

## COVERSHEET

### Planned document changes:

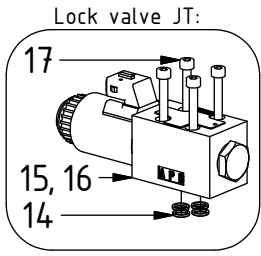
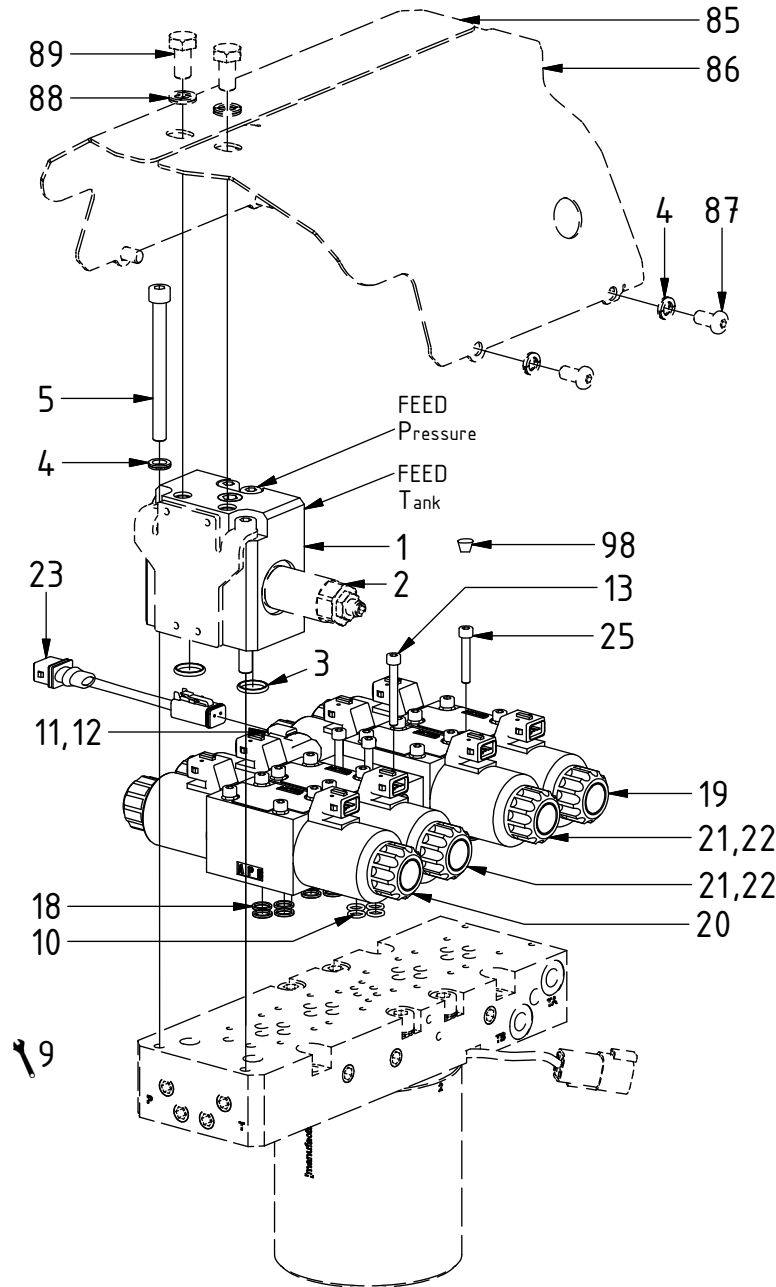
**Briefly:**

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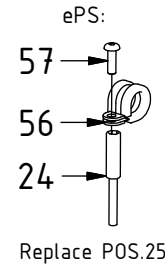
No planned changes.

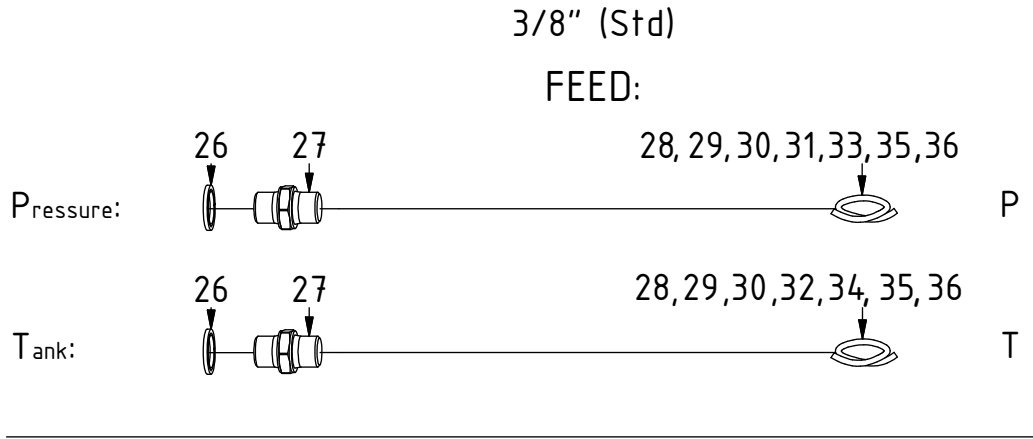
### Document changes:

<b>Date:</b>	<b>Change:</b>	<b>Rev. after change:</b>
2020-09-03	ePS cables replaced. ePS photos replaced.	G
2019-09-16	Hoses updated. Photos added.	F
2018-11-23	Tilt hoses for EC-Oil added. New cables for DC2 EC-Oil.	E
2018-05-31	Major changes to all pages: photos, valves, EC-Oil, ePS, MACS, QSC, all added and/or updated. Coversheet added.	D

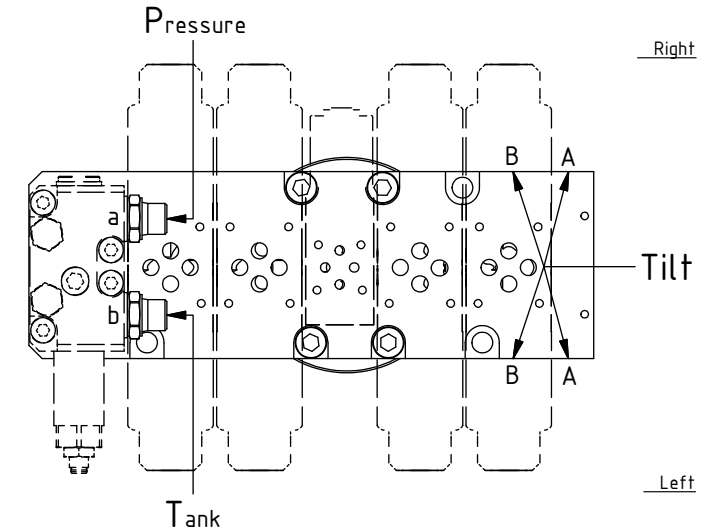
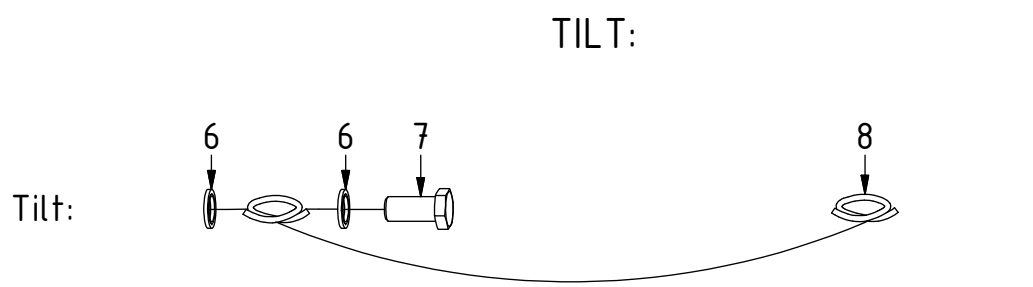
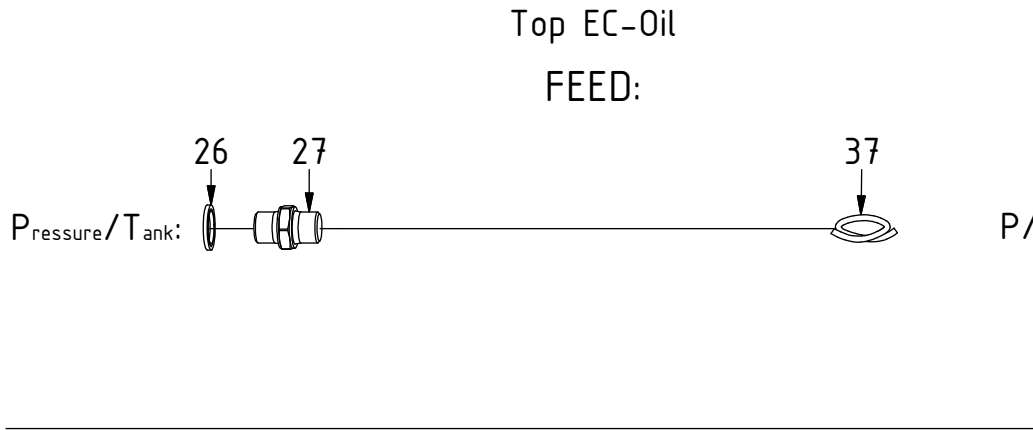


POS	DESCRIPTION	PART	QTY	COMMENTS
1	Pressure reduction block Complete	1019712	1	(POS.2 included)
2	Pressure reducing valve SP4A-B3	730288	1	
3	O-ring 14,3x2,4	712402	2	
4	Washer NL 8mm	611040	8	QTY: 4 part of make up
5	MC6S M8x90 12.9	610444	4	
9	For option XP			See p.20 for instruction
10	O-ring square 7,66x1,68	7000579	4	
11	Directional valve NG4 IQS 12V DT	1042047	1	QS, CW, ECPUP, ss SIQ (POS.10 included)
12	Directional valve NG4 IQS 24V DT	1042190	1	QS, CW, ECPUP, ss SIQ (POS.10 included)
13	MC6S M5x40 12.9	610405	3	Torque: 9,7Nm
14	O-ring 7,65x1,78	710960	4	
15	Directional valve NG4 12V JT	730312	1	(POS.14 included)
16	Directional valve NG4 24V JT	730310	1	(POS.14 included)
17	MC6S M5x35 12.9	610404	4	Torque: 9,7Nm
18	O-ring 9,25x1,78	710901	16	
19	Directional valve prop 12V AMP open to tank	7000092	1	(POS.18 included)
20	Directional valve prop 12V AMP	730190	1	(POS.18 included)
21	Directional valve NG6 12V	730101	2	(POS.18 included)
22	Directional valve NG6 24V	730103	2	(POS.18 included)
23	Adapter cable DT-JT	1017478	1	QS, CW, ECPUP, ss SIQ
24	Valve spacer ePS (&MACS)	1034402	1	See p.13/16 for location. (MACS p.6)
25	MC6S M5x30 12.9	610403	16	Torque: 9,7Nm. QTY: 15 for MACS
56	Rubber steel clamp ø16	6000009	1	
57	K6S M5x16 10.9 FZB	611818	1	Torque: 8,1Nm
85	Protective cover EC209 right	1016515	1	
86	Protective cover EC209 left	1016516	1	
87	K6S M8x16 10.9 FZB	611810	4	
88	Washer NL 10mm	611041	4	
89	M6S M10x20 8.8	610141	4	
98	Plastic plug (red) for valves	790156	16	

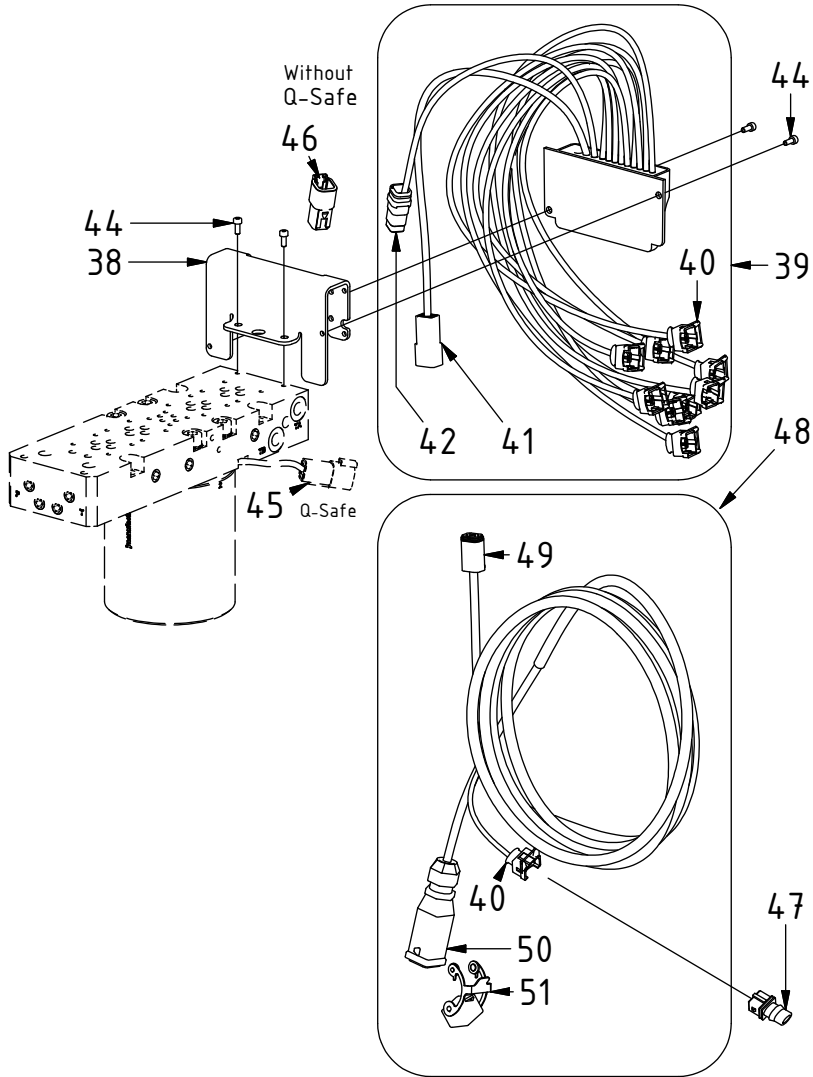




POS	DESCRIPTION	PART	QTY	COMMENTS
6	Washer GBR04 1/4	710702	8	
7	Banjobolt 1/4"	710271	4	
8	Hose Tilt	7000791	4	
26	Sealing washer 3/8"	710703	2	QTY: 3 for MACS
27	Adapter 3/8"	710106	2	
28	Hose Feed - UNI	742855	2	(Same for Feed Right/Left)
29	Hose Feed - QS45/50	7000012	2	QTY: 1 for Feed Right/Left
30	Hose Feed Right/Left - QS45/50	742814	1	Feed Right: Mount on a-side Feed Left: Mount on b-side
31	Hose Feed - HYD (P)	7000012	1	(same for Feed Right+Left)
32	Hose Feed - HYD (T)	742814	1	
33	Hose Feed Right - HYD (P)	7000650	1	Feed Right: Replace POS.31
34	Hose Feed Right - HYD (T)	7000608	1	Feed Right & Feed Right+Left: Replace POS.32
35	Hose Feed - Liebherr	742814	2	
36	Hose Feed - CW10, SW33	7000406	2	
37	Hose Feed - EC-Oil	742851	2	

