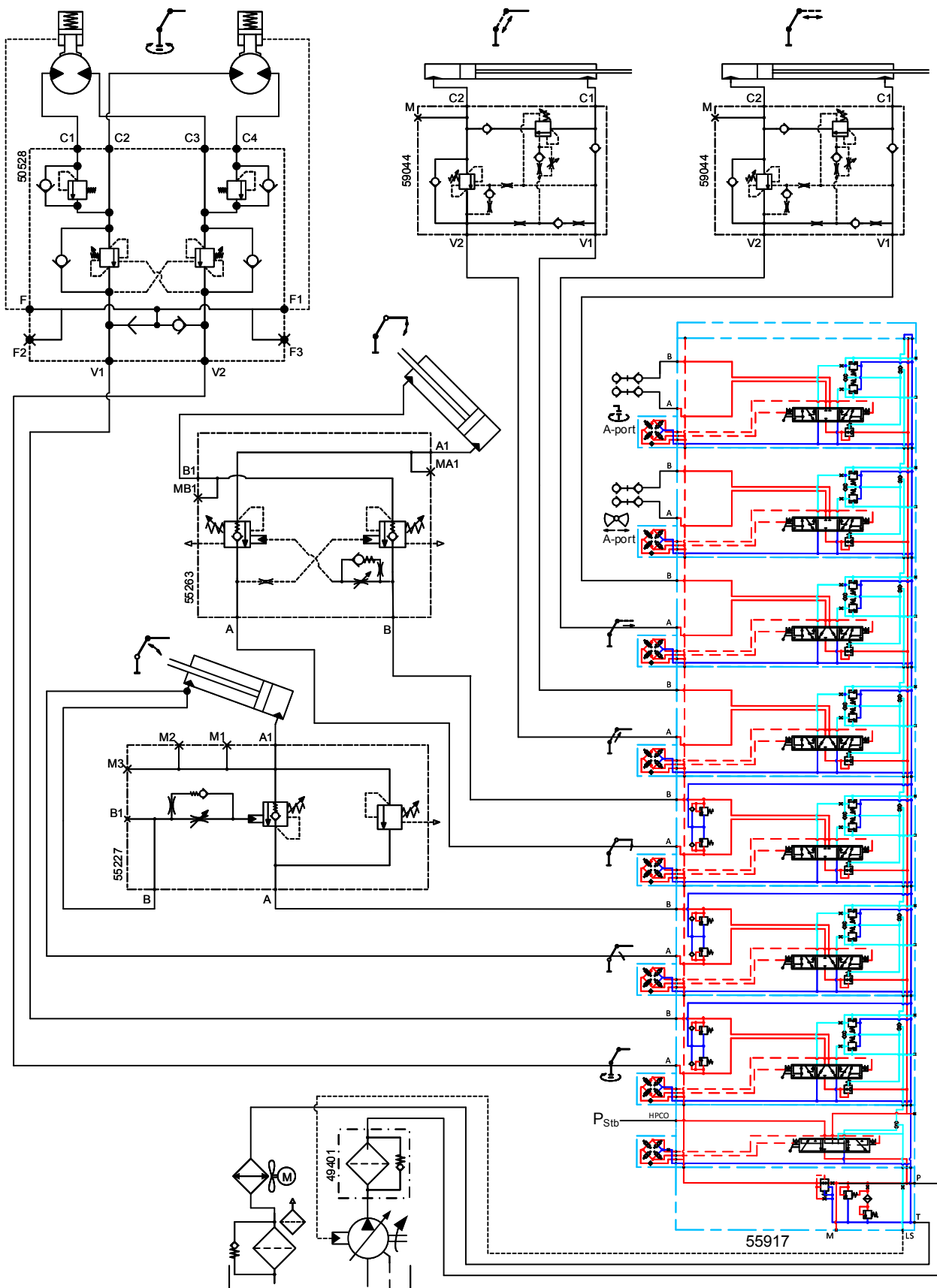
Working Pressure on Load-holding Valves				
Function	Direction	Port	Opening pressure [BAR]	Opening pressure [PSI]
Slewing system	Right	A-B	195	2828
	Left	B-A	195	2828
Boom cylinder	Up		380	5511
	Down		-	-
Jib cylinder	Up		380	5511
	Down		210	3045
Extension cylinders 1	Retract		210	3046
	Extend		410	5947
Extension cylinders 2	Extend		210	3046
	Retract		410	5947

