



Hydraulics Inc.

1075 Airport Drive - P.O. Box 516
Shawano, WI 54166

**"Built By Loggers
For Loggers"**

Parts Manual
TF815-C
HYDRO-SKIDDER

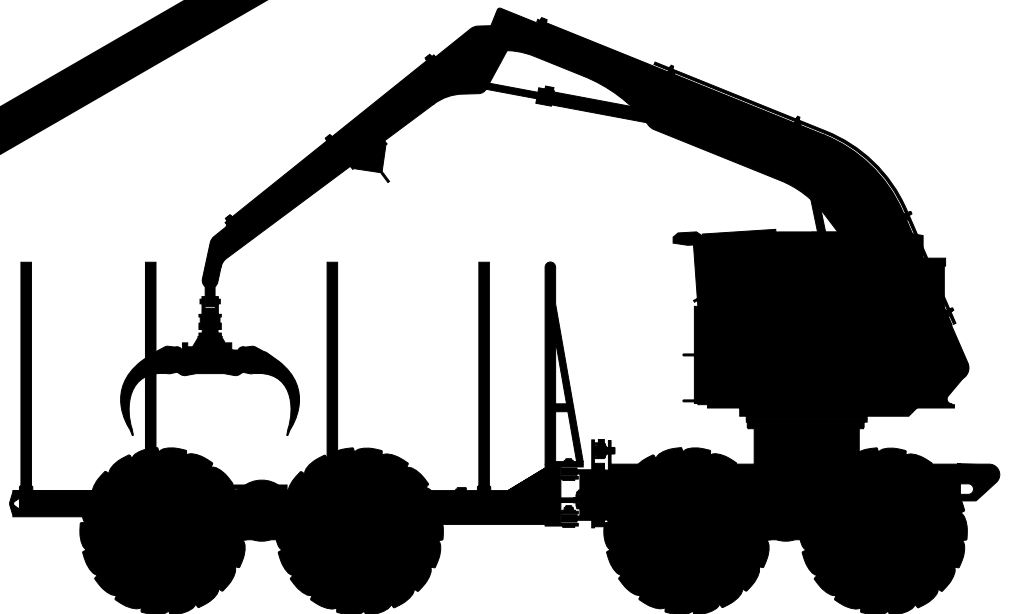


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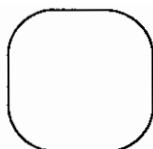
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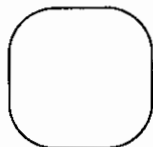
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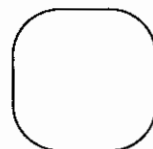
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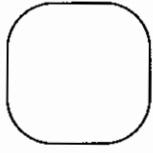
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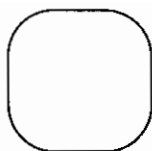
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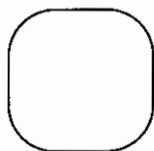
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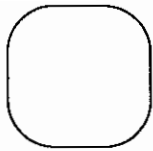
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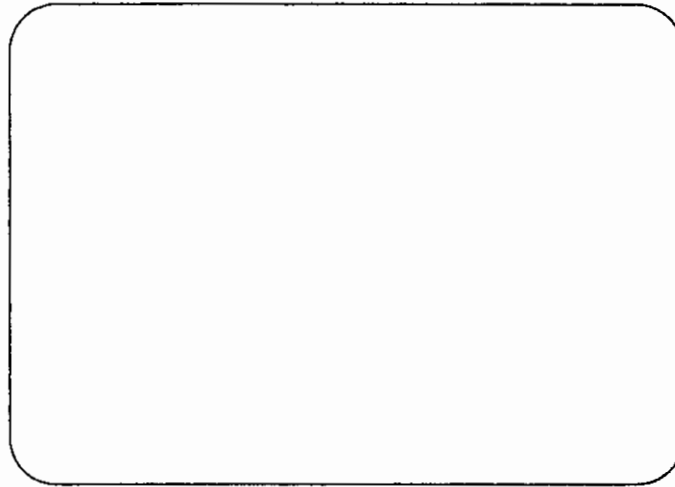
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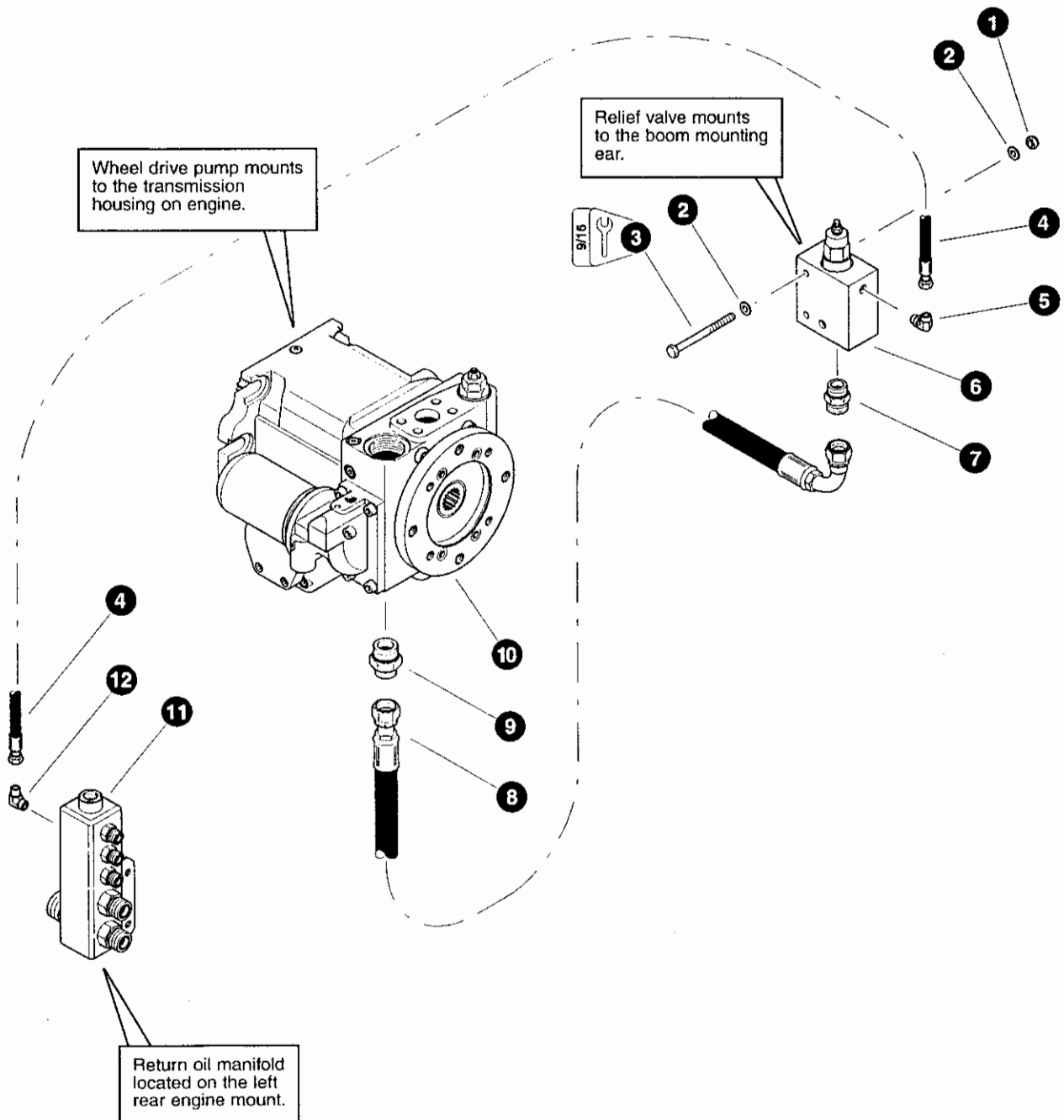
Vendor's Information (Blue Sheets)

Section A - Loader Implement Valve - VOAC
Section B - Clam Bunk Valve - Danfoss
Section C - VG35 & VG65 Transfer Cases - NAF
Section D - Front Axle - NAF
Section E - Rear Axle - NAF
Section F - Grapple & Rotator - Hultdins

Section B.1



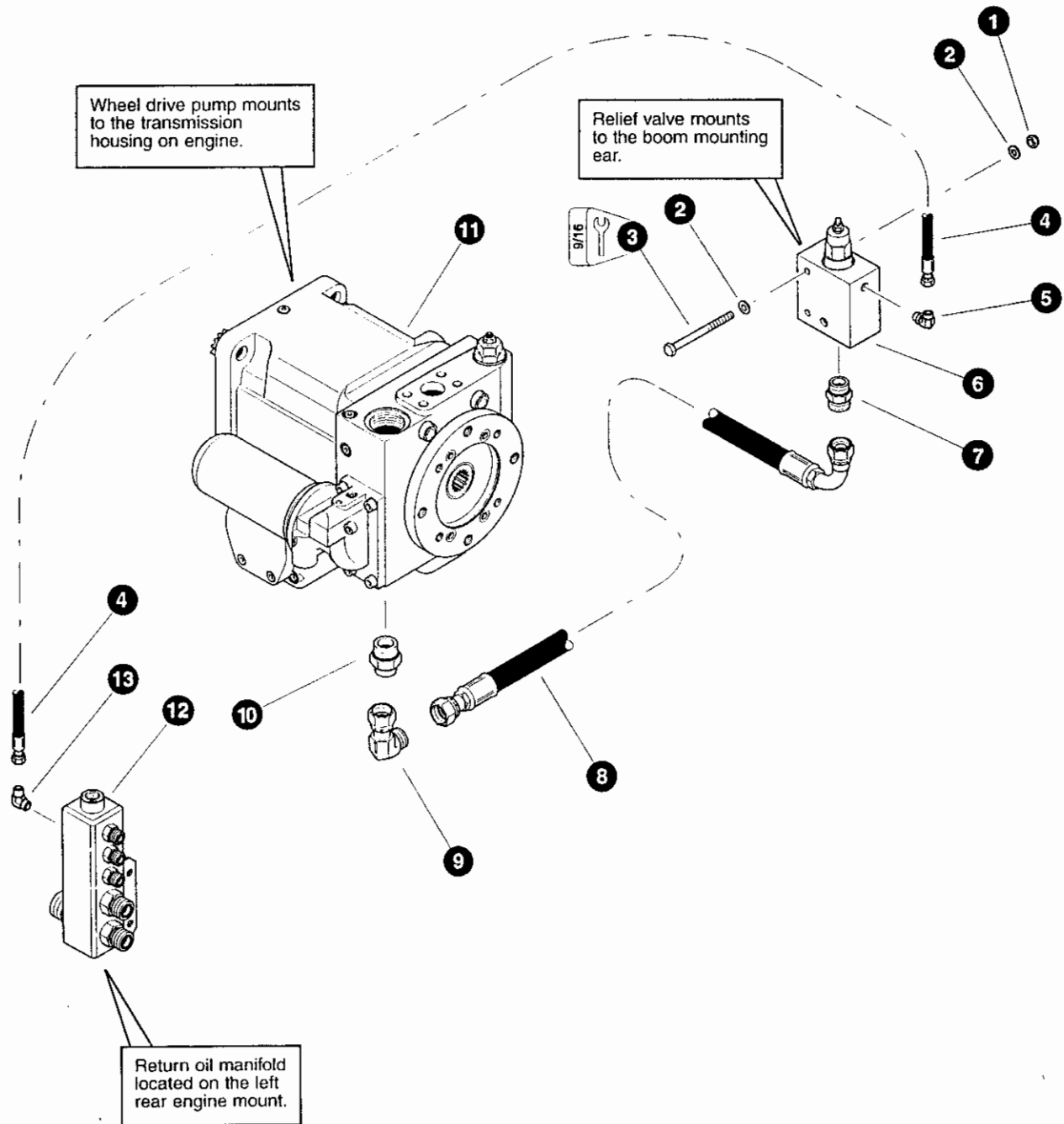
Hydraulic Circuits - System Pilot Pressure



SYSTEM PILOT LINES - PRESSURE **(Wheel Drive Pump To Relief Valve - Rexroth AA4VG125)**

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	15507	2	NUT, nylock - 3/8"	
2	15528	4	WASHER, SAE flat - 3/8"	
3	10753	2	BOLT - 3/8" x 4-1/2"	
4	20080	1	HOSE ASSEMBLY - 2071-04-040S-040S (<i>Relief valve drain to return oil manifold</i>)	
5	15133	1	ELBOW, 90° - FF1868T-0406S	
6	REF.	1	✓ RELIEF VALVE	D.1.2
7	15152	1	CONNECTOR, straight - FF1852T-1212S	
8	20081	1	HOSE ASSEMBLY - 2034.5-12-120S-1209 (<i>Wheel drive pump pressure port to relief valve</i>)	
9	15226	1	CONNECTOR, straight - FF1852T-1216S	
10	REF.	1	✓ WHEEL DRIVE PUMP (<i>Rexroth AA4VG125</i>)	C.3.2
11	18584	1	MANIFOLD, return oil	
12	15505	1	ELBOW, 90° - FF2032T-0404S	

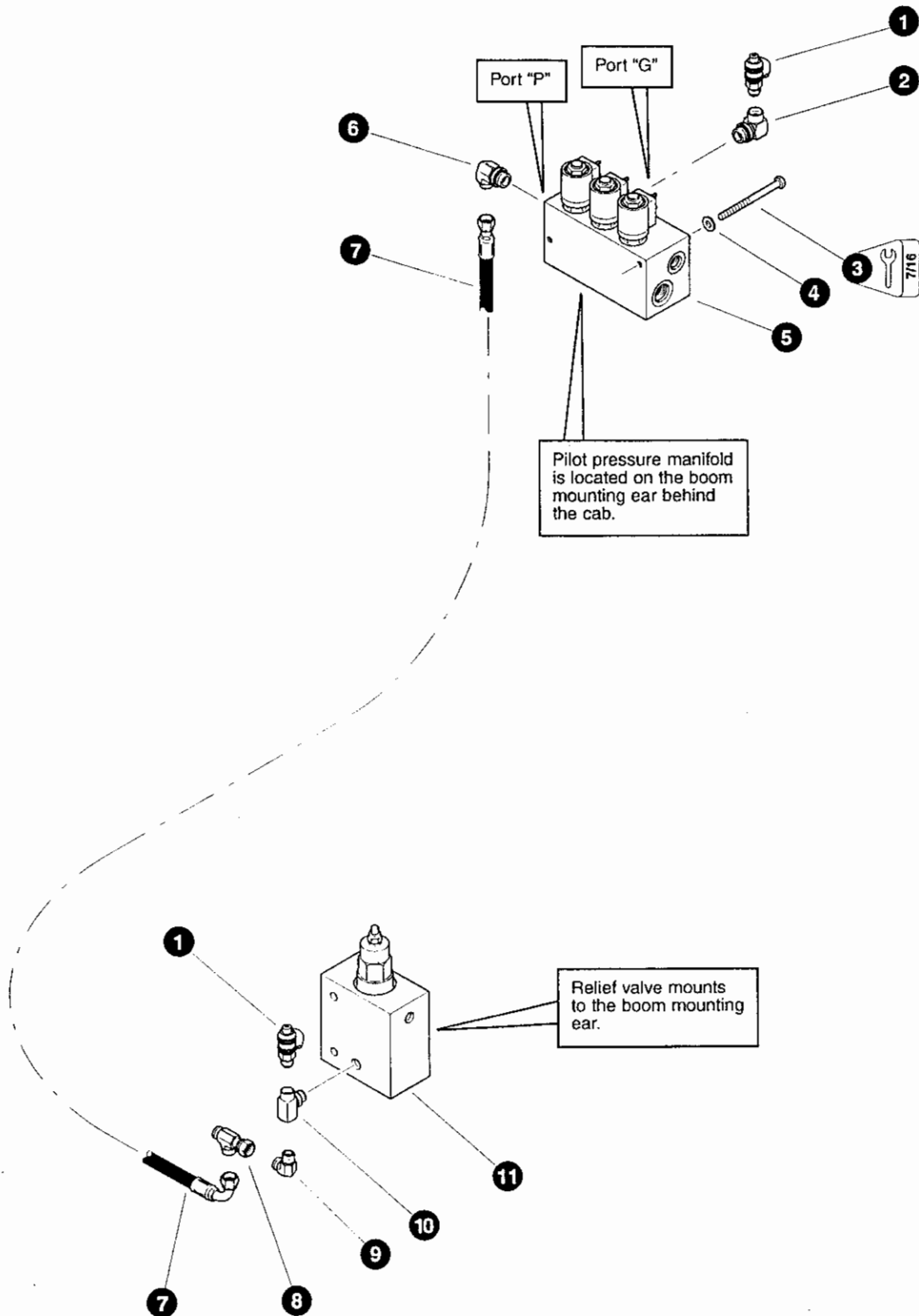
✓ See referenced page for component or assembly breakdown.



SYSTEM PILOT LINES - PRESSURE **(Wheel Drive Pump To Relief Valve - Rexroth AA4VG180)**

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	15507	2	NUT, nylock - 3/8"	
2	15528	4	WASHER, SAE flat - 3/8"	
3	10753	2	BOLT - 3/8" x 4-1/2"	
4	20080	1	HOSE ASSEMBLY - 2071-04-040S-040S (<i>Relief valve drain to return oil manifold</i>)	
5	15133	1	ELBOW, 90° - FF1868T-0406S	
6	REF.	1	✓ RELIEF VALVE	D.1.2
7	15152	1	CONNECTOR, straight - FF1852T-1212S	
8	20081	1	HOSE ASSEMBLY - 2034.5-12-120S-1209 (<i>Wheel drive pump pressure port to relief valve</i>)	
9	17670	1	ELBOW, 90° swivel - FF2098T-1212S	
10	15226	1	CONNECTOR, straight - FF1852T-1216S	
11	REF.	1	✓ WHEEL DRIVE PUMP (<i>Rexroth AA4VG180</i>)	C.3.12
12	18584	1	MANIFOLD, return oil	
13	15505	1	ELBOW, 90° - FF2032T-0404S	

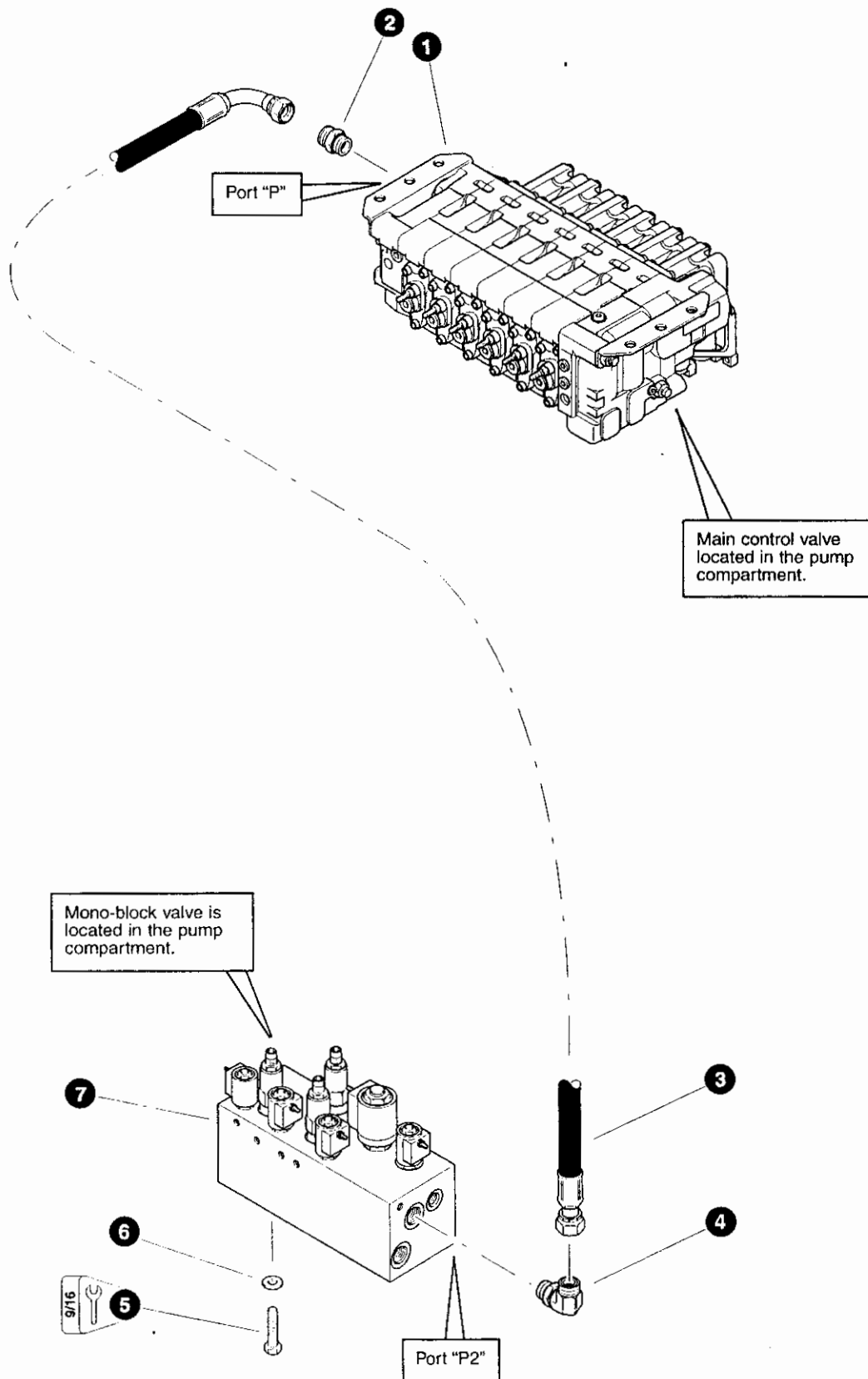
✓ See referenced page for component or assembly breakdown.



SYSTEM PILOT LINES - PRESSURE **(Relief Valve To Pilot Pressure Manifold)**

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	15118	2	TAP, guage port - 1/4" pipe thread	
2	16639	1	ELBOW, 90° - 6805-4-4	
3	10818	2	BOLT - 1/4" x 3"	
4	10757	2	WASHER, SAE flat - 1/4"	
5	REF.	1	✓ PILOT PRESSURE MANIFOLD	D.1.4
6	15133	1	ELBOW, 90° - FF1868T-0406S	
7	20082	1	HOSE ASSEMBLY - 2036.5-04-040S-0409 (<i>Relief valve to pilot pressure manifold port "P"</i>)	
8	15176	1	TEE - FF2114T-0404S	
9	15505	1	ELBOW, 90° - FF2032T-0404S	
10	17768	1	TEE - 6855-6-4	
11	REF.	1	✓ RELIEF VALVE	D.1.2

✓ See referenced page for component or assembly breakdown.

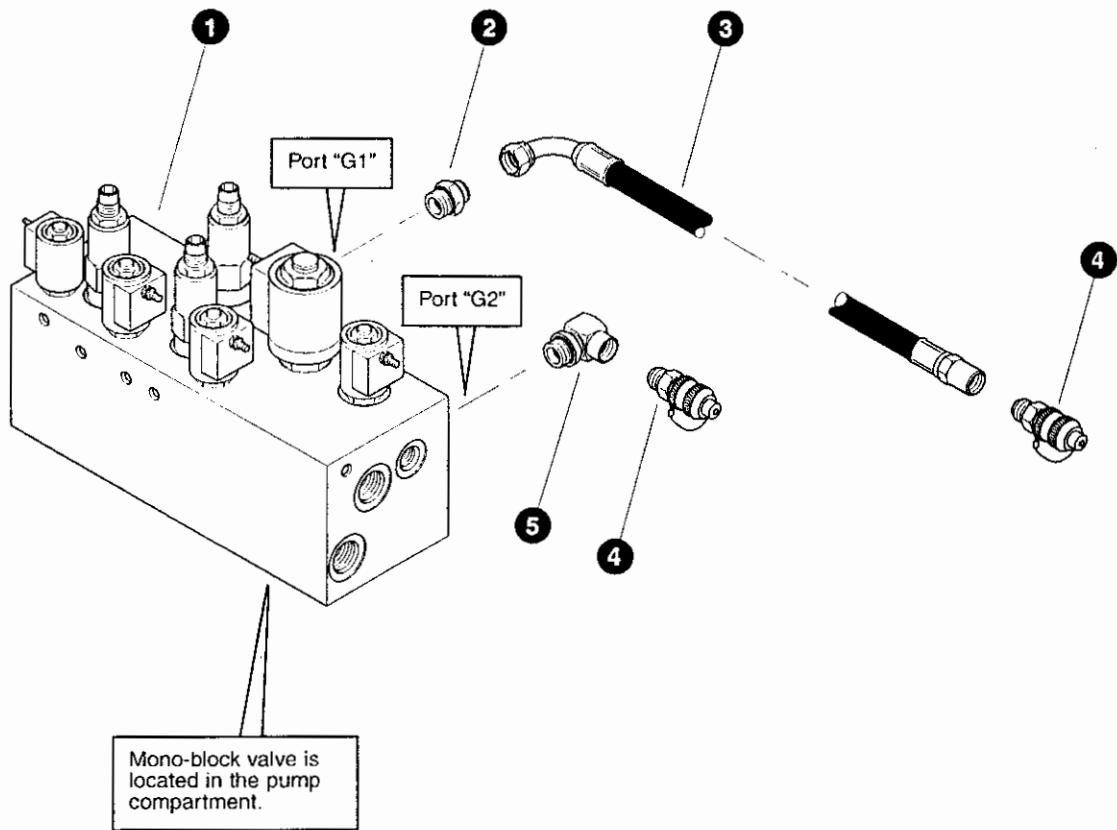


SYSTEM PILOT LINES - PRESSURE

(Main Control Valve To Mono-Block Valve)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	MAIN CONTROL VALVE	Blue A
2	15115	1		CONNECTOR, straight - FF1852T-0810S	
3	20083	1		HOSE ASSEMBLY - 4039-08-080S-0809 (<i>Main control valve port "P" to mono-block valve port "P2"</i>)	
4	16360	1		ELBOW, 90° - FF1868T-0808S	
5	20084	2		BOLT - 3/8" x 1-3/4"	
6	15528	2		WASHER, SAE flat - 3/8"	
7	REF.	1	✓	MONO-BLOCK VALVE	D.1.6

✓ See referenced page for component or assembly breakdown.

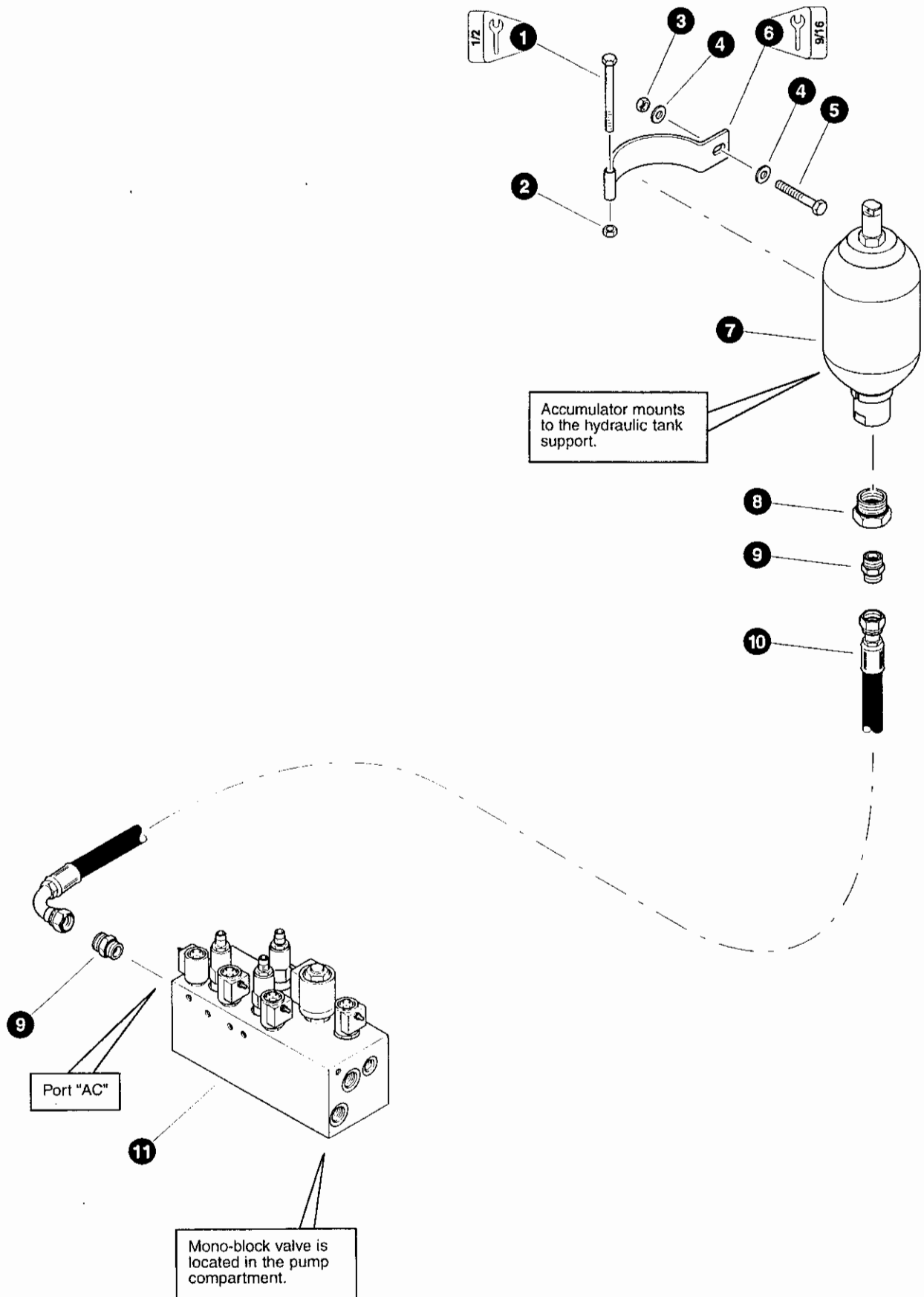


SYSTEM PILOT LINES - PRESSURE

(Mono-Block Valve Gauge Lines)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	MONO-BLOCK VALVE	D.1.6
2	15124	1		CONNECTOR, straight - FF1852T-0406S	
3	18065	1		HOSE ASSEMBLY - 2013-04-04PF-0409 (<i>Mono-block</i> <i>valve port "G1" to gauge port tap</i>)	
4	15118	2		TAP, gauge port - 1/4" pipe thread	
5	19538	1		ELBOW, 90° - 6805-6-4	

✓ See referenced page for component or assembly breakdown.

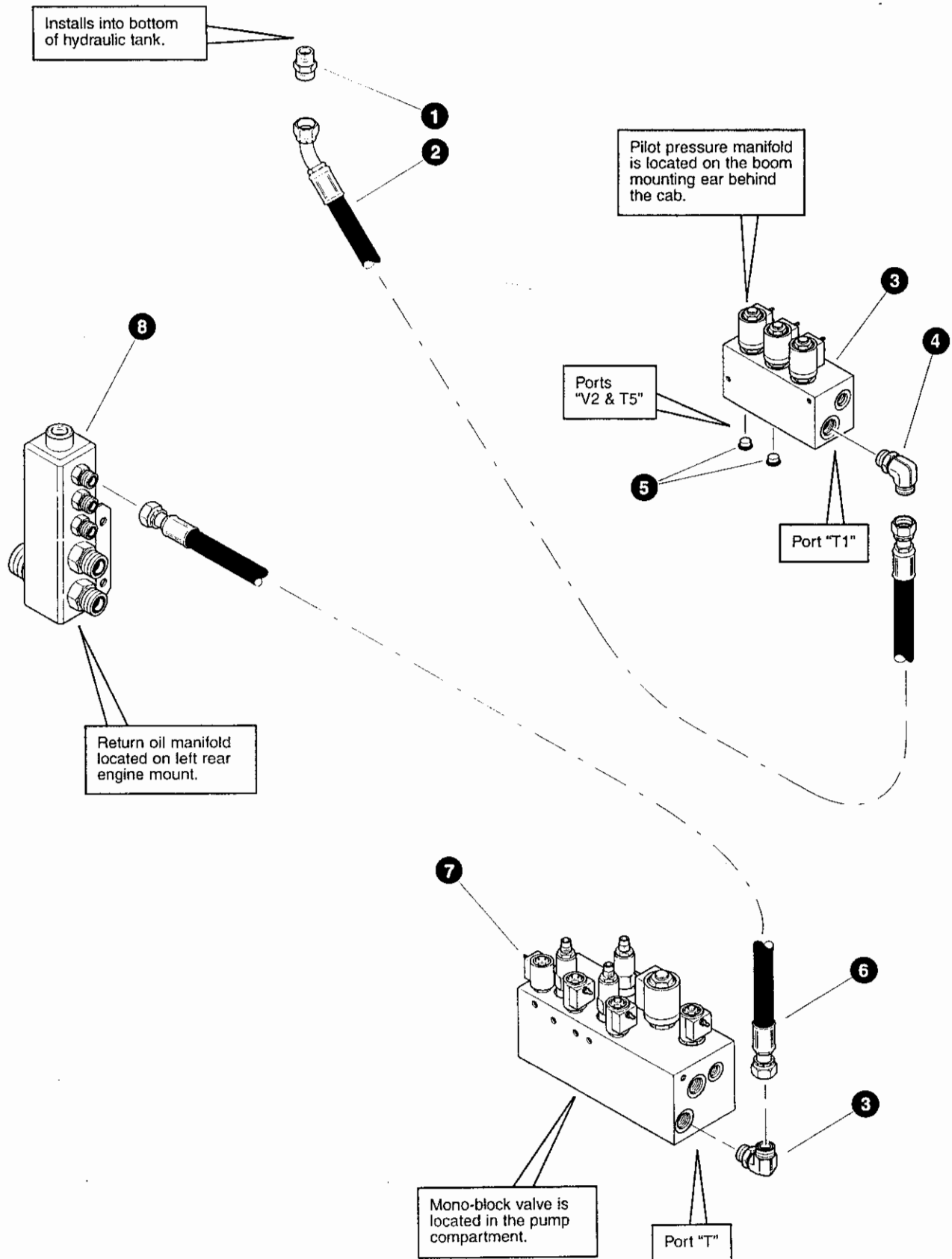


Parts 00230 12/29/97
25.00

SYSTEM PILOT LINES - PRESSURE (Accumulator Charging Line)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	15668	1	BOLT - 5/16" x 4"	
2	10812	1	NUT, lock - 5/16"	
3	10813	1	NUT, lock - 3/8"	
4	10802	2	WASHER, flat - 3/8"	
5	19447	1	CLAMP, accumulator mounting	
6	10702	1	BOLT - 3/8" x 2-1/2"	
7	18862	1	ACCUMULATOR (2,000 psi [13 780 kPa] pre-charge)	
8	16719	1	BUSHING, reducer - 6410-16-8	
9	15117	2	CONNECTOR, straight - FF1852T-0808S	
10	20088	1	HOSE ASSEMBLY - 2050-08-080S-0809 (Mono-block valve port "AC" to accumulator)	
11	REF.	1	✓ MONO-BLOCK VALVE	D.1.6

✓ See referenced page for component or assembly breakdown.



SYSTEM PILOT LINES - RETURN
(Mono-Block Valve & Pilot Pressure Manifold To Tank)

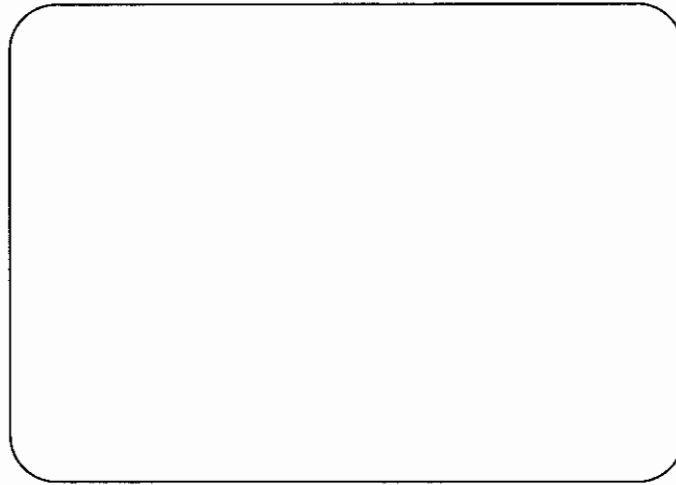
REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	15258	1		CONNECTOR, straight - FF2031T-0808S	
2	20094	1		HOSE ASSEMBLY - 2064.5-08-080S-080S (<i>Pilot pressure manifold port "T1" to bottom of hydraulic tank</i>)	
3	REF.	1	✓	PILOT PRESSURE MANIFOLD	D.1.4
4	16360	2		ELBOW, 90° - FF1868T-0808S	
5	15412	2		PLUG - 6408-HHP-6	
6	20095	1		HOSE ASSEMBLY - 2023-08-080S-080S (<i>Mono-block valve port "T" to return oil manifold</i>)	
7	REF.	1	✓	MONO-BLOCK VALVE	D.1.6
8	17547	1		MANIFOLD, return oil	

✓ See referenced page for component or assembly breakdown.

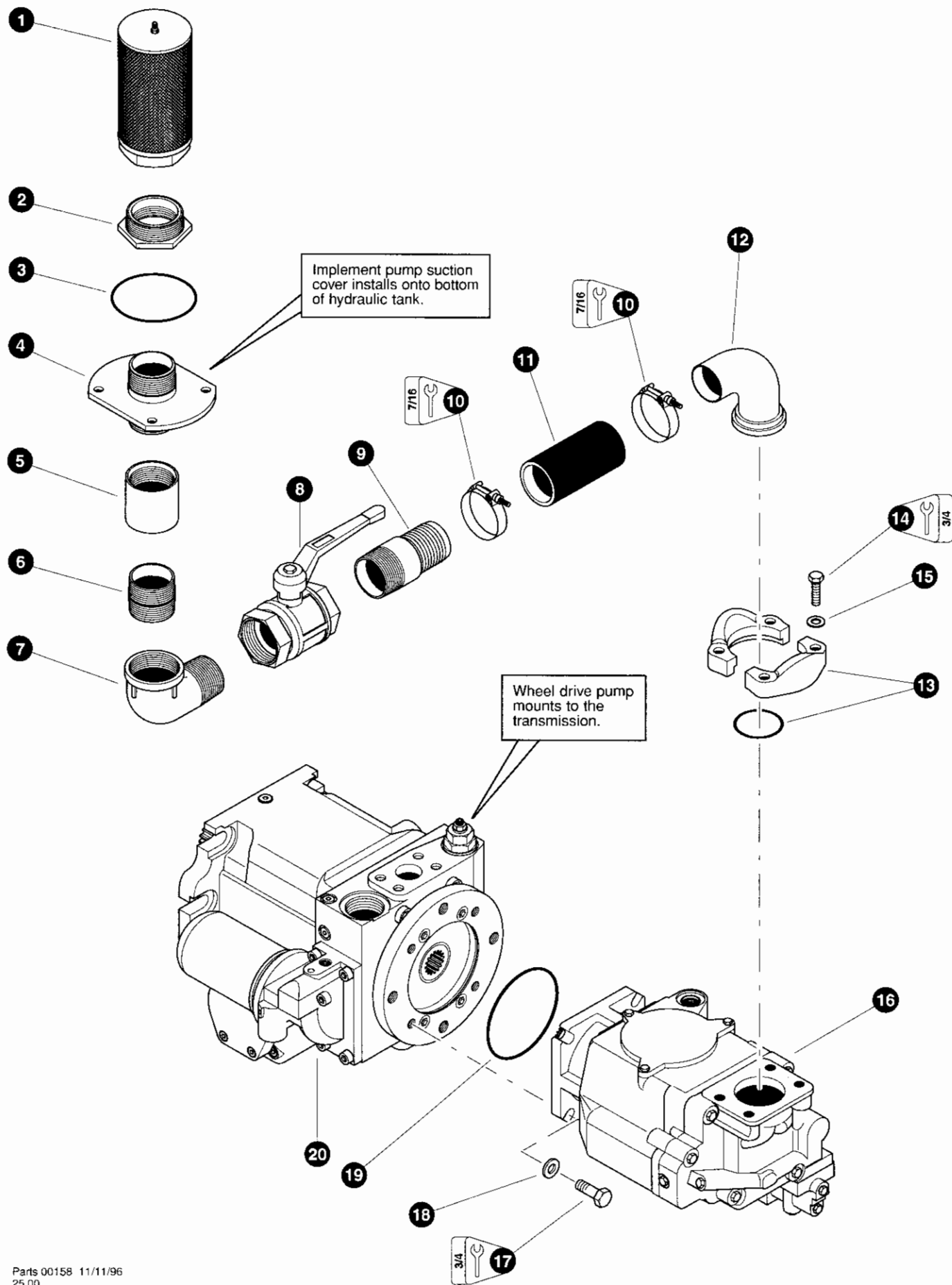
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Section B.2



Hydraulic Circuits - Loader Implements

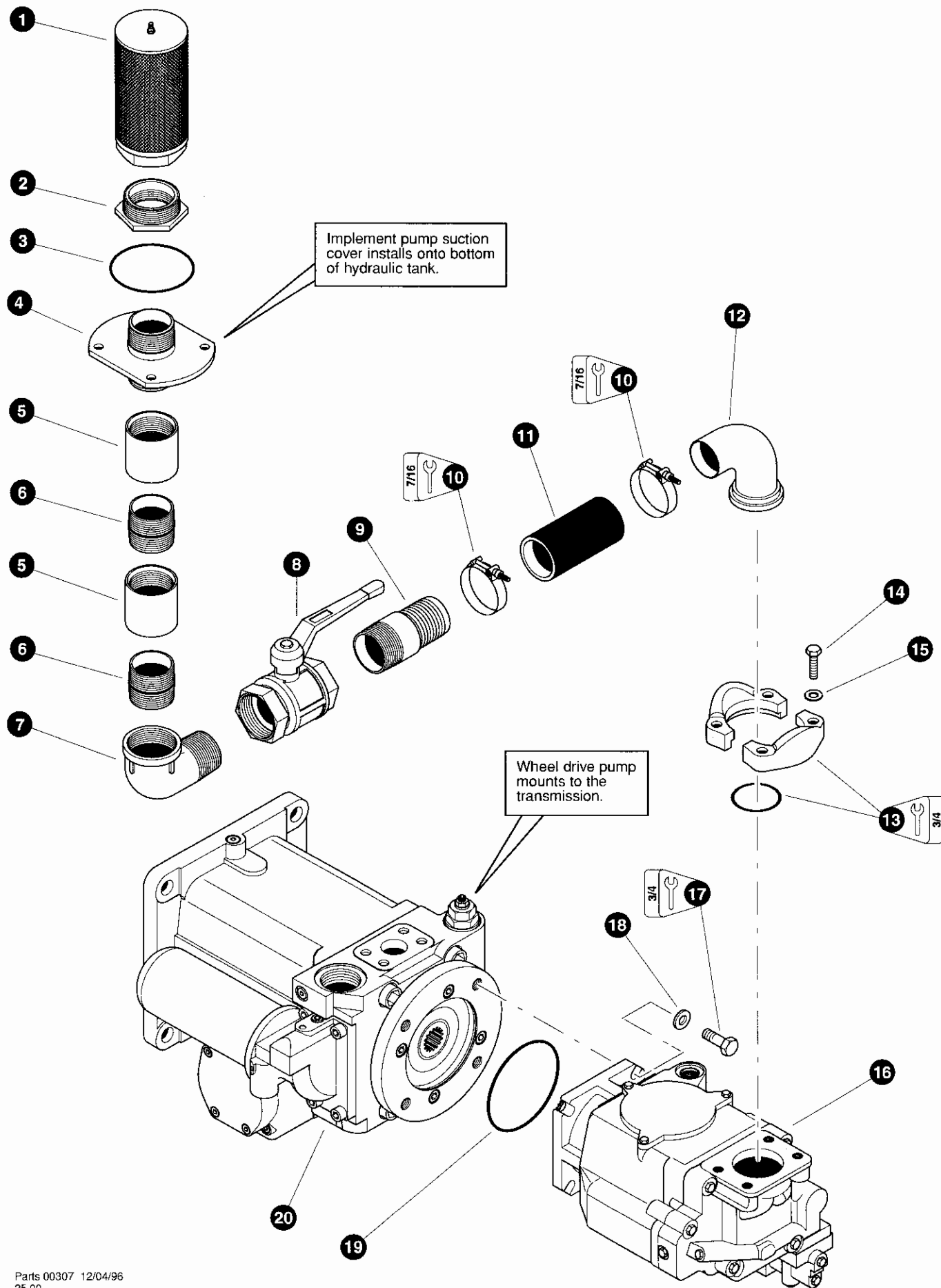


IMPLEMENT PUMP SUCTION LINE

(Rexroth AA4VG125 Wheel Drive Pump)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	15842	1	FILTER, screen - implement suction	
2	16327	1	BUSHING, black reducer - 3" x 2-1/2"	
3	15448	1	O-RING	
4	REF.	1	✓ IMPLEMENT FILTER COVER (<i>Installed from bottom</i>)	E.1.2
5	18460	1	COUPLING, pipe - 2-1/2"	
6	18461	1	NIPPLE, close - 2-1/2"	
7	16956	1	ELBOW, 90° black street - 2-1/2"	
8	15189	1	VALVE, ball - 2-1/2"	
9	16957	1	NIPPLE, king - 2-1/2"	
10	15190	2	CLAMP, strap band - 3-1/8"	
11	20143	1	HOSE, suction - 2-1/2" x 13-1/2"	
12	17098	1	TUBE, suction	
13	15193	1	□ KIT, split flange - 2-1/2" (<i>Code 61</i>)	
	15390	1	O-RING - 2-1/2" SF	
14	18933	1	BOLT - 1/2" x 1-3/4"	
15	15534	4	WASHER, SAE flat - 1/2"	
16	REF.	1	✓ IMPLEMENT PUMP	C.2.2
17	10739	4	BOLT - 1/2" x 1-1/2"	
18	15534	4	WASHER, SAE flat - 1/2"	
19	16106		O-RING	
20	REF.	1	✓ WHEEL DRIVE PUMP - Rexroth AA4VG125	C.3.2

- ✓ See referenced page for component or assembly breakdown.
 □ Kit or Assembly - includes all items indented underneath.

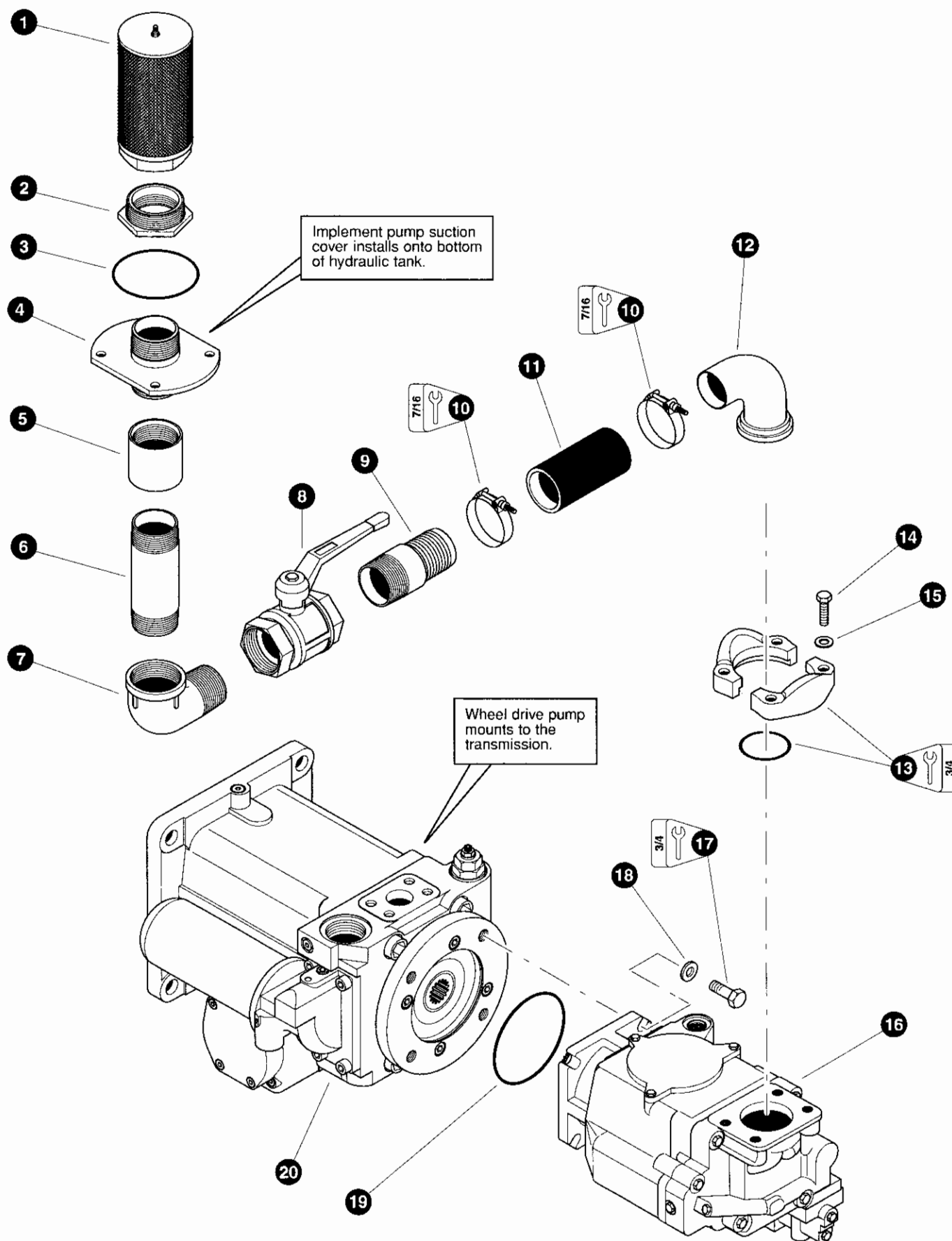


IMPLEMENT PUMP SUCTION LINE (Rexroth AA4VG180 Wheel Drive Pump)

(Used on machines PDN# 044FWD and below)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	15842	1		FILTER, screen - implement suction	
2	16327	1		BUSHING, black reducer - 3" x 2-1/2"	
3	15448	1		O-RING	
4	REF.	1	✓	IMPLEMENT FILTER COVER (Installed from bottom)	E.1.2
5	18460	2		COUPLING, pipe - 2-1/2"	
6	18461	2		NIPPLE, close - 2-1/2"	
7	16956	1		ELBOW, 90° black street - 2-1/2"	
8	15189	1		VALVE, ball - 2-1/2"	
9	16957	1		NIPPLE, king - 2-1/2"	
10	15190	2		CLAMP, strap band - 3-1/8"	
11	20143	1		HOSE, suction - 2-1/2" x 13-1/2"	
12	17098	1		TUBE, suction	
13	15193	1	□	KIT, split flange - 2-1/2" (Code 61)	
	15390	1		O-RING - 2-1/2" SF	
14	18933	1		BOLT - 1/2" x 1-3/4"	
15	15534	4		WASHER, SAE flat - 1/2"	
16	REF.	1	✓	IMPLEMENT PUMP	C.2.2
17	10739	4		BOLT - 1/2" x 1-1/2"	
18	15534	4		WASHER, SAE flat - 1/2"	
19	16106			O-RING	
20	REF.	1	✓	WHEEL DRIVE PUMP - Rexroth AA4VG180	C.3.12

- ✓ See referenced page for component or assembly breakdown.
- ✕ Bulk material - order length required in feet or metres.
- Kit or Assembly - includes all items indented underneath.

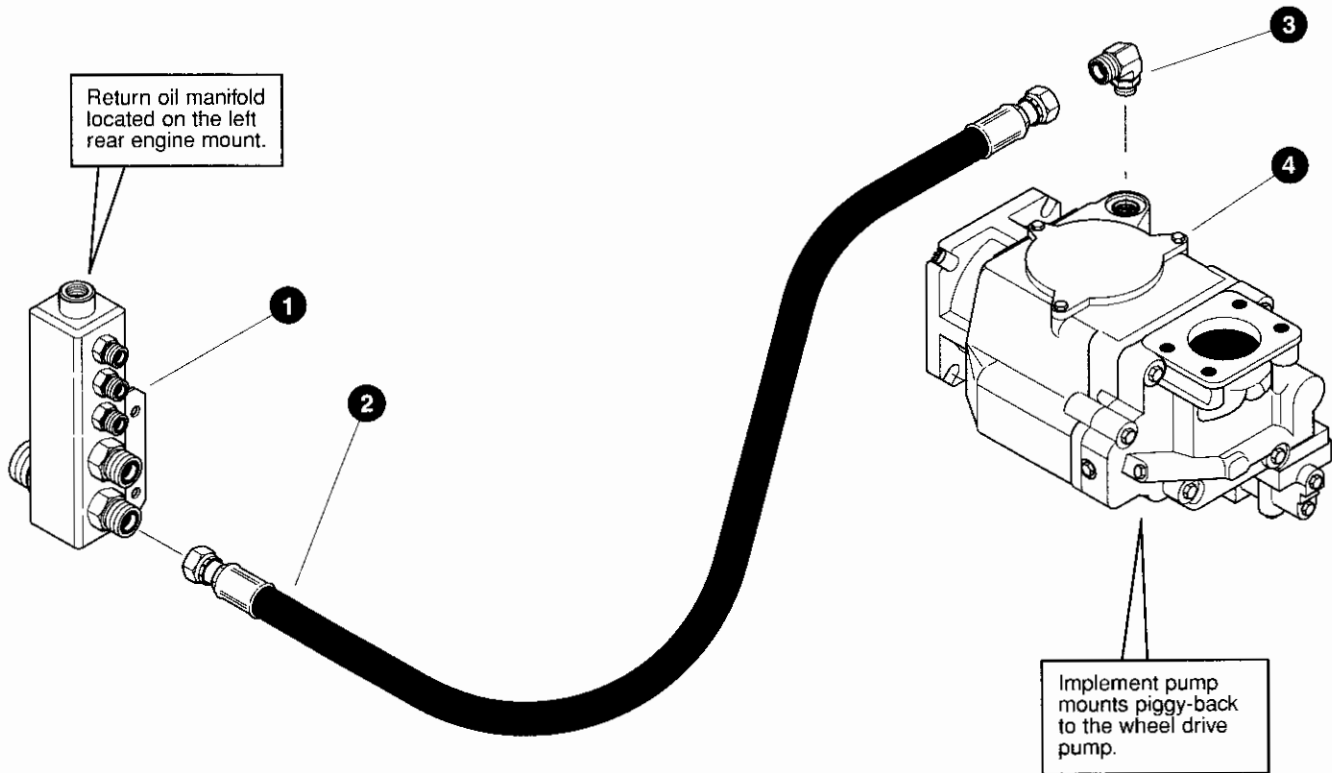


IMPLEMENT PUMP SUCTION LINE (Rexroth AA4VG180 Wheel Drive Pump)

(Used on machines PDN# 045FWD and above)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	15842	1	FILTER, screen - implement suction	
2	16327	1	BUSHING, black reducer - 3" x 2-1/2"	
3	15448	1	O-RING	
4	REF.	1	✓ IMPLEMENT FILTER COVER (Installed from bottom)	E.1.2
5	18460	1	COUPLING, pipe - 2-1/2"	
6	20453	1	NIPPLE, pipe - 2-1/2" x 6"	
7	16956	1	ELBOW, 90° black street - 2-1/2"	
8	15189	1	VALVE, ball - 2-1/2"	
9	16957	1	NIPPLE, king - 2-1/2"	
10	15190	2	CLAMP, strap band - 3-1/8"	
11	20143	1	HOSE, suction - 2-1/2" x 13-1/2"	
12	17098	1	TUBE, suction	
13	15193	1	□ KIT, split flange - 2-1/2" (Code 61)	
	15390	1	O-RING - 2-1/2" SF	
14	18933	1	BOLT - 1/2" x 1-3/4"	
15	15534	4	WASHER, SAE flat - 1/2"	
16	REF.	1	✓ IMPLEMENT PUMP	C.2.2
17	10739	4	BOLT - 1/2" x 1-1/2"	
18	15534	4	WASHER, SAE flat - 1/2"	
19	16106		O-RING	
20	REF.	1	✓ WHEEL DRIVE PUMP - Rexroth AA4VG180	C.3.12

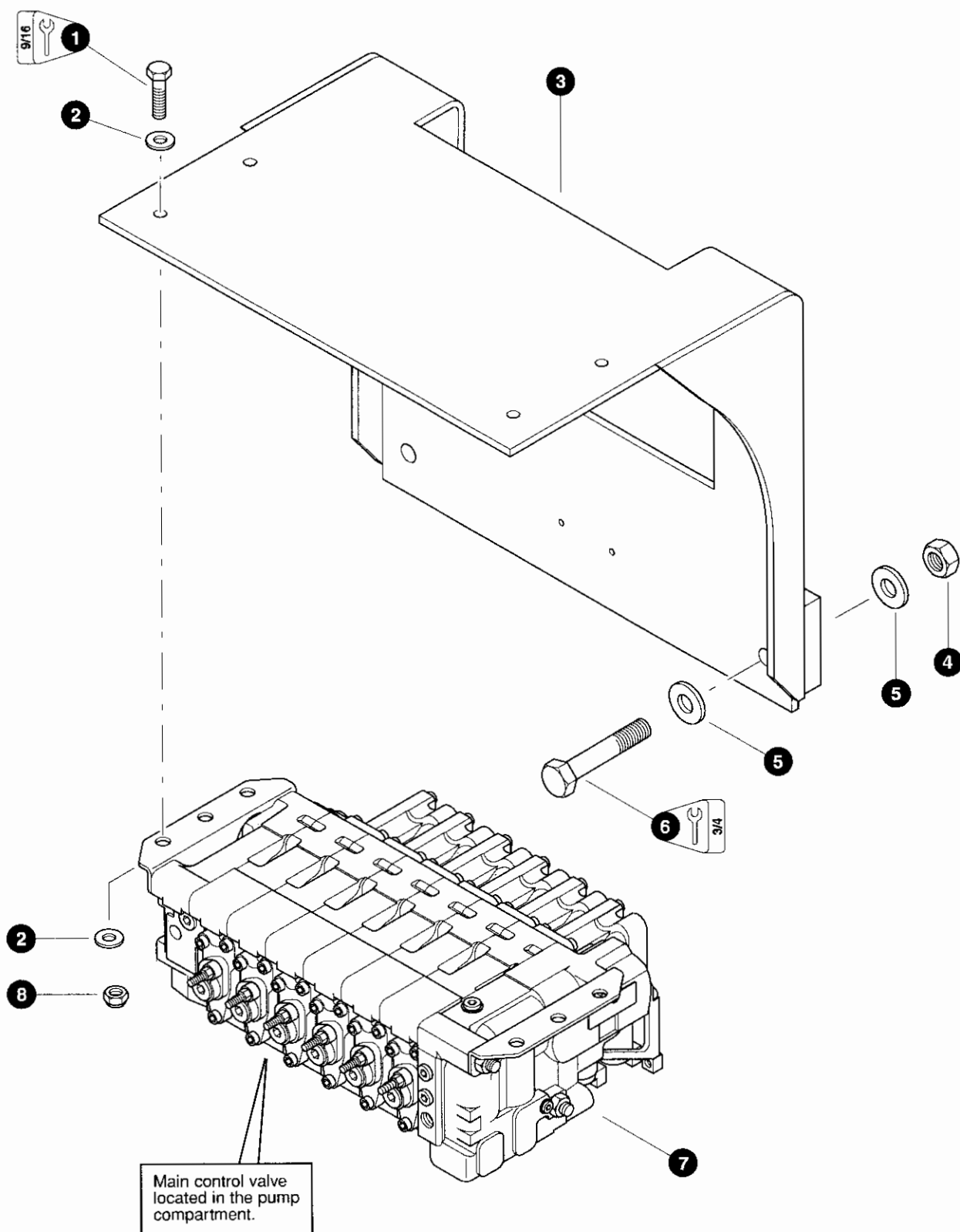
- ✓ See referenced page for component or assembly breakdown.
- ✂ Bulk material - order length required in feet or metres.
- Kit or Assembly - includes all items indented underneath.



IMPLEMENT PUMP CASE DRAIN LINE

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	17547	1	MANIFOLD, return oil	
2	20098	1	HOSE ASSEMBLY - 2037-12-120S-120S (<i>Implement pump case drain port to return oil manifold</i>)	
3	16422	1	ELBOW, 90° - FF1868T-1210S	
4	REF.	1	✓ IMPLEMENT PUMP	C.2.2

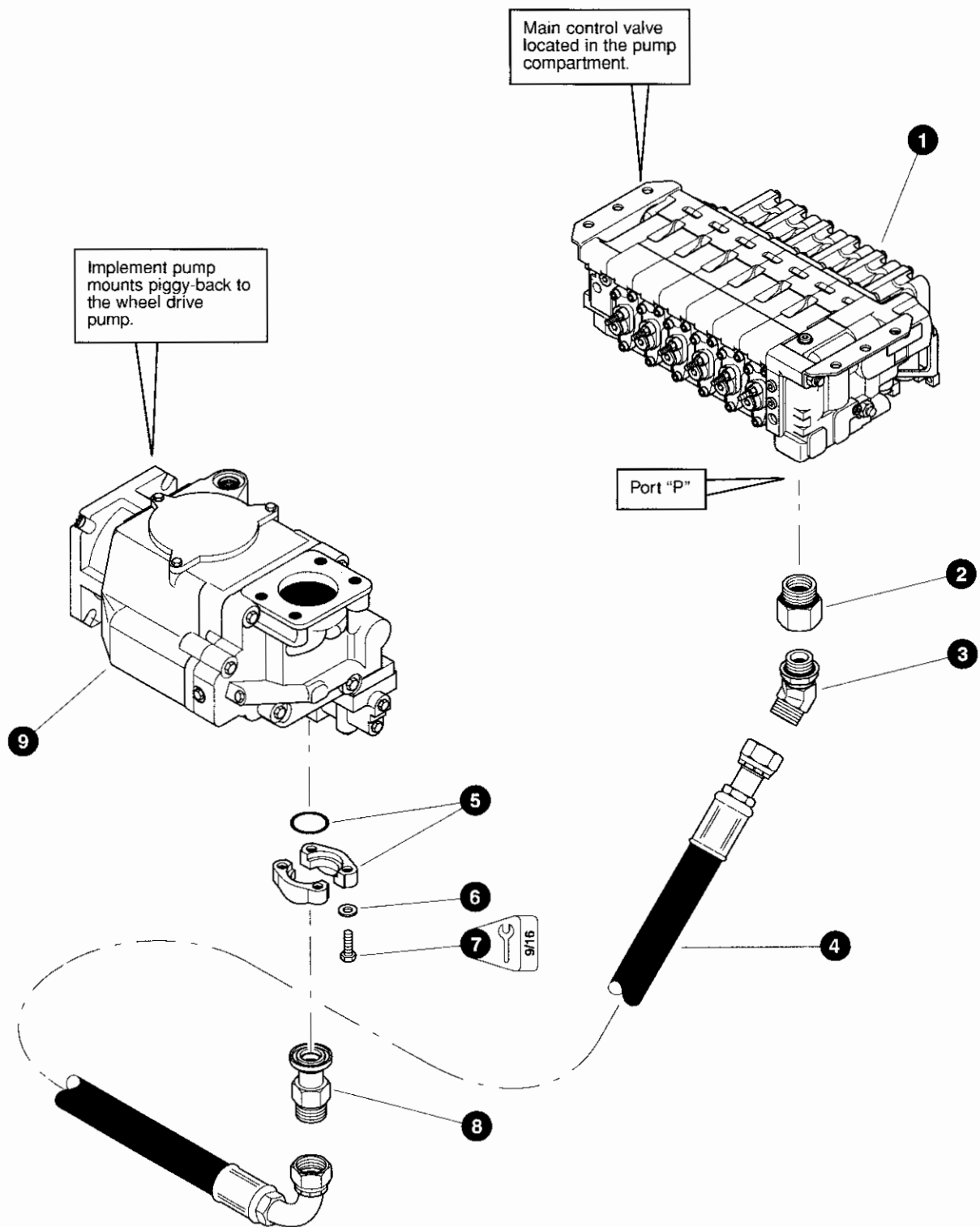
✓ See referenced page for component or assembly breakdown.



MAIN CONTROL VALVE MOUNTING

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	10731	4	BOLT - 3/8" x 1-1/2"	
2	15528	8	WASHER, SAE flat - 3/8"	
3	19439	1	BRACKET, main control valve mounting	
4	10815	2	NUT, lock - 1/2"	
5	15534	4	WASHER, SAE flat - 1/2"	
6	15553	2	BOLT - 1/2" x 3-1/2"	
7	REF.	1	✓ MAIN CONTROL VALVE	Blue A
8	15507	4	NUT, nylock - 3/8"	

✓ See referenced page for component or assembly breakdown.

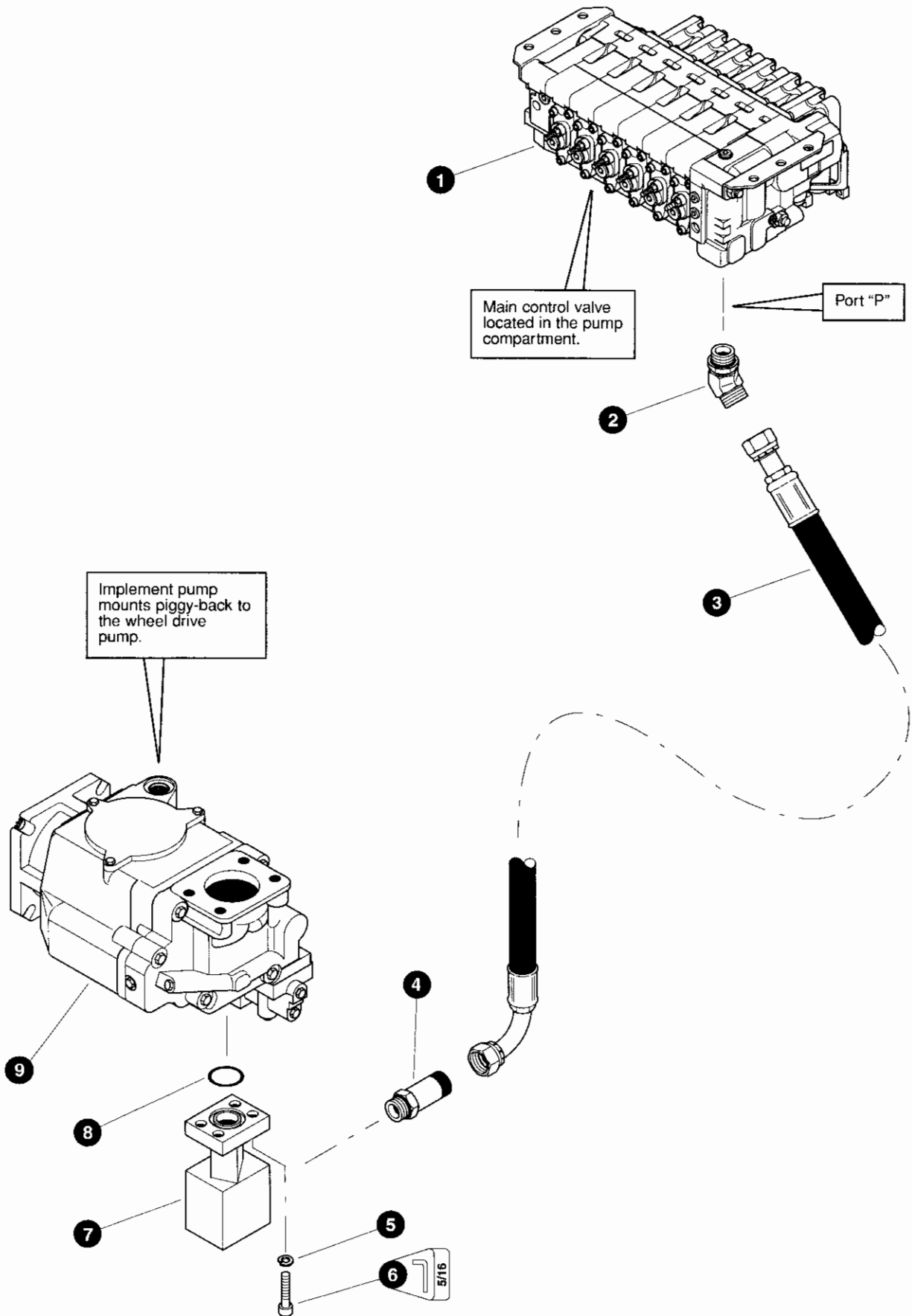


IMPLEMENT PUMP PRESSURE LINE TO MAIN CONTROL VALVE (Without Implement Pump Pressure Port Manifold For Clam Bunk)

(Used on early production machines)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	MAIN CONTROL VALVE	Blue A
2	19291	1		BUSHING, reducer - 6410-12-16	
3	19127	1		ELBOW, 45° - FF2068T-1212S	
4	20099	1		HOSE ASSEMBLY - 4018-12-120S-1209 <i>(Implement pump pressure outlet to main control valve pressure inlet port "P")</i>	
5	15111	1	□	KIT, split flange - 1" (Code 61)	
	15377	1		O-RING - 1" SF	
6	10701	4		WASHER, lock - 3/8"	
7	10731	4		BOLT - 3/8" x 1-1/2"	
8	12129	1		ADAPTER, straight flange head - 1" (Code 61)	
9	REF.	1	✓	IMPLEMENT PUMP	C.2.2

- ✓ See referenced page for component or assembly breakdown.
 □ Kit or Assembly - includes all items indented underneath.

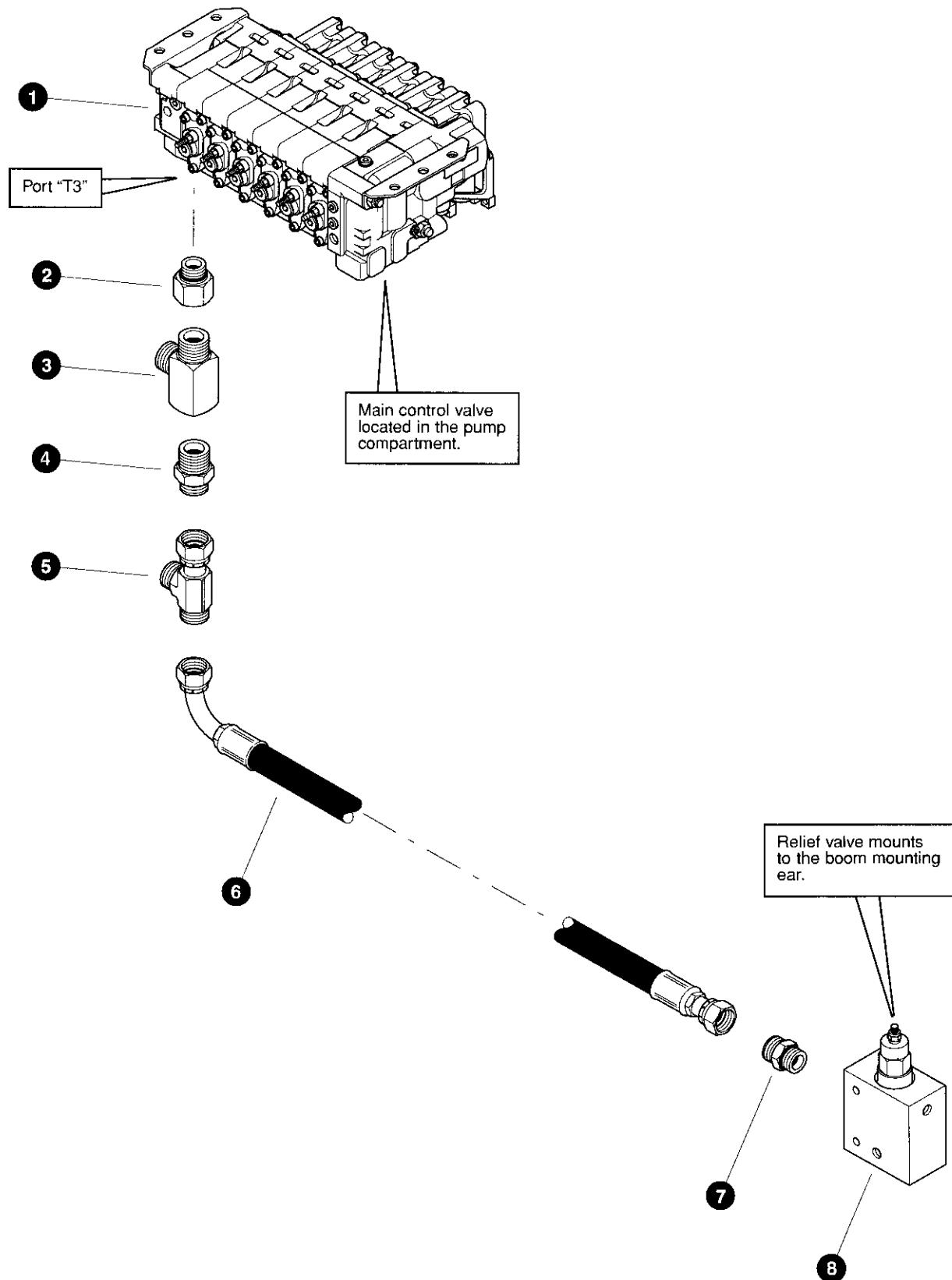


IMPLEMENT PUMP PRESSURE LINE TO MAIN CONTROL VALVE (With Implement Pump Pressure Port Manifold For Clam Bunk)

(Used on late production machines)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	MAIN CONTROL VALVE	Blue A
2	19127	1		ELBOW, 45° - FF2068T-1212S	
3	20099	1		HOSE ASSEMBLY - 4018-12-120S-1209 <i>(Implement pump pressure outlet to main control valve pressure inlet port "P")</i>	
4	19092	1		CONNECTOR, long straight - FF1854T-1212S	
5	19580	4		BOLT, allen head - 3/8" x 1-1/2"	
6	10701	4		WASHER, lock - 3/8"	
7	19532	1		MANIFOLD, valve/clam pressure	
8	15377	1		O-RING - 1" SF	
9	REF.	1	✓	IMPLEMENT PUMP	C.2.2

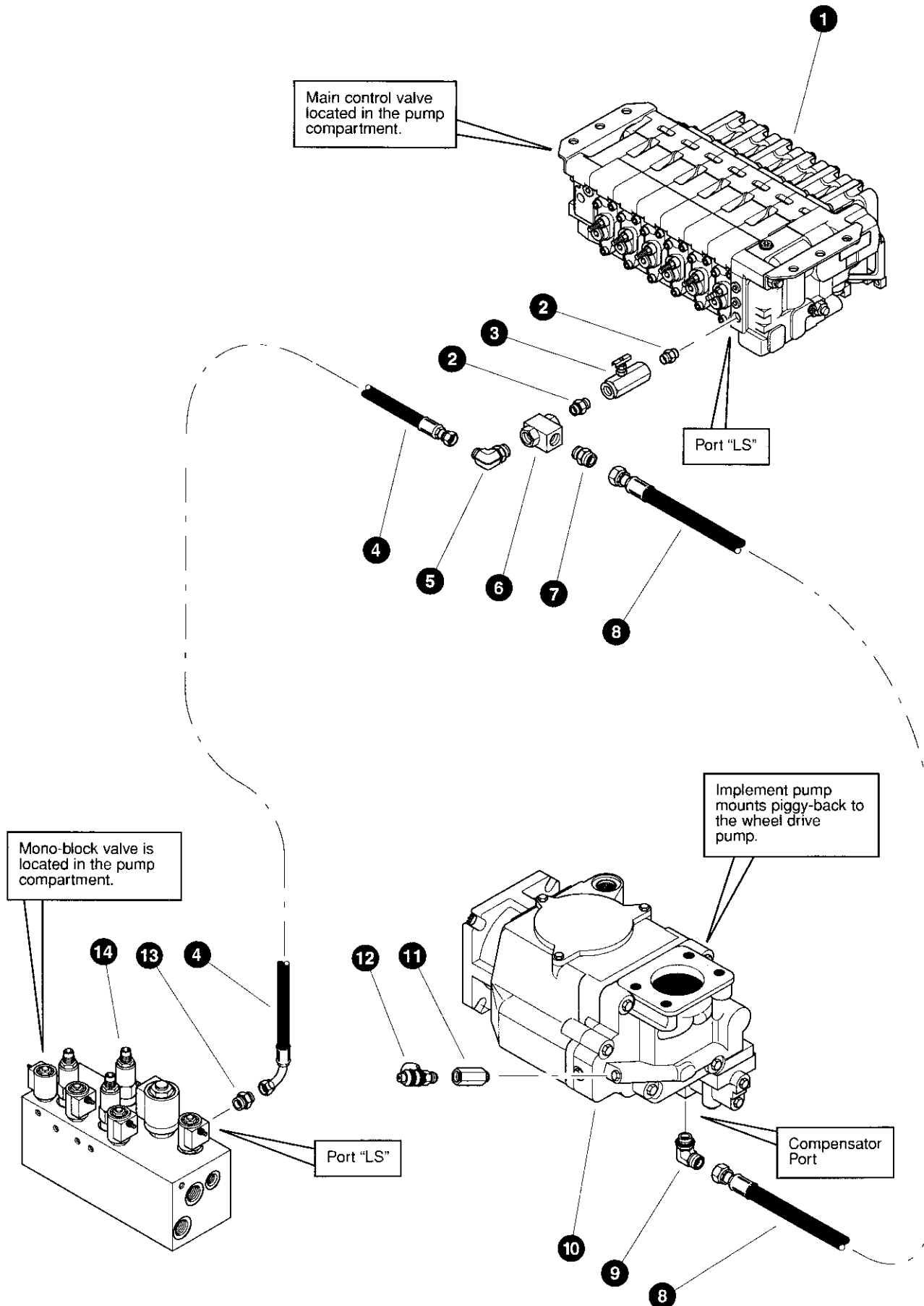
- ✓ See referenced page for component or assembly breakdown.
 □ Kit or Assembly - includes all items indented underneath.



OIL REGENERATION LINE TO MAIN CONTROL VALVE

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	MAIN CONTROL VALVE	Blue A
2	15187	1		BUSHING, reducer - 6405-12-16	
3	19531	1		TEE - 5603-16	
4	17707	1		CONNECTOR, straight - FF2031T-1216S	
5	17687	1		TEE - FF2114T-1212S	
6	20100	1		HOSE ASSEMBLY - 2021.5-12-120S-1209 (<i>Relief valve to main control valve regeneration port "T3"</i>)	
7	15152	1		CONNECTOR, straight - FF1852T-1212S	
9	REF.	1	✓	RELIEF VALVE	B.1.2

✓ See referenced page for component or assembly breakdown.

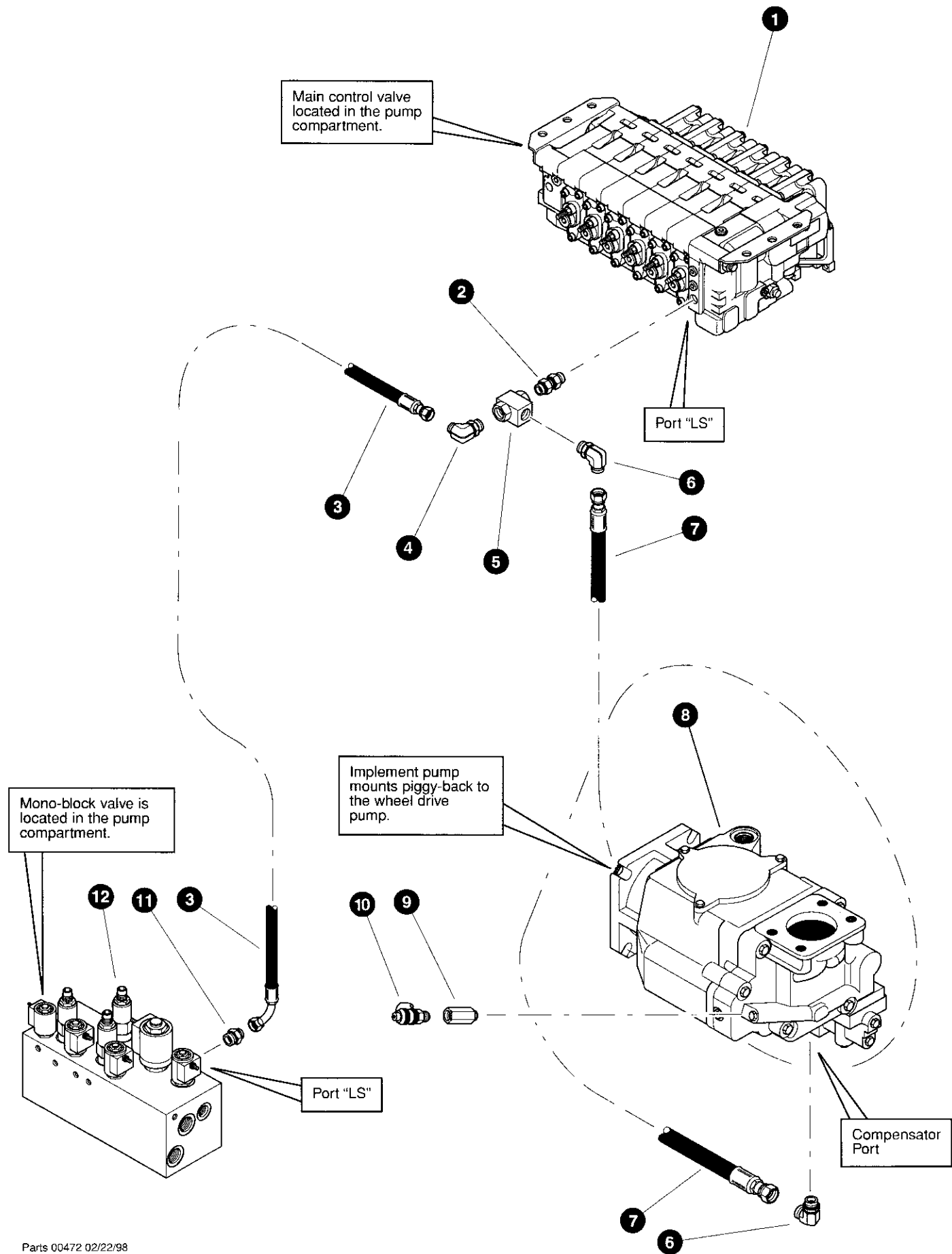


MAIN CONTROL VALVE LOAD SENSE LINES (Without Optional Clam Bunk Installed)

(Used on machines PDN# 046FWD and below)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	MAIN CONTROL VALVE	Blue A
2	15131	2		CONNECTOR, straight - FF2031T-0404S	
3	19367	1		VALVE, free-flow check	
4	20101	1		HOSE ASSEMBLY - 2034-04-040S-0409 <i>(Mono-block port "LS" to load sense shuttle)</i>	
5	15133	1		ELBOW, 90° - FF1868T-0406S	
6	19303	1		VALVE, shuttle - load sense signal	
7	18034	1		CONNECTOR, straight - FF1852T-0606S	
8	20102	1		HOSE ASSEMBLY - 2027-06-060S-060S <i>(Load sense shuttle to implement pump compensator port)</i>	
9	16296	1		ELBOW, 90° - FF1868T-0606S	
10	REF.	1	✓	IMPLEMENT PUMP	C.2.2
11	16911	1		CONNECTOR, straight - 7455-2-10mm	
12	16910	1		TAP, gauge port - 1/8" pipe thread	
13	15124	1		CONNECTOR, straight - FF1852T-0406S	
14	REF.	1	✓	MONO-BLOCK VALVE	D.1.6

✓ See referenced page for component or assembly breakdown.

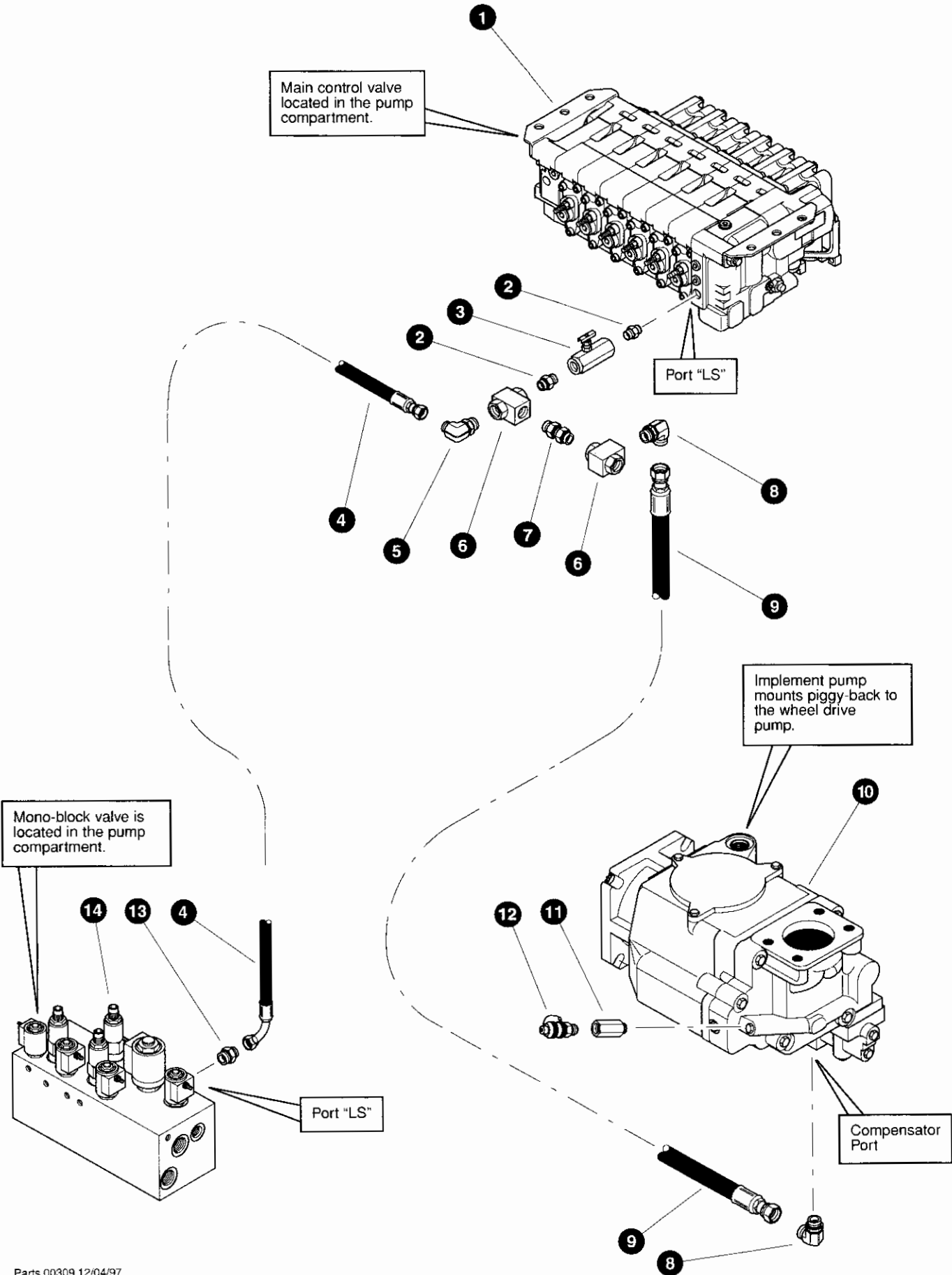


MAIN CONTROL VALVE LOAD SENSE LINES (Without Optional Clam Bunk Installed)

(Used on machines PDN# 047FWD and above)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	MAIN CONTROL VALVE	Blue A
2	20679	1		CONNECTOR, straight - 6403-NWO-6 (w/.028" orifice)	
3	20101	1		HOSE ASSEMBLY - 2034-04-040S-0409 (Mono-block port "LS" to load sense shuttle)	
4	15133	1		ELBOW, 90° - FF1868T-0406S	
5	19303	1		VALVE, shuttle - load sense signal	
6	16296	2		ELBOW, 90° - FF1868T-0606S	
7	20680	1		HOSE ASSEMBLY - 2050-06-060S-060S (Load sense shuttle to implement pump compensator port, hose is looped to provide shock absorber effect on signal)	
8	REF.	1	✓	IMPLEMENT PUMP	C.2.2
9	16911	1		CONNECTOR, straight - 7455-2-10mm	
10	16910	1		TAP, gauge port - 1/8" pipe thread	
11	15124	1		CONNECTOR, straight - FF1852T-0406S	
12	REF.	1	✓	MONO-BLOCK VALVE	D.1.6

✓ See referenced page for component or assembly breakdown.

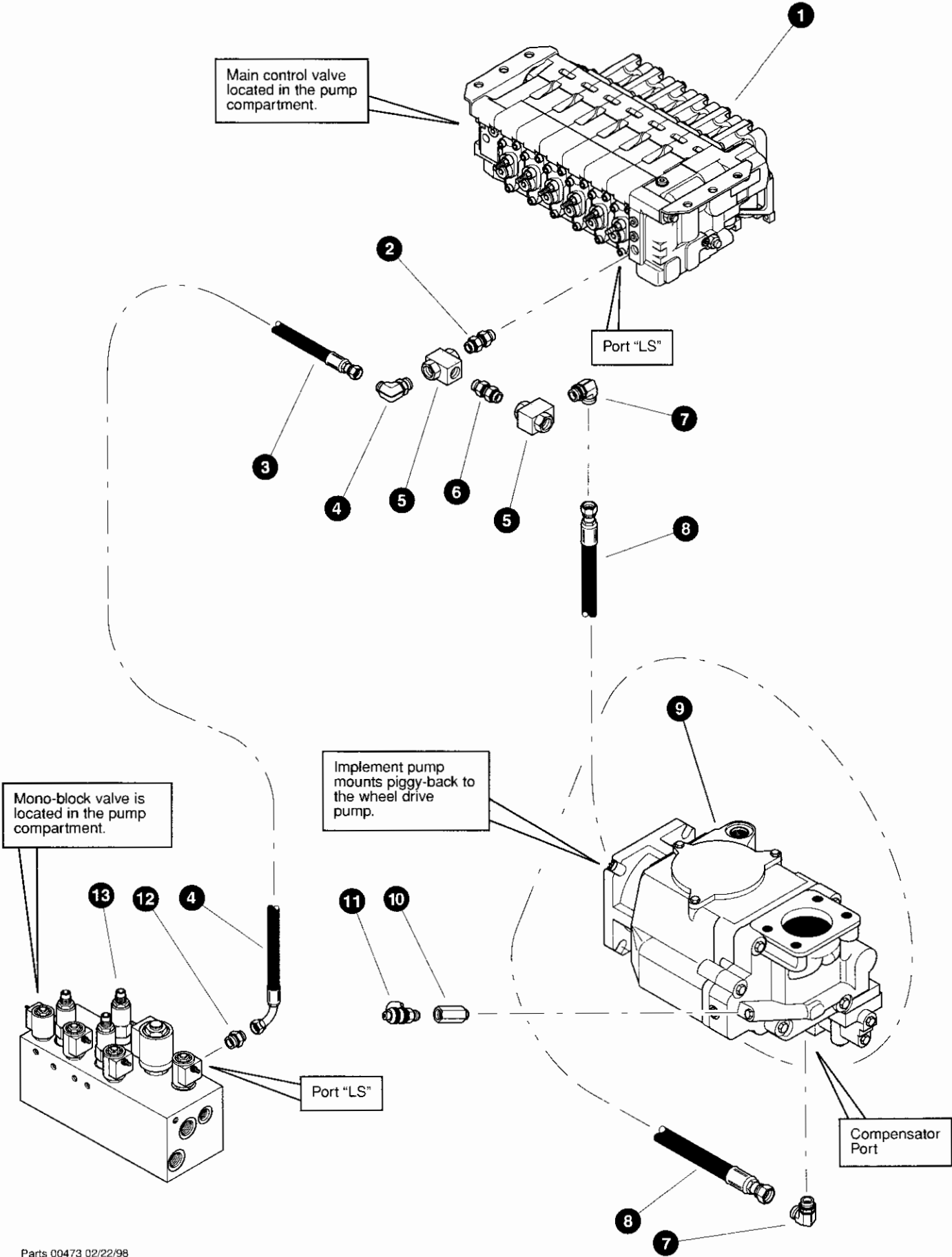


MAIN CONTROL VALVE LOAD SENSE LINES (With Optional Clam Bunk Installed)

(Used on machines PDN# 046FWD and below)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	MAIN CONTROL VALVE	Blue A
2	15131	2		CONNECTOR, straight - FF2031T-0404S	
3	19367	1		VALVE, free-flow check	
4	20101	1		HOSE ASSEMBLY - 2034-04-040S-0409 <i>(Mono-block port "LS" to load sense shuttle)</i>	
5	15133	1		ELBOW, 90° - FF1868T-0406S	
6	19303	2		VALVE, shuttle - load sense signal	
7	19366	1		CONNECTOR, straight - 6403-NWO-6	
8	16296	2		ELBOW, 90° - FF1868T-0606S	
9	20202	1		HOSE ASSEMBLY - 2028.5-06-060S-0609 <i>(Load sense shuttle to implement pump compensator port)</i>	
10	REF.	1	✓	IMPLEMENT PUMP	C.2.2
11	16911	1		CONNECTOR, straight - 7455-2-10mm	
12	16910	1		TAP, gauge port - 1/8" pipe thread	
13	15124	1		CONNECTOR, straight - FF1852T-0406S	
14	REF.	1	✓	MONO-BLOCK VALVE	D.1.6

✓ See referenced page for component or assembly breakdown.



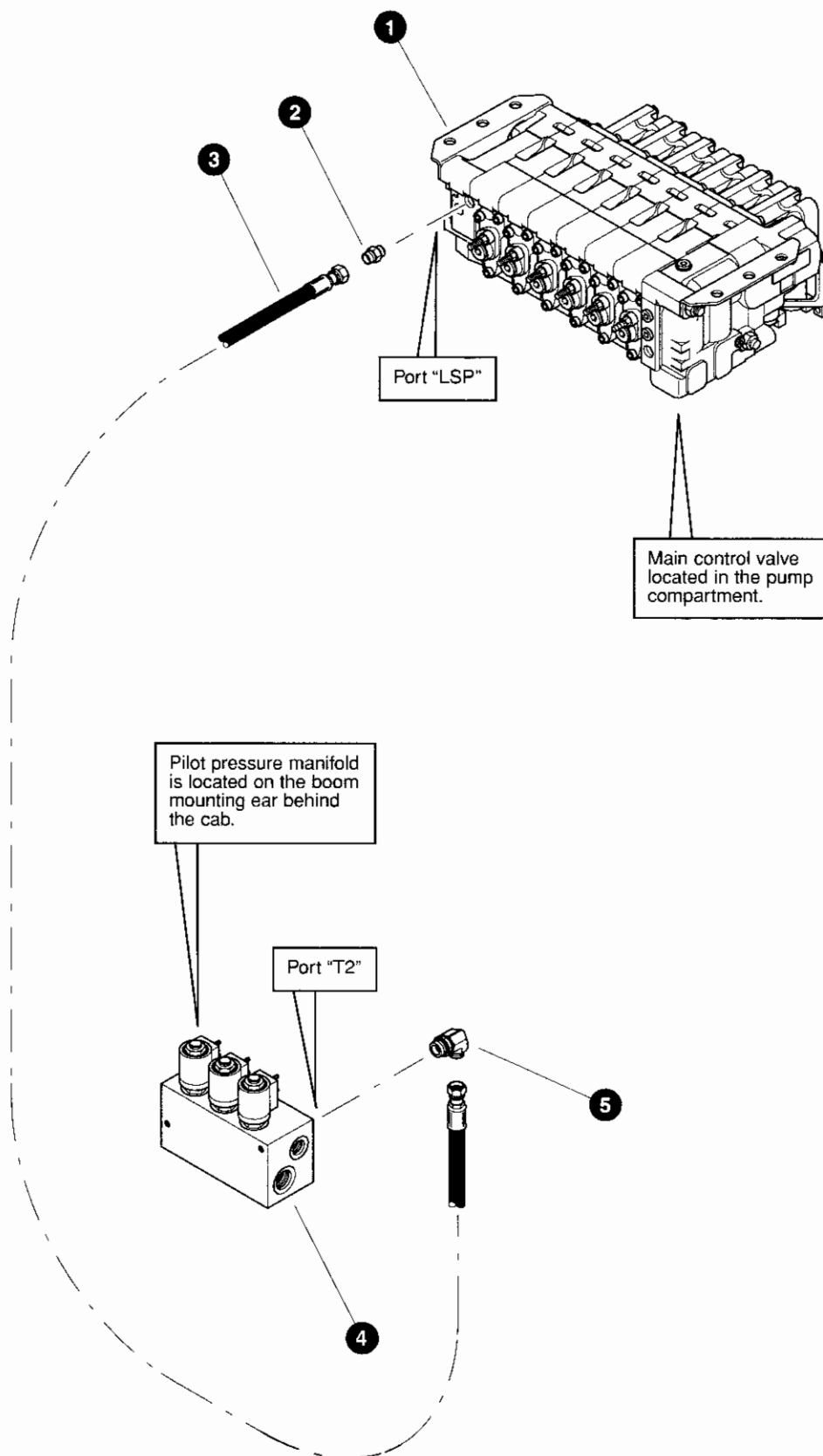
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MAIN CONTROL VALVE LOAD SENSE LINES (With Optional Clam Bunk Installed)

(Used on machines PDN# 047FWD and above)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	MAIN CONTROL VALVE	Blue A
2	20679	1		CONNECTOR, straight - 6403-NWO-6 (w/.028" orifice)	
3	20101	1		HOSE ASSEMBLY - 2034-04-040S-0409 (Mono-block port "LS" to load sense shuttle)	
4	15133	1		ELBOW, 90° - FF1868T-0406S	
5	19303	2		VALVE, shuttle - load sense signal	
6	19366	1		CONNECTOR, straight - 6403-NWO-6	
7	16296	2		ELBOW, 90° - FF1868T-0606S	
8	20680	1		HOSE ASSEMBLY - 2050-06-060S-060S (Load sense shuttle to implement pump compensator port, hose is looped to provide a shock absorber effect on the signal)	
9	REF.	1	✓	IMPLEMENT PUMP	C.2.2
10	16911	1		CONNECTOR, straight - 7455-2-10mm	
11	16910	1		TAP, gauge port - 1/8" pipe thread	
12	15124	1		CONNECTOR, straight - FF1852T-0406S	
13	REF.	1	✓	MONO-BLOCK VALVE	D.1.6

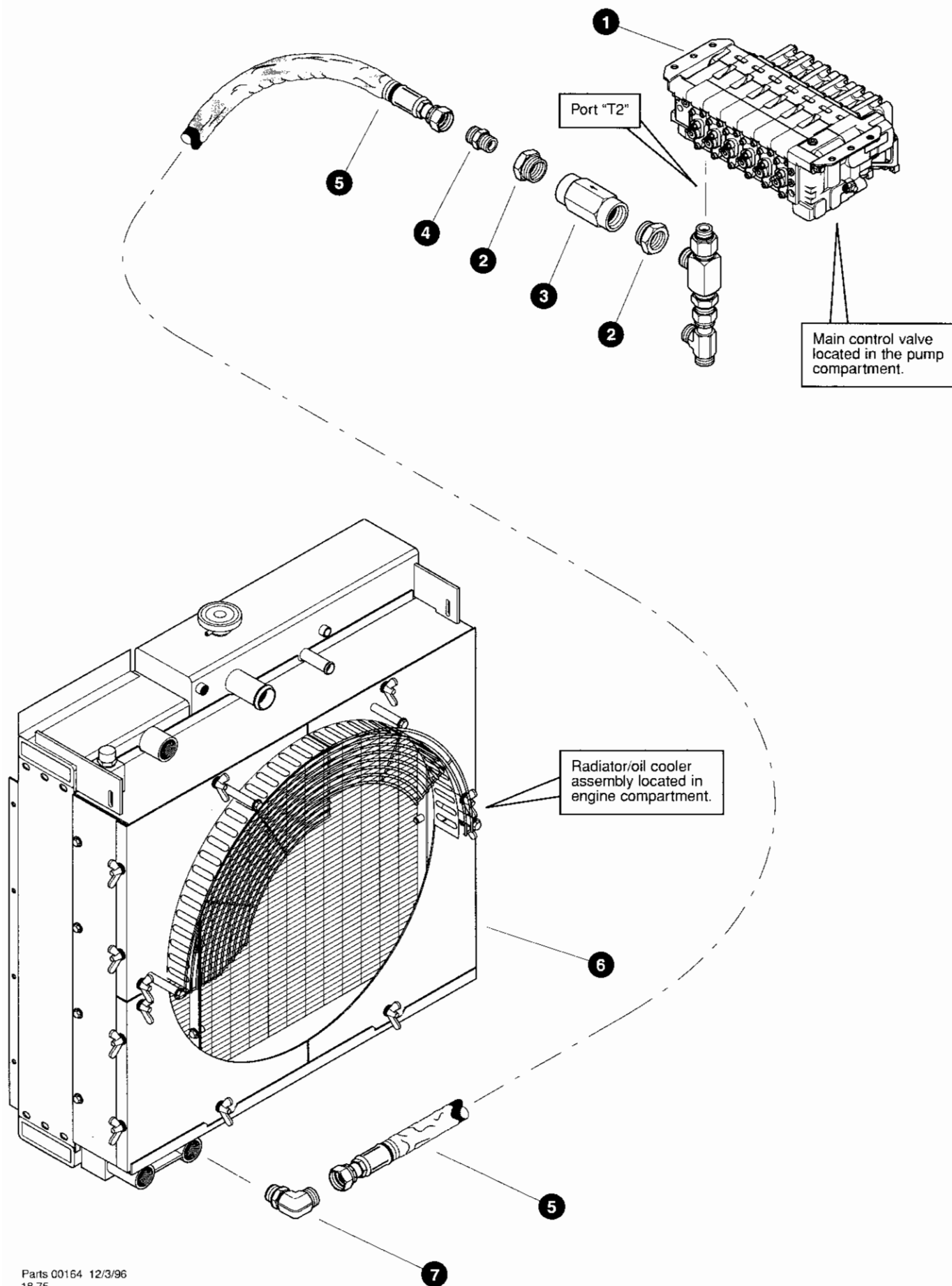
✓ See referenced page for component or assembly breakdown.



MAIN CONTROL VALVE LOAD SENSE DRAIN LINE

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	MAIN CONTROL VALVE	Blue A
2	15124	1		CONNECTOR, straight - FF1852T-0406S	
3	20103	1		HOSE ASSEMBLY - 2052-04-040S-040S (<i>Main control valve port "LSP" to pilot pressure manifold port "T2"</i>)	
4	REF.	1	✓	PILOT PRESSURE MANIFOLD	D.1.4
5	15133	1		ELBOW, 90° - FF1868T-0406S	

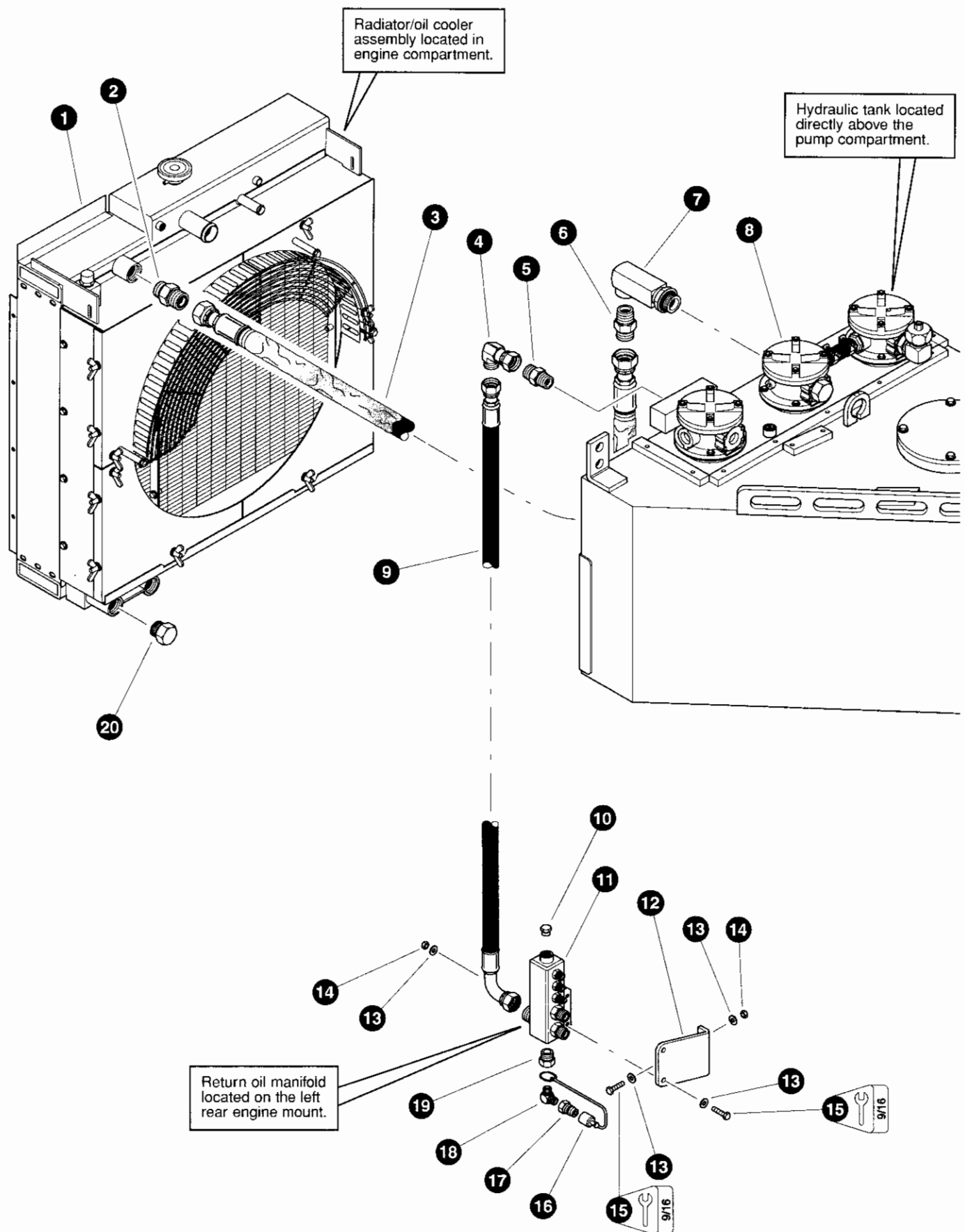
✓ See referenced page for component or assembly breakdown.



RETURN LINES - MAIN CONTROL VALVE TO OIL COOLER

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	MAIN CONTROL VALVE	Blue A
2	15512	2		BUSHING, black reducer - 1-1/4" x 1"	
3	16718	1		VALVE, check - 150 psi	
4	15179	1		CONNECTOR, straight - FF2031T-2020S	
5	20104	1		HOSE ASSEMBLY - 2070-16-160S-160S (<i>Main control valve return outlet check valve to oil cooler bottom port</i>)	
8	REF.	1	✓	RADIATOR/OIL COOLER ASSEMBLY	F.2.2
7	15228	1		ELBOW, 90° - FF1868T-1616S	

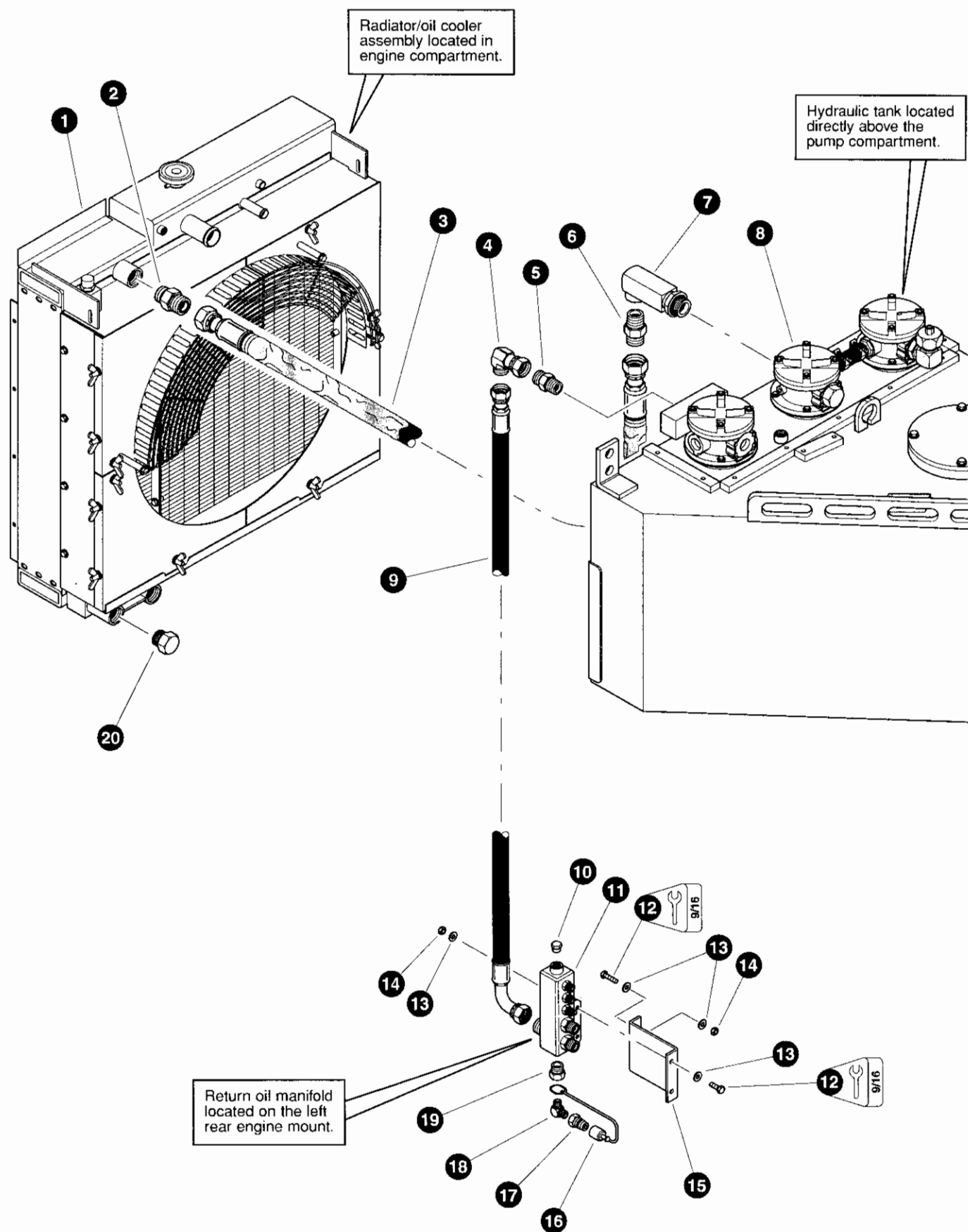
✓ See referenced page for component or assembly breakdown.



RETURN LINES - OIL COOLER & MAINFOLD TO TANK (Cummins 6BTA5.9-C & Caterpillar 3116T/3126T Engines)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	RADIATOR/OIL COOLER ASSEMBLY	F.2.2
2	17344	1		CONNECTOR, straight - FF1852T-2020S	
3	20140	1		HOSE ASSEMBLY - 2064.5-20-200S-200S (Oil cooler top port to center return filter)(Used with Cummins 6BTA5.9-C engines)	
	20106	1		HOSE ASSEMBLY - 2070-20-200S-2004 (Oil cooler top port to center return filter)(Used with Caterpillar 3116T/3126T engines)	
4	17682	1		ELBOW, 90° swivel - FF2098T-1616S	
5	15179	1		CONNECTOR, straight - FF2031T-1616S	
6	17057	1		CONNECTOR, straight - FF2031T-2020S	
7	18743	1		ELBOW, 90° - 2725-FSO-2420	
8	REF.	1	✓	HYDRAULIC TANK ASSEMBLY	E.1.2
9	20105	1		HOSE ASSEMBLY - 2050-16-160S-1609 (Return oil manifold to case drain return filter manifold)	
10	10751	1		PLUG - 5406-P-8	
11	17547	1		MANIFOLD, return line	
12	19183	1		BRACKET, return manifold mount	
13	15528	8		WASHER, SAE flat - 3/8"	
14	10813	4		NUT, lock - 3/8"	
15	10731	4		BOLT - 3/8" x 1-1/2"	
16	17323M	1		COVER, dust - quick-disconnect (Male)	
17	17307M	1		QUICK-DISCONNECT - 1/2" (Male)	
18	17487	1		ELBOW, 90° - 5500-8	
19	15513	1		BUSHING, reducer - 5406-12-8	
20	16034	1		PLUG - FF9767-16S	

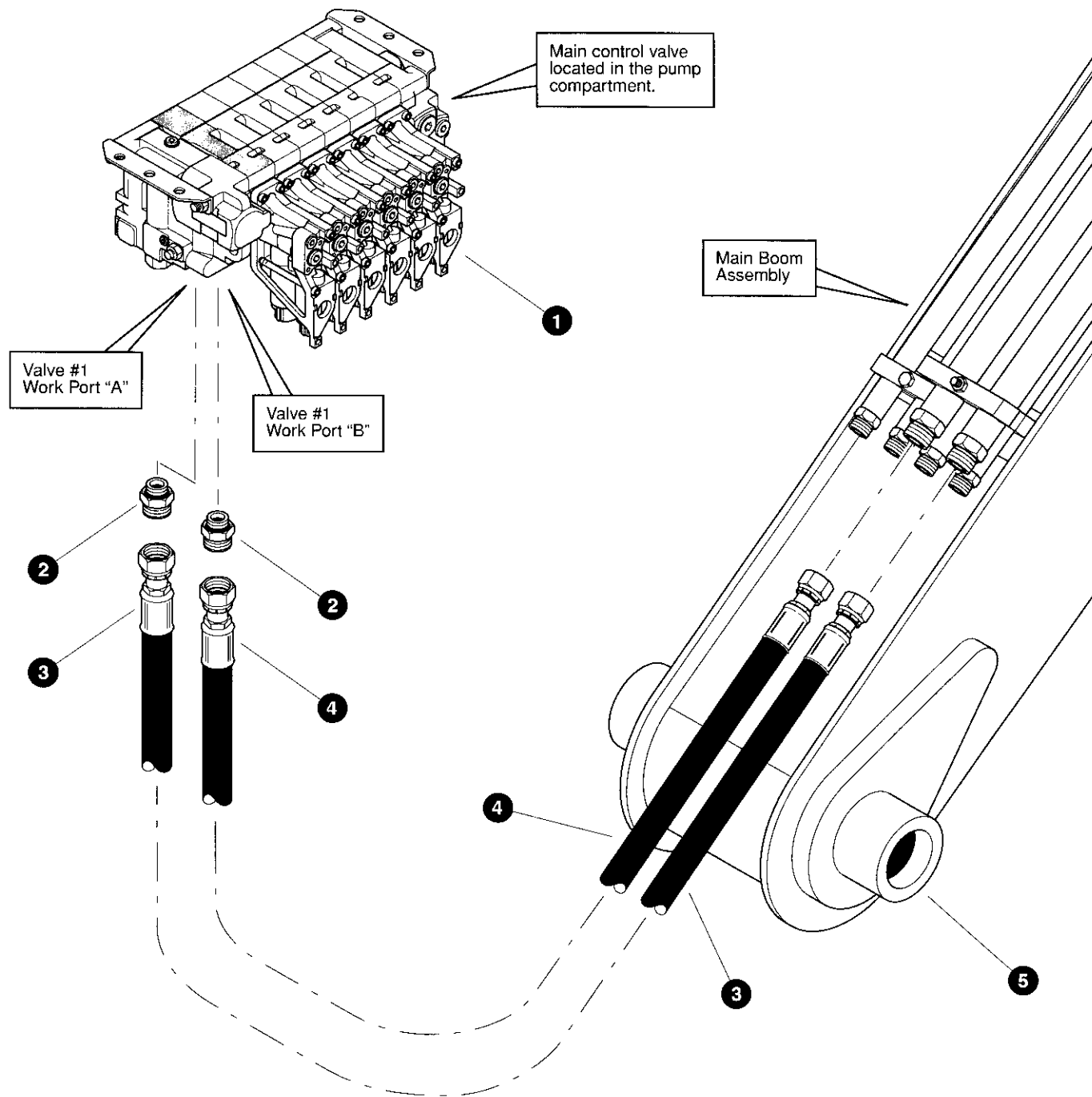
✓ See referenced page for component or assembly breakdown.



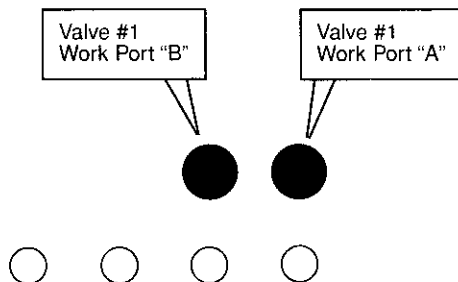
RETURN LINES - OIL COOLER & MAINFOLD TO TANK (Cummins 6C8.3-C260 Engine)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	RADIATOR/OIL COOLER ASSEMBLY	F.2.2
2	17344	1		CONNECTOR, straight - FF1852T-2020S	
3	18903	1		HOSE ASSEMBLY - 2066-20-200S-200S (<i>Oil cooler top port to center return filter</i>)	
4	17682	1		ELBOW, 90° swivel - FF2098T-1616S	
5	15179	1		CONNECTOR, straight - FF2031T-1616S	
6	17057	1		CONNECTOR, straight - FF2031T-2020S	
7	18743	1		ELBOW, 90° - 2725-FSO-2420	
8	REF.	1	✓	HYDRAULIC TANK ASSEMBLY	E.1.2
9	20105	1		HOSE ASSEMBLY - 2050-16-160S-1609 (<i>Return oil manifold to case drain return filter manifold</i>)	
10	10751	1		PLUG - 5406-P-8	
11	17547	1		MANIFOLD, return line	
12	10731	4		BOLT - 3/8" x 1-1/2"	
13	15528	8		WASHER, SAE flat - 3/8"	
14	10813	4		NUT, lock - 3/8"	
15	20107	1		BRACKET, return manifold mount	
16	17323M	1		COVER, dust - quick-disconnect (<i>Male</i>)	
17	17307M	1		QUICK-DISCONNECT - 1/2" (<i>Male</i>)	
18	17487	1		ELBOW, 90° - 5500-8	
19	15513	1		BUSHING, reducer - 5406-12-8	
20	16034	1		PLUG - FF9767-16S	

✓ See referenced page for component or assembly breakdown.



Main boom tubeline connections
as viewed from rear of machine.

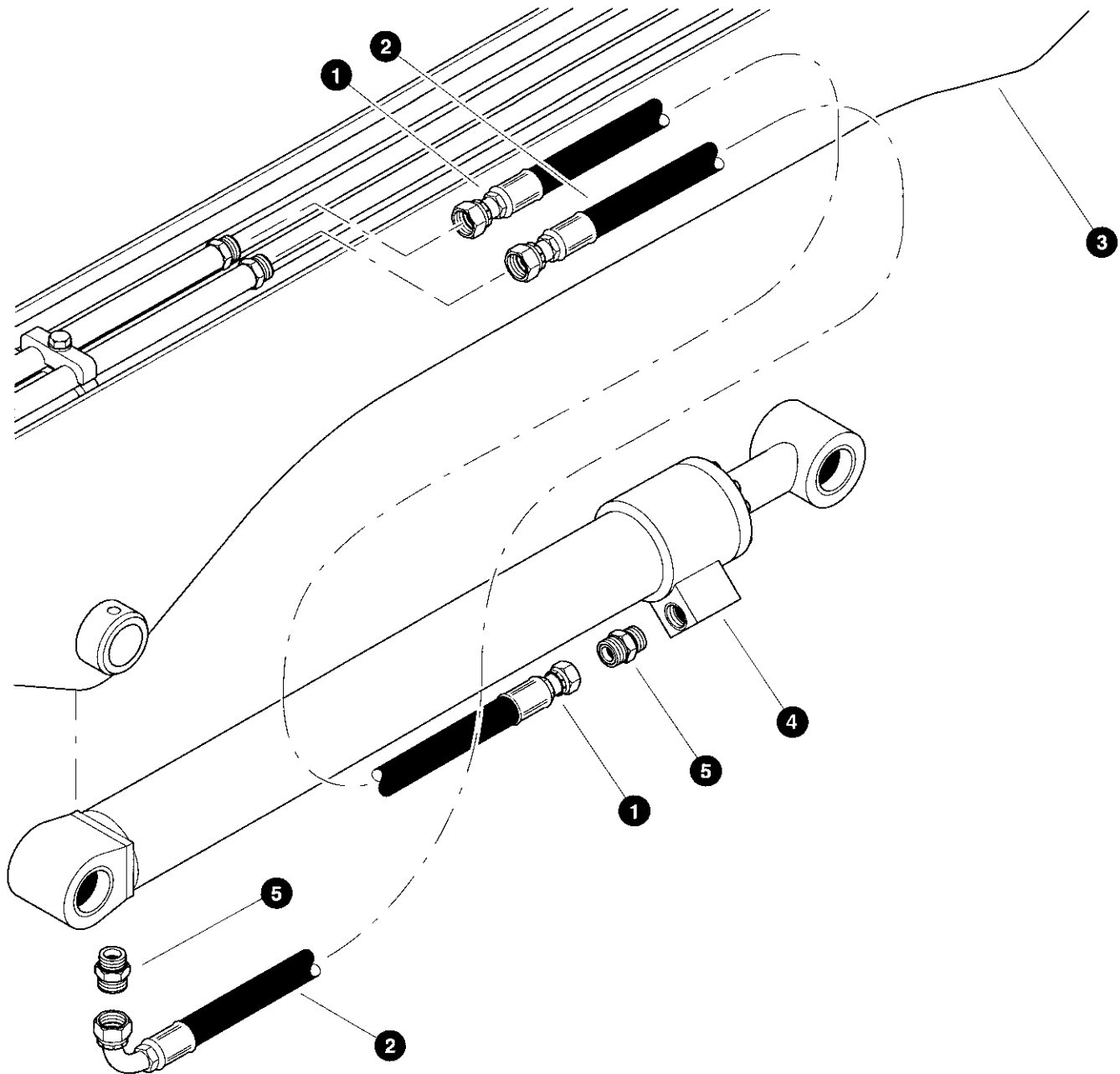


WORK PORT LINES - STICK BOOM FUNCTION

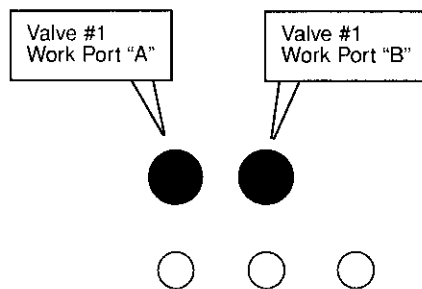
(Main Control Valve To Main Boom Tubelines)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	MAIN CONTROL VALVE	Blue A
2	16851	2		CONNECTOR, straight - FF1852T-1210S	
3	20108	1		HOSE ASSEMBLY - 4069-12-120S-120S (<i>Stick boom valve section #1 work port "A" to main boom upper engine-side tubeline</i>)	
4	20109	1		HOSE ASSEMBLY - 4067-12-120S-120S (<i>Stick boom valve section #1 work port "B" to main boom upper cab-side tubeline</i>)	
5	REF.	1	✓	MAIN BOOM ASSEMBLY	H.1.2

✓ See referenced page for component or assembly breakdown.



Main boom tubeline connections as viewed from the nose of the main boom looking towards the rear of the machine.

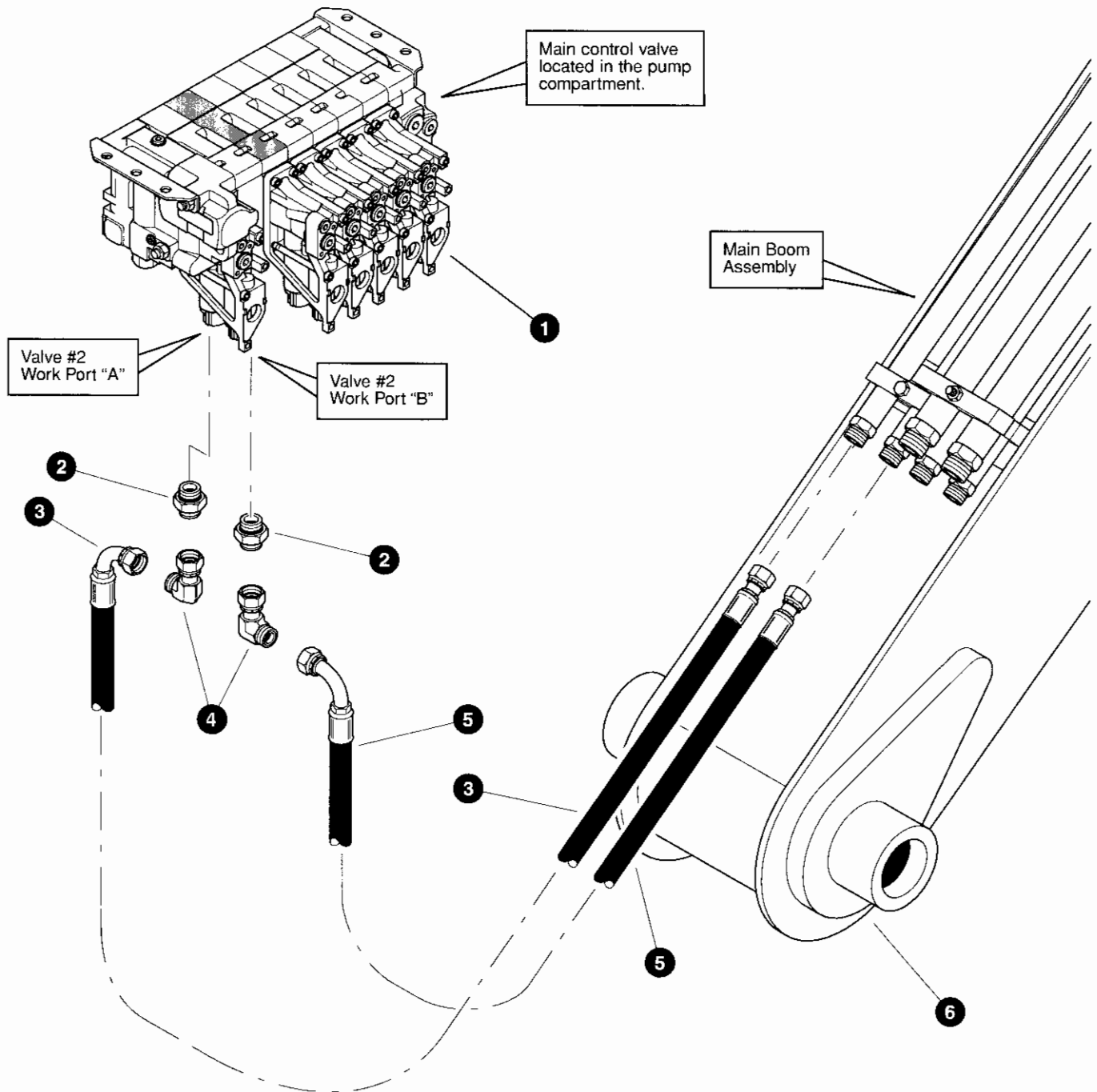


WORK PORT LINES - STICK BOOM FUNCTION

(Main Boom Tubelines To Stick Boom Cylinder)

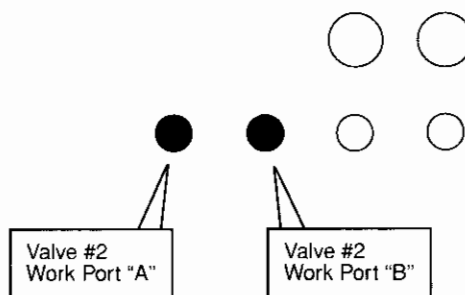
REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	20110	1		HOSE ASSEMBLY - 4057-12-120S-120S (Main boom upper engine-side tubeline to stick boom cylinder rod port)	
2	19007	1		HOSE ASSEMBLY - 4055-12-120S-1209 (Main boom upper cab-side tubeline to stick boom cylinder base port)	
3	REF.	1	✓	MAIN BOOM ASSEMBLY	H.2.2
4	REF.	1	✓	STICK BOOM CYLINDER	E.2.4
5	15152	2		CONNECTOR, straight - FF1852T-1212S	

✓ See referenced page for component or assembly breakdown.



Main boom tubeline connections
as viewed from rear of machine.

Parts 00171 12/15/97
25.00

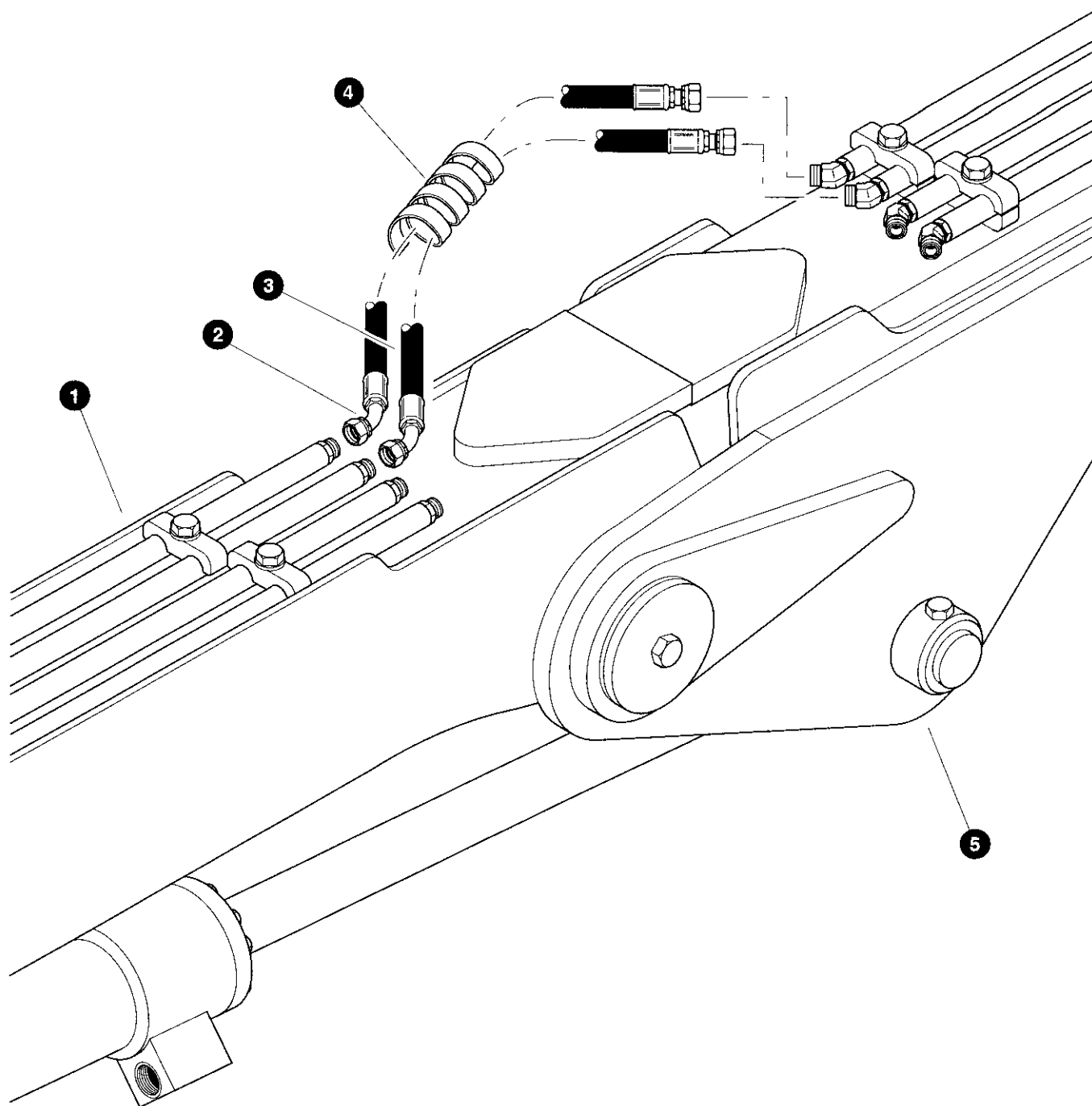


WORK PORT LINES - GRAPPLE OPEN/CLOSE FUNCTION

(Main Control Valve To Main Boom Tubelines)

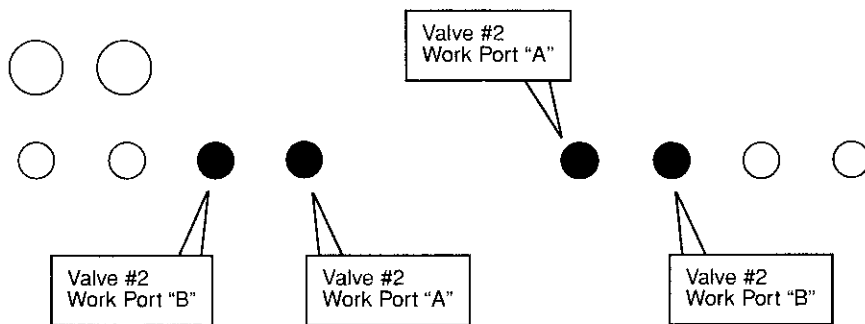
REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	MAIN CONTROL VALVE	Blue A
2	15115	2		CONNECTOR, straight - FF1852T-0810S	
3	16297	2		ELBOW, 90° swivel - FF2098T-0808S	
4	20111	1		HOSE ASSEMBLY - 4069-08-080S-0809 (<i>Grapple valve section #2 work port "A" to main boom lower outer engine-side tubeline</i>)	
5	20111	1		HOSE ASSEMBLY - 4069-08-080S-0809 (<i>Grapple valve section #2 work port "B" to main boom lower middle engine-side tubeline</i>)	
6	REF.	1	✓	MAIN BOOM ASSEMBLY	H.1.2

✓ See referenced page for component or assembly breakdown.



Main boom tubeline connections
as viewed from the nose of the
main boom looking towards the
rear of the machine.

Stick boom tubeline connections
as viewed looking forward
towards the grapple bucket.



Parts 00172 12/15/97
25.00

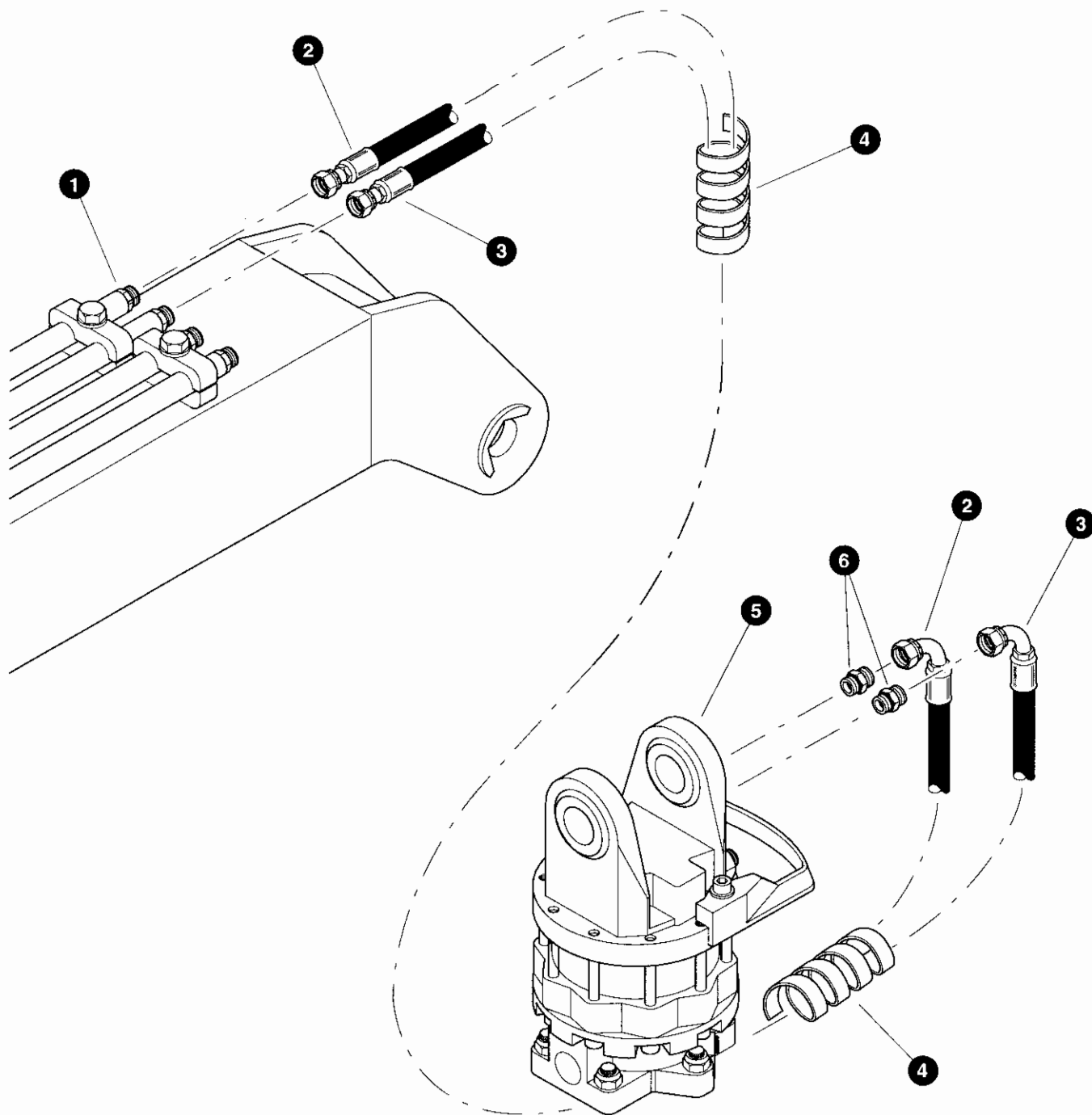
WORK PORT LINES - GRAPPLE OPEN/CLOSE FUNCTION

(Main Boom Tubelines To Stick Boom Tubelines)

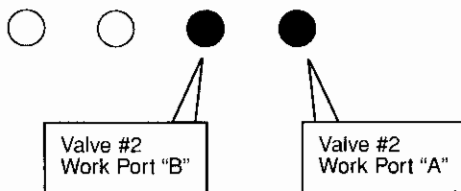
REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	MAIN BOOM ASSEMBLY	H.2.2
2	20112	1		HOSE ASSEMBLY - 4045.5-08-080S-0804 (<i>Main boom lower outer engine-side tubeline to stick boom outer engine-side tubeline</i>)	
3	20113	1		HOSE ASSEMBLY - 4047-08-080S-0804 (<i>Main boom lower middle engine-side tubeline to stick boom middle engine-side tubeline</i>)	
4	19677	AR	✂	PROTECTOR, spiral hose wrap - 1-1/4"	
5	REF.	1	✓	STICK BOOM ASSEMBLY	H.3.2

✓ See referenced page for component or assembly breakdown.

✂ Bulk material - order length required in feet or metres.



Stick boom tubeline connections
as viewed from the nose of the
stick boom looking towards the
rear of the machine.



Parts 00339 12/15/97
25.00

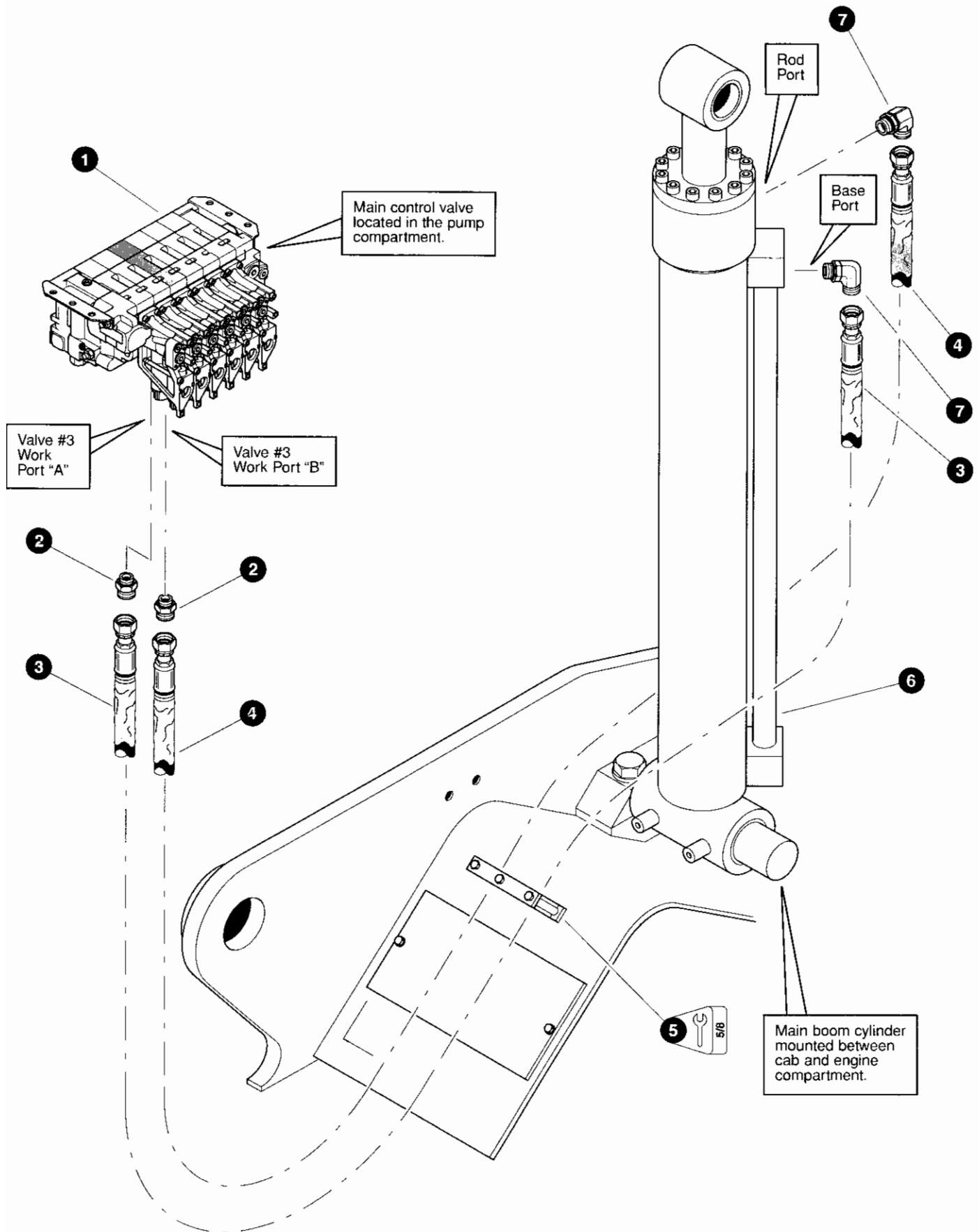
WORK PORT LINES - GRAPPLE OPEN/CLOSE FUNCTION

(Stick Boom Tubelines To Grapple Bucket)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	STICK BOOM ASSEMBLY	H.3.2
2	15268	1		HOSE ASSEMBLY - 4047-08-080S-0809 (Stick boom outer engine-side tubeline to grapple outer engine-side port) (O-ring face seal fitting on both ends)(Used on late production machines)	
	20115	1		HOSE ASSEMBLY - 4047-08-080S-08J9 (Stick boom outer engine-side tubeline to grapple outer engine-side port) (O-ring face seal fitting on one end & JIC fitting on the other end)(Used on early production machines)	
3	15268	1		HOSE ASSEMBLY - 4047-08-080S-0809 (Stick boom middle engine-side tubeline to grapple middle engine-side port) (O-ring face seal fitting on both ends)(Used on late production machines)	
	20115	1		HOSE ASSEMBLY - 4047-08-080S-08J9 (Stick boom middle engine-side tubeline to grapple middle engine-side port) (O-ring face seal fitting on one end & JIC fitting on the other end)(Used on early production machines)	
4	19677	AR	✂	PROTECTOR, spiral hose wrap - 1-1/4"	
5	REF.	1	✓	GRAPPLE BUCKET ROTATOR	Blue F
6	19493	2		CONNECTOR, straight - 8-8-F40ML0-S (Metric to o-ring face seal)(Used on late production machines)	
	19374	2		CONNECTOR, straight - 8-8-F42EDML0-S (Metric to JIC) (Used on early production machines)	

✓ See referenced page for component or assembly breakdown.

✂ Bulk material - order length required in feet or metres.

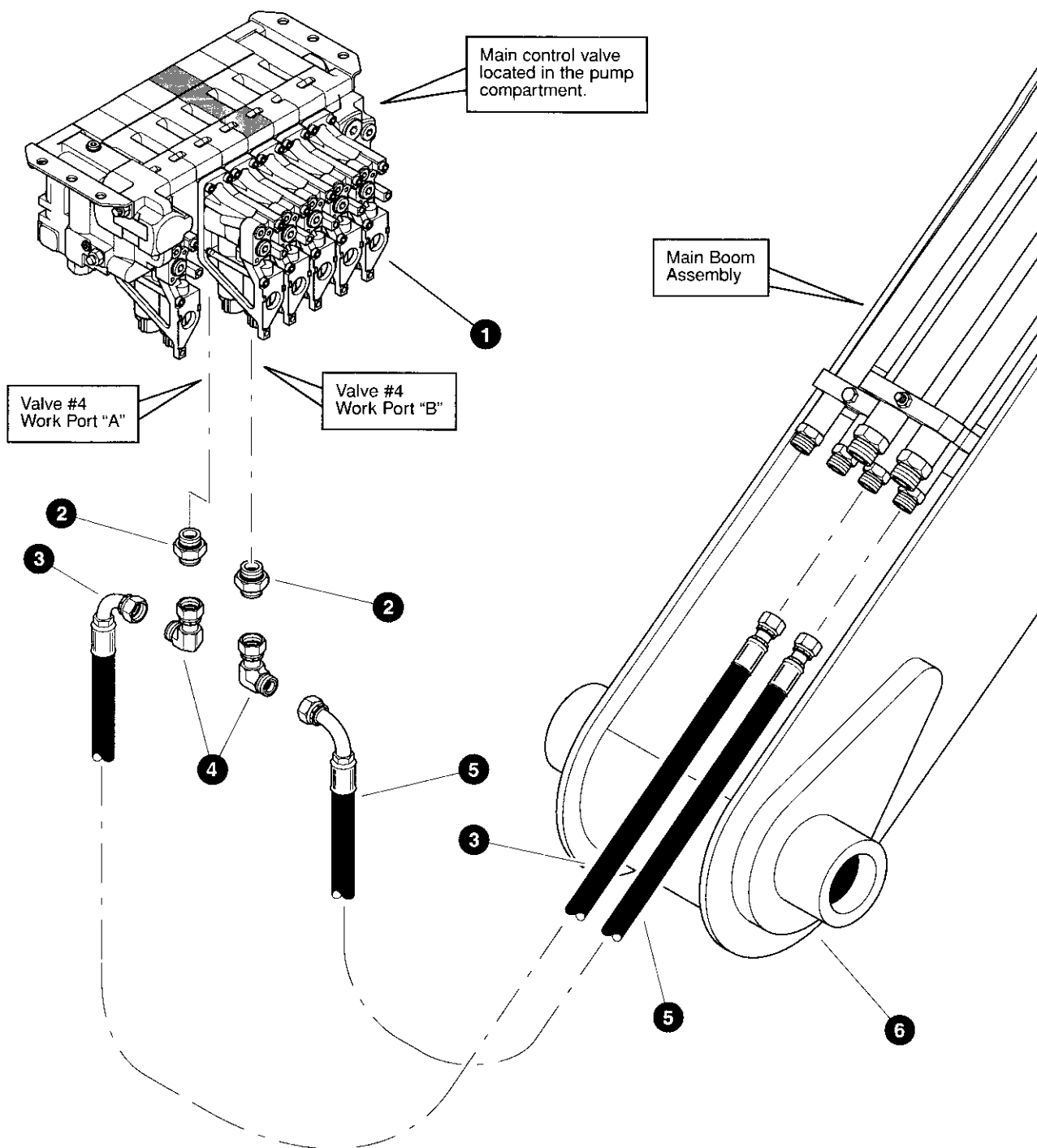


WORK PORT LINES - MAIN BOOM FUNCTION

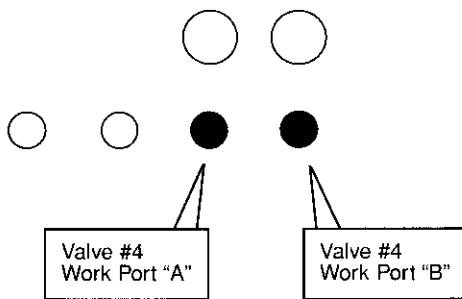
(Main Control Valve To Main Boom (Hoist) Cylinder)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	MAIN CONTROL VALVE	Blue A
2	16851	2		CONNECTOR, straight - FF1852T-1210S	
3	20117	1		HOSE ASSEMBLY - 4128.5-12-120S-120S (<i>Main boom valve section #3 work port "A" to main boom cylinder base port</i>)	
4	20116	1		HOSE ASSEMBLY - 4130.5-12-120S-120S (<i>Main boom valve section #3 work port "B" to main boom cylinder rod port</i>)	
5	12270	1		CLAMP, vermatic - 1-1/2" x 1-1/2"	
6	REF.	1	✓	MAIN BOOM (HOIST) CYLINDER	E.2.1
7	17688	2		ELBOW, 90° - FF1868T-1212S (<i>Used on machines PDN# 021FWD and above</i>)	
7	19128	2		ELBOW, 90° - FF1868T-1216S (<i>Used on machines PDN# 020FWD and below</i>)	

✓ See referenced page for component or assembly breakdown.



Main boom tubeline connections
as viewed from rear of machine.

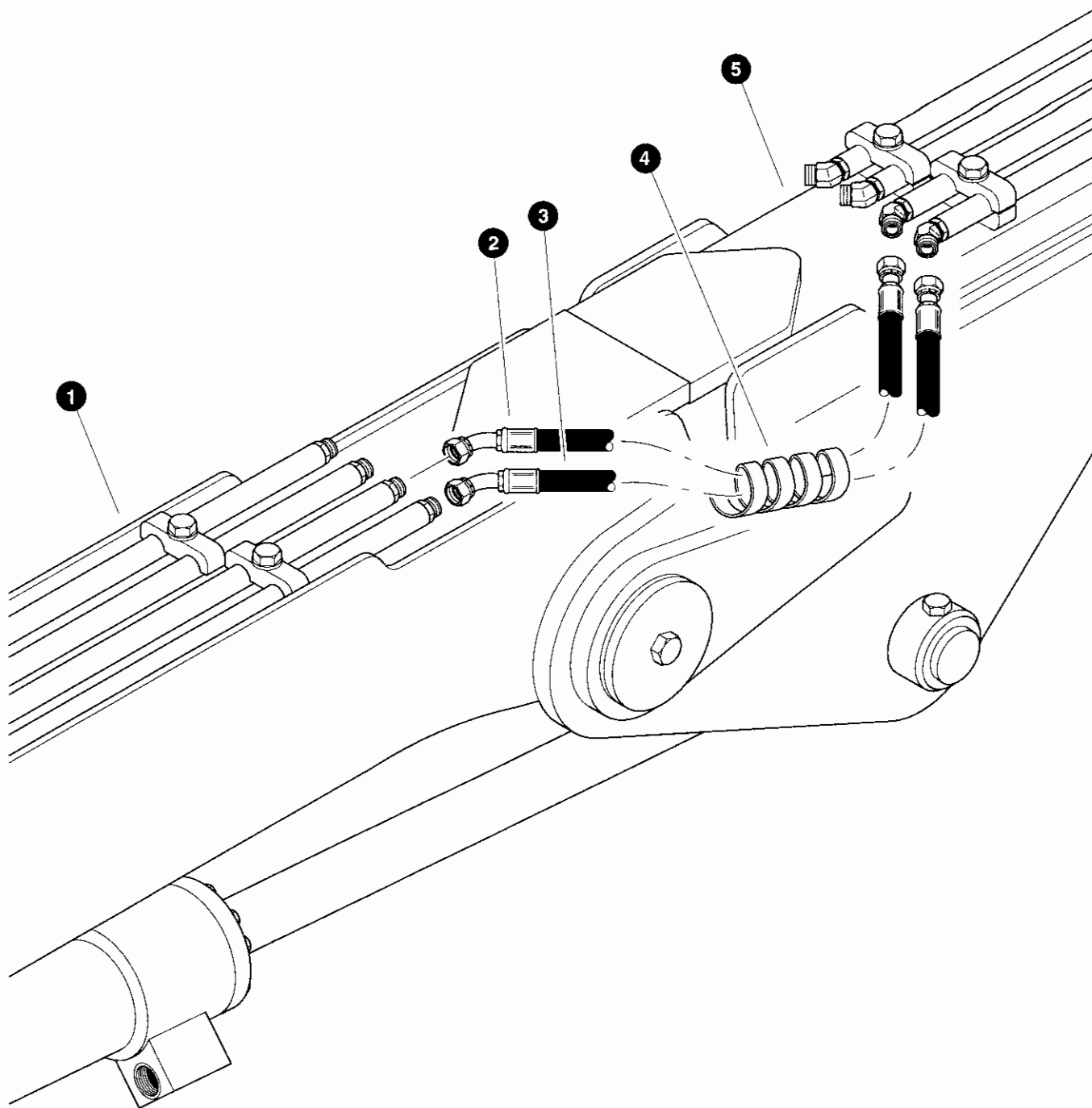


WORK PORT LINES - GRAPPLE ROTATE FUNCTION

(Main Control Valve To Main Boom Tubelines)

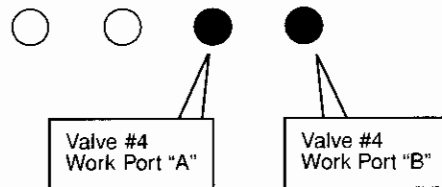
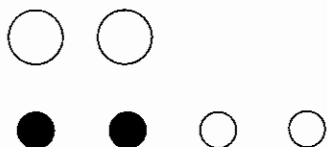
REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	MAIN CONTROL VALVE	Blue A
2	15115	2		CONNECTOR, straight - FF1852T-0810S	
3	16297	2		ELBOW, 90° swivel - FF2098T-0808S	
4	20118	1		HOSE ASSEMBLY - 4067-08-080S-0809 (<i>Grapple rotate valve section #4 work port "A" to main boom lower outer cab-side tubeline</i>)	
5	20118	1		HOSE ASSEMBLY - 4067-08-080S-0809 (<i>Grapple rotate valve section #4 work port "B" to main boom lower middle cab-side tubeline</i>)	
6	REF.	1	✓	MAIN BOOM ASSEMBLY	H.1.2

✓ See referenced page for component or assembly breakdown.



Main boom tubeline connections as viewed from the nose of the main boom looking towards the rear of the machine.

Stick boom tubeline connections as viewed looking forward towards the grapple bucket.



Parts 00169 12/15/97
25.00

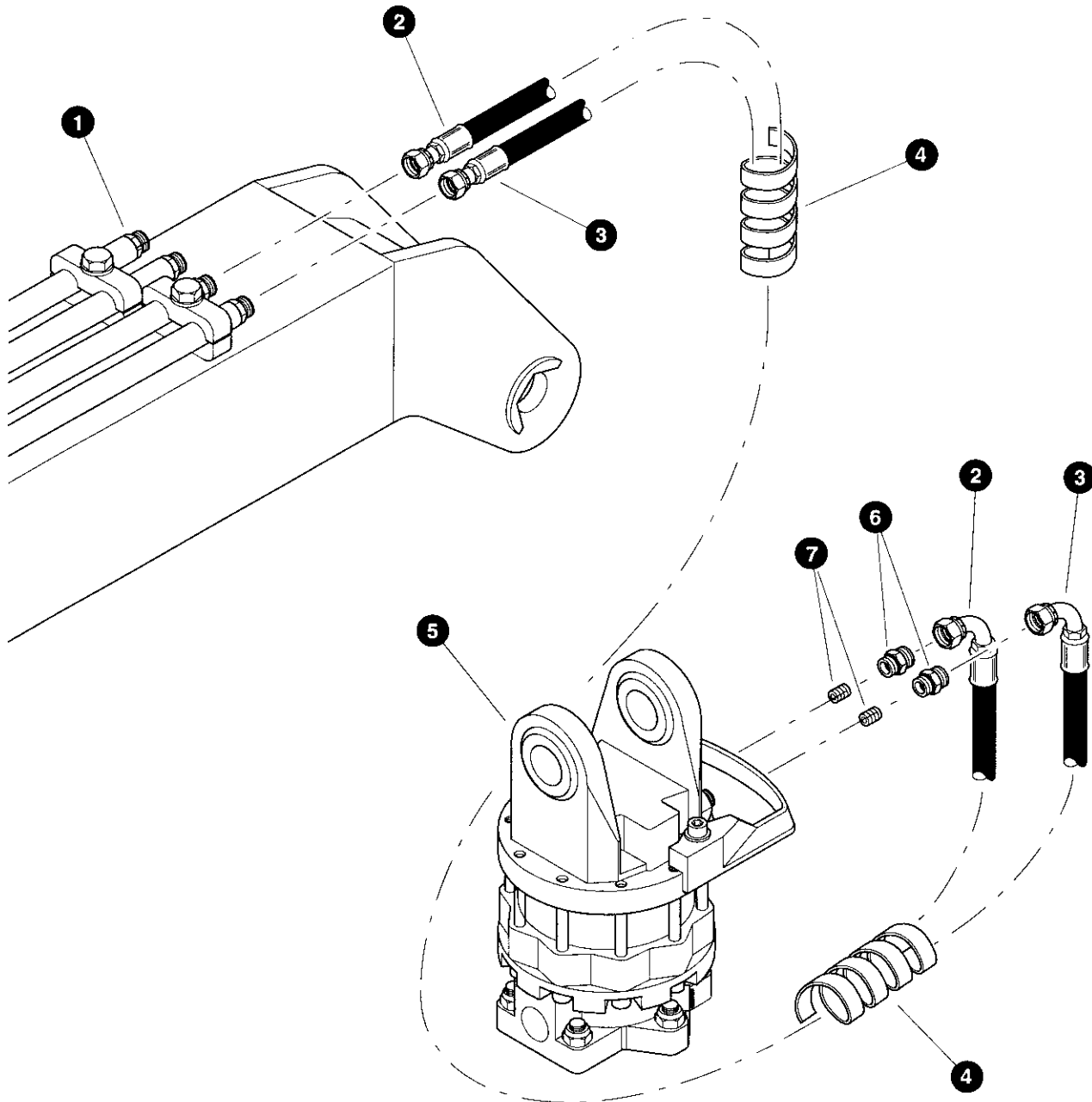
WORK PORT LINES - GRAPPLE ROTATE FUNCTION

(Main Boom Tubelines To Stick Boom Tubelines)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	MAIN BOOM ASSEMBLY	H.2.2
2	20113	1		HOSE ASSEMBLY - 4047-08-080S-0804 (Main boom lower middle cab-side tubeline to stick boom middle cab-side tubeline)	
3	20112	1		HOSE ASSEMBLY - 4045.5-08-080S-0804 (Main boom lower outer cab-side tubeline to stick boom outer cab-side tubeline)	
4	19677	AR	✂	PROTECTOR, spiral hose wrap - 1-1/4"	
5	REF.	1	✓	STICK BOOM ASSEMBLY	H.3.2

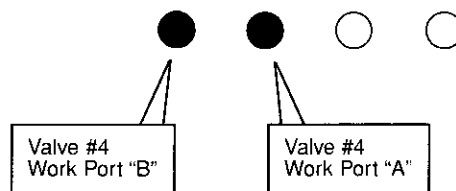
✓ See referenced page for component or assembly breakdown.

✂ Bulk material - order length required in feet or metres.



Stick boom tubeline connections
as viewed from the nose of the
stick boom looking towards the
rear of the machine.

Parts 00344 12/15/97
25.00

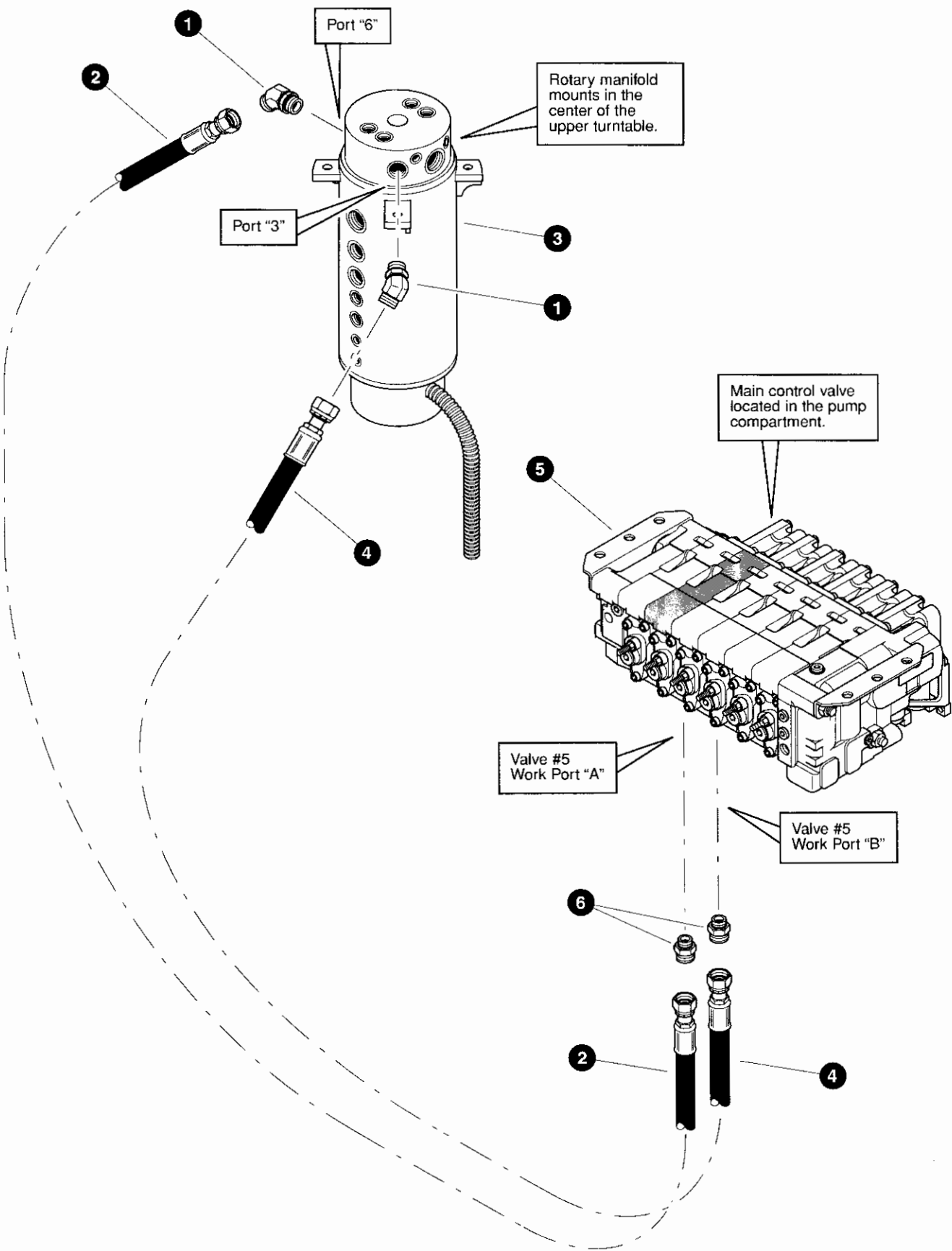


WORK PORT LINES - GRAPPLE ROTATE FUNCTION

(Stick Boom Tubelines To Grapple Bucket)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	STICK BOOM ASSEMBLY	H.3.2
2	15268	1		HOSE ASSEMBLY - 4047-08-080S-0809 (<i>Stick boom outer engine-side tubeline to grapple outer engine-side port</i>) (<i>O-ring face seal fitting on both ends</i>)(Used on late production machines)	
	20115	1		HOSE ASSEMBLY - 4047-08-080S-08J9 (<i>Stick boom outer engine-side tubeline to grapple outer engine-side port</i>) (<i>O-ring face seal fitting on one end & JIC fitting on the other end</i>)(Used on early production machines)	
3	15268	1		HOSE ASSEMBLY - 4047-08-080S-0809 (<i>Stick boom middle engine-side tubeline to grapple middle engine-side port</i>) (<i>O-ring face seal fitting on both ends</i>)(Used on late production machines)	
	20115	1		HOSE ASSEMBLY - 4047-08-080S-08J9 (<i>Stick boom middle engine-side tubeline to grapple middle engine-side port</i>) (<i>O-ring face seal fitting on one end & JIC fitting on the other end</i>)(Used on early production machines)	
4	19677	AR	✂	PROTECTOR, spiral hose wrap - 1-1/4"	
5	REF.	1	✓	GRAPPLE BUCKET ROTATOR	Blue F
6	19492	2	□	CONNECTOR, straight w/orifice - 8-8-F40ML0-S (<i>Metric to o-ring face seal</i>)(Used on late production machines)	
	19111	2	□	CONNECTOR, straight w/orifice - 8-8-F42EDML0-S (<i>Metric to JIC</i>)(Used on early production machines)	
7	20119	2		ORIFICE	

- ✓ See referenced page for component or assembly breakdown.
- ✂ Bulk material - order length required in feet or metres.
- Kit or Assembly - includes all items indented underneath.

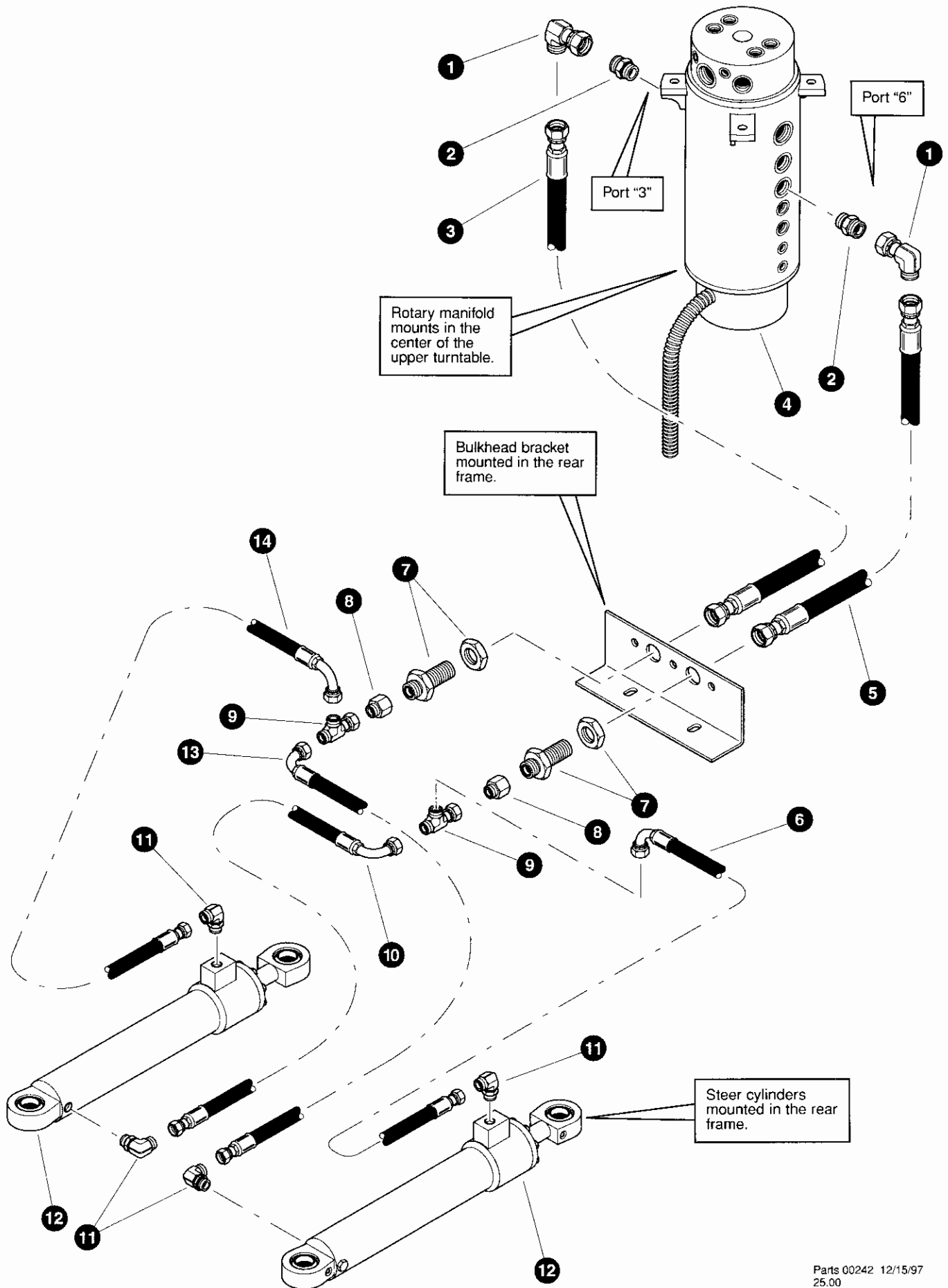


WORK PORT LINES - STEER FUNCTION

(Main Control Valve To Upper Rotary Manifold Ports)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	19127	2	ELBOW, 45° - FF2068T-1212S (ORB to ORS)(Used on machines PDN# 026FWD and above)	
	20139	2	ELBOW, 45° - 12-12-V4OMLO-S (BSPP to ORS)(Used on machines PDN# 025FWD and below)	
2	20120	1	HOSE ASSEMBLY - 4061-12-120S-120S (Steer valve section #5 work port "A" to upper rotary manifold port #6)	
3	REF.	1	✓ ROTARY MANIFOLD ASSEMBLY	D.2.2
4	20121	1	HOSE ASSEMBLY - 4051-12-120S-120S (Steer valve section #5 work port "B" to upper rotary manifold port #3)	
5	REF.	1	✓ MAIN CONTROL VALVE	Blue A
6	16851	2	CONNECTOR, straight - FF1852T-1210S	

✓ See referenced page for component or assembly breakdown.



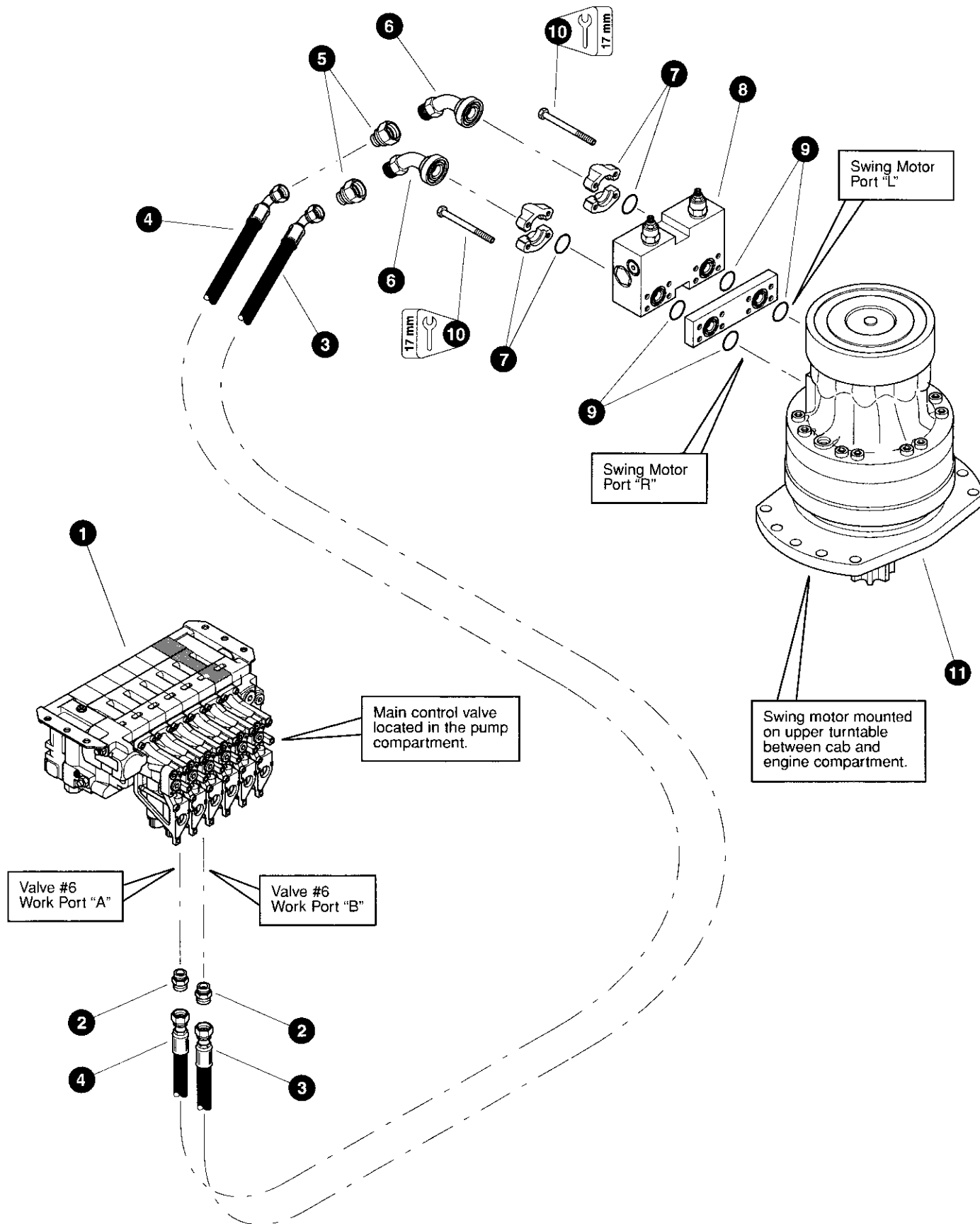
Parts 00242 12/15/97
25.00

WORK PORT LINES - STEER FUNCTION

(Lower Rotary Manifold Ports To Steer Cylinders)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	17670	2	ELBOW, 90° - FF2098T-1212S	
2	15152	2	CONNECTOR, straight - FF1852T-1212S (<i>ORB to ORS</i>) (Used on machines PDN# 026FWD and above)	
	19375	2	CONNECTOR, straight - 12F42EDMLO-S (<i>BSPP to ORS</i>) (Used on machines PDN# 025FWD and below)	
3	20122	1	HOSE ASSEMBLY - 4105-12-120S-120S (<i>Lower rotary manifold port #3 to left bulkhead fitting</i>)	
4	REF.	1	✓ ROTARY MANIFOLD ASSEMBLY D.2.2	
5	20123	1	HOSE ASSEMBLY - 4107-12-120S-120S (<i>Lower rotary manifold port #6 to right bulkhead fitting</i>)	
6	20124	1	HOSE ASSEMBLY - 4028-08-080S-0809 (<i>Right bulkhead tee to right steer cylinder rod port</i>)	
7	19754	2	CONNECTOR, straight bulkhead - 12WLO-WLNL-S	
8	18581	2	CONNECTOR, reducer - FF2281T-0812S	
9	15433	2	TEE - FF2114T-0808S	
10	20125	1	HOSE ASSEMBLY - 4043-08-080S-0809 (<i>Right bulkhead tee to left steer cylinder base port</i>)	
11	16360	4	ELBOW, 90° - FF1868T-0808S	
12	REF.	2	✓ STEER CYLINDER E.2.6	
13	20125	1	HOSE ASSEMBLY - 4043-08-080S-0809 (<i>Left bulkhead tee to right steer cylinder base port</i>)	
14	20124	1	HOSE ASSEMBLY - 4028-08-080S-0809 (<i>Left bulkhead tee to left steer cylinder rod port</i>)	

✓ See referenced page for component or assembly breakdown.

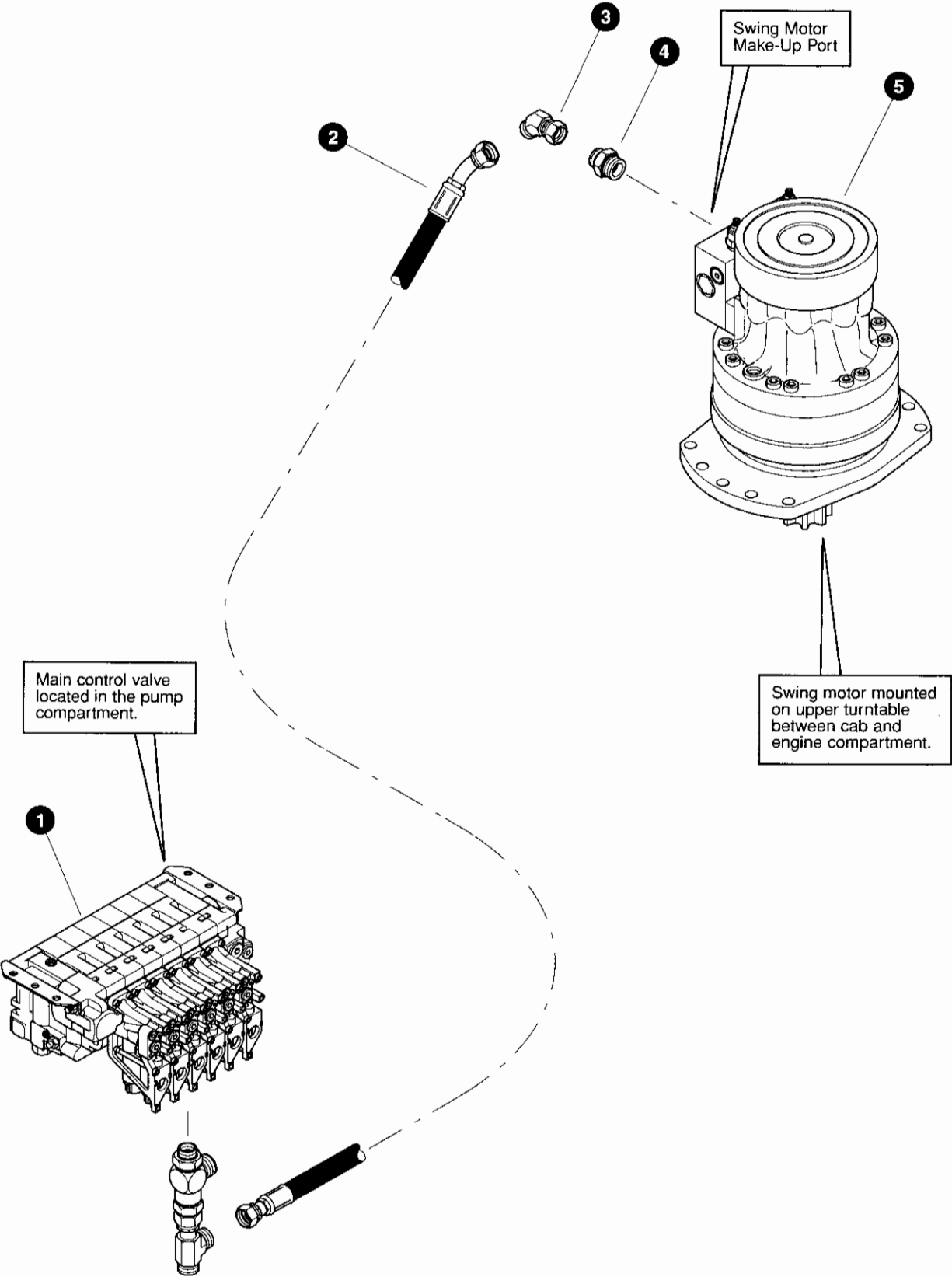


WORK PORT LINES - SWING FUNCTION

(Main Control Valve To Swing Motor)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	MAIN CONTROL VALVE	Blue A
2	15115	4		CONNECTOR, straight - FF1852T-0810S	
3	20129	1		HOSE ASSEMBLY - 4051-08-080S-0804 (<i>Swing valve section #6 work port "B" to swing motor port "R"</i>)	
4	20130	1		HOSE ASSEMBLY - 4056.5-08-080S-0804 (<i>Swing valve section #6 work port "A" to swing motor port "L"</i>)	
5	18581	2		CONNECTOR, reducer - FF2281T-0812S	
6	17457	2		ADAPTER, 45° flange - 3/4" (<i>Code 62</i>)	
7	16660	2	□	KIT, split flange - 3/4" (<i>Code 62</i>)	
	16918	1		O-RING - 3/4" SF	
8	REF.	1	□	ANTI-CAVITATION VALVE	D.2.4
9	16918	4		O-RING - 3/4" SF	
10	19196	8		BOLT - 10mm x 120mm	
11	REF.	1	✓	SWING MOTOR	C.2.4

- ✓ See referenced page for component or assembly breakdown.
 □ Kit or Assembly - includes all items indented underneath.

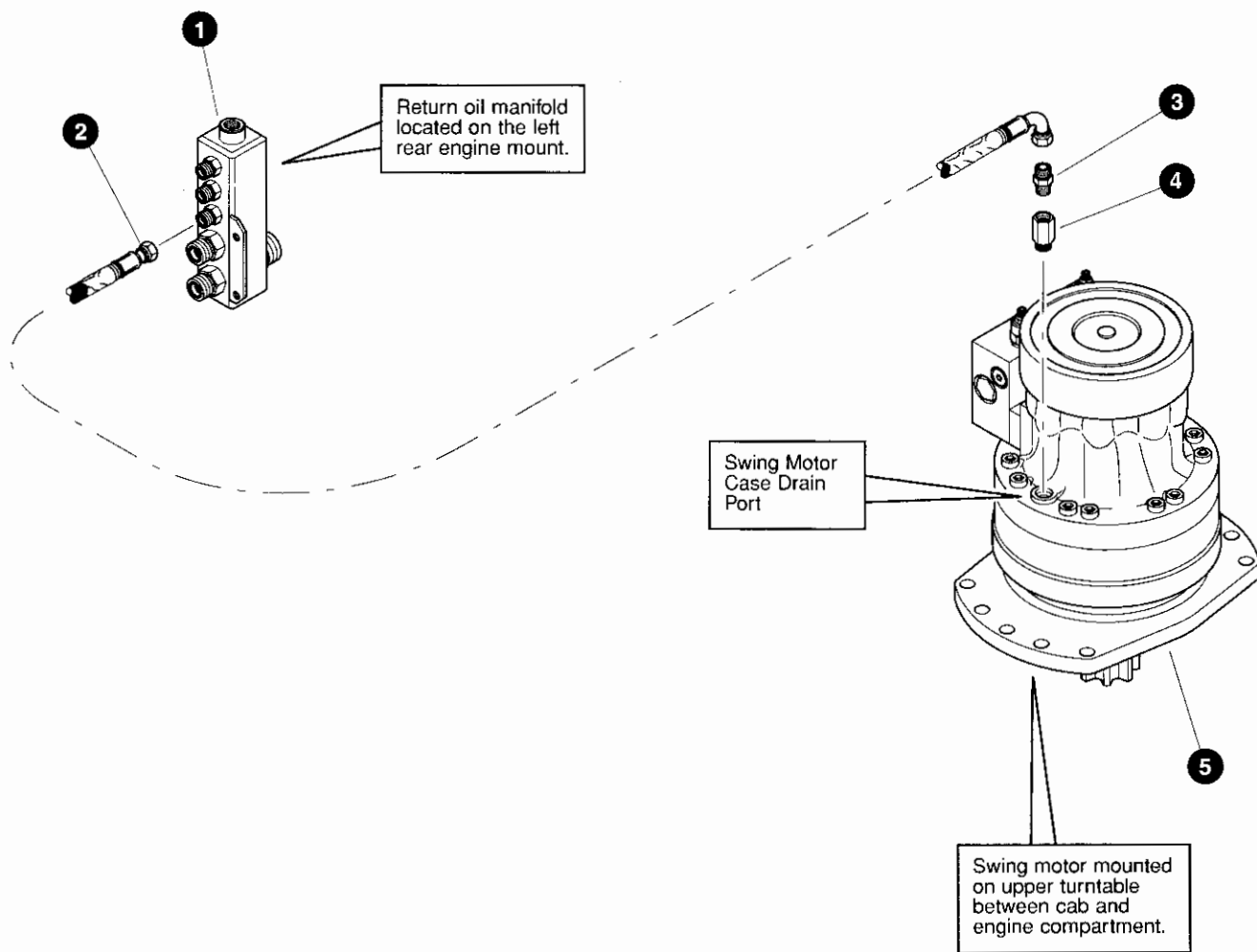


WORK PORT LINES - SWING FUNCTION MAKE-UP CIRCUIT

(Main Control Valve To Swing Motor Anti-Cavitation Valve)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	MAIN CONTROL VALVE	Blue A
2	19592	1		ELBOW, 45° swivel - FF2133T-1212S	
3	20126	1		HOSE ASSEMBLY - 2046-12-120S-1204 (<i>Main control valve swing motor make-up oil port tee to swing motor anti-cavitation valve</i>)	
4	15152	1		CONNECTOR, straight - FF1852T-1212S	
5	REF.	1	✓	SWING MOTOR	C.2.4

✓ See referenced page for component or assembly breakdown.

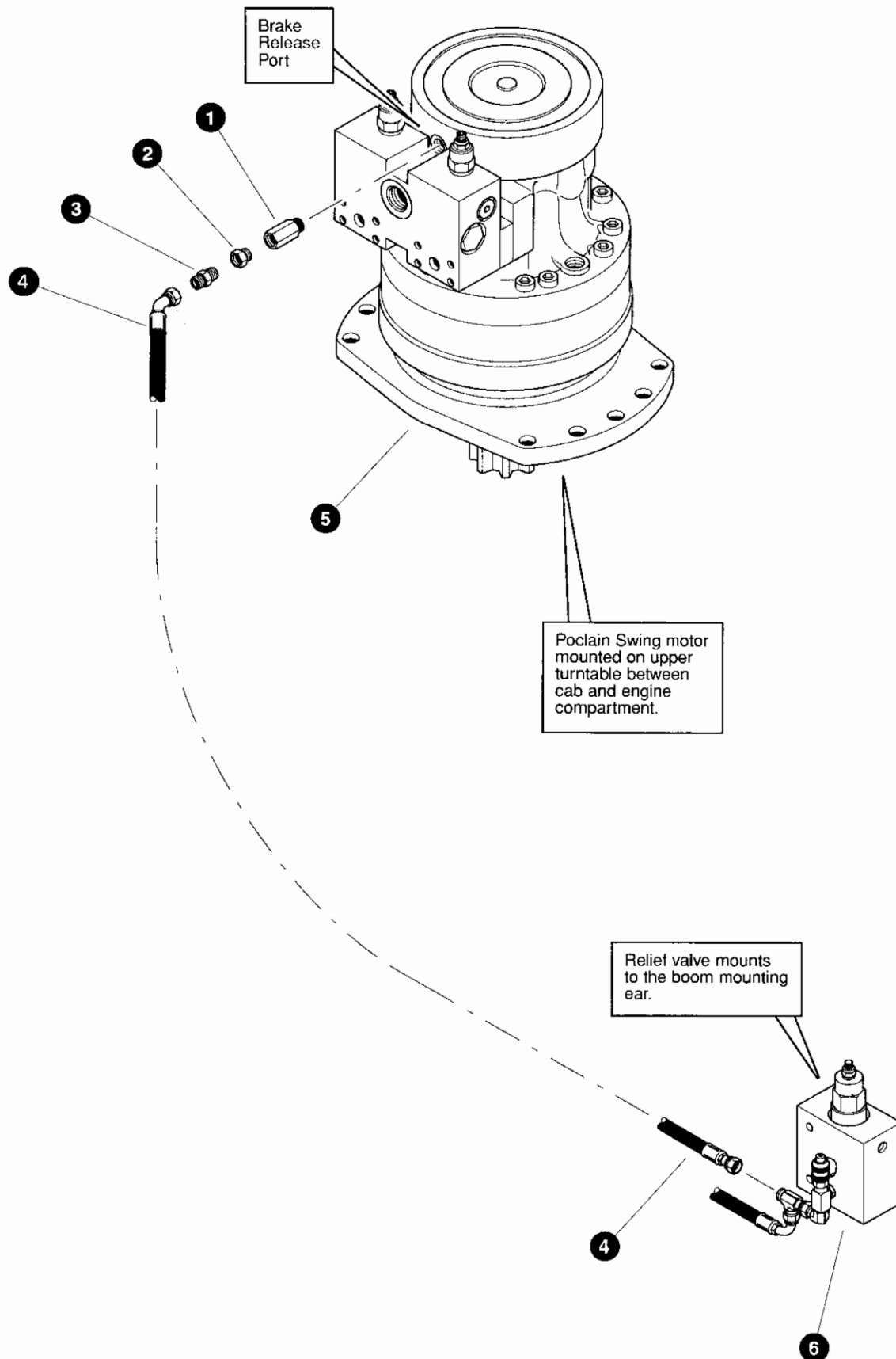


WORK PORT LINES - SWING MOTOR CASE DRAIN CIRCUIT

(Swing Motor To Return Oil Manifold)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	18584	1	MANIFOLD, return oil	
2	20127	1	HOSE ASSEMBLY - 4087-08-080S-0809 (<i>Swing motor case drain port to return oil manifold</i>)	
3	15258	1	CONNECTOR, straight - FF1852T-0808S	
4	17584	1	BUSHING, reducer - 7455-8-22mm	
5	REF.	1	✓ SWING MOTOR	C.2.4

✓ See referenced page for component or assembly breakdown.