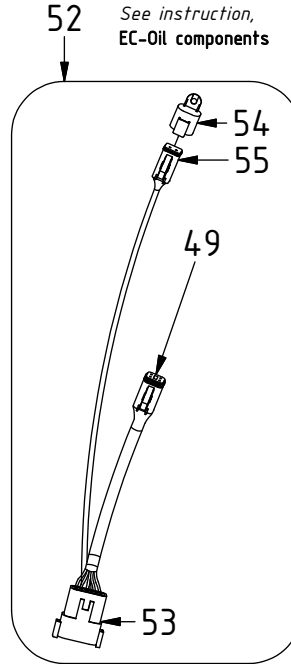


## DC2

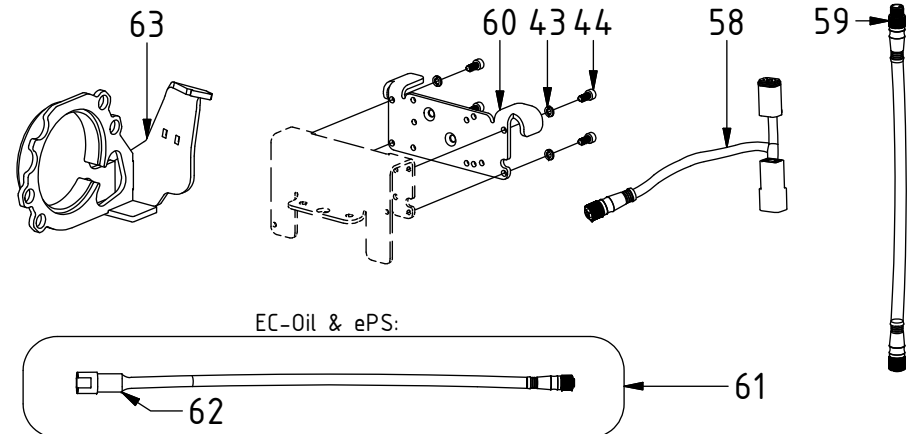


## EC-Oil:

See instruction,  
EC-Oil components

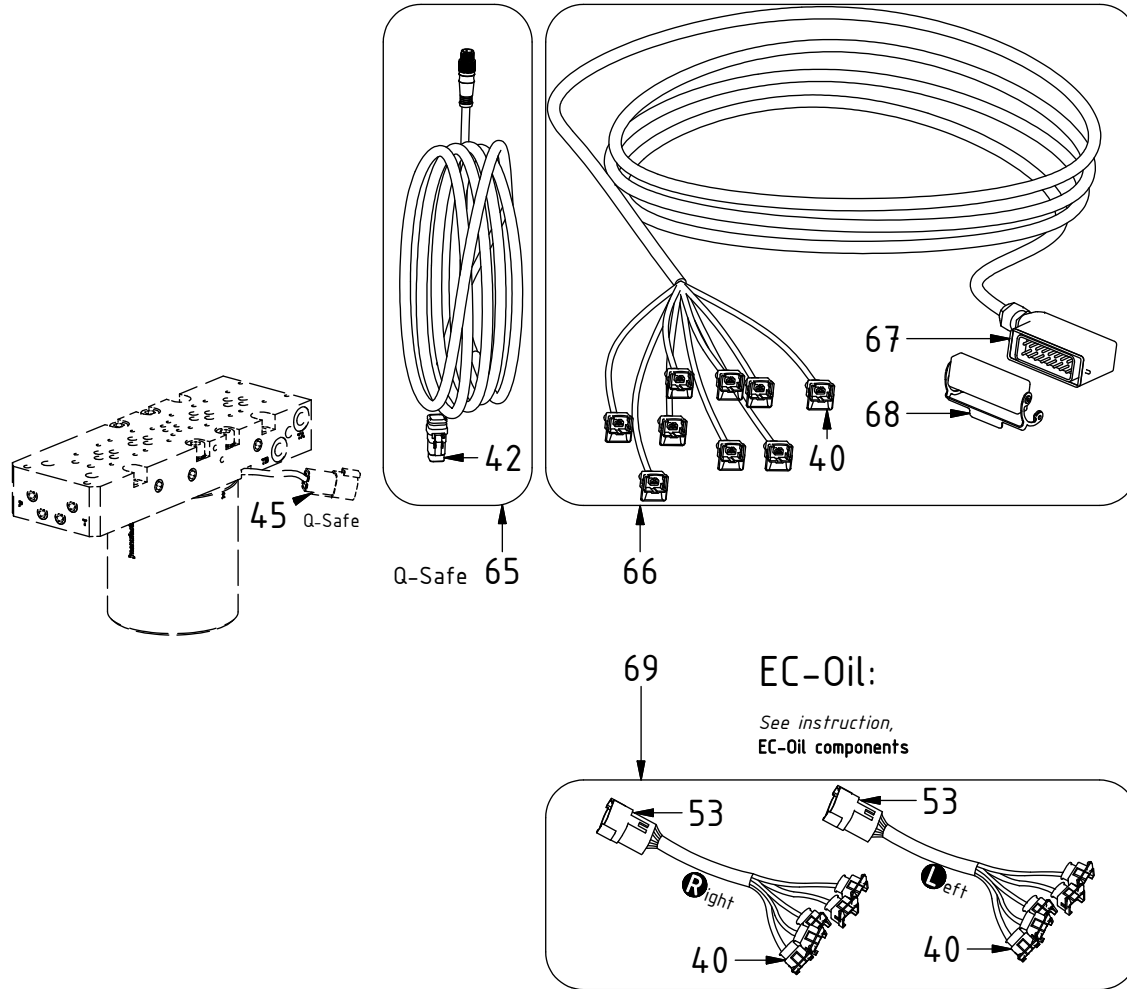


## ePS:



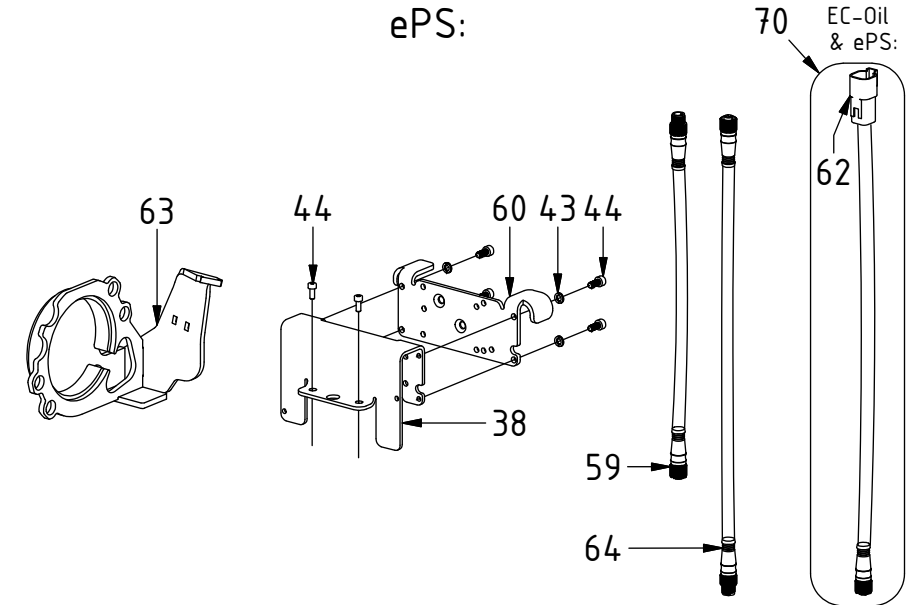
POS	DESCRIPTION	PART	QTY	COMMENTS
38	Bracket Tiltrotatmodul DC2 & ePS	1038301	1	
39	Tiltrotator module DC2 Q-Safe	842137	1	
40	Connector JT	810218	9	
41	Connector Deutsch DT04-4P	820108	1	
42	Connector Deutsch DTM06-6S	8000053	1	
43	Washer NL 5 mm	611038	4	
44	MC6S M5x12 12.9	6000077	4	QTY depends on config (3-8)
45	Only for Q-safe, connector			
46	Protection plug DTM	8000090	1	
47	Plug JT	1045154	1	Plug JT connector
48	Aggregate cable DC2 Complete QSC	8000175	1	
49	Connector Deutsch DT06-4S	820218	1	
50	ILME contact 12P DC2 Complete	841192	3	
51	ILME cover 12P contact with jumper	810208	1	
52	Adapter cable ECO W DC2 QSC DTM	1048529	1	For EC-Oil. Replace POS.48
53	Connector Deutsch DTM04-12P	8000177	1	
54	Protection plug DT	8000086	1	Plug DT connector
55	Connector Deutsch DT06-2S	820219	1	
58	Adapter cable DC2 ePS	8000783	1	Between POS.39 & 48 / 52 for ECO
59	Adapter cable ePS rotation sensor	8000784	1	Cut cable protection: 130mm
60	Adapter plate ePS (Not Trimble)	1039019	1	(Trimble directly on POS.38)
61	Cable Tilt angle sensor ECO W DC2	1048530	1	For EC-Oil with ePS
62	Connector Deutsch DTM04-6P	8000054	1	
63	Protection ePS/MACS	1033565	1	

## ss10 (SVAB)

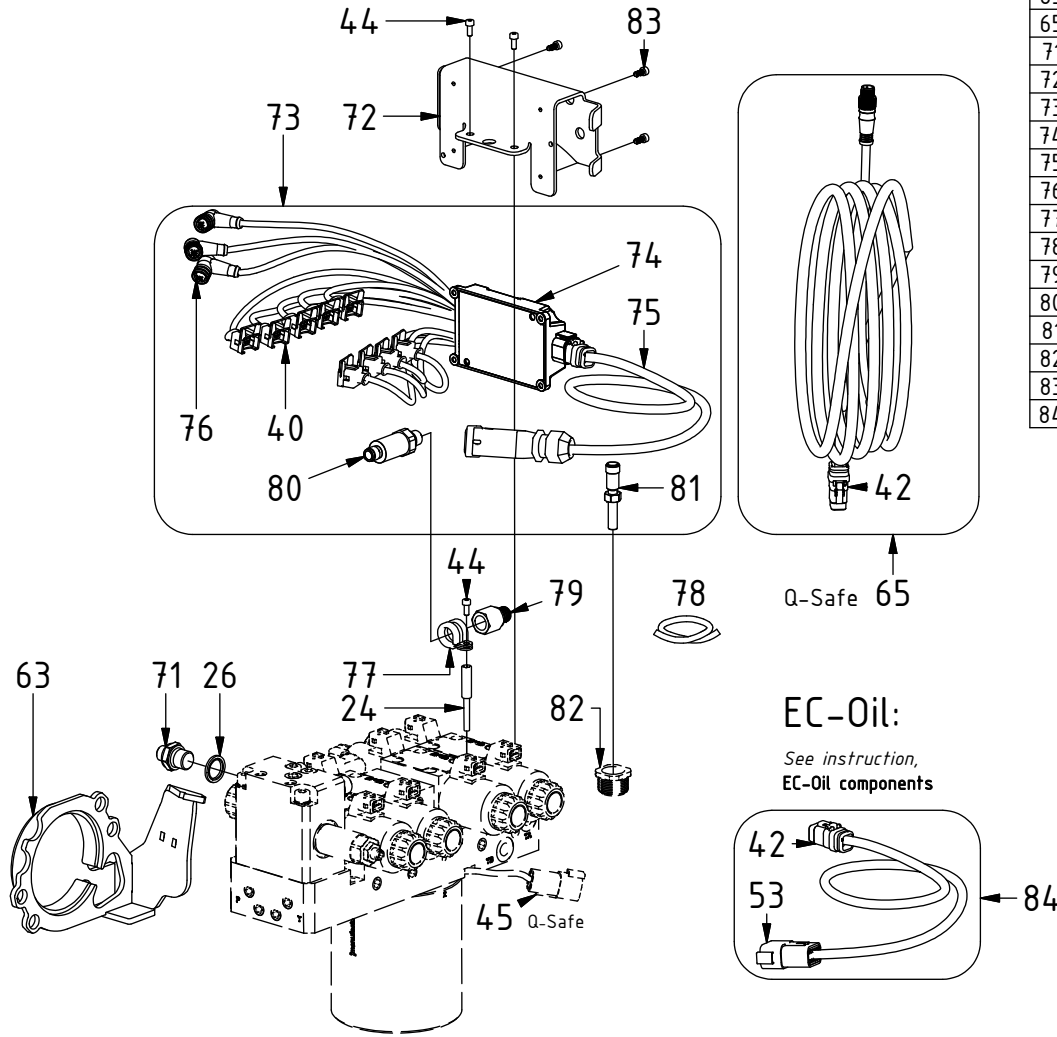


POS	DESCRIPTION	PART	QTY	COMMENTS
38	Bracket Tiltrotatmodul DC2 & ePS	1038301	1	
40	Connector JT	810218	9	
42	Connector Deutsch DTM06-6S	8000053	1	
43	Washer NL 5 mm	611038	4	
44	MC6S M5x12 12.9	6000077	4	QTY depends on config (3-8)
45	Only for Q-safe, connector			Attach to POS.65 or See EC-Oil comp.
53	Connector Deutsch DTM04-12P	8000177	1	
59	Adapter cable ePS rotation sensor	8000784	1	Cut cable protection: 130mm
60	Adapter plate ePS (Not Trimble)	1039019	1	(Trimble directly on POS.38)
62	Connector Deutsch DTM04-6P	8000054	1	
63	Protection ePS/MACS	1033565	1	
64	Ag.cable SVAB ePS w. 120 ohm ter.	8000824	1	
65	Cable QS QLM tiltrotator SVAB	842148	1	For Q-Safe
66	Aggregate cable SVAB Complete	3034.65	1	
67	ILME contact 16P Complete	810203	1	
68	ILME cover 16P contact with jumper	810235	1	
69	Adapter cable ECO (DTM) SVAB	1029599	2	For EC-Oil. Replace POS.65-66
70	Ad.cable ePS ECOW SVAB 120 ohm	8000825	1	For EC-Oil ePS. Replace POS.64