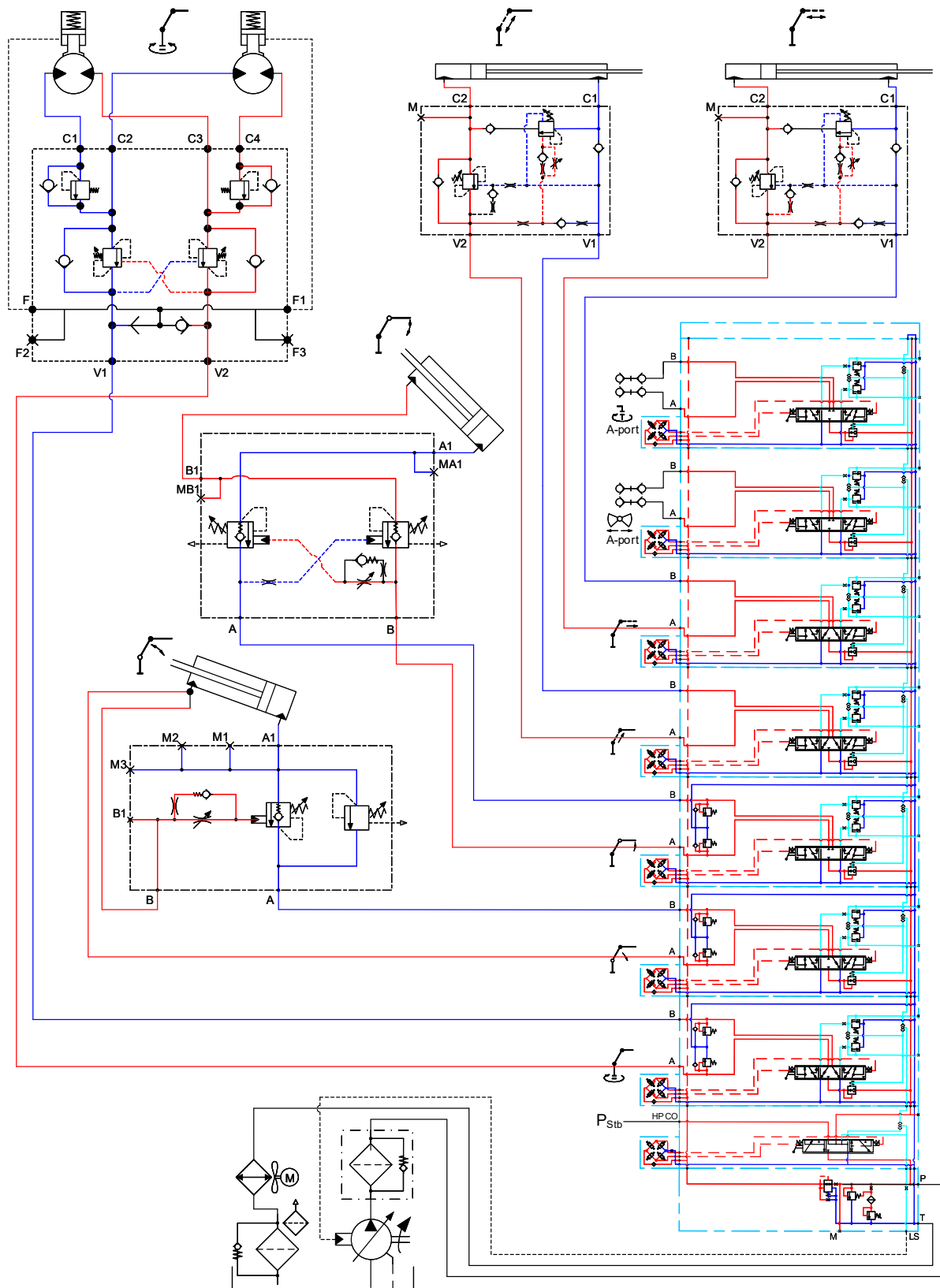
Pressure setting for Load Moment Limitation (LMB)		
Load moment limitation (LMB)		335 [Bar] 4859 [psi]
0		343 (Bar) 4975 (psi)
0		175 (Bar) 2538 (psi)
HDL		270 [Bar] 4061 [psi]

Max. pump performance				
CHOICE OF PUMP	1 x Fixed	1 x Variable	1 x Fixed	1 x Variable
Pump performance	70 (L/min)	120 (L/min)	18.5 (gpm)	31.7 (gpm)

42684 - Hydraulic Diagram Stabilizer + 4 Available Fcts.



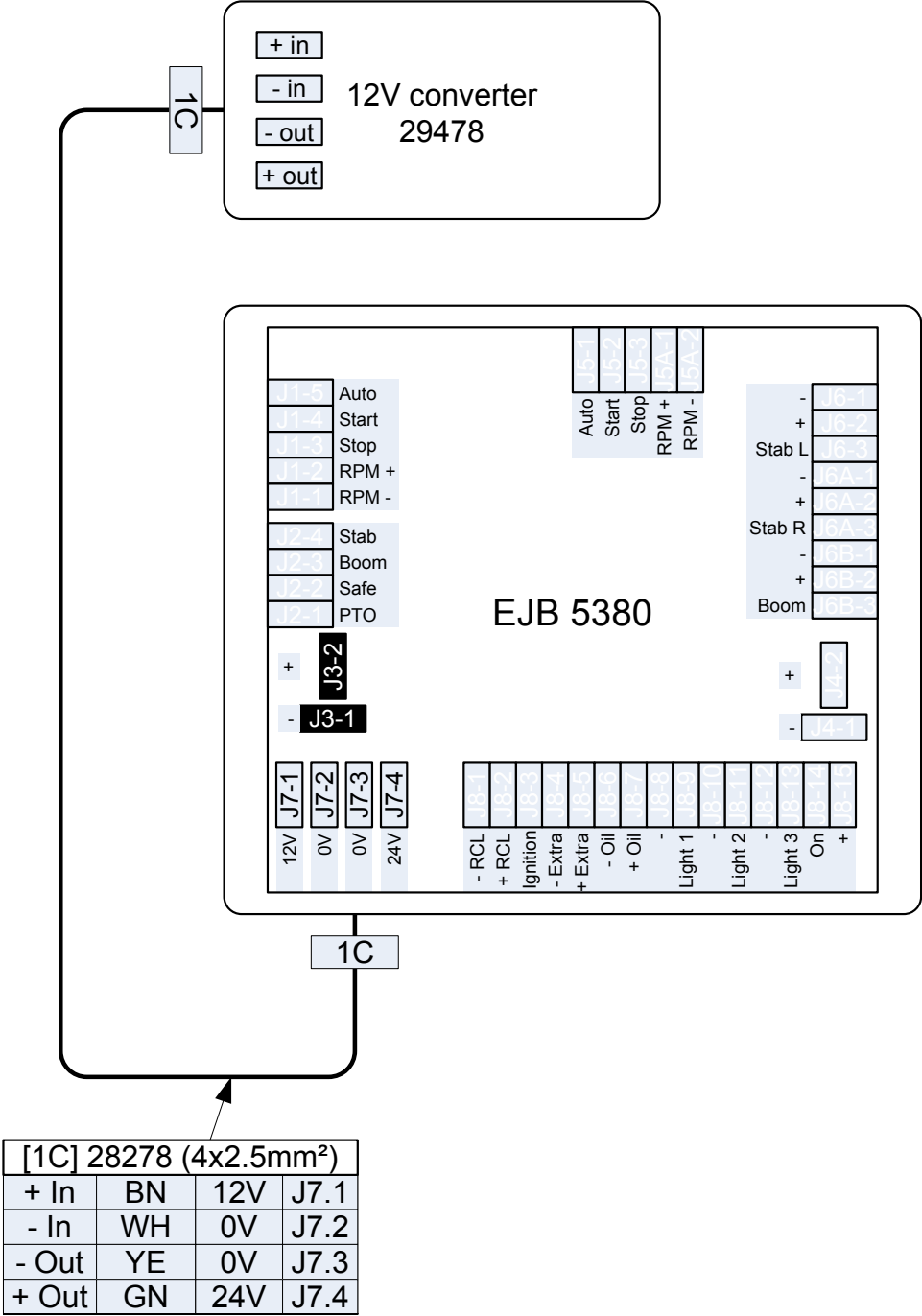
42685 - Hydraulic Diagram Single Circuit Variable