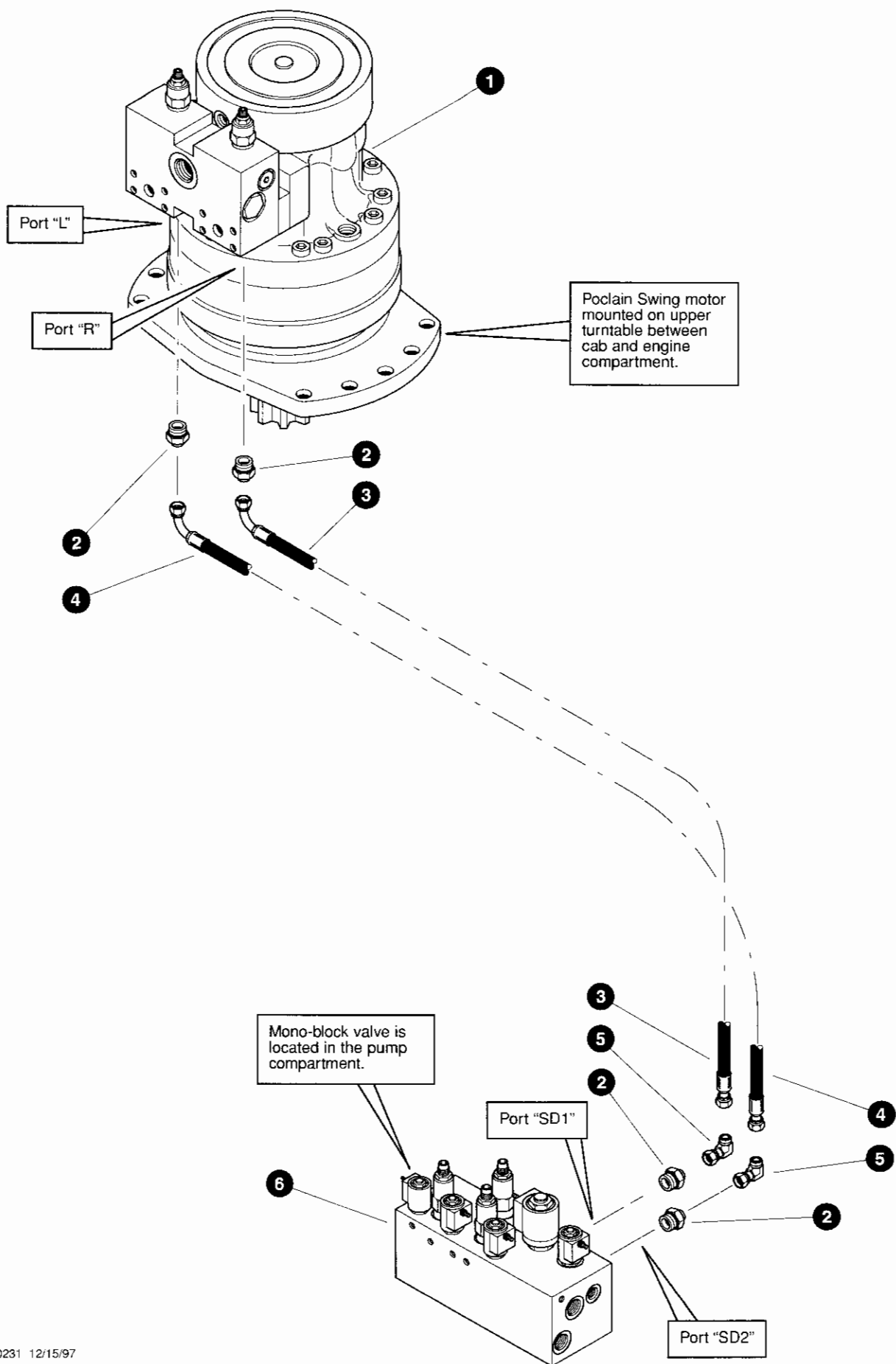


SWING MOTOR BRAKE RELEASE

(From Relief Valve To Swing Motor Brake Release)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	17585	1		BUSHING, reducer - 7455-6-16mm	
2	11318	1		BUSHING, reducer - 5406-6-4	
3	15131	1		CONNECTOR, straight - FF2031T-0404S	
4	15276	1		HOSE ASSEMBLY - 2066-04-040S-0404 (<i>Relief valve tee to swing motor brake release port</i>)	
5	REF.	1	✓	SWING MOTOR	C.2.4
6	REF.	1	✓	RELIEF VALVE	D.1.2

✓ See referenced page for component or assembly breakdown.



SWING DETENT LINES

(From Mono-Block Valve To Swing Motor Counterbalance Valve)

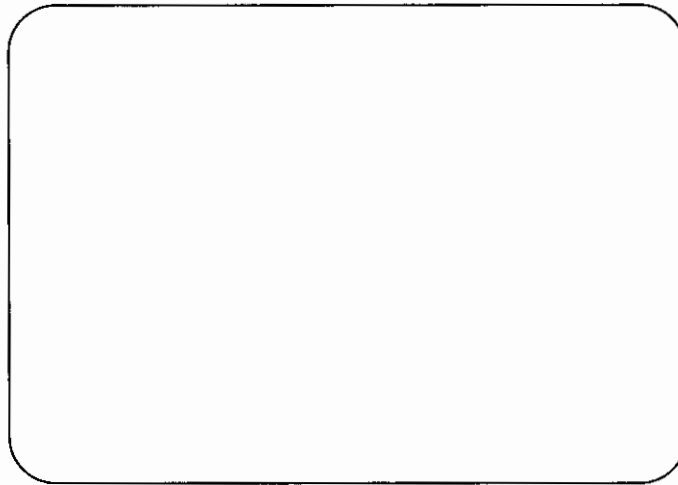
REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	SWING MOTOR	C.2.4
2	15504	4		CONNECTOR, straight - FF1852T-0408S	
3	20128	1		HOSE ASSEMBLY - 2076-04-040S-0409 (<i>Mono-block port "SD1"</i> <i>to swing motor detent port "R"</i>)	
4	20001	1		HOSE ASSEMBLY - 2082-04-040S-0409 (<i>Mono-block port "SD2"</i> <i>to swing motor detent port "L"</i>)	
5	15145	2		ELBOW, 90° swivel - FF2098T-0404S	
6	REF.	1	✓	MONO-BLOCK VALVE	D.1.6

✓ See referenced page for component or assembly breakdown.

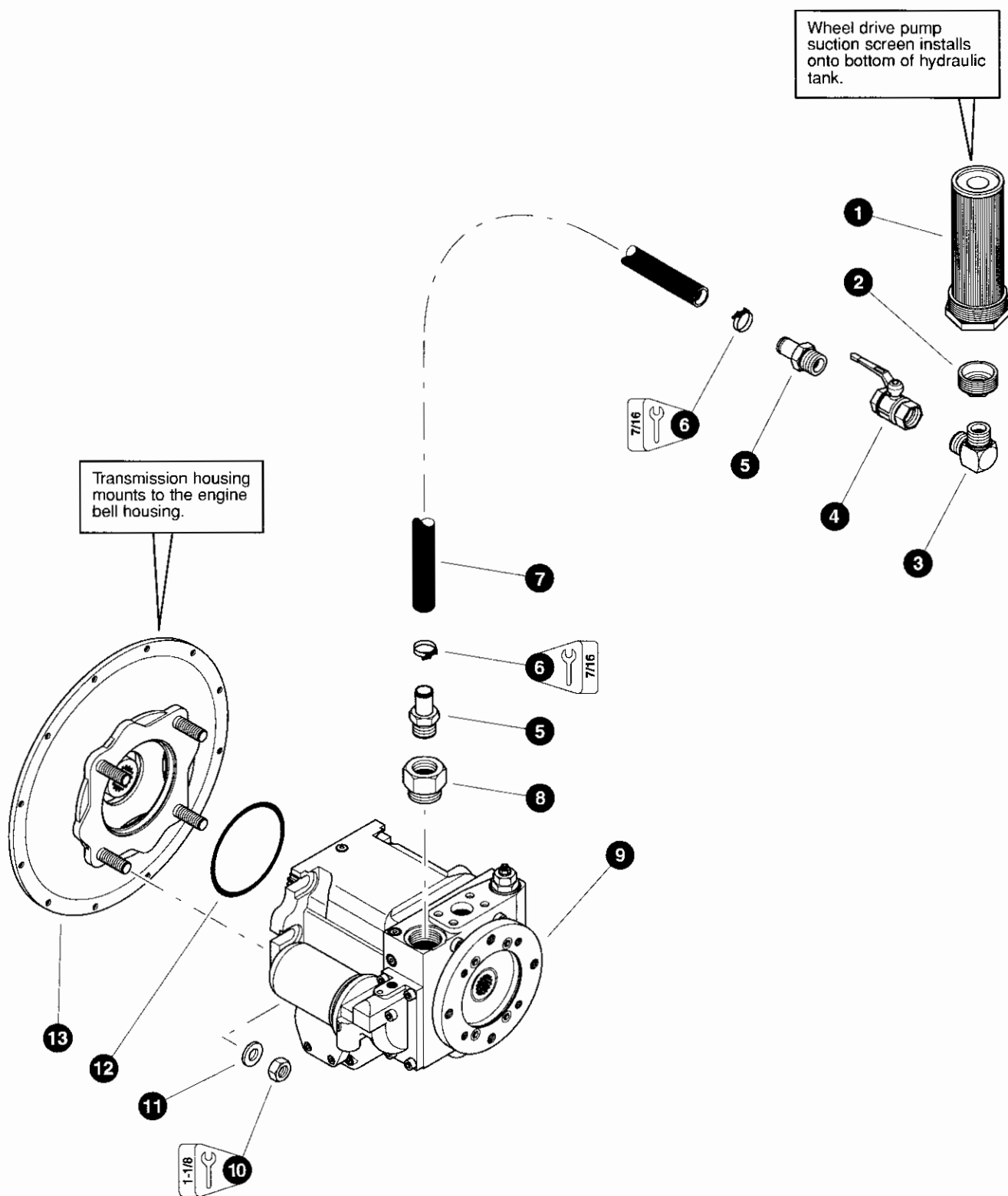
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Section B.3



Hydraulic Circuits - Wheel Drive

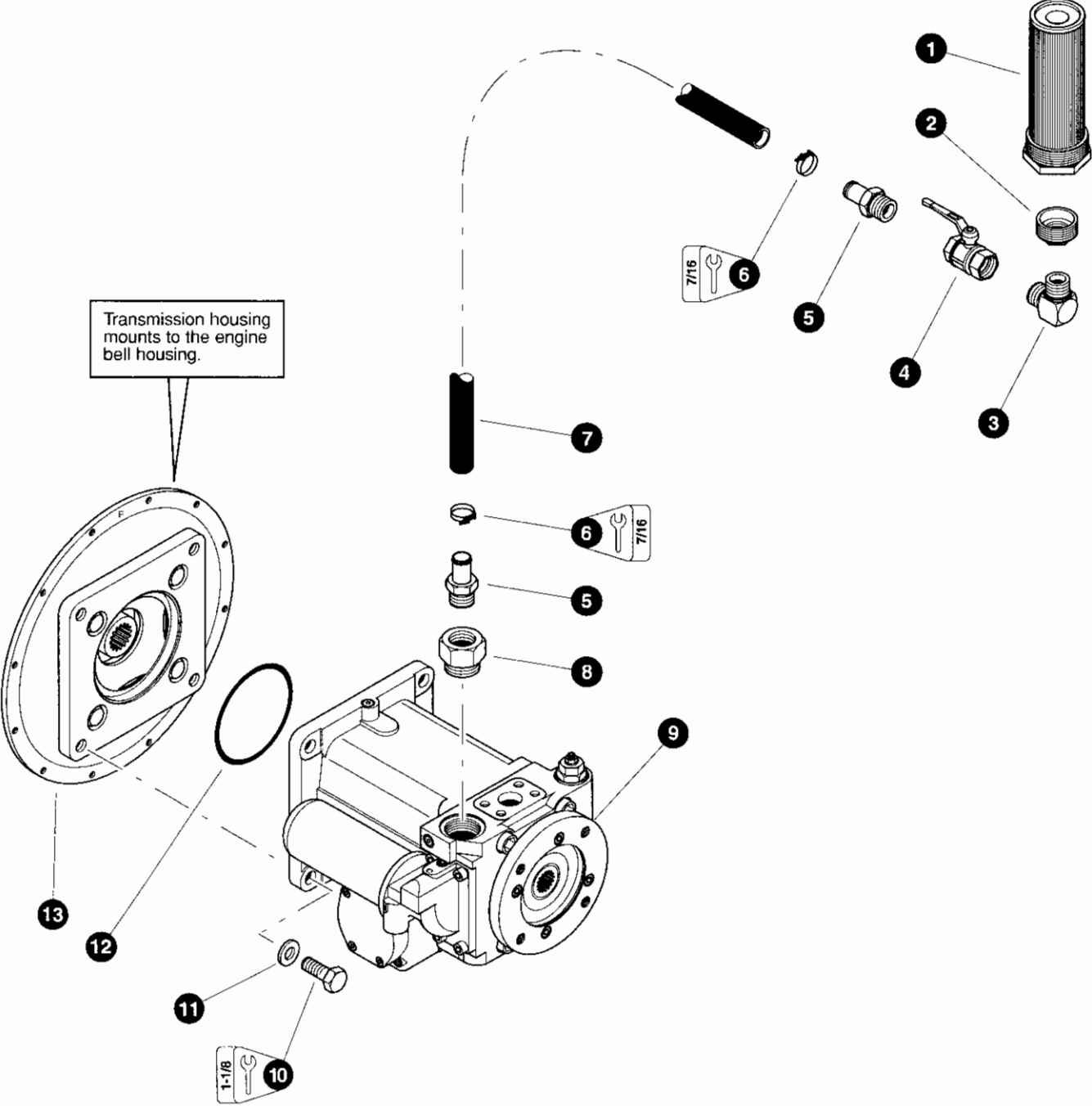


WHEEL DRIVE PUMP SUCTION LINE (Rexroth AA4VG125 Wheel Drive Pump)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	15326	1	FILTER, screen - 100 mesh	
2	16760	1	BUSHING, black reducer - 2" x 1"	
3	16373	1	ELBOW, 90° street - 5502-16	
4	16706	1	VALVE, ball - 1"	
5	16375	2	NIPPLE, king - 4404-16-16	
6	19578	2	CLAMP, strap band - 1-3/4"	
7	20141	1	HOSE, suction - 1015-16	
8	17609	1	BUSHING, reducer - 6405-20-16	
9	REF.	1	✓ WHEEL DRIVE PUMP - Rexroth AA4VG125	C.3.2
10	10776	4	NUT, hex - 3/4"	
11	15550	4	WASHER, SAE flat - 3/4"	
12	15442-2	1	O-RING	
13	REF.	1	✓ TRANSMISSION HOUSING	Varies

- ✓ See referenced page for component or assembly breakdown.
 □ Kit or Assembly - includes all items indented underneath.

Wheel drive pump suction screen installs onto bottom of hydraulic tank.

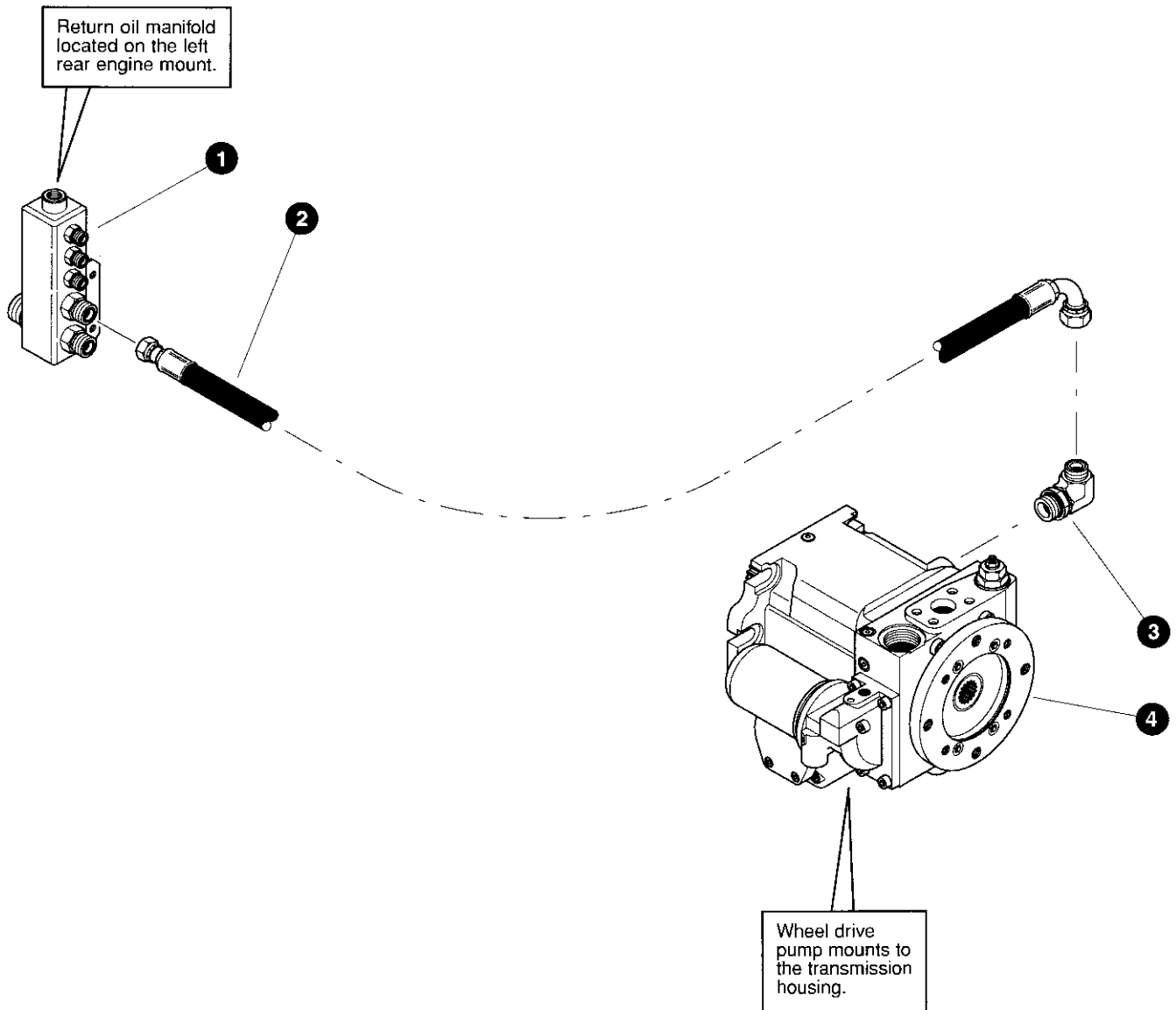


WHEEL DRIVE PUMP SUCTION LINE

(Rexroth AA4VG180 Wheel Drive Pump)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	15326	1	FILTER, screen - 100 mesh	
2	16760	1	BUSHING, black reducer - 2" x 1"	
3	16373	1	ELBOW, 90° street - 5502-16	
4	16706	1	VALVE, ball - 1"	
5	16375	2	NIPPLE, king - 4404-16-16	
6	19578	2	CLAMP, strap band - 1-3/4"	
7	20142	1	HOSE, suction - 1017-16	
8	17609	1	BUSHING, reducer - 6405-20-16	
9	REF.	1	✓ WHEEL DRIVE PUMP - Rexroth AA4VG180	C.3.12
10	15549	4	BOLT - 3/4" x 2"	
11	15550	4	WASHER, SAE flat - 3/4"	
12	15442-2	1	O-RING	
13	REF.	1	✓ TRANSMISSION HOUSING	Varies

- ✓ See referenced page for component or assembly breakdown.
 □ Kit or Assembly - includes all items indented underneath.

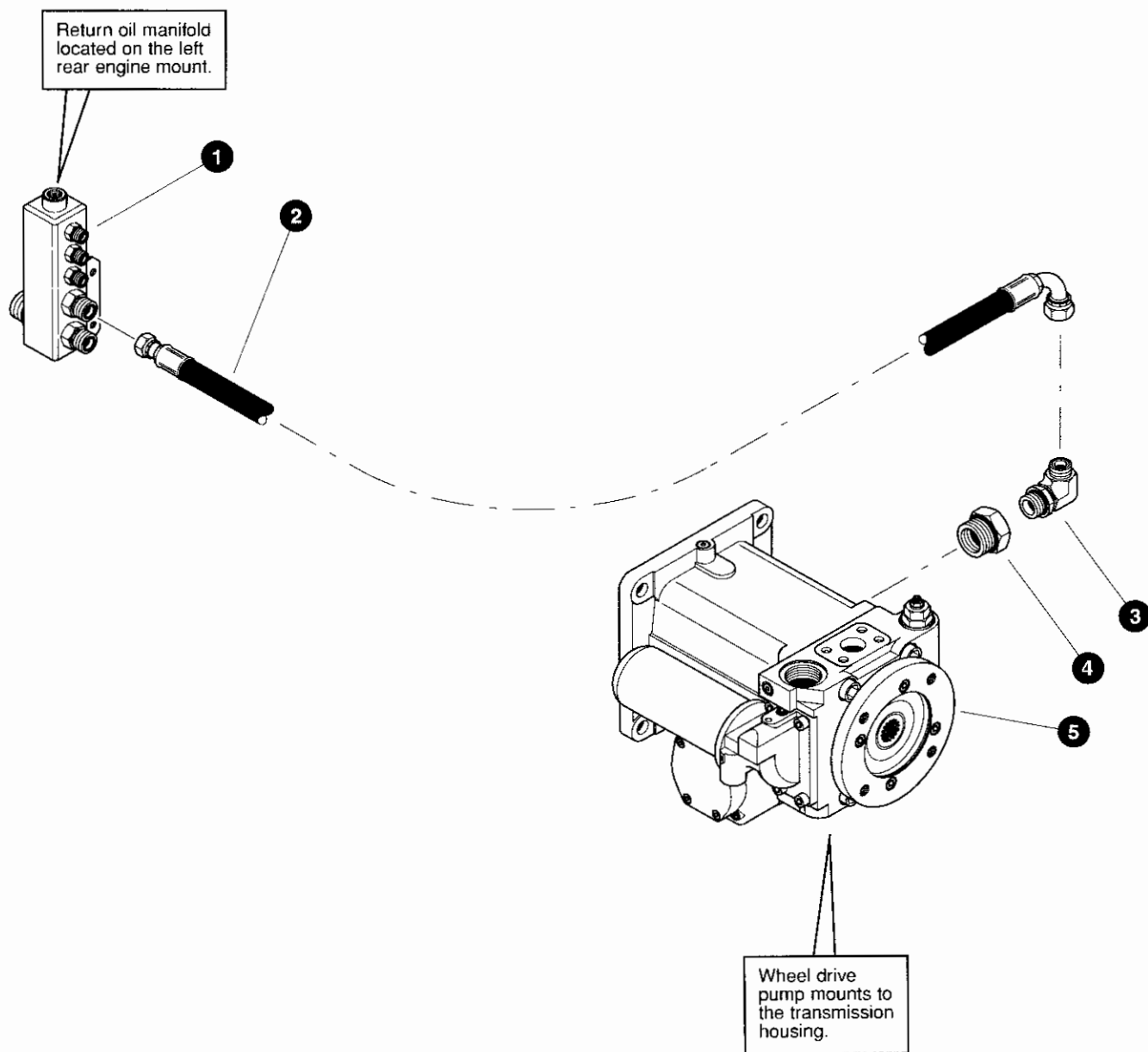


WHEEL DRIVE PUMP CASE DRAIN LINE

(Rexroth AA4VG125 Wheel Drive Pump)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	17547	1		MANIFOLD, return oil	
2	20144	1		HOSE ASSEMBLY - 2036-12-120S-1209 (<i>Wheel drive pump case drain port to return oil manifold</i>)	
3	19128	1		ELBOW, 90° - FF1868T-1216S	
4	REF.	1	✓	WHEEL DRIVE PUMP - Rexroth AAV4G125	C.3.2

✓ See referenced page for component or assembly breakdown.

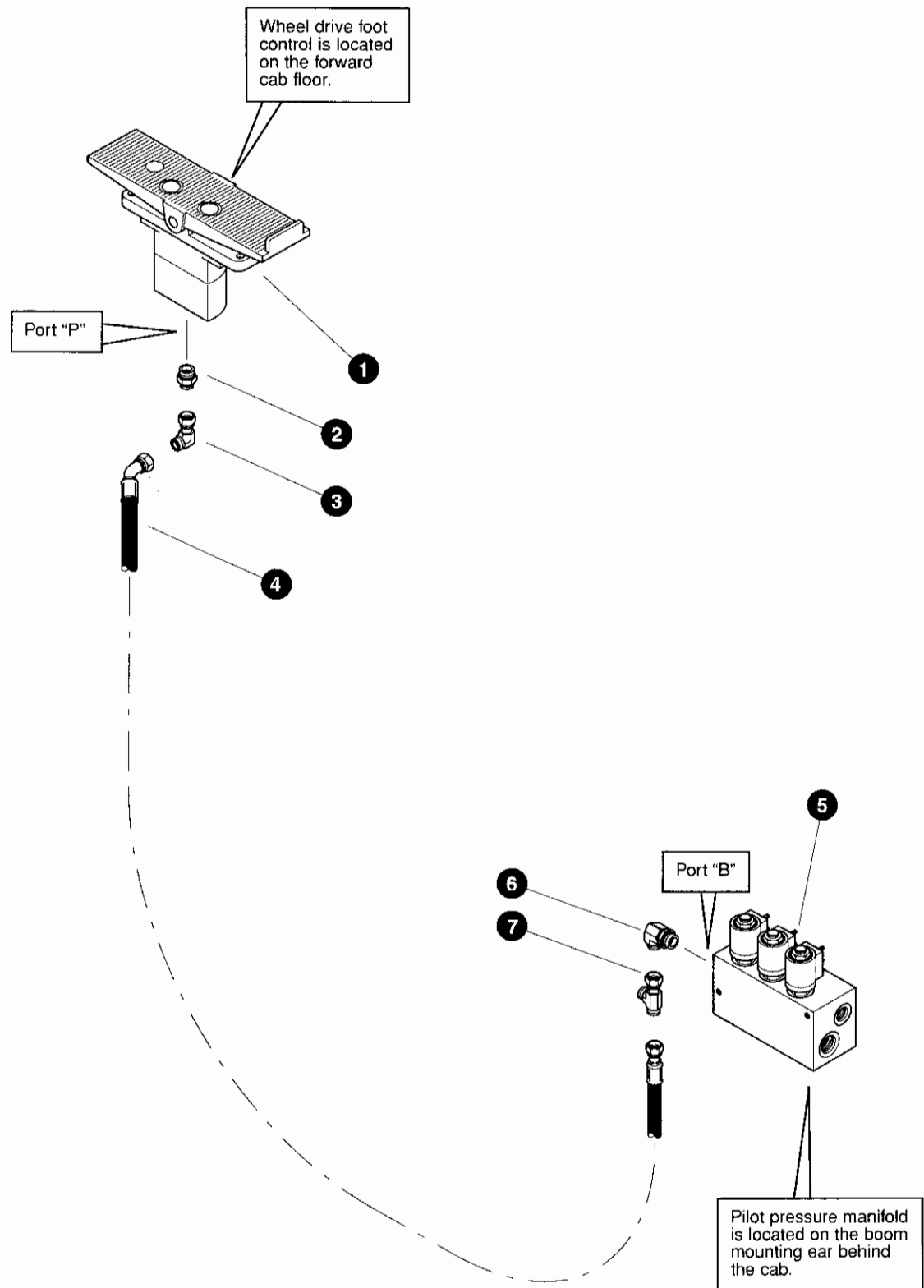


WHEEL DRIVE PUMP CASE DRAIN LINE

(Rexroth AA4VG180 Wheel Drive Pump)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	17547	1	MANIFOLD, return oil	
2	20144	1	HOSE ASSEMBLY - 2036-12-120S-1209 (<i>Wheel drive pump case drain port to return oil manifold</i>)	
3	19128	1	ELBOW, 90° - FF1868T-1216S	
4	17609	1	BUSHING, reducer - 6405-20-16	
5	REF.	1	✓ WHEEL DRIVE PUMP - Rexroth AA4VG180	C.3.12

✓ See referenced page for component or assembly breakdown.



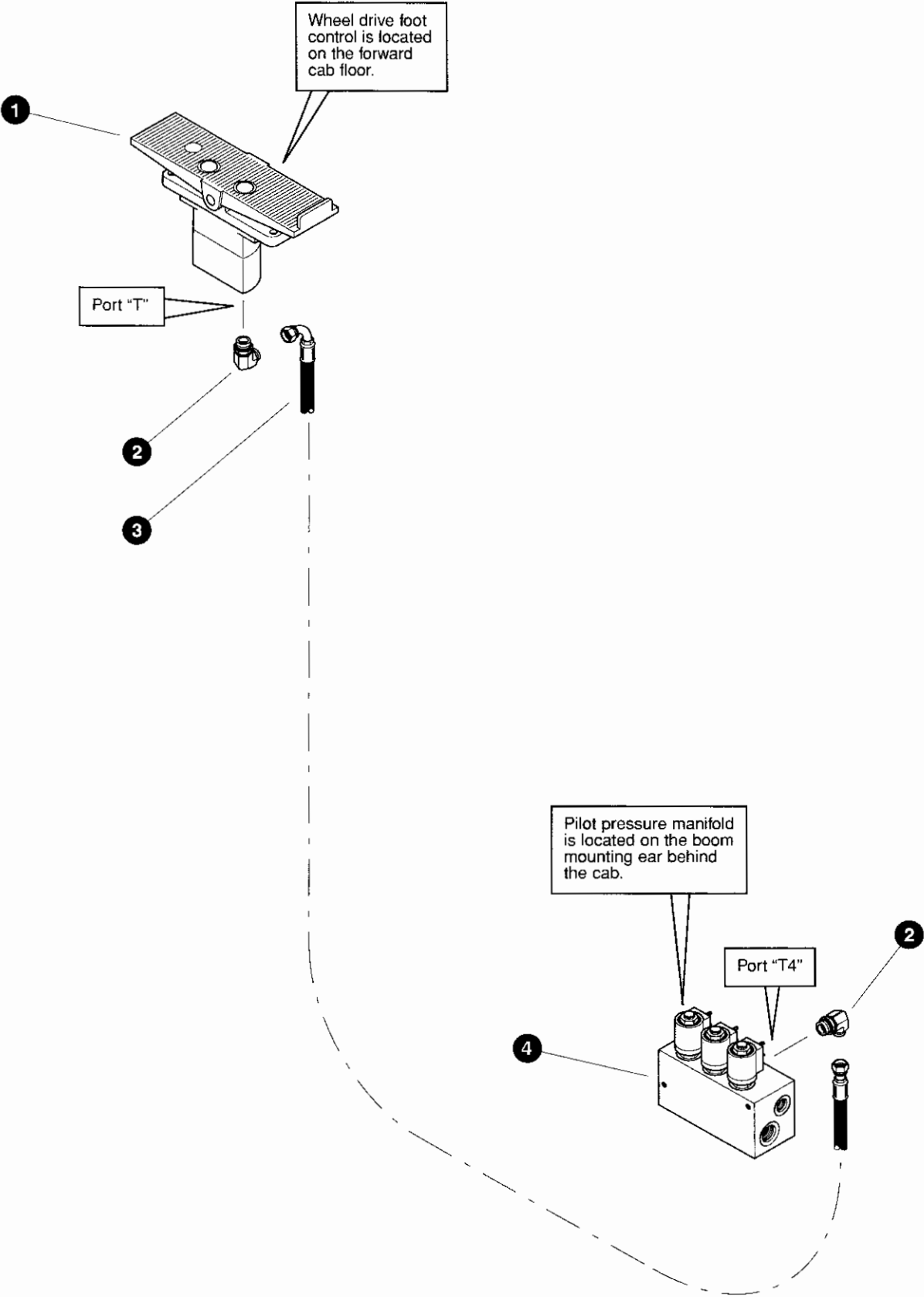
WHEEL DRIVE FOOT CONTROL LINES

(From Pilot Pressure Manifold To Wheel Drive Foot Control)

(Used only on machines PDN# 037FWD and below)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	WHEEL DRIVE FOOT CONTROL	D.3.2
2	15124	1		CONNECTOR, straight - FF1852T-0406S	
3	15145	1		ELBOW, 90° swivel - FF2098T-0404S	
4	20086	1		HOSE ASSEMBLY - 2091-04-040S-0404 (<i>Pilot pressure manifold port "B" to wheel drive foot control port "P"</i>)(Used on machines PDN# 032FWD thru 037FWD)	
	20090	1		HOSE ASSEMBLY - 2082-04-040S-0404 (<i>Pilot pressure manifold port "B" to wheel drive foot control port "P"</i>)(Used on machines PDN# 031FWD and below)	
5	REF.	1	✓	PILOT PRESSURE MANIFOLD	D.1.4
6	15133	1		ELBOW, 90° - FF1868T-0406S	
7	15176	1		TEE - FF2114T-0404S	

✓ See referenced page for component or assembly breakdown.



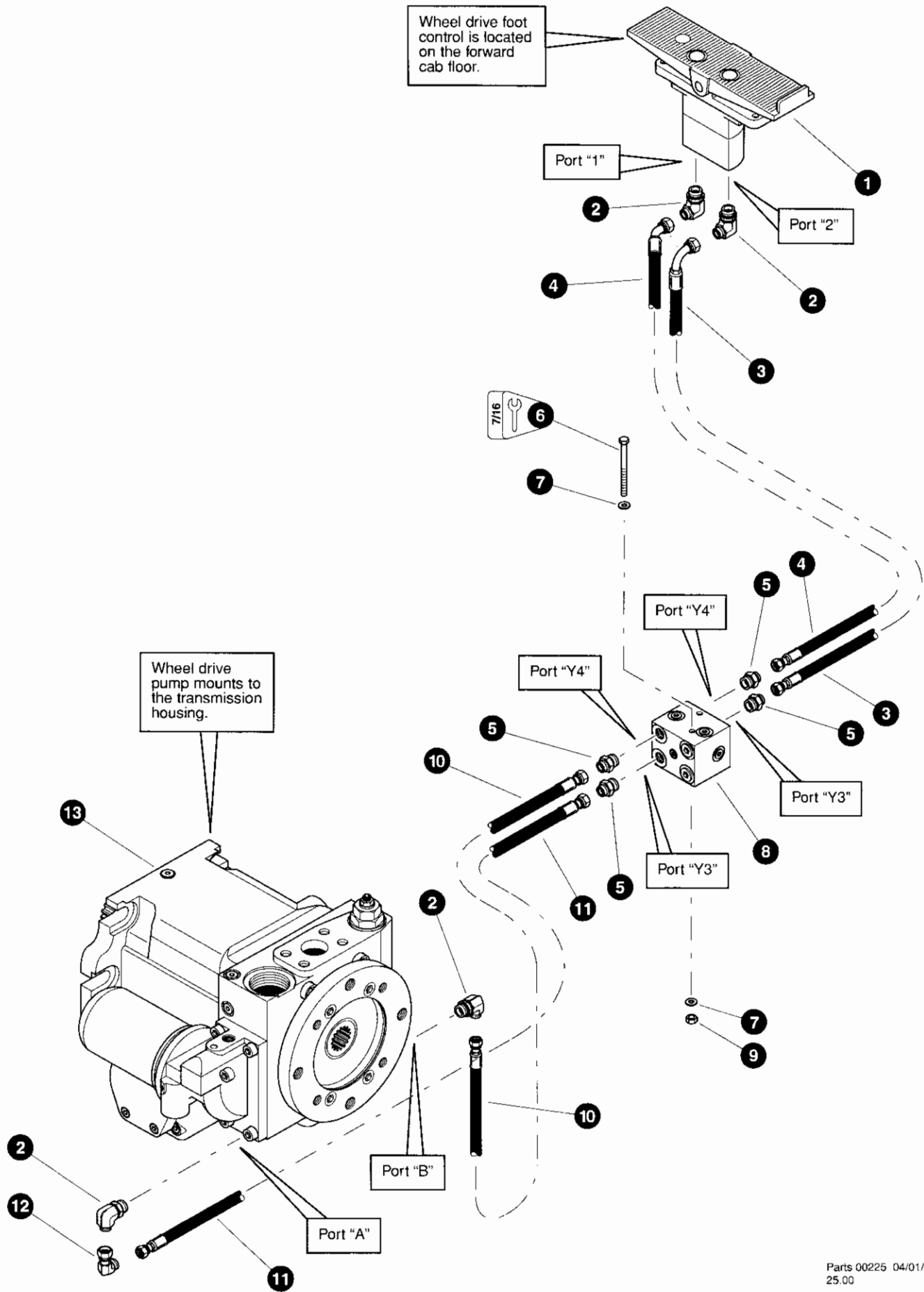
WHEEL DRIVE FOOT CONTROL LINES

(From Wheel Drive Foot Control To Pilot Pressure Manifold)

(Used only on machines PDN# 037FWD and below)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	WHEEL DRIVE FOOT CONTROL	D.3.2
2	15133	2		ELBOW, 90° - FF1868T-0406S	
3	20089	1		HOSE ASSEMBLY - 2092-04-040S-0409 <i>(Wheel drive foot control port "T" to pilot pressure manifold port "T4")</i> <i>(Used on machines PDN# 032FWD thru 037FWD)</i>	
	20001	1		HOSE ASSEMBLY - 2082-04-040S-0409 <i>(Wheel drive foot control port "T" to pilot pressure manifold port "T4")</i> <i>(Used on machines PDN# 031FWD and below)</i>	
4	REF.	1	✓	PILOT PRESSURE MANIFOLD	D.1.4

✓ See referenced page for component or assembly breakdown.



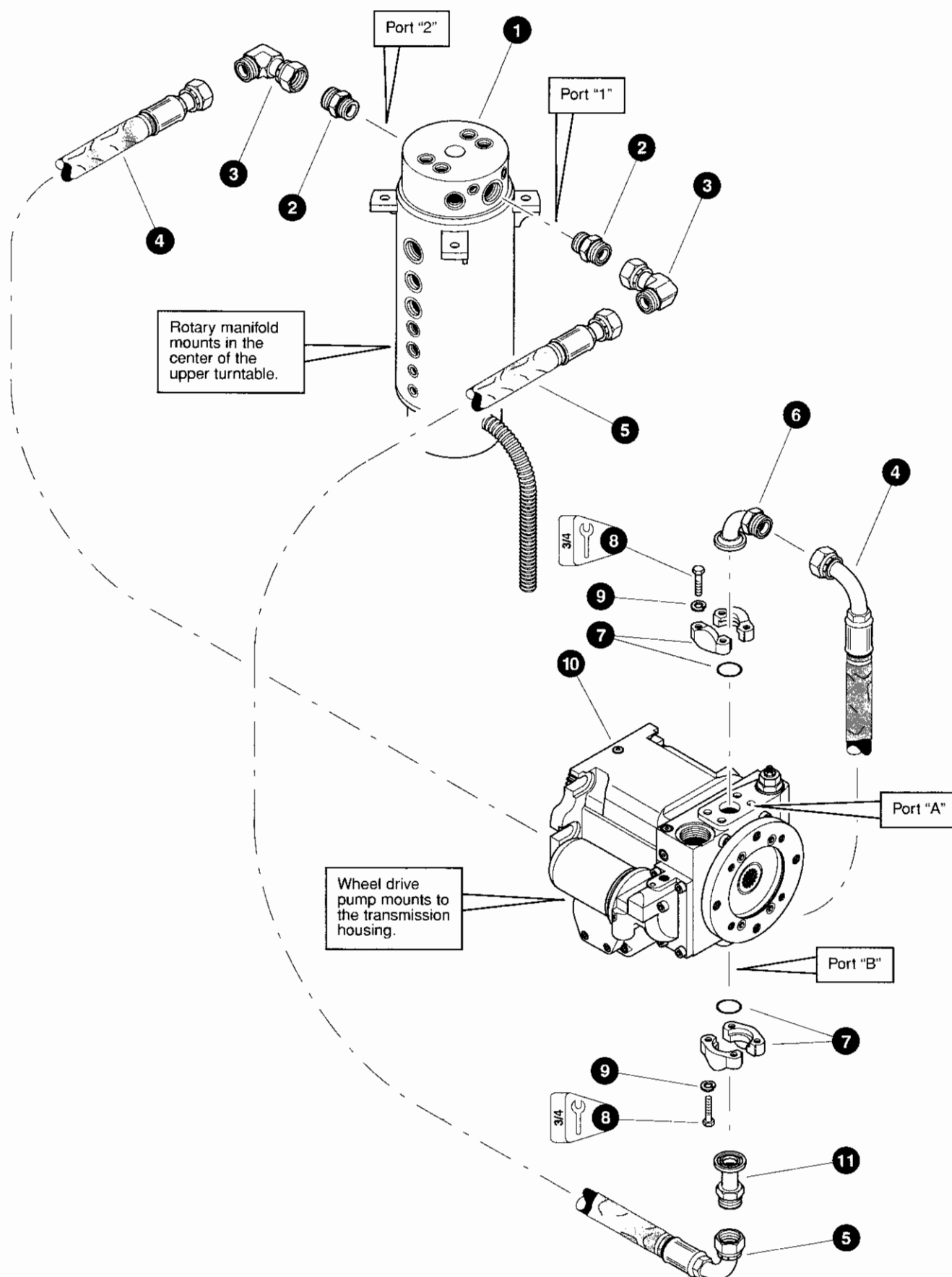
WHEEL DRIVE FOOT CONTROL LINES

(From Wheel Drive Foot Control To Wheel Drive Pump HD Controller)

(Used only on machines PDN# 037FWD and below)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	WHEEL DRIVE FOOT CONTROL	D.3.2
2	15133	2		ELBOW, 90° - FF1868T-0406S	
3	20147	1		HOSE ASSEMBLY - 2083-04-040S-0409 (Wheel drive foot control port "2" to shuttle valve port "Y3") (Used on machines PDN# 032FWD thru 037FWD)	
	18646	1		HOSE ASSEMBLY - 2075-04-040S-0409 (Wheel drive foot control port "2" to shuttle valve port "Y3") (Used on machines PDN# 031FWD and below)	
4	20148	1		HOSE ASSEMBLY - 2084-04-040S-0404 (Wheel drive foot control port "1" to shuttle valve port "Y4") (Used on machines PDN# 032FWD thru 037FWD)	
	20149	1		HOSE ASSEMBLY - 2076-04-040S-0404 (Wheel drive foot control port "1" to shuttle valve port "Y4") (Used on machines PDN# 031FWD and below)	
5	15124	4		CONNECTOR, straight - FF1852T-0406S	
6	10819	2		BOLT - 1/4" x 3-1/4"	
7	10757			WASHER, SAE flat - 1/4"	
8	REF.	1	✓	SHUTTLE VALVE	D.3.4
9	15509	2		NUT, nylock - 1/4"	
10	20145	1		HOSE ASSEMBLY - 2034-04-040S-040S (Shuttle valve port "Y3" to wheel drive pump controller port "A")	
11	20146	1		HOSE ASSEMBLY - 2033-04-040S-040S (Shuttle valve port "Y4" to wheel drive pump controller port "B")	
12	15145	1		ELBOW, 90° swivel - FF2098T-0404S	
13	REF.	1	✓	WHEEL DRIVE PUMP - Rexroth AA4VG125	C.3.2

✓ See referenced page for component or assembly breakdown.

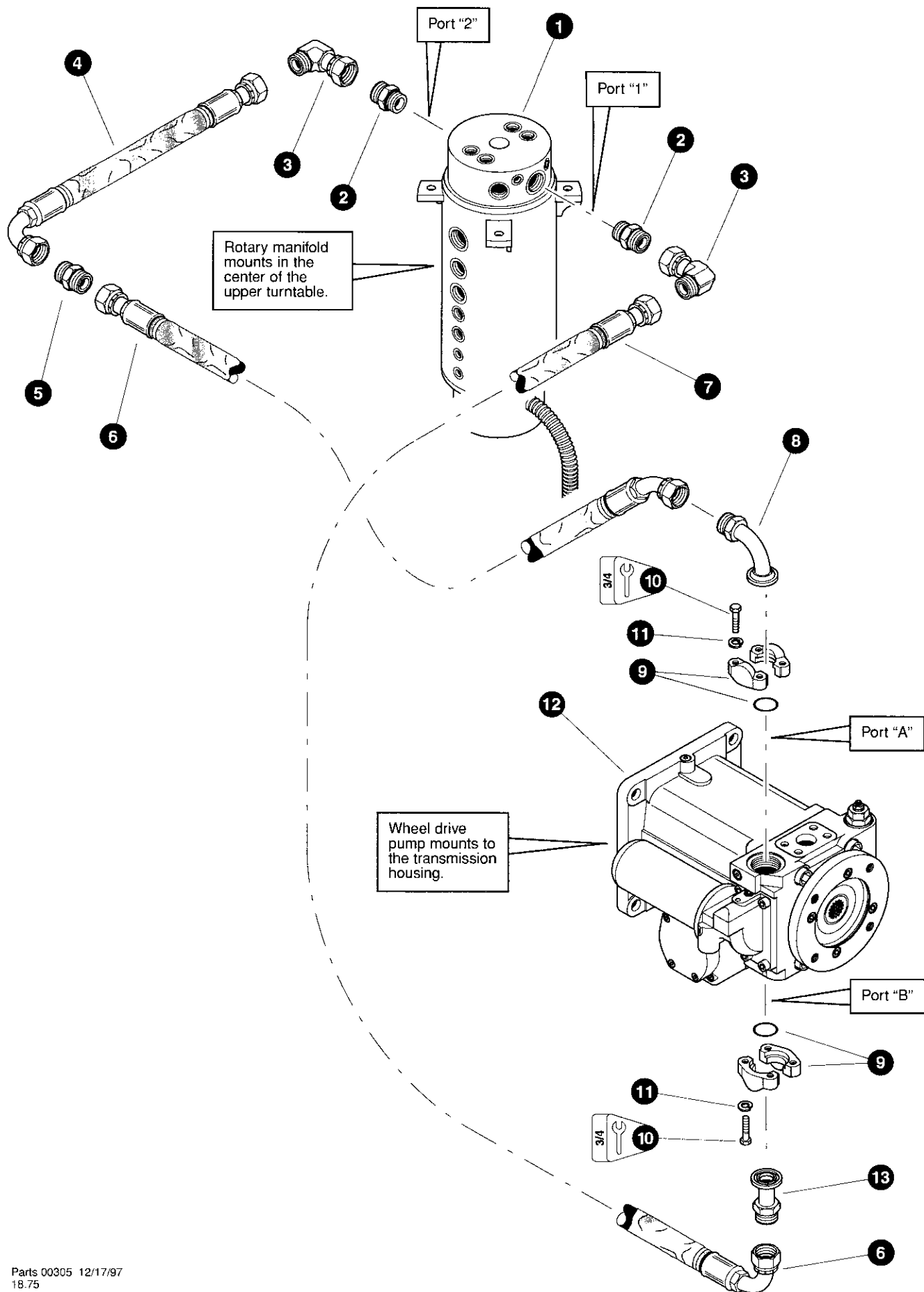


WHEEL DRIVE PUMP PRESSURE LINES

(Cummins 6BTA5.9-C Engine & Rexroth AA4VG125 Wheel Drive Pump)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	ROTARY MANIFOLD	D.2.2
2	15225	2		CONNECTOR, straight - FF1852T-1616S (ORB to ORS) (Used on machines PDN# 026FWD and above)	
	19376	2		CONNECTOR, straight - 16F42EDMLO-S (BSPP to ORS) (Used on machines PDN# 025FWD and below)	
3	17682	2		ELBOW, 90° swivel - FF2098T-1616S	
4	20150	1		HOSE ASSEMBLY - 6073.5-16-160S-1609 (Wheel drive pump pressure port "A" to rotary manifold upper port "2")	
5	20151	1		HOSE ASSEMBLY - 6045-16-160S-1609 (Wheel drive pump pressure port "B" to rotary manifold upper port "1")	
6	19514	1		ADAPTER, 90° flange - 63UF-16MOX20 (Code 62)	
7	15114	2	□	KIT, split flange - 1-1/4" (Code 62)	
	15378	1		O-RING - 1-1/4" SF	
8	18933	4		BOLT - 1/2" x 1-3/4"	
9	10710	4		WASHER, lock - 1/2"	
10	REF.	1	✓	WHEEL DRIVE PUMP - Rexroth AA4VG125	C.3.2
11	19513	1		ADAPTER, 90° straight- 63SF-16MOX20 (Code 62)	

- ✓ See referenced page for component or assembly breakdown.
 □ Kit or Assembly - includes all items indented underneath.

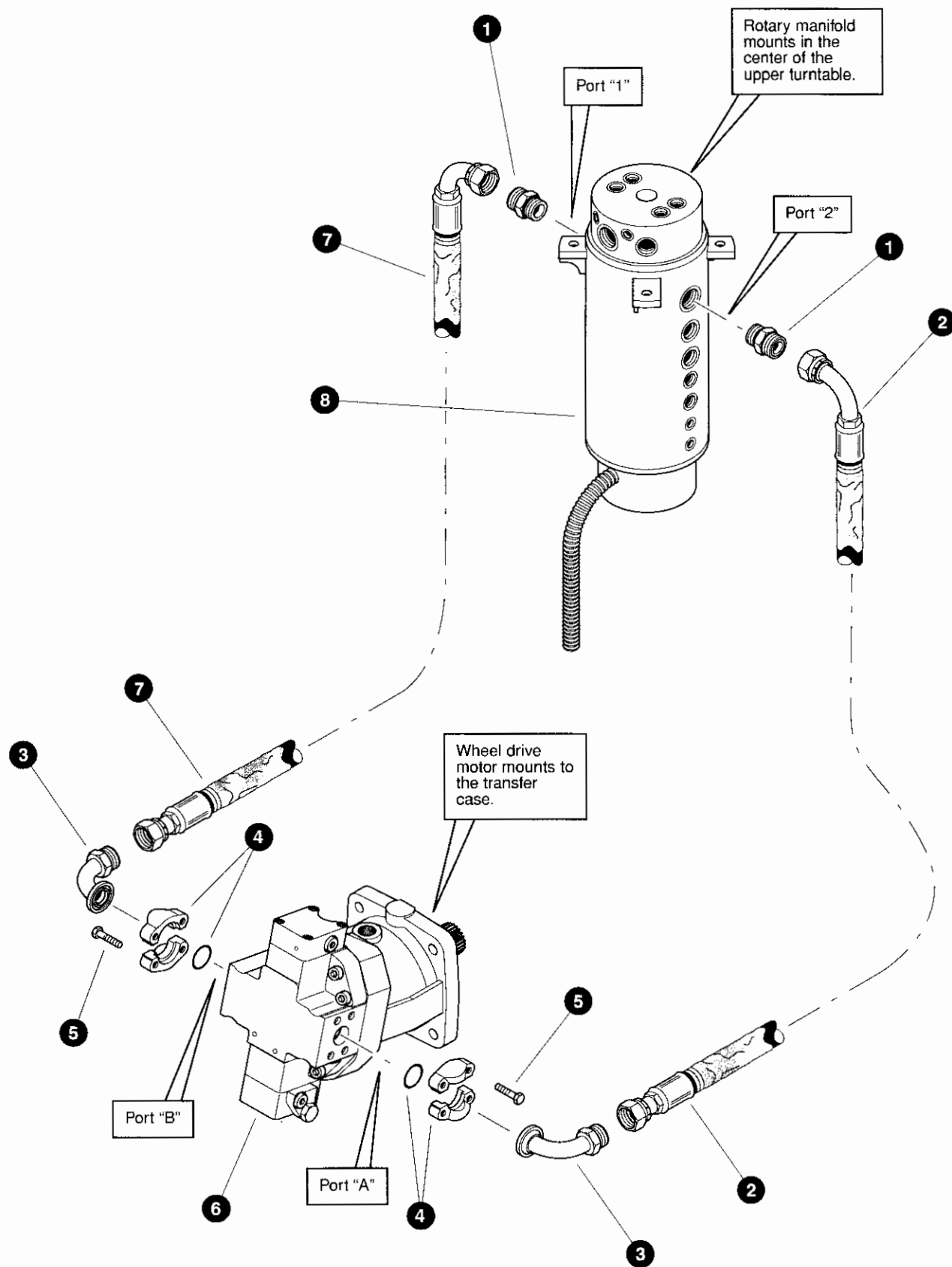


WHEEL DRIVE PUMP PRESSURE LINES

(Cummins 6C8.3-C260 Engine & Rexroth AA4VG180 Wheel Drive Pump)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	ROTARY MANIFOLD	D.2.2
2	15225	2		CONNECTOR, straight - FF1852T-1616S	
3	17682	2		ELBOW, 90° swivel - FF2098T-1616S	
4	20154	1		HOSE ASSEMBLY - 6013-16-160S-1609 (<i>Driveline connector to rotary manifold upper port "2"</i>)	
5	15225	1		CONNECTOR, straight - FF1852T-1616S	
6	20152	1		HOSE ASSEMBLY - 6043-16-160S-1604 (<i>Wheel drive pump pressure port "A" to driveline connector</i>)	
7	20153	1		HOSE ASSEMBLY - 6047.5-16-160S-1609 (<i>Wheel drive pump pressure port "B" to rotary manifold upper port "1"</i>)	
8	19514	1		ADAPTER, 90° flange - 63UF-16MOX20 (<i>Code 62</i>)	
9	15114	2	□	KIT, split flange - 1-1/4" (<i>Code 62</i>)	
	15378	1		O-RING - 1-1/4" SF	
10	18933	4		BOLT - 1/2" x 1-3/4"	
11	10710	4		WASHER, lock - 1/2"	
12	REF.	1	✓	WHEEL DRIVE PUMP - Rexroth AA4VG180	C.3.12
13	19513	1		ADAPTER, 90° straight- 63SF-16MOX20 (<i>Code 62</i>)	

- ✓ See referenced page for component or assembly breakdown.
 □ Kit or Assembly - includes all items indented underneath.

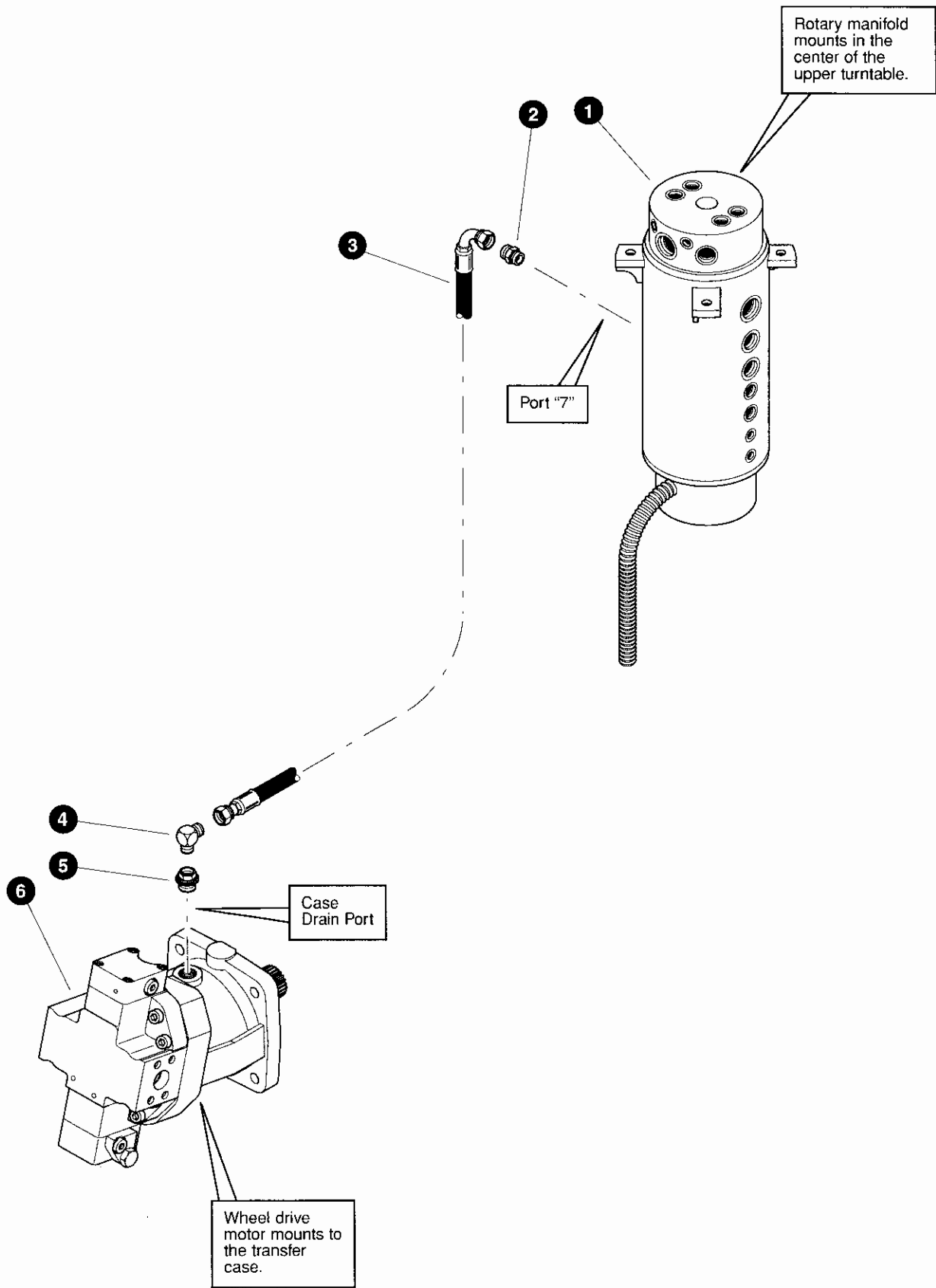


WHEEL DRIVE PUMP PRESSURE LINES

(Lower Rotary Manifold Ports To Wheel Drive Motor)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	15225	2	CONNECTOR, straight - FF1852T-1616S (<i>ORB to ORS</i>) (<i>Used on machines PDN# 026FWD and above</i>)	
	19376	2	CONNECTOR, straight - 16F42EDMLO-S (<i>BSPP to ORS</i>) (<i>Used on machines PDN# 025FWD and below</i>)	
2	20156	1	HOSE ASSEMBLY - 6068.5-16-160S-1609 (<i>Rotary manifold lower port "2" to wheel drive motor "A"</i>)	
3	19514	2	ADAPTER, 90° flange - 63UF-16MOX20 (<i>Code 62</i>)	
4	15114	2	☐ KIT, split flange - 1-1/4" (<i>Code 62</i>)	
	15378	1	O-RING - 1-1/4" SF	
5	20155	4	BOLT - 14mm x 50mm	
6	REF.	1	✓ WHEEL DRIVE MOTOR	C.3.22
7	20157	1	HOSE ASSEMBLY - 6069.5-16-160S-1609 (<i>Rotary manifold lower port "1" to wheel drive motor "B"</i>)	
8	REF.	1	✓ ROTARY MANIFOLD	D.2.2

- ✓ See referenced page for component or assembly breakdown.
☐ Kit or Assembly - includes all items indented underneath.

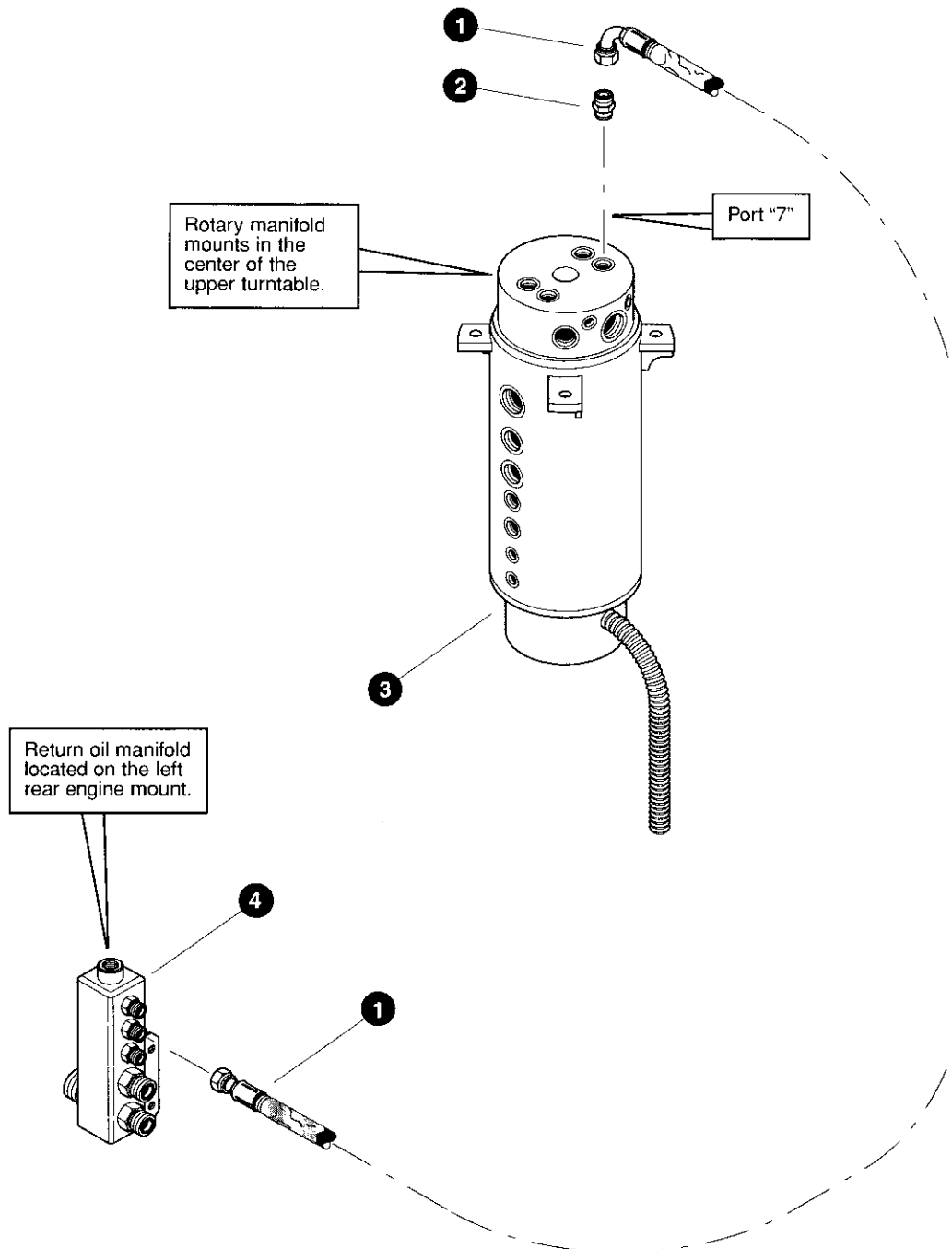


WHEEL DRIVE MOTOR CASE DRAIN

(Wheel Drive Motor To Lower Rotary Manifold)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	ROTARY MANIFOLD	D.2.2
2	15117	1		CONNECTOR, straight - FF1852T-0808S (ORB to ORS) (Used on machines PDN# 026FWD and above)	
	19374	1		CONNECTOR, straight - 8-8-F42EDMLO-S (BSPP to ORS) (Used on machines PDN# 025FWD and below)	
3	20158	1		HOSE ASSEMBLY - 2063-08-080S-0809 (Wheel drive motor case drain port to rotary manifold lower port "7")	
4	19576	1		ELBOW, 90° - 8-CLO-S	
5	19577	1		BUSHING, reducer	
6	REF.	1	✓	WHEEL DRIVE MOTOR	C.3.22

✓ See referenced page for component or assembly breakdown.

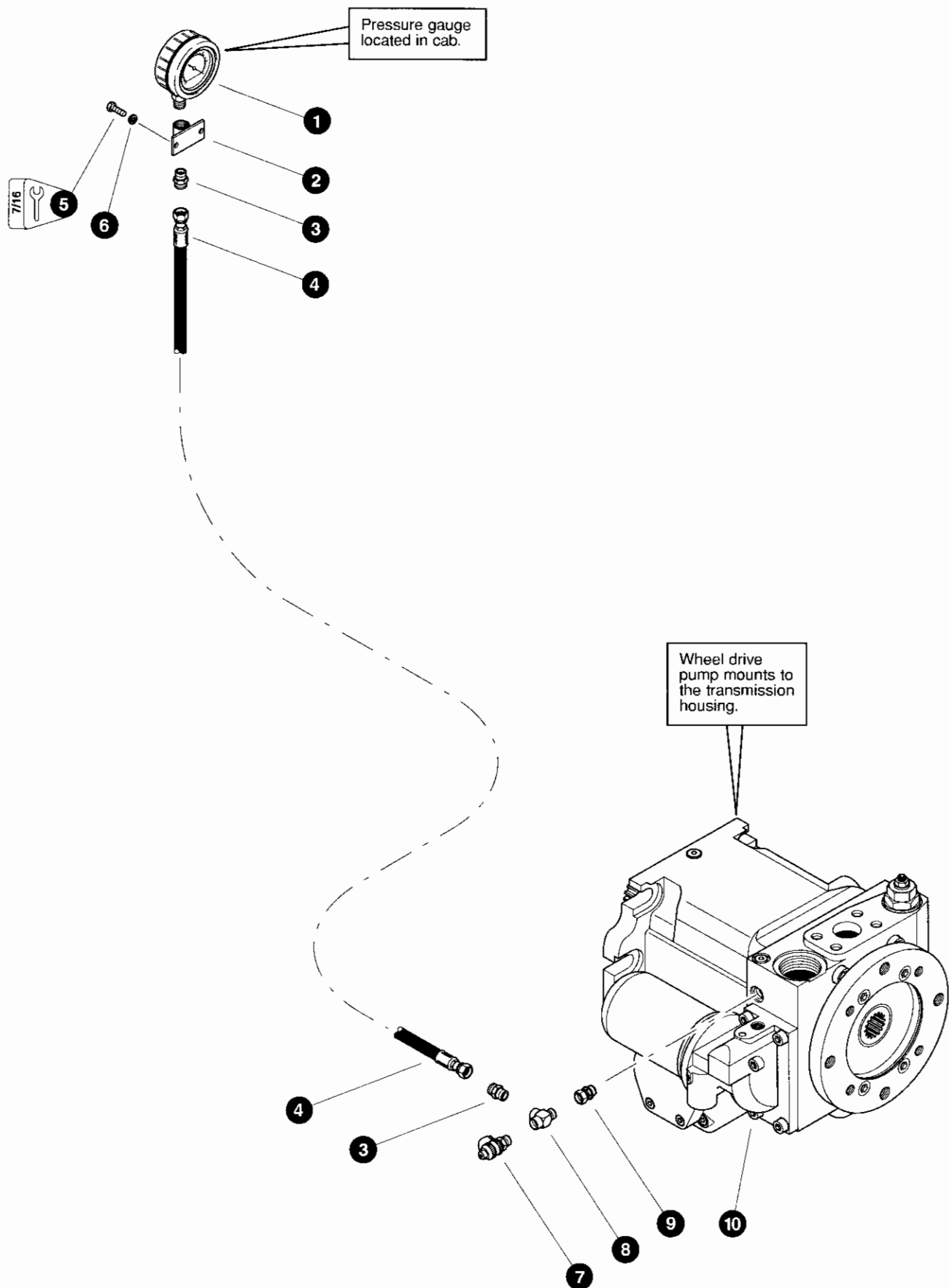


WHEEL DRIVE MOTOR CASE DRAIN

(Upper Rotary Manifold To Return Oil Manifold)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	20159	1	HOSE ASSEMBLY - 2078-08-080S-080S (<i>Rotary manifold upper port "7" to return oil manifold</i>)	
2	15117	1	CONNECTOR, straight - FF1852T-0808S (<i>ORB to ORS</i>) (<i>Used on machines PDN# 026FWD and above</i>)	
	19374	1	CONNECTOR, straight - 8-8-F42EDMLO-S (<i>BSPP to ORS</i>) (<i>Used on machines PDN# 025FWD and below</i>)	
3	REF.	1	✓ ROTARY MANIFOLD	D.2.2
4	17547	1	MANIFOLD, return oil	

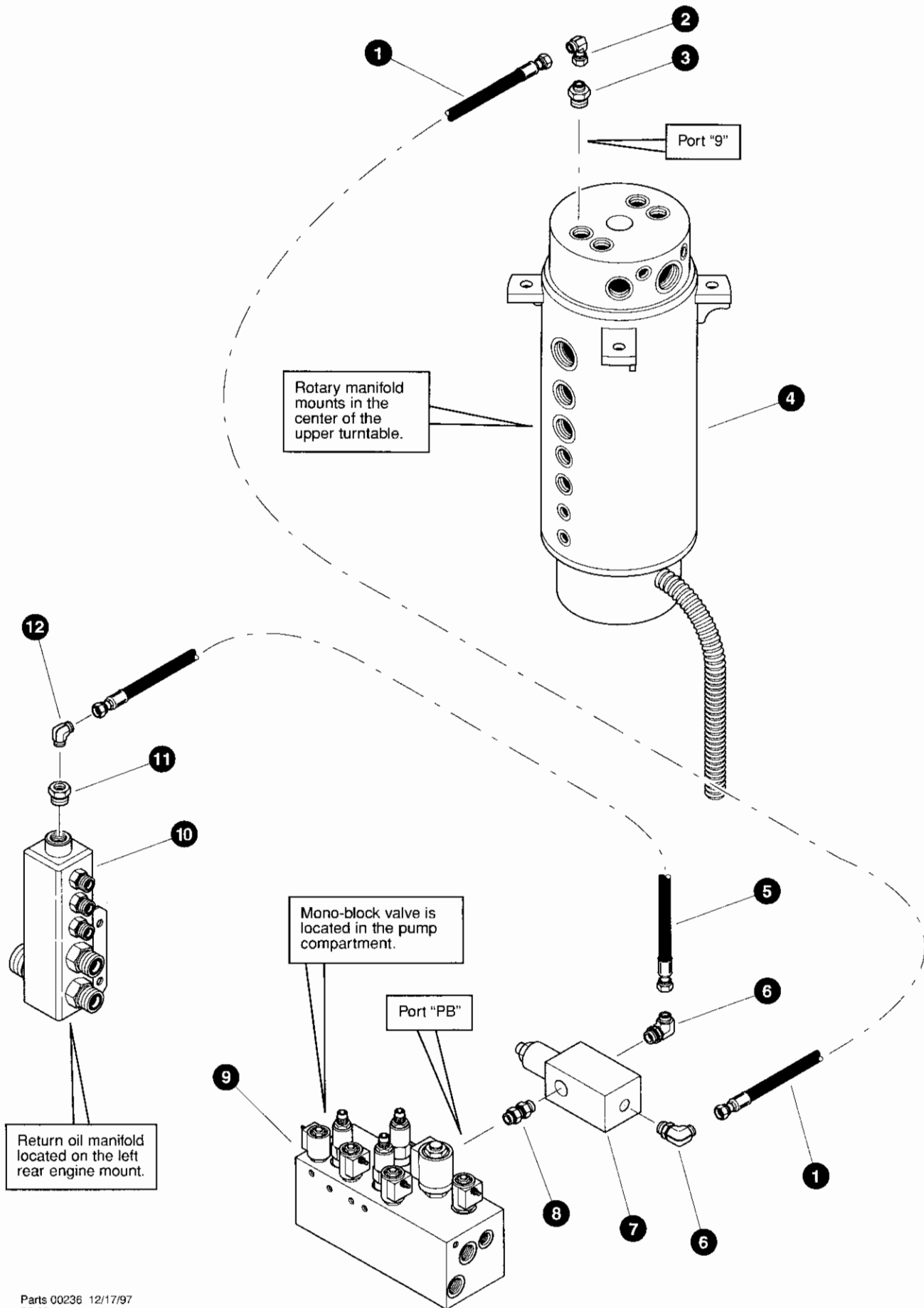
✓ See referenced page for component or assembly breakdown.



WHEEL DRIVE PRESSURE GAUGE LINE

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	19205	1	GAUGE, pressure - 10,000 PSI	
	16038	1	PROTECTOR, rubber gauge	
2	12222	1	BRACKET, cab gauge mount	
3	15131	2	CONNECTOR, straight - FF2031T-0404S	
4	20159	1	HOSE ASSEMBLY - 2122-04-040S-040S (<i>Wheel drive pump gauge port to gauge in cab</i>)	
5	15604	2	BOLT - 1/4" x 3/4"	
6	10756	2	WASHER, SAE flat - 1/4"	
7	15118	1	TAP, gauge port - 1/4" pipe thread	
8	10393	1	TEE - 5602-4	
9	15328	1	CONNECTOR, straight swivel - 6900-4-4	
10	REF.	1	✓ WHEEL DRIVE PUMP	Varies

✓ See referenced page for component or assembly breakdown.



Parts 00236 12/17/97
25.00

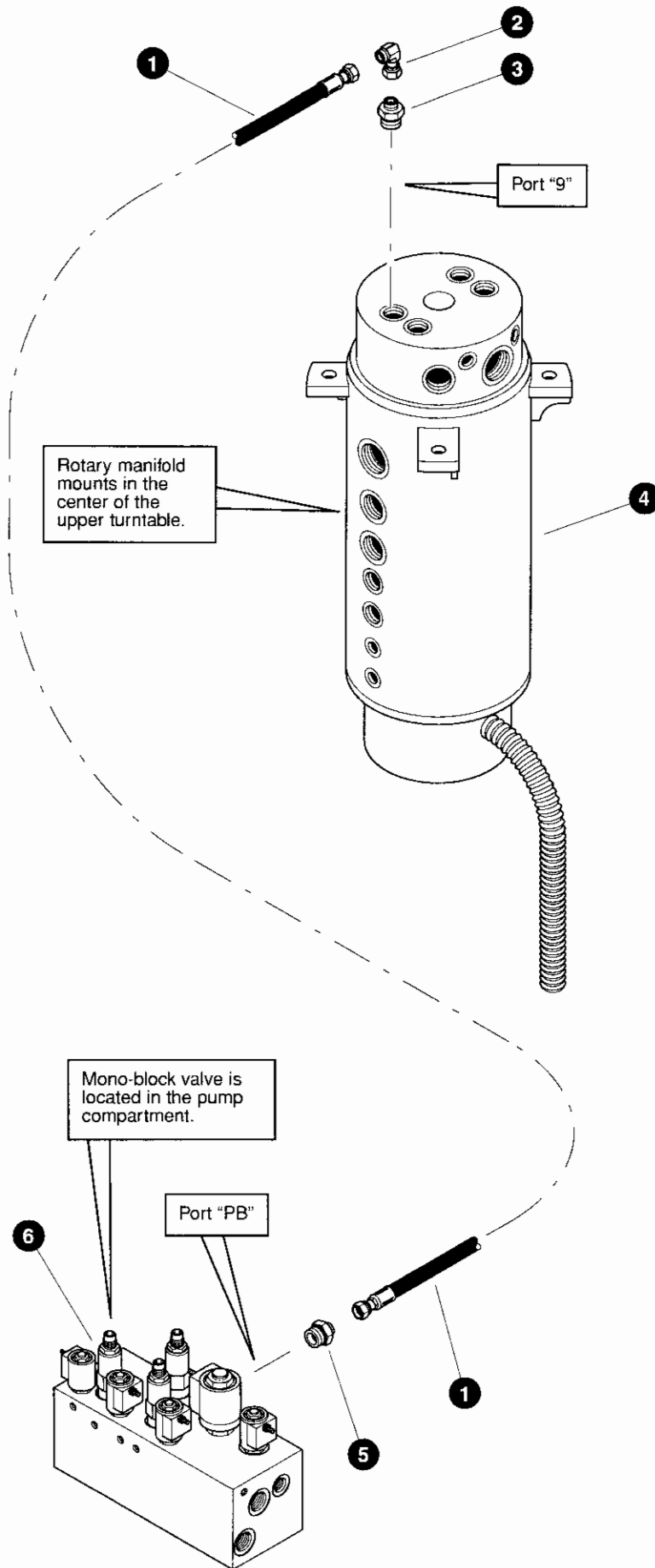
PARKING BRAKE LINES

(Mono-Block Valve To Upper Rotary Manifold)

(Used on early production machines)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	20160	1	HOSE ASSEMBLY - 2054.5-04-040S-040S (<i>Mono-block valve port "PB" pressure reducer to rotary manifold upper port "9"</i>)	
2	15504	1	CONNECTOR, straight - FF1852T-0408S (<i>ORB to ORS</i>) (<i>Used on machines PDN# 026FWD and above</i>)	
	19373	1	CONNECTOR, straight - 4-8-F42EDMLO-S (<i>BSPP to ORS</i>) (<i>Used on machines PDN# 025FWD and below</i>)	
3	15145	1	ELBOW, 90° swivel - FF2098T-0404S	
4	REF.	1	✓ ROTARY MANIFOLD	D.2.2
5	15381	1	HOSE ASSEMBLY - 2022-04-040S-040S (<i>Mono-block valve port "PB" pressure reducer to return oil manifold</i>)	
6	15133	2	ELBOW, 90° - FF1868T-0406S	
7	19465	1	VALVE, pressure reducer	
8	19366	1	CONNECTOR, straight - 6403-NWO-6	
9	REF.	1	✓ MONO-BLOCK VALVE	D.1.6
10	17547	1	MANIFOLD, return oil	
11	11312	1	BUSHING, reducer - 5406-8-4	
12	15505	1	ELBOW, 90° - FF2032T-0404S	

✓ See referenced page for component or assembly breakdown.



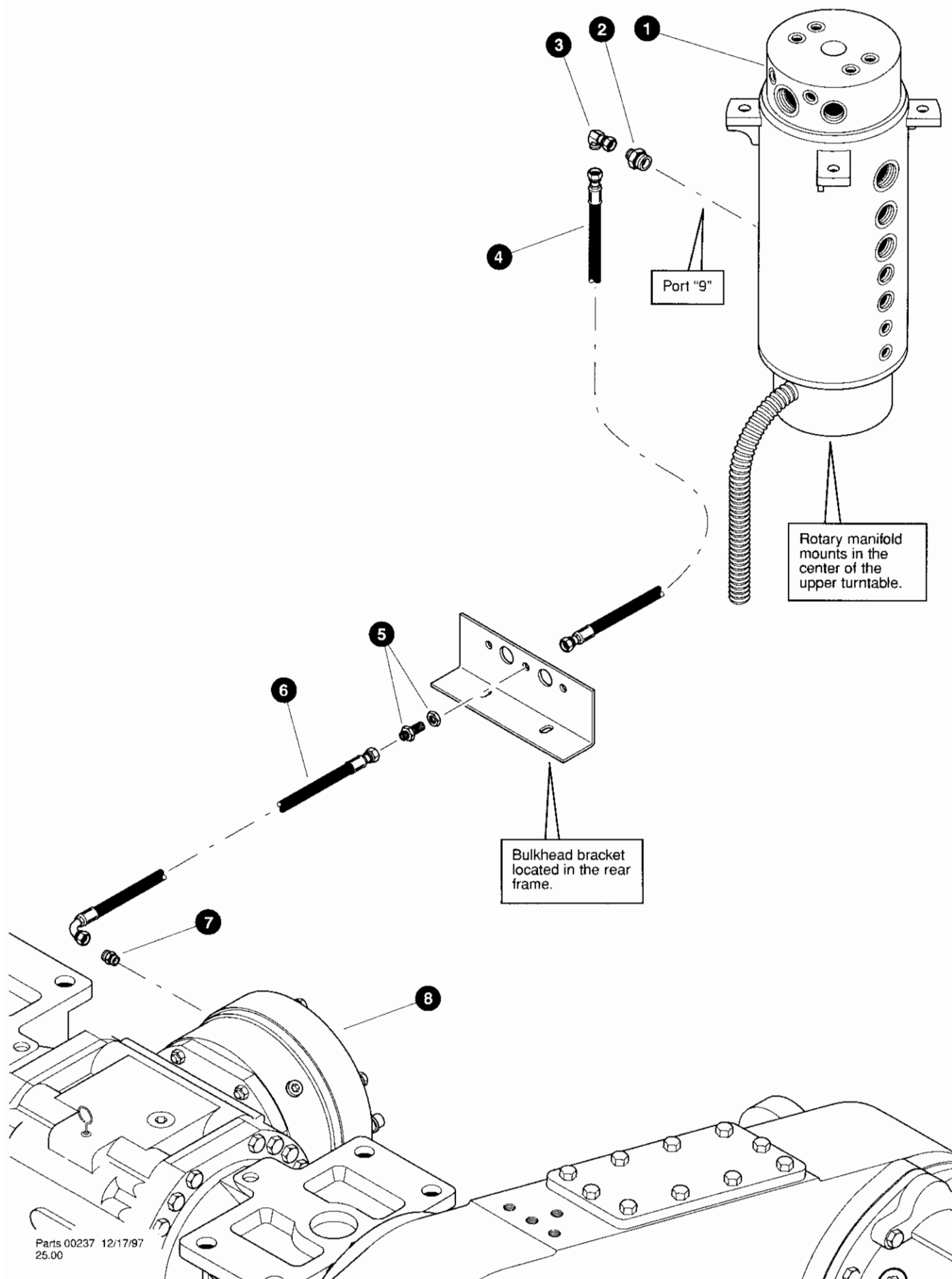
PARKING BRAKE LINES

(Mono-Block Valve To Upper Rotary Manifold)

(Used on late production machines)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	20161	1	HOSE ASSEMBLY - 2048.5-04-040S-040S (<i>Mono-block valve port "PB" to rotary manifold upper port "9"</i>)	
2	15504	1	CONNECTOR, straight - FF1852T-0408S	
3	15145	1	ELBOW, 90° swivel - FF2098T-0404S	
4	REF.	1	✓ ROTARY MANIFOLD	D.2.2
5	15124	1	CONNECTOR, straight - FF1852T-0406S	
6	REF.	1	✓ MONO-BLOCK VALVE	D.1.6

✓ See referenced page for component or assembly breakdown.

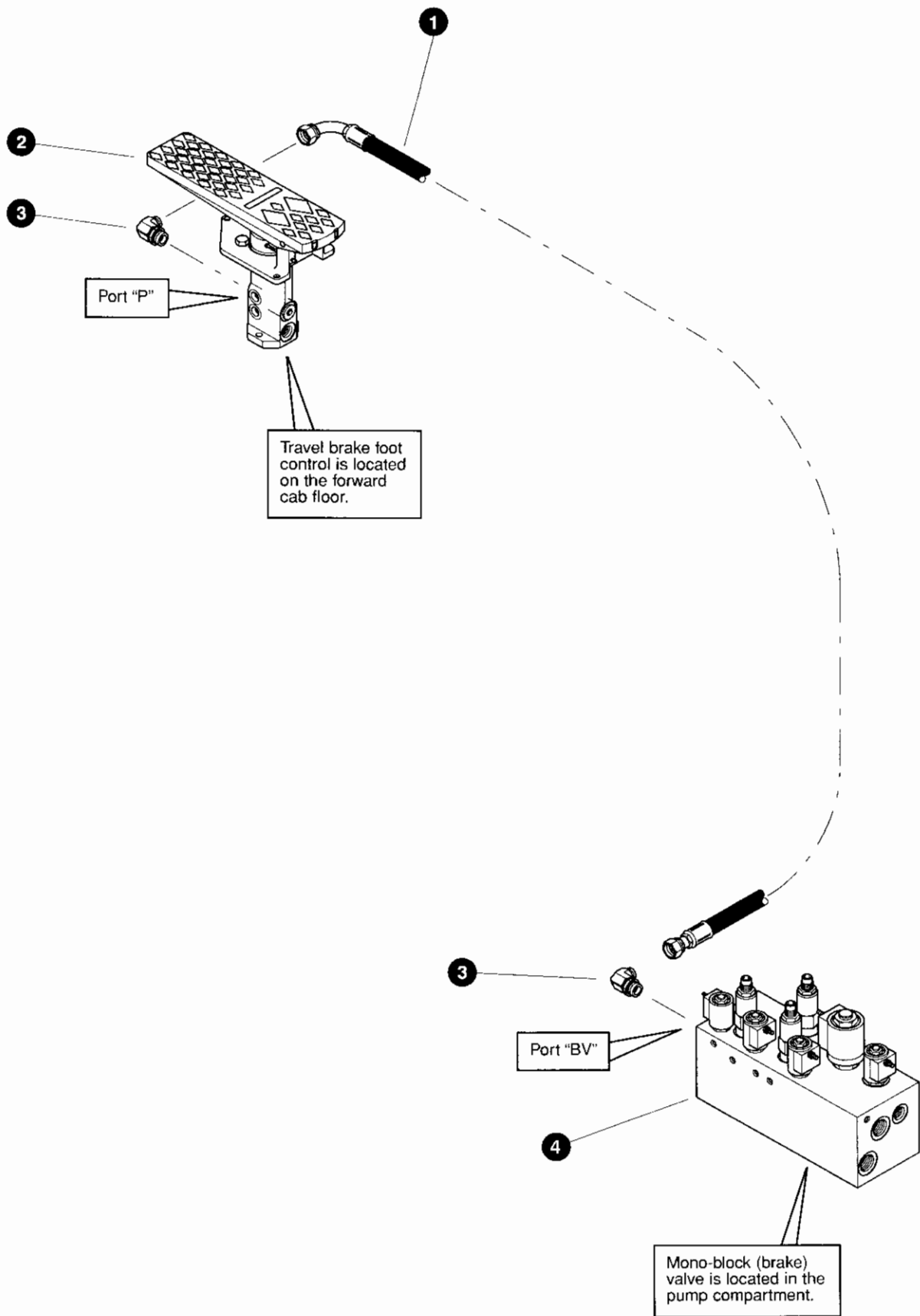


PARKING BRAKE LINES

(Lower Rotary Manifold To Rear Axle Parking Brake Housing)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	ROTARY MANIFOLD	D.2.2
2	15504	1		CONNECTOR, straight - FF1852T-0408S (<i>ORB to ORS</i>) (<i>Used on machines PDN# 026FWD and above</i>)	
	19373	1		CONNECTOR, straight - 4-8-F42EDMLO-S (<i>BSPP to ORS</i>) (<i>Used on machines PDN# 025FWD and below</i>)	
3	15145	1		ELBOW, 90° swivel - FF2098T-0404S	
4	20162	1		HOSE ASSEMBLY - 2104-04-040S-040S (<i>Rotary manifold</i> <i>lower port "9" to bulkhead bracket center</i>)	
5	18582	1		CONNECTOR, straight bulkhead - FF1994T-0404S	
6	20163	1		HOSE ASSEMBLY - 2093-04-040S-0409 (<i>Bulkhead bracket</i> <i>center to rear axle parking brake port</i>) (<i>Standard 183" wheelbase</i>)	
	20164	1		HOSE ASSEMBLY - 2141-04-040S-0409 (<i>Bulkhead bracket</i> <i>center to rear axle parking brake port</i>) (<i>Optional 231" wheelbase</i>)	
7	19470	1		CONNECTOR, straight - 4M14F8OMLO-S	
8	REF.	1	✓	REAR AXLE	Blue E

✓ See referenced page for component or assembly breakdown.

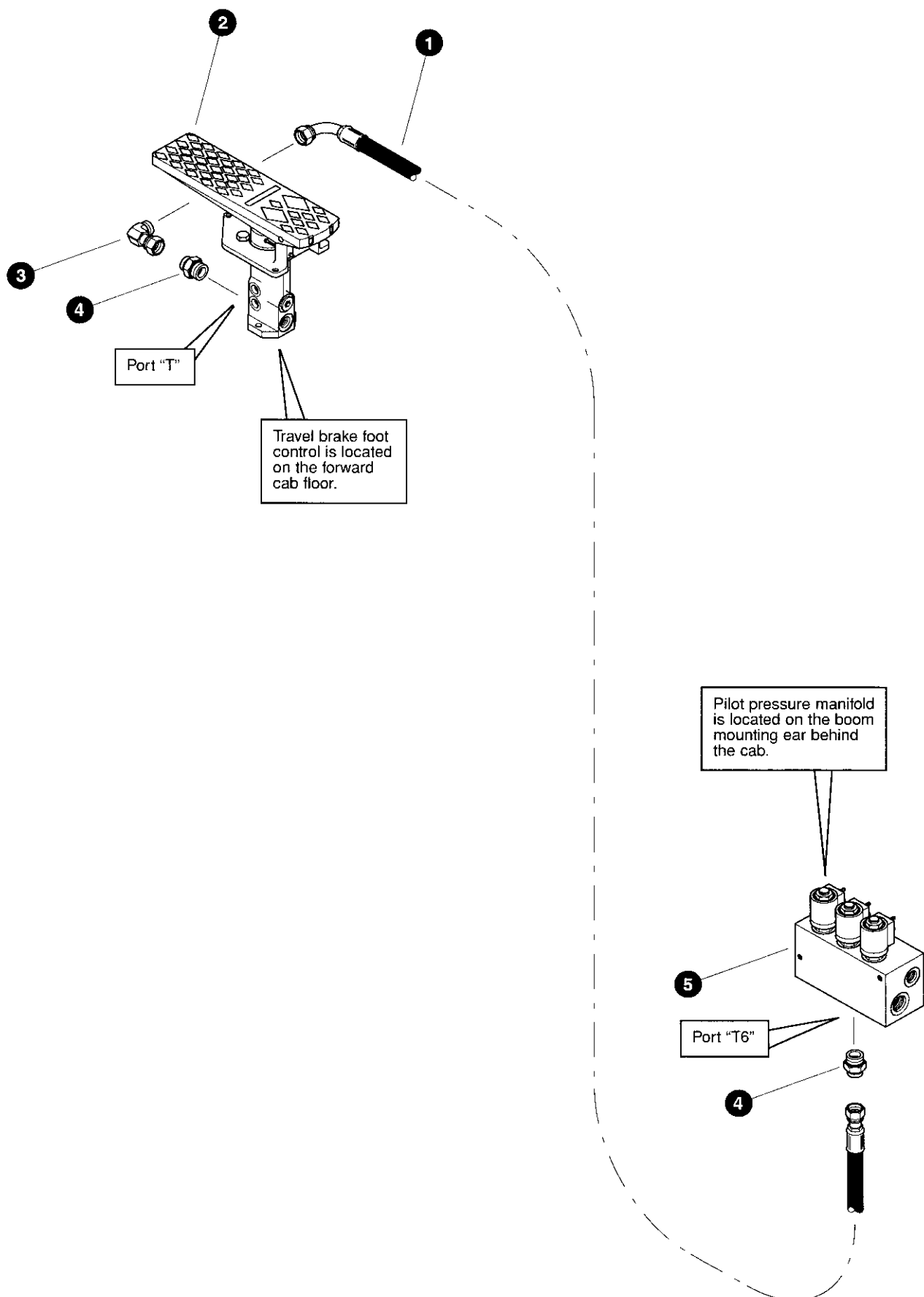


TRAVEL BRAKE LINES

(Mono-Block Valve To Travel Brake Foot Control)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	20087	1		HOSE ASSEMBLY - 2125-06-060S-0609 (<i>Mono-block valve port "BV" to travel brake foot control port "P"</i>)(Used on machines PDN# 032FWD and above)	
	20091	1		HOSE ASSEMBLY - 2115-06-060S-0609 (<i>Mono-block valve port "BV" to travel brake foot control port "P"</i>)(Used on machines PDN# 031FWD and below)	
2	REF.	1	✓	TRAVEL BRAKE FOOT CONTROL	D.3.6
3	15133	2		ELBOW, 90° - FF1868T-0406S	
4	REF.	1	✓	MONO-BLOCK VALVE	D.1.6

✓ See referenced page for component or assembly breakdown.

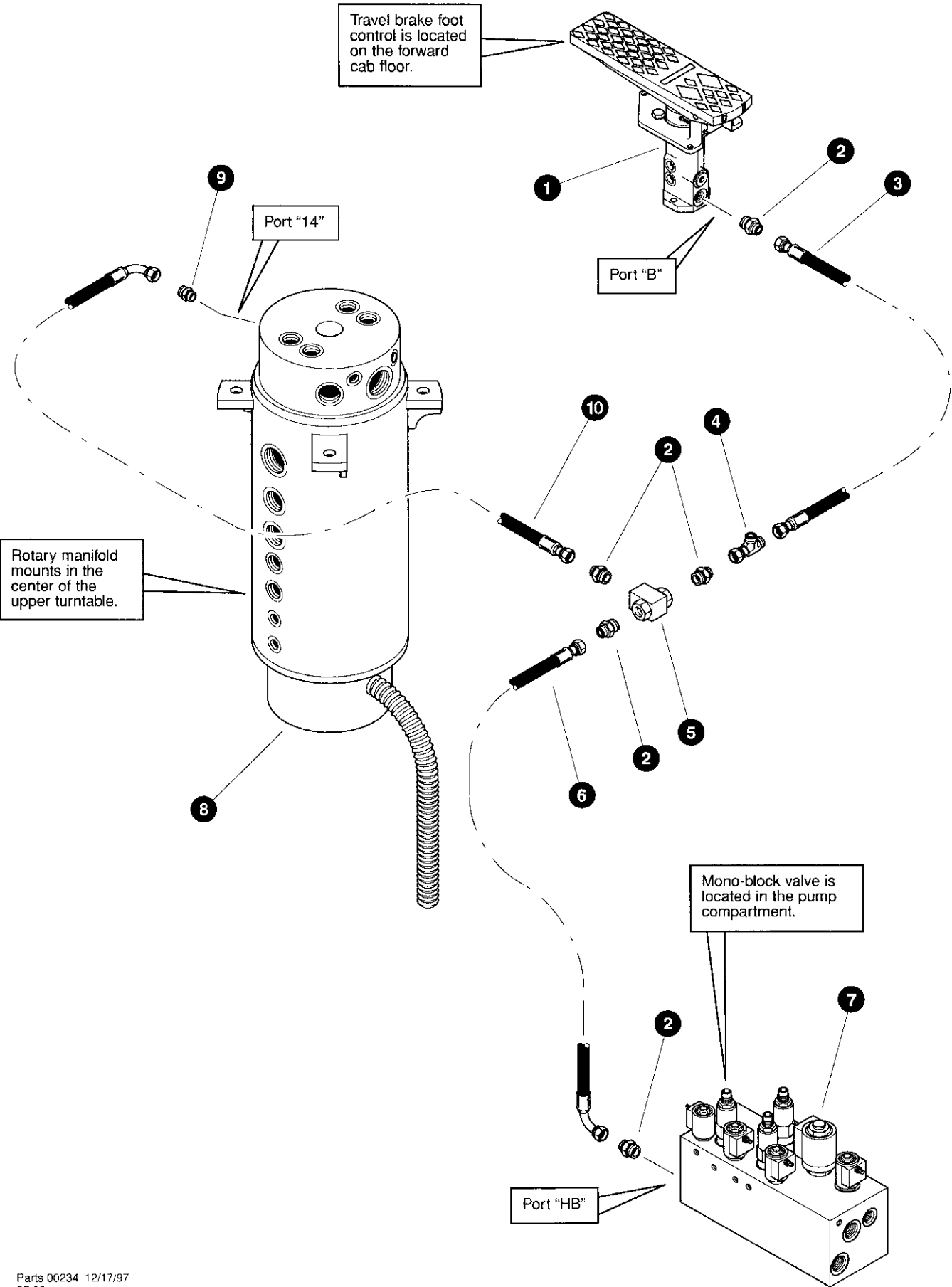


TRAVEL BRAKE LINES

(Travel Brake Foot Control To Pilot Pressure Manifold)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	20092	1	HOSE ASSEMBLY - 2091-06-060S-0609 (<i>Mono-block valve port "BV" to travel brake foot control port "P"</i>)(Used on machines PDN# 032FWD and above)	
	20093	1	HOSE ASSEMBLY - 2081-06-060S-0609 (<i>Mono-block valve port "BV" to travel brake foot control port "P"</i>)(Used on machines PDN# 031FWD and below)	
2	REF.	1	✓ TRAVEL BRAKE FOOT CONTROL	D.3.6
3	15145	1	ELBOW, 90° swivel - FF2098T-0404S	
4	15124	2	CONNECTOR, straight - FF1852T-0406S	
5	REF.	1	✓ PILOT PRESSURE MANIFOLD	D.1.4

✓ See referenced page for component or assembly breakdown.

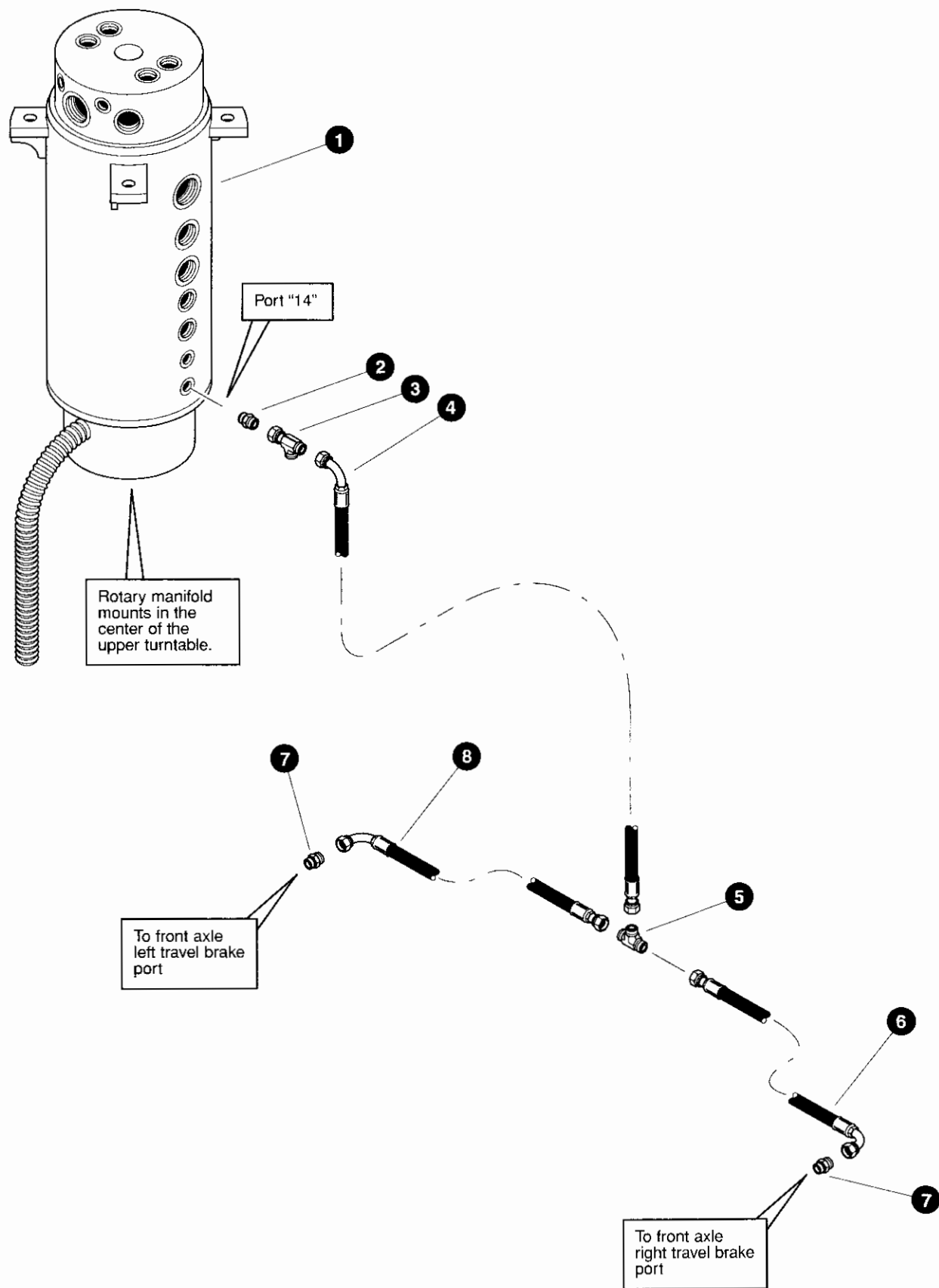


TRAVEL BRAKE LINES

(Travel Brake Foot Control & Mono-Block Valve To Upper Rotary Manifold)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	TRAVEL BRAKE FOOT CONTROL	D.3.6
2	15124	5		CONNECTOR, straight - FF1852T-0406S	
3	20165	1		HOSE ASSEMBLY - 2049.5-04-040S-040S (<i>Travel brake foot control port "B" to brake shuttle</i>)	
4	15176	1		TEE - FF2114T-0404S	
5	19303	1		VALVE, shuttle - travel brake	
6	20166	1		HOSE ASSEMBLY - 2050-04-040S-0409 (<i>Mono-block valve port "HB" to brake shuttle</i>)	
7	REF.	1	✓	MONO-BLOCK VALVE	D.1.6
8	REF.	1	✓	ROTARY MANIFOLD	D.2.2
9	15124	1		CONNECTOR, straight - FF1852T-0406S (<i>ORB to ORS</i>) (<i>Used on machines PDN# 026FWD and above</i>)	
	19372	1		CONNECTOR, straight - 4-4-F42EDMLO-S (<i>BSPP to ORS</i>) (<i>Used on machines PDN# 025FWD and below</i>)	
10	20167	1		HOSE ASSEMBLY - 2009.5-04-040S-0409 (<i>Brake shuttle to rotary manifold upper port "14"</i>)	

✓ See referenced page for component or assembly breakdown.

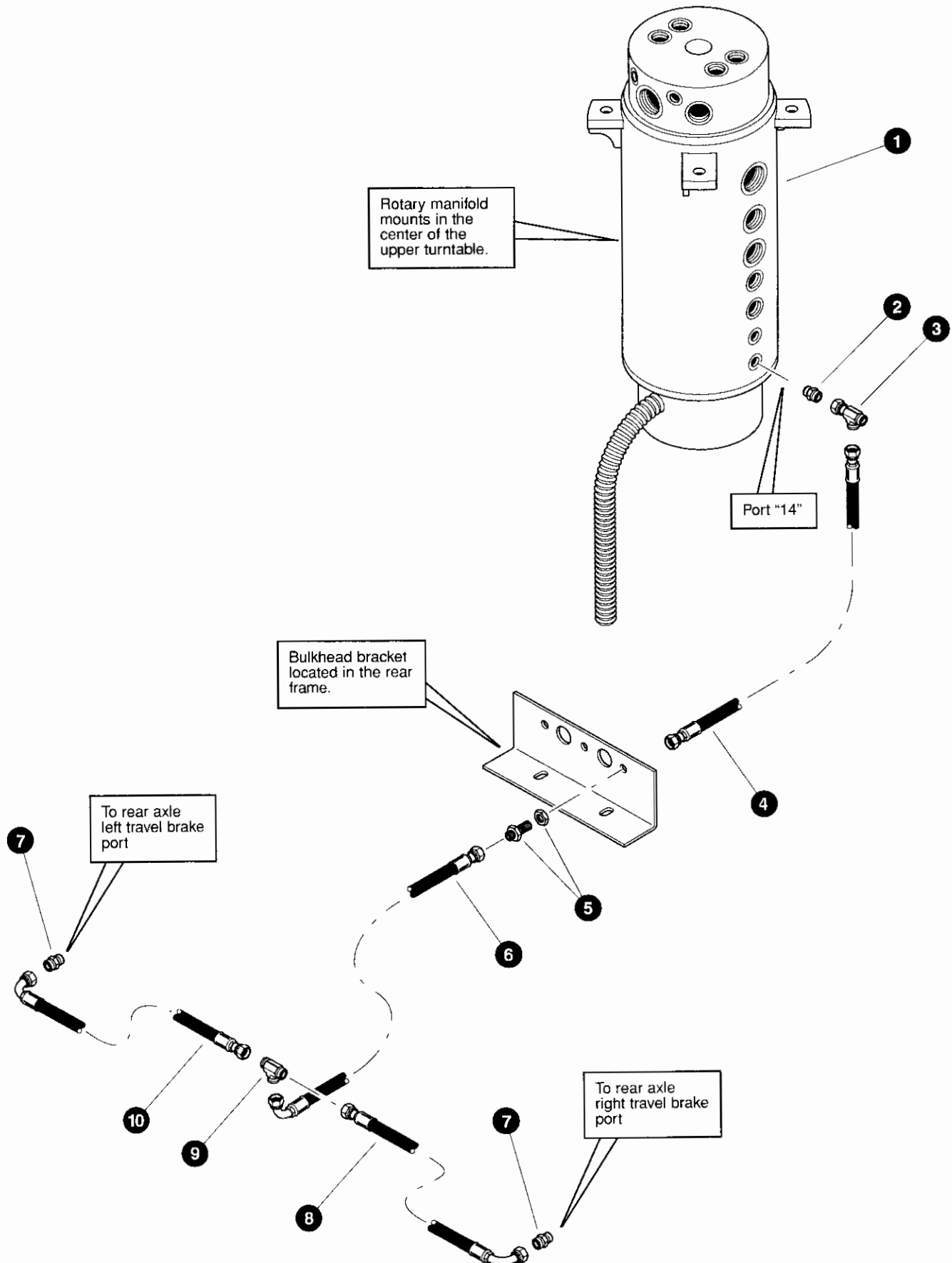


TRAVEL BRAKE LINES

(Lower Rotary Manifold To Front Axle Brake Ports)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	ROTARY MANIFOLD	D.2.2
2	15124	1		CONNECTOR, straight - FF1852T-0406S (<i>ORB to ORS</i>) (<i>Used on machines PDN# 026FWD and above</i>)	
	19372	1		CONNECTOR, straight - 4-4-F42EDMLO-S (<i>BSPP to ORS</i>) (<i>Used on machines PDN# 025FWD and below</i>)	
3	15176	1		TEE - FF2114T-0404S	
4	20168	1		HOSE ASSEMBLY - 2020-04-040S-0409 (<i>Rotary manifold</i> <i>lower port "14" to front travel brake tee</i>)	
5	15139	1		TEE - FF1898T-0404S	
6	20169	1		HOSE ASSEMBLY - 2012.5-04-040S-0409 (<i>Front travel brake</i> <i>tee to front axle right travel brake port</i>)	
7	19470	2		CONNECTOR, straight - 4M14F8OMLO-S	
8	20169	1		HOSE ASSEMBLY - 2012.5-04-040S-0409 (<i>Front travel brake</i> <i>tee to front axle left travel brake port</i>)	

✓ See referenced page for component or assembly breakdown.



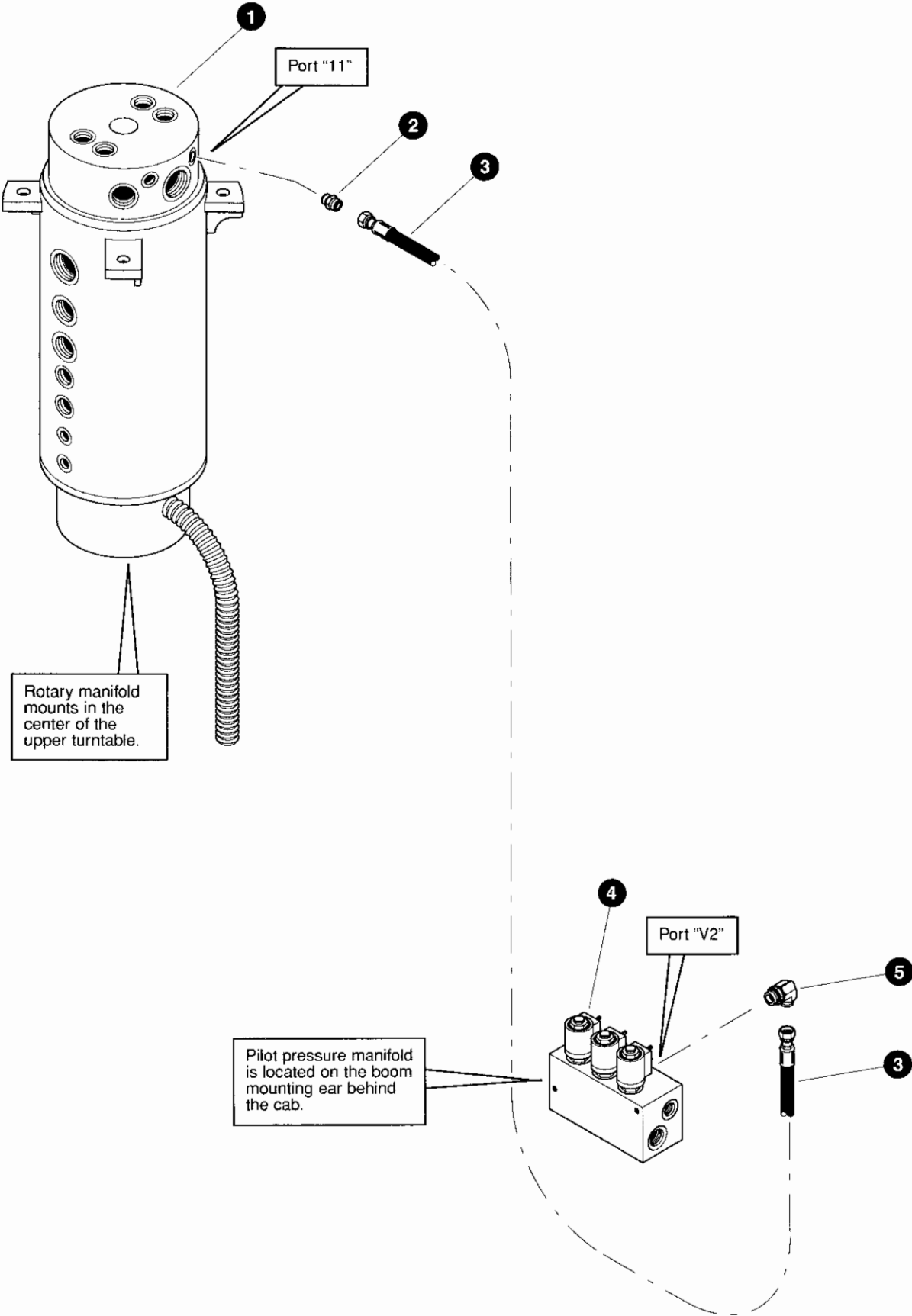
Parts 00358 12/17/97
25.00

TRAVEL BRAKE LINES

(Lower Rotary Manifold To Rear Axle Brake Ports)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	ROTARY MANIFOLD	D.2.2
2	15124	1		CONNECTOR, straight - FF1852T-0406S (<i>ORB to ORS</i>) (<i>Used on machines PDN# 026FWD and above</i>)	
	19372	1		CONNECTOR, straight - 4-4-F42EDMLO-S (<i>BSPP to ORS</i>) (<i>Used on machines PDN# 025FWD and below</i>)	
3	15176	1		TEE - FF2114T-0404S	
4	20172	1		HOSE ASSEMBLY - 2101-04-040S-040S (<i>Rotary manifold</i> <i>lower port "14" to bulkhead bracket right</i>)	
5	18582	1		CONNECTOR, straight bulkhead - FF1994T-0404S	
6	20170	1		HOSE ASSEMBLY - 2113-04-040S-0409 (<i>Bulkhead bracket</i> <i>right to rear travel brake tee</i>) (<i>Standard 183" wheelbase</i>)	
	20171	1		HOSE ASSEMBLY - 2160-04-040S-0409 (<i>Bulkhead bracket</i> <i>right to rear travel brake tee</i>) (<i>Optional 231" wheelbase</i>)	
7	19470	2		CONNECTOR, straight - 4M14F8OMLO-S	
8	20169	1		HOSE ASSEMBLY - 2012.5-04-040S-0409 (<i>Rear travel brake</i> <i>tee to rear axle right travel brake port</i>)	
9	15139	1		TEE - FF1898T-0404S	
10	20169	1		HOSE ASSEMBLY - 2012.5-04-040S-0409 (<i>Rear travel brake</i> <i>tee to rear axle left travel brake port</i>)	

✓ See referenced page for component or assembly breakdown.

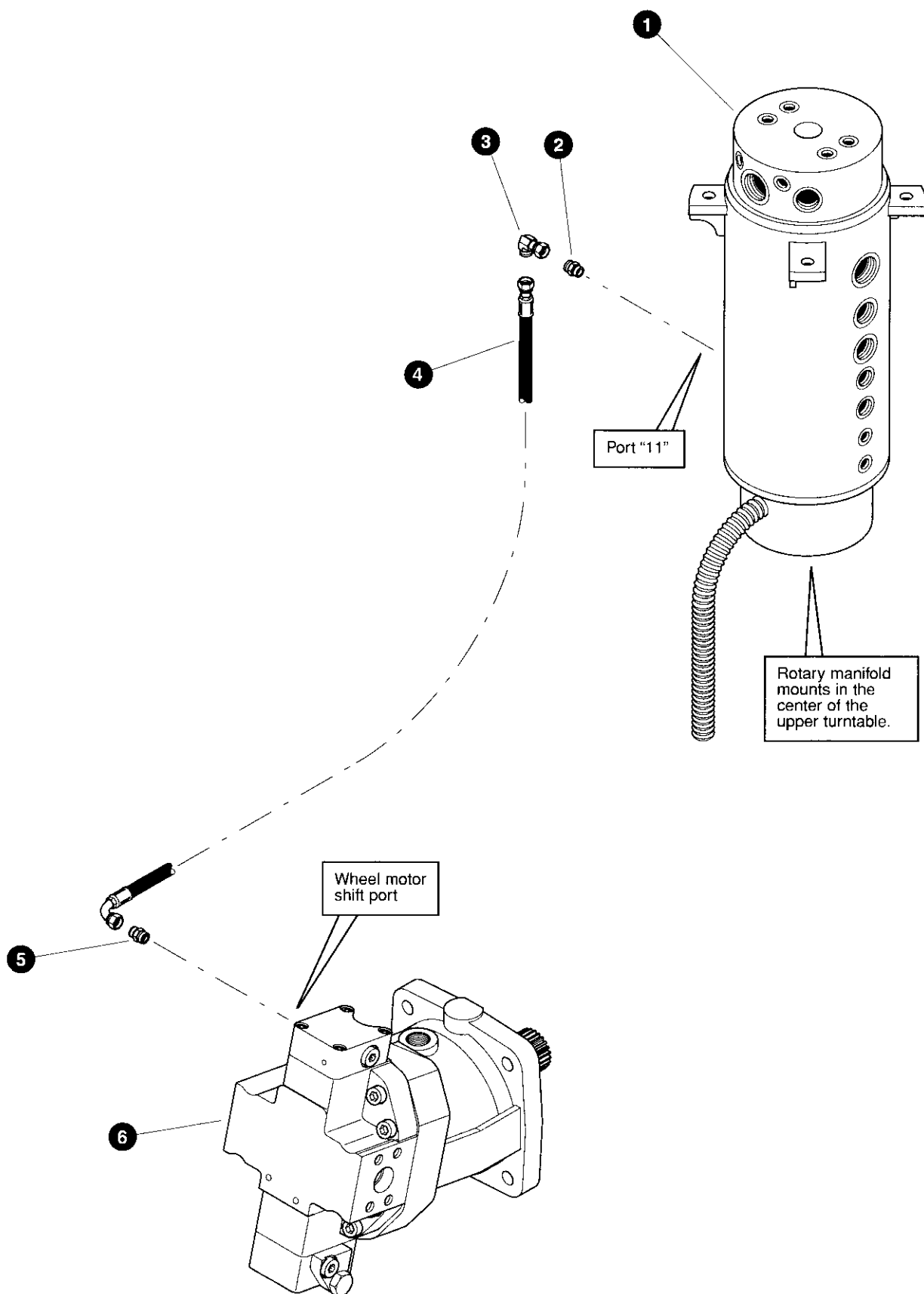


WHEEL DRIVE MOTOR SHIFT LINES

(Pilot Pressure Manifold To Upper Rotary Manifold)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	ROTARY MANIFOLD	D.2.2
2	15124	1		CONNECTOR, straight - FF1852T-0406S (<i>ORB to ORS</i>) (<i>Used on machines PDN# 026FWD and above</i>)	
	19372	1		CONNECTOR, straight - 4-4-F42EDMLO-S (<i>BSPP to ORS</i>) (<i>Used on machines PDN# 025FWD and below</i>)	
3	20103	1		HOSE ASSEMBLY - 2052-04-040S-040S (<i>Pilot pressure manifold port "V2" to rotary manifold upper port "11"</i>)	
4	REF.	1	✓	PILOT PRESSURE MANIFOLD	D.2.4
5	15133	1		ELBOW, 90° - FF1868T-0406S	

✓ See referenced page for component or assembly breakdown.

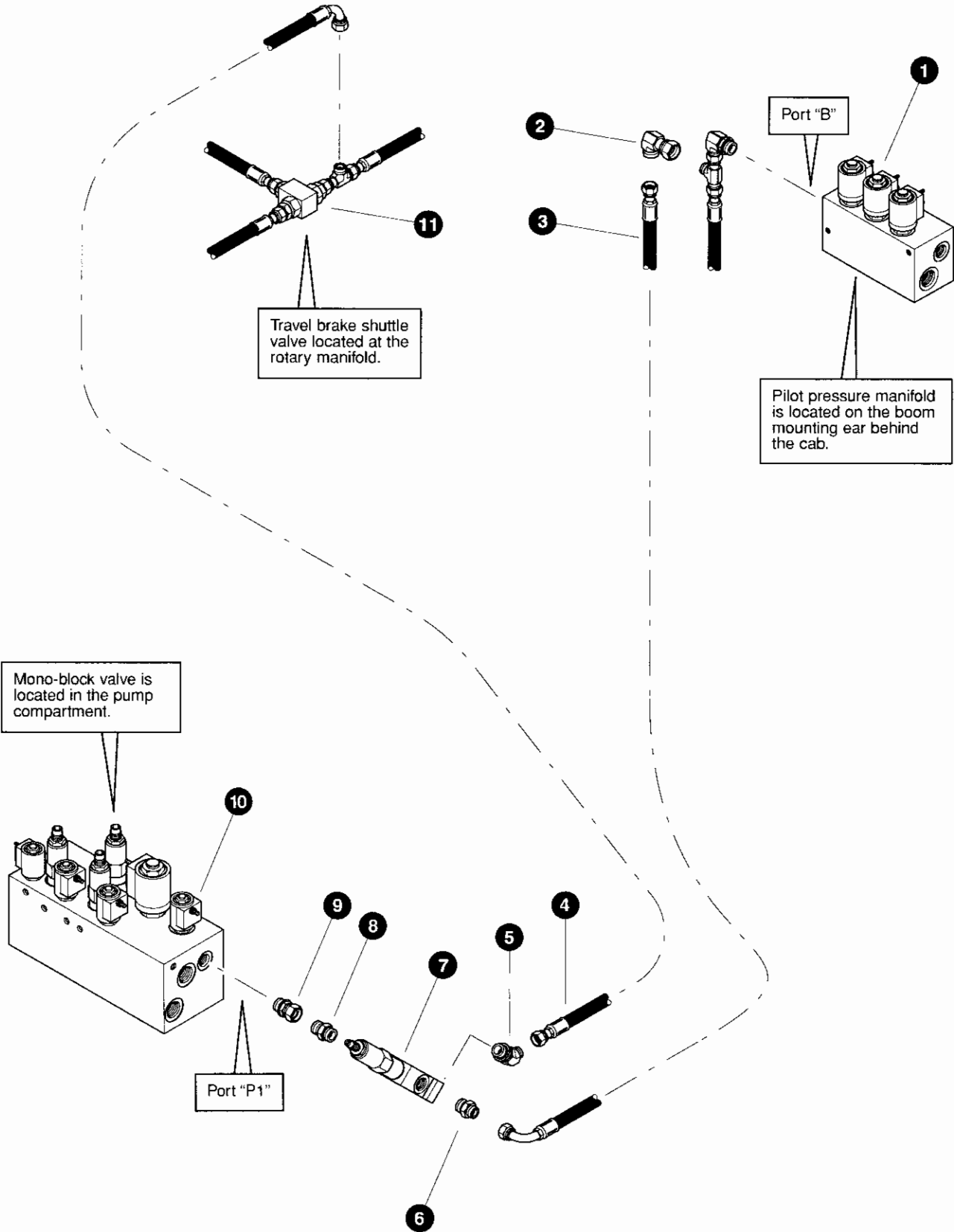


WHEEL DRIVE MOTOR SHIFT LINES

(Lower Rotary Manifold To Wheel Drive Motor)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	ROTARY MANIFOLD	D.2.2
2	15124	1		CONNECTOR, straight - FF1852T-0406S (<i>ORB to ORS</i>) (<i>Used on machines PDN# 026FWD and above</i>)	
	19372	1		CONNECTOR, straight - 4-4-F42EDMLO-S (<i>BSPP to ORS</i>) (<i>Used on machines PDN# 025FWD and below</i>)	
3	15145	1		ELBOW, 90° swivel - FF2098T-0404S	
4	20173	1		HOSE ASSEMBLY - 2069.5-04-040S-0409 (<i>Rotary manifold</i> <i>lower port "11" to wheel drive motor shift port</i>)	
5	19470	1		CONNECTOR, straight - 4M14F8OMLO-S	
6	REF.	1	✓	WHEEL DRIVE MOTOR	C.3.22

✓ See referenced page for component or assembly breakdown.



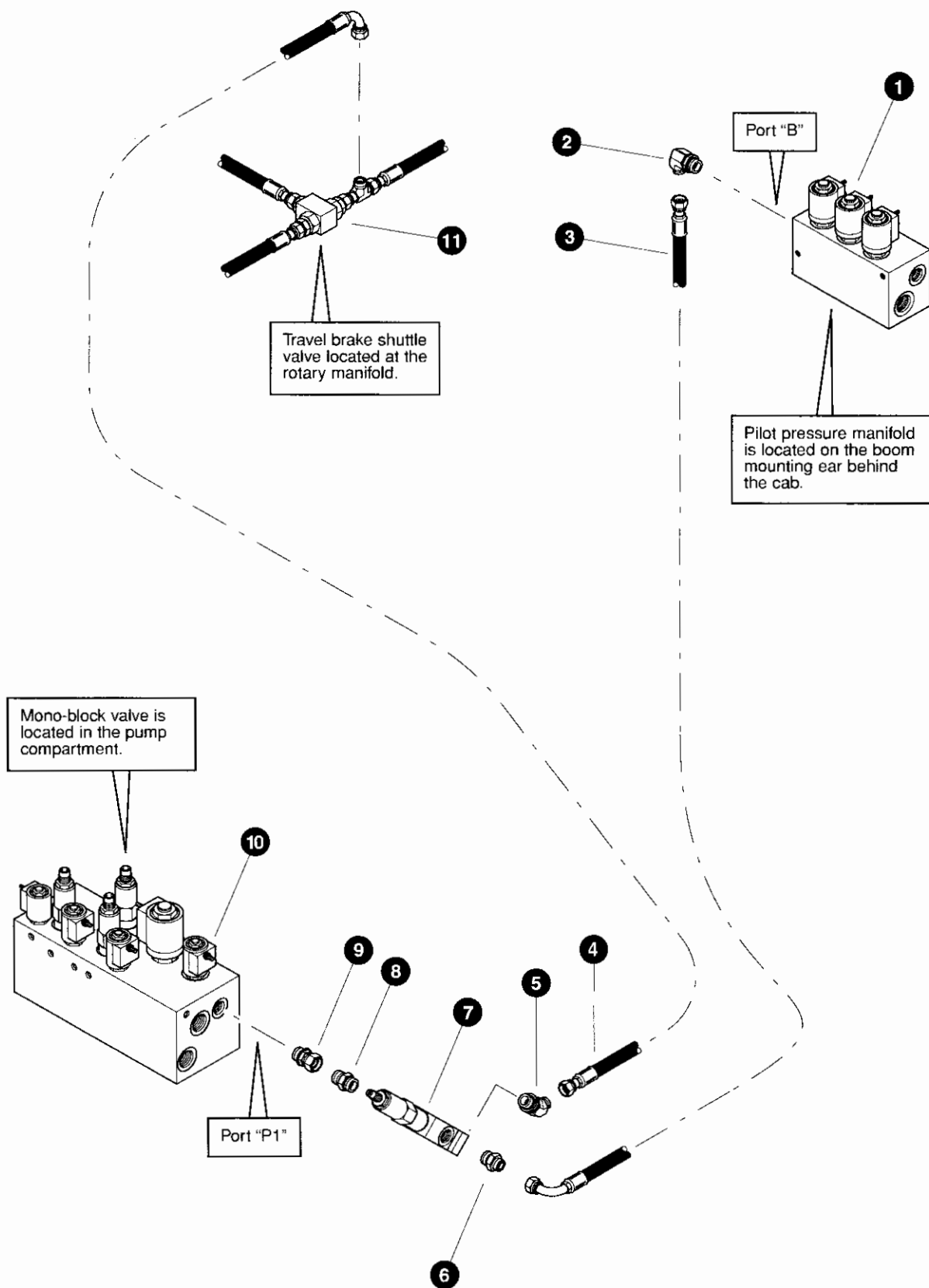
TRANSFER CASE SHIFT LINES

(Pilot Pressure Manifold & To Mono-Block Valve)

(Used on machines PDN# 037FWD and below)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	PILOT PRESSURE MANIFOLD	D.1.4
2	15145	1		ELBOW, 90° swivel - FF2098T-0404S	
3	20085	1		HOSE ASSEMBLY - 2058.5-04-040S-0409 (<i>Pilot pressure manifold port "B" to mono-block valve port "P1"</i>)	
4	20659	1		HOSE ASSEMBLY - 2054-04-040S-0409 (<i>Transfer case shift sequence valve to travel brake shuttle valve</i>)	
5	17646	1		ELBOW, 45° - FF2068T-0406S	
6	15124	1		CONNECTOR, straight - FF1852T-0406S	
7	REF.	1	✓	VALVE, sequence - transfer case shift	D.3.8
8	15396	1		CONNECTOR, straight - 6401-6-4	
9	10390	1		CONNECTOR, straight swivel - 6900-6-4	
10	REF.	1	✓	MONO-BLOCK VALVE	D.1.6

✓ See referenced page for component or assembly breakdown.



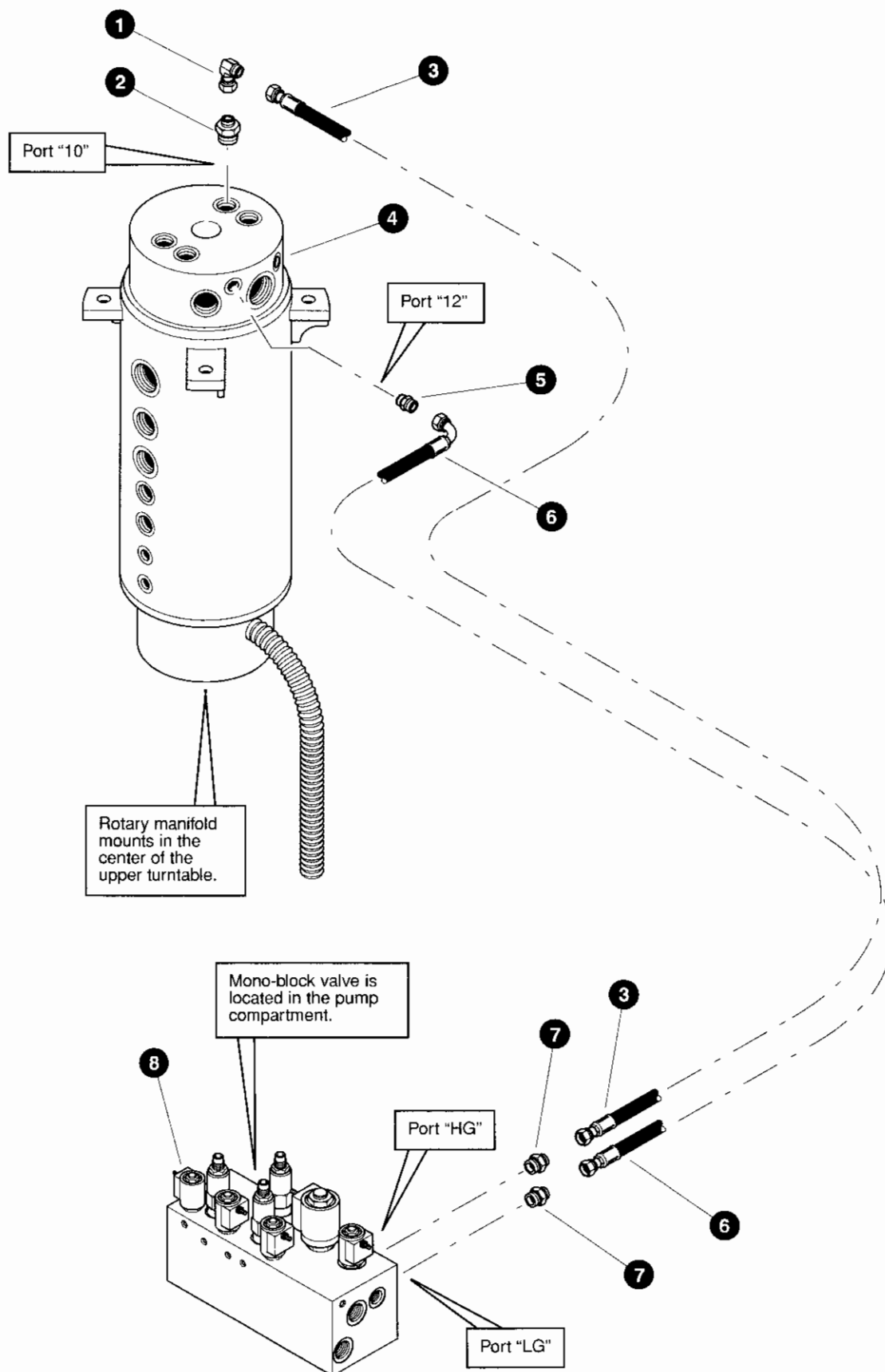
TRANSFER CASE SHIFT LINES

(Pilot Pressure Manifold To Mono-Block Valve)

(Used on machines PDN# 038FWD and above)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	PILOT PRESSURE MANIFOLD	D.1.4
2	15133	1		ELBOW, 90° - FF1868T-0406S	
3	20085	1		HOSE ASSEMBLY - 2058.5-04-040S-0409 (<i>Pilot pressure manifold port "B" to mono-block valve port "P1"</i>)	
4	20659	1		HOSE ASSEMBLY - 2054-04-040S-0409 (<i>Transfer case shift sequence valve to travel brake shuttle valve</i>)	
5	17646	1		ELBOW, 45° - FF2068T-0406S	
6	15124	1		CONNECTOR, straight - FF1852T-0406S	
7	REF.	1	✓	VALVE, sequence - transfer case shift	D.3.8
8	15396	1		CONNECTOR, straight - 6401-6-4	
9	10390	1		CONNECTOR, straight swivel - 6900-6-4	
10	REF.	1	✓	MONO-BLOCK VALVE	D.1.6

✓ See referenced page for component or assembly breakdown.

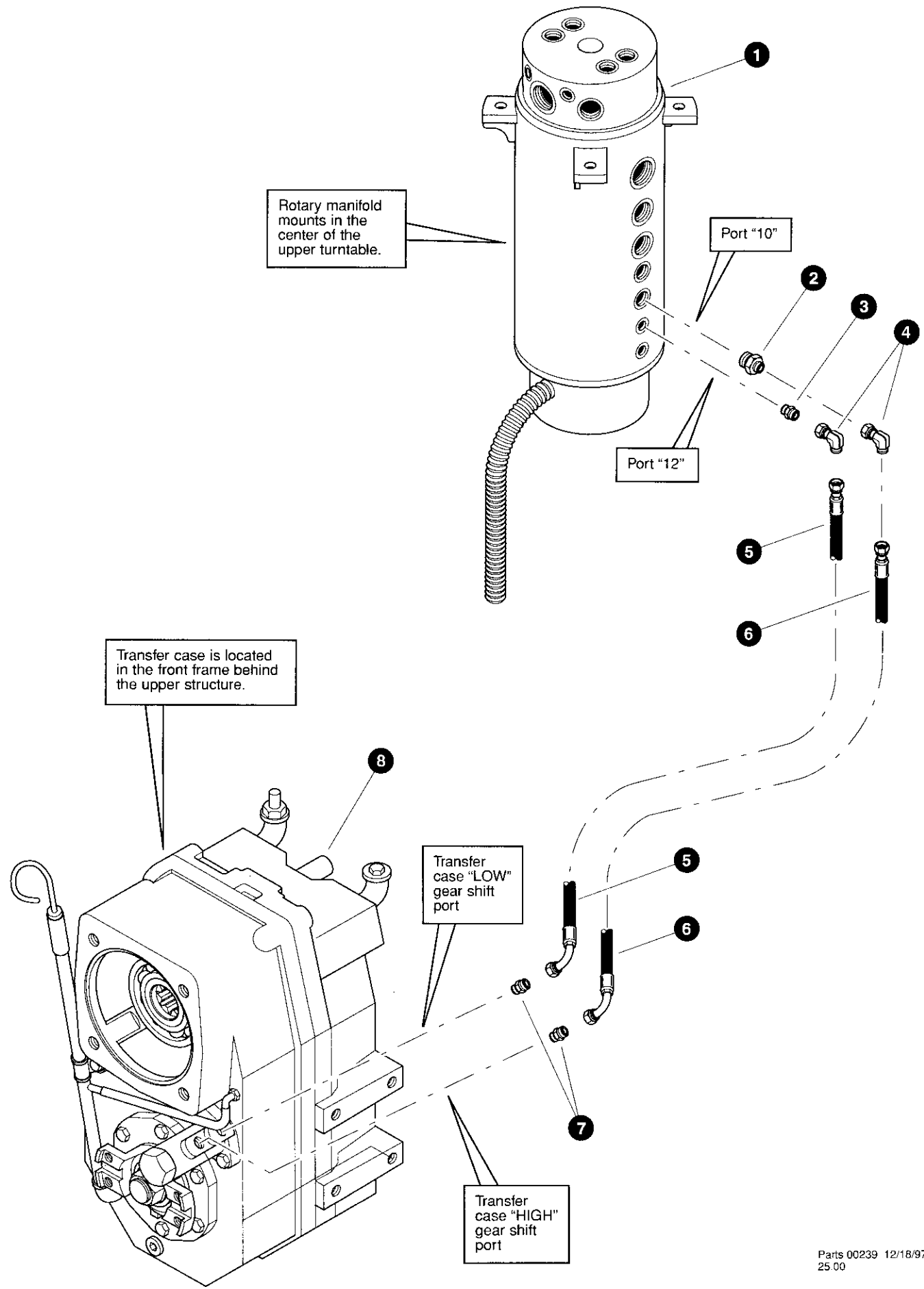


TRANSFER CASE SHIFT LINES

(Mono-Block Valve To Upper Rotary Manifold Ports)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	15145	1		ELBOW, 90° swivel - FF2098T-0404S	
2	15504	1		CONNECTOR, straight - FF1852T-0408S (ORB to ORS) (Used on machines PDN# 026FWD and above)	
	19373	1		CONNECTOR, straight - 4-8-F42EDMLO-S (BSPP to ORS) (Used on machines PDN# 025FWD and below)	
3	20174	1		HOSE ASSEMBLY - 2055.5-04-040S-040S (Mono-block manifold port "HG" to rotary manifold upper port "10")	
4	REF.	1	✓	ROTARY MANIFOLD	D.2.2
5	15124	1		CONNECTOR, straight - FF1852T-0406S (ORB to ORS) (Used on machines PDN# 026FWD and above)	
	19372	1		CONNECTOR, straight - 4-4-F42EDMLO-S (BSPP to ORS) (Used on machines PDN# 025FWD and below)	
6	20166	1		HOSE ASSEMBLY - 2050-04-040S-0409 (Mono-block manifold port "LG" to rotary manifold upper port "12")	
7	15504	2		CONNECTOR, straight - FF1852T-0408S	
8	REF.	1	✓	MONO-BLOCK VALVE	D.1.6

✓ See referenced page for component or assembly breakdown.

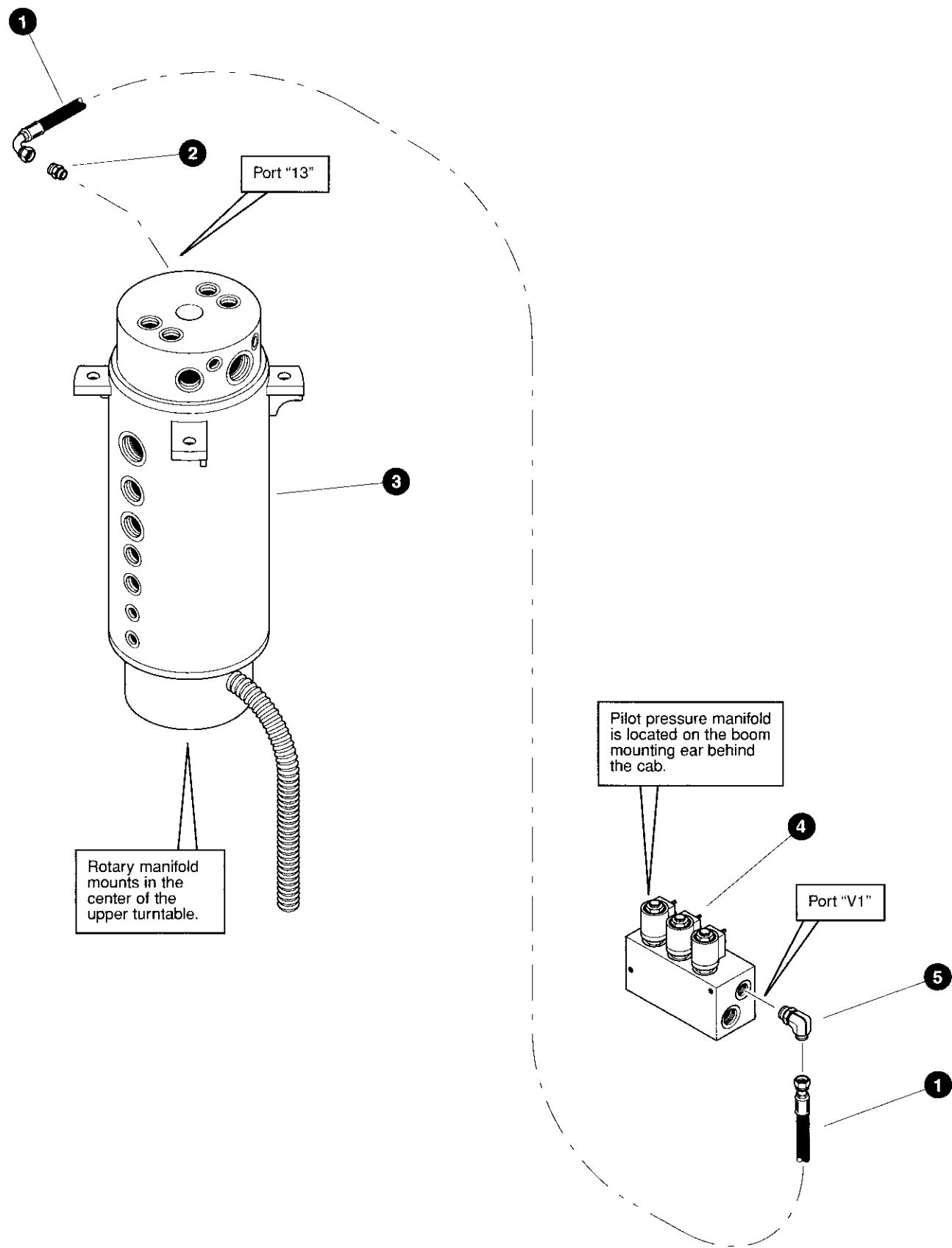


TRANSFER CASE SHIFT LINES

(Lower Rotary Manifold Ports To Transfer Case)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	ROTARY MANIFOLD	D.2.2
2	15504	1		CONNECTOR, straight - FF1852T-0408S (<i>ORB to ORS</i>) (<i>Used on machines PDN# 026FWD and above</i>)	
	19373	1		CONNECTOR, straight - 4-8-F42EDMLO-S (<i>BSPP to ORS</i>) (<i>Used on machines PDN# 025FWD and below</i>)	
3	15124	1		CONNECTOR, straight - FF1852T-0406S (<i>ORB to ORS</i>) (<i>Used on machines PDN# 026FWD and above</i>)	
	19372	1		CONNECTOR, straight - 4-4-F42EDMLO-S (<i>BSPP to ORS</i>) (<i>Used on machines PDN# 025FWD and below</i>)	
4	15145	2		ELBOW, 90° swivel - FF2098T-0404S	
5	20175	1		HOSE ASSEMBLY - 2057.5-04-040S-0409 (<i>Rotary manifold</i> <i>lower port "12" to transfer case "LOW" gear shift port</i>)	
6	18872	1		HOSE ASSEMBLY - 2061-04-040S-0409 (<i>Rotary manifold</i> <i>lower port "10" to transfer case "HIGH" gear shift port</i>)	
7	19470	2		CONNECTOR, straight - 4M14F8OMLO-S	
8	REF.	1	✓	TRANSFER CASE	Blue C

✓ See referenced page for component or assembly breakdown.

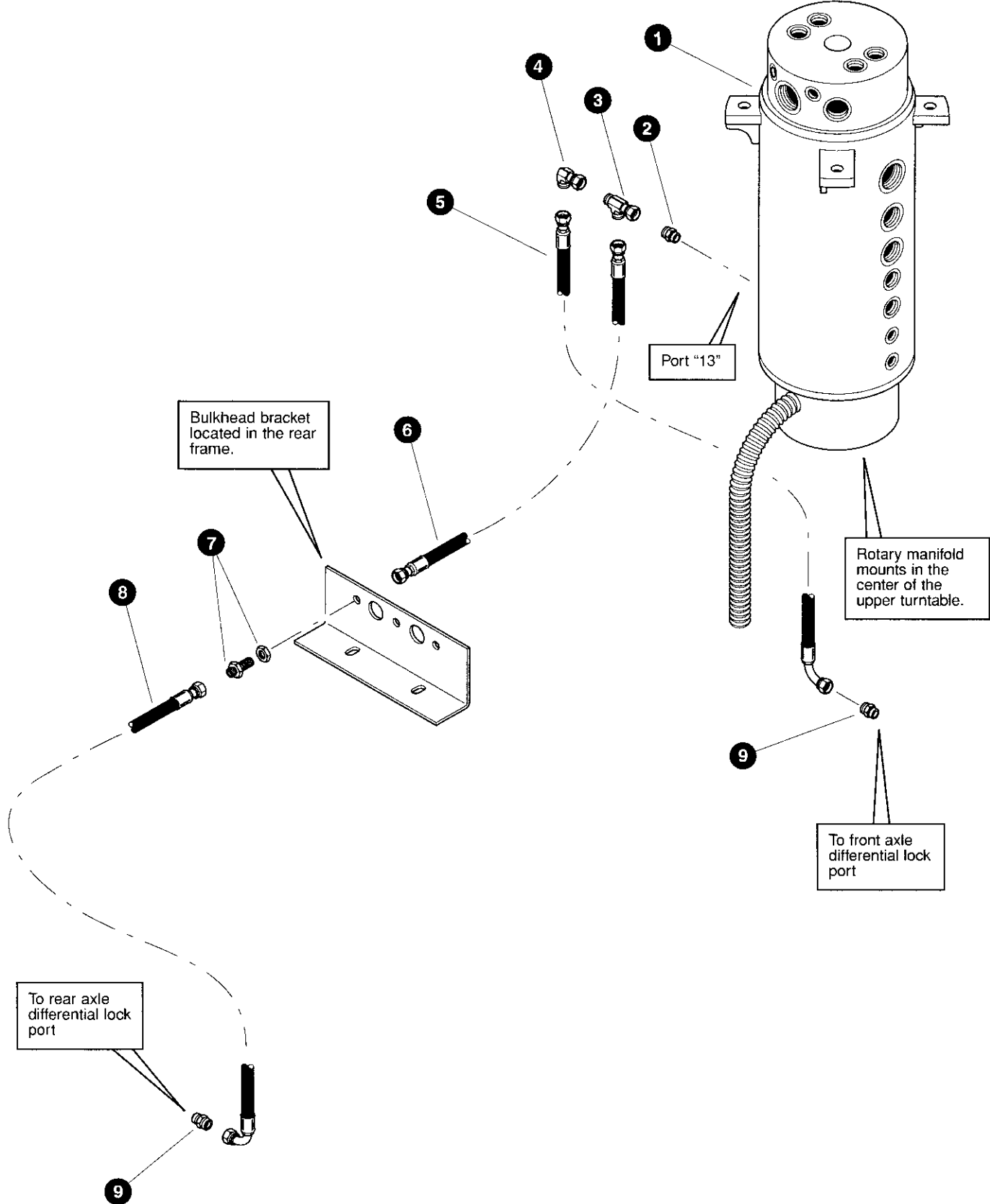


DIFFERENTIAL LOCK LINES

(Pilot Pressure Manifold To Upper Rotary Manifold)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	20176	1	HOSE ASSEMBLY - 2062-04-040S-0409 (<i>Pilot pressure manifold port "V1" to rotary manifold upper port "13"</i>)	
2	15124	1	CONNECTOR, straight - FF1852T-0406S (<i>ORB to ORS</i>) (<i>Used on machines PDN# 026FWD and above</i>)	
	19372	1	CONNECTOR, straight - 4-4-F42EDMLO-S (<i>BSPP to ORS</i>) (<i>Used on machines PDN# 025FWD and below</i>)	
3	REF.	1	✓ ROTARY MANIFOLD	D.2.2
4	REF.	1	✓ PILOT PRESSURE MANIFOLD	D.2.4
5	15133	1	ELBOW, 90° - FF1868T-0406S	

✓ See referenced page for component or assembly breakdown.

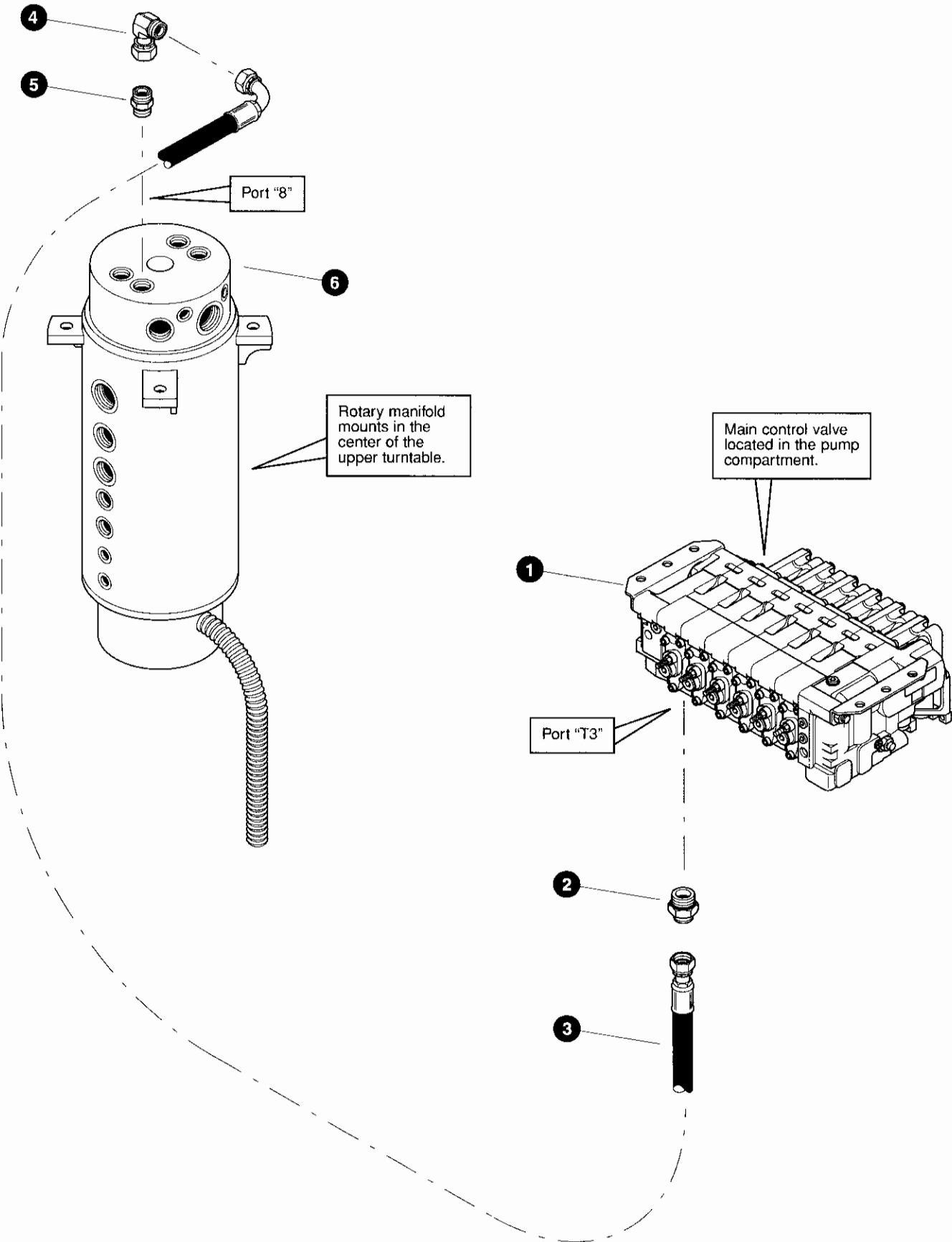


DIFFERENTIAL LOCK LINES

(Lower Rotary Manifold To Front & Rear Axles)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	ROTARY MANIFOLD	D.2.2
2	15124	1		CONNECTOR, straight - FF1852T-0406S (<i>ORB to ORS</i>) (<i>Used on machines PDN# 026FWD and above</i>)	
	19372	1		CONNECTOR, straight - 4-4-F42EDMLO-S (<i>BSPP to ORS</i>) (<i>Used on machines PDN# 025FWD and below</i>)	
3	15176	1		TEE - FF2114T-0404S	
4	15145	1		ELBOW, 90° swivel - FF2098T-0404S	
5	20177	1		HOSE ASSEMBLY - 2023-04-040S-0409 (<i>Rotary manifold</i> <i>lower port "13" tee to front axle differential lock port</i>)	
6	20172	1		HOSE ASSEMBLY - 2101-04-040S-040S (<i>Rotary manifold</i> <i>lower port "13" tee to bulkhead bracket left</i>)	
7	18582	1		CONNECTOR, straight bulkhead - FF1994T-0404S	
8	20178	1		HOSE ASSEMBLY - 2120-04-040S-0409 (<i>Bulkhead bracket</i> <i>left to rear axle differential lock port</i>) (<i>Standard 183" wheelbase</i>)	
	20179	1		HOSE ASSEMBLY - 2168-04-040S-0409 (<i>Bulkhead bracket</i> <i>left to rear axle differential lock port</i>) (<i>Optional 231" wheelbase</i>)	
9	19470	2		CONNECTOR, straight - 4M14F8OMLO-S	

✓ See referenced page for component or assembly breakdown.

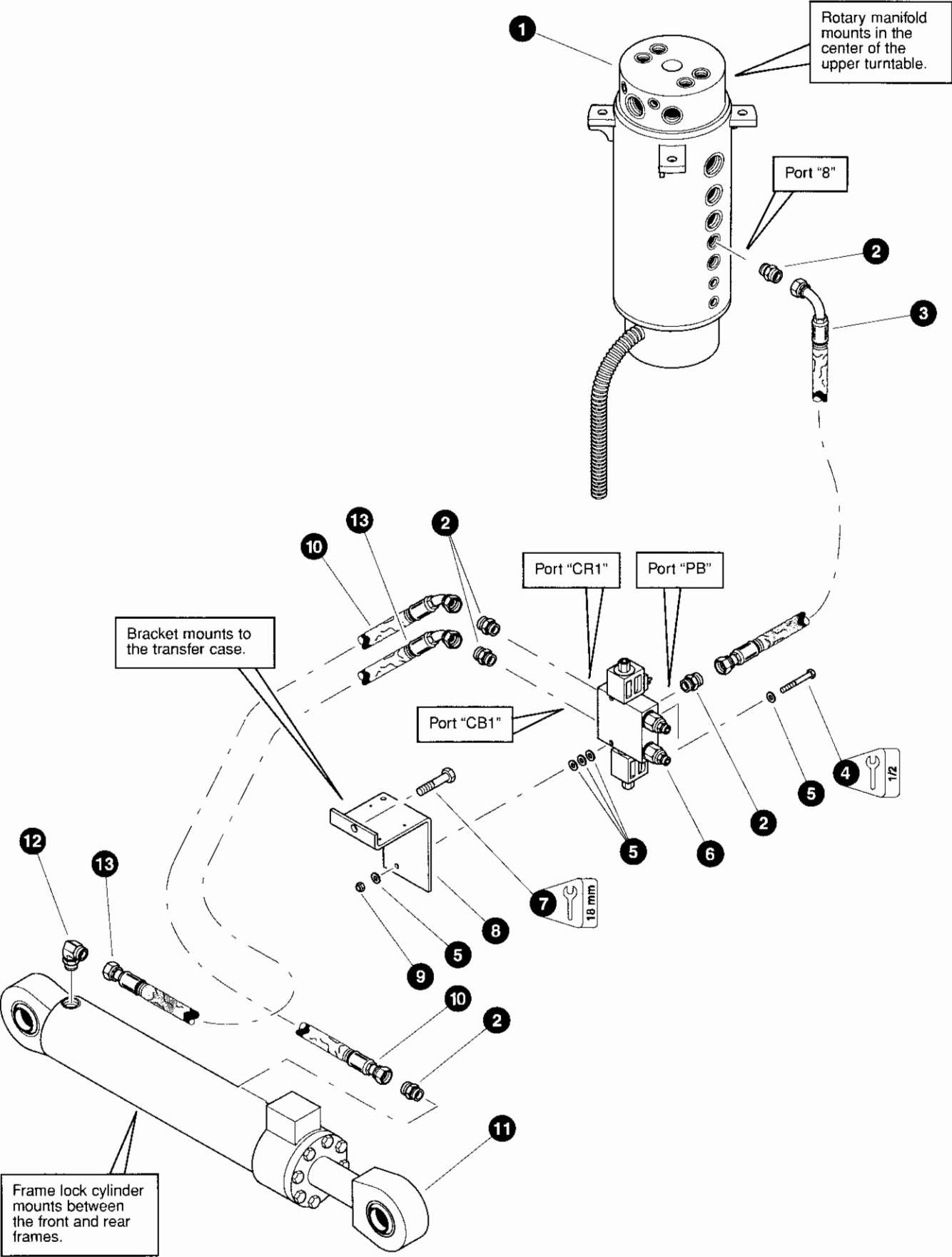


FRAME LOCK CYLINDER LINES

(From Main Control Valve To Upper Rotary Manifold Port)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	MAIN CONTROL VALVE	Blue A
2	15238	1		CONNECTOR, straight - FF1852T-0812S	
3	20131	1		HOSE ASSEMBLY - 4044-08-080S-080S (<i>Main control valve port "T3" to rotary manifold upper port "8"</i>)	
4	16297	1		ELBOW, 90° swivel - FF2098T-0808S	
5	15117	1		CONNECTOR, straight - FF1852T-0808S (<i>ORB to ORS</i>) (<i>Used on machines PDN# 026FWD and above</i>)	
	19374	1		CONNECTOR, straight - 8-8-F42EDMLO-S (<i>BSPP to ORS</i>) (<i>Used on machines PDN# 025FWD and below</i>)	
6	REF.	1	✓	ROTARY MANIFOLD	D.2.2

✓ See referenced page for component or assembly breakdown.



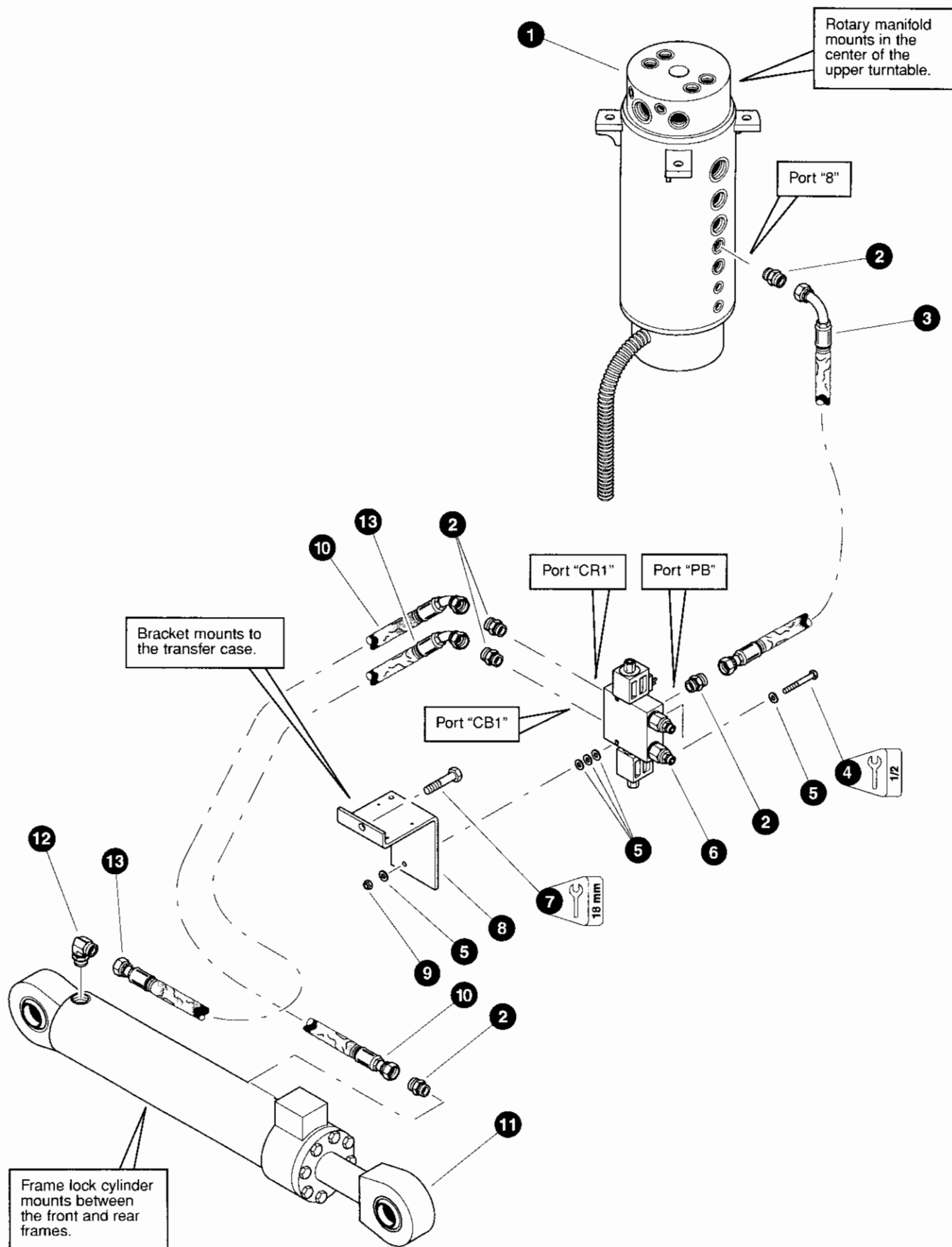
FRAME LOCK CYLINDER LINES

(From Lower Rotary Manifold Port To Frame Lock Valve)

(Used on machines PDN# 037FWD and below)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	ROTARY MANIFOLD	D.2.2
2	15117	1		CONNECTOR, straight - FF1852T-0808S (ORB to ORS) (Used on machines PDN# 026FWD and above)	
	19374	1		CONNECTOR, straight - 8-8-F42EDMLO-S (BSPP to ORS) (Used on machines PDN# 025FWD and below)	
3	20138	1		HOSE ASSEMBLY - 4042-08-080S-0809 (Rotary manifold lower port "8" to frame lock valve port "PB")	
4	10824	2		BOLT - 5/16" x 2-1/2"	
5	15559	10		WASHER, SAE flat - 5/16"	
6	REF.	1	✓	FRAME LOCK VALVE	D.3.10
7	20137	1		BOLT - 12mm-1.75P x 70mm	
8	19195	1		BRACKET, frame lock valve mounting	
9	10788	2		NUT, nylock - 5/16"	
10	20133	1		HOSE ASSEMBLY - 4054-08-080S-0804 (Frame lock valve port "CR1" to frame lock cylinder rod port)	
11	REF.	1	✓	FRAME LOCK CYLINDER	E.2.8
12	16360	1		ELBOW, 90° - FF1868T-0808S	
13	20134	1		HOSE ASSEMBLY - 4056-08-080S-0804 (Frame lock valve port "CB1" to frame lock cylinder base port)	

✓ See referenced page for component or assembly breakdown.



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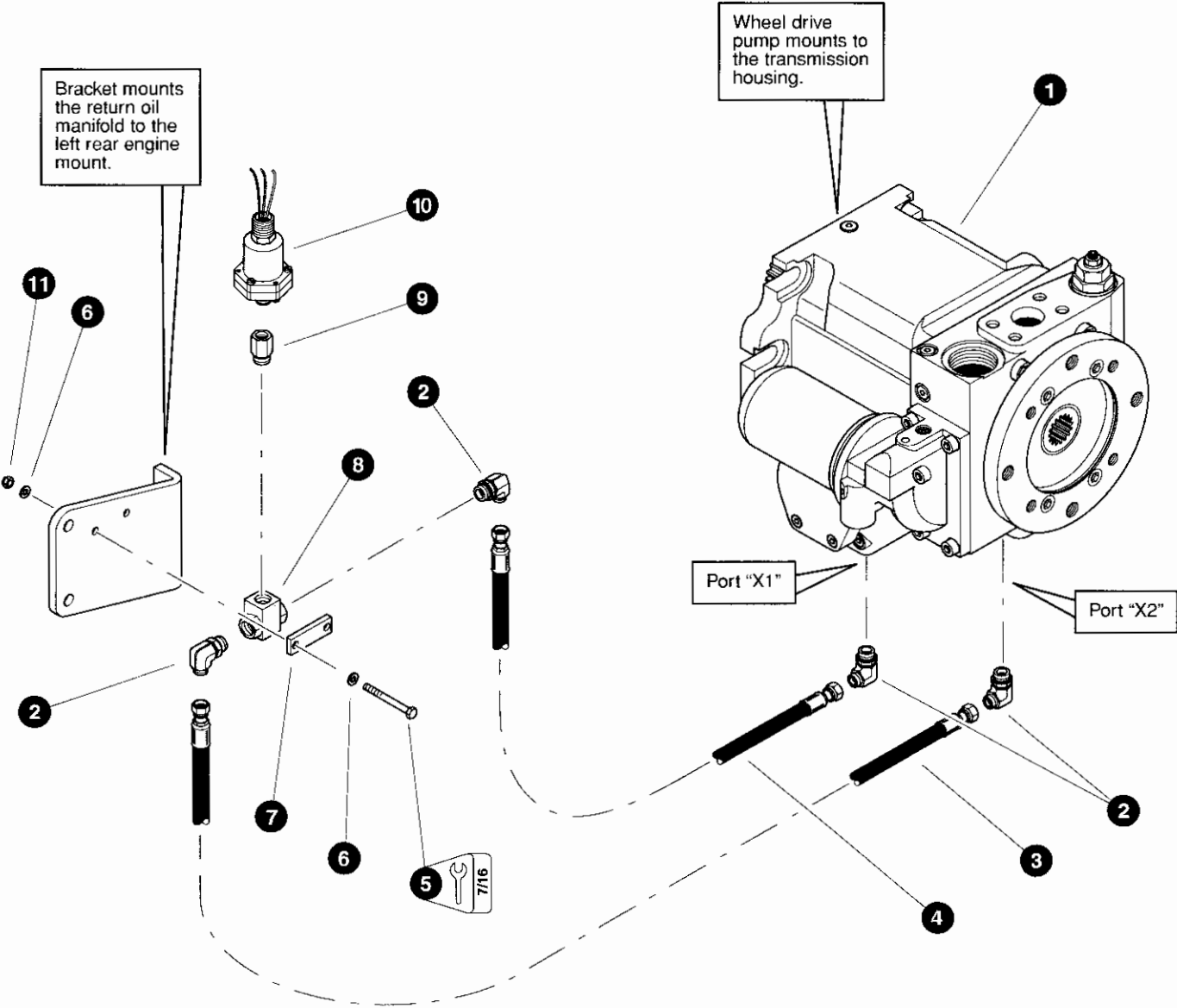
FRAME LOCK CYLINDER LINES

(From Lower Rotary Manifold Port To Frame Lock Valve)

(Used on machines PDN# 037FWD and below)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	ROTARY MANIFOLD	D.2.2
2	15117	1		CONNECTOR, straight - FF1852T-0808S (ORB to ORS) (Used on machines PDN# 026FWD and above)	
	19374	1		CONNECTOR, straight - 8-8-F42EDMLO-S (BSPP to ORS) (Used on machines PDN# 025FWD and below)	
3	20138	1		HOSE ASSEMBLY - 4042-08-080S-0809 (Rotary manifold lower port "8" to frame lock valve port "PB")	
4	10824	2		BOLT - 5/16" x 2-1/2"	
5	15559	10		WASHER, SAE flat - 5/16"	
6	REF.	1	✓	FRAME LOCK VALVE	D.3.10
7	20137	1		BOLT - 12mm-1.75P x 70mm	
8	19195	1		BRACKET, frame lock valve mounting	
9	10788	2		NUT, nylock - 5/16"	
10	20133	1		HOSE ASSEMBLY - 4054-08-080S-0804 (Frame lock valve port "CR1" to frame lock cylinder rod port)	
11	REF.	1	✓	FRAME LOCK CYLINDER	E.2.8
12	16360	1		ELBOW, 90° - FF1868T-0808S	
13	20134	1		HOSE ASSEMBLY - 4056-08-080S-0804 (Frame lock valve port "CB1" to frame lock cylinder base port)	

✓ See referenced page for component or assembly breakdown.



FRAME LOCK VALVE SIGNAL LINES

(Used on machines PDN# 037FWD thru 042FWD)

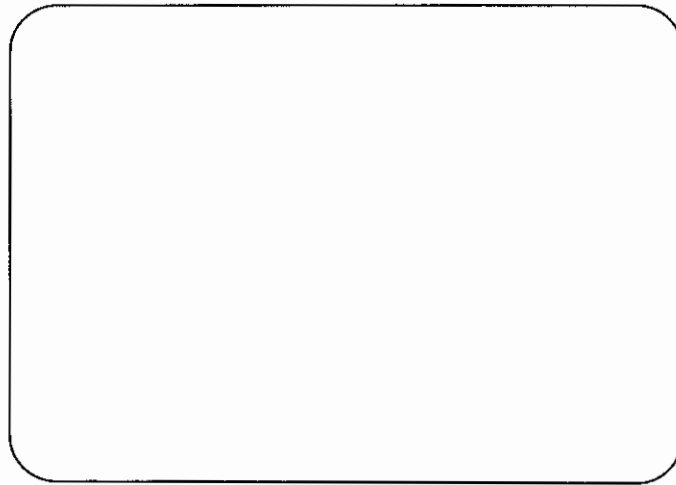
REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	WHEEL DRIVE PUMP - Rexroth AA4VG125	C.3.2
2	15133	4		ELBOW, 90° - FF1868T-0406S	
3	16534	1		HOSE ASSEMBLY - 2020-04-040S-040S (<i>Wheel drive pump stroking piston port "X2" to lock valve signal shuttle</i>)	
4	15370	1		HOSE ASSEMBLY - 2015-04-040S-040S (<i>Wheel drive pump stroking piston port "X1" to lock valve signal shuttle</i>)	
5	15508	2		BOLT - 1/4" x 2-1/2"	
6	10757	4		WASHER, SAE flat - 1/4"	
7	20658	1		BRACKET, lock valve signal shuttle mount	
8	20265	1		VALVE, shuttle	
9	16018	1		BUSHING, reducer - 6405-6-4	
10	19779	1		SWITCH, pressure	
11	10811	2		NUT, lock - 1/4"	

✓ See referenced page for component or assembly breakdown.

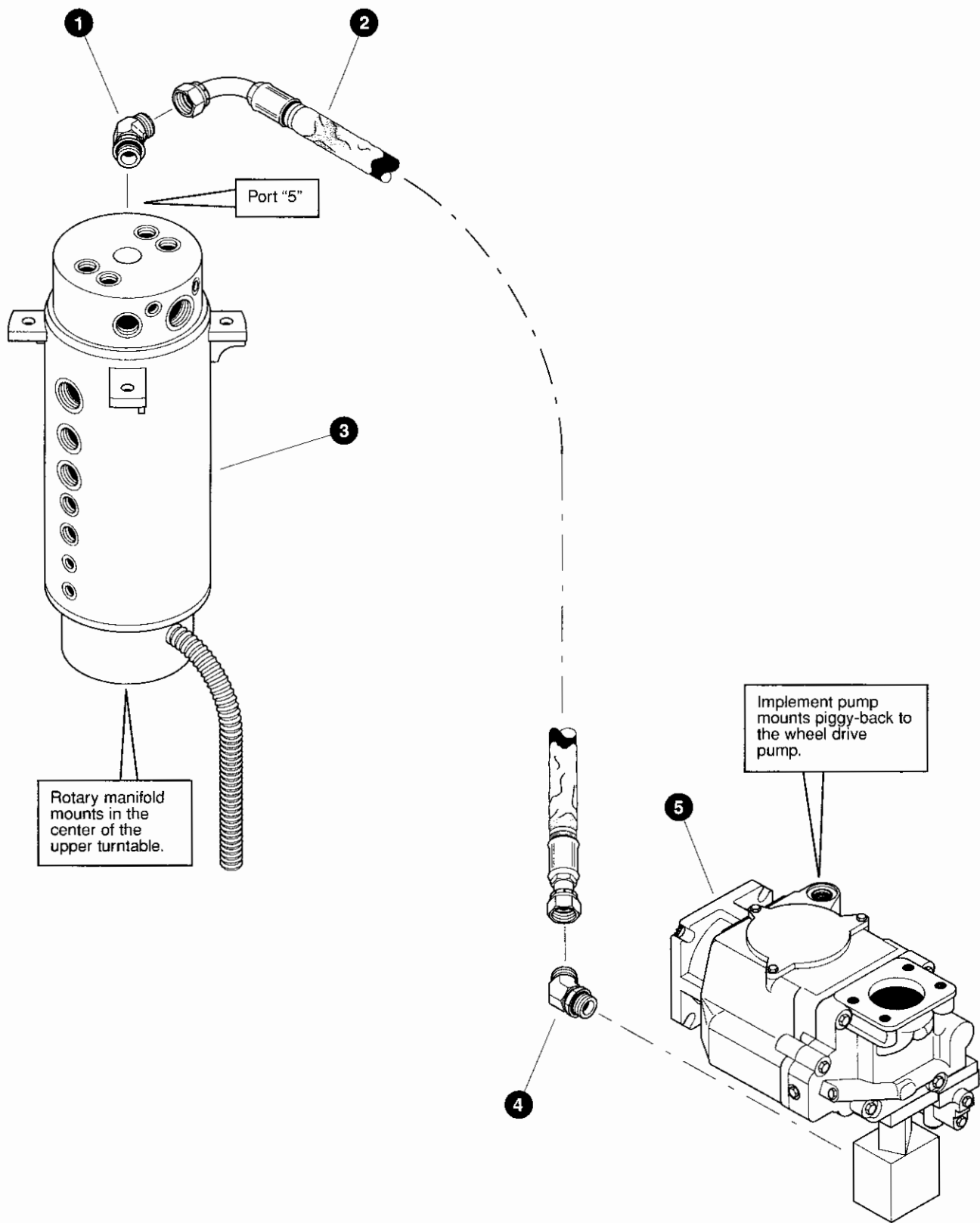
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B.3.61

Section B.4



Hydraulic Circuits - Optional Clam Bunk

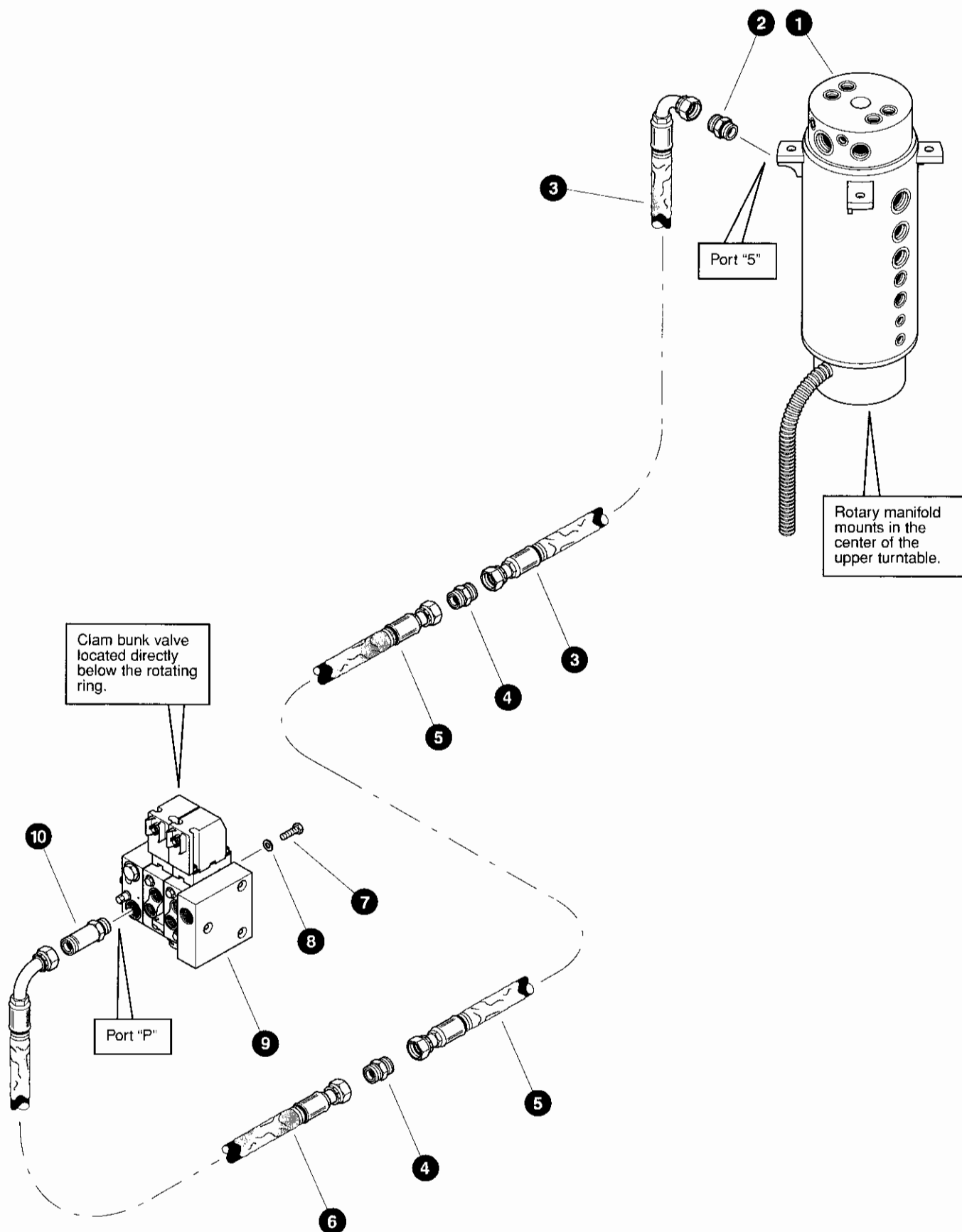


CLAM BUNK PRESSURE LINE

(Implement Pump To Upper Rotary Manifold)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	19127	1	ELBOW, 45° - FF2068T-1212S (ORB to ORS) (Used on machines PDN# 026FWD and above)	
	19377	1	ELBOW, 45° - 3408-12 (BSPP to ORS) (Used on machines PDN# 025FWD and below)	
2	20182	1	HOSE ASSEMBLY - 4063-12-120S-1209 (Implement pump pressure manifold to rotary manifold upper port "5")	
3	REF.	1	✓ ROTARY MANIFOLD	D.2.2
4	19127	1	ELBOW, 45° - FF2068T-1212S	
5	REF.	1	✓ IMPLEMENT PUMP	C.2.2

✓ See referenced page for component or assembly breakdown.



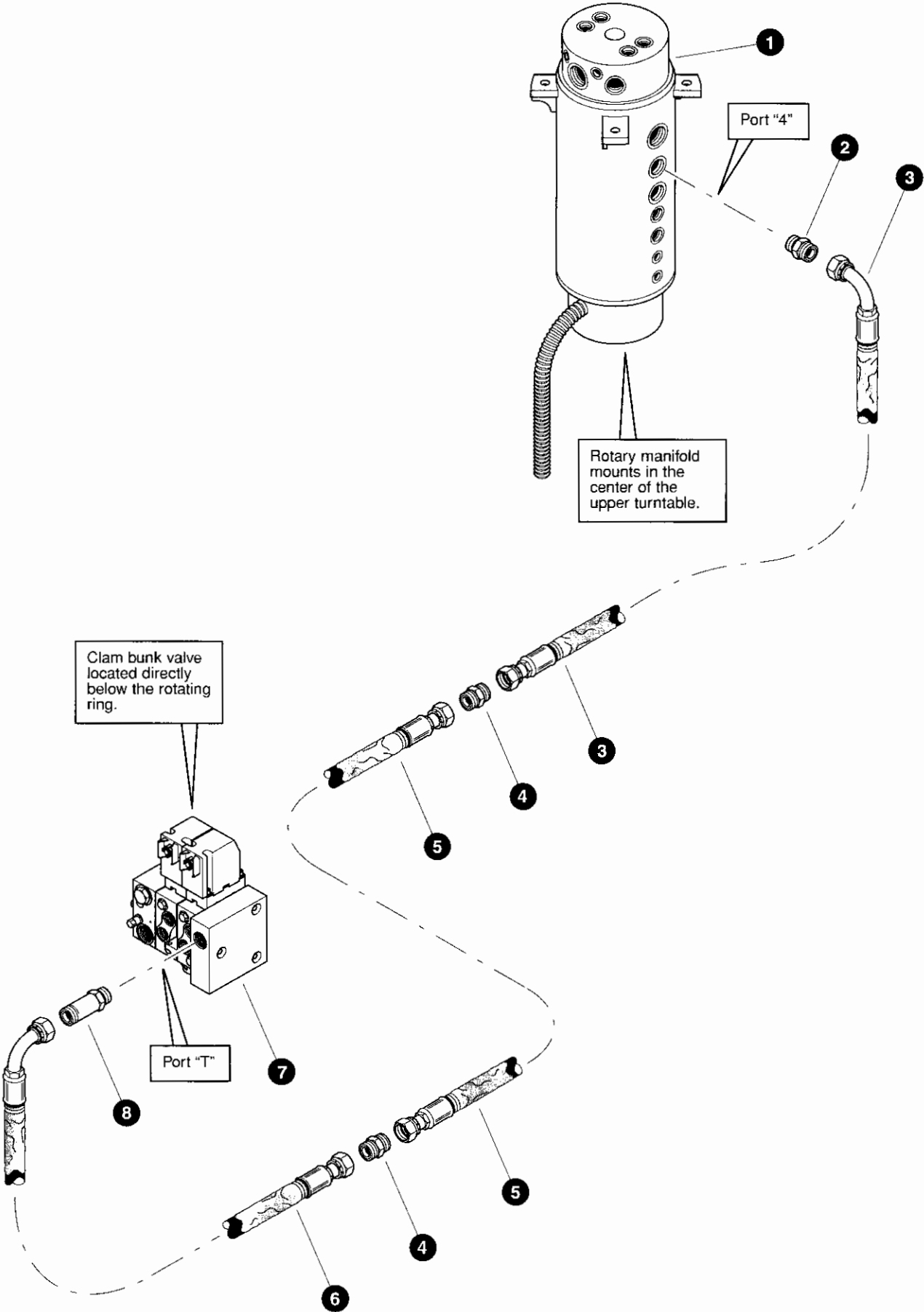
Parts 00258 12/18/97
18.75

CLAM BUNK PRESSURE LINE

(Lower Rotary Manifold To Clam Bunk Valve)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	ROTARY MANIFOLD	D.2.2
2	15152	1		CONNECTOR, straight - FF1852T-1212S (<i>ORB to ORS</i>) (<i>Used on machines PDN# 026FWD and above</i>)	
	19375	1		CONNECTOR, straight - 12-F42EDMLO-S (<i>BSPP to ORS</i>) (<i>Used on machines PDN# 025FWD and below</i>)	
3	20184	1		HOSE ASSEMBLY - 4087.5-12-120S-1209 (<i>Rotary manifold lower port "5" to center frame union</i>)(<i>Used on machines PDN# 040FWD and above</i>)	
	20183	1		HOSE ASSEMBLY - 4075-12-120S-1209 (<i>Rotary manifold lower port "5" to center frame union</i>)(<i>Used on machines PDN# 039FWD and below</i>)	
4	18084	2		CONNECTOR, straight - FF2000T-1212S	
5	20185	1		HOSE ASSEMBLY - 4076.5-12-120S-120S (<i>Center frame union to rear frame union</i>)(<i>Standard 183" wheelbase</i>)	
	20186	1		HOSE ASSEMBLY - 4106-12-120S-120S (<i>Center frame union to rear frame union</i>)(<i>Optional 231" wheelbase</i>)	
6	20187	1		HOSE ASSEMBLY - 4049.5-12-120S-1209 (<i>Rear frame union to clam bunk valve port "P"</i>)(<i>Standard 183" wheelbase</i>)	
	20188	1		HOSE ASSEMBLY - 4068-12-120S-1209 (<i>Rear frame union to clam bunk valve port "P"</i>)(<i>Optional 231" wheelbase</i>)	
7	10402	2		BOLT - 3/8" x 1-1/4"	
8	15528	2		WASHER, SAE flat - 3/8"	
9	REF.	1	✓	CLAM BUNK VALVE	Blue B
10	19092	1		CONNECTOR, straight long - FF1854T-1212S	

✓ See referenced page for component or assembly breakdown.

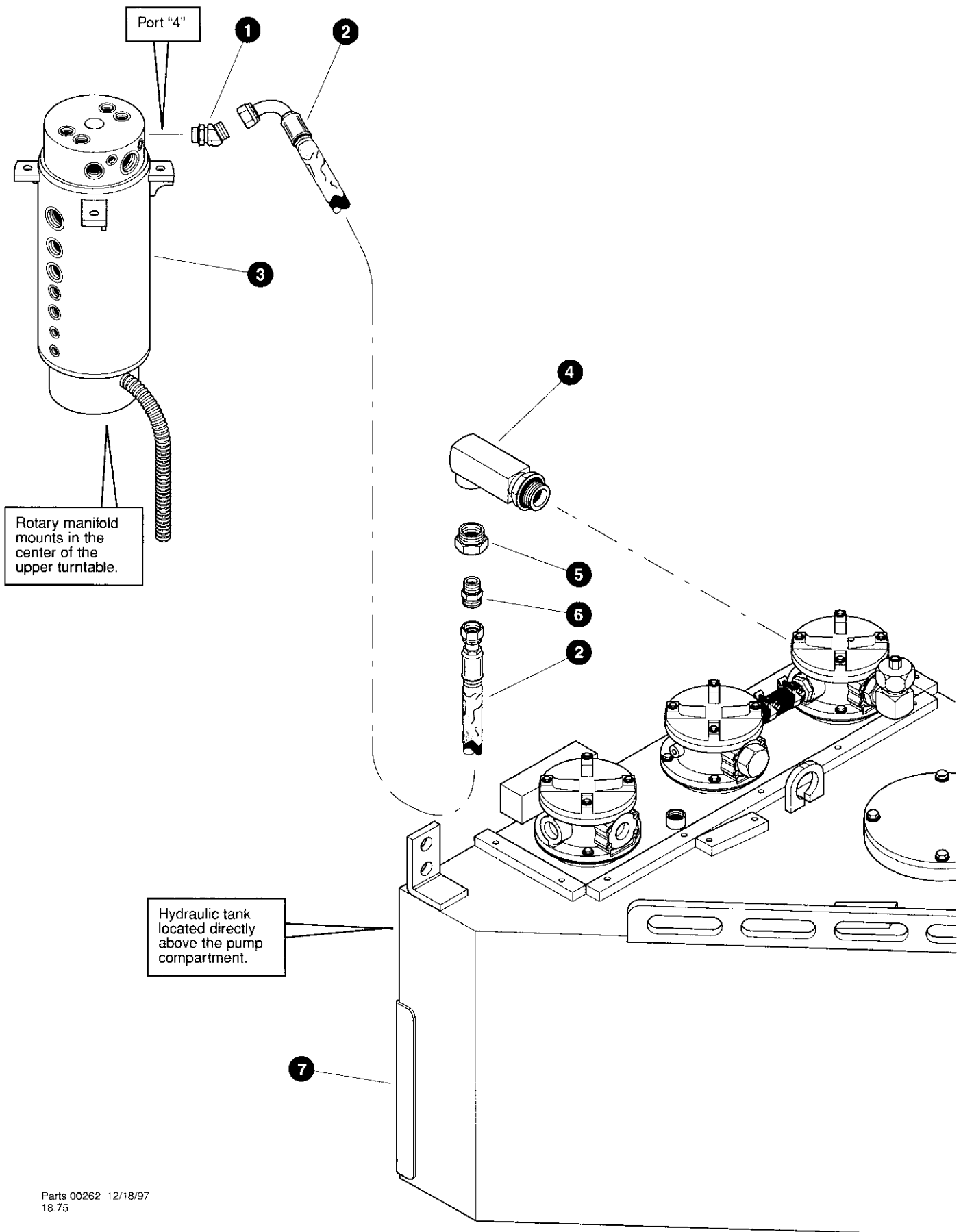


CLAM BUNK RETURN LINE

(Clam Bunk Valve To Lower Rotary Manifold)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	ROTARY MANIFOLD	D.2.2
2	15152	1		CONNECTOR, straight - FF1852T-1212S (<i>ORB to ORS</i>) (Used on machines PDN# 026FWD and above)	
	19375	1		CONNECTOR, straight - 12-F42EDMLO-S (<i>BSPP to ORS</i>) (Used on machines PDN# 025FWD and below)	
3	20189	1		HOSE ASSEMBLY - 4086.5-12-120S-1209 (<i>Rotary manifold lower port "5" to center frame union</i>)(Used on machines PDN# 040FWD and above)	
	20190	1		HOSE ASSEMBLY - 4077-12-120S-1209 (<i>Rotary manifold lower port "5" to center frame union</i>)(Used on machines PDN# 039FWD and below)	
4	18084	2		CONNECTOR, straight - FF2000T-1212S	
5	20185	1		HOSE ASSEMBLY - 4076.5-12-120S-120S (<i>Center frame union to rear frame union</i>)(Standard 183" wheelbase)	
	20186	1		HOSE ASSEMBLY - 4106-12-120S-120S (<i>Center frame union to rear frame union</i>)(Optional 231" wheelbase)	
6	20191	1		HOSE ASSEMBLY - 4052.5-12-120S-1209 (<i>Rear frame union to clam bunk valve port "P"</i>)(Standard 183" wheelbase)	
	20192	1		HOSE ASSEMBLY - 4071-12-120S-1209 (<i>Rear frame union to clam bunk valve port "P"</i>)(Optional 231" wheelbase)	
7	REF.	1	✓	CLAM BUNK VALVE	Blue B
8	19092	1		CONNECTOR, straight long - FF1854T-1212S	

✓ See referenced page for component or assembly breakdown.