### ePS:



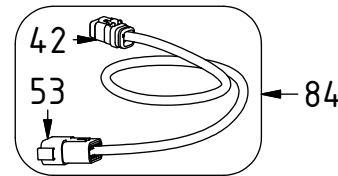
## MACS



POS	DESCRIPTION	PART	QTY	COMMENTS
24	Valve spacer ePS (&MACS)	1034402	1	See p.13/16 for location. (MACS p.6)
26	Sealing washer 3/8"	710703	2	QTY: 3 for MACS
40	Connector JT	810218	9	
42	Connector Deutsch DTM06-6S	8000053	1	
44	MC6S M5x12 12.9	6000077	4	QTY depends on config (3-8)
45	Only for Q-safe, connector			
53	Connector Deutsch DTM04-12P	8000177	1	
63	Protection ePS/MACS	1033565	1	
65	Cable QS QLM tiltrotator SVAB	842148	1	For Q-Safe
71	Adapter 135-04-06 (1/4"- 3/8")	710118	1	
72	Bracket SVAB MACS	1033719	1	
73	Tilt rotator kit SVAB MACS	1033470	1	
74	MACS Tilt rotator module GP4	811203	1	
75	Aggregate cable SVAB MACS	1028041	1	
76	Valve cables SVAB MACS	1033471	1	
77	Hose Holder ø14	613009	1	
78	Hose Pressure transmitter MACS	7000146	1	
79	Adapter 236-04-04 (1/4")	1013885	1	
80	Pressure transmitter SVAB MACS	7000016	1	
81	Inductive sensor SVAB MACS	1028045	1	Adjust clockwise. Nut torque: 3Nm
82	Pipe plug M26x1,5 SVAB MACS	650409	1	Part of rotator frame assembly
83	MC6S M4x10 8.8.	610523	4	
84	Adapter cable ECO W MACS-DTM	1043277	1	For EC-Oil. Replace POS.65 & 75

### EC-Oil:

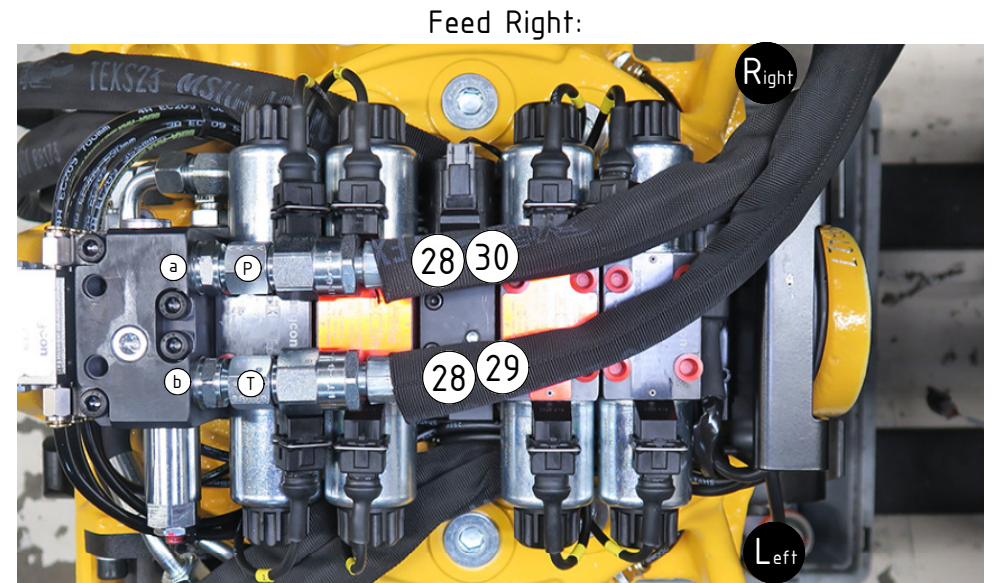
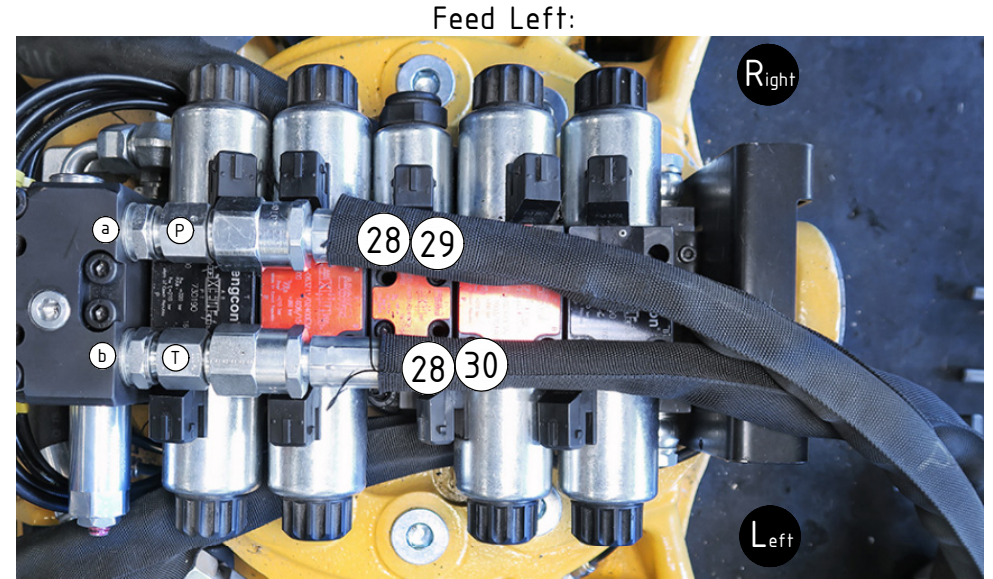
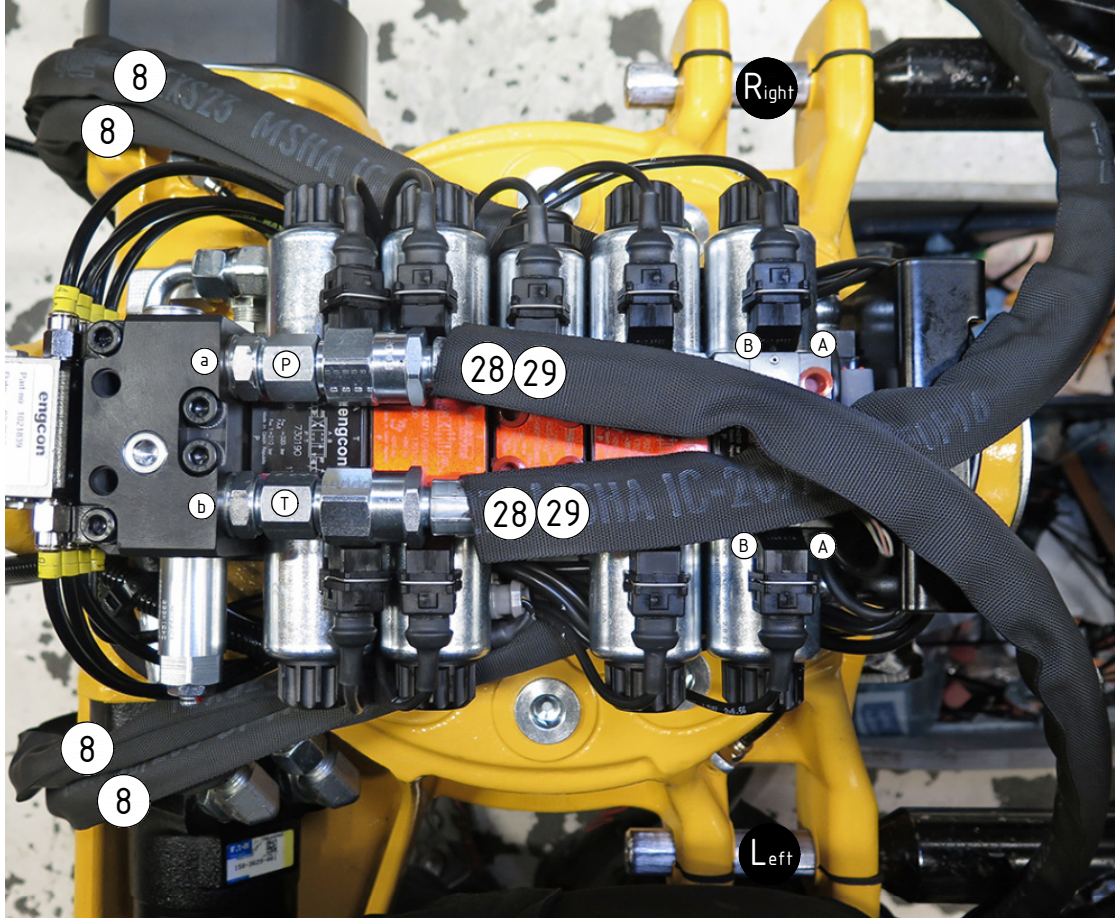
See instruction,  
EC-Oil components



3/8" (Hoses)  
 QS45/50, UNI

POS	DESCRIPTION	PART	QTY	COMMENTS
8	Hose Tilt	7000791	4	
28	Hose Feed - UNI	742855	2	(Same for Feed Right/Left)
29	Hose Feed - QS45/50	7000012	2	QTY: 1 for Feed Right/Left
30	Hose Feed Right/Left - QS45/50	742814	1	Feed Right: Mount on a-side Feed Left: Mount on b-side

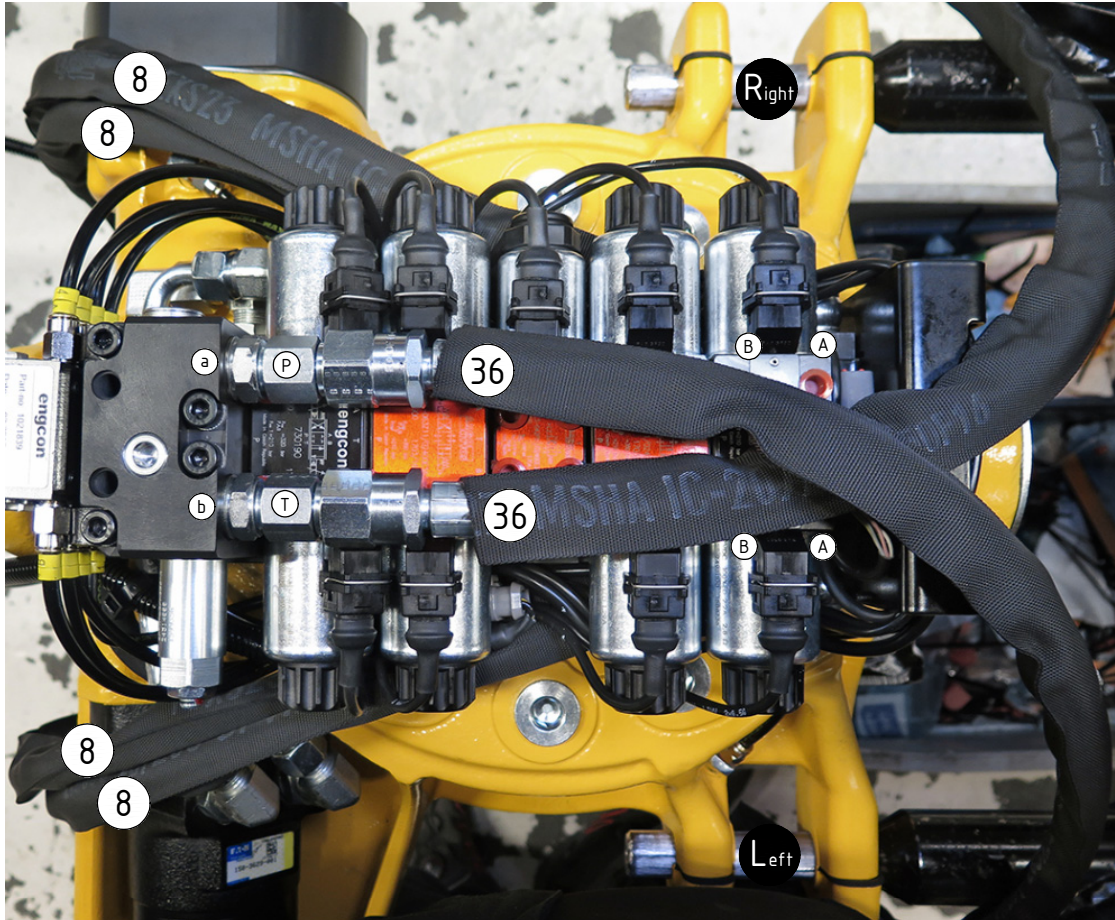
POS in order of assembly



3/8" (Hoses)  
CW10, SW33

POS	DESCRIPTION	PART	QTY	COMMENTS
8	Hose Tilt	7000791	4	
36	Hose Feed - CW10, SW33	7000406	2	