42684 - Hydraulic Diagram - Single Circuit Variable 7 Function RC

42684 Electrical Diagrams

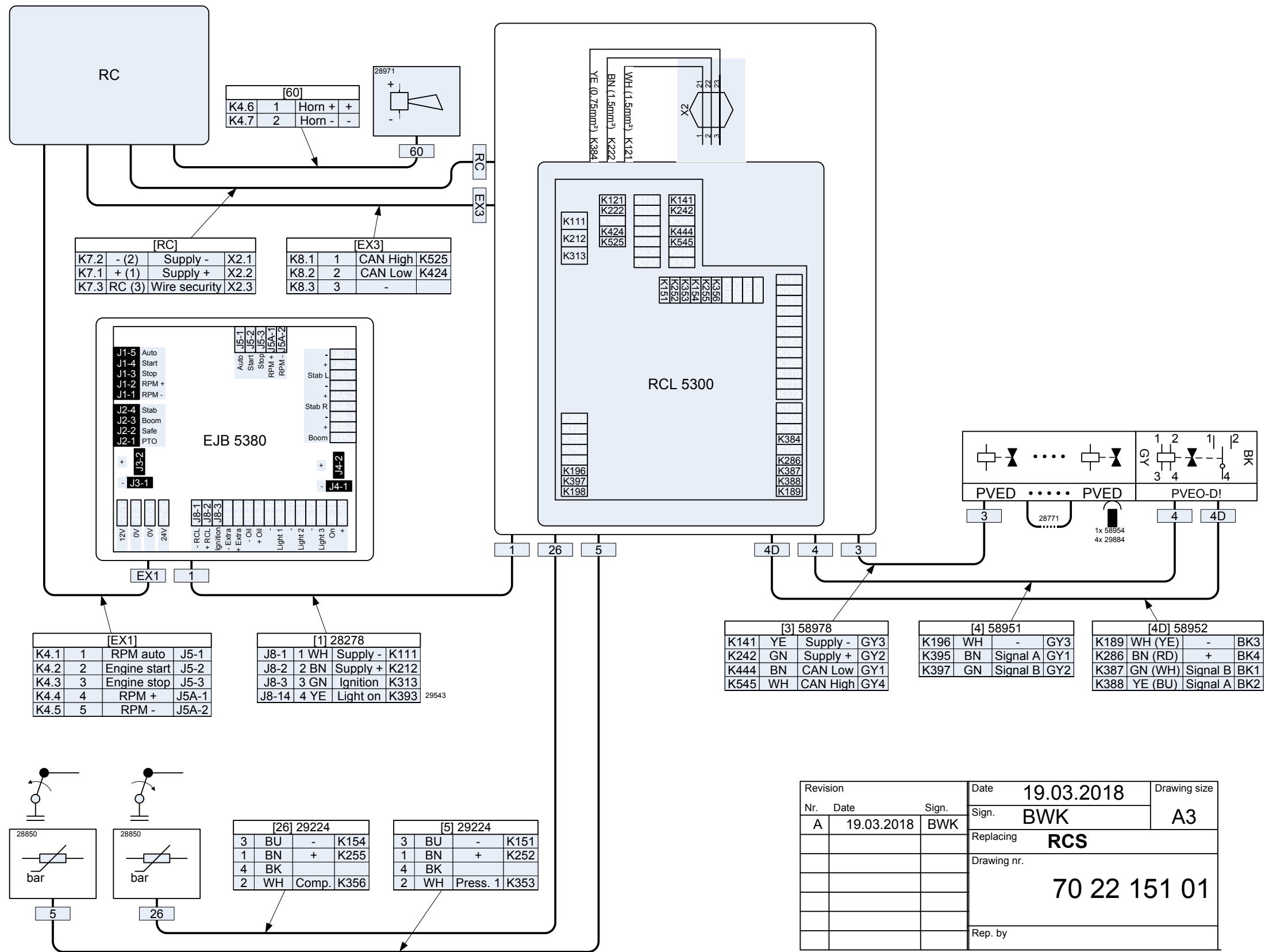
Section - 5

42684 - 12-Volt Converter (Drawing Number: 702103201)