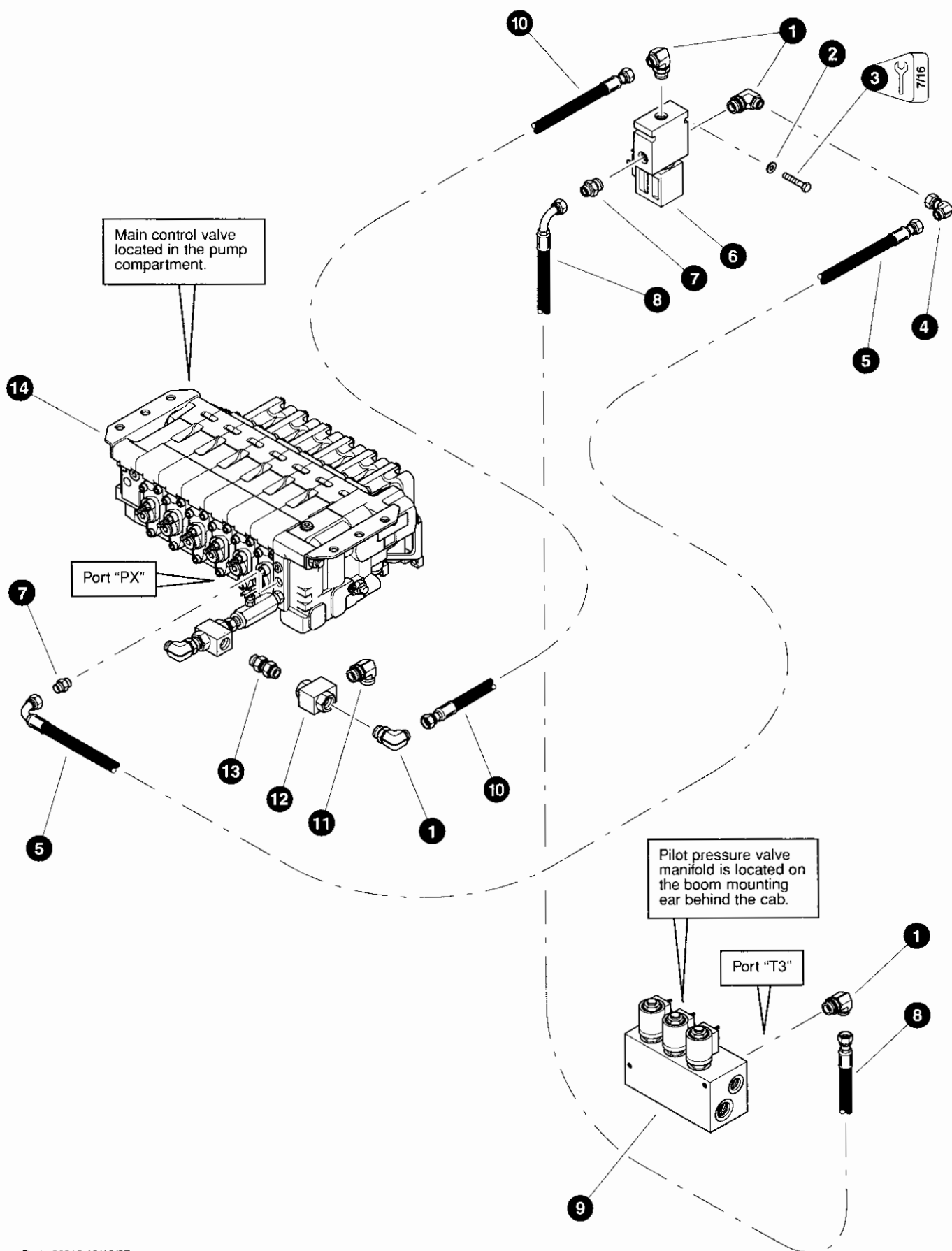
Parts 00262 12/18/97
18.75

CLAM BUNK RETURN LINE

(Upper Rotary Manifold To Hydraulic Tank)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	19127	1	ELBOW, 45° - FF2068T-1212S (ORB to ORS) (Used on machines PDN# 026FWD and above)	
	19377	1	ELBOW, 45° - 3408-12 (BSPP to ORS) (Used on machines PDN# 025FWD and below)	
2	20193	1	HOSE ASSEMBLY - 4080-12-120S-1209 (Rotary manifold upper port "4" to cab-side return filter)	
3	REF.	1	✓ ROTARY MANIFOLD	D.2.2
4	19127	1	ELBOW, 90° - 2725-FSO-2420	
5	16325	1	BUSHING, black reducer - 1-1/4" x 3/4"	
6	15201	1	CONNECTOR, straight - FF2031T-1212S	
7	REF.	1	✓ HYDRAULIC TANK	E.1.2

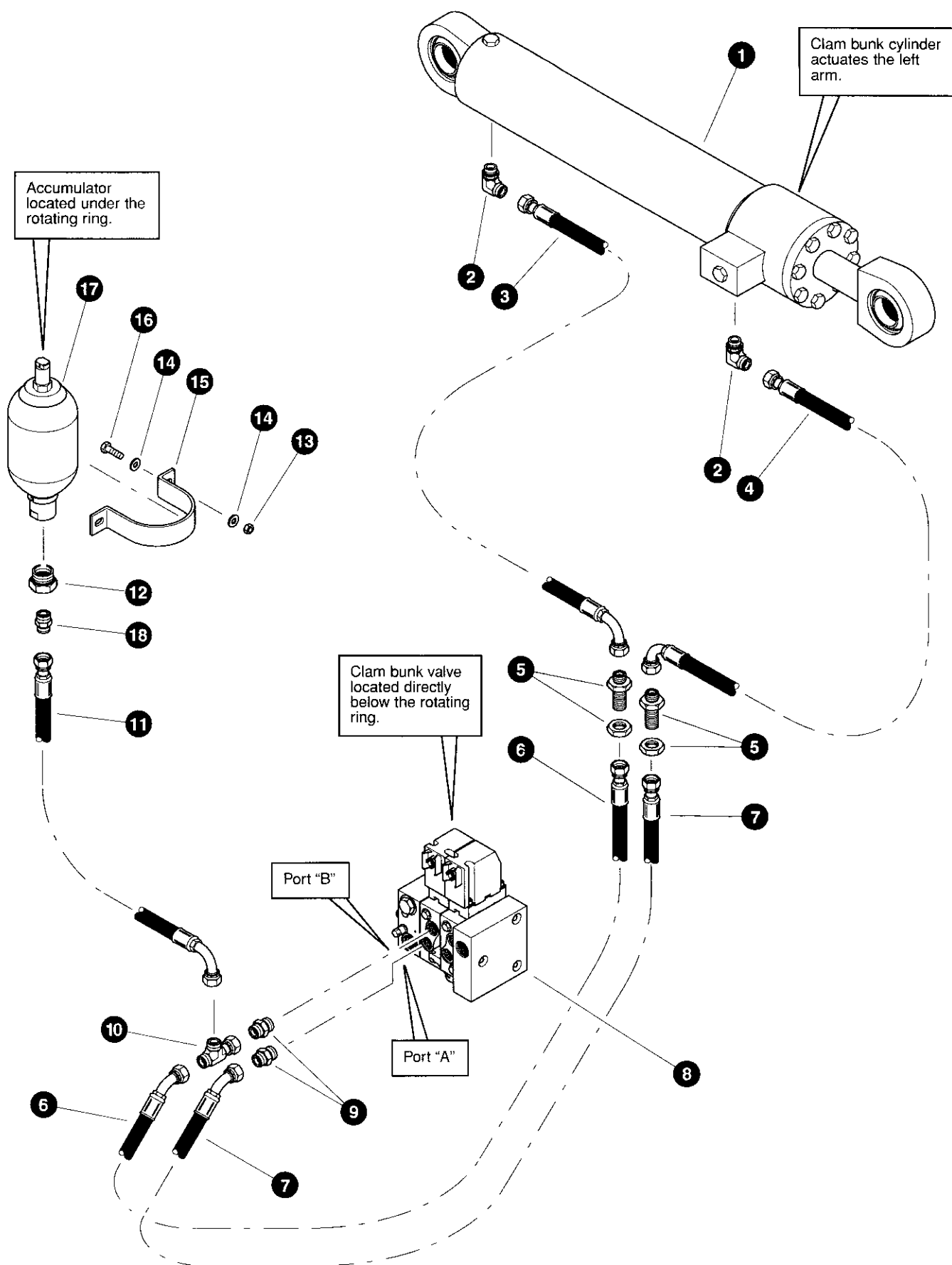
✓ See referenced page for component or assembly breakdown.



CLAM BUNK LOAD SENSE LINES

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	15133	4	ELBOW, 90° - FF1868T-0406S	
2	10757	2	WASHER, SAE flat - 1/4"	
3	15575	2	BOLT - 1/4" x 1-1/2"	
4	15145	1	ELBOW, 90° swivel - FF2098T-0404S	
5	20194	1	HOSE ASSEMBLY - 2017.5-04-040S-0409 (Main control valve port "PX" to 3-way valve)	
6	19300	1	VALVE, 3-way	
7	15124	2	CONNECTOR, straight - FF1852T-0406S	
8	15380	1	HOSE ASSEMBLY - 2060-04-040S-0409 (3-way valve to pilot pressure manifold port "T3")	
9	REF.	1	✓ PILOT PRESSURE MANIFOLD	D.1.4
10	15369	1	HOSE ASSEMBLY - 2012-04-040S-0409 (3-way valve to load sense shuttle)	
11	16296	1	ELBOW, 90° - FF1868T-0606S (New connection point for load sense line to the implement pump)	
12	19303	1	VALVE, shuttle - load sense	
13	19366	1	CONNECTOR, straight - 6403-NWO-6	
14	REF.	1	✓ MAIN CONTROL VALVE	Blue B

✓ See referenced page for component or assembly breakdown.



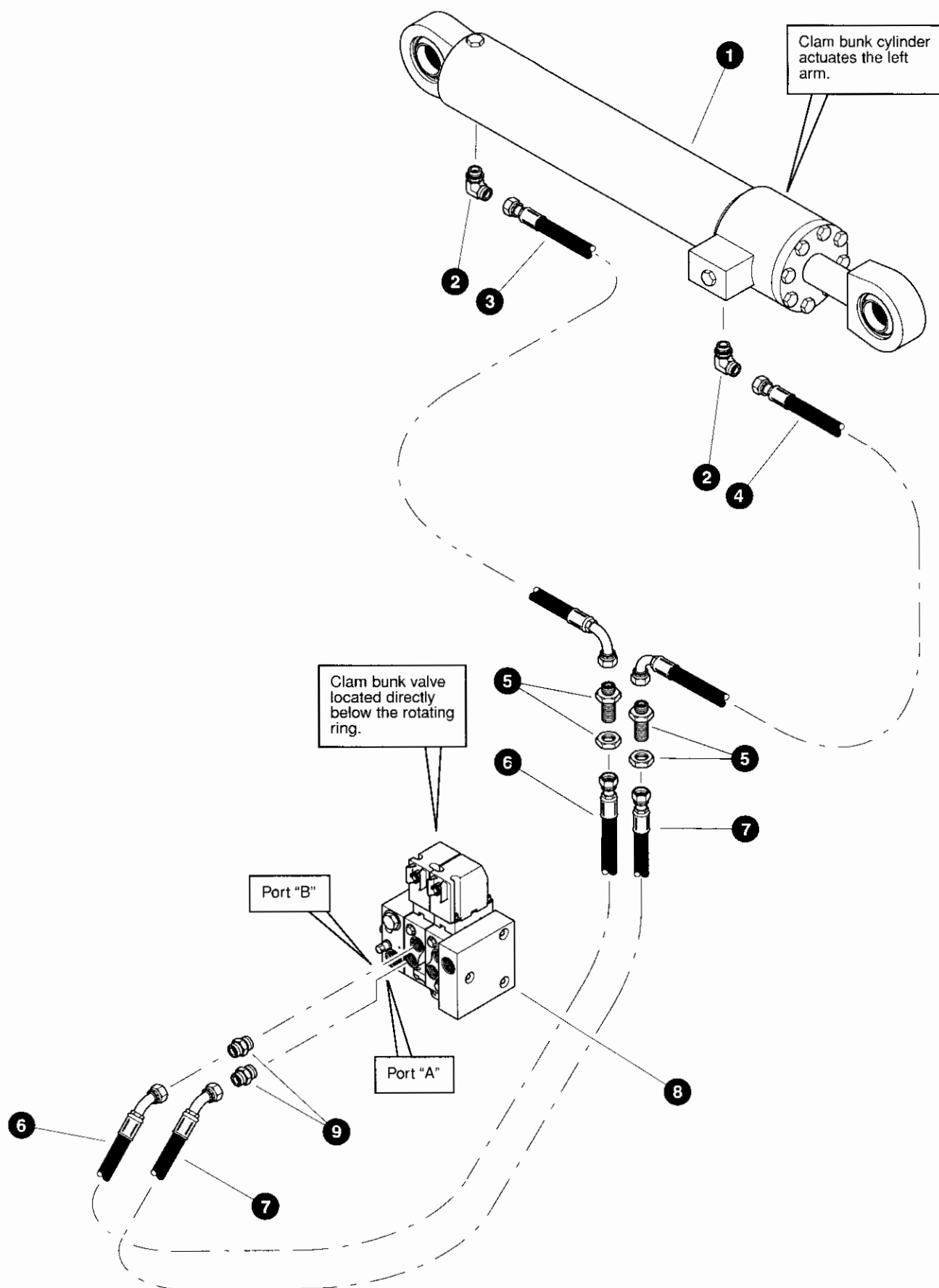
CLAM BUNK ARM LINES

(Clam Bunk Valve To Left Clam Bunk Cylinder)

(Used on machines PDN# 042FWD and below)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	CLAM BUNK CYLINDER	E.2.10
2	16360	2		ELBOW, 90° - FF1868T-0808S	
3	17483	1		HOSE ASSEMBLY - 4019-08-080S-0809 (Clam bunk cylinder base port to left front bulkhead fitting)	
4	20195	1		HOSE ASSEMBLY - 4031-08-080S-0809 (Clam bunk cylinder rod port to right front bulkhead fitting)	
5	20196	2		CONNECTOR, straight bulkhead - FF199T-0808S	
6	20113	1		HOSE ASSEMBLY - 4047-08-080S-0804 (Clam bunk left valve section port "B" to left front bulkhead fitting)	
7	20198	1		HOSE ASSEMBLY - 4045-08-080S-0804 (Clam bunk left valve section port "A" to right front bulkhead fitting)	
8	REF.	1	✓	CLAM BUNK VALVE	Blue B
9	15115	2		CONNECTOR, straight - FF1852T-0810S	
10	15433	1		TEE - FF2114T-0808S	
11	20195	1		HOSE ASSEMBLY - 4031-08-080S-0809 (Clam bunk left valve section port "B" tee to accumulator)	
12	16719	1		BUSHING, reducer - 6410-16-8	
13	10813	2		NUT, lock - 3/8"	
14	15528	4		WASHER, SAE flat - 3/8"	
15	13176	1		BRACKET, accumulator mounting	
16	10402	2		BOLT - 3/8" x 1-1/4"	
17	18862	1		ACCUMULATOR	
18	15117	1		CONNECTOR, straight - FF1852T-0808S	

✓ See referenced page for component or assembly breakdown.



Parts 00363 12/18/97
18.75

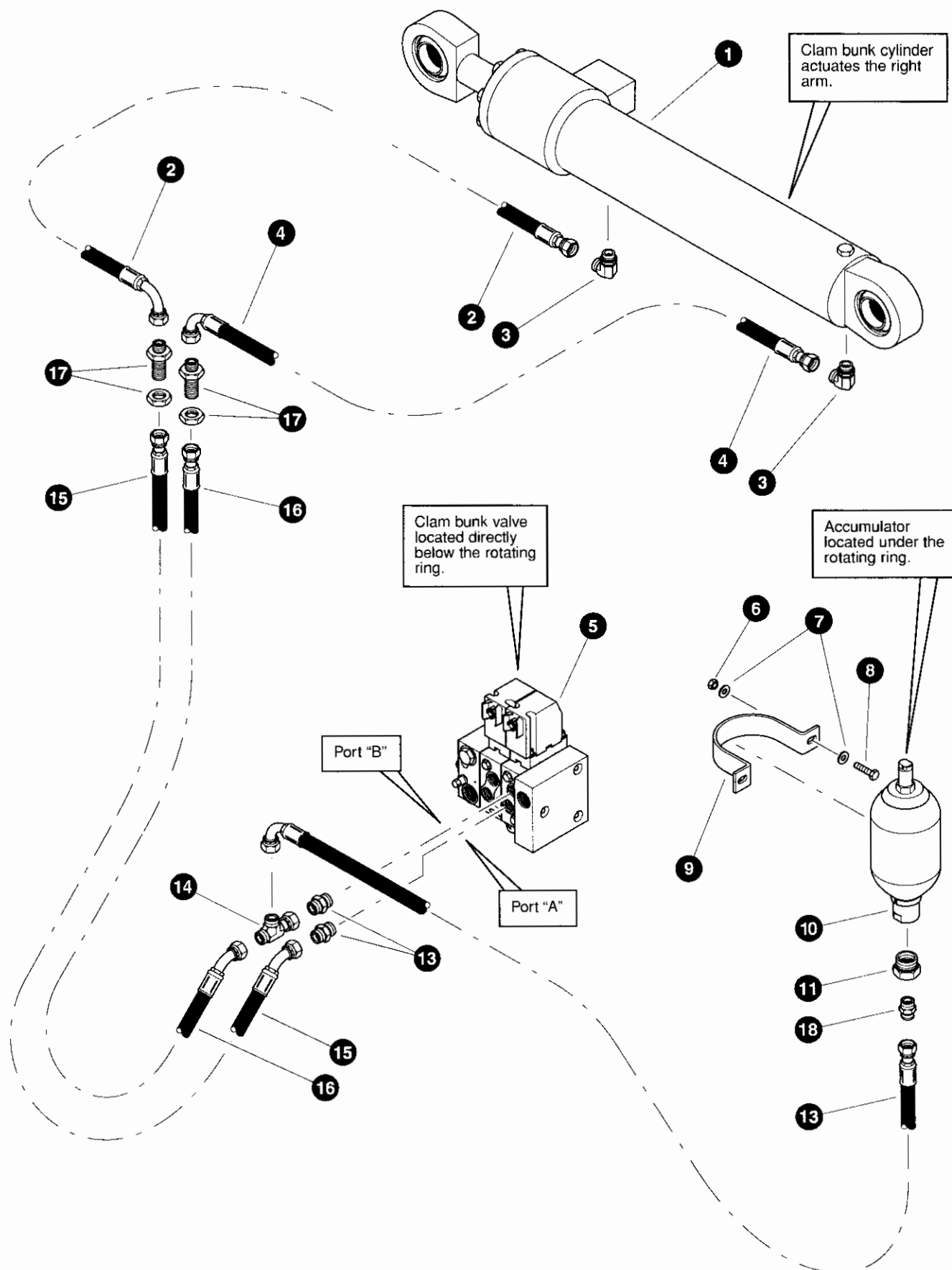
CLAM BUNK ARM LINES

(Clam Bunk Valve To Left Clam Bunk Cylinder)

(Used on machines PDN# 043FWD and above)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	CLAM BUNK CYLINDER	E.2.10
2	16360	2		ELBOW, 90° - FF1868T-0808S	
3	17483	1		HOSE ASSEMBLY - 4019-08-080S-0809 <i>(Clam bunk cylinder base port to left front bulkhead fitting)</i>	
4	20195	1		HOSE ASSEMBLY - 4031-08-080S-0809 <i>(Clam bunk cylinder rod port to right front bulkhead fitting)</i>	
5	20196	2		CONNECTOR, straight bulkhead - FF199T-0808S	
6	20113	1		HOSE ASSEMBLY - 4047-08-080S-0804 <i>(Clam bunk left valve section port "B" to left front bulkhead fitting)</i>	
7	20198	1		HOSE ASSEMBLY - 4045-08-080S-0804 <i>(Clam bunk left valve section port "A" to right front bulkhead fitting)</i>	
8	REF.	1	✓	CLAM BUNK VALVE	Blue B
9	15115	2		CONNECTOR, straight - FF1852T-0810S	

✓ See referenced page for component or assembly breakdown.



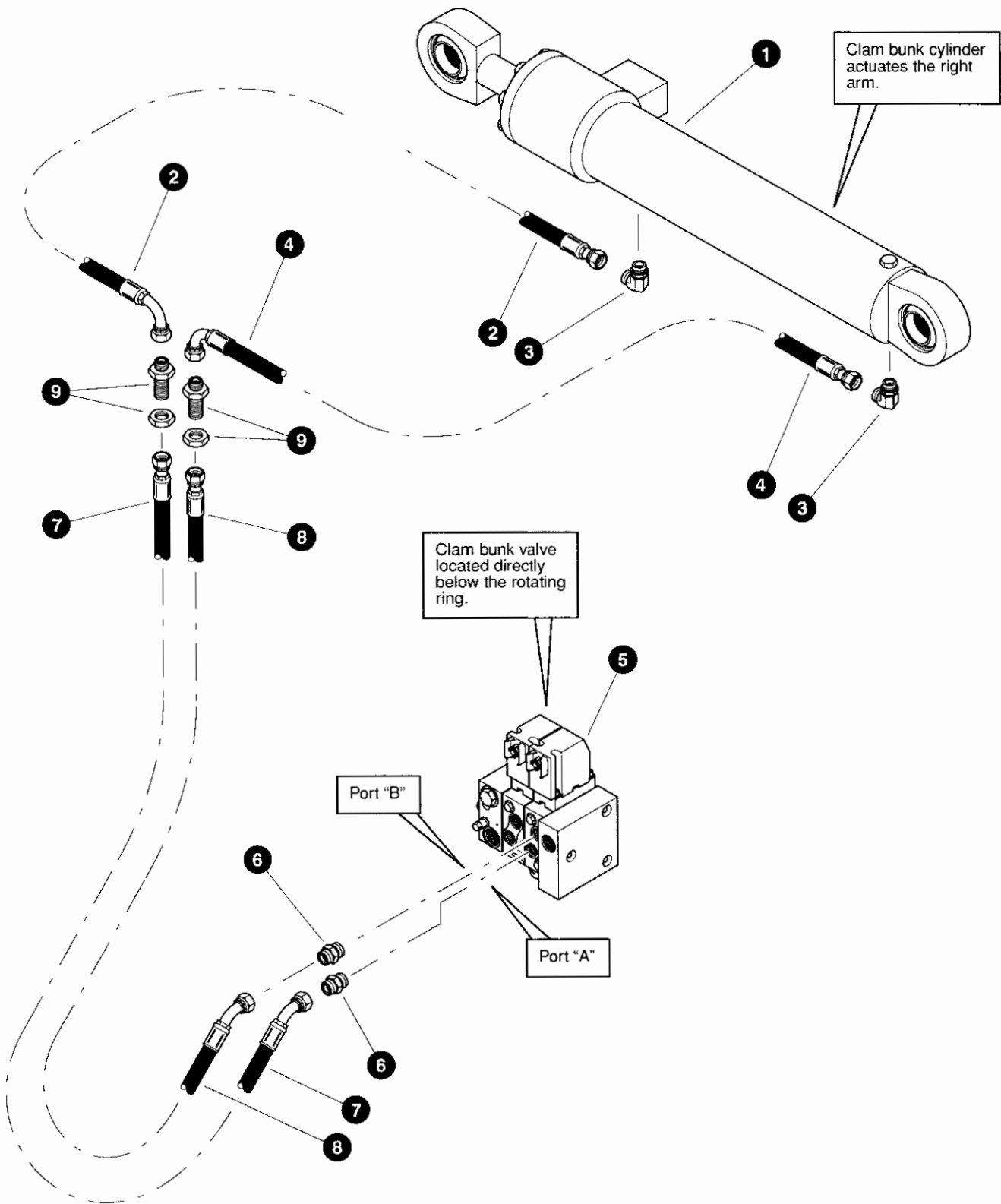
CLAM BUNK ARM LINES

(Clam Bunk Valve To Right Clam Bunk Cylinder)

(Used on machines PDN# 042FWD and below)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	CLAM BUNK CYLINDER	E.2.10
2	20195	1		HOSE ASSEMBLY - 4031-08-080S-0809 (Clam bunk cylinder rod port to left rear bulkhead fitting)	
3	16360	2		ELBOW, 90° - FF1868T-0808S	
4	17483	1		HOSE ASSEMBLY - 4019-08-080S-0809 (Clam bunk cylinder base port to right rear bulkhead fitting)	
5	REF.	1	✓	CLAM BUNK VALVE	Blue B
6	10813	2		NUT, lock - 3/8"	
7	15528	4		WASHER, SAE flat - 3/8"	
8	10402	2		BOLT - 3/8" x 1-1/4"	
9	13176	1		BRACKET, accumulator mounting	
10	18862	1		ACCUMULATOR	
11	16719	1		BUSHING, reducer - 6410-16-8	
12	15115	2		CONNECTOR, straight - FF1852T-0810S	
13	20195	1		HOSE ASSEMBLY - 4031-08-080S-0809 (Clam bunk right valve section port "B" tee to accumulator)	
14	15433	1		TEE - FF2114T-0808S	
15	20199	1		HOSE ASSEMBLY - 4046-08-080S-0804 (Clam bunk right valve section port "A" to left rear bulkhead fitting)	
16	20201	1		HOSE ASSEMBLY - 4048-08-080S-0804 (Clam bunk right valve section port "B" to right rear bulkhead fitting)	
17	20196	2		CONNECTOR, straight bulkhead - FF199T-0808S	
18	15117	1		CONNECTOR, straight - FF1852T-0808S	

✓ See referenced page for component or assembly breakdown.



CLAM BUNK ARM LINES

(Clam Bunk Valve To Right Clam Bunk Cylinder)

(Used on machines PDN# 043FWD and above)

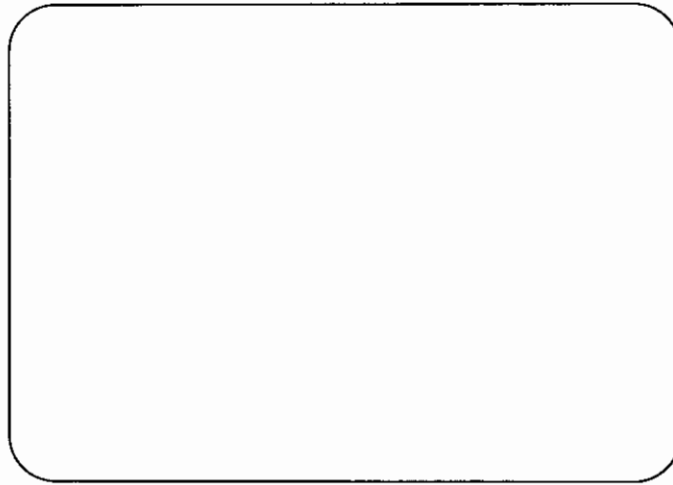
REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	CLAM BUNK CYLINDER	E.2.10
2	16360	2		ELBOW, 90° - FF1868T-0808S	
3	20195	1		HOSE ASSEMBLY - 4031-08-080S-0809 (Clam bunk cylinder rod port to left rear bulkhead fitting)	
4	17483	1		HOSE ASSEMBLY - 4019-08-080S-0809 (Clam bunk cylinder base port to right rear bulkhead fitting)	
5	REF.	1	✓	CLAM BUNK VALVE	Blue B
6	15115	2		CONNECTOR, straight - FF1852T-0810S	
7	20199	1		HOSE ASSEMBLY - 4046-08-080S-0804 (Clam bunk right valve section port "A" to left rear bulkhead fitting)	
8	20201	1		HOSE ASSEMBLY - 4048-08-080S-0804 (Clam bunk right valve section port "B" to right rear bulkhead fitting)	
9	20196	2		CONNECTOR, straight bulkhead - FF199T-0808S	

✓ See referenced page for component or assembly breakdown.

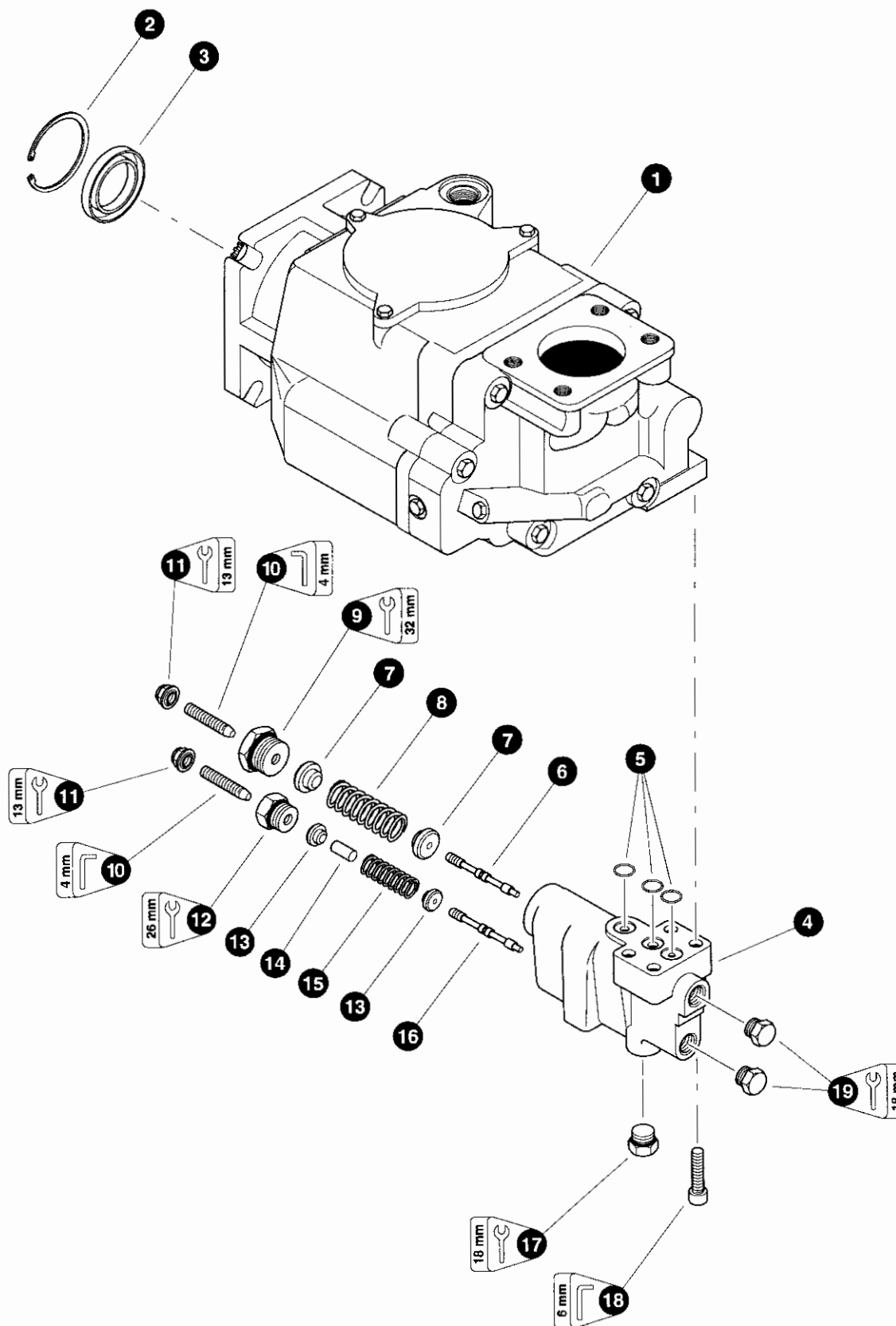
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This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Section C.2



Hydraulic Pumps & Motors - Loader Implements



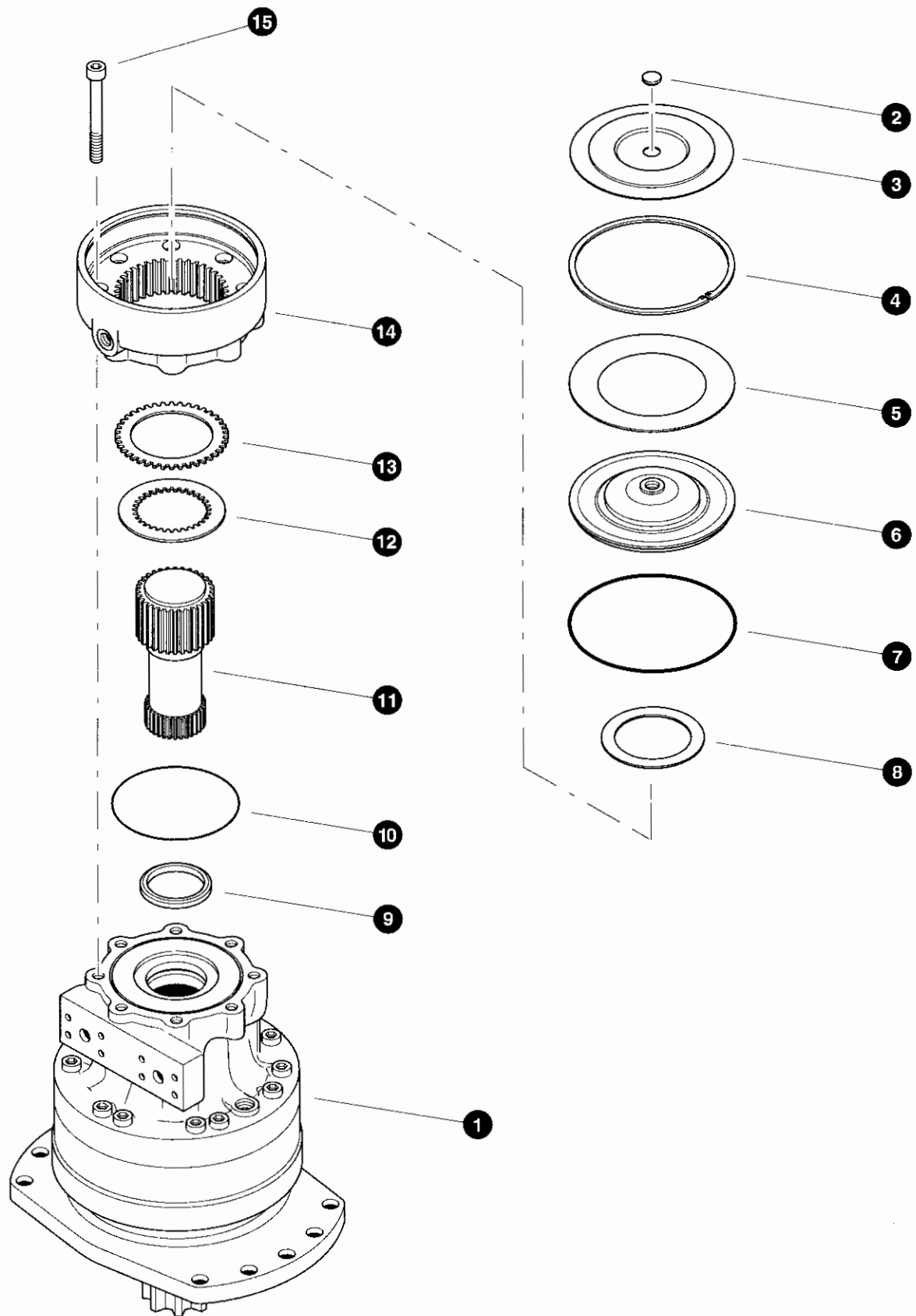
LOADER IMPLEMENT PUMP (Vickers PVH98)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	18748	1	☐	PUMP, loader implement - Vickers PVH98	
2	17319	1		RING, retaining	
3	15870	1		SEAL, shaft	
4	17082	1	☐	COMPENSATOR	
5	17189	3		O-RING (<i>white</i>)	
6	18197	1		SPOOL, pressure limiter	
7	18201	2		GUIDE, spring	
8	18200	1		SPRING, control	
9	18185	1	☐	PLUG	
	18193	1		O-RING	
10	17599	2		SCREW, adjustment	
11	17600	2		NUT, seal	
12	18194	1	☐	PLUG	
	18192	1		O-RING	
13	20305	2		GUIDE, spring	
14	18199	1		PIN	
15	20306	1		SPRING, load	
16	18198	1		SPOOL, load sense	
17	20307	1	☐	PLUG	
	20308	1		O-RING	
18	17309	4		BOLT, compensator mounting	
19	20309	2	☐	PLUG	
	20308	1		O-RING	

☐ Kit or Assembly - includes all items indented underneath.

Note:

Due to warranty policy restrictions imposed by Timbco's component suppliers, it is not recommended that the component be disassembled further than is shown in the illustration.



SWING MOTOR w/BRAKE (Poclain)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	19201	1	☐	MOTOR, swing - Poclain	
2	20759	1		GROMMET	
3	20780	1		COVER, brake piston	
4	20781	1		RING, snap	
5	20782	1		WASHER, bevel	
6	20783	1	⊙	PISTON, brake <i>(Requires special tool for removal)</i>	
7	17781	1		O-RING, brake piston	
8	20784	AR		SHIM KIT, brake disc	
9	17780	1		SEAL, shaft	
10	20785	1		O-RING, brake housing	
11	20786	1		SHAFT, brake	
12	NSS	11	★	DISC, brake - internal tooth	
13	NSS	12	★	DISC, brake - external tooth	
14	NSS	1		HOUSING, brake	
15	20787	8		BOLT, allen head	
-	20788	1		KIT, repair - brake disc	

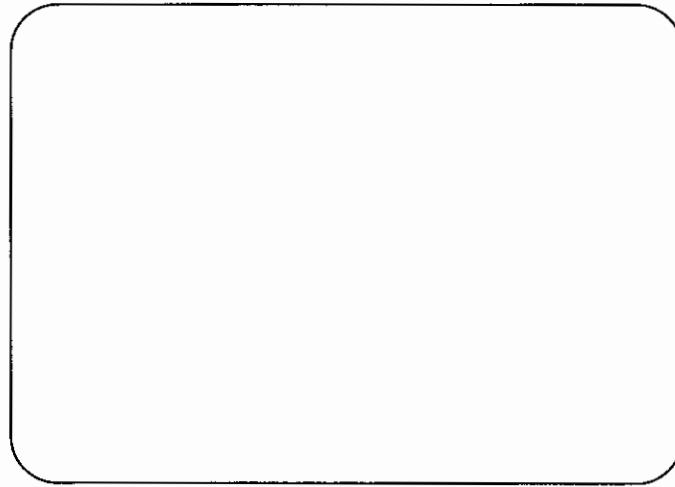
- ☐ Kit or Assembly - includes all items indented underneath.
- ⊙ Contact your TIMBCO dealer for additional information.
- ★ Included in disc brake kit PN# 20788.

Note:

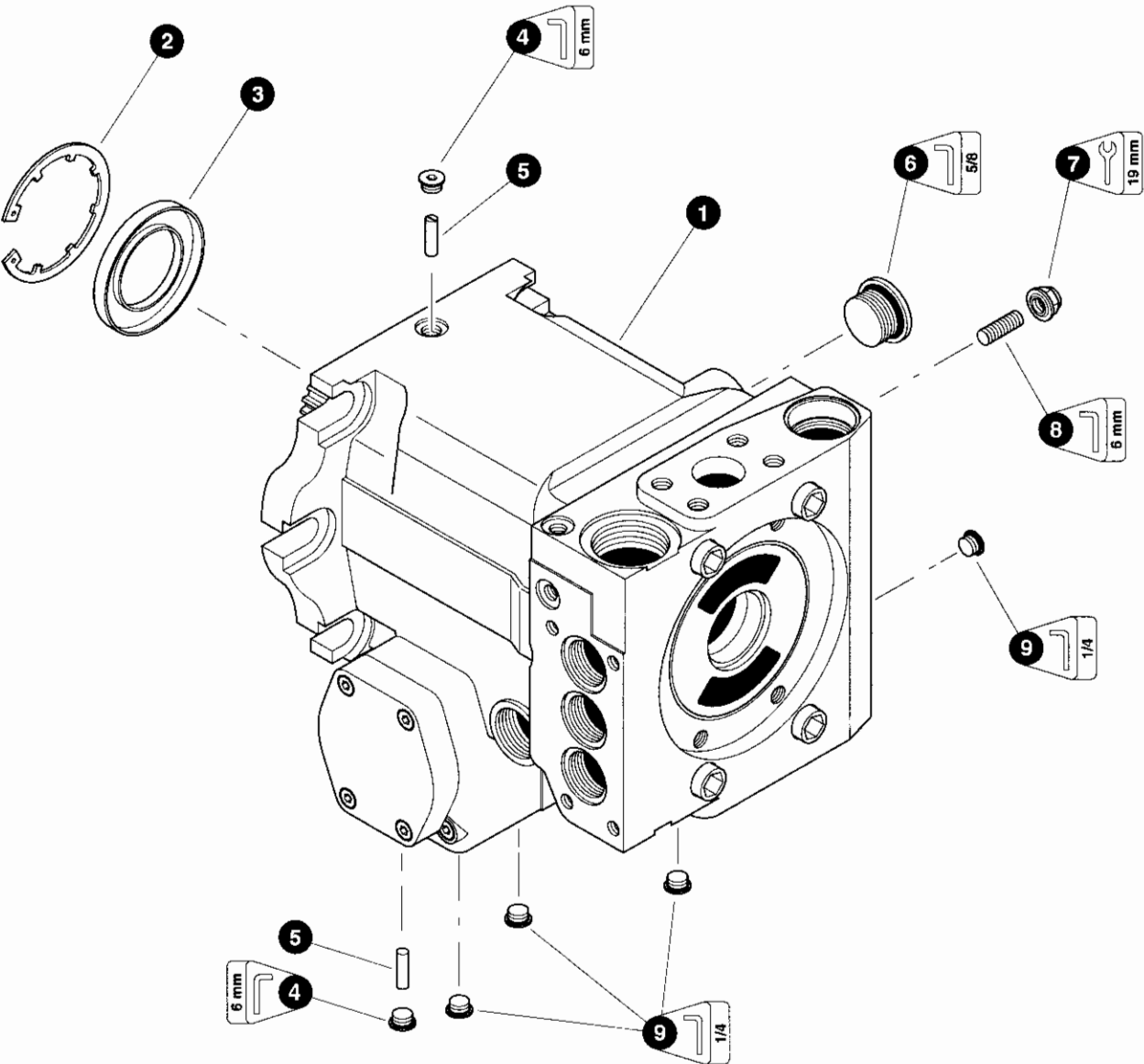
Due to warranty policy restrictions imposed by Timbco's component suppliers, it is not recommended that the component be disassembled further than is shown in the illustration.

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Section C.3



Hydraulic Pumps & Motors - Wheel Drive



WHEEL DRIVE PUMP - REXROTH AA4VG125 (Forward Cast Housing Components)

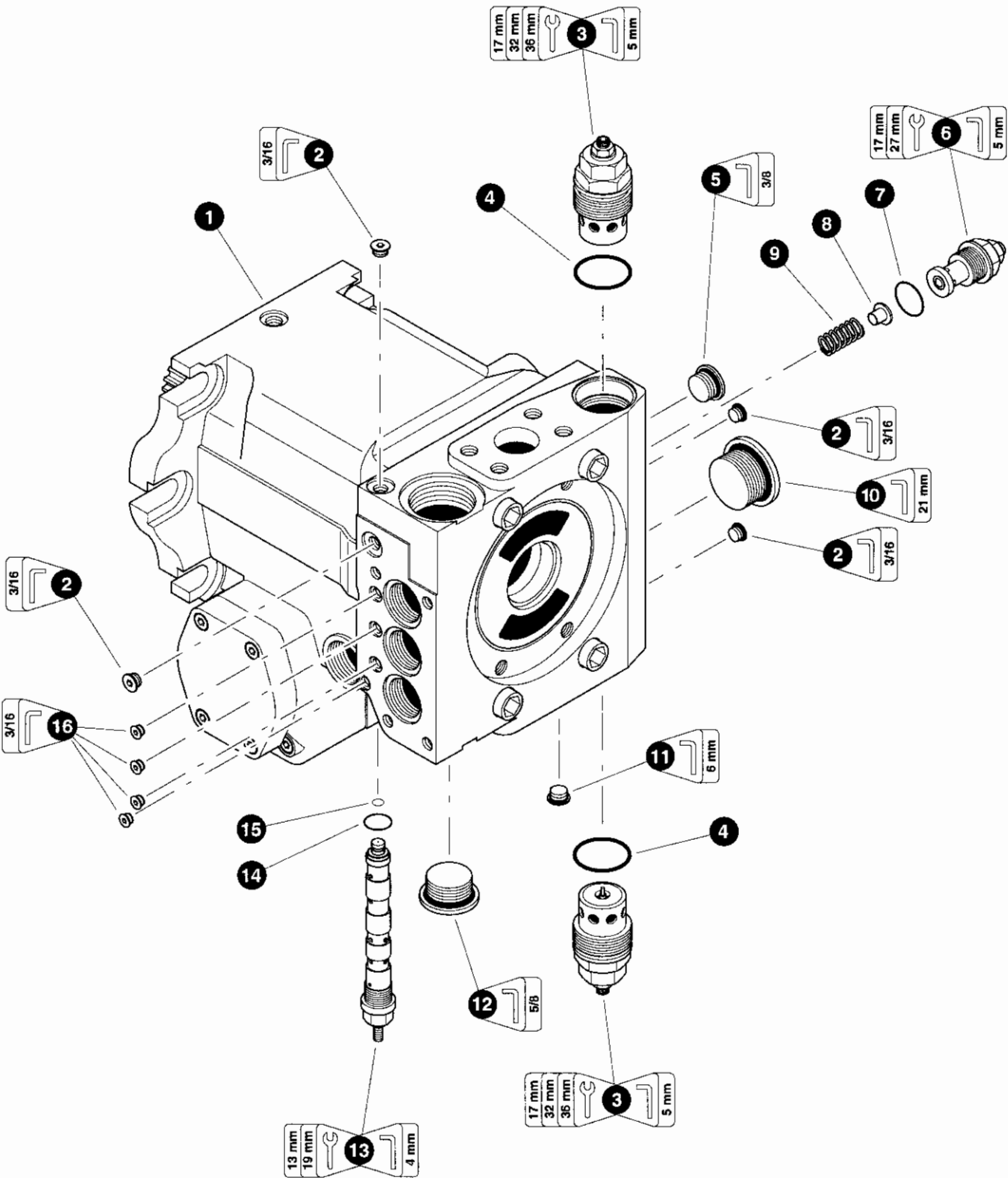
REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	20428	1	☐	PUMP, wheel drive - Rexroth AA4VG125 - <i>(electronic control)</i> <i>(Used on machines PDN# 038FWD and above)</i>	
	18738	1	☐	PUMP, wheel drive - Rexroth AA4VG125 - <i>(hydraulic control)</i> <i>(Used on machines PDN# 037FWD and below)</i>	
2	20315	1		RING, snap	
3	19353	1	★	SEAL, shaft	
4	20317	2	★	PLUG - 12mm-1.5P	
5	20318	2		PIN, cradle	
6	19847	1	☐	PLUG - 6408-HHP-16	
	20324	1	★	O-RING, ORB - #16	
7	20329	1	★	NUT, seal - 12mm-1.5P	
8	20327	1		PIN, threaded - 12mm-1.5P	
9	15412	4	☐	PLUG - 6408-HHP-6	
	20320	1	★	O-RING, ORB - #6	
-	19356	1		KIT, seal repair - complete AA4VG125 pump	

- ☐ Kit or Assembly - includes all items indented underneath.
 ★ Included in seal repair kit Part # 19356.

Note:

Due to warranty policy restrictions imposed by Timbco's component suppliers, it is not recommended that the component be disassembled further than is shown in the illustration.

See Page C.3.4 for rear port block components.
 See Page C.3.6 for stroke control assembly
 See Page C.3.8 for charge pump & thru drive components.
 See Page C.3.10 for filtration components.



WHEEL DRIVE PUMP - REXROTH AA4VG125

(Rear Port Block Components)

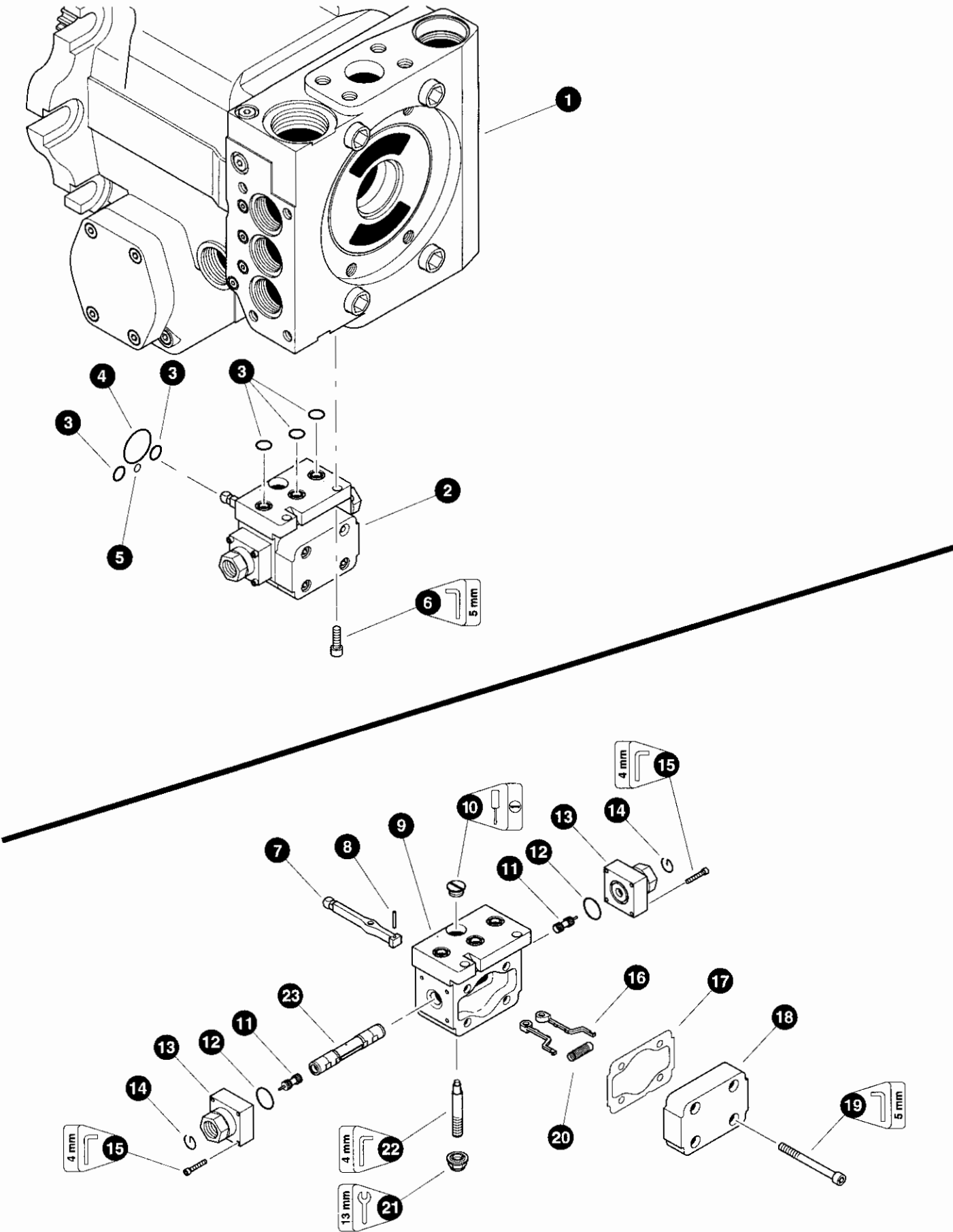
REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	20428	1	□	PUMP, wheel drive - Rexroth AA4VG125 - <i>(electronic control)</i> <i>(Used on machines PDN# 038FWD and above)</i>	
	18738	1	□	PUMP, wheel drive - Rexroth AA4VG125 - <i>(hydraulic control)</i> <i>(Used on machines PDN# 037FWD and below)</i>	
2	11383	2	□	PLUG - 6408-HHP-4	
	20319	1	★	O-RING, ORB - #4	
3	20330	2	□	CARTRIDGE, high pressure relief valve	
	20331	1	★	NUT, seal - 10mm-1.0P	
4	20332	1	★	O-RING, HPRV cartridge	
5	19271	2	□	PLUG - 6408-HHP-10	
	20322	1	★	O-RING, ORB - #10	
6	20335	1	□	CARTRIDGE, charge pressure relief valve	
7	20336	1	★	O-RING, charge pressure relief valve	
8	NSS	1		GUIDE, spring	
9	NSS	1		SPRING	
10	20333	1	□	PLUG - 42mm-2.0P	
	20334	1	★	O-RING, ORB - 42mm-2.0P	
11	20317	1	★	PLUG - 12mm-1.5P	
12	19847	1	□	PLUG - 6408-HHP-16	
	20324	1	★	O-RING, ORB - #16	
13	20254	1	□	CARTRIDGE, POR relief valve	
14	20337	1	★	O-RING, POR relief valve - body	
15	20338	1	★	O-RING, POR relief valve - chamber	
16	20339	4	★	PLUG - 8mm-1.0P	
-	19356	1		KIT, seal repair - complete AA4VG125 pump	

- Kit or Assembly - includes all items indented underneath.
 ★ Included in seal repair kit Part # 19356.

Note:

Due to warranty policy restrictions imposed by Timbco's component suppliers, it is not recommended that the component be disassembled further than is shown in the illustration.

See Page C.3.2 for forward cast housing components.
 See Page C.3.6 for stroke control assembly.
 See Page C.3.8 for charge pump & thru drive components.
 See Page C.3.10 for filtration components.



WHEEL DRIVE PUMP - REXROTH AA4VG125 (Stroke Control Assembly - Hydraulic)

(Used on machines PDN# 037FWD and below)

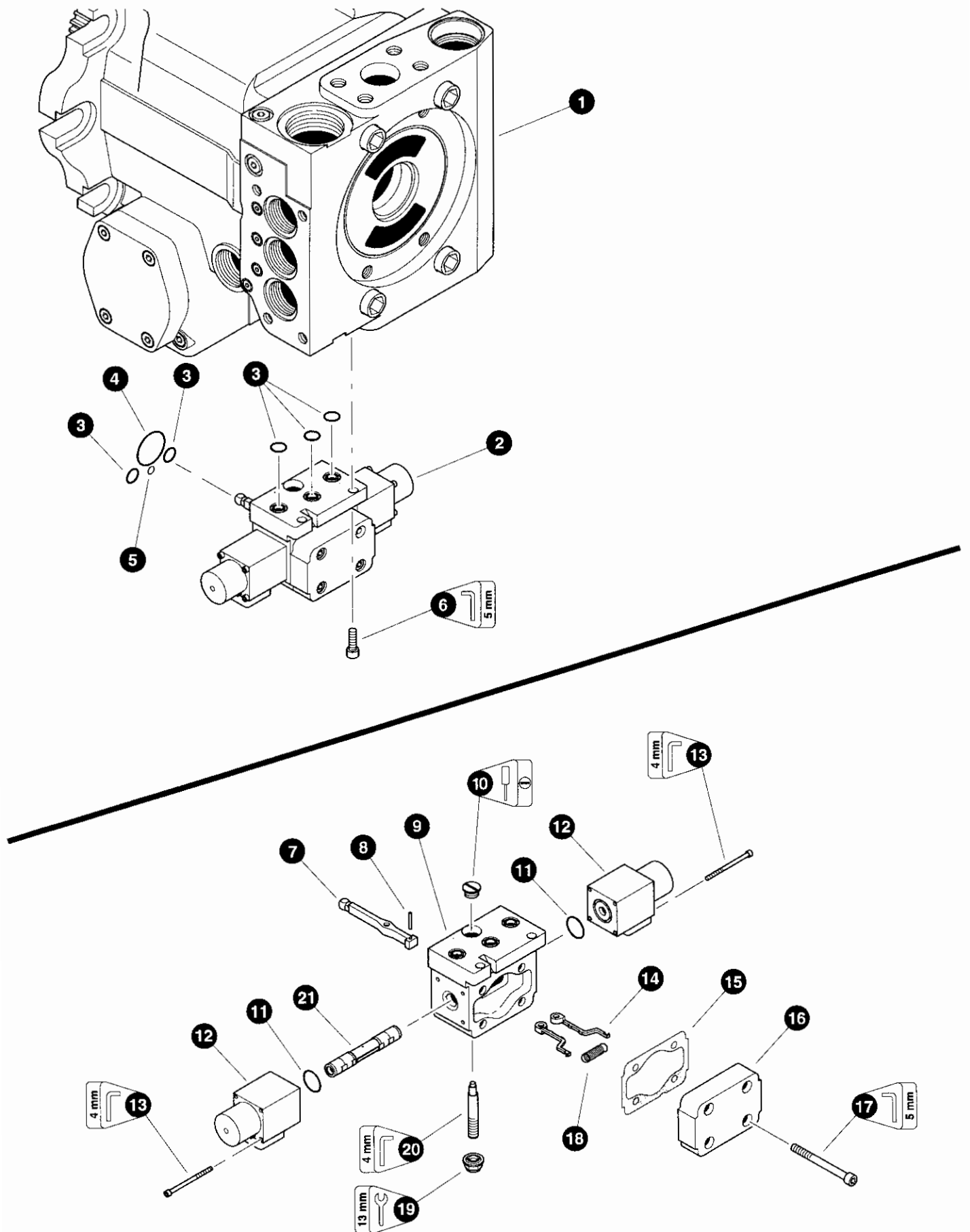
REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	WHEEL DRIVE PUMP - Rexroth AA4VG125	C.3.2
2	20340	1	□	VALVE, stroke control	
3	20342	5	★	O-RING, stroke control	
4	20343	1	★	O-RING, stroke control	
5	20344	1	★	O-RING, stroke control	
6	20345	2		BOLT, allen head - 6mm x 20mm	
7	20346	1		LEVER, feedback	
8	20347	1		PIN, feedback lever	
9	NSS	1		BODY, valve	
10	20348	1		PLUG, retaining	
11	20349	2		PISTON	
12	20350	2	★	O-RING, stroke control end cover	
13	20351	2		COVER, end	
14	20352	2		CLIP, retaining	
15	20353	8		BOLT, allen head - 4mm x 20mm	
16	20354	2		ARM, lever	
17	17790	1	★	GASKET	
18	20355	1		COVER	
19	20356	8		BOLT, allen head - 6mm x 65mm	
20	20357	1		SPRING, feedback	
21	20358	1	★	NUT, seal - 8mm	
22	20359	1		SCREW, eccentric	
23	NSS	1		SPOOL	
-	19356	1		KIT, seal repair - complete AA4VG125 pump	

- ✓ See referenced page for component breakdown.
- Kit or Assembly - includes all items indented underneath.
- ★ Included in seal repair kit Part # 19356.

Note:

Due to warranty policy restrictions imposed by Timbco's component suppliers, it is not recommended that the component be disassembled further than is shown in the illustration.

See Page C.3.2 for forward cast housing components.
 See Page C.3.4 for rear port block components.
 See Page C.3.8 for charge pump & thru drive components.
 See Page C.3.10 for filtration components.



Parts 00396 01/26/98
37.50

WHEEL DRIVE PUMP - REXROTH AA4VG125 (Stroke Control Assembly - Electronic)

(Used on machines PDN# 038FWD and above)

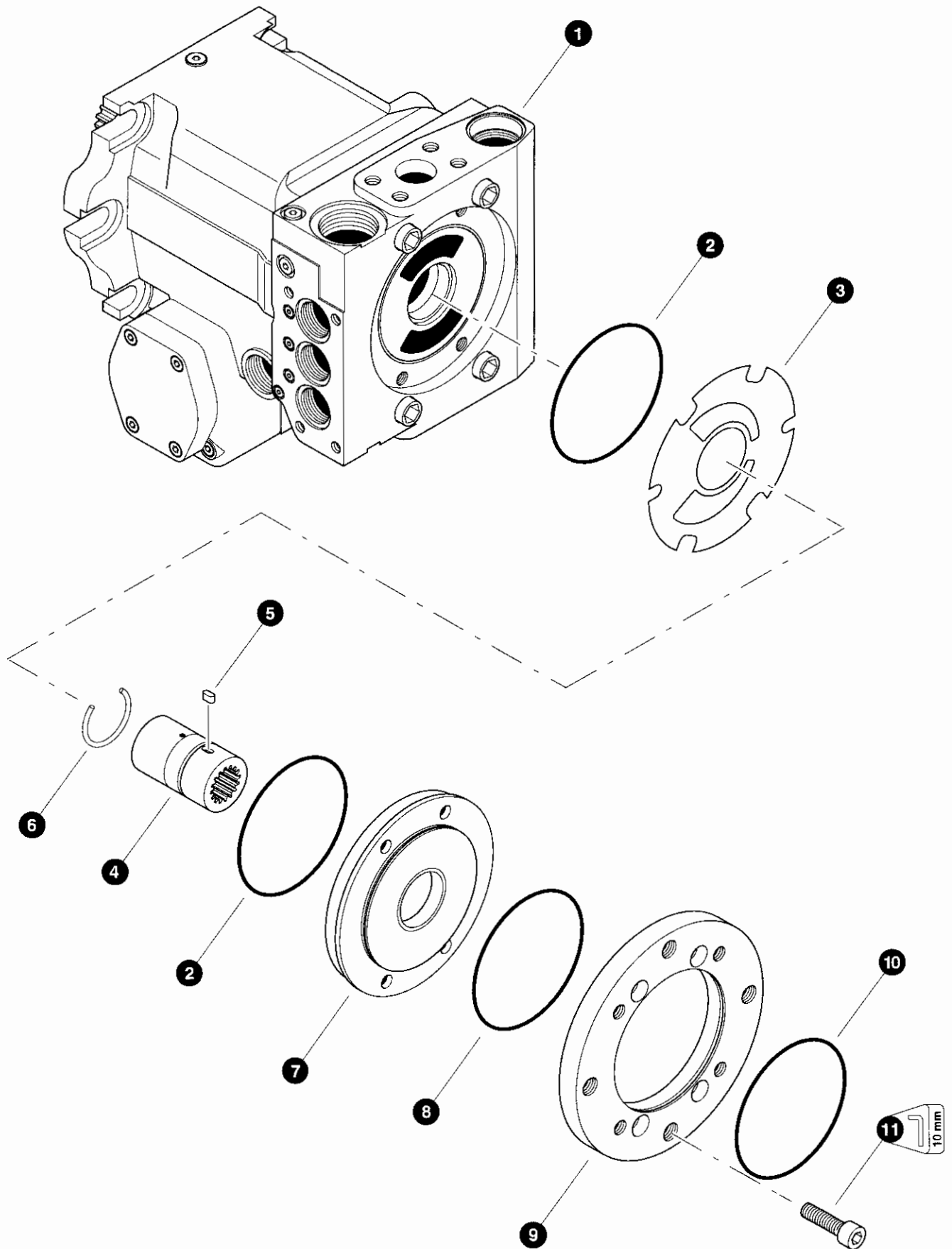
REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	WHEEL DRIVE PUMP - Rexroth AA4VG125	C.3.2
2	20341	1	□	VALVE, stroke control - 12V	
	20360	1	□	VALVE, stroke control - 24V	
3	20342	5	★	O-RING, stroke control	
4	20343	1	★	O-RING, stroke control	
5	20344	1	★	O-RING, stroke control	
6	20345	2		BOLT, allen head - 6mm x 20mm	
7	20346	1		LEVER, feedback	
8	20347	1		PIN, feedback lever	
9	NSS	1		BODY, valve	
10	20348	1		PLUG, retaining	
11	20350	2	★	O-RING, stroke control end cover	
12	20361	2		COIL, solenoid - 12V	
	20362	2		COIL, solenoid - 24V	
13	20363	8		BOLT, allen head - 4mm x 50mm	
14	20354	2		ARM, lever	
15	17790	1	★	GASKET	
16	20355	1		COVER	
17	20356	8		BOLT, allen head - 6mm x 65mm	
18	20364	1		SPRING, feedback	
19	20358	1	★	NUT, seal - 8mm	
20	20359	1		SCREW, eccentric	
21	NSS	1		SPOOL	
-	19356	1		KIT, seal repair - complete AA4VG125 pump	

- ✓ See referenced page for component breakdown.
- Kit or Assembly - includes all items indented underneath.
- ★ Included in seal repair kit Part # 19356.

Note:

Due to warranty policy restrictions imposed by Timbco's component suppliers, it is not recommended that the component be disassembled further than is shown in the illustration.

See Page C.3.2 for forward cast housing components.
 See Page C.3.4 for rear port block components.
 See Page C.3.8 for charge pump & thru drive components.
 See Page C.3.10 for filtration components.



WHEEL DRIVE PUMP - REXROTH AA4VG125

(Charge Pump & Thru Drive Components)

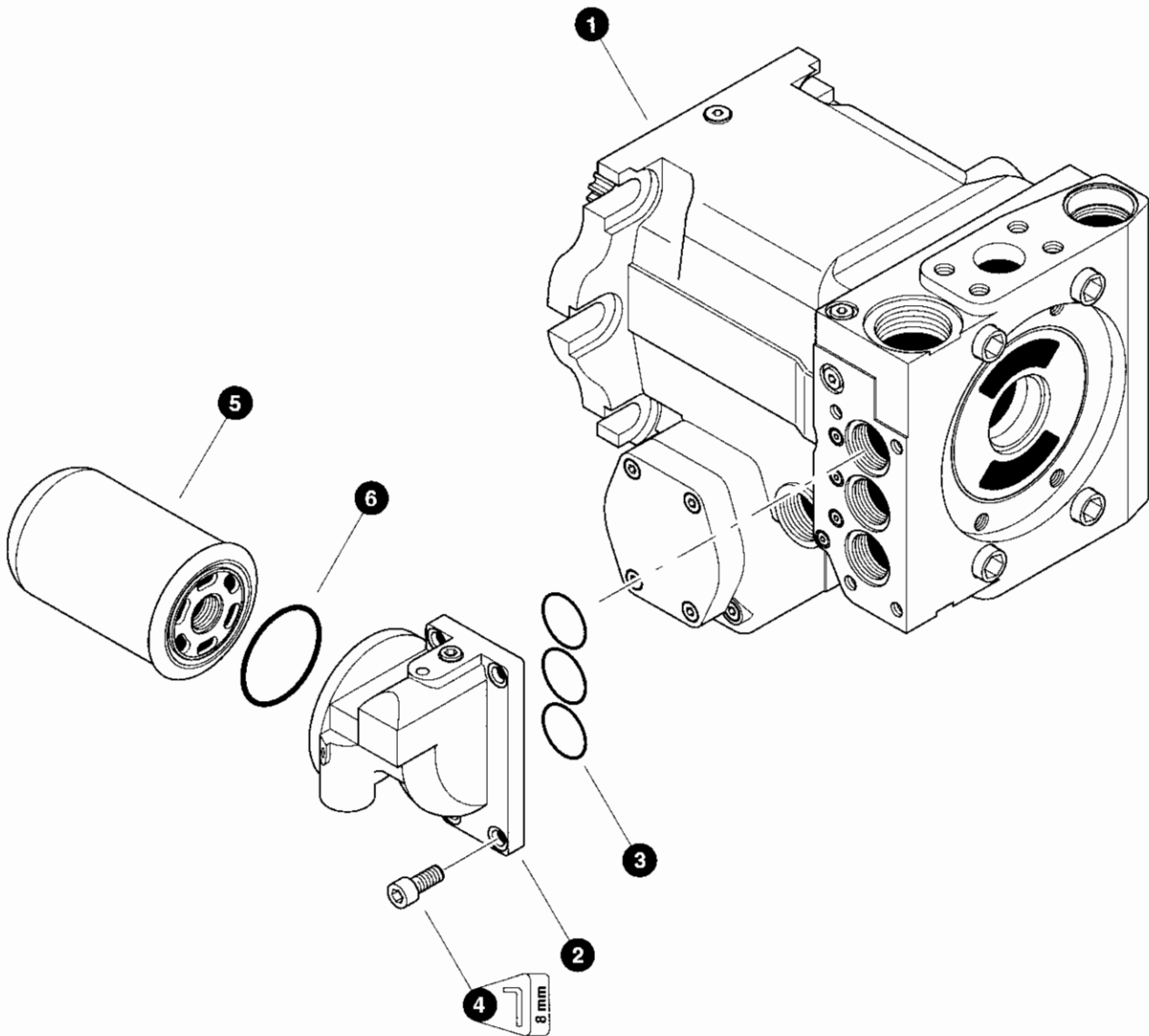
REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	WHEEL DRIVE PUMP - Rexroth AA4VG125	C.3.2
-	20367	1	□	CHARGE PUMP ASSEMBLY (w/thru drive)	
2	20368	2	★	O-RING, thru drive wear plate	
3	20369	1		PLATE, wear - charge pump	
4	20370	1		COUPLING, thru drive	
5	20371	1		KEY	
6	20372	1		RING, retaining	
7	NSS	1		HOUSING, gear	
8	20373	1	★	O-RING, gear housing pilot	
9	20374	1		FLANGE, intermediate	
10	16106	1	★	O-RING, thru drive pilot (SAE "C")	
11	18988	4		BOLT, allen head - 12mm-1.75P x 45mm	
-	19356	1		KIT, seal repair - complete AA4VG125 pump	

- ✓ See referenced page for component breakdown.
- Kit or Assembly - includes all items indented underneath.
- ★ Included in seal repair kit Part # 19356.

Note:

Due to warranty policy restrictions imposed by Timbco's component suppliers, it is not recommended that the component be disassembled further than is shown in the illustration.

See Page C.3.2 for forward cast housing components.
 See Page C.3.4 for rear port block components.
 See Page C.3.6 for stroke control assembly.
 See Page C.3.10 for filtration components.



WHEEL DRIVE PUMP - REXROTH AA4VG125 (Filtration Components)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	WHEEL DRIVE PUMP - Rexroth AA4VG125	C.3.2
2	NSS	1		HOUSING, filter	
3	20365	3	★	O-RING, filter housing	
4	20366	4		BOLT, allen head - 8mm x 25mm	
5	17700	1		FILTER, hydraulic - spin-on	
	NSS	1		GASKET, filter	
-	19356	1		KIT, seal repair - complete AA4VG125 pump	

- ✓ See referenced page for component breakdown.
- Kit or Assembly - includes all items indented underneath.
- ★ Included in seal repair kit Part # 19356.

Note:

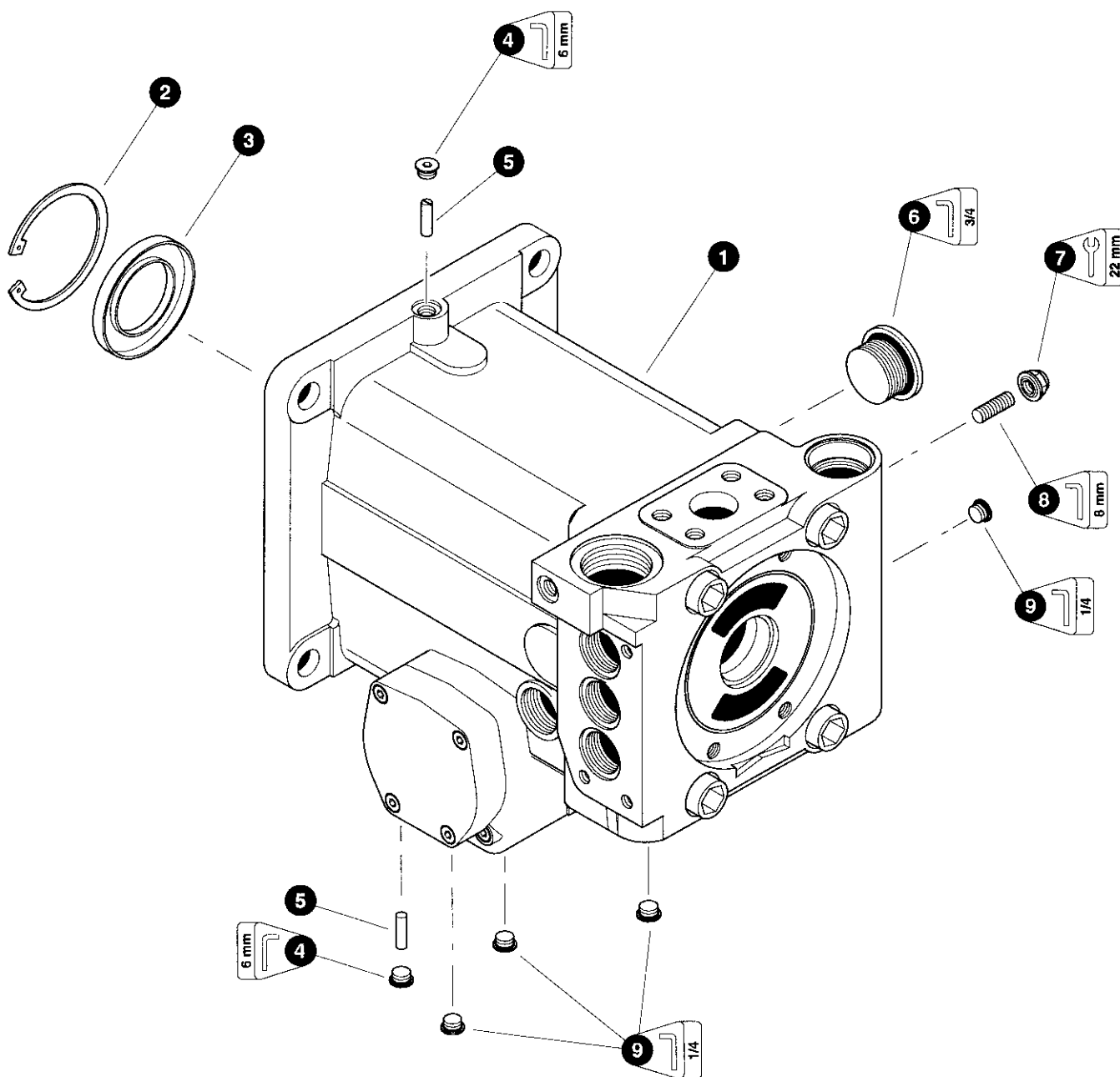
Due to warranty policy restrictions imposed by Timbco's component suppliers, it is not recommended that the component be disassembled further than is shown in the illustration.

See Page C.3.2 for forward cast housing components.

See Page C.3.4 for rear port block components.

See Page C.3.6 for stroke control assembly.

See Page C.3.8 for charge pump & thru drive components.



WHEEL DRIVE PUMP - REXROTH AA4VG180 (Forward Cast Housing Components)

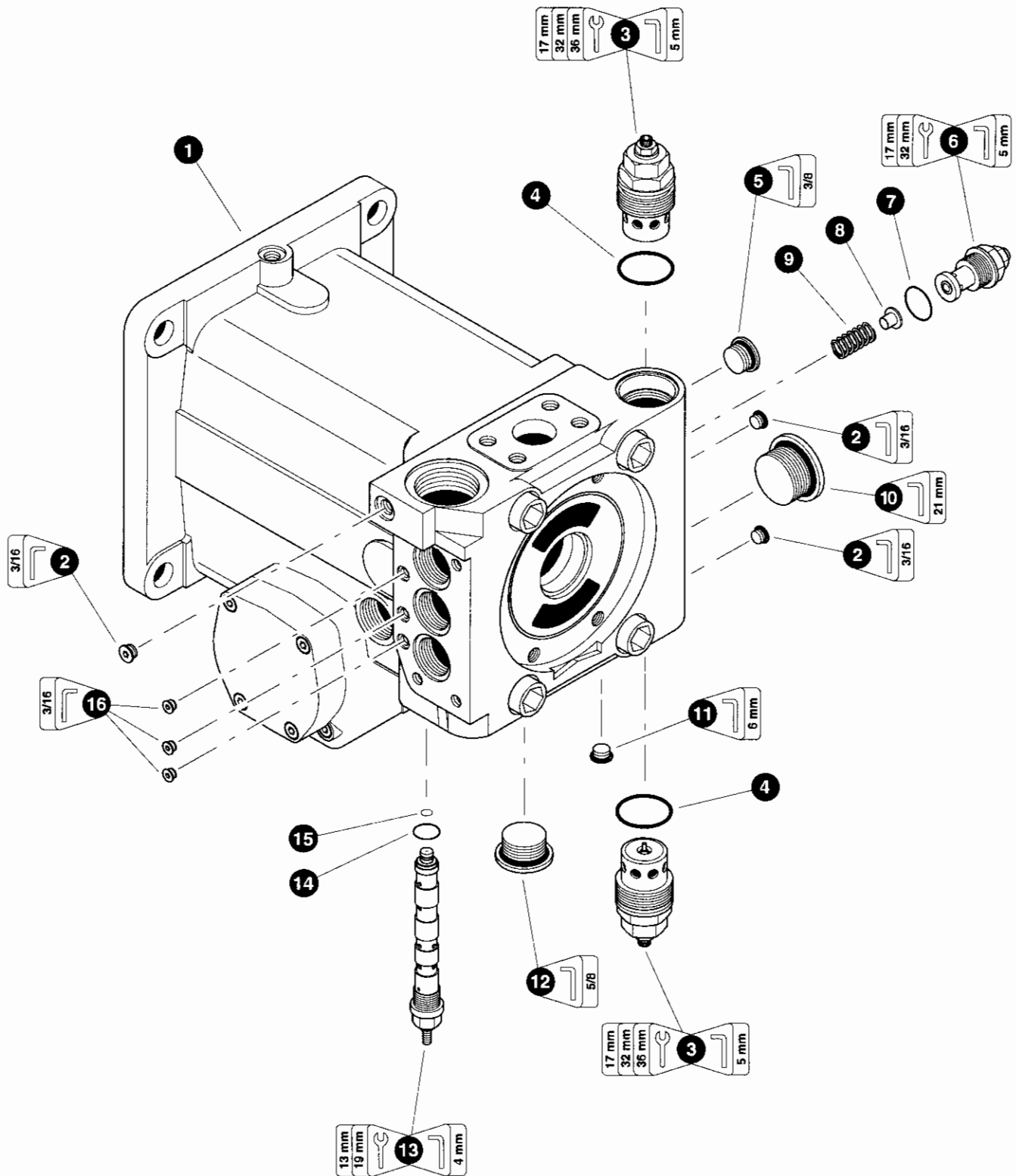
REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	20429	1	□	PUMP, wheel drive - AA4VG180 - <i>(electronic control)</i> <i>(Used on machines PDN# 038FWD and above)</i>	
	19777	1	□	PUMP, wheel drive - AA4VG180 - <i>(hydraulic control)</i> <i>(Used on machines PDN# 037FWD and below)</i>	
2	20430	1		RING, snap	
3	20431	1	★	SEAL, shaft	
4	20317	2	★	PLUG - 12mm-1.5P	
5	20433	2		PIN, cradle	
6	18950	1	□	PLUG - 6408-HHP-20	
	20325	1	★	O-RING, ORB - #16	
7	20434	1	★	NUT, seal - 14mm-1.5P	
8	20435	1		PIN, threaded - 12mm-1.5P	
9	15412	4	□	PLUG - 6408-HHP-6	
	20320	1	★	O-RING, ORB - #6	
-	20328	1		KIT, seal repair - complete AA4VG180 pump	

- Kit or Assembly - includes all items indented underneath.
 ★ Included in seal repair kit Part # 20328.

Note:

Due to warranty policy restrictions imposed by Timbco's component suppliers, it is not recommended that the component be disassembled further than is shown in the illustration.

See Page C.3.14 for rear port block components.
 See Page C.3.16 for stroke control assembly
 See Page C.3.18 for charge pump & thru drive components.
 See Page C.3.20 for filtration components.



WHEEL DRIVE PUMP - REXROTH AA4VG180 (Rear Port Block Components)

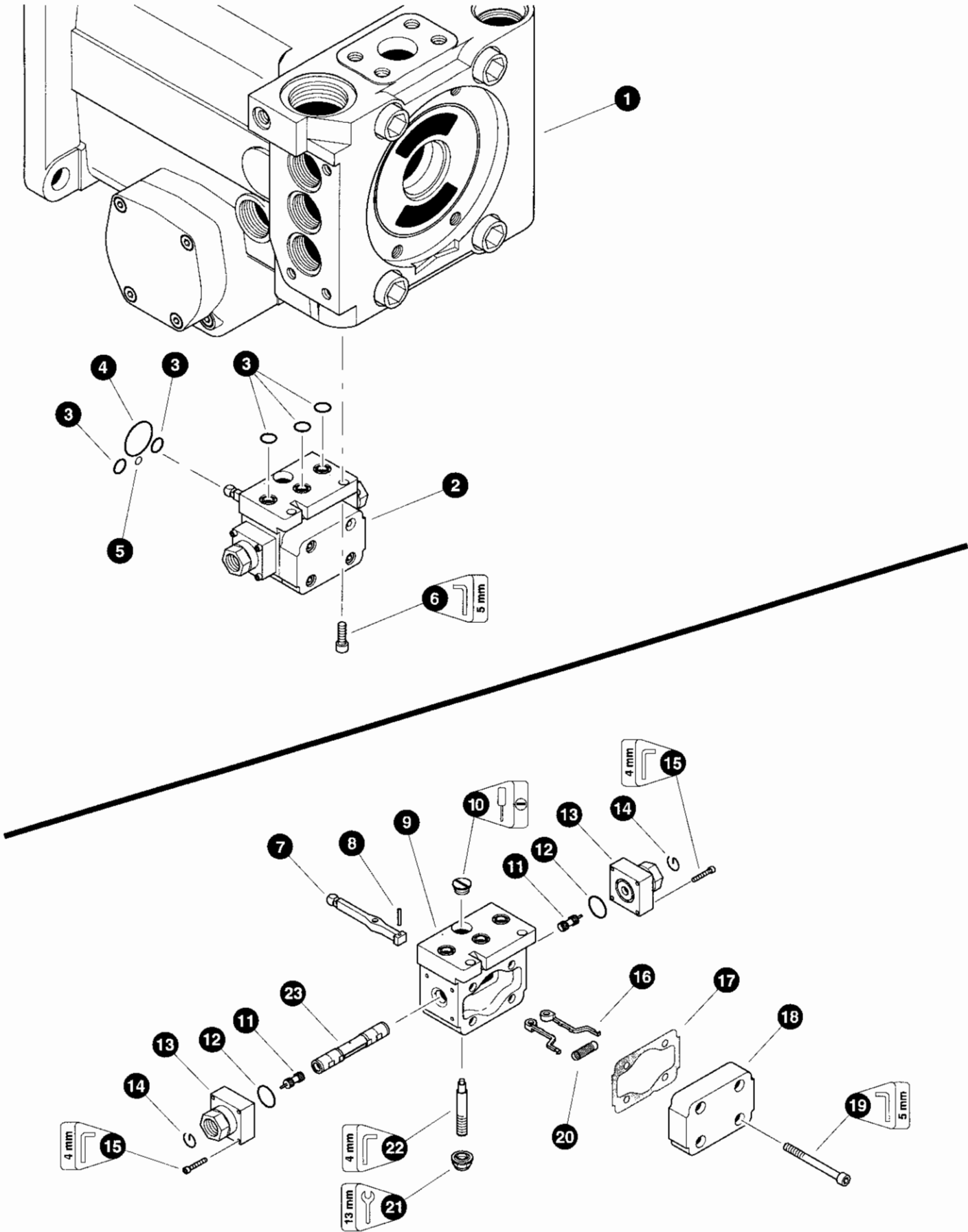
REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	20429	1	□	PUMP, wheel drive - AA4VG180 - <i>(electronic control)</i> <i>(Used on machines PDN# 038FWD and above)</i>	
	19777	1	□	PUMP, wheel drive - AA4VG180 - <i>(hydraulic control)</i> <i>(Used on machines PDN# 037FWD and below)</i>	
2	11383	3	□	PLUG - 6408-HHP-4	
	20319	1	★	O-RING, ORB - #4	
3	20330	2	□	CARTRIDGE, high pressure relief valve	
	20331	1	★	NUT, seal - 10mm-1.0P	
4	20332	1	★	O-RING, HPRV cartridge	
5	19271	2	□	PLUG - 6408-HHP-10	
	20322	1	★	O-RING, ORB - #10	
6	20436	1	□	CARTRIDGE, charge pressure relief valve	
7	20437	1	★	O-RING, charge pressure relief valve	
8	NSS	1		GUIDE, spring	
9	NSS	1		SPRING	
10	20333	1	□	PLUG - 42mm-2.0P	
	20334	1	★	O-RING, ORB - 42mm-2.0P	
11	20317	1	★	PLUG - 12mm-1.5P	
12	19847	1	□	PLUG - 6408-HHP-16	
	20324	1	★	O-RING, ORB - #16	
13	20254	1	□	CARTRIDGE, POR relief valve	
14	20337	1	★	O-RING, POR relief valve - body	
15	20338	1	★	O-RING, POR relief valve - chamber	
16	20339	4	★	PLUG - 8mm-1.0P	
-	20328	1		KIT, seal repair - complete AA4VG180 pump	

- Kit or Assembly - includes all items indented underneath.
 ★ Included in seal repair kit Part # 20328.

Note:

Due to warranty policy restrictions imposed by Timbco's component suppliers, it is not recommended that the component be disassembled further than is shown in the illustration.

See Page C.3.12 for forward cast housing components.
 See Page C.3.16 for stroke control assembly.
 See Page C.3.18 for charge pump & thru drive components.
 See Page C.3.20 for filtration components.



WHEEL DRIVE PUMP - REXROTH AA4VG180 (Stroke Control Assembly - Hydraulic)

(Used on machines PDN# 037FWD and below)

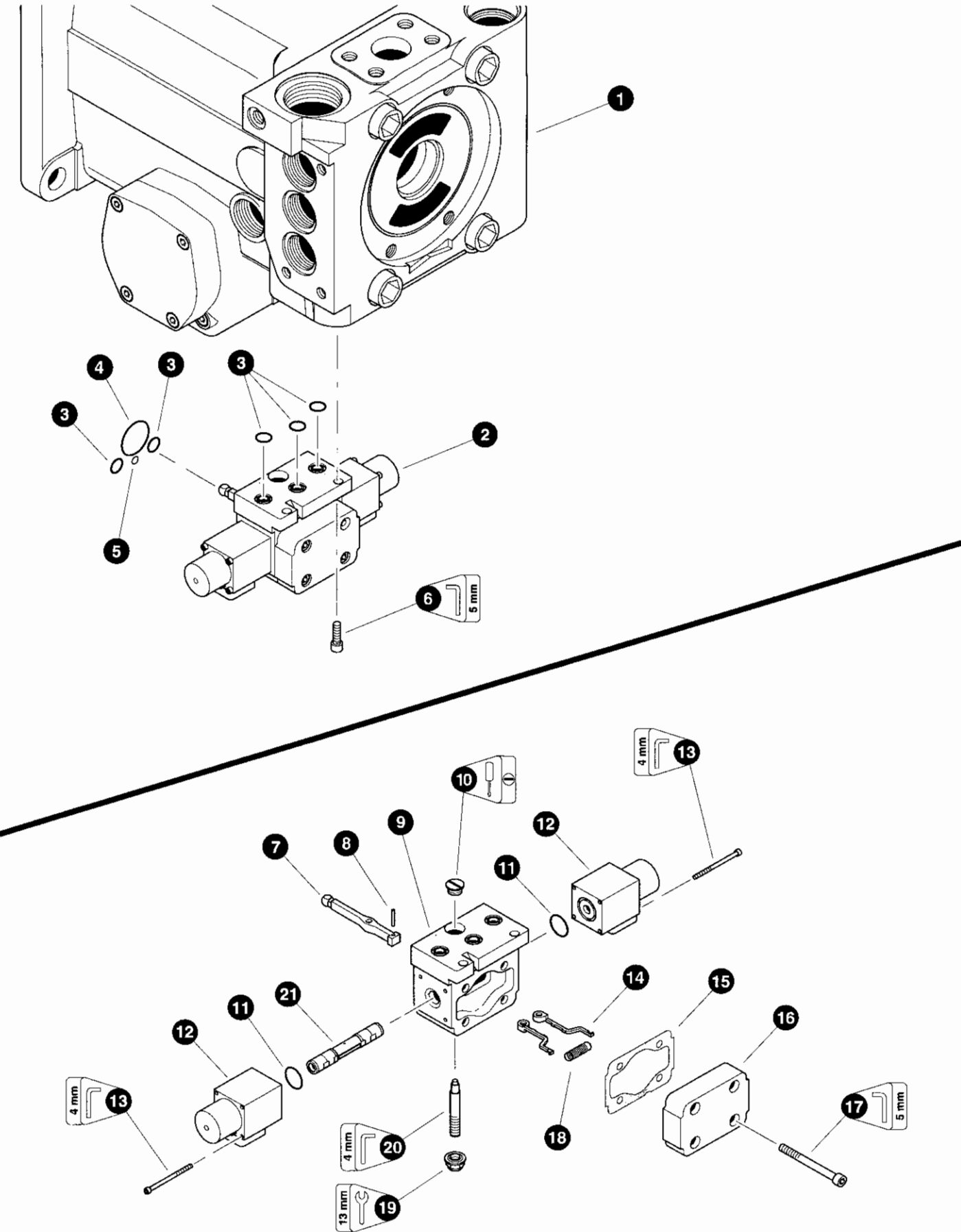
REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	WHEEL DRIVE PUMP - Rexroth AA4VG180	C.3.12
2	20340	1	□	VALVE, stroke control	
3	20342	5	★	O-RING, stroke control	
4	20343	1	★	O-RING, stroke control	
5	20344	1	★	O-RING, stroke control	
6	20345	2		BOLT, allen head - 6mm x 20mm	
7	20346	1		LEVER, feedback	
8	20347	1		PIN, feedback lever	
9	NSS	1		BODY, valve	
10	20348	1		PLUG, retaining	
11	20349	2		PISTON	
12	20350	2	★	O-RING, stroke control end cover	
13	20351	2		COVER, end	
14	20352	2		CLIP, retaining	
15	20353	8		BOLT, allen head - 4mm x 20mm	
16	20354	2		ARM, lever	
17	17790	1	★	GASKET	
18	20355	1		COVER	
19	20356	8		BOLT, allen head - 6mm x 65mm	
20	20357	1		SPRING, feedback	
21	20358	1	★	NUT, seal - 8mm	
22	20359	1		SCREW, eccentric	
23	NSS	1		SPOOL	
-	20328	1		KIT, seal repair - complete AA4VG180 pump	

- ✓ See referenced page for component breakdown.
- Kit or Assembly - includes all items indented underneath.
- ★ Included in seal repair kit Part # 20328.

Note:

Due to warranty policy restrictions imposed by Timbco's component suppliers, it is not recommended that the component be disassembled further than is shown in the illustration.

See Page C.3.12 for forward cast housing components.
 See Page C.3.14 for rear port block components.
 See Page C.3.18 for charge pump & thru drive components.
 See Page C.3.20 for filtration components.



WHEEL DRIVE PUMP - REXROTH AA4VG180 (Stroke Control Assembly - Electronic)

(Used on machines PDN# 038FWD and above)

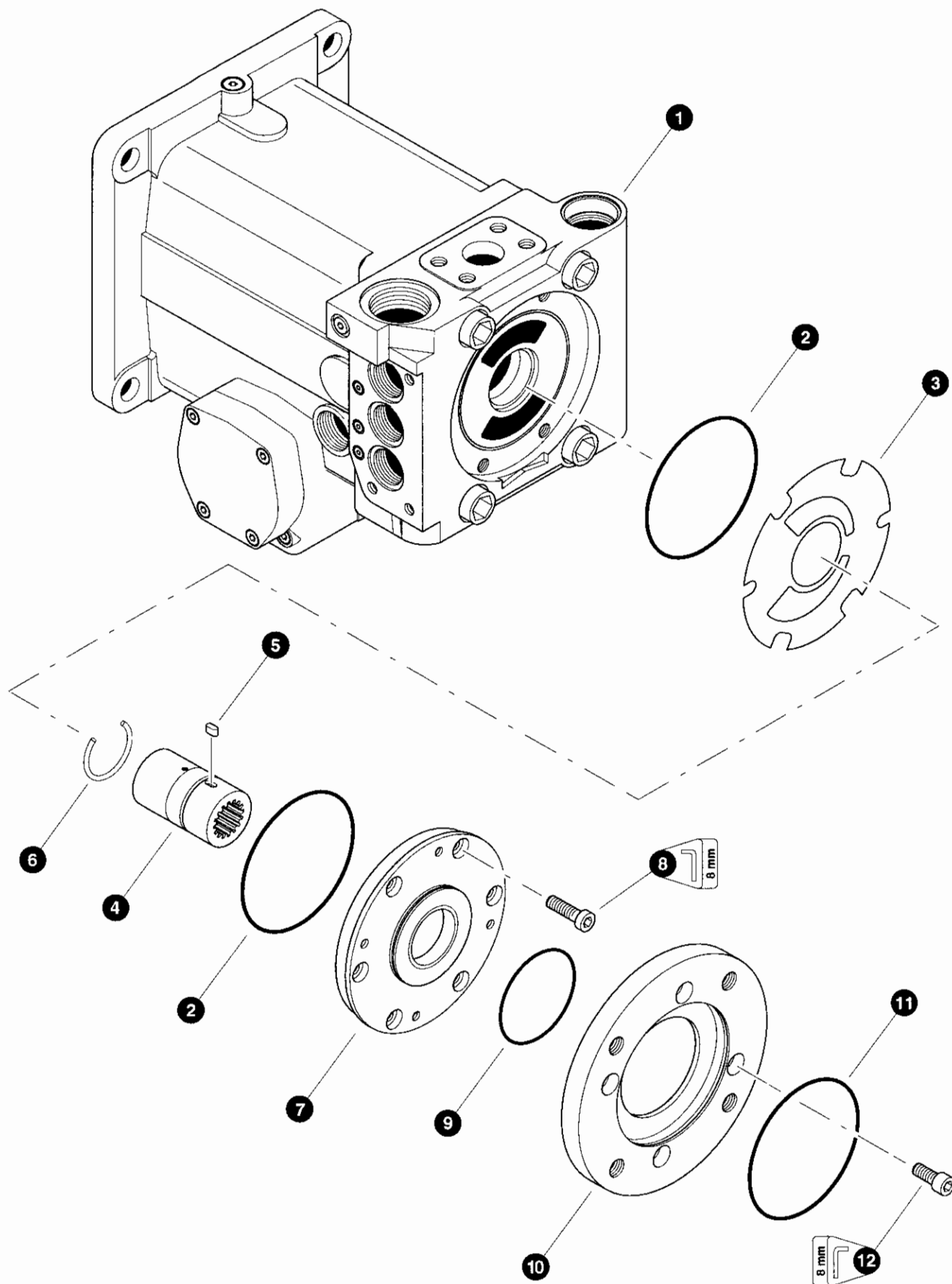
REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	WHEEL DRIVE PUMP - Rexroth AA4VG180	C.3.12
2	20341	1	□	VALVE, stroke control - 12V	
	20360	1	□	VALVE, stroke control - 24V	
3	20342	5	★	O-RING, stroke control	
4	20343	1	★	O-RING, stroke control	
5	20344	1	★	O-RING, stroke control	
6	20345	2		BOLT, allen head - 6mm x 20mm	
7	20346	1		LEVER, feedback	
8	20347	1		PIN, feedback lever	
9	NSS	1		BODY, valve	
10	20348	1		PLUG, retaining	
11	20350	2	★	O-RING, stroke control end cover	
12	20361	2		COIL, solenoid - 12V	
	20362	2		COIL, solenoid - 24V	
13	20363	8		BOLT, allen head - 4mm x 50mm	
14	20354	2		ARM, lever	
15	17790	1	★	GASKET	
16	20355	1		COVER	
17	20356	8		BOLT, allen head - 6mm x 65mm	
18	20364	1		SPRING, feedback	
19	20358	1	★	NUT, seal - 8mm	
20	20359	1		SCREW, eccentric	
21	NSS	1		SPOOL	
-	20328	1		KIT, seal repair - complete AA4VG180 pump	

- ✓ See referenced page for component breakdown.
- Kit or Assembly - includes all items indented underneath.
- ★ Included in seal repair kit Part # 20328.

Note:

Due to warranty policy restrictions imposed by Timbco's component suppliers, it is not recommended that the component be disassembled further than is shown in the illustration.

See Page C.3.12 for forward cast housing components.
 See Page C.3.14 for rear port block components.
 See Page C.3.18 for charge pump & thru drive components.
 See Page C.3.20 for filtration components.



WHEEL DRIVE PUMP - REXROTH AA4VG180 (Charge Pump & Thru Drive Components)

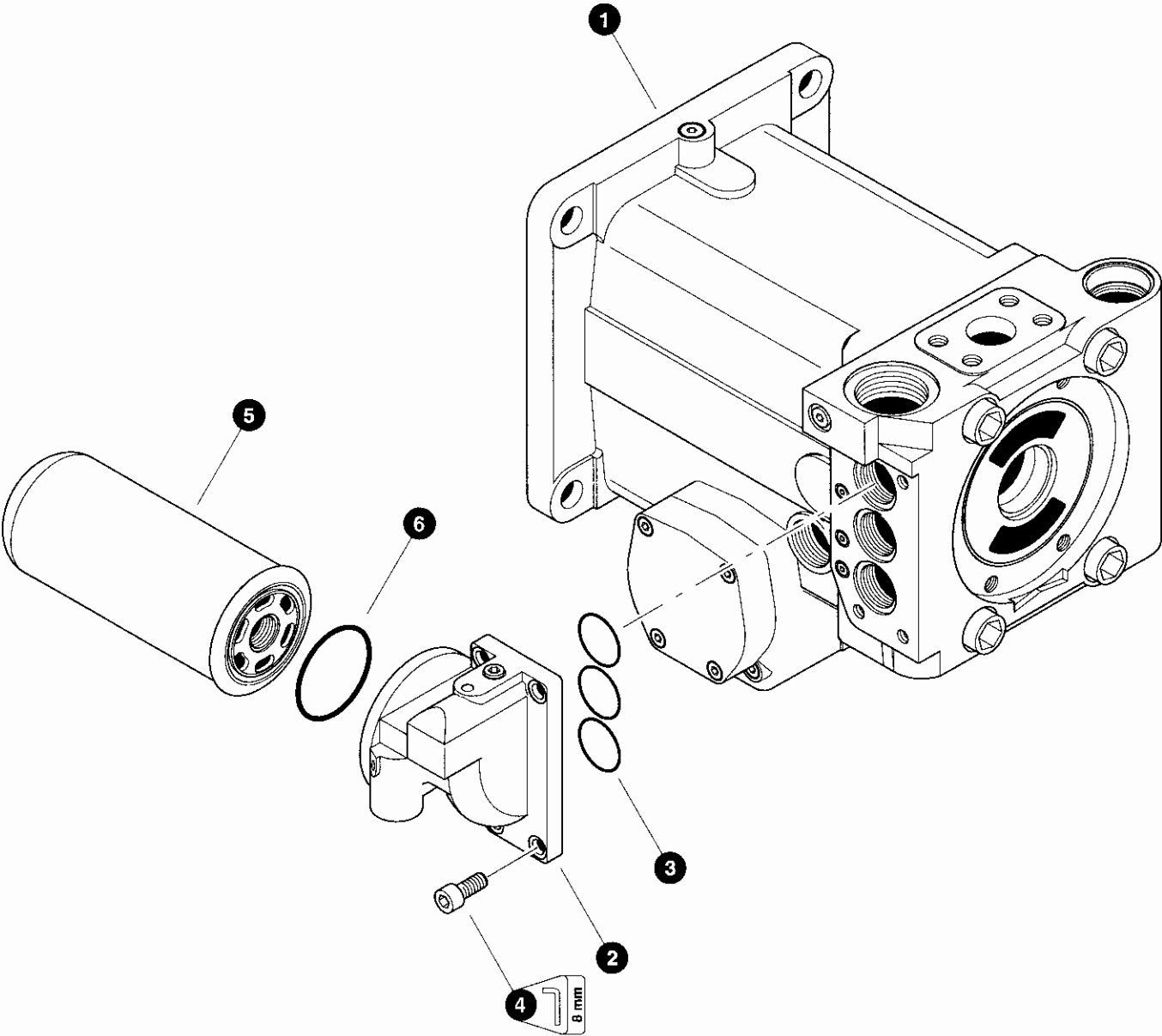
REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	WHEEL DRIVE PUMP - Rexroth AA4VG180	C.3.12
-	20438	1	□	CHARGE PUMP ASSEMBLY (w/thru drive)	
2	20368	2	★	O-RING, thru drive wear plate	
3	20369	1		PLATE, wear - charge pump	
4	20439	1		COUPLING, thru drive	
5	20440	1		KEY	
6	20372	1		RING, retaining	
7	NSS	1		HOUSING, gear	
8	20441	6		BOLT, allen head - 10mm	
9	20442	1	★	O-RING, gear housing pilot	
9	20443	1		FLANGE, intermediate	
10	16106	1	★	O-RING, thru drive pilot (SAE "C")	
11	20444	4		BOLT, allen head - 12mm-1.75P x 45mm	
-	20328	1		KIT, seal repair - complete AA4VG180 pump	

- ✓ See referenced page for component breakdown.
- Kit or Assembly - includes all items indented underneath.
- ★ Included in seal repair kit Part # 20328.

Note:

Due to warranty policy restrictions imposed by Timbco's component suppliers, it is not recommended that the component be disassembled further than is shown in the illustration.

See Page C.3.12 for forward cast housing components.
 See Page C.3.14 for rear port block components.
 See Page C.3.16 for stroke control assembly.
 See Page C.3.20 for filtration components.



WHEEL DRIVE PUMP - REXROTH AA4VG180 (Filtration Components)

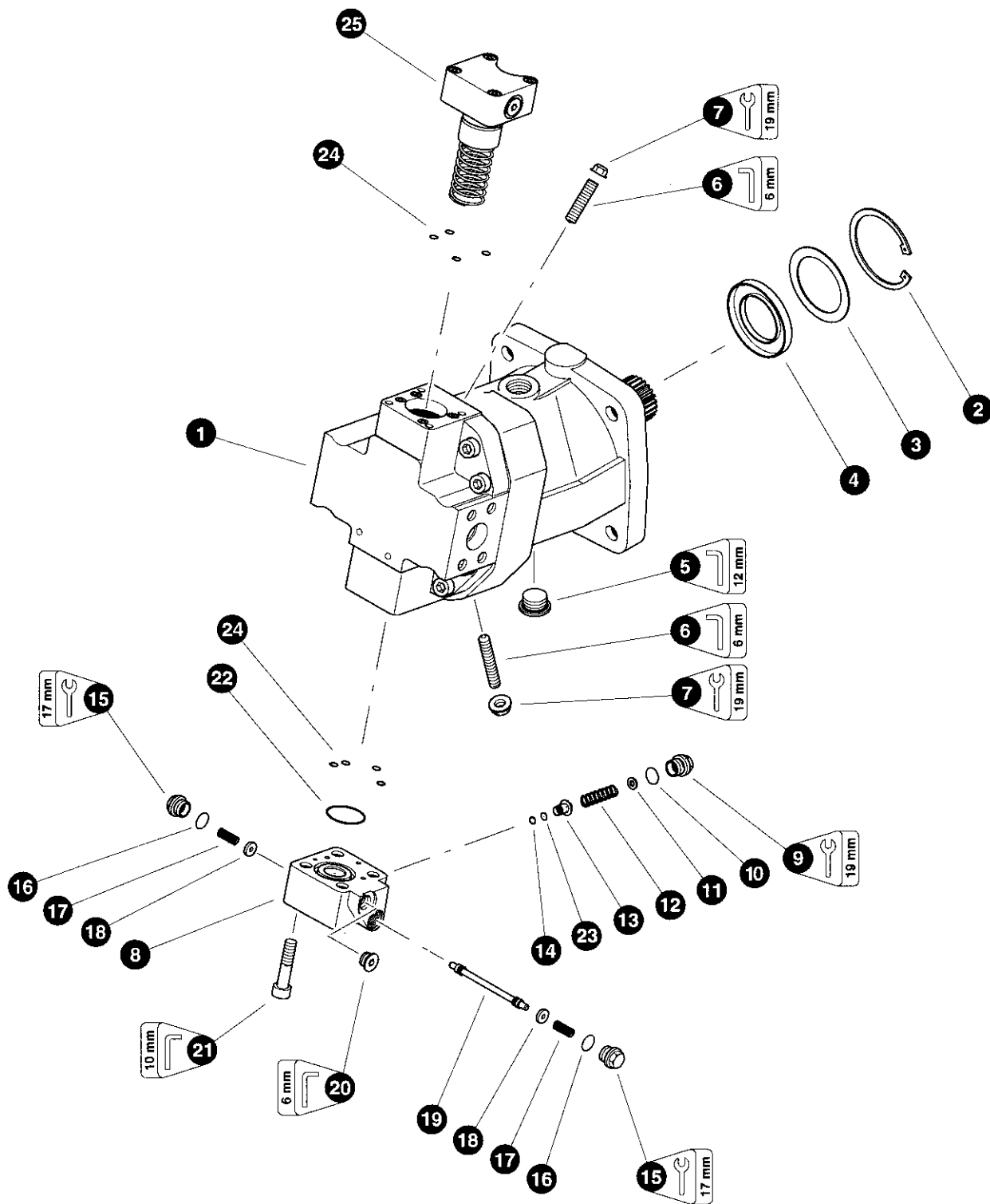
REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	WHEEL DRIVE PUMP - Rexroth AA4VG180	C.3.12
2	NSS	1		HOUSING, filter	
3	20365	3	★	O-RING, filter housing	
4	20366	4		BOLT, allen head - 8mm x 25mm	
5	19878	1		FILTER, hydraulic - spin-on	
	NSS	1		GASKET, filter	
-	20328	1		KIT, seal repair - complete AA4VG180 pump	

- ✓ See referenced page for component breakdown.
- Kit or Assembly - includes all items indented underneath.
- ★ Included in seal repair kit Part # 20328.

Note:

Due to warranty policy restrictions imposed by Timbco's component suppliers, it is not recommended that the component be disassembled further than is shown in the illustration.

See Page C.3.12 for forward cast housing components.
 See Page C.3.14 for rear port block components.
 See Page C.3.16 for stroke control assembly.
 See Page C.3.18 for charge pump & thru drive components.



WHEEL DRIVE MOTOR - REXROTH AA6VM160

(Motor Housing & Stroker Piston Cover Assembly)

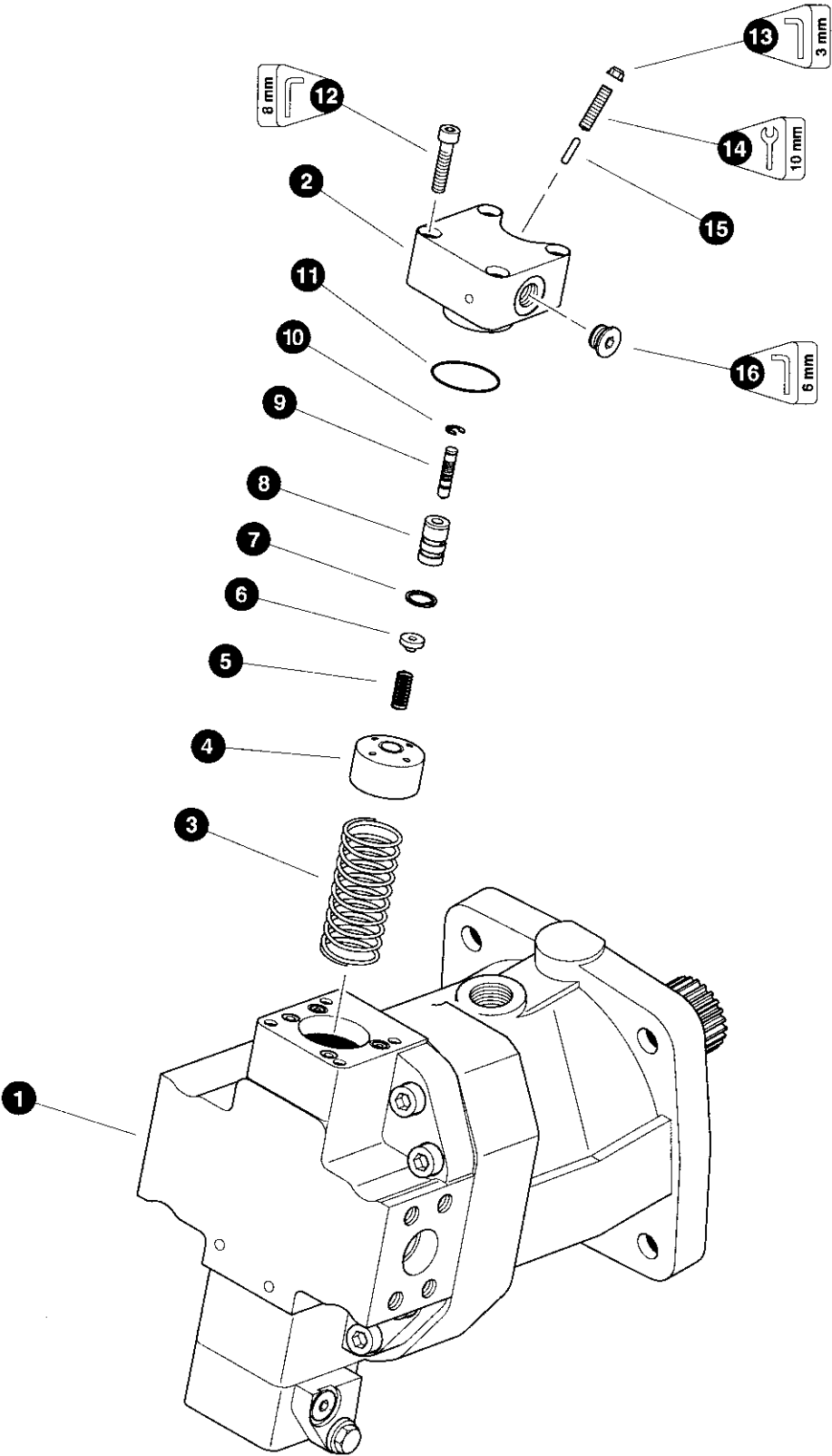
REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	18740	1	☐	MOTOR, wheel drive - Rexroth AA6VM160	
2	20685	1		RING, snap	
3	20686	1		SHIM, shaft seal	
4	20687	1	★	SEAL, shaft	
5	19692	1		PLUG - 26mm-1.5P (<i>BSPP thread</i>)	
6	20688	2		SCREW, adjusting (<i>Displacement min & max</i>)	
7	20689	2	★	NUT, seal	
8	20690	1	☐	STROKING PISTON COVER ASSEMBLY	
9	20691	1		PLUG	
10	20713	1	★	O-RING	
11	20714	1		SHIM	
12	20715	1		SPRING	
13	20716	1		POPPET	
14	20718	1		RING, snap	
15	20719	2		PLUG	
16	20720	2	★	O-RING	
17	20721	2		SPRING	
18	20722	2		RETAINER, spring	
19	NSS	1		SPOOL	
20	20693	1		PLUG - 14mm-1.5P (<i>BSPP thread</i>)	
21	20723	4		BOLT, allen head	
22	20724	1	★	O-RING	
23	20717	1		ORIFICE, flushing - 1.2mm	
24	NSS	8		O-RING	
-	20725	1		KIT, seal repair - complete AA6VM160 motor	

☐ Kit or Assembly - includes all items indented underneath.

★ Included in seal repair kit Part # 20725.

Note:

Due to warranty policy restrictions imposed by Timbco's component suppliers, it is not recommended that the component be disassembled further than is shown in the illustration.



WHEEL DRIVE MOTOR - REXROTH AA6VM160 (HA1T Control Assembly)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	18740	1	✓	WHEEL DRIVE MOTOR - Rexroth AA6VM160	C.3.22
2	20726	1	□	STROKING PISTON CONTROL ASSEMBLY (HA1T)	
3	20727	1		SPRING	
4	20728	1		BUSHING, spring	
5	20729	1		SPRING	
6	20730	1		RETAINER, spring	
7	20731	1		RING, snap	
8	20732	1		BUSHING, control spool	
9	20733	1		SPOOL, control	
10	20734	1		E-CLIP, control spool	
11	20735	1	★	O-RING	
12	20736	4		BOLT, allen head	
13	20737	1	★	NUT, seal	
14	20738	1		SCREW, adjusting (<i>Stroke control</i>)	
15	20739	1		PIN, stroke adjustment	
20	20693	1		PLUG - 14mm-1.5P (<i>BSPP thread</i>)	
-	20725	1		KIT, seal repair - complete AA6VM160 motor	

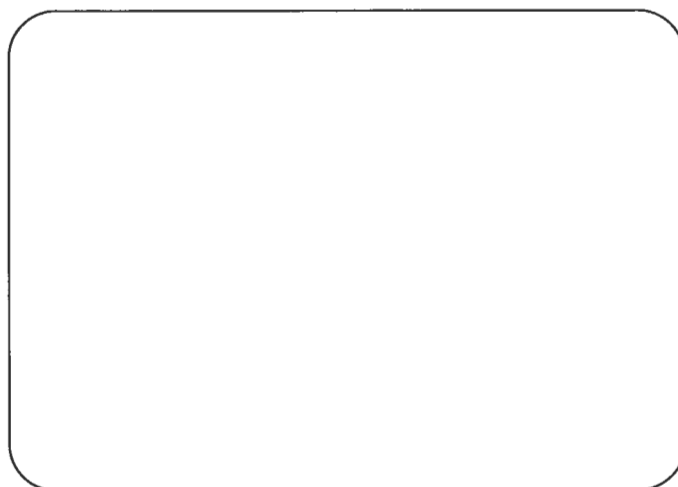
- Kit or Assembly - includes all items indented underneath.
 ★ Included in seal repair kit Part # 20725.

Note:

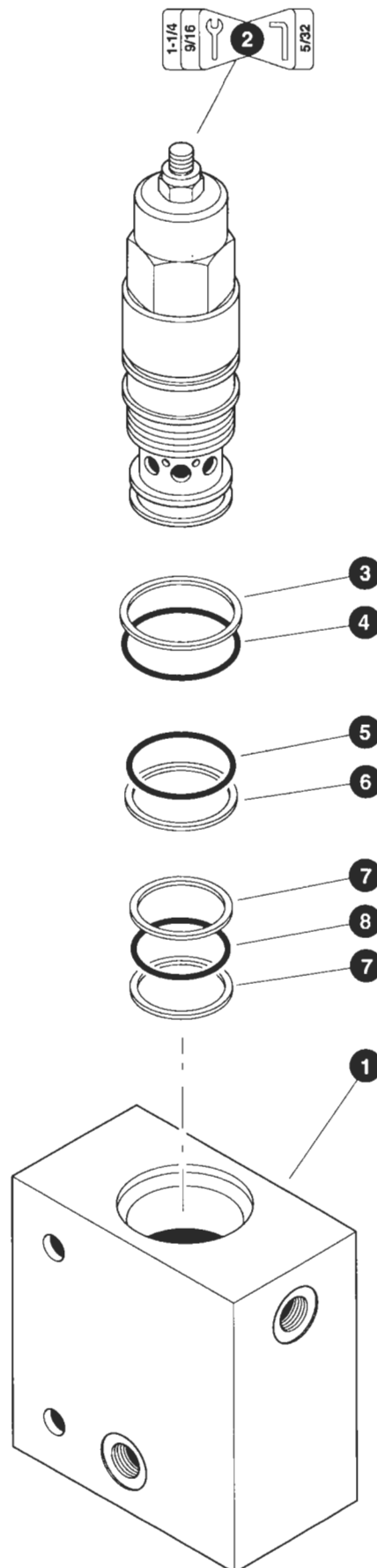
Due to warranty policy restrictions imposed by Timbco's component suppliers, it is not recommended that the component be disassembled further than is shown in the illustration.

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Section D.1



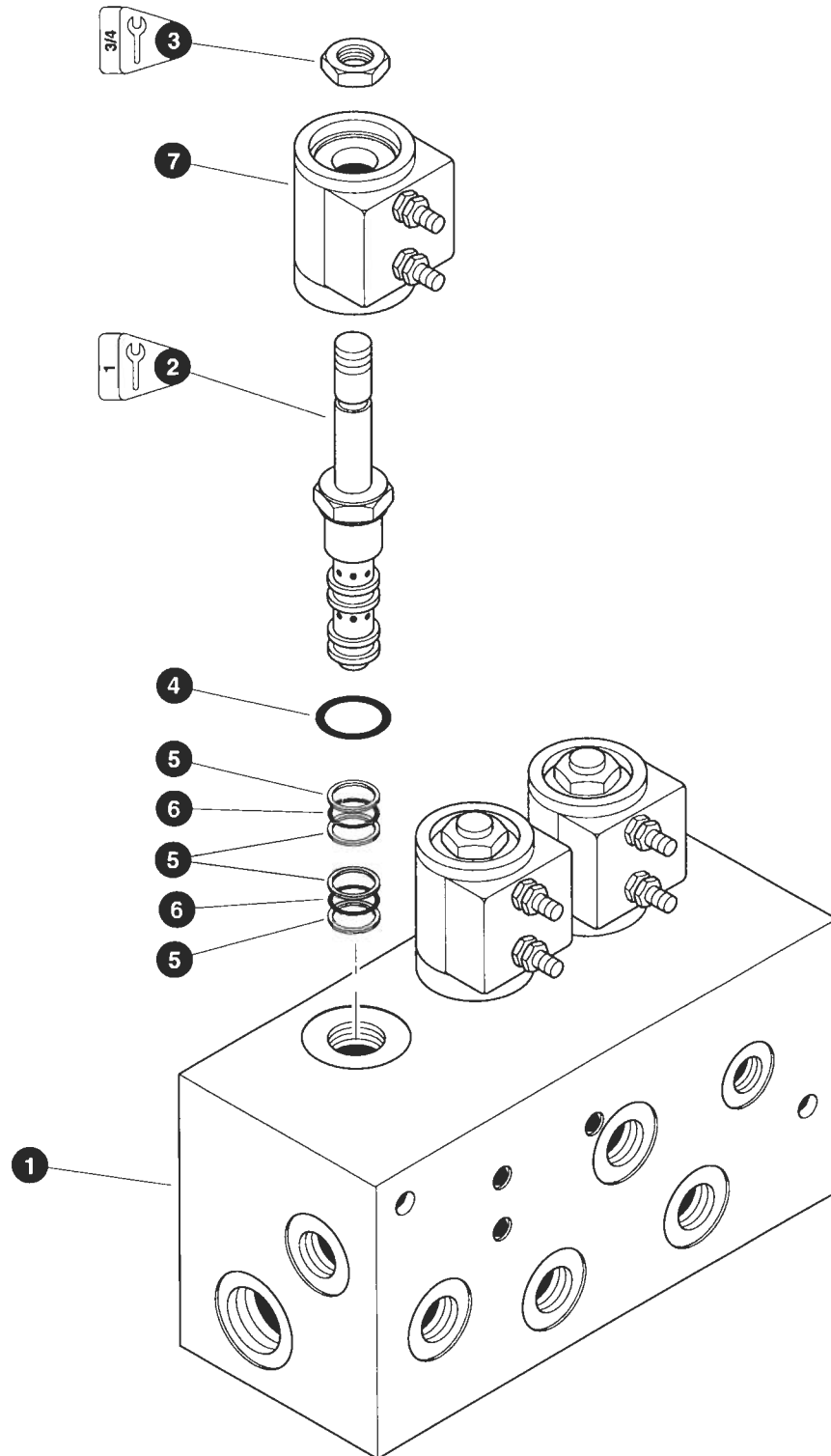
Hydraulic Valves & Manifolds - System Pilot Pressure



PILOT PRESSURE RELIEF

REF	PART #	QTY		DESCRIPTION	SEE PAGE
-	17674	1	□	VALVE, pilot pressure relief	
1	NSS	1		HOUSING, valve body	
2	17812	1	□	CARTRIDGE, relief valve	
2	NSS	1	★	RING, back-up - body	
4	NSS	1	★	O-RING, body	
5	NSS	1	★	O-RING, chamber (<i>upper</i>)	
6	NSS	1	★	RING, back-up - chamber (<i>upper</i>)	
7	NSS	2	★	RING, back-up - chamber (<i>lower</i>)	
8	NSS	1	★	O-RING, chamber (<i>lower</i>)	
-	16086	1		KIT, seal repair - relief valve cartridge	

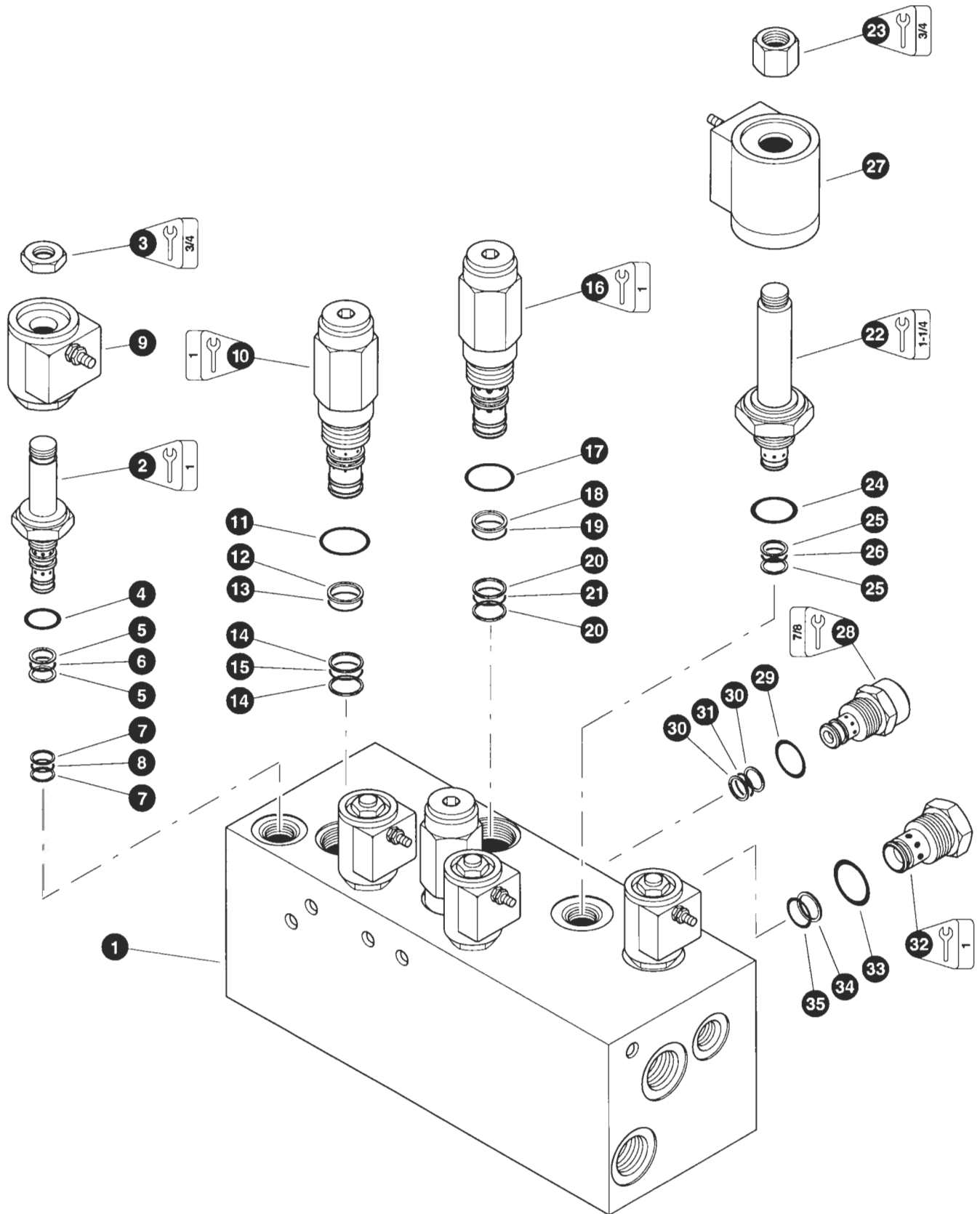
- Kit or Assembly - includes all items indented underneath.
 ★ Included in seal repair kit Part # 16086.



PILOT PRESSURE MANIFOLD

REF	PART #	QTY		DESCRIPTION	SEE PAGE
-	17752	1	☐	VALVE, pilot pressure manifold	
1	NSS	1		HOUSING, valve body	
2	17798	3	☐	CARTRIDGE, solenoid valve	
3	NSS	1		NUT	
4	NSS	1	★	O-RING, body	
5	NSS	4	★	RING, back-up - chamber	
6	NSS	2	★	O-RING, chamber	
7	17797	1		COIL, pilot pressure manifold - 12V	
-	17799	1		KIT, seal repair - relief valve cartridge	

- ☐ Kit or Assembly - includes all items indented underneath.
 ★ Included in seal repair kit Part # 17799.



MONO-BLOCK VALVE

REF	PART #	QTY		DESCRIPTION	SEE PAGE
-	19220	1	□	VALVE, mono-block valve	
1	NSS	1		HOUSING, valve body	
2	20286	4	□	CARTRIDGE, solenoid valve (<i>small</i>)	
3	NSS	1		NUT	
4	NSS	1	★	O-RING, body	
5	NSS	2	★	RING, back-up - chamber (<i>upper</i>)	
6	NSS	1	★	O-RING, chamber (<i>upper</i>)	
7	NSS	2	★	RING, back-up - chamber (<i>lower</i>)	
8	NSS	1	★	O-RING, chamber (<i>lower</i>)	
9	20289	1		COIL, mono-block valve - 12V (<i>small</i>)	
10	20290	2	□	CARTRIDGE, relief valve (<i>PR10</i>)	
11	NSS	1	☆	O-RING, body	
12	NSS	1	☆	RING, back-up - chamber (<i>upper</i>)	
13	NSS	1	☆	O-RING, chamber (<i>upper</i>)	
14	NSS	2	☆	RING, back-up - chamber (<i>lower</i>)	
15	NSS	1	☆	O-RING, chamber (<i>lower</i>)	
16	20292	1	□	CARTRIDGE, relief valve (<i>UP10</i>)	
17	NSS	1	●	O-RING, body	
18	NSS	1	●	RING, back-up - chamber (<i>upper</i>)	
19	NSS	1	●	O-RING, chamber (<i>upper</i>)	
20	NSS	2	●	RING, back-up - chamber (<i>lower</i>)	
21	NSS	1	●	O-RING, chamber (<i>lower</i>)	
22	20287	1	□	CARTRIDGE, solenoid valve (<i>small</i>)	
23	NSS	1		NUT	
24	NSS	1	○	O-RING, body	
25	NSS	2	○	RING, back-up - chamber	
26	NSS	1	○	O-RING, chamber	
27	20295	1		COIL, mono-block valve - 12V (<i>large</i>)	
28	20296	1	□	CARTRIDGE, check valve (<i>FR08</i>)	
29	NSS	1	■	O-RING, body	
30	NSS	2	■	RING, back-up - chamber	
31	NSS	1	■	O-RING, chamber	
32	20298	1	□	CARTRIDGE, check valve (<i>CV10</i>)	
33	NSS	1	▲	O-RING, body	
34	NSS	2	▲	RING, back-up - chamber	
35	NSS	1	▲	O-RING, chamber	
-	20288	1		KIT, seal repair - solenoid cartridge	
-	20291	1		KIT, seal repair - relief valve cartridge	
-	20293	1		KIT, seal repair - relief valve cartridge	
-	20294	1		KIT, seal repair - solenoid cartridge	
-	20297	1		KIT, seal repair - check valve cartridge	
-	20299	1		KIT, seal repair - check valve cartridge	

□ Kit or Assembly - includes all items indented underneath.

★ Included in seal repair kit Part # 20288.

☆ Included in seal repair kit Part # 20291.

● Included in seal repair kit Part # 20293.

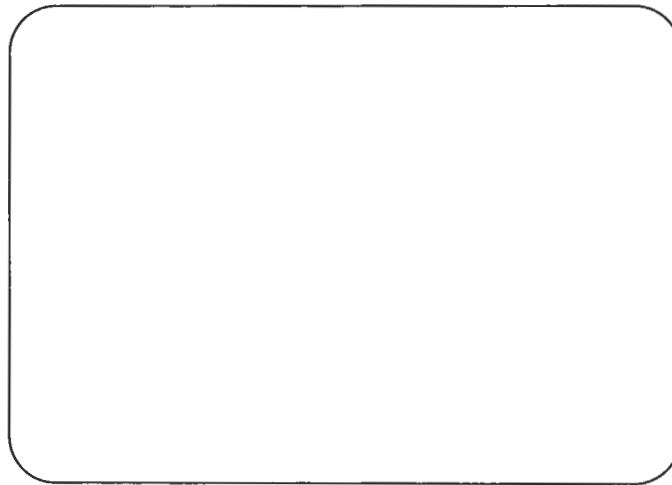
○ Included in seal repair kit Part # 20294.

■ Included in seal repair kit Part # 20297.

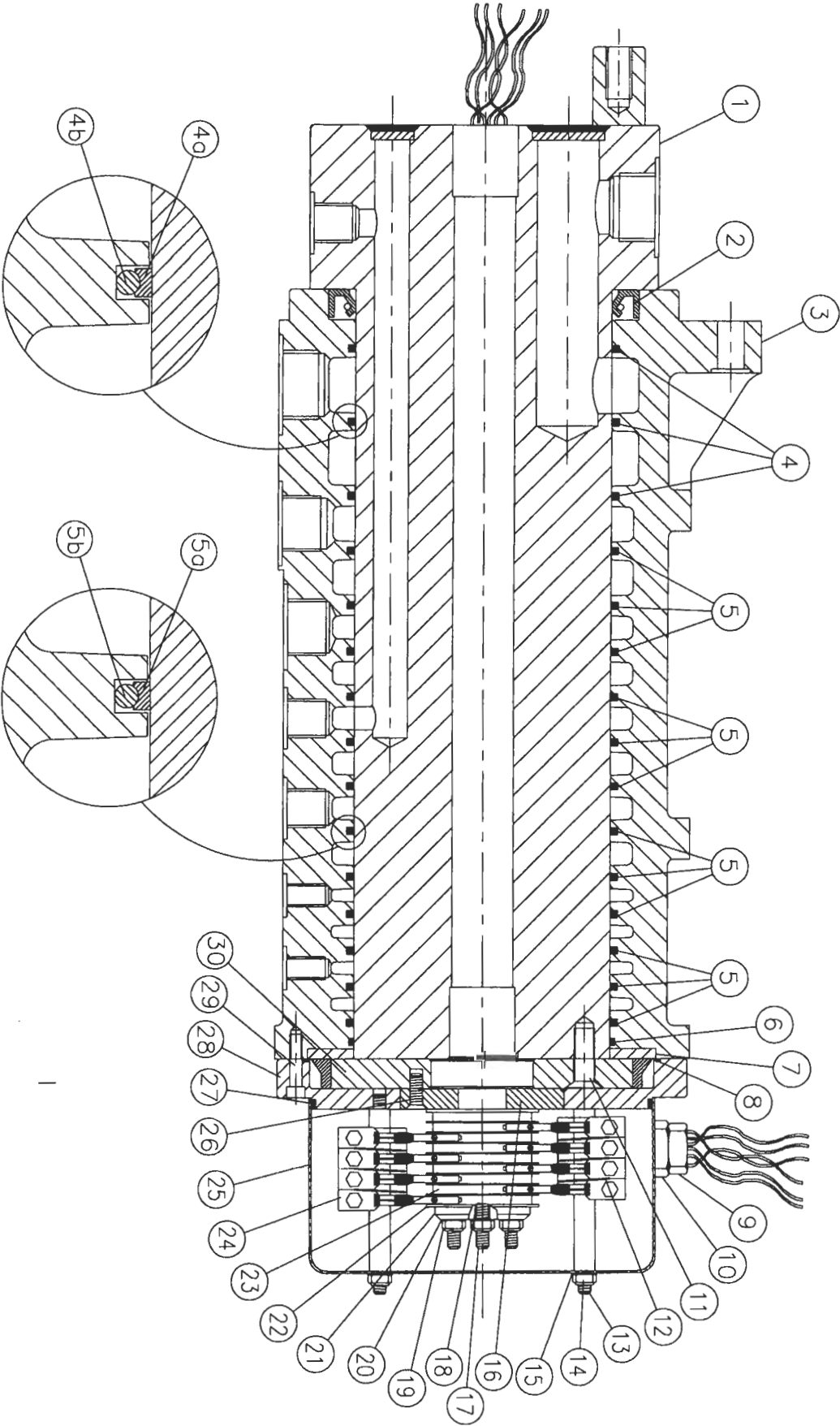
▲ Included in seal repair kit Part # 20299.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Section D.2



Hydraulic Valves & Manifolds - Loader Implements

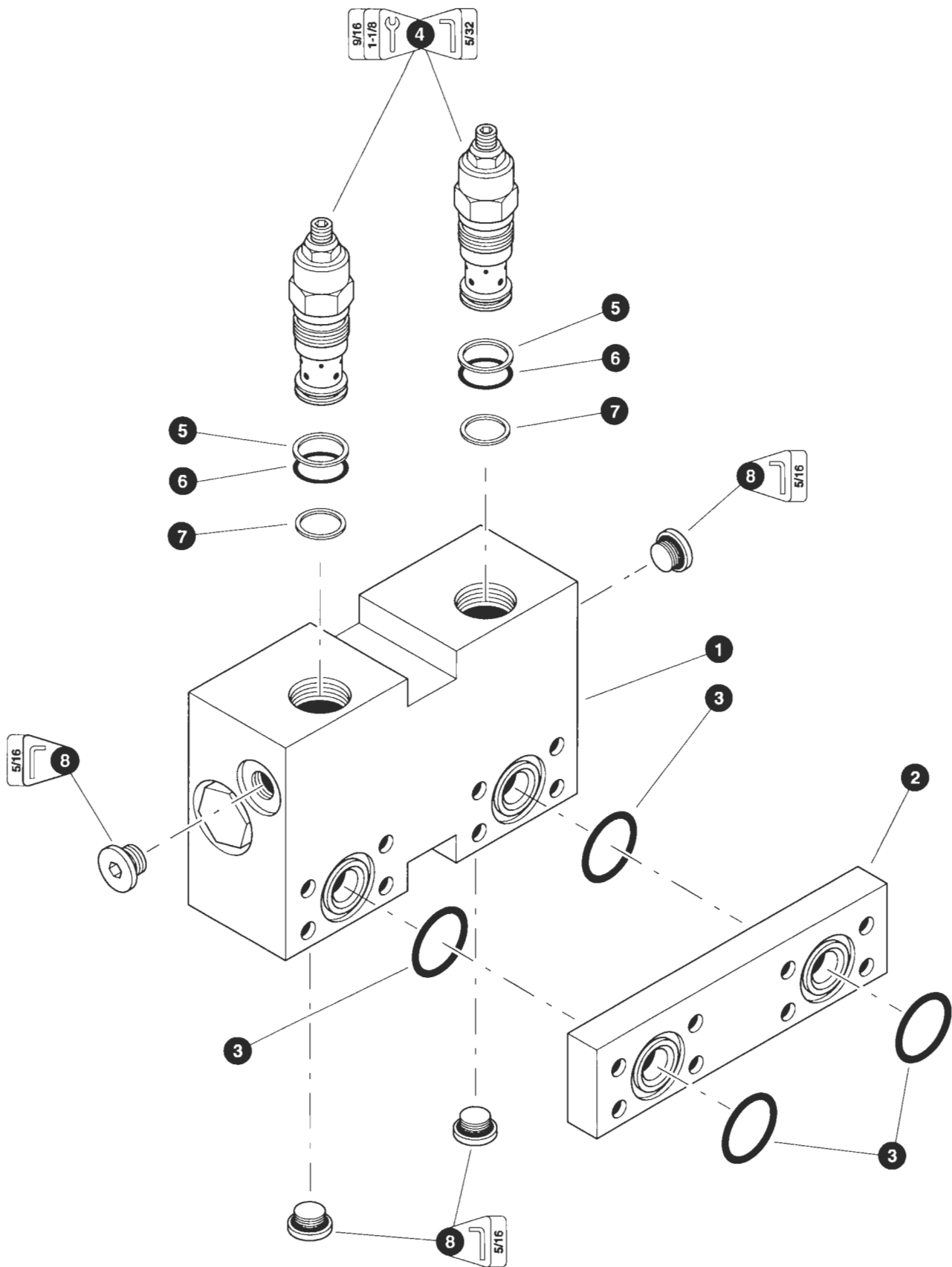


D.2.1

ROTARY MANIFOLD (Fluidtronics)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
--	19363	1	☐	MANIFOLD, rotary - ORB porting <i>(Used on machines PDN# 026FWD and above)</i>	
--	19371	1	☐	MANIFOLD, rotary - BSPP porting <i>(Used on machines PDN# 025FWD and below)</i>	
1	NSS	1		PISTON	
2	20669	1	★	SEAL, rotary manifold	
3	NSS	1		HOUSING	
4a	NSS	3	★	SEAL, lip <i>(high pressure)</i>	
4b	NSS	3	★	O-RING <i>(high pressure)</i>	
5a	NSS	3	★	SEAL, lip	
5b	NSS	3	★	O-RING	
6	NSS	1	★	O-RING	
7	NSS	1		RING, teflon	
8	20670	1	★	O-RING, electrical section	
9	NSS	1		NUT, plastic	
10	NSS	1		NUT, plastic	
11	NSS	4		BOLT, flat head socket	
12	20671	6		RING, insulator <i>(large diameter)</i>	
13	NSS	3		POST, brush	
14	NSS	3		NUT, nylon	
15	NSS	3		WASHER, nylon	
16	NSS	1		SUPPORT, armature post	
17	NSS	3		POST, armature	
18	NSS	3		POST, insulator	
19	NSS	3		NUT, nylon	
20	NSS	3		WASHER, nylon	
21	NSS	1		COVER, armature post	
22	20672	9		RING, insulator <i>(small diameter)</i>	
23	20673	8		RING, contact	
24	20374	8		BRUSH, contact	
25	NSS	1		COVER	
26	NSS	2		STUD, threaded	
27	20675	1	★	O-RING, cover	
28	NSS	1		POST, contact brush support	
29	NSS	4		BOLT, allen head	
30	NSS	1		PLATE, end <i>(w/integral wiper ring)</i>	
-	19633	1		KIT, seal repair - rotary manifold	

- ☐ Kit or Assembly - includes all items indented underneath.
 ★ Included in seal repair kit Part # 19633.



SWING MOTOR ANTI-CAVITATION VALVE

(Used With Poclain Swing Motor)

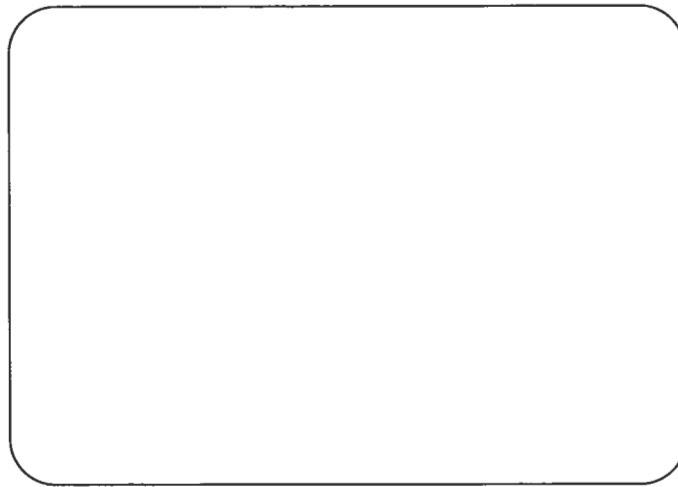
REF	PART #	QTY		DESCRIPTION	SEE PAGE
-	18449	1	☐	VALVE, swing motor anti-cavitation	
1	NSS	1		HOUSING, valve body	
2	NSS	1		SPACER, valve body	
3	16918	4		O-RING - 3/4" (Code 62)	
4	19270	2		CARTRIDGE, anti-cavitation	
5	NSS	1	★	O-RING, body	
6	NSS	1	★	O-RING, chamber	
7	NSS	1	★	RING, back-up - chamber	
8	19271	4		PLUG - 6408-HHP-10	
-	19272	1		KIT, seal repair - anti-cavitation cartridge	

☐ Kit or Assembly - includes all items indented underneath.

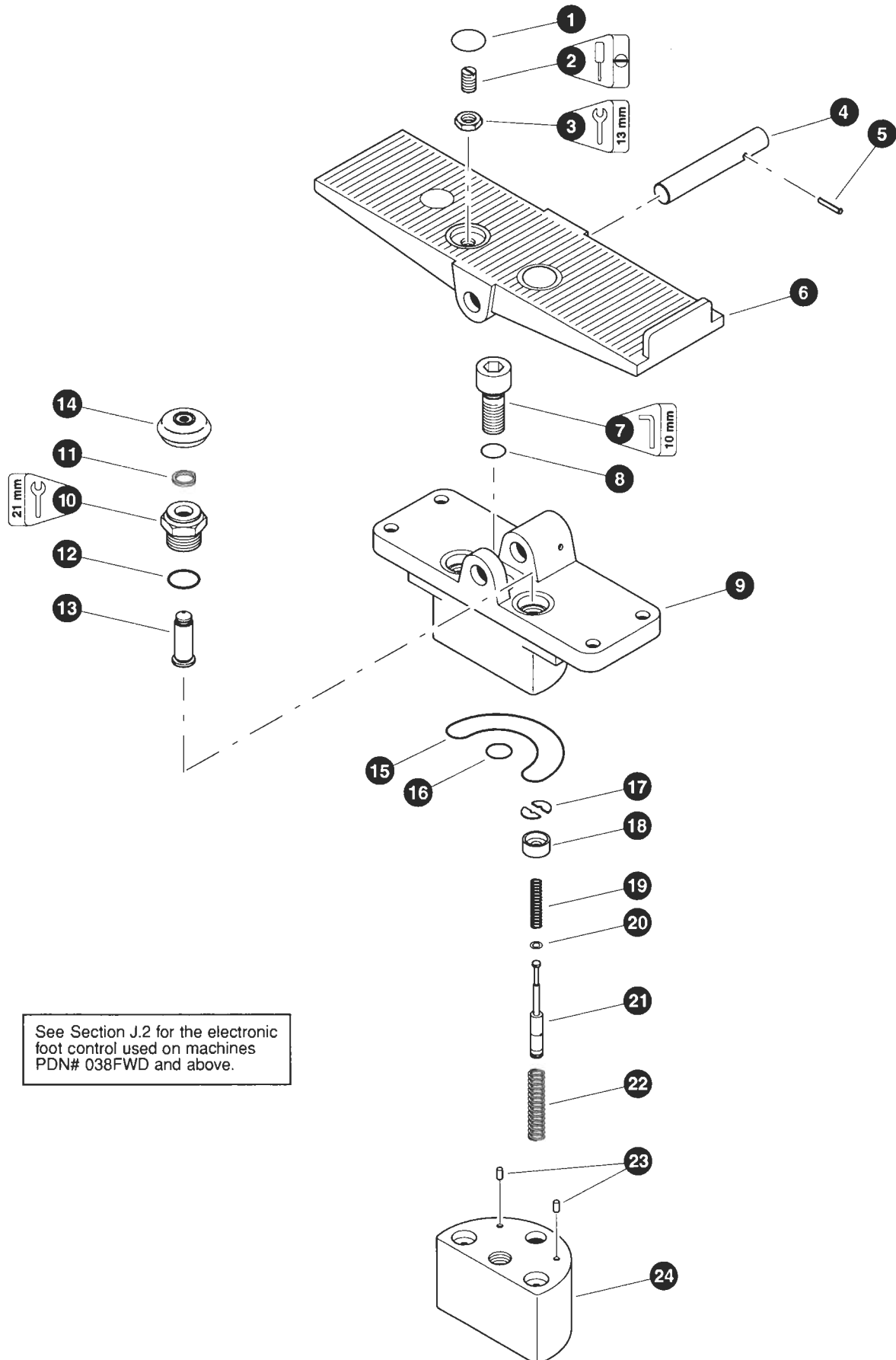
★ Included in seal repair kit Part # 19272.

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Section D.3



Hydraulic Valves & Manifolds - Wheel Drive



See Section J.2 for the electronic foot control used on machines PDN# 038FWD and above.

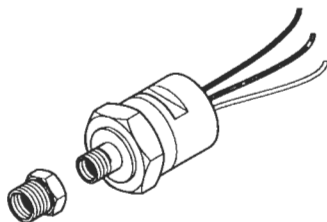
WHEEL DRIVE FOOT CONTROL VALVE (Hydraulic - Rexroth)

(Used on machines PDN# 033FWD and below)

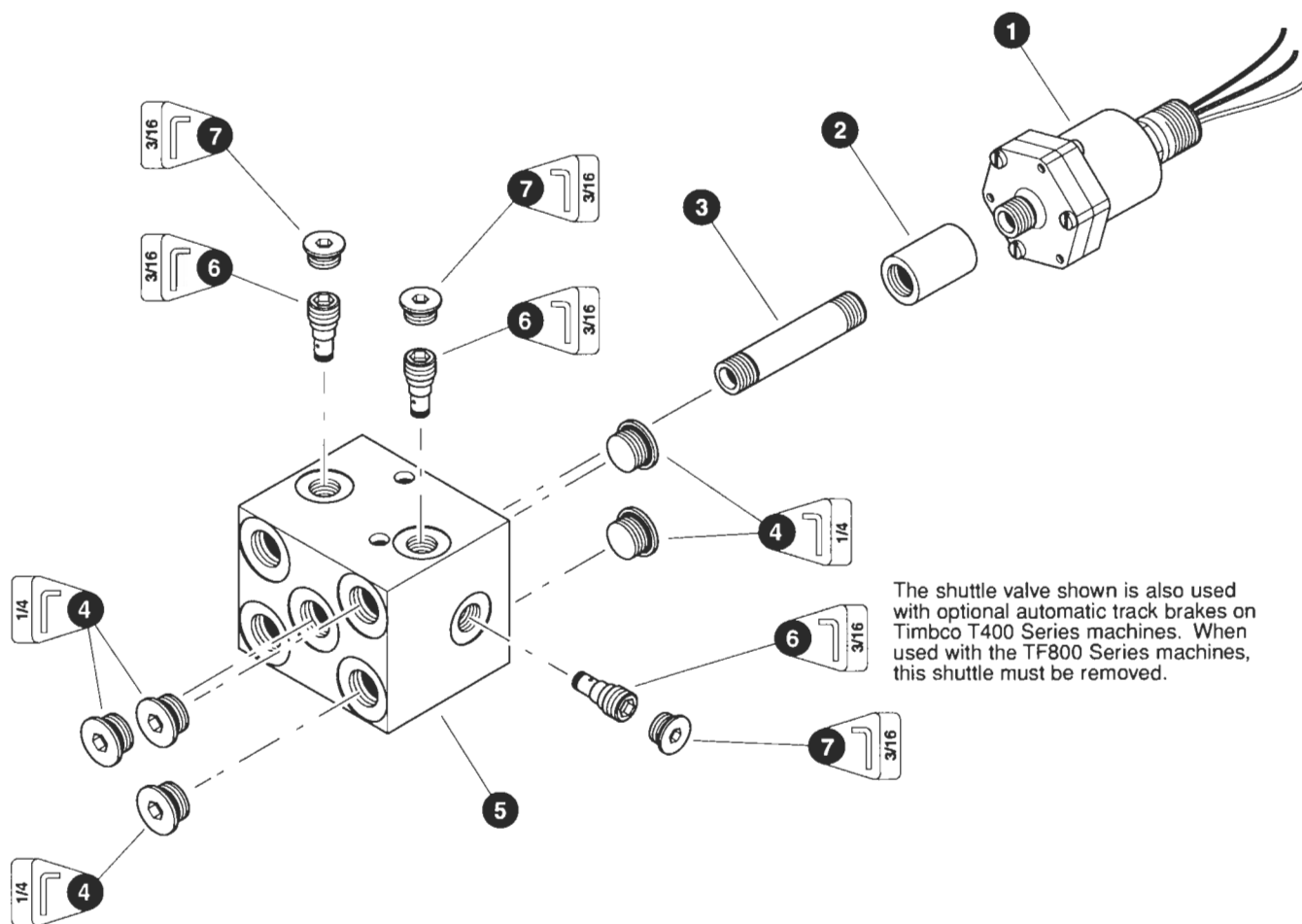
REF	PART #	QTY		DESCRIPTION	SEE PAGE
-	15297	1	□	VALVE, wheel drive foot control	
1	20695	2		PLUG	
2	20696	2		SCREW, adjusting	
3	20697	2		NUT, jam - adjusting screw	
4	NSS	1		SHAFT, pivot	
5	20698	1		PIN, spring- 4mm x 24mm	
6	20699	1		PEDAL	
7	20700	1	★	BOLT	
8	20701	1	★	O-RING	
9	NSS	1		HOUSING, upper pedal mount	
10	20702	2	□	GUIDE, plunger	
11	NSS	1		U-RING	
12	NSS	1		O-RING	
13	NSS	1		PLUNGER	
14	NSS	1		BOOT	
15	20703	1	★	SEAL, shaped - foot pedal section	
16	20704	1	★	O-RING, foot pedal section	
17	20705	4		DISC, locking	
18	20706	2		RETAINER, spring	
19	20707	2		SPRING, control	
20	20708	AR		SHIM, control spring - 0.2mm	
	20709	AR		SHIM, control spring - 0.5mm	
21	NSS	2		SPOOL	
22	20710	2		SPRING, return	
23	20711	2	★	PIN, dowel - 5mm x 12mm	
24	NSS	1		HOUSING, base	
-	20712	1		KIT, seal repair - complete	

□ Kit or Assembly - includes all items indented underneath.

★ Included in seal repair kit Part # 20712.



Original pressure switch shown. This switch has a black plastic body with a brass hex. This switch has been discontinued. If ordering a replacement switch, use configuration shown below.

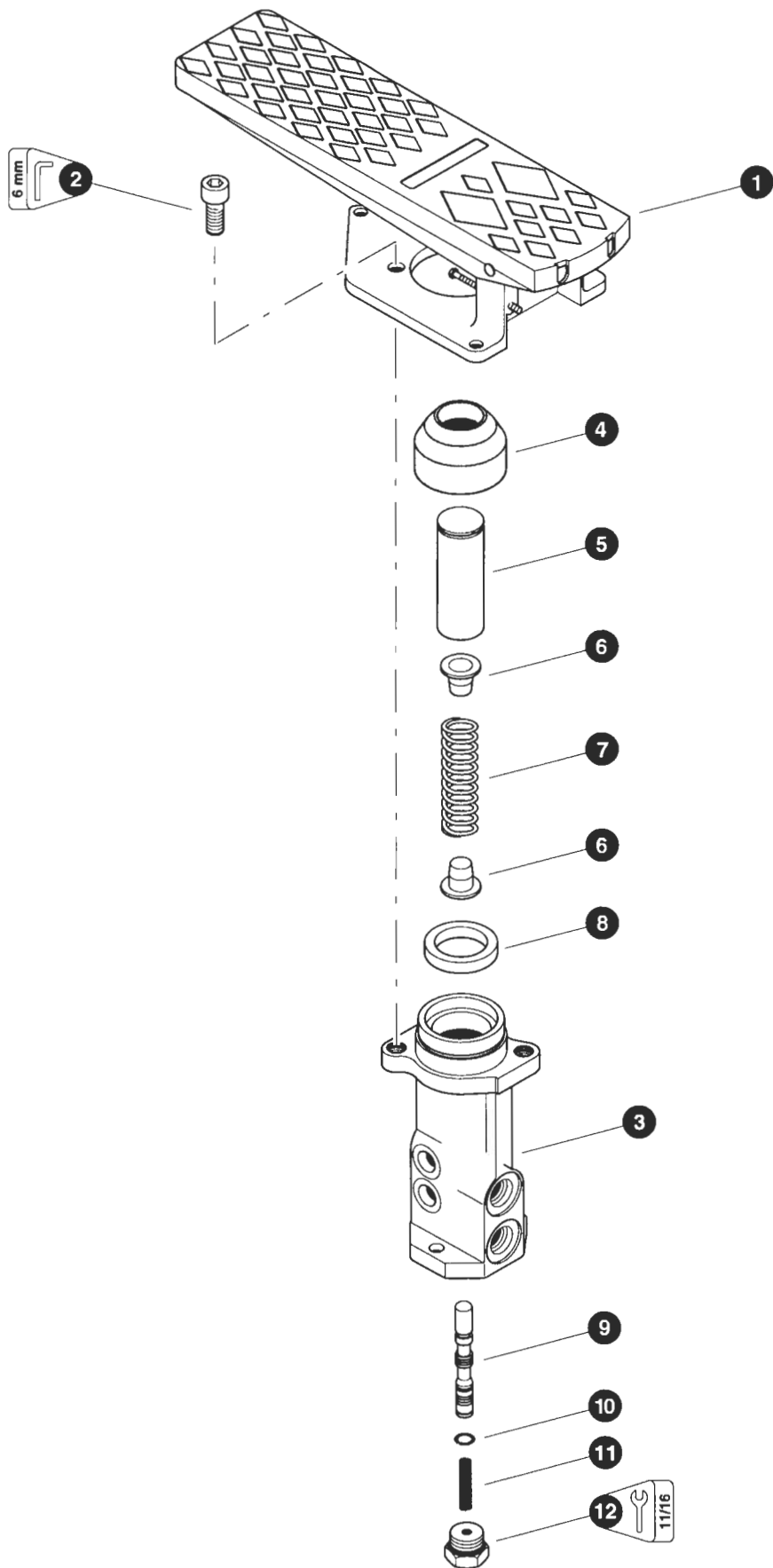


The shuttle valve shown is also used with optional automatic track brakes on Timbco T400 Series machines. When used with the TF800 Series machines, this shuttle must be removed.

WHEEL DRIVE FOOT CONTROL SHUTTLE VALVE*(Used on machines PDN# 033FWD and below)*

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	19779	1		SWITCH, pressure	
2	16885	1		COUPLING, pipe - 1/4"	
3	16313	1		NIPPLE, close - 1/4" x 1-1/2"	
4	15412	5		PLUG - 6408-HHP-6	
5	17893	1	☐	VALVE, shuttle	
6	20285	3		SHUTTLE	
7	11383	2		PLUG - 6408-HHP-4	

☐ Kit or Assembly - includes all items indented underneath.

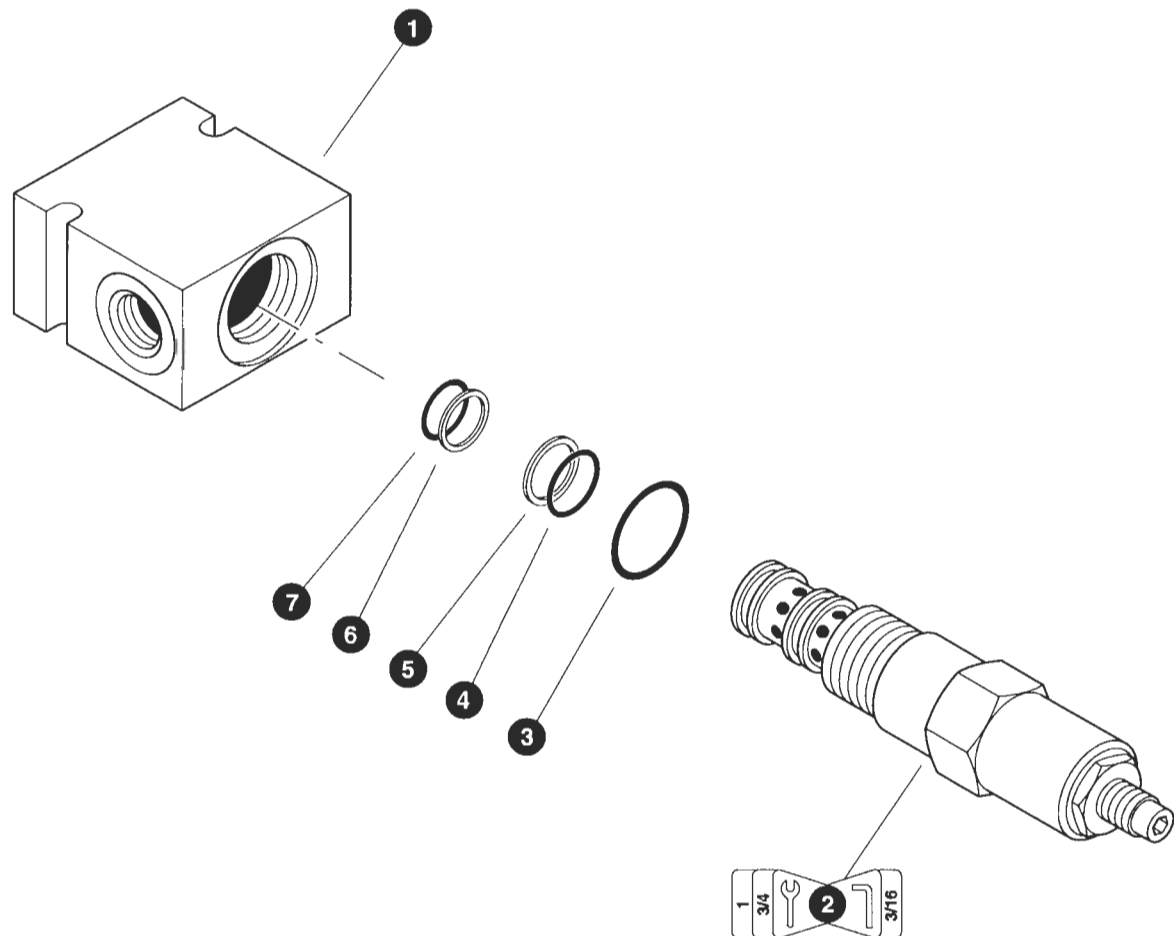


TRAVEL BRAKE FOOT CONTROL VALVE

(Hydraulic - Rexroth/Morse)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	19066	1		PEDAL ASSEMBLY	
2	18965	2		BOLT, allen head - 8mm-1.25P x 20mm	
3	18835	1	☐	VALVE, brake control	
4	20745	1		BOOT	
5	20746	1		PISTON	
6	20747	2		RETAINER, spring	
7	20748	1		SPRING, piston	
8	20749	1		SEAL, piston	
9	NSS	1		SPOOL	
10	20751	1		RING, snap	
11	20752	1		SPRING, control	
12	20753	1		PLUG	

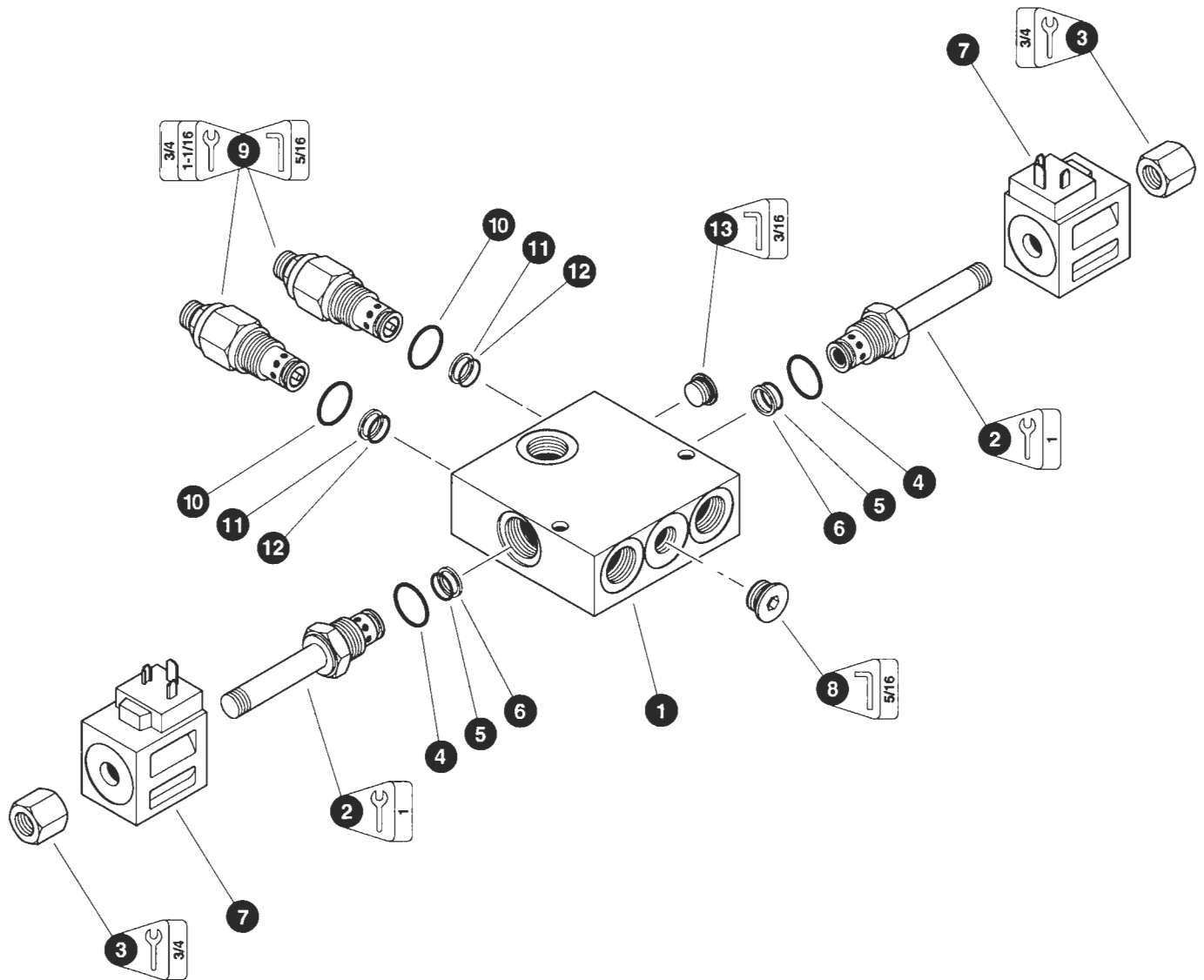
☐ Kit or Assembly - includes all items indented underneath.



TRANSFER CASE SHIFT SEQUENCE VALVE

REF	PART #	QTY		DESCRIPTION	SEE PAGE
-	20314	1	☐	VALVE, sequence - transfer case shift	
1	NSS	1		HOUSING, valve body	
2	20660	1		CARTRIDGE, sequence - transfer case shift	
3	NSS	1		O-RING, body	
4	NSS	1	★	O-RING, chamber (<i>large</i>)	
5	NSS	1	★	RING, back-up (<i>large</i>)	
6	NSS	1	★	RING, back-up (<i>small</i>)	
7	NSS	1	★	O-RING, chamber (<i>small</i>)	
-	19037	1		KIT, seal repair - sequence valve cartridge	

- ☐ Kit or Assembly - includes all items indented underneath.
 ★ Included in seal repair kit Part # 19037.



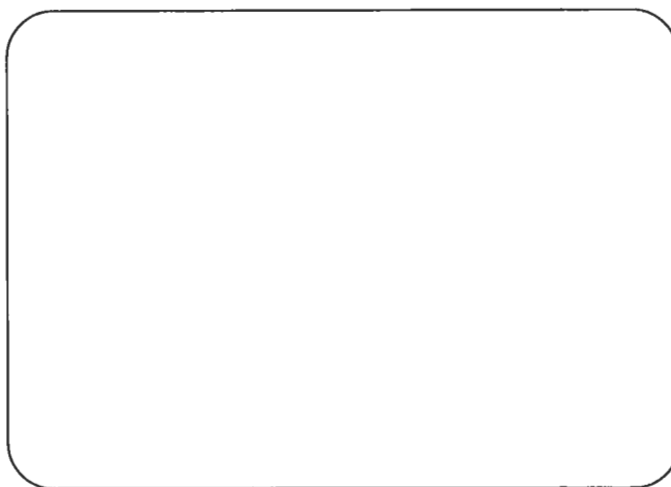
FRAME LOCK VALVE

REF	PART #	QTY		DESCRIPTION	SEE PAGE
-	18865	1	☐	VALVE, frame lock	
1	NSS	1		BODY	
2	20597	2	☐	CARTRIDGE, solenoid - 12V	
3	NSS	1		NUT	
4	NSS	1	★	O-RING - body	
5	NSS	1	★	O-RING - chamber	
6	NSS	1	★	RING, back-up - chamber	
7	18684	1		COIL, solenoid - 12V	
8	18949	1	☐	PLUG - 6408-HHP-8	
	20321	1		O-RING, ORB - #8	
9	20598	2	☐	CARTRIDGE, relief	
10	NSS	1	☆	O-RING - body	
11	NSS	1	☆	RING, back-up - chamber	
12	NSS	1	☆	O-RING - chamber	
13	11383	1	☐	PLUG - 6408-HHP-4	
	20319	1		O-RING, ORB - #4	
-	20599	1		KIT, seal repair - solenoid cartridge	
-	20600	1		KIT, seal repair - relief cartridge	

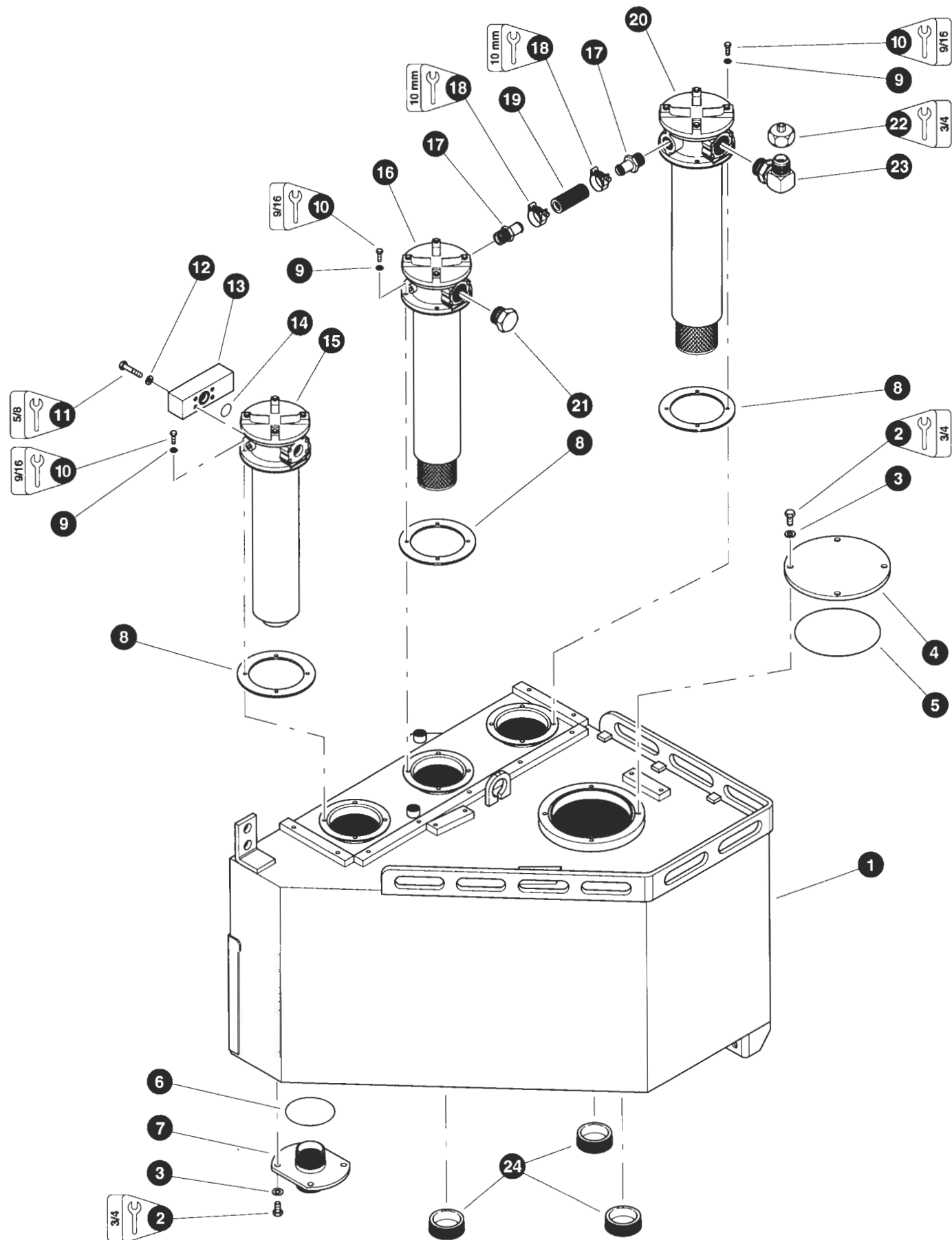
- ☐ Kit or Assembly - includes all items indented underneath.
- ★ Included in seal repair kit Part # 20599.
- ☆ Included in spring capsule kit Part # 20600.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Section E.1



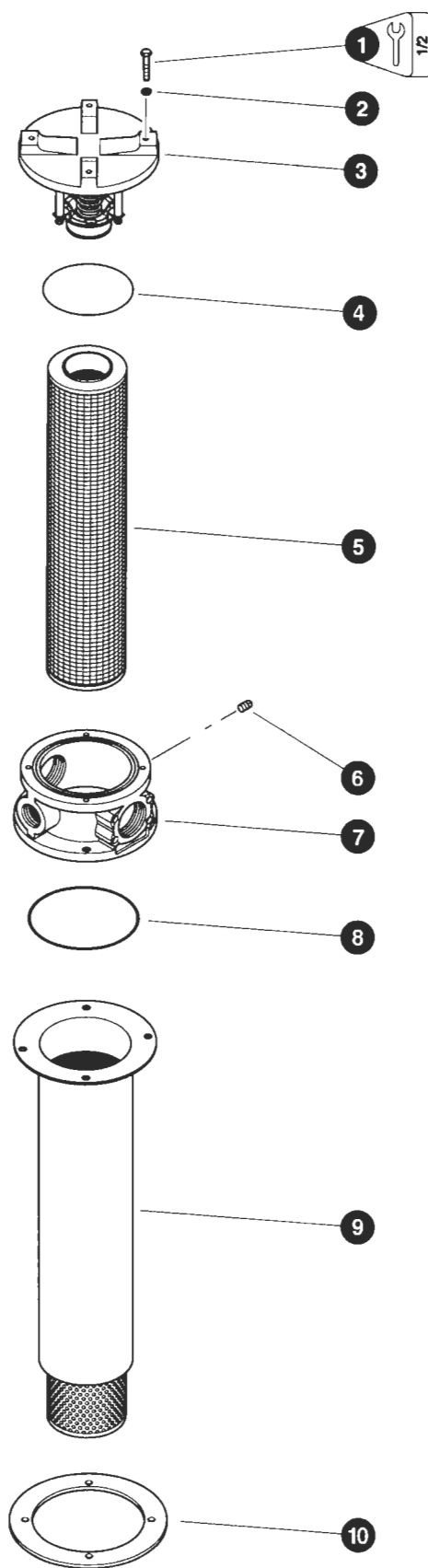
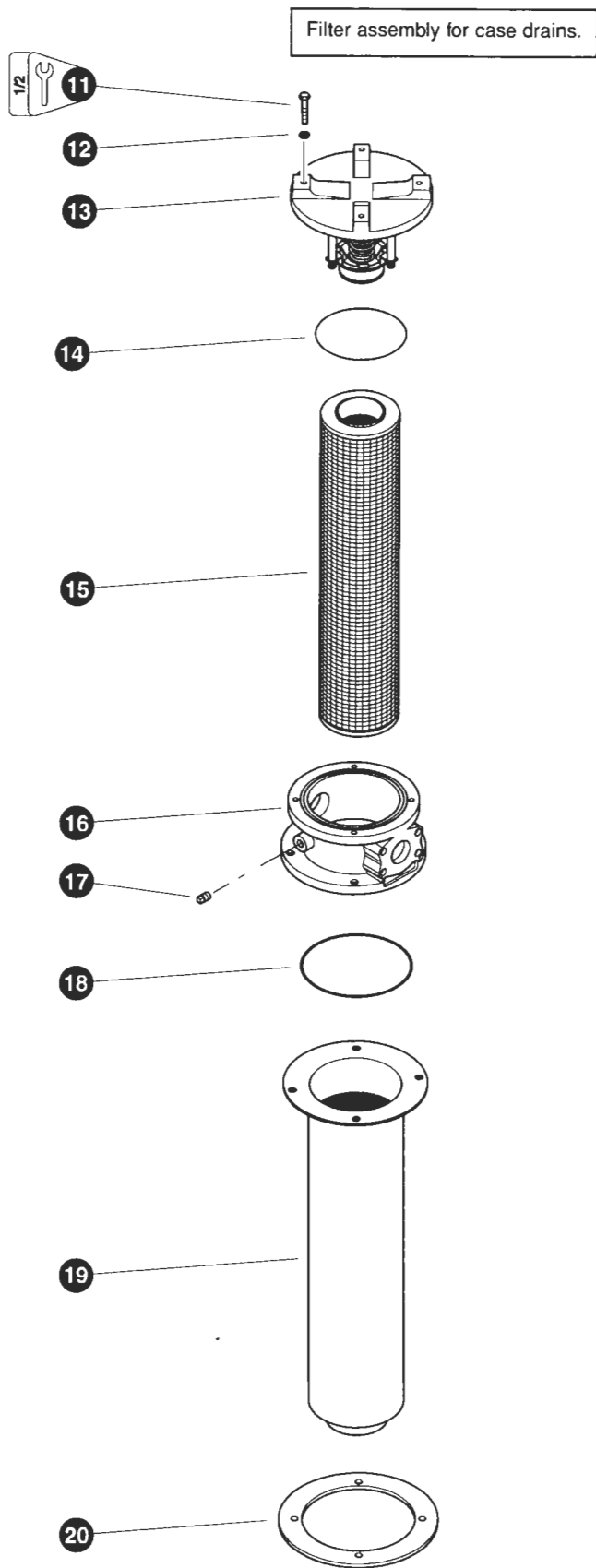
Hydraulic Tank & Cylinders - Hydraulic Tank



HYDRAULIC TANK ASSEMBLY & RETURN FILTER INSTALLATION

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	12401	1	☐	TANK, hydraulic oil	
2	10783	8		BOLT - 1/2" x 1"	
3	15534	8		WASHER, SAE flat - 1/2"	
4	18635	1		COVER, tank access	
5	15600	1		O-RING, tank access cover	
6	15448	1		O-RING, system pump suction cover	
7	16552	1		COVER, system pump suction	
8	REF.	3	☒	GASKET, rubber return filter mounting	E.1.4
9	15528	12		WASHER, SAE flat - 3/8"	
10	10402	12		BOLT - 3/8" x 1-1/4"	
11	10883	4		BOLT - 7/16" x 3"	
12	15448	4		WASHER, SAE flat - 7/16"	
13	17667	1		MANIFOLD, case drain	
14	15378	1		O-RING - 1-1/2" SF	
15	REF.	1	☒	RETURN FILTER ASSEMBLY - case drain	E.1.4
16	REF.	1	☒	RETURN FILTER ASSEMBLY - oil cooler return	E.1.4
17	16375	2		NIPPLE, straight king - 1404-16-16	
18	15191	2		CLAMP, constant torque - 1-1/2"	
19	18107	1		HOSE, filter connection	
20	REF.	1	☒	RETURN FILTER ASSEMBLY - auxiliary	E.1.4
21	16727	1		PLUG - 6408-24	
22	16810	1		CAP, fill	
23	16809	1		ELBOW, 90 - 6801-24	
24	16774	3		PLUG - 3"	

- ☐ Kit or Assembly - includes all items indented underneath.
- ☒ See referenced page for component or assembly breakdown.



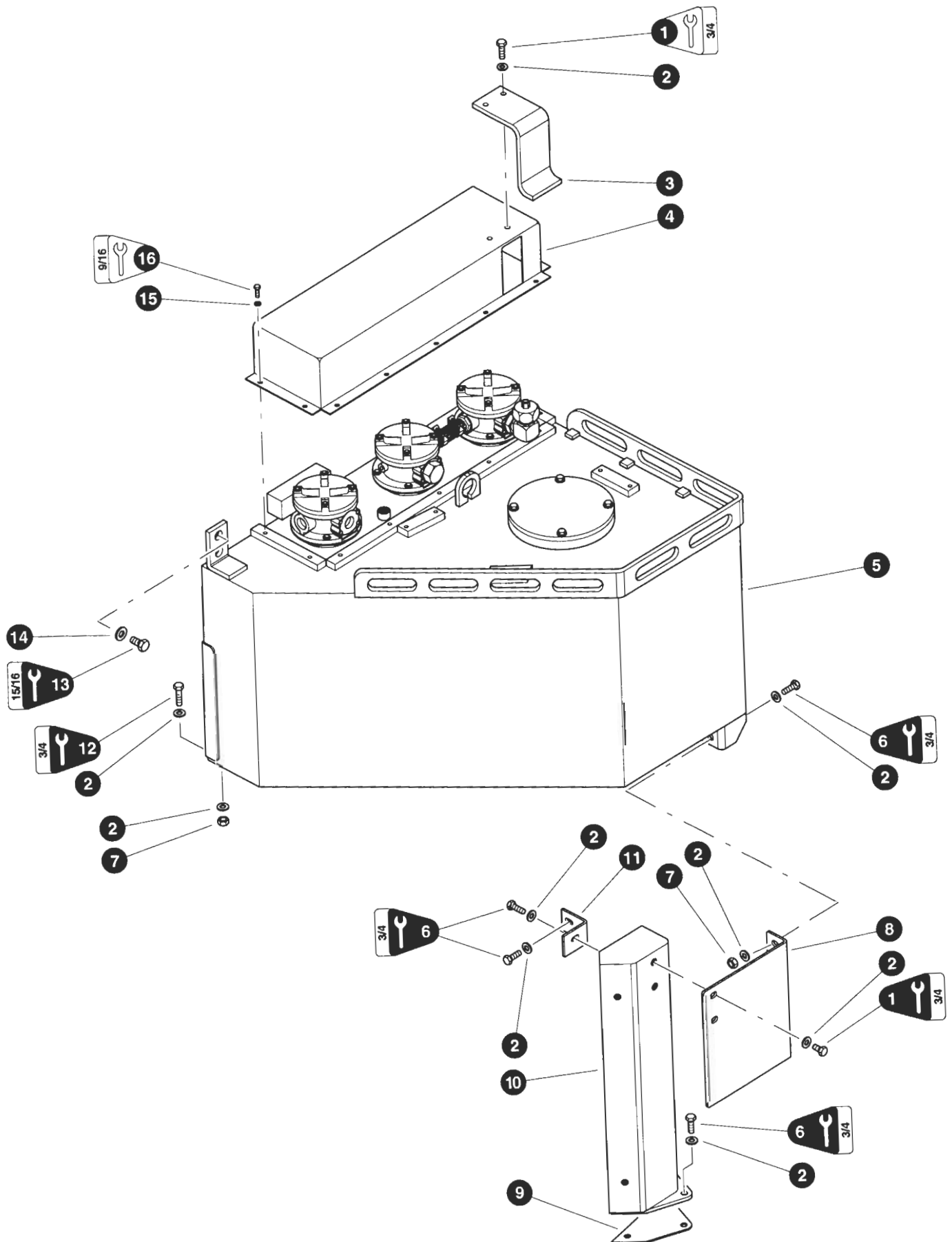
Filter assembly for oil cooler
return oil and optional disc saw
return oil.

RETURN FILTER ASSEMBLIES

REF	PART #	QTY		DESCRIPTION	SEE PAGE
-	16730	2	☐	FILTER, return <i>(Used with oil cooler return and auxiliary return oil)</i>	
1	10882	4		BOLT - 5/16" x 3/4"	
2	15559	4		WASHER, SAE flat - 5/16"	
3	16764	1		COVER, filter head	
4	NSS	1	★	O-RING, filter head cover	
5	16983	1		ELEMENT, return filter - 15-micron	
6	11360	1		PLUG - 5406-P-2	
7	16767	1		HEAD, filter	
8	NSS	1	★	O-RING, square - filter head	
9	16769	1		TUBE, diffuser	
10	NSS	1	★	GASKET, rubber filter mounting	
-	16852	2		KIT, seal repair - return filter	
-	17692	1	☐	FILTER, return <i>(Used with case drains)</i>	
11	10882	4		BOLT - 5/16" x 3/4"	
12	15559	4		WASHER, SAE flat - 5/16"	
13	16764	1		COVER, filter head	
14	NSS	1	★	O-RING, filter head cover	
15	16983	1		ELEMENT, return filter - 15-micron	
16	11360	1		PLUG - 5406-P-2	
17	16766	1		HEAD, filter	
18	NSS	1	★	O-RING, square - filter head	
19	18772	1		TUBE, diffuser	
20	NSS	1	★	GASKET, rubber filter mounting	
-	16852	1		KIT, seal repair - return filter	

☐ Kit or Assembly - includes all items indented underneath.

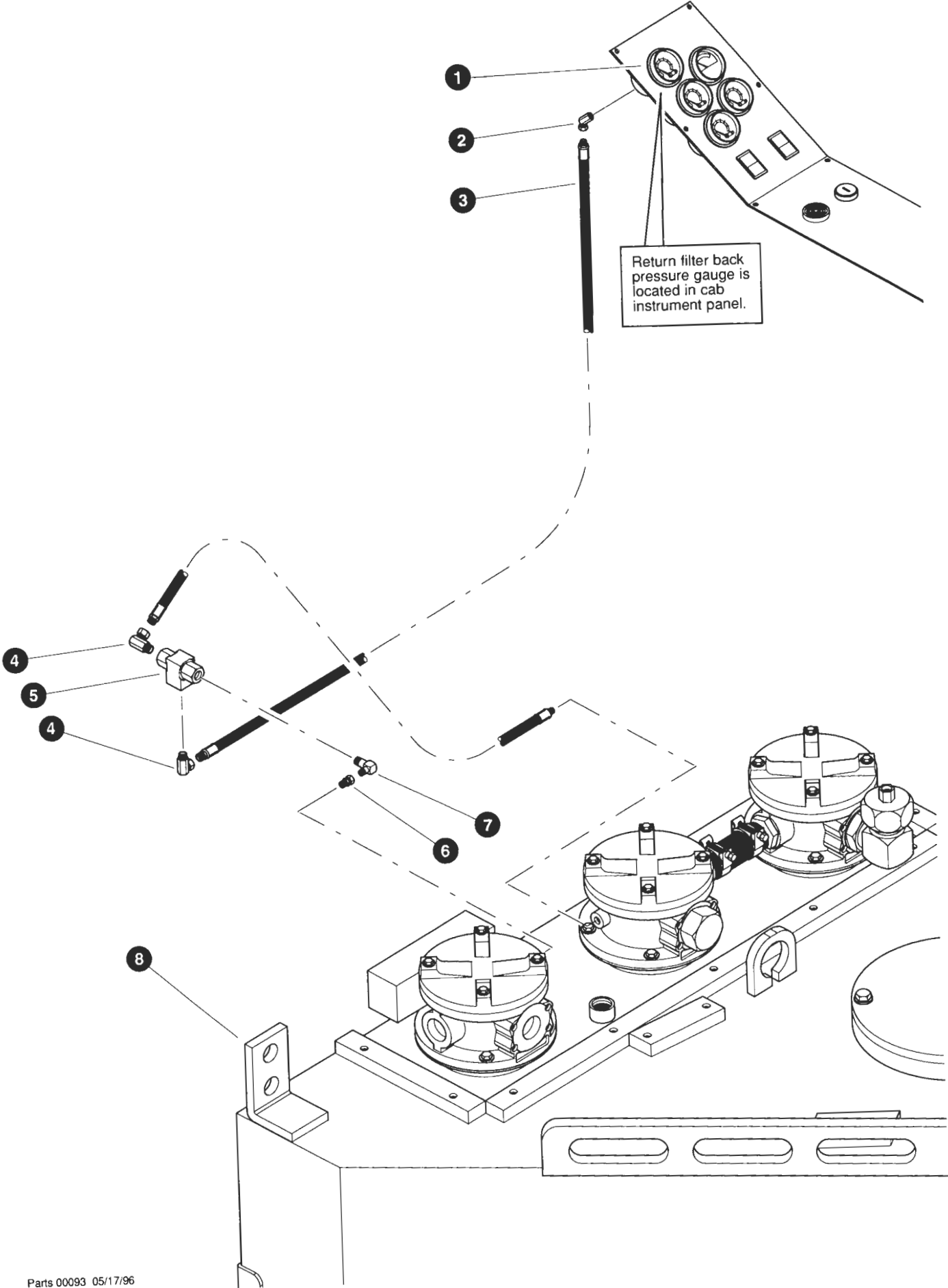
★ Included in seal repair kit PN# 16852.



HYDRAULIC TANK INSTALLATION

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	10783	4	BOLT - 1/2" x 1" (100 ft.lbs. (135 Nm))	
2	15534	14	WASHER, SAE flat - 1/2"	
3	16824	1	GUARD, fill spout	
4	16773	1	GUARD, return filter	
5	REF.	1	✓ HYDRAULIC TANK ASSEMBLY	E.1.2
6	10739	6	BOLT - 1/2" x 1-1/2" (100 ft.lbs. (135 Nm))	
7	10815	3	NUT, lock - 1/2"	
8	20211	1	BRACKET, hydraulic tank exterior mounting <i>(Used on machines PDN# 044FWD and above)</i>	
	80218	1	BRACKET, hydraulic tank exterior mounting <i>(Used on machines PDN# 043FWD and below)</i>	
9	20740	AR	SHIM, hydraulic tank support <i>(1/8" thick)</i>	
	20741	AR	SHIM, hydraulic tank support <i>(3/16" thick)</i>	
	20742	AR	SHIM, hydraulic tank support <i>(1/4" thick)</i>	
10	18459	1	SUPPORT, hydraulic tank	
11	18575	1	BRACKET, hydraulic tank support angle	
12	10736	2	BOLT - 1/2" x 2" (100 ft.lbs. (135 Nm))	
13	15502	2	BOLT - 5/8" x 1-1/2" (200 ft.lbs. (265 Nm))	
14	10771	2	WASHER, SAE flat - 5/8"	
15	15528	9	WASHER, SAE flat - 3/8"	
16	15542	9	BOLT - 3/8" x 3/4"	

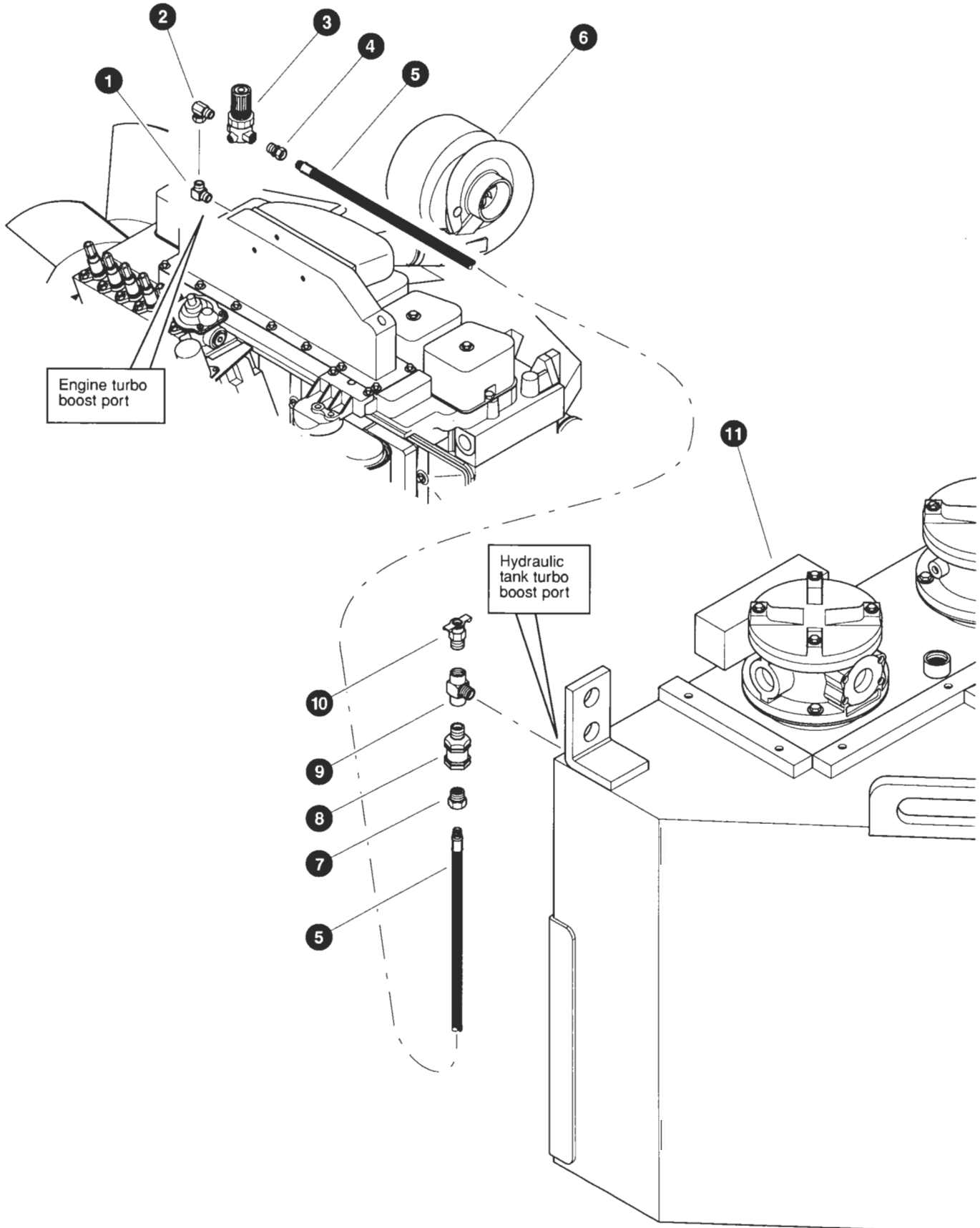
✓ See referenced page for component or assembly breakdown.