POS in order of assembly

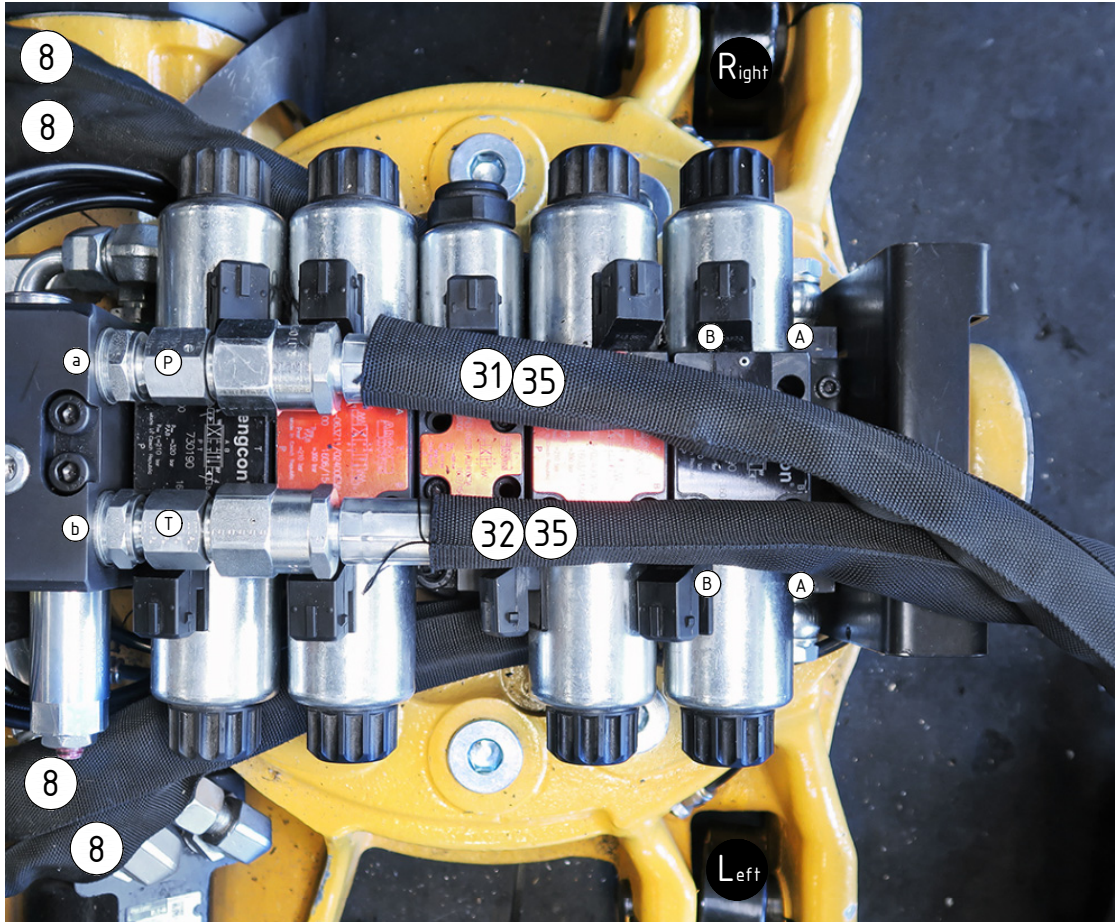




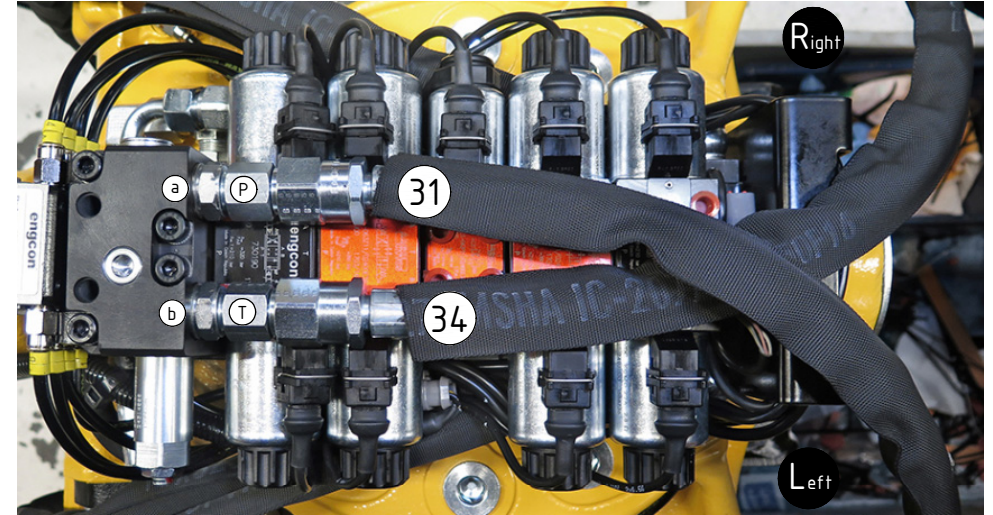
3/8" (Hoses)  
HYD, Liebherr

POS	DESCRIPTION	PART	QTY	COMMENTS
8	Hose Tilt	7000791	4	
31	Hose Feed - HYD (P)	7000012	1	(same for Feed Right+Left)
32	Hose Feed - HYD (T)	742814	1	
33	Hose Feed Right - HYD (P)	7000650	1	Feed Right: Replace POS.31
34	Hose Feed Right - HYD (T)	7000608	1	Feed Right & Feed Right+Left: Replace POS.32
35	Hose Feed - Liebherr	742814	2	

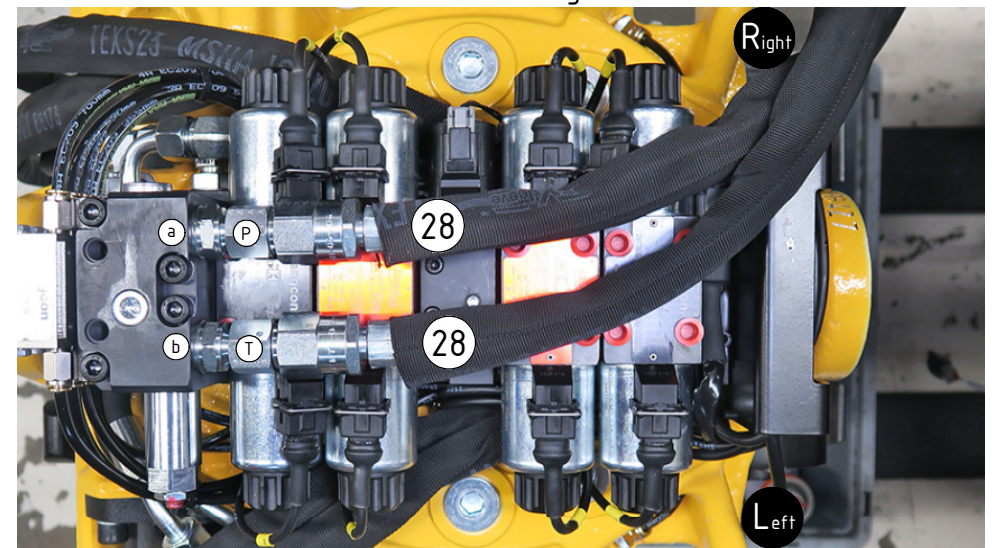
POS in order of assembly



HYD Feed Right+Left:

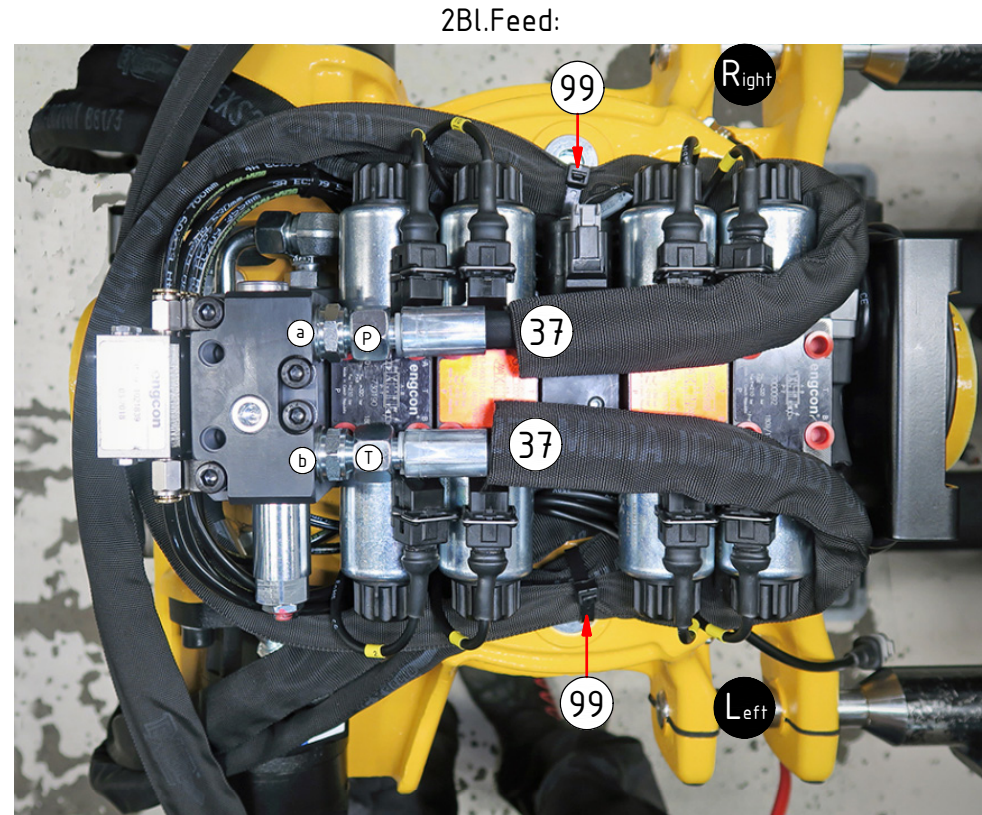
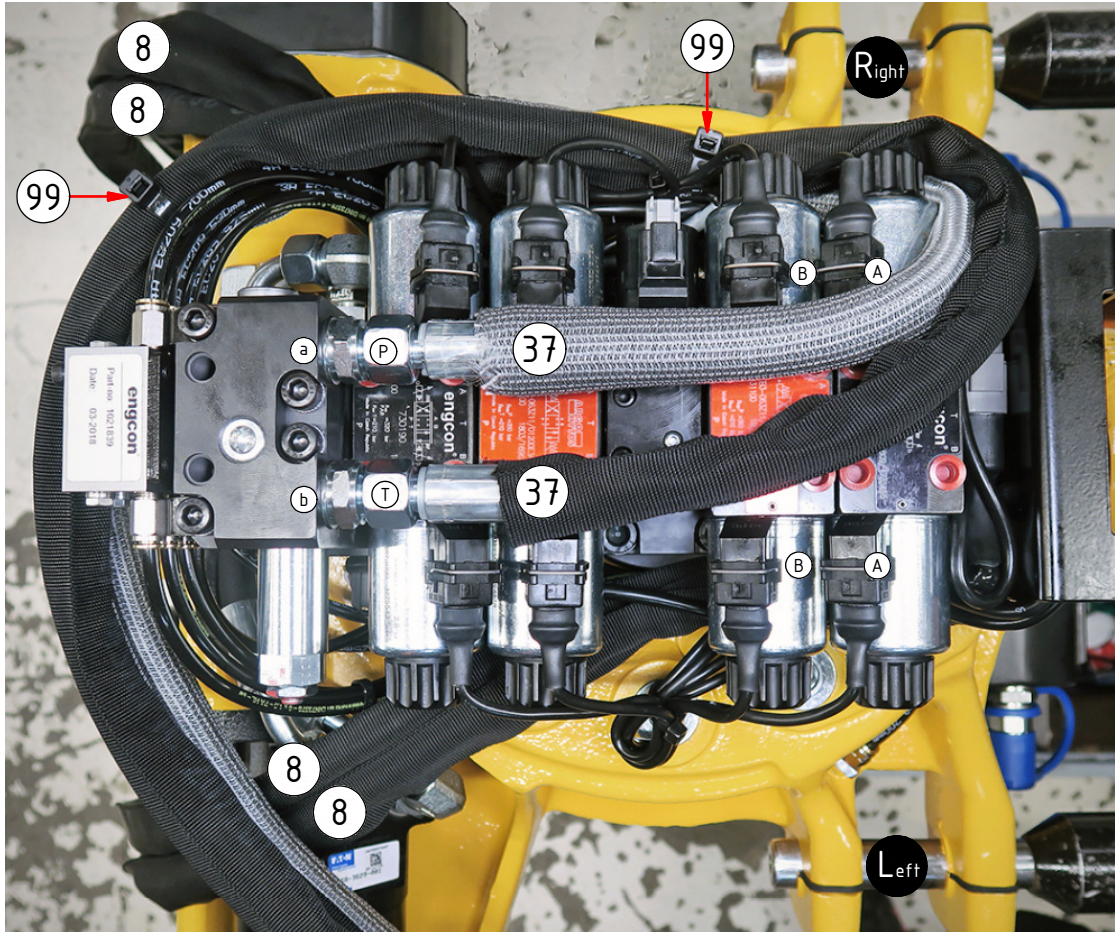


HYD Feed Right:



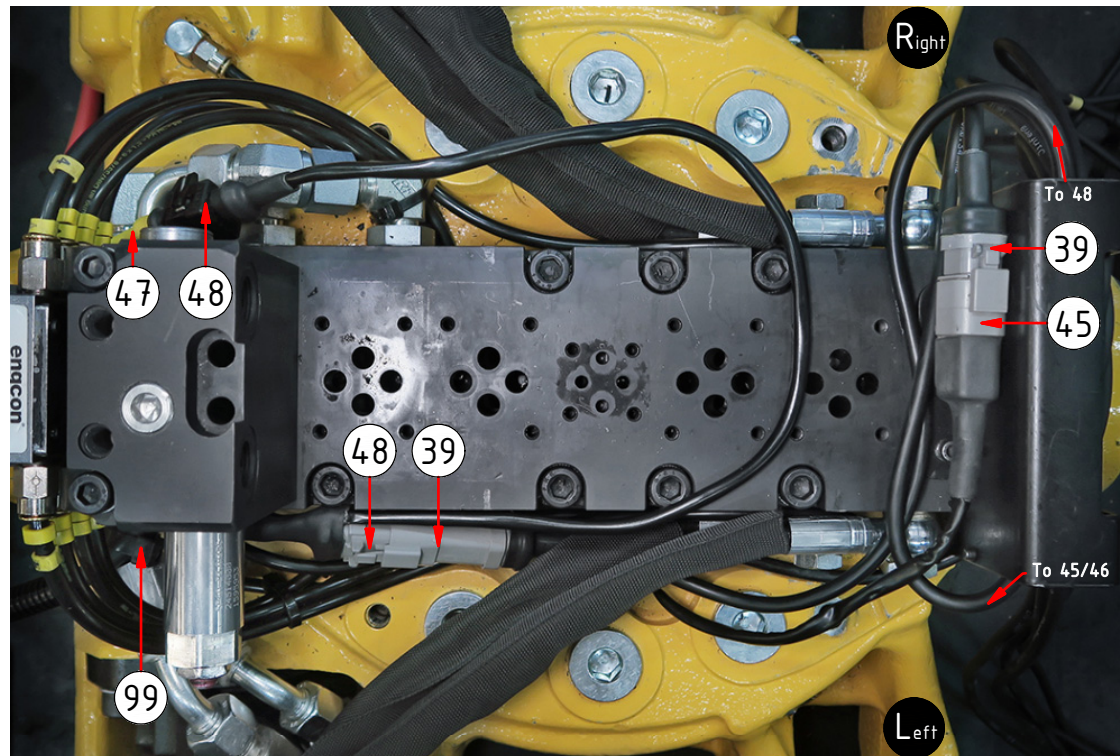
## Top EC-Oil (Hoses)

POS	DESCRIPTION	PART	QTY	COMMENTS
8	Hose Tilt	7000791	4	
37	Hose Feed - EC-Oil	742851	2	
99	Cable tie 7,8x360	1021587	1	



DC2  
Std

Cables/connectors:



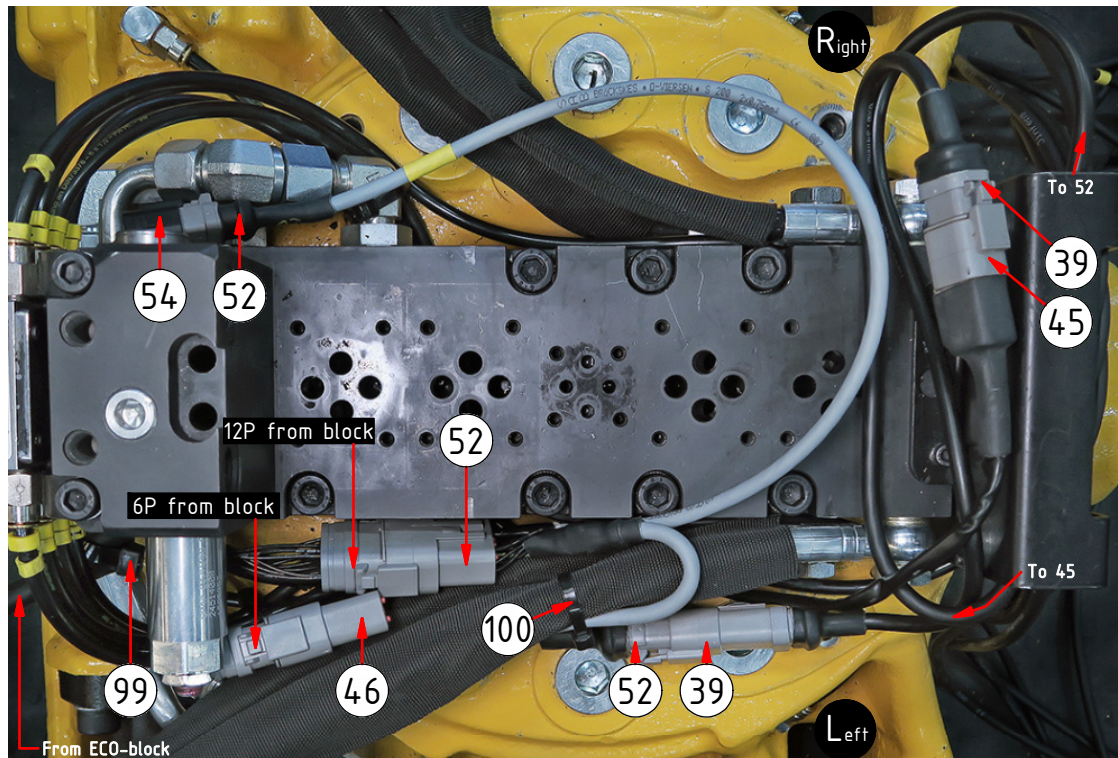
POS	DESCRIPTION	PART	QTY	COMMENTS
39	Tiltrotator module DC2 Q-Safe	842137	1	
45	Only for Q-safe, connector			
46	Protection plug DTM (if no QS)	8000090	1	
47	Plug JT	1045154	1	Plug JT connector
48	Aggregate cable DC2 Complete QSC	8000175	1	
99	Cable tie 7,8x360	1021587	1	

POS in order of assembly

See instruction,  
EC-Oil components

DC2  
Top EC-Oil

Cables/connectors:



Lubrication:

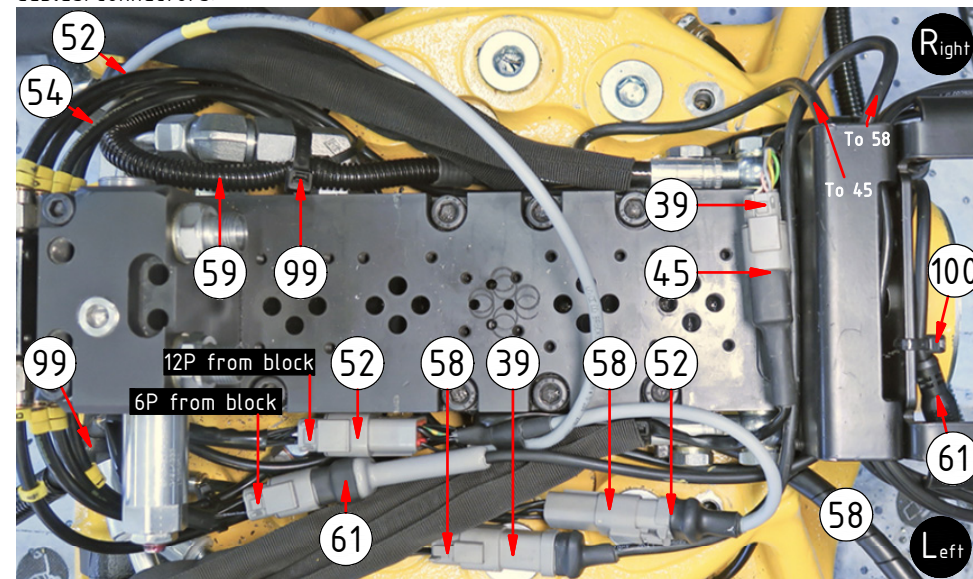


POS	DESCRIPTION	PART	QTY	COMMENTS
39	Tiltrotator module DC2 Q-Safe	842137	1	
45	Only for Q-safe, connector			
46	Protection plug DTM	8000090	1	
52	Adapter cable ECO W DC2 QSC DTM	1048529	1	For EC-Oil. Replace POS.48
54	Protection plug DT	8000086	1	Plug DT connector
58	Adapter cable DC2 ePS	8000783	1	Between POS.39 & 52
59	Adapter cable ePS rotation sensor	8000784	1	Cut cable protection: 130mm
61	Cable Tilt angle sensor ECO W DC2	1048530	1	For EC-Oil with ePS
99	Cable tie 7,8x360	1021587	1	
100	Cable tie 4,8x360	1021586	1	

POS in order of assembly

Top EC-Oil & ePS:

Cables/connectors:

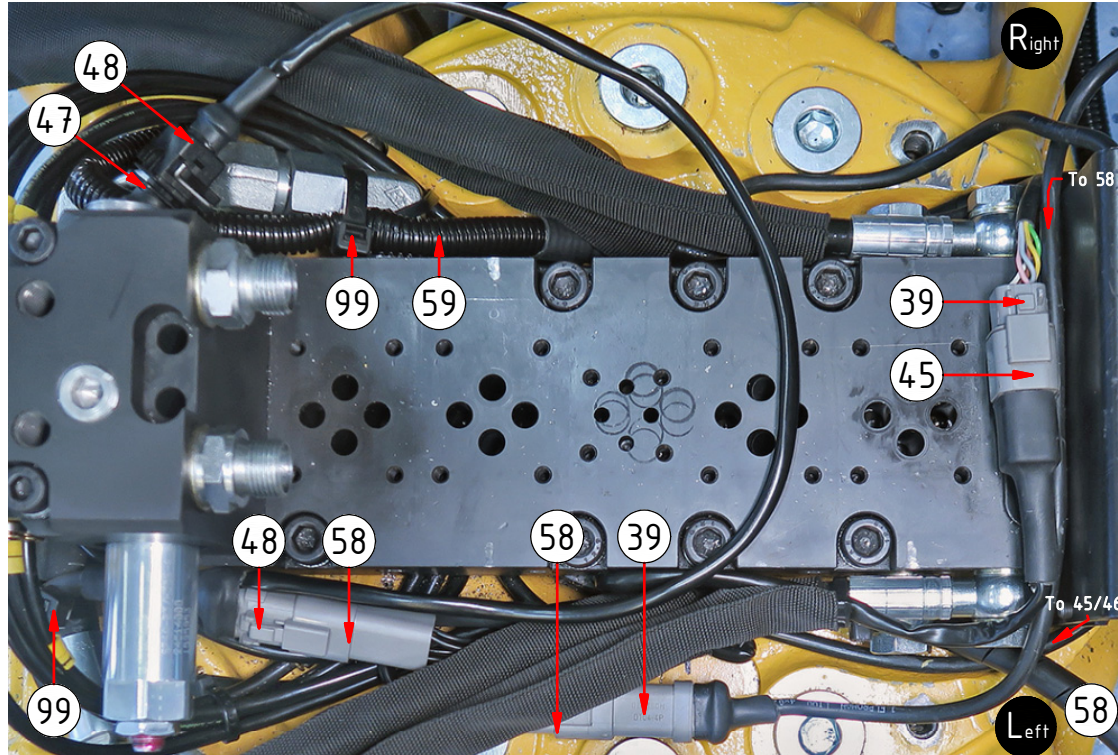


Continue to page 13 for ePS sensor connection.

Valves/JT on page 17. 12 /21

DC2  
ePS

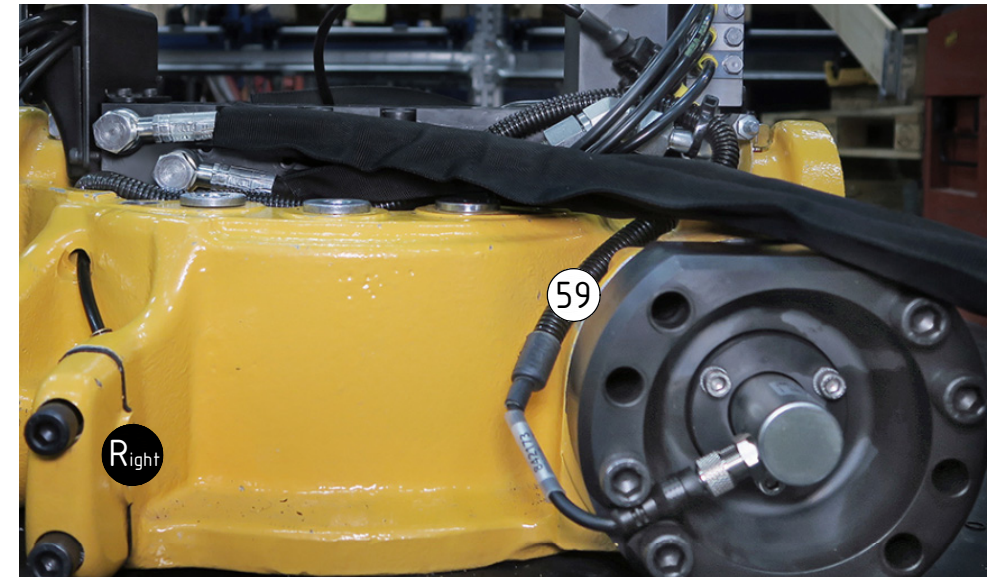
Cables/connectors:



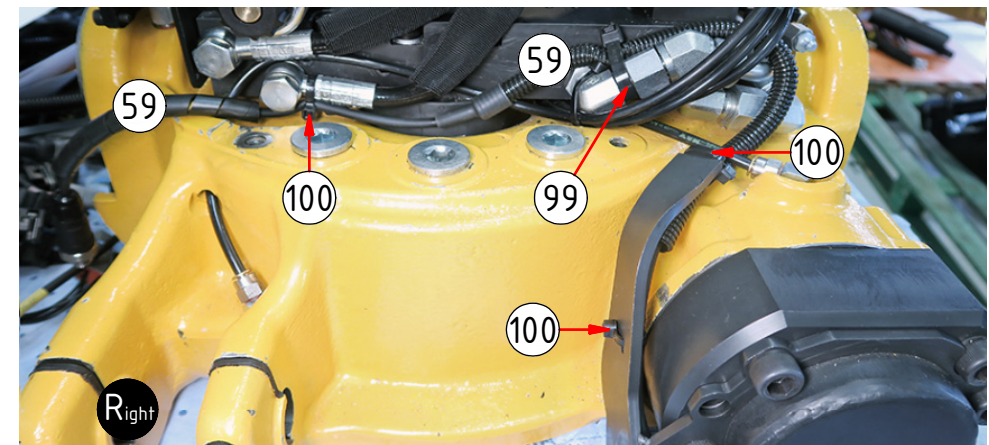
POS	DESCRIPTION	PART	QTY	COMMENTS
39	Tiltrotator module DC2 Q-Safe	842137	1	
45	Only for Q-safe, connector			
46	Protection plug DTM	8000090	1	
47	Plug JT	1045154	1	Plug JT connector
48	Aggregate cable DC2 Complete QSC	8000175	1	
58	Adapter cable DC2 ePS	8000783	1	
59	Adapter cable ePS rotation sensor	8000784	1	Cut cable protection: 130mm
99	Cable tie 7,8x360	1021587	1	
100	Cable tie 4,8x360	1021586	1	

POS in order of assembly

Sensor connection:



Sensor cable:

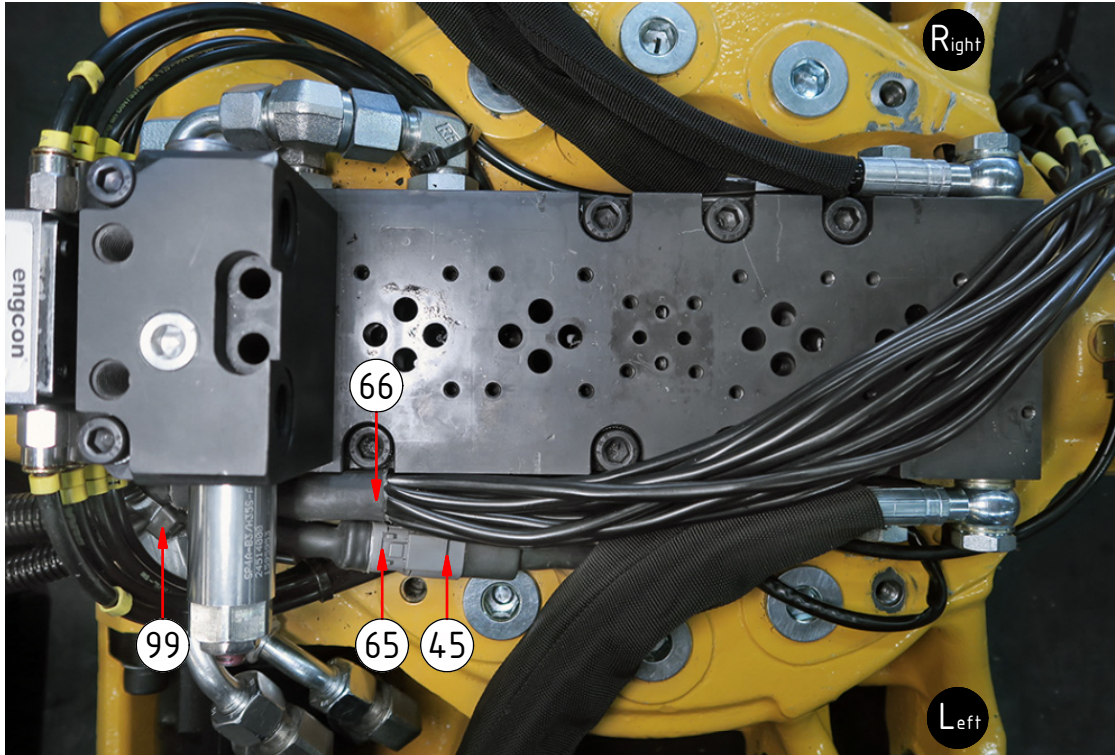


Dashed lines for overview, mounts on other pages/assemblies. indicates instruction. represents hose.