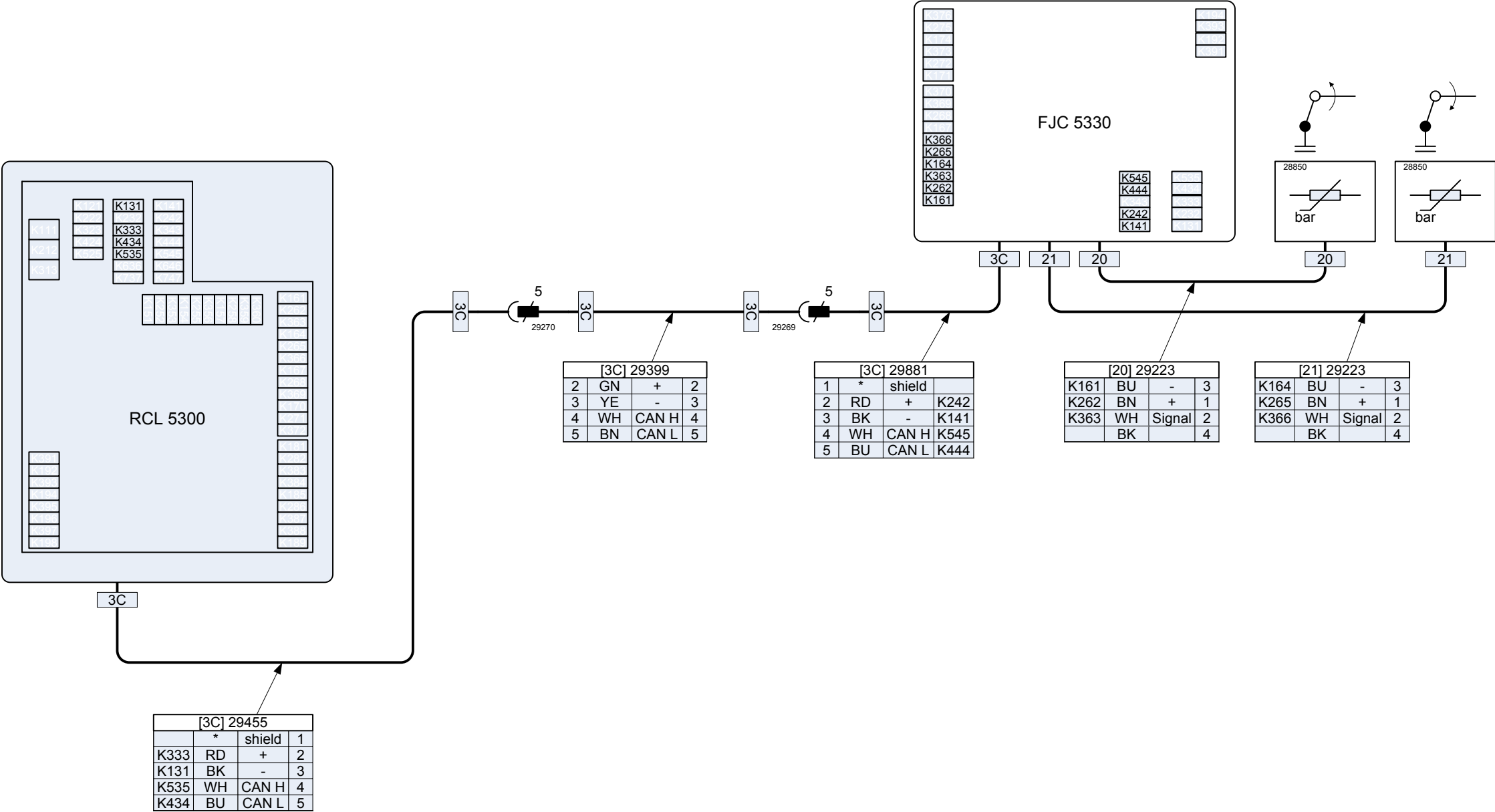


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Nr.	Date	Sign.	Sign.	BWK	
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			Rep. by		

42684 - RCS (Drawing Number: 702215101)