RETURN FILTER BACK PRESSURE SENSE LINE

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	18170	1	GAUGE, return filter back pressure	
2	16263	1	ELBOW, 45° swivel female - 1504-2-2	
3	16006	1	HOSE ASSEMBLY - 2148-04-04PS-02PS (<i>Return filter shuttle valve to return filter back pressure gauge</i>)	
4	10320	2	ELBOW, 90° swivel - 1501-4-4	
5	16802	1	VALVE, shuttle	
6	15391	1	CONNECTOR, straight swivel - 1404-2-2	
7	16791	1	ELBOW, 90° - 5500-4-2	
8	REF.	1	✓ HYDRAULIC TANK ASSEMBLY	E.1.2

✓ See referenced page for component or assembly breakdown.

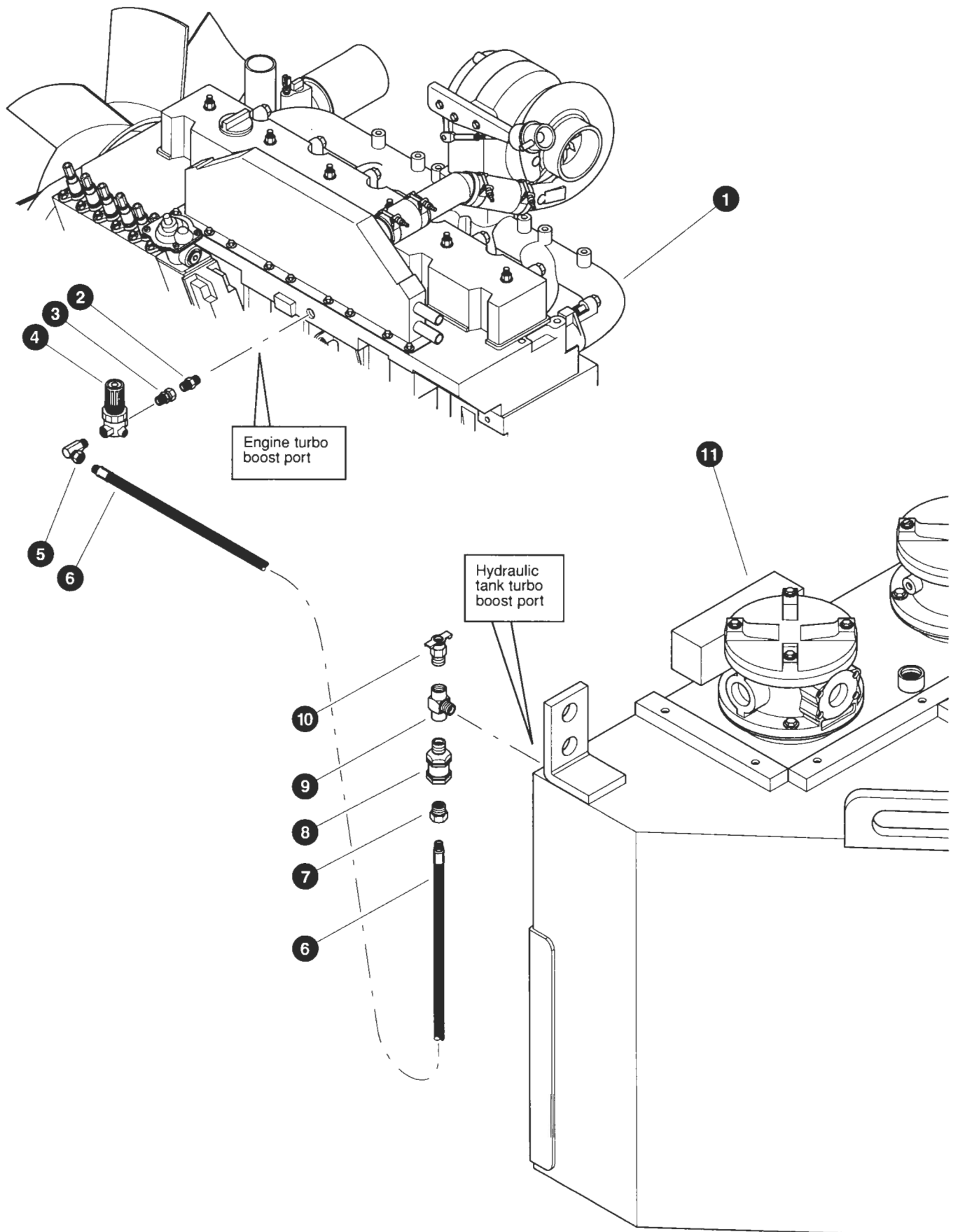


TURBO BOOST TANK PRESSURE LINE

(Used With Cummins 6BTA5.9-C Engine)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1		1		ELBOW, 90° - 5500-4-2	
2	10320	1		ELBOW, 90° swivel - 1501-4-4	
3	15649	1		REGULATOR, turbo boost	
4	11331	1		CONNECTOR, straight swivel - 1404-4-4	
5	20180	1		HOSE ASSEMBLY - 2037-04-04PS-04PS (<i>Turbo boost regulator to hydraulic tank</i>)	
6	REF.	1	✓	ENGINE - Cummins 6BTA5.9-C	F.3.2
7	11318	1		BUSHING, reducer - 5406-6-4	
8	15652	1		VALVE, check	
9	15651	1		TEE - 5604-6	
10	15650	1		VALVE, shut-off	
11	REF.	1	✓	HYDRAULIC TANK ASSEMBLY	E.1.2

✓ See referenced page for component or assembly breakdown.

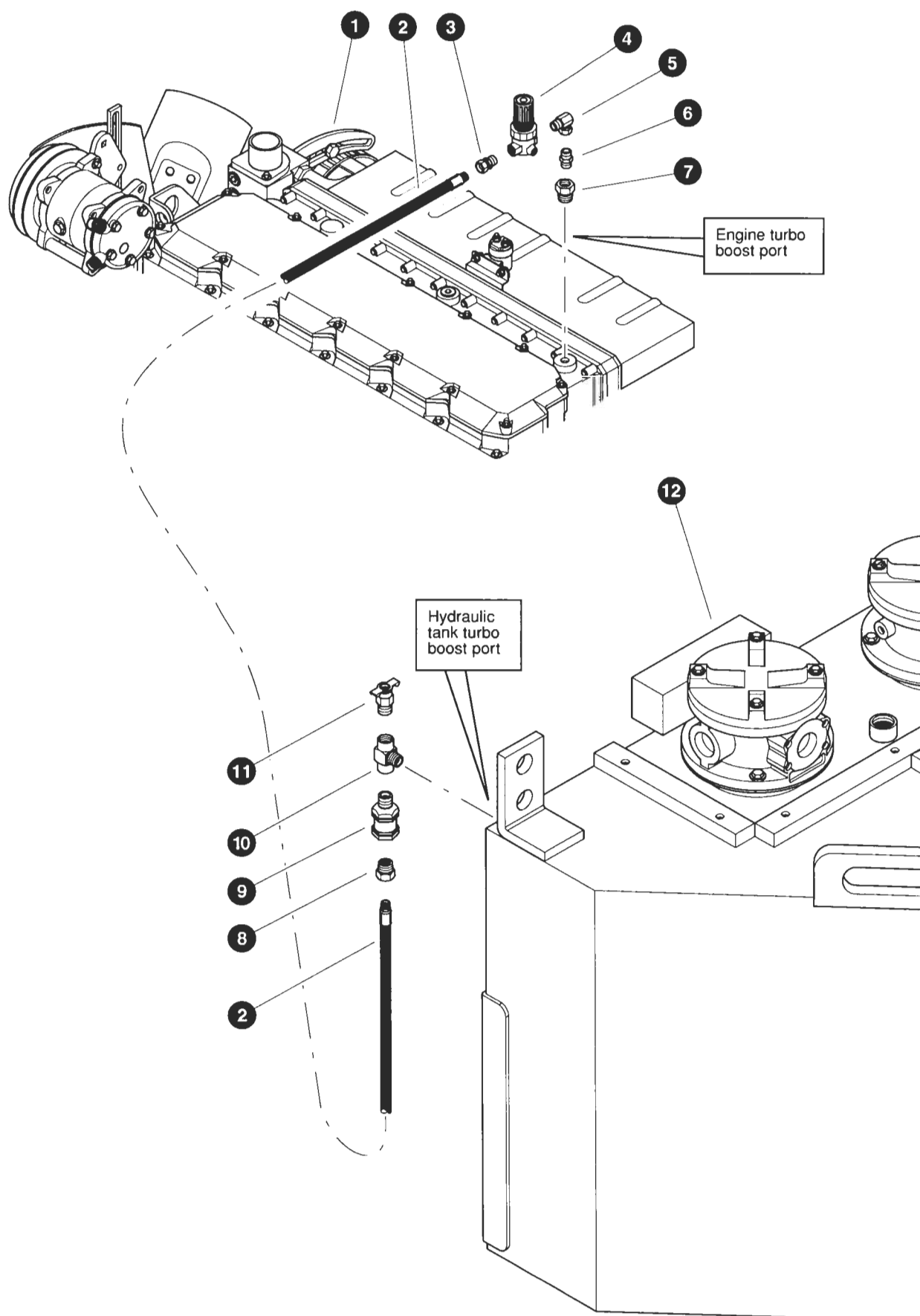


TURBO BOOST TANK PRESSURE LINE

(Used With Cummins 6C8.3-C Engine)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	ENGINE - Cummins 6C8.3-C	F.4.2
2	15567	1		CONNECTOR, straight - 5404-4	
3	11331	1		CONNECTOR, straight swivel - 1404-4-4	
4	15649	1		REGULATOR, turbo boost	
5	10320	1		ELBOW, 90° swivel - 1501-4-4	
6	20180	1		HOSE ASSEMBLY - 2037-04-04PS-04PS (<i>Turbo boost regulator to hydraulic tank</i>)	
7	11318	1		BUSHING, reducer - 5406-6-4	
8	15652	1		VALVE, check	
9	15651	1		TEE - 5604-6	
10	15650	1		VALVE, shut-off	
11	REF.	1	✓	HYDRAULIC TANK ASSEMBLY	E.1.2

✓ See referenced page for component or assembly breakdown.

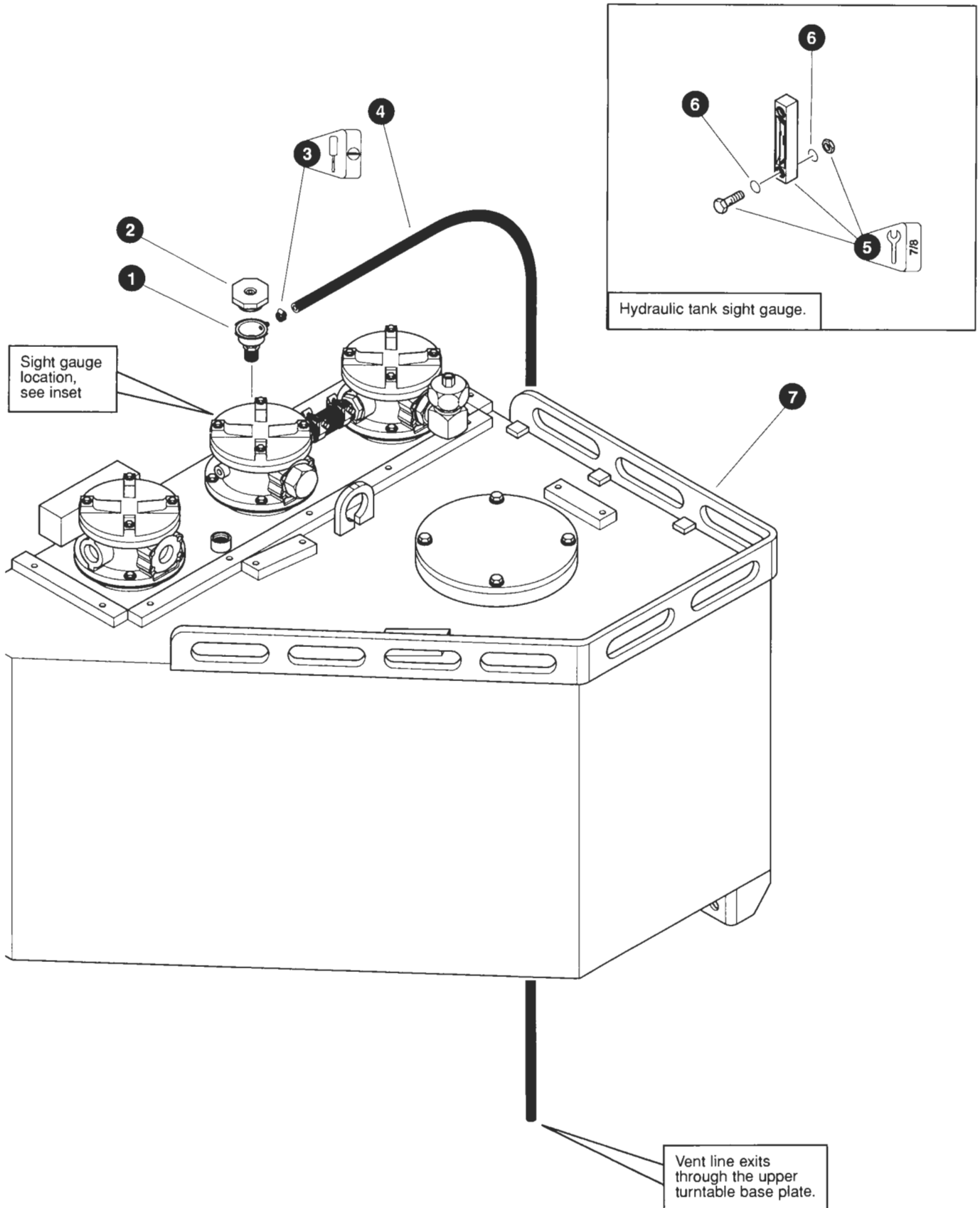


TURBO BOOST TANK PRESSURE LINE

(Used With Caterpillar 3116T & 3126T Engines)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	ENGINE - Caterpillar 3116T or 3126T	F.5.2
2	20180	1		HOSE ASSEMBLY - 2037-04-04PS-04PS (<i>Turbo boost</i> <i>regulator to hydraulic tank</i>)	
3	11331	1		CONNECTOR, straight swivel - 1404-4-4	
4	15649	1		REGULATOR, turbo boost	
5	10320	1		ELBOW, 90° swivel - 1501-4-4	
6	15567	1		CONNECTOR, straight - 5404-4	
7	11312	1		BUSHING, reducer - 5406-8-4	
8	11318	1		BUSHING, reducer - 5406-6-4	
9	15652	1		VALVE, check	
10	15651	1		TEE - 5604-6	
11	15650	1		VALVE, shut-off	
12	REF.	1	✓	HYDRAULIC TANK ASSEMBLY	E.1.2

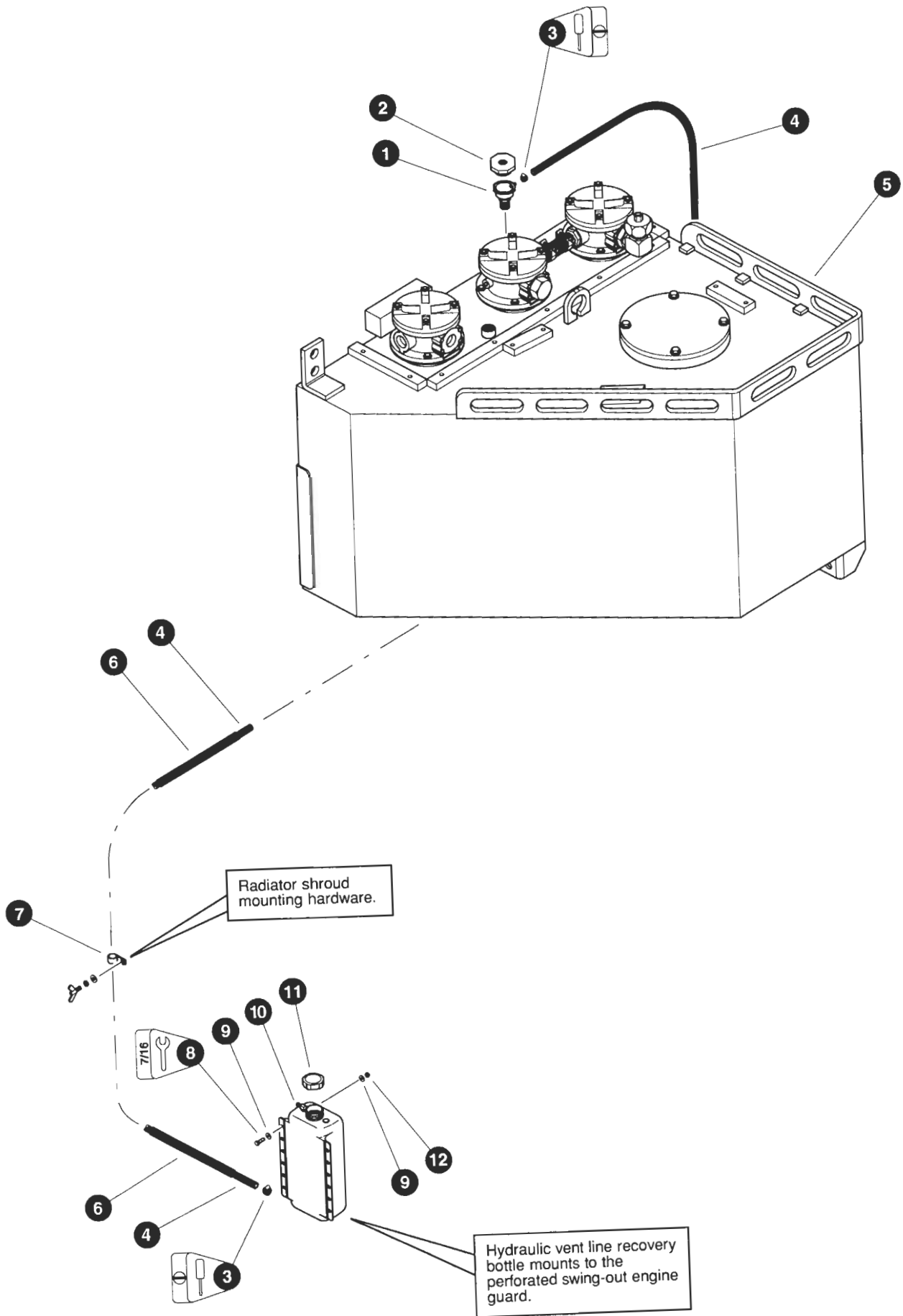
✓ See referenced page for component or assembly breakdown.



HYDRAULIC TANK VENT LINE & SIGHT GAUGE

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	17156	1		STEM, pressure relief cap	
2	18135	1		CAP, pressure relief - 13 psi	
3	16202	1		CLAMP, hose - worm style - 5/8"	
4	16238	AR	⊗	HOSE, rubber - 7/16"	
5	15864	1	□	GAUGE, hydraulic oil level sight	
6	17541	4		O-RING	
7	REF.	1	✓	HYDRAULIC TANK ASSEMBLY	E.1.2

- ⊗ Bulk material - order length required in feet or meters.
 □ Kit or assembly - includes all items indented underneath.
 ✓ See referenced page for component or assembly breakdown.

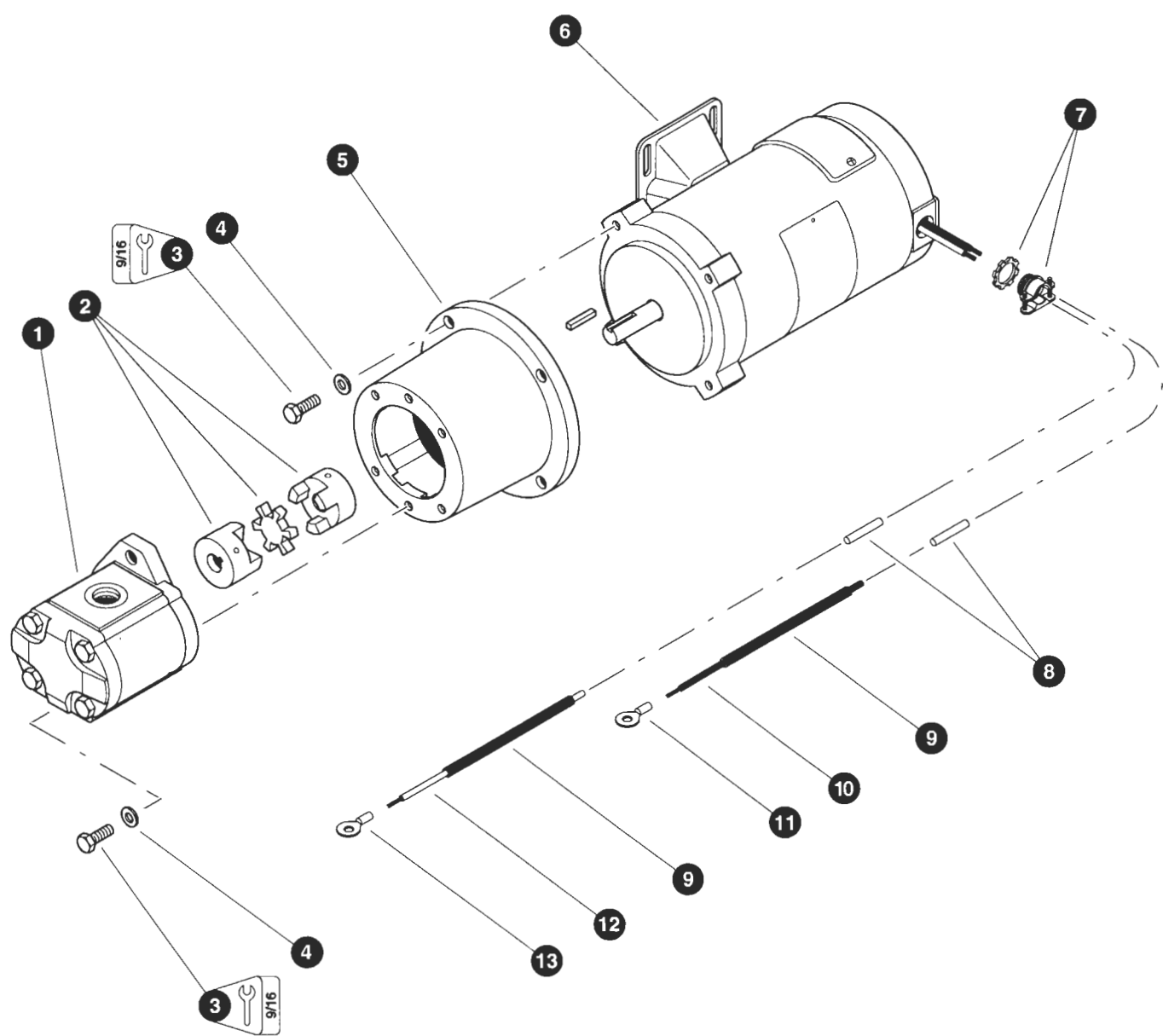


OPTIONAL HYDRAULIC TANK VENT LINE RECOVERY BOTTLE

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	17156	1		STEM, pressure relief cap	
2	18135	1		CAP, pressure relief - 13 psi	
3	16202	2		CLAMP, hose - worm style - 5/8"	
4	16238	AR	⌘	HOSE, rubber - 7/16"	
5	REF.	1	✓	HYDRAULIC TANK ASSEMBLY	E.1.2
6	17449	AR	⌘	LOOM, split - 1/2"	
7	16119	1		CLAMP, hose - coated strap - 1"	
8	15576	4		BOLT - 1/4" x 1"	
9	10800	8		WASHER, flat - 1/4"	
10	16925	1		BOTTLE, overflow	
11	19119	1		CAP, overflow bottle	
12	15509	4		NUT, nylock - 1/4"	

⌘ Bulk material - order length required in feet or meters.

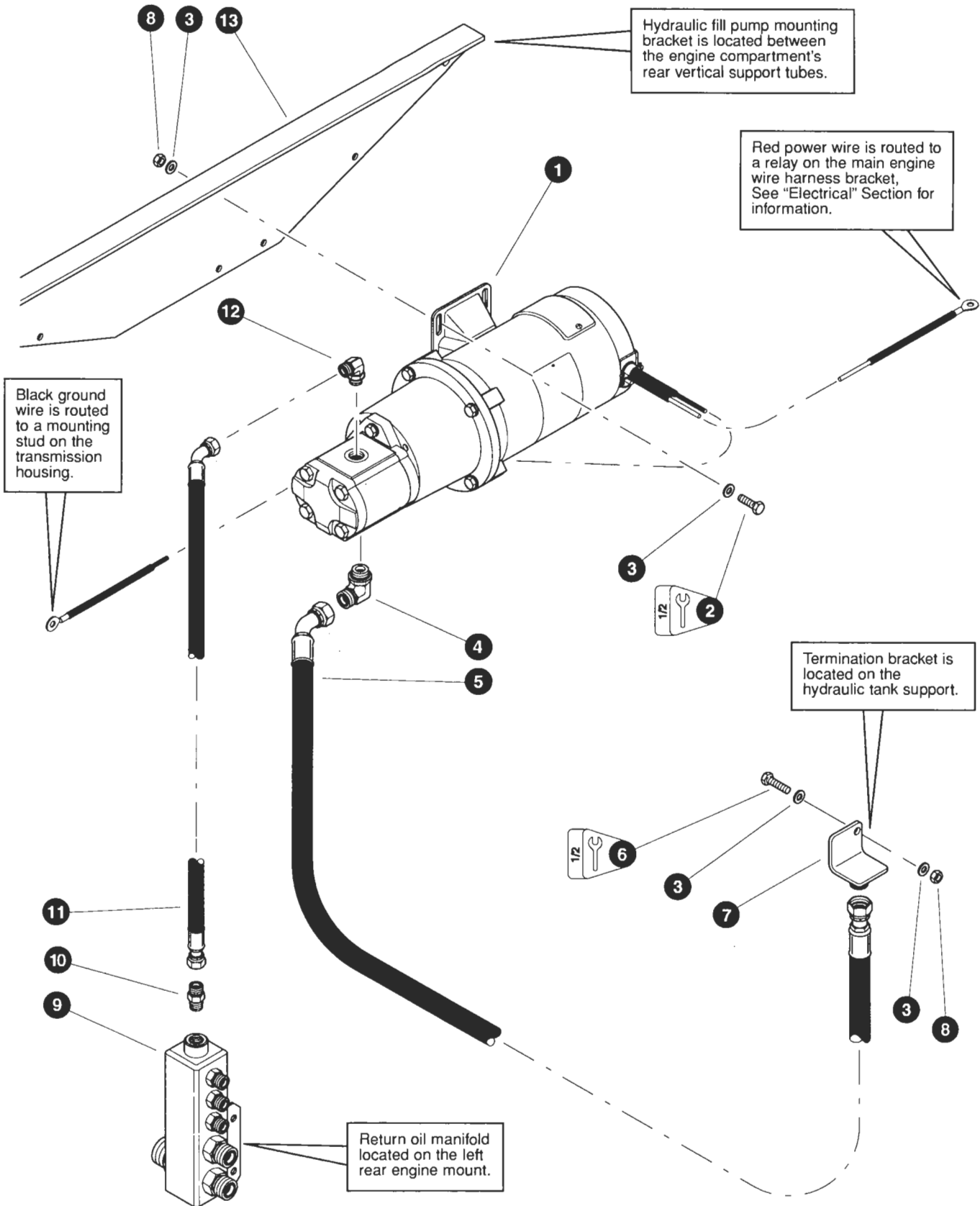
✓ See referenced page for component or assembly breakdown.



ELECTRIC HYDRAULIC OIL FILL PUMP ASSEMBLY

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	16800	1		PUMP, electric hydraulic oil fill	
2	16799	1		COUPLING, motor	
3	11707	6		BOLT - 3/8" x 1"	
4	15528	6		WASHER, SAE flat - 3/8"	
5	16801	1		BRACKET, motor/pump mounting	
6	16798	1		MOTOR, electric hydraulic oil fil	
7	16331	1		RELIEF, strain	
8	17226	2		CONNECTOR, butt	
9	16705	AR	⌘	LOOM, split - 1/4"	
10	15005	AR	⌘	WIRE - 10 gauge (<i>Black</i>)	
11	17218	1		TERMINAL, ring	
12	17208	AR	⌘	WIRE, 8 gauge (<i>Red</i>)	
13	17223	1		TERMINAL, ring	

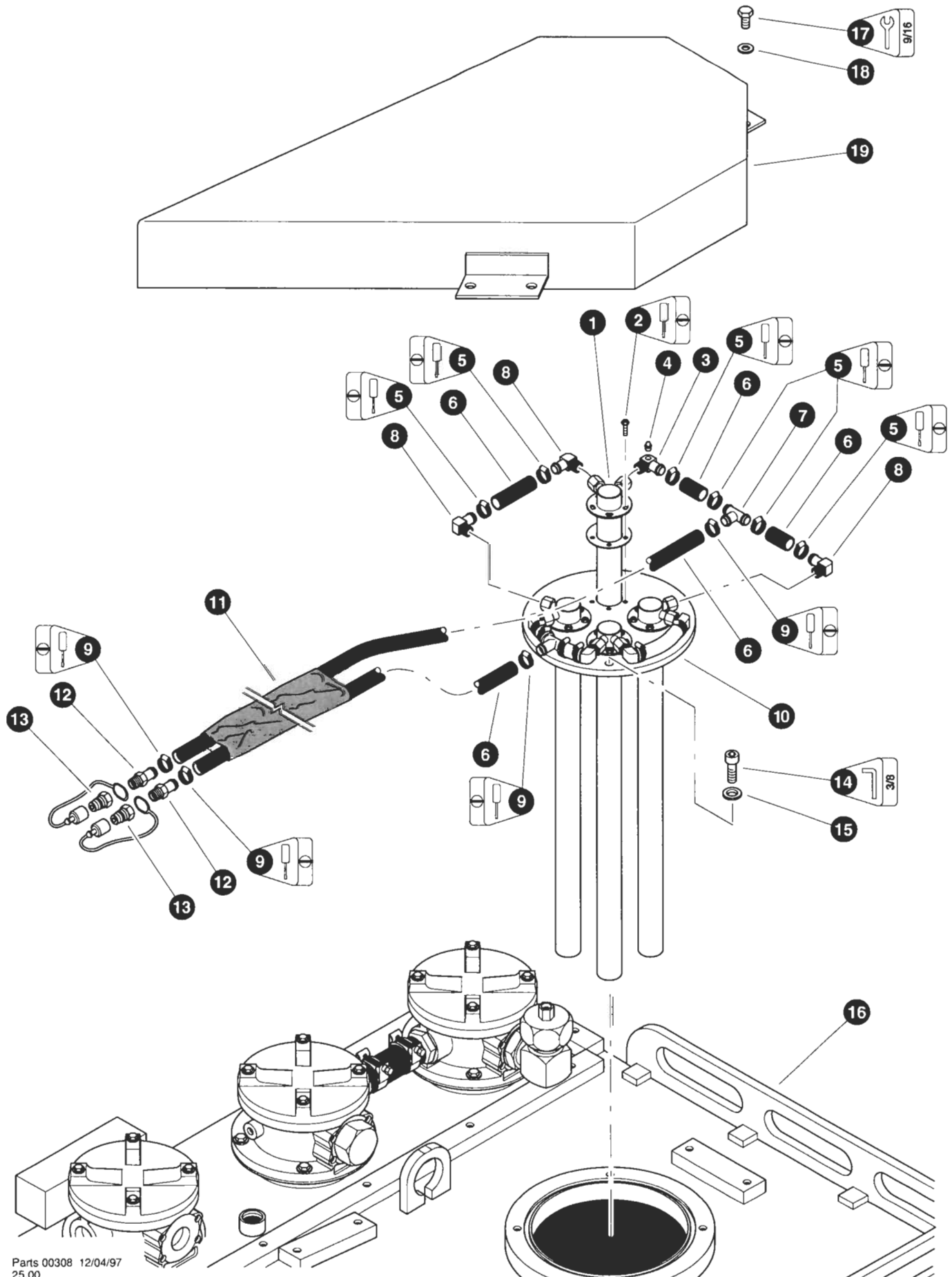
⌘ Bulk material - order length required in feet or meters.



ELECTRIC HYDRAULIC OIL FILL PUMP INSTALLATION

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	PUMP/MOTOR ASSEMBLY	E.1.16
2	15589	4		BOLT - 5/16" x 1	
3	15559	10		WASHER, SAE flat - 5/16"	
4	17688	1		ELBOW, 90° - FF1868T-1212S	
5	19262	1		HOSE ASSEMBLY - 2075-12-120S-1204 (<i>Electric hydraulic oil fill pump suction line</i>)	
6	10822	1		BOLT - 5/16" x 1-1/4"	
7	18770	1		BRACKET, hydraulic fill termination	
8	10812	5		NUT, lock - 5/16"	
9	REF.	1	✓	RETURN OIL MANIFOLD	B.2.22
10	15258	1		CONNECTOR, straight - FF2031-T-0808S	
11	19261	1		HOSE ASSEMBLY - 22022-08-080S-0804 (<i>Electric hydraulic oil fill pump to return oil manifold</i>)	
12	15154	1		ELBOW, 90° - FF1868T-0810S	
13	18455	1		BRACKET, hydraulic fill pump mounting	

✓ See referenced page for component or assembly breakdown.

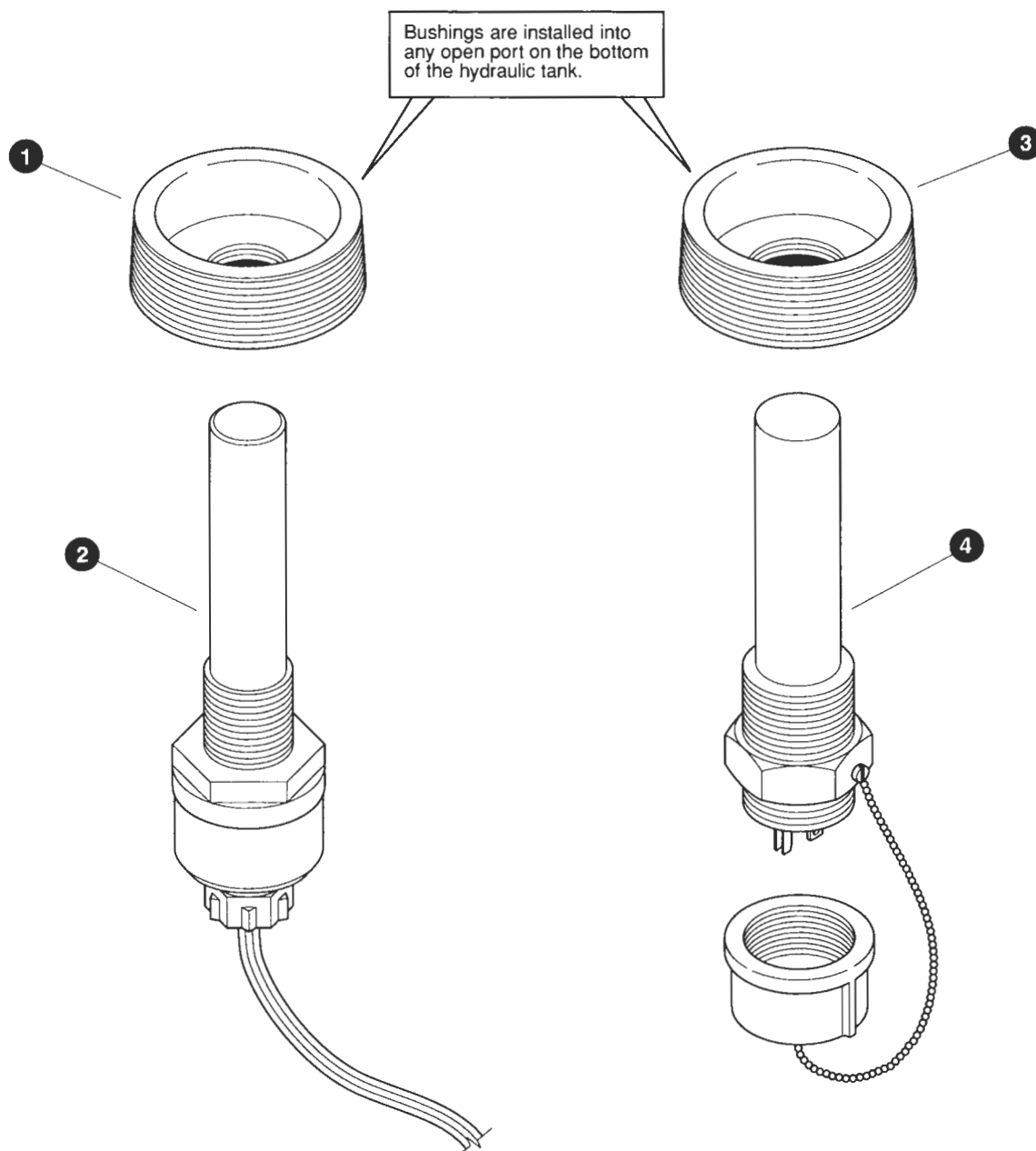


Parts 00308 12/04/97
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OPTIONAL IN-TANK HYDRAULIC OIL HEATER INSTALLATION

REF	PART #	QTY		DESCRIPTION	SEE PAGE
-	18300	1	☐	IN-TANK HYDRAULIC OIL HEATER ASSEMBLY	
1	17747	4	☐	TUBE, heater	
	18277	1		GASKET, heater tube	
2	18298	20		SCREW, slotted hex head - #10-24 x 3/4"	
3	17748	1		SCREW, bleeder	
4	18294	1		ELBOW, 90° brass (<i>Tapped for bleeder screw</i>)	
5	16256	12		CLAMP, hose - worm style - 1"	
6	16717	AR	⋈	HOSE, heater - 5/8"	
7	17750	2		TEE	
8	17749	7		ELBOW, 90° brass	
9	17537	4		CLAMP, hose - worm style - 1-1/8"	
10	18188	1		COVER, access - hydraulic tank heater	
11	17572	AR	⋈	SLEEVE, protective hose	
	16290	3		STRAP, tie	
12	16123	2		NIPPLE, king - 1/2"	
13	17307M	2		COUPLING, quick-disconnect - male - 1/2"	
	17323M	2		COVER, quick-disconnect - male - 1/2"	
14	18295	4		BOLT, allen head - 1/2" x 1"	
15	15534	4		WASHER, SAE flat - 1/2"	
16	REF.	1	✓	HYDRAULIC OIL TANK	E.1.2
17	15542	6		BOLT - 3/8" x 3/4"	
18	15528	6		WASHER, SAE flat - 3/8"	
19	18076	1		COVER, in-tank hydraulic oil heater	

- ☐ Kit or assembly - includes all items indented underneath.
- ⋈ Bulk material - order length required in feet or meters.
- ✓ See referenced page for component or assembly breakdown.

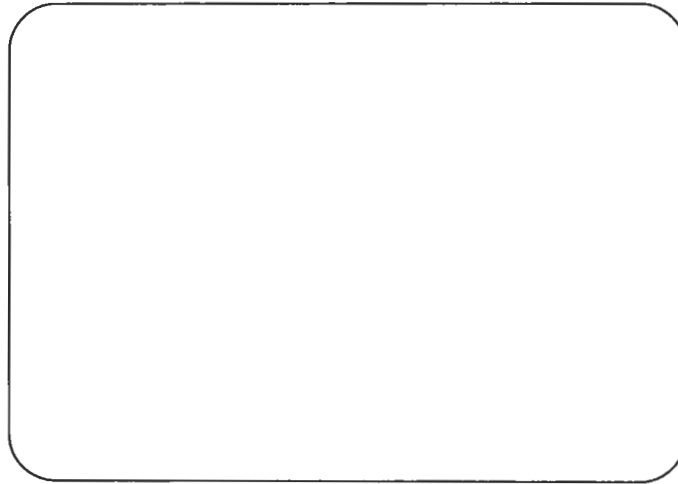


OPTIONAL IN-TANK ELECTRIC HYDRAULIC OIL HEATERS

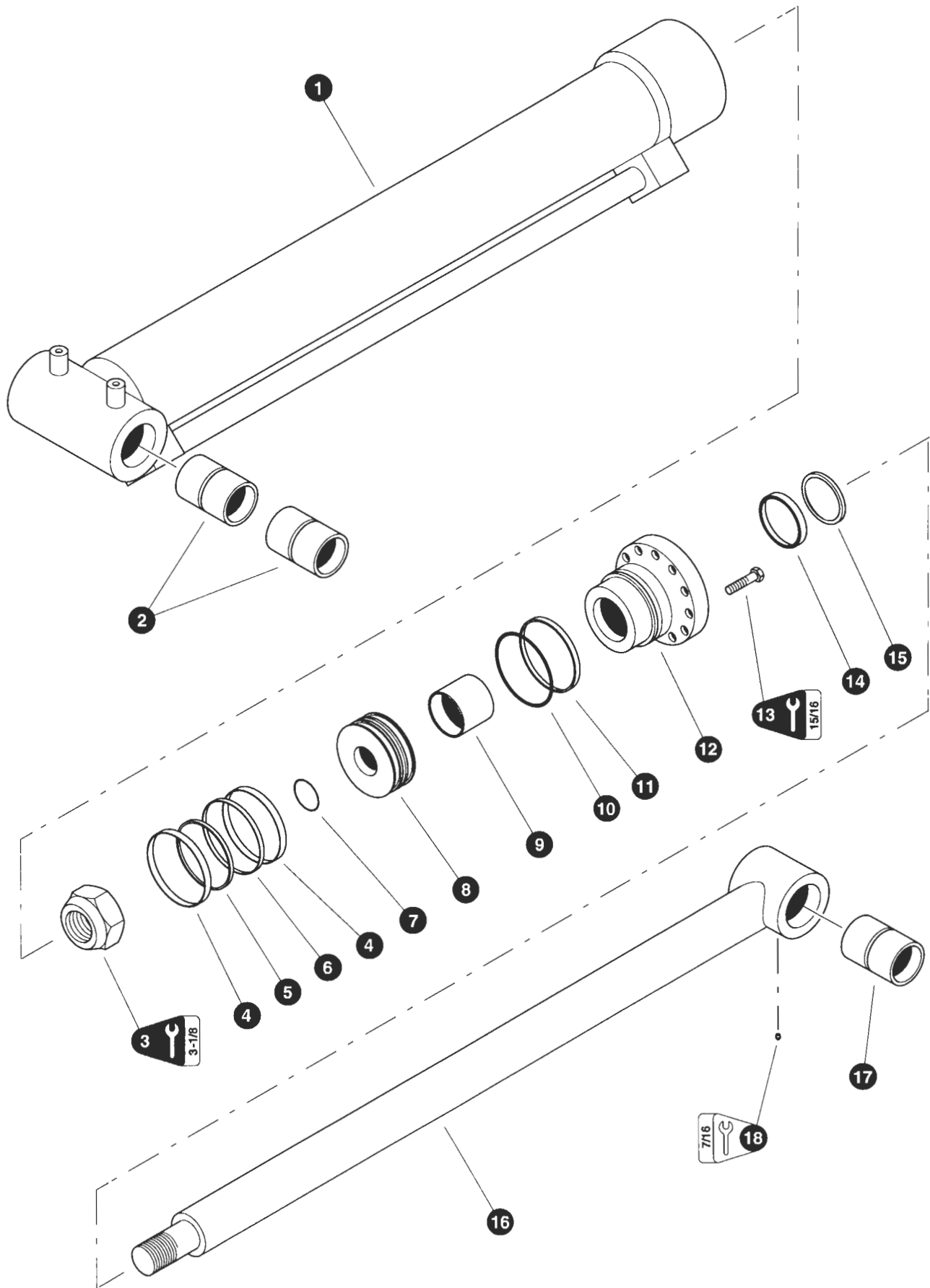
REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	19318	1	BUSHING, black reducer - 3" x 1"	
2	19286	1	HEATER ASSEMBLY (120V / 600W)	
3	20068	1	BUSHING, black reducer - 3" x 1-1/4"	
4	20069	1	HEATER ASSEMBLY (120V / 500W)	

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Section E.2



Hydraulic Tank & Cylinders - Cylinders

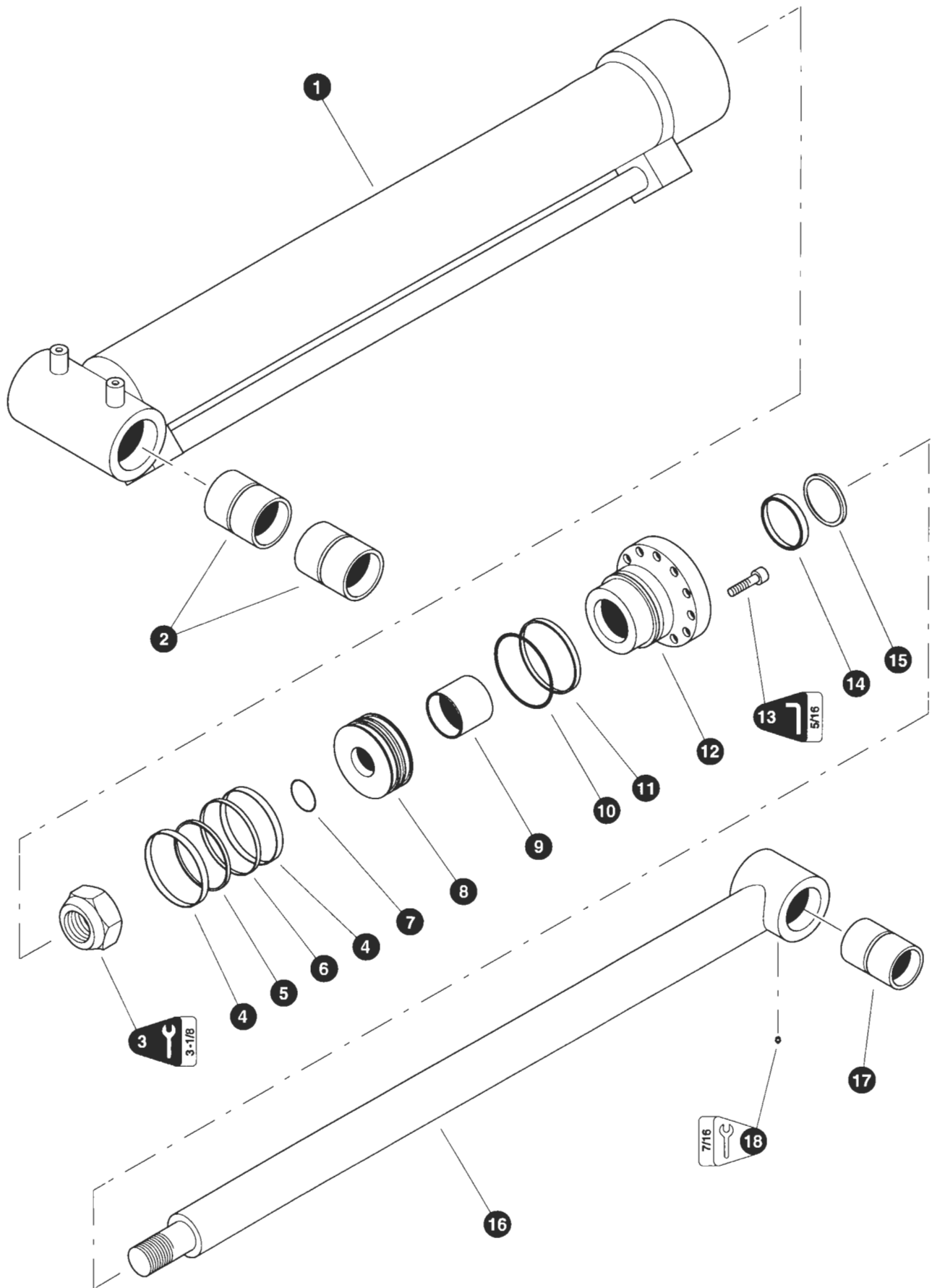


MAIN BOOM (HOIST) CYLINDER (Manufactured By Wausau Hydraulics)

(Used on machines PDN# 020FWD and below)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
-	19744	1	☐	MAIN BOOM CYLINDER ASSEMBLY	
1	19415	1	☐	BARREL ASSEMBLY	
2	11704	2		BUSHING - 2-1/2" x 4-1/4"	
3	19417	1		NUT, cylinder rod - 2" NF <i>(Torque to 1825 +/- 25 ft.lbs. (2432 +/- 33 Nm))</i>	
4	NSS	2	★	RING, piston wear	
5	NSS	1	★	RING, piston loader	
6	NSS	1	★	RING, piston polyhone	
7	NSS	1	★	O-RING, piston	
8	19414	1		PISTON	
9	NSS	1	★	RING, rod bearing wear	
10	NSS	1	★	O-RING, rod bearing	
11	NSS	1	★	RING, rod bearing back-up	
12	19413	1		BEARING, rod	
13	15861	10		BOLT - 5/8" x 2-1/4" <i>(Torque to 160 ft.lbs (213 Nm))</i>	
14	NSS	1	★	U-CUP, rod bearing	
15	NSS	1	★	WIPER, rod	
16	19412	1	☐	ROD ASSEMBLY	
17	11704	1		BUSHING - 2-1/2" x 4-1/4"	
18	10704	1		FITTING, straight grease - 1/8" pipe thread	
-	19416	1		KIT, seal repair - main boom cylinder	

- ☐ Kit or Assembly - includes all items indented underneath.
- ★ Included in seal repair kit Part # 19416.



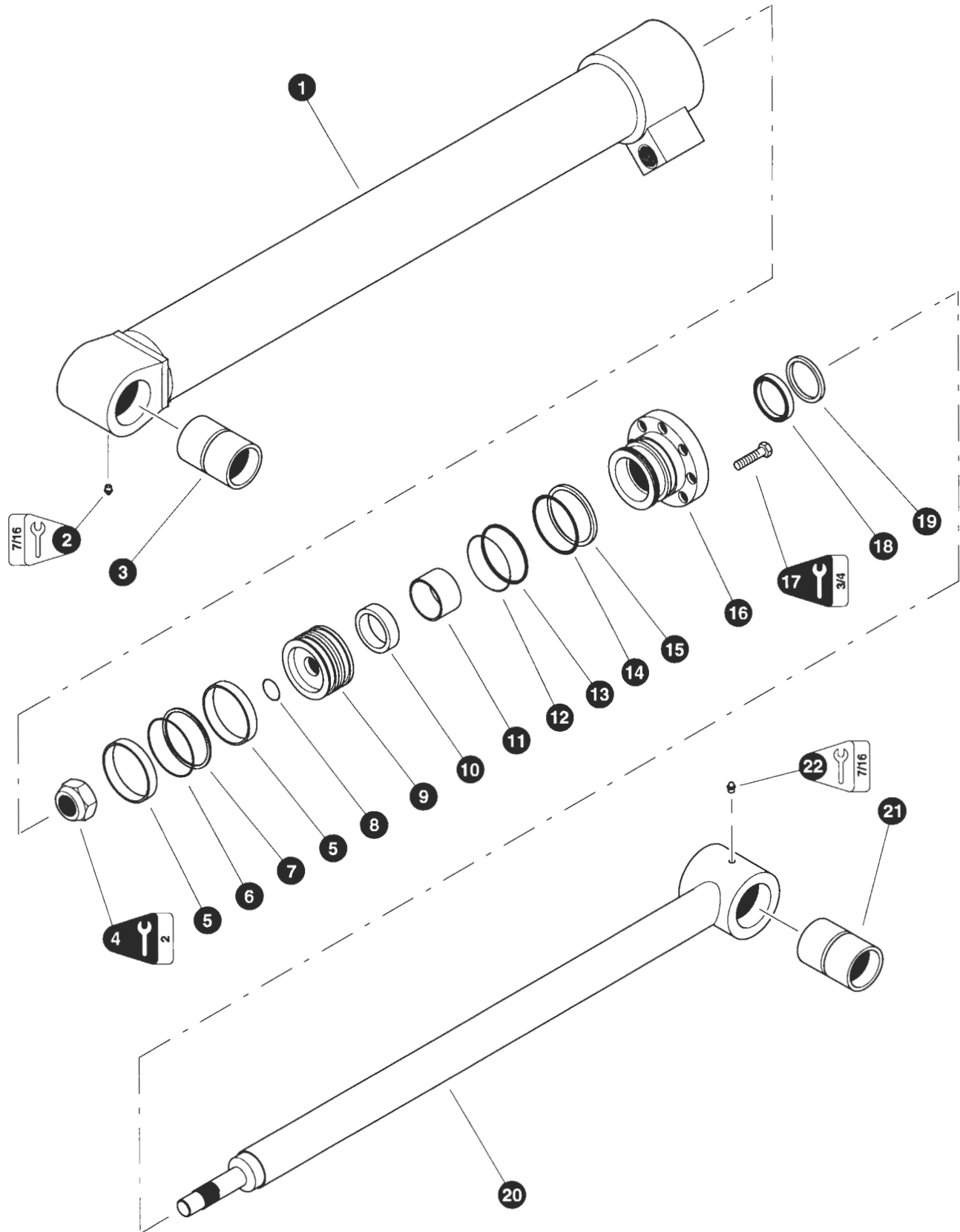
MAIN BOOM (HOIST) CYLINDER

(Manufactured By Jarp, Inc.)

(Used on machines PDN# 021FWD and above)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
-	19744	1	☐	MAIN BOOM CYLINDER ASSEMBLY	
1	19225	1	☐	BARREL ASSEMBLY	
2	11706	2		BUSHING - 3" x 4-1/4"	
3	15287	1		NUT, cylinder rod - 2" NF <i>(Torque to 2700 +/- 200 ft.lbs. (3600 +/- 265 Nm))</i>	
4	NSS	2	★	RING, piston wear	
5	NSS	1	★	RING, piston loader	
6	NSS	1	★	RING, piston chem-cast	
7	NSS	1	★	O-RING, piston	
8	19742	1		PISTON	
9	NSS	1	★	RING, rod bearing wear	
10	NSS	1	★	O-RING, rod bearing	
11	NSS	1	★	RING, rod bearing back-up	
12	19223	1		BEARING, rod	
13	19912	12		BOLT, allen head - 5/8" x 2-1/4" <i>(Torque to 175 ft.lbs (233 Nm))</i>	
14	NSS	1	★	U-CUP, rod bearing	
15	NSS	1	★	WIPER, rod	
16	19222	1	☐	ROD ASSEMBLY	
17	11704	1		BUSHING - 2-1/2" x 4-1/4"	
18	10704	1		FITTING, straight grease - 1/8" pipe thread	
-	19478	1		KIT, seal repair - main boom cylinder	

- ☐ Kit or Assembly - includes all items indented underneath.
- ★ Included in seal repair kit Part # 19478.

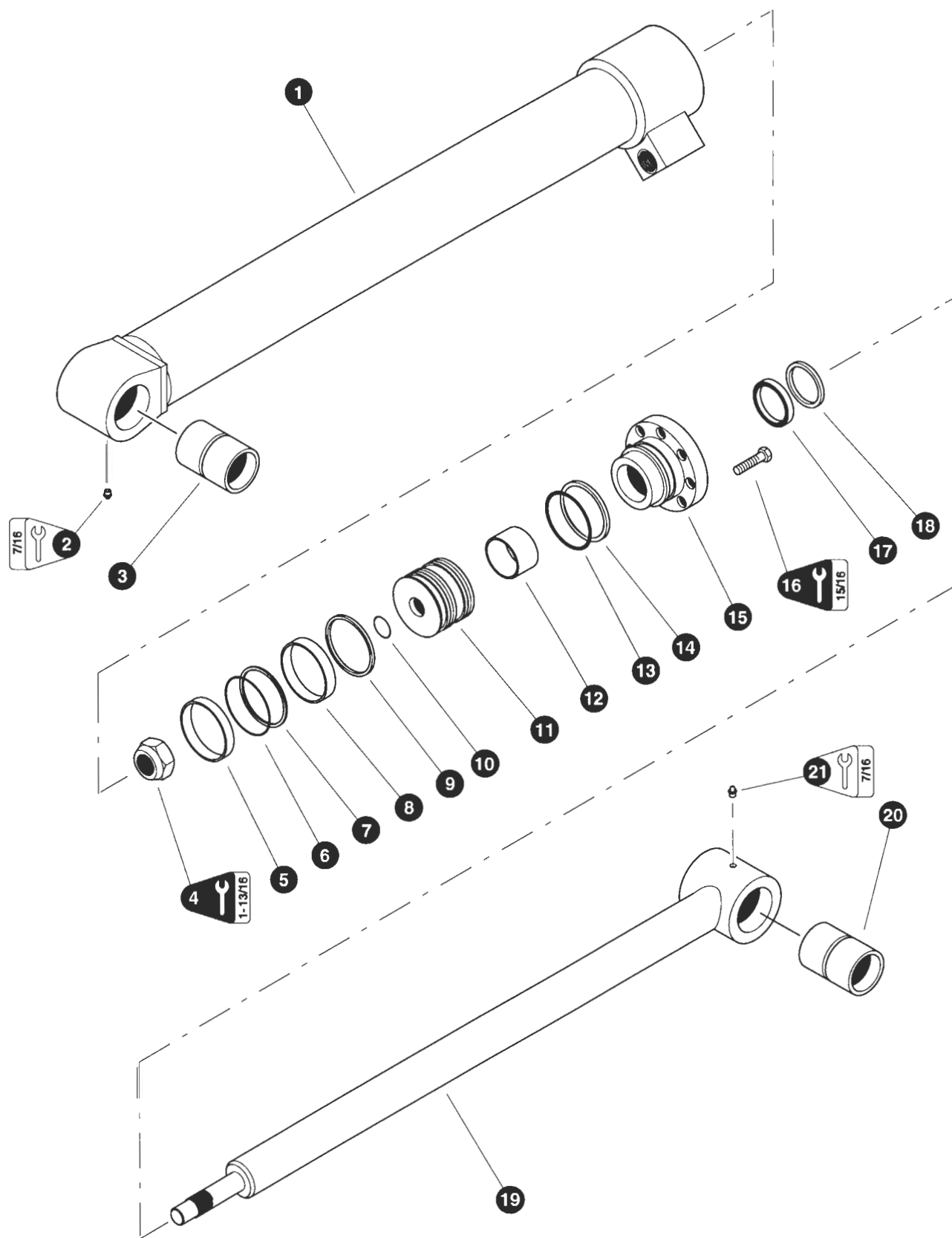


STICK BOOM (JIB) CYLINDER (Manufactured By Wausau Hydraulics)

(Used on machines PDN# 018FWD and below)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
-	19475	1	☐	STICK BOOM CYLINDER ASSEMBLY	
1	19422	1	☐	BARREL ASSEMBLY	
2	10704	1		FITTING, straight grease - 1/8" pipe thread	
3	11704	1		BUSHING - 2-1/2" x 4-1/4"	
4	19421	1		NUT, cylinder rod - 1-1/4" (Torque to 1015 +/- 15 ft.lbs. (1353 - 20 Nm))	
5	NSS	2	★	RING, piston wear	
6	NSS	1	★	RING, piston loader	
7	NSS	1	★	RING, piston polyhone	
8	NSS	1	★	O-RING, piston	
9	19420	1		PISTON	
10	19913	1	★	LIMITER, stroke	
11	NSS	1	★	RING, rod bearing wear	
12	NSS	1	★	RING, rod bearing loader	
13	NSS	1	★	RING, rod bearing seal	
14	NSS	1	★	O-RING, rod bearing	
15	NSS	1	★	RING, rod bearing back-up	
16	19419	1		BEARING, rod	
17	18933	10		BOLT - 1/2" x 1-3/4" (Torque to 75 ft.lbs (100 Nm))	
18	NSS	1	★	U-CUP, rod bearing	
19	NSS	1	★	WIPER, rod	
20	19418	1	☐	ROD ASSEMBLY	
21	11704	1		BUSHING - 2-1/2" x 4-1/4"	
22	10704	1		FITTING, straight grease - 1/8" pipe thread	
-	19423	1		KIT, seal repair - stick boom cylinder	

- ☐ Kit or Assembly - includes all items indented underneath.
 ★ Included in seal repair kit Part # 19423.

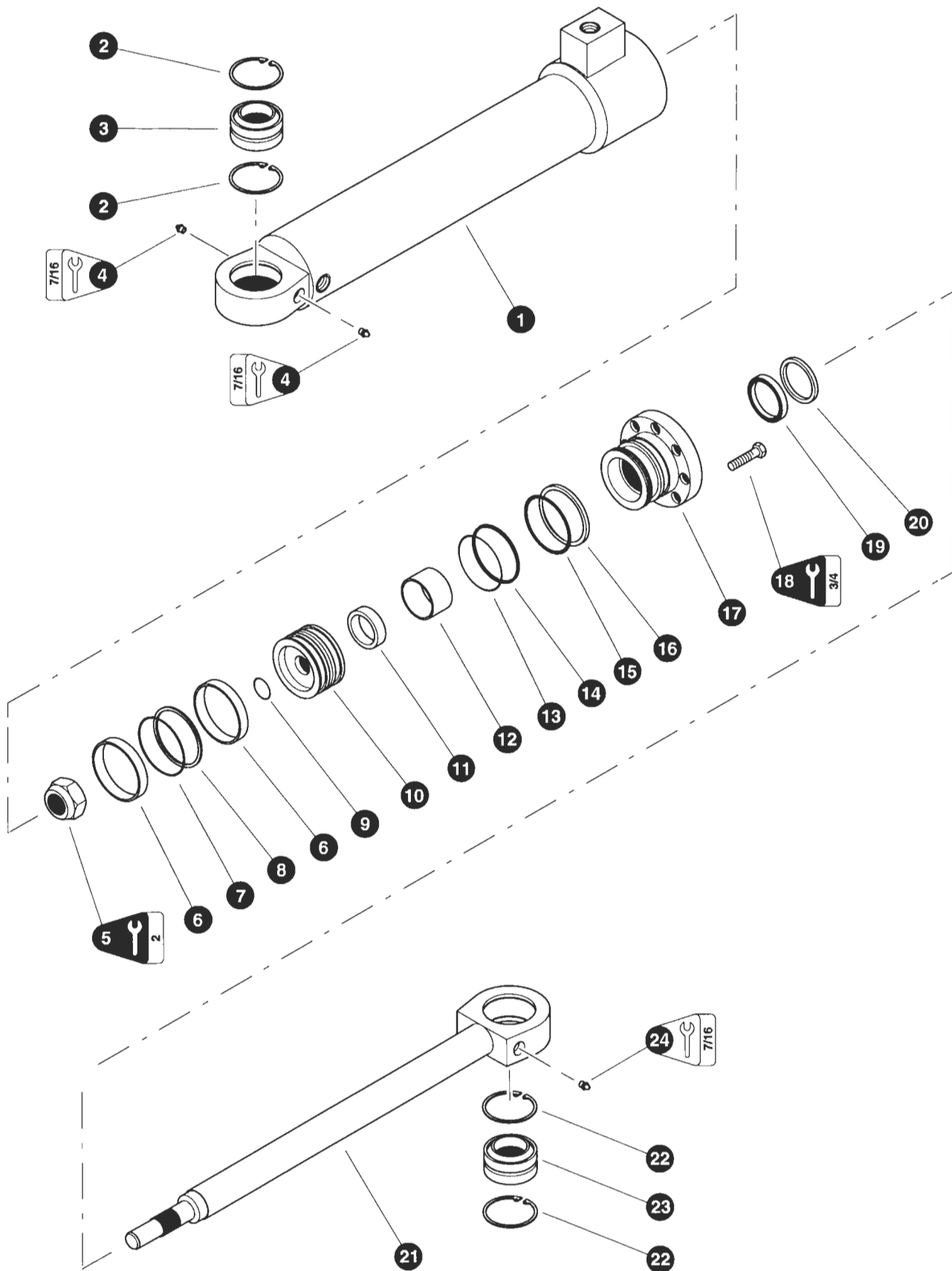


STICK BOOM (JIB) CYLINDER (Manufactured By Jarp, Inc.)

(Used on machines PDN# 019FWD and above)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
-	19475	1	☐	STICK BOOM CYLINDER ASSEMBLY	
1	19233	1	☐	BARREL ASSEMBLY	
2	10704	1		FITTING, straight grease - 1/8" pipe thread	
3	11704	1		BUSHING - 2-1/2" x 4-1/4"	
4	19232	1		NUT, cylinder rod - 1-3/4" (<i>Torque to 885 +/- 60 ft.lbs. (1175 +/- 80 Nm)</i>)	
5	NSS	1	★	RING, piston wear	
6	NSS	1	★	RING, piston loader	
7	NSS	1	★	RING, piston chem-cast	
8	NSS	1	★	RING, piston wear	
9	NSS	1	★	RING, piston seal	
10	NSS	1	★	O-RING, piston	
11	19743	1		PISTON	
12	NSS	1	★	RING, rod bearing wear	
13	NSS	1	★	O-RING, rod bearing	
14	NSS	1	★	RING, rod bearing back-up	
15	19230	1		BEARING, rod	
16	15681	8		BOLT - 5/8" x 2-1/4" (<i>Torque to 175 ft.lbs (233 Nm)</i>)	
17	NSS	1	★	U-CUP, rod bearing	
18	NSS	1	★	WIPER, rod	
19	19229	1	☐	ROD ASSEMBLY	
20	11704	1		BUSHING - 2-1/2" x 4-1/4"	
21	10704	1		FITTING, straight grease - 1/8" pipe thread	
-	19749	1		KIT, seal repair - stick boom cylinder	

- ☐ Kit or Assembly - includes all items indented underneath.
 ★ Included in seal repair kit Part # 19479.



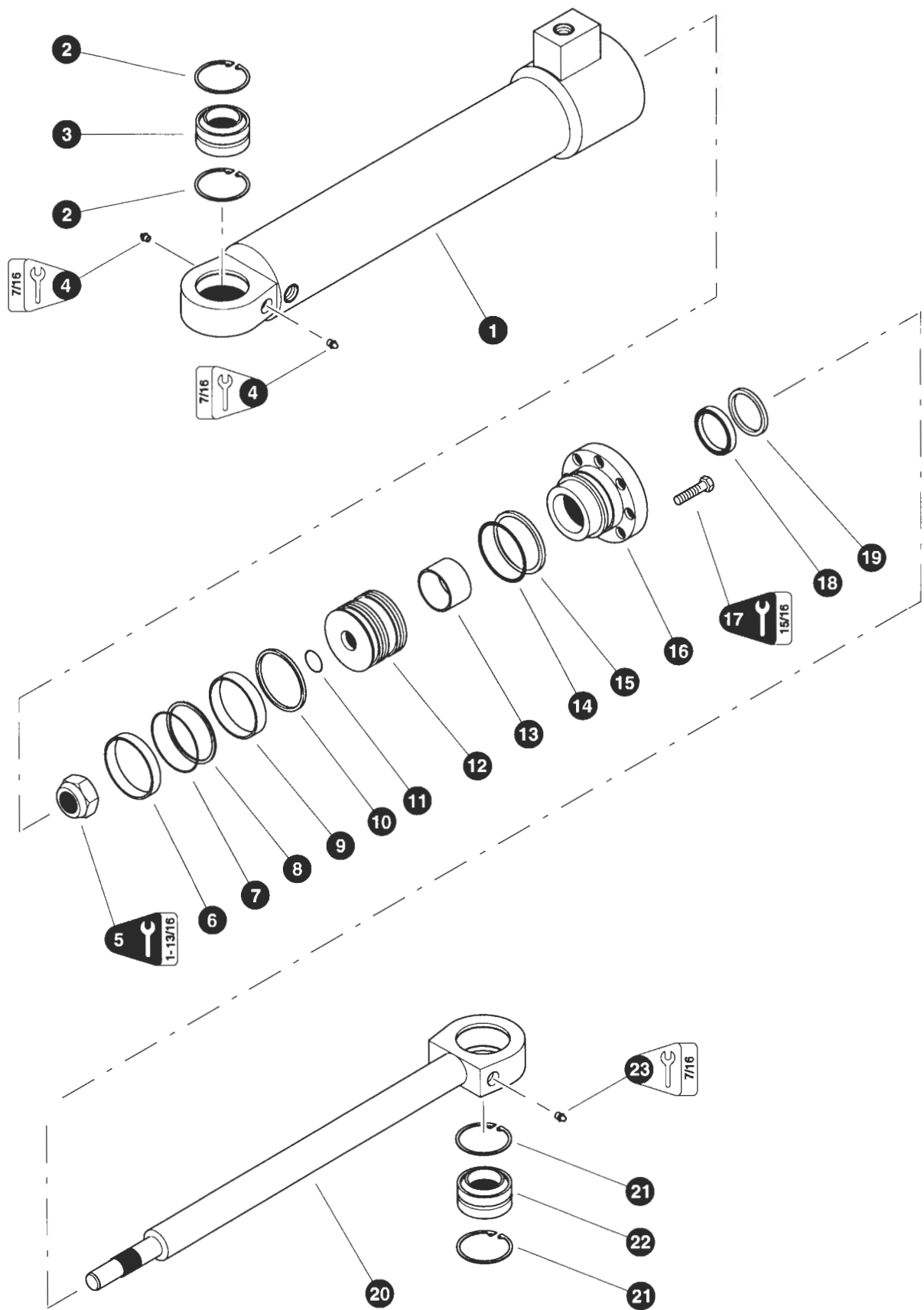
STEER CYLINDER

(Manufactured By Wausau Hydraulics)

(Used on machines PDN# 017FWD and below)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
-	19476	2	☐	STEER CYLINDER ASSEMBLY	
1	19427	1	☐	BARREL ASSEMBLY	
2	19916	2		RING, snap	
3	19917	1		BUSHING, spherical - 2"	
4	10704	1		FITTING, straight grease - 1/8" pipe thread	
5	19421	1		NUT, cylinder rod - 1-1/4" (Torque to 1015 +/- 15 ft.lbs. (1353 - 20 Nm))	
6	NSS	2	★	RING, piston wear	
7	NSS	1	★	RING, piston loader	
8	NSS	1	★	RING, piston polyhone	
9	NSS	1	★	O-RING, piston	
10	19426	1		PISTON	
11	19913	1	★	LIMITER, stroke	
12	NSS	1	★	RING, rod bearing wear	
13	NSS	1	★	RING, rod bearing loader	
14	NSS	1	★	RING, rod bearing seal	
15	NSS	1	★	O-RING, rod bearing	
16	NSS	1	★	RING, rod bearing back-up	
17	19425	1		BEARING, rod	
18	18933	8		BOLT - 1/2" x 1-3/4" (Torque to 75 ft.lbs (100 Nm))	
19	NSS	1	★	U-CUP, rod bearing	
20	NSS	1	★	WIPER, rod	
21	19424	1	☐	ROD ASSEMBLY	
22	19916	2		RING, snap	
23	19917	1		BUSHING, spherical - 2"	
24	10704	1		FITTING, straight grease - 1/8" pipe thread	
-	19428	1		KIT, seal repair - steer cylinder	

- ☐ Kit or Assembly - includes all items indented underneath.
- ★ Included in seal repair kit Part # 19428.



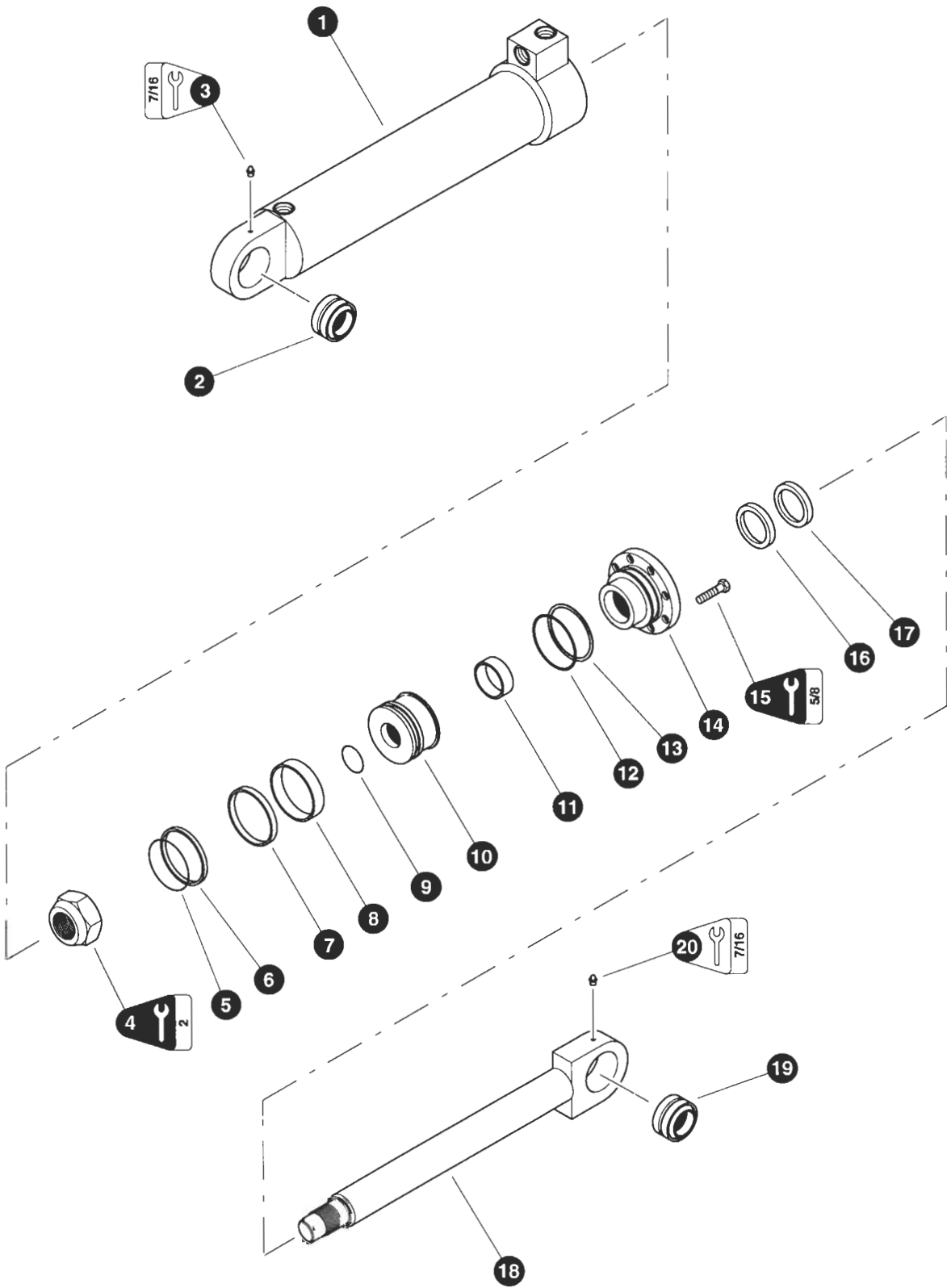
STEER CYLINDER

(Manufactured By Jarp, Inc.)

(Used on machines PDN# 018FWD and above)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
-	19746	2	☐	STEER CYLINDER ASSEMBLY	
1	19238	1	☐	BARREL ASSEMBLY	
2	19916	2		RING, snap	
3	19917	1		BUSHING, spherical - 2"	
4	10704	1		FITTING, straight grease - 1/8" pipe thread	
5	19232	1		NUT, cylinder rod - 1-3/4" (Torque to 885 +/- 60 ft.lbs. (1175 +/- 80 Nm))	
6	NSS	1	★	RING, piston wear	
7	NSS	1	★	RING, piston loader	
8	NSS	1	★	RING, piston chem-cast	
9	NSS	1	★	RING, piston wear	
10	NSS	1	★	RING, piston seal	
11	NSS	1	★	O-RING, piston	
12	19743	1		PISTON	
13	NSS	1	★	RING, rod bearing wear	
14	NSS	1	★	O-RING, rod bearing	
15	NSS	1	★	RING, rod bearing back-up	
16	19236	1		BEARING, rod	
17	15681	8		BOLT - 5/8" x 2-1/4" (Torque to 175 ft.lbs (233 Nm))	
18	NSS	1	★	U-CUP, rod bearing	
19	NSS	1	★	WIPER, rod	
20	19235	1	☐	ROD ASSEMBLY	
21	19916	2		RING, snap	
22	19917	1		BUSHING, spherical - 2"	
23	10704	1		FITTING, straight grease - 1/8" pipe thread	
-	19750	1		KIT, seal repair - steer cylinder	

- ☐ Kit or Assembly - includes all items indented underneath.
- ★ Included in seal repair kit Part # 19750.



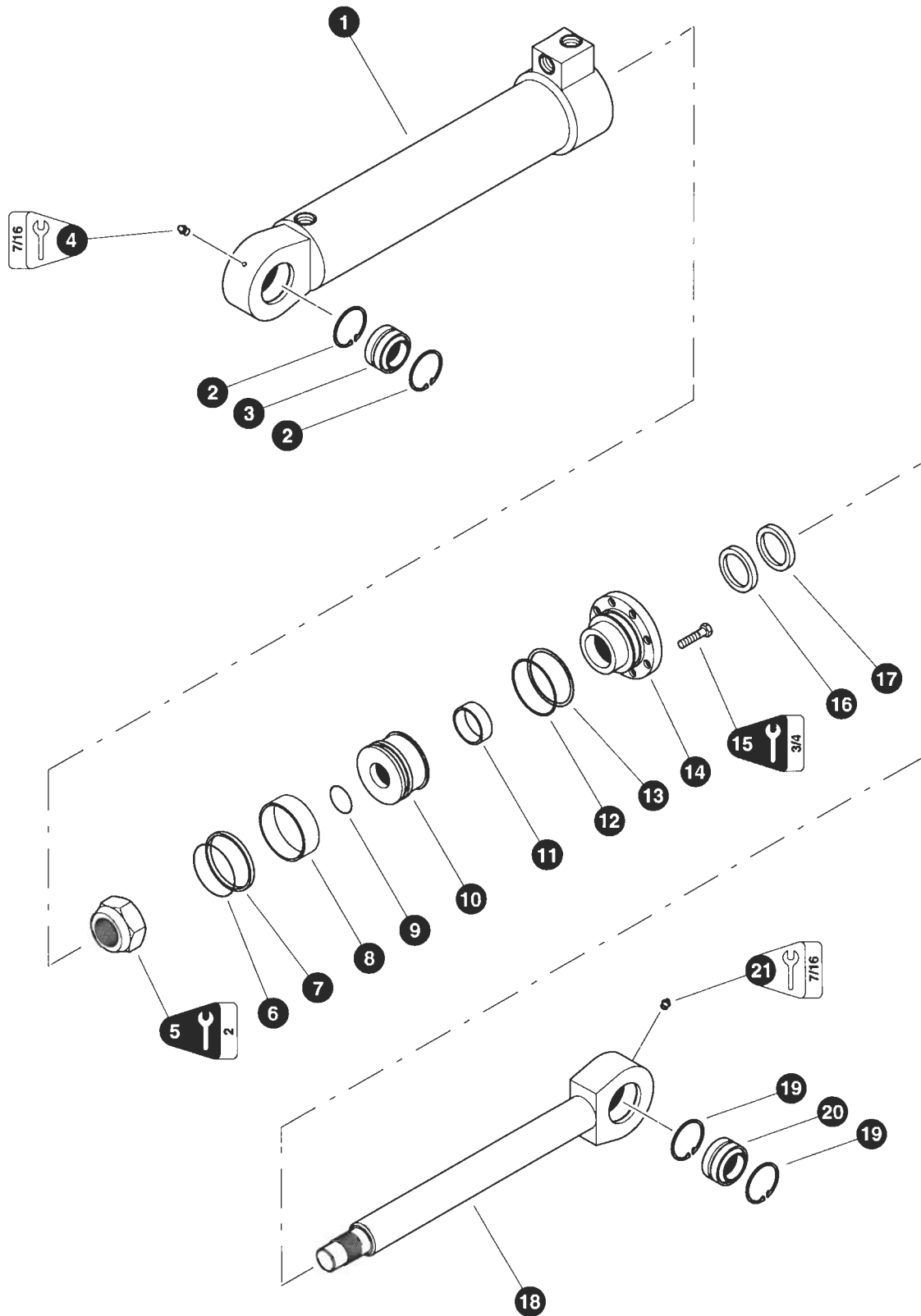
FRAME LOCK CYLINDER (Manufactured By Wausau Hydraulics)

(Used on machines PDN# 017FWD and below)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
-	19747	1	☐	FRAME LOCK CYLINDER ASSEMBLY	
1	19919	1	☐	BARREL ASSEMBLY	
2	10704	1		FITTING, straight grease - 1/8" pipe thread	
3	19437	1		BUSHING, spherical - 1-1/2"	
4	19432	1		NUT, cylinder rod - 1-3/8" (Torque to 410 +/- 15 ft.lbs. (547 +/- 20 Nm))	
5	NSS	1	★	RING, piston loader	
6	NSS	1	★	RING, piston polyhone	
7	NSS	1	★	RING, piston wear	
8	NSS	1	★	RING, piston wear	
9	NSS	1	★	O-RING, piston	
10	19431	1		PISTON	
11	NSS	1	★	RING, rod bearing wear	
12	NSS	1	★	O-RING, rod bearing	
13	NSS	1	★	RING, rod bearing back-up	
14	19430	1		BEARING, rod	
15	20050	8		BOLT - 7/16" x 1-1/4" (Torque to 45 ft.lbs (60 Nm))	
16	NSS	1	★	U-CUP, rod bearing	
17	NSS	1	★	WIPER, rod	
18	19429	1	☐	ROD ASSEMBLY	
19	19437	1		BUSHING, spherical - 1-1/2"	
20	10704	1		FITTING, straight grease - 1/8" pipe thread	
-	19434	1		KIT, seal repair - frame lock cylinder	

☐ Kit or Assembly - includes all items indented underneath.

★ Included in seal repair kit Part # 19434.

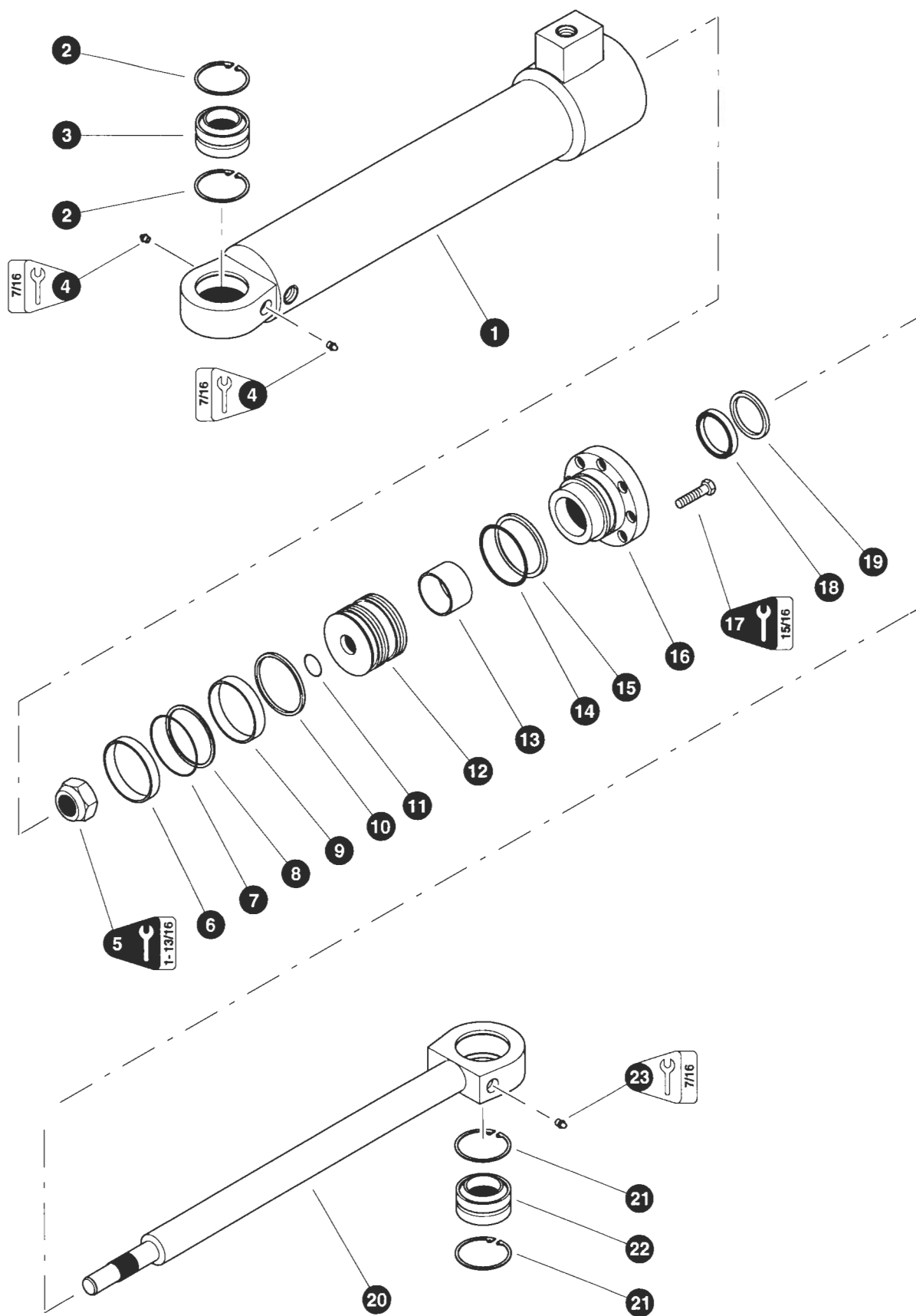


FRAME LOCK CYLINDER**(Manufactured By Jarp, Inc.)***(Used on machines PDN# 018FWD and above)*

REF	PART #	QTY		DESCRIPTION	SEE PAGE
-	19747	1	☐	FRAME LOCK CYLINDER ASSEMBLY	
1	19228	1	☐	BARREL ASSEMBLY	
2	10704	1		FITTING, straight grease - 1/8" pipe thread	
3	19915	2		RING, snap	
4	19437	1		BUSHING, spherical - 1-1/2"	
5	17879	1		NUT, cylinder rod - 1-3/8" (Torque to 600 +/- 50 ft.lbs. (800 +/- 65 Nm))	
6	NSS	1	★	RING, piston loader	
7	NSS	1	★	RING, piston chem-cast	
8	NSS	1	★	RING, piston wear	
9	NSS	1	★	O-RING, piston	
10	17876	1		PISTON	
11	NSS	1	★	RING, rod bearing wear	
12	NSS	1	★	O-RING, rod bearing	
13	NSS	1	★	RING, rod bearing back-up	
14	17877	1		BEARING, rod	
15	10739	8		BOLT - 1/2" x 1-1/2" (Torque to 90 ft.lbs (120 Nm))	
16	NSS	1	★	U-CUP, rod bearing	
17	NSS	1	★	WIPER, rod	
18	19227	1	☐	ROD ASSEMBLY	
19	19915	2		RING, snap	
20	19437	1		BUSHING, spherical - 1-1/2"	
21	10704	1		FITTING, straight grease - 1/8" pipe thread	
-	19619	1		KIT, seal repair - frame lock cylinder	

☐ Kit or Assembly - includes all items indented underneath.

★ Included in seal repair kit Part # 19619.



OPTIONAL CLAM ARM CYLINDER - 4" BORE (Manufactured By Jarp, Inc.)

(Used on some machines PDN# 043FWD and below)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
				NOTE: Early production machines used the same 4" (127 mm) bore diameter cylinder for steering and the optional clam bunk. Later production machines use different cylinders for steering and clam arms.	
-	19746	2	☐	CLAM ARM CYLINDER ASSEMBLY (See verification information below before ordering parts)	
1	19238	1	☐	BARREL ASSEMBLY	
2	19916	2		RING, snap	
3	19917	1		BUSHING, spherical - 2"	
4	10704	1		FITTING, straight grease - 1/8" pipe thread	
5	19232	1		NUT, cylinder rod - 1-3/4" (Torque to 885 +/- 60 ft.lbs. (1175 +/- 80 Nm))	
6	NSS	1	★	RING, piston wear	
7	NSS	1	★	RING, piston loader	
8	NSS	1	★	RING, piston chem-cast	
9	NSS	1	★	RING, piston wear	
10	NSS	1	★	RING, piston seal	
11	NSS	1	★	O-RING, piston	
12	19743	1		PISTON	
13	NSS	1	★	RING, rod bearing wear	
14	NSS	1	★	O-RING, rod bearing	
15	NSS	1	★	RING, rod bearing back-up	
16	19236	1		BEARING, rod	
17	15681	8		BOLT - 5/8" x 2-1/4" (Torque to 175 ft.lbs (233 Nm))	
18	NSS	1	★	U-CUP, rod bearing	
19	NSS	1	★	WIPER, rod	
20	19235	1	☐	ROD ASSEMBLY	
21	19916	2		RING, snap	
22	19917	1		BUSHING, spherical - 2"	
23	10704	1		FITTING, straight grease - 1/8" pipe thread	
-	19750	1		KIT, seal repair - steer/clam arm cylinder - 4"	

☐ Kit or Assembly - includes all items indented underneath.

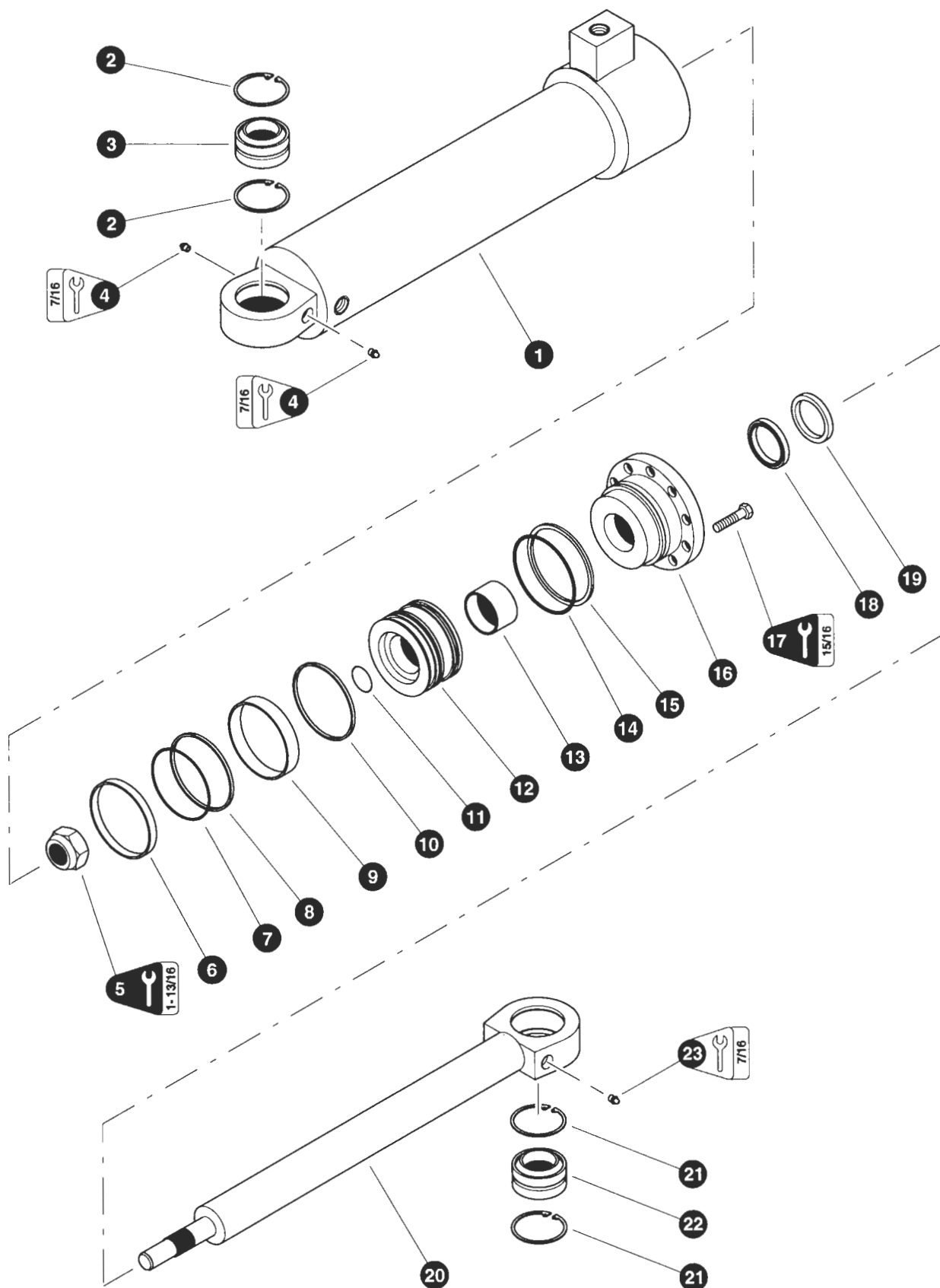
★ Included in seal repair kit Part # 19750.

Verification Information:

There have been two sizes of clam arm cylinders manufactured by Jarp...

A) Clam arm cylinders used in early production machines have a 5" (127 mm) O.D. diameter and are stamped "140591B" on the base of the barrel and rod assembly eye.

B) Clam arm cylinders used in later production machines have a 6" (152 mm) O.D. diameter and are stamped "150485B" on the base of the barrel and rod assembly eye.



00268 09/08/97
18.75

OPTIONAL CLAM ARM CYLINDER - 5" BORE (Manufactured By Jarp, Inc.)

*(Used on some machines PDN# 043FWD and below
and all machines PDN# 044FWD and above)*

REF	PART #	QTY		DESCRIPTION	SEE PAGE
-	19738	2	☐	CLAM ARM CYLINDER ASSEMBLY <i>(See verification information below before ordering parts)</i>	
1	19960	1	☐	BARREL ASSEMBLY	
2	19916	2		RING, snap	
3	19917	1		BUSHING, spherical - 2"	
4	10704	1		FITTING, straight grease - 1/8" pipe thread	
5	15914	1		NUT, cylinder rod - 1-3/4" (Torque to 885 +/- 60 ft.lbs. (1175 +/- 80 Nm))	
6	NSS	1	★	RING, piston wear	
7	NSS	1	★	RING, piston loader	
8	NSS	1	★	RING, piston chem-cast	
9	NSS	1	★	RING, piston wear	
10	NSS	1	★	RING, piston seal	
11	NSS	1	★	O-RING, piston	
12	19573	1		PISTON	
13	NSS	1	★	RING, rod bearing wear	
14	NSS	1	★	O-RING, rod bearing	
15	NSS	1	★	RING, rod bearing back-up	
16	19962	1		BEARING, rod	
17	15681	8		BOLT - 5/8" x 2-1/4" (Torque to 175 ft.lbs (233 Nm))	
18	NSS	1	★	U-CUP, rod bearing	
19	NSS	1	★	WIPER, rod	
20	19963	1	☐	ROD ASSEMBLY	
21	19916	2		RING, snap	
22	19917	1		BUSHING, spherical - 2"	
23	10704	1		FITTING, straight grease - 1/8" pipe thread	
-	19964	1		KIT, seal repair - steer/clam arm cylinder - 5"	

☐ Kit or Assembly - includes all items indented underneath.

★ Included in seal repair kit Part # 19964.

Verification Information:

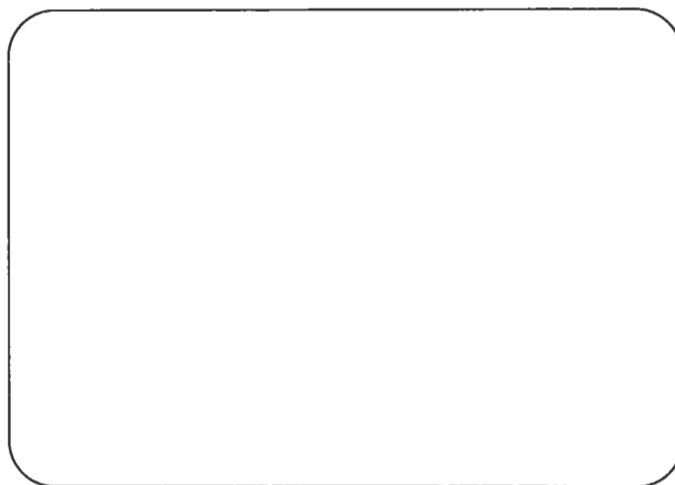
There have been two sizes of clam arm cylinders manufactured by Jarp...

A) Clam arm cylinders used in early production machines have a 5" (127 mm) O.D. diameter and are stamped "140591B" on the base of the barrel and rod assembly eye.

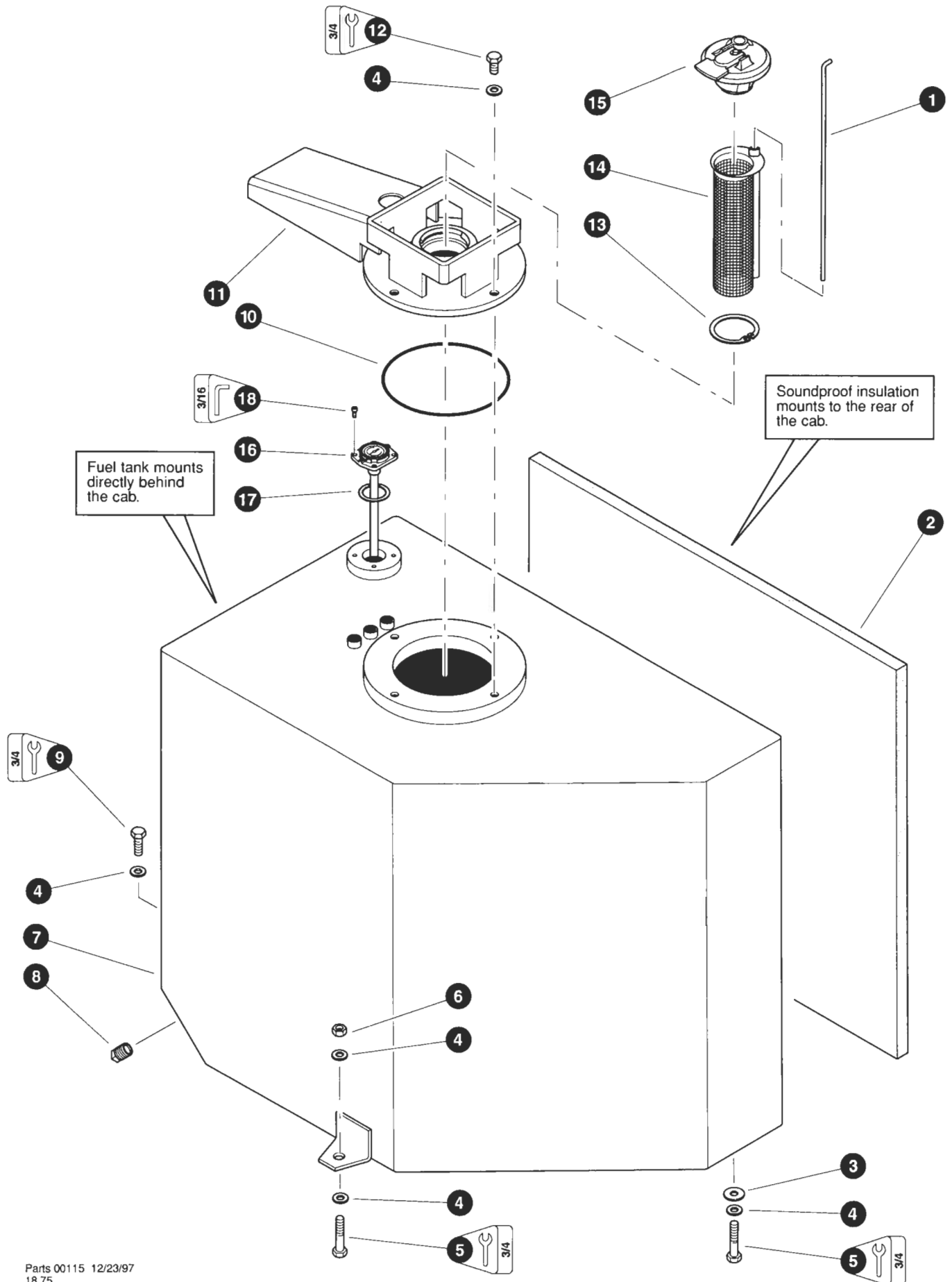
B) Clam arm cylinders used in later production machines have a 6" (152 mm) O.D. diameter and are stamped "150485B" on the base of the barrel and rod assembly eye.

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Section F.1



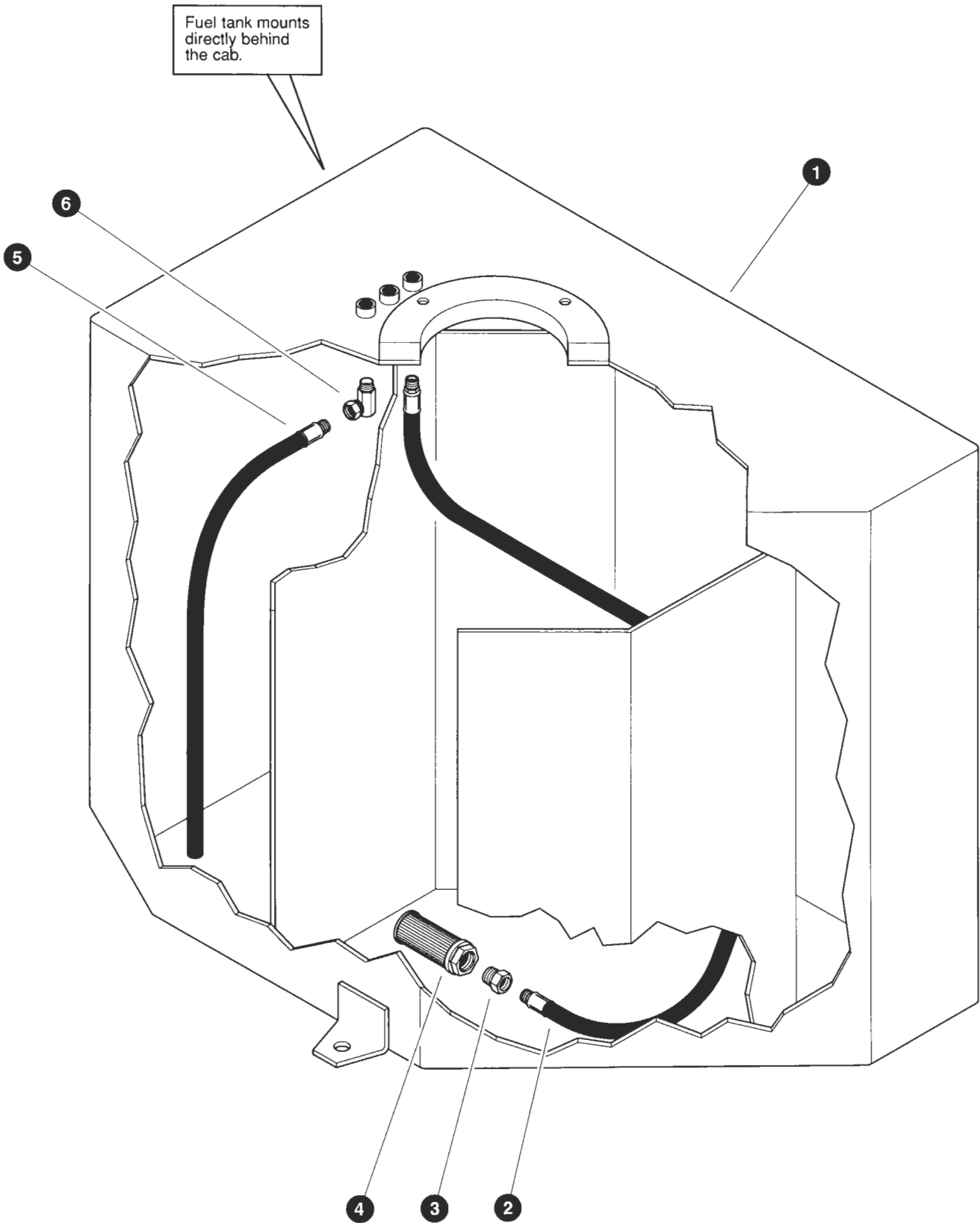
Engine Installation - Fuel System (All Engines)



FUEL TANK ASSEMBLY

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	17492	1	DIPSTICK - fuel level	
2	18483	1	INSULATION, soundproof - fuel tank mount	
3	10804	1	WASHER, flat - 1/2"	
4	15534	8	WASHER, SAE flat - 1/2"	
5	15565	2	BOLT - 1/2" x 2-1/2"	
6	10815	1	NUT, lock - 1/2"	
7	18480	1	TANK, fuel	
8	15515	1	PLUG - 5406-P-4	
9	10739	1	BOLT - 1/2" x 1/2"	
10	15600	1	O-RING - 8"	
11	18472	1	COVER, fuel tank w/adapter	
12	10783	4	BOLT - 1/2" x 1"	
13	17115	1	RING, snap - fuel strainer retainer	
14	17114	1	STRAINER, fuel system	
15	16585	1	CAP, non-locking fill	
16	19507	1	☐ GAUGE, fuel level	
17	20247	1	GASKET	
18	20248	4	BOLT, allen head - 1/4" x 1/2"	

☐ Kit or Assembly - includes all items indented underneath.

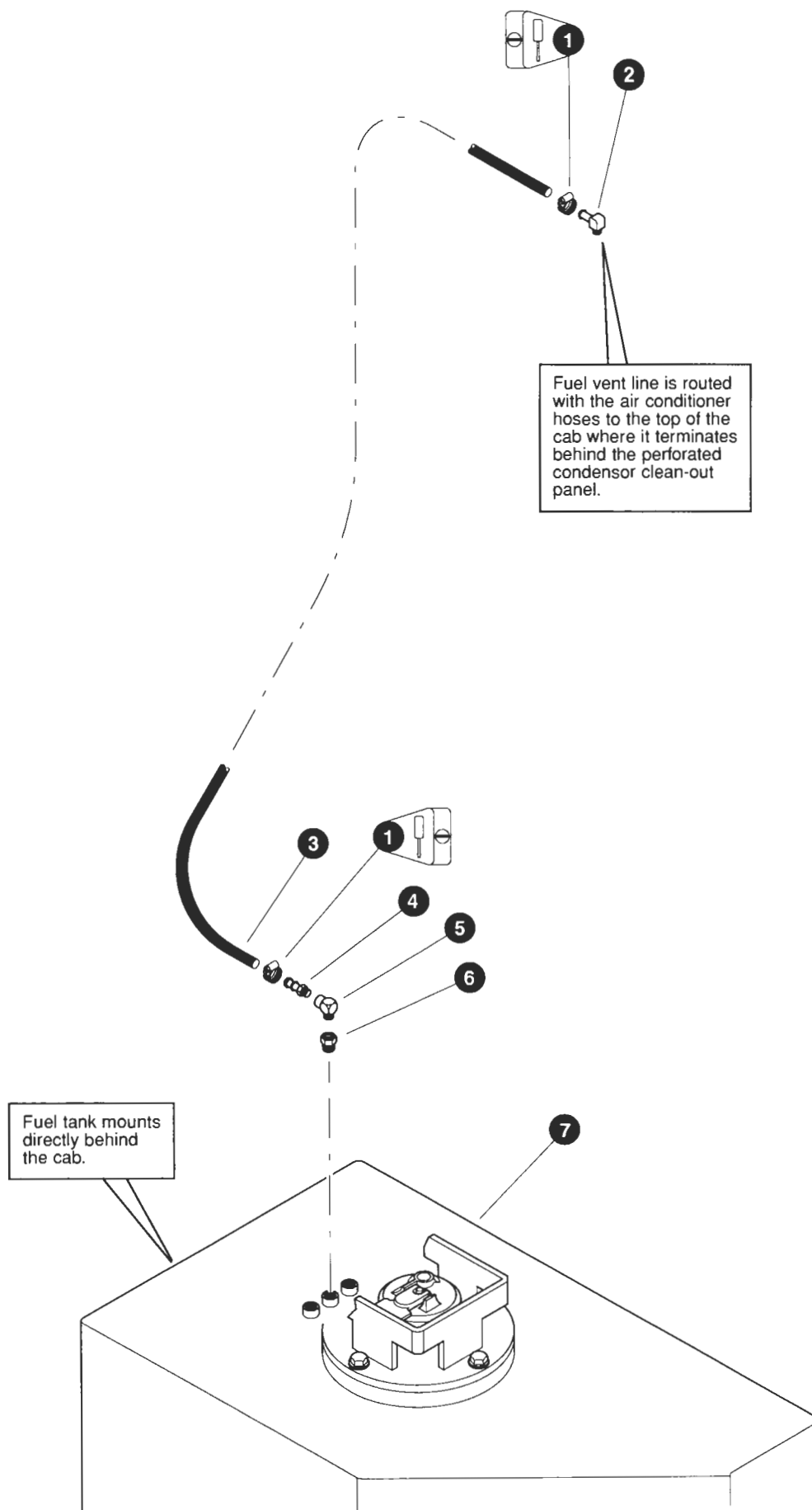


FUEL LINES

(Supply & Return Inside Fuel Tank)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	FUEL TANK	F.1.2
2	19211	1		HOSE ASSEMBLY - 2041-06-06PS-06PS (<i>Fuel supply port to inner baffle screen filter inside tank</i>)	
3	15630	1		BUSHING, reducer - 5406-8-6	
4	17271	1		FILTER, screen - fuel system	
5	20415	1		HOSE ASSEMBLY - 2030-06-06PS (<i>Fuel return port to outer baffle inside tank</i>)	
6	10394	1		ELBOW, 90° swivel - 1501-6-6	

✓ See referenced page for component or assembly breakdown.



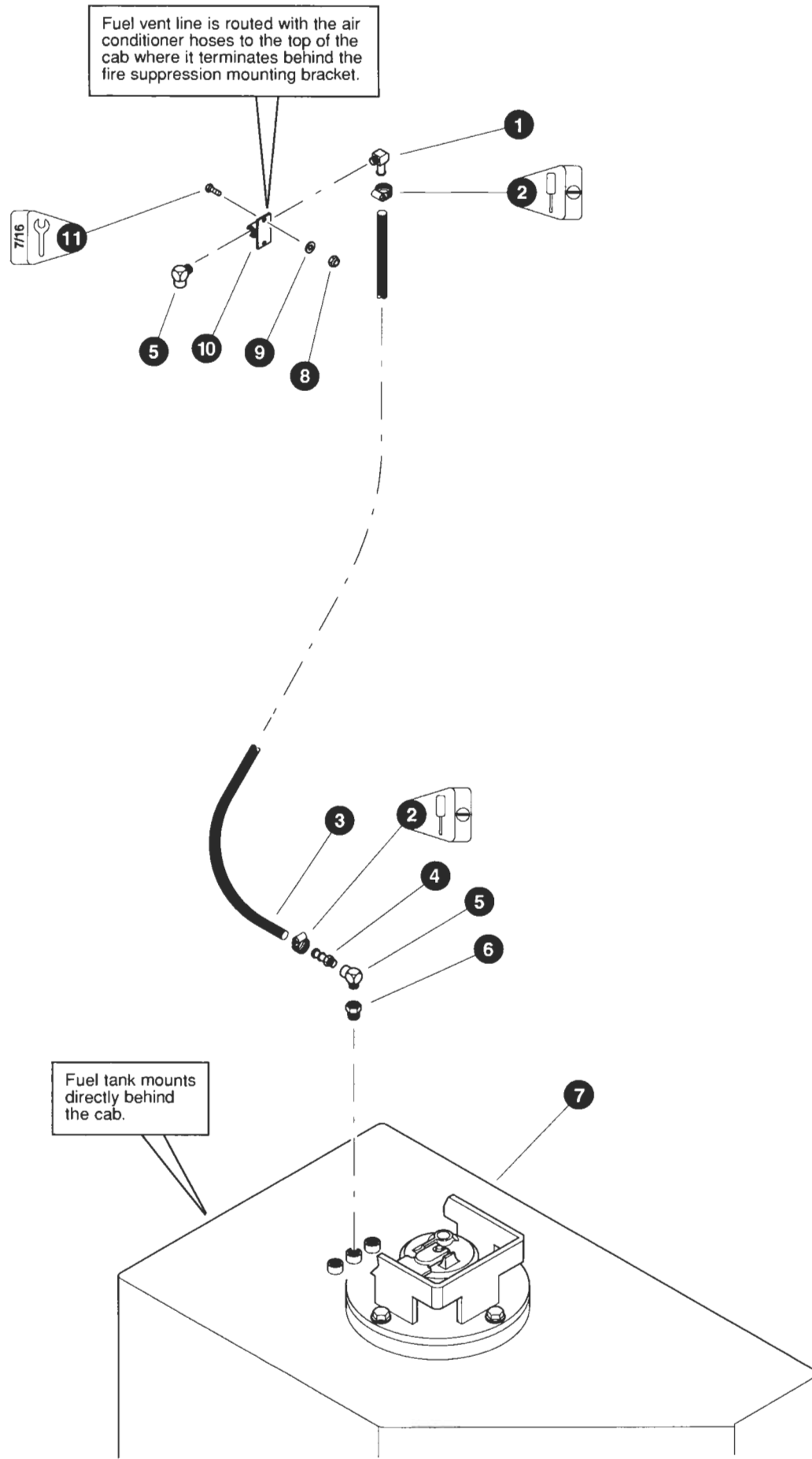
FUEL LINES (Fuel Tank Vent)

(Used on machines PDN# 041FWD and below)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	16202	2		CLAMP, hose - worm style - 5/8"	
2	19215	1		ELBOW, pushlock	
3	16238	AR		HOSE, fuel line - 5/16"	
4	10760	1		CONNECTOR, hose	
5	16251	1		ELBOW, 90° street - 5502-4	
6	11318	2		BUSHING, reducer - 5406-6-4	
7	REF.	1	✓	FUEL TANK	F.1.2

 Bulk material - order length required in feet or metres.

✓ See referenced page for component or assembly breakdown.



FUEL LINES (Fuel Tank Vent)

(Used on machines PDN# 042FWD and above)

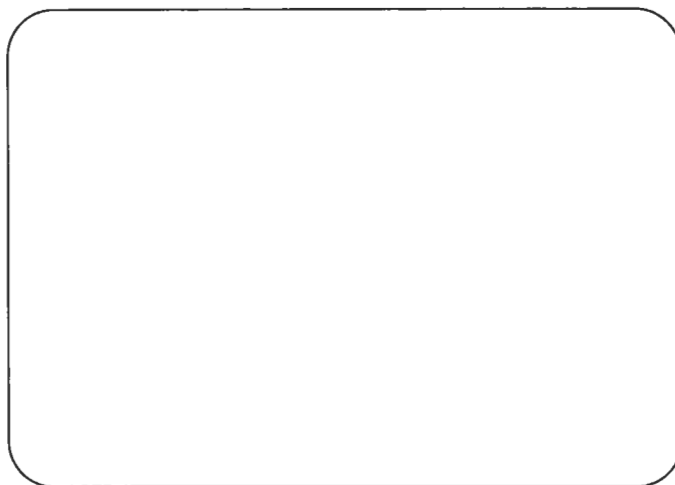
REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	16202	2		CLAMP, hose - worm style - 5/8"	
2	19215	1		ELBOW, pushlock	
3	16238	AR	⊗	HOSE, fuel line - 5/16"	
4	10760	1		CONNECTOR, hose	
5	16251	2		ELBOW, 90° street - 5502-4	
6	11318	2		BUSHING, reducer - 5406-6-4	
7	REF.	1	✓	FUEL TANK	F.1.2
8	15509	1		NUT, nylock - 1/4"	
9	10757	1		WASHER, SAE flat - 1/4"	
10	12222	1		BRACKET, gauge mount	
11	15576	1		BOLT - 1/4" x 1"	

⊗ Bulk material - order length required in feet or metres.

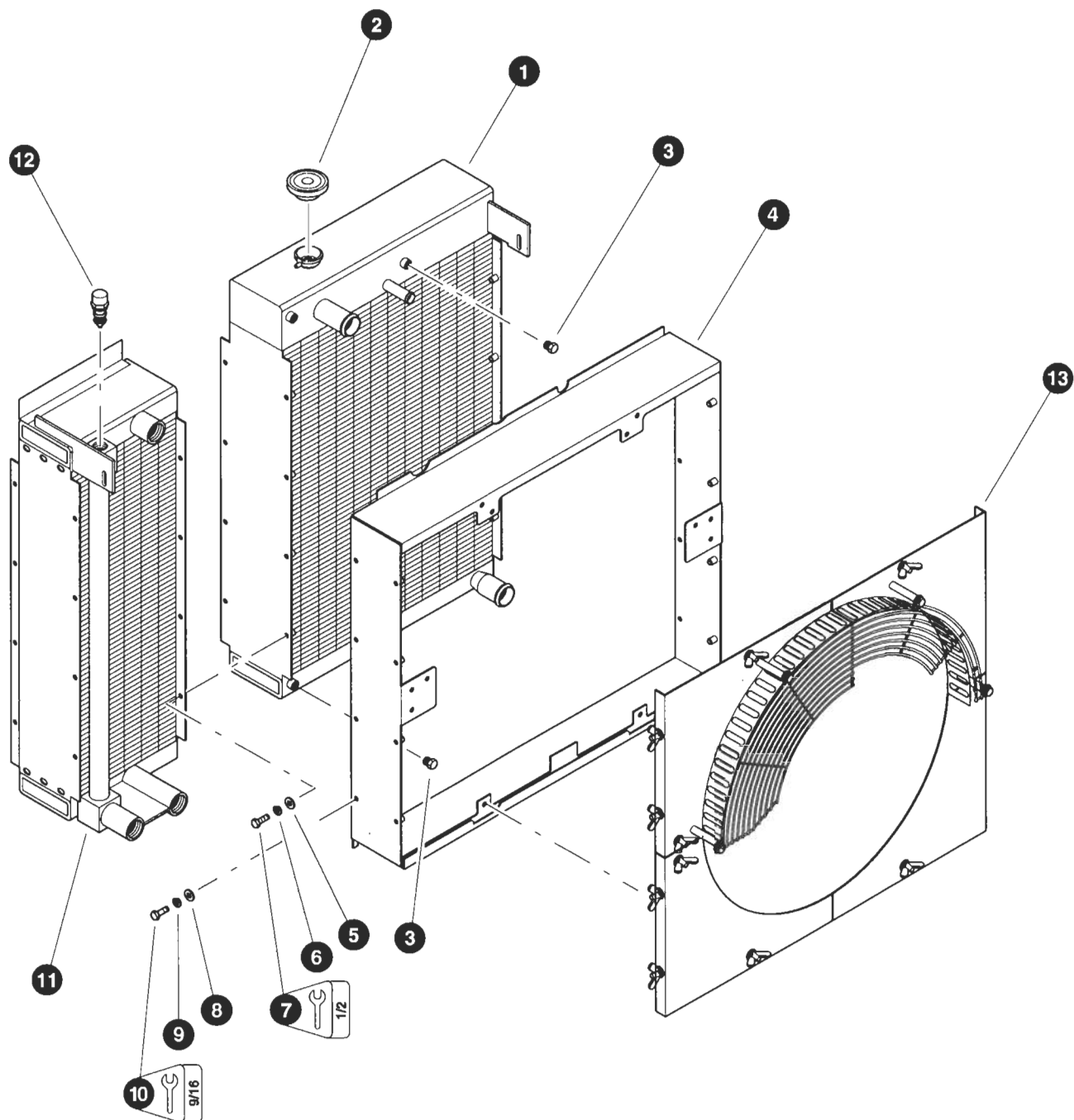
✓ See referenced page for component or assembly breakdown.

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Section F.2



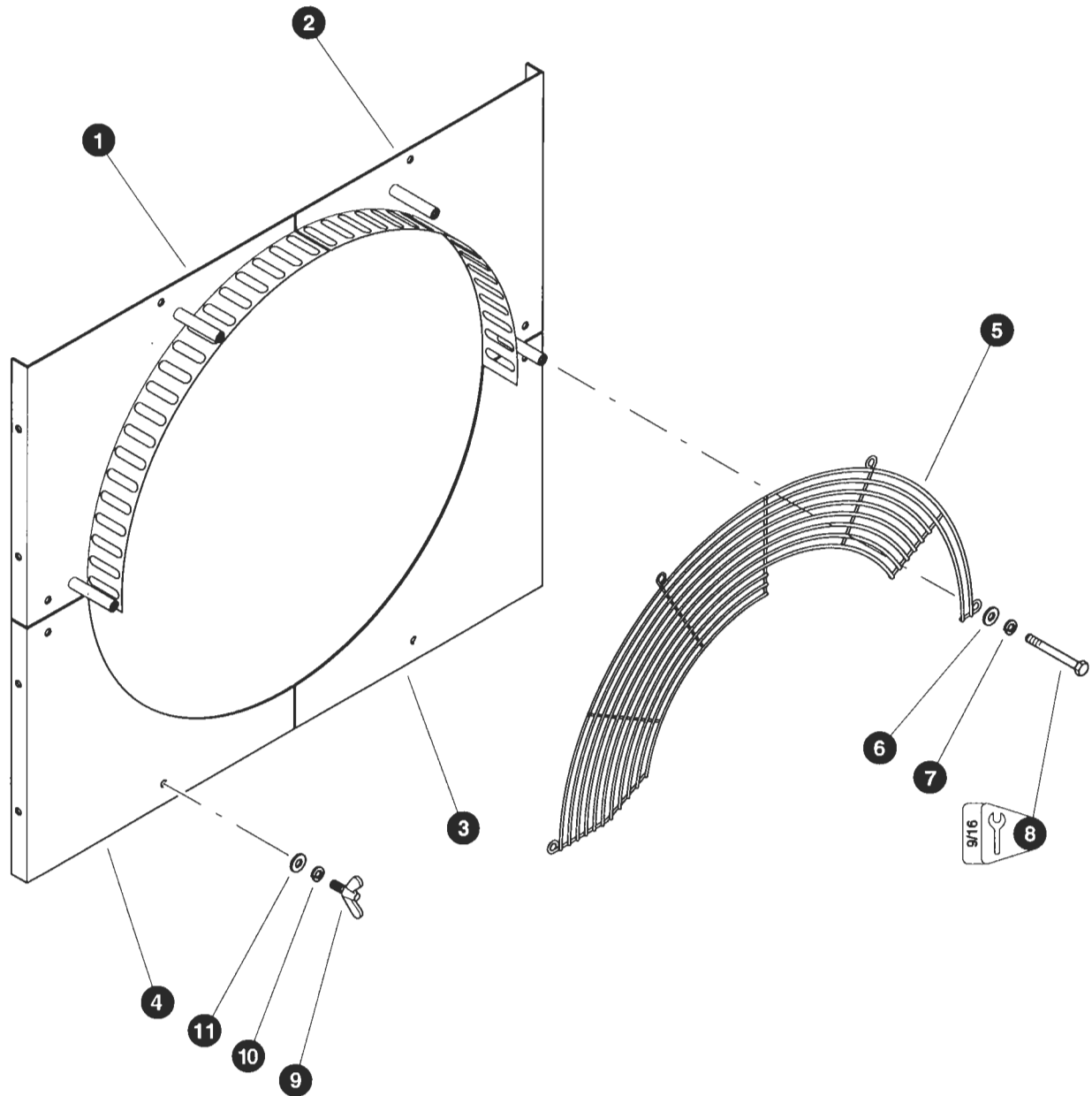
Engine Installation - Cooling System (All Engines)



RADIATOR/OIL COOLER ASSEMBLY

REF	PART #	QTY		DESCRIPTION	SEE PAGE
-	18089	1	☐	RADIATOR/OIL COOLER ASSEMBLY	
1	18090	1	☐	RADIATOR	
2	15897	2		CAP, radiator	
3	15515	2		PLUG - 5406-P-4	
4	18263	1		EXTENSION, fan box	
5	15559	8		WASHER, SAE flat - 5/16"	
6	15606	8		WASHER, lock - 5/16"	
7	15589	8		BOLT - 5/16" x 1"	
8	15528	8		WASHER, SAE flat - 3/8"	
9	10701	8		WASHER, lock - 3/8"	
10	11707	8		BOLT - 3/8" x 1"	
11	17642	1	☐	OIL COOLER	
12	17934	1		VALVE, relief - thermal bypass control	
13	REF.	1	☒	FAN SHROUD KIT	F.3.4

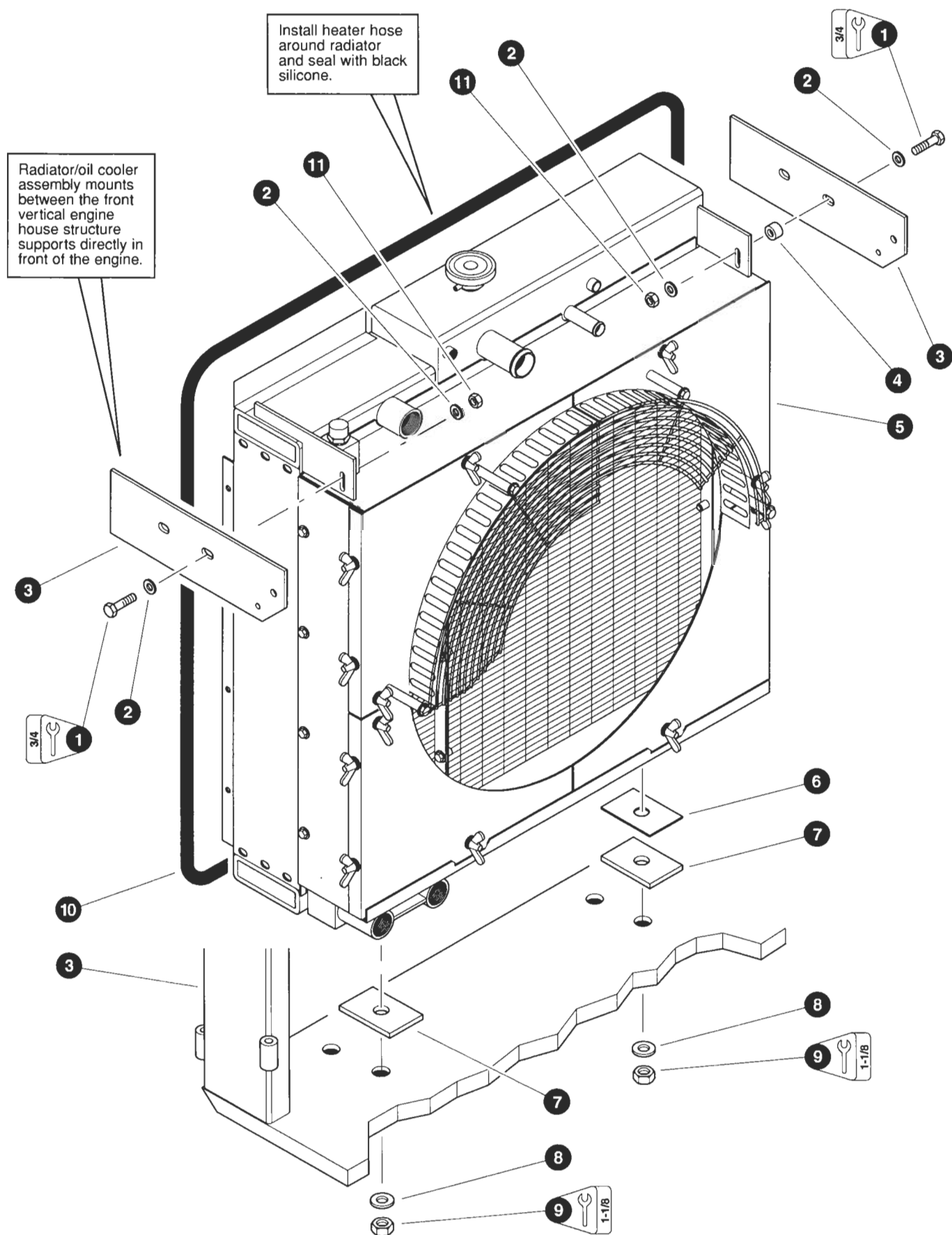
- ☐ Kit or Assembly - includes all items indented underneath.
☒ See referenced page for component or assembly breakdown.



FAN SHROUDS

REF	PART #	QTY	DESCRIPTION	SEE PAGE
-	18088	1	☐ FAN SHROUD KIT (<i>Cummins 6BTA5.9-C engine</i>)	
1	18254	1	SHROUD, radiator - LH upper	
2	18255	1	SHROUD, radiator - RH upper	
3	18257	1	SHROUD, radiator - RH lower	
4	18256	1	SHROUD, radiator - LH lower	
-	18087	1	☐ FAN SHROUD KIT (<i>Cummins 6C8.3-C engine</i>)	
1	18258	1	SHROUD, radiator - LH upper	
2	18259	1	SHROUD, radiator - RH upper	
3	18261	1	SHROUD, radiator - RH lower	
4	18260	1	SHROUD, radiator - LH lower	
-	18714	1	☐ FAN SHROUD KIT (<i>Caterpillar 3116T & 3126T engines</i>)	
1	19046	1	SHROUD, radiator - LH upper	
2	19047	1	SHROUD, radiator - RH upper	
3	19049	1	SHROUD, radiator - RH lower	
4	19048	1	SHROUD, radiator - LH lower	
5	18262	1	GUARD, fan	
6	15528	4	WASHER, SAE flat - 3/8"	
7	10701	4	WASHER, lock - 3/8"	
8	10713	4	BOLT - 3/8" x 3-1/2"	
9	17910	16	KNOB, wing nut	
10	15606	16	WASHER, lock - 5/16"	
11	15559	16	WASHER, SAE flat - 5/16"	

☐ Kit or Assembly - includes all items indented underneath.

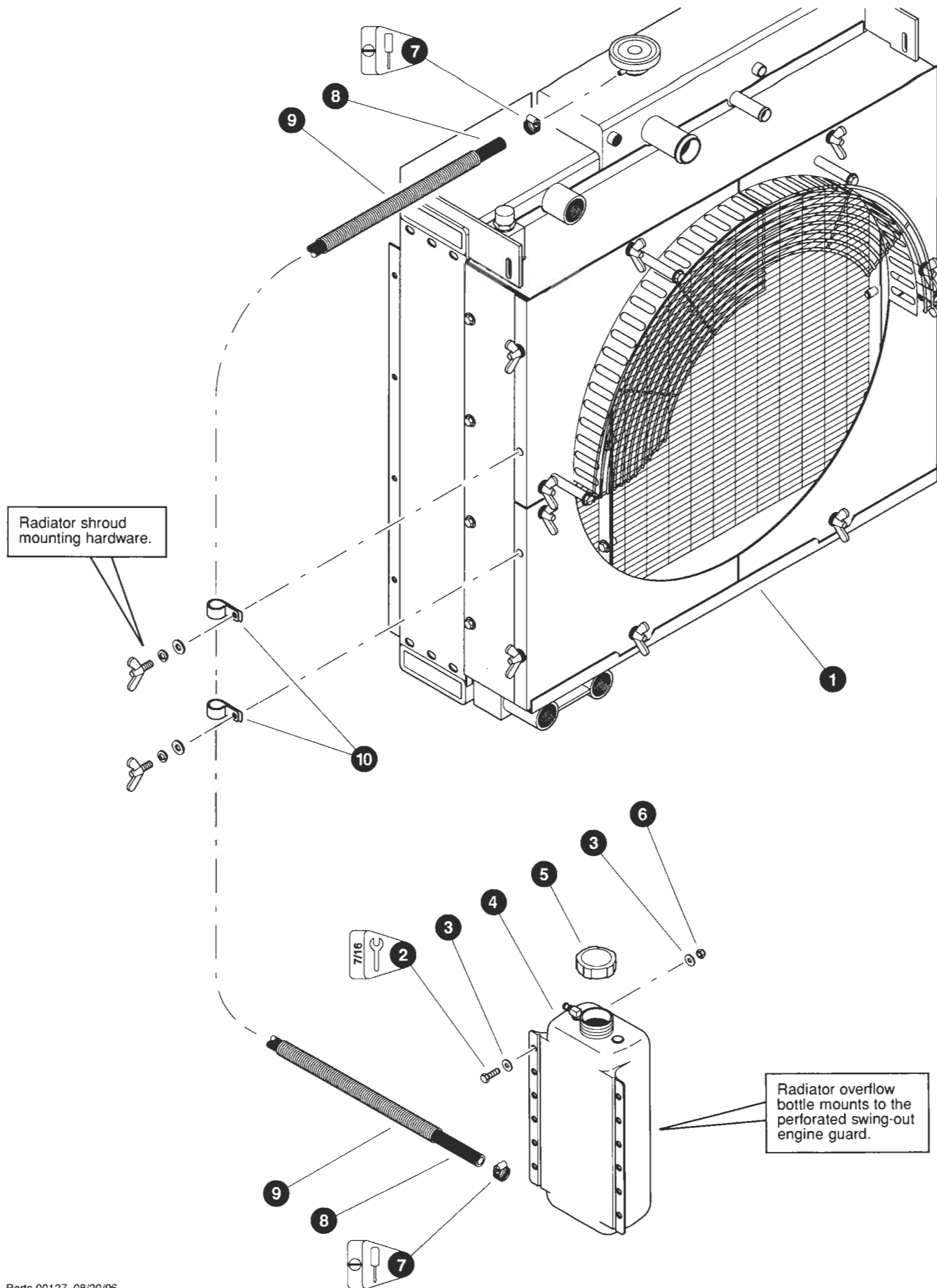


RADIATOR/OIL COOLER INSTALLATION

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	10736	2		BOLT - 1/2" x 2"	
2	15534	4		WASHER, SAE flat - 1/2"	
3	REF.	1	✓	UPPER TURNTABLE WELDMENT	H.1.2
4	15619	AR		SPACER, radiator - 3/8"	
	19217	AR		SPACER, radiator - 1/2"	
	19218	AR		SPACER, radiator - 5/8"	
	19219	AR		SPACER, radiator - 3/4"	
5	REF.	1	✓	RADIATOR/OIL COOLER ASSEMBLY	F.2.2
6	18798	AR		SHIM, radiator/oil cooler mount	
7	17776	2		SPACER, rubber radiator/oil cooler mount	
8	15550	2		WASHER, SAE flat - 3/4"	
9	10817	2		NUT, lock - 3/4"	
10	16717	AR	⌘	HOSE, heater - 5/8"	
11	10815	2		NUT, lock - 1/2"	

✓ See referenced page for component or assembly breakdown.

⌘ Bulk material - order length required in feet or metres.



RADIATOR OVERFLOW LINE

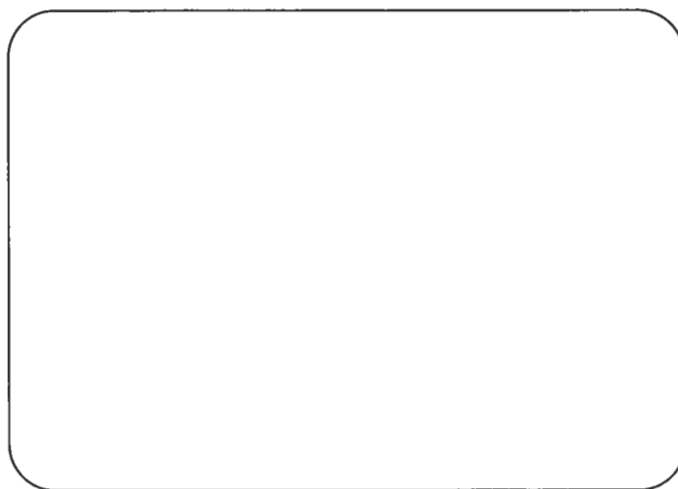
REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	RADIATOR/OIL COOLER ASSEMBLY	F.2.2
2	15576	4		BOLT - 1/4" x 1"	
3	10800	8		WASHER, flat- 1/4"	
4	16925	1		BOTTLE, radiator overflow	
5	19119	1		CAP, radiator overflow bottle	
6	15509	4		NUT, nylock - 1/4"	
7	16202	2		CLAMP, hose - worm style - 5/8"	
8	16238	AR	⌘	HOSE, fuel line - 5/16"	
9	17449	AR	⌘	LOOM, split - 1/2"	
10	16119	2		CLAMP, hose - coated strap - 1"	

- ✓ See referenced page for component or assembly breakdown.
 ⌘ Bulk material - order length required in feet or metres.

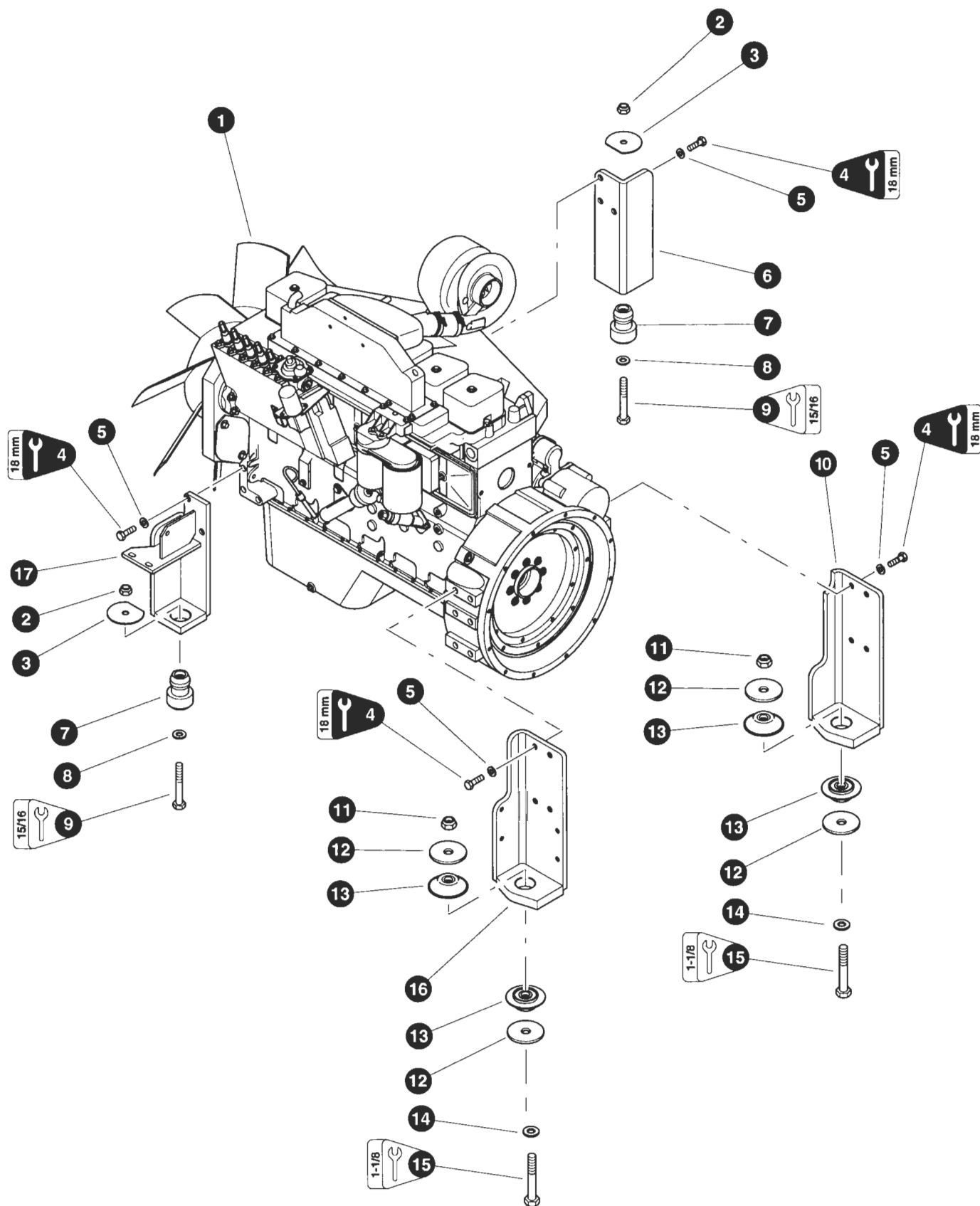
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Section F.3

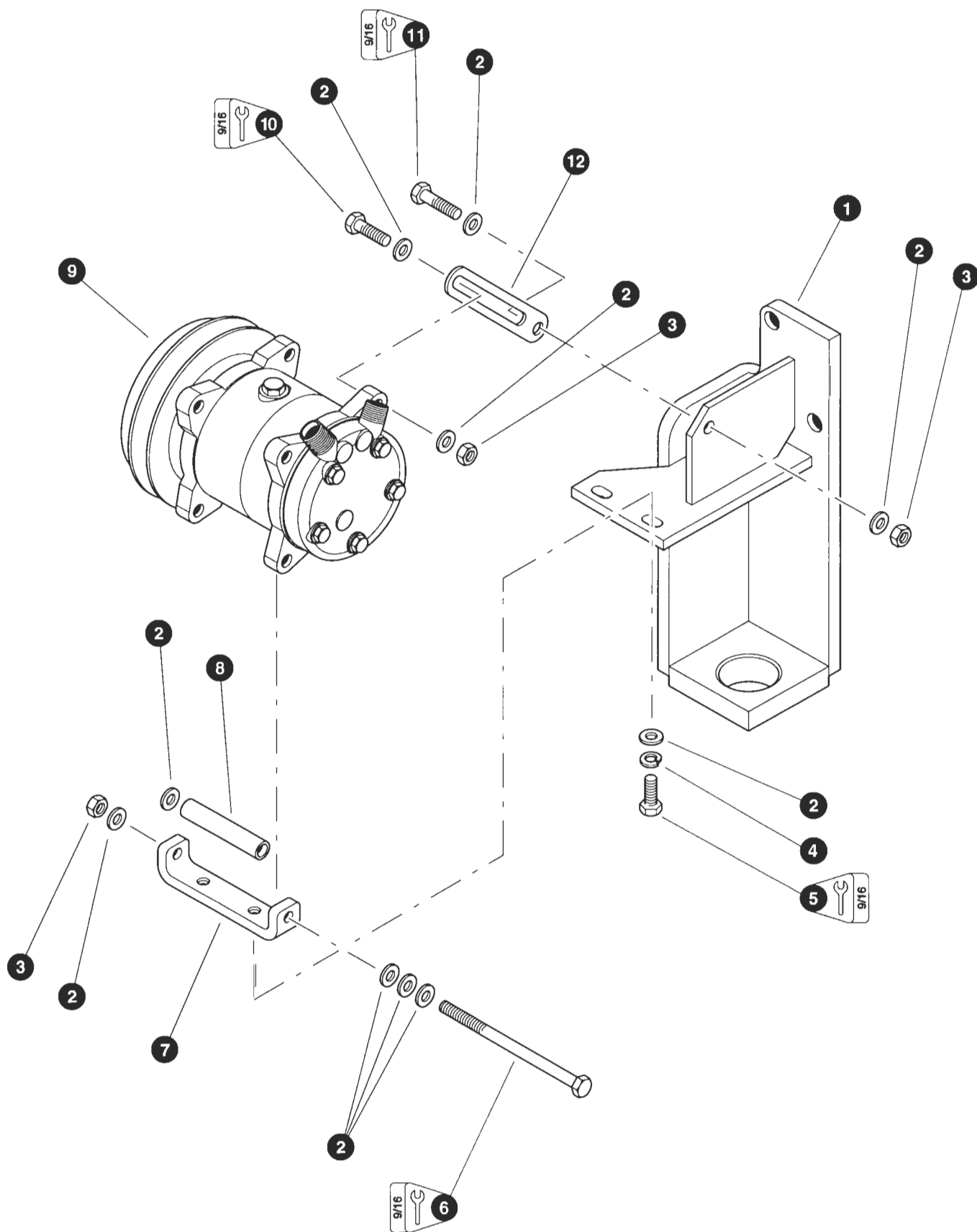


Engine Installation - Cummins 6BTA5.9-C 200HP (Standard)



ENGINE INSTALLATION

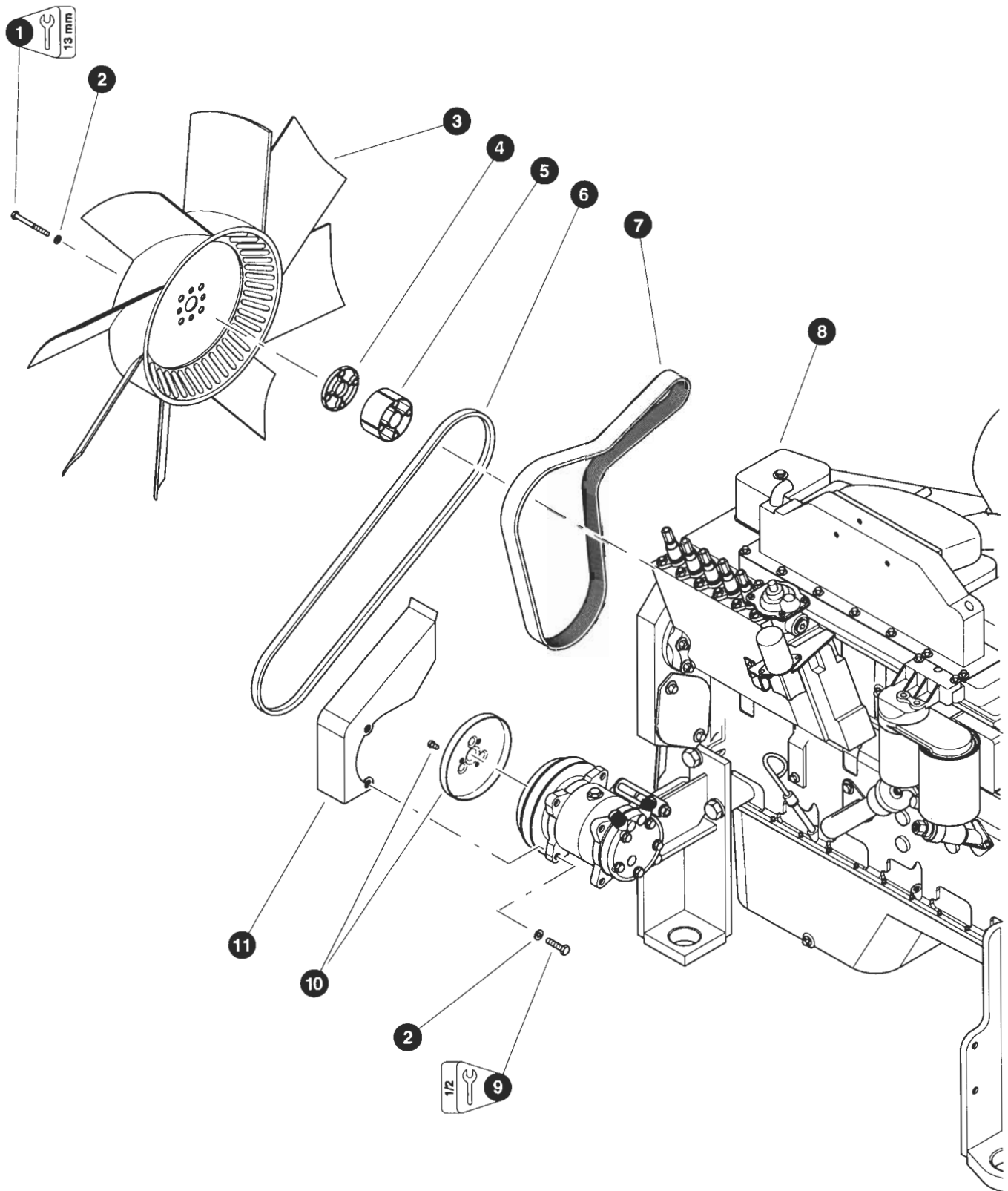
REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	19051	1	ENGINE, Cummins B SERIES 6 cylinder/5.9 litre	
2	10816	2	NUT, lock - 5/8"	
3	15524	2	WASHER, isolator mount - 5/8" x 3-1/2"	
4	15551	14	BOLT - 12mm-1.75P x 40mm (Torque to 92 ft.lbs. (122 Nm))	
5	18735	14	WASHER, flat -12mm	
6	12027	1	MOUNT, engine - RH front	
7	15525	2	ISOLATOR, engine mount	
8	10771	2	WASHER, SAE flat - 5/8"	
9	10723	2	BOLT - 5/8" x 4-1/2"	
10	18412	1	MOUNT, engine - RH rear	
11	10817	2	NUT, lock - 3/4"	
12	17918	4	WASHER, isolator mount - 7/8" x 3-1/2"	
13	17904	4	ISOLATOR, engine mount - rear	
14	15550	2	WASHER, SAE flat - 3/4"	
15	10844	2	BOLT - 3/4" x 5"	
16	18411	1	MOUNT, engine - LH rear	
17	12026	1	MOUNT, engine - LH front	



AIR CONDITIONER COMPRESSOR INSTALLATION

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	ENGINE MOUNT - LH front	F.3.2
2	15528	11		WASHER, SAE flat - 3/8"	
3	10813	3		NUT, lock - 3/8"	
4	10701	2		WASHER, lock - 3/8"	
5	11707	1		BOLT - 3/8" x 1"	
6	10830	1		BOLT - 3/8" x 6"	
7	19380	1		BRACKET, compressor mounting	
8	16517	1		SPACER, compressor mounting	
9	18092	1		COMPRESSOR, air conditioner	
10	10402	1		BOLT - 3/8" x 1-1/4"	
11	10731	1		BOLT - 3/8" x 1-1/2"	
12	12139	1		BRACKET, compressor adjustment	

✓ See referenced page for component or assembly breakdown.



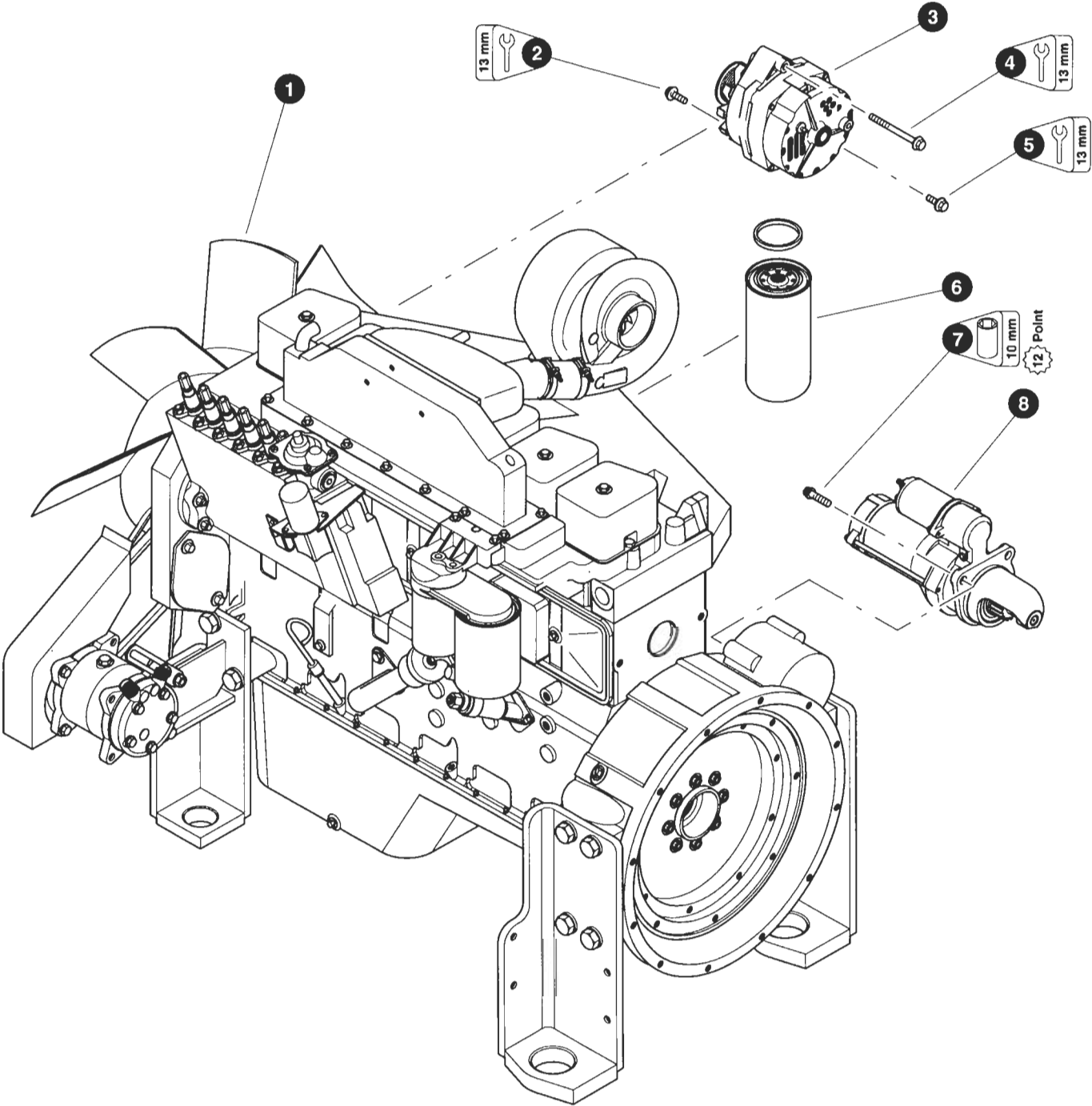
ENGINE FAN & BELTS

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	20417	4	BOLT - 10mm x 75mm (See note below) (Used with sucker fan)(Torque to 35 ft.lbs. (47 Nm))	
	16135	4	BOLT - 10mm x 60mm (See note below) (Used with blower fan)(Torque to 35 ft.lbs. (47 Nm))	
2	15559	6	WASHER, SAE flat - 5/16"	
3	16382	1	FAN, engine - sucker	
	15801	1	FAN, engine - blower	
4	20418	1	SPACER, engine fan (Used with sucker fan only)	
5	16488	1	SPACER, engine fan (Used with sucker fan)	
	16504	1	SPACER, engine fan (Used with blower fan)	
6	19281	1	BELT, A/C compressor drive	
7	15802	1	BELT, engine fan	
8	REF.	1	✓ ENGINE - Cummins 6BTA5.9-C	F.3.2
9	10822	2	BOLT - 5/16" x 1-1/4"	
10	16796	1	COVER, A/C compressor dust	
11	19582	1	GUARD, A/C compressor belt	

✓ See referenced page for component or assembly breakdown.

Note:

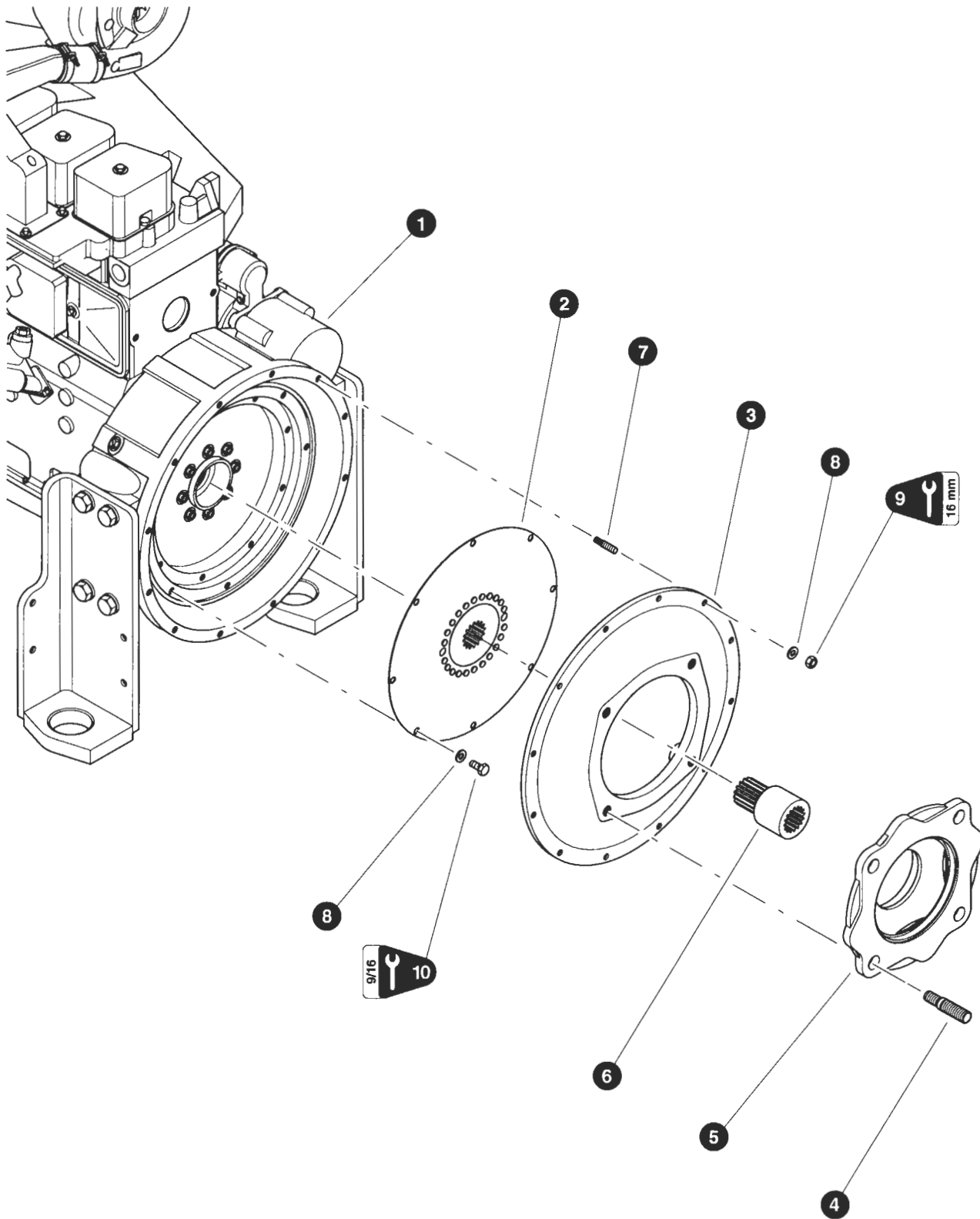
Use Loctite 272 (blue) during installation.



ALTERNATOR, STARTER & MISC. COMPONENTS

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	ENGINE - Cummins 6BTA5.9-C	F.3.2
2	--	1		BOLT, flange head - 10mm x 25mm	
3	16057	1		ALTERNATOR - 12V /105 AMP (<i>Standard</i>)	
	16389	1		ALTERNATOR - 12V / 130 AMP (<i>Optional</i>)	
4	--	1		BOLT, flange head - 10mm x 95mm	
5	--	1		BOLT, flange head - 10mm x 20mm	
6	15813	1		FILTER, engine oil	
7	--	3		BOLT, 12 point cap - 10mm x 35 mm	
8	15805	1		STARTER - 12V	

✓ See referenced page for component or assembly breakdown.



SINGLE PUMP TRANSMISSION INSTALLATION

(Used With Rexroth AA4VG125 Pump)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	ENGINE - Cummins 6BTA5.9-C	F.3.2
-	19202	1	□	TRANSMISSION, single pump drive	
2	16258	1		DRIVE PLATE	
3	NSS	1		HOUSING	
4	18293	4		STUD, pump mounting	
5	18292	1		ADAPTER, pump drive - SAE "D"	
6	20419	1		SHAFT, drive	
7	15531	12		STUD, threaded - 10mm x 45mm (See note #1 below)	
8	15528	20		WASHER, SAE flat - 3/8"	
9	15530	12		NUT, hex - 3/8" (See note #2 below)	
				(Torque to 40 ft.lbs. (53 Nm))	
10	15542	8		BOLT - 3/8" x 3/4" (See note #1 below)	
				(Torque to 40 ft.lbs. (53 Nm))	

✓ See referenced page for component or assembly breakdown.

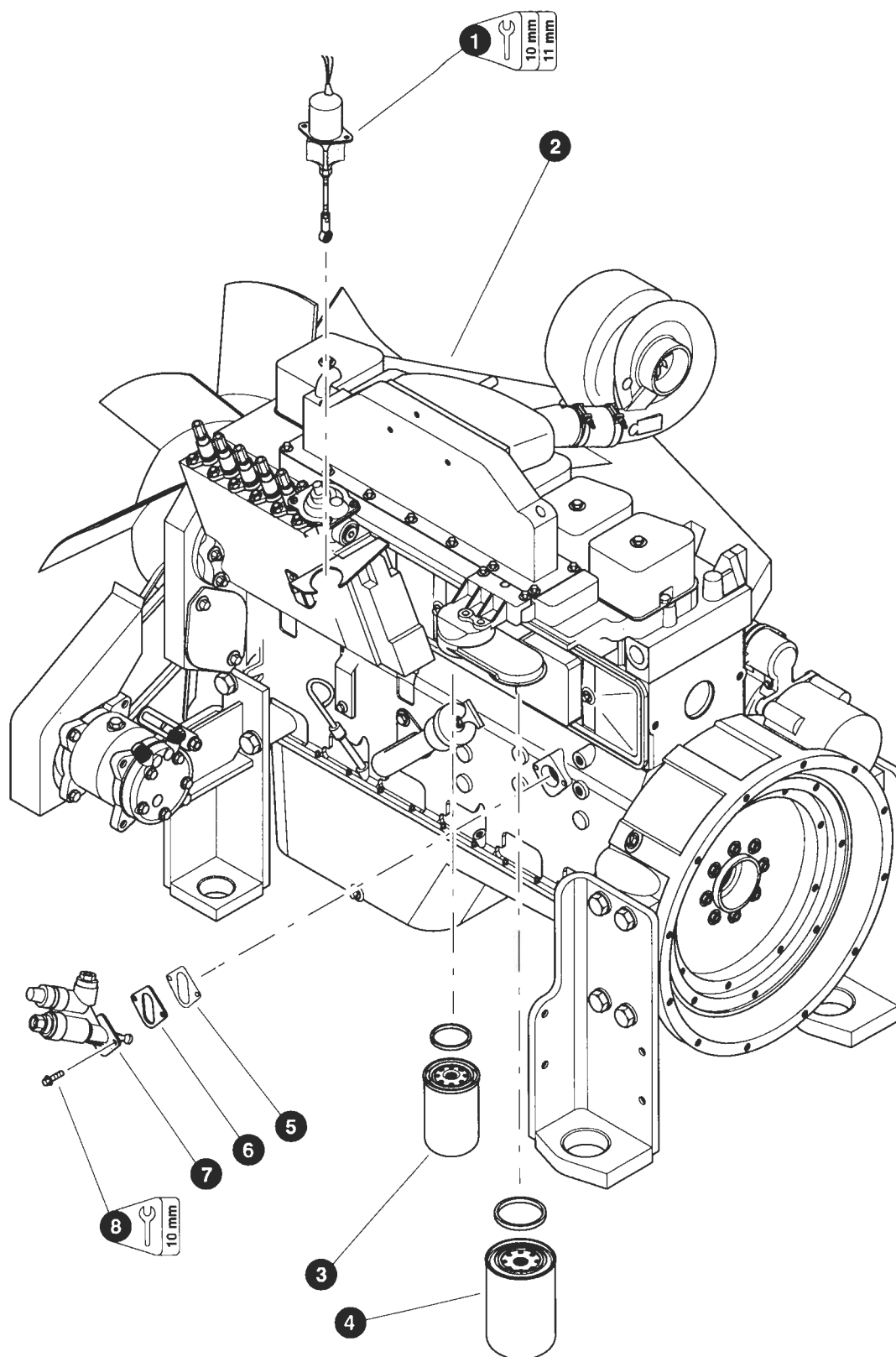
□ Kit or Assembly - includes all items indented underneath.

Note #1:

Use Loctite 271 (*red*) during installation.

Note #2:

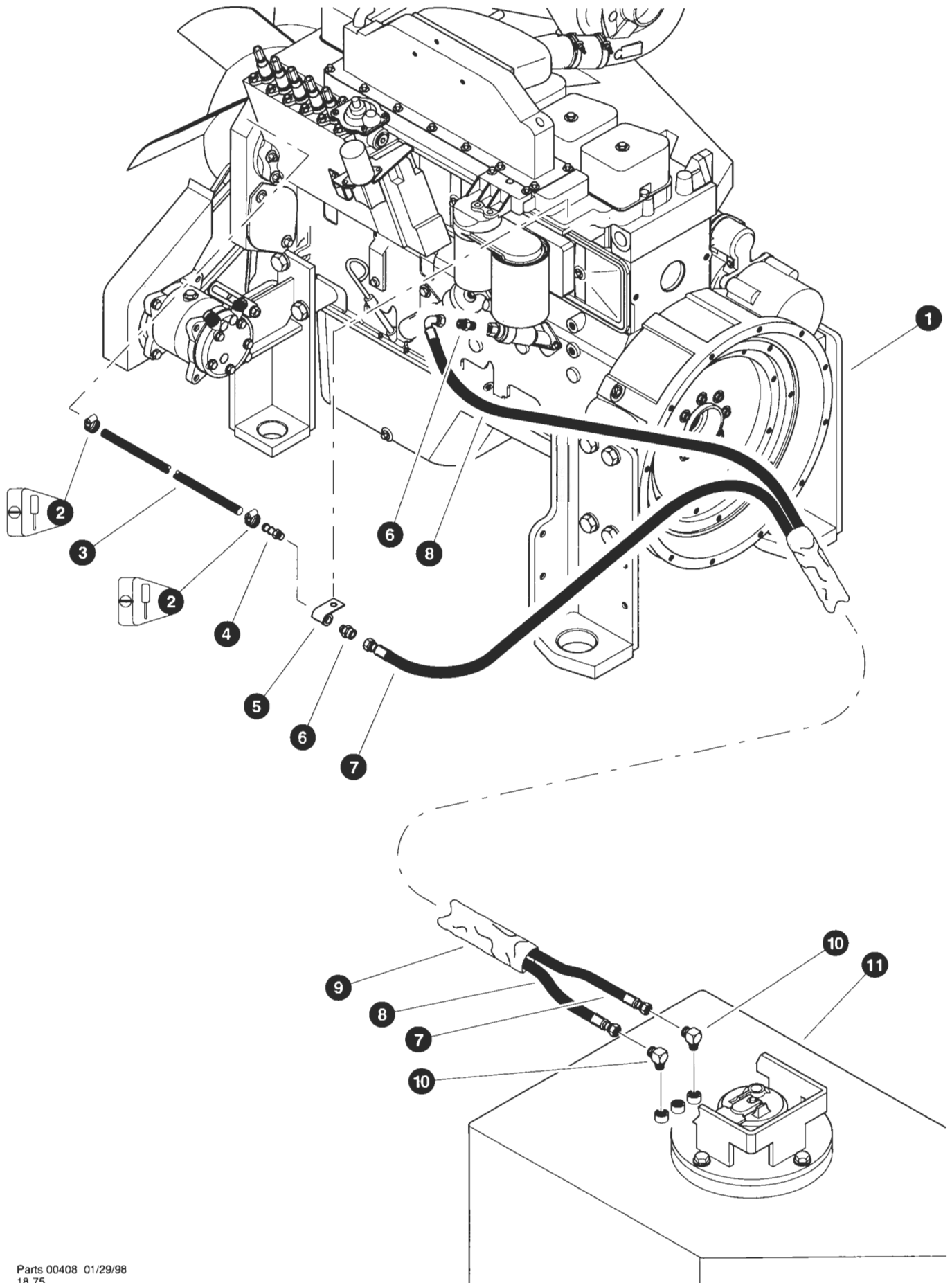
Use Loctite 272 (*blue*) during installation.



FUEL SYSTEM COMPONENTS ON ENGINE

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	20420	1		SOLENOID, fuel shut-off	
2	REF.	1	✓	ENGINE - Cummins 6BTA5.9-C	F.3.2
3	19285	1		FILTER, fuel - secondary	
4	19284	1		FILTER, fuel - primary	
5	16834	1		GASKET, fuel lift pump	
6	16829	1		SPACER, fuel lift pump	
7	15808	1		PUMP, fuel lift	
8	--	2		BOLT, flange head - 8mm x 25mm	

✓ See referenced page for component or assembly breakdown.



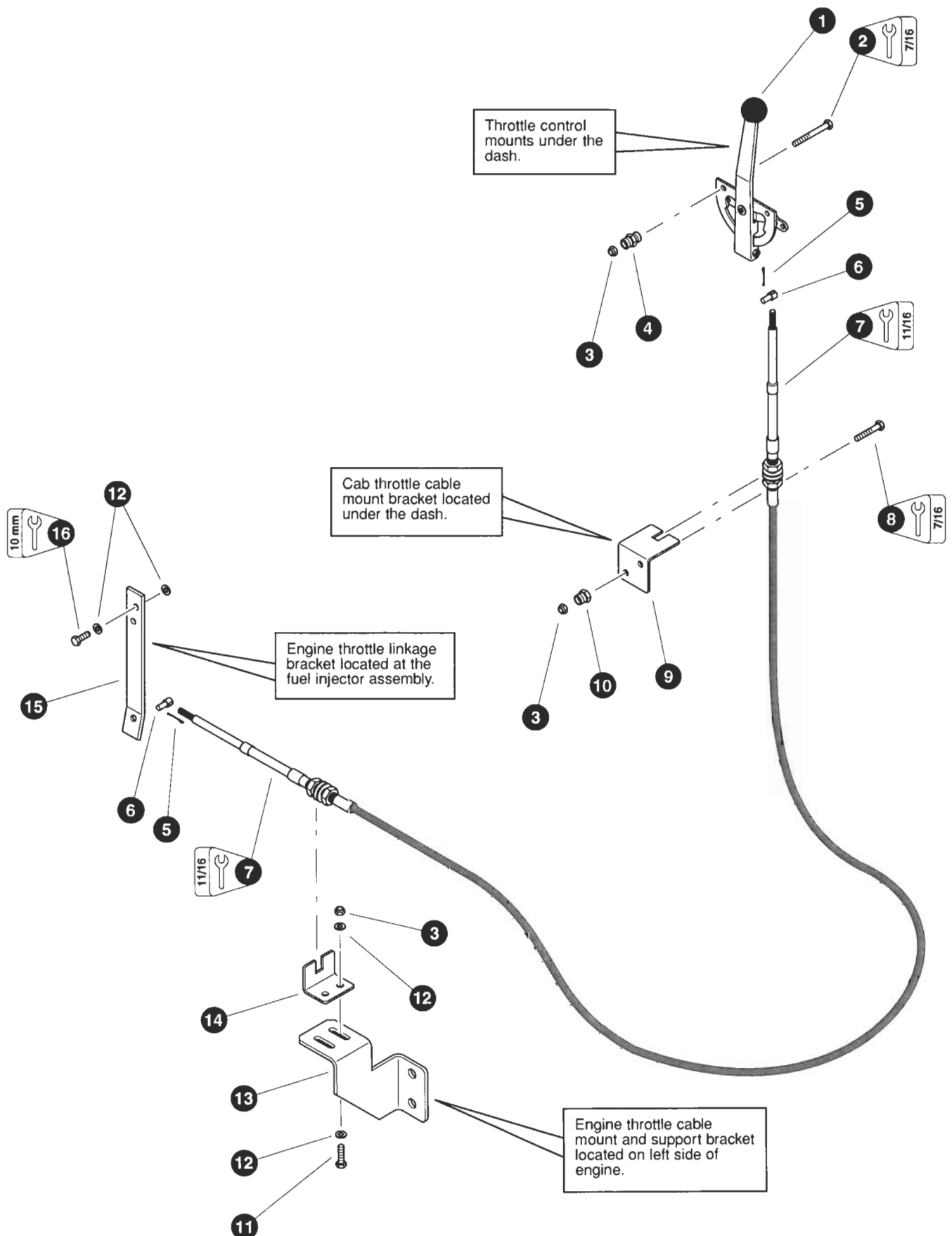
FUEL LINES

(Supply & Return To Engine)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	ENGINE - Cummins 6BTA5.9-C	F.3.2
2	16202	2		CLAMP, hose - worm style - 5/8"	
3	16238	AR	⌘	HOSE, fuel line - 5/16"	
4	10760	1		CONNECTOR, hose	
5	20423	1		BRACKET, fuel return junction	
6	16295	2		CONNECTOR, straight - FF2031T-0604S	
7	20425	1		HOSE ASSEMBLY - 2120-06-060S-060S (<i>Fuel return from fuel injectors on engine to tank</i>)	
8	20424	1		HOSE ASSEMBLY - 2120-06-060S-0609 (<i>Fuel supply from tank to fuel lift pump on engine</i>)	
9	17572	AR	⌘	SLEEVE, protective hose - 2-1/4"	
10	18481	2		ELBOW, 90° - FF2032T-0606S	
11	REF.	1	✓	FUEL TANK	F.1.1

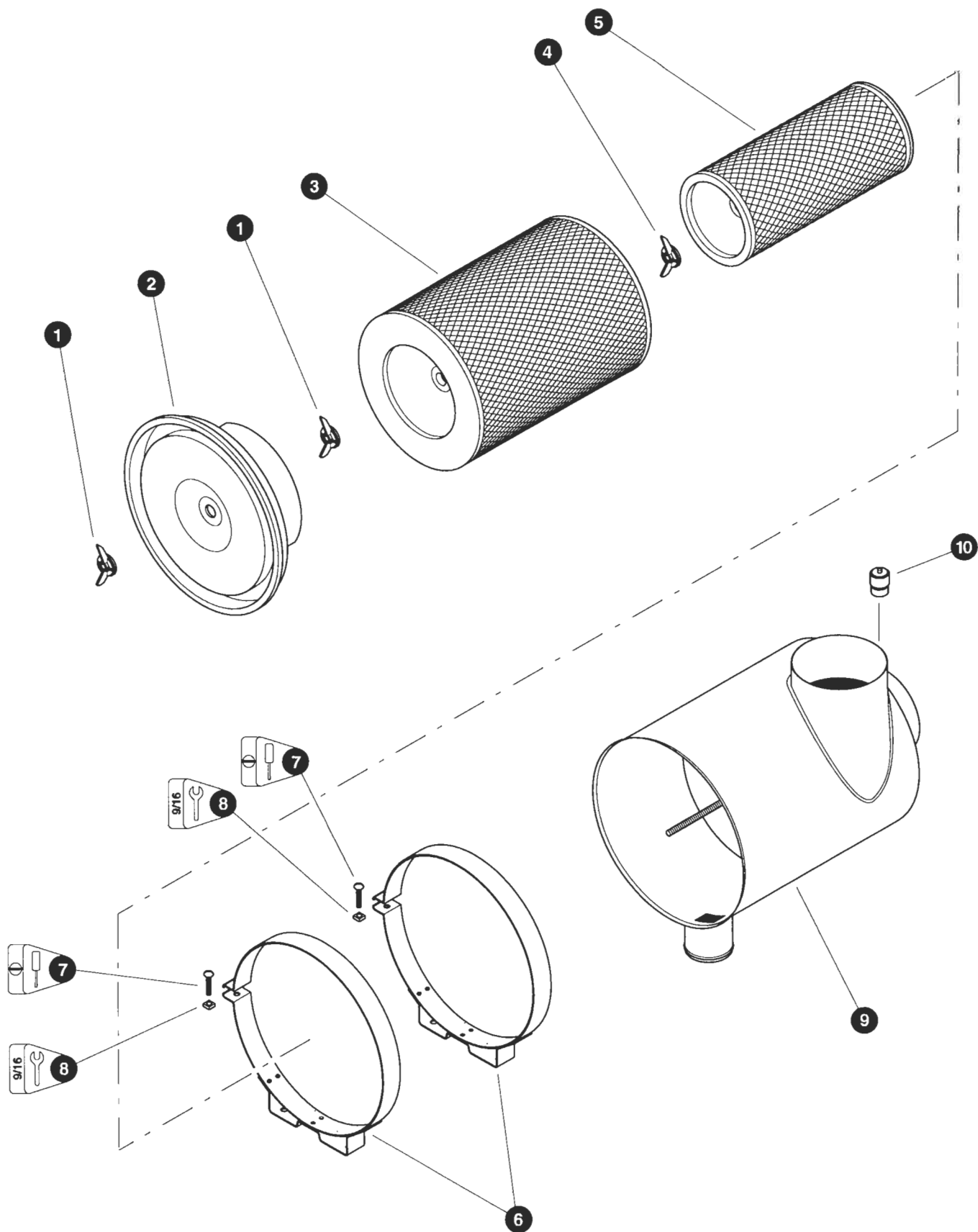
✓ See referenced page for component or assembly breakdown.

⌘ Bulk material - order length required in feet or metres.



THROTTLE CONTROL

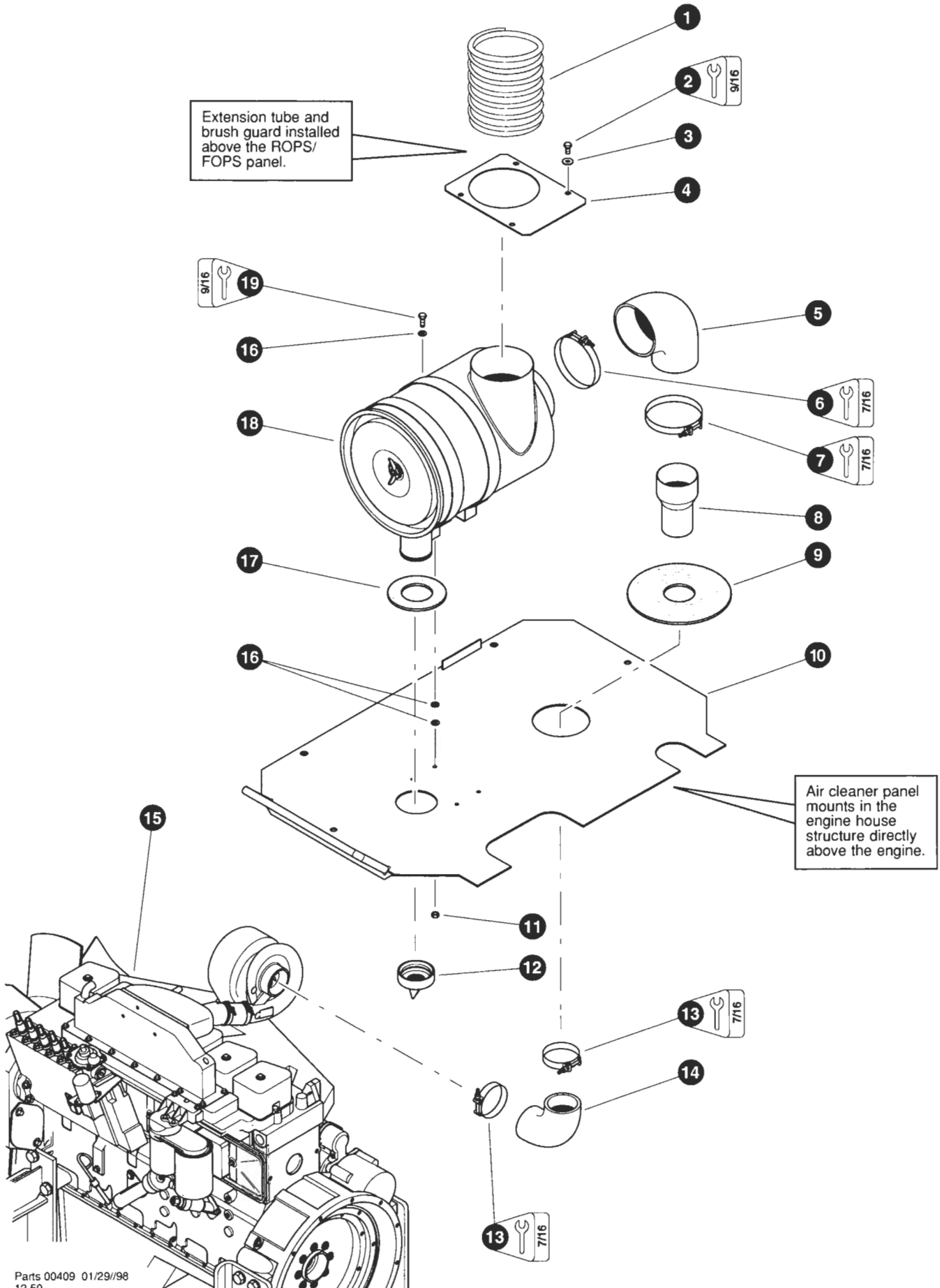
REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	15566	1	CONTROL, throttle	
2	15568	2	BOLT - 1/4" x 2-1/4"	
3	15509	6	NUT, lock - 1/4"	
4	15567	2	CONNECTOR, straight - 5404-4 (<i>Used as spacer</i>)	
5	15572	2	PIN, cotter	
6	15573	2	PIN, pivot throttle cable end	
7	15571	1	CABLE, throttle	
8	15575	2	BOLT - 1/4" x 1-1/2"	
9	12218	1	BRACKET, throttle cable mount - cab	
10	15574	2	BUSHING, reducer - 5406-4-2 (<i>Used as spacer</i>)	
11	15576	2	BOLT - 1/4" x 1"	
12	10757	8	WASHER, SAE flat - 1/4"	
13	19164	1	BRACKET, throttle cable support	
14	19382	1	BRACKET, throttle cable mount - engine	
15	12502	1	BRACKET, throttle cable linkage	
16	16133	2	BOLT - 6mm-1.0P x 16mm	



AIR CLEANER ASSEMBLY

REF	PART #	QTY		DESCRIPTION	SEE PAGE
-	15825	1	☐	AIR CLEANER ASSEMBLY	
1	15827	2		NUT, wing - air cleaner - primary	
2	15830	1		COVER, air cleaner	
3	15809	1		FILTER, air cleaner - primary	
4	15828	1		NUT, wing - air cleaner - secondary	
5	15810	1		FILTER, air cleaner - secondary	
6	15829	2	☐	CLAMP, air cleaner band	
7	15591	1		BOLT - 5/16" x 1-1/2"	
8	10788	1		NUT, nylock - 5/16"	
9	15826	1		CANISTER, air cleaner	
10	16114	1		INDICATOR, air cleaner filter service	

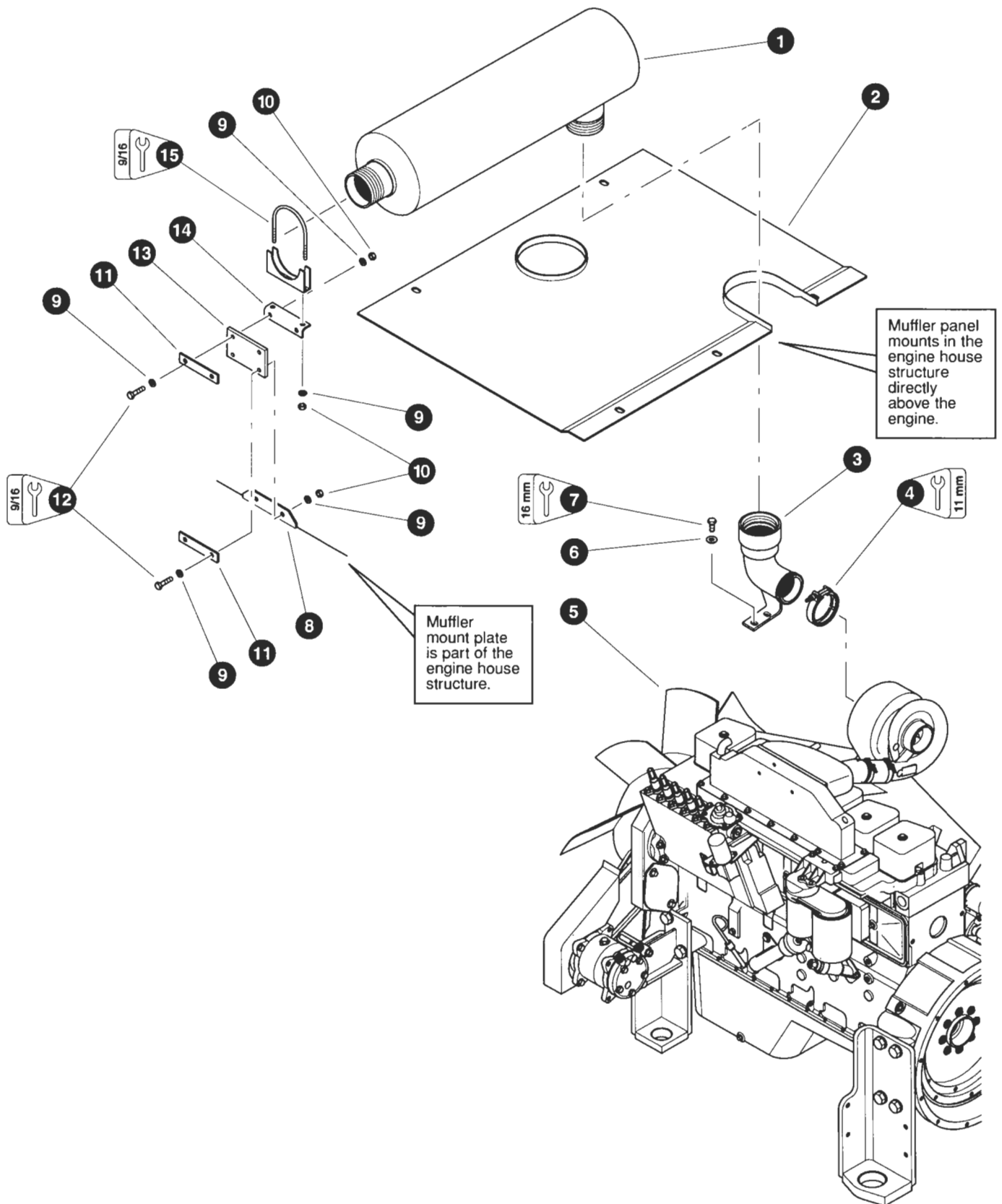
☐ Kit or Assembly - includes all items indented underneath.



AIR CLEANER INSTALLATION

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	17825	1	TUBE, air cleaner extension	
2	15542	4	BOLT - 3/8 x 3/4"	
3	10802	4	WASHER, USS flat - 3/8"	
4	18832	1	GUARD, air cleaner brush	
5	15831	1	ELBOW, 90° rubber	
6	16249	1	CLAMP, strap band - 5-1/2"	
7	15697	1	CLAMP, strap band - 4-1/2"	
8	16523	1	CONNECTOR, air intake	
9	15596	1	BOOT, rubber air intake	
10	REF.	1	✓ AIR CLEANER PANEL	H.1.14
11	10813	4	NUT, lock - 3/8"	
12	16608	1	BOOT, air cleaner dust	
13	15613	1	CLAMP, strap band - 3-1/2"	
14	16371	1	ELBOW, 90° rubber	
15	REF.	1	✓ ENGINE - Cummins 6BTA5.9-C	F.3.2
16	15528	8	WASHER, SAE flat - 3/8"	
17	16495	1	BOOT, rubber	
18	REF.	1	✓ AIR CLEANER ASSEMBLY	F.3.18
19	11707	4	BOLT - 3/8" x 1"	

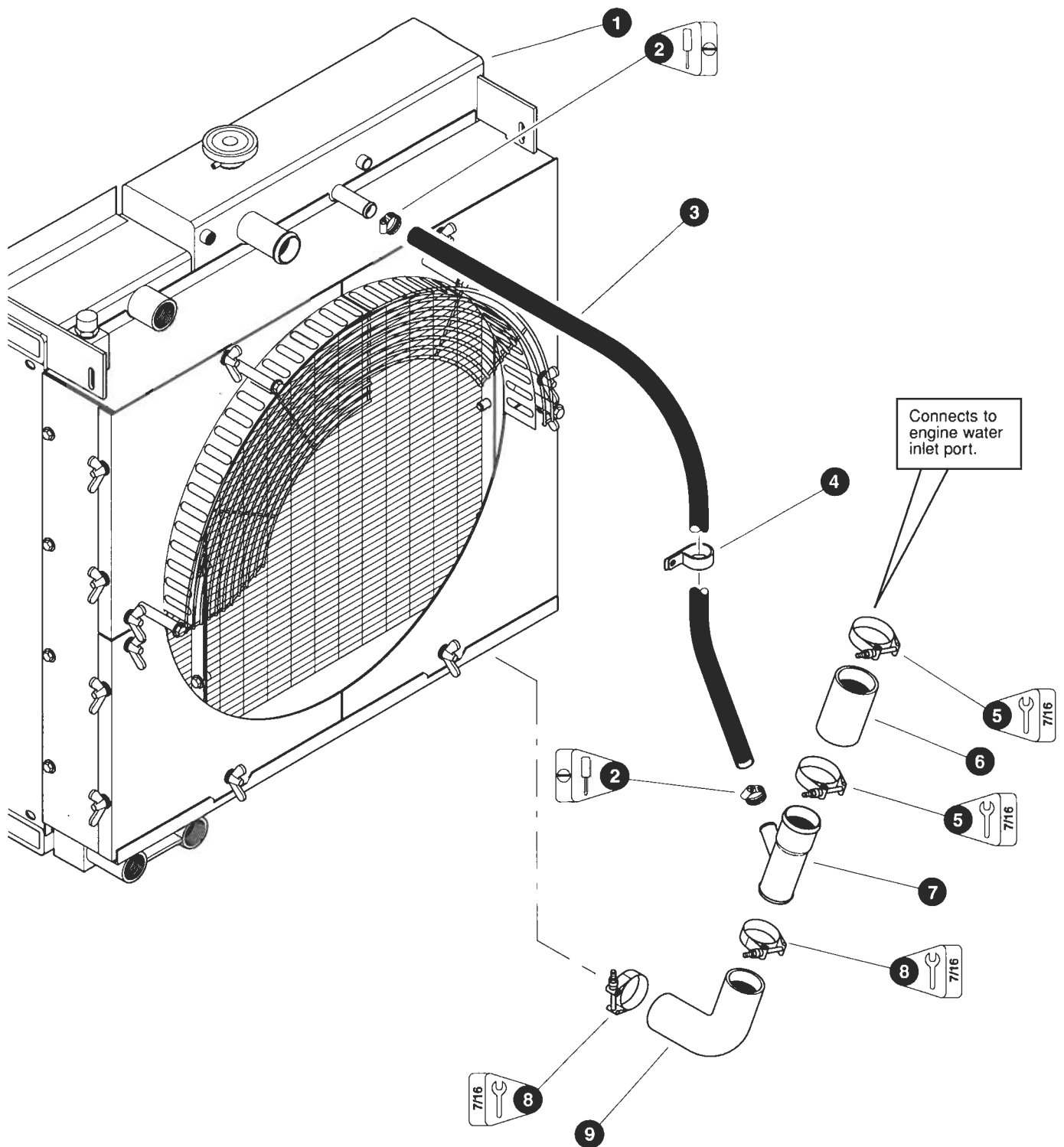
✓ See referenced page for component or assembly breakdown.