ss10 (SVAB)  
Std

POS	DESCRIPTION	PART	QTY	COMMENTS
45	Only for Q-safe, connector			
65	Cable QS QLM filtrotator SVAB	842148	1	For Q-Safe
66	Aggregate cable SVAB Complete	303465	1	
99	Cable tie 7,8x360	1021587	1	

Cables/connectors:

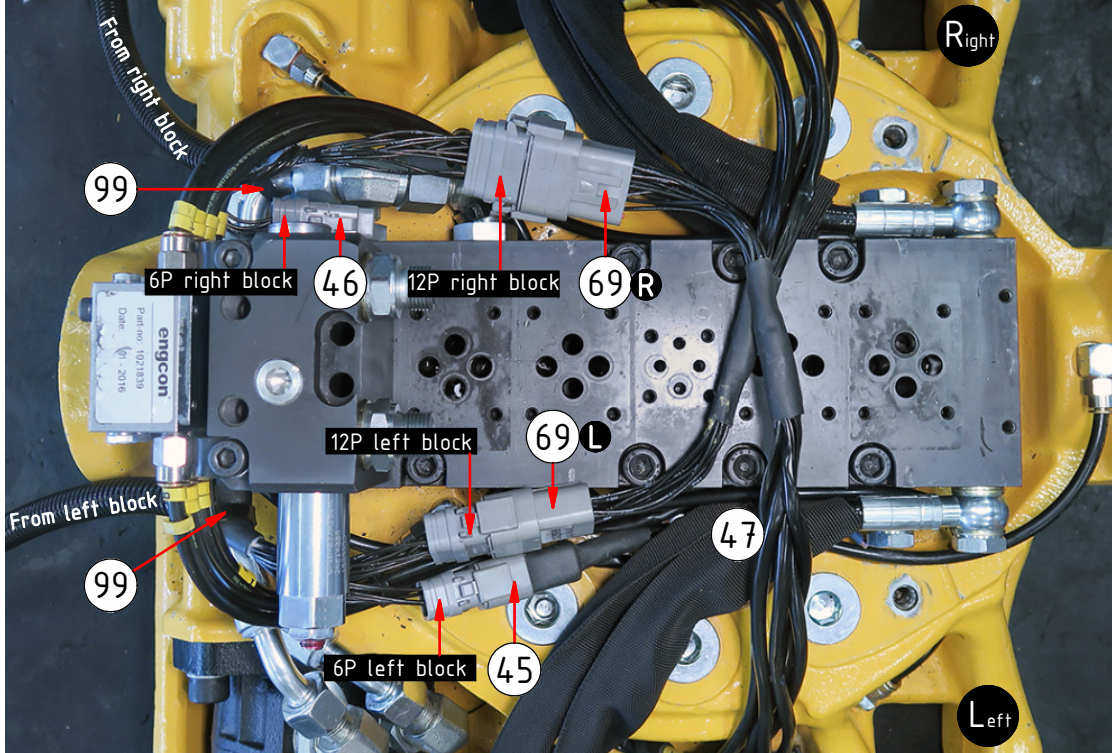


POS in order of assembly

See instruction,  
EC-Oil components

ss10 (SVAB)  
Top EC-Oil

Cables/connectors:



Lubrication:



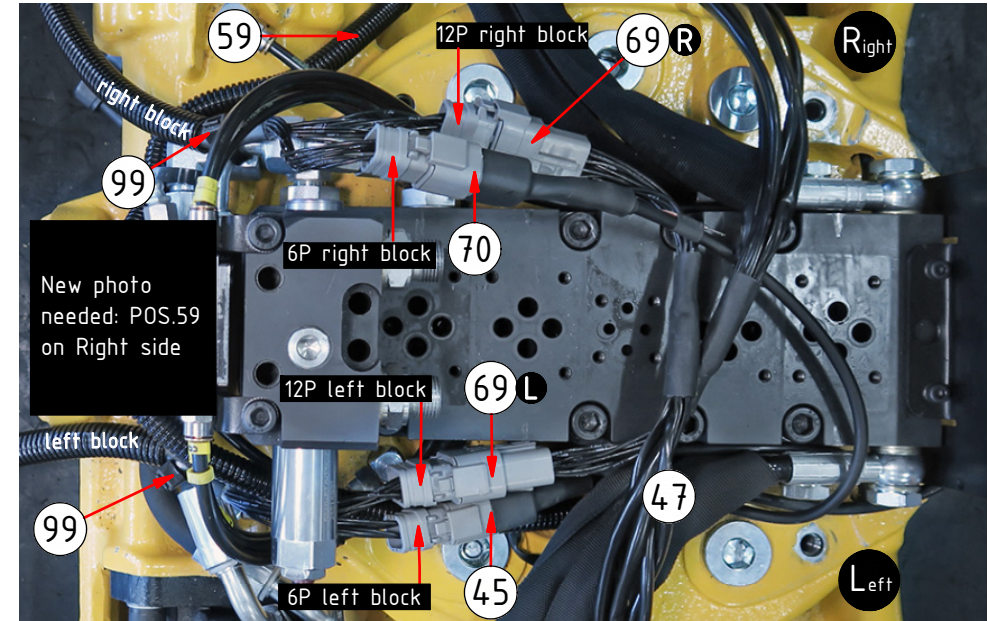
Dashed lines for overview, mounts on other pages/assemblies. indicates instruction. represents hose.

POS	DESCRIPTION	PART	QTY	COMMENTS
23	Adapter cable DT-JT	1017478	1	QS, CW, ECPUP, ss SIQ
45	Only for Q-safe, connector			Attach to 6P from Left block
46	Protection plug DTM	8000090	1	No ePS: attach to 6P from Right block
47	Plug JT	1045154	1	Plug JT connector "1" to Right
59	Adapter cable ePS rotation sensor	8000784	1	Cut cable protection: 130mm
69	Adapter cable ECO (DTM) SVAB	1029599	2	For EC-Oil. Replace POS.65-66
70	Ad.cable ePS ECOW SVAB 120 ohm	8000825	1	For EC-Oil ePS. Replace POS.64
99	Cable tie 7,8x360	1021587	1	

POS in order of assembly

Top EC-Oil & ePS:

Cables/connectors:

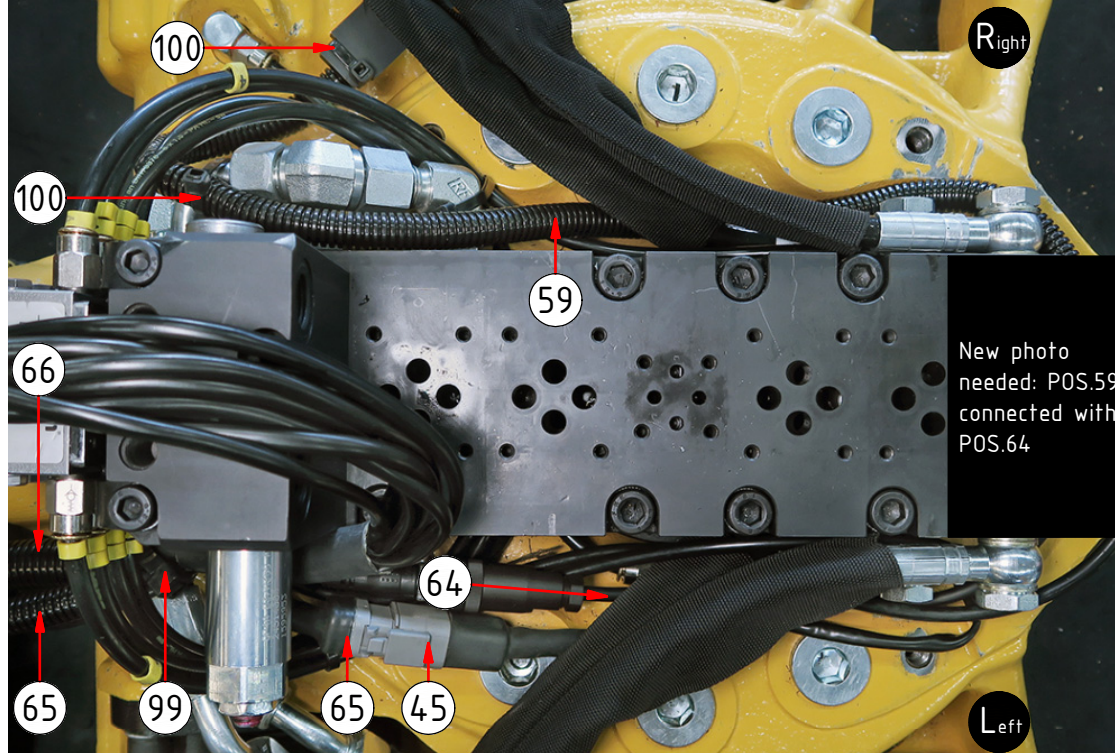


Continue to page 16 for ePS sensor connection.

Valves/JT on page 17. 15 /21

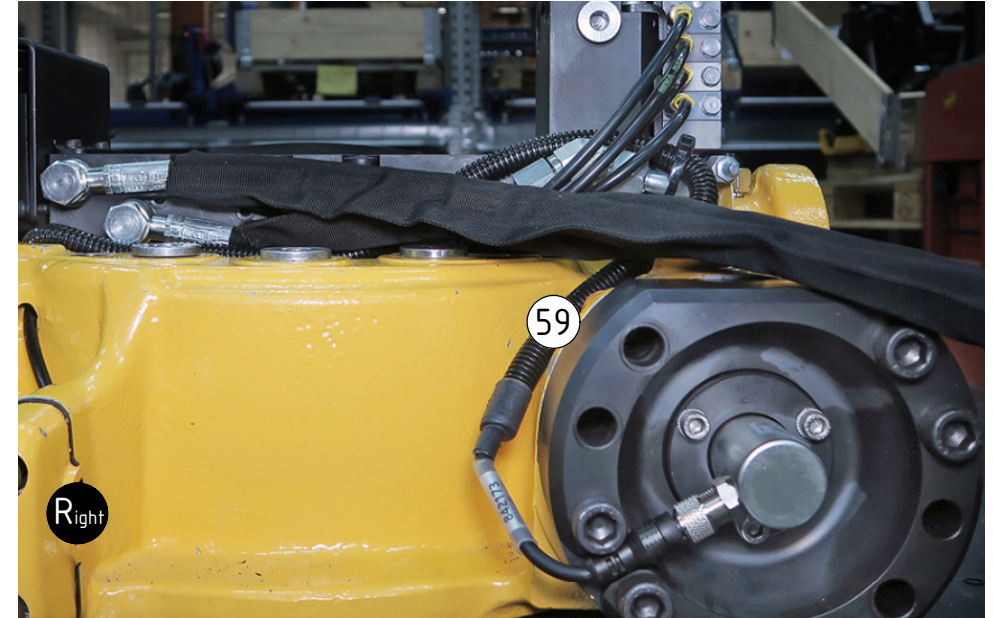
## ss10 (SVAB) ePS

Cables/connectors:

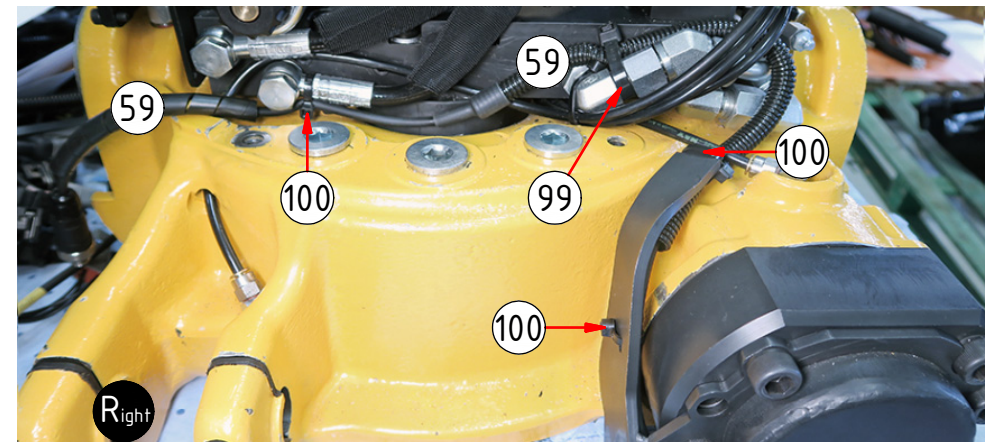


POS	DESCRIPTION	PART	QTY	COMMENTS
45	Only for Q-safe, connector			
59	Adapter cable ePS rotation sensor	8000784	1	Cut cable protection: 130mm
64	Ag.cable SVAB ePS w. 120 ohm ter.	8000824	1	
65	Cable QS QLM tiltrotator SVAB	842148	1	For Q-Safe
66	Aggregate cable SVAB Complete	303465	1	
99	Cable tie 7,8x360	1021587	1	
100	Cable tie 4,8x360	1021586	1	

Sensor connection:



Sensor cable:



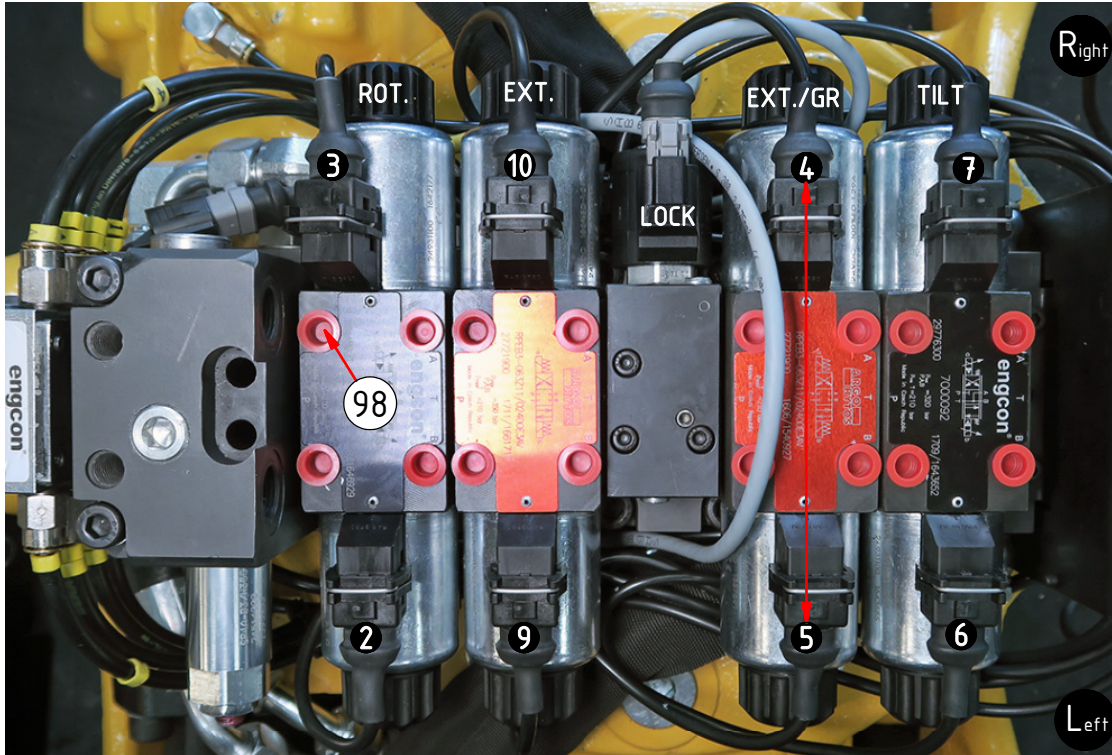


POS	DESCRIPTION	PART	QTY	COMMENTS
23	Adapter cable DT-JT	10174.78	1	QS, CW, ECPUP, ss SIQ
98	Plastic plug (red) for valves	790156	16	