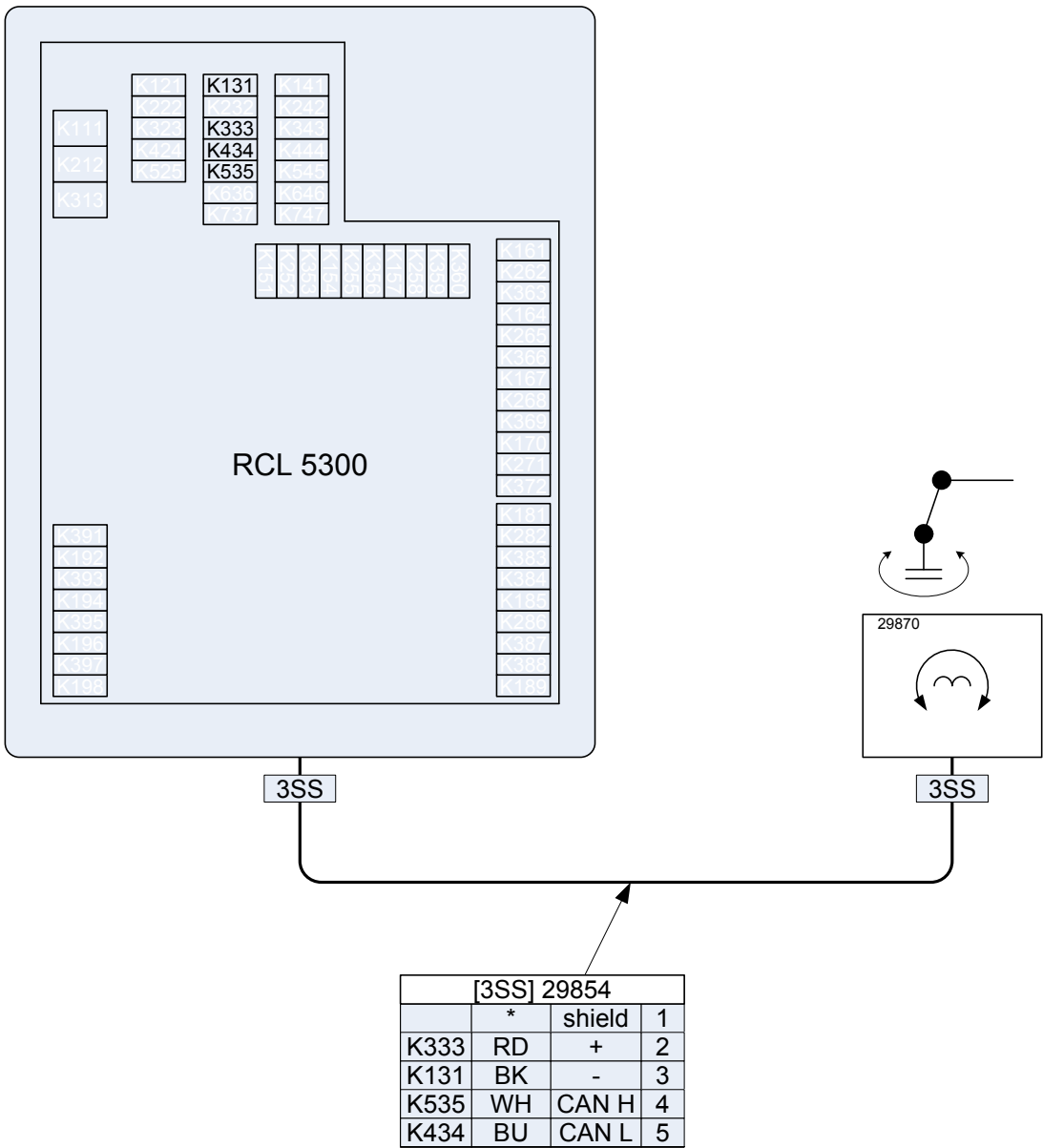


42684 - Column (Drawing Number: 702215201)



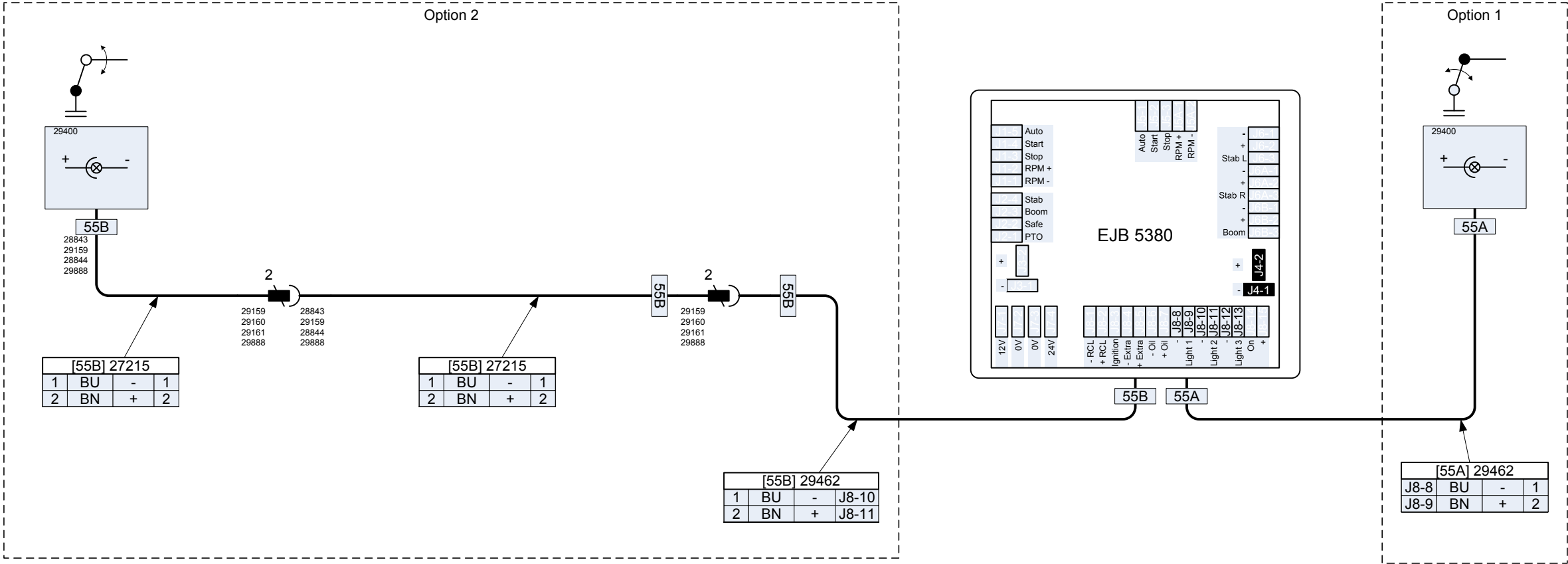
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			70 22 152 01		
			Rep. by		

42684 - Slew Sensor (Drawing Number: 702216101)