MUFFLER INSTALLATION

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	17202	1		MUFFLER	
2	REF.	1	✓	MUFFLER PANEL	H.1.14
3	19216	1		ELBOW, exhaust	
4	15850	1		CLAMP, turbo exhaust	
5	REF.	1	✓	ENGINE - Cummins 6BTA5.9-C	F.3.2
6	10802	2		WASHER, USS flat - 3/8"	
7	18416	2		BOLT - 10mm x 25mm	
8	12186	1		PLATE, muffler mount	
9	15528	10		WASHER, SAE flat - 3/8"	
10	10813	6		NUT, lock - 3/8"	
11	16734	2		RETAINER, muffler rubber	
12	10731	4		BOLT - 3/8" x 1-1/2"	
13	16572	1		RUBBER, muffler mounting	
14	19184	1		BRACKET, top muffler	
15	16279	1		CLAMP, muffler mount - 3-1/2"	

✓ See referenced page for component or assembly breakdown.

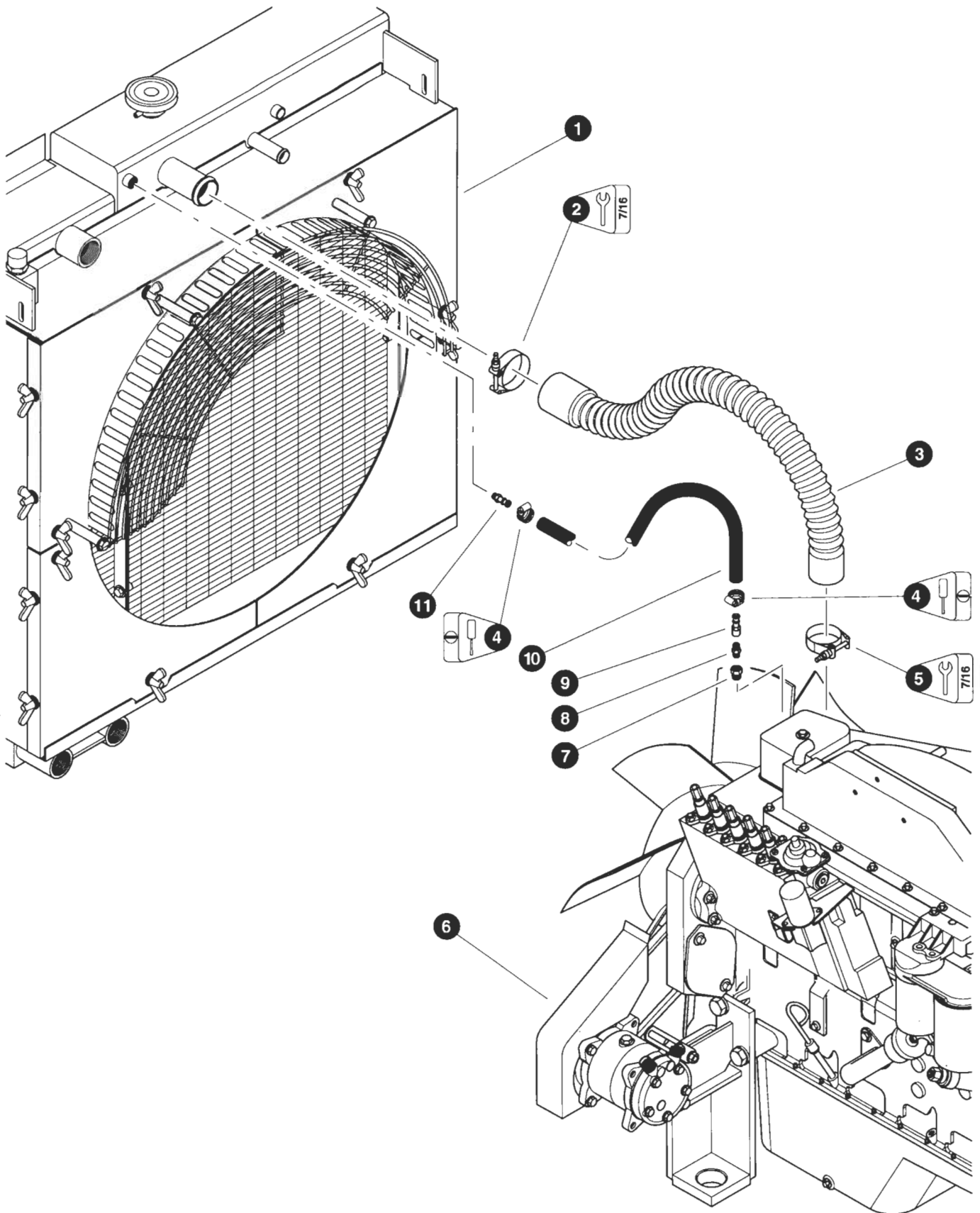


COOLING SYSTEM LINES

(Lower Radiator Connections)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	RADIATOR/OIL COOLER ASSEMBLY	F.2.2
2	15629	2		CLAMP, hose - worm style - 1-1/2"	
3	15677	AR	☞	HOSE, heater - 1"	
4	17257	1		CLAMP, hose - coated strap - 1-1/2"	
5	18104	2		CLAMP, constant torque - #36	
6	15620	AR	☞	HOSE, radiator - 2-1/4"	
7	17766	1		TUBE, radiator splice	
8	18651	2		CLAMP, constant torque - #32	
9	17761	1		HOSE, 90° radiator - 2"	

- ✓ See referenced page for component or assembly breakdown.
 ☞ Bulk material - order length required in feet or metres.



COOLING SYSTEM LINES (Upper Radiator Connections)

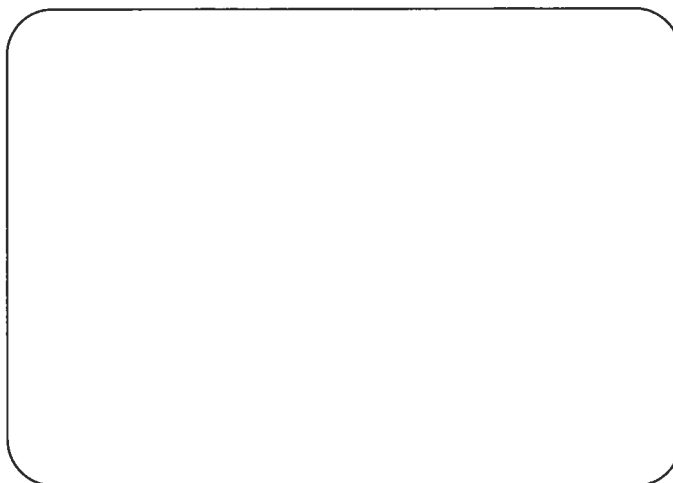
REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	RADIATOR/OIL COOLER ASSEMBLY	F.2.2
2	18104	1		CLAMP, constant torque - #36	
3	15615	3		HOSE, flex radiator - 1-3/4" x 2" x 23-1/2"	
4	16202	2		CLAMP, hose - worm style - 5/8"	
5	18651	1		CLAMP, constant torque - #32	
6	REF.	1	✓	ENGINE - Cummins 6BTA5.9-C	F.3.2
7	16795	1		BUSHING, reducer - 3220-8-2	
8	16976	1		CONNECTOR, straight - coolant orifice	
9	16989	1		CONNECTOR, straight hose barb - 4245-5-2	
10	16238	AR	✂	HOSE, fuel line - 5/16"	
11	16990	1		CONNECTOR, straight hose barb - 4244-5-4	

✓ See referenced page for component or assembly breakdown.

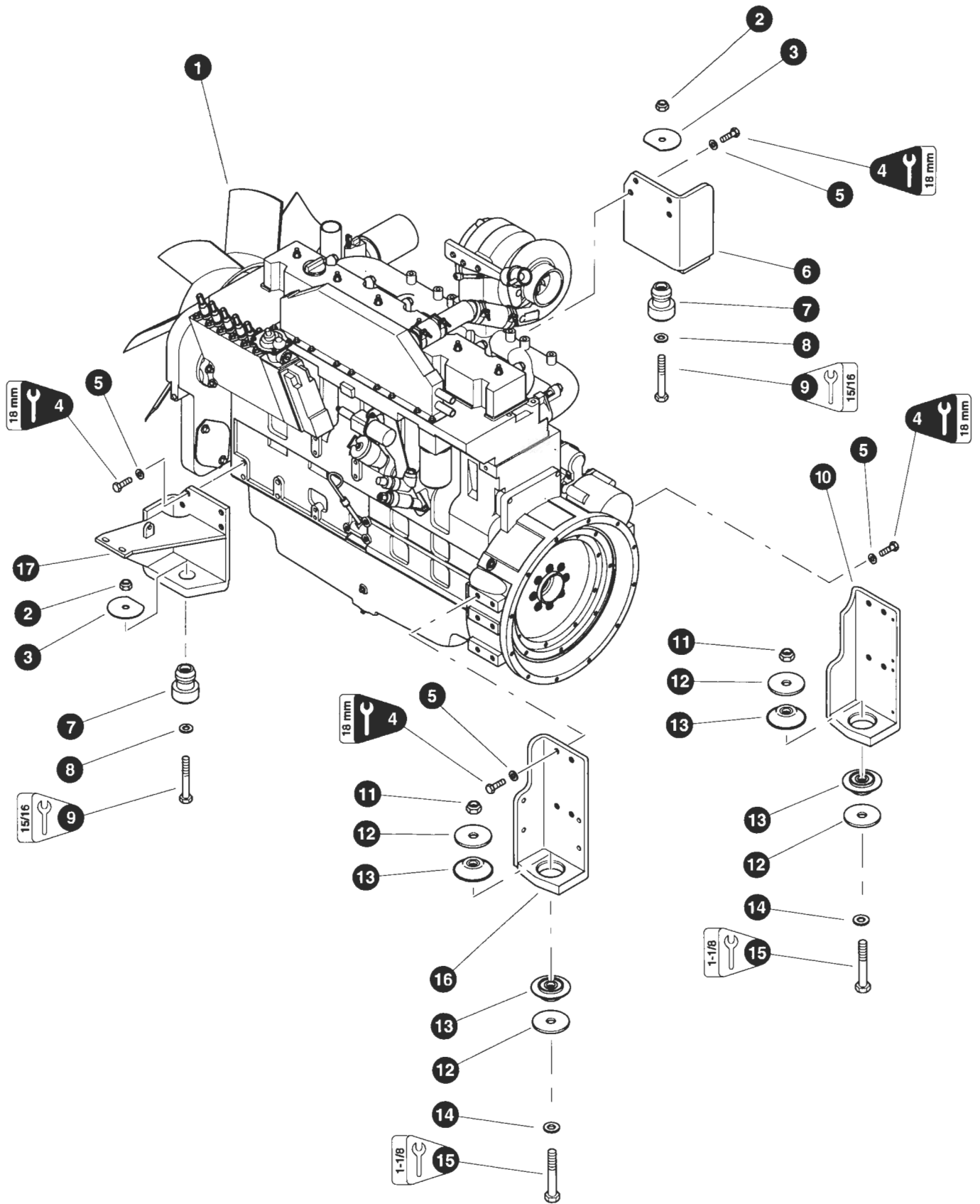
✂ Bulk material - order length required in feet or metres.

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Section F.4

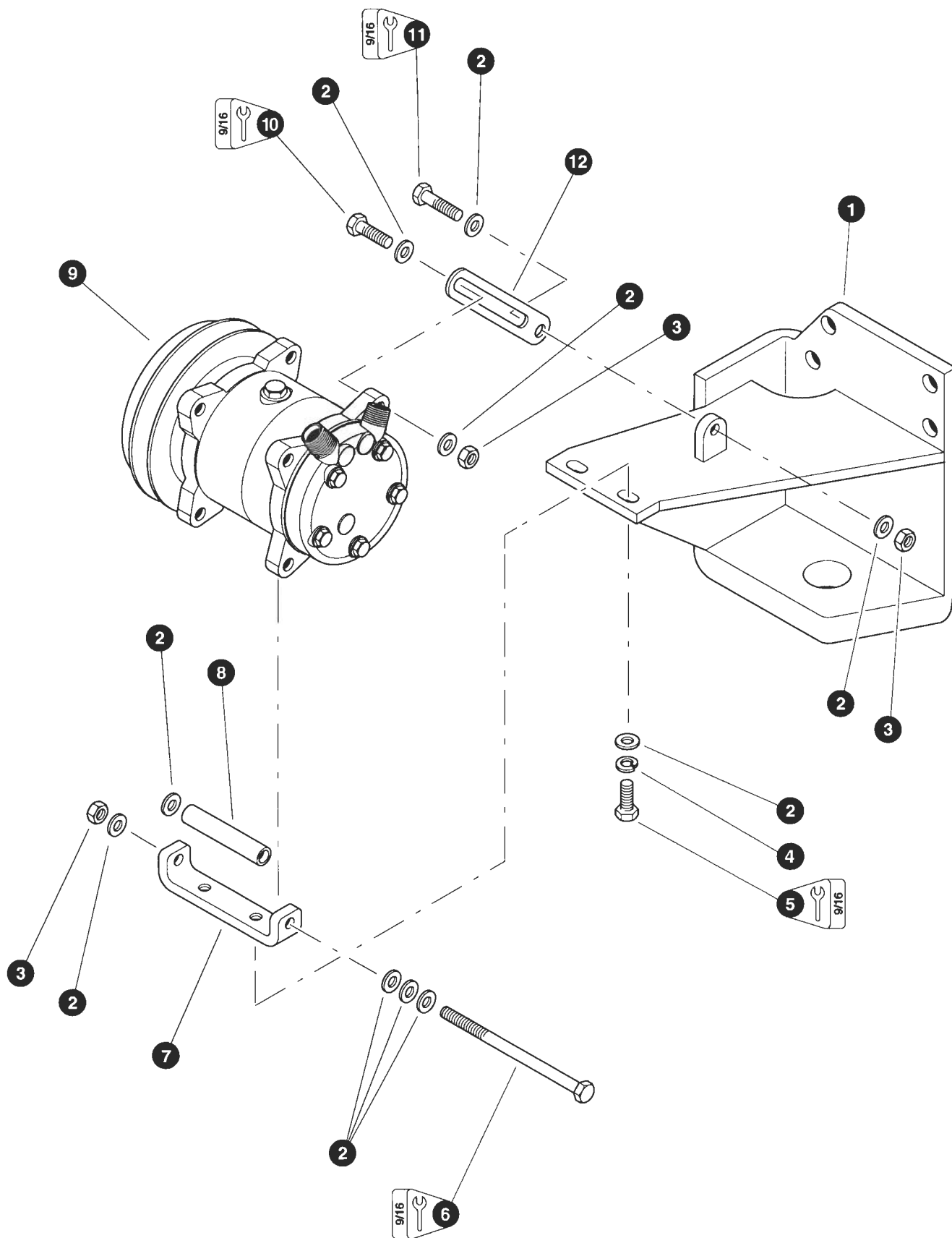


Engine Installation - Cummins 6C8.3-C 260HP (Optional)



ENGINE INSTALLATION

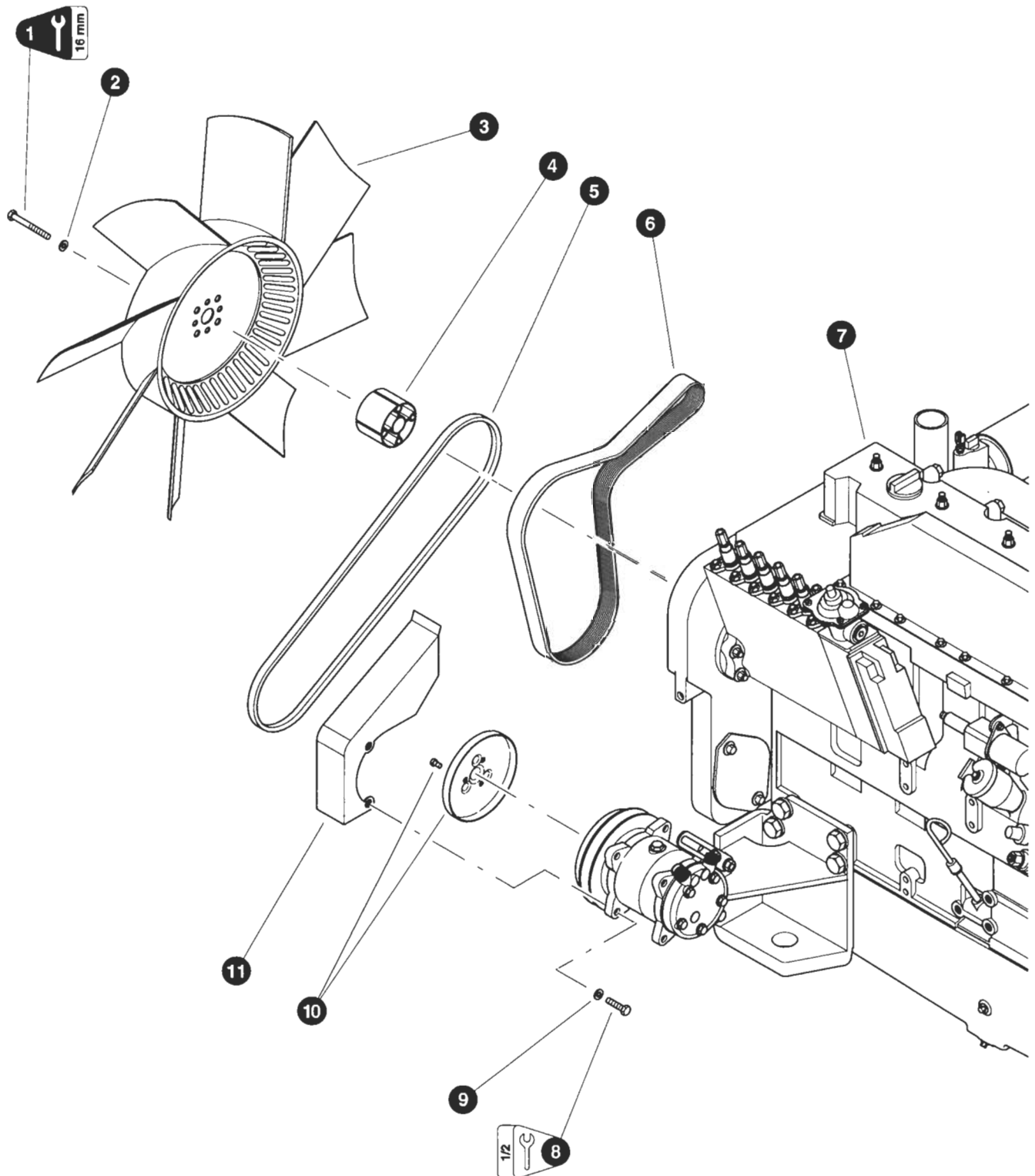
REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	19051	1	ENGINE, Cummins C SERIES 6 cylinder/8.3 litre	
2	10816	2	NUT, lock - 5/8"	
3	15524	2	WASHER, isolator mount - 5/8" x 3-1/2"	
4	15551	16	BOLT - 12mm-1.75P x 40mm (Torque to 92 ft.lbs. (122 Nm))	
5	18735	16	WASHER, flat -12mm	
6	19760	1	MOUNT, engine - RH front	
7	15525	2	ISOLATOR, engine mount	
8	10771	2	WASHER, SAE flat - 5/8"	
9	10723	2	BOLT - 5/8" x 4-1/2"	
10	19762	1	MOUNT, engine - RH rear	
11	10817	2	NUT, lock - 3/4"	
12	17918	4	WASHER, isolator mount - 7/8" x 3-1/2"	
13	17904	4	ISOLATOR, engine mount - rear	
14	15550	2	WASHER, SAE flat - 3/4"	
15	10844	2	BOLT - 3/4" x 5"	
16	19761	1	MOUNT, engine - LH rear	
17	19759	1	MOUNT, engine - LH front	



AIR CONDITIONER COMPRESSOR INSTALLATION

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	ENGINE MOUNT - LH front	F.4.2
2	15528	11		WASHER, SAE flat - 3/8"	
3	10813	3		NUT, lock - 3/8"	
4	10701	2		WASHER, lock - 3/8"	
5	11707	1		BOLT - 3/8" x 1"	
6	10830	1		BOLT - 3/8" x 6"	
7	12437	1		BRACKET, compressor mounting	
8	16517	1		SPACER, compressor mounting	
9	18092	1		COMPRESSOR, air conditioner	
10	10402	1		BOLT - 3/8" x 1-1/4"	
11	10731	1		BOLT - 3/8" x 1-1/2"	
12	12139	1		BRACKET, compressor adjustment	

✓ See referenced page for component or assembly breakdown.



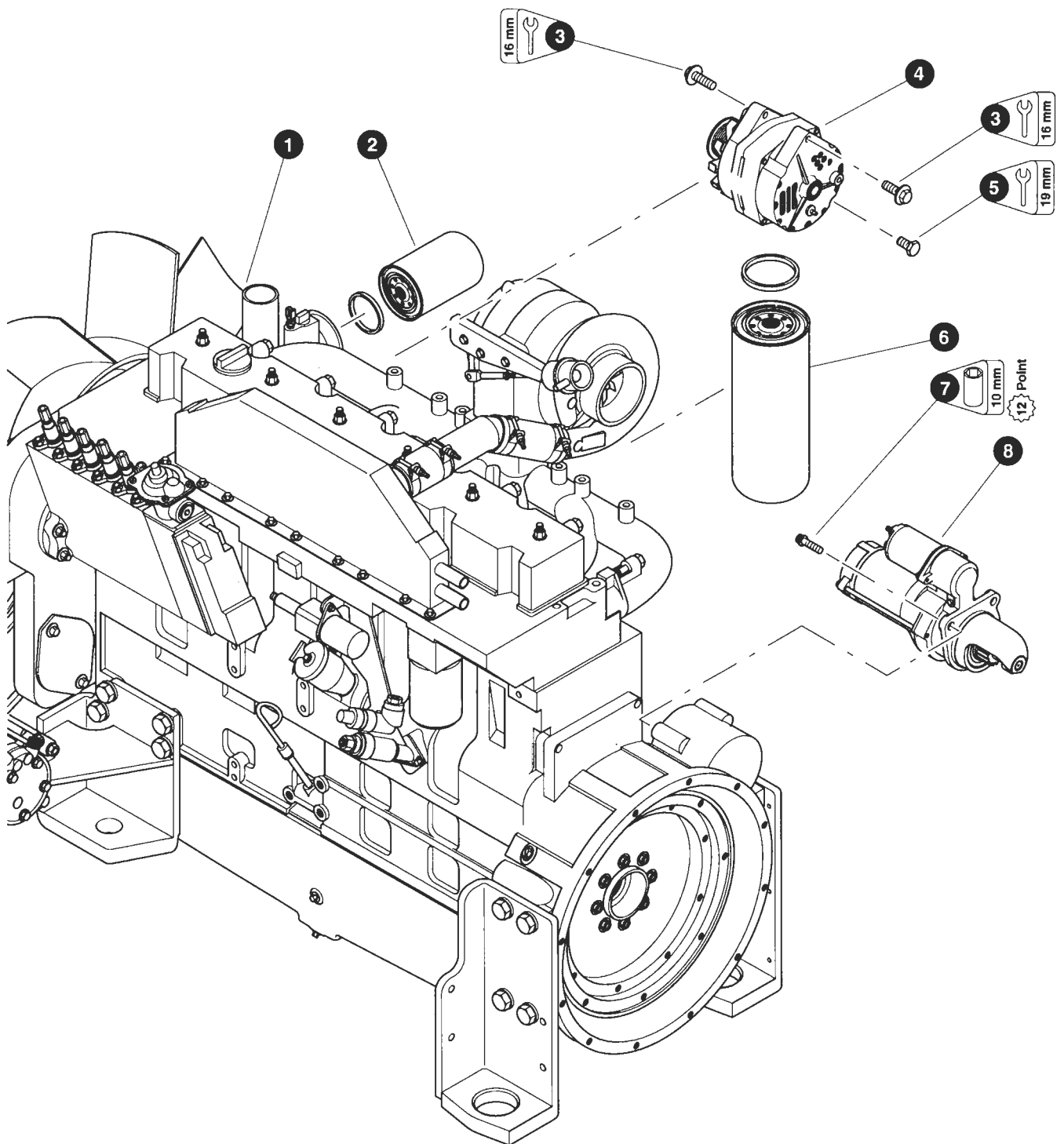
ENGINE FAN & BELTS

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	18417	4	BOLT - 10mm x 75mm (See note below)(Used with high pitch sucker fan)(Torque to 42 ft.lbs. (56 Nm))	
	18421	4	BOLT - 10mm x 60mm (See note below) (Used with blower fan)(Torque to 542 ft.lbs. (56 Nm))	
2	15528	4	WASHER, SAE flat - 3/8"	
3	18761	1	FAN, engine - high pitch sucker	
	15801	1	FAN, engine - blower	
4	18395	1	SPACER, engine fan (Used with high pitch sucker fan)	
	16548	1	SPACER, engine fan (Used with blower fan)	
5	16099	1	BELT, A/C compressor drive	
6	16071	1	BELT, engine fan	
7	REF.	1	✓ ENGINE - Cummins 6C8.3-C	F.4.2
8	10822	2	BOLT - 5/16" x 1-1/4"	
9	15559	2	WASHER, SAE flat - 5/16"	
10	16796	1	COVER, A/C compressor dust	
11	17891	1	GUARD, A/C compressor belt	

✓ See referenced page for component or assembly breakdown.

Note:

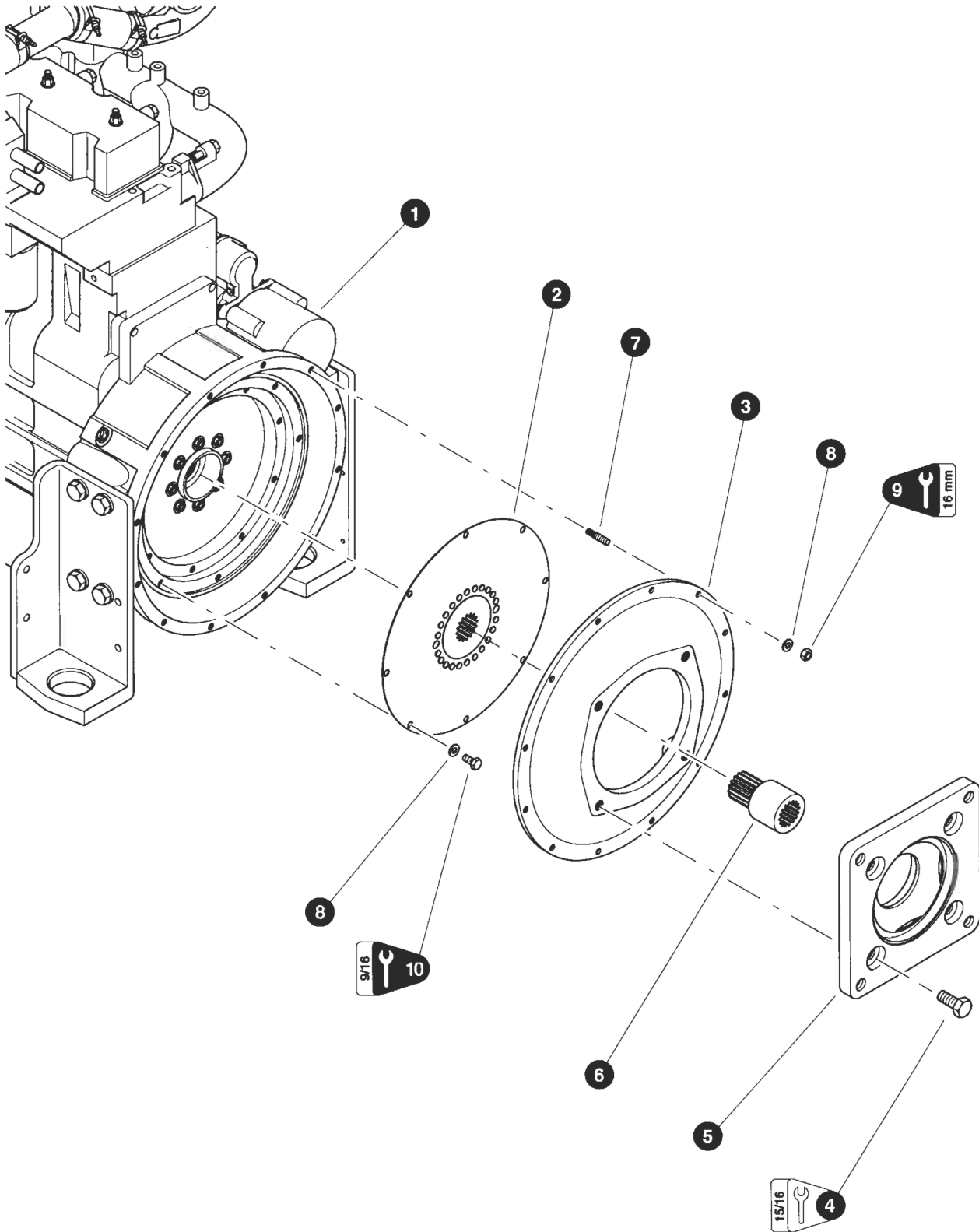
Use Loctite 272 (*blue*) during installation.



ALTERNATOR, STARTER & MISC. COMPONENTS

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	ENGINE - Cummins 6C8.3-C	F.4.2
2	--	1		FILTER, coolant (<i>w/corrosion resistor additive</i>)	
3	--	2		BOLT, flange head - 12mm x 40mm	
4	16389	1		ALTERNATOR - 12V / 130 AMP	
5	--	1		BOLT, flange head - 10mm x 25mm	
6	15813	1		FILTER, engine oil	
7	--	3		BOLT, 12 point cap - 10mm x 35 mm	
8	15805	1		STARTER - 12V	

✓ See referenced page for component or assembly breakdown.



SINGLE PUMP TRANSMISSION INSTALLATION

(Used With Rexroth AA4VG180 Pump)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	ENGINE - Cummins 6C8.3-C	F.4.2
-	19776	1	□	TRANSMISSION, single pump drive	
2	16258	1		DRIVE PLATE	
3	NSS	1		HOUSING	
4	20447	4		BOLT, adapter mounting	
5	20446	1		ADAPTER, pump drive - SAE "E"	
6	20419	1		SHAFT, drive	
7	15531	12		STUD, threaded - 10mm x 45mm (See note #1 below)	
8	15528	20		WASHER, SAE flat - 3/8"	
9	15530	12		NUT, hex - 3/8" (See note #2 below)	
				(Torque to 40 ft.lbs. (53 Nm))	
10	15542	8		BOLT - 3/8" x 3/4" (See note #1 below)	
				(Torque to 40 ft.lbs. (53 Nm))	

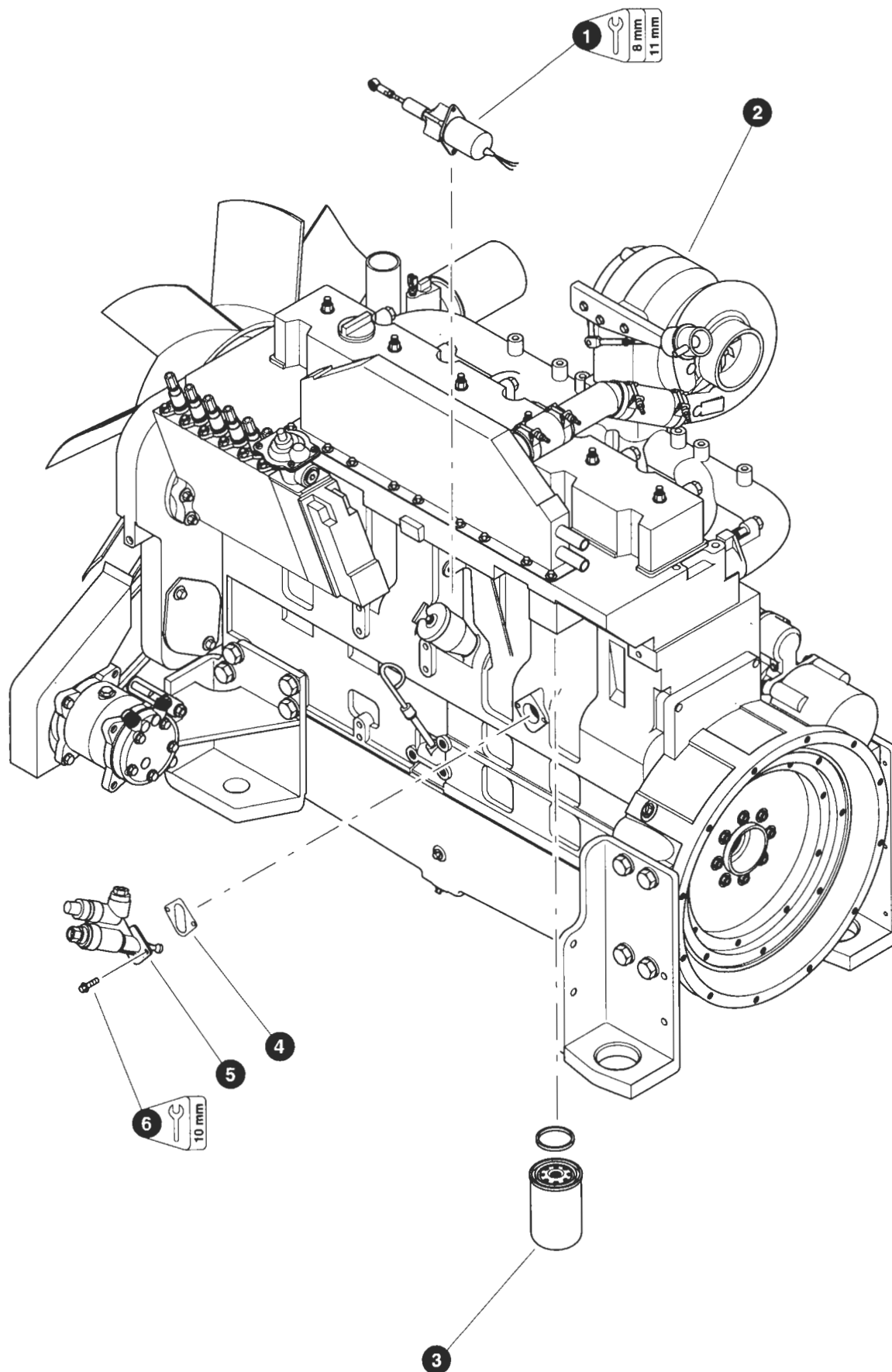
- ✓ See referenced page for component or assembly breakdown.
 □ Kit or Assembly - includes all items indented underneath.

Note #1:

Use Loctite 271 (*red*) during installation.

Note #2:

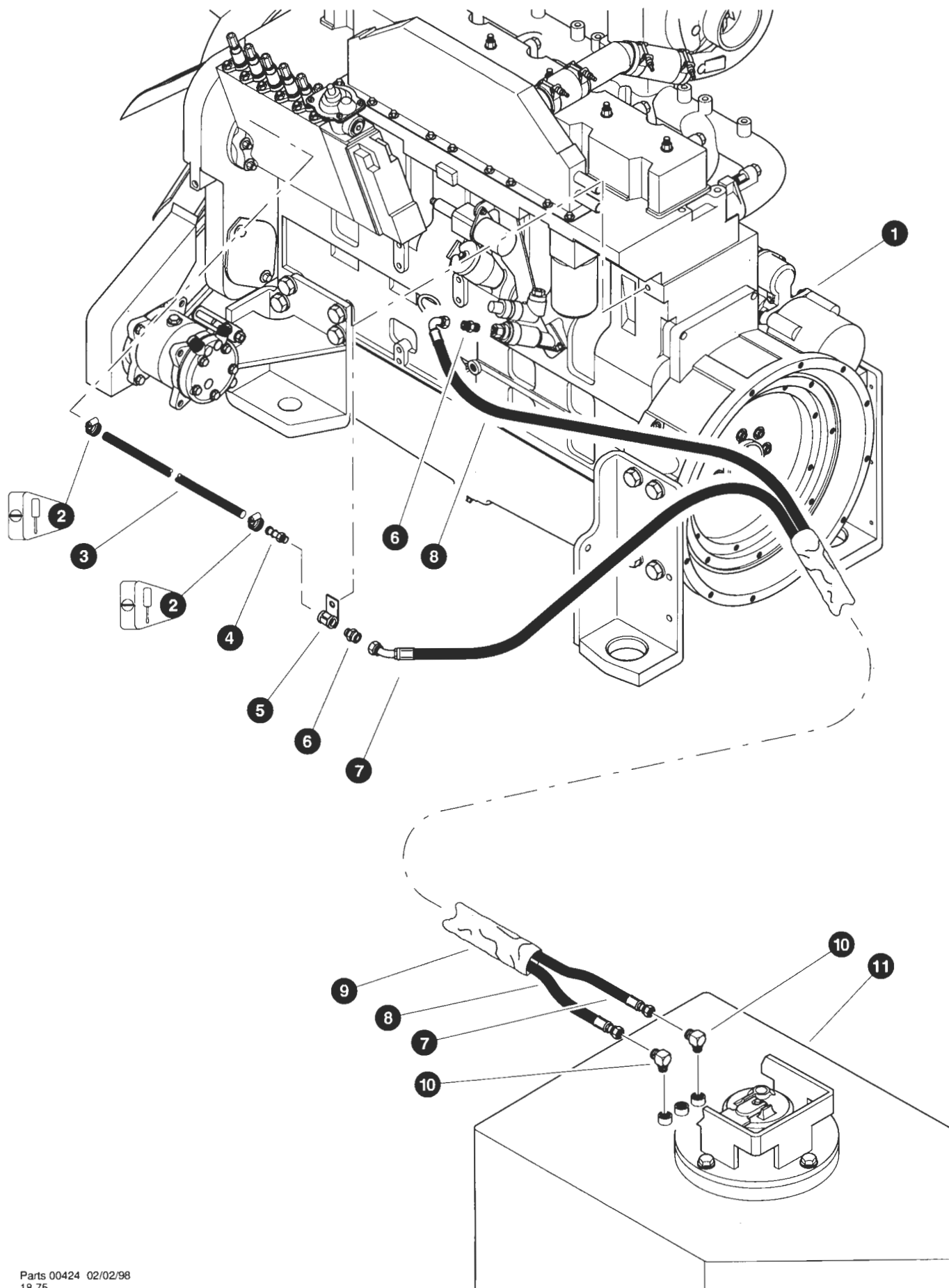
Use Loctite 272 (*blue*) during installation.



FUEL SYSTEM COMPONENTS ON ENGINE

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	18132	1		SOLENOID, fuel shut-off	
2	REF.	1	✓	ENGINE - Cummins 6C8.3-C	F.4.2
3	19186	1		FILTER, fuel	
4	16834	1		GASKET, fuel lift pump	
5	16069	1		PUMP, fuel lift	
6	--	2		BOLT, flange head - 8mm x 25mm	

✓ See referenced page for component or assembly breakdown.



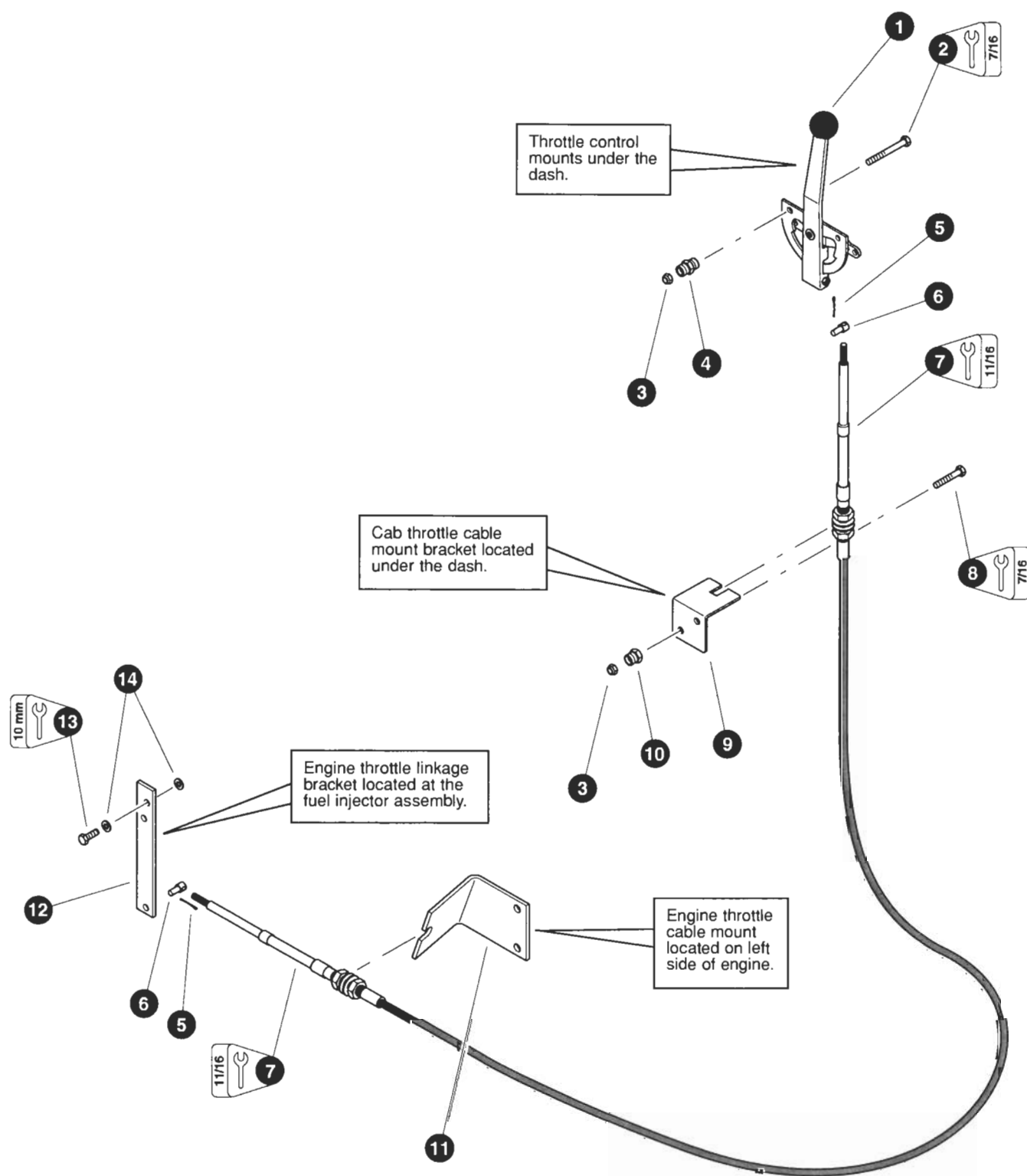
FUEL LINES

(Supply & Return To Engine)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	ENGINE - Cummins 6C8.3-C	F.4.2
2	16202	2		CLAMP, hose - worm style - 5/8"	
3	16238	AR	⌘	HOSE, fuel line - 5/16"	
4	10760	1		CONNECTOR, hose	
5	20423	1		BRACKET, fuel return junction	
6	16295	2		CONNECTOR, straight - FF2031T-0604S	
7	20426	1		HOSE ASSEMBLY - 2115-06-060S-0604 <i>(Fuel return from fuel injectors on engine to tank)</i>	
8	20424	1		HOSE ASSEMBLY - 2120-06-060S-0609 <i>(Fuel supply from tank to fuel lift pump on engine)</i>	
9	17572	AR	⌘	SLEEVE, protective hose - 2-1/4"	
10	18481	2		ELBOW, 90° - FF2032T-0606S	
11	REF.	1	✓	FUEL TANK	F.1.2

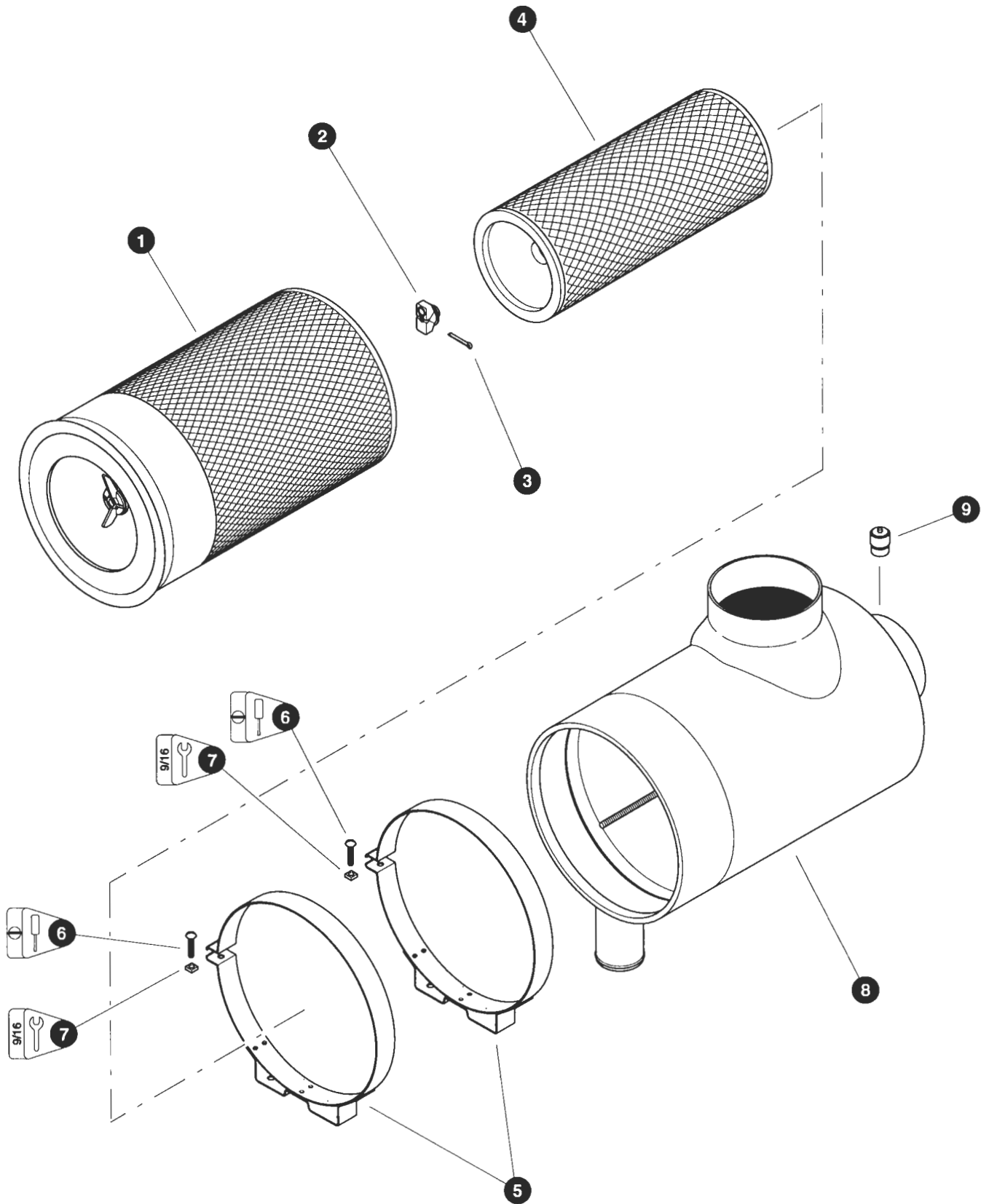
✓ See referenced page for component or assembly breakdown.

⌘ Bulk material - order length required in feet or metres.



THROTTLE CONTROL

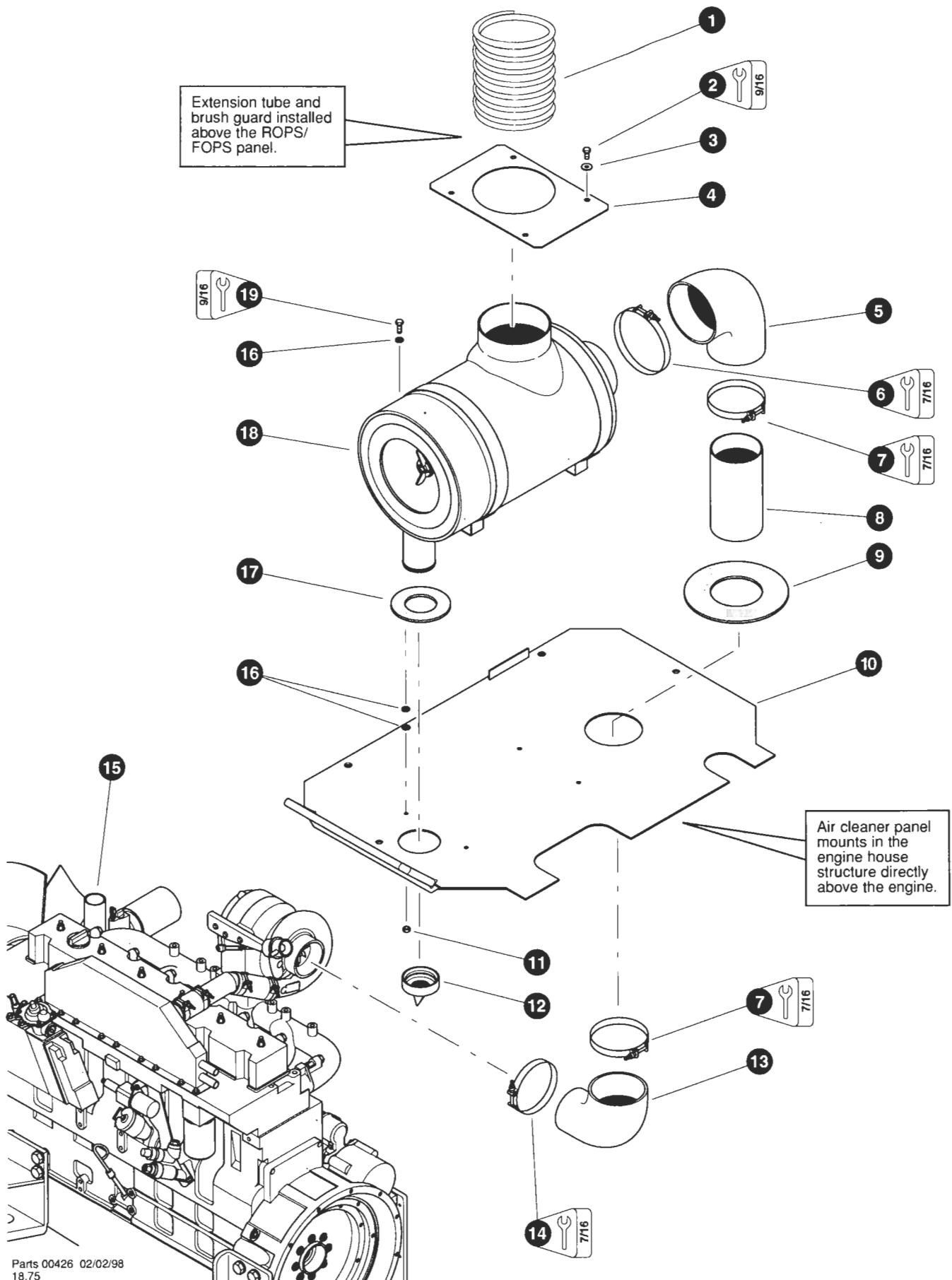
REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	15566	1	CONTROL, throttle	
2	15568	2	BOLT - 1/4" x 2-1/4"	
3	15509	6	NUT, lock - 1/4"	
4	15567	2	CONNECTOR, straight - 5404-4 (<i>Used as spacer</i>)	
5	15572	2	PIN, cotter	
6	15573	2	PIN, pivot throttle cable end	
7	15571	1	CABLE, throttle	
8	15575	2	BOLT - 1/4" x 1-1/2"	
9	12218	1	BRACKET, throttle cable mount - cab	
10	15574	2	BUSHING, reducer - 5406-4-2 (<i>Used as spacer</i>)	
11	18845	1	BRACKET, throttle cable mount - engine (<i>Uses existing engine hardware</i>)	
12	18846	1	BRACKET, throttle cable linkage	
13	16133	2	BOLT - 6mm-1.0P x 16mm	
14	10757	2	WASHER, SAE flat - 1/4"	



AIR CLEANER ASSEMBLY

REF	PART #	QTY		DESCRIPTION	SEE PAGE
-	15825	1	☐	AIR CLEANER ASSEMBLY	
1	18820	1		FILTER, air cleaner - primary	
2	20448	1		NUT, air cleaner - secondary	
3	20449	1		PIN, roll - air cleaner nut	
4	18821	1		FILTER, air cleaner - secondary	
5	20450	2	☐	CLAMP, air cleaner band	
6	15591	1		BOLT - 5/16" x 1-1/2"	
7	10788	1		NUT, nylock - 5/16"	
8	20451	1		CANISTER, air cleaner	
9	16114	1		INDICATOR, air cleaner filter service	

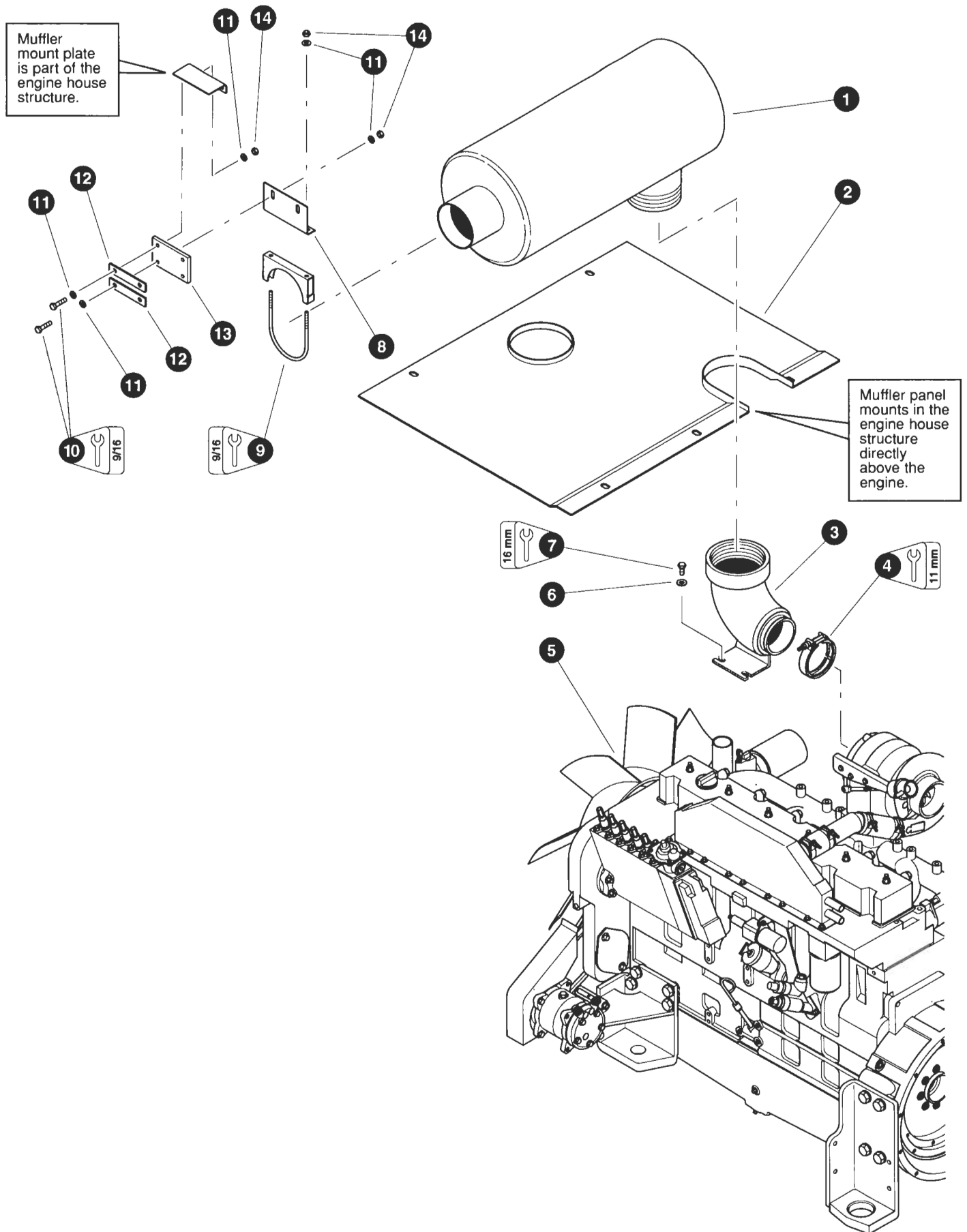
☐ Kit or Assembly - includes all items indented underneath.



AIR CLEANER INSTALLATION

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	18819	1	TUBE, air cleaner extension	
2	15542	4	BOLT - 3/8 x 3/4"	
3	10802	4	WASHER, USS flat - 3/8"	
4	18818	1	GUARD, air cleaner brush	
5	18910	1	ELBOW, 90° rubber (<i>ribbed</i>)	
6	18828	1	CLAMP, strap band - 6-3/4"	
7	16249	2	CLAMP, strap band - 5-1/2"	
8	18816	1	CONNECTOR, air intake	
9	19163	1	BOOT, rubber air intake	
10	REF.	1	✓ AIR CLEANER PANEL	H.1.14
11	10813	4	NUT, lock - 3/8"	
12	16608	1	BOOT, air cleaner dust	
13	15831	1	ELBOW, 90° rubber	
14	15697	1	CLAMP, strap band - 4-1/2"	
15	REF.	1	✓ ENGINE - Cummins 6C8.3-C	F.4.2
16	15528	8	WASHER, SAE flat - 3/8"	
17	16495	1	BOOT, rubber	
18	REF.	1	✓ AIR CLEANER ASSEMBLY	F.4.18
19	11707	4	BOLT - 3/8" x 1"	

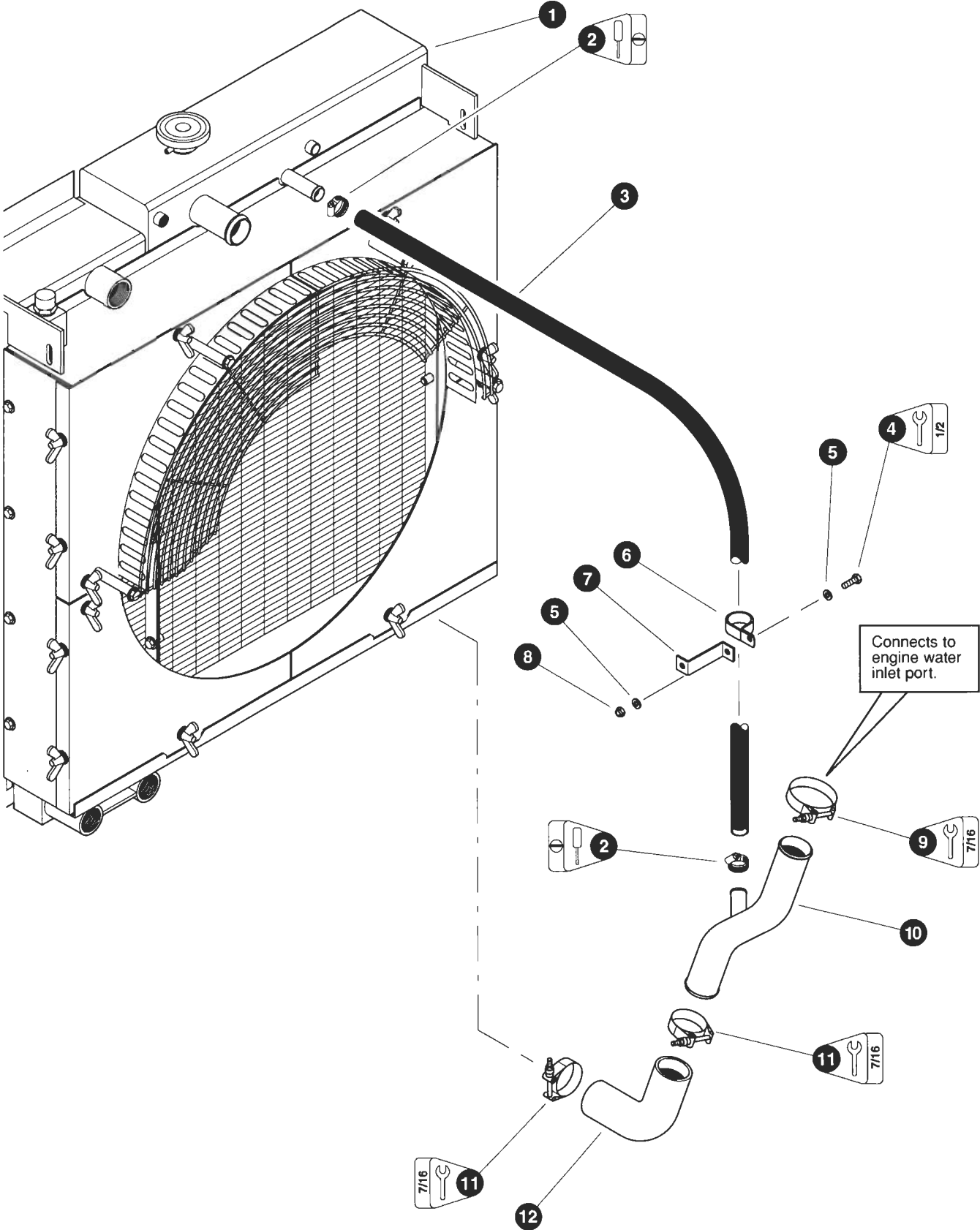
✓ See referenced page for component or assembly breakdown.



MUFFLER INSTALLATION

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	18822	1		MUFFLER	
2	REF.	1	✓	MUFFLER PANEL	H.1.14
3	18815	1		ELBOW, exhaust	
4	20452	1		CLAMP, turbo exhaust	
5	REF.	1	✓	ENGINE - Cummins 6C8.3-C	F.4.2
6	10802	2		WASHER, USS flat - 3/8"	
7	18416	2		BOLT - 10mm x 25mm	
8	18827	1		BRACKET, top muffler	
9	18830	1		CLAMP, muffler mount - 5"	
10	10731	4		BOLT - 3/8" x 1-1/2"	
11	15528	10		WASHER, SAE flat - 3/8"	
12	16734	2		RETAINER, muffler rubber	
13	16572	1		RUBBER, muffler mounting	
14	10813	6		NUT, lock - 3/8"	

✓ See referenced page for component or assembly breakdown.



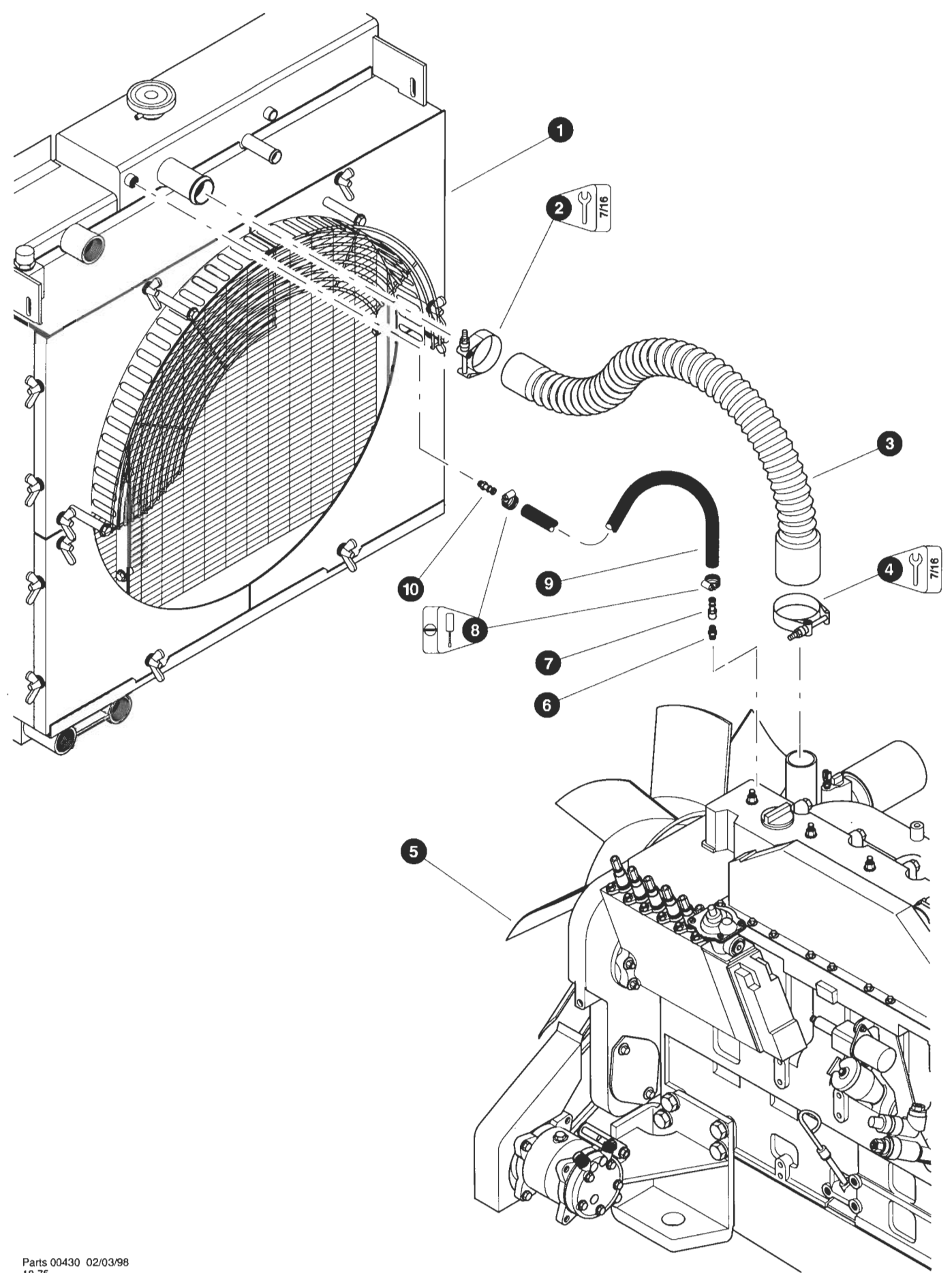
COOLING SYSTEM LINES

(Lower Radiator Connections)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	RADIATOR/OIL COOLER ASSEMBLY	F.2.2
2	15629	2		CLAMP, hose - worm style - 1-1/2"	
3	15677	AR	⌘	HOSE, heater - 1"	
4	15589	1		BOLT - 5/16" x 1"	
5	15559	2		WASHER, SAE flat - 5/16"	
6	17257	1		CLAMP, hose - coated strap - 1-1/2"	
7	16951	1		BRACKET, water hose support (<i>Uses existing engine mounting hardware</i>)	
8	10788	1		NUT, nylock - 5/16"	
9	18104	1		CLAMP, constant torque - #36	
10	17767	1		TUBE, radiator splice	
11	18651	2		CLAMP, constant torque - #32	
12	17761	1		HOSE, 90° radiator - 2"	

✓ See referenced page for component or assembly breakdown.

⌘ Bulk material - order length required in feet or metres.



COOLING SYSTEM LINES (Upper Radiator Connections)

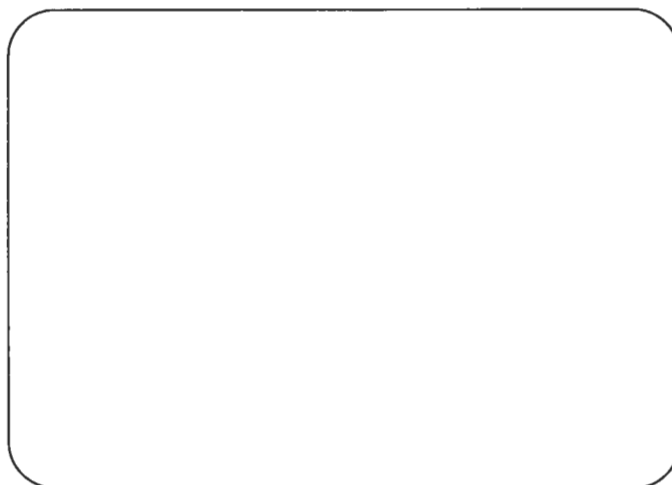
REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	RADIATOR/OIL COOLER ASSEMBLY	F.2.2
2	18651	1		CLAMP, constant torque - #32	
3	16433	1		HOSE, flex radiator - 2" x 2-1/4" x 25"	
4	18104	1		CLAMP, constant torque - #36	
5	REF.	1	✓	ENGINE - Cummins 6C8.3-C	F.4.2
6	16977	1		CONNECTOR, straight - coolant orifice	
7	16989	1		CONNECTOR, straight hose barb - 4245-5-2	
8	16202	2		CLAMP, hose - worm style - 5/8"	
9	16238	AR	⊗	HOSE, fuel line - 5/16"	
10	16990	1		CONNECTOR, straight hose barb - 4244-5-4	

- ✓ See referenced page for component or assembly breakdown.
 ⊗ Bulk material - order length required in feet or metres.

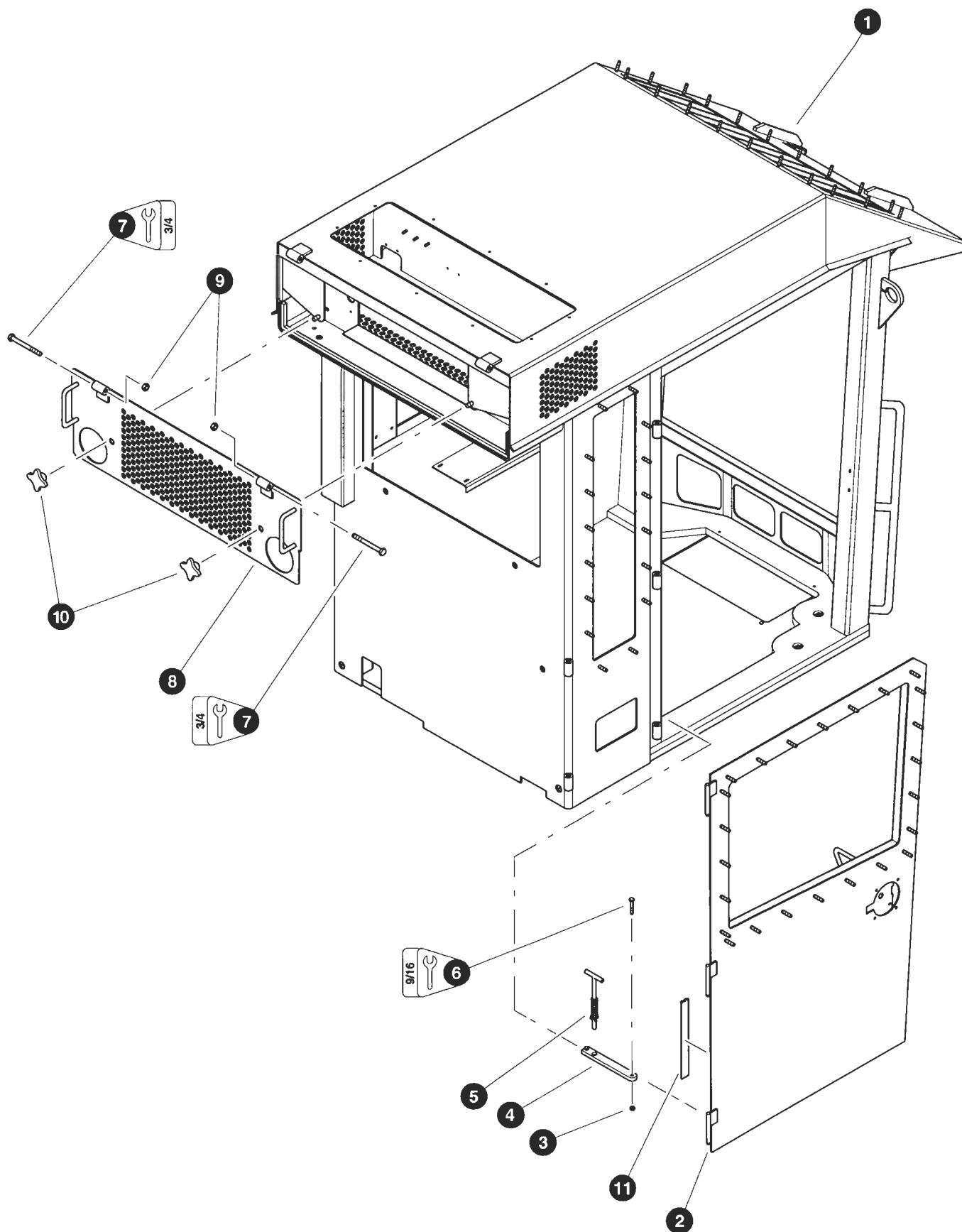
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Section G.1



Operator's Cab - Cab Weldment Installation



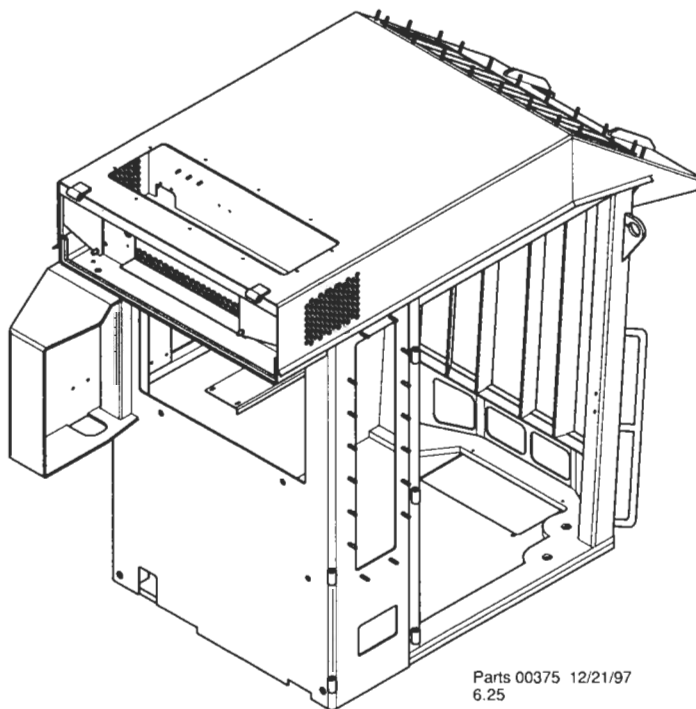
CAB WELDMENT ASSEMBLY

(Original Skylight Cab - Bolt-On A/C Access Cover)

(Used on machines PDN# 030FWD and below)

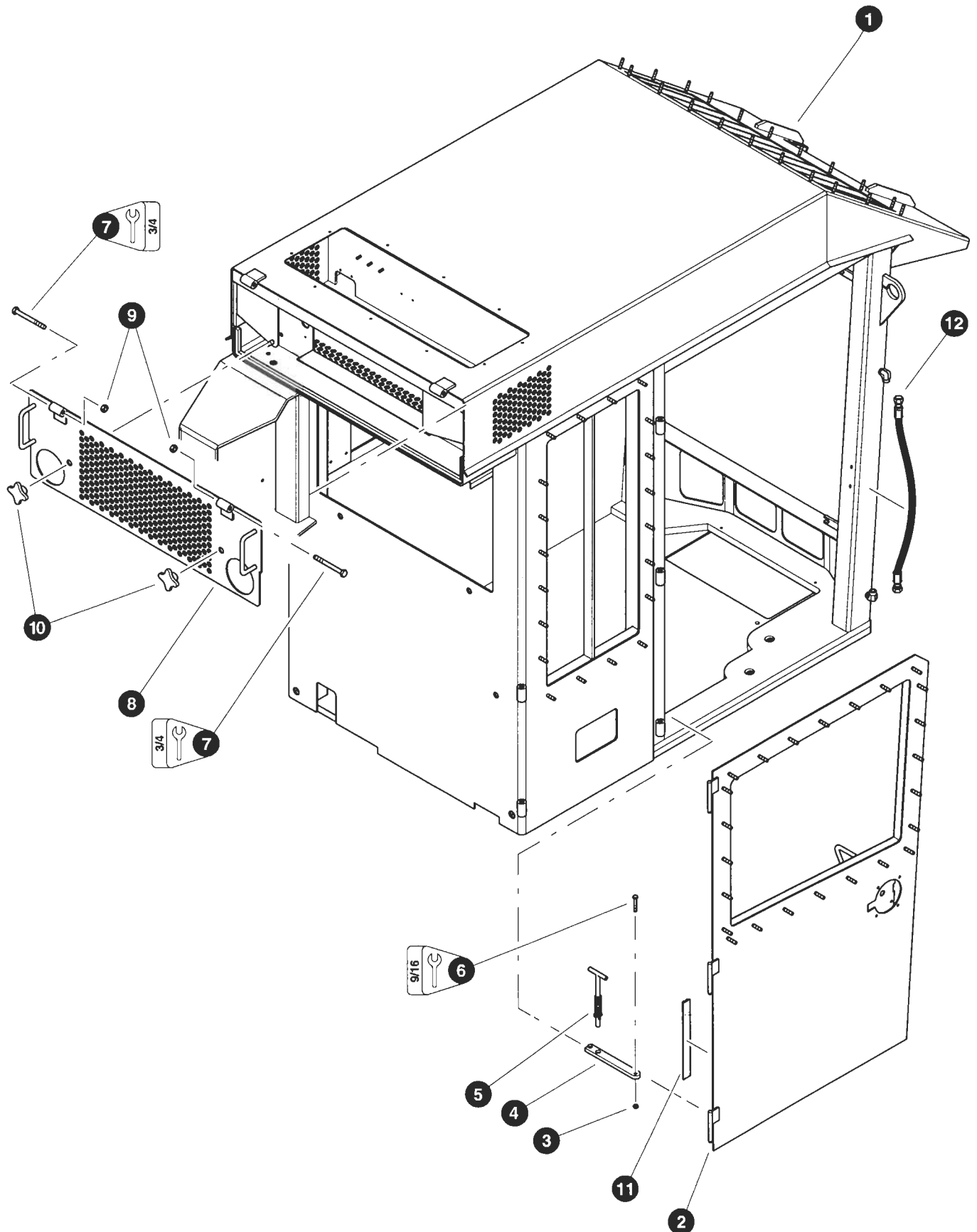
REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	18209	1	☐	WELDMENT, cab (Without window bars or fire suppression pocket)(Standard)	
	18210	1	☐	WELDMENT, cab (With window bars and fire suppression pocket)(Optional - See illustration below)	
2	17280	1		DOOR, cab (Without window bars)(Standard)	
	19247	1		DOOR, cab (With window bars)(Optional)	
3	15507	1		NUT, nylock - 3/8"	
4	12424	1		BAR, doorstop slide	
5	12423	1		DOORSTOP, T-handle	
6	15529	1		BOLT - 3/8" x 2"	
7	10837	2		BOLT - 1/2" x 6"	
8	18308	1		COVER, condensor access	
9	15533	2		NUT, nylock - 1/2"	
10	12013	2		KNOB, star	
11	18126	AR	⌘	WEATHERSTRIP	

- ☐ Kit or Assembly - includes all items indented underneath.
 ⌘ Bulk material - order length required in feet or metres.



Parts 00375 12/21/97
6.25

Optional cab weldment, PN# 18210, with window bars and fire suppression pocket.



CAB WELDMENT ASSEMBLY (Stretched Skymac [Skylight] Cab)

(Used on machines PDN# 031FWD thru PDN# 041FWD)

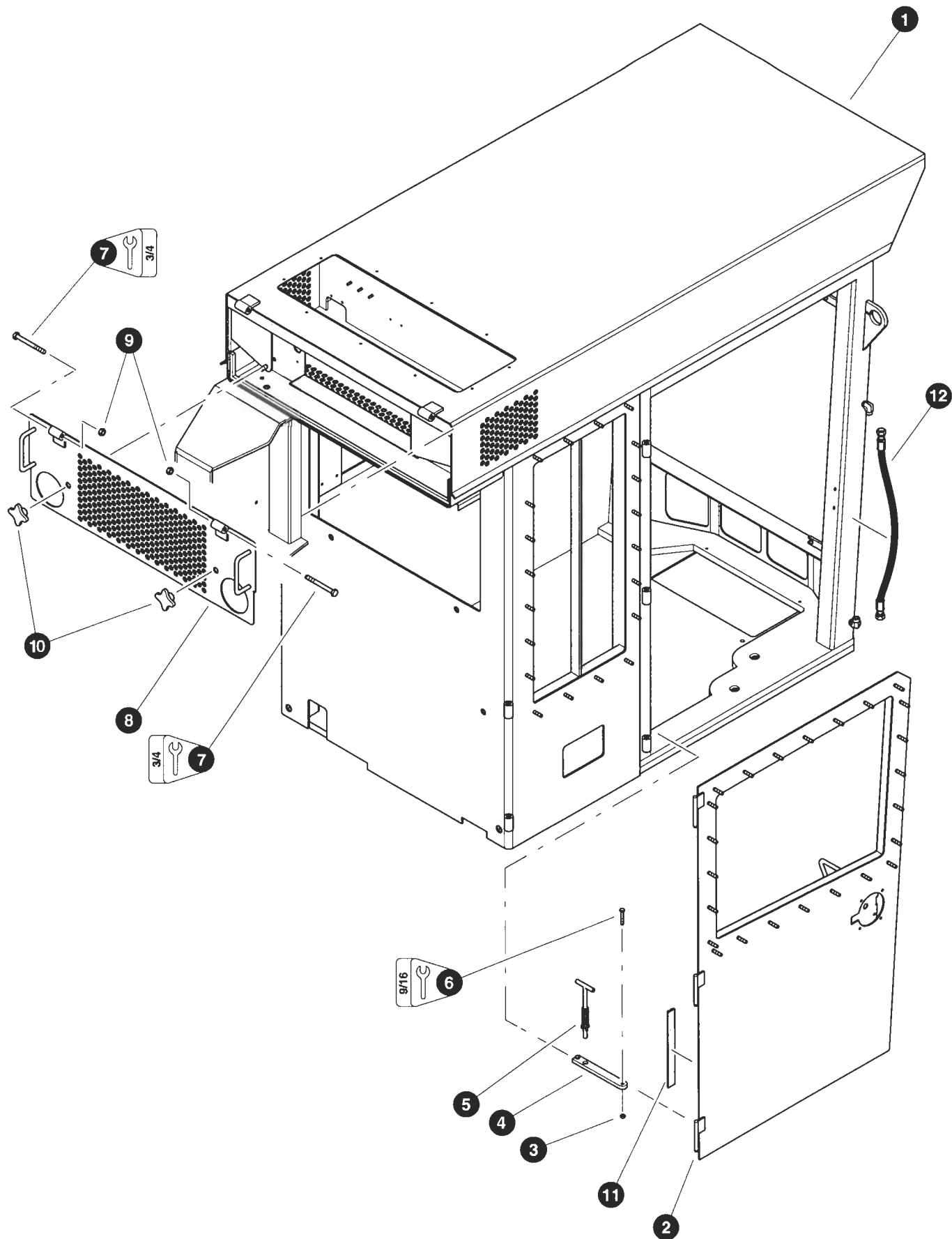
REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	17424	1	☐	WELDMENT, stretched skymac cab <i>(Sloped roof with skylight)</i> <i>(See note below)</i>	
2	19247	1		DOOR, cab	
3	15507	1		NUT, nylock - 3/8"	
4	12424	1		BAR, doorstop slide	
5	12423	1		DOORSTOP, T-handle	
6	15529	1		BOLT - 3/8" x 2"	
7	10837	2		BOLT - 1/2" x 6"	
8	18308	1		COVER, condensor access	
9	15533	2		NUT, nylock - 1/2"	
10	12013	2		KNOB, star	
11	18126	AR		WEATHERSTRIP	
12	20071	1		HOSE ASSEMBLY - 2032.5-08-08JS-08JS <i>(Used as hand hold)</i>	

☐ Kit or Assembly - includes all items indented underneath.

 Bulk material - order length required in feet or metres.

Note:

Stretched cab weldments without the kick-out front window escape are no longer available. If ordering a new stretched cab weldment to replace an older stretched weldment without the kick-out front window escape, be sure to order the required front window components to match the new weldment.



CAB WELDMENT ASSEMBLY (Stretched Flat-Top [Non-Skylight] Cab)

(Used on machines PDN# 031FWD thru PDN# 041FWD)

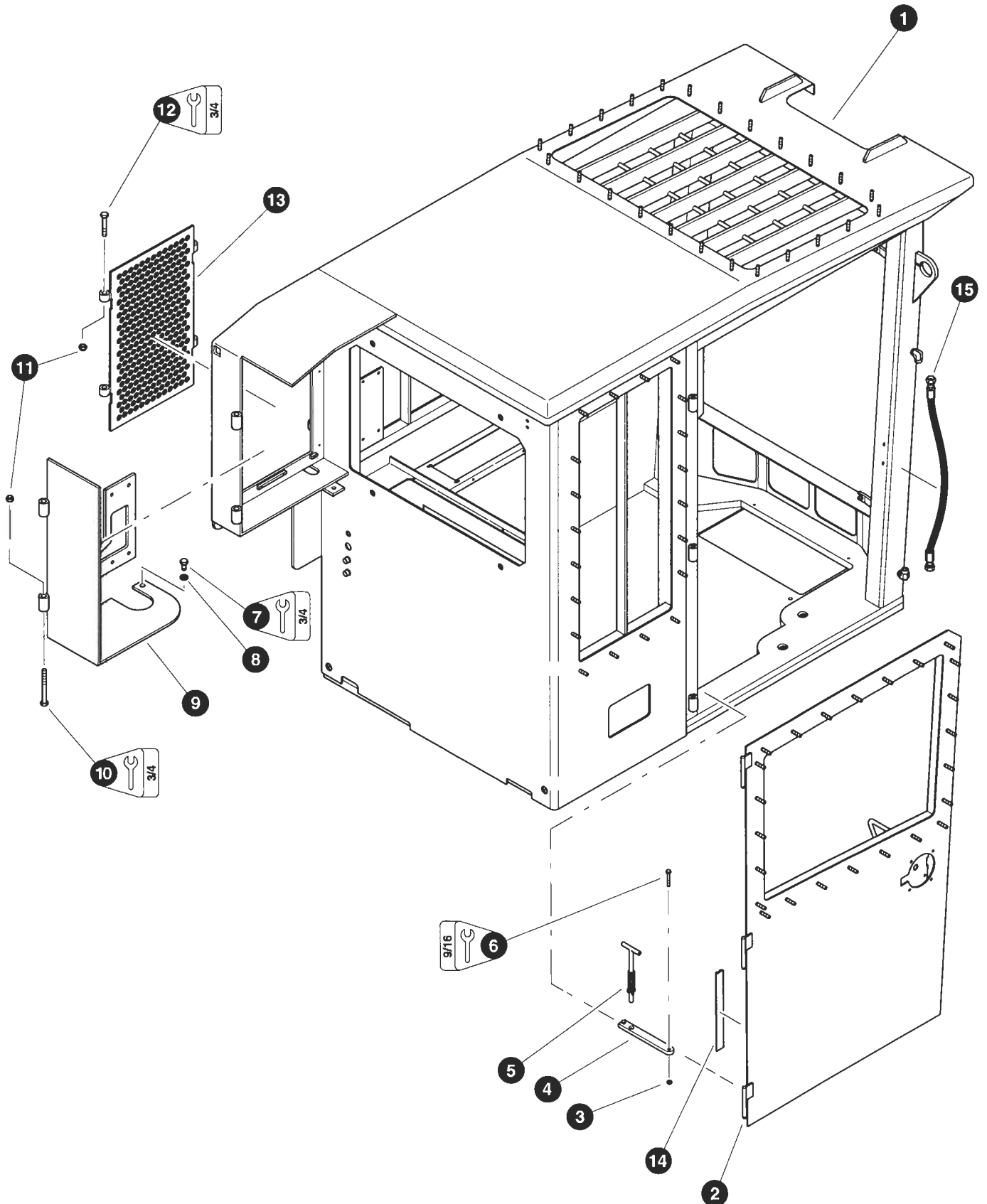
REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	19020	1	☐	WELDMENT, stretched flat-top cab (<i>Flat roof without skylight</i>) (<i>See note below</i>)	
2	19247	1		DOOR, cab	
3	15507	1		NUT, nylock - 3/8"	
4	12424	1		BAR, doorstop slide	
5	12423	1		DOORSTOP, T-handle	
6	15529	1		BOLT - 3/8" x 2"	
7	10837	2		BOLT - 1/2" x 6"	
8	18308	1		COVER, condensor access	
9	15533	2		NUT, nylock - 1/2"	
10	12013	2		KNOB, star	
11	18126	AR	⌘	WEATHERSTRIP	
12	20071	1		HOSE ASSEMBLY - 2032.5-08-080S-080S (<i>Used as hand hold</i>)	

☐ Kit or Assembly - includes all items indented underneath.

⌘ Bulk material - order length required in feet or metres.

Note:

Stretched cab weldments without the kick-out front window escape are no longer available. If ordering a new stretched cab weldment to replace an older stretched weldment without the kick-out front window escape, be sure to order the required front window components to match the new weldment.

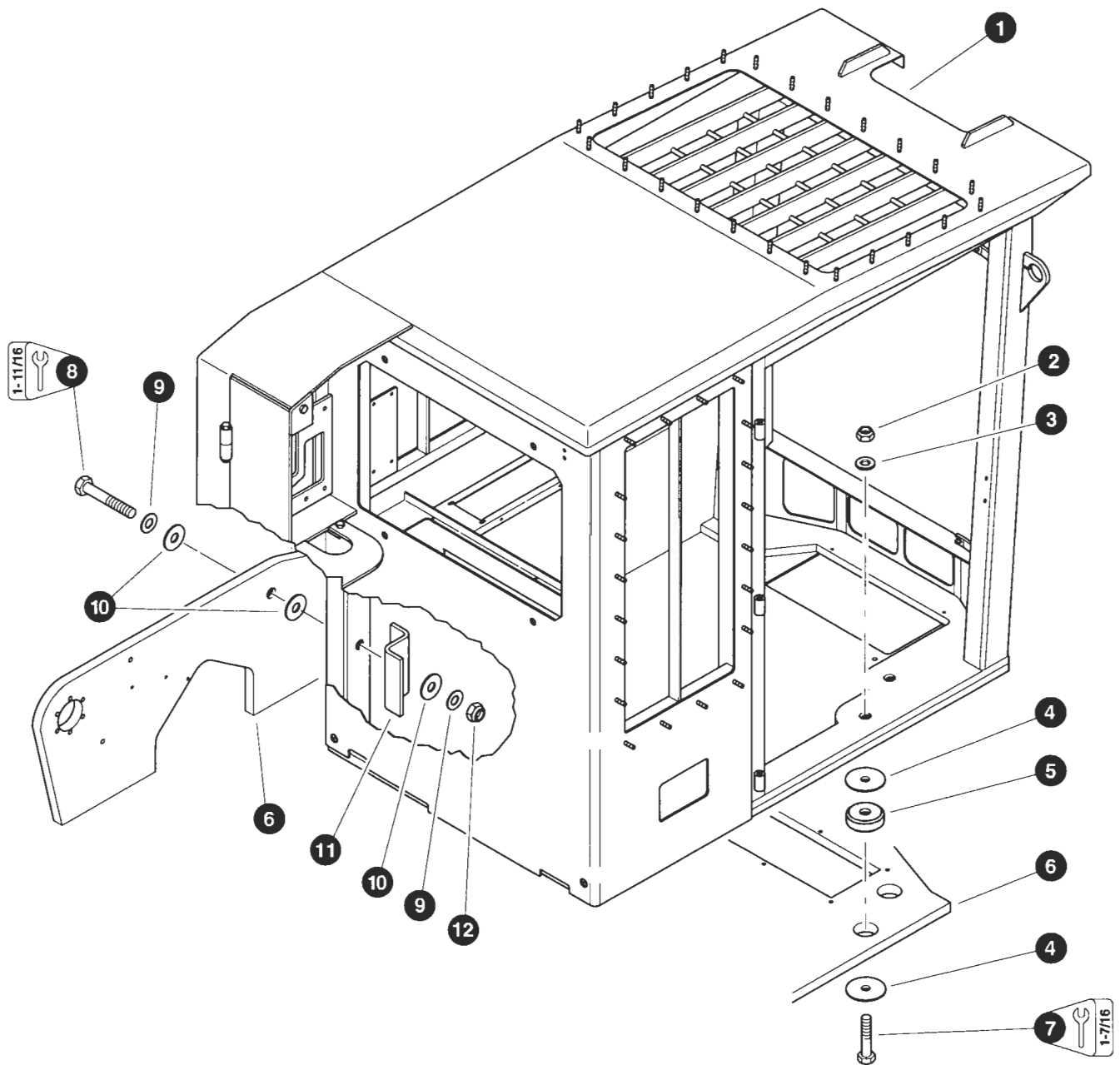


CAB WELDMENT ASSEMBLY (Stretched Short-Top Cab)

(Used on machines PDN# 042FWD and above)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	19475	1	☐	WELDMENT, stretched short-top cab	
2	19247	1		DOOR, cab	
3	15507	1		NUT, nylock - 3/8"	
4	12424	1		BAR, doorstop slide	
5	12423	1		DOORSTOP, T-handle	
6	15529	1		BOLT - 3/8" x 2"	
7	10783	1		BOLT - 1/2" x 1"	
8	15334	1		WASHER, SAE flat - 1/2"	
9	20216	1		BRACKET, fire suppression mounting	
10	10705	2		BOLT - 1/2" x 5"	
11	15533	6		NUT, nylock - 1/2"	
12	10893	4		BOLT - 1/2" x 3"	
13	20214	1		COVER, access - condensor	
14	18126	AR	✂	WEATHERSTRIP	
15	20071	1		HOSE ASSEMBLY - 2032.5-08-080S-080S <i>(Used as hand hold)</i>	

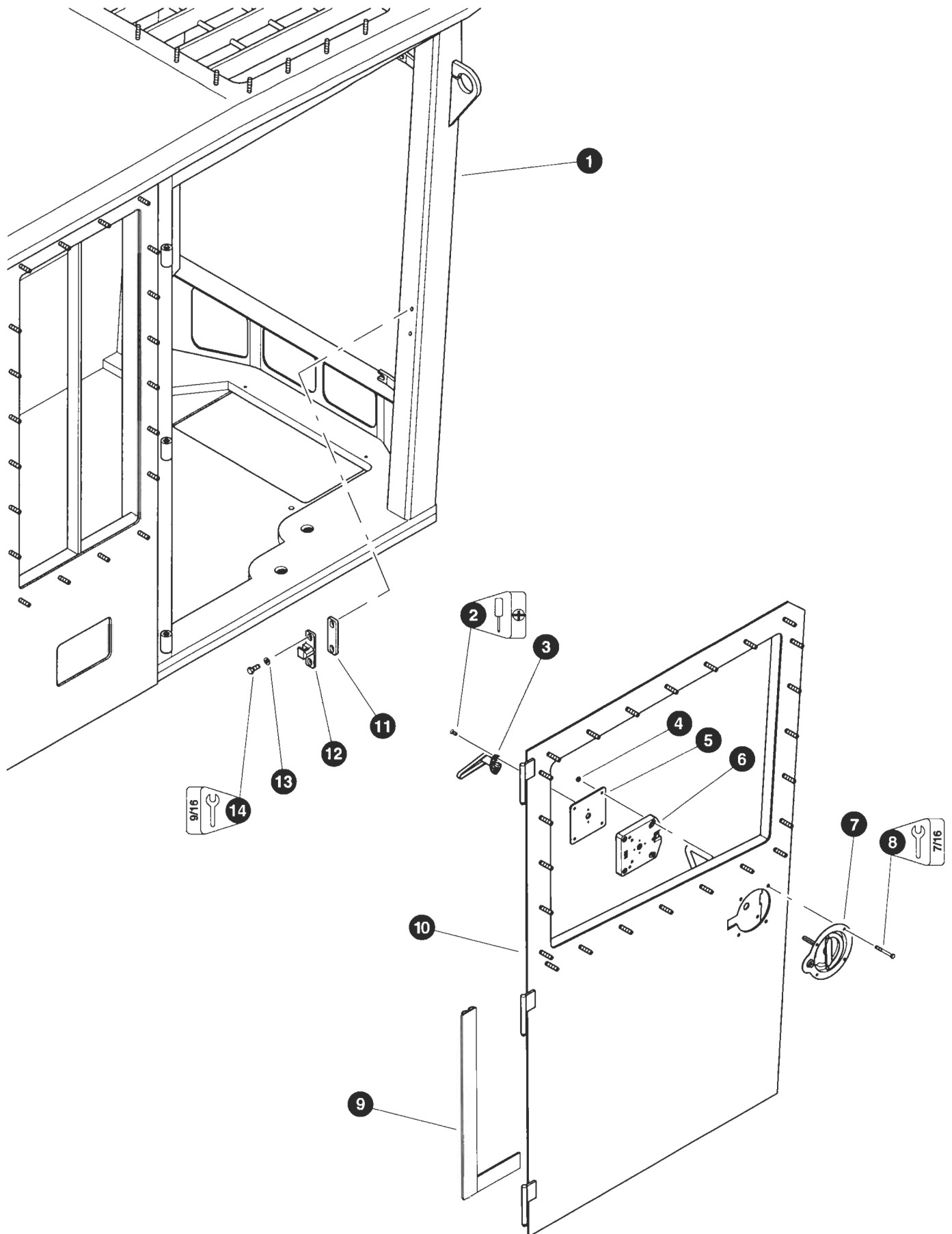
- ☐ Kit or Assembly - includes all items indented underneath.
- ✂ Bulk material - order length required in feet or metres.



CAB WELDMENT INSTALLATION

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	CAB WELDMENT	Varies
2	18535	6		BOLT - 1" x 5"	
3	15579	6		WASHER, SAE flat - 1"	
4	18142	12		WASHER, cab mount isolator	
5	19295	6		ISOLATOR, cab mount	
6	REF.	1	✓	UPPER TURNTABLE WELDMENT	H.1.2
7	18253	6		NUT, lock - 1"	
8	17247	1		BOLT - 1-1/8" x 7-1/2"	
9	16935	2		WASHER, SAE flat - 1-1/8"	
10	17065	3		WASHER, rubber	
11	18214	1		BRACKET, cab ROPS/FOPS support	
12	17248	1		NUT, lock - 1-1/8"	

✓ See referenced page for component or assembly breakdown.



DOOR LATCH INSTALLATION

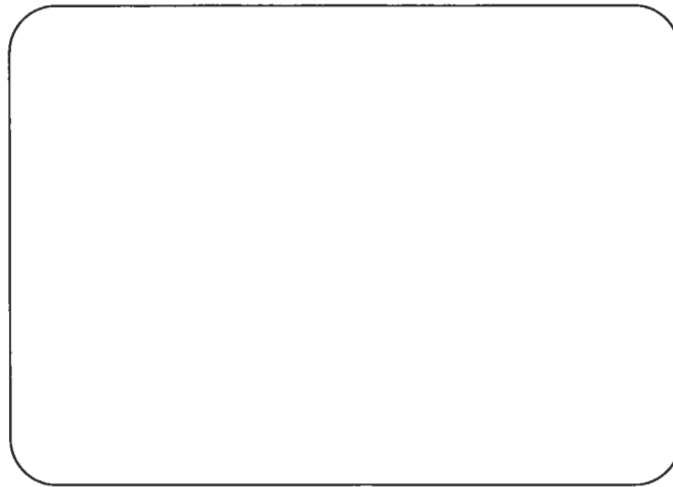
REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	CAB WELDMENT	Varies
2	15669	1		SCREW, machine - #10-24 x 1/2"	
3	17897	1		HANDLE, inside door	
4	10811	4		NUT, lock - 1/4"	
5	18183	1		STIFFNER, latch bolster	
6	17895	1		LATCH, door	
7	19248	1		HANDLE, outside door	
8	18273	4		BOLT - 1/4" x 2-3/4"	
9	REF.	1	✓	CAB DOOR	G.1.2
10	18126	AR	✂	WHEATHERSTRIP, door	
11	18272	1		SHIM, door latch striker - 1/8"	
	18270	1		SHIM, door latch striker - 3/16"	
	18271	1		SHIM, door latch striker - 1/4"	
	18390	1		SHIM, door latch striker - 5/16"	
12	17896	1		STRIKER, door latch	
13	15528	2		WASHER, SAE flat - 3/8"	
14	10402	2		BOLT - 3/8" x 1-1/4"	

✓ See referenced page for component or assembly breakdown.

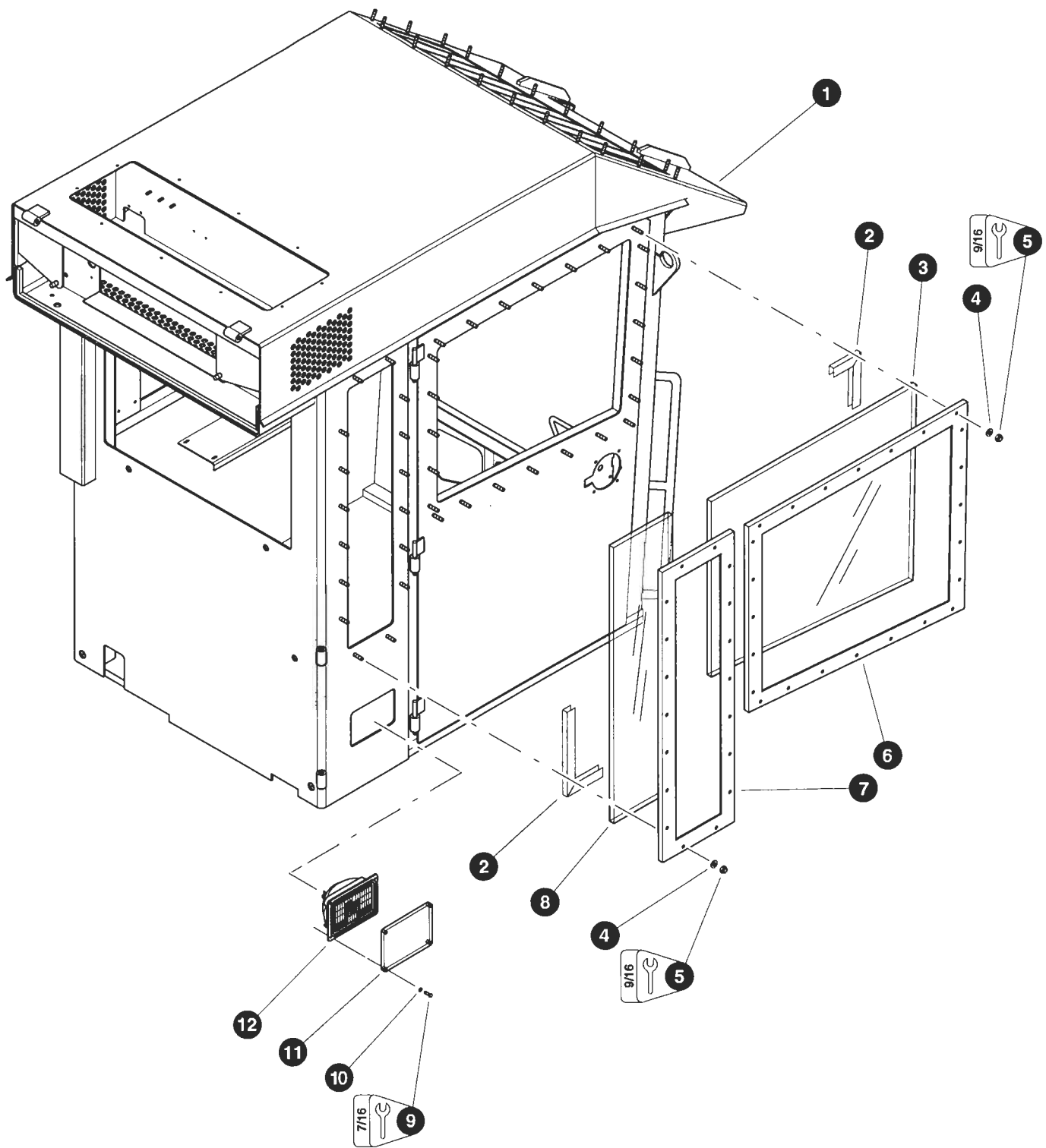
✂ Bulk material - order length required in feet or metres.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Section G.2



Operator's Cab - Window Installation



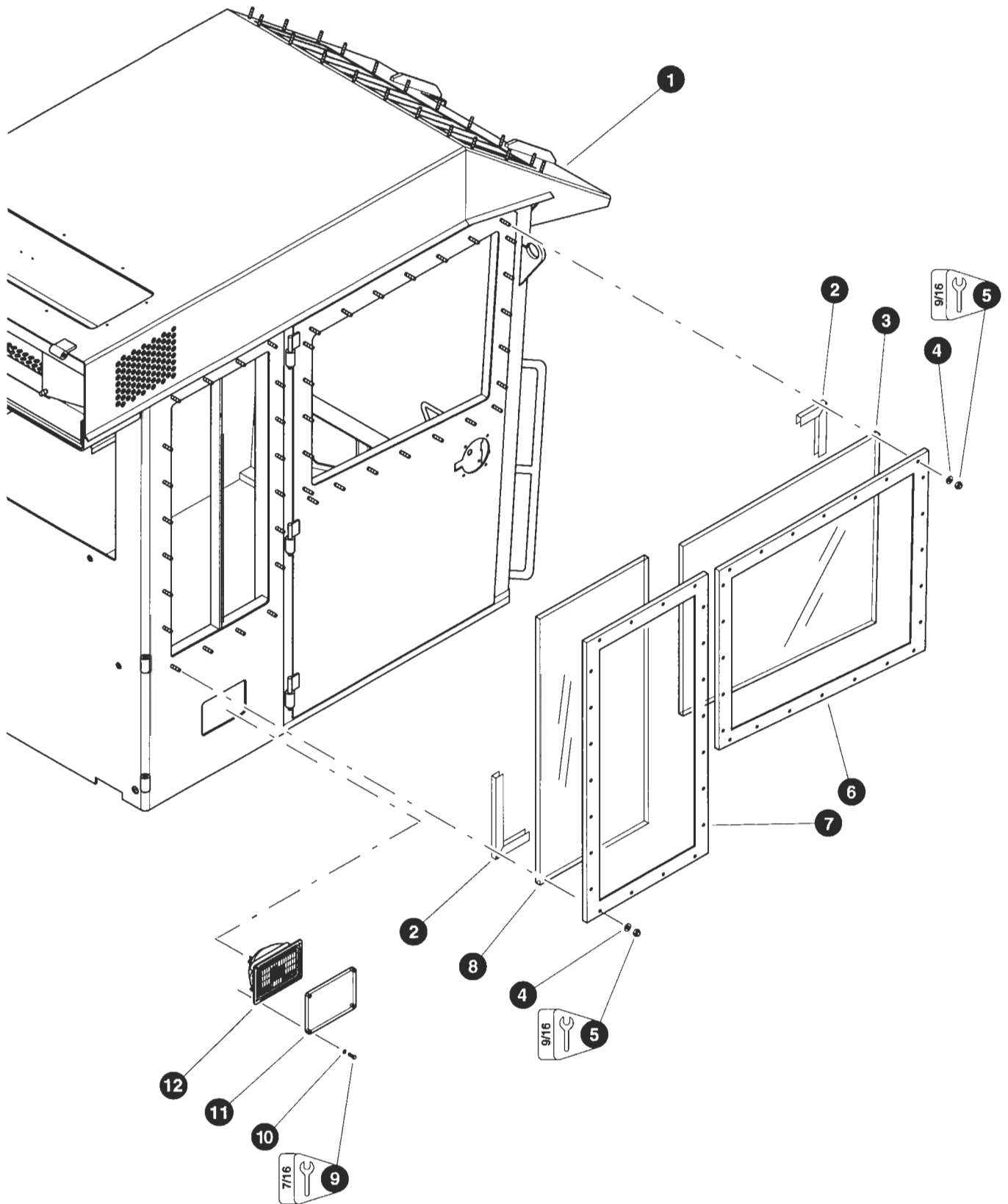
WINDOW INSTALLATION

(Right Side Rear & Door - Original Skylight Cab)

(Used on machines PDN# 030FWD and below)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	CAB WELDMENT	G.1.2
2	16230	AR	✕	CHANNEL, window molding	
3	17198	1		LEXON, door window	
4	15528	42		WASHER, SAE flat - 3/8"	
5	15507	42		NUT, nylock - 3/8"	
6	17274	1		FRAME, door window	
7	17273	1		FRAME, right corner window	
8	17199	1		LEXAN, RH corner window	
9	18309	4		BOLT - 1/4" x 1-1/4"	
10	10757	4		WASHER, SAE flat - 1/4"	
11	16811	1		LEXAN, light guard	
12	16044	1		LIGHT, flush mount	

- ✓ See referenced page for component or assembly breakdown.
- ✕ Bulk material - order length required in feet or metres.



WINDOW INSTALLATION

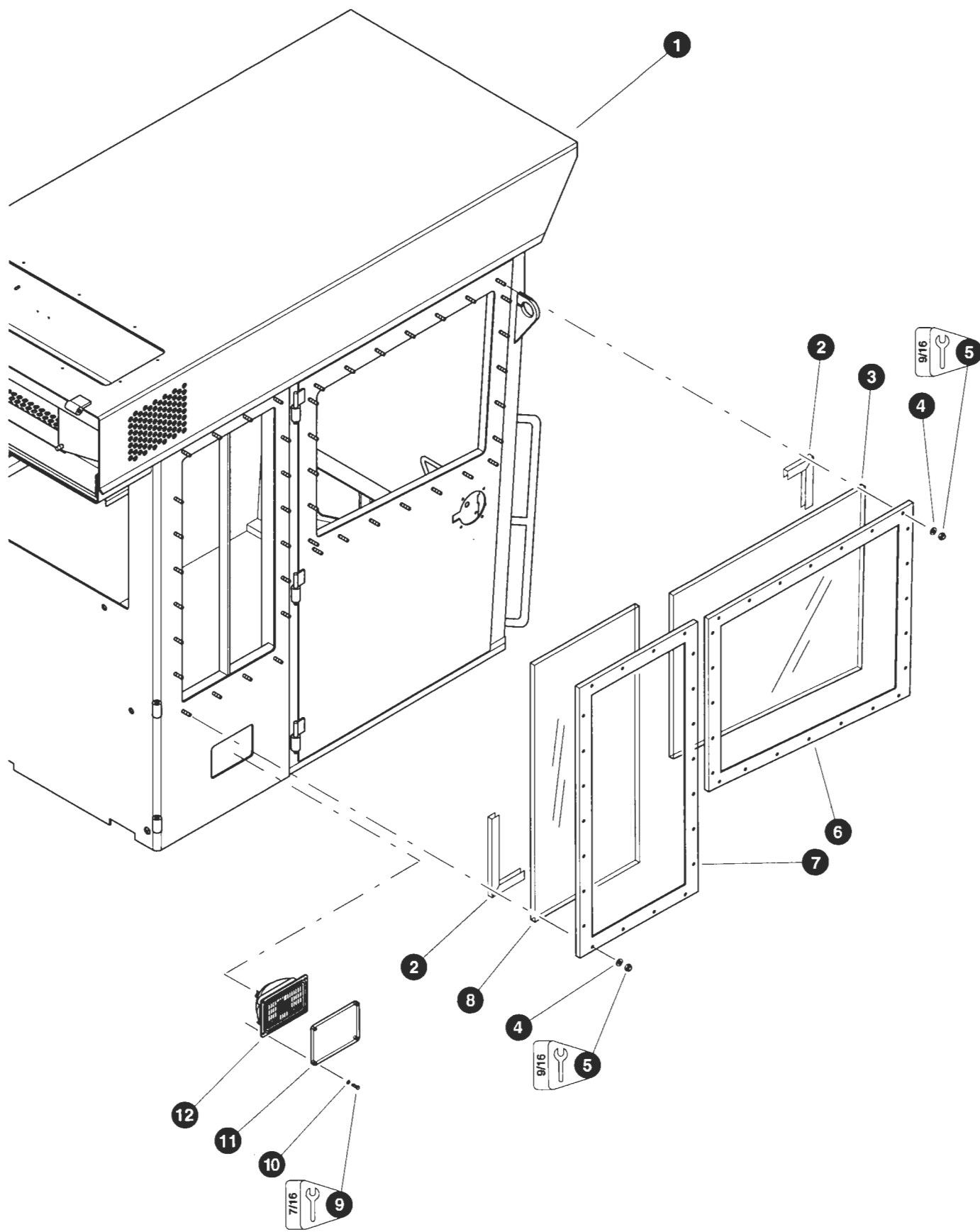
(Right Side Rear & Door - Stretched Skymac Cab)

(Used on machines PDN# 031FWD thru PDN# 041FWD)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	CAB WELDMENT	G.1.2
2	16230	AR	⊗	CHANNEL, window molding	
3	17198	1		LEXON, door window	
4	15528	46		WASHER, SAE flat - 3/8"	
5	15507	46		NUT, nylock - 3/8"	
6	17274	1		FRAME, door window	
7	19023	1		FRAME, right corner window	
8	19019	1		LEXAN, RH corner window	
9	18309	4		BOLT - 1/4" x 1-1/4"	
10	10757	4		WASHER, SAE flat - 1/4"	
11	16811	1		LEXAN, light guard	
12	16044	1		LIGHT, flush mount	

✓ See referenced page for component or assembly breakdown.

⊗ Bulk material - order length required in feet or metres.



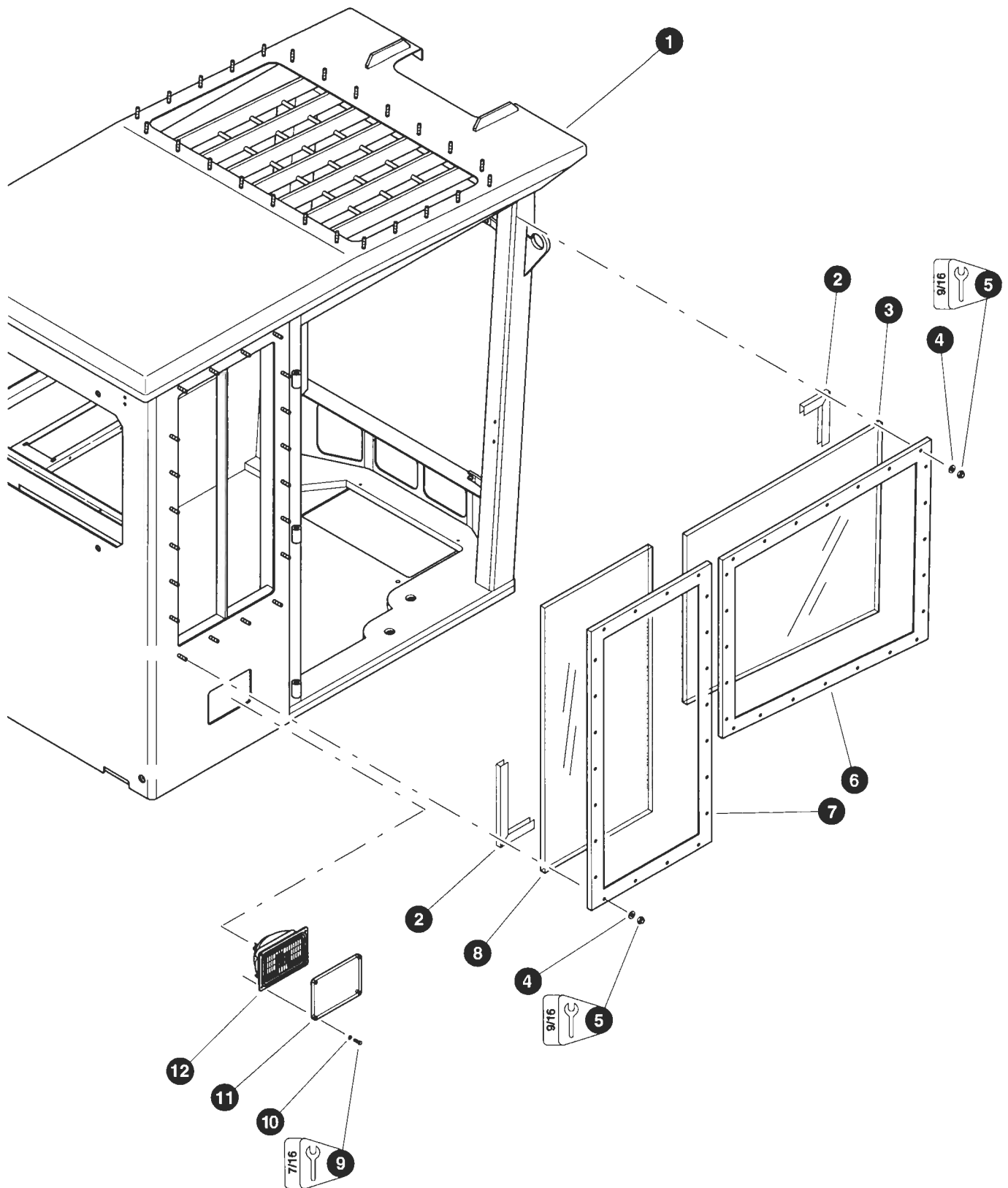
WINDOW INSTALLATION

(Right Side Rear & Door - Stretched Flat-Top Cab)

(Used on machines PDN# 031FWD thru PDN# 041FWD)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	CAB WELDMENT	G.1.4
2	16230	AR	✂	CHANNEL, window molding	
3	17198	1		LEXON, door window	
4	15528	46		WASHER, SAE flat - 3/8"	
5	15507	46		NUT, nylock - 3/8"	
6	17274	1		FRAME, door window	
7	19023	1		FRAME, right corner window	
8	19019	1		LEXAN, RH corner window	
9	18309	4		BOLT - 1/4" x 1-1/4"	
10	10757	4		WASHER, SAE flat - 1/4"	
11	16811	1		LEXAN, light guard	
12	16044	1		LIGHT, flush mount	

- ✓ See referenced page for component or assembly breakdown.
 ✂ Bulk material - order length required in feet or metres.



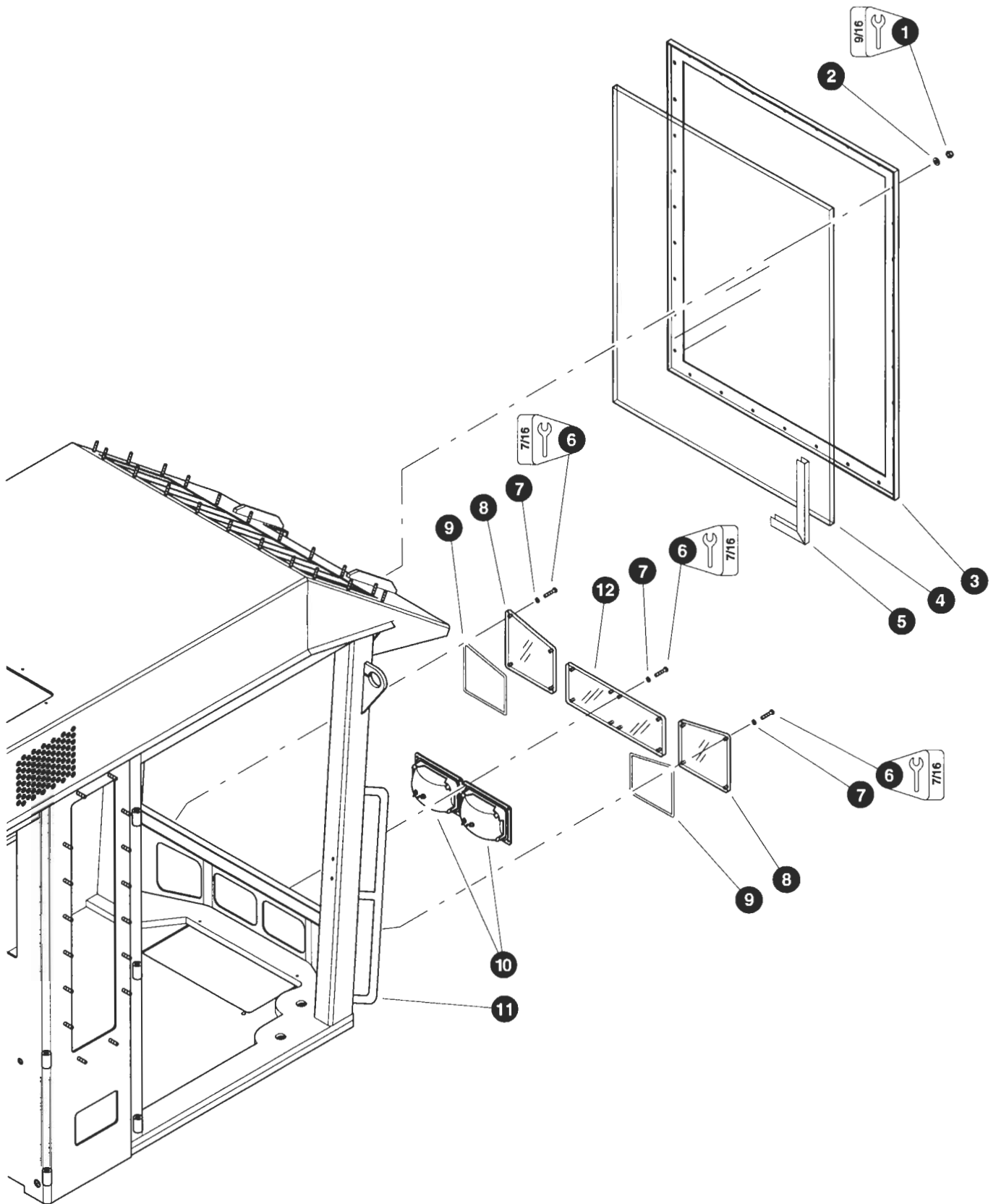
WINDOW INSTALLATION

(Right Side Rear & Door - Stretched Short-Top Cab)

(Used on machines PDN# 042FWD and above)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	CAB WELDMENT	G.1.6
2	16230	AR	⌘	CHANNEL, window molding	
3	17198	1		LEXON, door window	
4	15528	46		WASHER, SAE flat - 3/8"	
5	15507	46		NUT, nylock - 3/8"	
6	17274	1		FRAME, door window	
7	19023	1		FRAME, right corner window	
8	19019	1		LEXAN, RH corner window	
9	18309	4		BOLT - 1/4" x 1-1/4"	
10	10757	4		WASHER, SAE flat - 1/4"	
11	16811	1		LEXAN, light guard	
12	16044	1		LIGHT, flush mount	

- ✓ See referenced page for component or assembly breakdown.
 ⌘ Bulk material - order length required in feet or metres.



WINDOW INSTALLATION

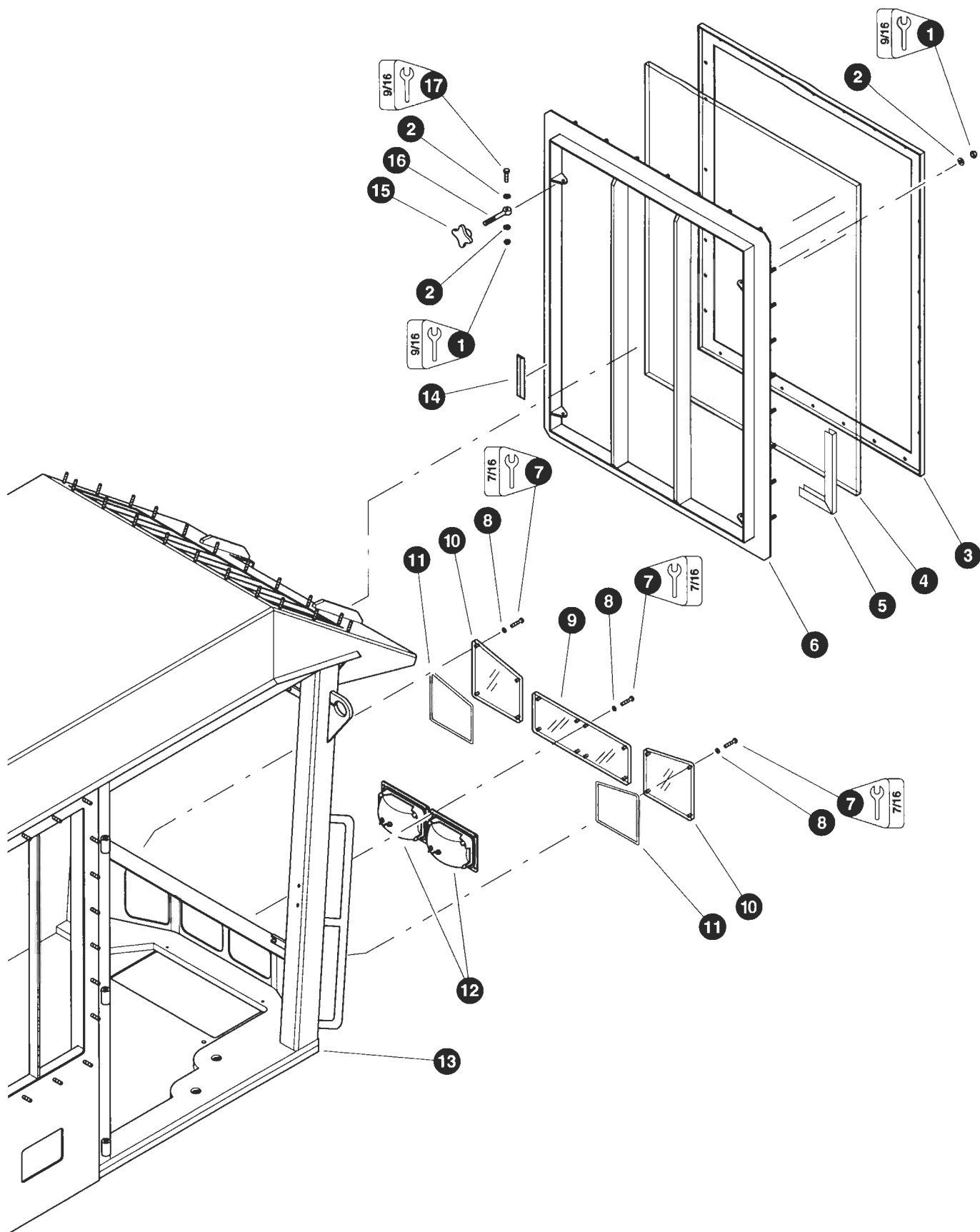
(Front & Lower Chin - Original Skylight Cab)

(Used on machines PDN# 030FWD and below)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	15507	32		NUT, nylock - 3/8"	
2	15528	32		WASHER, SAE flat - 3/8"	
3	18215	1		FRAME, front window	
4	18216	1		LEXON, front window	
5	16230	AR	⌘	CHANNEL, window molding	
6	18309	20		BOLT - 1/4" x 1-1/4"	
7	10757	20		WASHER, SAE flat - 1/4"	
8	18190	2		LEXON, track window	
9	15695	AR	⌘	WEATHERSTRIP	
10	16044	2		LIGHT, flush mount	
11	REF.	1	✓	CAB WELDMENT	G.1.2

⌘ Bulk material - order length required in feet or metres.

✓ See referenced page for component or assembly breakdown.



WINDOW INSTALLATION

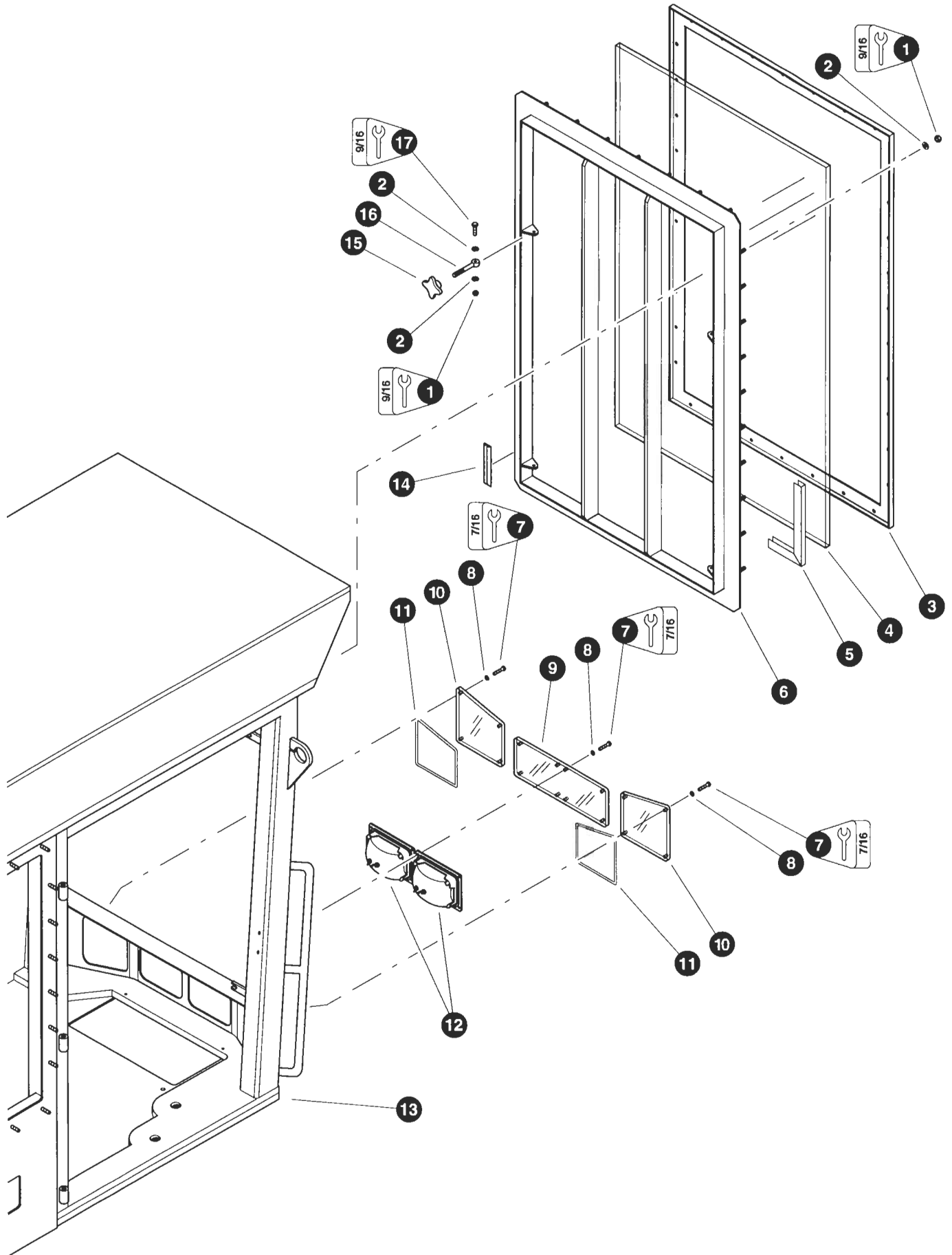
(Front Escape & Lower Chin - Stretched Skymac Cab)

(Used on machines PDN# 031FWD thru PDN# 041FWD)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	15507	34		NUT, nylock - 3/8"	
2	15528	38		WASHER, SAE flat - 3/8"	
3	19528	1		FRAME, front window	
4	18216	1		LEXON, front window	
5	16230	AR	✂	CHANNEL, window molding	
6	19500	1		HATCH, front window escape	
7	18309	20		BOLT - 1/4" x 1-1/4"	
8	10757	20		WASHER, SAE flat - 1/4"	
9	18189	1		LEXON, light guard - double	
10	18190	2		LEXON, chin window	
11	15695	AR	✂	WEATHERSTRIP	
12	16044	2		LIGHT, flush mount	
13	REF.	1	✓	CAB WELDMENT	G.1.2
14	18126	AR	✂	WEATHERSTRIP	
15	12013	4		KNOB, star	
16	19510	4		BOLT, eye - 1/2" x 4"	
17	10731	4		BOLT - 3/8" x 1-1/2"	

✂ Bulk material - order length required in feet or metres.

✓ See referenced page for component or assembly breakdown.



Parts 00345 12/22/97
9.375

WINDOW INSTALLATION

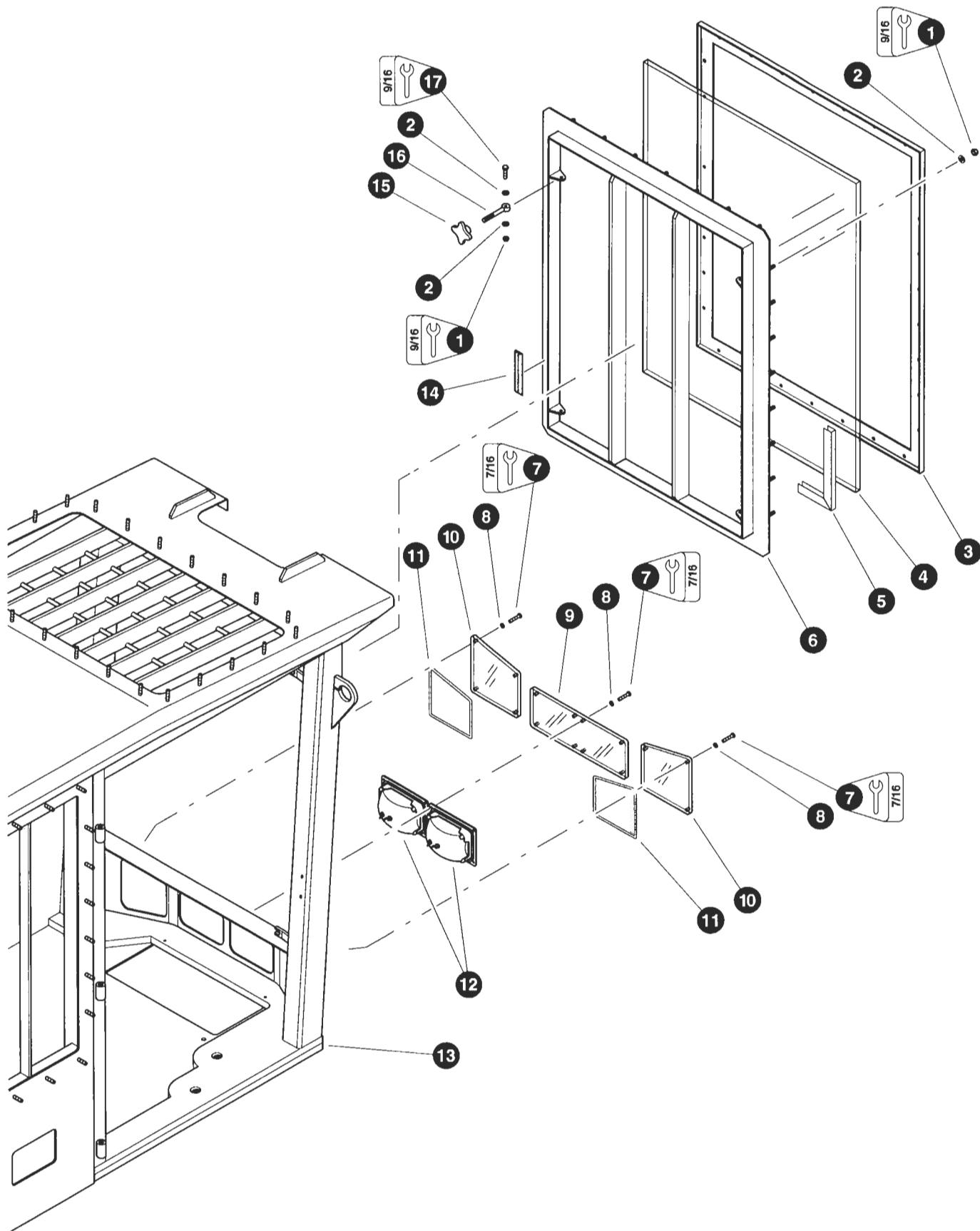
(Front Escape & Lower Chin - Stretched Flat-Top Cab)

(Used on machines PDN# 031FWD thru PDN# 041FWD)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	15507	38		NUT, nylock - 3/8"	
2	15528	42		WASHER, SAE flat - 3/8"	
3	19021	1		FRAME, front window	
4	19017	1		LEXON, front window	
5	16230	AR	⌘	CHANNEL, window molding	
6	19400	1		HATCH, front window escape	
7	18309	20		BOLT - 1/4" x 1-1/4"	
8	10757	20		WASHER, SAE flat - 1/4"	
9	18189	1		LEXON, light guard - double	
10	18190	2		LEXON, chin window	
11	15695	AR	⌘	WEATHERSTRIP	
12	16044	2		LIGHT, flush mount	
13	REF.	1	✓	CAB WELDMENT	G.1.4
14	18126	AR	⌘	WEATHERSTRIP	
15	12013	4		KNOB, star	
16	19510	4		BOLT, eye - 1/2" x 4"	
17	10731	4		BOLT - 3/8" x 1-1/2"	

⌘ Bulk material - order length required in feet or metres.

✓ See referenced page for component or assembly breakdown.



WINDOW INSTALLATION

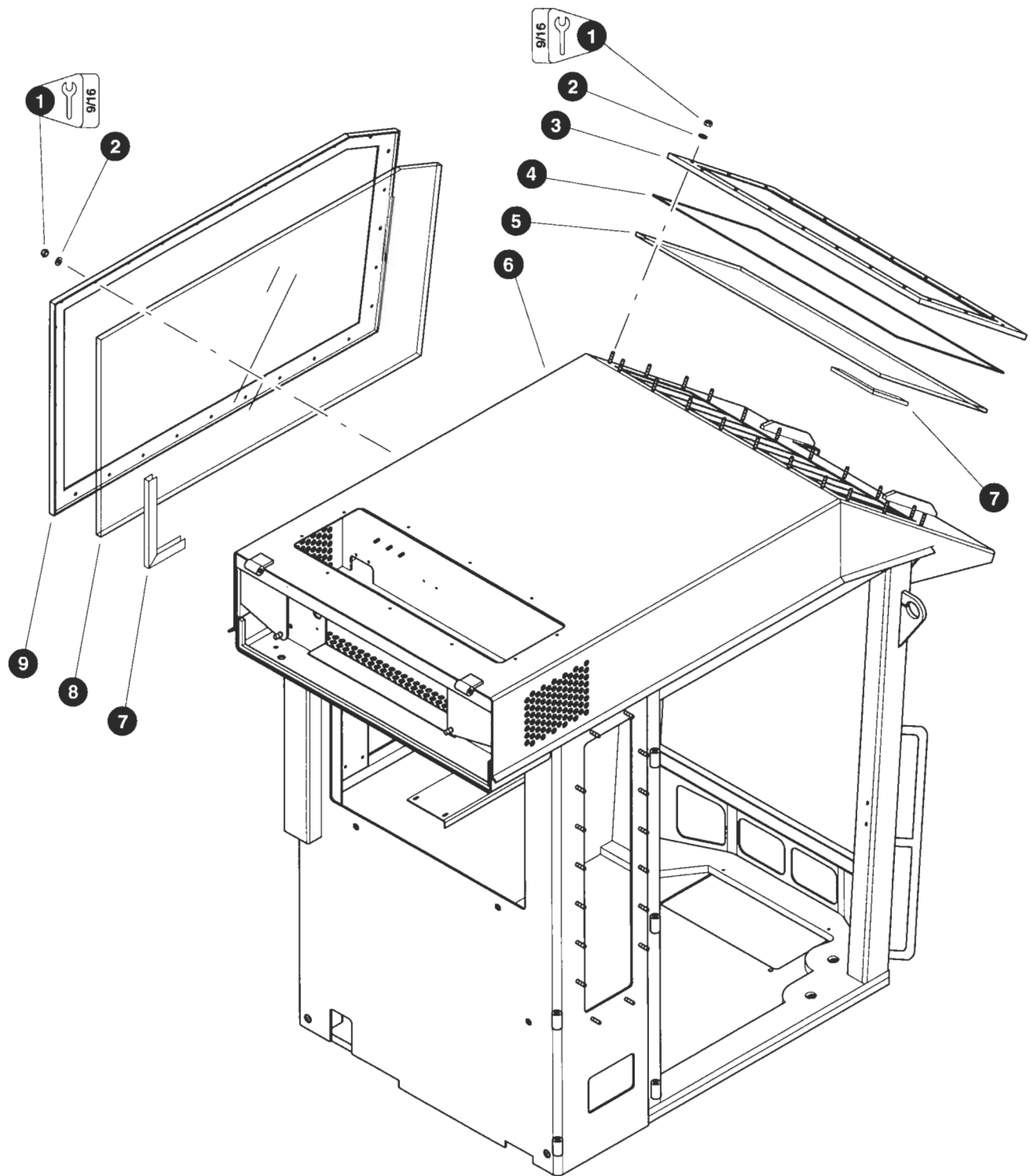
(Front Escape & Lower Chin - Stretched Short-Top Cab)

(Used on machines PDN# 042FWD and above)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	15507	34		NUT, nylock - 3/8"	
2	15528	38		WASHER, SAE flat - 3/8"	
3	19528	1		FRAME, front window	
4	18216	1		LEXON, front window	
5	16230	AR	✂	CHANNEL, window molding	
6	19500	1		HATCH, front window escape	
7	18309	20		BOLT - 1/4" x 1-1/4"	
8	10757	20		WASHER, SAE flat - 1/4"	
9	18189	1		LEXON, light guard - double	
10	18190	2		LEXON, chin window	
11	15695	AR	✂	WEATHERSTRIP	
12	16044	2		LIGHT, flush mount	
13	REF.	1	✓	CAB WELDMENT	G.1.6
14	18126	AR	✂	WEATHERSTRIP	
15	12013	4		KNOB, star	
16	19510	4		BOLT, eye - 1/2" x 4"	
17	10731	4		BOLT - 3/8" x 1-1/2"	

✂ Bulk material - order length required in feet or metres.

✓ See referenced page for component or assembly breakdown.



WINDOW INSTALLATION

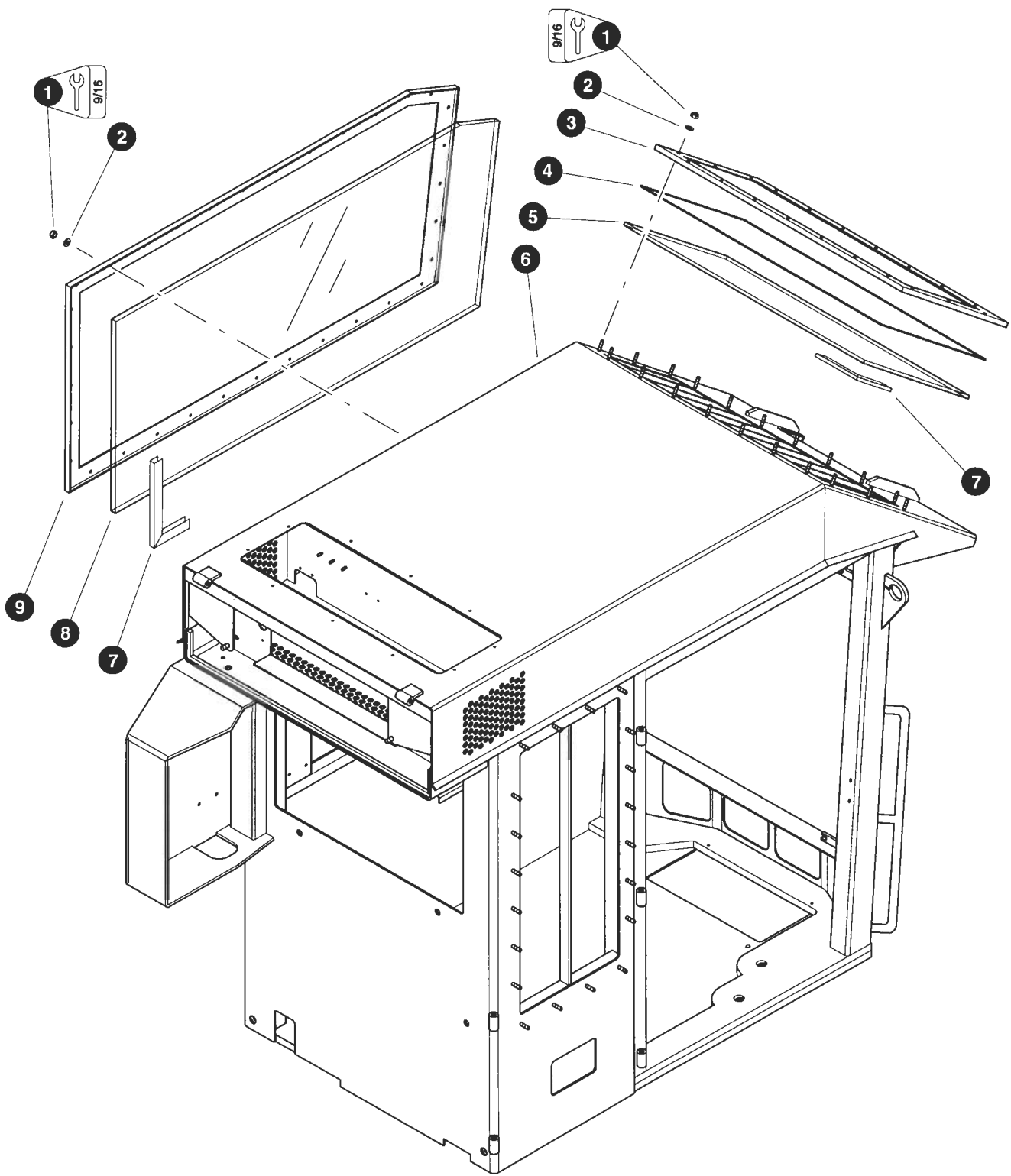
(Left Side & Skylight - Original Skylight Cab)

(Used on machines PDN# 030FWD and below)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	15507	50		NUT, nylock - 3/8"	
2	15528	50		WASHER, SAE flat - 3/8"	
3	17275	1		FRAME, skylight window	
4	18133	1		LEXON, skylight scratch guard	
5	17201	1		LEXON, skylight <i>(Tinted gray)</i>	
6	REF.	1	✓	CAB WELDMENT	G.1.2
7	16230	AR	⌘	CHANNEL, window molding	
8	17197	1		LEXON, left side window	
9	17276	1		FRAME, left side window	

✓ See referenced page for component or assembly breakdown.

⌘ Bulk material - order length required in feet or metres.



WINDOW INSTALLATION

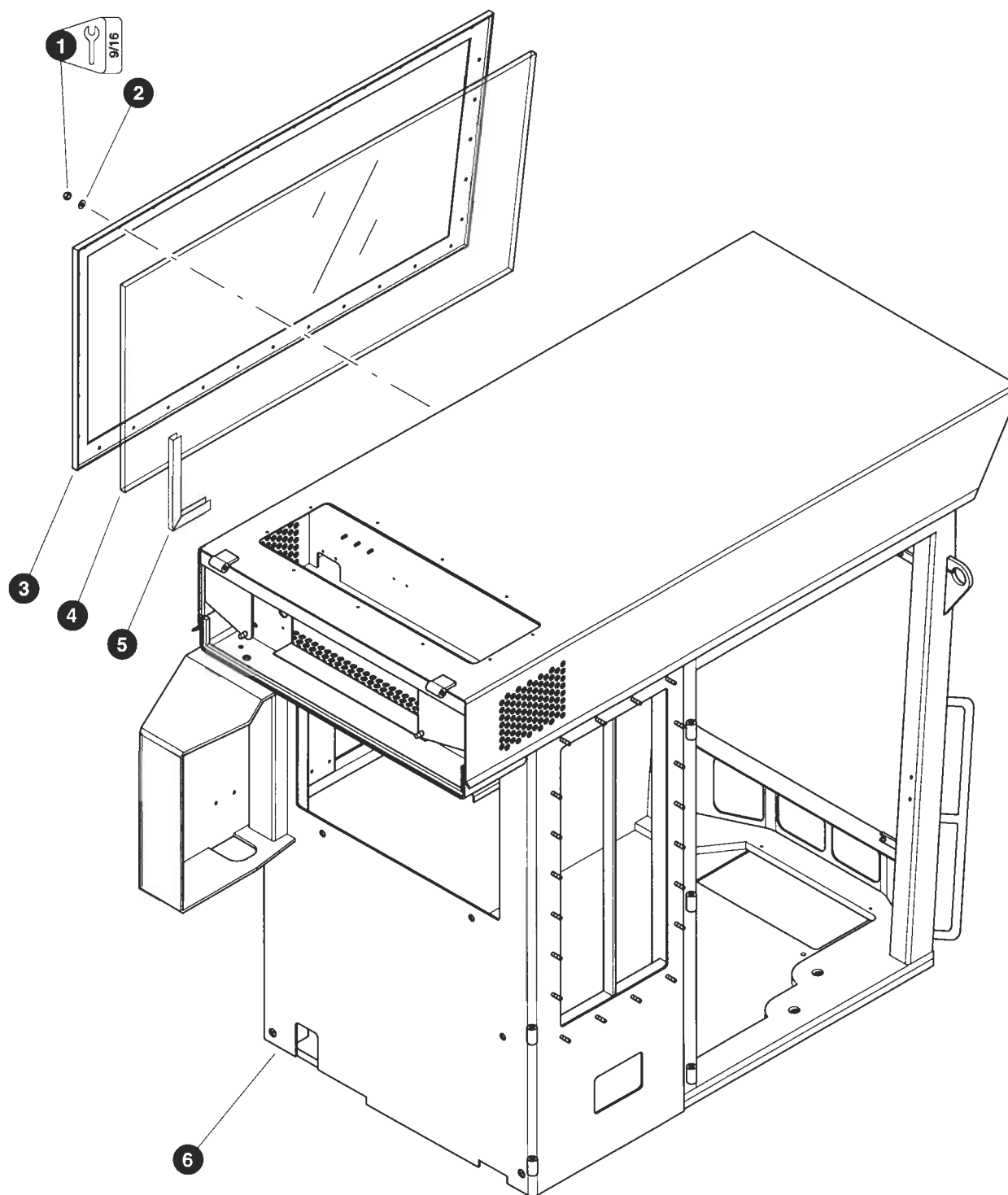
(Left Side & Skylight - Stretched Skymac [Skylight] Cab)

(Used on machines PDN# 031FWD thru PDN# 041FWD)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	15507	52		NUT, nylock - 3/8"	
2	15528	52		WASHER, SAE flat - 3/8"	
3	17275	1		FRAME, skylight window	
4	18133	1		LEXON, skylight scratch guard	
5	17201	1		LEXON, skylight (<i>Tinted gray</i>)	
6	REF.	1	✓	CAB WELDMENT	G.1.2
7	16230	AR	⌘	CHANNEL, window molding	
8	19508	1		LEXON, left side window	
9	19504	1		FRAME, left side window	

✓ See referenced page for component or assembly breakdown.

⌘ Bulk material - order length required in feet or metres.



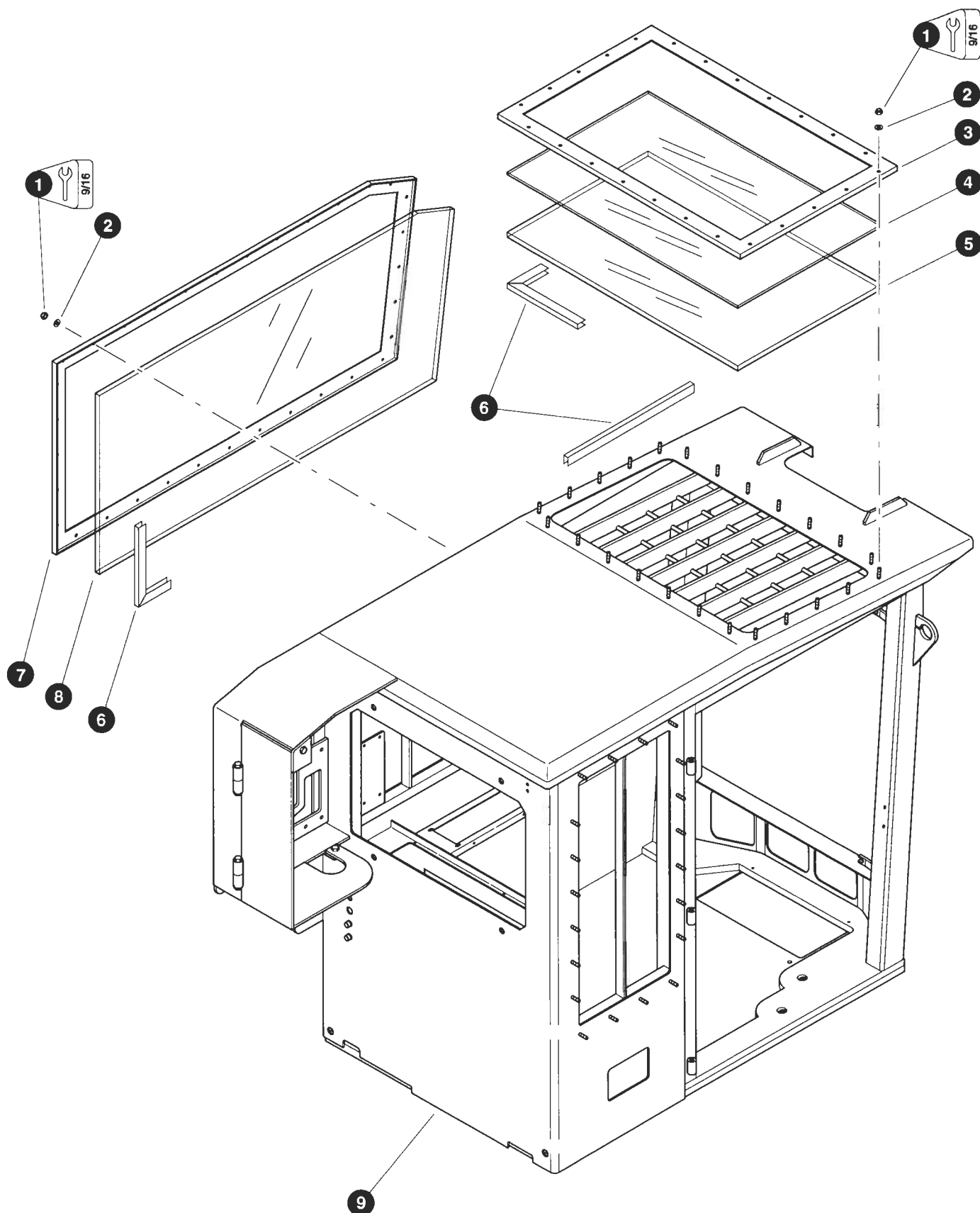
WINDOW INSTALLATION

(Left Side - Stretched Flat-Top Cab)

(Used on machines PDN# 031FWD thru PDN# 041FWD)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	15507	32		NUT, nylock - 3/8"	
2	15528	32		WASHER, SAE flat - 3/8"	
3	19022	1		FRAME, left side window	
4	19018	1		LEXON, left side window	
5	16230	AR		CHANNEL, window molding	
6	REF.	1	✓	CAB WELDMENT	G.1.4

- ✓ See referenced page for component or assembly breakdown.
-  Bulk material - order length required in feet or metres.



Parts 00349 12/22/97
9.375

WINDOW INSTALLATION

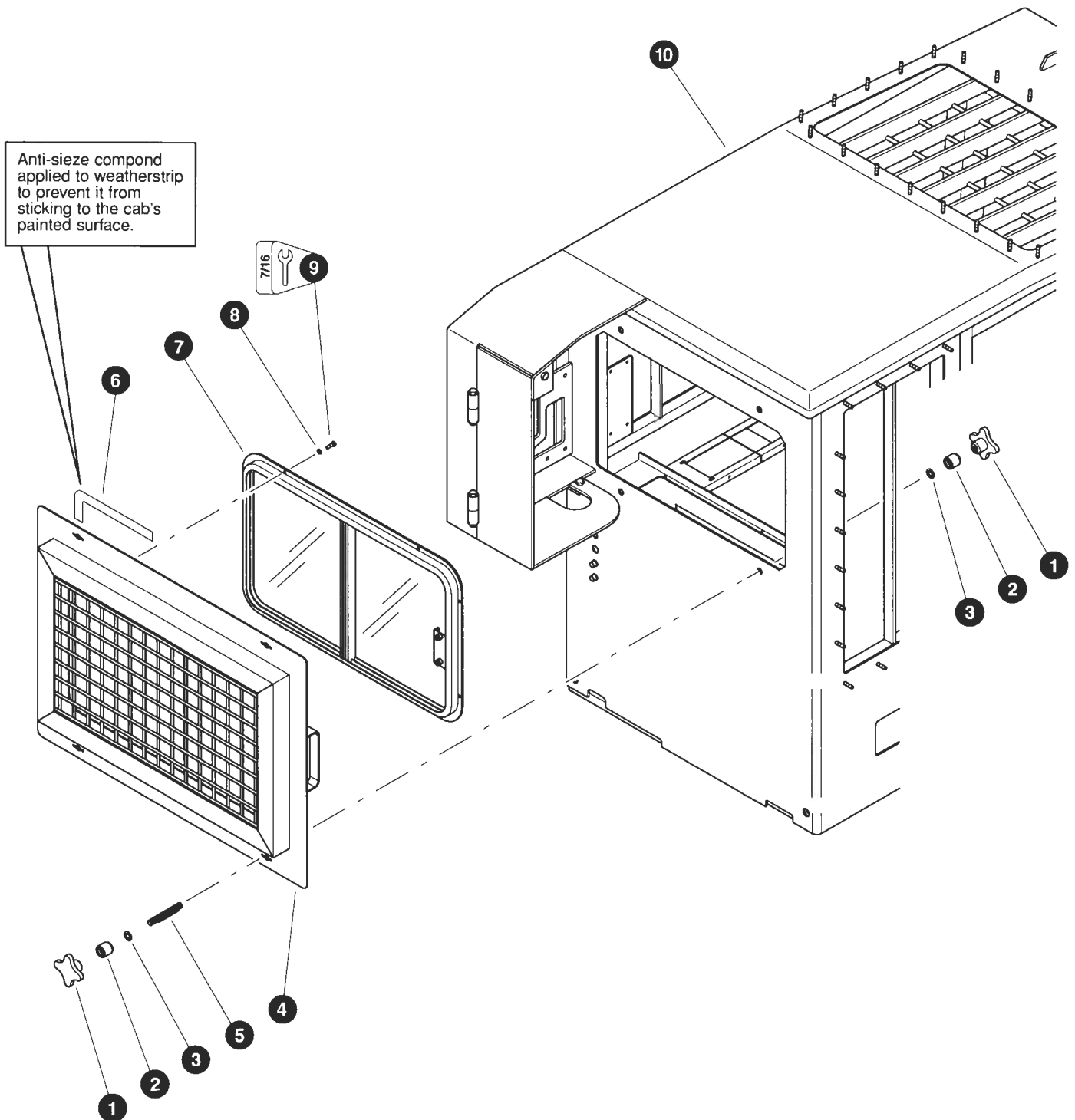
(Left Side & Skylight - Stretched Short-Top Cab)

(Used on machines PDN# 042FWD and above)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	15507	56		NUT, nylock - 3/8"	
2	15528	56		WASHER, SAE flat - 3/8"	
3	19904	1		FRAME, skylight window	
4	19903	1		LEXON, skylight <i>(Tinted gray)</i>	
5	19994	1		LEXON, skylight scratch guard	
6	16230	AR		CHANNEL, window molding	
7	19504	1		FRAME, left side window	
8	19508	1		LEXON, left side window	
9	REF.	1	✓	CAB WELDMENT	G.1.6

✓ See referenced page for component or assembly breakdown.

 Bulk material - order length required in feet or metres.



WINDOW INSTALLATION

(Rear Sliding & Emergency Escape)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	12013	2		KNOB, star	
2	16539	2		STAND-OFF	
3	15534	2		WASHER, SAE flat - 1/2"	
4	16858	1		GUARD, rear window	
5	16538	1		STUD, 2-way	
6	15694	AR	⌘	WEATHERSTRIP	
7	16423	1		WINDOW, sliding w/frame	
8	10757	8		WASHER, SAE flat - 1/4"	
9	15604	8		BOLT - 1/4" x 3/4"	
10	REF.	1	✓	CAB WELDMENT	Varies

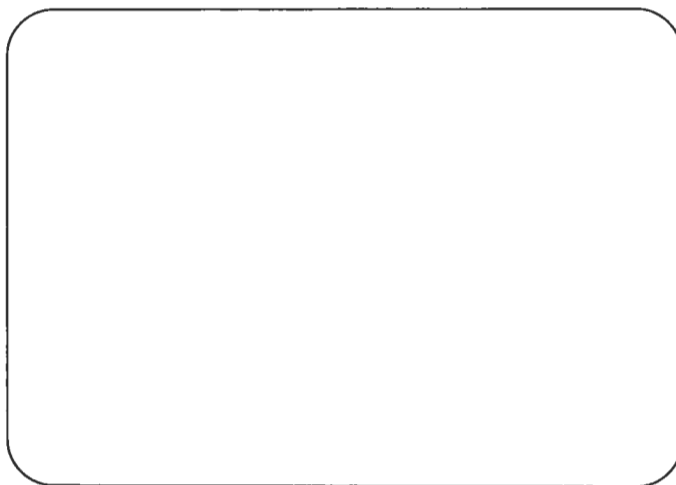
⌘ Bulk material - order length required in feet or metres.

✓ See referenced page for component or assembly breakdown.

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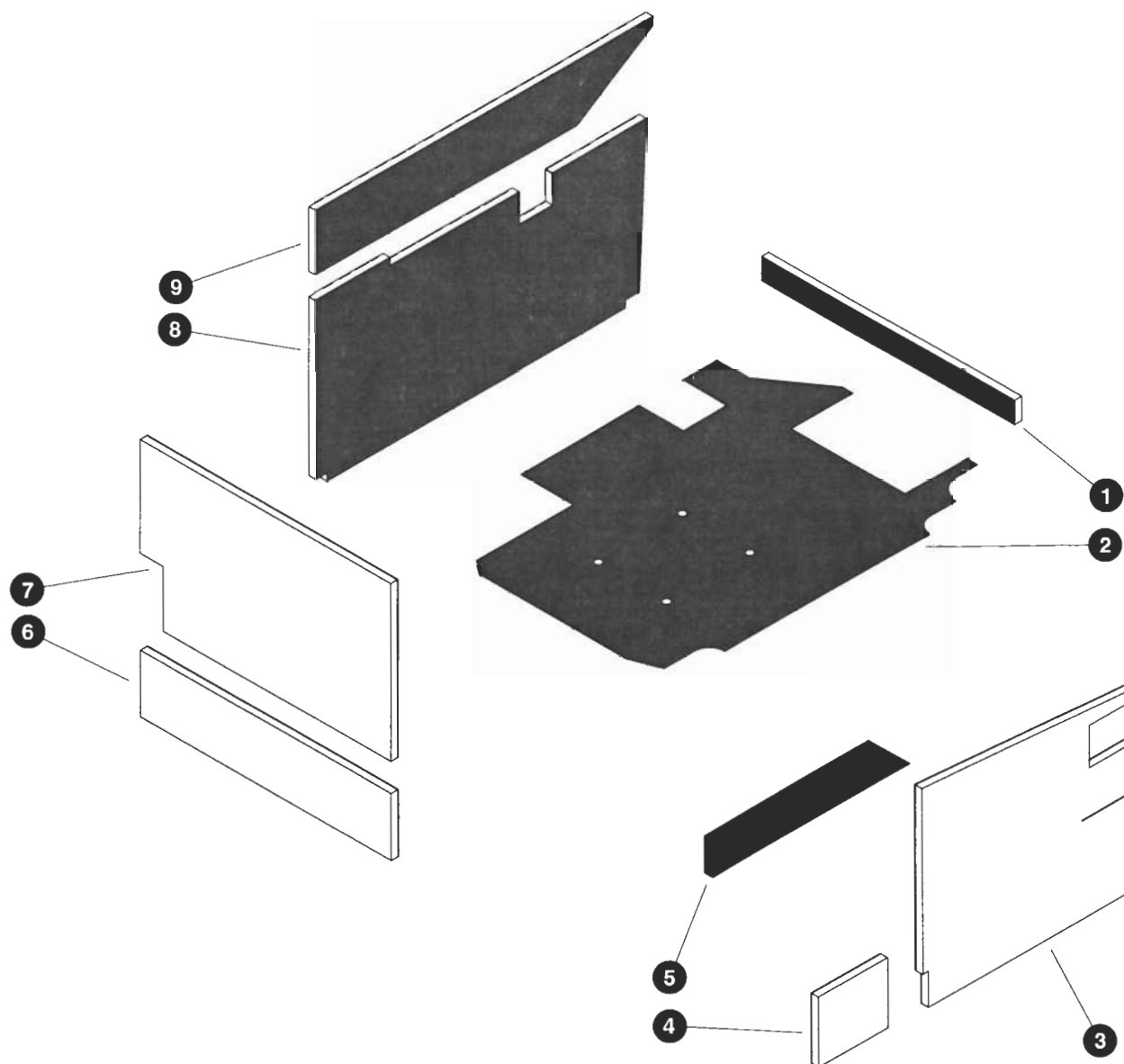
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Section G.3



Operator's Cab - Interior Components

NOTE: All interior insulation padding and floormats installed with spray adhesive, PN# 17899.

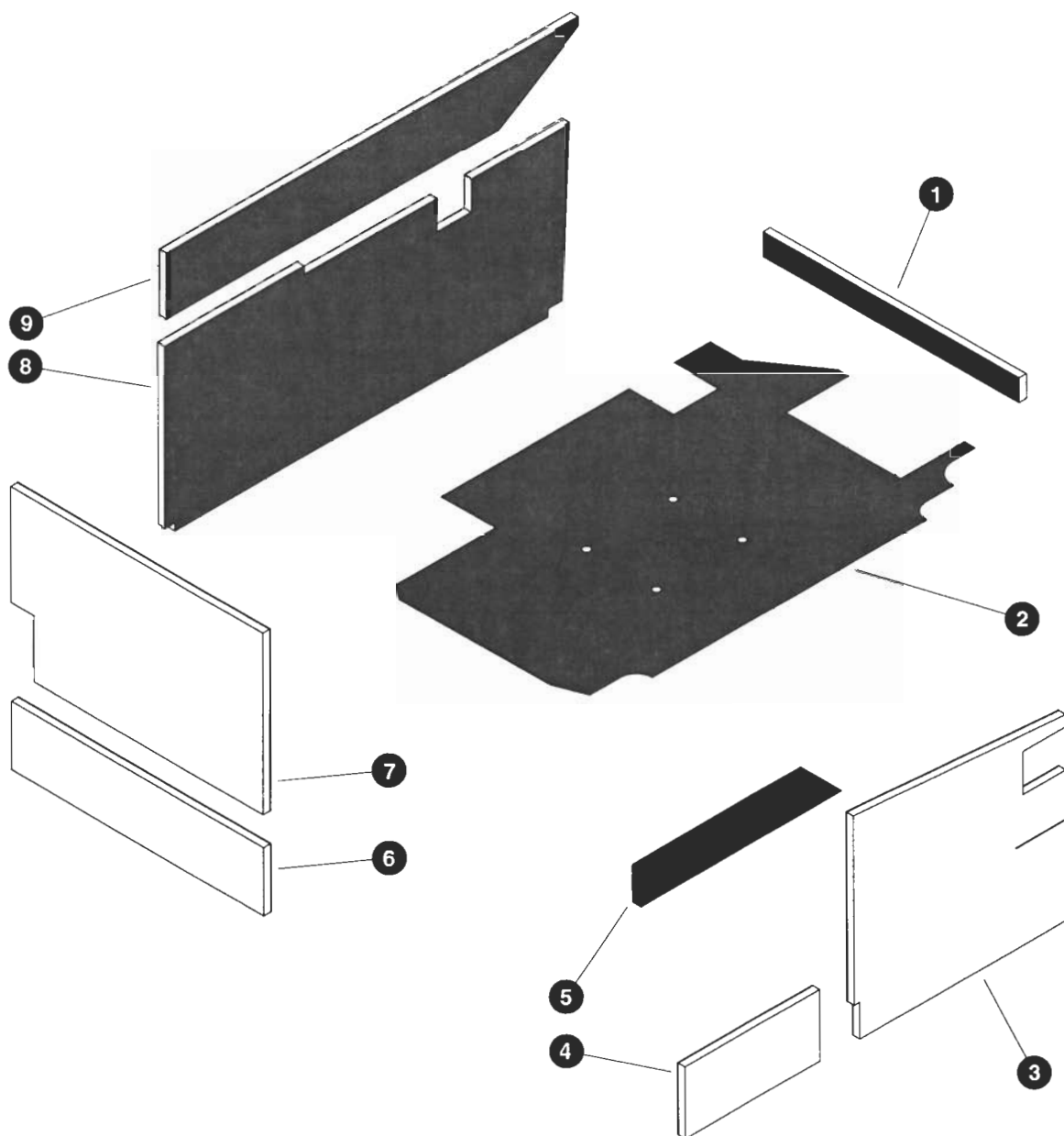


INTERIOR TRIM & FLOORMAT
(Lower Areas - Original Skylight Cab - Black)

(Used on machines PDN# 030FWD and below)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	18246	1	TRIM, panel - lower front window	
2	18250	1	FLOORMAT, cab	
3	16690	1	TRIM, panel - door	
4	16166	1	TRIM, panel - RH light	
5	17358	1	FLOORMAT, door tray	
6	17757	1	TRIM, panel - rear bottom	
7	16167	1	TRIM, panel - rear top	
8	16165	1	TRIM, panel - LH bottom	
9	16164	1	TRIM, panel - LH top	

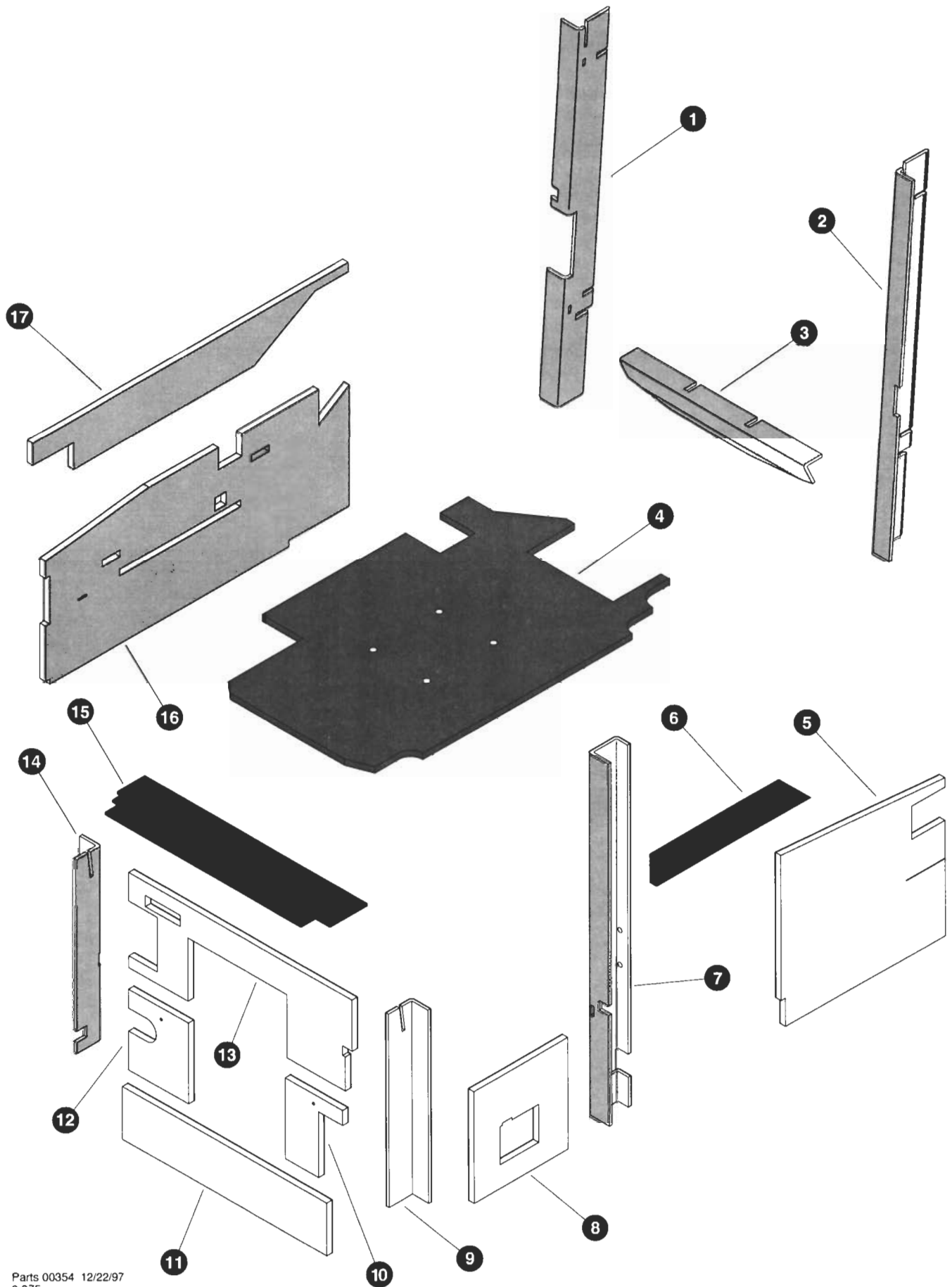
NOTE: All interior insulation padding and floormats installed with spray adhesive, PN# 17899.



INTERIOR TRIM & FLOORMAT
(Lower Areas - Stretched Skymac [Skylight] & Flat-Top Cabs - Black)

(Used on machines PDN# 031FWD thru PDN# 041)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	18246	1	TRIM, panel - lower front window	
2	20218	1	FLOORMAT, cab	
3	16690	1	TRIM, panel - door	
4	16166	1	TRIM, panel - RH light	
5	17358	1	FLOORMAT, door tray	
6	17757	1	TRIM, panel - rear bottom	
7	16167	1	TRIM, panel - rear top	
8	20219	1	TRIM, panel - LH bottom	
9	20220	1	TRIM, panel - LH top	



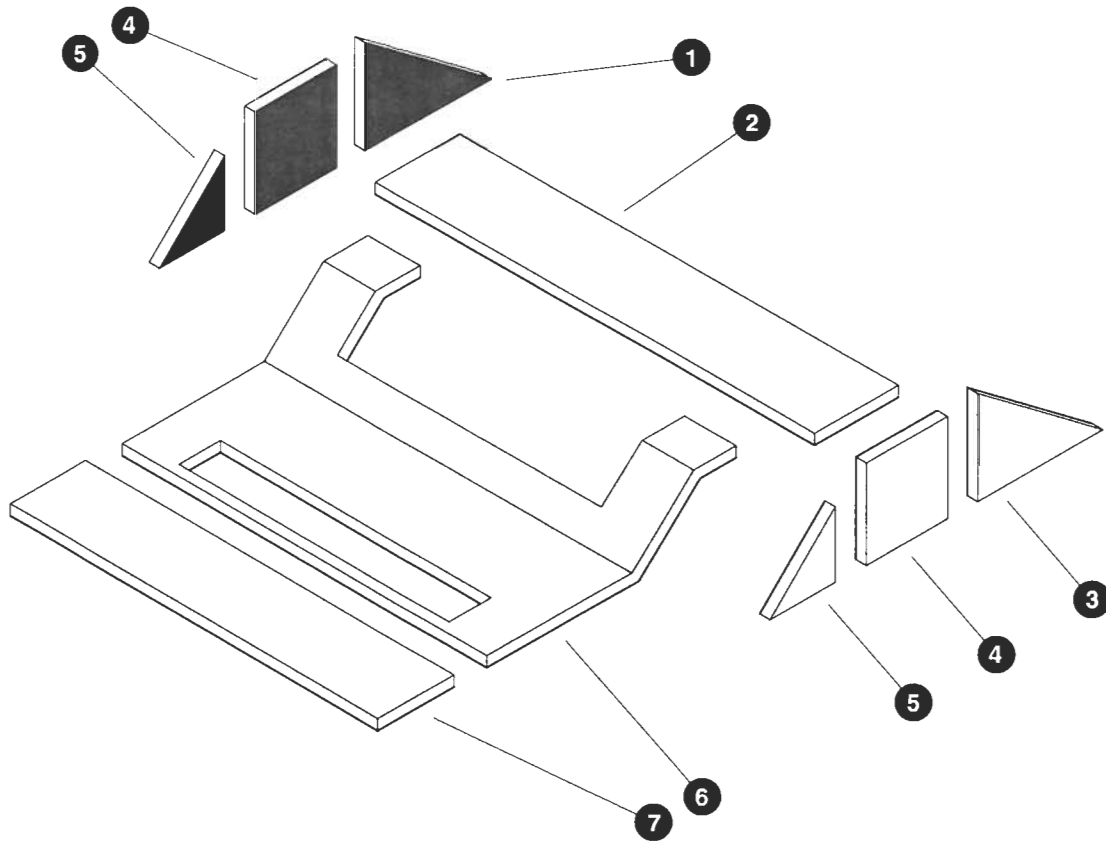
Parts 00354 12/22/97
9.375

INTERIOR TRIM & FLOORMAT

(Lower Areas - Stretched Short-Top Cab - Storm Gray)

(Used on machines PDN# 042 and above)

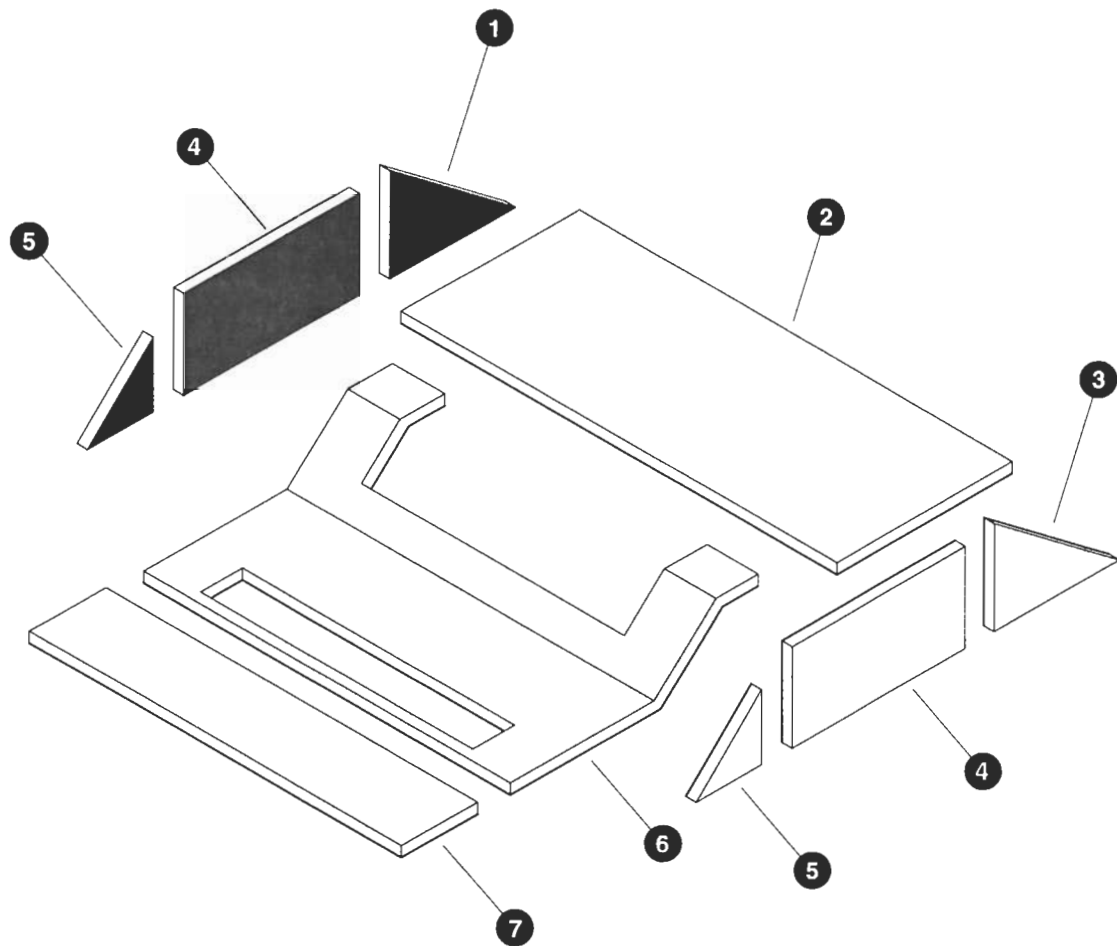
REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	19885	1	TRIM, formed - LH front post	
2	19886	1	TRIM, formed - RH front post	
3	19883	1	TRIM, formed - front window bottom	
4	19887	1	FLOORMAT, cab	
5	19879	1	TRIM, panel - door	
6	17358	1	FLOORMAT, door tray	
7	19880	1	TRIM, formed - door post	
8	20225	1	TRIM, panel - RH light	
9	19881	1	TRIM, formed - RH rear post <i>(Cut to length required)</i>	
10	20226	1	TRIM, panel - rear RH middle	
11	20227	1	TRIM, panel - rear bottom	
12	20228	1	TRIM, panel - rear LH middle	
13	20229	1	TRIM, panel - rear top	
14	19882	1	TRIM, formed - LH rear post <i>(Cut to length required)</i>	
15	20230	1	FLOORMAT, rear shelf	
16	20231	1	TRIM, panel - LH bottom	
17	20232	1	TRIM, panel - LH top	



NOTE: All interior insulation padding and floormats installed with spray adhesive, PN# 17899.

INTERIOR TRIM & FLOORMAT
(Headliner Areas - Original Skylight Cab)*(Used on machines PDN# 030FWD and below)*

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	17543	1	TRIM, panel - headliner triangle - large LH	
2	17546	1	TRIM, panel - headliner roof	
3	17544	1	TRIM, panel - headliner triangle - large RH	
4	17545	2	TRIM, panel - headliner square	
5	17542	2	TRIM, panel - headliner triangle - small	
6	19249	1	TRIM, panel - headliner A/C	
7	19250	1	TRIM, panel - headliner rear	

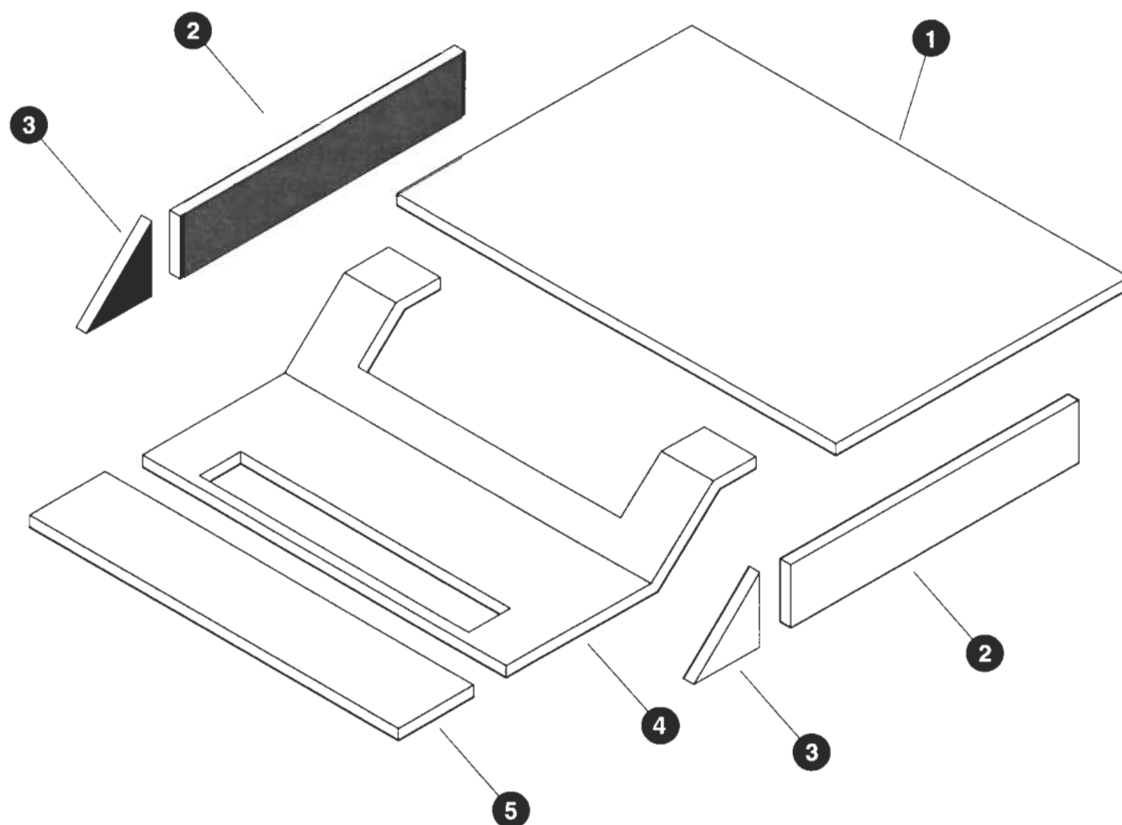


NOTE: All interior insulation padding and floormats installed with spray adhesive, PN# 17899.

INTERIOR TRIM & FLOORMAT
(Headliner Areas - Stretched Skymac [Skylight] Cab - Black)

(Used on machines PDN# 031FWD thru PDN# 041FWD)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	17543	1	TRIM, panel - headliner triangle - large LH	
2	20221	1	TRIM, panel - headliner roof	
3	17544	1	TRIM, panel - headliner triangle - large RH	
4	20222	2	TRIM, panel - headliner rectangle	
5	17542	2	TRIM, panel - headliner triangle - small	
6	19249	1	TRIM, panel - headliner A/C	
7	19250	1	TRIM, panel - headliner rear	

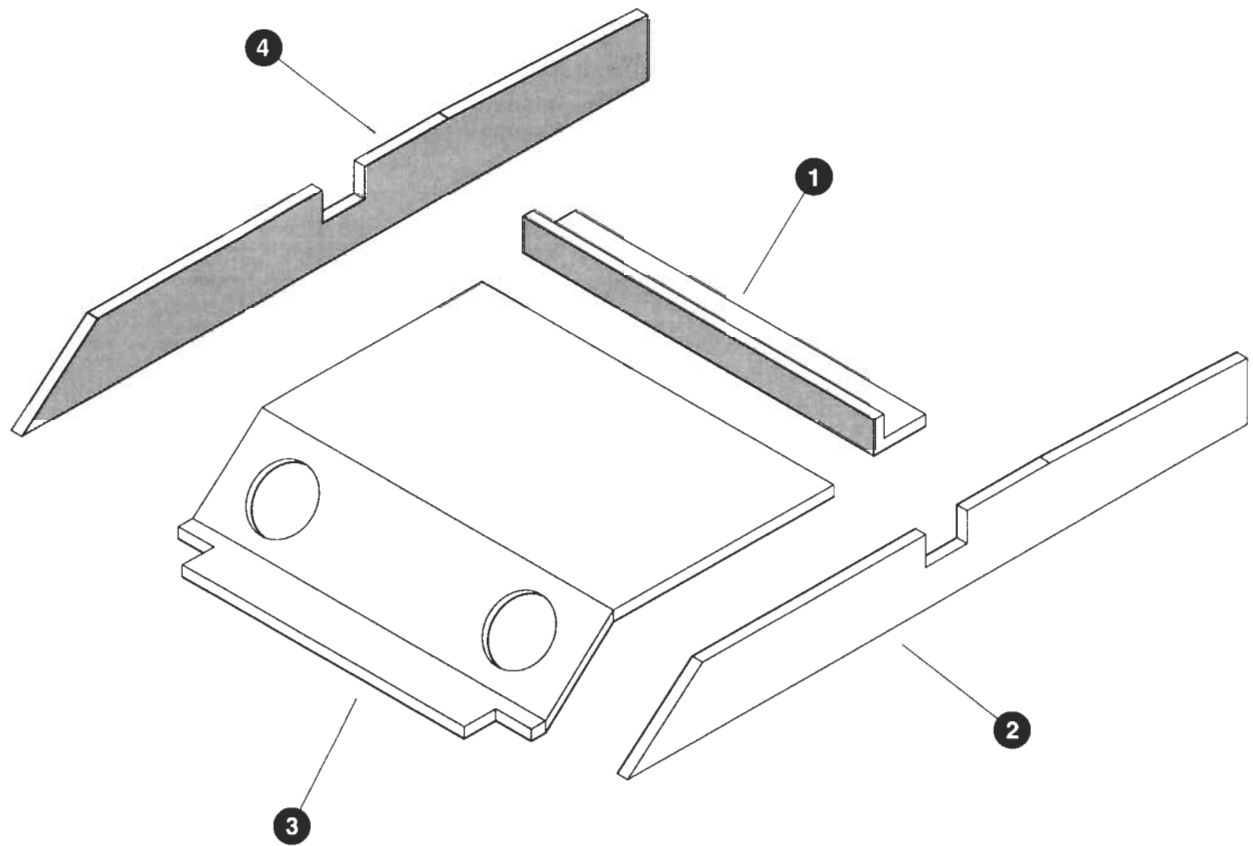


NOTE: All interior insulation padding and floormats installed with spray adhesive, PN# 17899.