## DC2 & ss10 (SVAB)

Valve connections

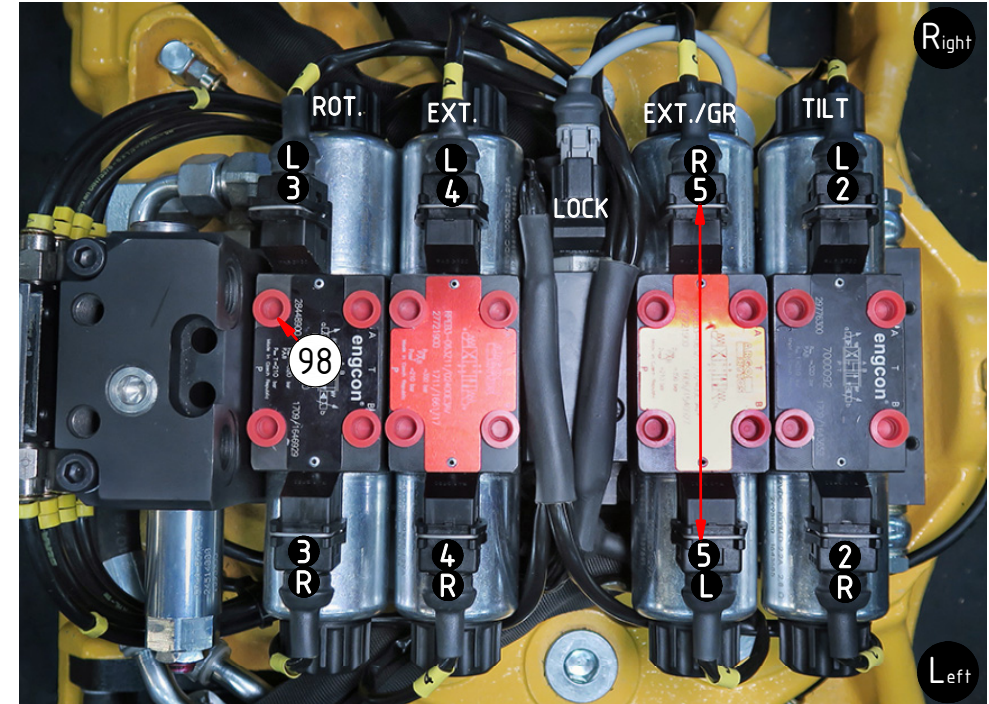
Std, ePS, DC2 Top EC-Oil  
JT marked with numbers:



4 & 5 switches place when **NOT** equipped to hold a grab adapter or grab cassette.

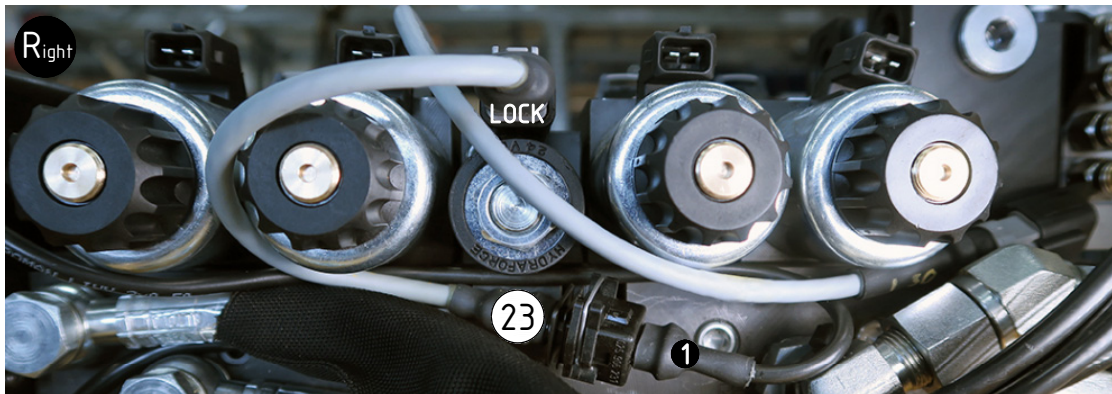
ss10 (SVAB) Top EC-Oil  
JT marked with numbers:

("1" from R is not connected)

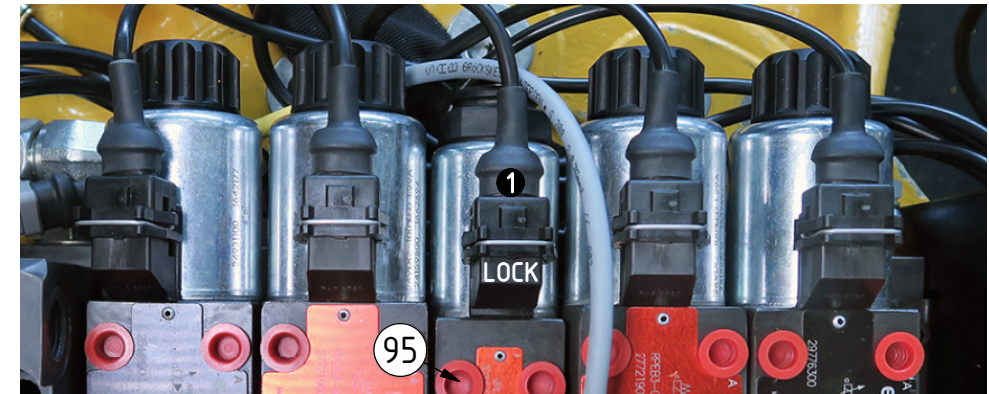


5 & 5 switches place when **NOT** equipped to hold a grab adapter or grab cassette.

Lock valve IQS DT:



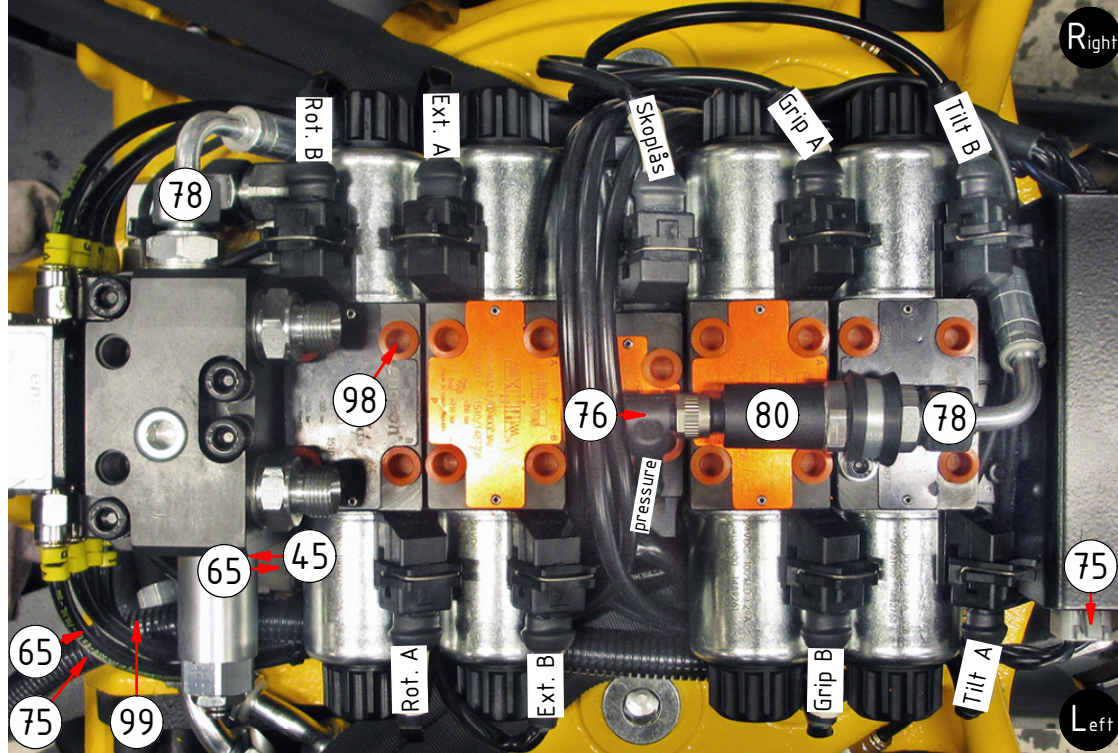
Lock valve JT:



Dashed lines for overview, mounts on other pages/assemblies. indicates instruction. represents hose.

## MACS Std

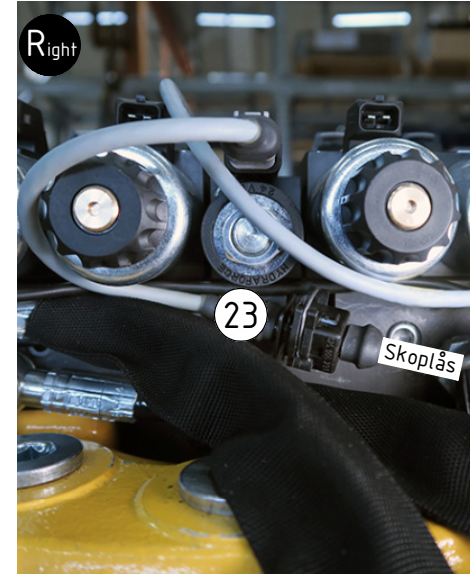
Cables/connectors. JT marked with texts:



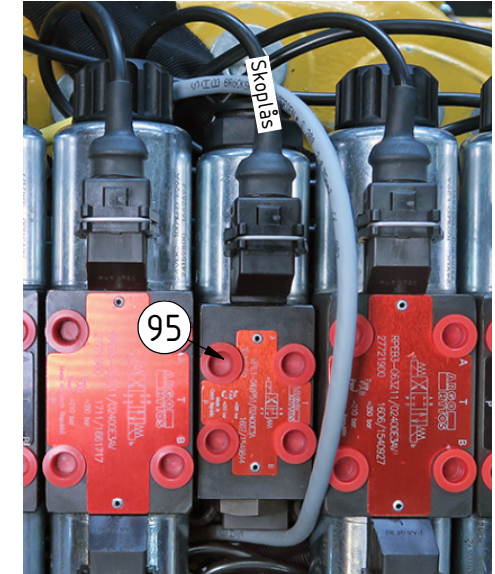
POS	DESCRIPTION	PART	QTY	COMMENTS
23	Adapter cable DT-JT	1017478	1	QS, CW, ECPUP, ss SIQ
45	Only for Q-safe, connector			
65	Cable QS QLM tiltrotator SVAB	842148	1	For Q-Safe
75	Aggregate cable SVAB MACS	1028041	1	
76	Valve cables SVAB MACS	1033471	1	
78	Hose Pressure transmitter MACS	7000146	1	
80	Pressure transmitter SVAB MACS	7000016	1	
81	Inductive sensor SVAB MACS	1028045	1	Adjust clockwise. Nut torque: 3Nm
98	Plastic plug (red) for valves	790156	16	
99	Cable tie 7,8x360	1021587	1	

POS in order of assembly

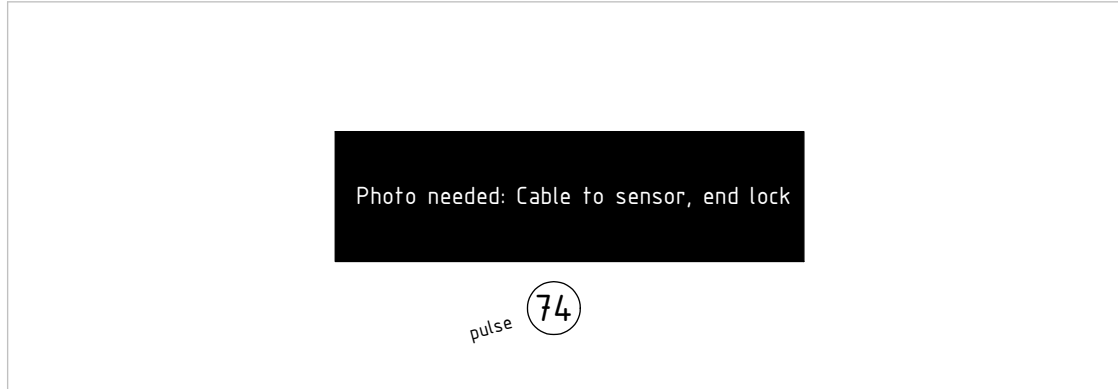
Lock valve IQS DT:



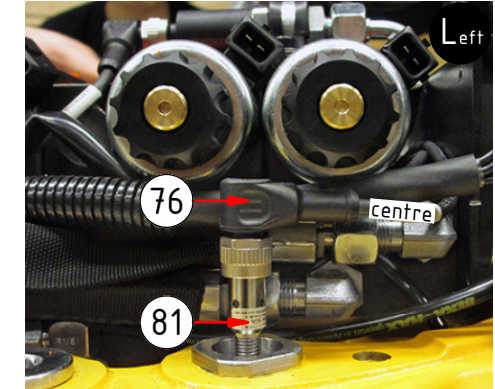
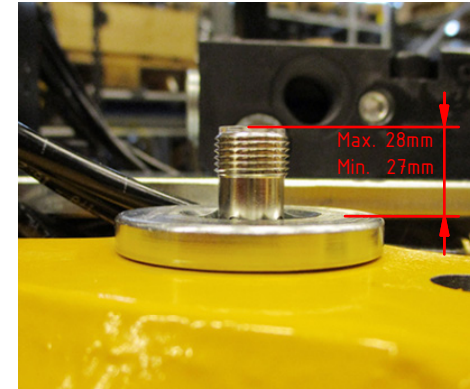
Lock valve JT:



Sensor/connector:



Sensor:



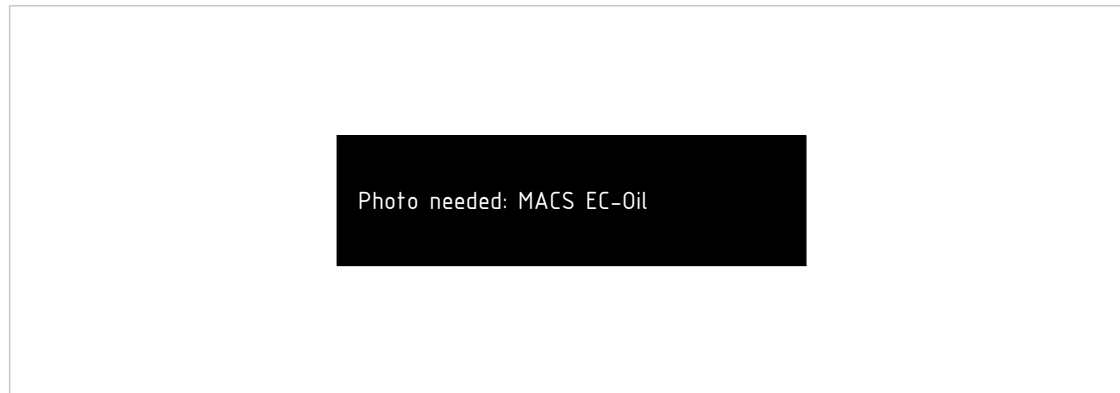
See instruction,  
EC-Oil components

**MACS**  
Top EC-Oil

Cables/connectors. JT marked with texts:



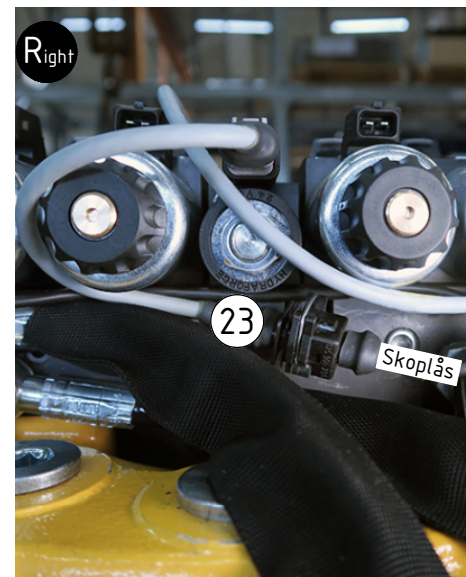
Cables/connectors:



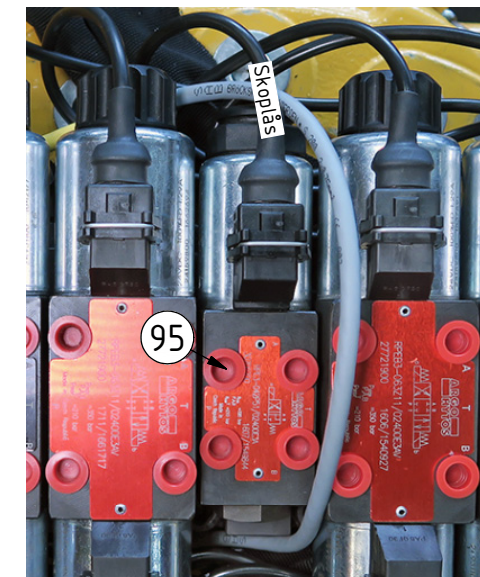
POS	DESCRIPTION	PART	QTY	COMMENTS
23	Adapter cable DT-JT	1017478	1	QS, CW, ECPUP, ss SIQ
45	Only for Q-safe, connector			Attach to 6P from block
84	Adapter cable ECO W MACS-DTM	1043277	1	For EC-Oil. Replace POS.65 & 75
98	Plastic plug (red) for valves	790156	16	
99	Cable tie 7,8x360	1021587	1	

POS in order of assembly

Lock valve IQS DT:



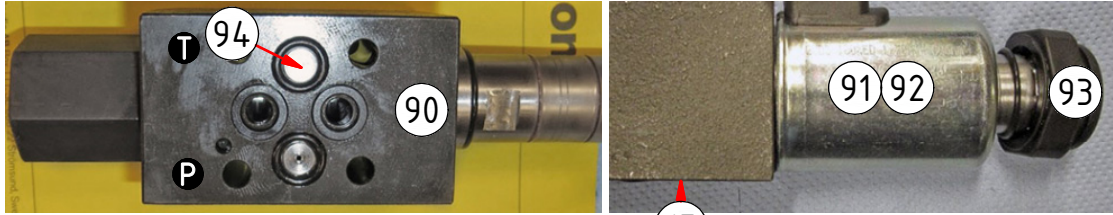
Lock valve JT:



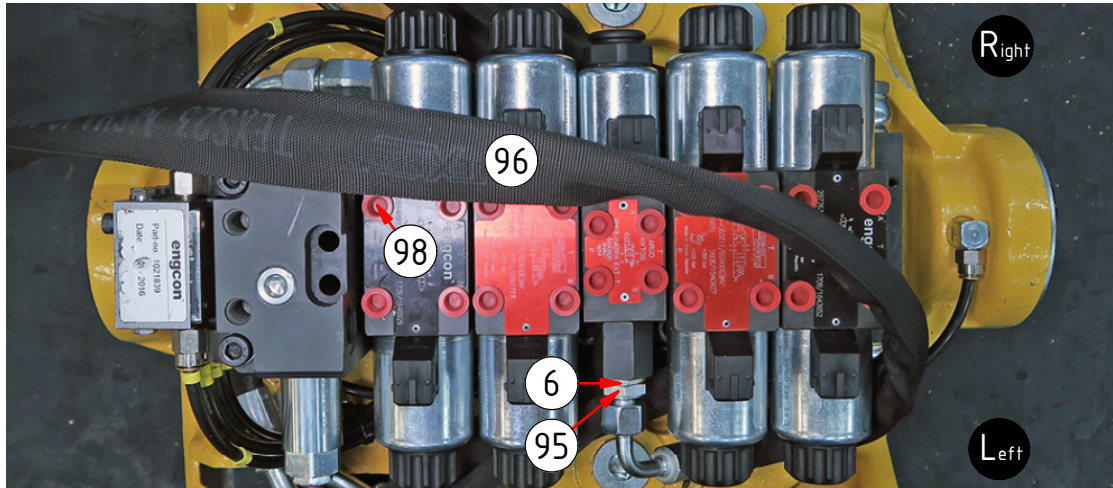
Return to page 18 for connecting to sensor & transmitter.

special / options

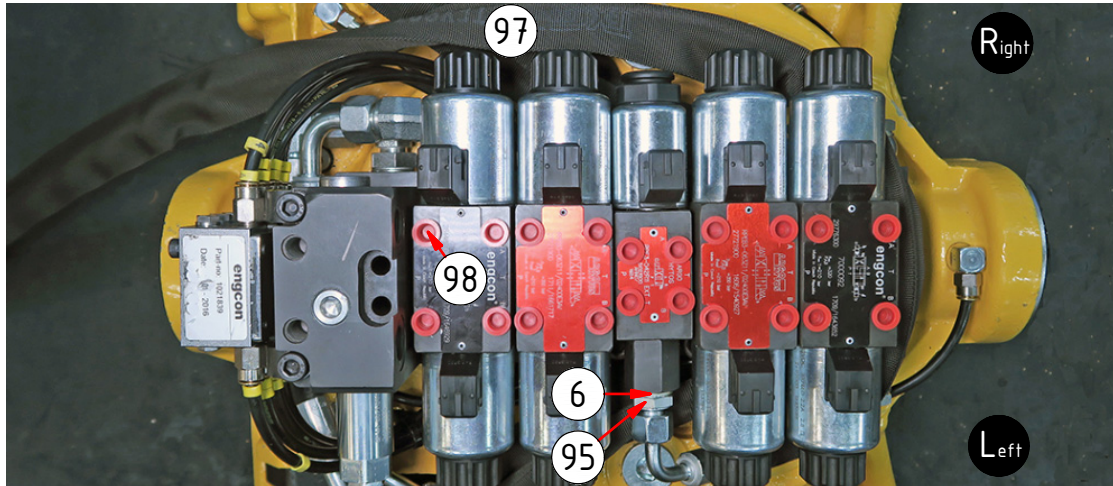
XP valve:



XP Hose (UNI):

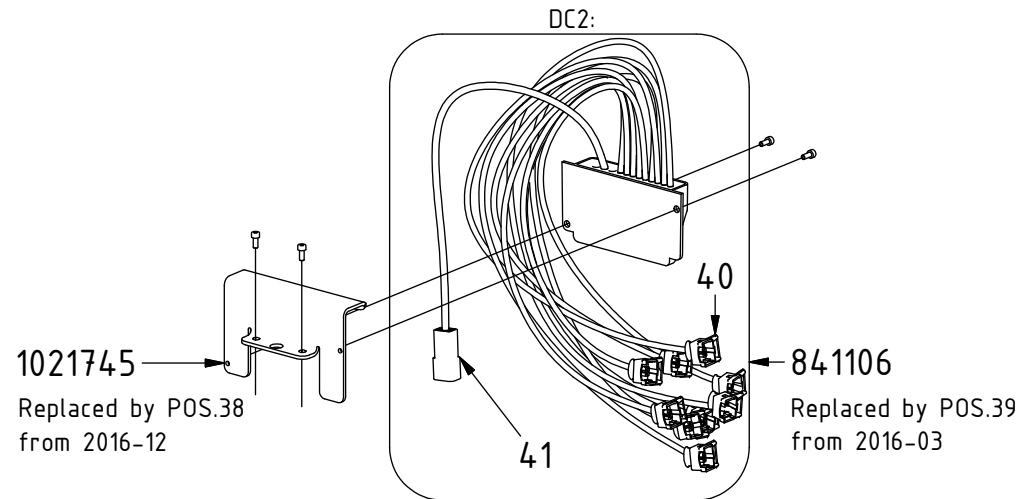


XP Hose (others):



POS	DESCRIPTION	PART	QTY	COMMENTS
6	Washer GBR04 1/4	710702	8	
17	MC6S M5x35 12.9	610404	4	Torque: 9,7Nm
90	Directional valve XP crossparallel NG4 without Coil	730321	1	Nut (POS.93) and o-ring with chokenozzle included. Assemble with POS.91/92
91	Coil NG4 12V JT	730313	1	
92	Coil NG4 24V JT	730311	1	
93	Nut directional valve NG4	1006785	1	
94	Plug D0 for NG4 / VRP2-04	790191	1	O-ring included
95	Adapter 138-04-29 (1/4")	710135	1	
96	Hose Drainage XP - UNI	7000041	1	For UNI top parts
97	Hose Drainage XP	7000489	1	For other top parts
98	Plastic plug (red) for valves	790156	16	

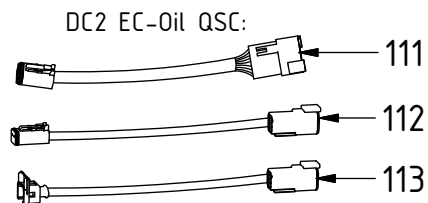
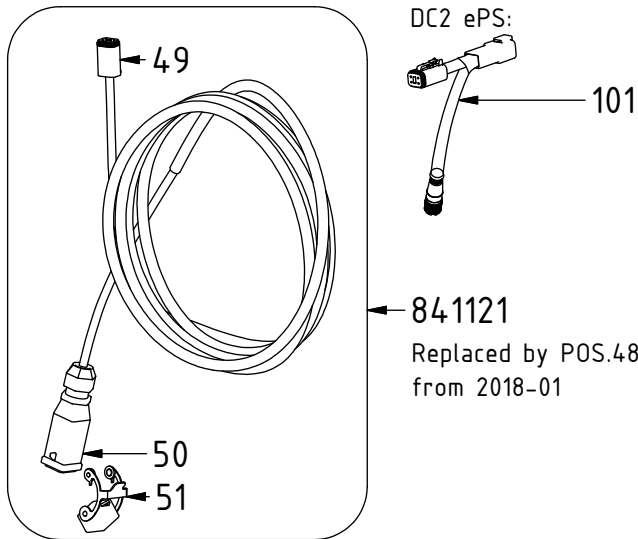
## Related spare parts



DC2 ePS:  
1034388  
Replaced by POS.38 & 60

SVAB ePS:  
1033047 → Replaced by POS.38 & 60

Used until 2015  
(aggregate cables)  
810227



POS	DESCRIPTION	PART	QTY	COMMENTS
38	Bracket Tiltrotatmodul DC2 & ePS	1038301	1	
39	Tiltrotator module DC2 Q-Safe	842137	1	
43	Washer NL 5 mm	611038	4	
48	Aggregate cable DC2 Complete QSC	8000175	1	
52	Adapter cable ECO W DC2 QSC DTM	1048529	1	For EC-Oil. Replace POS.48
58	Adapter cable DC2 ePS	8000783	1	
59	Adapter cable ePS rotation sensor	8000784	1	Cut cable protection: 130mm
60	Adapter plate ePS (Not Trimble)	1039019	1	(Trimble directly on POS.38)
64	Ag.cable SVAB ePS w. 120 ohm ter.	8000824	1	
70	Ad.cable ePS ECOW SVAB 120 ohm	8000825	1	For EC-Oil ePS. Replace POS.64
101	Adapter cable DC2 ePS DT DT M12	842173	1	Replaced by POS.58 from 2019-10
102	Adap. cable SVAB ePS rot. sensor	842188	1	Replaced by POS.59 from 2019-10
103	Agg. cable SVAB ePS rot. sensor	842187	1	Replaced by POS.64 from 2019-10
104	Adapter cable ePS ECO W SVAB	1042245	1	Replaced by POS.70 from 2019-10
105	Adapter 401-04-04 90° (1/4")	710151	4	Replaced by Banjos from 2017-04
106	Hose Tilt - UNI	742854	4	Used with POS.105
107	Hose Tilt Long - QS45/50	742852	2	Used with POS.105
108	Hose Tilt Short - QS45/50	742853	2	Used with POS.105
109	Hose Tilt Long - HYD	742812	2	Used with POS.105
110	Hose Tilt Short - HYD	742815	2	Used with POS.105
111	Adapter cable ECO W DC2 DTM QSC	1044790	1	Replaced by POS.52 from 2018-08
112	Adapter cable ECO W DC2 DTM	1042249	1	Replaced by POS.52 from 2018-08
113	Adapter cable Lock ECO DC2 QSC	1042250	1	Replaced by POS.112 from 2017-10
114	Cable ePS ECO SVAB	1033021	1	Replaced by POS.104 from 2017-10