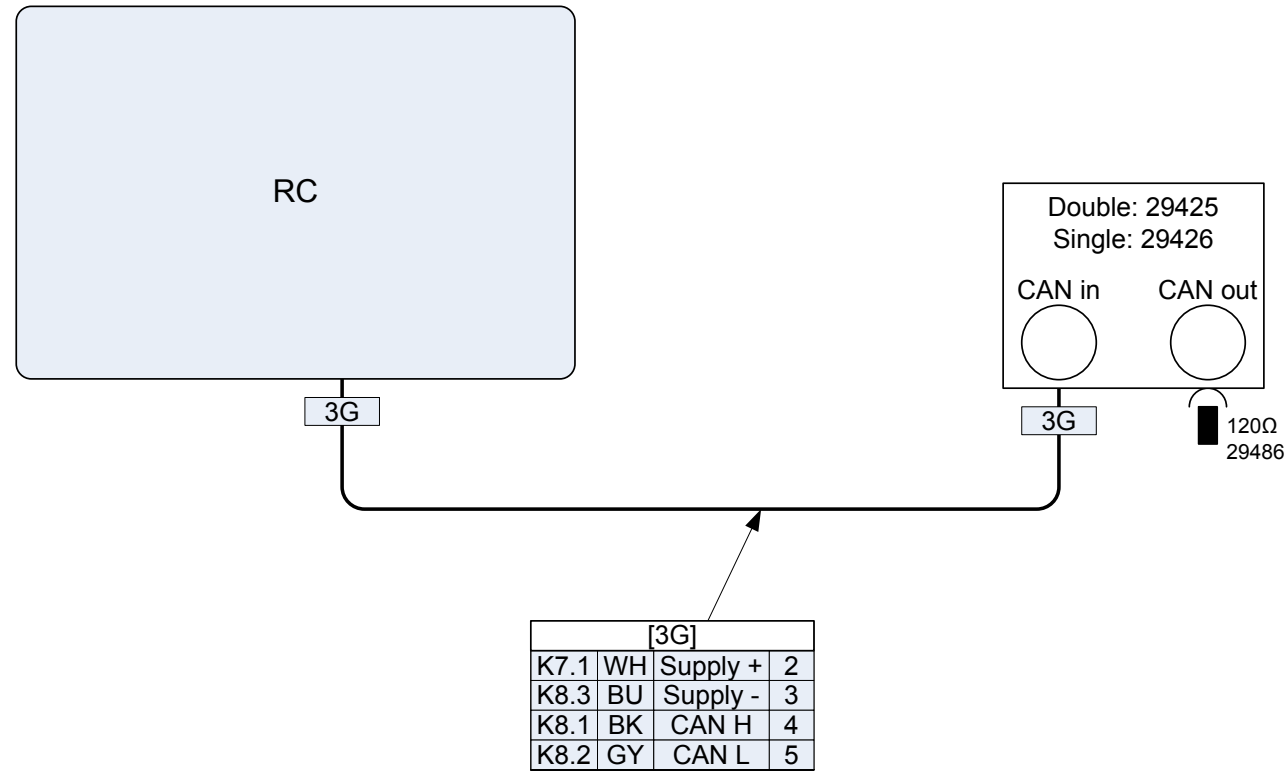
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			Rep. by		

42684 - Work Light (Drawing Number: 702217201)



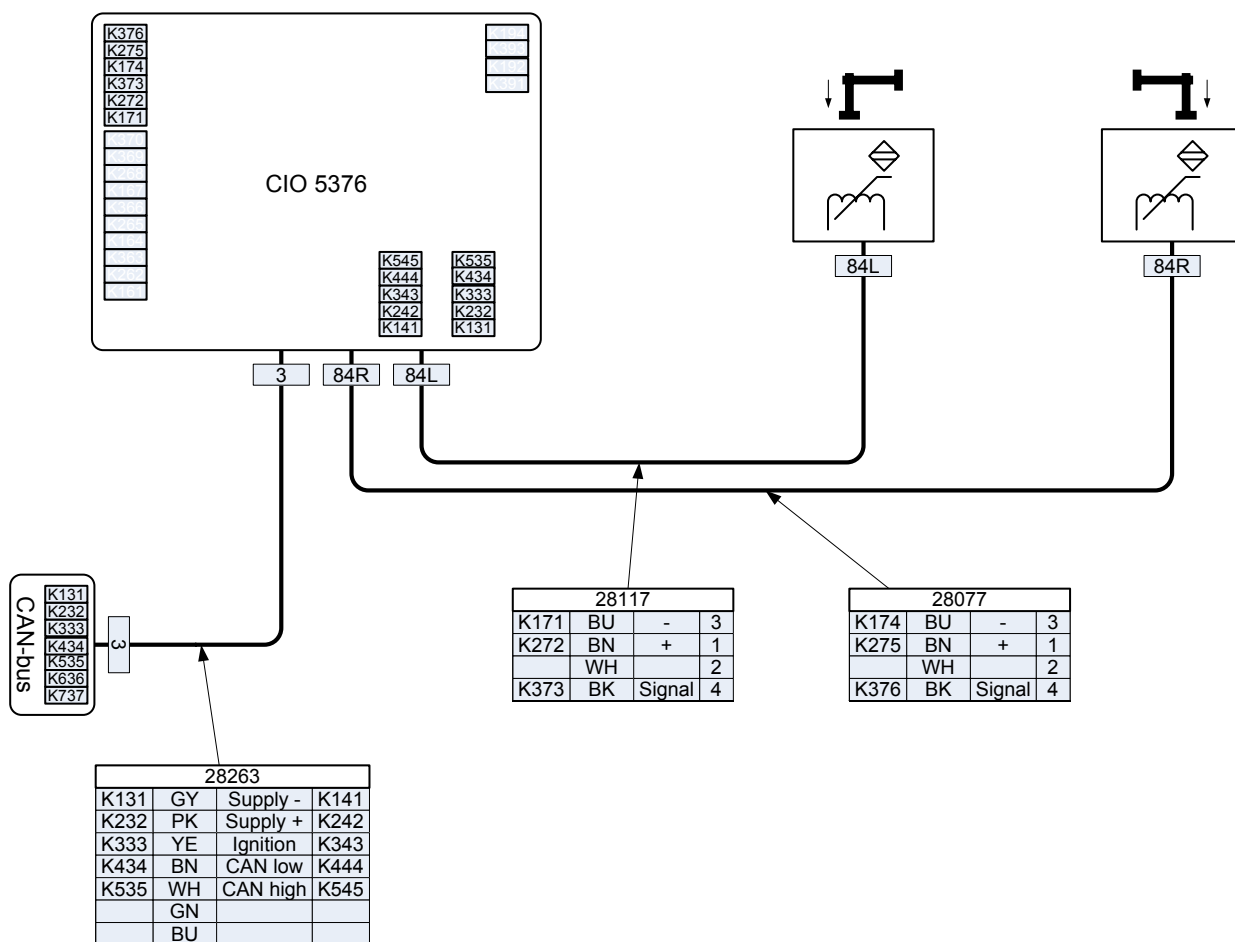
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A	01.03.2018	BWK	ReplacingWork Light Drawing nr. 70 22 172 01 Rep. by			