INTERIOR TRIM & FLOORMAT
(Headliner Areas - Stretched Flat-Top Cab - Black)

(Used on machines PDN# 031FWD thru PDN# 041FWD)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	20223	1	TRIM, panel - headliner roof	
2	20224	2	TRIM, panel - headliner rectangle	
3	17542	2	TRIM, panel - headliner triangle - small	
4	19249	1	TRIM, panel - headliner A/C	
5	19250	1	TRIM, panel - headliner rear	



INTERIOR TRIM & FLOORMAT
(Headliner Areas - Stretched Short-Top Cab - Storm Gray)

(Used on machines PDN# 042FWD and above)

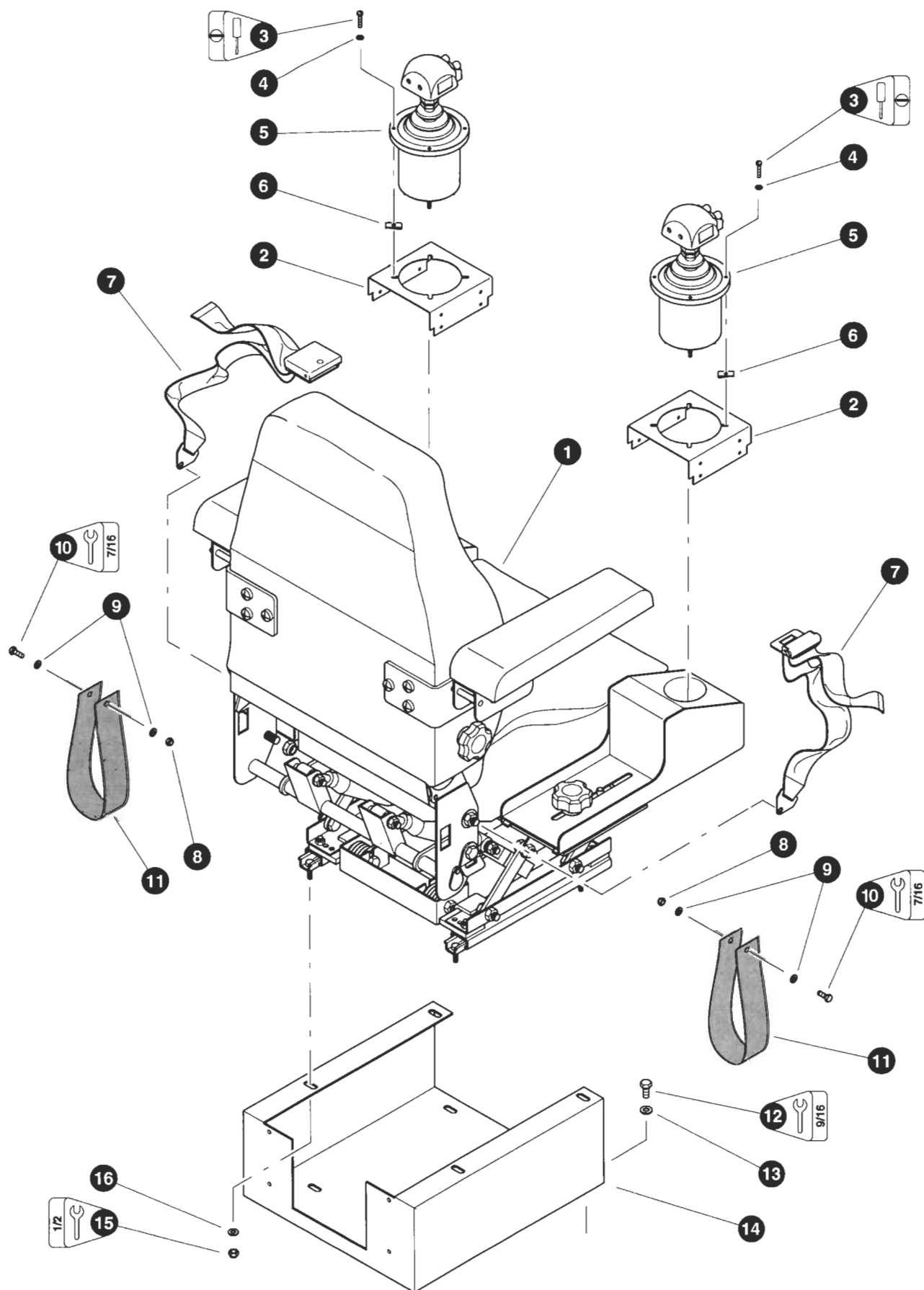
REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	20233	1	TRIM, panel - headliner roof beam	
2	20234	1	TRIM, panel - headliner side strip - RH	
3	20236	1	TRIM. panel - headliner roof	
4	20235	1	TRIM, panel - headliner side strip - LH	

OPERATOR'S SEAT ASSEMBLY
(Riser Components)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
-	19052	1	SEAT ASSEMBLY <i>(Includes all items shown on Pages G.3.12 and G.3.14)</i>	

OPERATOR'S SEAT ASSEMBLY
(Upper Components)

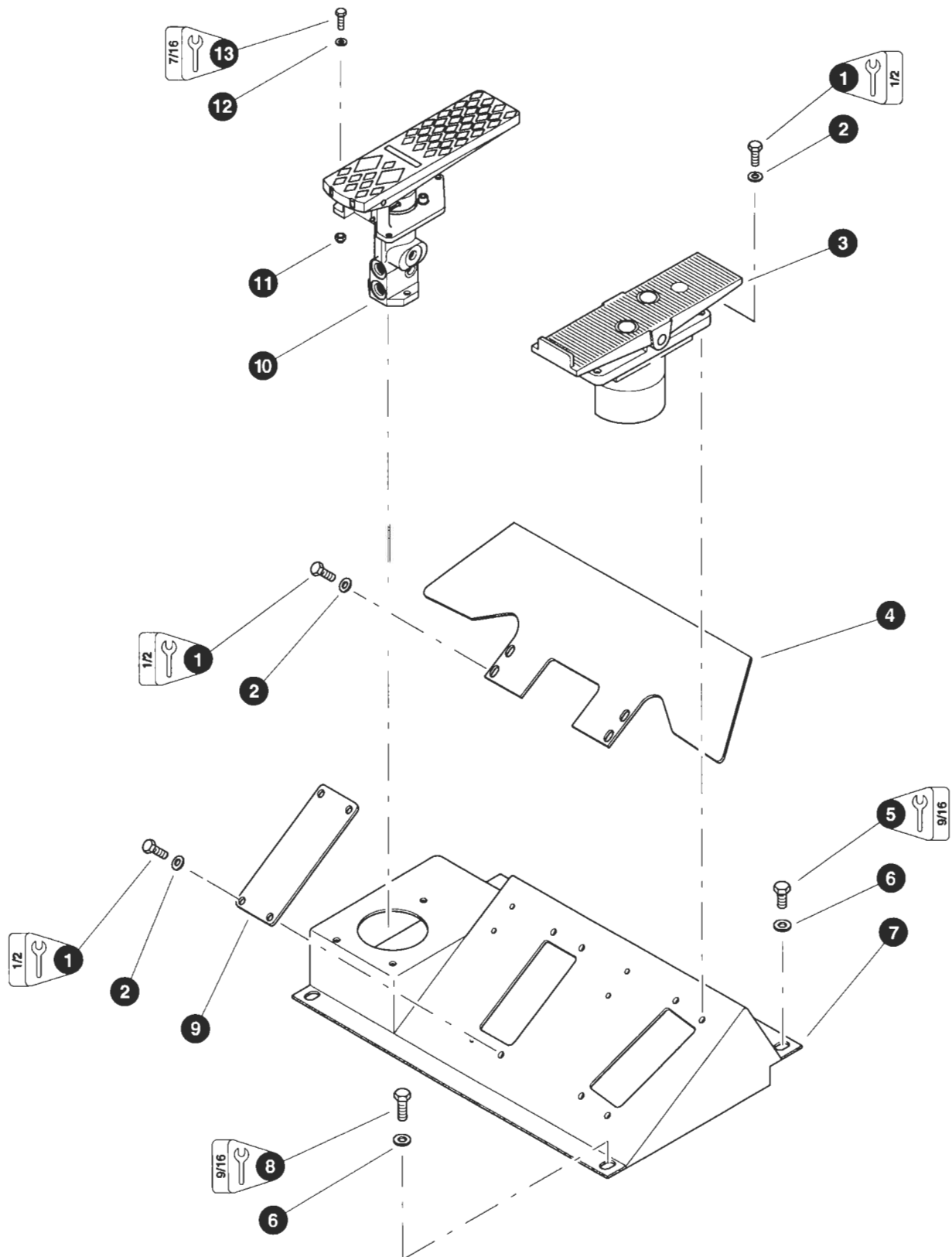
REF	PART #	QTY	DESCRIPTION	SEE PAGE
-	19052	1	SEAT ASSEMBLY <i>(Includes all items shown on Pages G.3.12 and G.3.14)</i>	



OPERATOR'S SEAT INSTALLATION

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	SEAT ASSEMBLY	G.3.14
2	19254	1	✓	BRACKET, joystick mounting	
3	15663	8		SCREW, machine - #10-24 x 1"	
4	16208	8		WASHER, flat - #10	
5	REF.	2	✓	HAND CONTROL JOYSTICK	J.2.4
6	16212	8		NUT, speed - #10	
7	18006	4		BELT, seat - 3" wide	
8	15509	2		NUT, nylock - 1/4"	
9	10800	4		WASHER, flat - 1/4"	
10	15604	2		BOLT - 1/4" x 3/4"	
11	20244	2		BELT, hose strap	
12	10402	4		BOLT - 3/8" x 1-1/4" (Used on machines PDN# 042FWD and above)	
	11707	4		BOLT - 3/8" x 1" (Used on machines PDN# 041FWD and below)	
13	15528	4		WASHER, SAE flat - 3/8"	
14	19626	1		BRACKET, seat mounting	
15	10788	4		NUT, nylock - 5/16"	
16	15559	4		WASHER, SAE flat - 5/16"	

✓ See referenced page for component or assembly breakdown.



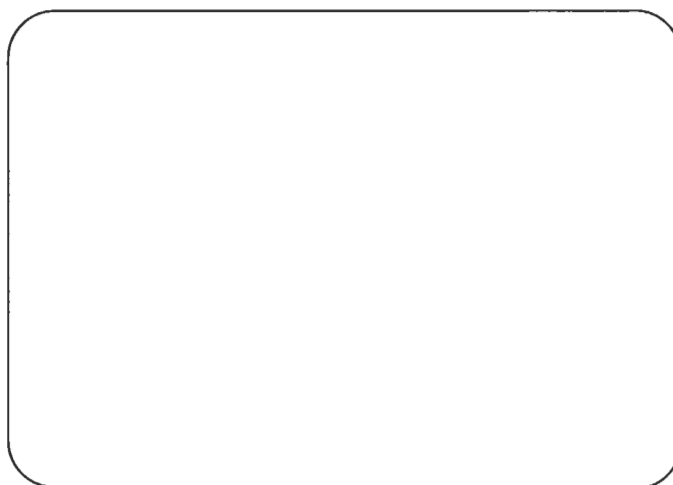
FOOT CONTROL VALVE INSTALLATION

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	15589	12		BOLT - 5/16" x 1"	
2	15559	12		WASHER, SAE flat - 5/16"	
3	REF.	1	✓	WHEEL DRIVE FOOT CONTROL VALVE	D.3.2
4	18712	6		GUARD, light	
5	11707	2		BOLT - 3/8" x 1" (Used on machines PDN# 042FWD and above)	
	15542	2		BOLT - 3/8" x 3/4" (Used on machines PDN# 041FWD and below)	
6	15528	4		WASHER, SAE flat - 3/8"	
7	19162	1		BRACKET, foot pedal control	
8	10402	2		BOLT - 3/8" x 1-1/4" (Used on machines PDN# 042FWD and above)	
	11707	2		BOLT - 3/8" x 1" (Used on machines PDN# 041FWD and below)	
9	16838	1		COVER, foot control valve	
10	REF.	1		TRAVEL BRAKE FOOT CONTROL VALVE	D.3.6
11	15509	3		NUT, nylock - 1/4"	
12	10757	3		WASHER, SAE flat - 1/4"	
13	15604	3		BOLT - 1/4" x 3/4"	

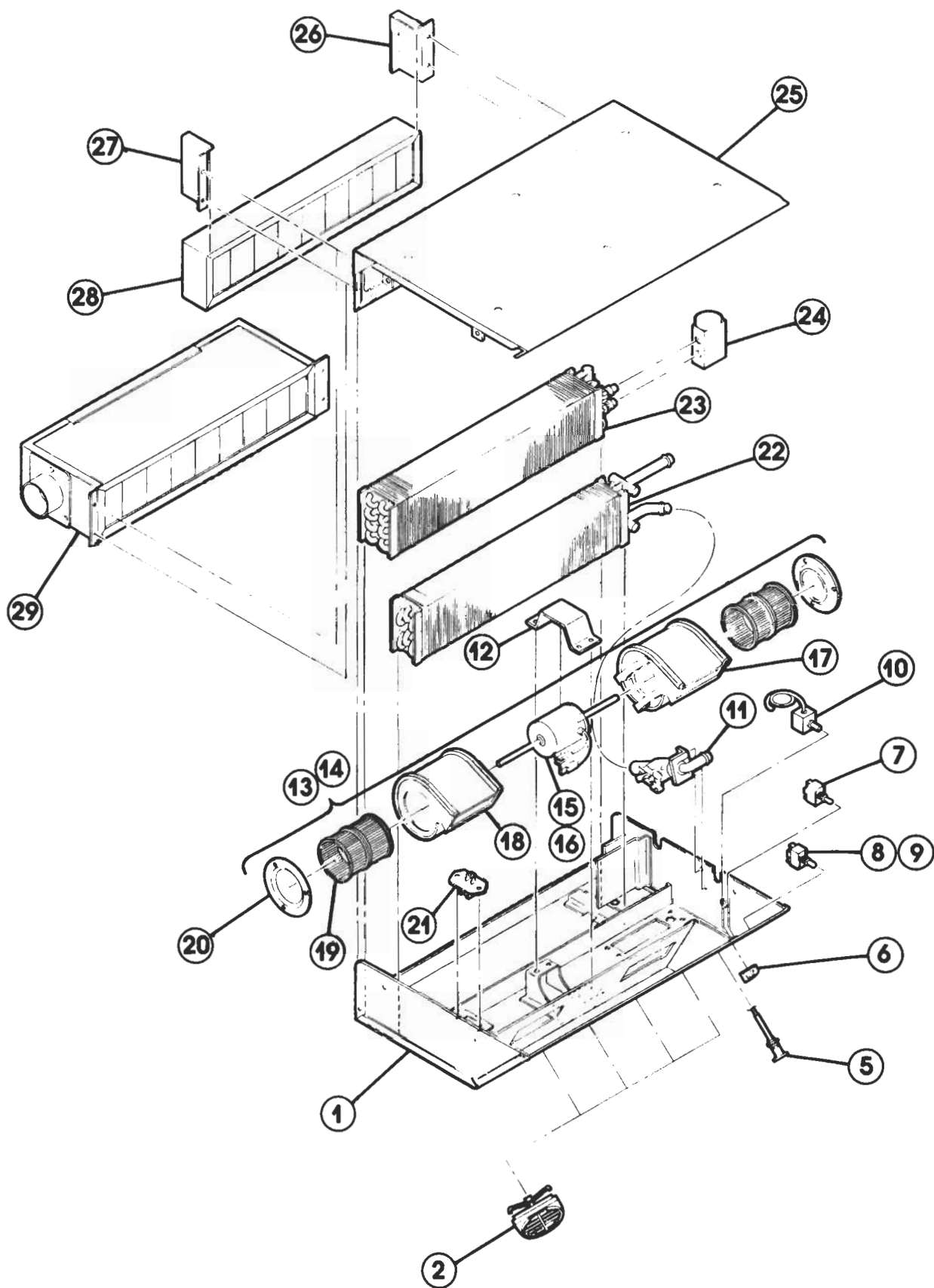
✓ See referenced page for component or assembly breakdown.

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Section G.4



Operator's Cab - Air Conditioner / Heater Installation



RD-5-5985-0 (REF)

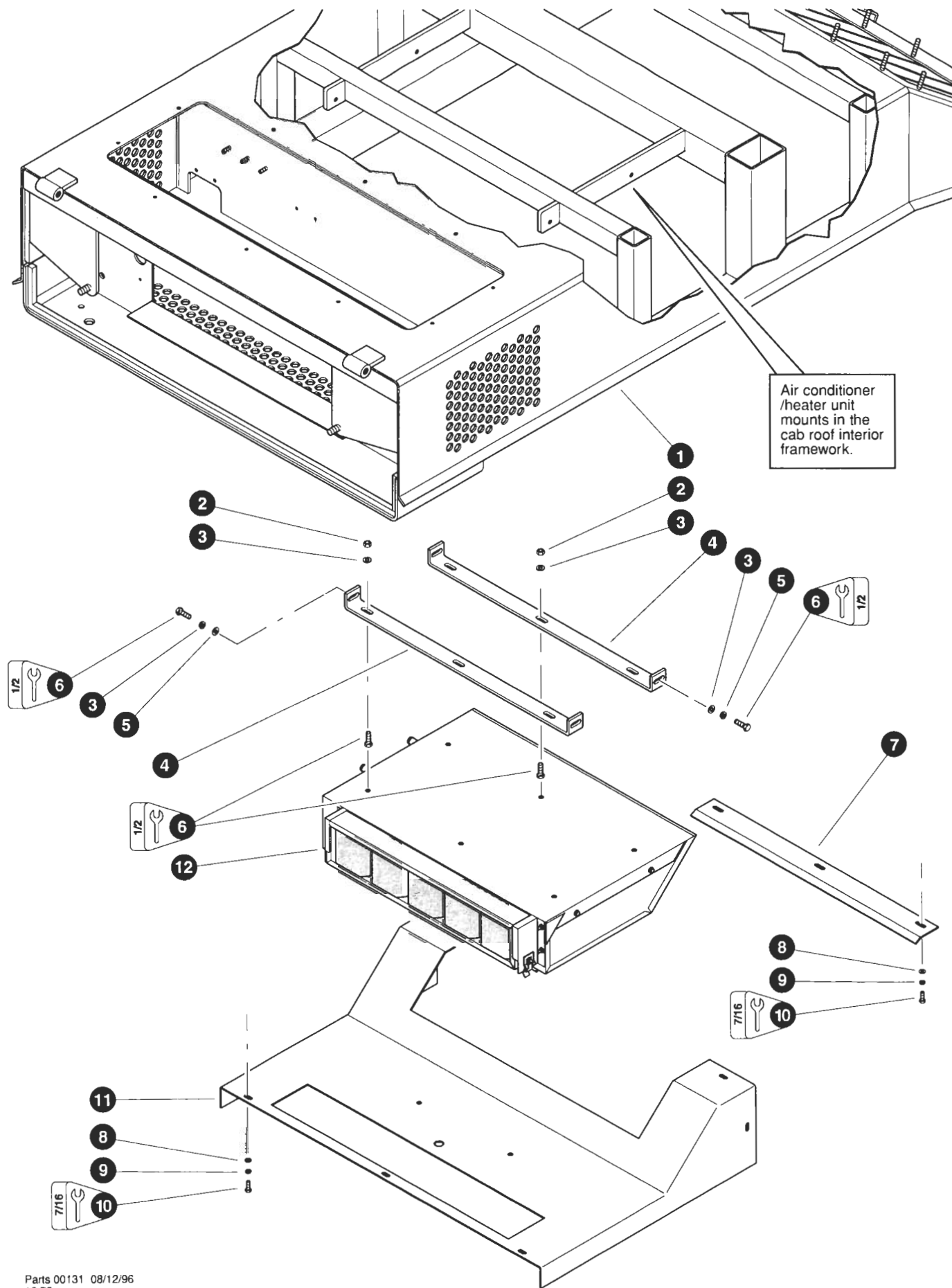
AIR CONDITIONER / HEATER UNIT

(A/C Unit Mounted In Cab Roof)

(Used on machines PDN# 041FWD and below)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
-	16169	1	☐	AIR CONDITIONER / HEATER UNIT	
1	NSS	1		HOUSING ASSEMBLY, bottom	
2	16285	4		DIFFUSER ASSEMBLY	
5	20663	1		CABLE, control	
6	20664	1		KNOB, control	
7	16656	1		SWITCH, toggle - fan speed control	
8	17461	1		SWITCH, toggle - air conditioner/heater selection	
10	16806	1		SWITCH, thermal control	
11	16470	1		VALVE, water shut-off	
12	NSS	2		RETAINER, motor	
13	20665	1	☐	BLOWER MOTOR ASSEMBLY	
15	16898	1		MOTOR	
17	NSS	1		HOUSING, blower - RH	
18	NSS	1		HOUSING, blower - LH	
19	NSS	2		WHEEL, blower	
20	NSS	2		RING, entry	
21	20666	1		RESISTOR	
22	20667	1		CORE, heater	
23	20668	1		EVAPORATOR	
24	16074	1		VALVE, expansion	
25	NSS	1		COVER	
26	NSS	1		BRACKET, filter - RH	
27	NSS	1		BRACKET, filter - LH	
28	17462	1		FILTER	

☐ Kit or Assembly - includes all items indented underneath.



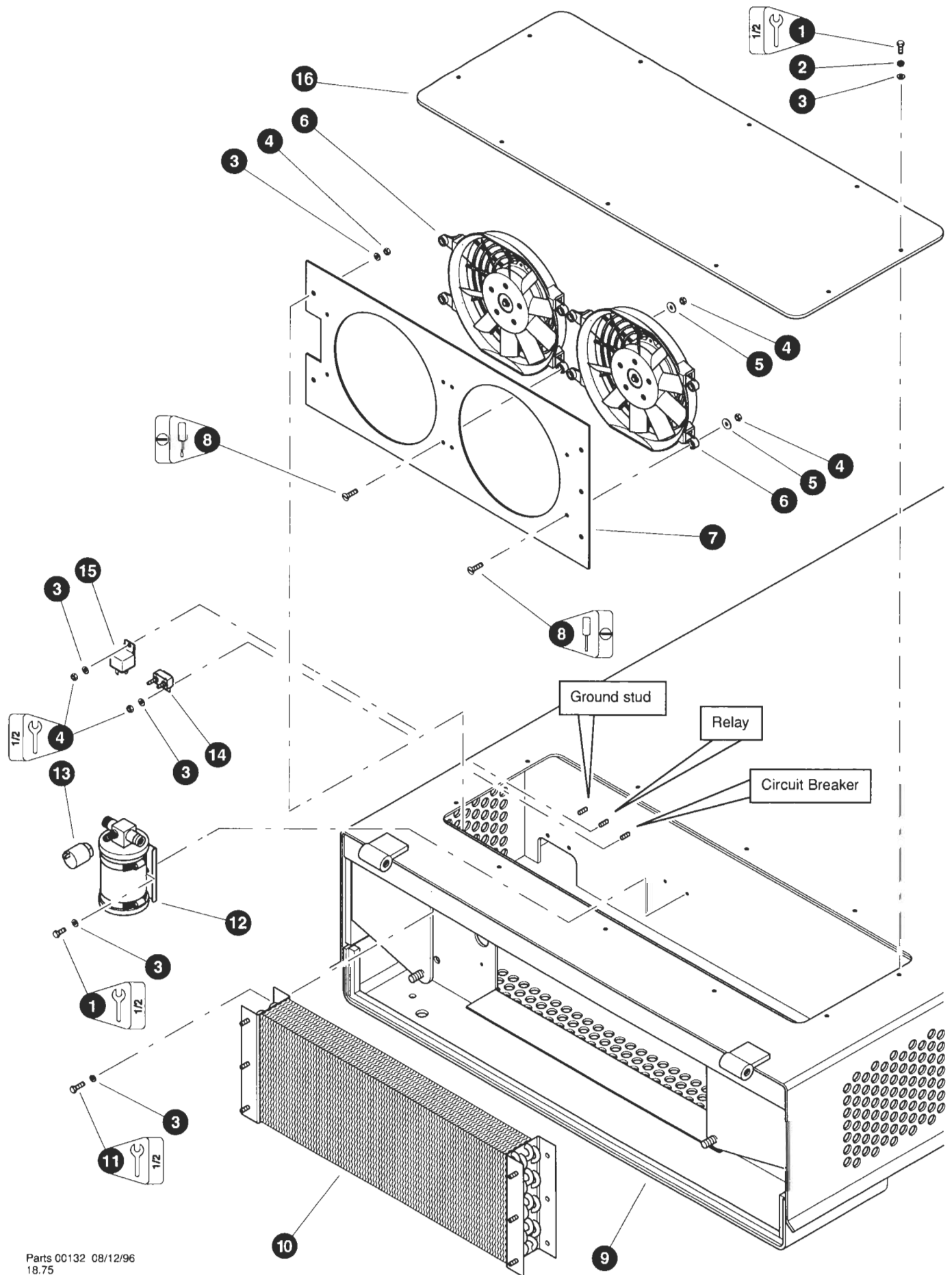
AIR CONDITIONER / HEATER UNIT INSTALLATION

(A/C Unit Mounted In Cab Roof)

(Used on machines PDN# 041FWD and below)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	CAB WELDMENT	G.1.2
2	10788	6		NUT, lock - 5/16"	
3	15559	10		WASHER, SAE flat - 5/16"	
4	12431	2		BRACKET, air conditioner mounting	
5	15606	4		WASHER, lock - 5/16"	
6	15589	10		BOLT - 5/16" x 1"	
7	19147	1		PANEL, air conditioner headliner strip	
8	10757	10		WASHER, SAE flat - 1/4"	
9	10756	10		WASHER, lock - 1/4"	
10	15604	10		BOLT - 1/4" x 3/4"	
11	19146	1		PANEL, air conditioner headliner	
12	REF.	1	✓	AIR CONDITIONER / HEATER UNIT	G.4.2

✓ See referenced page for component or assembly breakdown.



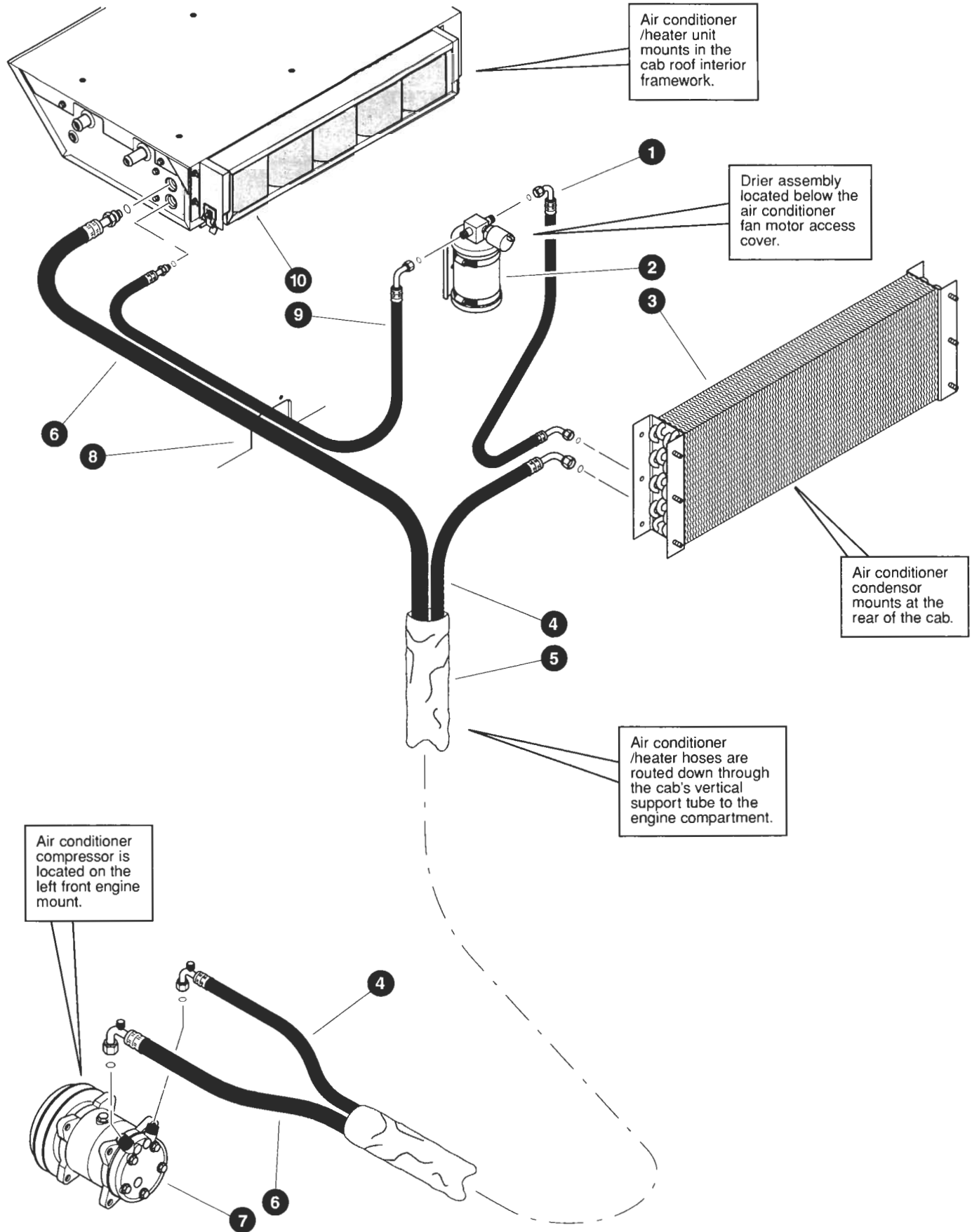
AIR CONDITIONER COMPONENT INSTALLATION

(A/C Unit Mounted In Cab Roof)

(Used on machines PDN# 041FWD and below)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	15604	13	BOLT - 1/4" x 3/4"	
2	10756	10	WASHER, lock - 1/4"	
3	10757	26	WASHER, SAE flat - 1/4"	
4	15509	16	NUT, nylock - 1/4"	
5	10800	8	WASHER, flat - 1/4"	
6	16075	2	MOTOR / FAN ASSEMBLY	
7	19145	1	PANEL, air conditioner fan mounting	
8	19243	8	SCREW, flat head machine - 1/4" x 1"	
9	REF.	1	✓ CAB WELDMENT	G.1.2
10	16092	1	CONDENSER, air conditioner	
11	15576	5	BOLT - 1/4" x 1"	
12	18093	1	□ DRIER ASSEMBLY	
13	15040	1	SWITCH, binary	
14	15036	1	BREAKER, circuit - 30 AMP	
15	15037	1	RELAY, air conditioner	
16	19148	1	COVER, fan motor access	

- ✓ See referenced page for component or assembly breakdown.
 □ Kit or Assembly - includes all items indented underneath.



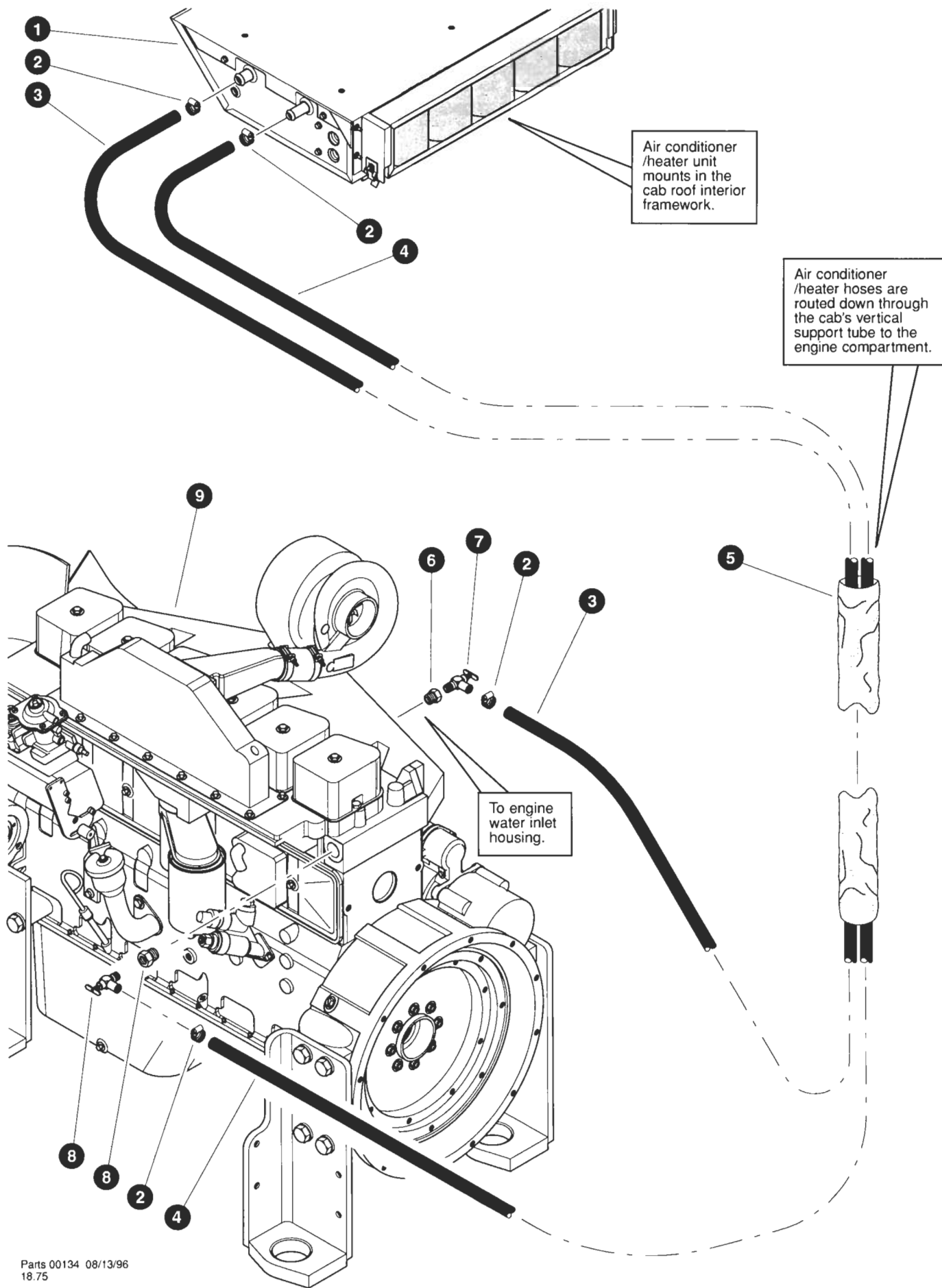
AIR CONDITIONER LINES (A/C Unit Mounted In Cab Roof)

(Used on machines PDN# 041FWD and below)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	17192	1		HOSE, air conditioner - #6 x 29" (Female 90°/Female 90°) (Drier assembly to condenser)	
2	REF.	1	✓	DRIER ASSEMBLY	G.4.6
3	REF.	1	✓	CONDENSER	G.4.6
4	15622	1		HOSE, air conditioner - #8 x 169" (Female 90°/Female 90°) (Condenser to compressor)	
5	17572	1	✕	SLEEVE, protective hose - 2-1/4"	
6	15623	1		HOSE, air conditioner - #10 x 184" (Male straight/Female 90°) (Compressor to air conditioner/heater unit)	
7	REF.	1	✓	COMPRESSOR	Varies
8	REF.	1	✓	CAB WELDMENT	G.1.2
9	17188	1		HOSE, air conditioner - #6 x 31" (Male straight/Female 90°) (Air conditioner/heater unit to drier assembly)	
10	REF.	1	✓	AIR CONDITIONER / HEATER UNIT	G.4.2

✓ See referenced page for component or assembly breakdown.

✕ Bulk material - order length required in feet or metres.



HEATER LINES (A/C Unit Mounted In Cab Roof)

(Used on machines PDN# 041FWD and below)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	AIR CONDITIONER / HEATER UNIT	G.4.2
2	15629	4		CLAMP, hose - worm style - 1-1/2"	
3	15627	1		HOSE, heater - 5/8" x 182" (<i>Engine radiator inlet to air conditioner/heater unit water inlet</i>)	
4	15627	1		HOSE, heater - 5/8" x 182" (<i>Air conditioner/heater unit water outlet to engine</i>)	
5	17572	1	⌘	SLEEVE, protective hose - 2-1/4"	
6	15630	1		BUSHING, reducer - 5406-8-6	
7	15631	2		VALVE, shut-off	
8	16831	1		BUSHING, reducer - 5406-12-6	
9	REF.	1	✓	ENGINE	F.1.2

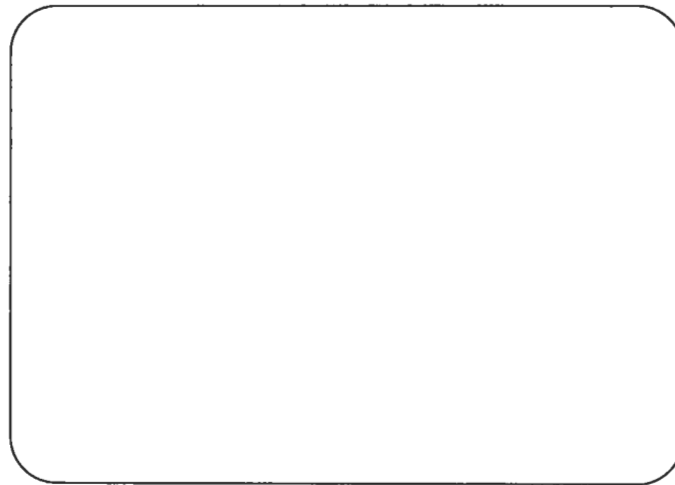
✓ See referenced page for component or assembly breakdown.

⌘ Bulk material - order length required in feet or metres.

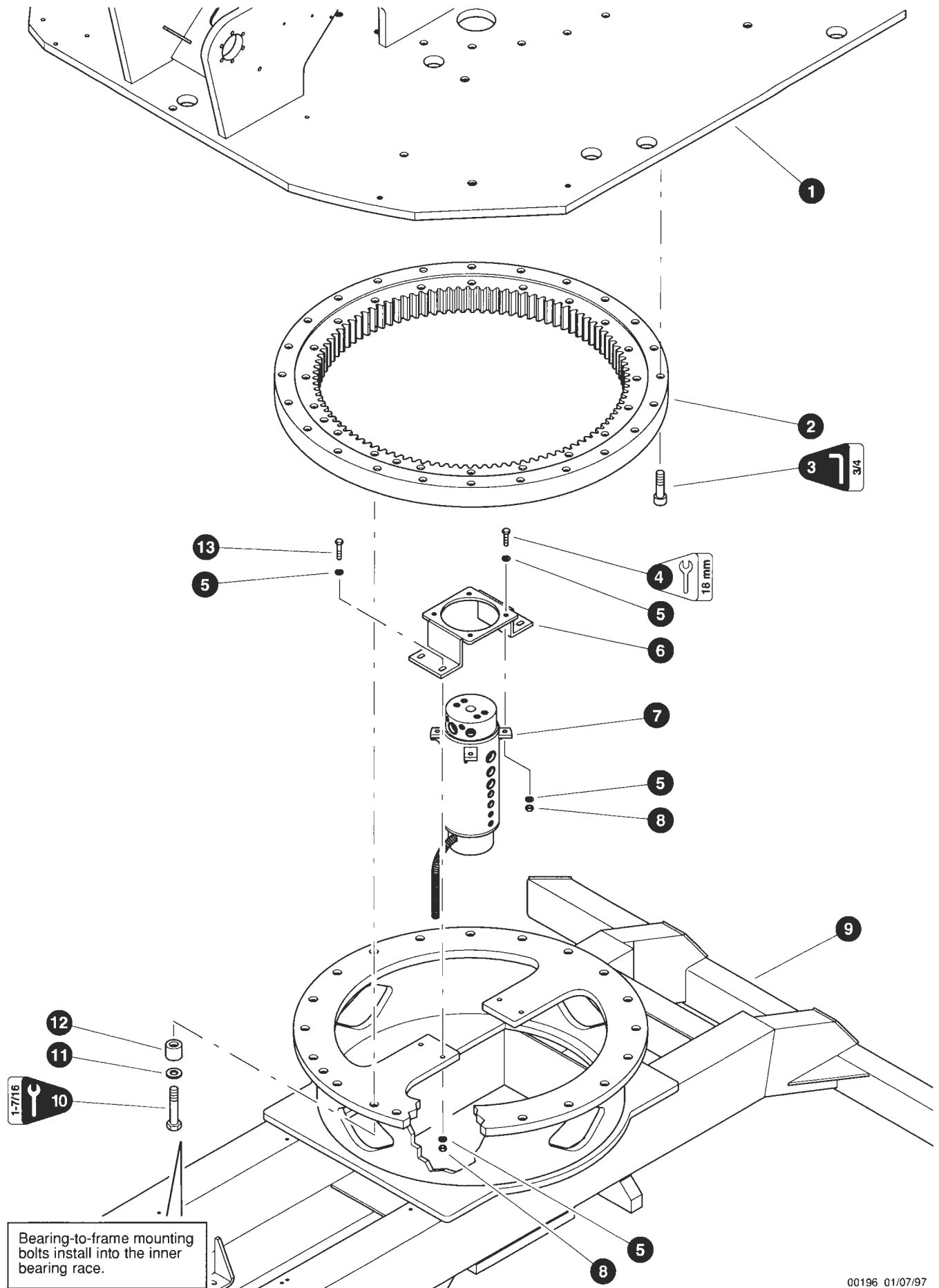
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This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Section H.1



Structural Components - Upper Turntable



UPPER TURNTABLE INSTALLATION

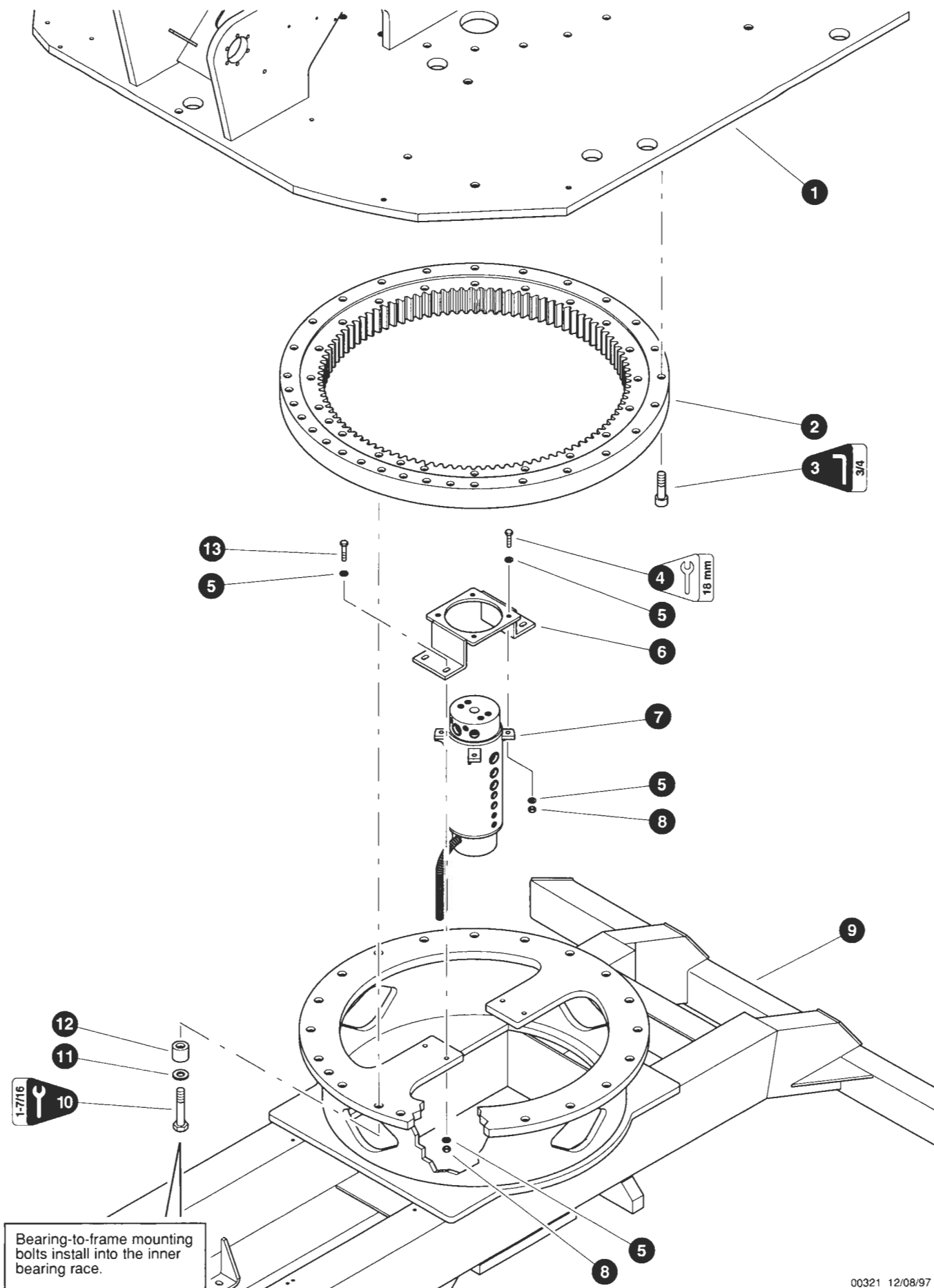
(Used on early production machines)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	14180	1		WELDMENT, upper turntable	
2	19631	1		BEARING, swing <i>(See note below)</i>	
3	18759	22		BOLT, allen head - 1" x 3-3/4" <i>(Torque to 900 ft.lbs (1200 Nm))</i>	
	15577	2		BOLT, allen head - 1" x 3-1/2" <i>(Torque to 900 ft.lbs (1200 Nm))</i>	
4	10736	4		BOLT - 1/2" x 2"	
5	15534	16		WASHER, SAE flat - 1/2"	
6	19443	1		BRACKET, rotary manifold mounting	
7	REF.	1	✓	ROTARY MANIFOLD	D.2.2
8	10815	8		NUT, lock - 1/2"	
9	REF.	1	✓	FRONT FRAME WELDMENT	H.4.2
10	12463	24		SPACER, bolt - upper turntable mounting	
11	18535	24		BOLT - 1" x 5" <i>(Torque to 1000 ft.lbs (1350 Nm))</i>	
12	18532	24		WASHER, SAE flat - 1" extra thick	
13	15565	4		BOLT - 1/2" x 2-1/2"	

✓ See reference page for component or assembly breakdown.

Note:

Early production machines are equipped with a swing bearing with a thickness of 3.625" and have 24 bolts securing it to the upper turntable weldment on the outer race. The newer swing bearing, PN# 19631, can be used without any modifications.



UPPER TURNTABLE INSTALLATION

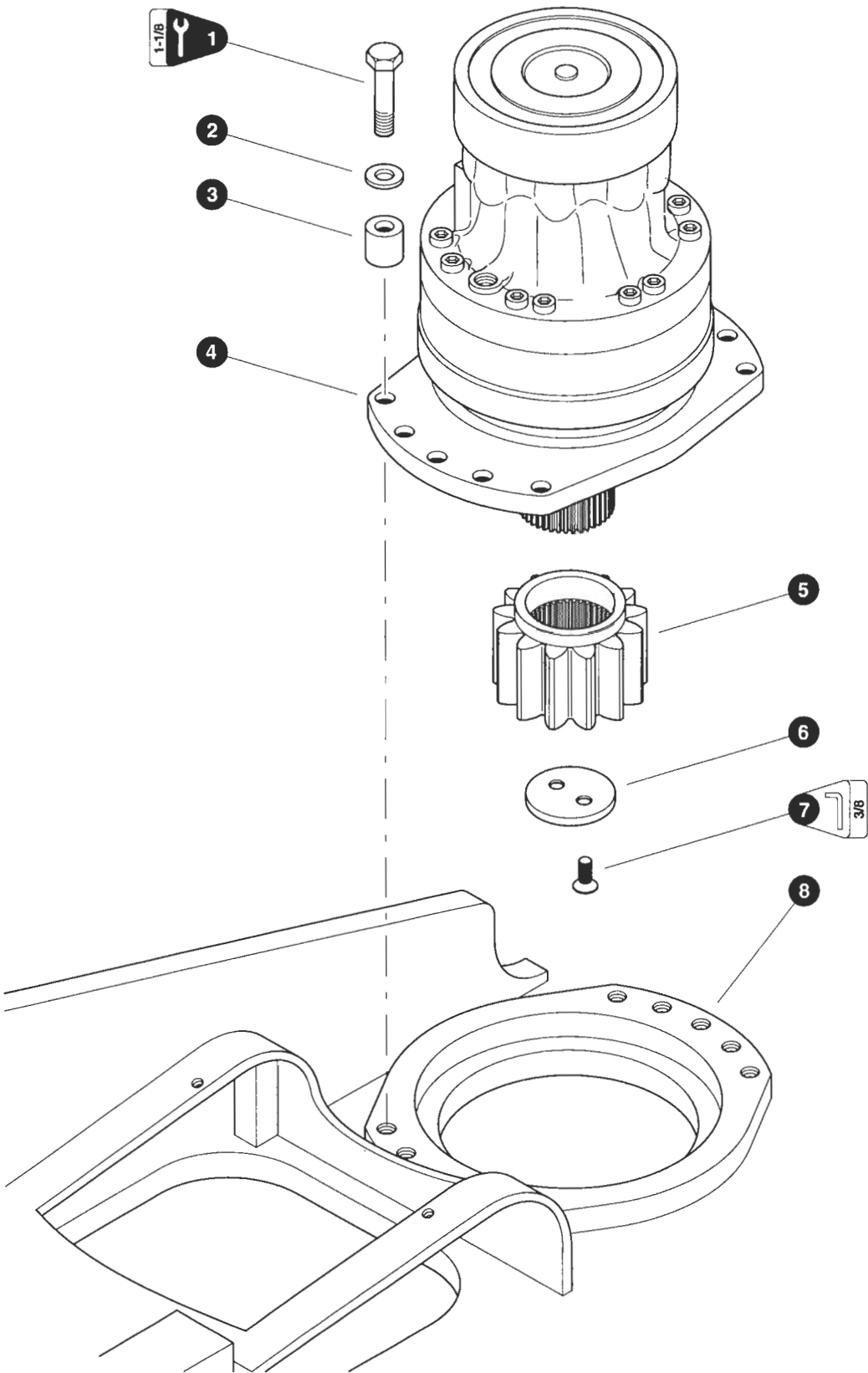
(Used on later production machines)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	14180	1		WELDMENT, upper turntable	
2	19631	1		BEARING, swing <i>(See note below)</i>	
3	19813	29		BOLT, allen head - 1" x 4-1/4" <i>(Torque to 900 ft.lbs (1200 Nm))</i>	
	19814	1		BOLT, allen head - 1" x 4" <i>(Torque to 900 ft.lbs (1200 Nm))</i>	
4	10736	4		BOLT - 1/2" x 2"	
5	15534	16		WASHER, SAE flat - 1/2"	
6	19443	1		BRACKET, rotary manifold mounting	
7	REF.	1	✓	ROTARY MANIFOLD	D.2.2
8	10815	8		NUT, lock - 1/2"	
9	REF.	1	✓	FRONT FRAME WELDMENT	H.4.2
10	12463	24		SPACER, bolt - upper turntable mounting	
11	18535	24		BOLT - 1" x 5" <i>(Torque to 1000 ft.lbs (1350 Nm))</i>	
12	18532	24		WASHER, SAE flat - 1" extra thick	
13	15565	4		BOLT - 1/2" x 2-1/2"	

✓ See reference page for component or assembly breakdown.

Note:

Later production machines are equipped with a swing bearing with a thickness of 3.81" and have 30 bolts securing it to the upper turntable weldment on the outer race.

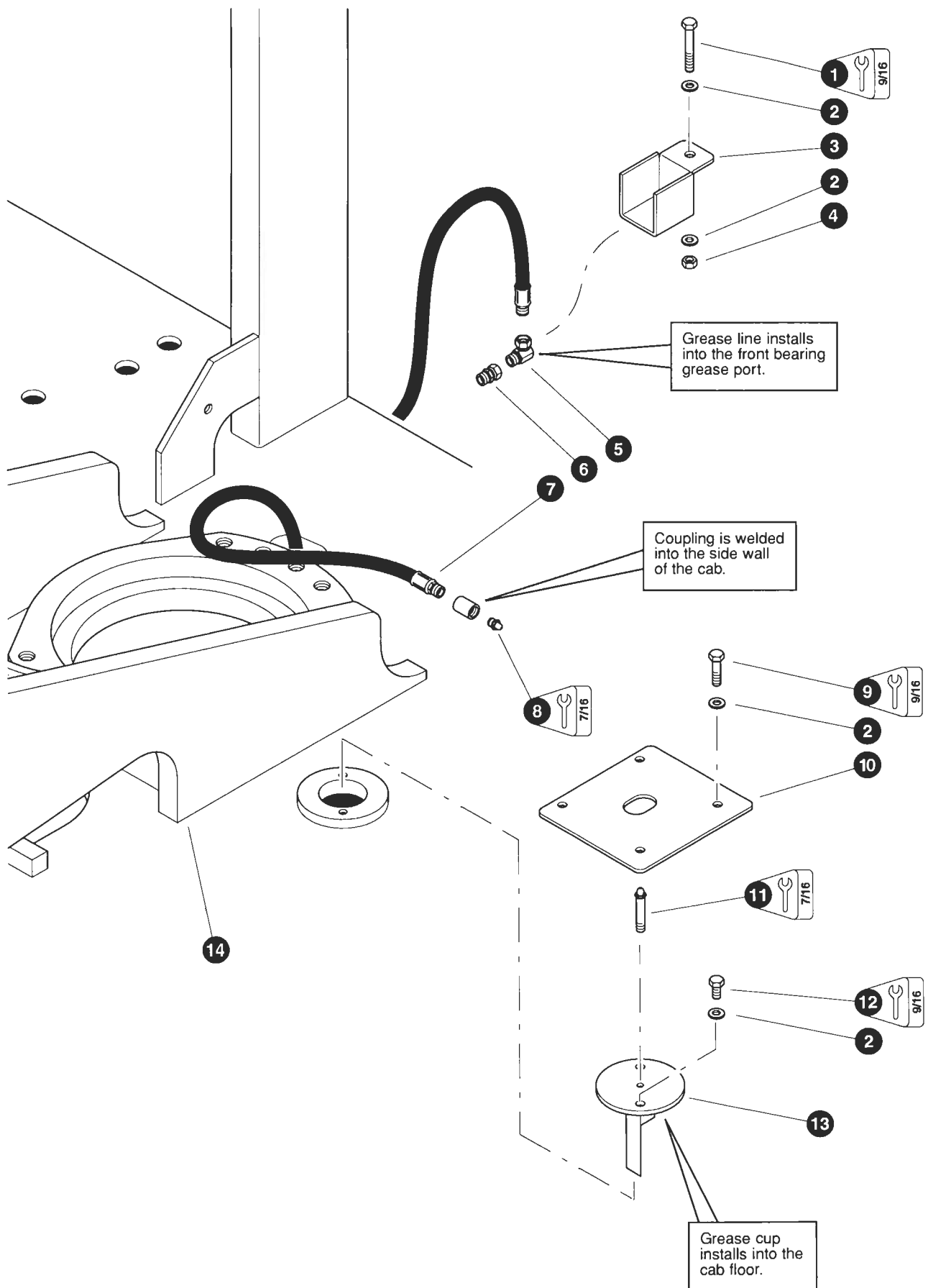


Parts 00464 02/20/98
25.00

SWING MOTOR INSTALLATION (Poclain)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	10841	10		BOLT - 3/4" x 3-1/2"	
2	15550	10		WASHER, SAE flat - 3/4"	
3	18305	10		SPACER, bolt	
4	REF.	1	✓	SWING MOTOR - Poclain	C.2.4
5	17499	1		PINION, swing motor	
6	17637	1		WASHER, pinion	
7	17634	2		BOLT, flat head socket - 14mm-2.0P x 30mm	
8	REF.	1	✓	UPPER TURNTABLE WELDMENT	H.1.2

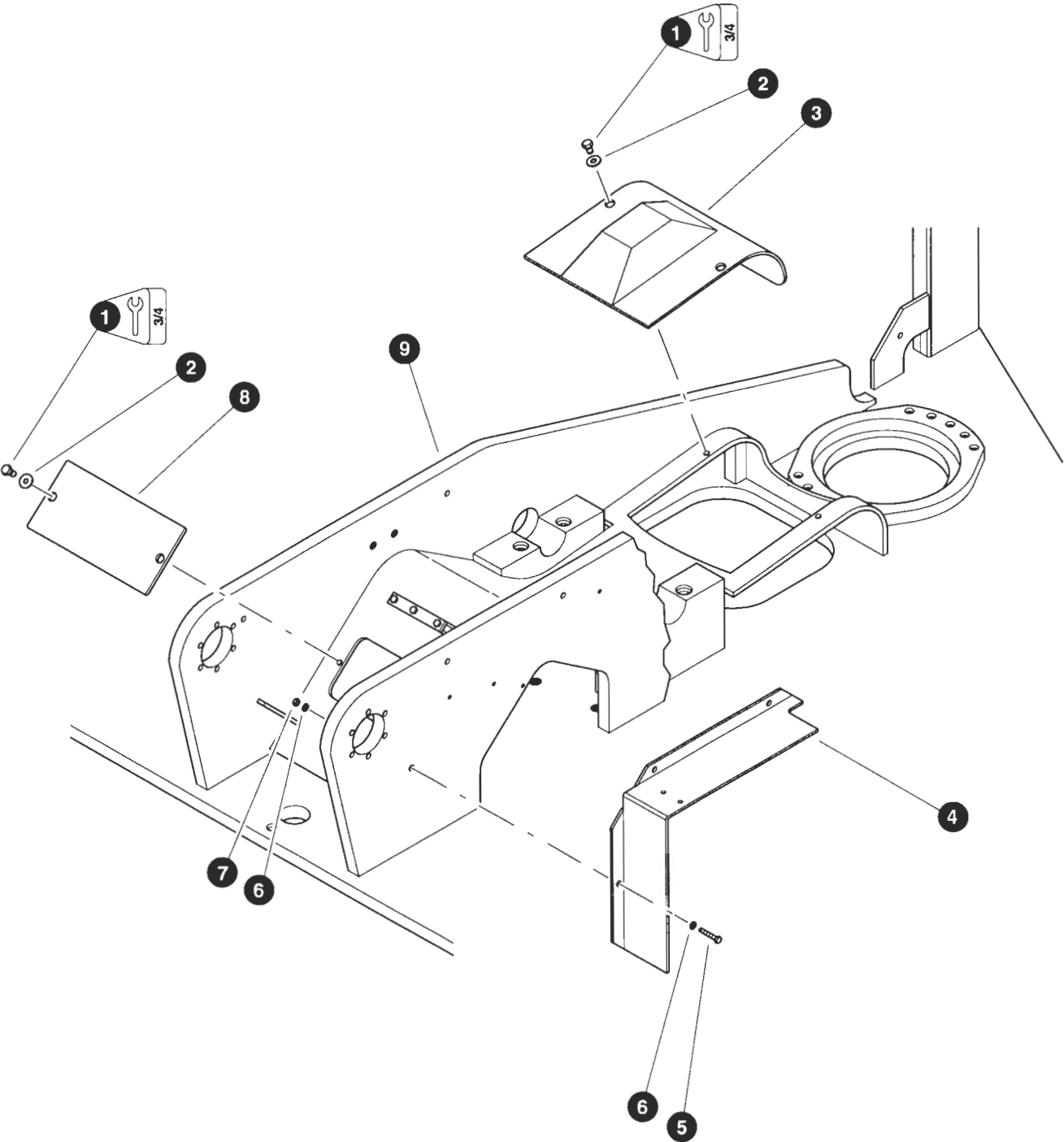
✓ See reference page for component or assembly breakdown.



SWING BEARING GREASE LINES

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	15529	1		BOLT - 3/8" x 2"	
2	15528	8		WASHER, SAE flat - 3/8"	
3	19758	1		GUARD, swing bearing grease port	
4	10813	1		NUT, lock - 3/8"	
5	15657	1		ELBOW, 90° swivel - 1501-2-2	
6	15391	1		CONNECTOR, straight swivel - 1404-2-2	
7	19036	1		HOSE ASSEMBLY - 2026-04-02PS-02PS (<i>Swing bearing grease port to cab sidewall coupling</i>)	
8	10704	1		FITTING, straight grease - 1/8" pipe thread	
9	10731	4		BOLT - 3/8" x 1-1/2"	
10	18248	1		COVER, grease cup	
11	15685	1		FITTING, straight long grease - 1/8" pipe thread	
12	15542	2		BOLT - 3/8" x 3/4"	
13	17612	1		CUP, grease	
14	REF.	1	✓	UPPER TURNTABLE WELDMENT	H.1.2

✓ See reference page for component or assembly breakdown.

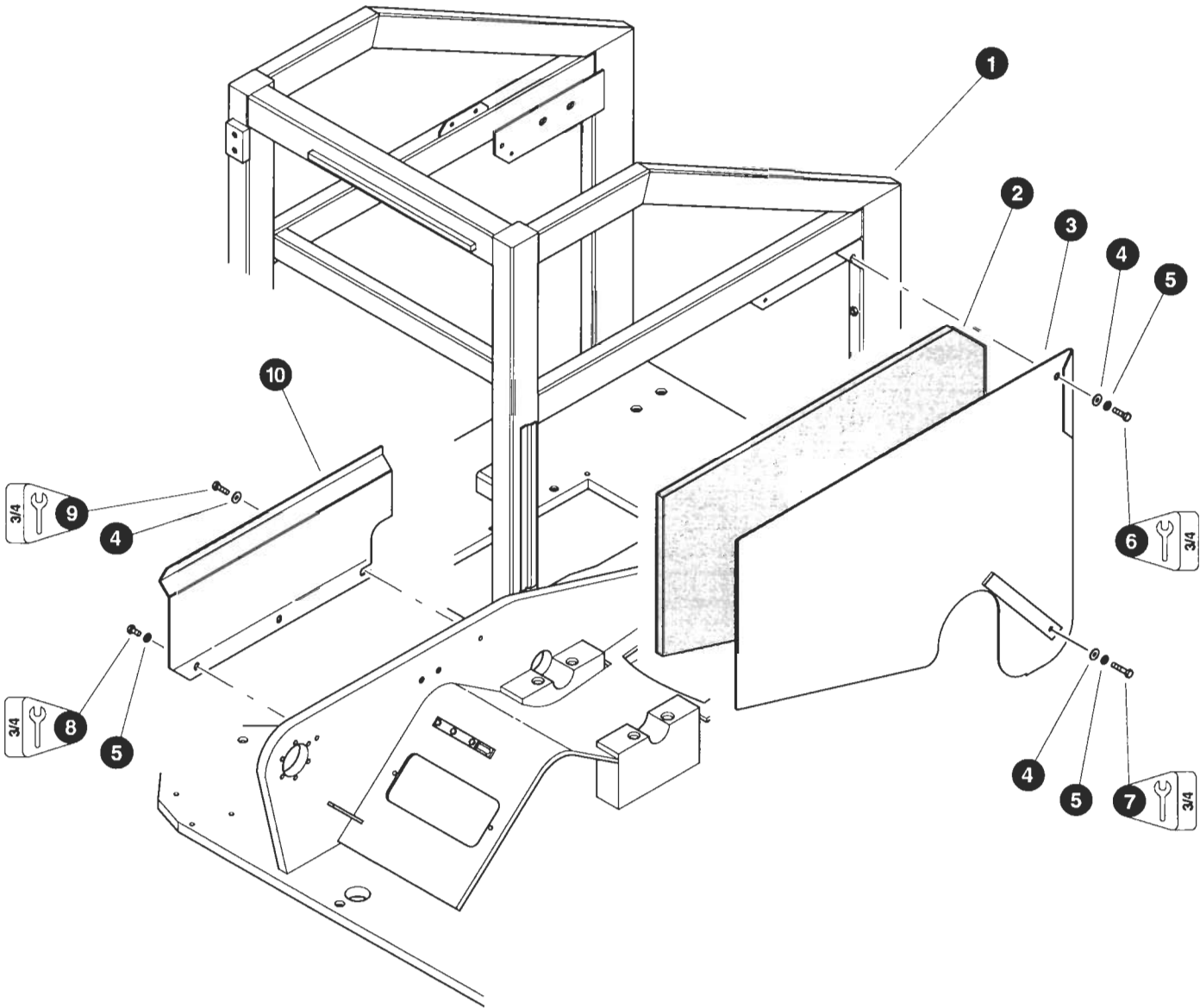


UPPER TURNTABLE GUARDS, PANELS & COVERS INSTALLATION

(Boom Mounting Area Access Covers)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	10783	4		BOLT - 1/2" x 1"	
2	15534	4		WASHER, SAE flat - 1/2"	
3	14093	1		COVER, swivel access	
4	18490	1		GUARD, pilot pressure valve manifold	
5	15529	3		BOLT - 3/8" x 2"	
6	15528	6		WASHER, SAE flat - 3/8"	
7	10813	3		NUT, lock - 3/8"	
8	18467	1		COVER, foot shuttle valve access	
9	REF.	1	✓	UPPER TURNTABLE WELDMENT	H.1.2

✓ See reference page for component or assembly breakdown.

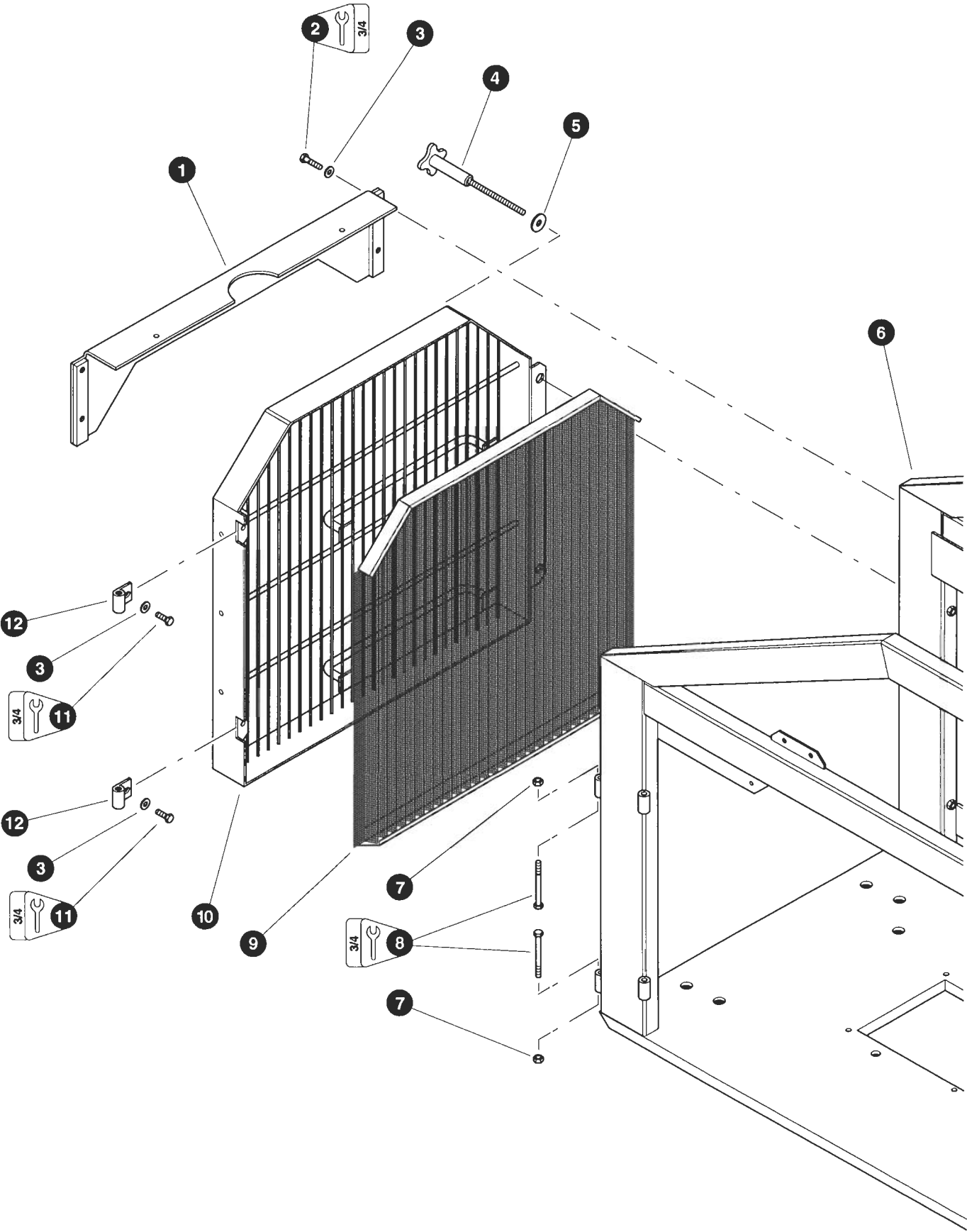


UPPER TURNTABLE GUARDS, PANELS & COVERS INSTALLATION

(Cab-Side Engine & Pump Compartment Guards)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	UPPER TURNTABLE WELDMENT	H.1.2
2	17506	1		INSULATION, soundproof - cab-side engine pivot guard	
3	14088	1		GUARD, cab-side engine pivot	
4	10804	3		WASHER, flat - 1/2"	
5	15534	4		WASHER, SAE flat - 1/2"	
6	10736	1		BOLT - 1/2" x 2"	
7	15565	1		BOLT - 1/2" x 2-1/2"	
8	10783	1		BOLT - 1/2" x 1"	
9	10739	1		BOLT - 1/2" x 1-1/2"	
10	17235	1		GUARD, cab-side pump compartment	

✓ See reference page for component or assembly breakdown.

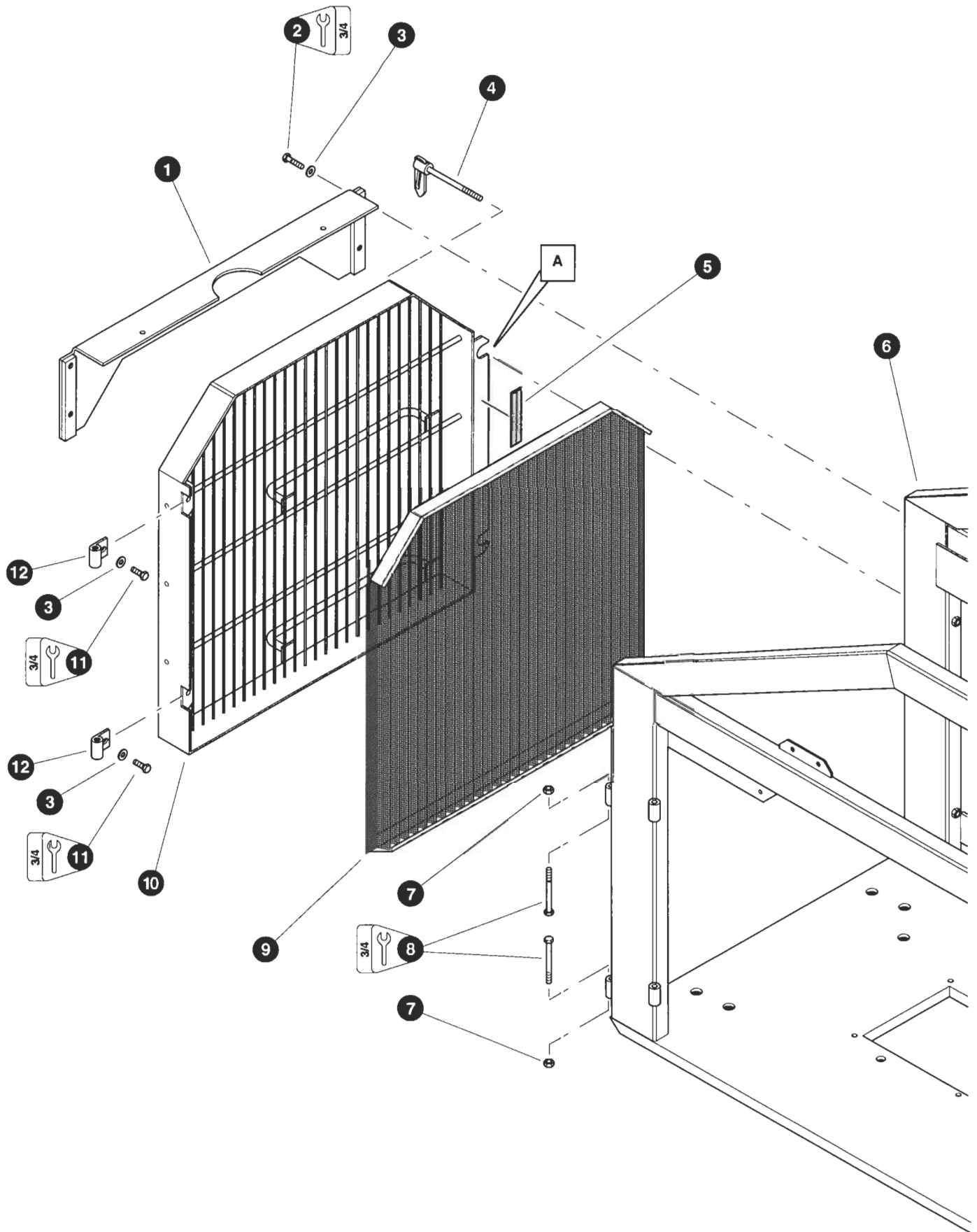


UPPER TURNTABLE GUARDS, PANELS & COVERS INSTALLATION

(Swing-Out Radiator Guard With Star Knobs)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	17820	1		MEMBER, radiator support	
2	10736	4		BOLT - 1/2" x 2"	
3	15534	6		WASHER, SAE flat - 1/2"	
4	17927	2		KNOB, star - radiator guard (12-1/2" long)	
5	10804	2		WASHER, flat - 1/2"	
6	REF.	1	✓	UPPER TURNTABLE WELDMENT	H.1.2
7	10815	2		NUT, lock - 1/2"	
8	10705	2		BOLT - 1/2" x 5"	
9	17630	1		SCREEN, radiator protection	
10	17821	1		GUARD, swing-out radiator	
11	10783	2		BOLT - 1/2" x 1"	
12	16403	2		BRACKET, hinge	

✓ See reference page for component or assembly breakdown.



UPPER TURNTABLE GUARDS, PANELS & COVERS INSTALLATION

(Swing-Out Radiator Guard With Cam Latches)

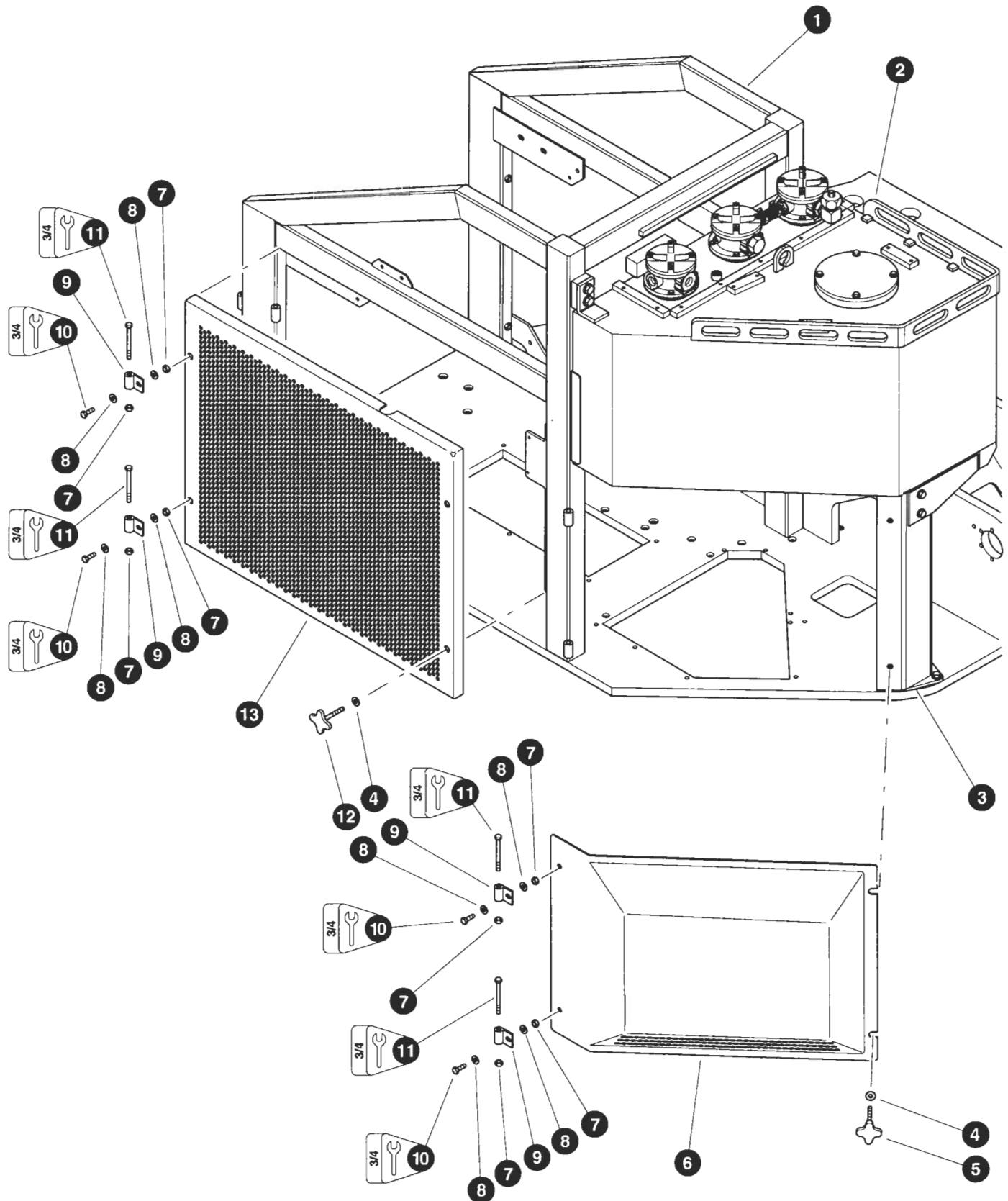
REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	17820	1		MEMBER, radiator support	
2	10736	4		BOLT - 1/2" x 2"	
3	15534	6		WASHER, SAE flat - 1/2"	
4	19772	2		LATCH, cam - radiator guard <i>(See note below before ordering parts)</i>	
5	18126	AR	⊗	WEATHERSTRIP	
6	REF.	1	✓	UPPER TURNTABLE WELDMENT	H.1.2
7	10815	2		NUT, lock - 1/2"	
8	10705	2		BOLT - 1/2" x 5"	
9	17630	1		SCREEN, radiator protection	
10	19774	1		GUARD, swing-out radiator <i>(See note below before ordering parts)</i>	
11	10783	2		BOLT - 1/2" x 1"	
12	16403	2		BRACKET, hinge	

⊗ Bulk Material - order length required in feet or metres.

✓ See reference page for component or assembly breakdown.

Note:

The swing-out radiator guard must have notches in place of holes (see "A" in the illustration on the opposite page) in order for the guard to be able to close over the quick latches. If the quick latches are going to be used with an older swing-out radiator guard, PN# 17821, the guard must be modified by adding the notches. Also, weatherstrip, PN# 18126, must be applied to the swing-out radiator guard to prevent it from rattling after being closed.

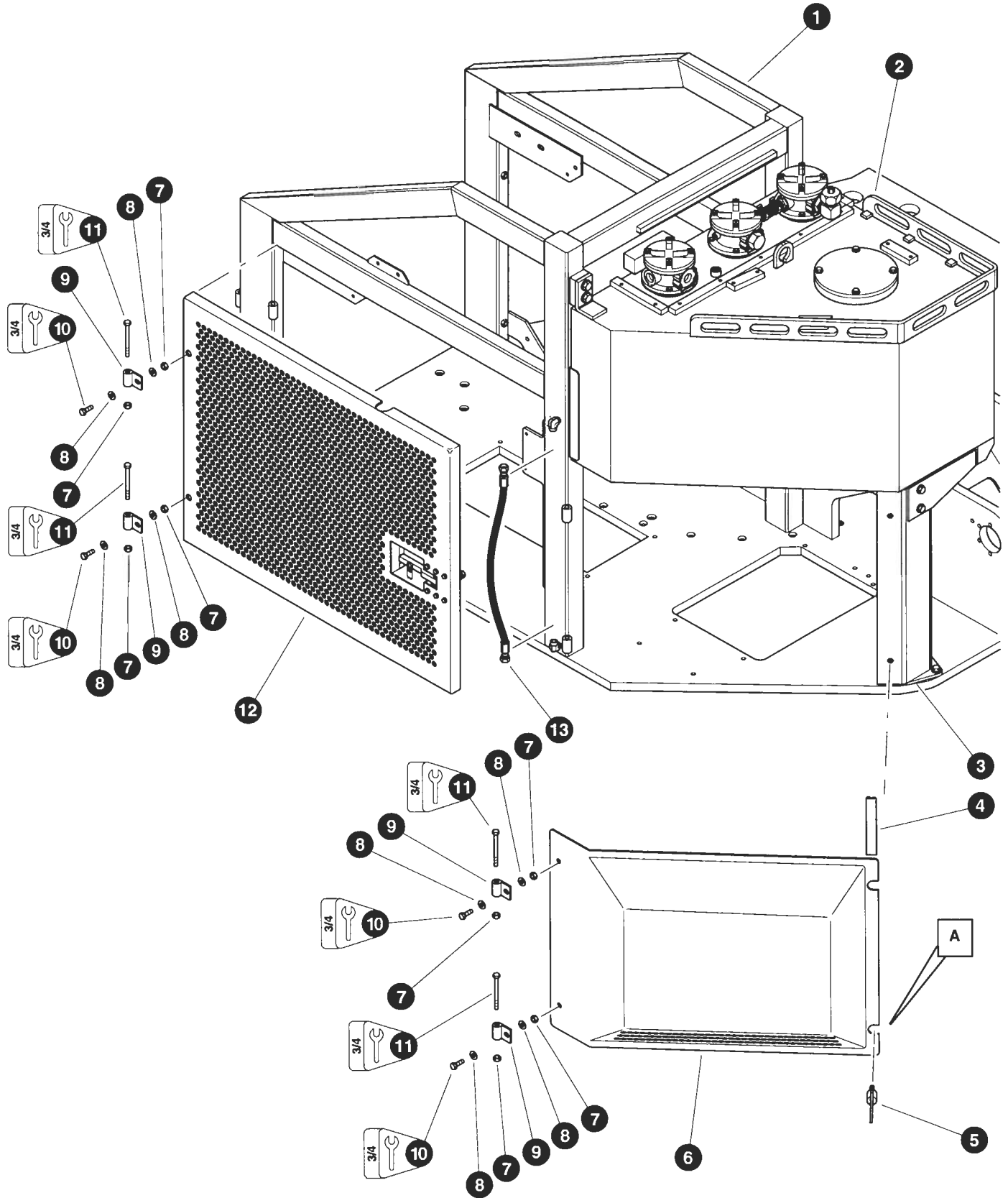


UPPER TURNTABLE GUARDS, PANELS & COVERS INSTALLATION

(Swing-Out Engine & Pump Compartment Guards With Star Knobs)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	UPPER TURNTABLE WELDMENT	H.1.2
2	REF.	1	✓	HYDRAULIC TANK ASSEMBLY	E.1.2
3	REF.	1	✓	HYDRAULIC TANK SUPPORT	E.1.6
4	10805	4		WASHER, flat - 1/2"	
5	18265	2		KNOB, star - swing-out pump guard	
6	17607	1		GUARD, swing-out pump	
7	10815	8		NUT, lock - 1/2"	
8	15534	8		WASHER, SAE flat - 1/2"	
9	16403	4		BRACKET, hinge	
10	10739	4		BOLT - 1/2" x 1-1/2"	
11	10705	4		BOLT - 1/2" x 5"	
12	16850	2		KNOB, star - 3-1/2"	
13	12208	1		GUARD, swing-out engine	

✓ See reference page for component or assembly breakdown.



UPPER TURNTABLE GUARDS, PANELS & COVERS INSTALLATION

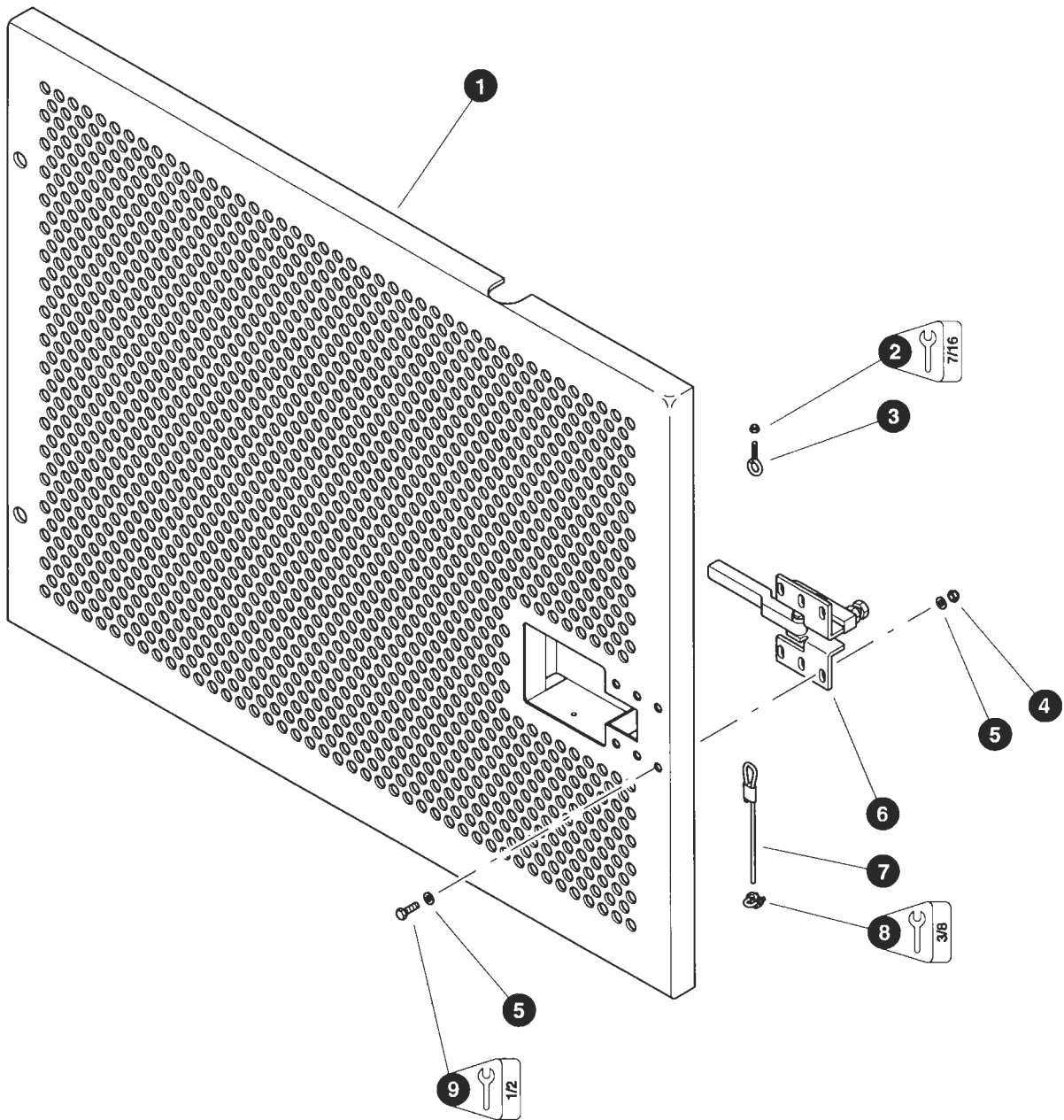
(Swing-Out Engine & Pump Compartment Guards With Cam Latches)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	UPPER TURNTABLE WELDMENT	H.1.2
2	REF.	1	✓	HYDRAULIC TANK ASSEMBLY	E.1.2
3	REF.	1	✓	HYDRAULIC TANK SUPPORT	E.1.6
4	18126	AR	⌘	WEATHERSTRIP	
5	19721	2		LATCH, cam - swing-out pump guard <i>(See note below before ordering parts)</i>	
6	17607	1		GUARD, swing-out pump	
7	10815	8		NUT, lock - 1/2"	
8	15534	8		WASHER, SAE flat - 1/2"	
9	16403	4		BRACKET, hinge	
10	10739	4		BOLT - 1/2" x 1-1/2"	
11	10705	4		BOLT - 1/2" x 5"	
12	REF.	1	✓	SWING-OUT ENGINE GUARD ASSEMBLY <i>(See note below before ordering parts)</i>	H.1.16
13	20071	1		HOSE ASSEMBLY - 2032.5-08-08JS-08JS <i>(Used as hand hold)</i>	

- ⌘ Bulk Material - order length required in feet or metres.
 ✓ See reference page for component or assembly breakdown.

Note:

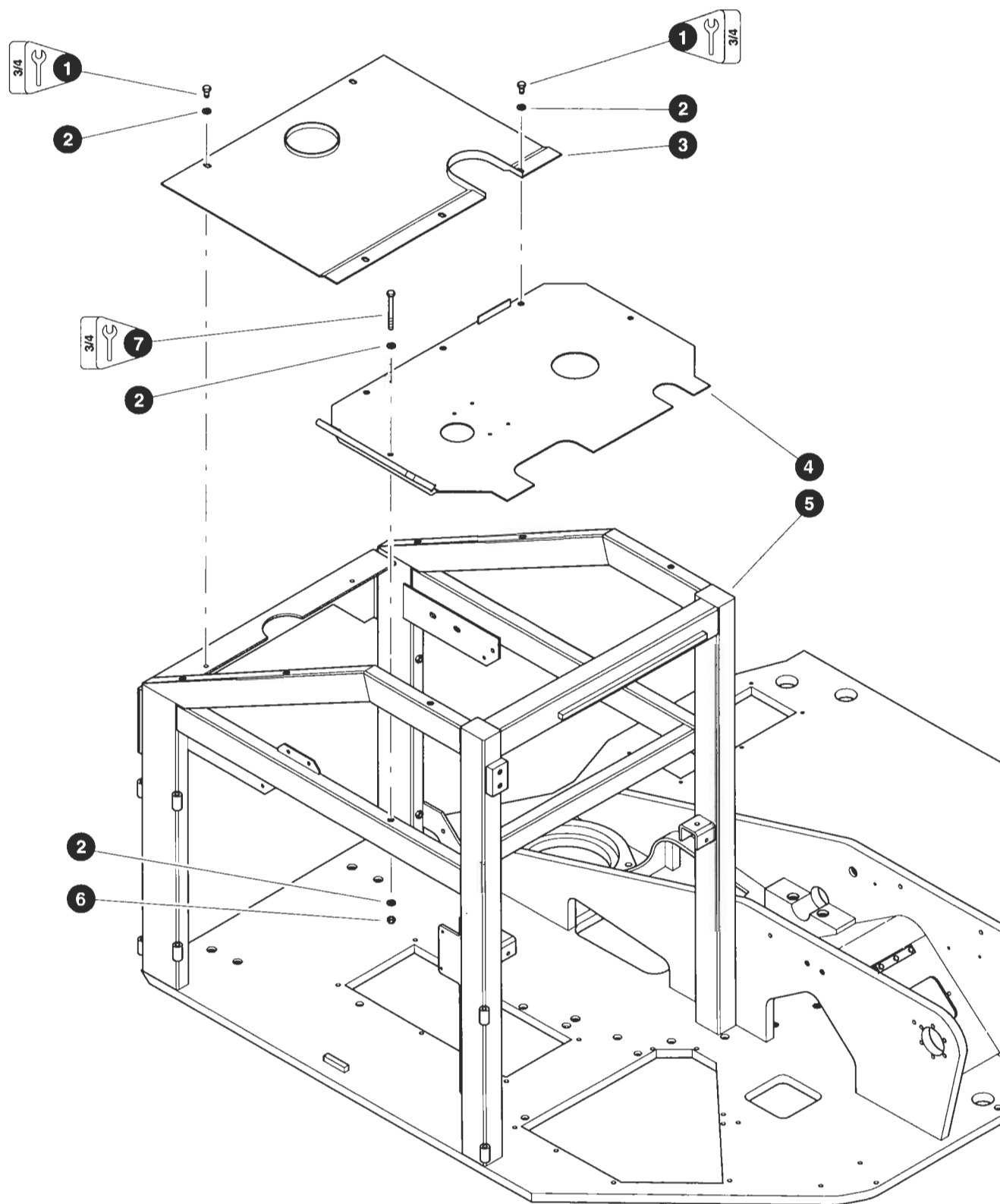
The swing-out pump guard must have notches in place of holes (see "A" in the illustration on the opposite page) in order for the guard to be able to close over the quick latches. If the quick latches are going to be used with an older swing-out pump guard, PN# 17607, the guard must be modified by adding the notches. Also, weatherstrip, PN# 18126, must be applied to the swing-out pump guard to prevent it from rattling after being closed.



SWING-OUT ENGINE GUARD WITH TOGGLE LATCH

REF	PART #	QTY		DESCRIPTION	SEE PAGE
-	19199	1	☐	SWING-OUT ENGINE GUARD ASSEMBLY	
1	20072	1		WELDMENT, swing-out engine guard	
2	15509	1		NUT, nylock - 1/4"	
3	20077	1		BOLT, eye - 1/4"	
4	10788	6		NUT, nylock - 5/16"	
5	15559	6		WASHER, SAE flat - 5/16"	
6	19200	1		LATCH, toggle	
7	20078	1		LANYARD, lock	
8	20079	1		TURNBUCKLE, lock lanyard	
9	15589	6		BOLT - 5/16" x 1"	

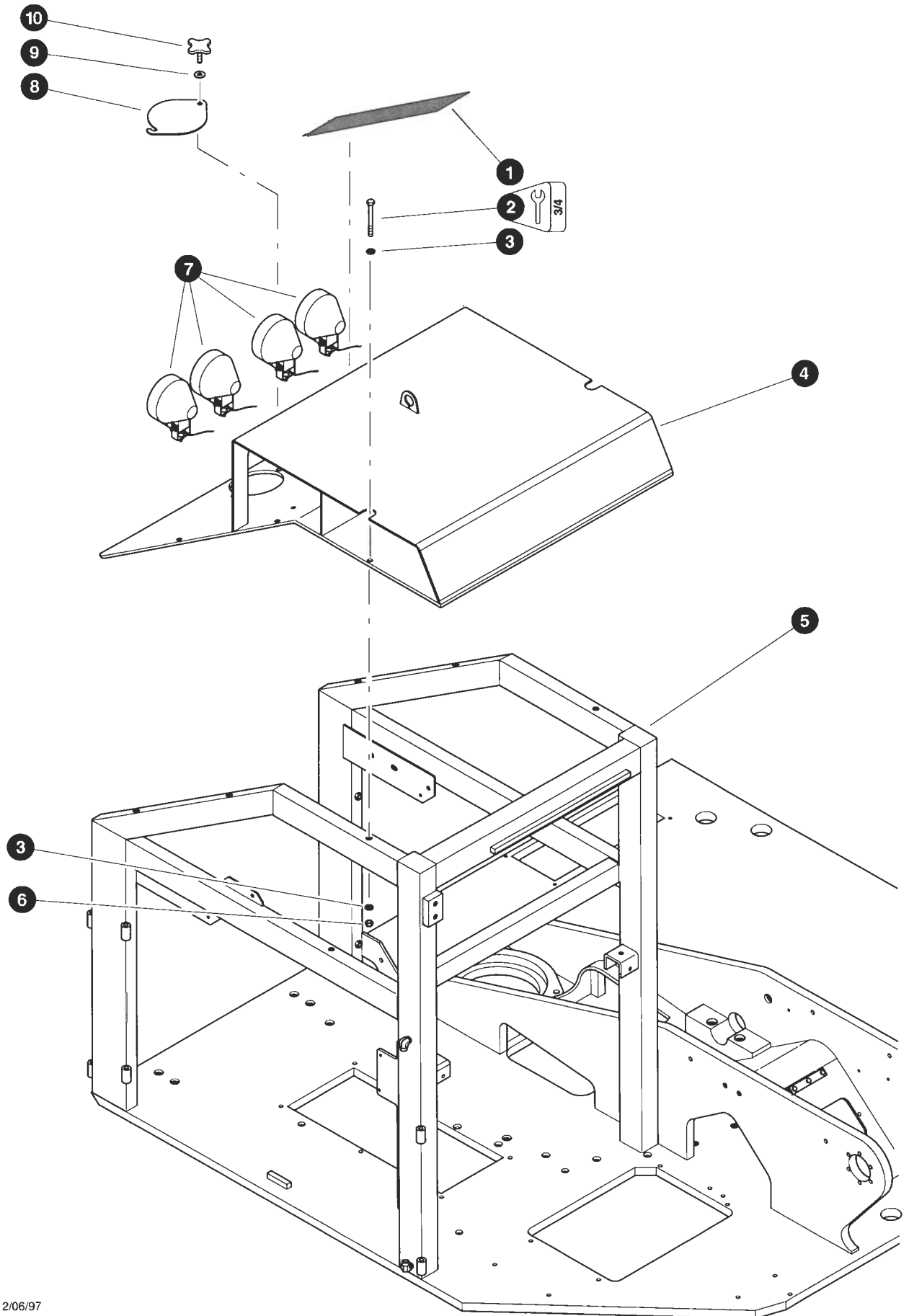
☐ Kit or Assembly - includes all items indented underneath.



UPPER TURNTABLE GUARDS, PANELS & COVERS INSTALLATION (Air Cleaner & Muffler Panels)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	10783	5	BOLT - 1/2" x 1"	
2	15534	9	WASHER, SAE flat - 1/2"	
3	19175	1	PANEL, muffler <i>(Used with Cummins 6BTA5.9-C engine)</i>	
	19503	1	PANEL, muffler <i>(Used with Cummins 6C8.3-C engine)</i>	
	18237	1	PANEL, muffler <i>(Used with Caterpillar 3116T engine)</i>	
	19766	1	PANEL, muffler <i>(Used with Caterpillar 3126T engine)</i>	
4	19176	1	PANEL, air cleaner <i>(Used with Cummins 6BTA5.9-C engine)</i>	
	18677	1	PANEL, air cleaner <i>(Used with Cummins 6C8.3-C engine)</i>	
	18238	1	PANEL, air cleaner <i>(Used with Caterpillar 3116T engine)</i>	
	19767	1	PANEL, air cleaner <i>(Used with Caterpillar 3126T engine)</i>	
5	REF.	1	✓ UPPER TURNTABLE WELDMENT	H.1.2
6	10815	2	NUT, lock - 1/2"	
7	10705	2	BOLT - 1/2" x 5"	

✓ See reference page for component or assembly breakdown.



UPPER TURNTABLE GUARDS, PANELS & COVERS INSTALLATION

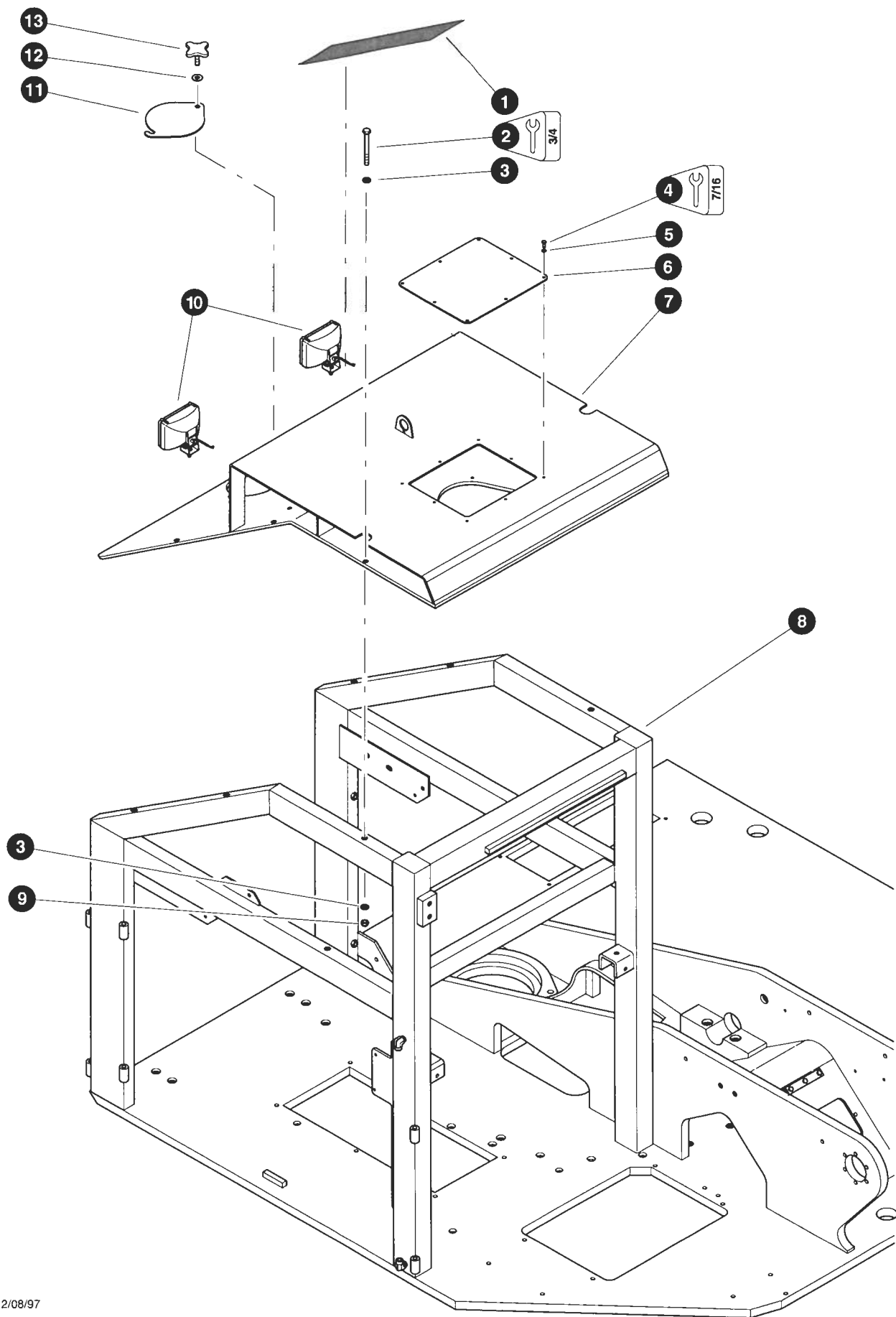
(Engine ROPS/FOPS Panel)

(Used on early production machines)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	16544	AR	☒	NON-SKID - 6"	
2	10705	6		BOLT - 1/2" x 5"	
3	15534	12		WASHER, SAE flat - 1/2"	
4	20073	1		PANEL, ROPS/FOPS	
5	REF.	1	✓	UPPER TURNTABLE WELDMENT	H.1.2
6	10815	6		NUT, lock - 1/2"	
7	16042	4		LIGHT, spot	
8	12150	1		COVER, radiator fill access	
9	10804	2		WASHER, flat - 1/2"	
10	16849	2		KNOB, star - 1-1/2"	

☒ Bulk material - order length required in feet or metres.

✓ See reference page for component or assembly breakdown.



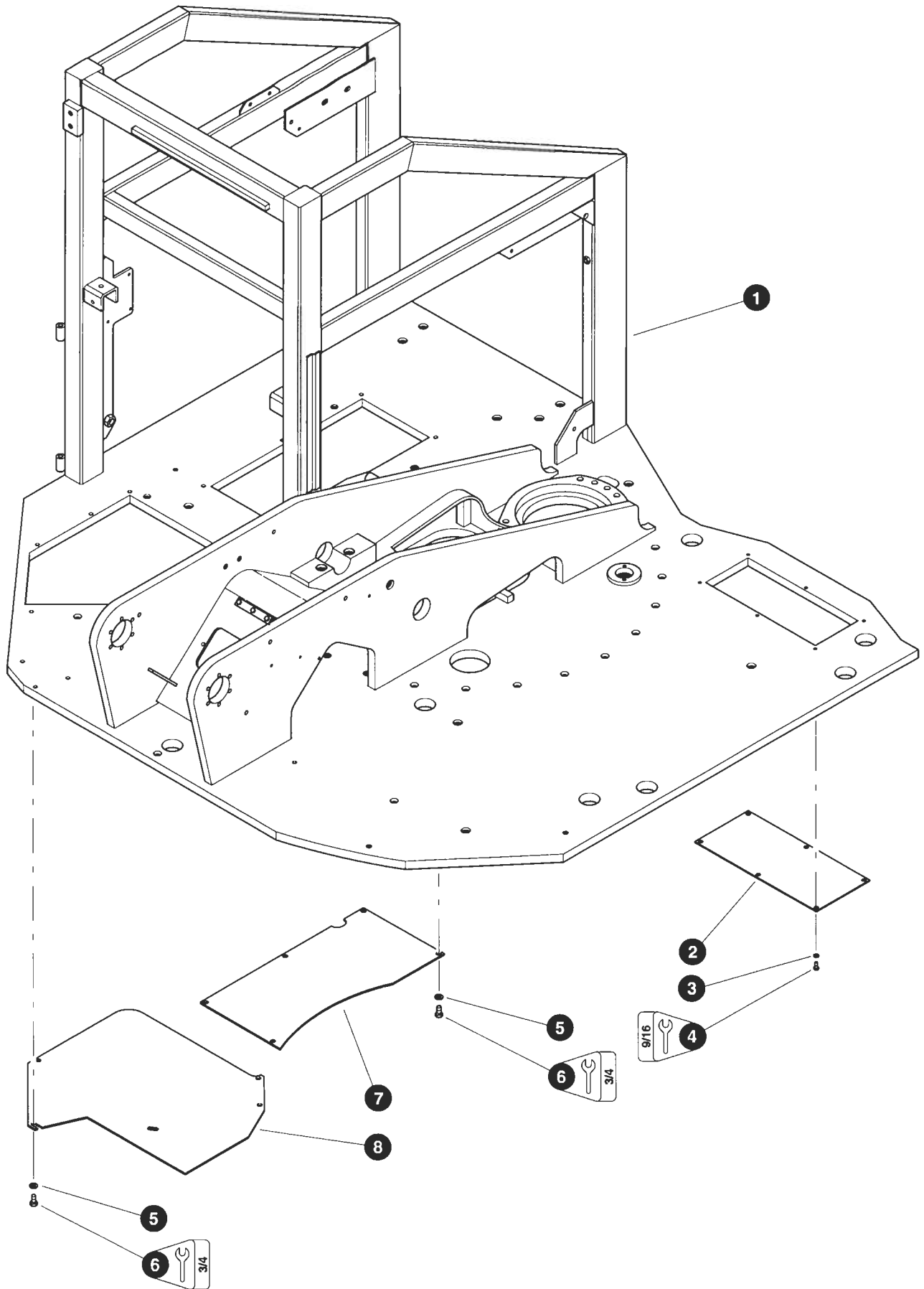
UPPER TURNTABLE GUARDS, PANELS & COVERS INSTALLATION (Engine ROPS/FOPS Panel)

(Used on late production machines)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	16544	AR	☞	NON-SKID - 6"	
2	10705	6		BOLT - 1/2" x 5"	
3	15534	12		WASHER, SAE flat - 1/2"	
4	15604	8		BOLT - 1/4" x 3/4"	
5	10757	8		WASHER, SAE flat - 1/4"	
6	19562	6		COVER, access - ROPS panel	
7	19331	1		PANEL, ROPS/FOPS	
8	REF.	1	✓	UPPER TURNTABLE WELDMENT	H.1.2
9	10815	6		NUT, lock - 1/2"	
10	19390	2		LIGHT, rectangular - dual lamp	
11	12150	1		COVER, radiator fill access	
12	10804	2		WASHER, flat - 1/2"	
13	16849	2		KNOB, star - 1-1/2"	

☞ Bulk material - order length required in feet or metres.

✓ See reference page for component or assembly breakdown.



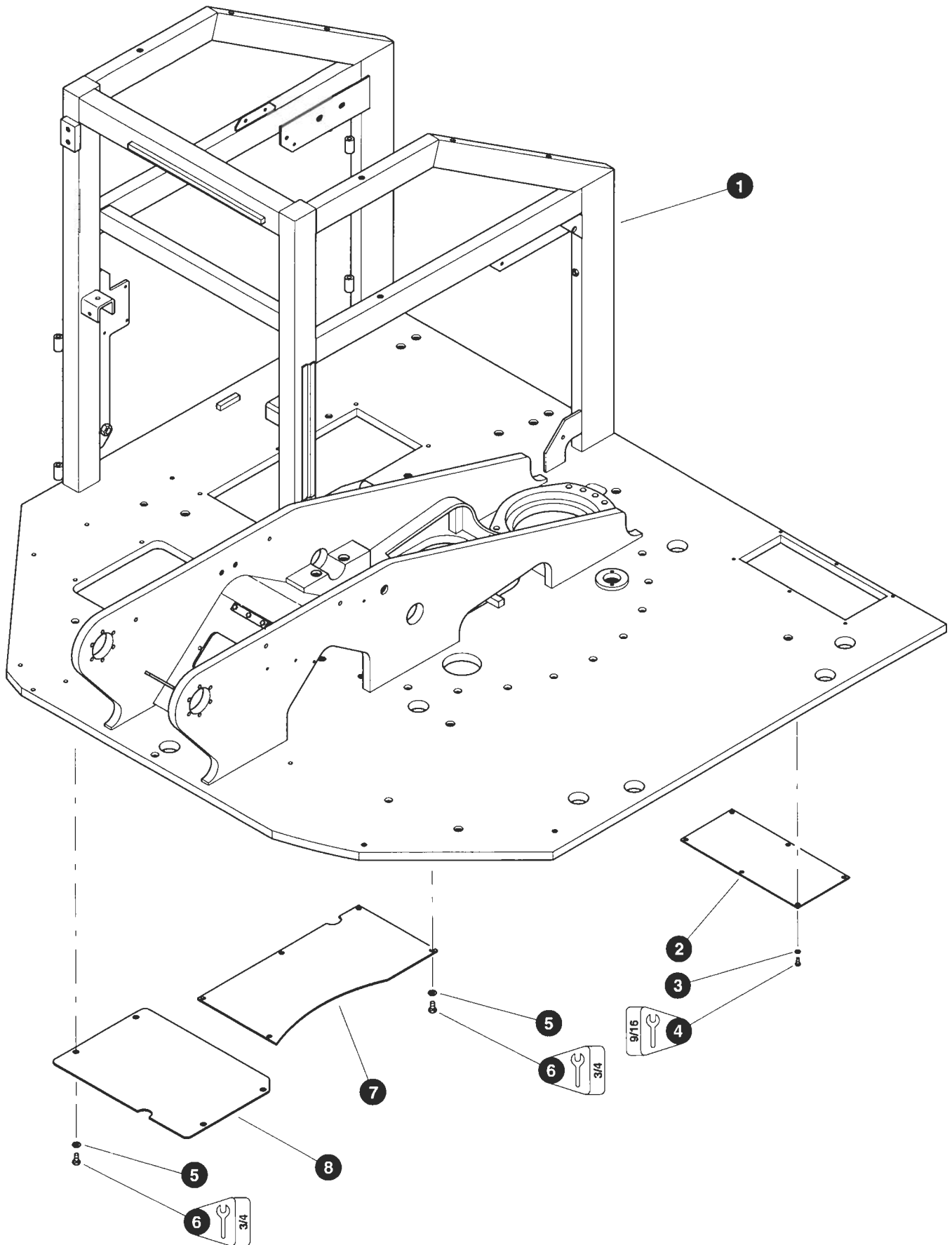
UPPER TURNTABLE GUARDS, PANELS & COVERS INSTALLATION

(Access Covers On Underside Of Upper Turntable Plate)

(Used on early production machines)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	UPPER TURNTABLE WELDMENT	H.1.2
2	18212	1		COVER, foot pedal access	
3	15528	6		WASHER, SAE flat - 3/8"	
4	15542	6		BOLT - 3/8" x 3/4"	
5	15534	10		WASHER, SAE flat - 1/2"	
6	10783	10		BOLT - 1/2" x 1"	
7	18235	1		COVER, oil sump access	
8	18639	1		COVER, pump access	

✓ See reference page for component or assembly breakdown.



UPPER TURNTABLE GUARDS, PANELS & COVERS INSTALLATION

(Access Covers On Underside Of Upper Turntable Plate)

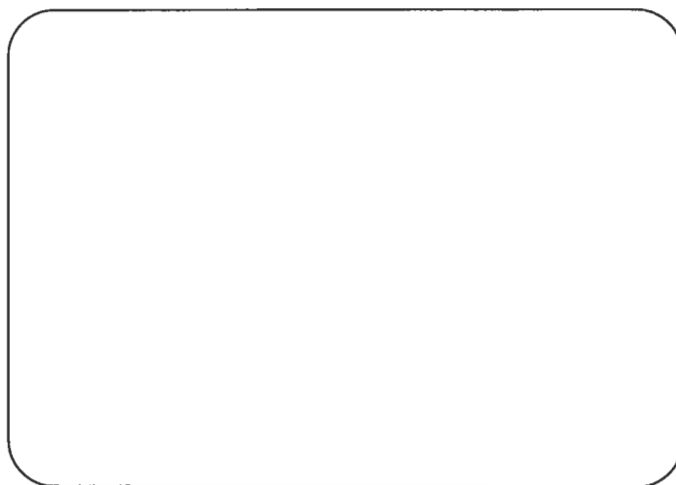
(Used on late production machines)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	UPPER TURNTABLE WELDMENT	H.1.2
2	18212	1		COVER, foot pedal access	
3	15528	6		WASHER, SAE flat - 3/8"	
4	15542	6		BOLT - 3/8" x 3/4"	
5	15534	9		WASHER, SAE flat - 1/2"	
6	10783	9		BOLT - 1/2" x 1"	
7	18235	1		COVER, oil sump access	
8	19253	1		COVER, pump access	

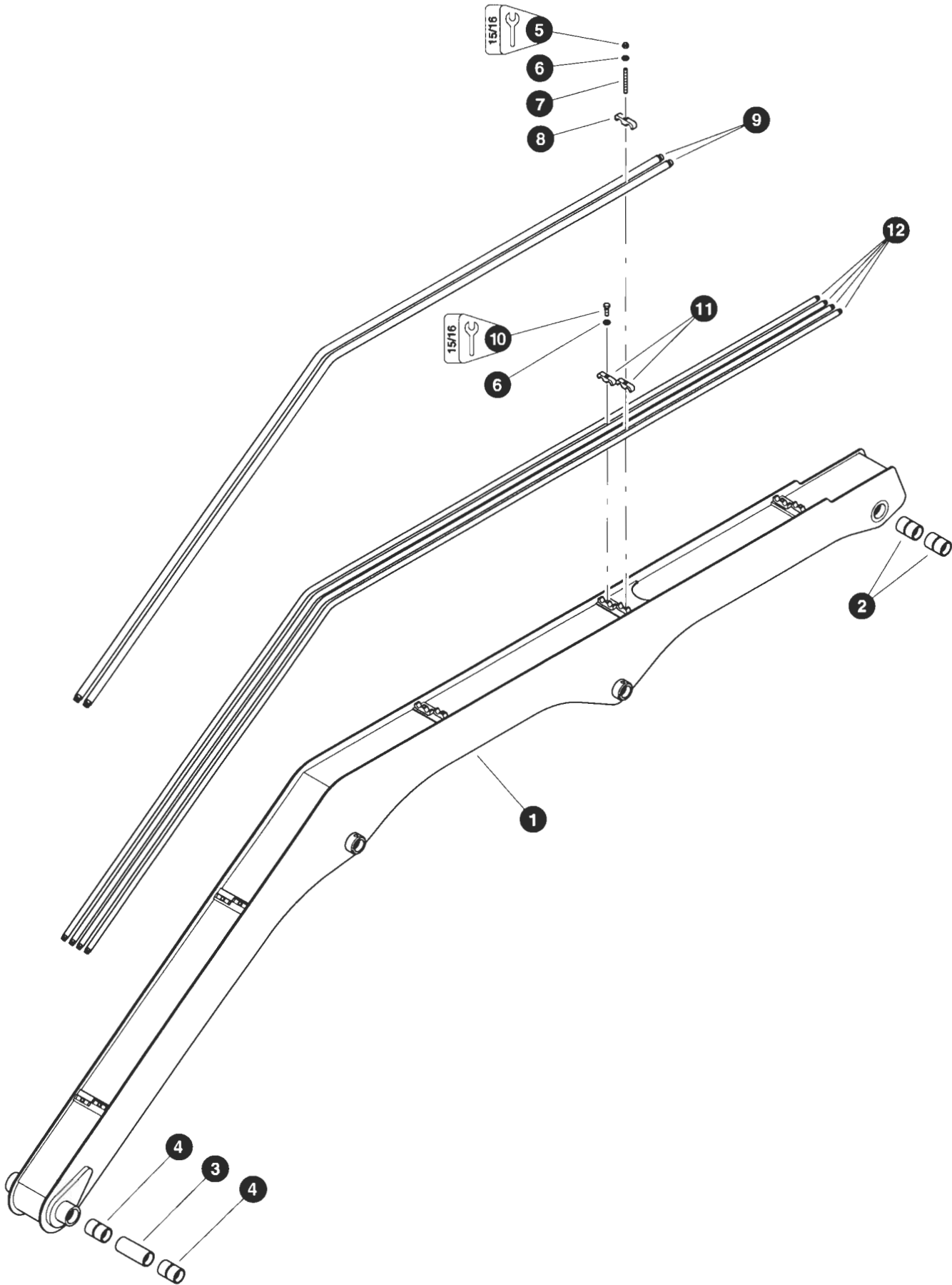
✓ See reference page for component or assembly breakdown.

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Section H.2



Structural Components - Main Boom

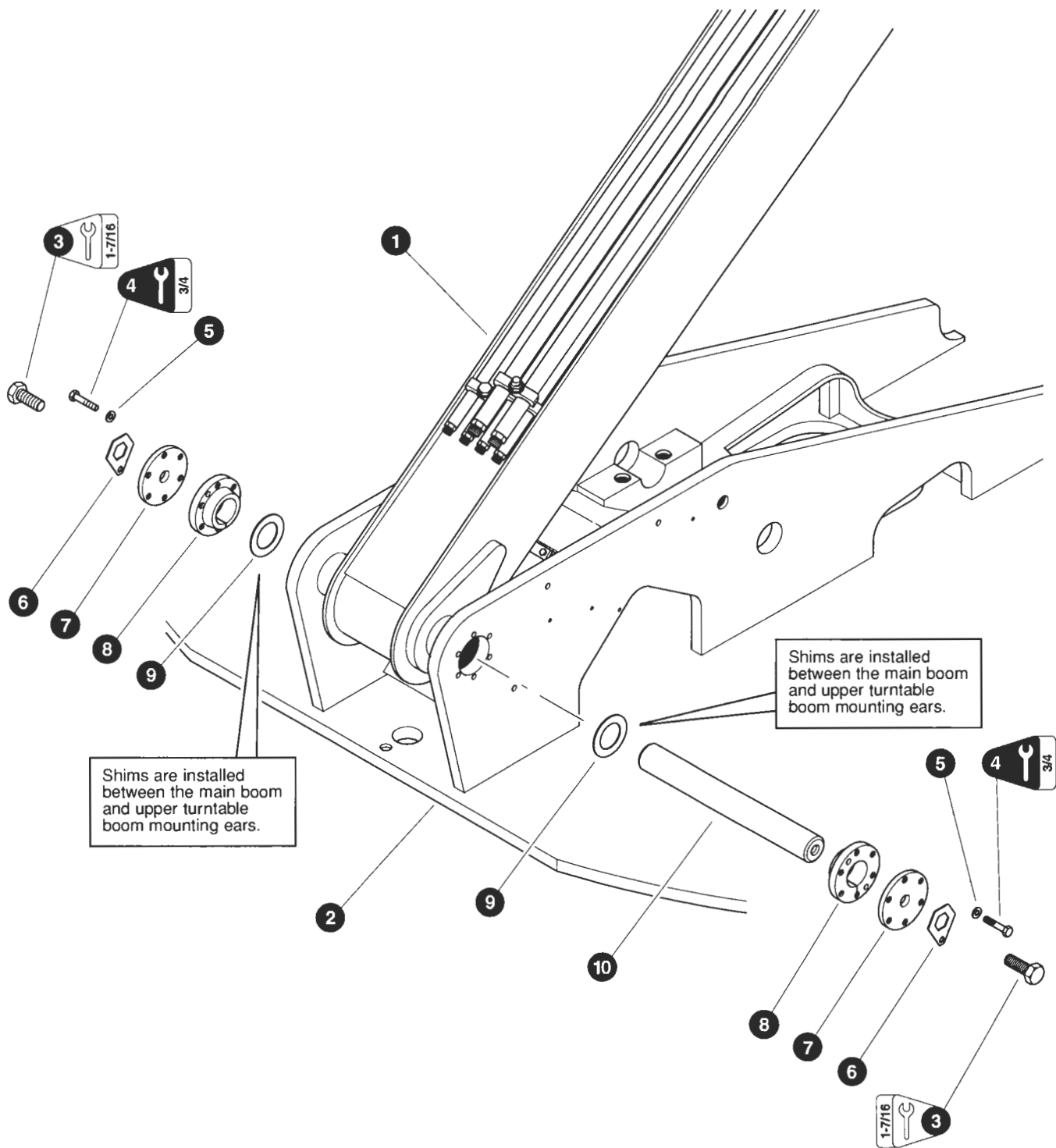


Parts 00182 01/08/97
6.25

MAIN BOOM COMPONENTS

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	19326	1	☐	WELDMENT, main boom - 3-1/2" pin	
2	11704	2		BUSHING - 2-1/2" x 4-1/4"	
3	12210	1		SPACER, base -2-1/2" x 7-1/2"	
4	11704	2		BUSHING - 2-1/2" x 4-1/4"	
5	15563	5		NUT, nylock - 5/8"	
6	10771	10		WASHER, SAE flat - 5/8"	
7	19207	5		STUD - 5/8" x 5-1/4"	
8	19324	5		CLAMP, tubeline - 3/4" x 3/4" (<i>bent</i>)	
9	18930	2	☐	TUBELINE - 3/4" x 170"	
	15152	2		CONNECTOR, straight - FF1852T-1212S	
10	18931	4	☐	TUBELINE - 1/2" x 216" (<i>bent</i>)	
	15117	2		CONNECTOR, straight - FF1852T-0808S	
11	15272	10		CLAMP, tubeline - 1/2" x 1/2"	

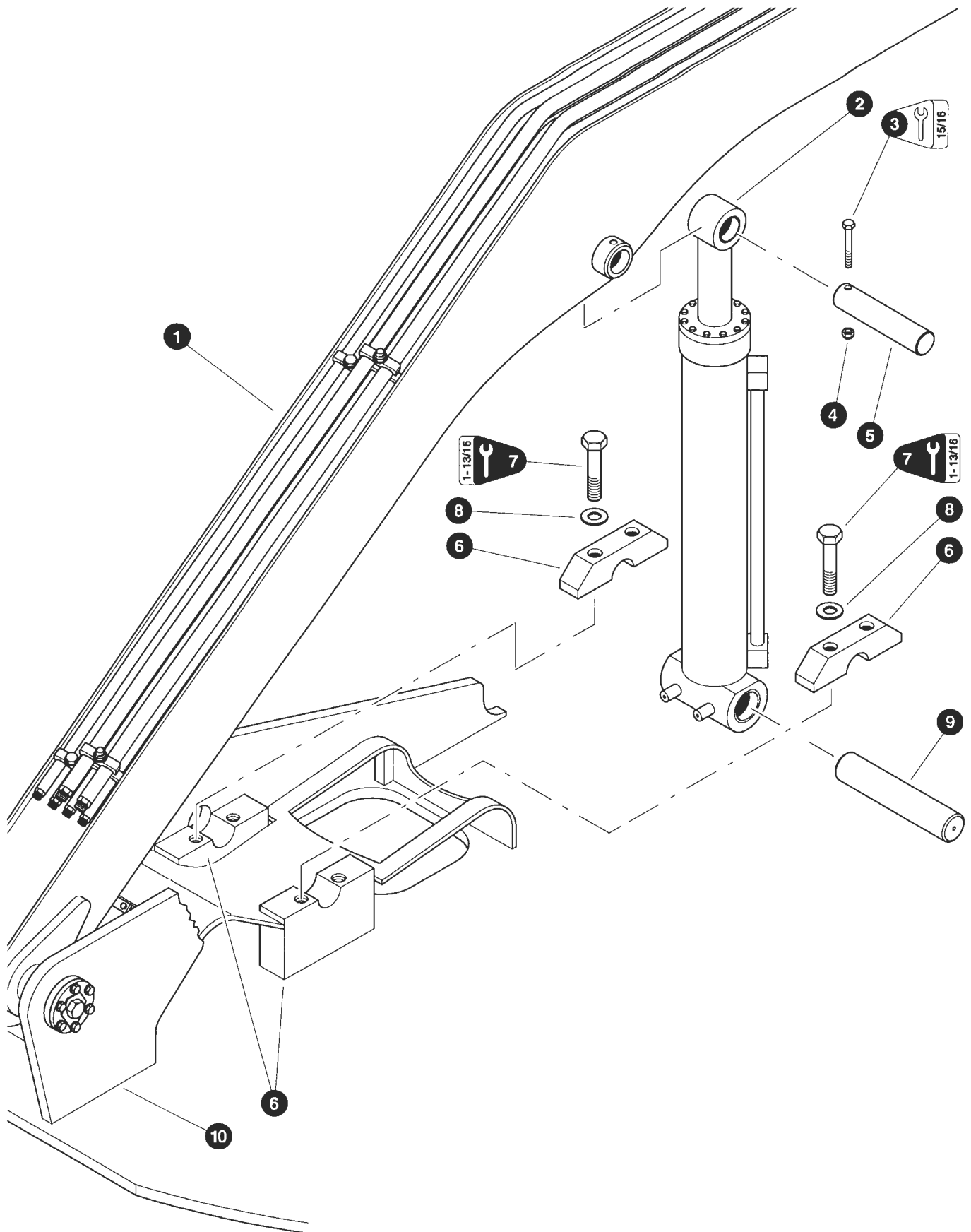
☐ Kit or Assembly - includes all items indented underneath.



MAIN BOOM INSTALLATION

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	MAIN BOOM ASSEMBLY	H.2.2
2	REF.	1	✓	UPPER TURNTABLE WELDMENT	H.1.2
3	15552	2		BOLT - 1" x 2-1/2"	
4	15565	12		BOLT - 1/2" x 2-1/2" (<i>Torque to 100 ft.lbs. (135 Nm)</i>)	
5	15534	12		WASHER, SAE flat - 1/2"	
6	12116	2		LOCK, center tapered hub bolt	
7	12115	2		CAP, tapered hub	
8	12118	2		HUB, tapered - 1-1/4" plate	
9	19483	AR		SHIM - 1/4" thick	
	19485	AR		SHIM - 3/16" thick	
	19484	AR		SHIM - 1/16" thick	
10	11711	1		PIN, chromed - 2-1/2" x 20"	

- ✓ See referenced page for component or assembly breakdown.
 □ Kit or Assembly - includes all items indented underneath.



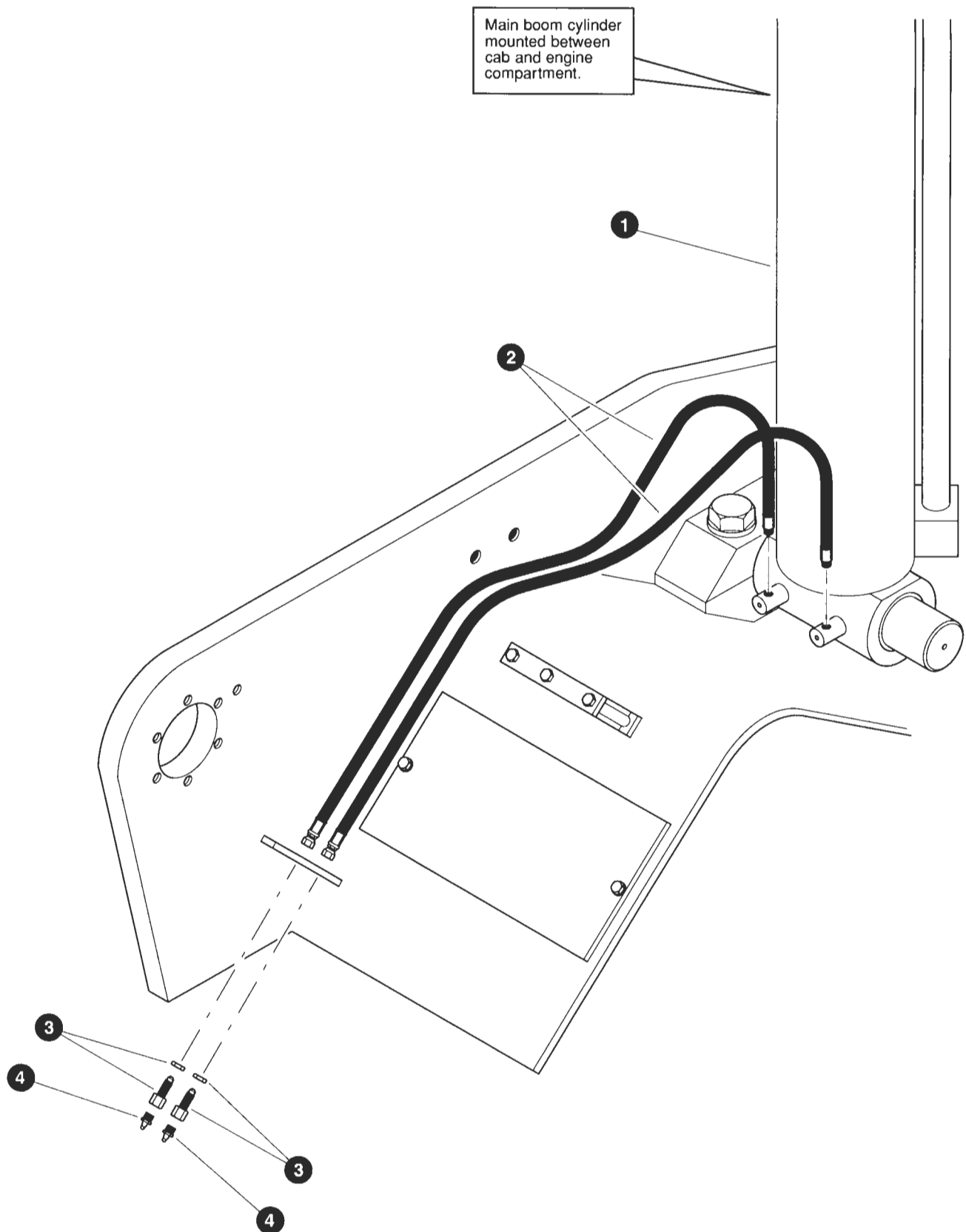
MAIN BOOM (HOIST) CYLINDER INSTALLATION

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	MAIN BOOM ASSEMBLY	H.2.2
2	REF.	1	✓	MAIN BOOM (HOIST) CYLINDER	E.2.2
3	10838	1		BOLT - 5/8" x 5"	
4	15563	1		NUT, nylock - 5/8"	
5	18896	1		PIN, chromed - 3" x 11-1/4"	
6	12351	2	□	WELDMENT, pin retainer block - 3" pin (<i>See note below</i>)	
	12066	1		BLOCK, bottom	
	12067	1		BLOCK, top	
7	15543	2		BOLT - 1-1/4" x 5-1/2" (<i>Torque to 900 ft.lbs. (1200 Nm)</i>)	
8	15544	2		WASHER, flat - 1-1/4"	
9	18053	1		PIN, chromed - 3" x 14-1/2"	
10	REF.	1	✓	UPPER TURNTABLE WELDMENT	H.1.2

- ✓ See referenced page for component or assembly breakdown.
- Kit or Assembly - includes all items indented underneath.

Note:

The pin retainer block weldments are machined assembled, therefore, the top (PN# 12067) and bottom (PN# 12066) blocks are a matched set. Timbco recommends installing a complete block weldment if either the top or bottom block must be replaced. This will insure the two halves mate properly to retain the pin.



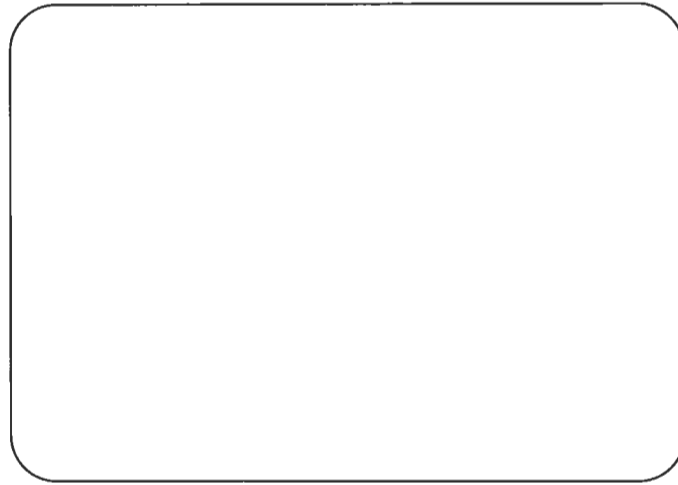
MAIN BOOM (HOIST) CYLINDER GREASE LINES

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	MAIN BOOM (HOIST) CYLINDER	E.2.2
2	17360	2		HOSE ASSEMBLY - 2044-04-04PS-04JS (<i>Grease line from rear of upper turntable to base of main boom cylinder</i>)	
3	15658	2		CONNECTOR, straight bulkhead - 2239-2-4S	
4	10704	2		FITTING, straight grease - 1/8" pipe thread	

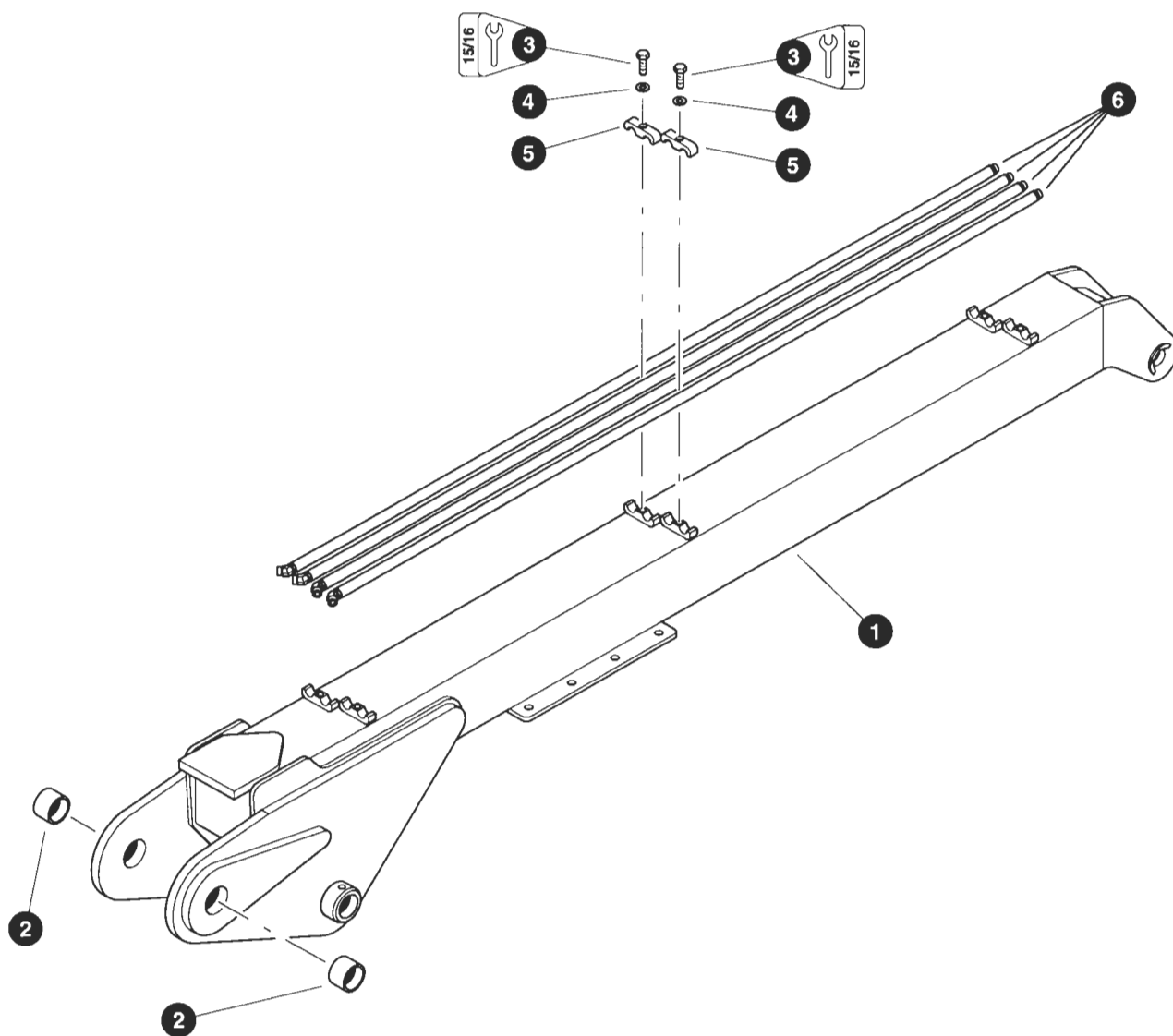
✓ See referenced page for component or assembly breakdown.

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Section H.3



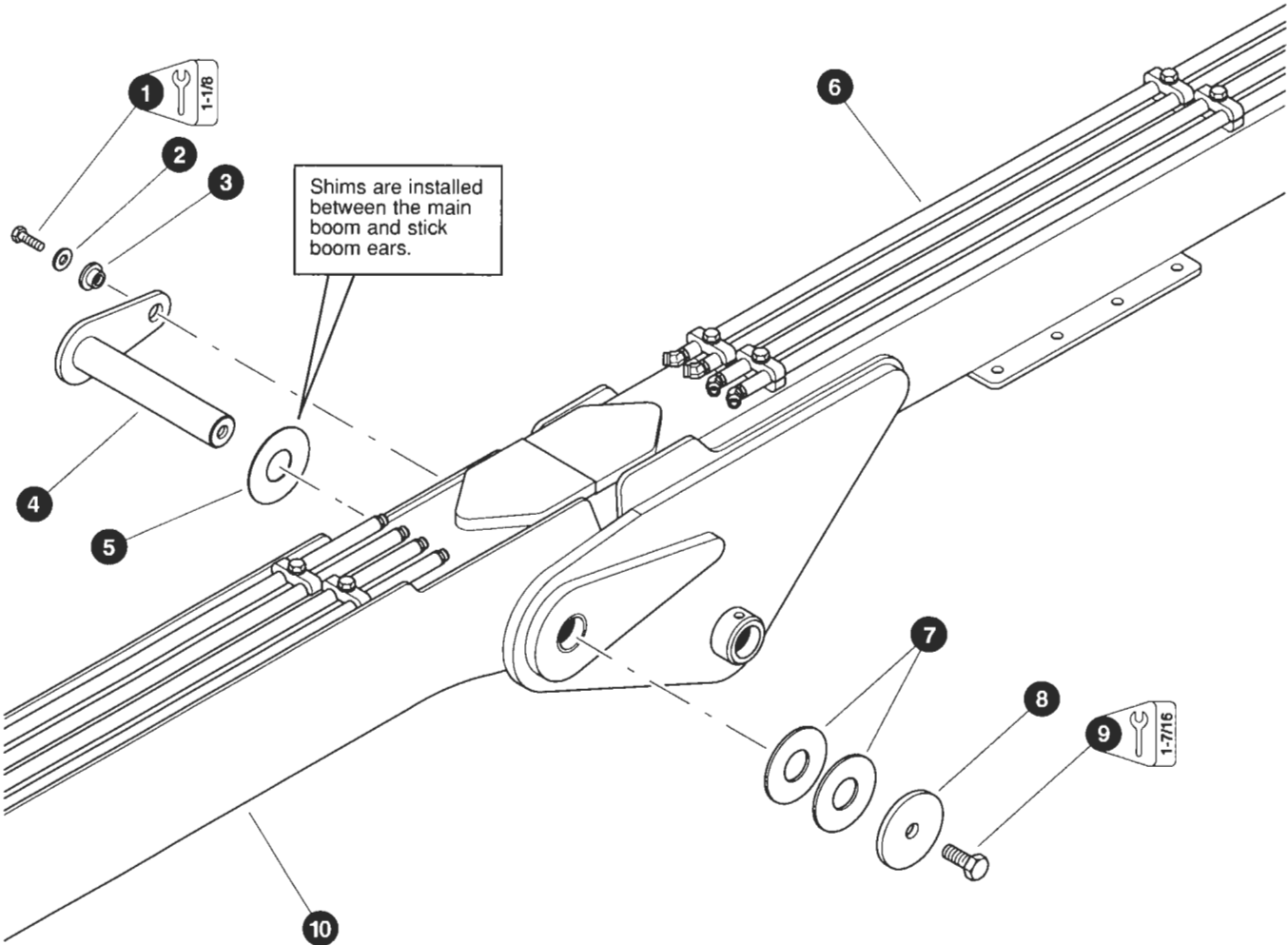
Structural Components - Stick Boom



STICK BOOM COMPONENTS

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	19327	1	☐	WELDMENT, stick boom	
2	18917	2		BUSHING - 2-1/2" x 2"	
3	15526	6		BOLT - 5/8" x 2"	
4	10771	6		WASHER, SAE flat - 5/8"	
5	15272	6		CLAMP, tubeline - 1/2" x 1/2"	
6	18932	4	☐	TUBELINE - 1/2" x 96"	
	15117	1		CONNECTOR, straiht - FF1852T-0808S	
	19126	1		ELBOW, 45° - FF2068T-0808S	

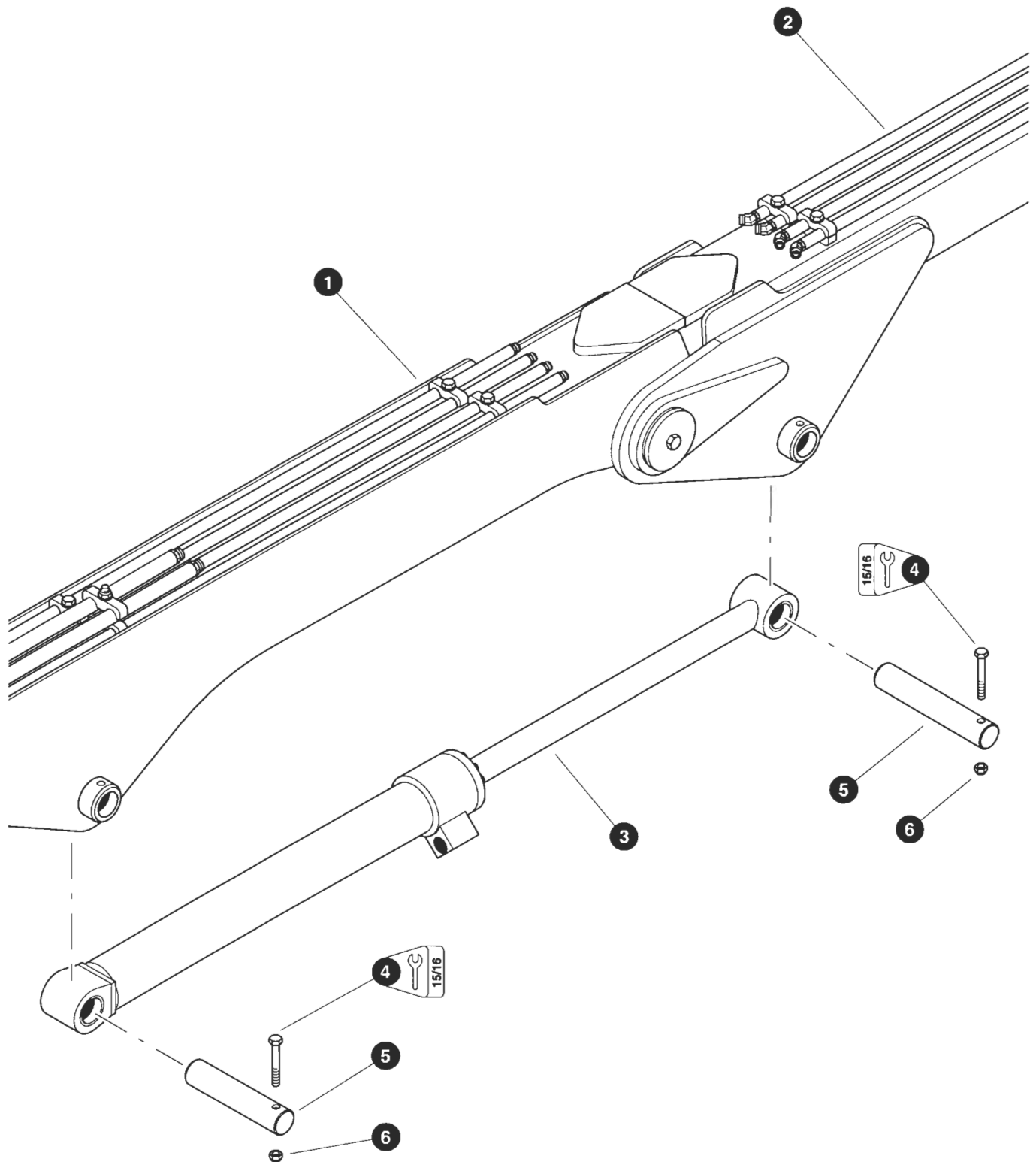
☐ Kit or Assembly - includes all items indented underneath.



STICK BOOM INSTALLATION

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	15549	1		BOLT - 3/4" x 2"	
2	15550	1		WASHER, SAE flat - 3/4"	
3	18570	1		WASHER, pin retaining	
4	18916	1		PIN, boom knuckle - 2-1/2"	
5	19485	AR		SHIM - 7 gauge	
	19484	AR		SHIM - 14 gauge	
6	REF.	1	✓	STICK BOOM ASSEMBLY	H.3.2
7	19483	AR		SHIM	
8	14143	1		PLATE, pin retention	
9	15552	1		BOLT - 1" x 2"	
10	REF.	1	✓	MAIN BOOM ASSEMBLY	H.2.2

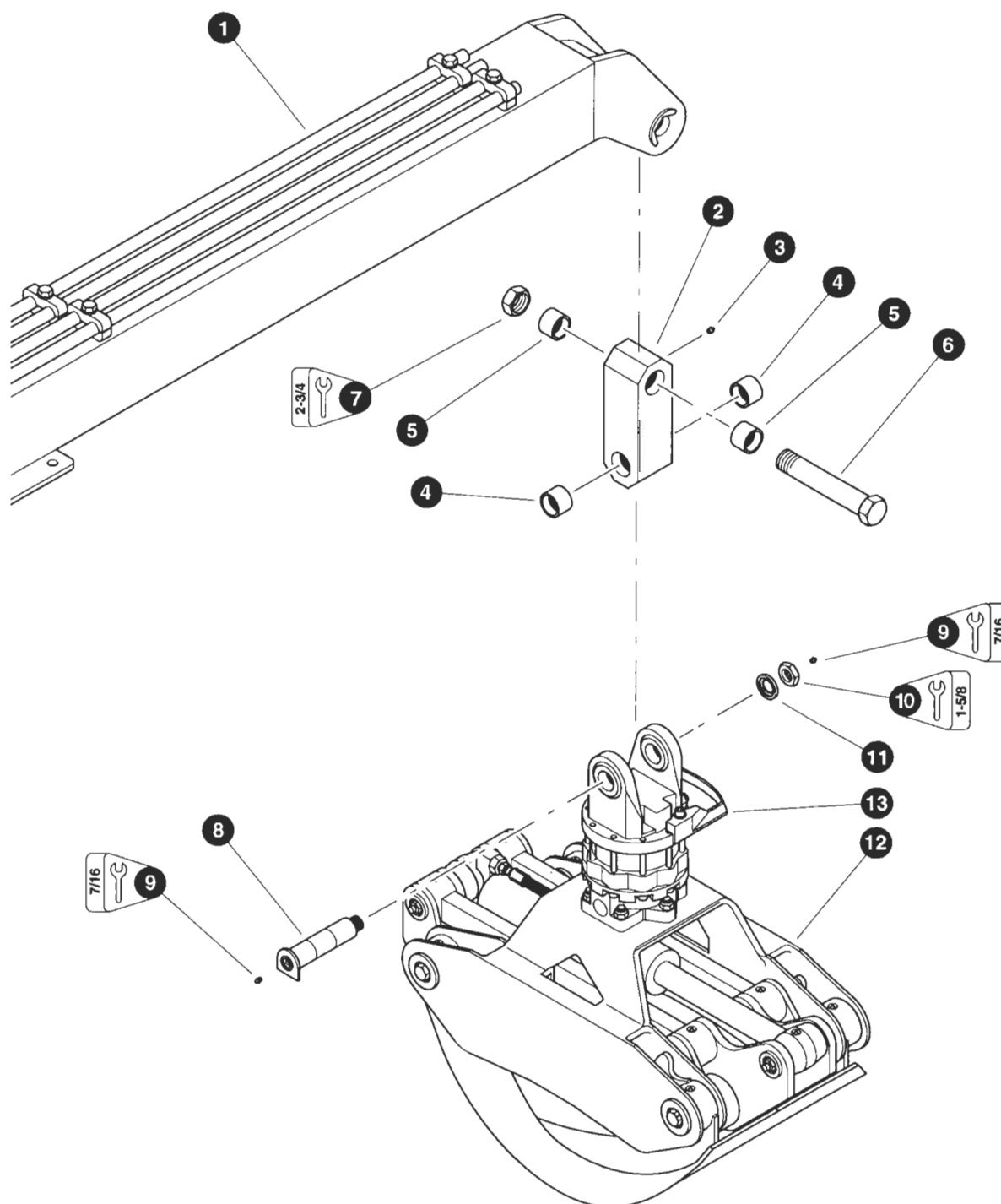
✓ See referenced page for component or assembly breakdown.



STICK BOOM (JIB) CYLINDER INSTALLATION

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	MAIN BOOM ASSEMBLY	H.2.2
2	REF.	1	✓	STICK BOOM ASSEMBLY	H.3.2
3	REF.	1	✓	STICK BOOM (JIB) CYLINDER	E.2.4
4	10838	2		BOLT - 5/8" x 5"	
5	18895	1		PIN, chromed - 2-1/2" x 13-1/2"	
6	15563	2		NUT, nylock - 5/8"	
7	18052	1		PIN, chromed - 2-1/2" x 11-1/4"	

✓ See referenced page for component or assembly breakdown.

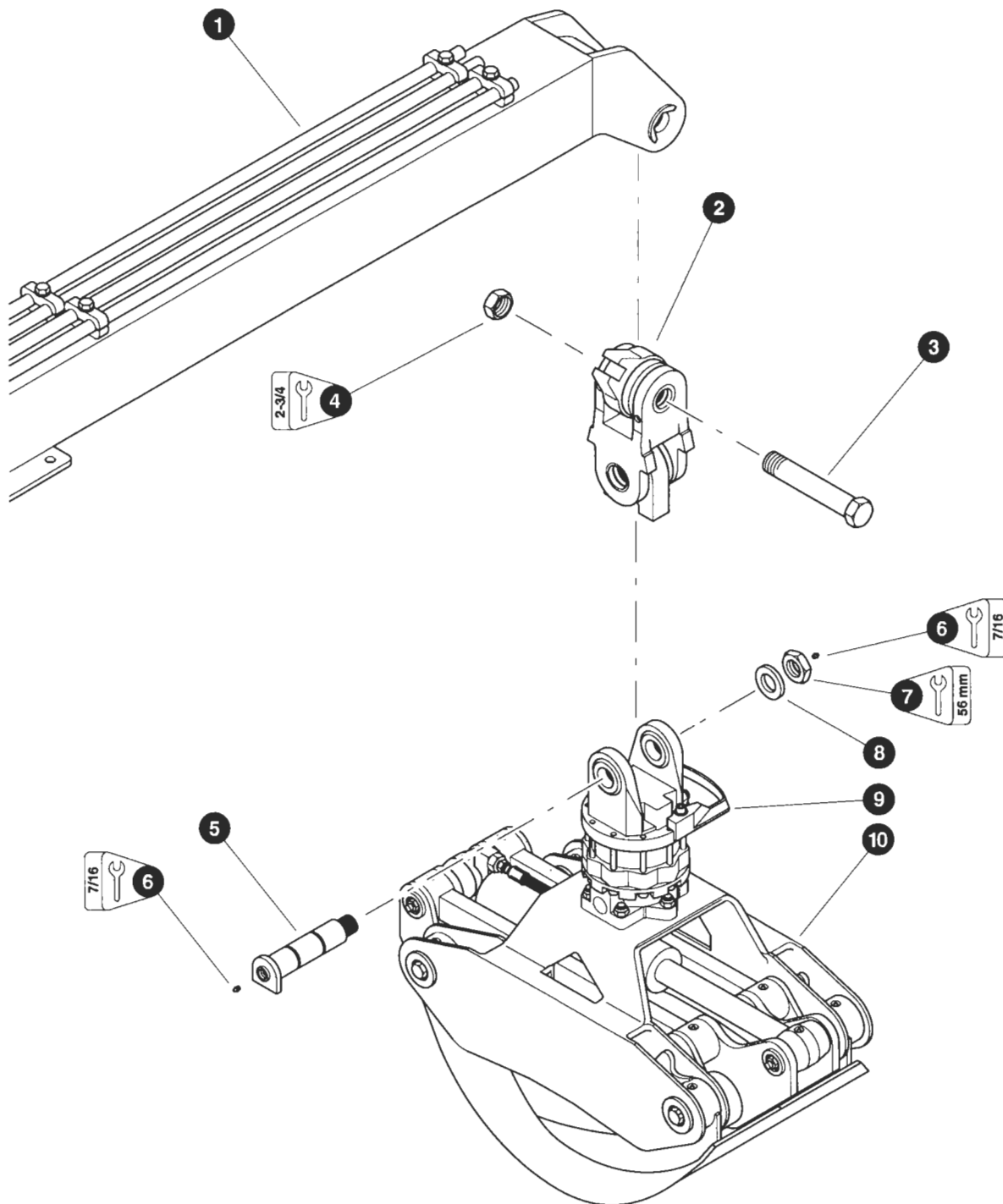


HULTDINS SUPERGRIP 360 GRAPPLE INSTALLATION

(With Standard TIMBCO Dangle Block and Hultdins GV11US Rotator)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	STICK BOOM ASSEMBLY	H.3.2
2	19123	1	□	DANGLE BLOCK ASSEMBLY	
	80000	1		BLOCK	
3	10704	1		FITTING, grease - 1/8" pipe thread	
4	19118	2		BUSHING - 45mm x 1-1/2"	
5	19117	2		BUSHING - 1-3/4" x 1-1/2"	
6	19716	1		PIN - 1-3/4" x 10-3/4" <i>(Used on production machines where the boom tube and tip are the same width)</i>	
	19116	1		PIN - 1-3/4" x 9-1/2" <i>(Used on prototype machines where the tip of the stick boom narrowed to fit the dangle block)</i>	
7	18402	1		NUT, nylock - 1-3/4"	
8	20204	1		PIN, grapple mount <i>(GV11US rotator)</i>	
9	10704	2		FITTING, grease - 1/8" pipe thread	
10	20205	1		NUT, grapple mount pin	
11	20206	1		WASHER, grapple mount pin	
12	REF.	1	□	GRAPPLE - Hultdins 360	Blue F
	REF.	1	□	GRAPPLE - Hultdins 360S	Blue F
13	REF.	1		ROTATOR - Hultdins GV11US	Blue F

- ✓ See referenced page for component or assembly breakdown.
 □ Kit or Assembly - includes all items indented underneath.

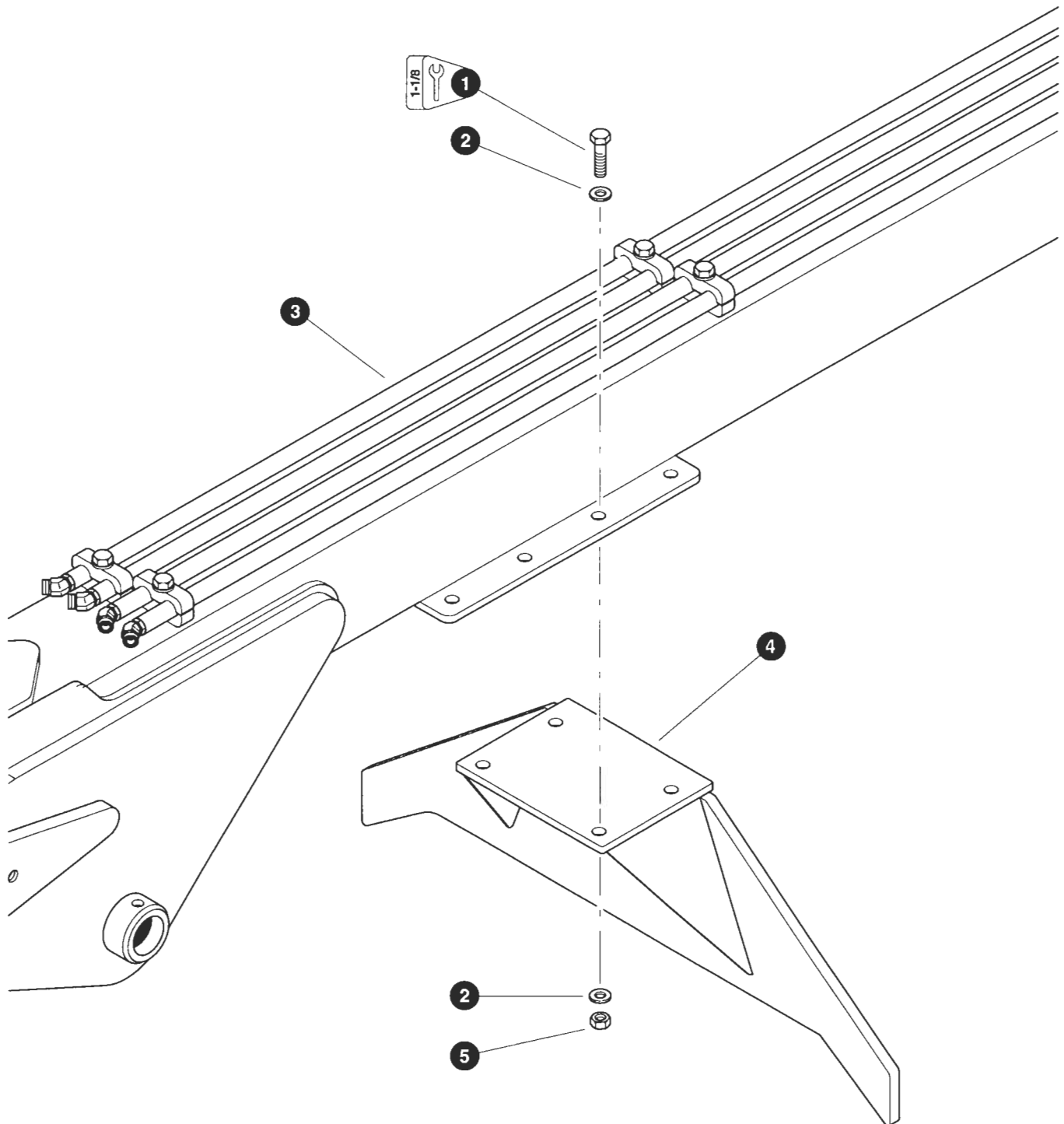


HULTDINS SUPERGRIP 360S GRAPPLE INSTALLATION

(With Optional QUADCO Snubber and Hultdins GV15US Rotator)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	STICK BOOM ASSEMBLY	H.3.2
2	19123	1	☐	SNUBBER	
3	19716	1		PIN - 1-3/4" x 10-3/4"	
4	18402	1		NUT, nylock - 1-3/4"	
5	19789	1	☐	PIN, grapple mount (<i>GV15US rotator</i>)	
6	10704	2		FITTING, grease - 1/8" pipe thread	
7	NSS	1		NUT, grapple mount pin	
8	NSS	1		WASHER, grapple mount pin	
9	REF.	1	☐	GRAPPLE - Hultdins 360S	Blue F
10	19788	1		ROTATOR - Hultdins GV15US	

- ✓ See referenced page for component or assembly breakdown.
 ☐ Kit or Assembly - includes all items indented underneath.



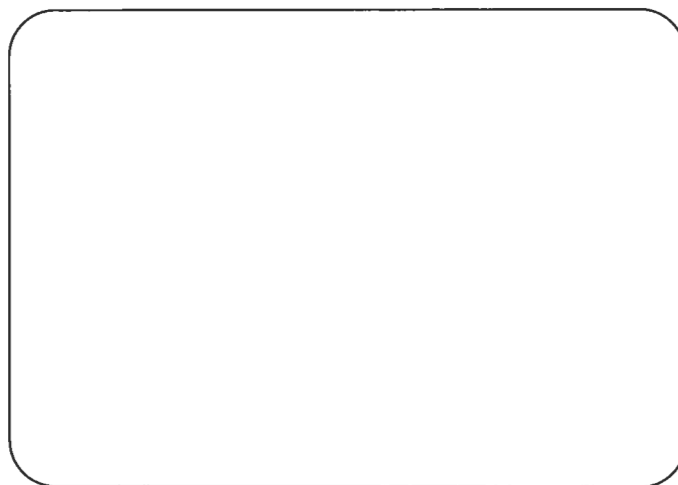
OPTIONAL STICK BOOM MOUNTED HEEL

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	10736	4		BOLT - 1/2" x 2"	
2	15534	8		WASHER, SAE flat - 1/2"	
3	REF.	1	✓	STICK BOOM ASSEMBLY	H.3.2
4	80233	1		WELDMENT, stick boom heel	
5	10815	4		NUT, lock - 1/2"	

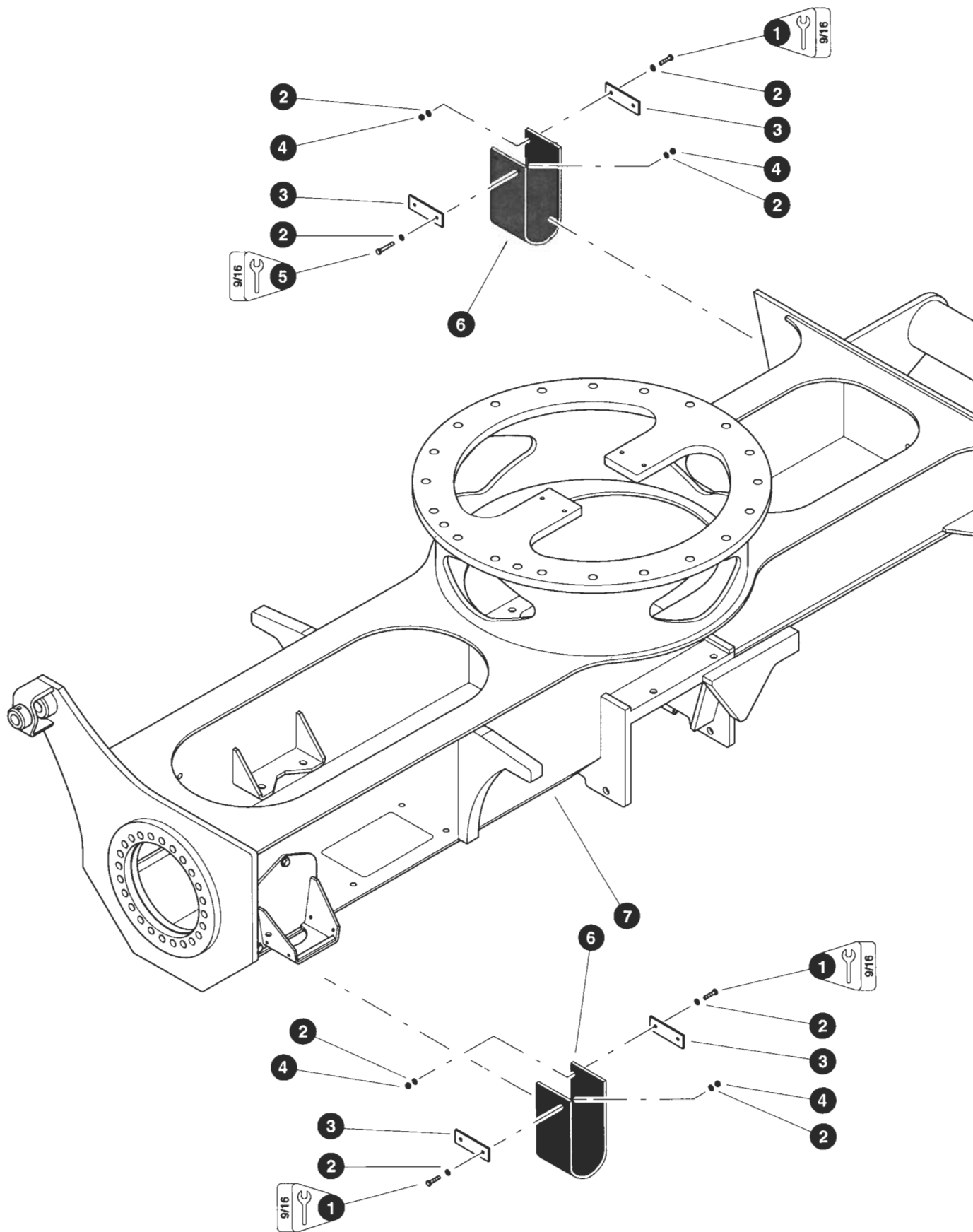
✓ See referenced page for component or assembly breakdown.

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Section H.4



Structural Components - Front Frame

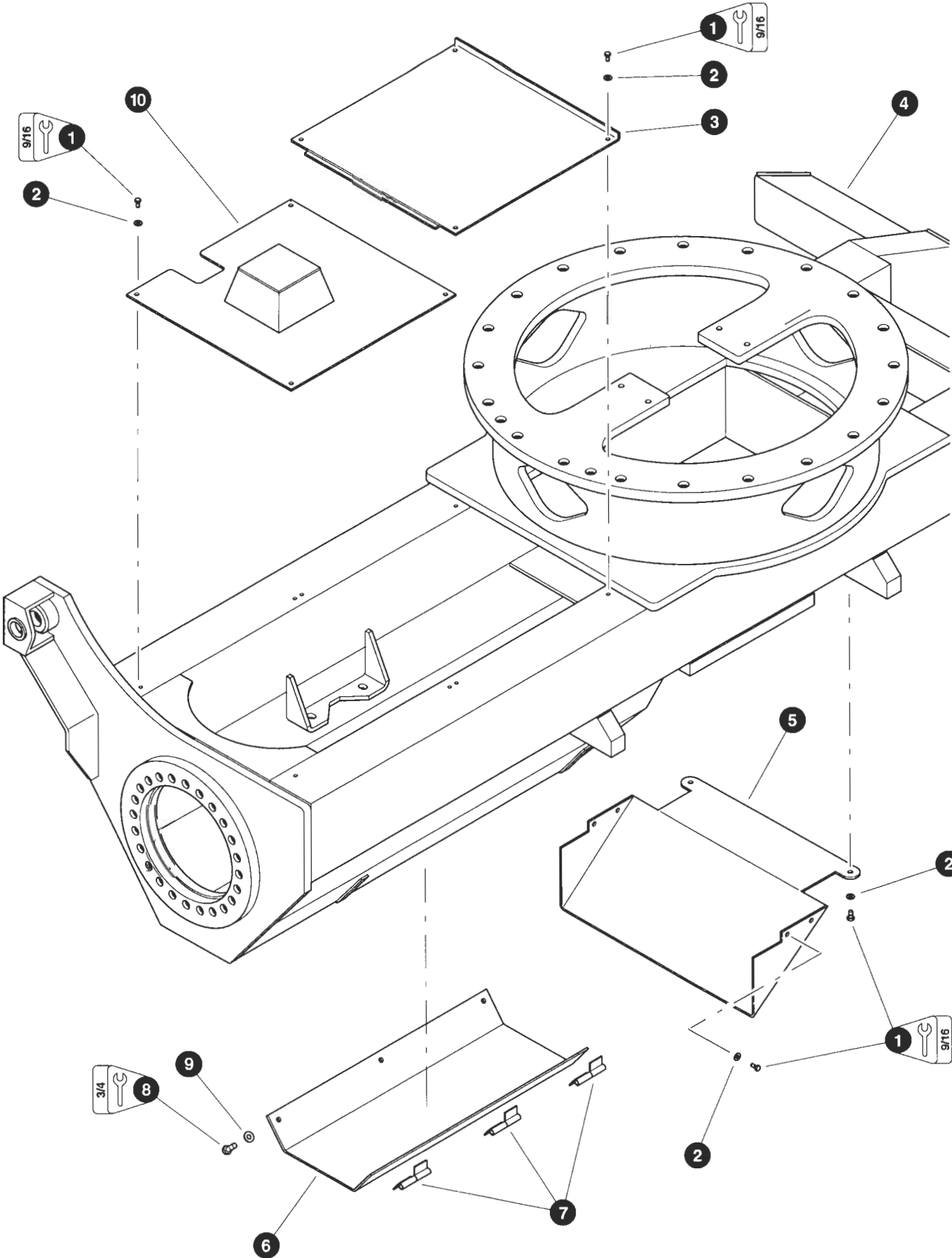


FRONT FRAME COMPONENTS

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	20084	6	BOLT - 3/8" x 1-3/4"	
2	15528	16	WASHER, SAE flat - 3/8"	
3	20209	4	RETAINER, rubber step	
4	10813	8	NUT, lock - 3/8"	
5	10702	2	BOLT - 3/8" x 1-1/2"	
6	20210	2	STEP, rubber	
7	80335	1	FRONT FRAME WELDMENT <i>(See note below)</i>	

Note:

The original tubular design front frame is not available. Order new front frame weldment, PN# 80335 as a replacement. Also order new covers and guards as required.

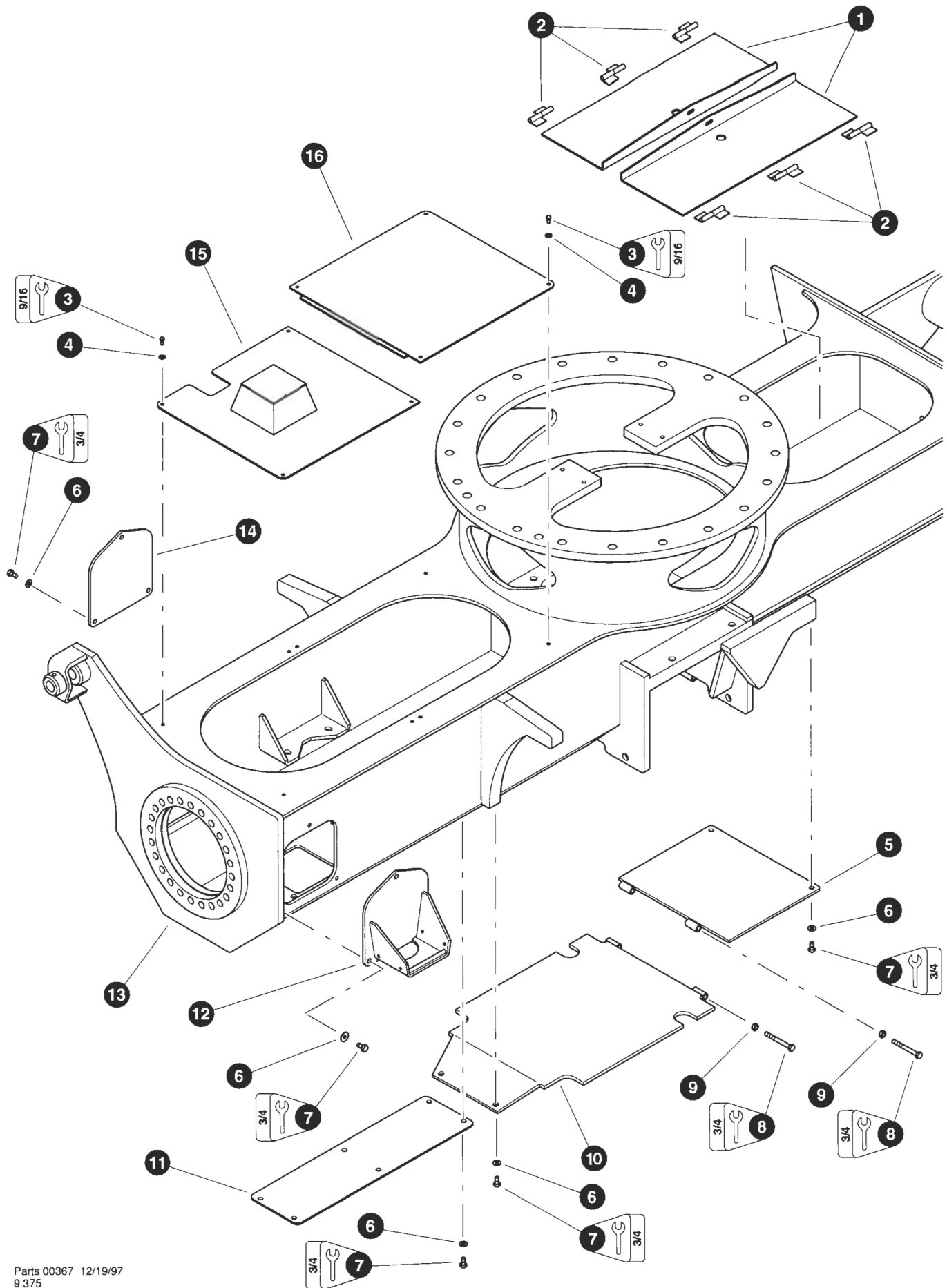


FRONT FRAME ACCESS COVERS

(Used on early production machines)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	15542	14		BOLT - 3/8" x 3/4"	
2	15528	14		WASHER, SAE flat - 3/8"	
3	19278	1		COVER, access - front drive motor	
4	REF.	1	✓	FRONT FRAME WELDMENT	H.4.2
5	80130	1		COVER, access - front differential	
6	80172	1		COVER, access - frame clean-out	
7	20197	3		HINGE, weld-on	
8	10783	3		BOLT - 1/2" x 1"	
9	15534	3		WASHER, SAE flat - 1/2"	
10	19279	1		COVER, access - rear drive motor	

✓ See referenced page for component or assembly breakdown.

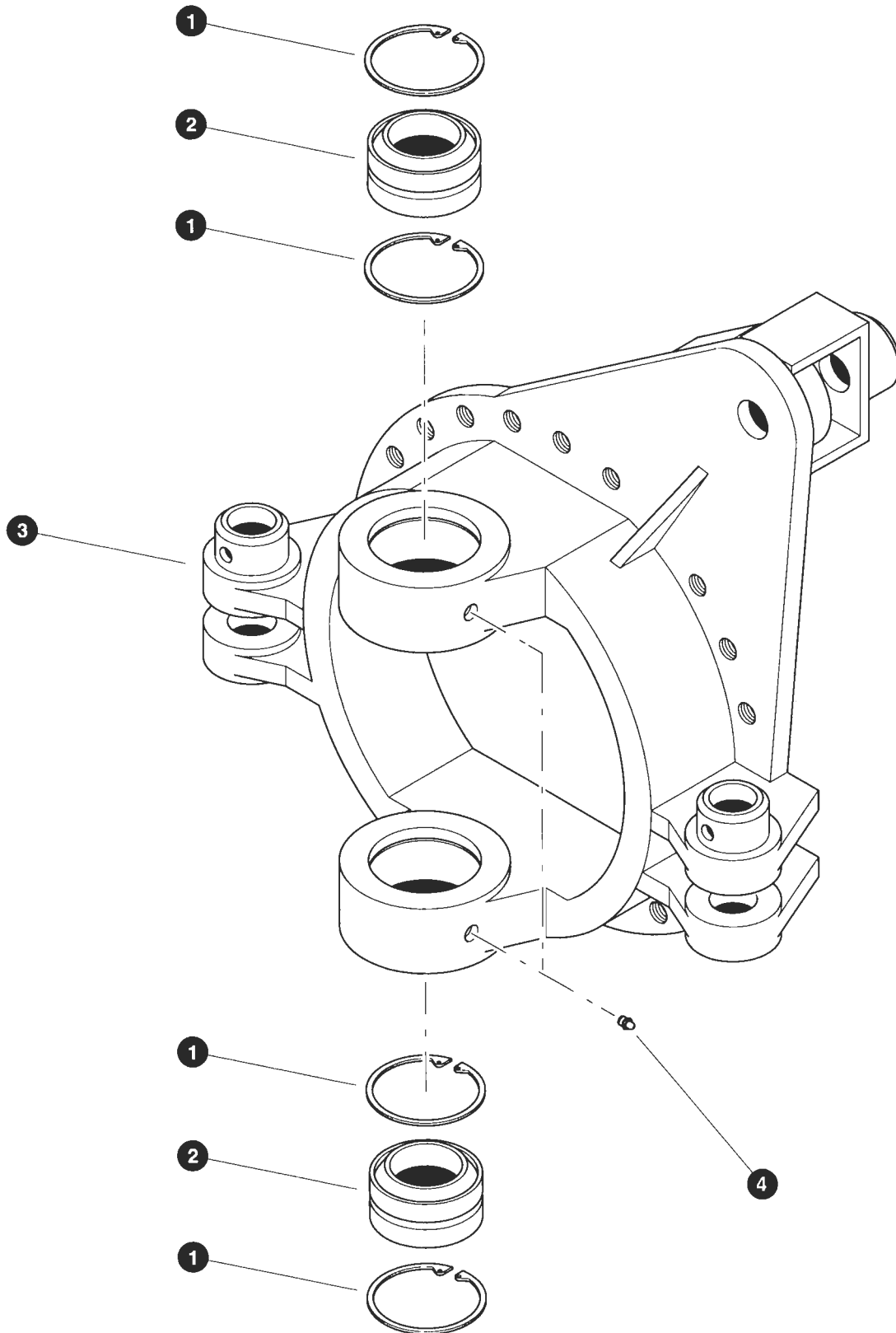


FRONT FRAME ACCESS COVERS

(Used on late production machines)

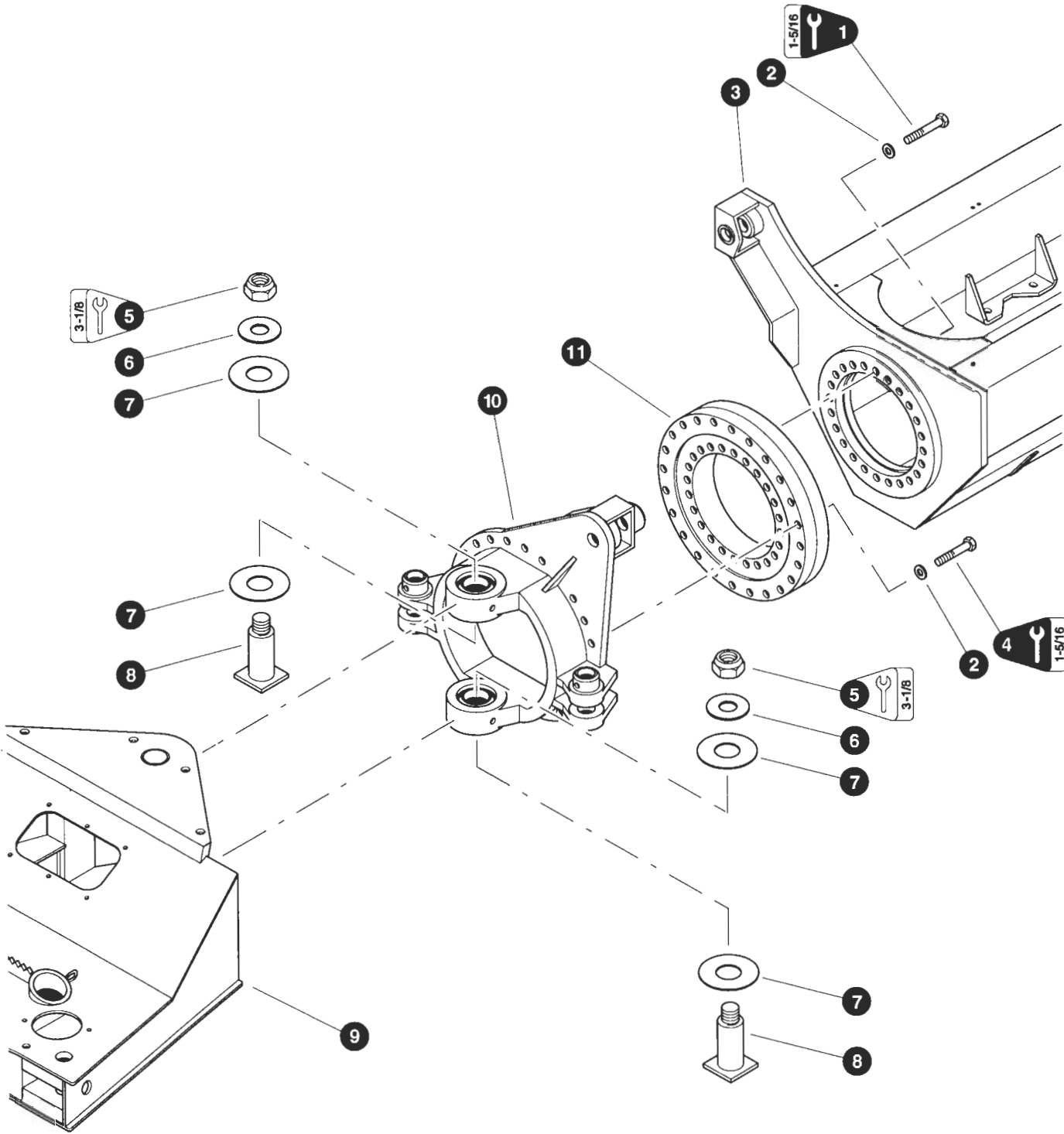
REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	80277	2	COVER, access - tool box	
2	20197	6	HINGE, weld-on	
3	15542	8	BOLT - 3/8" x 3/4"	
4	15528	8	WASHER, SAE flat - 3/8"	
5	19818	1	COVER, access - lower swivel	
6	15534	24	WASHER, SAE flat - 1/2"	
7	10783	24	BOLT - 1/2" x 1"	
8	10835	4	BOLT - 1/2" x 4-1/2"	
9	10815	4	NUT, lock - 1/2"	
10	20255	1	COVER, access - front differential	
11	80329	1	COVER, access - belly pan	
12	20208	1	COVER, access - frame side <i>(With step)</i>	
13	REF.	1	✓ FRONT FRAME WELDMENT	H.4.2
14	80317	1	COVER, access - frame side <i>(Without step)</i>	
15	19952	1	COVER, access - rear drive motor	
16	19951	1	COVER, access - front drive motor	

✓ See referenced page for component or assembly breakdown.



FRAME ARTICULATION CASTING

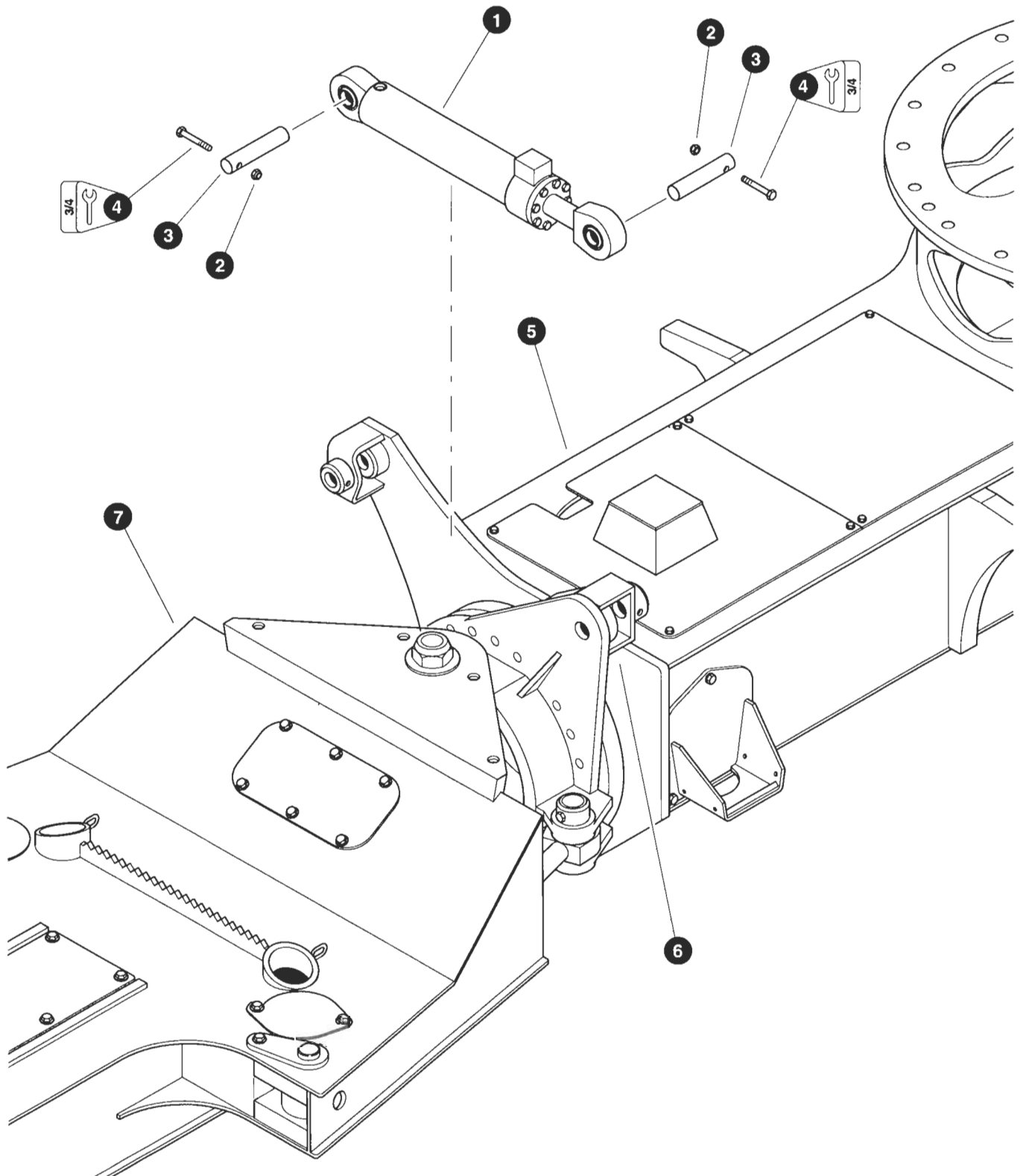
REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	17833	4	RING, snap - 3" spherical bushing	
2	12127	2	BUSHING, spherical - 3"	
3	19316	1	CASTING, frame articulation	
4	10704	2	FITTING, grease - 1/8" pipe thread	



FRAME ARTICULATION COMPONENTS

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	19072	24	BOLT - 7/8" x 5-1/2"	
2	10718	24	WASHER, SAE flat - 7/8"	
3	REF.	1	✓ FRONT FRAME WELDMENT	H.4.2
4	19072	24	BOLT - 7/8" x 5-1/2"	
5	10728	2	NUT, nylock - 2"	
6	18709	2	WASHER, articulation pin	
7	19486	AR	WASHER, thrust - thin (<i>Brass</i>)	
	19487	AR	WASHER, thrust - thick (<i>Brass</i>)	
8	19330	2	PIN, articulation - 3" x 8-5/8"	
9	REF.	1	✓ REAR FRAME WELDMENT	H.5.2

✓ See referenced page for component or assembly breakdown.



Parts 00371 12/20/97
12.50

FRAME LOCK CYLINDER INSTALLATION

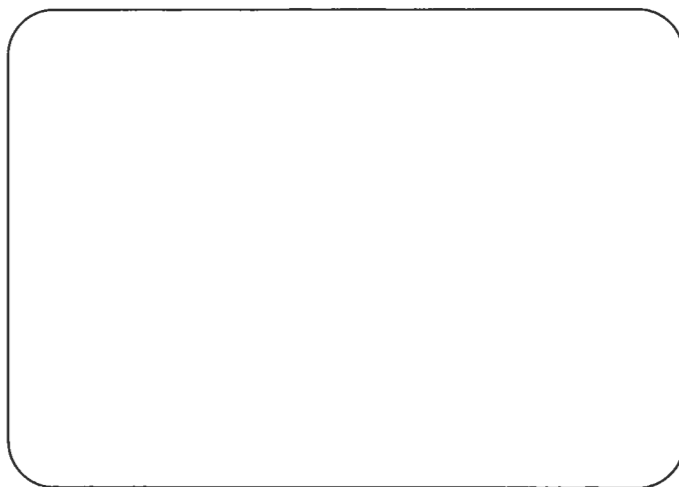
REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	FRAME LOCK CYLINDER	E.2.8
2	15533	2		NUT, nylock - 1/2"	
3	18897	2		PIN, frame lock cylinder mounting	
4	15553	2		BOLT - 1/2" x 3-1/2"	
5	REF	1	✓	FRONT FRAME WELDMENT	H.4.2
6	REF.	1	✓	FRAME ARTICULATION CASTING	H.4.6
7	REF.	1	✓	REAR FRAME WELDMENT	H.5.2

✓ See referenced page for component or assembly breakdown.

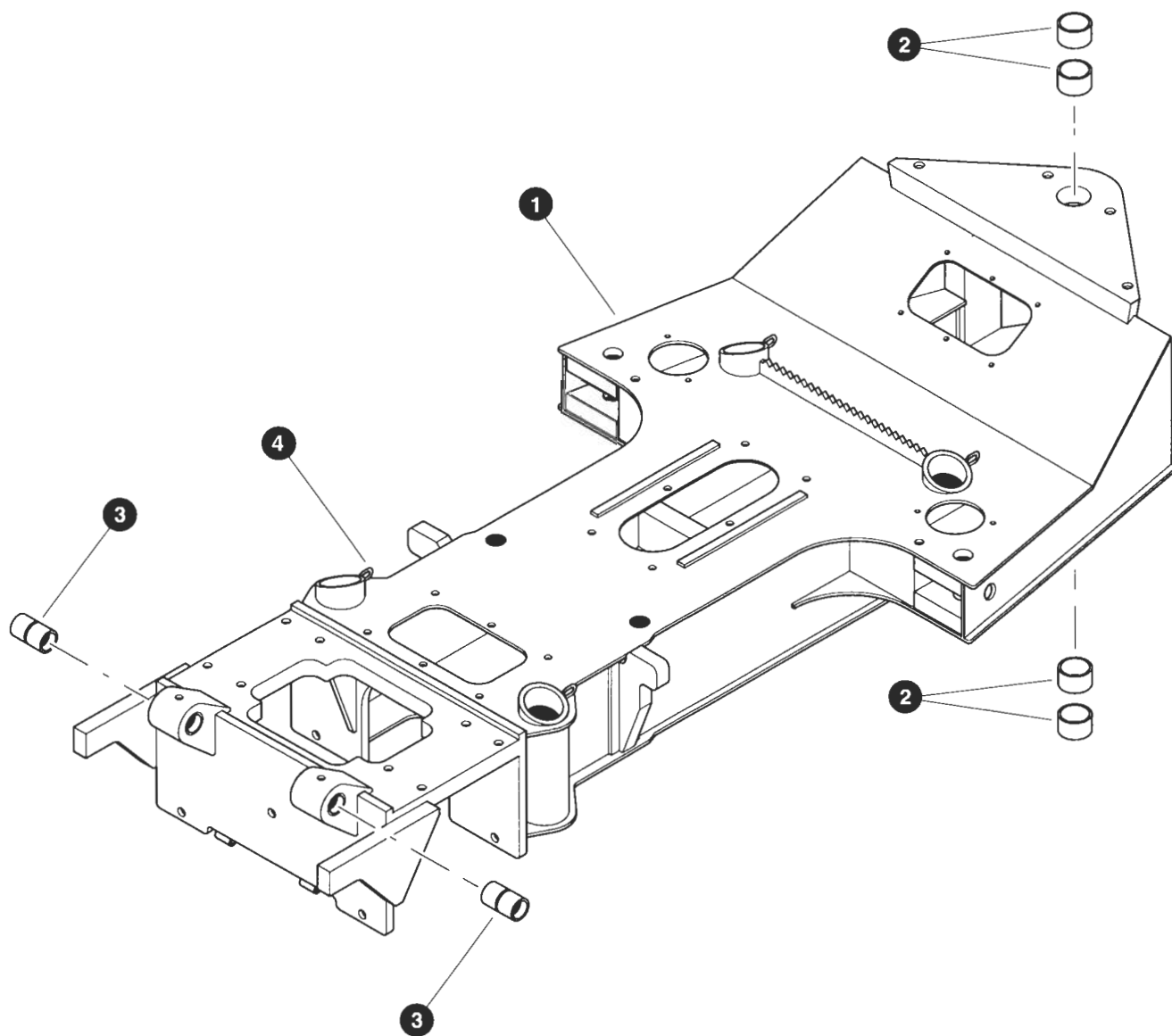
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Section H.5



Structural Components - Rear Frame



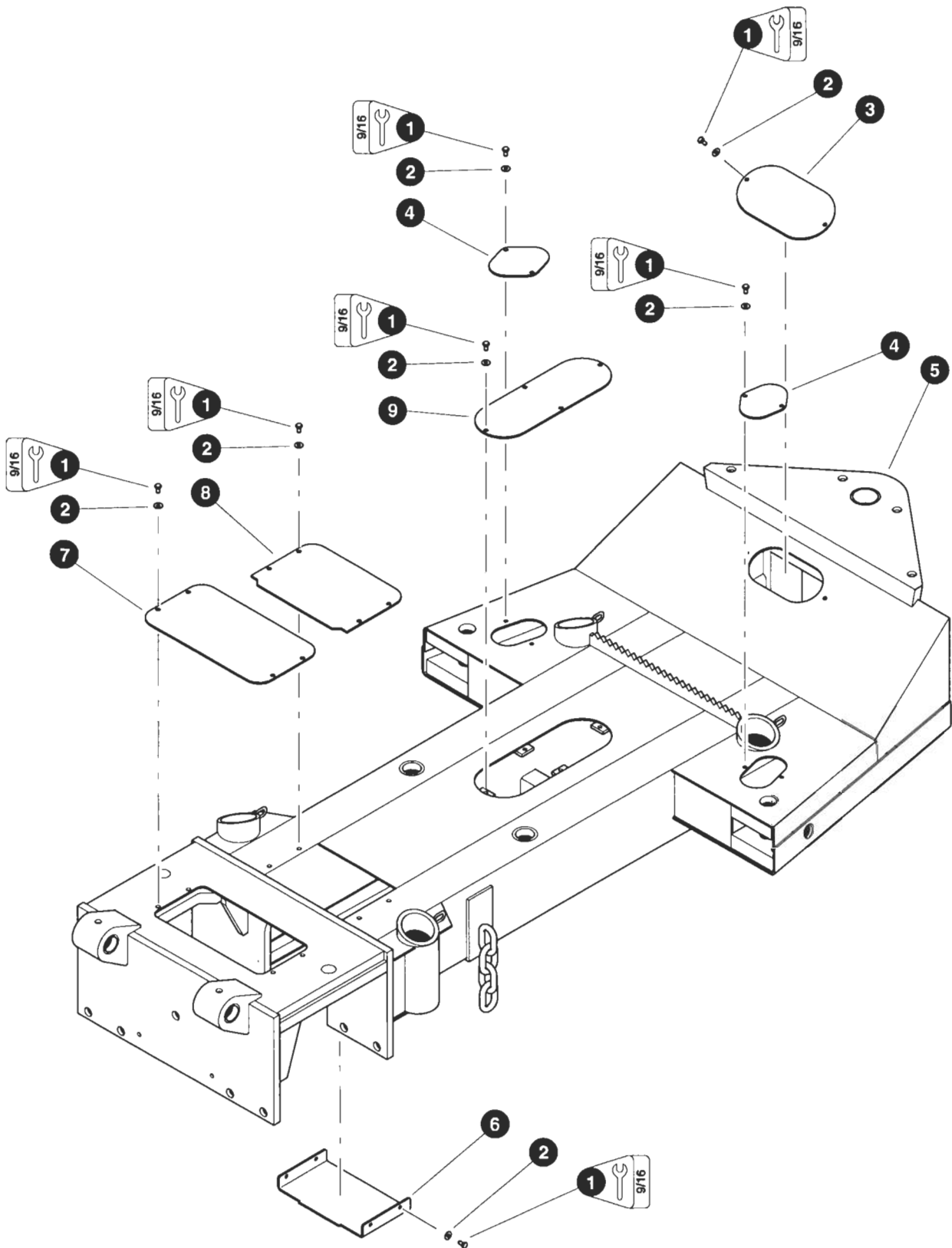
REAR FRAME COMPONENTS

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	80240	1	☐	WELDMENT, rear frame (<i>Standard 183" Wheelbase</i>)(See note below)	
	80271	1	☐	WELDMENT, rear frame (<i>Optional 231" Wheelbase</i>)(See note below)	
2	19129	4		BUSHING - 3" x 1-1/2"	
3	12149	2		BUSHING - 2" x 4-1/4"	
4	19246	4		LINK, chain - 3/8" (<i>Grade 70</i>)	

☐ Kit or Assembly - includes all items indented underneath.

Note:

The original tubular design rear frame is not available. Order new rear frame weldment, PN# 80240 or 80271 as a replacement. Also order new covers and guards as required.



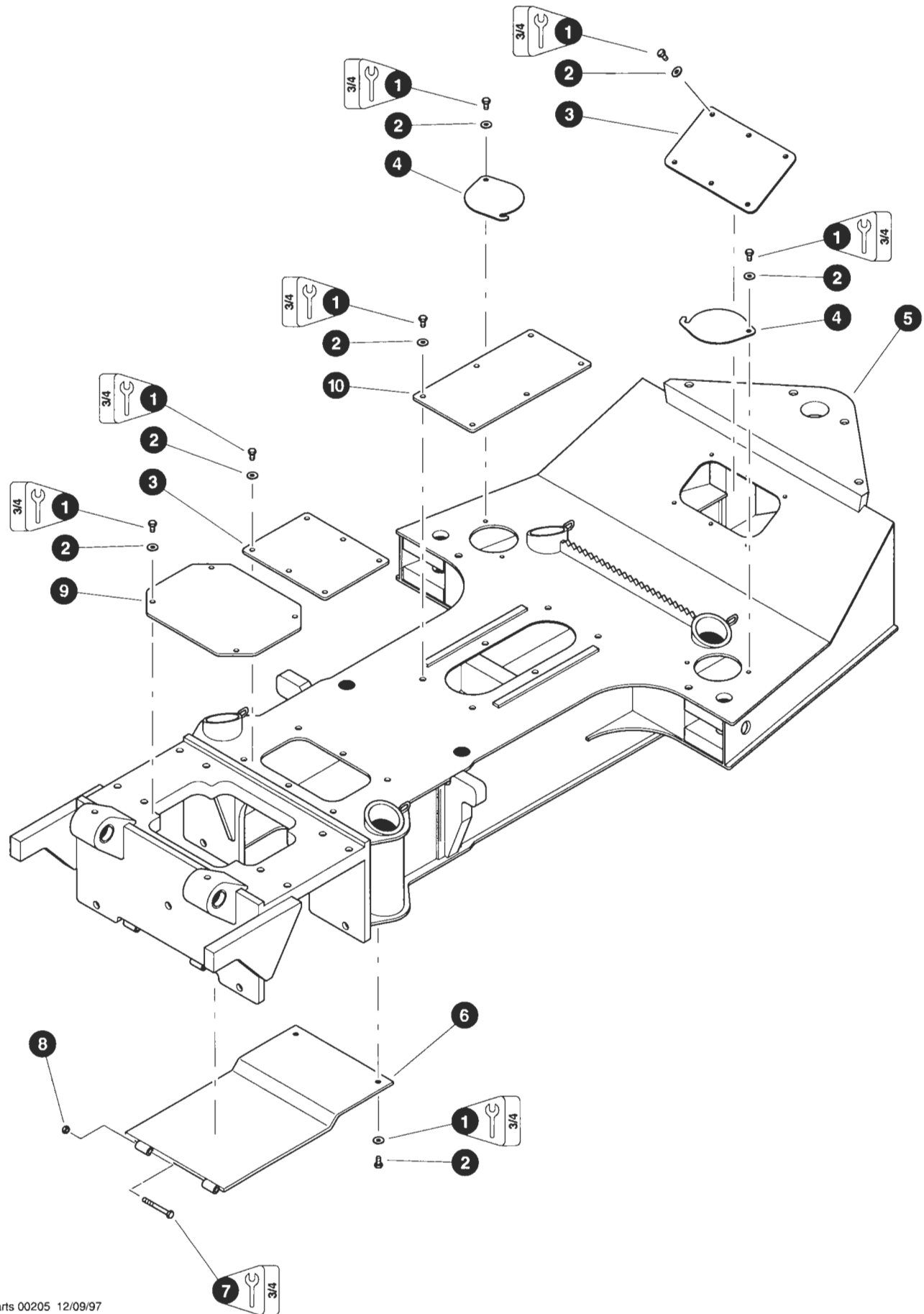
REAR FRAME ACCESS COVERS

(Tubular Frame Design With Chain Link Axle Stops)

(Used on machines PDN# 027FWD and below)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	15542	22		BOLT - 3/8" x 3/4"	
2	15528	22		WASHER, SAE flat - 3/8"	
3	80165	1		COVER, access - steerbox	
4	80120	2		COVER, access - steer cylinder	
5	REF.	1	✓	REAR FRAME WELDMENT	H.5.2
6	80131	1		COVER, access - differential (<i>Lower</i>)	
7	80075	1		COVER, access - differential (<i>Upper</i>)	
8	80121	1		COVER, access - parking brake	
9	80138	1		COVER, access - driveshaft (<i>Standard 183" wheelbase</i>)	
	80212	1		COVER, access - driveshaft (<i>Optional 231" wheelbase</i>)	

✓ See referenced page for component or assembly breakdown.



Parts 00205 12/09/97
9.375

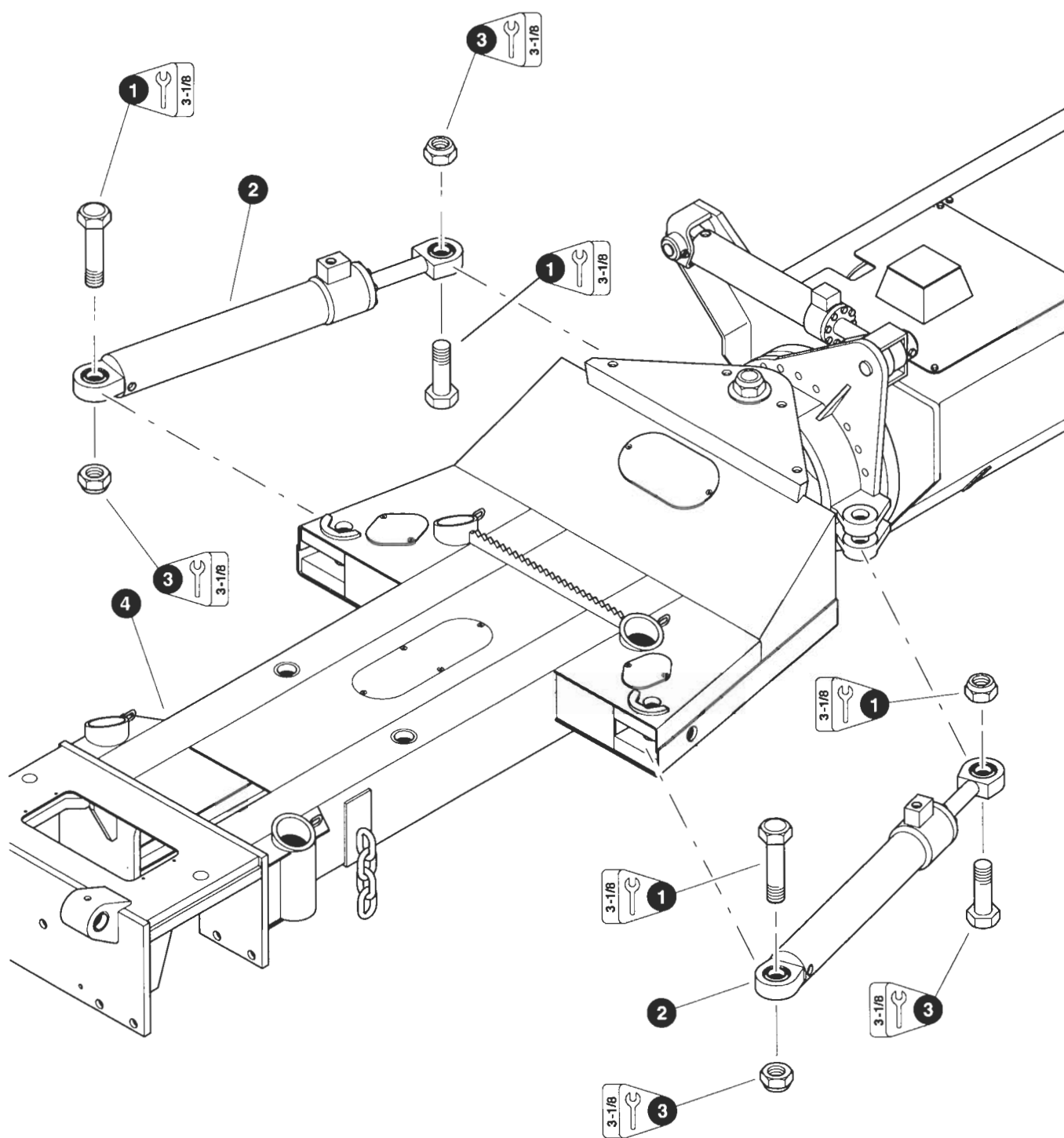
REAR FRAME ACCESS COVERS

(Box Frame Design With Weld-on Axle Stops)

(Used on machines PDN# 028FWD and above)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	10783	14	BOLT - 1/2" x 1"	
2	15534	14	WASHER, SAE flat - 1/2"	
3	19395	2	COVER, access - steerbox / axle	
4	12150	2	COVER, access - steer cylinder	
5	REF.	1	✓ REAR FRAME WELDMENT	H.5.2
6	19527	1	COVER, access - rear frame axle (Lower)	
7	10835	2	BOLT - 1/2" x 4-1/2"	
8	10815	2	NUT, lock - 1/2"	
9	19405	1	COVER, access - rear frame axle (Upper)	
10	19394	1	COVER, access - driveshaft (Standard 183" wheelbase)	
	19502	1	COVER, access - driveshaft (Optional 231" wheelbase)	

✓ See referenced page for component or assembly breakdown.

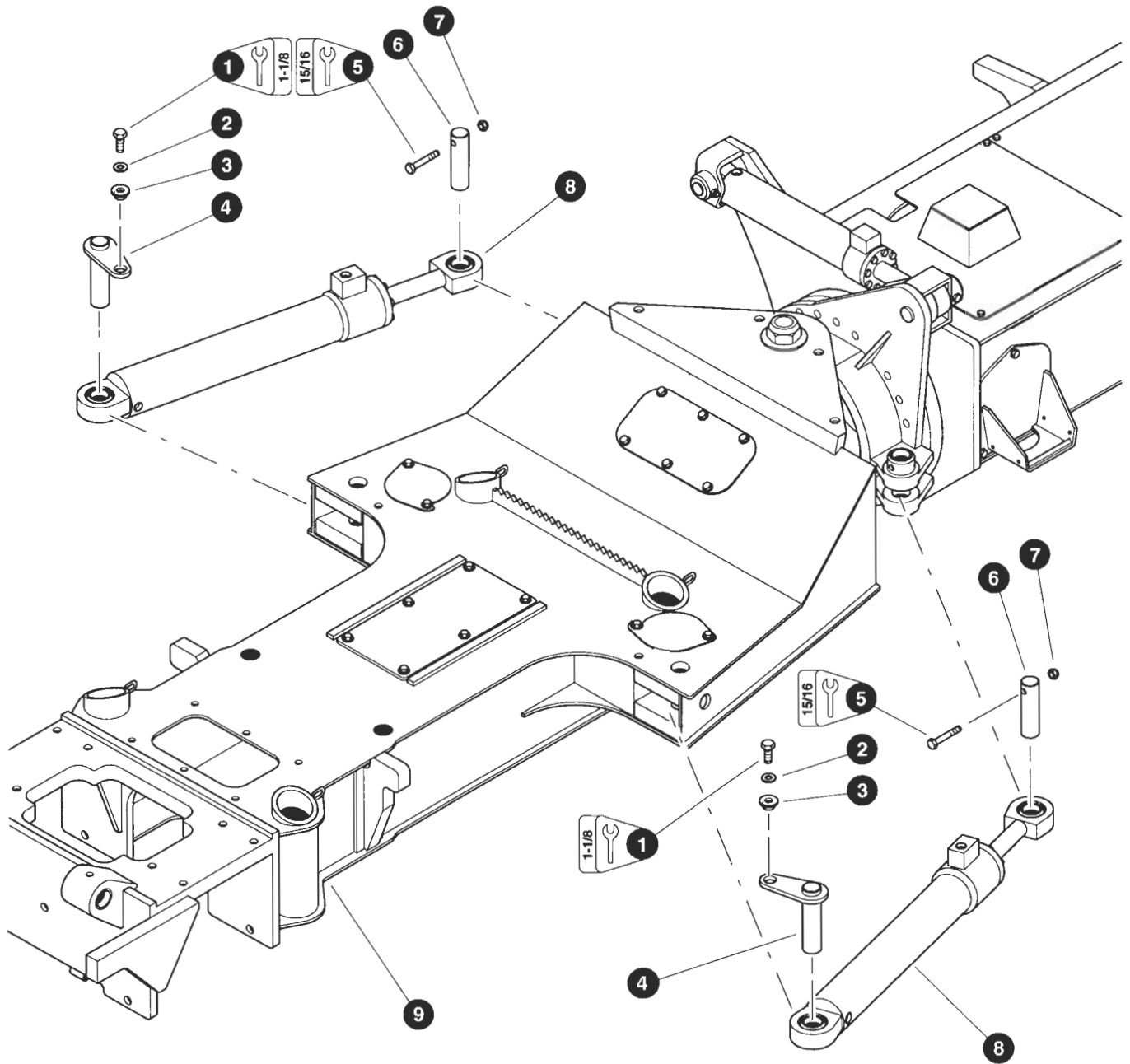


STEER CYLINDER INSTALLATION

(Used on early production machines)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	80080	2		PIN, steer cylinder mounting - base	
2	REF.	2	✓	STEER CYLINDER	E.2.6
3	10728	4		NUT, nylock - 2"	
4	80081	2		PIN, steer cylinder mounting - rod	
5	REF.	1		REAR FRAME WELDMENT	H.5.2

✓ See referenced page for component or assembly breakdown.



STEER CYLINDER INSTALLATION

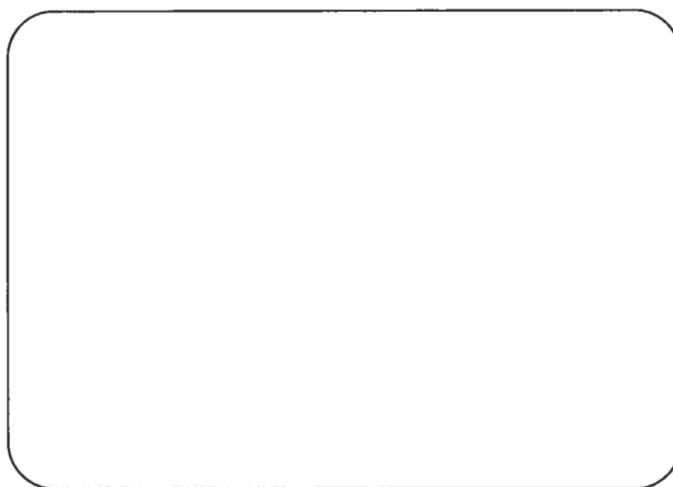
(Used on late production machines)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	15449	2		BOLT - 3/4" x 2"	
2	15550	2		WASHER, SAE flat - 3/4"	
3	18570	2		WASHER, pin retaining	
4	19210	2		PIN, steer cylinder mounting - base	
5	10719	2		BOLT - 5/8" x 4"	
6	19448	2		PIN, steer cylinder mounting - rod	
7	15563	2		NUT, nylock - 5/8"	
8	REF.	2	✓	STEER CYLINDER	E.2.6
9	REF.	1		REAR FRAME WELDMENT	H.5.2

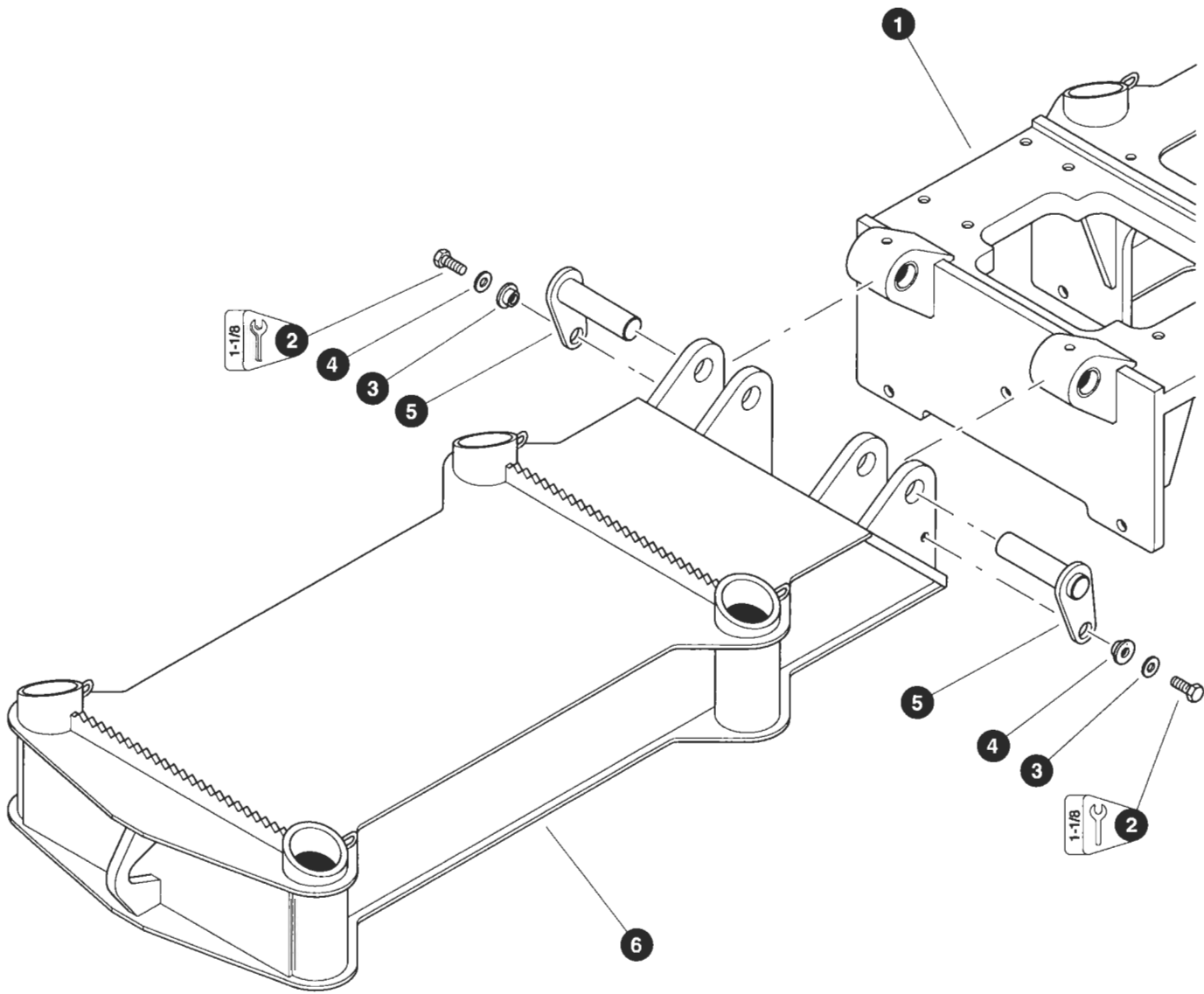
✓ See referenced page for component or assembly breakdown.

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Section H.6



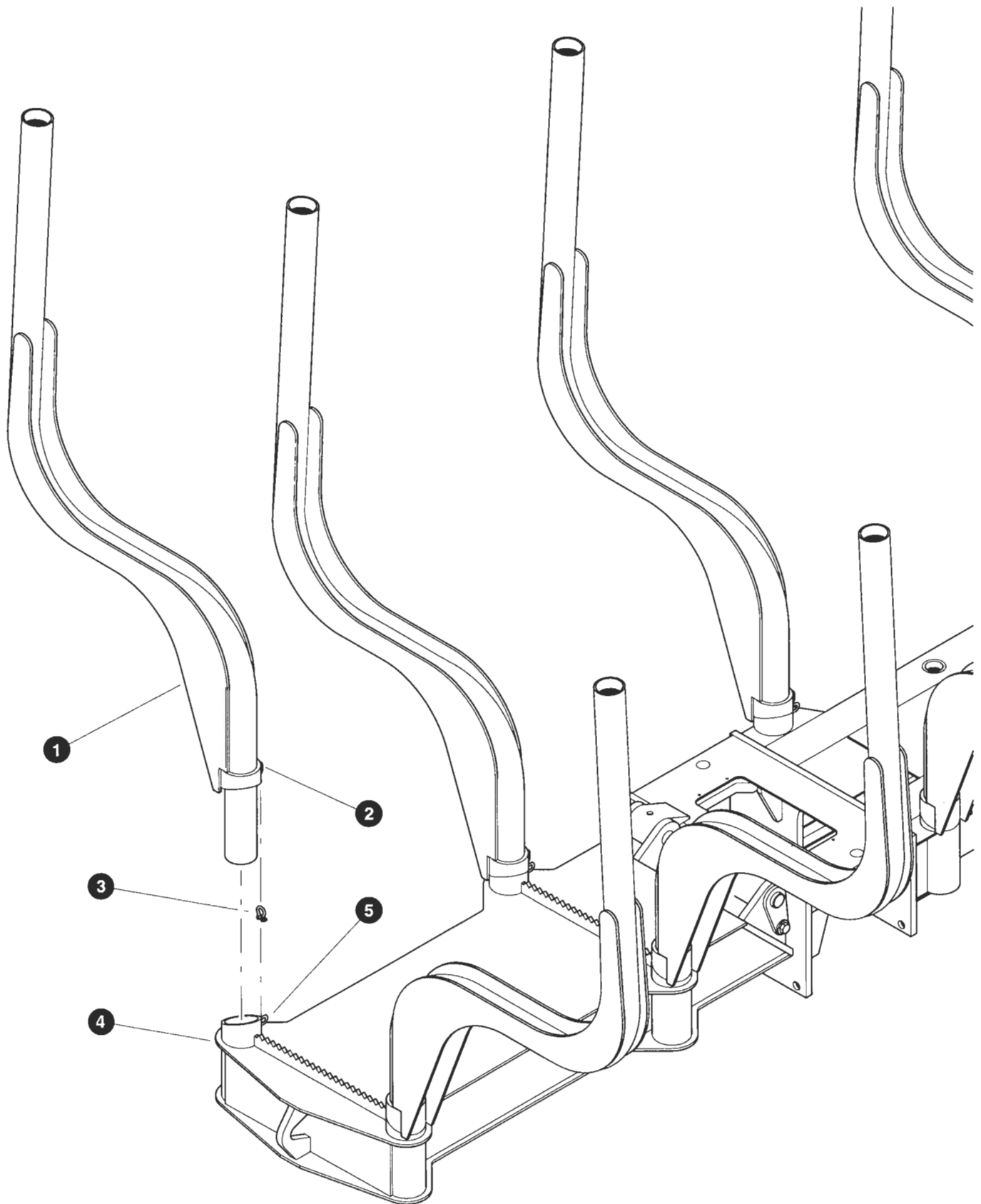
Structural Components - Floating Bunk



FLOATING BUNK INSTALLATION

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	REAR FRAME WELDMENT	H.5.2
2	15549	2		BOLT - 3/4" x 2"	
3	15550	2		WASHER, SAE flat - 3/4"	
4	18570	2		WASHER, pin retaining	
5	19210	2		PIN, floating bunk - 2"	
6	80193	1		WELDMENT, floating bunk	

✓ See referenced page for component or assembly breakdown.

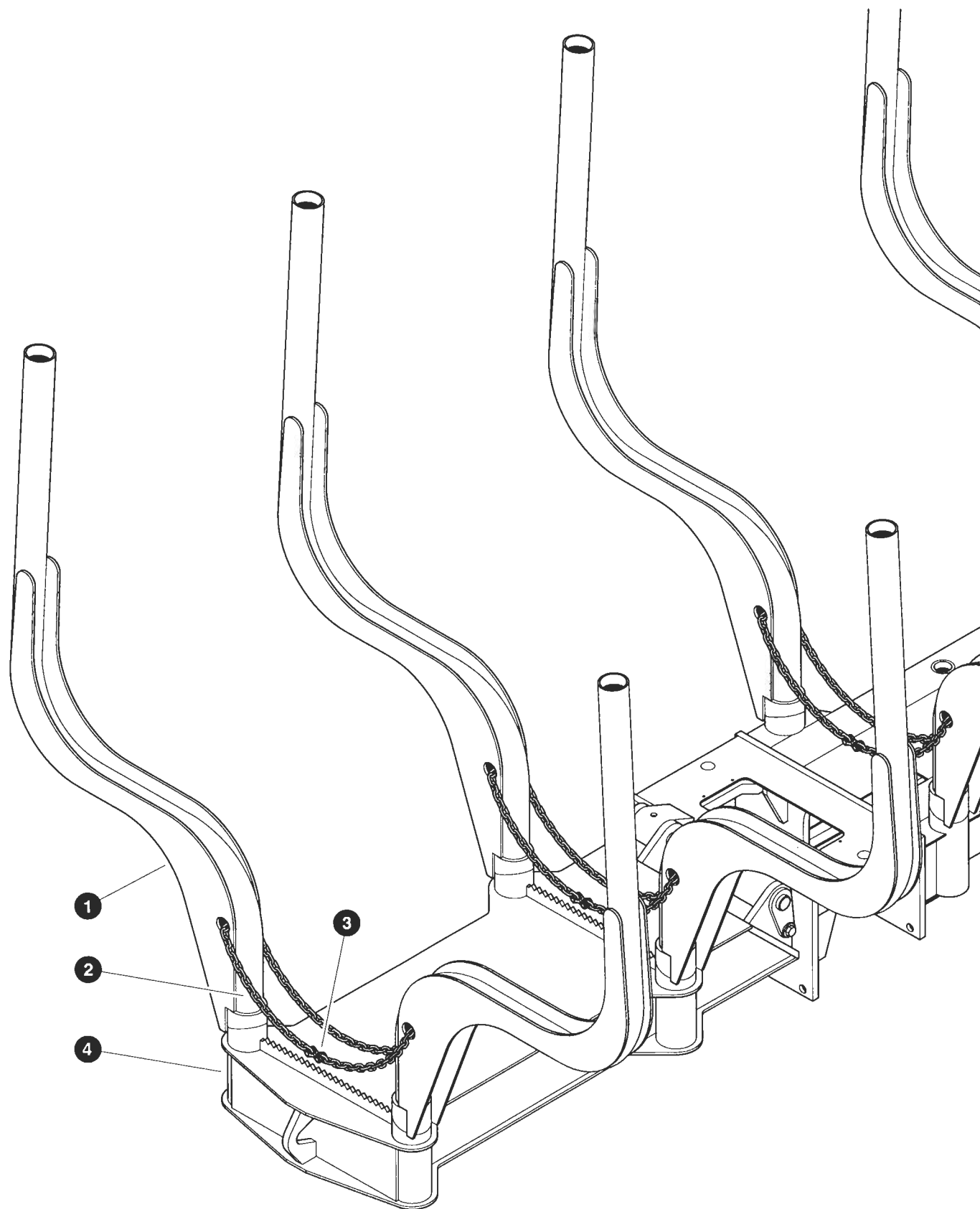


LOG STAKE INSTALLATION

(Used on machines PDN# 040FWD and below)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	80264	8	☐	WELDMENT, log stake - double plate	
2	19246	1		LINK, chain - 3/8" (Grade 70)	
3	19245	8		SHACKLE, screw pin anchor - 5/16"	
4	REF.	1	☒	FLOATING BUNK WELDMENT	H.5.2
5	19246	8		LINK, chain - 3/8" (Grade 70)	

- ☐ Kit or Assembly - includes all items indented underneath.
- ☒ See referenced page for component or assembly breakdown.

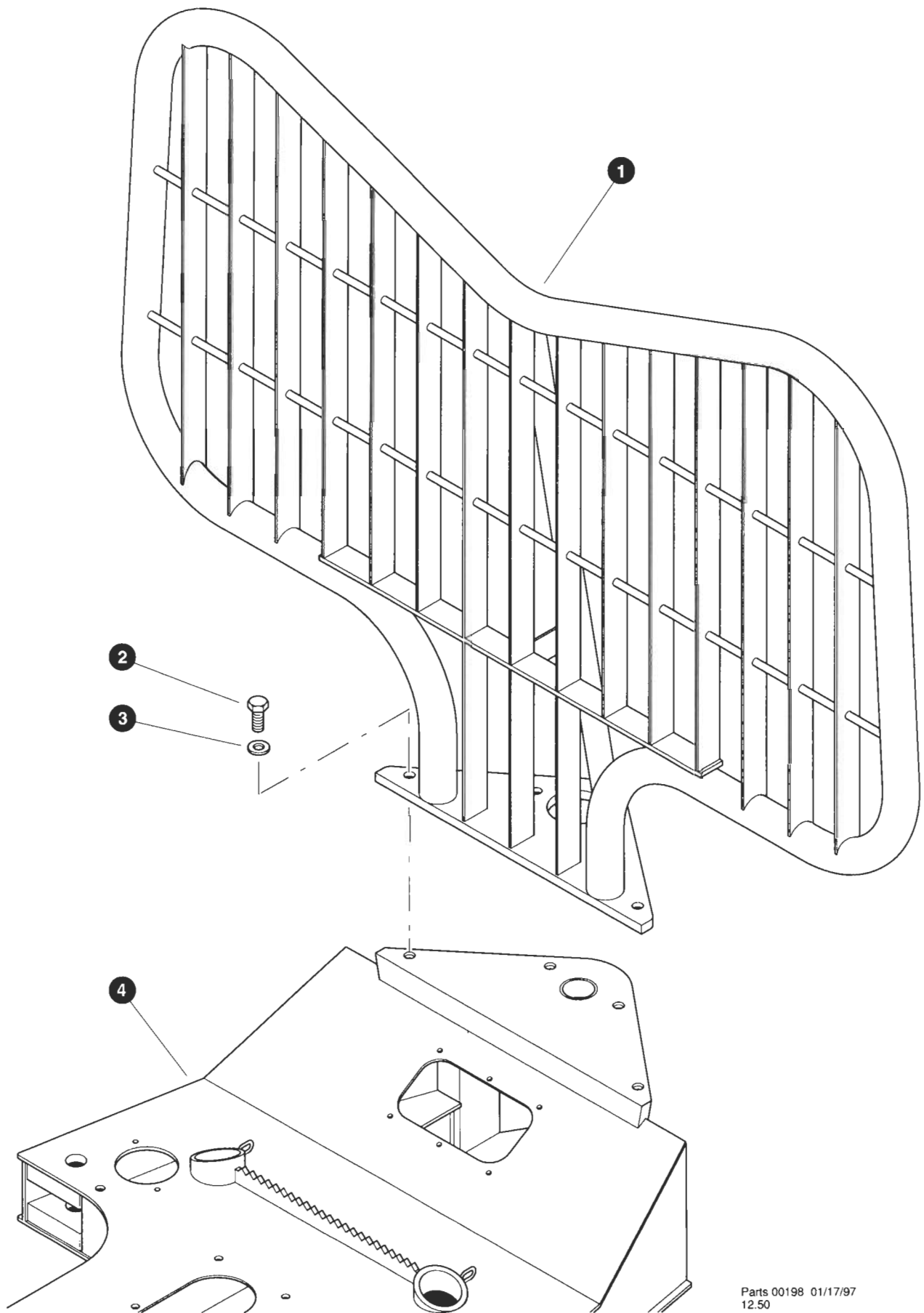


LOG STAKE INSTALLATION

(Used on machines PDN# 041FWD and above)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	80264	8		WELDMENT, log stake - double plate	
2	20075	8		CHAIN, 84 links - 3/8" (Grade 70)	
3	20076	8		LINK, mid - 3/8" (Includes all hardware)	
4	REF.	1	✓	FLOATING BUNK WELDMENT	H.5.2

✓ See referenced page for component or assembly breakdown.



Parts 00198 01/17/97
12.50

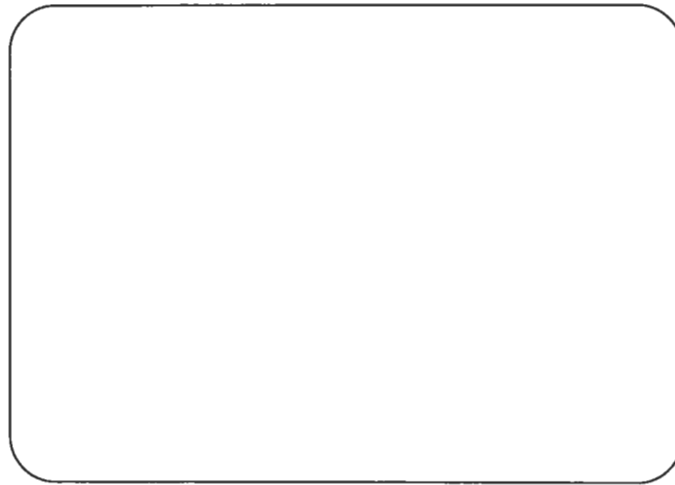
LOG RACK INSTALLATION

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	80189	1		WELDMENT, log rack	
2	15552	4		BOLT - 1" x 2-1/2"	
3	15579	4		WASHER, SAE flat - 1"	
4	REF.	1	✓	REAR FRAME WELDMENT	H.5.2

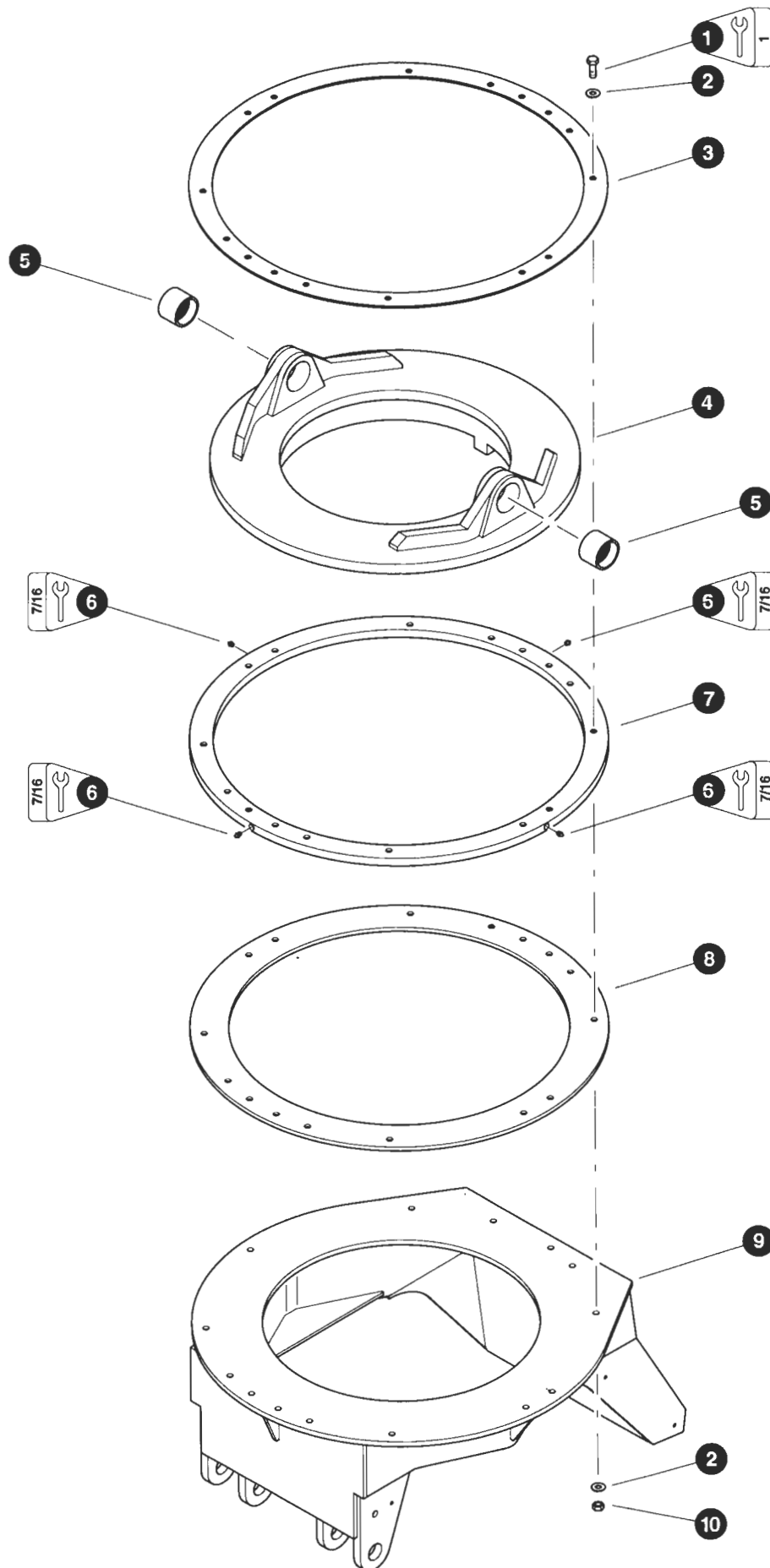
✓ See referenced page for component or assembly breakdown.

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Section H.7



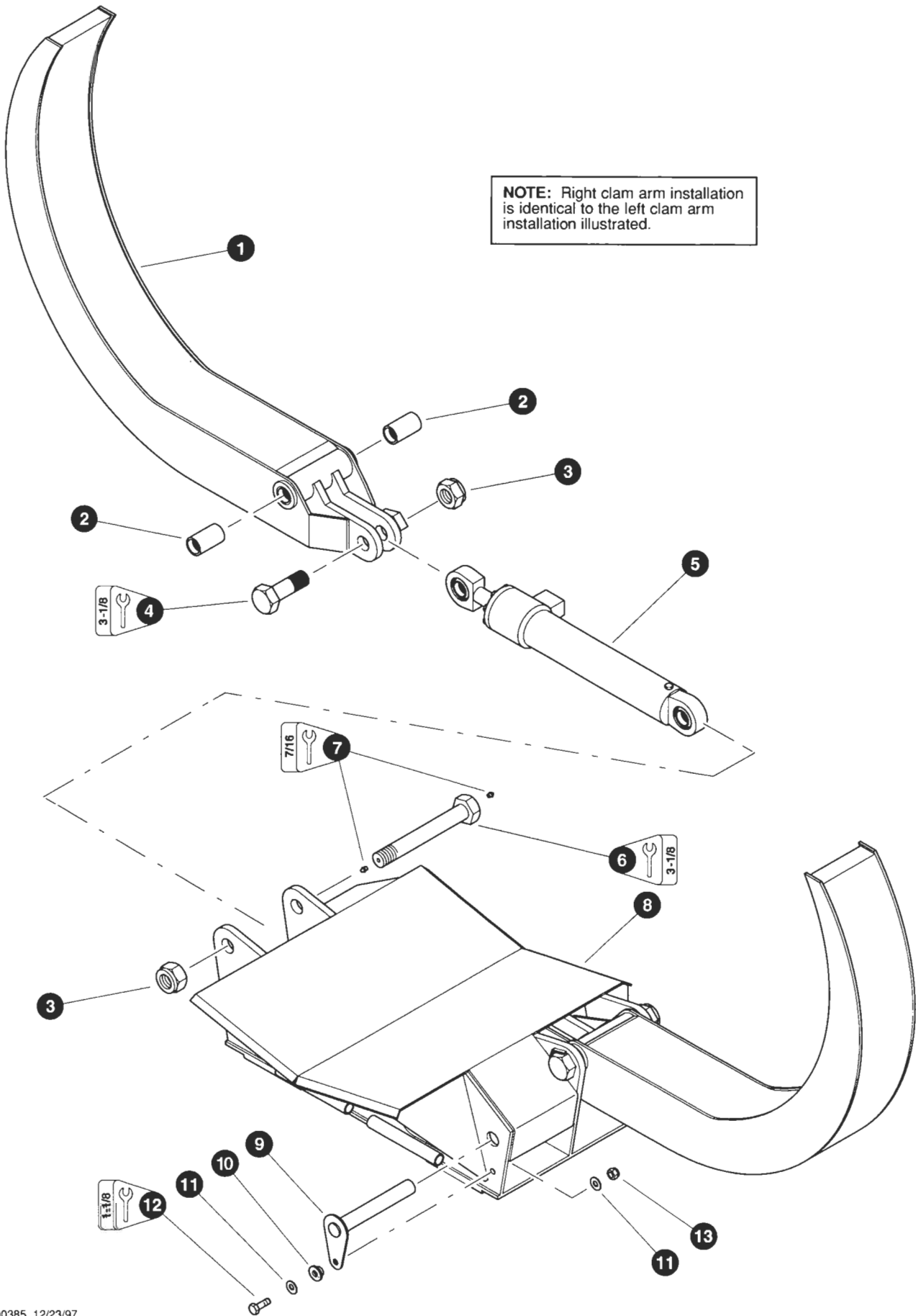
Structural Components - Optional Clam Bunk



CLAM BUNK LOWER BASE COMPONENTS

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	10773	16		BOLT - 5/8" x 3-1/2"	
2	10771	32		WASHER, SAE flat - 5/8"	
3	13368	1		RING, clam pivot hold-down	
4	13370	1	□	WELDMENT, clam pivot	
5	12397	2		BUSJING - 3" x 2-1/2"	
6	10704	4		FITTING, grease	
7	13367	1		RING, clam pivot spacer	
8	13366	1		RING, clam pivot wear	
9	13350	1		WELDMENT, clam mounting base	
10	10816	16		NUT, lock - 5/8"	

□ Kit or Assembly - includes all items indented underneath.



CLAM BUNK ARM INSTALLATION (4" Diameter Clam Bunk Cylinders)

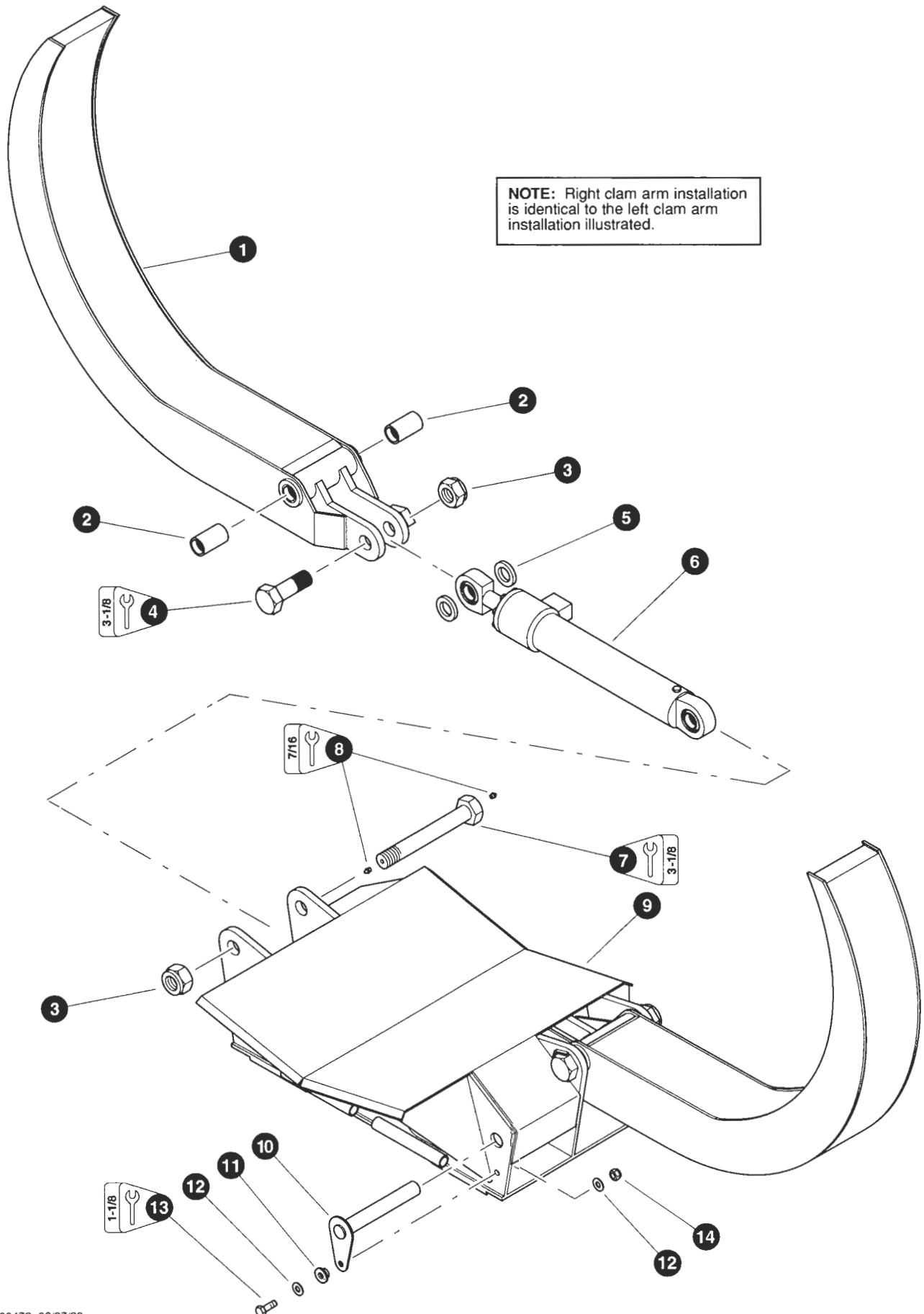
(Used on machines PDN# 042FWD and below)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	13340	2	☐	WELDMENT, clam bunk arm - 4" dia. cylinder <i>(See note below)</i>	
2	12149	2		BUSHING - 2" x 4-1/4"	
3	10728	4		NUT, nylock - 2"	
4	20250	2		PIN, clam bunk cylinder rod - 2" x 6"	
5	REF.	2	☒	CLAM BUNK CYLINDER	E.2.10
6	19546	2	☐	PIN, clam arm	
7	10704	4		FITTING, grease	
8	13330	1		WELDMENT, clam arm base	
9	19542	2		PIN, clam cylinder base	
10	18570	2		WASHER, pin retaining	
11	15550	2		WASHER, SAE flat - 3/4"	
12	10775	2		BOLT - 3/4" x 2-1/2"	
13	10817	2		NUT, lock - 3/4"	

- ☐ Kit or Assembly - includes all items indented underneath.
- ☒ See referenced page for component breakdown.

Note:

Some machines originally equipped with 4" diameter clam bunk cylinders have been converted to 5" cylinders. Verify installation before ordering parts.



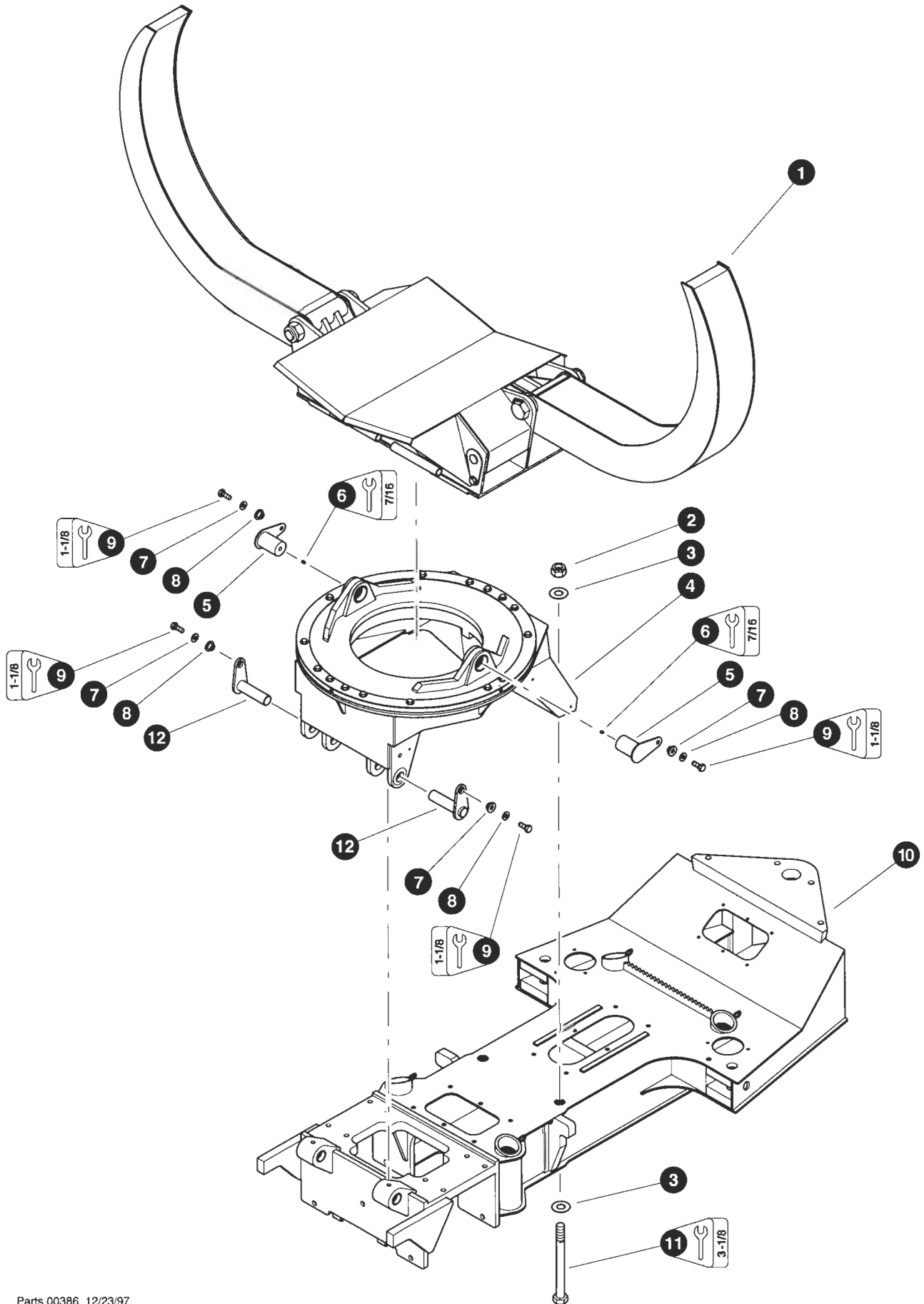
CLAM BUNK ARM INSTALLATION

(5" Diameter Clam Bunk Cylinders)

(Used on machines PDN# 043FWD and above)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	13403	2	☐	WELDMENT, clam bunk arm - 5" dia. cylinder	
2	12149	2		BUSHING - 2" x 4-1/4"	
3	10728	4		NUT, nylock - 2"	
4	20251	2		PIN, clam cylinder rod - 2" x 7"	
5	20758	4		SPACER	
6	REF.	2	☒	CLAM BUNK CYLINDER	E.2.10
7	19546	2	☐	PIN, clam arm	
8	10704	4		FITTING, grease	
9	13330	1		WELDMENT, clam arm base	
10	19542	2		PIN, clam cylinder base	
11	18570	2		WASHER, pin retaining	
12	15550	2		WASHER, SAE flat - 3/4"	
13	10775	2		BOLT - 3/4" x 2-1/2"	
14	10817	2		NUT, lock - 3/4"	

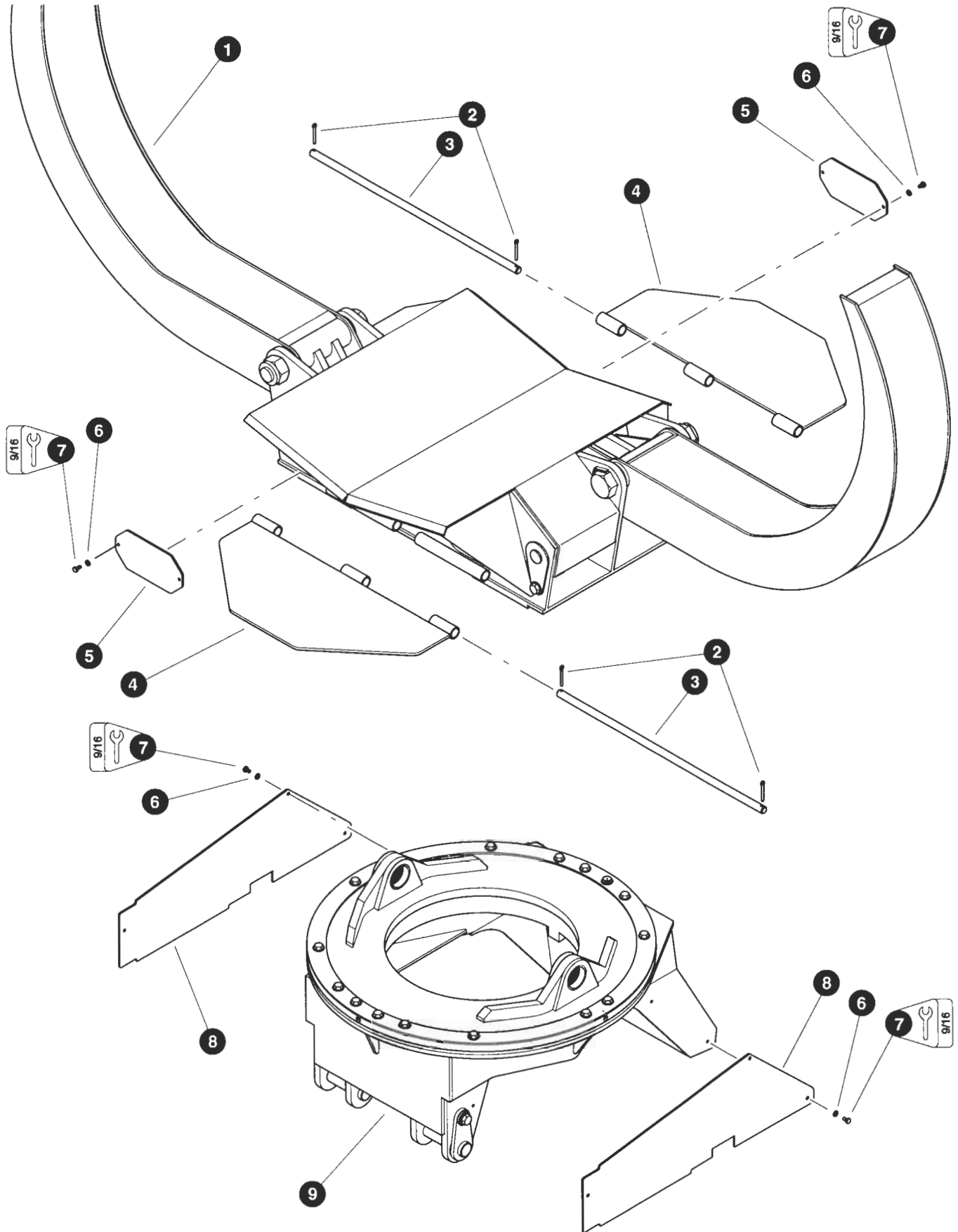
- ☐ Kit or Assembly - includes all items indented underneath.
- ☒ See referenced page for component breakdown.



CLAM BUNK UNIT INSTALLATION

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	CLAM BUNK UPPER COMPONENTS	H.7.4
2	19614	2		NUT, lock - 1-1/2"	
3	19613	4		WASHER, flat - 1-1/2"	
4	REF.	1	✓	CLAM BUNK LOWER BASE COMPONENTS	H.7.2
5	19544	2	□	PIN, clam bunk pivot	
6	10704	1		FITTING, grease	
7	18570	4		WASHER, pin retaining	
8	15550	4		WASHER, SAE flat - 3/4"	
9	10549	4		BOLT - 3/4" x 2"	
10	REF.	1	✓	REAR FRAME WELDMENT	H.4.2
11	20415	2		BOLT - 1-1/2" x 19" (Used on machines with box frame design, PDN# 044FWD and above)	
	19616	2		BOLT - 1-1/2" x 17-1/2" (Used on machines with box frame design, PDN# 028FWD thru 043FWD)	
	19615	2		BOLT - 1-1/2" x 13" (Used on machines with tubular frame design, PDN# 027FWD and below)	
12	19210	2		PIN, floating bunk - 2"	

- ✓ See referenced page for component breakdown.
□ Kit or Assembly - includes all items indented underneath.



CLAM BUNK ACCESS COVERS & GUARDS

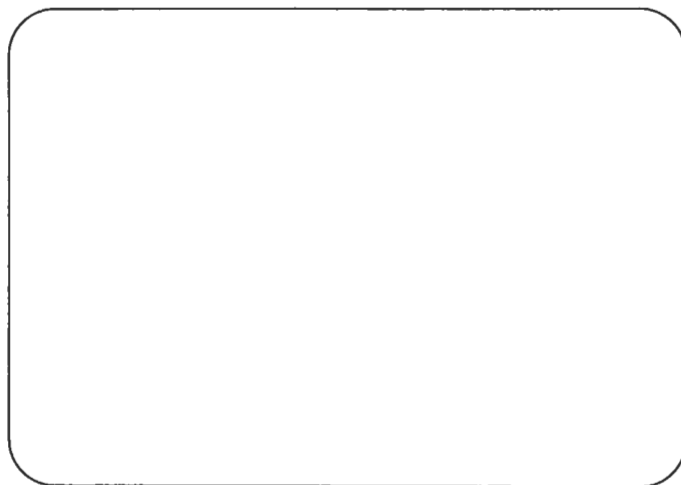
REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	CLAM BUNK UPPER COMPONENTS	H.7.4
2	20249	4		PIN, cotter - 1/4" x 2"	
3	13390	2		SHAFT, hinge cover	
4	13385	2		COVER, hinge	
5	13415	4		COVER, access - arm mounting base	
6	15528	14		WASHER, SAE flat - 3/8"	
7	11707	14		BOLT - 3/8" x 1"	
8	13414	2		COVER, access - clam mounting base	
9	REF.	1	✓	CLAM BUNK LOWER BASE COMPONENTS	H.7.2

✓ See referenced page for component breakdown.

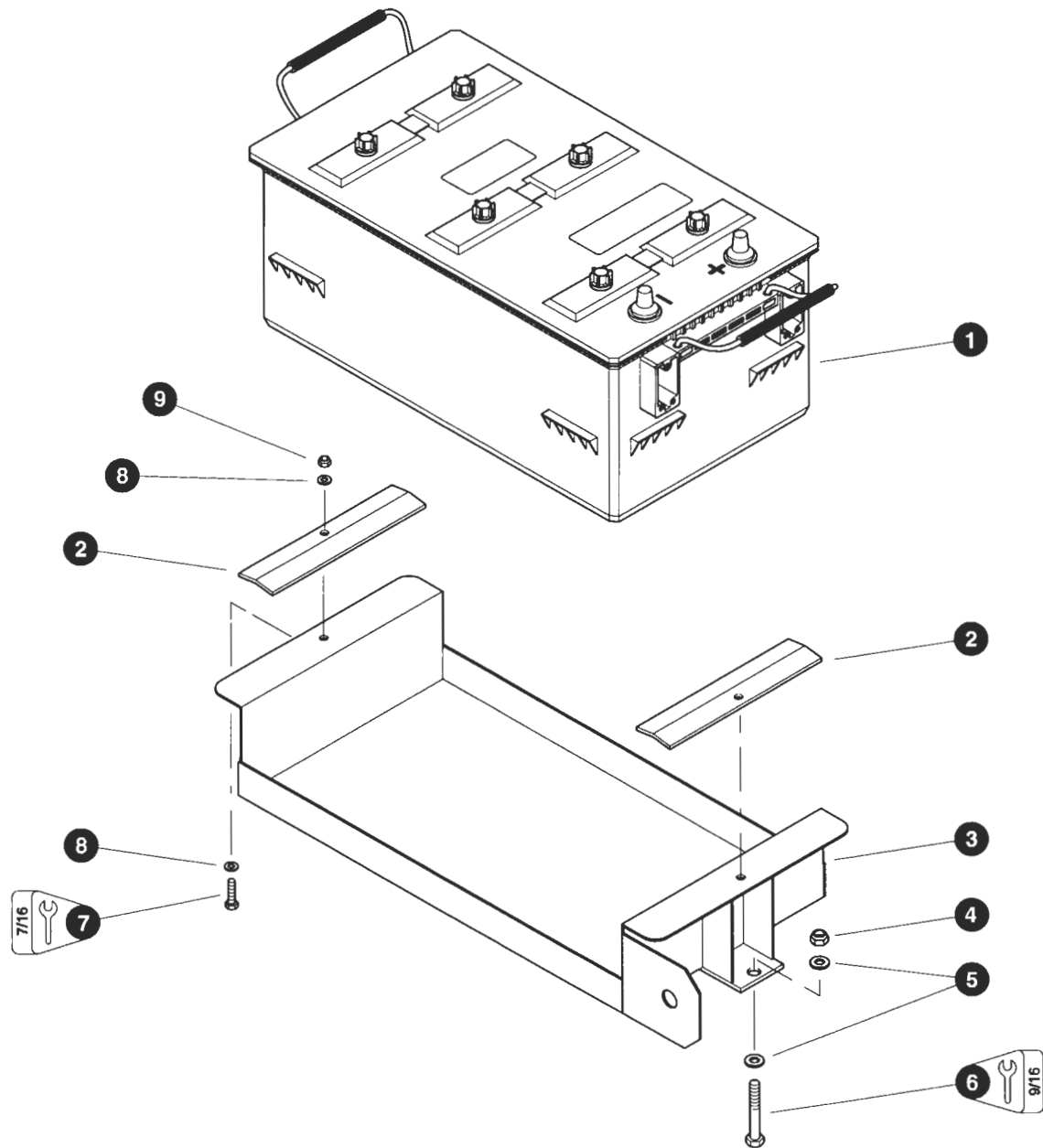
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Section J.1

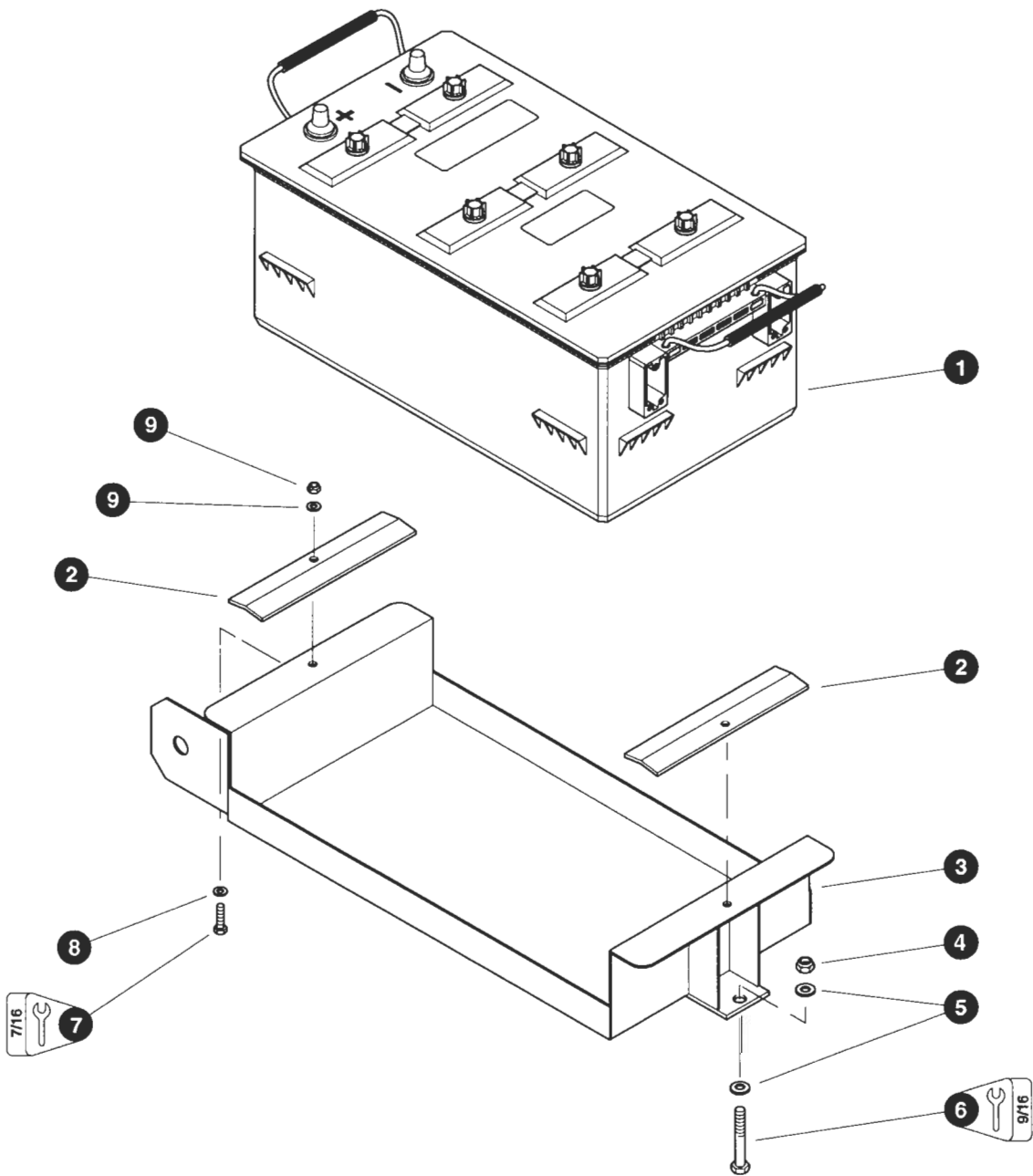


***Electrical System -
Engine***



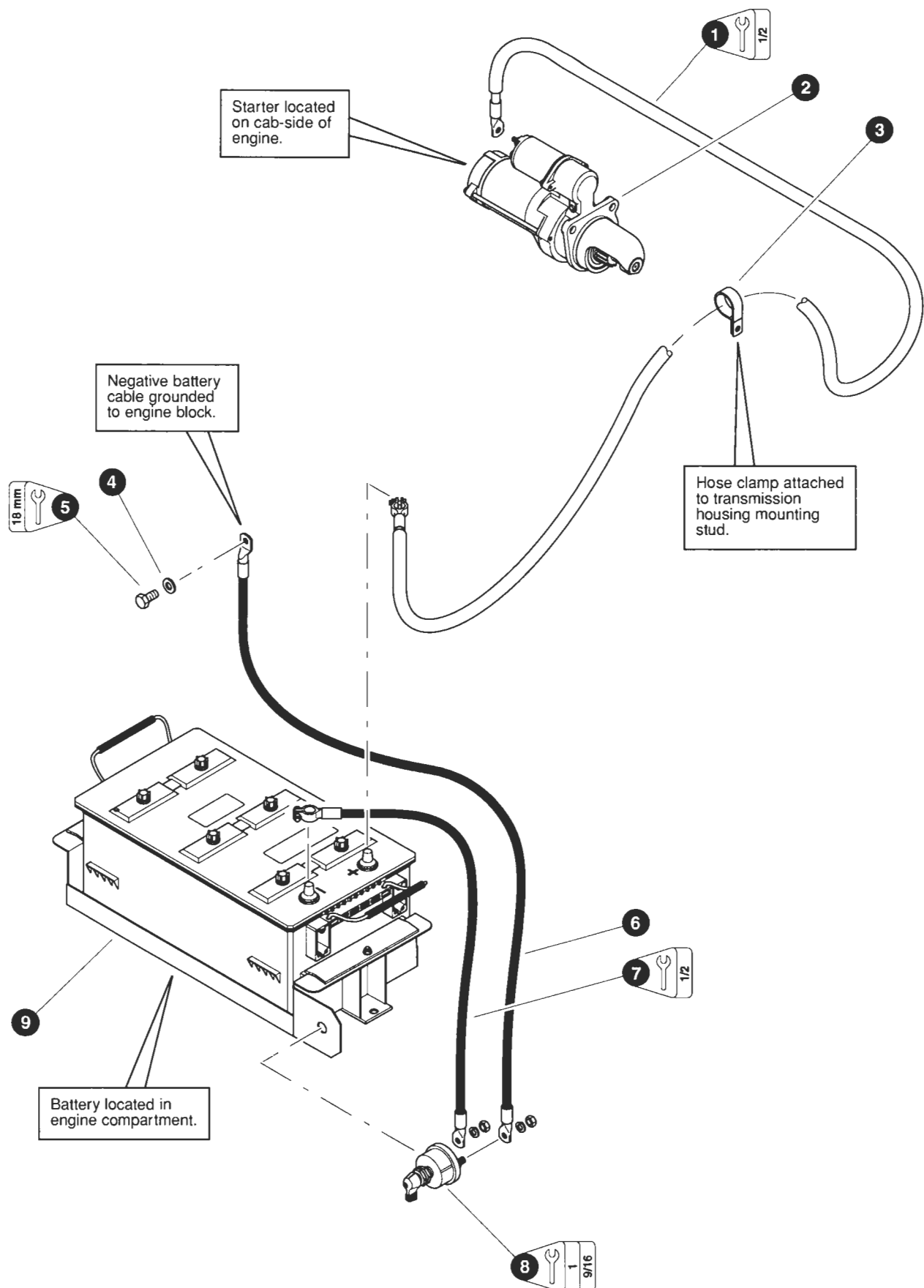
BATTERY INSTALLATION
(Cummins 6BTA5.9-C & 6CT8.3-C Engines)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	18336	1	BATTERY, 12V	
2	18454	2	BRACKET, battery hold-down	
3	18453	1	BRACKET, battery box	
4	15507	2	NUT, nylock - 3/8"	
5	15528	4	WASHER, SAE flat - 3/8"	
6	10702	2	BOLT - 3/8" x 2-1/2"	
7	15576	2	BOLT - 1/4" x 1"	
8	10757	4	WASHER, SAE flat - 1/4"	
9	10811	2	NUT, lock - 1/4"	



BATTERY INSTALLATION
(Caterpillar 3116T & 3126T Engines)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	18336	1	BATTERY, 12V	
2	18454	2	BRACKET, battery hold-down	
3	19050	1	BRACKET, battery box	
4	15507	2	NUT, nylock - 3/8"	
5	15528	4	WASHER, SAE flat - 3/8"	
6	10702	2	BOLT - 3/8" x 2-1/2"	
7	15576	2	BOLT - 1/4" x 1"	
8	10757	4	WASHER, SAE flat - 1/4"	
9	10811	2	NUT, lock - 1/4"	

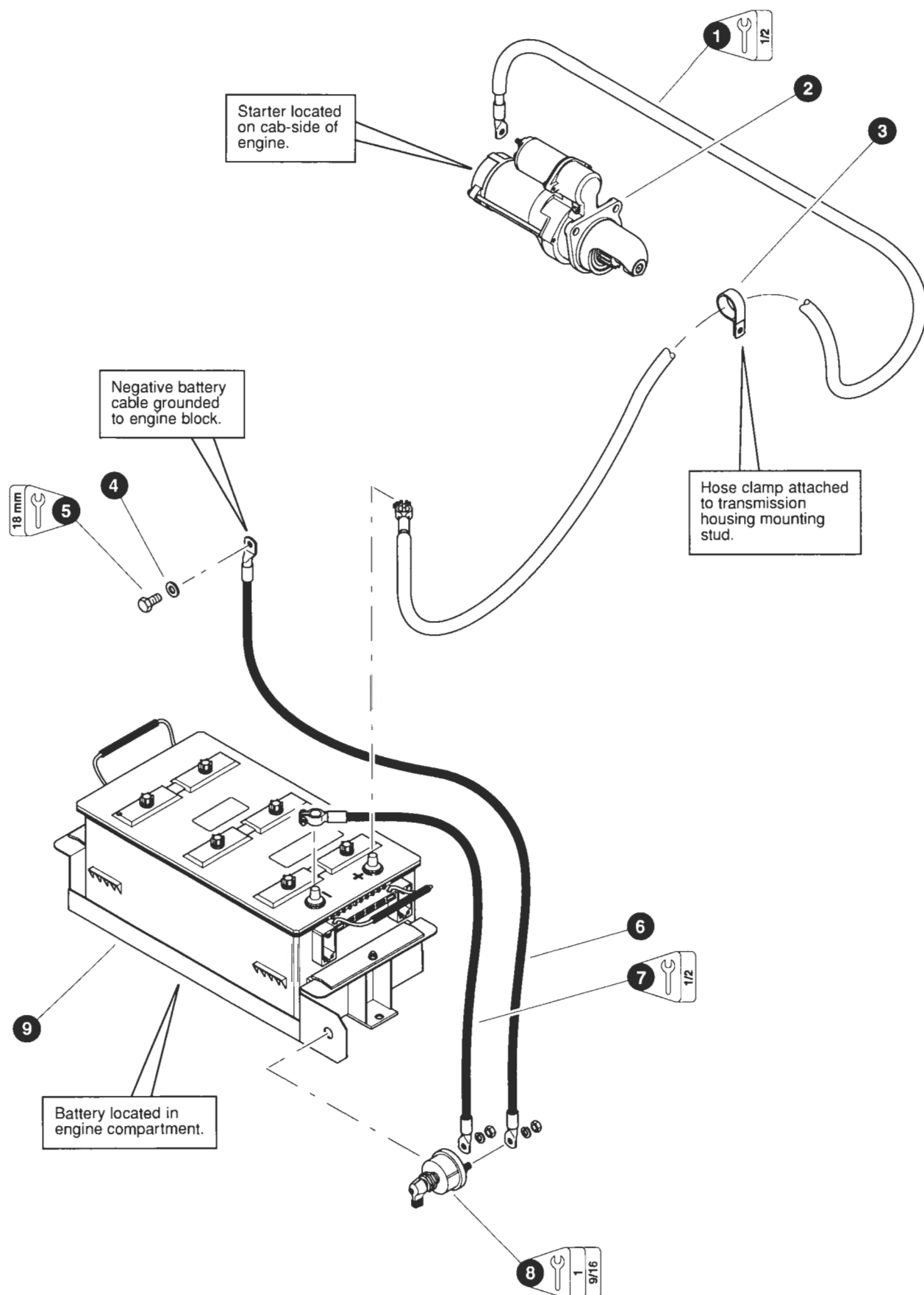


BATTERY CABLE INSTALLATION

(Cummins 6BTA5.9-C & 6CT8.3-C Engines)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	18437	1		CABLE, battery - positive <i>(From positive battery post to starter post)</i>	
2	REF.	1	✓	STARTER	Varies
3	17257	1		CLAMP, hose - coated strap - 1"	
4	18735	1		WASHER, flat - 12mm	
5	15556	1		BOLT - 12mm-1.75P x 20mm	
6	18438	1		CABLE, battery - negative <i>(From master shut-off switch to ground on engine block)</i>	
7	18586	1		CABLE, battery master disconnect <i>(From negative battery post to master shut-off switch)</i>	
8	16289	1		SWITCH, master shut-off	
9	REF.	1	✓	BATTERY	J.1.2

✓ See referenced page for component or assembly breakdown.

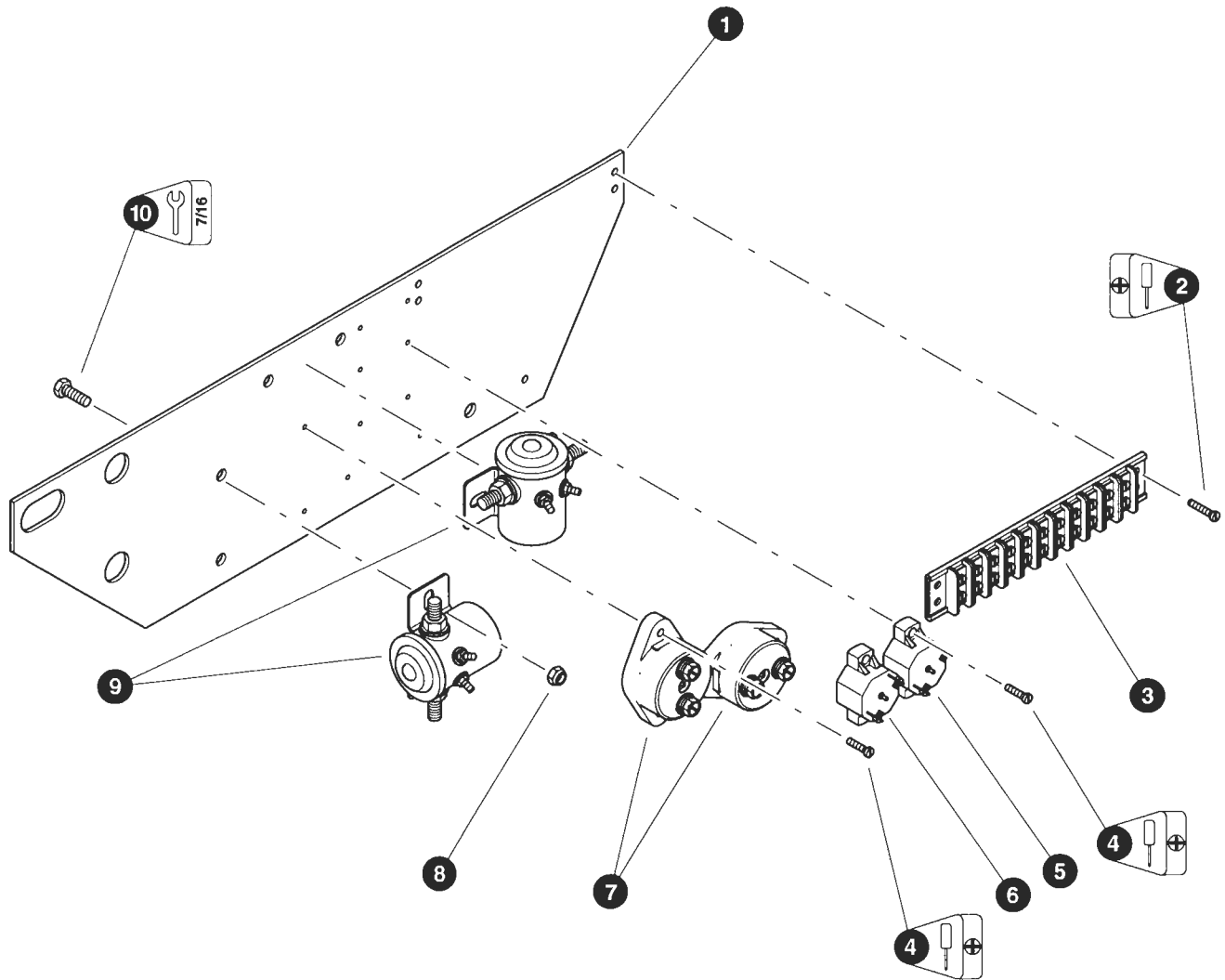


BATTERY CABLE INSTALLATION

(Caterpillar 3116T & 3126T Engines)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	18437	1		CABLE, battery - positive (<i>From positive battery post to starter post</i>)	
2	REF.	1	✓	STARTER	F.5.8
3	17257	1		CLAMP, hose - coated strap - 1"	
4	18735	1		WASHER, flat - 12mm	
5	15556	1		BOLT - 12mm-1.75P x 20mm	
6	19028	1		CABLE, battery - negative (<i>From master shut-off switch to ground on engine block</i>)	
7	18586	1		CABLE, battery master disconnect (<i>From negative battery post to master shut-off switch</i>)	
8	16289	1		SWITCH, master shut-off	
9	REF.	1	✓	BATTERY	J.1.4

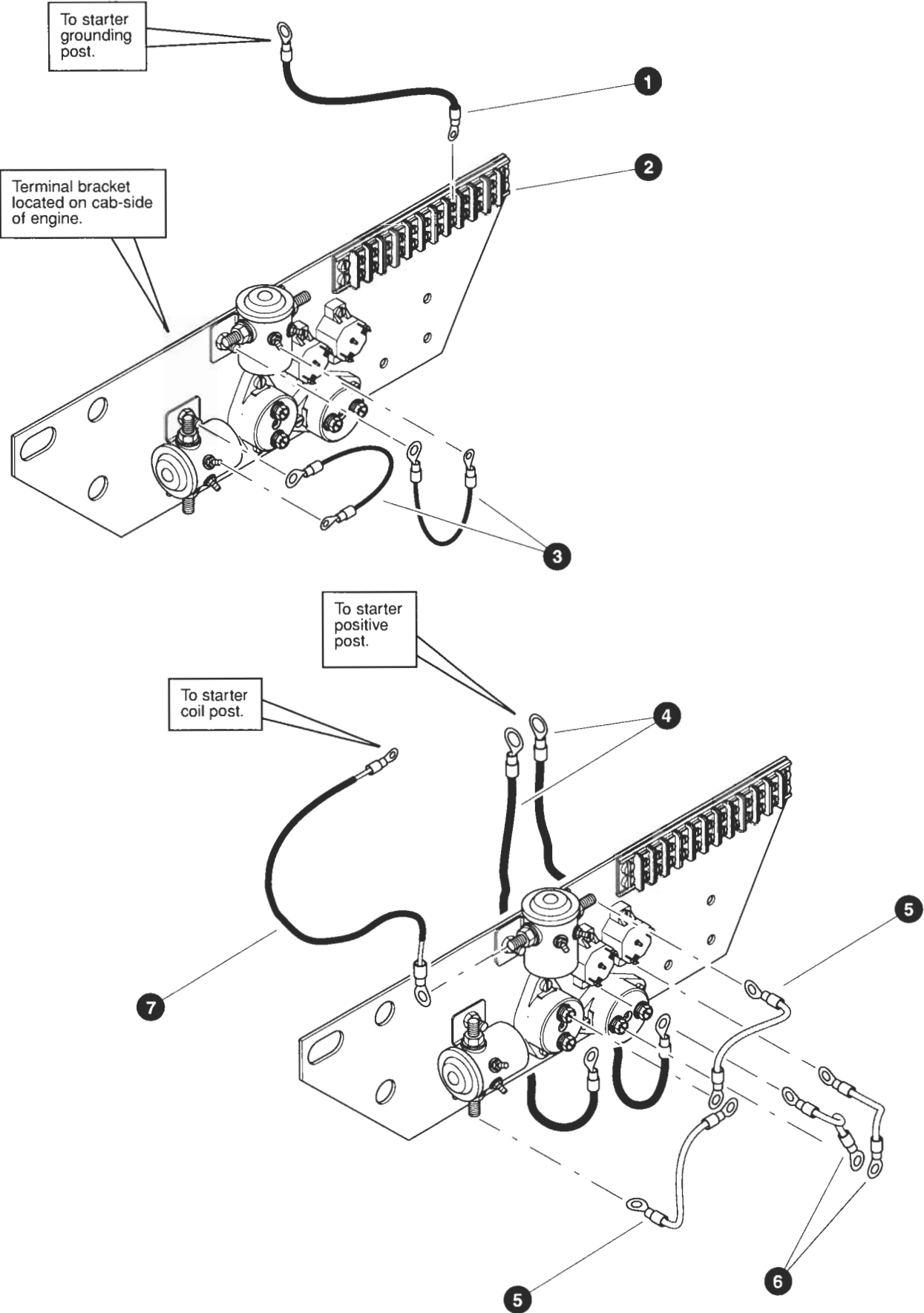
✓ See referenced page for component or assembly breakdown.



MAIN ENGINE ELECTRICAL (Terminal Bracket Components)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
--	19090	1	☐	HARNESS ASSEMBLY, main engine wiring	
1	18888	1		BRACKET, terminal	
2	15663	4		SCREW, self-tapping machine - #10-24 x 1"	
3	15008	1		STRIP, terminal - engine	
4	16129	8		SCREW, self-tapping machine - #10-24 x 3/4"	
5	16079	1		BREAKER, 35 amp	
6	16078	1		BREAKER, 20 amp	
7	16080	2		BREAKER, 50 amp	
8	15509	4		NUT, nylock - 1/4"	
9	16035	2		RELAY, 12V heavy duty	
10	15604	4		BOLT - 1/4" x 3/4"	

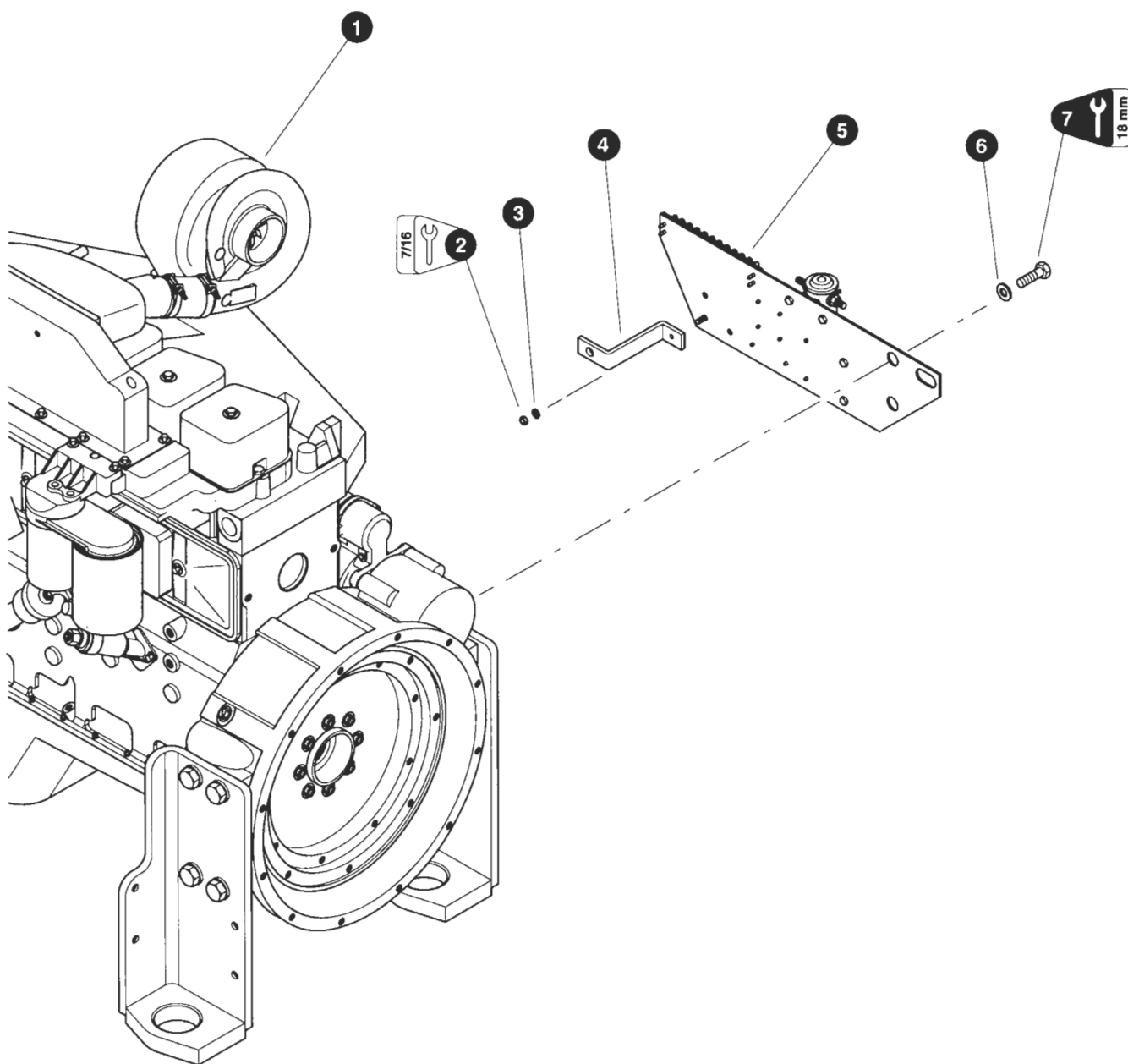
☐ Kit or Assembly - includes all items indented underneath.



MAIN ENGINE ELECTRICAL (Terminal Bracket Wire Connections)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
--	19090	1	☐	HARNESS ASSEMBLY, main engine wiring	
1	NSS	1		WIRE ASSEMBLY, terminal strip ground	
2	REF.	1	☒	TERMINAL BRACKET ASSEMBLY	J.1.10
3	NSS	2		WIRE ASSEMBLY, relay ground	
4	NSS	2		WIRE ASSEMBLY, 50 amp breaker power	
5	NSS	2		WIRE ASSEMBLY, relay power	
6	NSS	2		WIRE ASSEMBLY, 20/35 amp breaker power	
7	NSS	1		WIRE ASSEMBLY, starter coil signal	

- ☐ Kit or Assembly - includes all items indented underneath.
- ☒ See referenced page for component or assembly breakdown.

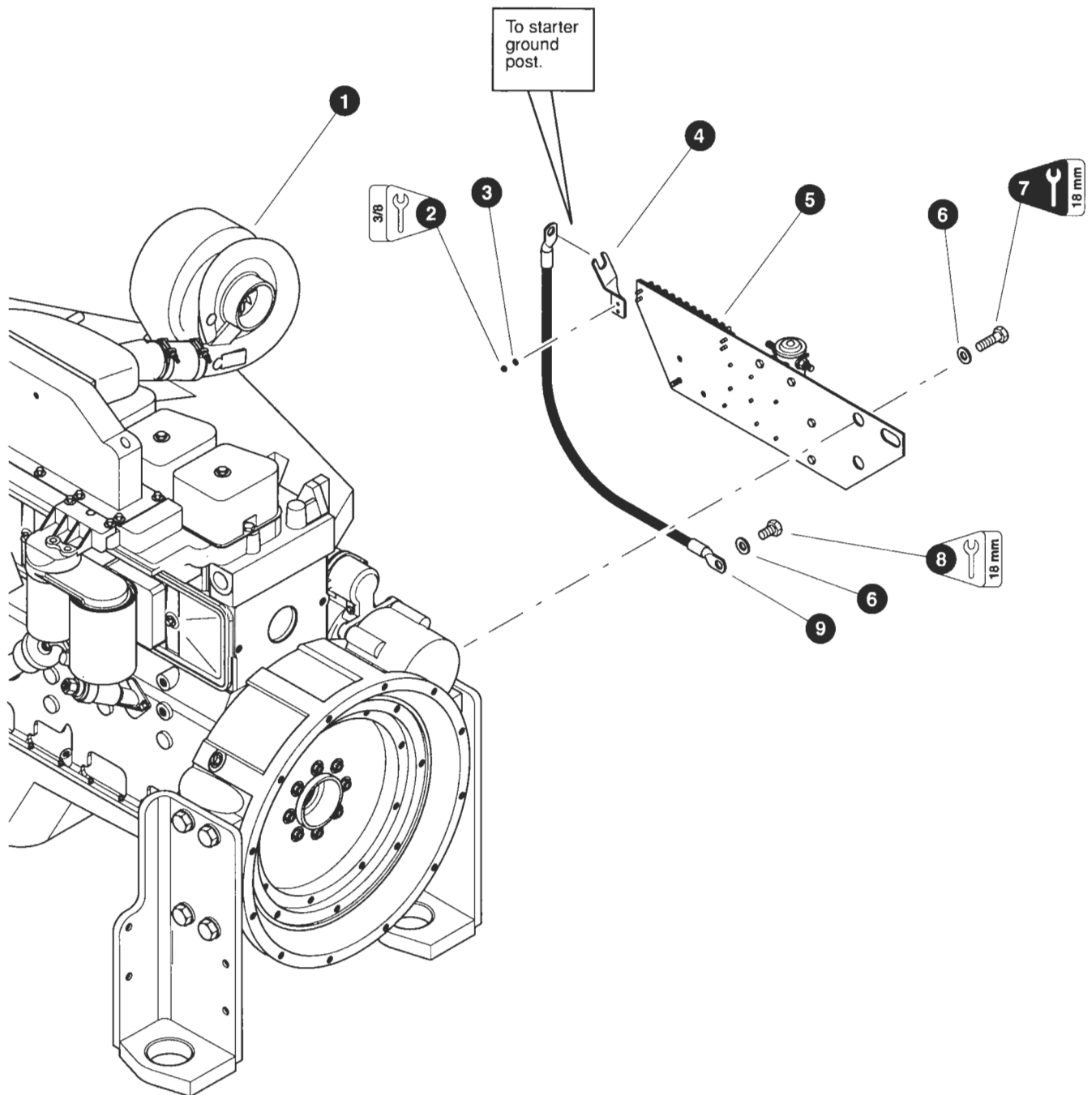


MAIN ENGINE ELECTRICAL

(Terminal Bracket Installation - Cummins 6BTA5.9-C Engine)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	ENGINE, Cummins B SERIES 6 cylinder/5.9 litre	F.3.2
2	16131	1		NUT, nylock - #10-24	
3	16208	2		WASHER, flat - #10	
4	19381	1		BRACKET, terminal bracket support	
5	REF.	1	✓	TERMINAL BRACKET ASSEMBLY	J.1.10
6	18735	3		WASHER, flat - 12mm	
7	15551	2		BOLT - 12mm-1.75P x 40mm (Torque to 92 ft.lbs. (122 Nm))	

✓ See referenced page for component or assembly breakdown.

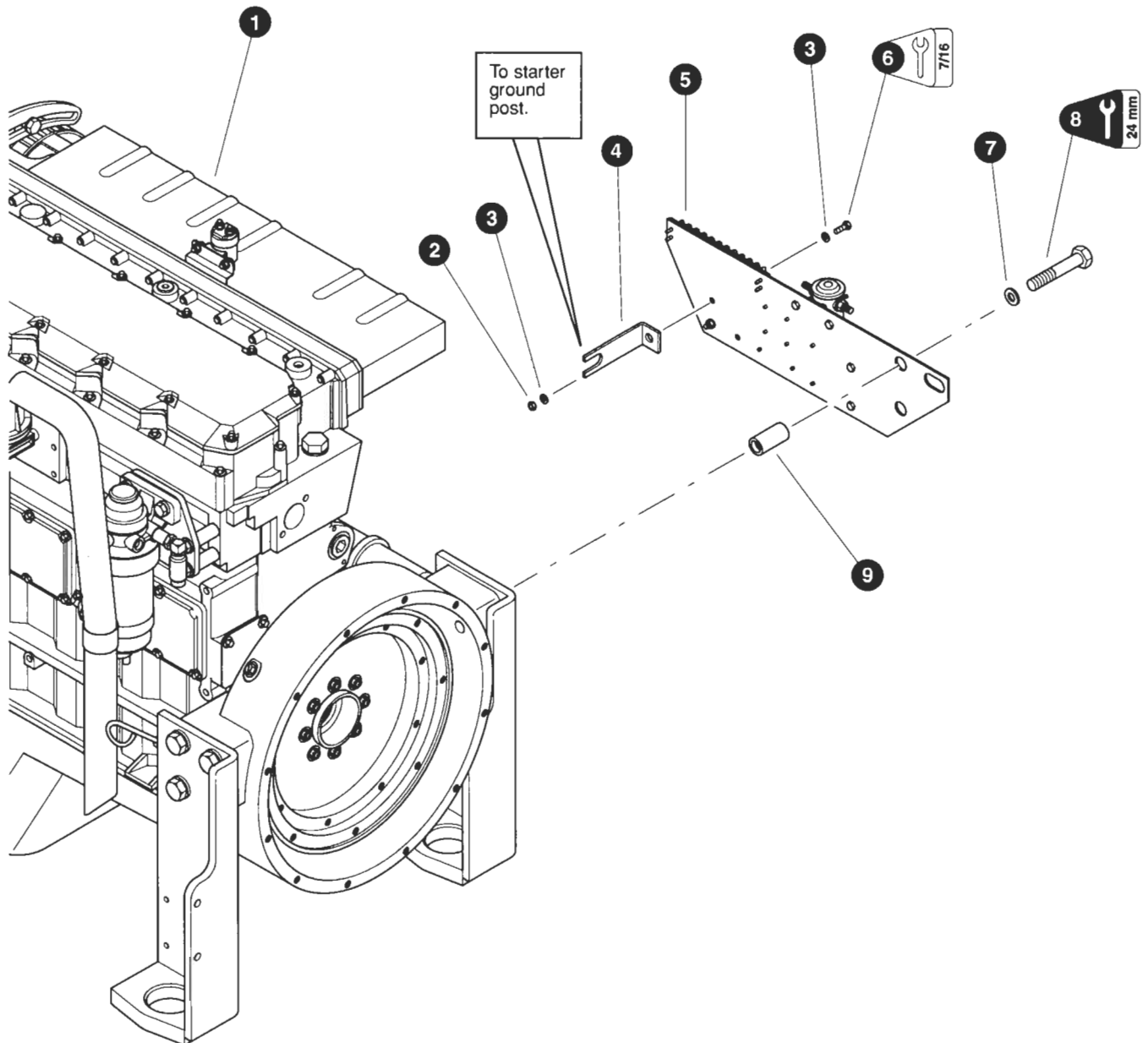


MAIN ENGINE ELECTRICAL

(Terminal Bracket Installation - Cummins 6C8.3-C Engine)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	ENGINE, Cummins C SERIES 6 cylinder/8.3 litre	F.4.2
2	16131	1		NUT, nylock - #10-24	
3	16208	2		WASHER, flat - #10	
4	17206	1		BRACKET, terminal bracket support	
5	REF.	1	✓	TERMINAL BRACKET ASSEMBLY	J.1.10
6	18735	3		WASHER, flat - 12mm	
7	15551	2		BOLT - 12mm-1.75P x 40mm (<i>Torque to 92 ft.lbs. (122 Nm)</i>)	
8	15556	1		BOLT - 12mm-1.75P x 20mm	
9	17394	1		CABLE, starter ground	

✓ See referenced page for component or assembly breakdown.

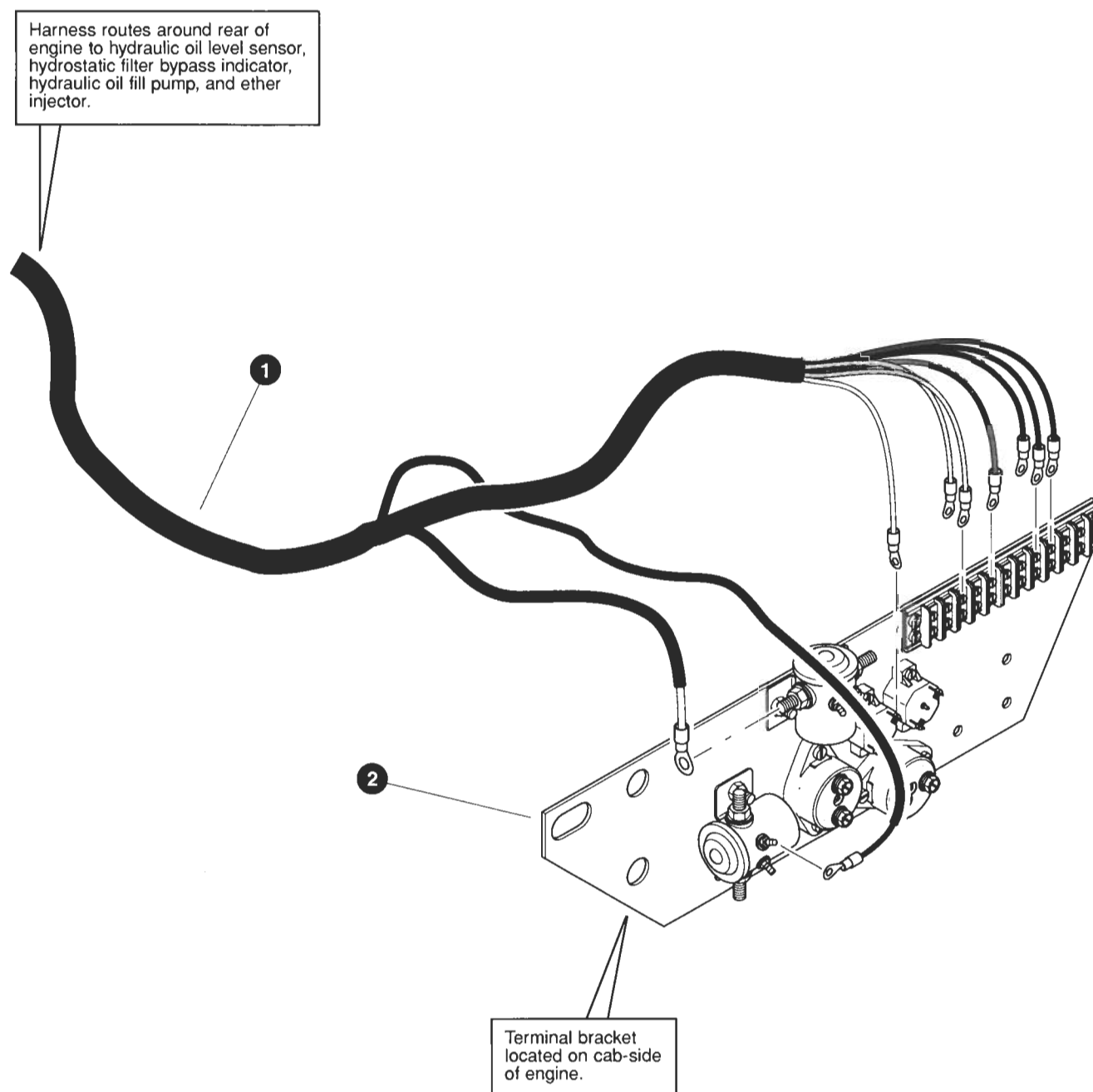


MAIN ENGINE ELECTRICAL

(Terminal Bracket Installation - Caterpillar 3116T & 3126T Engines)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	ENGINE, Caterpillar 3116T & 3126T	F.5.2
2	15509	1		NUT, nylock - 1/4"	
3	10757	2		WASHER, SAE flat - 1/4"	
4	18232	1		BRACKET, terminal bracket support	
5	REF.	1	✓	TERMINAL BRACKET ASSEMBLY	J.1.10
6	15604	1		BOLT - 1/4" x 3/4"	
7	18771	2		WASHER, flat - 16mm	
8	20623	2		BOLT - 16mm-2.0P x 90mm (<i>Torque to 150 ft.lbs. (200 Nm)</i>)	
9	20624	2		SPACER, rear engine mount	

✓ See referenced page for component or assembly breakdown.

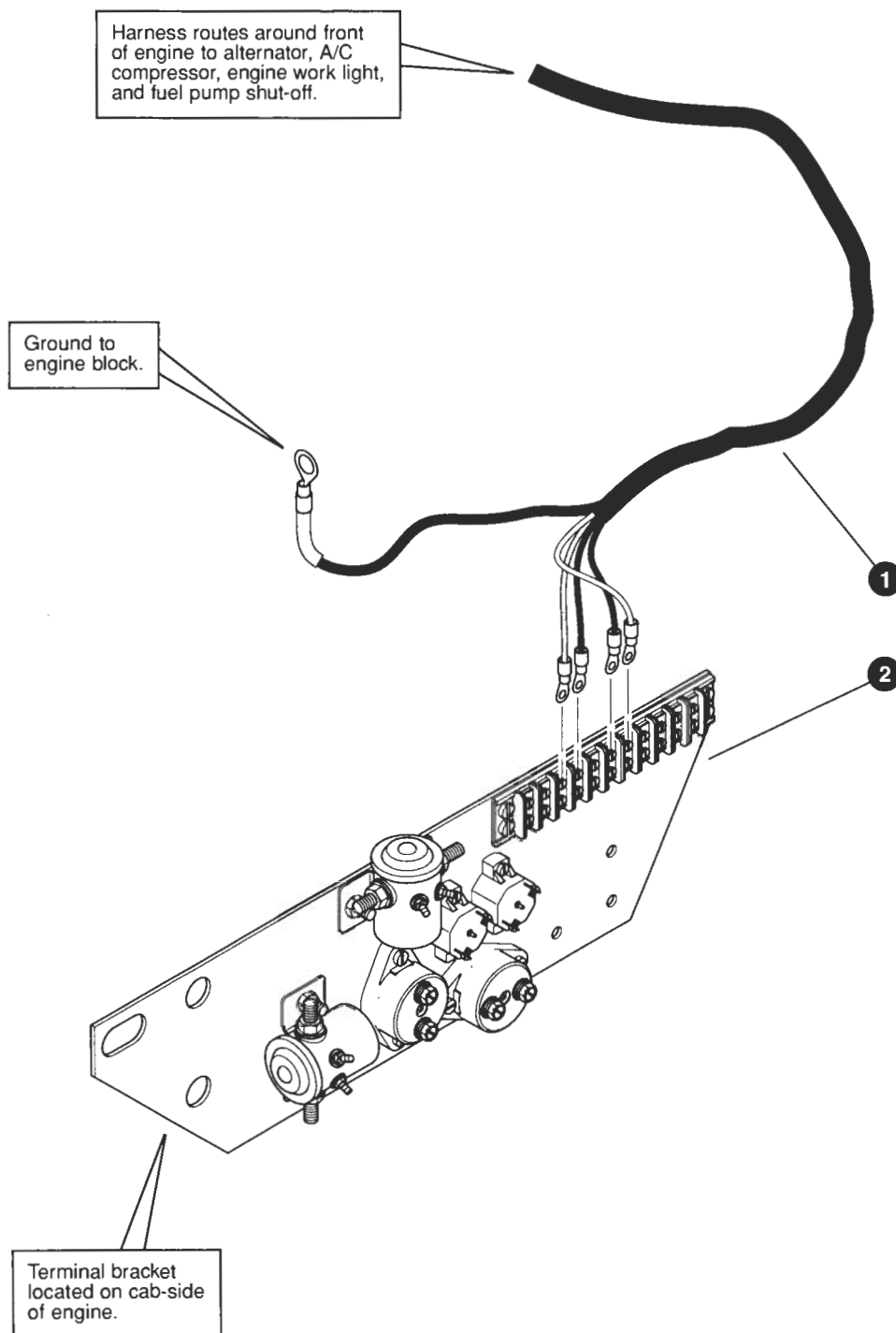


MAIN ENGINE ELECTRICAL

(Engine Harness "A" Connections)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
--	19090	1	☐	HARNESS ASSEMBLY, main engine wiring	
1	17443	1		WIRE HARNESS, engine "A"	
2	REF.	1	☒	TERMINAL BRACKET ASSEMBLY	J.1.10

- ☐ Kit or Assembly - includes all items indented underneath.
- ☒ See referenced page for component or assembly breakdown.

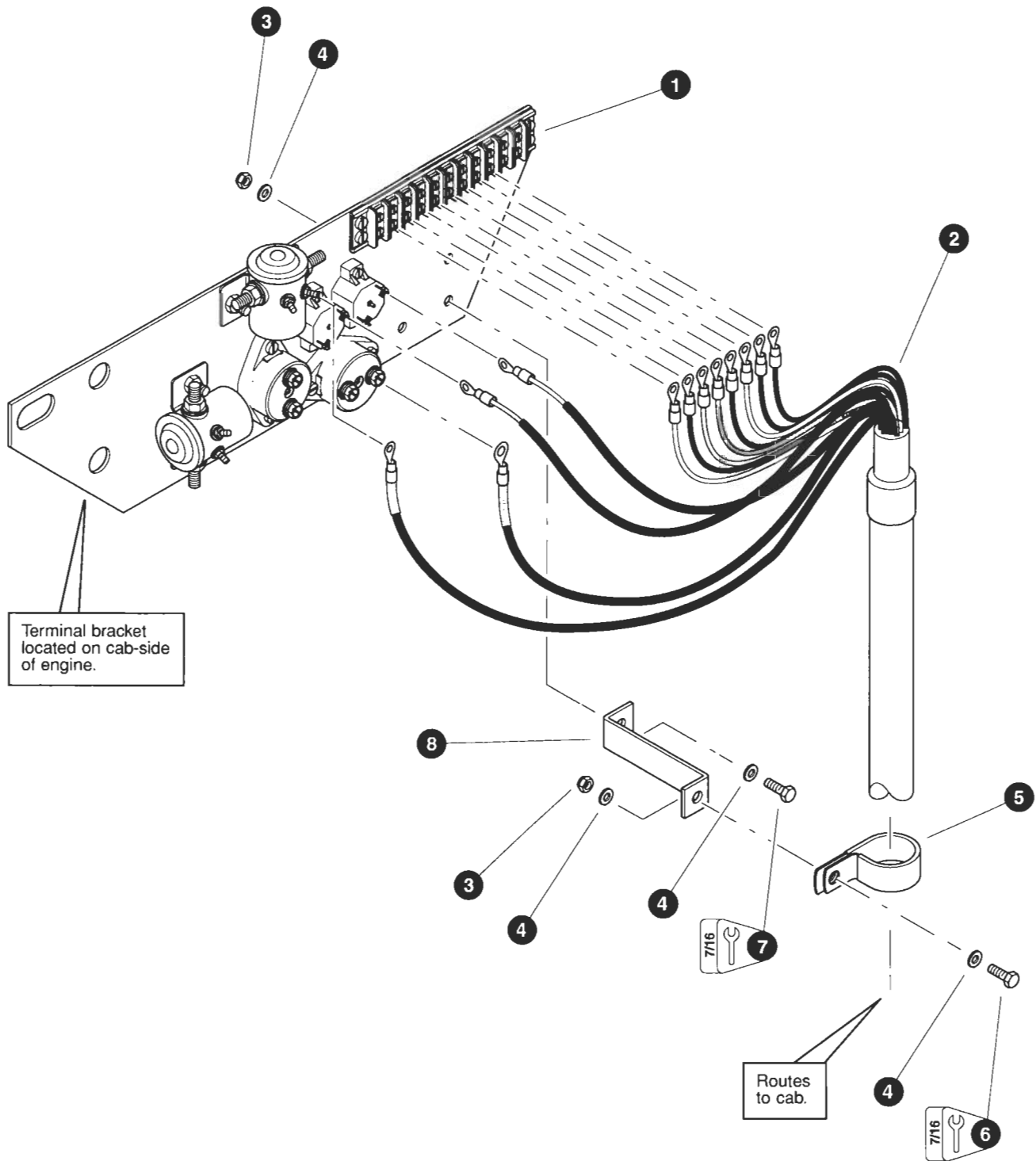


MAIN ENGINE ELECTRICAL

(Engine Harness "B" Connections)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
--	19090	1	☐	HARNESS ASSEMBLY, main engine wiring	
1	17430	1		WIRE HARNESS, engine "B"	
2	REF.	1	☒	TERMINAL BRACKET ASSEMBLY	J.1.10

- ☐ Kit or Assembly - includes all items indented underneath.
- ☒ See referenced page for component or assembly breakdown.



MAIN ENGINE ELECTRICAL

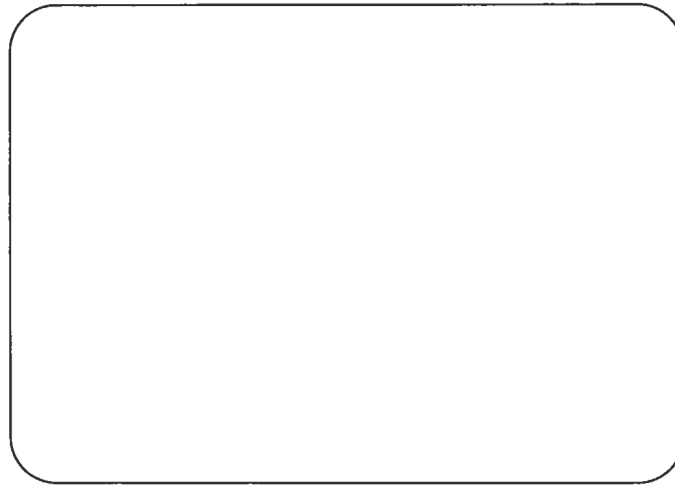
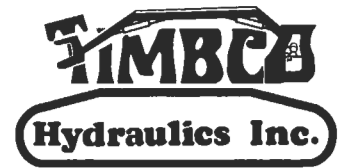
(Main Engine Harness To Cab Connections)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
--	19090	1	☐	HARNESS ASSEMBLY, main engine wiring	
1	REF.	1	☒	TERMINAL BRACKET ASSEMBLY	J.1.10
2	15009	1		WIRE HARNESS, main engine to cab	
3	15509	2		NUT, nylock - 1/4"	
4	10757	4		WASHER, SAE flat - 1/4"	
5	20604	1		CLAMP, hose - coated strap - 1-3/16"	
6	15604	1		BOLT - 1/4" x 3/4"	
7	15576	1		BOLT - 1/4" x 1" (Cummins 6BTA5.9-C engine only)	
	15604	1		BOLT - 1/4" x 3/4"	
8	20605	1		SUPPORT, wire harness support	

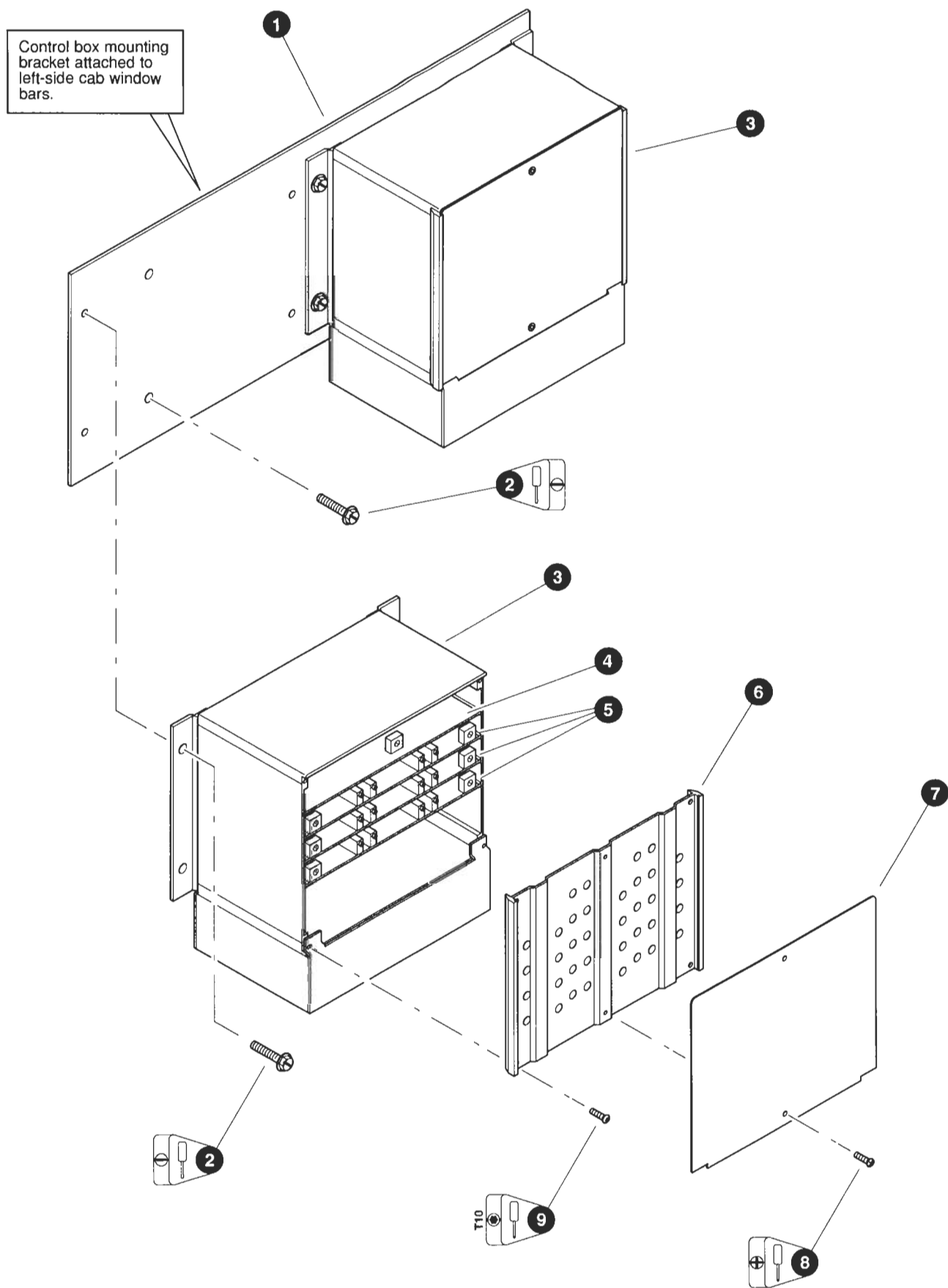
- ☐ Kit or Assembly - includes all items indented underneath.
- ☒ See referenced page for component or assembly breakdown.

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Section J.2



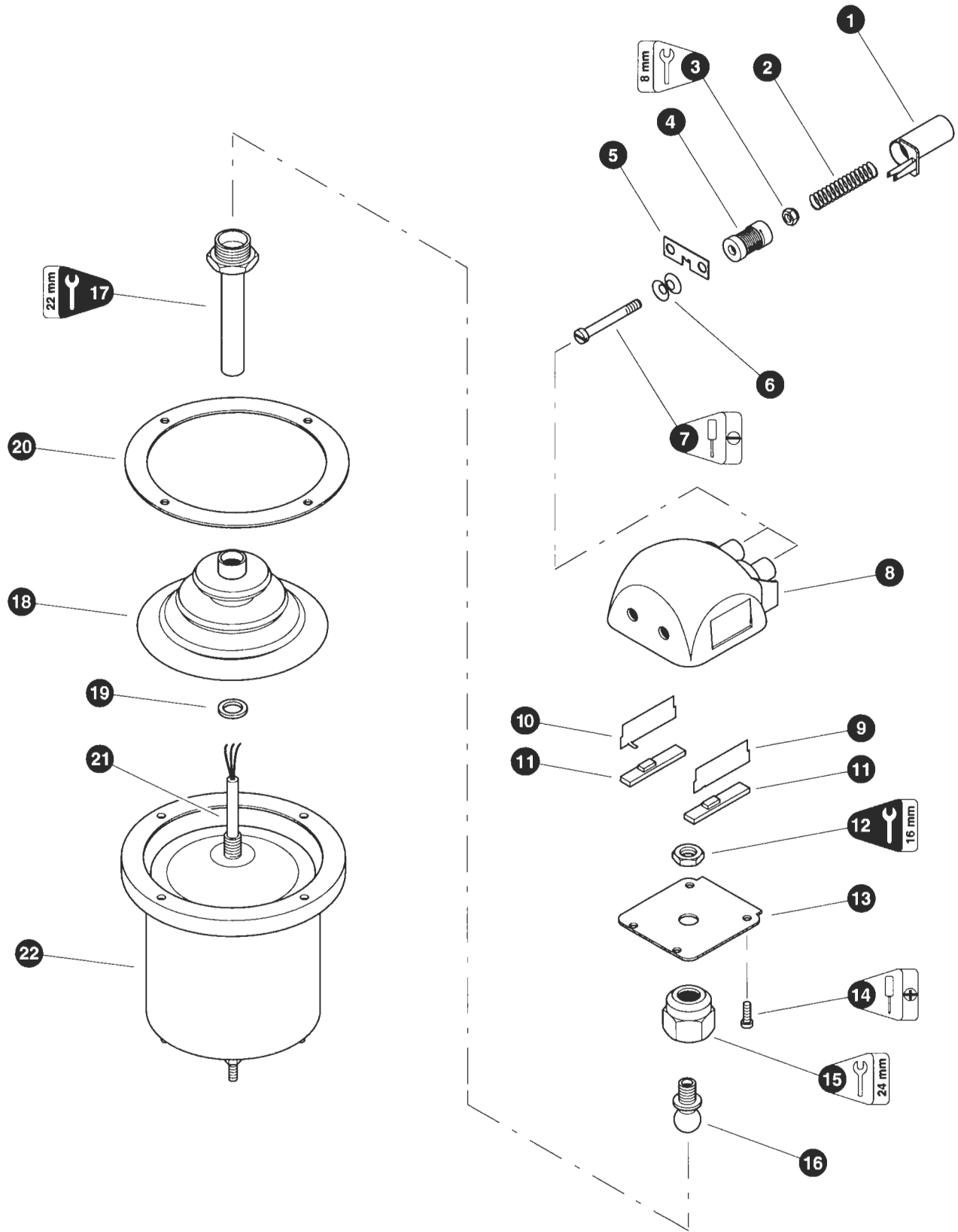
Electrical System - Hydro-Electric Controls



COMMAND CONTROL BOX (VOAC)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	19307	1		BRACKET, control box mounting	
2	18298	12		SCREW, slotted hex head - #10-24 x 3/4"	
3	19181	1	☐	CONTROL BOX - 3 function <i>(Used as RH control box on all machines)</i>	
	19180	1	☐	CONTROL BOX - 4 function <i>(Used as LH control box on machines PDN# 038FWD and above)</i>	
	19181	1	☐	CONTROL BOX - 3 function <i>(Used as LH control box on machines PDN# 037FWD and below)</i>	
4	19358	1		CIRCUIT BOARD, input	
5	19357	AR		CIRCUIT BOARD, amplifier	
6	20634	1		COVER	
7	20635	1		PLACARD, face	
8	20636	2		SCREW	
9	20637	4		SCREW	

☐ Kit or Assembly - includes all items indented underneath.



ELECTRONIC HAND (JOYSTICK) CONTROL (VOAC - 3 Axis)

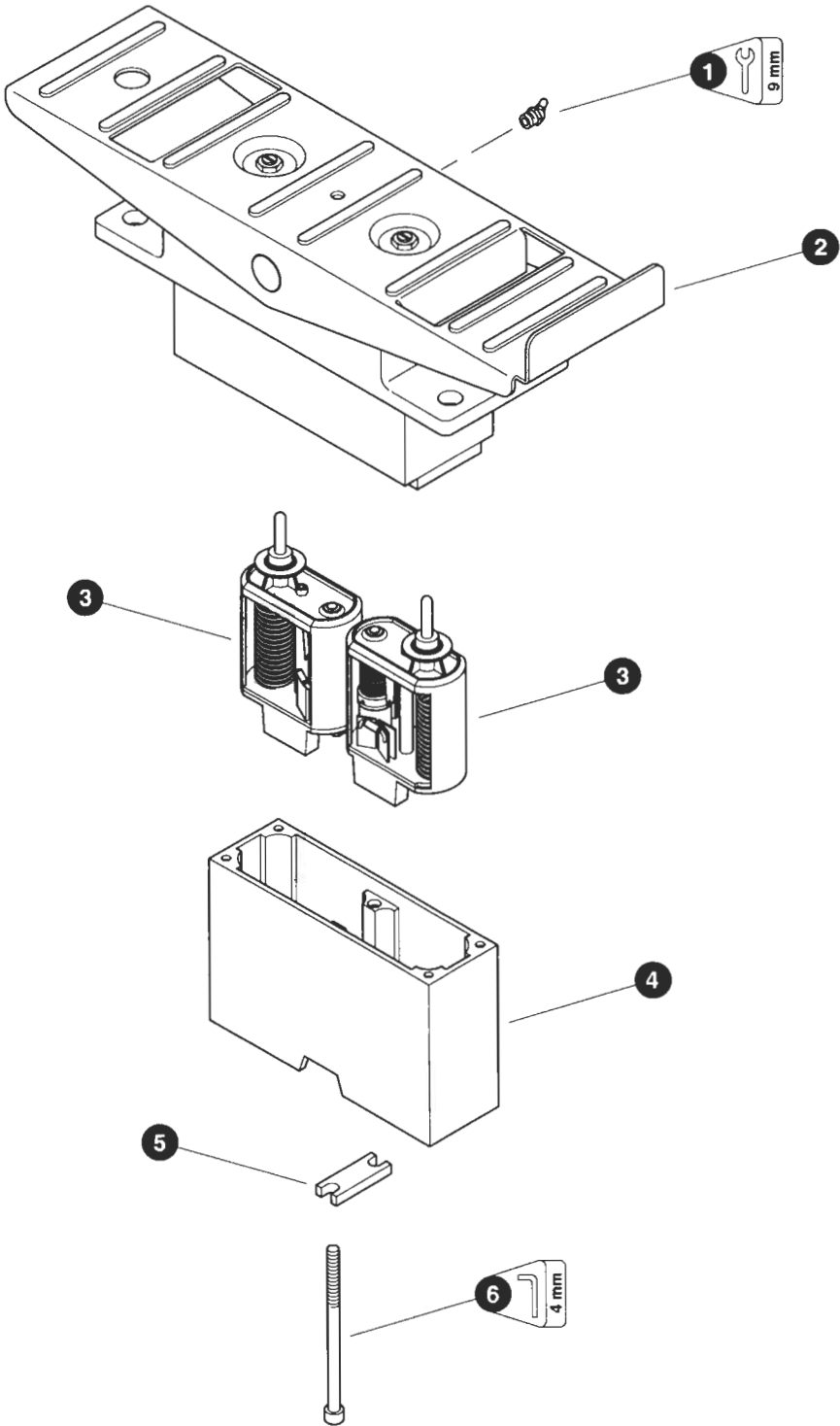
REF	PART #	QTY		DESCRIPTION	SEE PAGE
--	19182	2	☐	HAND CONTROL, electronic - 3-axis	
1	20638	2		BUTTON, push	
2	20639	2		SPRING, push button switch	
3	20640	2		NUT, nylock - 4mm	
4	20461	2		POTENTIOMETER - 5 ohm	
5	NSS	1		BRACKET, potentiometer mounting	
6	20642	16		SPRING, disc	
7	20643	2		SCREW, machine - 4mm x 45mm	
8	NSS	1		HOUSING, handle	
9	20644	1		PLATE, contact - LH	
10	20645	1		PLATE, contact - RH	
11	NSS	2		SPACER	
--	20646	1	☐	KIT, repair - handle mounting plate	
12	20647	1		NUT, jam - 10mm (<i>Torque to 25 ft.lbs. (33 Nm)</i>)	
13	NSS	1		PLATE, handle mounting	
14	20648	4		SCREW, self-tapping	
15	NSS	1		NUT, adapter	
16	NSS	1		ADAPTER	
--	20649	1	☐	KIT, repair - handle mounting stem	
17	NSS	1		STEM (<i>Torque to 12 ft.lbs. (15 Nm)</i>)	
18	20650	1		BOOT	
19	20651	1		WASHER, stem	
20	20652	1		RING, boot mounting	
21	20653	1		WIRE ASSEMBLY	
22	NSS	1	Ⓢ	LOWER HOUSING ASSEMBLY (<i>See note below</i>)	

☐ Kit or Assembly - includes all items indented underneath.

Ⓢ Contact your TIMBCO dealer for additional information.

Note:

Do not disassemble the upper foot pedal components.



ELECTRONIC FOOT PEDAL CONTROL

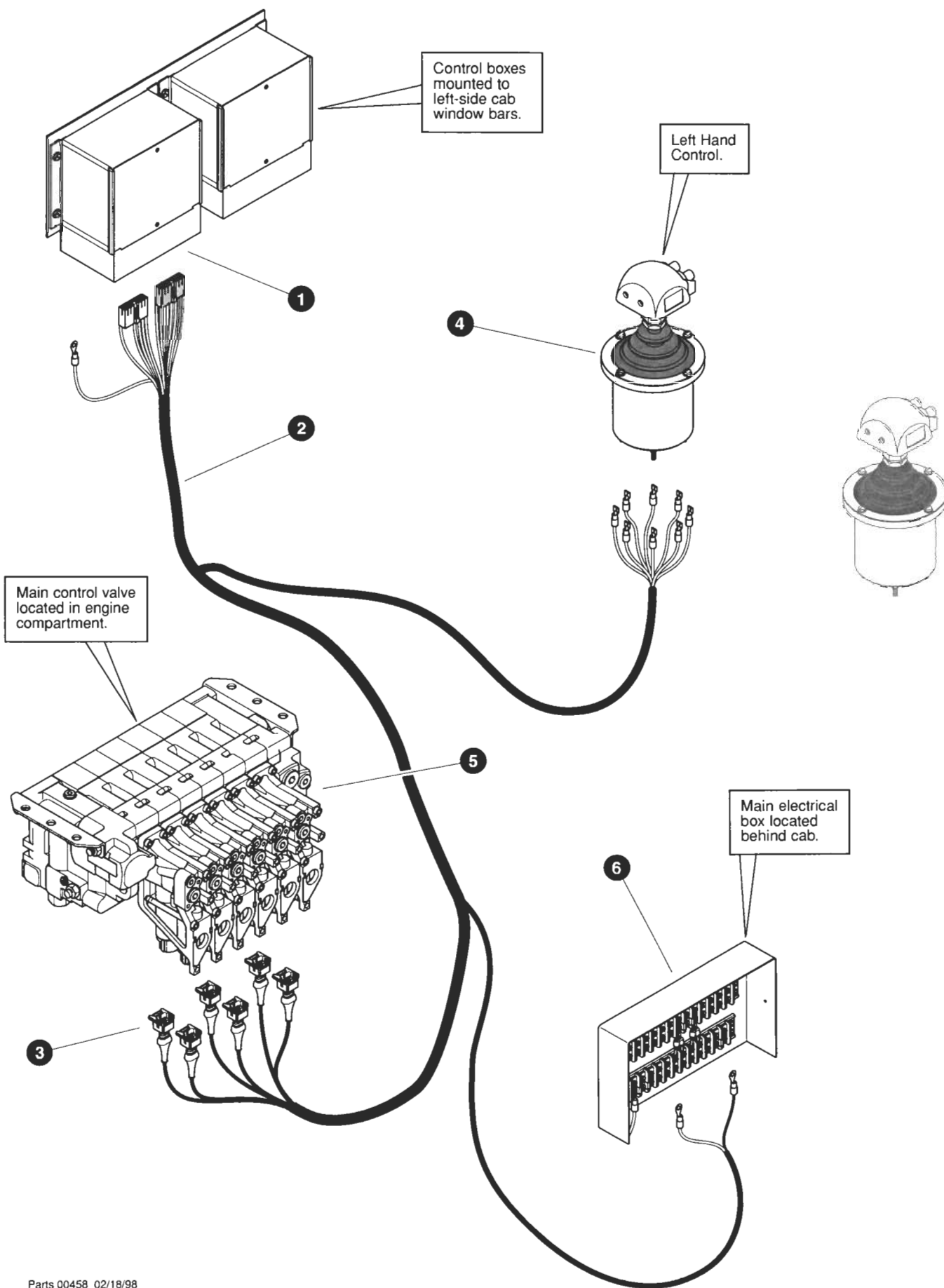
(Used on machines PDN# 038FWD and above)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
--	20047	1	☐	PEDAL, foot control - electronic	
1	20629	1		FITTING, 45° grease - 1/8" pipe thread	
2	NSS	1	Ⓔ	UPPER FOOT PEDAL ASSEMBLY <i>(See note below)</i>	
3	20630	2		SWITCH, foot pedal - 12V <i>(35 Ohm)</i>	
	20681	2		SWITCH, foot pedal - 24V <i>(50 Ohm)</i>	
4	20631	1		HOUSING, lower	
5	20632	1		SPACER, bolt	
6	20633	2		BOLT, allen head - 6mm x 70mm	

- ☐ Kit or Assembly - includes all items indented underneath.
 Ⓔ Contact your TIMBCO dealer for additional information.

Note:

Do not disassemble the upper foot pedal components.



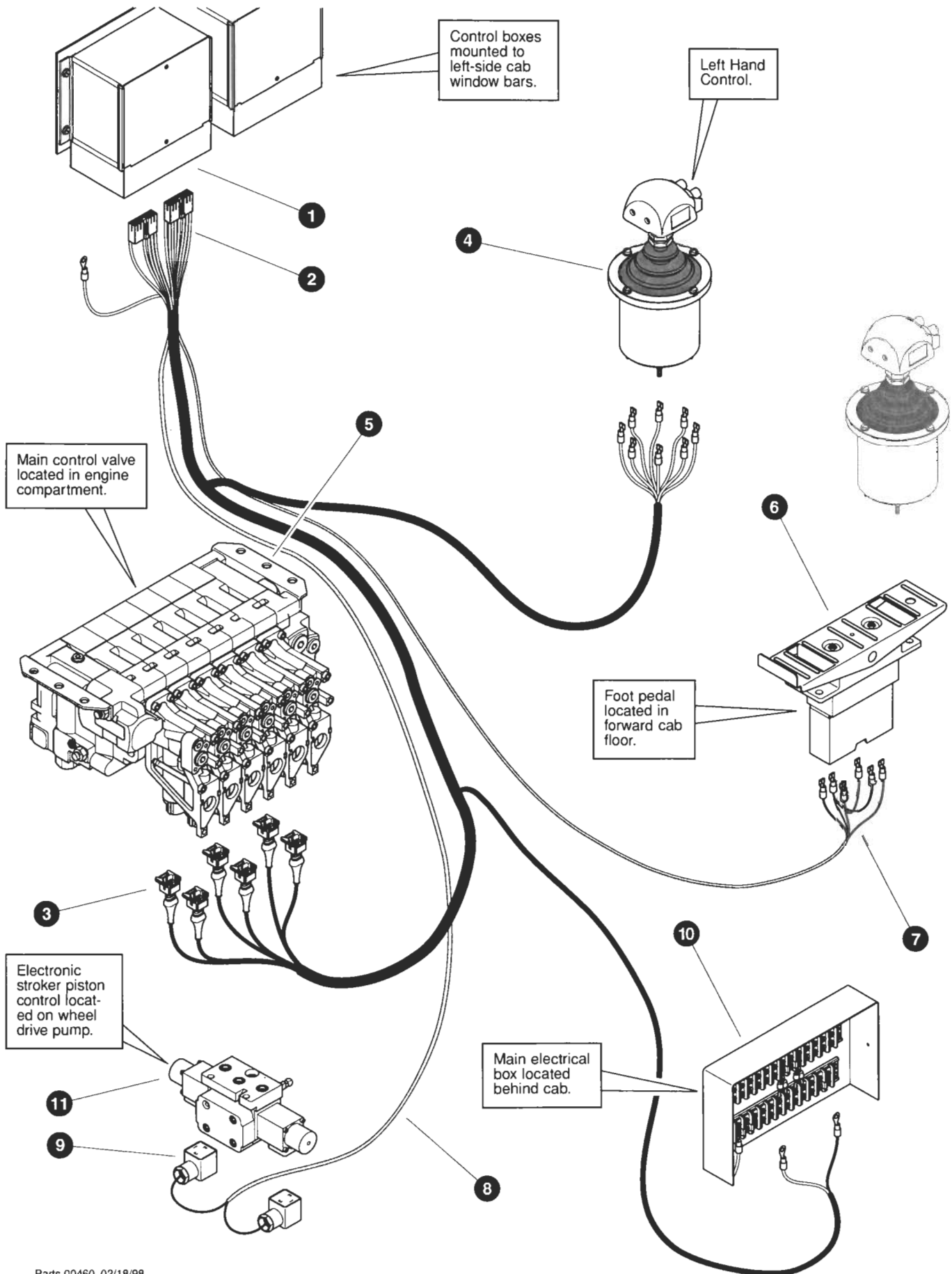
HYDRO-ELECTRIC CONNECTIONS - LH

(LH Electronic Joystick Control, Command Control Box & Main Control Valve)

(Used on machines PDN# 037FWD and below)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	COMMAND CONTROL BOX - LH	J.2.2
2	19490	1		HARNESS, wire - VOAC LH hand control	
3	19179	6		CONNECTOR, VOAC valve	
4	REF.	1	✓	ELECTRONIC HAND CONTROL - LH	J.2.4
5	REF.	1	✓	MAIN CONTROL VALVE	Blue A
6	REF.	1	✓	MAIN ELECTRICAL BOX	J.3.8

✓ See referenced page for component or assembly breakdown.

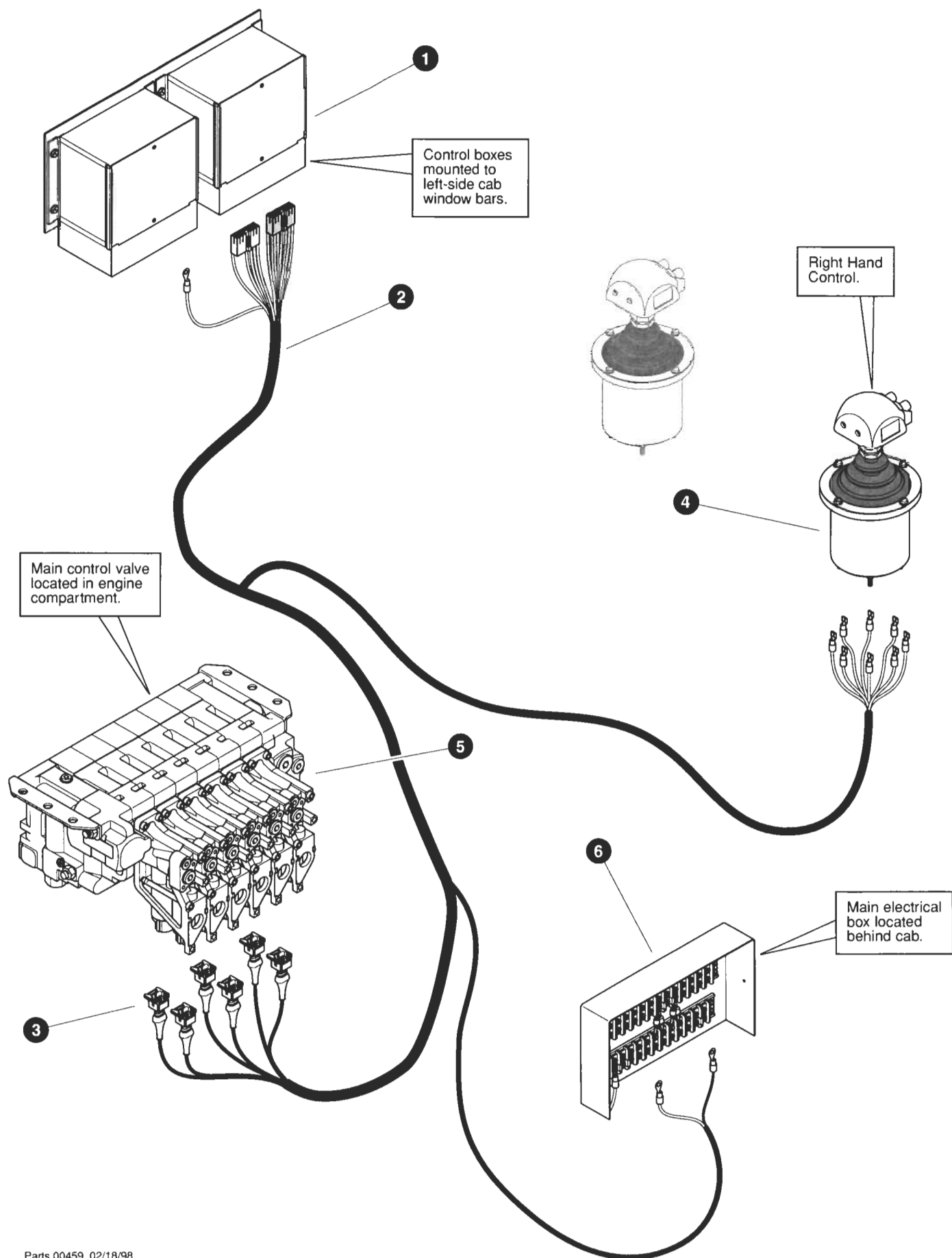


Parts 00460 02/18/98
25.00

HYDRO-ELECTRIC CONNECTIONS - LH**(LH Electronic Joystick/Foot Pedal Controls, Command Control Box & Main Control Valve)***(Used on machines PDN# 038FWD thru PDN# 042FWD)*

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	COMMAND CONTROL BOX - LH	J.2.2
2	19490	1		HARNESS, wire - VOAC LH hand control	
3	19179	6		CONNECTOR, VOAC valve	
4	REF.	1	✓	ELECTRONIC HAND CONTROL - LH	J.2.4
5	REF.	1	✓	MAIN CONTROL VALVE	Blue A
6	REF.	1	✓	FOOT PEDAL CONTROL	J.2.6
7	20656	1		HARNESS, wire - electronic foot pedal "A" (<i>Foot pedal to LH command control box</i>)	
8	20657	1	□	HARNESS, wire - electronic foot pedal "B" (<i>LH command control box to wheel drive pump stroke control</i>)	
9	17145	2		CONNECTOR, hirschmann	
10	REF.	1	✓	MAIN ELECTRICAL BOX	J.3.8

- ✓ See referenced page for component or assembly breakdown.
□ Kit or Assembly - includes all items indented underneath.



HYDRO-ELECTRIC CONNECTIONS - RH

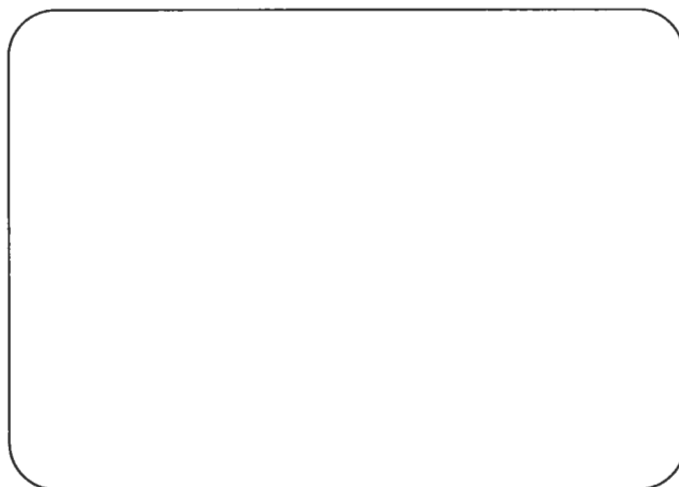
(RH Electronic Joystick Control, Command Control Box & Main Control Valve)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	COMMAND CONTROL BOX - RH	J.2.2
2	19489	1		HARNESS, wire - VOAC RH hand control	
3	19179	6		CONNECTOR, VOAC valve	
4	REF.	1	✓	ELECTRONIC HAND CONTROL - RH	J.2.4
5	REF.	1	✓	MAIN CONTROL VALVE	Blue A
6	REF.	1	✓	MAIN ELECTRICAL BOX	J.3.8

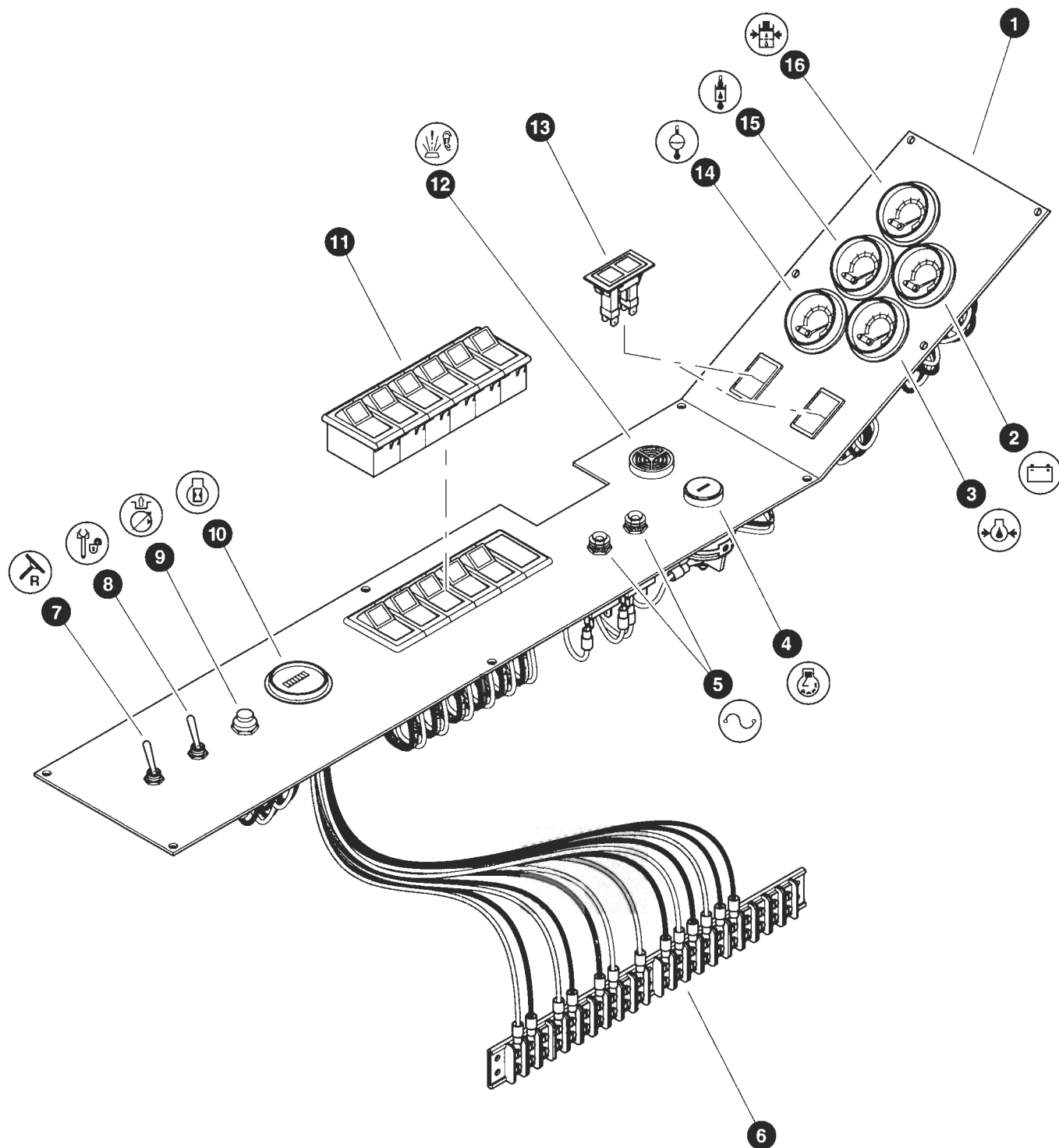
✓ See referenced page for component or assembly breakdown.

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Section J.3



***Electrical System -
Cab & Auxiliary***

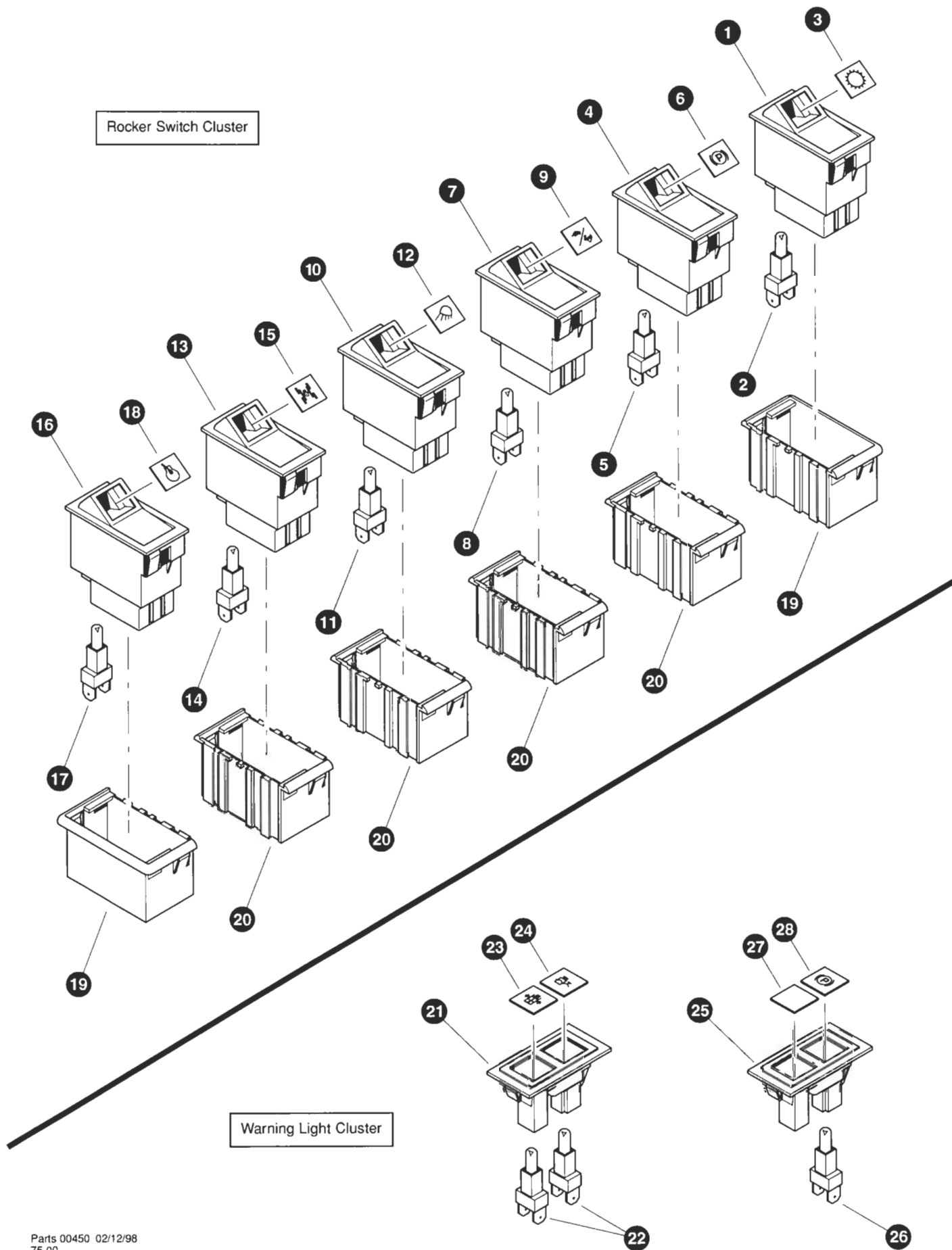


DASH PANEL COMPONENTS

(Used on machines PDN# 041FWD and below)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
--	17907	1	☐	PANEL, dash	
1	NSS	1		PANEL, dash blank	
2	15026	1		GAUGE, voltmeter	
3	18167	1	☐	GAUGE, engine oil pressure	
	19362	1		LIGHT, gauge	
4	15028	1	☐	SWITCH, ignition	
	16936	1		KEY, ignition (NG100)	
5	15029	2		BREAKER, circuit - 8 amp	
6	15016	1		STRIP, terminal - 20 terminal	
7	19966	1		SWITCH, toggle - double pole (Reverse steer)(Used on machines PDN# 038 FWD and above)	
7	16383	1		SWITCH, toggle - single pole (Reverse steer)(Used on machines PDN# 037 FWD and below)	
8	16383	1		SWITCH, toggle - single pole (Swing detent)	
9	16045	1		SWITCH, momentary push-button (Pump de-destroke)	
	16046	1		BOOT, push-button switch	
10	15025	1		GAUGE, hourmeter	
11	REF.	1		ROCKER SWITCH CLUSTER	J.3.4
12	15027	1		SIREN, warning	
13	REF.	2		WARNING LIGHT CLUSTER	J.3.4
14	18167	1	☐	GAUGE, engine water temperature	
	19362	1		LIGHT, gauge	
15	18169	1	☐	GAUGE, hydraulic oil temperature	
	19362	1		LIGHT, gauge	
16	18170	1	☐	GAUGE, return oil back-pressure	
	19362	1		LIGHT, gauge	

- ☐ Kit or Assembly - includes all items indented underneath.
☒ See referenced page for component or assembly breakdown.

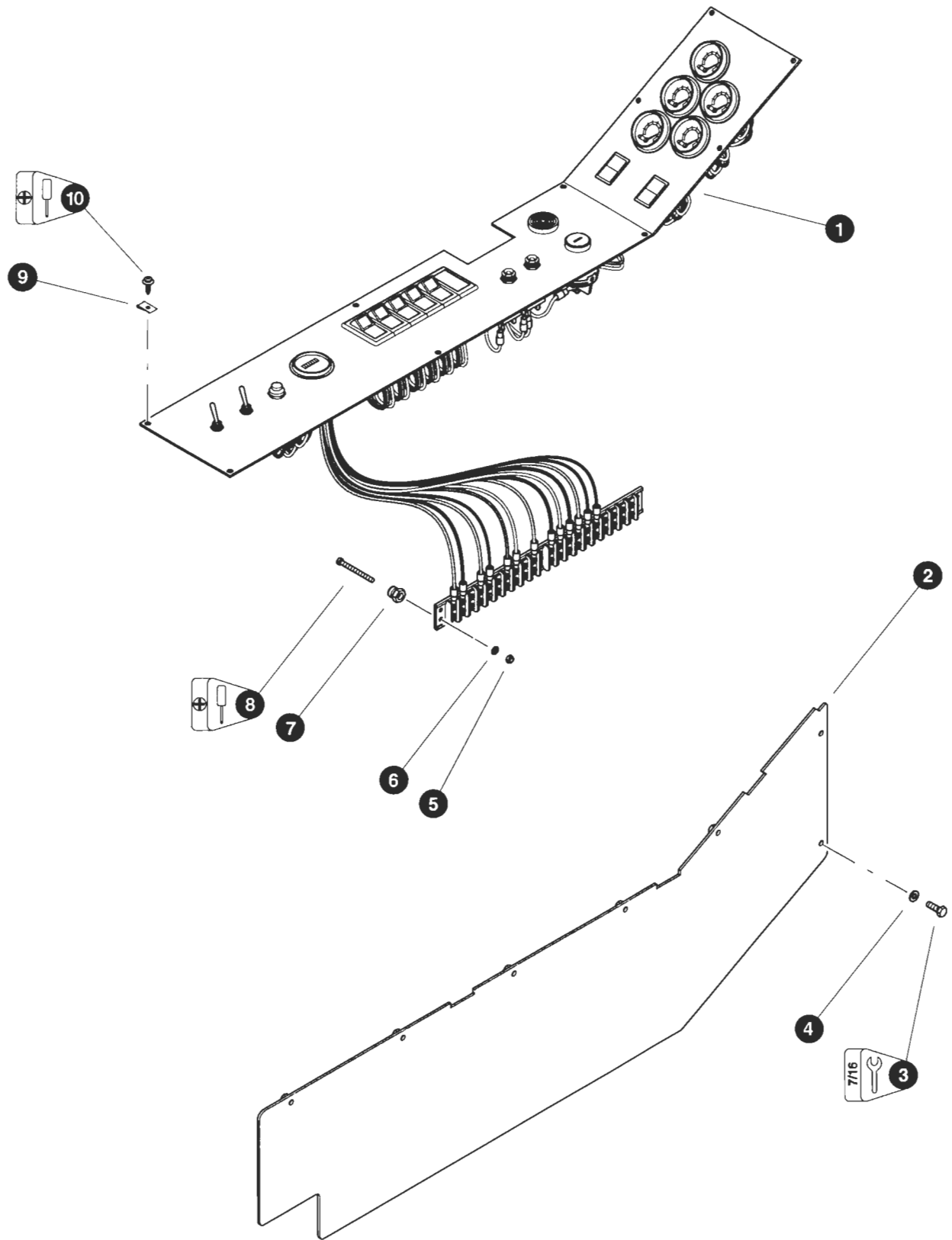


ROCKER SWITCH & WARNING LIGHT CLUSTERS

(Used on machines PDN# 041FWD and below)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	18181	1	☐	SWITCH, rocker - ON/OFF <i>(Transfer case shift)</i>	
2	18824	1		LIGHT	
3	20608	1		LENS, indicator light - yellow <i>(Transfer case shift)</i>	
4	18182	1	☐	SWITCH, rocker - parking brake	
5	18824	1		LIGHT	
6	18175	1		LENS, indicator light - red <i>(Parking brake)</i>	
7	18181	1	☐	SWITCH, rocker - ON/OFF <i>(Hydraulic motor shift)</i>	
8	18824	1		LIGHT	
9	18179	1		LENS, indicator light - green <i>(Transfer case shift)</i>	
10	18181	1	☐	SWITCH, rocker - ON/OFF <i>(Exterior lights)</i>	
11	18824	1		LIGHT	
12	18178	1		LENS, indicator light - green <i>(Exterior lights)</i>	
13	18181	1	☐	SWITCH, rocker - ON/OFF <i>(Differential lock)</i>	
14	18824	1		LIGHT	
15	20609	1		LENS, indicator light - yellow <i>(Differential lock)</i>	
16	18180	1	☐	SWITCH, rocker - momentary <i>(Ether start)</i>	
17	18824	1		LIGHT	
18	18176	1		LENS, indicator light - blue <i>(Ether start)</i>	
19	18288	2		FRAME, rocker switch mounting - end	
20	18289	4		FRAME, rocker switch mounting - center	
21	18171	1		CLUSTER, warning light - left mounting	
22	18824	2		LIGHT	
23	18174	1		LENS, indicator light - yellow <i>(Charge oil bypass)</i>	
24	18173	1		LENS, indicator light - red <i>(Low oil level)</i>	
25	18171	1		CLUSTER, warning light - right mounting	
26	18824	1		LIGHT	
27	NSS	1		BLANK, indicator light	
28	18175	1		LENS, indicator light - red <i>(Parking brake)</i>	

☐ Kit or Assembly - includes all items indented underneath.

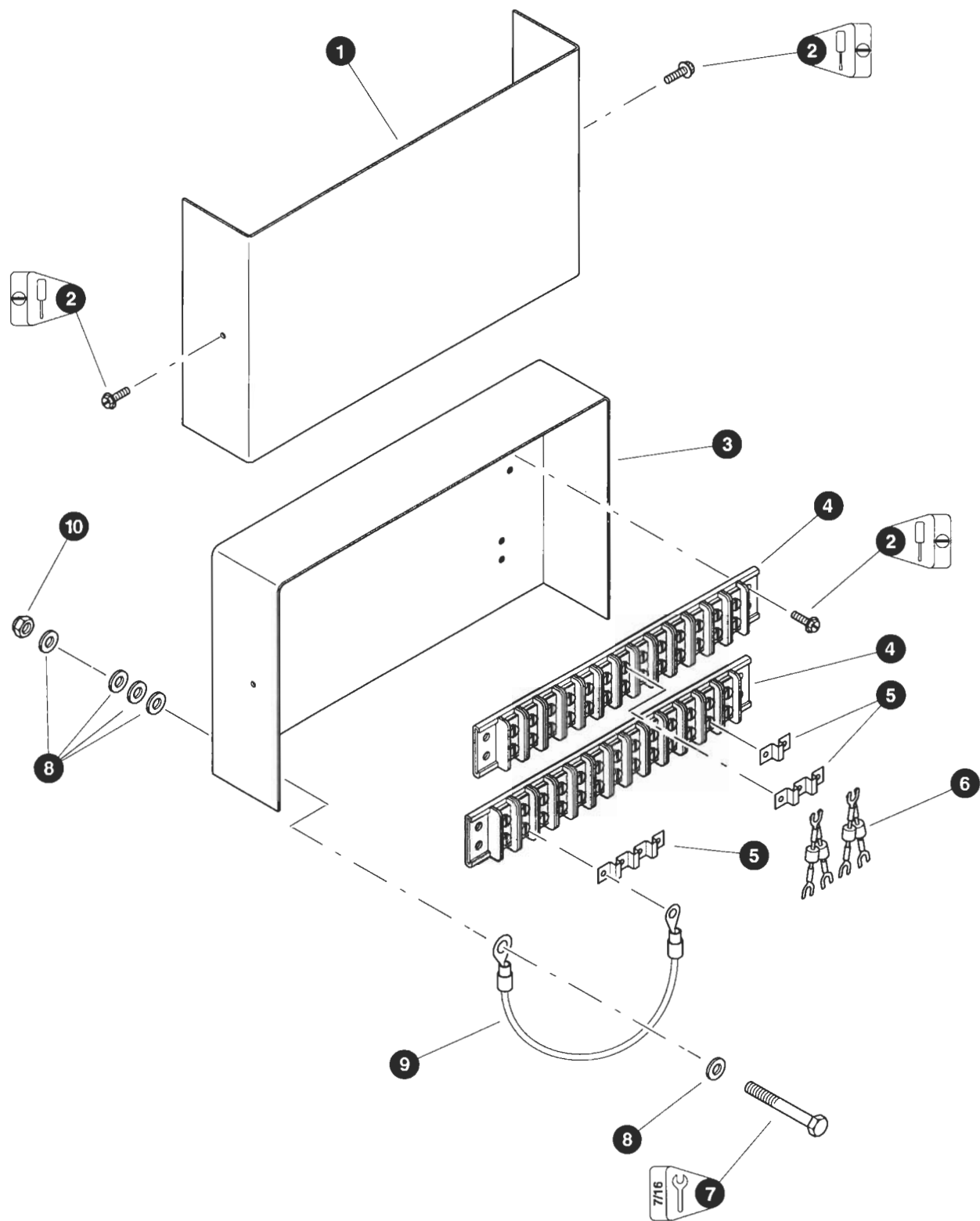


DASH PANEL INSTALLATION

(Used on machines PDN# 041FWD and below)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	DASH PANEL	J.3.2
2	12422	1		COVER, dash wiring	
3	15604	7		BOLT - 1/4" x 3/4"	
4	10757	7		WASHER, SAE flat - 1/4"	
5	16131	3		NUT, nylock - #10-24	
6	16208	3		WASHER, flat - #10	
7	15574	3		BUSHING, reducer - 5406-4-2 <i>(Used as a spacer)</i>	
8	20622	3		SCREW, machine - #10-24 x 2"	
9	16213	10		SCREW, phillips - #10 - 3/4"	
10	16212	10		NUT, speed - #10	

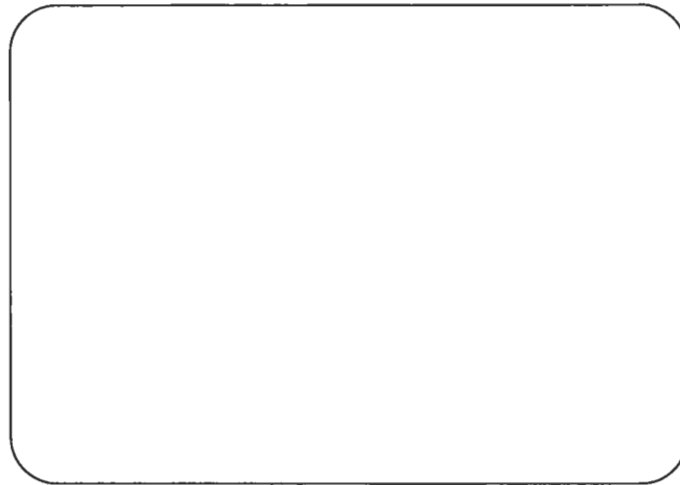
✓ See referenced page for component or assembly breakdown.



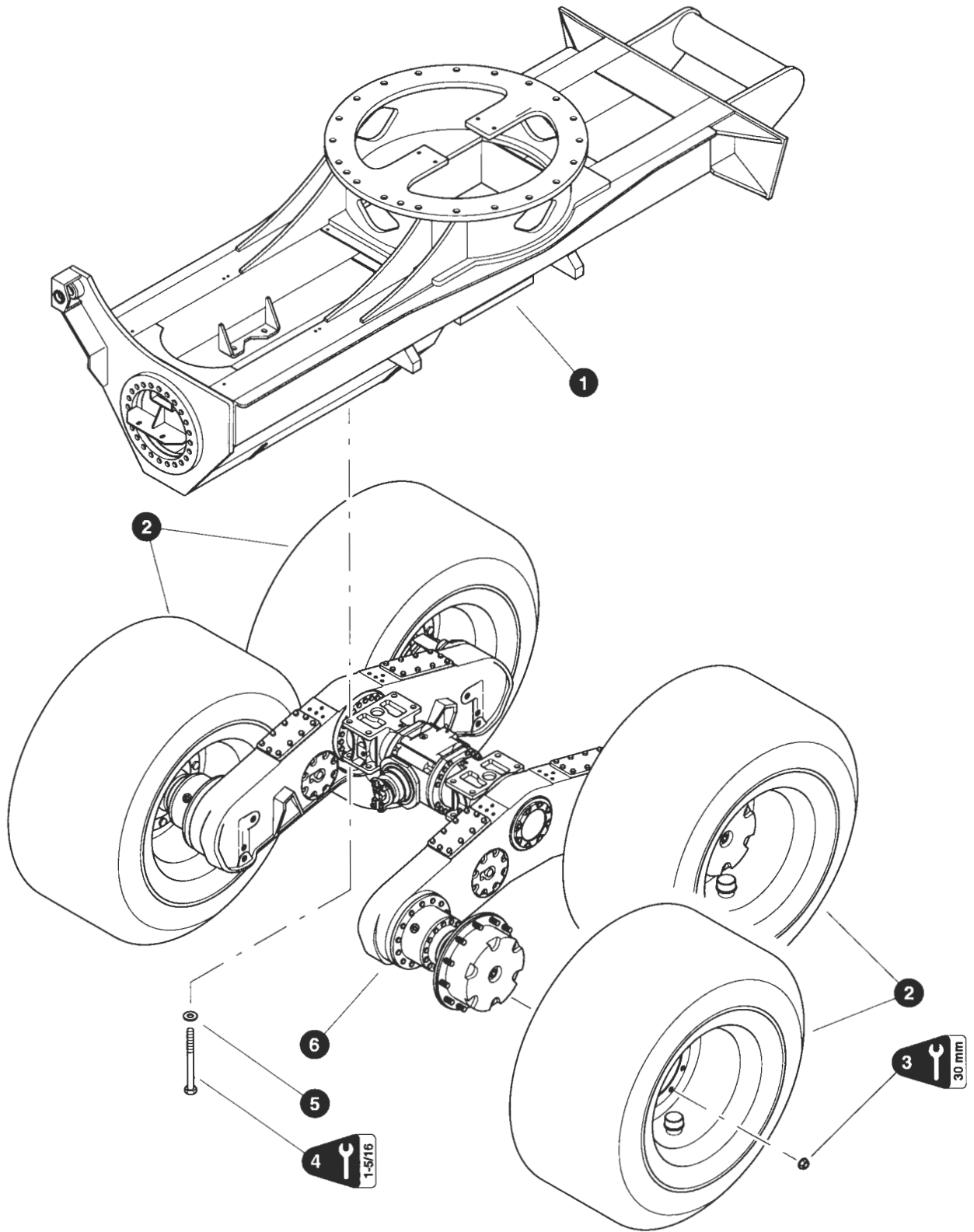
MAIN ELECTRICAL BOX
(Located Behind Cab)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	12426	1	BOX, electrical terminal - outer	
2	17254	10	SCREW, self-tapping - #10-24 x 1/2"	
3	12425	1	BOX, electrical terminal - inner	
4	15016	2	STRIP, terminal - 13 terminals	
5	15053	6	JUMPER, tab terminal	
6	15017	4	DIODE	
7	15568	2	BOLT - 1/4" x 2"	
8	10757	10	WASHER, SAE flat - 1/4"	
9	20655	1	WIRE ASSEMBLY - electrical box ground	
10	10811	2	NUT, lock - 1/4"	

Section K.1



Drivetrain Components - Installation



AXLE INSTALLATION (Front Frame - Tubular Design)

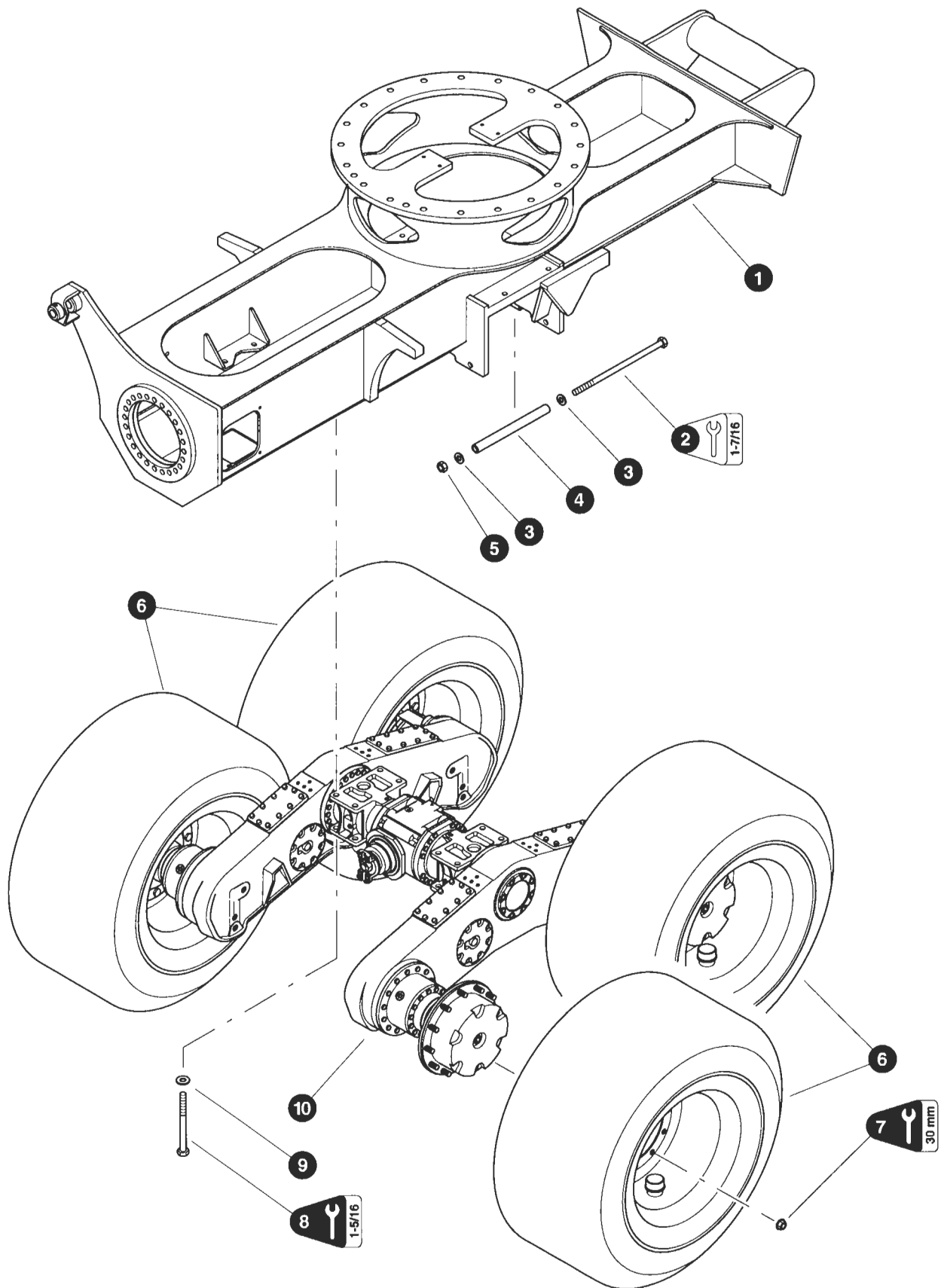
(Used on early production machines)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	FRONT FRAME WELDMENT	H.4.2
2	19053	2	☐	WHEEL ASSEMBLY, narrow dish - LH <i>(See note below)</i>	
	20005	2	☐	WHEEL ASSEMBLY, narrow dish - RH <i>(See note below)</i>	
	19807	1		RIM, narrow dish - 700/50-26.5	
	19816	1		TIRE - 700/50-26.5	
	20006	2	☐	WHEEL ASSEMBLY, wide dish - LH <i>(See note below)</i>	
	20007	2	☐	WHEEL ASSEMBLY, wide dish - RH <i>(See note below)</i>	
	20004	1		RIM, wide dish - 700/50-26.5	
	19816	1		TIRE - 700/50-26.5	
3	19361	48		NUT, lug <i>(Torque to 415 lbs. (550 Nm))</i>	
4	19058	8		BOLT - 7/8" x 10" <i>(Torque to 600 lbs. (800 Nm))</i>	
5	10718	8		WASHER, SAE flat - 7/8"	
6	REF.	1		FRONT AXLE ASSEMBLY	Blue D

- ✓ See referenced page for component or assembly breakdown.
 ☐ Kit or Assembly - includes all items indented underneath.

Note:

LH and RH wheels are the result of the tire being mounted on the rim so that the tread is running the same direction on both sides of the machine.



AXLE INSTALLATION

(Front Frame - Box Frame Design)

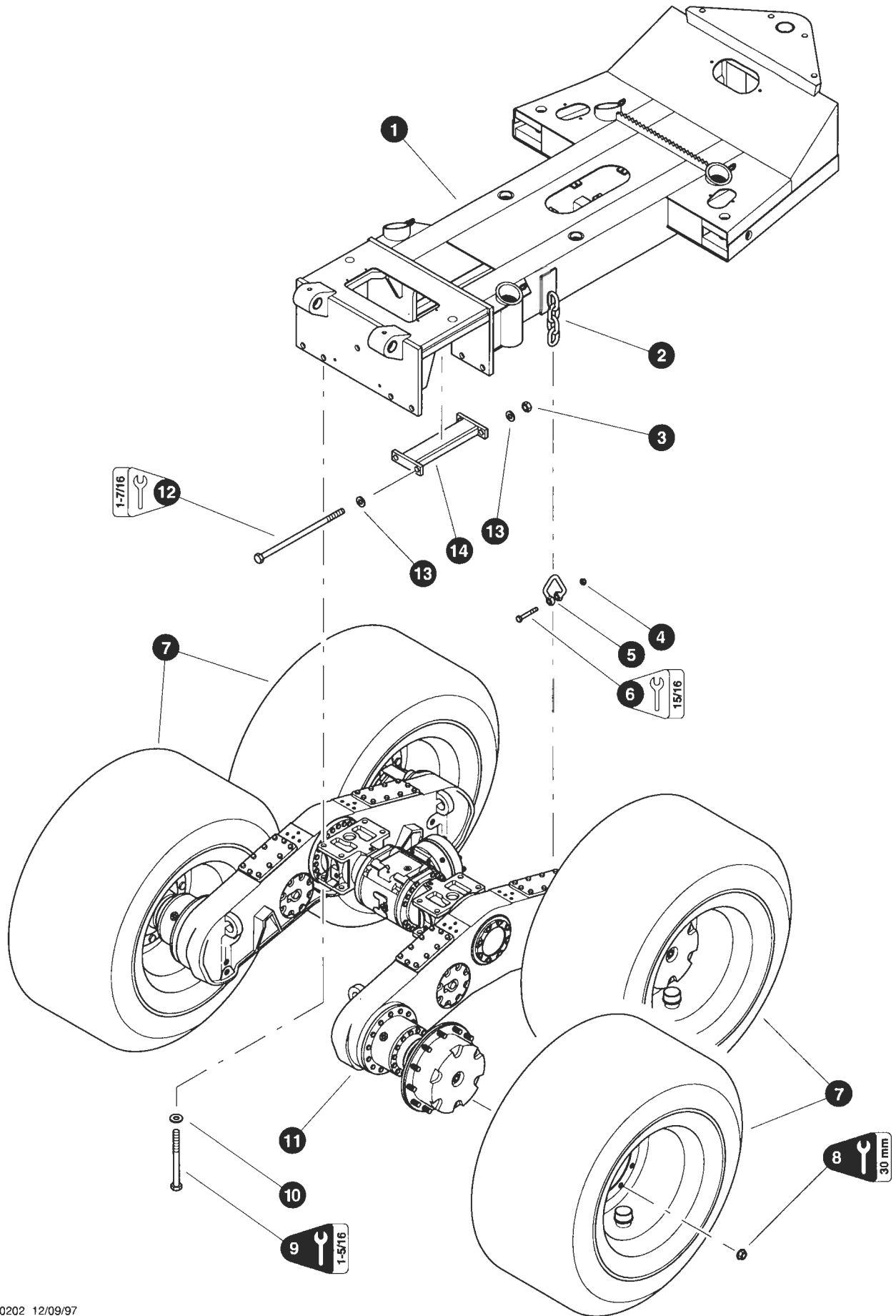
(Used on late production machines)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	FRONT FRAME WELDMENT	H.4.2
2	19065	4		BOLT - 1" x 22-1/2"	
3	15579	8		WASHER, SAE flat - 1"	
4	80256	2		TUBE, axle mount brace	
5	19073	4		NUT, hex - 1"	
6	19053	2	☐	WHEEL ASSEMBLY, narrow dish - LH <i>(See note below)</i>	
	20005	2	☐	WHEEL ASSEMBLY, narrow dish - RH <i>(See note below)</i>	
	19807	1		RIM, narrow dish - 700/50-26.5	
	19816	1		TIRE - 700/50-26.5	
	20006	2	☐	WHEEL ASSEMBLY, wide dish - LH <i>(See note below)</i>	
	20007	2	☐	WHEEL ASSEMBLY, wide dish - RH <i>(See note below)</i>	
	20004	1		RIM, wide dish - 700/50-26.5	
	19816	1		TIRE - 700/50-26.5	
7	19361	48		NUT, lug <i>(Torque to 415 lbs. (550 Nm))</i>	
8	19058	8		BOLT - 7/8" x 10" <i>(Torque to 600 lbs. (800 Nm))</i>	
9	10718	8		WASHER, SAE flat - 7/8"	
10	REF.	1		FRONT AXLE ASSEMBLY	Blue D

- ✓ See referenced page for component or assembly breakdown.
 ☐ Kit or Assembly - includes all items indented underneath.

Note:

LH and RH wheels are the result of the tire being mounted on the rim so that the tread is running the same direction on both sides of the machine.



AXLE INSTALLATION

(Rear Frame - Tubular Frame Design With Chain Link Axle Stops)

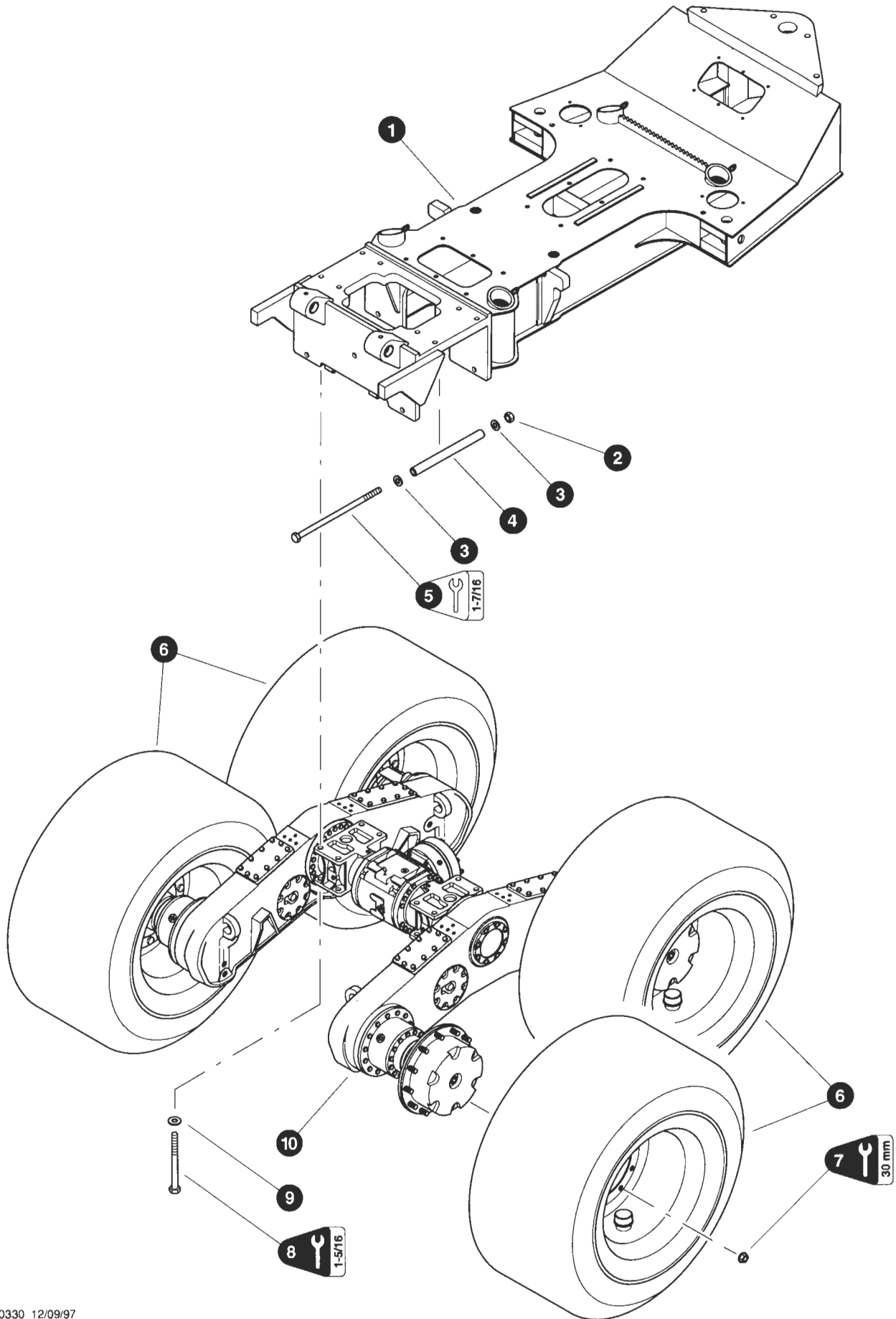
(Used on machines PDN# 027FWD and below)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	REAR FRAME WELDMENT	H.5.2
2	19341	2		CHAIN, axle stop (3 links)	
3	19073	4		NUT, hex - 1"	
4	15563	2		NUT, nylock - 5/8"	
5	19244	2		CLEVIS, twist - 3/4"	
6	10723	2		BOLT - 5/8" x 4-1/2"	
7	19053	2	☐	WHEEL ASSEMBLY, narrow dish - LH (See note below)	
	20005	2	☐	WHEEL ASSEMBLY, narrow dish - RH (See note below)	
	19807	1		RIM, narrow dish - 700/50-26.5	
	19816	1		TIRE - 700/50-26.5	
	20006	2	☐	WHEEL ASSEMBLY, wide dish - LH (See note below)	
	20007	2	☐	WHEEL ASSEMBLY, wide dish - RH (See note below)	
	20004	1		RIM, wide dish - 700/50-26.5	
	19816	1		TIRE - 700/50-26.5	
8	19361	48		NUT, lug (Torque to 415 lbs. (550 Nm))	
9	19058	8		BOLT - 7/8" x 10" (Torque to 600 lbs. (800 Nm))	
10	10718	8		WASHER, SAE flat - 7/8"	
11	REF.	1		REAR AXLE ASSEMBLY	Blue E
12	19065	4		BOLT - 1" x 22-1/2"	
13	15579	8		WASHER, SAE flat - 1"	
14	80067	2		TUBE, axle mount brace	

- ☐ Kit or Assembly - includes all items indented underneath.
 ✓ See referenced page for component or assembly breakdown.