42684 - EVS-G2 (Drawing Number: 702162501)



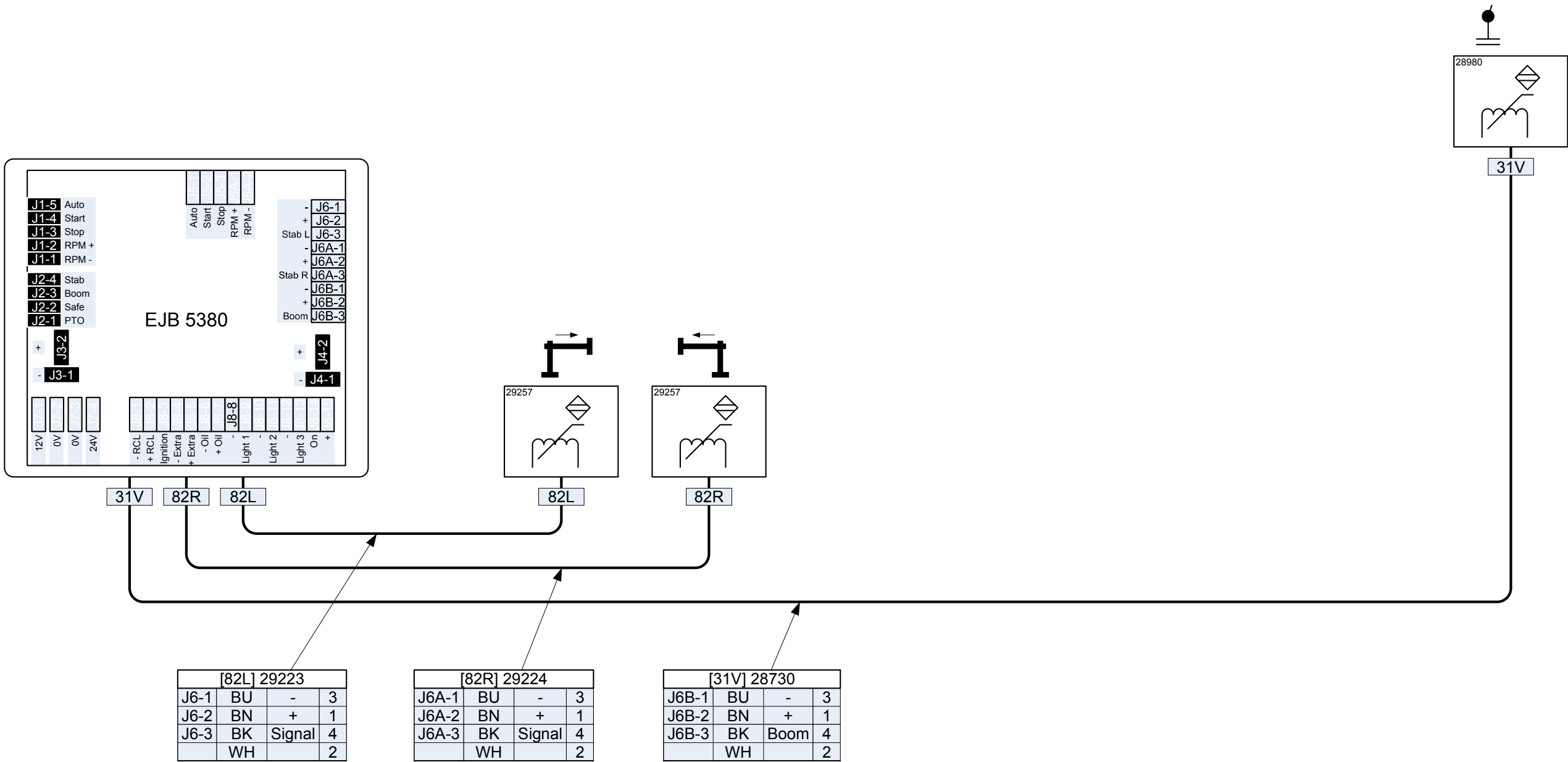
Revision			Date	21.03.2012	Drawing size
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A	21.03.2012	MBA	Replacing		A4
B	28.08.2013	BWK	EVS-G2		
C	06.08.2015	BWK	Drawing nr.		
			70 21 625 01		
			Rep. by		

42684 - CYL (Drawing Number: 702101301)



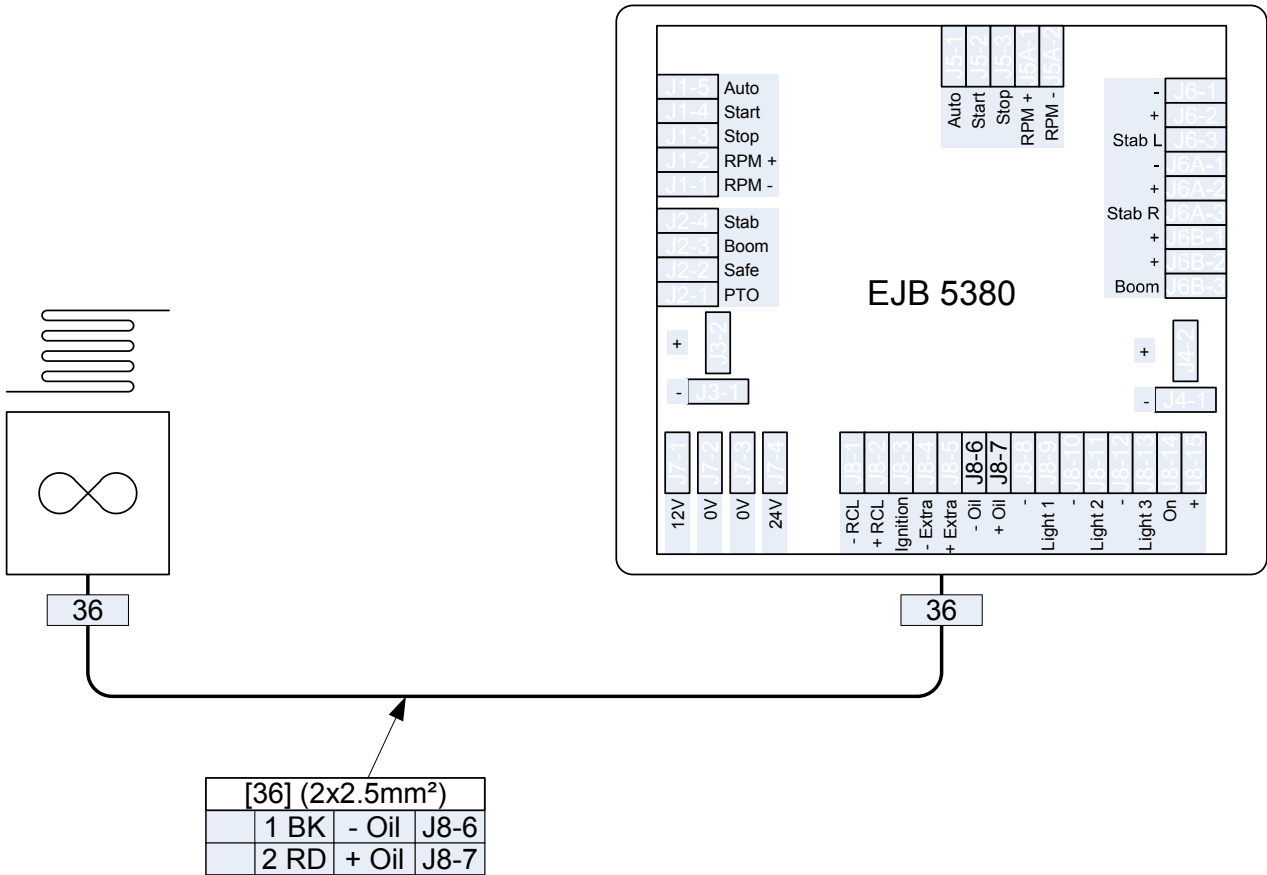
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			Rep. by		

42684 - BEPAW (Drawing Number: 702216201)



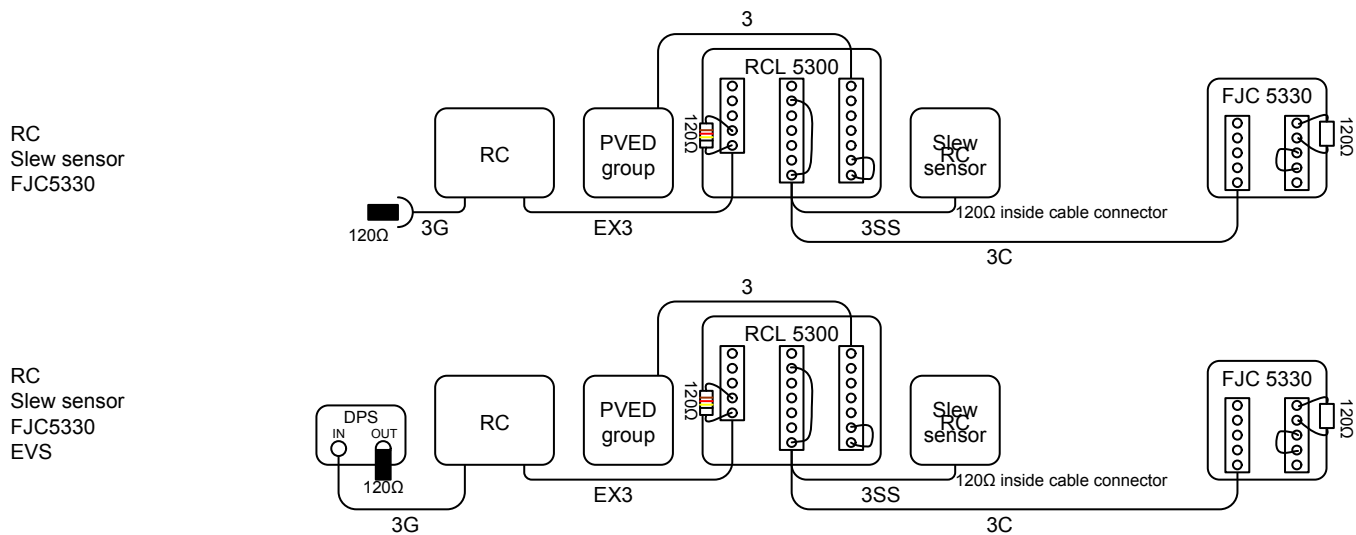
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			Drawing nr.		
			70 22 162 01		
			Rep. by		

42684 - Oil Cooler, G3 (Drawing Number: 702106201)



Revision			Date	06.12.2012	Drawing size
Nr.	Date	Sign.	Sign.	BWK	
A	06.12.2012	BWK	Replacing Oil Cooler, G3		
B	23.05.2013	BWK			
C	17.01.2014	BWK	Drawing nr. 70 21 062 01		
D	22.09.2017	BWK			
			Rep. by		

42684 - Termination RCS (Drawing Number: 702219901)



Revision			Date	07.02.2018	Drawing size
Nr.	Date	Sign.	Sign.	BWK	
A	07.02.2018	BWK	Replacing	Termination RCS	
			Drawing nr.	70 22 199 01	
			Rep. by		



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