Note:

LH and RH wheels are the result of the tire being mounted on the rim so that the tread is running the same direction on both sides of the machine.



AXLE INSTALLATION

(Rear Frame - Box Frame Design With Weld-on Axle Stops)

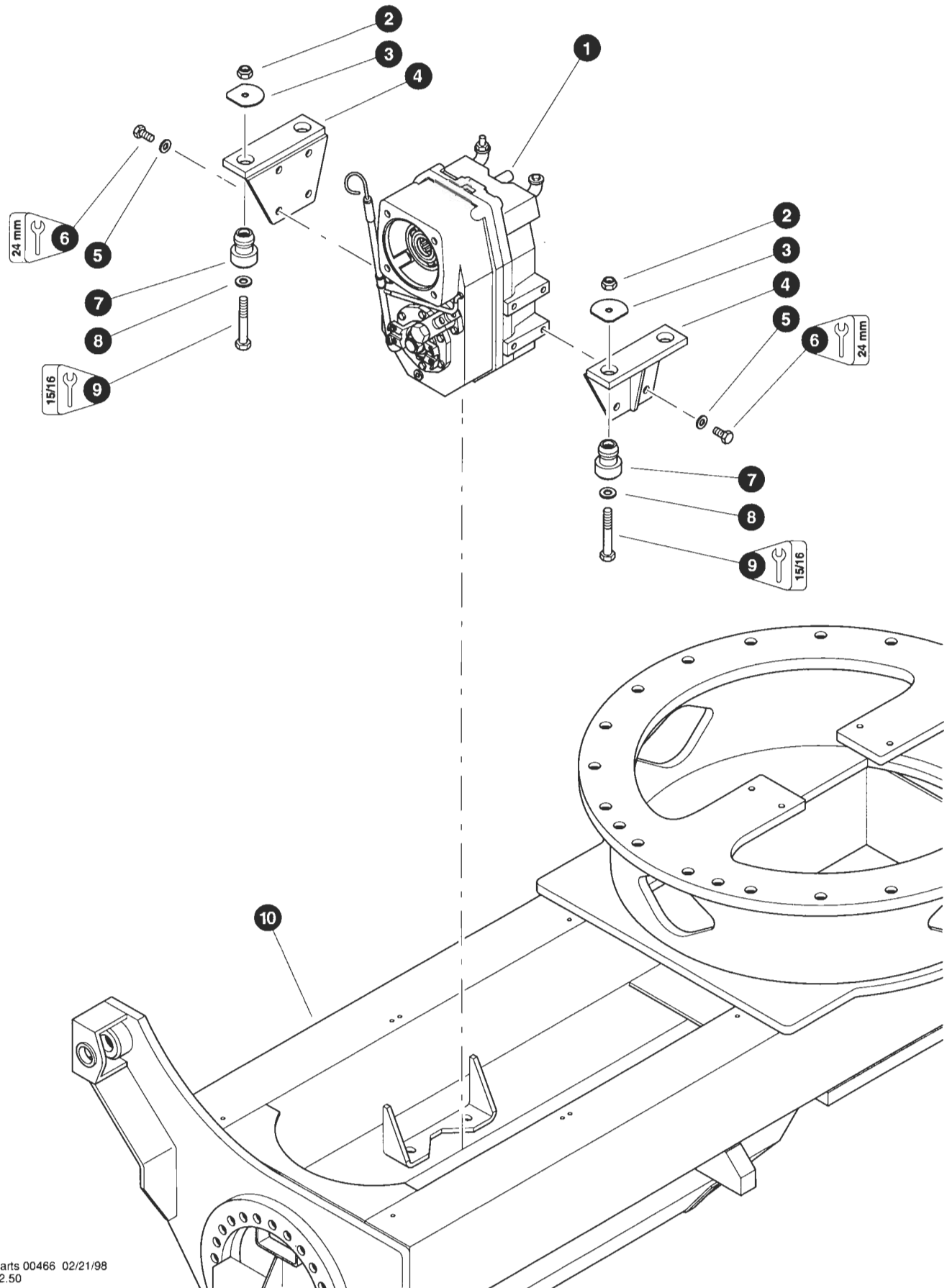
(Used on machines PDN# 028FWD and above)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	REAR FRAME WELDMENT	H.5.2
2	19073	4		NUT, hex - 1"	
3	15779	8		WASHER, SAE flat - 1"	
4	80256	2		TUBE, axle mount brace	
5	19065	4		BOLT - 1" x 22-1/2"	
6	19053	2	☐	WHEEL ASSEMBLY, narrow dish - LH (See note below)	
	20005	2	☐	WHEEL ASSEMBLY, narrow dish - RH (See note below)	
	19807	1		RIM, narrow dish - 700/50-26.5	
	19816	1		TIRE - 700/50-26.5	
	20006	2	☐	WHEEL ASSEMBLY, wide dish - LH (See note below)	
	20007	2	☐	WHEEL ASSEMBLY, wide dish - RH (See note below)	
	20004	1		RIM, wide dish - 700/50-26.5	
	19816	1		TIRE - 700/50-26.5	
7	19361	48		NUT, lug (Torque to 415 lbs. (550 Nm))	
8	19058	8		BOLT - 7/8" x 10" (Torque to 600 lbs. (800 Nm))	
9	10718	8		WASHER, SAE flat - 7/8"	
10	REF.	1		REAR AXLE ASSEMBLY	Blue E

- ☐ Kit or Assembly - includes all items indented underneath.
 ✓ See referenced page for component or assembly breakdown.

Note:

LH and RH wheels are the result of the tire being mounted on the rim so that the tread is running the same direction on both sides of the machine.



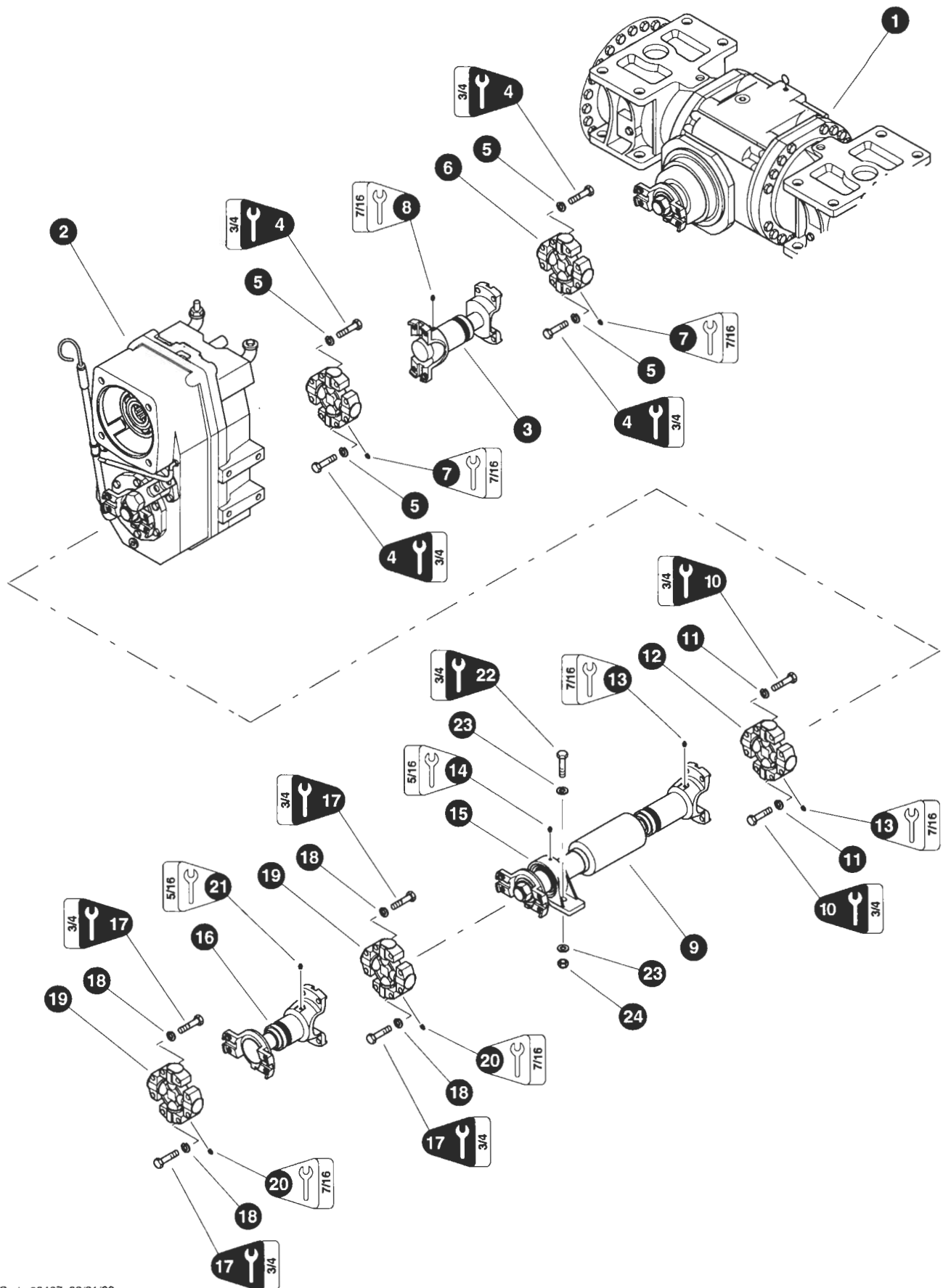
TRANSFER CASE INSTALLATION (NAF)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	TRANSFER CASE	Blue C
2	10816	4		NUT, lock - 5/8"	
3	15524	8		WASHER, isolator mount (<i>Trim to fit</i>)	
4	80059	2		BRACKET, gearbox mounting	
5	18777	8		WASHER, flat - 16mm	
6	20661	8		BOLT - 16mm-2.0P x 35mm (<i>See note below</i>)	
7	15525	4		ISOLATOR	
8	10771	8		WASHER, SAE flat - 5/8"	
9	10818	8		BOLT - 5/8" x 5"	
10	REF.	1	✓	FRONT FRAME WELDMENT	H.4.2

✓ See referenced page for component or assembly breakdown.

Note:

Use Loctite 242 (*blue*) during installation.



Parts 00467 02/21/98
12.50

DRIVE SHAFT INSTALLATION

(Front Frame & Articulation Joint)

(Used on early production machines with a tubular construction front frame)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	FRONT AXLE ASSEMBLY	Blue D
2	REF.	1	✓	TRANSFER CASE	Blue C
--	19060	1	☐	DRIVE SHAFT ASSEMBLY - COMPLETE (183" wheelbase)	
--	19338	1	☐	DRIVE SHAFT ASSEMBLY - COMPLETE (231" wheelbase)	
--	19339	1	☐	DRIVE SHAFT ASSEMBLY - COMPLETE (243" wheelbase)	
3	19060-1/3	1	☐	DRIVE SHAFT (Transfer case to front axle)	
4	20662	16		BOLT - 1/2" x 2-1/4" NF (See note #1 below)	
				(Torque to 115 lbs. (155 Nm))	
5	10710	16		WASHER, lock - 1/2"	
6	20667	2		U-JOINT, driveshaft	
7	10704	2		FITTING, grease - 1/8" pipe thread	
8	18420	1		FITTING, grease - 1/4-28"	
9	19060-1/3	1	☐	DRIVE SHAFT (Transfer case to articulation joint)	
10	20662	8		BOLT - 1/2" x 2-1/4" NF (See note #1 below)	
				(Torque to 115 lbs. (155 Nm))	
11	10710	8		WASHER, lock - 1/2"	
12	20667	1		U-JOINT, driveshaft	
13	10704	2		FITTING, grease - 1/8" pipe thread	
14	18420	1		FITTING, grease - 1/4-28"	
15	19383	1		BEARING, pillow block	
16	19060-2	1	☐	DRIVE SHAFT (Articulation joint)	
17	20662	16		BOLT - 1/2" x 2-1/4" NF (See note #1 below)	
				(Torque to 115 lbs. (155 Nm))	
18	10710	16		WASHER, lock - 1/2"	
19	20667	2		U-JOINT, driveshaft	
21	10704	2		FITTING, grease - 1/8" pipe thread	
21	18420	1		FITTING, grease - 1/4-28"	
22	10736	2		BOLT - 1/2" x 2" (See note #2 below)	
				(Torque to 110 lbs. (135 Nm))	
23	15534	4		WASHER, SAE flat - 1/2"	
24	10815	2		NUT, lock - 1/2"	

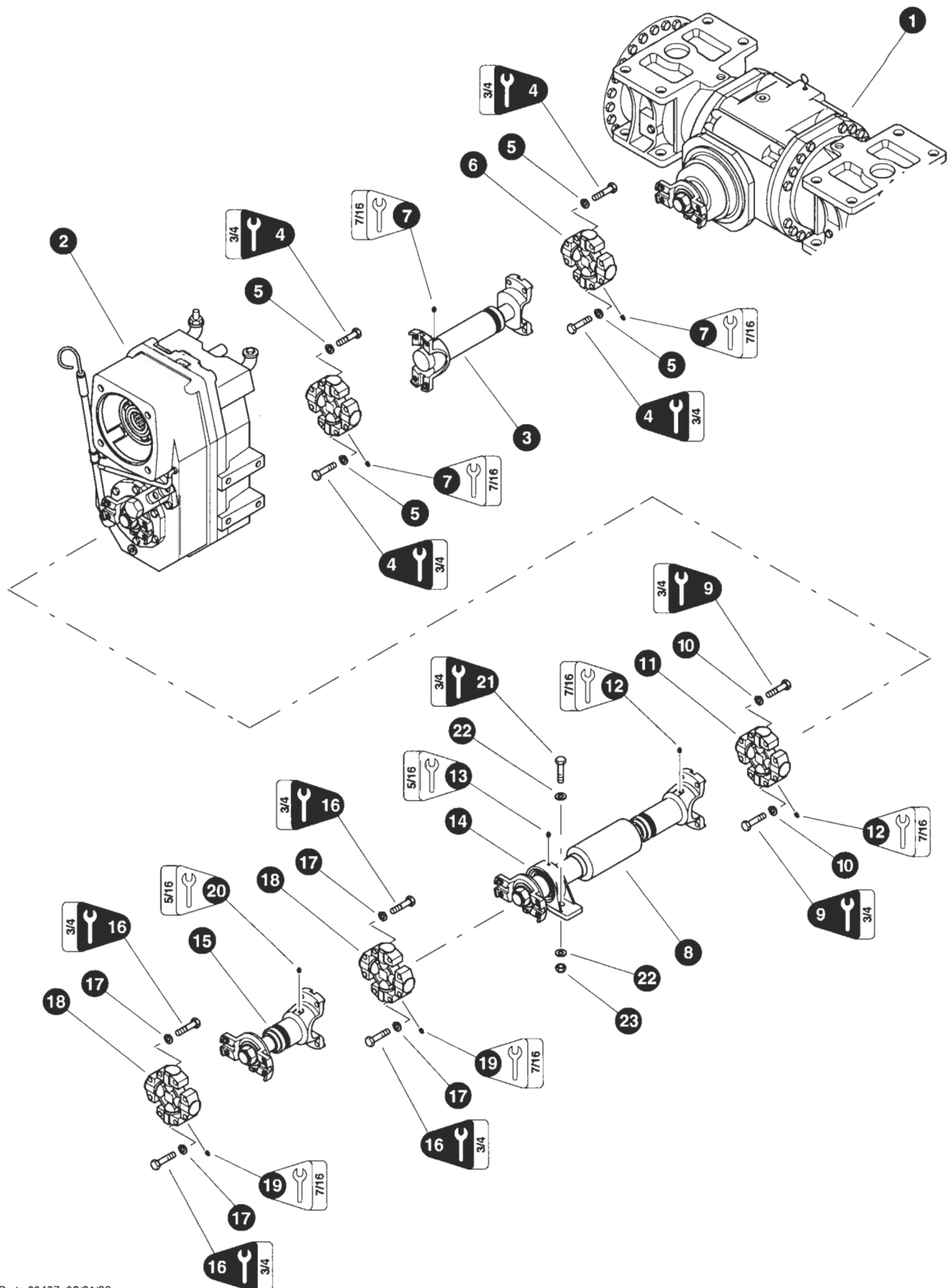
- ✓ See referenced page for component or assembly breakdown.
 ☐ Kit or Assembly - includes all items indented underneath.

Note #1:

Use Loctite 242 (*blue*) during installation.

Note #2:

Use Loctite 271 (*red*) during installation.



DRIVE SHAFT INSTALLATION

(Front Frame & Articulation Joint)

(Used on later production machines with a box construction front frame)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	FRONT AXLE ASSEMBLY	Blue D
2	REF.	1	✓	TRANSFER CASE	Blue C
--	20019	1	☐	DRIVE SHAFT ASSEMBLY - COMPLETE (183" wheelbase)	
--	20020	1	☐	DRIVE SHAFT ASSEMBLY - COMPLETE (231" wheelbase)	
3	20019-1	1	☐	DRIVE SHAFT (transfer case to front axle)	
4	20662	16		BOLT - 1/2" x 2-1/4" NF (See note #1 below)	
				(Torque to 115 lbs. (155 Nm))	
5	10710	16		WASHER, lock - 1/2"	
6	20677	2		U-JOINT, driveshaft	
7	10704	3		FITTING, grease - 1/8" pipe thread	
8	19060-1/3	1	☐	DRIVE SHAFT (Transfer case to articulation joint)	
9	20662	8		BOLT - 1/2" x 2-1/4" NF (See note #1 below)	
				(Torque to 115 lbs. (155 Nm))	
10	10710	8		WASHER, lock - 1/2"	
11	20677	1		U-JOINT, driveshaft	
12	10704	2		FITTING, grease - 1/8" pipe thread	
13	18420	1		FITTING, grease - 1/4-28"	
14	19383	1		BEARING, pillow block	
15	19060-2	1	☐	DRIVE SHAFT (Articulation joint)	
16	20662	16		BOLT - 1/2" x 2-1/4" NF (See note #1 below)	
				(Torque to 115 lbs. (155 Nm))	
17	10710	16		WASHER, lock - 1/2"	
18	20677	2		U-JOINT, driveshaft	
19	10704	2		FITTING, grease - 1/8" pipe thread	
20	18420	1		FITTING, grease - 1/4-28"	
21	10736	2		BOLT - 1/2" x 2" (See note #2 below)	
				(Torque to 110 lbs. (135 Nm))	
22	15534	4		WASHER, SAE flat - 1/2"	
23	10815	2		NUT, lock - 1/2"	

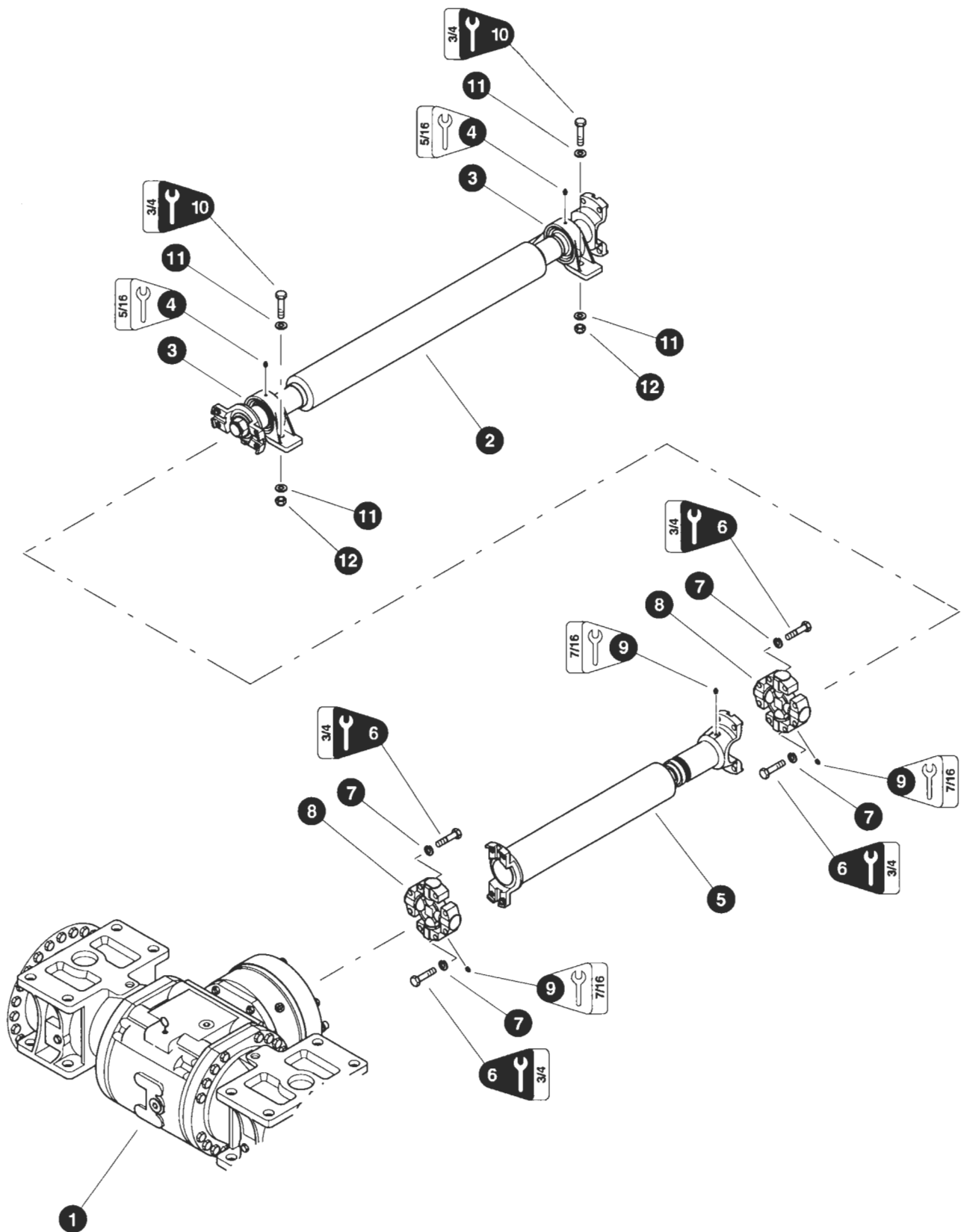
- ✓ See referenced page for component or assembly breakdown.
 ☐ Kit or Assembly - includes all items indented underneath.

Note #1:

Use Loctite 242 (*blue*) during installation.

Note #2:

Use Loctite 271 (*red*) during installation.



DRIVE SHAFT INSTALLATION (Rear Frame)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	REAR AXLE ASSEMBLY	Blue E
--	20019	1	☐	DRIVE SHAFT ASSEMBLY - COMPLETE (183" wheelbase) (Used on later production machines with a box construction front frame)	
--	19060	1	☐	DRIVE SHAFT ASSEMBLY - COMPLETE (183" wheelbase) (Used on earlier production machines with a tubular construction front frame)	
--	20020	1	☐	DRIVE SHAFT ASSEMBLY - COMPLETE (231" wheelbase) (Used on later production machines with a box construction front frame)	
--	19338	1	☐	DRIVE SHAFT ASSEMBLY - COMPLETE (231" wheelbase) (Used on earlier production machines with a tubular construction front frame)	
--	19339	1	☐	DRIVE SHAFT ASSEMBLY - COMPLETE (243" wheelbase) (Used on earlier production machines with a tubular construction front frame)	
2	19060-4	1	☐	DRIVE SHAFT (Articulation joint to mid-frame)(183" wheelbase)	
	19338-4	1	☐	DRIVE SHAFT (Articulation joint to mid-frame)(231" wheelbase)	
	19339-4	1	☐	DRIVE SHAFT (Articulation joint to mid-frame)(243" wheelbase)	
3	19383	2		BEARING, pillow block	
4	18420	2		FITTING, grease - 1/4-28"	
5	19060-5	1	☐	DRIVE SHAFT (Mid-frame to rear axle)(183" wheelbase)	
	19338-5	1	☐	DRIVE SHAFT (Mid-frame to rear axle)(231" wheelbase)	
	19339-5	1	☐	DRIVE SHAFT (Mid-frame to rear axle)(243" wheelbase)	
6	20662	16		BOLT - 1/2" x 2-1/4" NF (See note #1 below) (Torque to 115 lbs. (155 Nm))	
7	10710	16		WASHER, lock - 1/2"	
8	20677	2		U-JOINT, driveshaft	
9	10704	3		FITTING, grease - 1/8" pipe thread	
10	10736	4		BOLT - 1/2" x 2" (See note #2 below) (Torque to 110 lbs. (135 Nm))	
11	15534	8		WASHER, SAE flat - 1/2"	
12	10815	4		NUT, lock - 1/2"	

- ✓ See referenced page for component or assembly breakdown.
 ☐ Kit or Assembly - includes all items indented underneath.

Note #1:

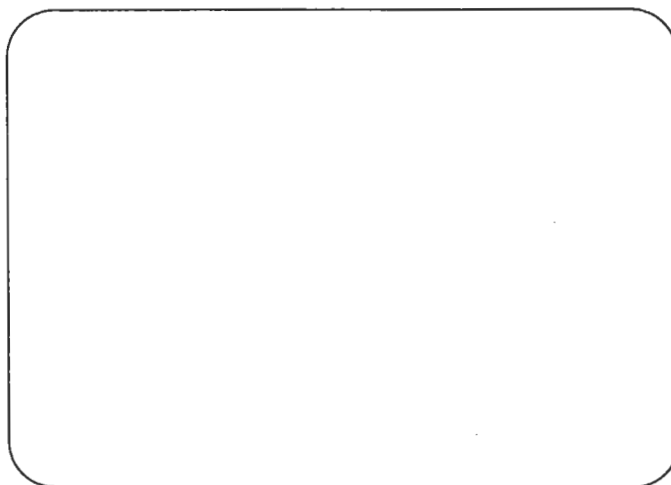
Use Loctite 242 (*blue*) during installation.

Note #2:

Use Loctite 271 (*red*) during installation.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

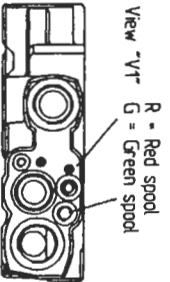
Blue - A



Vendor Component Info Packet -

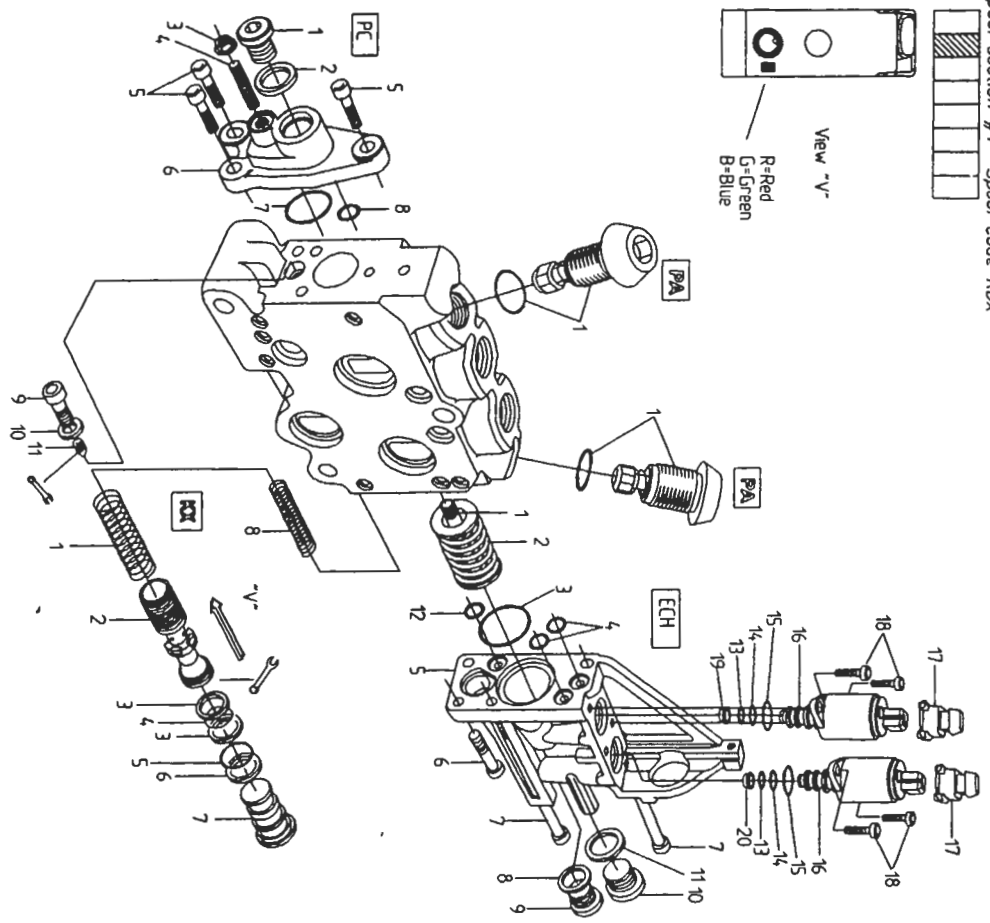
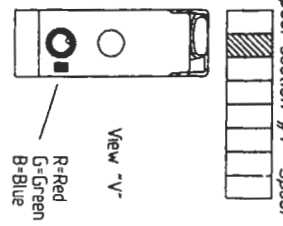
***VOAC
Loader Implement Valve
PN# 19178***

Spare Parts List

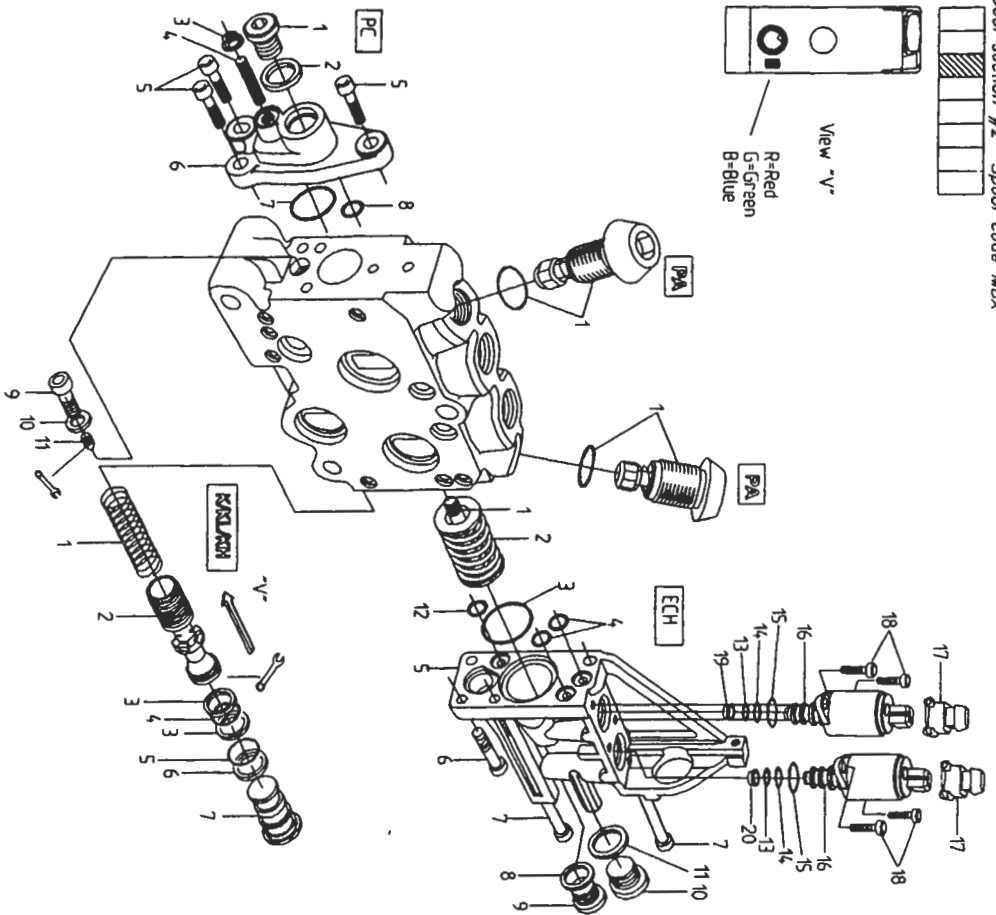
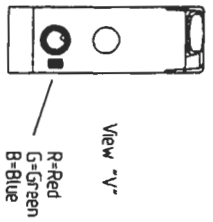


Function Code	Kil No	Description	Remarks / Items
-	393000063	PLUG KI "J"	10x 20x
PAL L52	393000075	PAL L52 70 BAR	1
KS	393000035	COPY SPILL KS SIZE G	10x 20x 1, 4, 5
KS	393000435	COPY SPILL KS SIZE R	10x 20x 1, 4, 5
TS	393000044	PLUG KI PBL/8 "J"	

Spool section #1 Spool code BNX

[illegible]

Spool section #2 Spool code MBX



Function Code	Kit No	Description	Remarks / Items
EC A	393000C87	CAP KIT EC "A" A-SID	1, 2, 3, 4, 5, 6, 7, 8
EC A	393000C43	SEAL KIT EC A-SIDE	2, 3, 7, 8
EC B	393000C52	CAP KIT EC "B" B-SID	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14
EC B	393000C86	PCVCS 12 VDC	5
EC B	393000C48	SEAL KIT PCVCS	13, 14, 15
EC B	393000C22	CONNECTOR KIT 1 PCVCS	17
EC B	393000C43	SPRING KIT EC/EC/EC/EC	3, 4
EC B	393000C46	SEAL KIT EC B-SIDE	3, 4, 5, 6, 7, 8, 9, 10, 11, 12
EC B	3762397	THROTTLE WASHER 0.8	
EC B	3762397	THROTTLE WASHER 0.8	
EC B	3762397	THROTTLE WASHER 0.8	
K	393000C69	COMPRESSOR KIT K SIZE B	1, 2, 7, 9, 10
K	393000C69	COMPRESSOR KIT K SIZE G	1, 2, 7, 9, 10
K	393000C69	COMPRESSOR KIT K SIZE B	1, 2, 7, 9, 10
K	393000C87	SEAL KIT K/SLAON	3, 4, 5, 6
K	9762377708	THROTTLE SCREW M4 0.8 PM	
PA A	393000C87	PCVCS 750 BAR	1
PA B	393000C87	PCVCS 750 BAR	1

Spare Parts List

1901S-06-US07-079A

1901-S-06-US07-079A

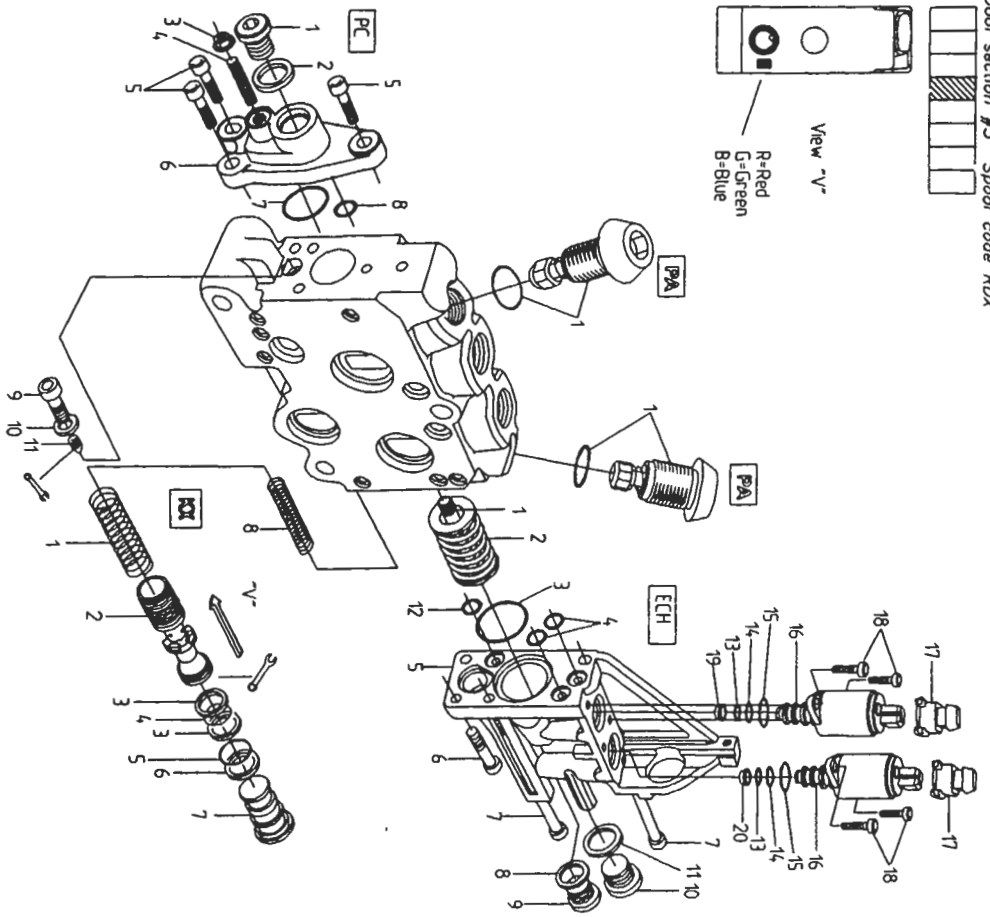
Sinagra Parts / ier

Good section #3 Good code ENV

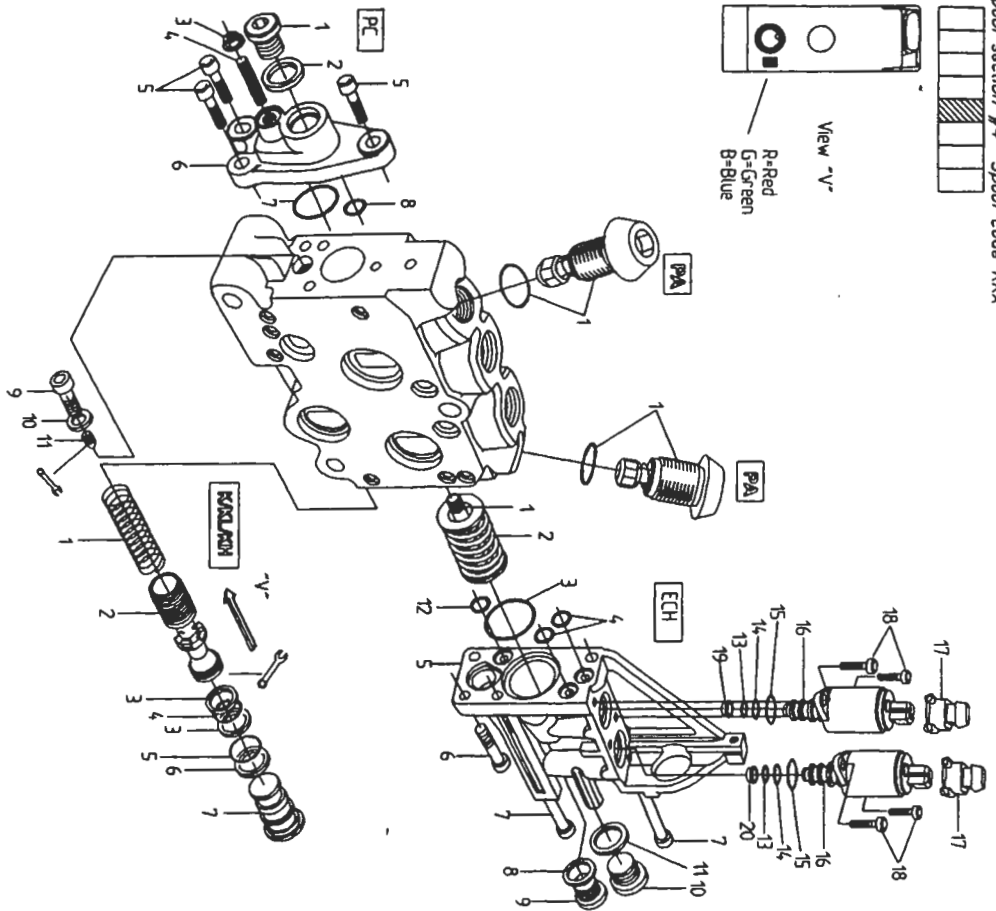
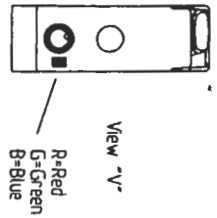


View -V-

R=Red
G=Green
B=Blue

[illegible]

Spool section #4 Spool code RKX



Function Code	Ka No	Description	Remarks / Items
EL A	39300K17	CAP KIT PC, A-SIZE	1, 2, 3, 4, 5, 6, 7, 8
EL A	39300K43	SEAL KIT PC, A-SIZE	2, 3, 7, 8
EL B	39300K62	CAP KIT EL, B-SIZE	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20
EL B	39300K26	PCVS 12 VDC	6
EL B	39300K19	SEAL KIT PCVS	1, 4, 5
EL B	39300K22	CONNECTOR KIT 1 PCVS	17
EL B	39300K43	SPRING KIT EL/PCVS	3, 4
EL B	39300K46	SEAL KIT EL, B-SIZE	3, 4, 5, 6, 7, 8, 9, 10, 11, 12
EL B	3762397	THROTTLE WASHER 0.8	
EL B	3762397	THROTTLE WASHER 0.8	
K	39300K69	CIPROGATOR KIT K, SIZE B	1, 2, 7, 9, 10
K	39300K469	CIPROGATOR KIT K, SIZE G	1, 2, 7, 9, 10
K	39300K469	CIPROGATOR KIT K, SIZE R	1, 2, 7, 9, 10
K	39300K471	SEAL KIT C/P/L/VA	3, 4, 5, 6
K	970237790	THROTTLE SCREW M4 0.8 194	
PA A	39300K87	PLC05 250 BAR	1
PA B	39300K87	PLC05 250 BAR	1

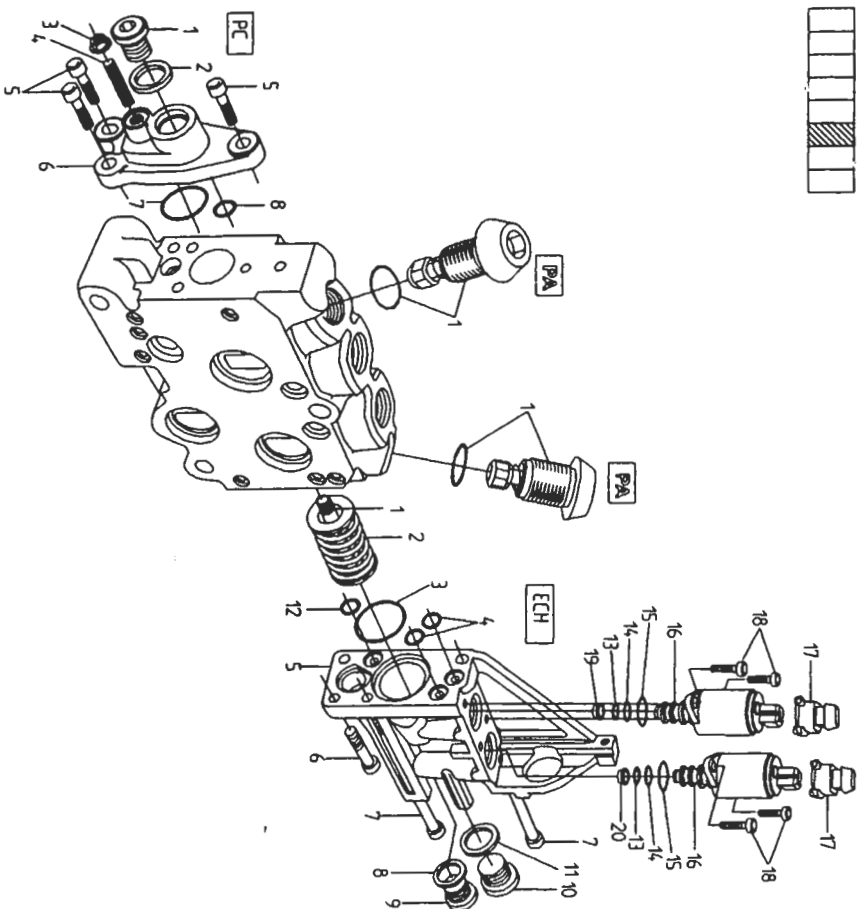
Spare Parts List

L90LS-06-US07-079A

L90LS-06-US07-079A

Spare Parts List

Spool section #5 Spool code RDX

[illegible]

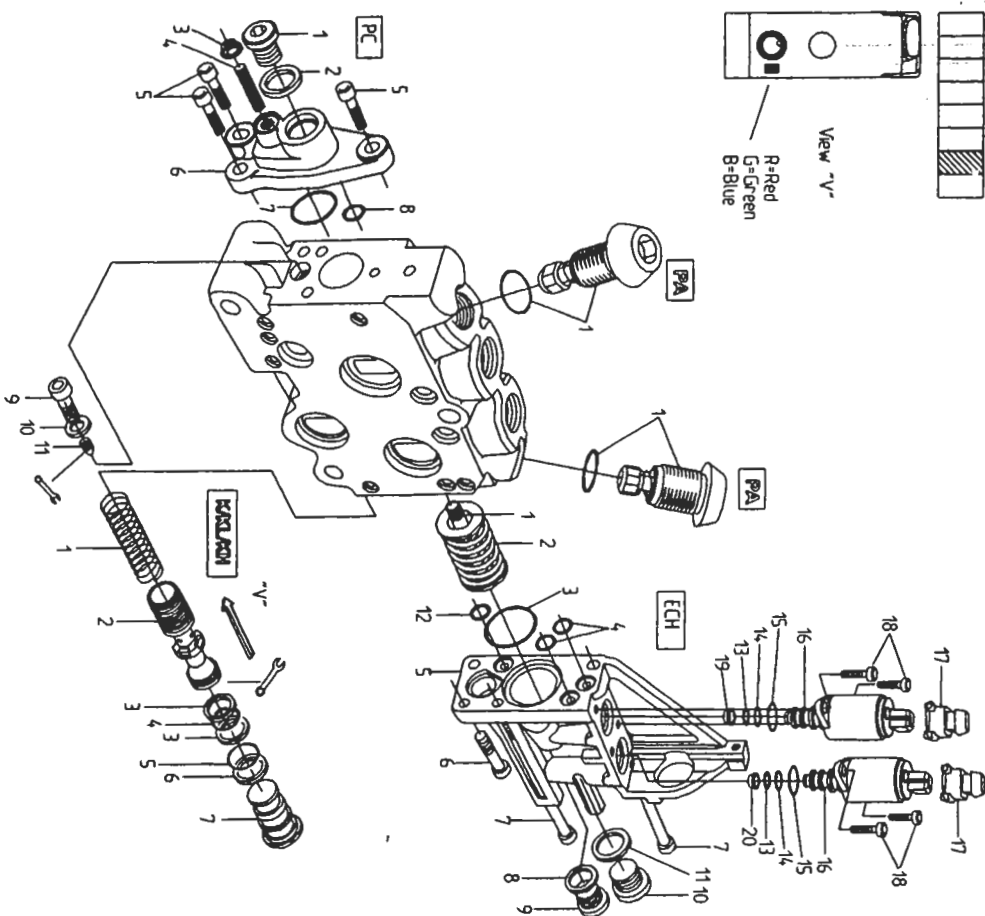
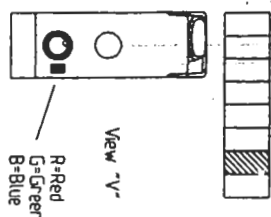
Spare Parts List

L90LS-06-US07-079A

L90LS-06-US07-079A

Spare Parts List

Spool section #6 Spool code RCD

[illegible]

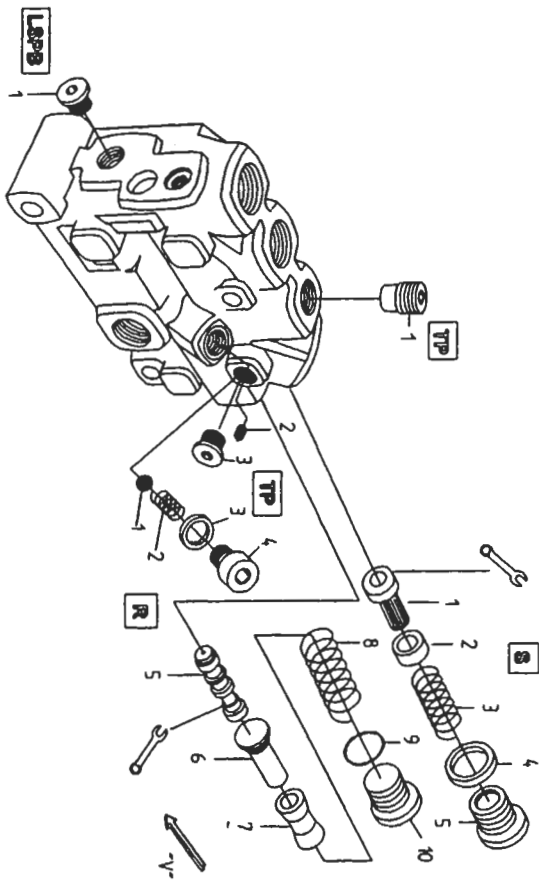
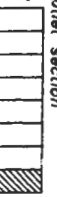
Spare Parts List

1901-S-06-US07-079A

1901-S-06-11S07-079A

সমগ্র প্রাঙ্গণে

Quilted section



G = Green spool
R = Red spool

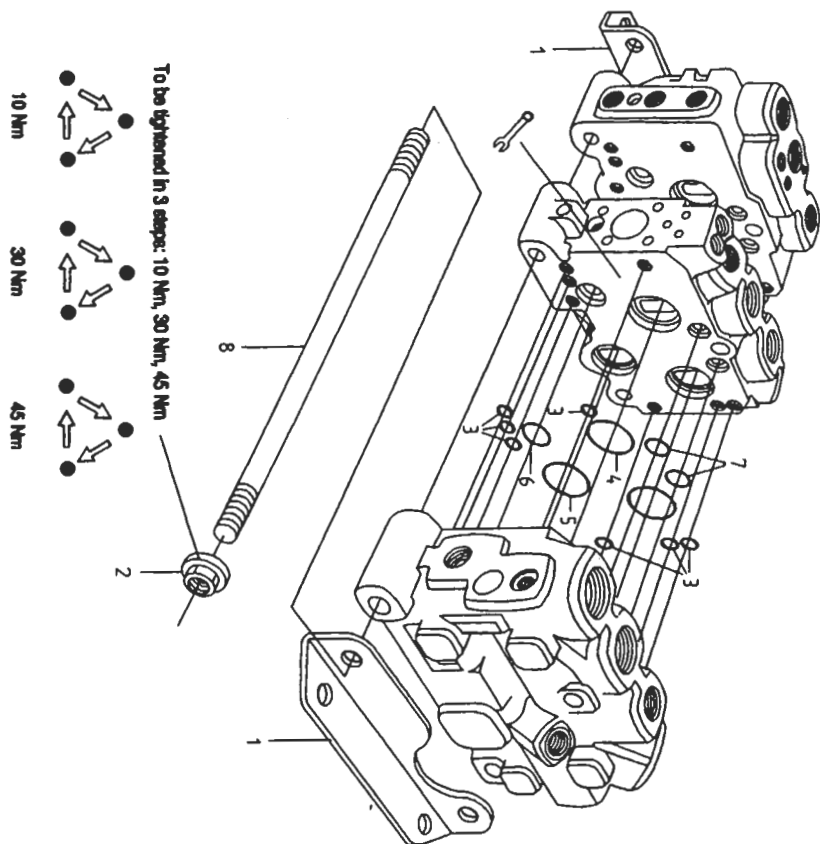
View 7-

[illegible]

Spare Parts List

L90LS-06-US07-079A

Tie-rods, Brackets, Seal kits



17

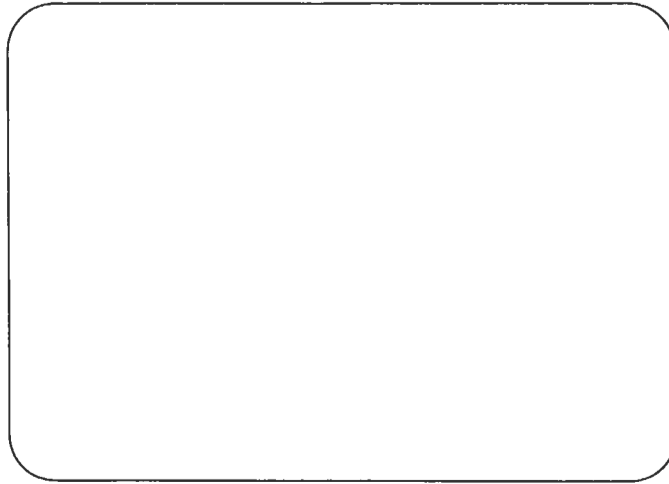
L90LS-06-US07-079A

Spare Parts List

[illegible]

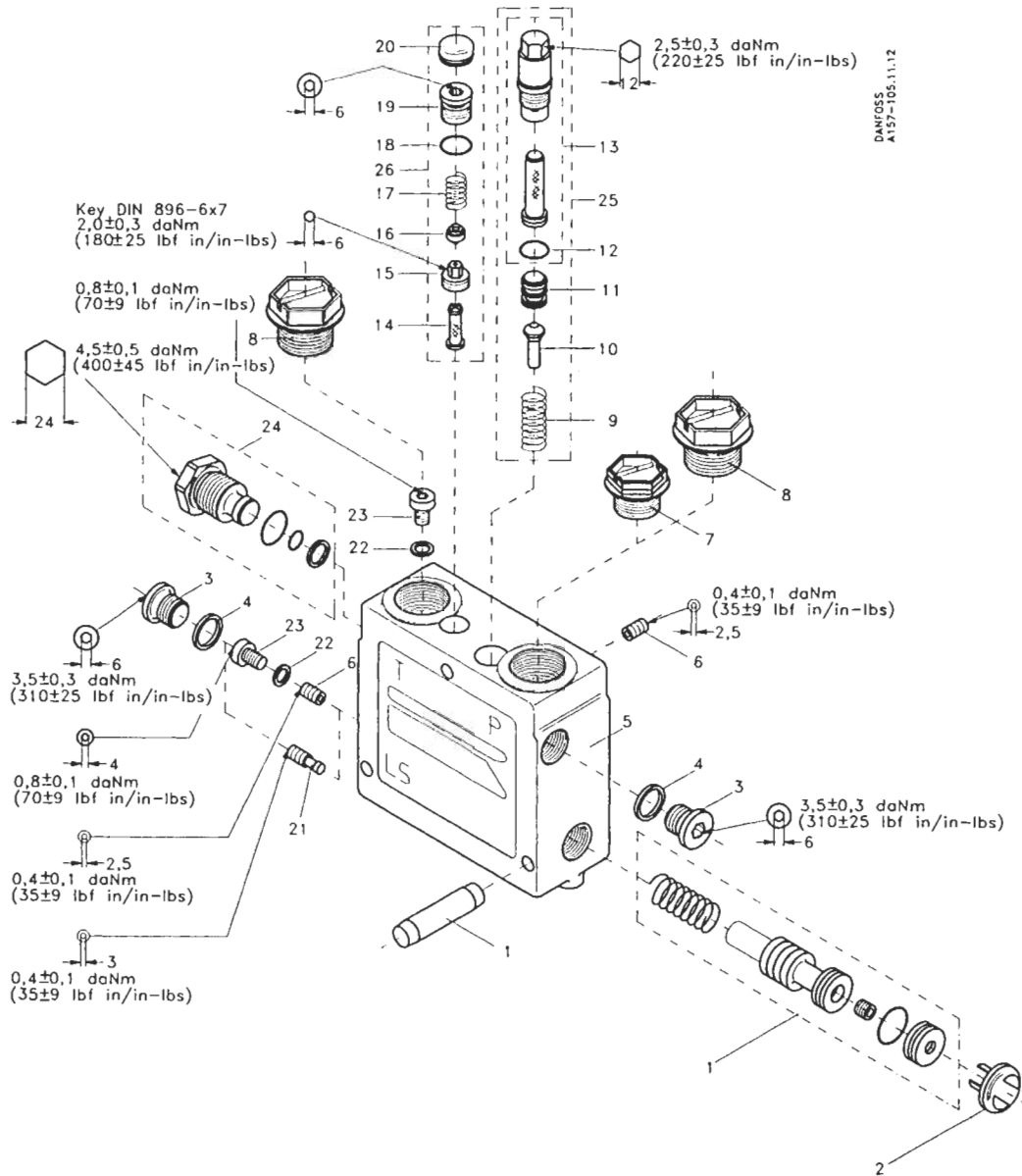
18

Blue - B



Vendor Component Info Packet -

***DANFOSS
Clam Bunk Valve***



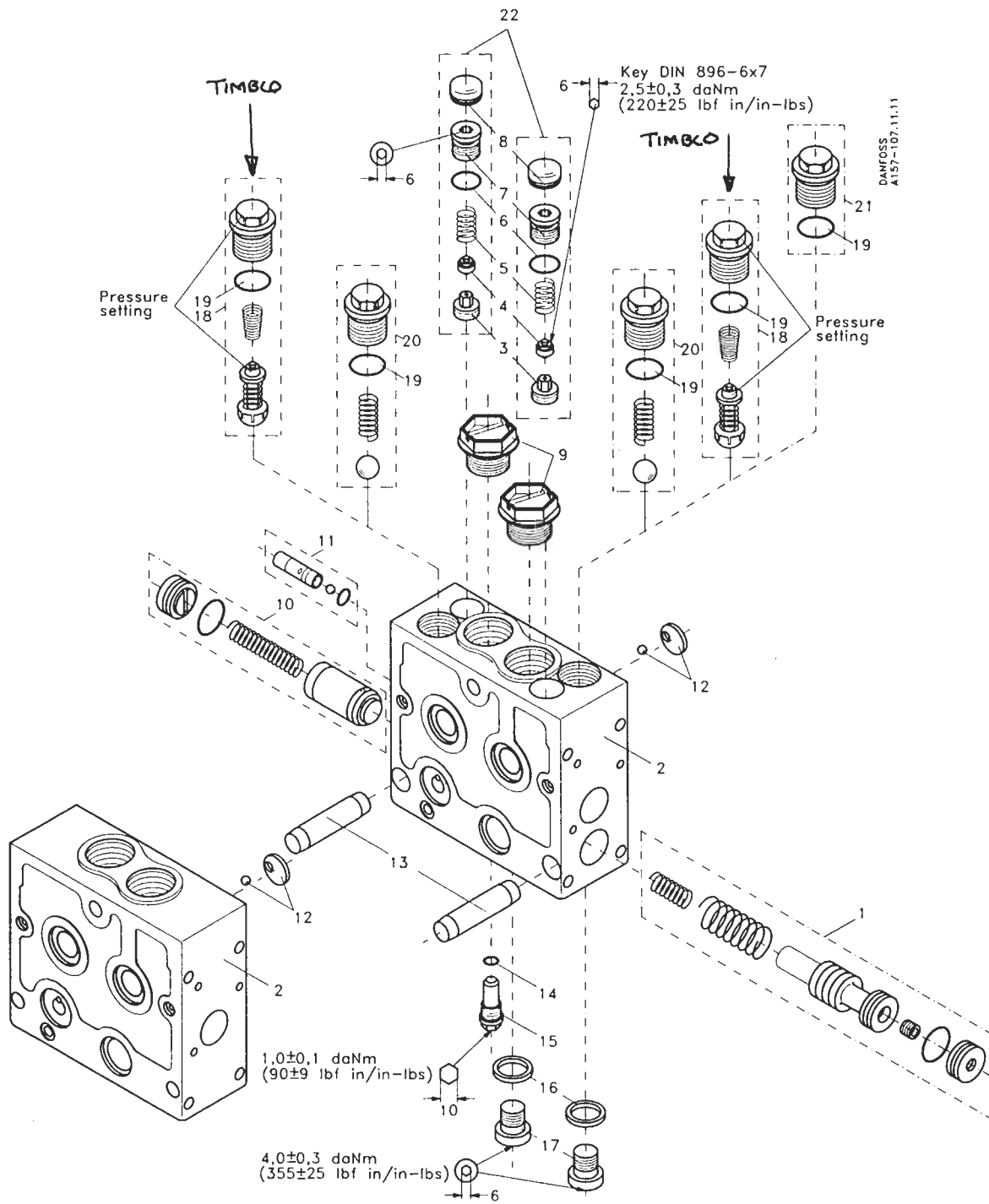


PVP pump side module

Type			Code No.	
			G - thread	UNF - thread
PVP Open centre	P-port = $G \frac{1}{2}$ = $\frac{7}{8}$ -14 UNF	Excl. pilot supply for PVE	157B5000	157B5200
PVP Open centre	P-port = $G \frac{3}{4}$ = $1 \frac{1}{16}$ -12 UNF		157B5100	157B5300
PVP Closed centre	P-port = $G \frac{1}{2}$ = $\frac{7}{8}$ -14 UNF		157B5001	157B5201
PVP Closed centre	P-port = $G \frac{3}{4}$ = $1 \frac{1}{16}$ -12 UNF		157B5101	157B5301
PVP Open centre	P-port = $G \frac{1}{2}$ = $\frac{7}{8}$ -14 UNF	Incl. pilot supply for PVE	157B5010	157B5210
PVP Open centre	P-port = $G \frac{3}{4}$ = $1 \frac{1}{16}$ -12 UNF		157B5110	157B5310
PVP Closed centre	P-port = $G \frac{1}{2}$ = $\frac{7}{8}$ -14 UNF		157B5011	157B5211
PVP Closed centre	P-port = $G \frac{3}{4}$ = $1 \frac{1}{16}$ -12 UNF		157B5111	157B5311
PVP Open centre	P-port = $G \frac{1}{2}$ = $\frac{7}{8}$ -14 UNF	Incl. pilot supply for PVE and facilities for PVPX	157B5012	157B5212
PVP Open centre	P-port = $G \frac{3}{4}$ = $1 \frac{1}{16}$ -12 UNF		157B5112	157B5312
PVP Closed centre	P-port = $G \frac{1}{2}$ = $\frac{7}{8}$ -14 UNF		157B5013	157B5213
PVP Closed centre	P-port = $G \frac{3}{4}$ = $1 \frac{1}{16}$ -12 UNF		157B5113	157B5313
PVP Open centre	P-port = $G \frac{3}{4}$ = $1 \frac{1}{16}$ -12 UNF	Incl. pilot supply for PVE and external Pp	157B5180	
PVP Open centre	P-port = $G \frac{3}{4}$ = $1 \frac{1}{16}$ -12 UNF	Incl. pilot supply for hydraulic activation	157B5190	
PVP Closed centre	P-port = $G \frac{3}{4}$ = $1 \frac{1}{16}$ -12 UNF	and external Pp	157B5191	

Item	Description	Code No.														
1	Inlet compensator, assy.	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	Plastic plug	155L5370	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	Plug	G $\frac{1}{4}$ - thread	155L6388	3	3	3	2	2	2	2	2	2	2	2	2	2
		$\frac{1}{2}$ -20 UNF - thread	155L6406				2	2	2	2	2	2	2	2	2	2
4*	Washer 13.5 x 17.5 x 1.5	G / UNF - thread	684X2120	3	3	3	2	2	2	2	2	2	2	2	2	2
5	Housing		-	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Orifice M6		155L5389	2	1	1	2	2	1	1	2	2	1	1	2	1
7	Plastic plug	G $\frac{1}{2}$ - thread	633X1422					1	1	1	1	1	1	1	1	1
		$\frac{7}{8}$ -14 UNF - thread	633X1021					1	1	1	1	1	1	1	1	1
8	Plastic plug	G $\frac{3}{4}$ - thread	633X1420	2	2	2	2	1	2	1	2	1	2	1	2	1
		$1 \frac{1}{16}$ - 12 UNF -thread	633X1122				2	1	2	1	2	1	2	1	2	1
9	Spring		155L5375				1	1	1	1	1	1	1	1		
	Spring		155L5396	1	1											
10	Cone		155L5376	1	1	1	1	1	1	1	1	1	1	1		
11	Spool		155L5377	1	1	1	1	1	1	1	1	1	1	1		
12*	O-ring $\varnothing 11.0 \times 2.0$		633B1818	1	1	1	1	1	1	1	1	1	1	1		
13	Filter plug (incl. item 12)		155L5150	1	1	1	1	1	1	1	1	1	1	1		
14	Filter		155L5365	1	1	1	1	1	1	1	1	1	1	1	1	1
15	Seal		155L6365	1	1	1	1	1	1	1	1	1	1	1	1	1
16	Thrust pad		155L6150	1	1	1	1	1	1	1	1	1	1	1	1	1
17	Spring		155L6370	1	1	1	1	1	1	1	1	1	1	1	1	1
18*	O-ring $\varnothing 9.0 \times 2.0$		633B1816	1	1	1	1	1	1	1	1	1	1	1	1	1
19	Adjusting screw		155L6387	1	1	1	1	1	1	1	1	1	1	1	1	1
20*	Plastic plug		155L6377	1	1	1	1	1	1	1	1	1	1	1	1	1
21	Plug M6; L = 19	Open centre only	155L5153		1	1			1	1			1	1		1
22*	Bonded seal 6.7 x 10 x 1.0		633B9008	1			2	2	1	1	1	1		1	1	
23	Screw M6; L = 8		681X1506	1			2	2	1	1	1	1		1	1	
24	PVPX plug (se page 14)		157B5601				1	1	1	1						
25	Pilot supply		155L5157	1	1	1	1	1	1	1	1	1	1	1		
26	Pressure relief valve		155L5156	1	1	1	1	1	1	1	1	1	1	1	1	1

PVB (basic module)
 PVLA (anti-cavitation valve)
 PVL (shock and anti-cavitation valve)



PVB (basic module)

Type			Code No.	
			G - thread	UNF - thread
PVP	Without compensator/check valve	Not prepared for check valves A and B	157B6000	157B6400
PVP	With check valve		157B6100	157B6500
PVP	With compensator valve		157B6200	157B6600
PVP	With compensator valve, LS _{A/B} relief valve and LS _{A/B} shuttle valve		157B6202	157B6602
PVB	With damped compensator valve		157B6206	
PVB	With damped compensator valve LS _{A/B} relief valve and LS _{A/B} shuttle valve	Prepared for check valves A and B	157B6207	
PVP	Without compensator/check valve		157B6020	157B6420
PVP	With check valves		157B6120	157B6520
PVP	With check valve and LS _{A/B} shuttle valve		157B6125	157B6525
PVP	With compensator valve		157B6220	157B6620
PVP	With compensator valve, LS _{A/B} relief and LS _{A/B} shuttle valve		157B6222	157B6622
PVB	With damped compensator valve	A and B	157B6226	
PVB	With damped compensator valve LS _{A/B} relief valve and LS _{A/B} shuttle valve		157B6227	

Item	Description	Code No.														
1	Compensator valve, assy.	-	1	1	1	1					1	1	1	1		
2	Housing	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	Seat	155L6365	2	2							2	2				
4	Thrust pad	155L6150	2	2							2	2				
5	Spring	155L6370	2	2							2	2				
6*	O-ring Ø9.0 × 2.0	633B1816	2	2							2	2				
7	Adjusting screw	155B6387	2	2							2	2				
8*	Plastic plug	155L6377	2	2							2	2				
9	Plastic plug	G ½ - thread	2	2	2	2	2	2	2	2	2	2	2	2	2	2
		¾-14 UNF-thread		2	2	2	2	2	2			2	2	2	2	
10	Check valve, assy	-							1	1						1
11	Shuttle assy	-	1	1					1			1	1			
12	Shuttle assy	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13	Pipe	-	1	1	1	1	1	1			1	1	1	1	1	
14*	O-ring Ø6.0 × 1.5	633B1810	1	1							1	1				
15	Damping screw (incl. item 14)	155L6151	1	1							1	1				
16*	Washer 13.5 × 17.5 × 1.5	G / UNF - thread	2	2							2	2				
17	Plug	G ¼ - thread	2	2							2	2				
		½ - 20 UNF thread		2								2				
22	Relief valve assy.	155L6153	1	1							1	1				

*	Set of seals (see page 20)	157B6999	1	1	1						1	1	1			
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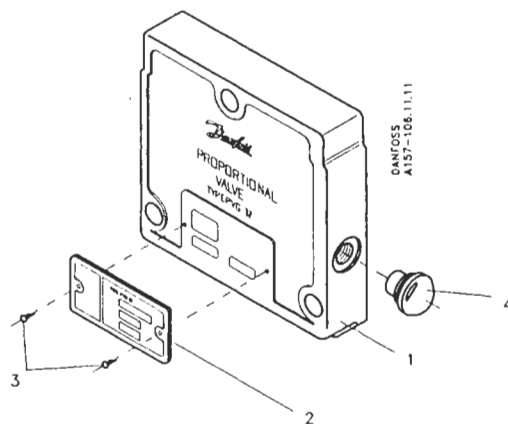
PVLA (anti-cavitation valve)

PVLP (shock and anti-cavitation valve)

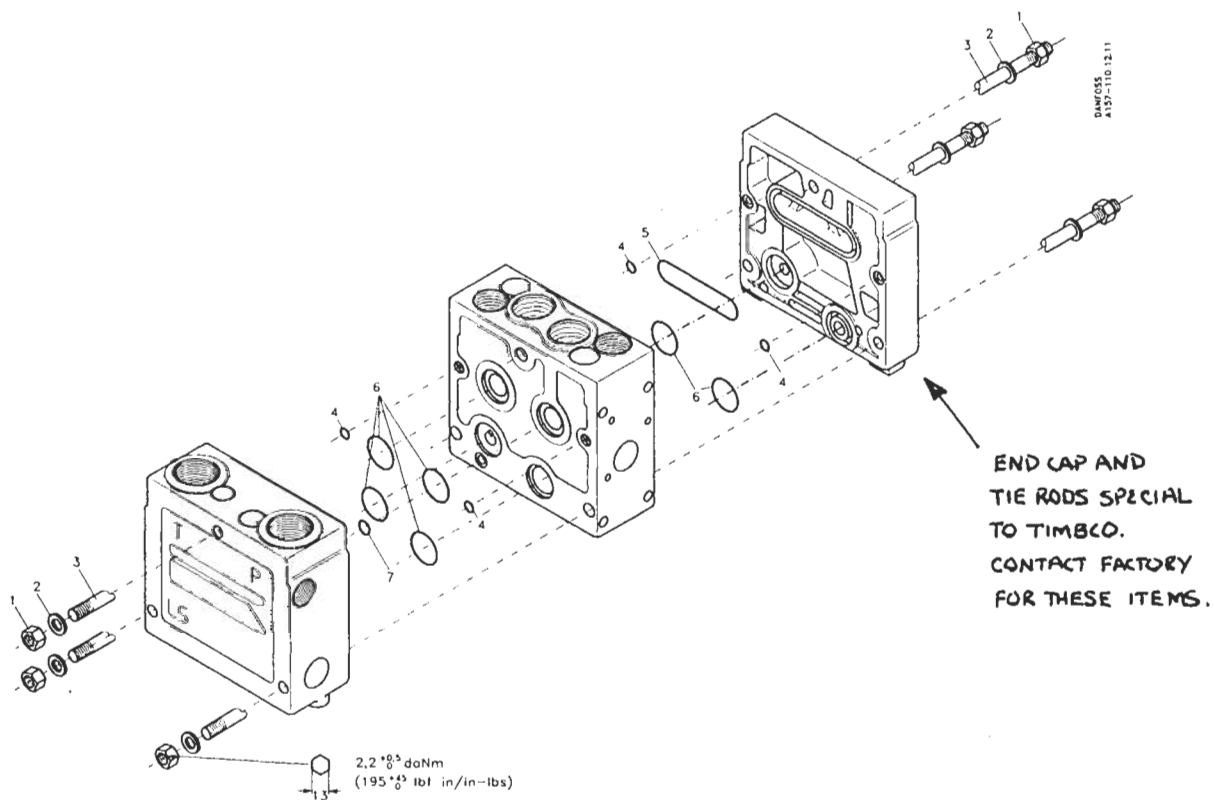
Type	Code No.
PVLP setting pressure 50, 63, 100, 125, 140, 160, 175, 190, 210, 230, 240, 250, 265, 280, 30 and 320 bar	157B1...
PVLA valve	157B1001
PVLA plug	157B1002

Item	Description	Code No.				
18	PVLP assy.	-				1
19	O-ring Ø16.0 × 1.5	633B1813	1	1	1	
20	PVLA assy. valve	-		1		
21	PVLA assy. plug	-	1			

PVS (end plate)



PVAS (assembly kit)



PVS (end plate)

Type	Code No.	
	G-thread	UNF-thread
PVS without connections	157B2000	157B2020
PVS with LX connections	157B2020	157B2021

Item	Description	Code No.		
1	End module, assy.	-	1	1
2*	Name plate (incl. item 3)	155L2150	1	1
3*	Drive screw	681Z1011	1	1
4	Plastic plug	633X1008	1	

* only to be used by change of specification

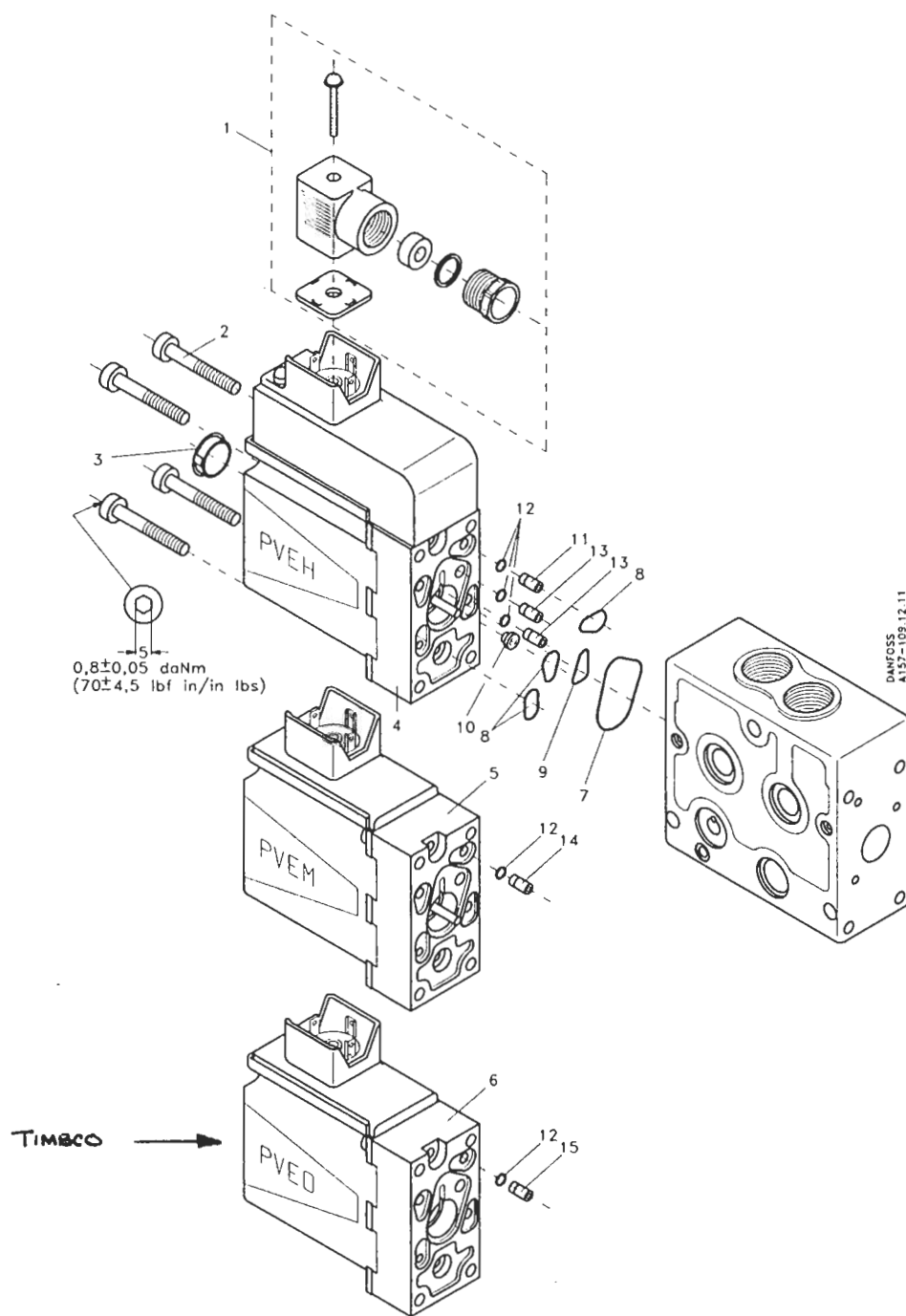
PVAS (assembly kit)

Type	Code No.
PVAS for 1 PVB on PVGI	157B8000
PVAS for 1 PVB basic module	157B8001
PVAS for 2 PVB basic modules	157B8002
PVAS for 3 PVB basic modules	157B8003
PVAS for 4 PVB basic modules	157B8004
PVAS for 5 PVB basic modules	157B8005
PVAS for 6 PVB basic modules	157B8006
PVAS for 7 PVB basic modules	157B8007
PVAS for 8 PVB basic modules	157B8008
PVAS for 9 PVB basic modules	157B8009
PVAS for 10 PVB basic modules	157B8010

Item	Description	Code No.																					
1	Nut 8,0	681X8018	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	3					
2	Washer 8.1 × 15.2 × 1.5	684X2591	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	3					
3	Stay bolt M8; L = 91	155L8350																3					
	Stay bolt M8; L = 140	155L8351															3						
	Stay bolt M8; L = 189	155L8352														3							
	Stay bolt M8; L = 238	155L8353																	3				
	Stay bolt M8; L = 287	155L8354																		3			
	Stay bolt M8; L = 336	155L8355																			3		
	Stay bolt M8; L = 385	155L8356																				3	
	Stay bolt M8; L = 434	155L8357																					3
	Stay bolt M8; L = 483	155L8358																					
Stay bolt M8; L = 527	155L8359															3							
Stay bolt M8; L = 576	155L8360																	3					
4*	O-ring Ø5.0 × 2.0	633B1809	22	20	18	16	14	12	10	8	6	4	4										
5*	O-ring Ø44.0 × 2.5	633B1814	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1					
6*	O-ring Ø16.0 × 2.5	633B1817	44	40	36	32	28	24	20	16	12	8	6										
7*	O-ring Ø10.0 × 2.5	633B0120	10	9	8	7	6	5	4	3	2	1	1										

*	Set of seals (see page 20)	157B8999	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
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PVEH (electrical activation, proportional high)
 PVEM (electrical activation, proportional medium)
 PVEO (electrical activation, on-off)



PVEO (electrical activation, on-off)

•	Set of seals (see page 20)	157B4997	1	1	1	1	1	1	1
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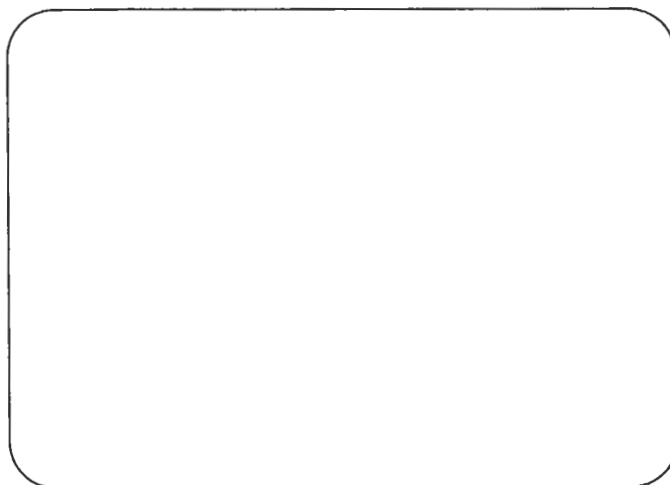
Set of seals for PVG 32

Type	Code No.
PVP module	157B5999
PVB module	157B6999
PVM/PVH/PVMD/PVMR/PVMF module	157B3999
PVEO/PVEM/PVEH module	157B4997*
PVAS for a PVG with 1 PVB section	157B8999
PVPX module	157B4998
*PVEO/PVEM/PVEH module before middle 1993	157B4999

Description	Code No.						
O-ring Ø9.0 × 2.0	633B1816					2	1
O-ring Ø11.0 × 2.0	633B1818						1
Washer 13.5 × 17.5 × 1.5	684X2120					2	1
Bonded seal 6.7 × 10.0 × 1.0	633X9008						1
Plastic plug	155L6377					2	1
O-ring Ø6.0 × 1.5	633B1810				3	1	
O-ring Ø5.0 × 2.0	633B1809	4		4		6	
O-ring Ø44.0 × 2.5	633B1814			1			
O-ring Ø16.0 × 2.5	633B1817			4			
O-ring Ø10.0 × 2.5	633B0120			1			
Sealing	633B1812					1	
Seal nut M 6.0	681X8270					2	
O-ring Ø30.0 × 2.5	633B0241				1		
O-ring Ø10.0 × 2.0	684B1461				3		
O-ring Ø 4.0 × 1.0	633B0204				3		
O-ring Ø 8.0 × 2.0	633B1056				1		
O-ring Ø21.20 × 2.4	633B1808	1				1	
*O-ring Ø8.0 × 2.5	633B1819			1			
*O-ring Ø10.5 × 1.8	633B1834					2	2
O-ring Ø19.3 × 2.4	633B1136					1	
O-ring Ø33.0 × 2.5	633B1811					1	
O-ring Ø9.25 × 1.78	633B1243		1				
O-ring Ø16.36 × 2.21	633B0046		1				
Backup-ring Ø98	633B0117		1				
O-ring Ø14.0 × 1.78	633B1981		2				

*not shown on drawing

Blue - C



Vendor Component Info Packet -

***NAF
Transfer Cases...***

VG 65 (Production Machines) - PN# 19056

VG 35 (Early Prototype Machines)

SPARE PARTS LIST

Type: TIM 02/0
Description: Tandem Axle
Valid as of Factory No.: TIM 01/0 01
Date of Creation: 21.03.1995



CONTENTS:

Description:	List	Drawing	Page
Assembly Drawing	—	VG 35 - 523	.2
Transmission Assembly Group	40.001.088.01	40.001.040.A	3-4
Transmission Assembly Group	40.001.089.01	40.001.041.A	5-6
Transmission Assembly Group	40.001.086.01	40.001.042.A	7-8
Transmission Assembly Group	40.001.090.01	40.001.028.B	9-10
Transmission Assembly Group	40.001.087.01	40.001.043.A	11-12

VG 35 TRANSFER CASE (EARLY PROTOTYPE MACHINES)

IMPORTANT!

When ordering include the following:

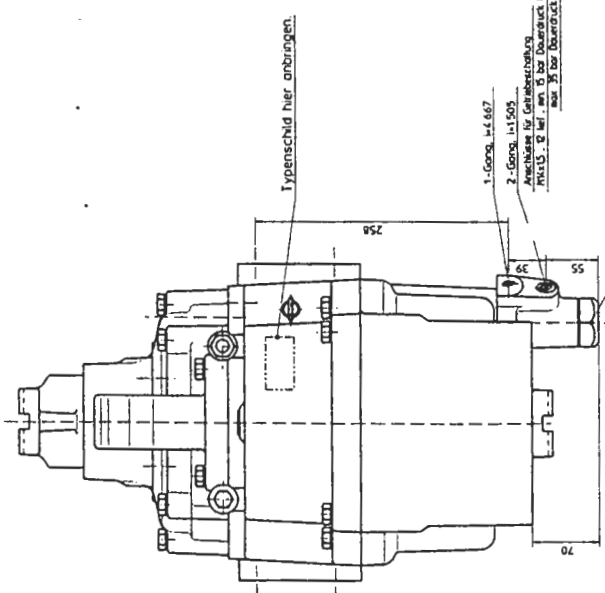
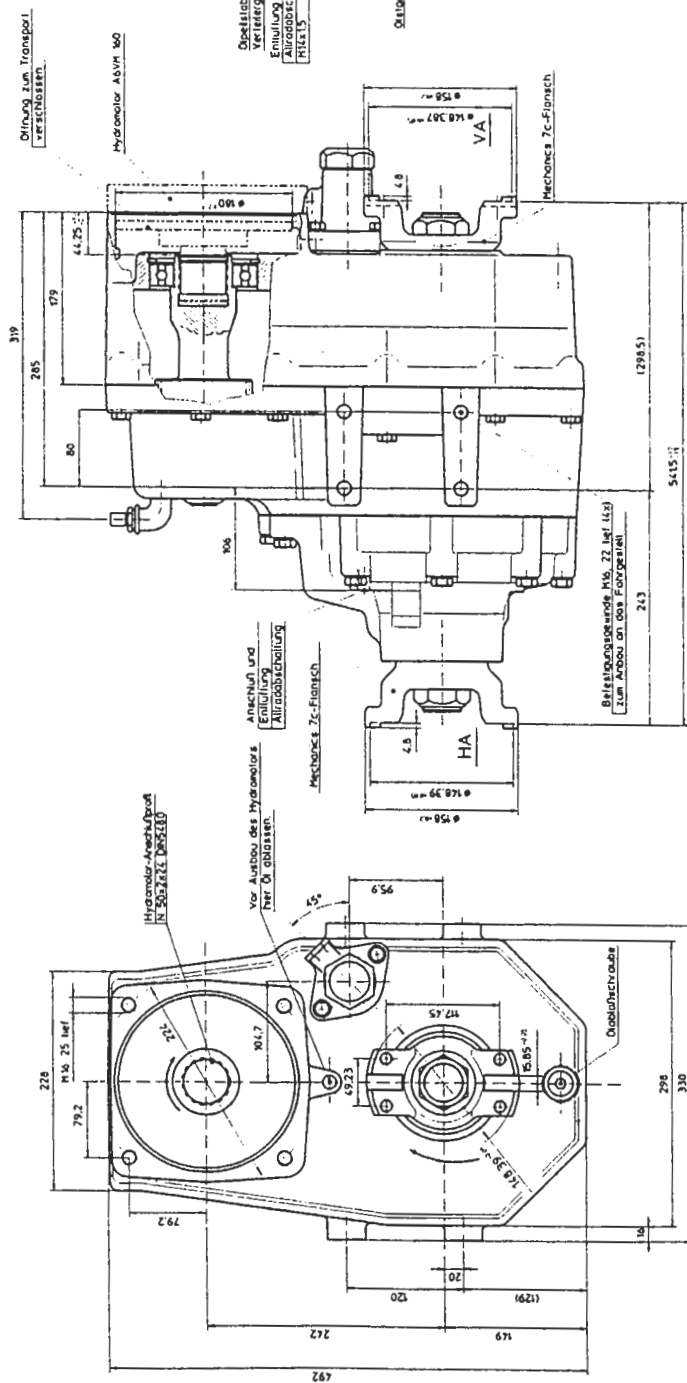
Vehicle Type, Manufacturer
NAF-Type, Factory No.
Part Description, Part Number
Quantity
Exact Shipping Address, Method of Shipment

Neunkirchener Maschinen- und
Achsenfabrik GmbH & Co. KG

Industriestraße 17
91077 Neunkirchen a.B.

Telephone: (09134) 702 0
Telefax: (09134) 702 99

Entw. R1/2:
Dringender 0.06 bar



Übersetzung : 1. Gang : $v = 46,7$
 2. Gang : $v = 1505$
Eingangsmoment : max 1050 Nm
Eingangsdrehzahl : max 3800 U/min bei $v = 28$ km/h
Ölfüllung : EP-Getriebeöl SAE 80 HL-L-2105
 bzw. API-GL 4
Ölmenge : ca. 1 ltr.
Gewicht : ca. 1 kg

Stücklisten-Nr. : 50-297 (TM 02)

Zusammenstellung 00.98000 164.0

[illegible]

Allradbeschallung:	
Druckmedium	Mineralöl
Anschlußdrucklos	Allrad ein
Anschlußdruckbeaufschlagt	Allrad aus
min 15 bar	
max 45 bar	
Hubvolumen	150 cm ³
erf. Ölstrom	min 12 ltr./min., 200 cm ³ /sec
-Abschaltung des HA-Abtriebes ist während der Fahrt und unter Last möglich.	
-Zuschaltung des HA-Abtriebes ist während der Fahrt und unter Last möglich, aber nicht bei durchgehenden Rovern zulässig.	

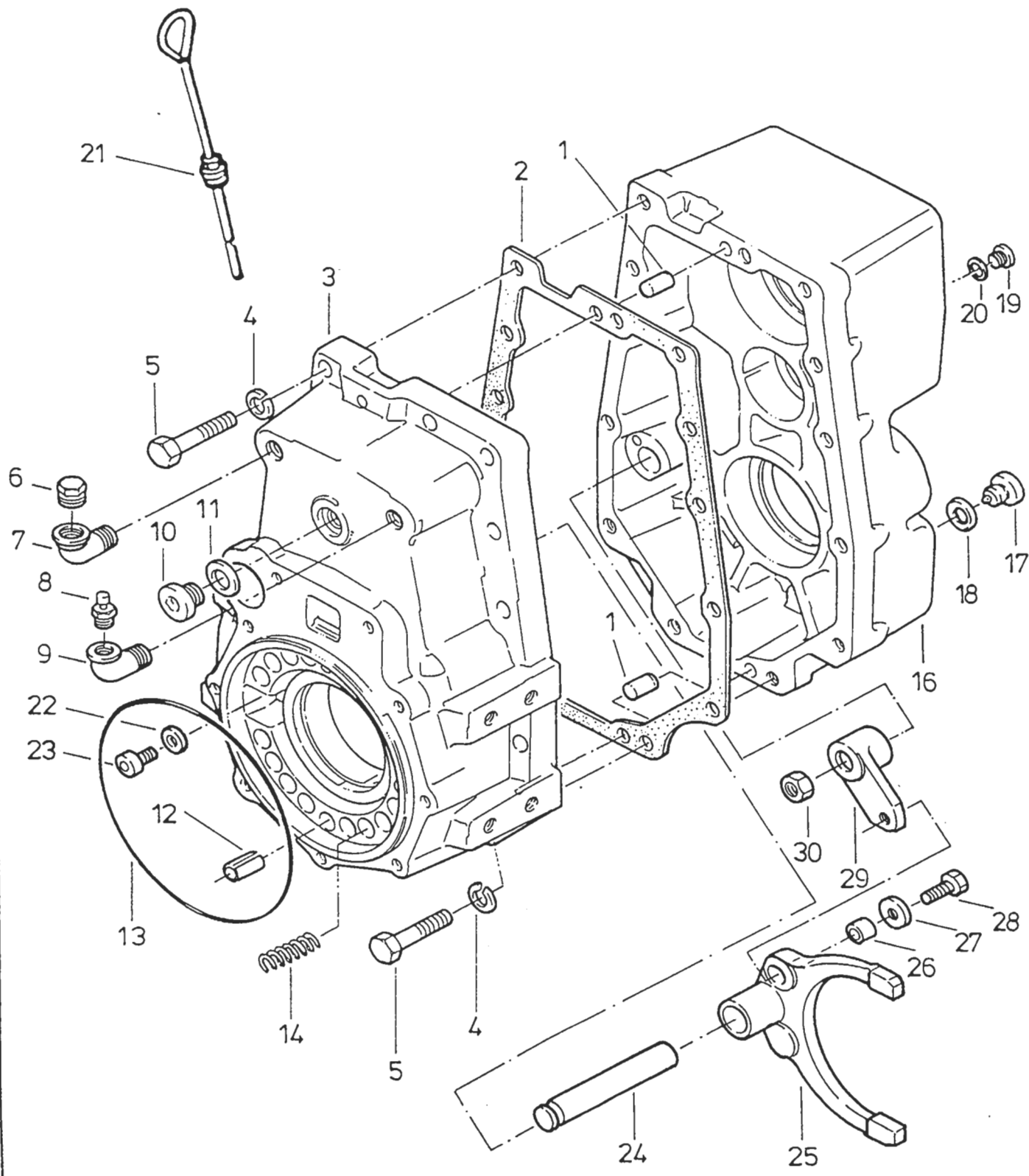
Bei Druckabfall Kappe SW 50 lösen
und mit Schraube H10 durch drücken
oder ziehen. Schallwelle in Leertauf-
stellung bringen

PL 46/1
LOK 4610
TIMOL/O

ERSATZTEILBILD



Bildnummer: 40.001.040.A
Bezeichnung: Getriebegruppe



SPARE PARTS LIST



Description: Differential R11
 Drawing No.: 10.059.000.A
 List Number: 10.081.000.01
 Date of Creation: 06.04.1994

Pos.	Part Number	Part Description	Qty.	Remarks	DIN
	VG 35 - 523	TRANSFER CASE Compl.	1		
1	120.258	DOWEL PIN	2	10M6X28	st. hardened 6325
2	03.73190.051.0	SEALING	1	th=0,5	AFM 38
3	05.098010.195.0	HOUSING	1		
4	119.015	LOCK WASHER	13	10 spring steel	
5	101.210	HEX. SCREW	13	M10x60	10.9 931
6	104.174	SCREW PLUG	1	R 3/4"	5.8 908
7	175.688	90deg. ELBOW	1	1A 3/4" black	
8	125.015	BREATHER	1	R 1/2" 1002 - 14 -00	
9	125.621	90deg. ELBOW	1	1A 1/2" black	
10	104.125	SCREW PLUG	1	R 1/2"	908
11	118.525	SEAL RING	1	A21x26x1,5	Cu 7603
12	120.478	SPLIT TAPER SLEEVE	2	14x24	spring steel 1481
13	117.725	O-RING	1	210x4	72 NBR 872
14	03.73310.036.0	COMPRESSION SPRING	16		
15	...				
16	05.98010.192.0	HOUSING	1		
17	03.73230.025.0	SCREW PLUG	1	R 3/4" with magnet	
18	118.541	SEAL RING	1	A27x32x2	Cu 7603
19	104.115	SCREW PLUG	1	M10x1	5.8 908
20	118.505	SEAL RING	1	A10x13,5x1	Cu 7603
21	03.73250.016.0	OIL DIP STICK	1		
22	03.73160.057.0	WASHER	2		
23	102.113	ALLAN BOLT	1	M8x16	8.8VP 912
24	05.98160.070.0	SHIFTING ROD	1		
25	30.98090.062.0	SHIFTING LEVER Compl.	1	with bushing (honed)	
26	03.73110.057.0	SPACER SLEEVE	1		
27	03.73160.057.0	WASHER	1		
28	101.111	HEX. SCREW	1	M8x30	8.8 glued 933
29	05.98090.060.0	SHIFTING LEVER	1		
30	106.003	HEX. NUT	1	M14x1,5	10 glued 934

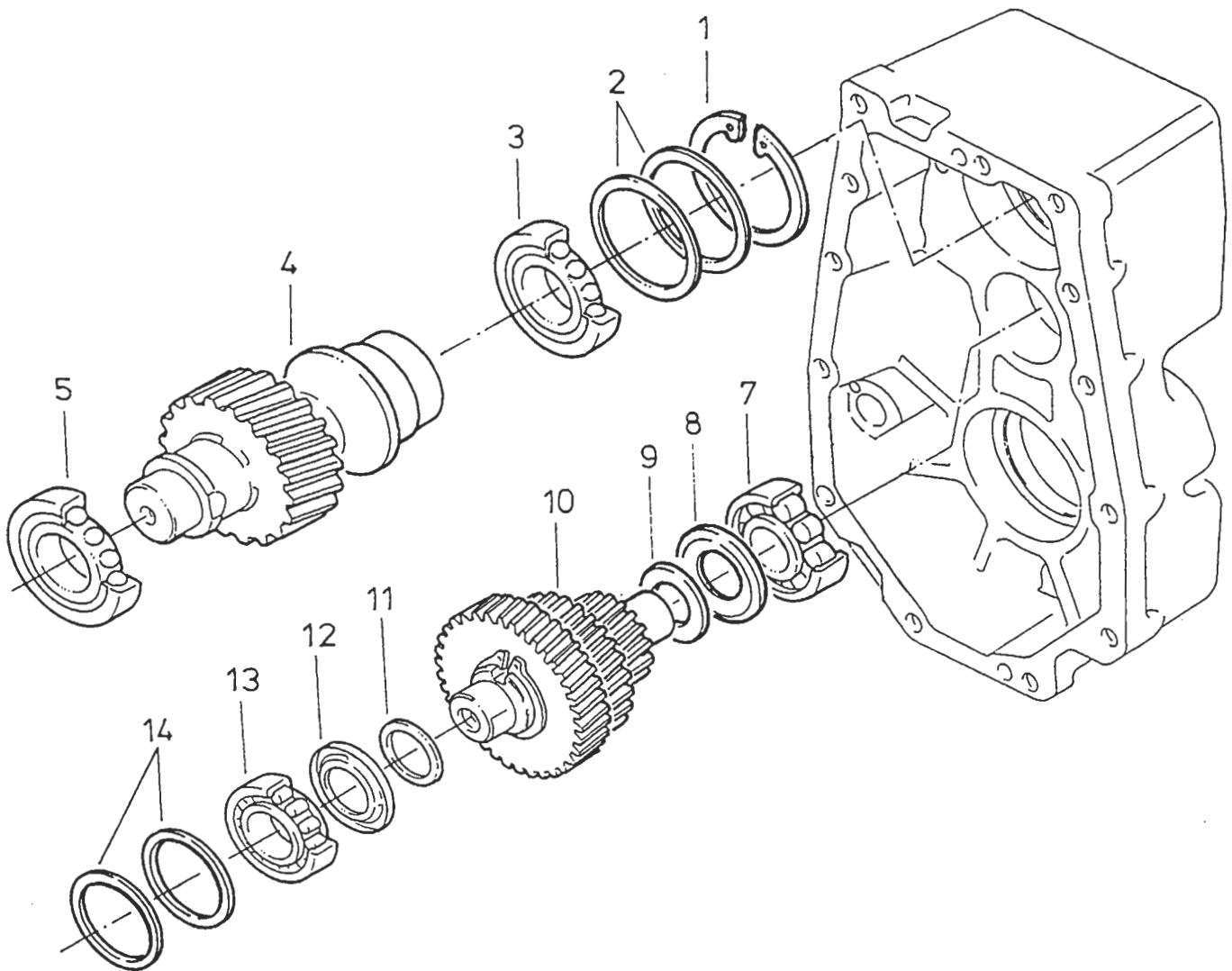
VL 46/1
LOK 46/0
TIM 02/0

ERSATZTEILBILD



Bildnummer: 40.001.041.A

Bezeichnung: Getriebegruppe



SPARE PARTS LIST

Description: Transmission Assembly Group
Drawing No. : 40.001.041.A
List No. : 40.001.089.01
Date of Creation : 22.03.1995



Pos.	Part Number	Part Description	Qty.	Remarks	DIN
1	122.801	CIRCLIP RING	1	110x4	472
2	03.2108*.001.0	DISK SET	1	th=1,0 / 0,3 / 0,5	
2	121.274	FITTING WASHER	n / a	90x110x1,0	
2	121.213	FITTING WASHER	n / a	90x110x0,3	
2	121.214	FITTING WASHER	n / a	90x110x0,5	
2	121.415	FITTING WASHER	n / a	90x110x2,0	
3	112.102	GROOVED BALL BEARING	1	6212 - 2RSR / 2RS1	
4	03.98050.197.0	DRIVE PINION	1	Z = 15	
5	112.104	GROOVED BALL BEARING	1	6310 - 2RSR / 2RS1 C3	
6	...				
7	113.043	CYLINDER ROLLER BEARING	1	NJ 230 7E	
8	118.745	NILOS-RING	1	NUP 2307 AV	
9	121.103	SUPPORTING WASHER	1	35x45x2,5	988
10	03.22050.073.0	GEAR BLOCK	1	Z = 15 / 21 / 40	
11	121.102	SUPPORTING WASHER	1	40x50x2,5	
12	118.753	NILOS-RING	1	NUP 2208 AV	
13	113.021	CYLINDER ROLLER BEARING	1	NJ 2208 EC	
14	03.2108*.002.0	DISK SET	1	th=1,0 / 0,3 / 0,5	
14	121.409	FITTING WASHER	n / a	63x80x1,0	
14	121.408	FITTING WASHER	n / a	63x80x0,3	
14	121.275	FITTING WASHER	n / a	63x80x0,5	

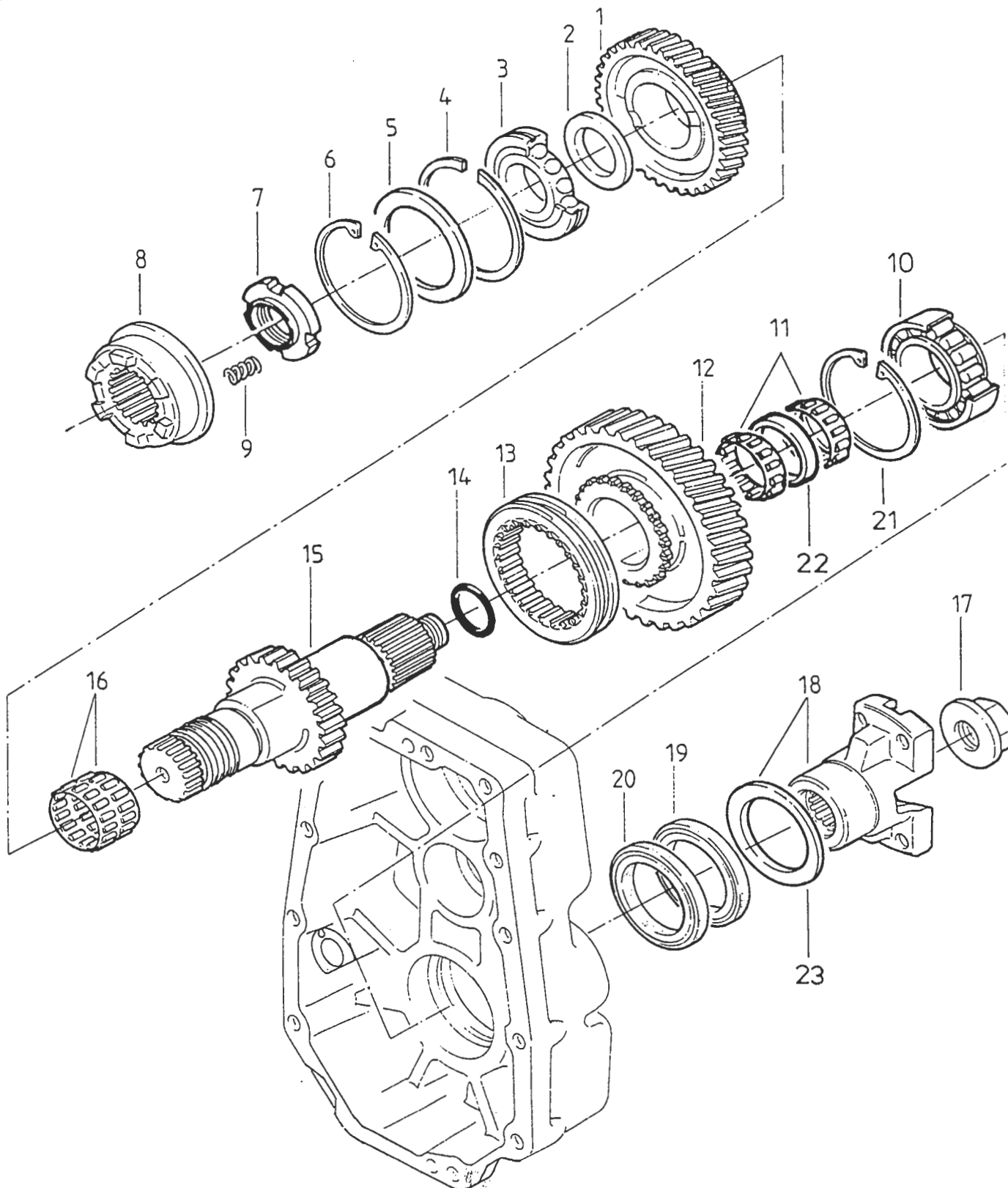
VL 46/1
LOK 46/0
TIM 02/0

ERSATZTEILBILD



Bildnummer: 40.001.042.A

Bezeichnung: Getriebegruppe



Blue C.7

SPARE PARTS LIST

Description: Transmission Assembly Group
 Drawing No. : 40.001.042.A
 List Number: 40.001.086.01
 Date of Creation: 07.09.1994



Pos.	Part Number	Part Description	Qty.	Remarks	DIN
1	03.98040.249.0	GEAR	1	z = 43	
2	03.73150.063.0	WASHER	1		
3	112.037	GROOVED BALL BEARING	1	6311 NC3	
4	122.308	SNAP RING	1	Sp 120	5417
5	121.165	SUPPORTING WASHER	1	SS 105x130x3,5	
6	122.804	SNAP RING	1	130x4	472
7	03.73290.062.0	NUT	1	M52x1,5	
8	03.98131.071.0	SHIFTING SLEEVE	1		
9	03.73310.036.0	COMPRESSION SPRING	10		
10	113.55:00	CYLINDER ROLLER BEARING	1	NU 214 EC / C3	
11	113.271	NEEDLE BEARING CAGE	2	K 60x68x25 2S	
12	03.98040.230.0	GEAR	1	z = 50	
13	03.98130.080.0	SHIFTING SLEEVE	1		
14	117.013	O-RING	1	42x4,5	72 NBR 872
15	03.72220.039.0	SHAFT	1		
16	113.271	NEEDLE BEARING CAGE	2	K 60x68x25	2S
17	03.73290.057.0	NUT	1	M40x1,5	adhesive
18	30.21070.131.0	CARDAN FLANGE / WASHER	1		
19	116.215	SEAL	1	85x110x12	BA SL
20	116.214	SEAL	1	85x110x12	BA
21	122.810	CIRCLIP RING	1	125x4	472
22	05.73070.056.0	CENTERING SLEEVE	1		
23	03.73150.053.0	WASHER	1		

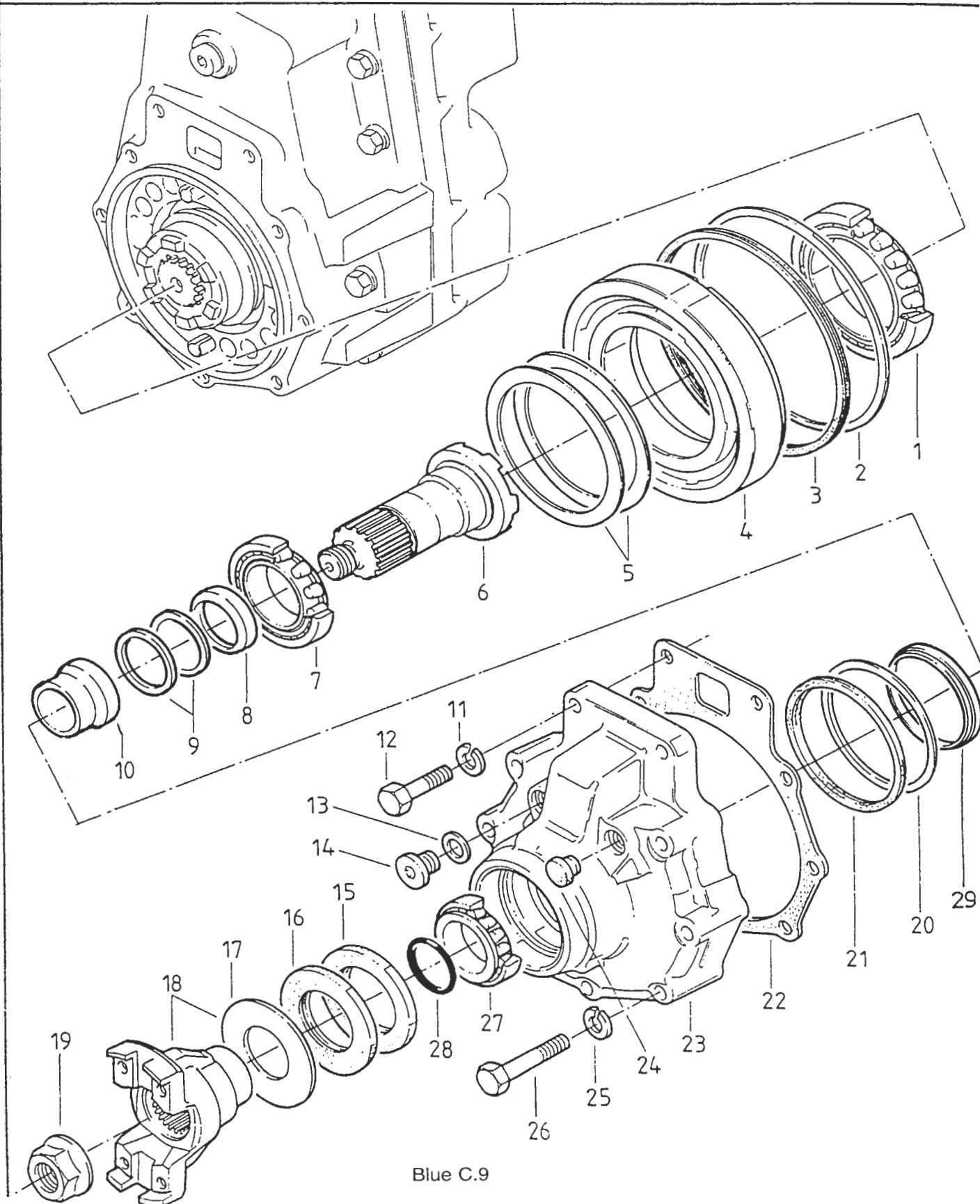
LOK 36-4
T/M 02-0

ERSATZTEILBILD



Bildnummer: 40.001.028.B

Bezeichnung: Getriebegruppe



Blue C.9

SPARE PARTS LIST

Description: Transmission Assembly Group
 Drawing No. : 40.001.028.B
 List Number: 40.001.090.01
 Date of Creation: 22.03.1995



Pos.	Part Number	Part Description	Qty.	Remarks	DIN
1	111.175	GROOVED BALL BEARING	1	37431A / 37625	
2	118.765	SUPPORTING WASHER 0230	1	no split	
3	118.756	QUADRING 0230	1		
4	05.52521.071.1	PISTON	1		
5	03:2108*.011.0	DISK SET	1	th=1,0 / 0,5	
5	121.426	FITTING WASHER	n / a	PS 140x170x1	
5	121.427	FITTING WASHER	n / a	PS 140x170x0,5	
6	03.72221.020.1	OUTPUT SHAFT	1		
7	111.004	GROOVED BALL BEARING	1	320 14X	
8	03.73150.050.0	WASHER	1		
9	03.7317*.050.0	DISK SET	1	th=0,5 - 1,0 every 0,1	
9	03.73170.050.0	WASHER	n / a	th=0,5	
9	03.73170.050.0	WASHER	n / a	th=0,6	
9	03.73170.050.0	WASHER	n / a	th=0,7	
9	03.73170.050.0	WASHER	n / a	th=0,8	
9	03.73170.050.0	WASHER	n / a	th=0,9	
9	03.73170.050.0	WASHER	n / a	th=1,0	
10	03.73110.079.0	SPACER SLEEVE	1		
11	119.017	LOCK WASHER	2	12 spring steel	
12	151.320	HEX. SCREW	2	M12x40 10.9	933
13	118.503	SEAL RING	1	A14x18x1,5 Cu	7603
14	104.105	SCREW PLUG	1	M14x1,5 8.8	908
15	116.214	SEAL	1	85x110x12 BA	
16	116.215	SEAL	1	85x110x12 BASL	
17	03.73150.067.0	WASHER	1		
18	30.21070.127.0	CARDAN FLANGE / WASHER	1		
19	03.73290.057.0	NUT	1	M40x1,5 adhesive	
20	118.766	SUPPORTING WASHER 0140	1	split	
21	118.754	QUADRING 0140	1		
22	03.73190.030.0	SEALING	1	th=0,5 AFM 38	
23	05.75040.045.0	HOUSING	1		
24	125.643	PLUG	1	GPN 300 - F091 Kapsto	
25	119.017	LOCK WASHER	7	12 spring steel	
26	151.338	HEX. SCREW	7	M12x80 10.9	931
27	111.071	GROOVED BALL BEARING	1	320 11X	
28	117.090	O-RING	1	45x4,5 72 NBR 872	
29	118.763	WIPER RING	1	ASA 105x115x7 / 10 NBR	

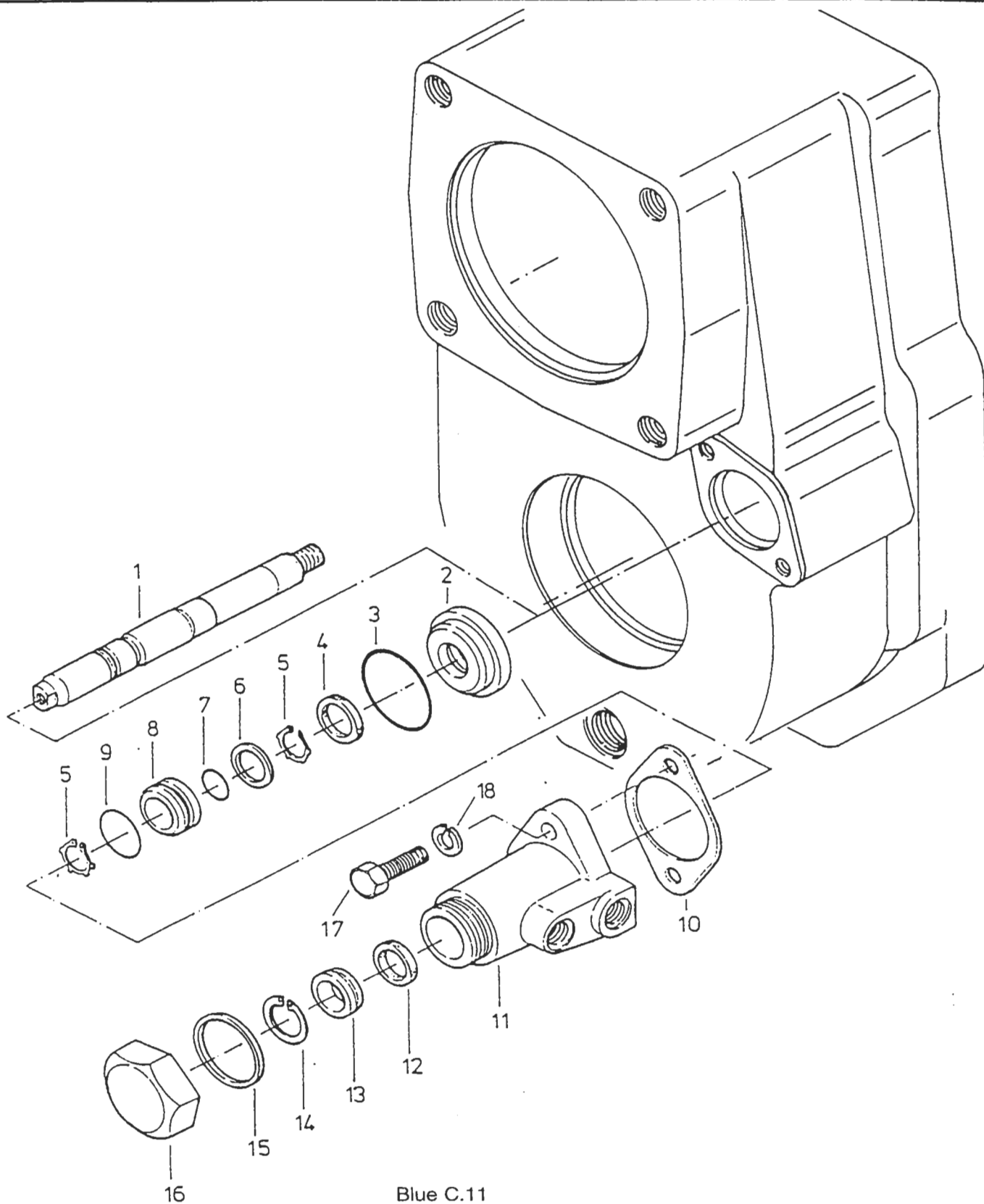
VL 46/1
LOK 46/0
TIM 02/0

ERSATZTEILBILD



Bildnummer: 40.001.043.A

Bezeichnung: Getriebegruppe



Blue C.11

SPARE PARTS LIST

Description: Transmission Assembly Group - Cylinder
 Drawing No. : 40.001.043.A
 List Number: 40.001.087.01
 Date of Creation: 07.09.1994



Pos.	Part Number	Part Description	Qty.	Remarks	DIN
1	03.98160.062.0	SHIFTING ROD	1		
2	03.98121.037.0	CENTERING SLEEVE	1		
3	117.013	O-RING	1	42x4,5	72 NBR 872
4	118.724	SHAFT SEAL	1	S8 - 22	Merkel
5	122.050	SEEGER - K -RING	2	AK 20x1,2	983
6	121.163	SUPPORTING WASHER	1	SS 20x28x2	
7	117.092	O-RING	1	15x3	72 NBR 872
8	05.52520.073.0	PISTON	1		
9	118.744	SHAFT SEAL	1	SIMKO 20	
10	937-850	SEALING	1	th=1,0	AFM 31
11	05.52630.049.0	CYLINDER	1		
12	118.643	SHAFT SEAL	1	S8 - 20	Merkel
13	05.73070.049.0	RING	1		
14	122.611	CIRCLIP RING	1	30x1,2	472
15	118.526	SEAL RING	1	A40x47x2	Cu 7603
16	03.73020.003.0	COVER	1		
17	101.260	HEX. SCREW	2	M10x35	10.9 933
18	119.015	LOCK WASHER	2		10 spring steel

Spare parts list

Type: TIM 04/0
Description: Transfer Case
Valid ex factory .-No.: 1
Date of creation: 18.07.1996



NAF

Contents:

Description	List	Drawing	Page
Assembly drawing	---	VG 65-516	2
Transmissions assembly	40.001.138.01	40.001.082.A	3 5
Transmissions assembly	40.001.139.01	40.001.084.A	6 7
Transmissions assembly	40.001.140.01	40.001.083.A	8 9
Transmissions assembly	40.001.080.02	40.001.055.A	10 11

VG 65 TRANSFER CASE (PRODUCTION MACHINES)

Important!

Indicate at order:

Vehicle type, Manufacturer
NAF type, Factory .-No.
Description, Part number
Quantity
Exact shipping adress, Method of shipment

Neunkirchener Maschinen-und
Achsenfabrik GmbH & Co. KG

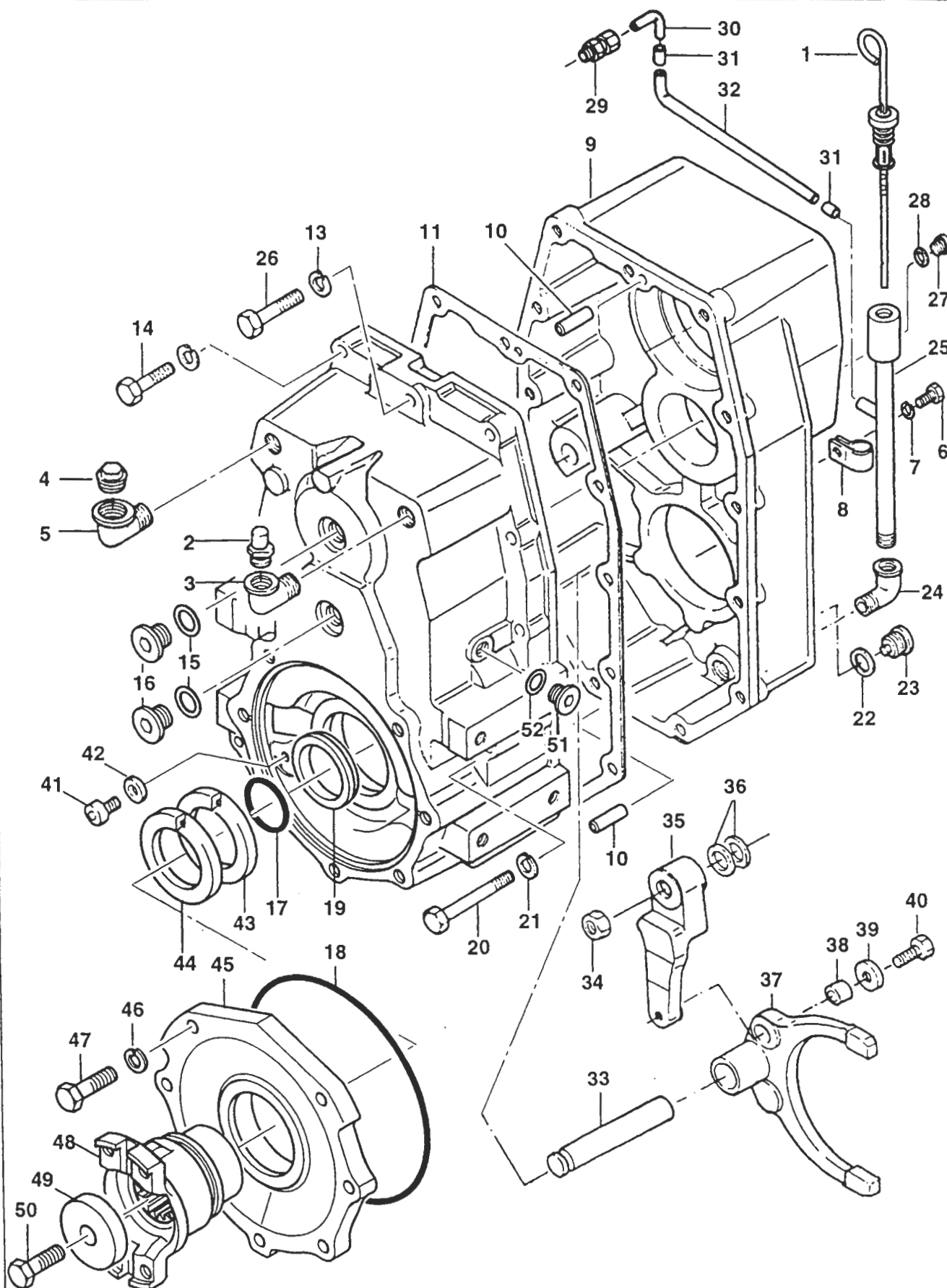
Industriestraße 17
91077 Neunkirchen a.B.

Phone: (9134) 702 0
Fax: (9134) 702 99

ERSATZTEILBILD

Bildnummer : 40.001.082.A

Bezeichnung : Getriebegruppe



Spare parts list

Description: Transmissions assembly group
 Drawing No: 40.001.082.A
 List No: 40.001.138.01
 Date of creation: 18.07.1996

NAF



Pos.	Part number	Part description	Qty.	Remarks	DIN
---	VG 65-516	Transfer case complete	1		
1	7325.027	Dipstick	1		
2	1250.015	Breather	1	R 1/2"	
3	1250.621	90 deg. Elbow °	1	IA 1/2" SCHWARZ RICHTER U.RÖRIG	
4	1040.174	Screw plug	1	R 3/4" 5.8	909
5	1750.659	90 deg. Elbow °	1	RED.IA 3/4"x1/2 RICHTER U.RÖRIG	
6	1010.101	Hexagon screw	1	M8x20, 10.9	933
7	1190.024	Locking clip	1	VSK 8, spring steel DACROM	
8	1750.794	Pipe saddle	1	D17X20 RS1, NORMA	
9	9801.168	Housing	1		
10	1200.258	Straight pin	2	10m6x28, st. hardened	6325
11	7319.034	Gasket	1	0.75 stark, AFM38 WW. AFM31	
12	9801.245	Housing	1		
13	1190.015	Locking clip	11	VSK 10, spring steel DACROM	
14	1010.205	Hexagon screw	9	M10x50, 10.9	931
15	1180.525	Seal ring	2	A21x26x1.5, CU	7603
16	1040.125	Screw plug	2	R 1/2 "	908
17	1170.792	O-ring	1	OR 55x5 72NBR872	
18	1170.725	O-ring	1	OR 210x4, 72NBR872	
19	7311.093	Spacer sleeve	1		
20	1010.220	Hexagon screw	3	M10x100, 10.9	931
21	1190.015	Locking clip	2	VSK 10, spring steel DACROM	
22	1180.502	Seal ring	1	A20x24x1.5, CU	7603
23	9556.021	Screw plug	1	M20x1.5, with magnet	908
24	1750.660	90 deg. Elbow.	1	IA3/8" SCHWARZ , RICHTER&ROERIG	
25	7341.025	Oil riser pipe	1		
26	1010.210	Hexagon screw	1	M10x60, 10.9	931
27	1040.115	Screw plug	1	M10x1, 5.8	908
28	1180.505	Seal ring	1	A10x13.5x1, CU	7603
29	1250.797	Screw coupling	1	M10x1	
30	1750.702	Tube turn 90 degree	1	ART.NR.RK0106	
31	1750.701	Hose jacket	2	324105326047	
32	5273.016	Hose pipe	1	L=250, MAS-K0004	
33	9816.065	Shifting rod	1		
34	1060.003	Hex. nut	1	M14x1.5, 10	934
35	9809.058	Shifting lever	1		
36	1210.158	SEEGER-Washer	n.B.	14x20x1,5	
37	9809.062	Shifting lever compl	1	with 2 bushing	
38	7311.057	Spacer bush	1		
39	7316.057	Plate	1		
40	1010.111	Hexagon screw	1	M8x30, 8.8	933
41	1020.113	Allen screw	1	M8x16, 8.8 VP n.TI-58	912
42	7316.057	Plate	1		
43	1160.121	Oil seal	1	80x100x10 BA	
44	1160.217	Oil seal	1	80x100x10 BASL	
45	7301.039	Cover	1		

Spare parts list

Description: Transmissions assembly group
Drawing No: 40.001.082.A
List No: 40.001.138.01
Date of creation: 18.07.1996

NAF



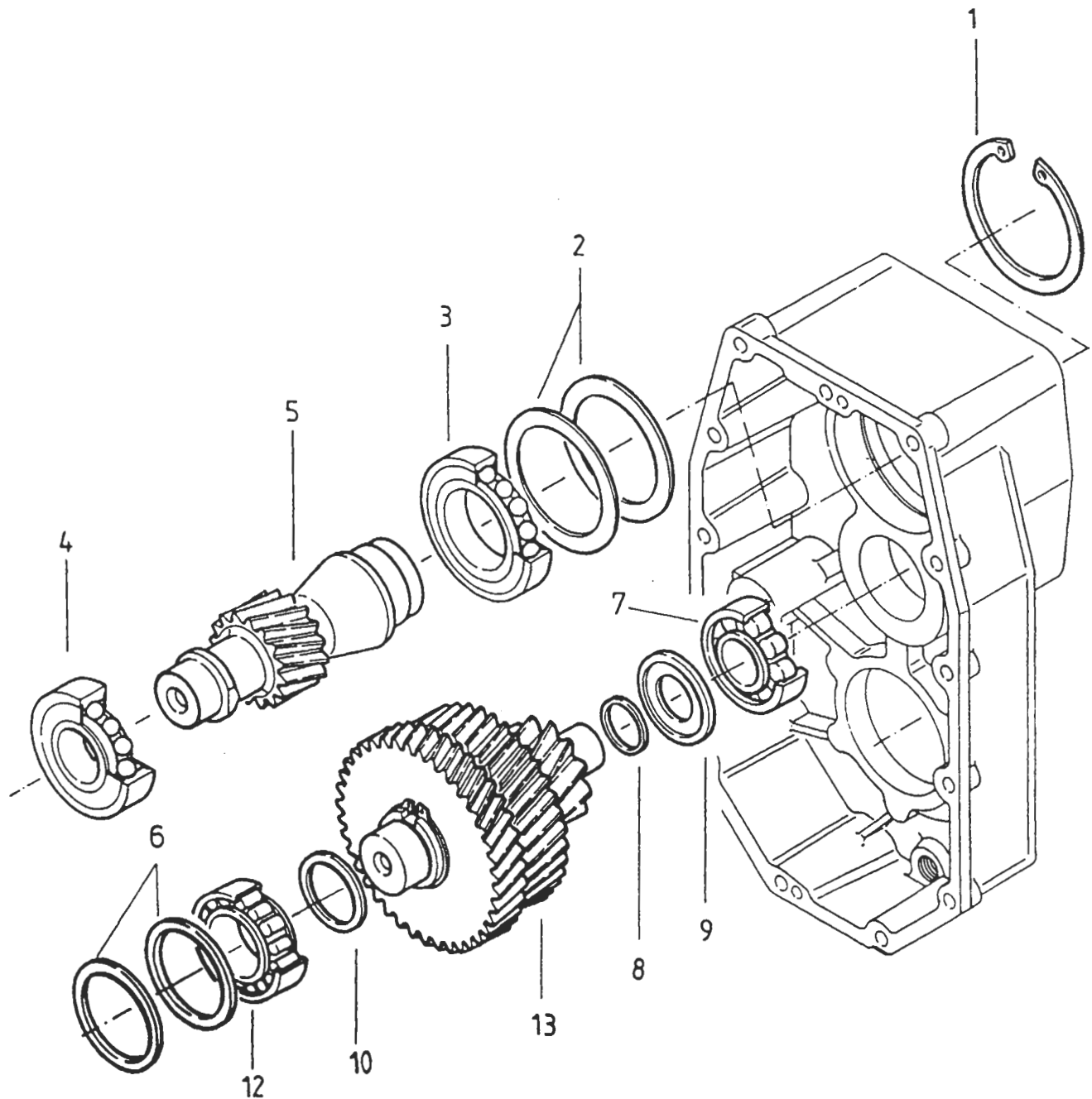
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46	1190.017	Locking clip	7	VSK 12 spring steel DACROM	
47	1010.346	Hexagon screw	7	M12x35, 10.9	933
48	7521.167	Cardan flange	1		
49	7315.094	Plate	1		
50	1010.562	Hexagon screw	1	M16x35, 10.9 n.TI- 58	933
51	1040.107	Screw plug	1	M18x1,5	908
52	1180.508	Seal ring	1	A18x22x1,5, CU	7603

ERSATZTEILBILD



Bildnummer: 40.001.084.A

Bezeichnung: Getriebegruppe



Spare parts list

Description: Transmissions assembly group
 Drawing No: 40.001.084.A
 List No: 40.001.139.01
 Date of creation: 18.07.1996



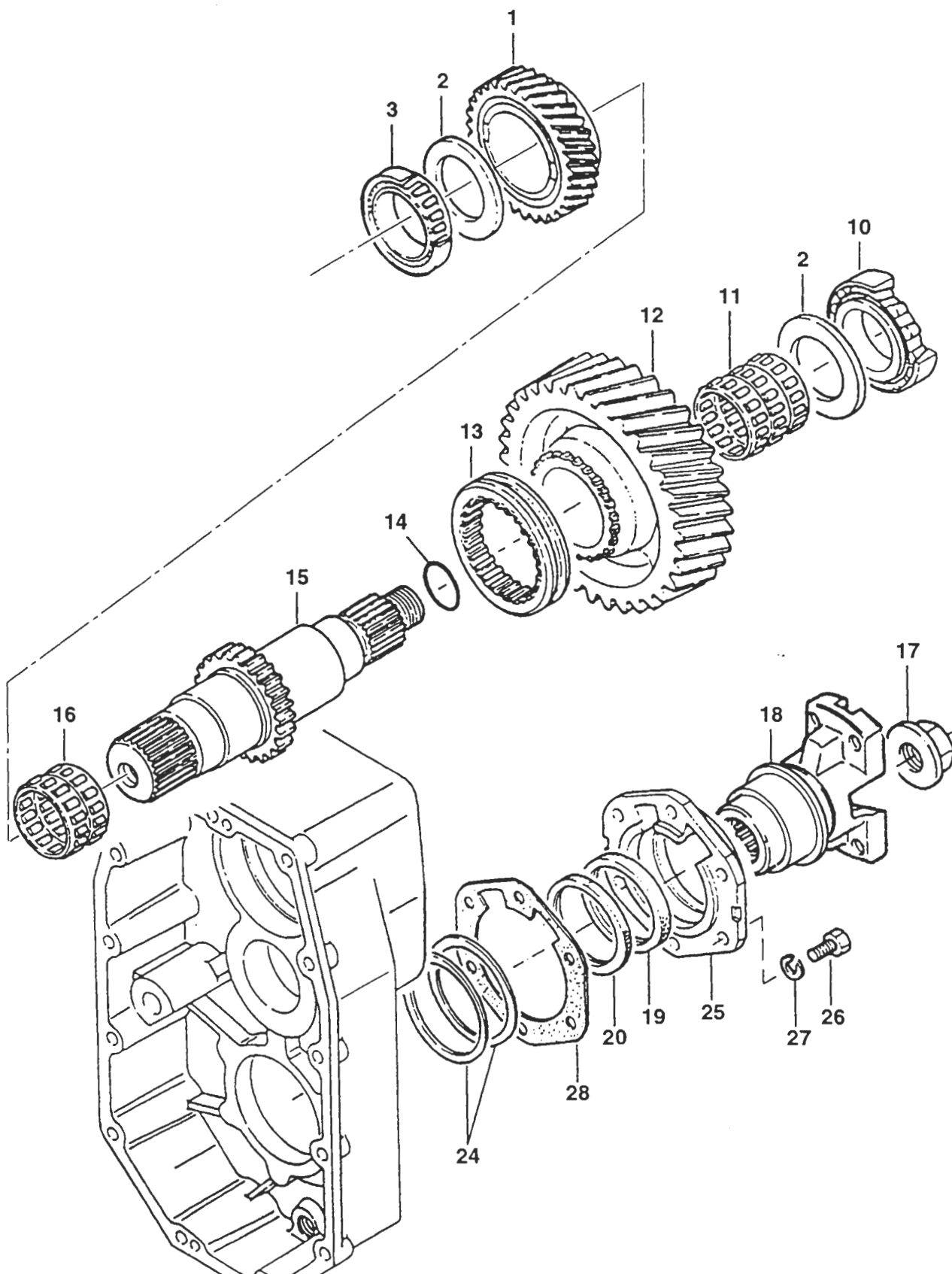
NAF

Pos.	Part number	Part description	Qty.	Remarks	DIN
1	1220.810	Seeger-ring	1	J125x4	472
2	2108.012	Washer package	1	s=1,0 / 0,5 / 0,3	
2	1210.429	SEEGER-washer"	n.B.	100x125x1,0	
2	1210.430	"	"	100x125x0,5	
2	1210.431	"	"	100x125x0,3	
3	1120.091	Ball bearing	1	6214 2RSR C3	
4	1120.104	Grooved ball bearing	1	6310-2RSR C3	
5	9805.224	Drive pinion	1	Z=16	
6	2108.013	Washer package	1	s=1,0 / 0,5 / 0,3	
6	1210.229	SEEGER-washer"	n.B.	80x100x1,0	
6	1210.228	"	"	80x100x0,5	
6	1210.267	"	"	80x100x0,3	
7	1130.050	Cylinder roller bearing	1	NJ 2308 EC/C3	
8	1210.102	Supporting washer	1	SS 40x50x2.5	
9	1180.762	Nilos-ring	1	NUP2308AV	
10	1210.121	Supporting washer	1	SS 55x68x3	
11	---				
12	1130.049	Cylinder roller bearing	1	NJ 2211 EC3	
13	2205.040	Gear block	1	Z=12/39/37	

ERSATZTEILBILD

Bildnummer : 40.001.083.A

Bezeichnung : Getriebegruppe





ERSATZTEILLISTE

Bezeichnung: Transmissions assembly group
Bildnummer: 40.001.083.A
Listennummer: 40.001.140.01
Erstellungsdatum: 18.07.1996

NAF



Pos.	Part number	Part description	Qty.	Remarks	DIN
1	9804.219	Gear	1	Z=31	
2	7315.060	Plate	2		
3	1110.003	Tapered-roller bearing	1	D65XD100X23, 32013X	
4	---				
5	---				
6	---				
7	---				
8	---				
9	---				
10	1110.014	Tapered-roller bearing	1	D60XD110X29.75	
11	1130.272	Needle roller cages	3	K75X83X23 2S	
12	9804.220	Gear	1	Z=34	
13	9813.080	Shifting sleeve	1		
14	1170.090	O-ring	1	OR 45x4.5, 72NBR872	
15	7222.057	Shaft	1		
16	1130.272	Needle roller cages	2	K75X83X23 2S	
17	7329.057	Nut	1	M40x1.5	
18	7521.159	Cardan flange	1		
19	1160.217	Oil seal	1	80x100x10 BASL	
20	1160.121	Oil seal	1	80x100x10 BA	
21	---				
22	---				
23	---				
24	2108.021	Washer package	1	s=0,5 / 0,6 / 0,7 / 0,8 / 0,9 / 1,0	
25	7301.029	Cover	1		
26	1010.201	Hexagon screw	6	M10x25, 10.9	933
27	1190.015	Locking clip	6	VSK 10, FEDERSTAHL DACROM	
28	7319.033	Gasket	1	0.5 stark, AFM38 WW. AFM31	

2042-12

13

14

VL 48-0

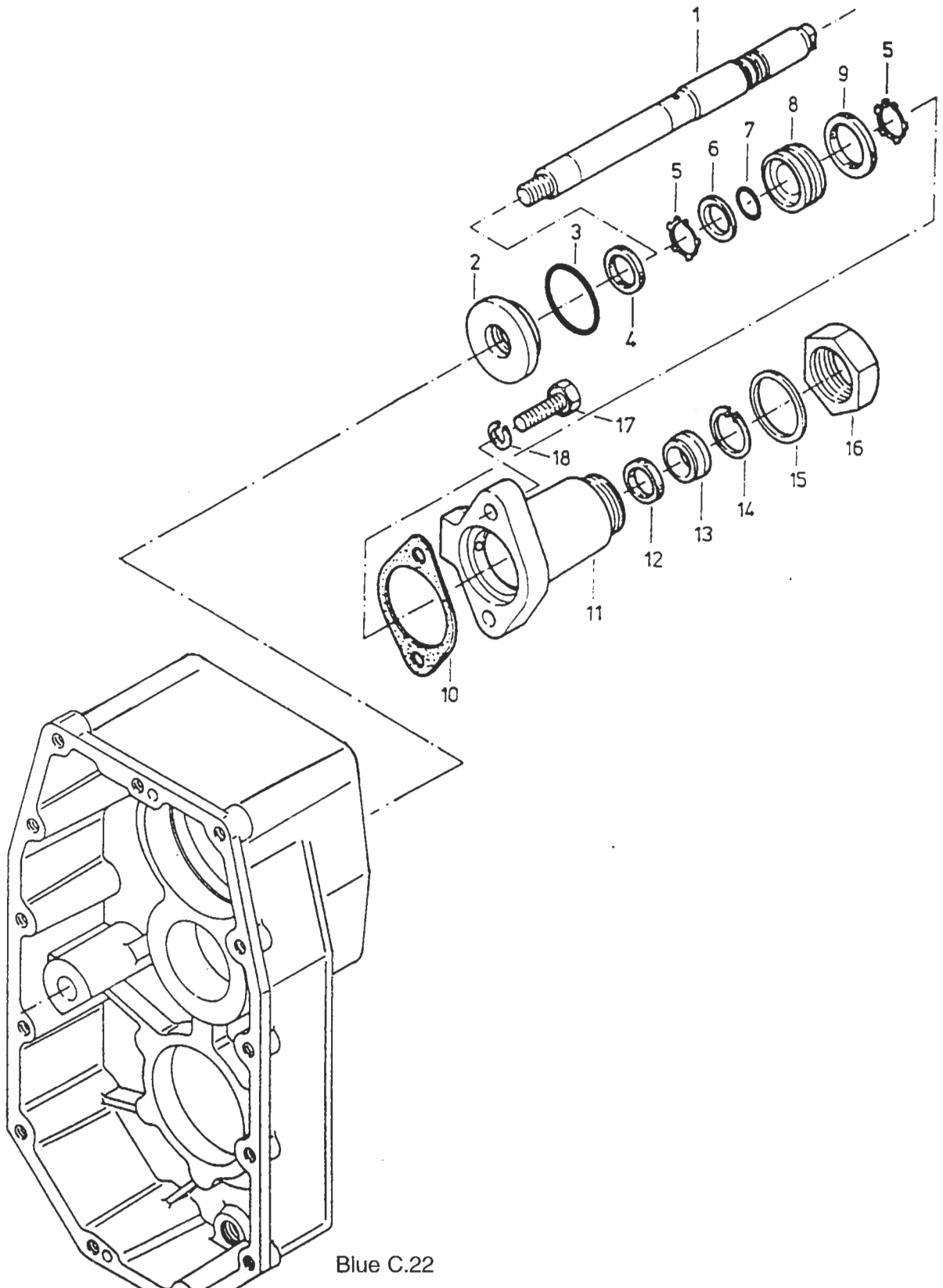
TIM04-0

ERSATZTEILBILD



Bildnummer: 40.001.055.A

Bezeichnung: Getriebegruppe



Blue C.22

Spare parts list

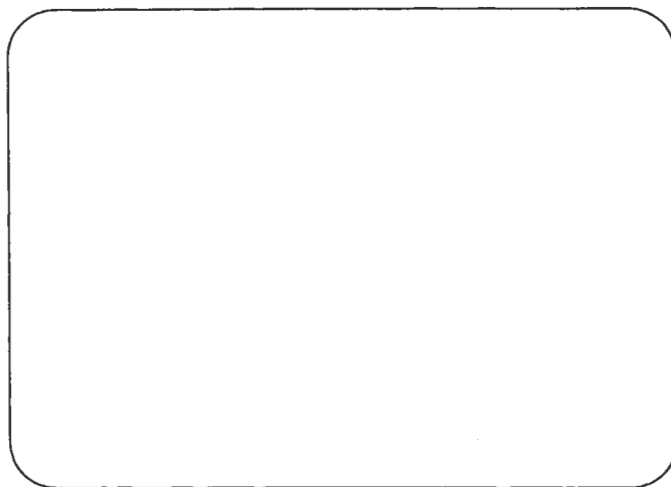
Description: Transmissions assembly cylinder
Drawing No: 40.001.055.A
List No: 40.001.080.02
Date of creation: 01.07.1996

NAF



Pos.	Part number	Part description	Qty.	Remarks	DIN
1	9816.066	Shifting rod	1		
2	9812.037	Eccentric ring	1		
3	1170.013	O-ring	1	OR 42x4.5, 72NBR872	
4	1180.724	Shaft seal	1	D22xD30x6, NBR/texture	
5	1220.050	SEEGER-K-RING	2	AK 20x1.2	983
6	1210.163	Supporting washer	1	SS 20x28x2	
7	1170.092	O-ring	1	OR 15x3, 72NBR872	
8	5252.072	Pistons	1		
9	1180.767	Shaft seal	1	SIMKO 20 40x29x4	
10	9850.037	Gasket	1	th = 1.0, AFM38 WW. AFM31	
11	5263.048	Cylinder	1		
12	1180.643	Shaft seal	1	D20xD28x6, NBR/texture	
13	7307.049	Ring	1		
14	1220.611	Seeger-ring	1	30x1.2	472
15	1180.526	Seal ring	1	A 40x47x2 CU	7603
16	7302.003	Cover	1		
17	1010.227	Hexagon screw	2	M10x35, 10.9	931
18	1190.015	Locking clip	2	VSK 10, spring steel DACROM	

Blue - D



Vendor Component Info Packet -

***NAF
Front Tandem Bogie Axle
PN# 19054***

SPARE PARTS LIST

Description: OUTER COMPONENT R 11BB WITH BRAKE
 Drawing No. : 20.048.000.A
 List Number: 20.047.000.03
 Date of Creation: 15.03.1995



Pos.	Part Number	Part Description	Qty.	Remarks	DIN
42	117.732	O-RING	2	290x5	72 NBR 872
43	120.286	DOWEL PIN	4	16m6x32	st. hardened 6325
44	05.75280.013.0	ATTACHMENT FLANGE	2		
45	120.286	DOWEL PIN	4	16m6x32	st. hardened 6325
46	119.013	LOCK WASHER	24	16	spring steel
47	101.501	HEX. SCREW	24	M16x40	10.9 931
48	104.103	SCREW PLUG	4	M30x1,5	8.8 908
49	118.507	SEAL RING	4	A30x36x2	Cu 7603
50	03.73080.024.0	SHAFT SEAL	2	Viton	
51	03.73310.032.0	TENSION SPRING	12		
52	05.52520.054.1	PISTON	2		
53	05.98670.027.0	DISK CARRIER	2		
54	104.217	COUNTER SUNK BOLT	4	M8x20	8.8 7991
55	712-308	O-RING	2	190x4	Viton
56a	03.73440.023.0	OUTER DISK	16	th=2,3	
56b	03.73440.022.0	OUTER DISK	n / a	th=2,8	
57	03.73452.017.0	INNER DISK	14	th=2,9	
58	920-276	O-RING	2	140x4	Viton
59	05.52630.037.1	CYLINDER	2		
60	104.105	SCREW PLUG	2	M14x1,5	8.8 908
61	118.503	SEAL RING	2	A14x18x1,5	Cu 7603
62	03.71490.078.0	PIPING COMPLETE	2		
63	118.530	SEAL RING	8	A10x16x1	Cu 7603
64	104.335	HOLLOW BOLT	4	LL 6	7643
65	05.98340.001.0	COVER	2		
66	119.013	LOCK WASHER	4	16	spring steel
67	101.504	HEX. SCREW	4	M16x55	10.9 931
68	102.521	ALLAN SCREW	4	M16x45	10.9 VP 912
69	125.594	THREADED STUD	2	M14x1,5 / M10x1	
70	118.521	SEAL RING	2	14x20x1,5	Cu 7603
71	03.7317*.027.0	DISK SET	2	th=1,5 - 2,5 every 0,25	
71	03.73170.027.0	WASHER	n / a	th=2,5	
71	03.73171.027.0	WASHER	n / a	th=2,25	
71	03.73172.027.0	WASHER	n / a	th=2,0	
71	03.73173.027.0	WASHER	n / a	th=1,75	
71	03.73174.027.0	WASHER	n / a	th=1,5	

SPARE PARTS LIST

Type: TIM 01/0
Description: Tandem Axle
Valid as of Factory No.: TIM 01/0 01
Date of Creation: 21.03.1995



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Outer Component with Brake	20.047.000.03	20.048.000.A	15-17

IMPORTANT!

When ordering include the following

Vehicle Type, Manufacturer
NAF-Type, Factory No.
Part Description, Part Number
Quantity
Exact Shipping Address, Method of Shipment

Neunkirchener Maschinen- und
Achsenfabrik GmbH & Co. KG

Industriestraße 17
91077 Neunkirchen a.B.

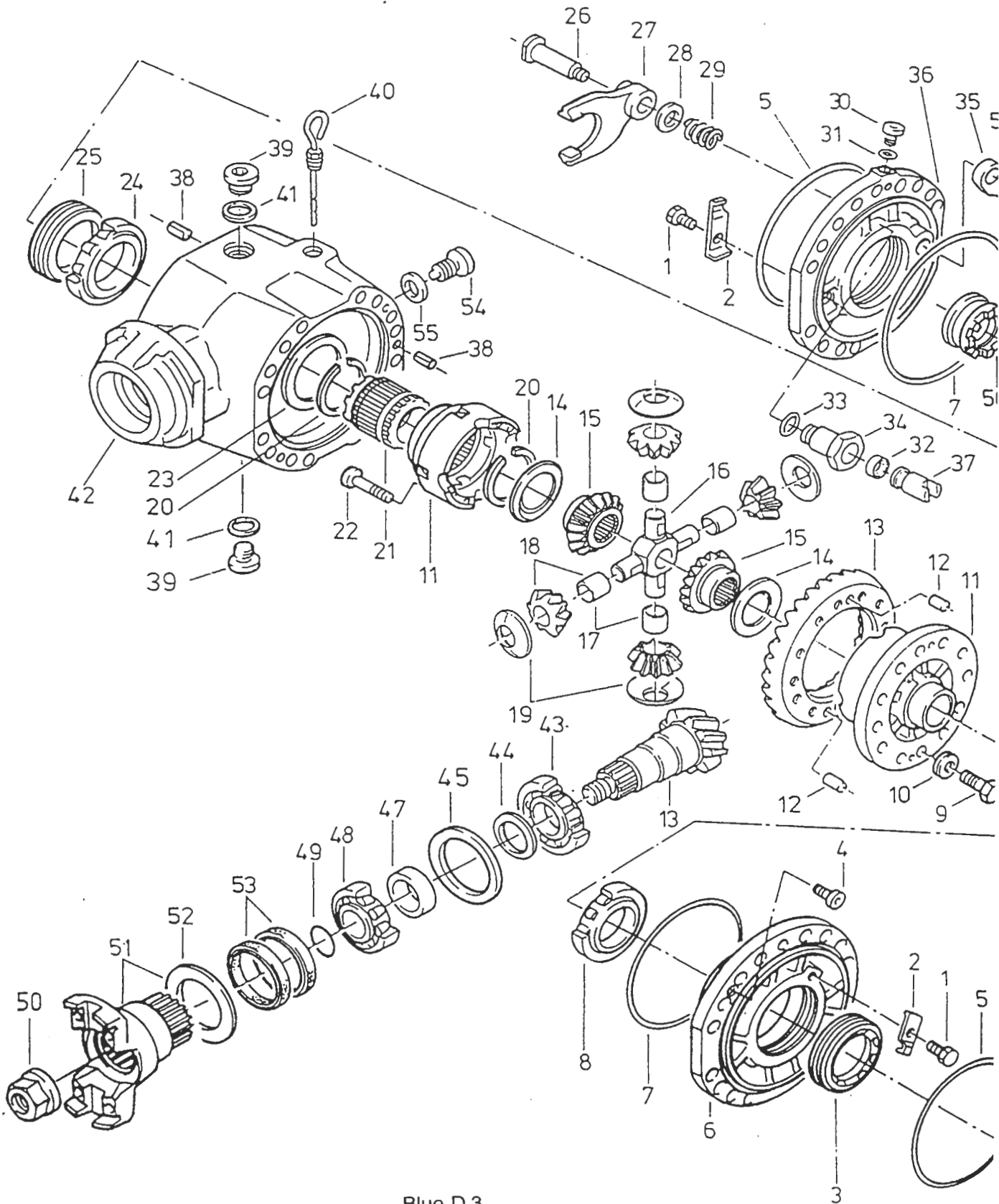
Telephone: (09134) 702 0
Telefax: (09134) 702 99

ERSATZTEILBILD



Bildnummer: 10.059.000.A

Bezeichnung: Differential R11



SPARE PARTS LIST

Description: Differential R11
 Drawing No.: 10.059.000.A
 List Number: 10.081.000.01
 Date of Creation: 06.04.1994



Pos.	Part Number	Part Description	Qty.	Remarks	DIN
		Diff. complete	1		
1	101.129	HEX. BOLT	2	M8x16	10.9 VP 933
2	910-566	LOCKING PLATE	2		
3	934-310	NUT	1		
4	102.203	ALLAN SCREW	4	M10X16	8.8 7984
5	117.701	O-RING	2	255x4	72 NBR 872
6	05.75270.098.0	FLANGE	1		
7	117.716	O-RING	2	265x4	72 NBR 872
8	111.087	TAPERED ROLLER BEARING	1	JM 612 949/910	
9	101.534	HEX. BOLT	16	M16x40 10.9 VP	933
10	03.73160.045.0	DISK	16		
11	30.21020.083.0	DIFFERENTIAL-CAGE COMPL.	1		
12	120.229	STRAIGHT PIN	2	12m6x32	St. hardened 6325
13	03.21010.066.0	CROWN GEAR/PINION	1	z=28/10	
14	03.7517*.015.0	DISK SET	2	th=1,5/1, 7/2, 0	
14	03.75171.015.0	WASHER	n/a	92x63x1,5	
14	03.75172.015.0	WASHER	n/a	92x63x1,7	
14	03.75173.015.0	WASHER	n/a	92x63x2,0	
15	05.75130.029.0	DIFFERENTIAL GEAR	2		
16	715-515	CROSS BOLT	1		
17	716-516	LINER	1		
18	30.21050.003.0	PLANETARY WHEEL / LINER	4		
19	715-518	PRESSURE DISK	4		
20	122.311	CIRCLIP	2	SW 85	
21	03.98130.058.1	CLUTCH-COUPPLING SLEEVE	1		
22	102.374	ALLAN SCREW	12	M12x80	10.9 VP 912
23	121.157	SUPPORTING WASHER	1	SS 110x140x3,5	
24	111.175	TAPERED ROLLER BEARING	1	37431A / 37625	
25	03.73290.012.0	NUT	1		
26	03.98160.039.1	GEAR SHIFT LEVER SHAFT	1		
27	05.98090.040.0	SHIFT FORK	1		
28	03.7317*.023.0	DISK SET	1	th=1,5 / 2,0 / 2,5	
28	03.73170.023.0	ADJUSTING WASHER	n / a	th=1,5	
28	03.73171.023.0	ADJUSTING WASHER	n / a	th.=2,0	
28	03.73172.023.0	ADJUSTING WASHER	n / a	th.=2,5	
29	03.73310.016.1	PRESSURE SPRING	1		
30	104.172	SCREW PLUG	1	M8x1	8.8 908
31	118.524	SEAL RING	1	A8x13x1	Cu 7603
32	118.734	U / V RING	1	range NA 150 Simrit	
33	118.507	SEAL RING	1	A30x36x2	Cu 7603
34	03.52630.054.0	CYLINDER	1		
35	03.98090.041.1	SWITCH LEVER	1		
36	05.75270.110.0	FLANGE	1		
37	03.52520.050.1	PISTON	1		
38	120.448	SPLIT SPRING PIN	2	16X36	spring steel 1481
39	104.103	SCREW PLUG	2	M30x1,5	8.8 908
40	03.95570.036.0	OIL DIP ROD	1		
41	118.507	SEAL RING	2	A30x36x2	Cu 7603

SPARE PARTS LIST

Description: Differential R11
 Drawing No.: 10.059.000.A
 List Number: 10.081.000.01
 Date of Creation: 06.04.1994



Pos.	Part Number	Part Description	Qty.	Remarks	DIN
42	05.75060.142.0	DIFF. HOUSING	1		
43	111.073	TAPERED ROLLER BEARING	1	66 520/66 584	
44	03.7317*.037.0	DISK SET	2	th=0,96-1,44 every 0,04	
44	03.73170.037.0	WASHER	n / a	th=1,44	
44	03.73171.037.0	WASHER	n / a	th=1,40	
44	03.73172.037.0	WASHER	n / a	th=1,36	
44	03.73173.037.0	WASHER	n / a	th=1,32	
44	03.73174.037.0	WASHER	n / a	th=1,28	
44	03.73175.037.0	WASHER	n / a	th=1,24	
44	03.73176.037.0	WASHER	n / a	th=1,20	
44	03.73177.037.0	WASHER	n / a	th=1,16	
44	03.73178.037.0	WASHER	n / a	th=1,12	
44	03.73179.037.0	WASHER	n / a	th=1,08	
44	03.7317A.037.0	WASHER	n / a	th=1,04	
44	03.7317B.037.0	WASHER	n / a	th=1,00	
44	03.7317C.037.0	WASHER	n / a	th=0,96	
45	03.7317*.011.1	DISK SET	1	th=2,5-3,5 every 0,25	
45	03.73170.011.1	WASHER	n / a	th=3,5	
45	03.73171.011.1	WASHER	n / a	th=3,25	
45	03.73172.011.1	WASHER	n / a	th=3,0	
45	03.73173.011.1	WASHER	n / a	th=2,75	
45	03.73174.011.1	WASHER	n / a	th=2,5	
46	...				
47	03.73110.061.0	SPACER SLEEVE	1		
48	111.030	TAPERED ROLLER BEARING	1	HM 907 643/614	
49	117.013	O-RING	1	42x4,5	72 NBR 872
50	03.73290.057.0	NUT	1	M40x1,5	glued
51	30.21070.102.0	CARDAN FLANGE	1		
52	03.73260.001.0	PROTECTION CAP	1		
53	116.208	OIL SEAL	2	80x115x10	BA
54	921-556	SCREW PLUG	1	M20x1,5 with magnet	
55	118.502	SEAL RING	1	A20x24x1,5	Cu
56	03.98130.059.1	SLIDING SLEEVE	1		7603
57	106.003	HEX. NUT GLUED	1	M14x1,5 10	934

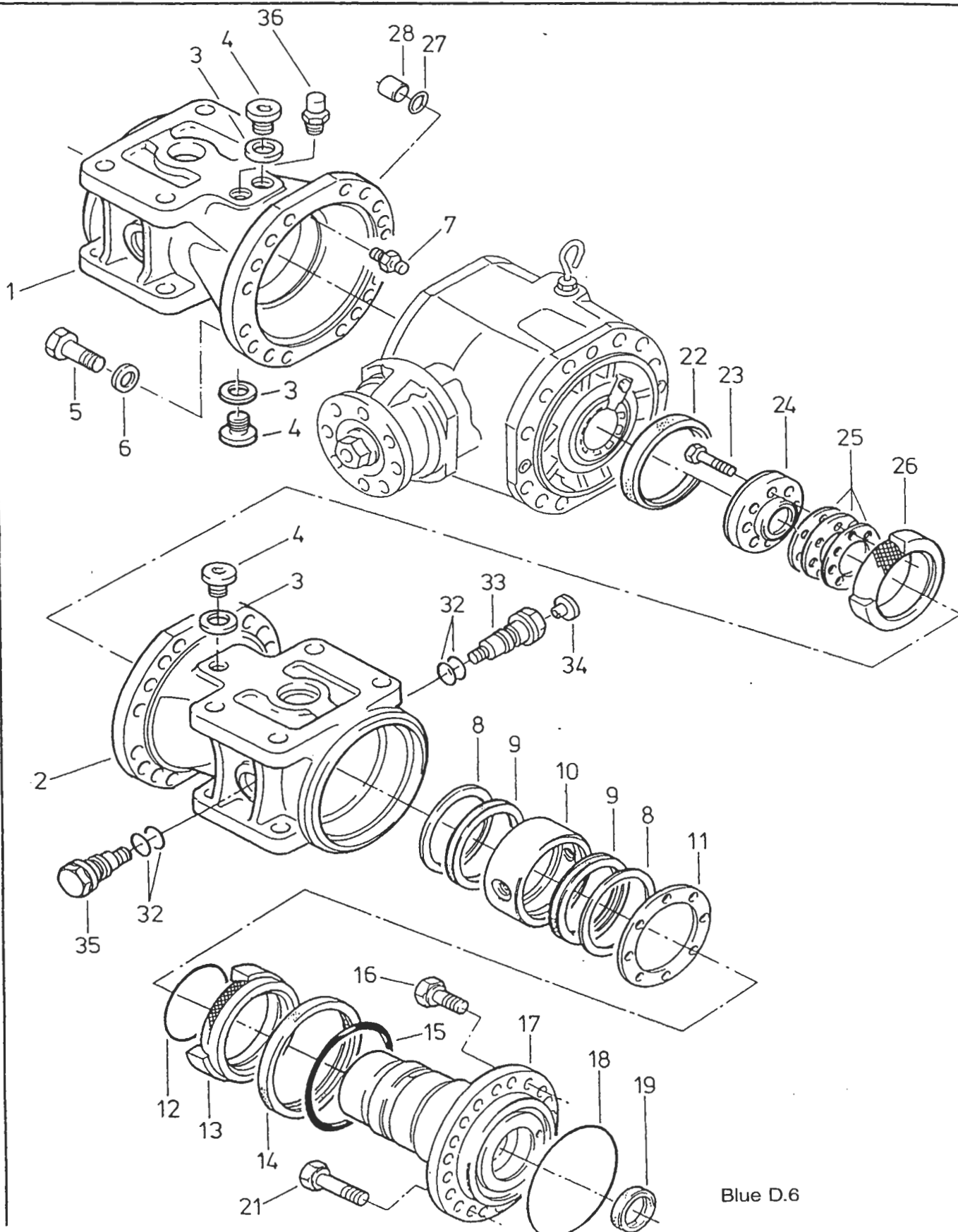
FD 13-0
SGD 02-0
TIM 01-0

ERSATZTEILBILD



Bildnummer: 30.055.000.B

Bezeichnung: Achsträger



Blue D.6

SPARE PARTS LIST

Description: Axle Beam R11
 Drawing No. : 30.055.000.B
 List No. : 30.054.000.03
 Date of Creation : 21.03.1995



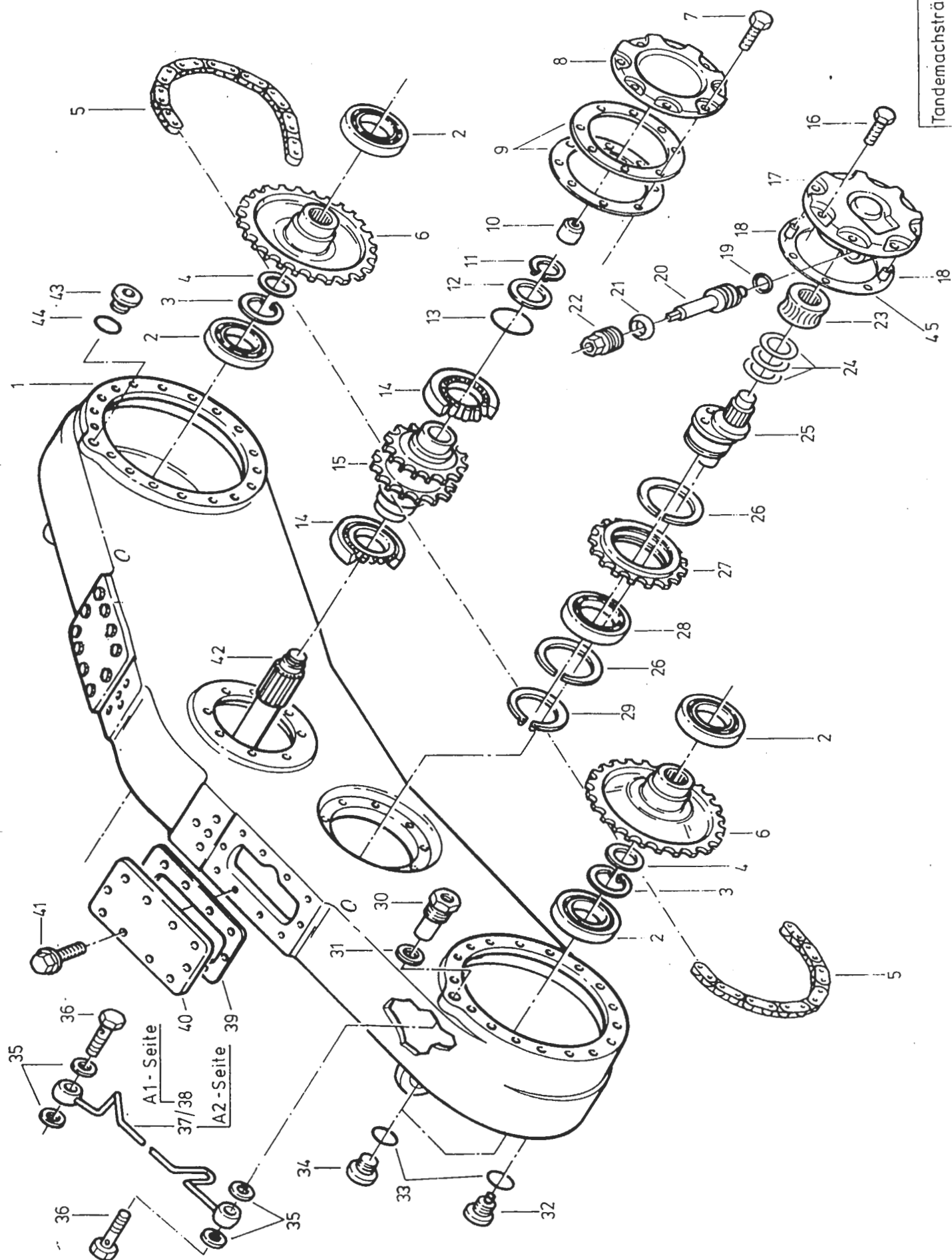
Pos.	Part Number	Part Description	Qty.	Remarks	DIN
		AXLE BEAM COMPLETE	1	A1-Side	
1	05.72760.027.0	AXLE BEAM	1		
2	...				
3	118.525	GASKET	2	A21x26x1,5	Cu 7603
4	104.125	SCREW PLUG	2	R 1/2"	
5	101.527	HEX. SCREW	16	M16x70	10.9 931
6	119.013	LOCK WASHER	16	16	spring steel
7	125.001	BREATHER	1	M10x1	tapered
8	03.73070.034.0	RING	2		
9	118.772	GASKET	2	140x160x14,5	
10	05.73070.031.0	INTERMEDIATE RING	1		
11	03.73070.032.0	RING	1		
12	117.599	O-RING	1	144x4	72 NBR 872
13	03.73050.010.0	CONICAL SWING BEARING	1	Elges 31-94	
14	116.391	SEAL	1	195x230x16	BA
15	03.73081.027.0	RING	1		
16	03.73220.033.0	HEX. SCREW	8	M20x50	10.9VP 933
17	05.78140.125.0	AXLE STUB	1		
18	117.756	O-RING	1	225x5	72 NBR 872
19	116.227	SEAL	1	62x80x10	BA
20	...				
21	03.73220.035.0	HEX. SCREW	12	M20x150	10.9VP 931
22	116.393	SEAL	1	160x190x15	BA
23	101.631	HEX. SCREW	8	M18x2x100	10.9 VP 960
24	950-272	COVER	1		
25	03.7512*.019.0	DISK SET	1	th=1,0 -1,9 every 0	
25	03.75120.019.0	WASHER	n / a	th=1,0	
25	03.75121.019.0	WASHER	n / a	th=1,1	
25	03.75122.019.0	WASHER	n / a	th=1,2	
25	03.75123.019.0	WASHER	n / a	th=1,3	
25	03.75124.019.0	WASHER	n / a	th=1,4	
25	03.75125.019.0	WASHER	n / a	th=1,5	
25	03.75126.019.0	WASHER	n / a	th=1,6	
25	03.75127.019.0	WASHER	n / a	th=1,7	
25	03.75128.019.0	WASHER	n / a	th=1,8	
25	03.75129.019.0	WASHER	n / a	th=1,9	
26	717-280	CONICAL SWING BEARING	1	GE 120SX-V 418	
27	...				
28	...				
29	...				
30	...				
31	...				
32	03.73080.028.0	O-RING	4	20x6 NBR 40 - 45 SHORE	
33	03.73220.054.0	THREADED STUD	1	M14x1,5 brake connection	
34	125.643	SCREW PLUG	1	GPN 300- F091 Kapsto	
35	03.73220.053.0	THREADED STUD	1	without brake connection	
36	125.025	BREATHER	1	R 1/2	

SPARE PARTS LIST

Description: Axle Beam R11
 Drawing No. : 30.055.000.B
 List Number: 30.055.000.03
 Date of Creation: 21.03.1995



Pos.	Part Number	Part Description	Qty.	Remarks	DIN
		AXLE BEAM COMPLETE	1	A2- Side	
1	...				
2	05.72760.026.0	AXLE BEAM	1		
3	118.525	SEAL RING	2	A21x26x1,5	Cu 7603
4	104.125	SCREW PLUG	2	R 1/2"	
5	101.527	HEX.-SCREW	16	M16x70	10.9 934
6	119.013	LOCK WASHER	16	16	spring steel
7	125.001	BREATHER	1	M10x1	tapered
8	03.73070.034.0	RING	2		
9	118.772	SEAL RING	2	140x160x14,5	
10	05.73070.031.0	INTERMEDIATE RING	1		
11	03.73070.032.0	RING	1		
12	117.599	O-RING	1	144x4	72 NBR 872
13	03.73050.010.0	CONICAL SWING BEARING	1	Elges 31-94	
14	116.391	SEAL RING	1	195x230x16	BA
15	03.73081.027.0	O-RING	1		
16	03.73220.033.0	HEX.- SCREW	8	M20x50	10.9 VP 933
17	05.78140.125.0	AXLE STUB	1		
18	117.756	O-RING	1	225x5	72 NBR 872
19	116.227	SEAL RING	1	62x80x10	BA
20	...				
21	03.73220.035.0	HEX.- SCREW	10	M20x150	10.9 VP 931
22	116.393	SEAL RING	1	160x190x15	BA
23	101.631	HEX.- SCREW	8	M18x2x100	10.9 VP 960
24	950-272	COVER	1		
25	03.7512*.019.0	DISK SET	1	th=1,0 - 1,9 every 0,1	
25	03.75120.019.0	WASHER	n / a	th=1,0	
25	03.75121.019.0	WASHER	n / a	th=1,1	
25	03.75122.019.0	WASHER	n / a	th=1,2	
25	03.75123.019.0	WASHER	n / a	th=1,3	
25	03.75124.019.0	WASHER	n / a	th=1,4	
25	03.75125.019.0	WASHER	n / a	th=1,5	
25	03.75126.019.0	WASHER	n / a	th=1,6	
25	03.75127.019.0	WASHER	n / a	th=1,7	
25	03.75128.019.0	WASHER	n / a	th=1,8	
25	03.75129.019.0	WASHER	n / a	th=1,9	
26	717-280	CONICAL SWING BEARING	1	GE 120	SX-V 418
27	117.087	O-RING	1	13x5	72 NBR 872
28	03.73430.011.0	PIPE	1		
29	...				
30	125.625	SCREW PLUG	1	GPN 300- F5	
31	...				
32	03.73080.028.0	O-RING	4	20x6 NBR 40 - 45 SHORE	
33	03.73220.052.0	THREADED STUD	1	M14x1,5 with brake connection	
34	125.643	SCREW PLUG	1	GPN 300 - F091 Kapsto	
35	03.73220.053.0	THREADED STUD	1	without brake connection	



Tandemachsträger
50.010.000.A

SPARE PARTS LIST

Description: Tandem Axle Beam
 Drawing No. : 50.010.000.A
 List Number: 50.010.000.02
 Date of Creation: 06.04.1994



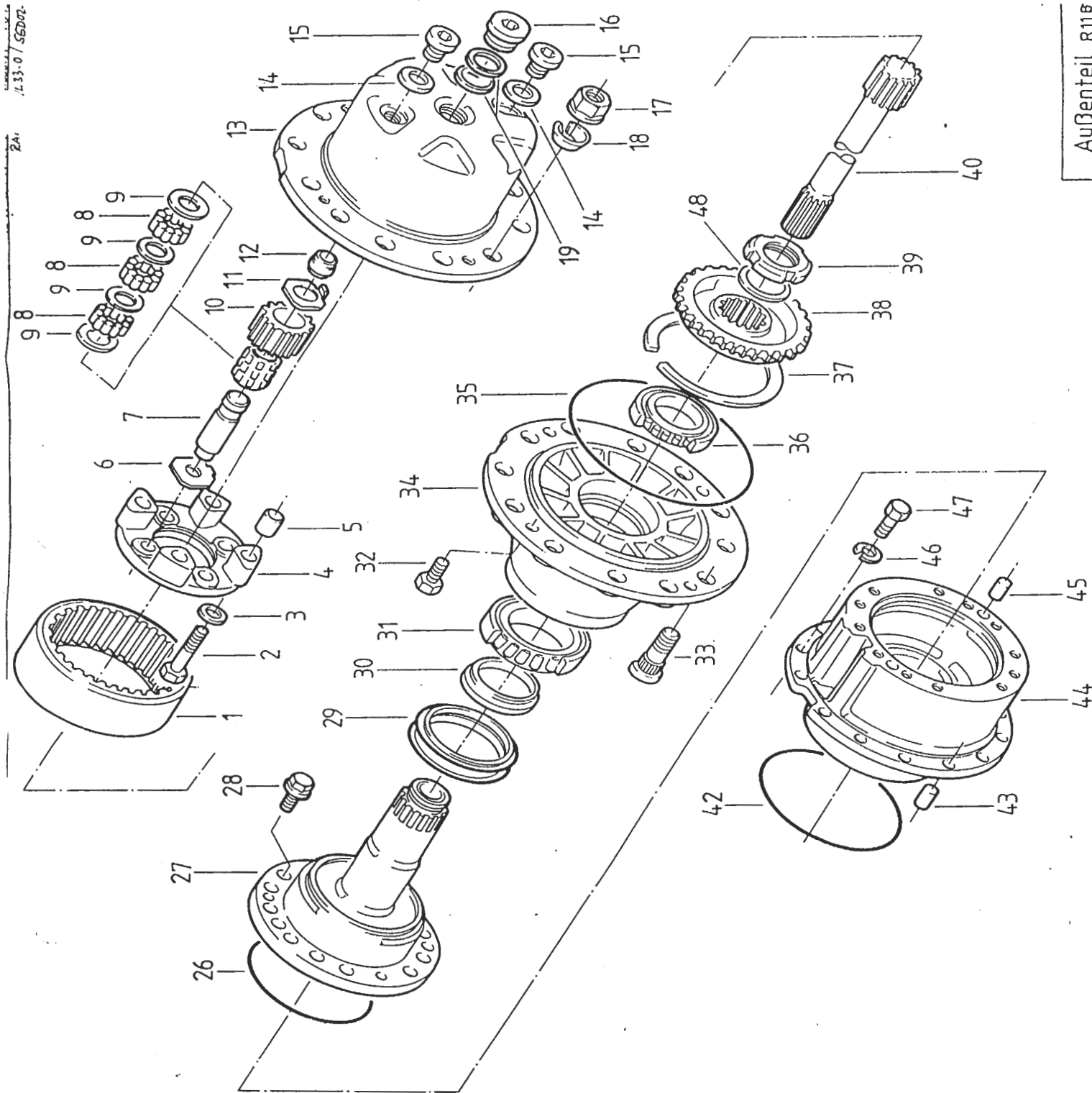
Pos.	Part Number	Part Description	Qty.	Remarks	DIN
		TANDEM AXLE BEAM compl.	1	A1 - Side	
		TANDEM AXLE BEAM compl.	1	A2 - Side	
1	05.72770.021.0	TANDEM AXLE BEAM	2		
2	112.011	GROOVE BALL BEARING	8	6213 C3	
3	122.631	SNAP RING	4	145x1,75	472
4	121.103	SUPPORTING WASHER	4	SS 35x45x2,5	
5	911-229	ROLLER CHAIN	4	with last link and cotter pin	
6	03.98310.001.0	CHAIN WHEEL	4	Z = 27	
7	101.233	HEX. SCREW	16	M10x10 10.9 VP	933
8	05.73020.012.0	COVER	2		
9	03.7319*.028.0	SEALING SET	2	th=0,5/0,75/1,0	
9	03.73190.028.0	SEALING	n / a	0,5 thick AFM 38	
9	03.73191.028.0	SEALING	n / a	0,75 thick AFM 38	
9	03.73192.028.0	SEALING	n / a	1,0 thick AFM 38	
10	03.73210.026.0	COMPRESSION STUD	2		
11	122.401	CIRCLIP "V"	2	AV 40 A40x1,75 V	
12	121.102	SUPPORTING WASHER	2	SS 40x50x2,5	
13	117.091	O-RING	2	42x5 72 NBR 872	
14	111.003	TAPERED ROLLER BEARING	4	320 13X	
15	03.98310.004.0	CHAIN WHEEL	2	Z = 15	
16	101.391	HEX. SCREW	32	M12x25 10.9 VP	933
17	965-272	COVER	4		
18	120.474	SPLIT TAPER SLEEVE	8	12x22 spring steel	1481
19	119.007	LOCK WASHER	8	16 st.	
20	910-278	WORM GEAR	4		
21	119.308	LIMES TYPE RING	4	C 16,5	74361
22	03.93100.099.0	ADJUSTING NUT	4		
23	910-277	ADJUSTING WORM WHEEL	4		
24	121.210	FITTING WASHER	n / a	50x62x0,3	
24	121.211	FITTING WASHER	n / a	50x62x0,5	
24	121.254	FITTING WASHER	n / a	50x62x1,0	
25	05.73210.025.1	PIN	4		
26	122.331	SNAP RING	8	SB 115	
27	03.98310.002.0	CHAIN WHEEL	4	Z = 16	
28	112.049	GROOVE BALL BEARING	4	6015 C3	
29	122.118	CIRCLIP RING	4	A75x2,5	471
30	03.73220.031.0	THREADED STUD	2		
31	118.502	SEALING	2	A20x24x1,5 Cu	7603
32	03.73230.013.0	SCREW PLUG	4	M30x1,5 with magnet	
33	118.507	SEALING	12	A30x36x2 Cu	7603
34	104.103	SCREW PLUG	8	M30x1,5 8.8	908
35	118.554	SEALING	8	A12x20x1,5 Cu	7603
36	104.333	HOLLOW BOLT	4	LL8 M12x1,5	7643
37	30.73340.002.0	PIPING COMPLETE	1	A2 - Side	
38	30.73340.001.0	PIPING COMPLETE	1	A1 - Side	

SPARE PARTS LIST

Description: Tandem Axle Beam
Drawing No. : 50.010.000.A
List Number: 50.010.000.02
Date of Creation: 06.04.1994



Pos.	Part Number	Part Description	Qty.	Remarks	DIN
39	924-259	SEALING	4	th=3,0	
40	03.92720.058.0	COVER	4		
41	101.345	RATCHET BOLT	40	M12x35 10.9	
42	05.72200.078.0	AXLE SHAFT	2		
43	104.104	SCREW PLUG	2	M20x1,5 8.8	908
44	118.502	SEAL RING	2	A20x24x1,5 Cu	7603
45	03.92590.026.0	SEALING	4		



Außenteil R118

SPARE PARTS LIST

Description: OUTER COMPONENT R 11BB WITHOUT BRAKE
 Drawing No. : 20.049.000.A
 List Number: 20.070.000.01
 Date of Creation: 15.03.1995



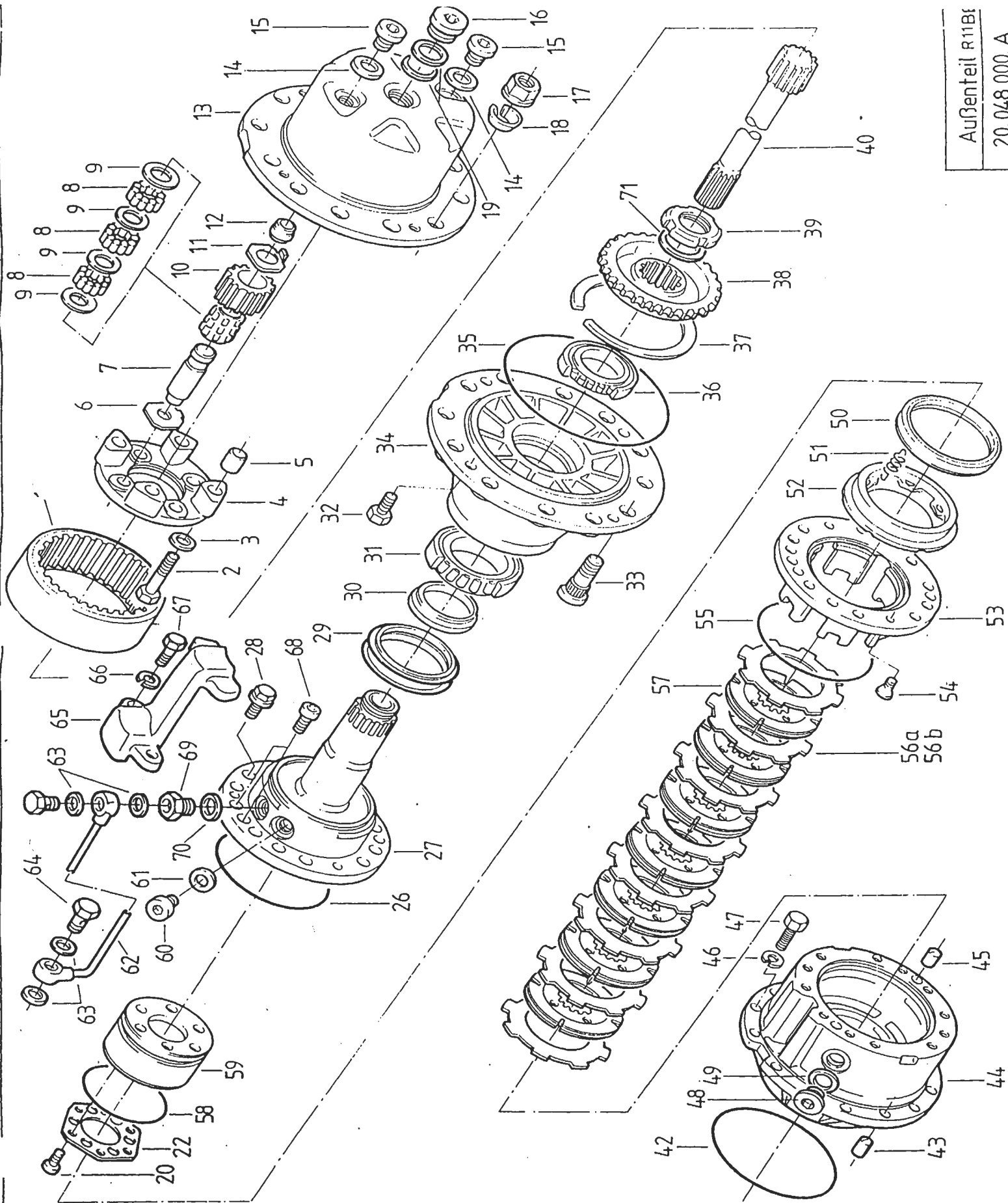
Pos.	Part Number	Part Description	Qty.	Remarks	DIN
		OUTER COMPONENT COMPL 2		without brake	
1	03.78011.042.0	RING GEAR	2	z = 66	
2	151.555	HEX. SCREW	8	M16x85	10.9 VP 931
3	03.73160.045.0	WASHER	8		
4	05.78210.113.0	PLANETARY CAGE	2		
5	03.73130.011.0	SHEAR SLEEVE	8		
6	03.73160.011.0	THRUST WASHER	8		
7	03.78070.053.0	PLANETARY PIN	8		
8	113.410	CYLINDRICAL ROLLER	504		
9	121.103	SUPPORTING WASHER	32	35x45x2,5	988
10	03.78061.050.0	PLANETARY GEAR	8	z = 25	
11	03.73160.010.0	THRUST WASHER	8		
12	175.639	TOLERANCE RING	8	0820-035-01 / BN35x8	
13	05.78210.112.0	PLANETARY CAGE	2		
14	118.502	SEAL RING	4	A20x24x1,5 Cu	7603
15	921.556	SCREW PLUG	4	M20x1,5 with magnet	
16	03.73230.016.0	SCREW PLUG	2	M30x1,5 adhesive coated	
17	106.402	FLAT COLLAR NUT	24	BM22x1,5 8	74361
18	119.302	LIMES TYPE RING	24	C22,5	74361
19	03.2108*.017.0	DISK SET	2	th=2,5 / 1,0	
19	121.113	SUPPORTING WASHER	n / a	SS 30x42x2,5	
19	121.295	ADJUSTING WASHER	n / a	SP 30x42x1,0	
20	...				
21	...				
22	...				
23	...				
24	...				
25	...				
26	711-308	O-RING	2	180x4 Viton	
27	05.78140.158.0	AXLE STUB	2		
28	101.547	RATCHET BOLT	24	M16x45	10.9
29	118.301	AXIAL FACE SEAL	2	7697- H1600	72 NBR 872
30	03.73060.019.1	AXLE STUB RING	2		
31	111.069	TAPERED ROLLER BEARING	2	320 21X	
32	101.301	HEX. SCREW	8	M12x30	10.9 933
33	03.71330.037.0	WHEEL STUD	24		
34	05.78280.081.1	WHEEL HUB	2		
35	117.755	O-RING	2	345x5	72 NBR 872
36	111.184	TAPERED ROLLER BEARING	2	330 20	
37	122.913	SNAP RING	2	SB 310	
38	03.78041.040.0	RING GEAR CARRIER	2	z = 66	
39	03.73290.036.0	NUT	2	M85x2	glued
40	03.78180.032.0	SUN GEAR SHAFT	2	z = 14	
41	...				

SPARE PARTS LIST

Description: OUTER COMPONENT R 11BB WITHOUT BRAKE
Drawing No. : 20.049.000.A
List Number: 20.070.000.01
Date of Creation: 15.03.1995



Pos.	Part Number	Part Description	Qty.	Remarks	DIN
42	117.732	O-RING	2	290x5	72 NBR 872
43	120.286	DOWEL PIN	4	16m6x32	st. hardened 6325
44	05.75280.013.0	ATTACHMENT FLANGE	2		
45	120.286	DOWEL PIN	4	16m6x32	st. hardened 6325
46	119.013	LOCK WASHER	24	16	spring steel
47	101.501	HEX. SCREW	24	M16x40	10.9 931
48	03.7317*.027.0	DISK SET	2	th=1,5 - 2,5 every 0,25	
48	03.7317*.027.0	DISK SET	1	th=1,5 - 2,5 every 0,25	
48	03.73170.027.0	WASHER	n / a	th=2,5	
48	03.73171.027.0	WASHER	n / a	th=2,25	
48	03.73172.027.0	WASHER	n / a	th=2,0	
48	03.73173.027.0	WASHER	n / a	th=1,75	
48	03.73174.027.0	WASHER	n / a	th=1,5	



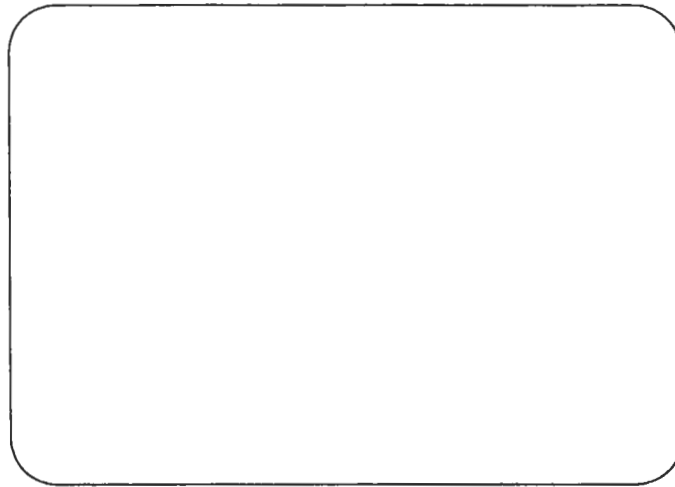
SPARE PARTS LIST

Description: OUTER COMPONENT R 11BB WITH BRAKE
 Drawing No. : 20.048.000.A
 List Number: 20.047.000.03
 Date of Creation: 15.03.1995



Pos.	Part Number	Part Description	Qty.	Remarks	DIN
		OUTER COMPONENT COMPL 2		with brake	
1	03.78011.042.0	RING GEAR	2	z = 66	
2	151.555	HEX. SCREW	8	M16x85	10.9 VP 931
3	03.73160.045.0	WASHER	8		
4	05.78210.113.0	PLANETARY CAGE	2		
5	03.73130.011.0	SHEAR SLEEVE	8		
6	03.73160.011.0	THRUST WASHER	8		
7	03.78070.053.0	PLANETARY PIN	8		
8	113.410	CYLINDRICAL ROLLER	504		
9	121.103	SUPPORTING WASHER	32	35x45x2,5	988
10	03.78061.050.0	PLANETARY GEAR	8	z = 25	
11	03.73160.010.0	THRUST WASHER	8		
12	175.639	TOLERANCE RING	8	0820-035-01 / BN35x8	
13	05.78210.112.0	PLANETARY CAGE	2		
14	118.502	SEAL RING	4	A20x24x1,5 Cu	7603
15	921-556	SCREW PLUG	4	M20x1,5 with magnet	
16	03.73230.016.0	SCREW PLUG	2	M30x1,5 adhesive coated	
17	106.402	FLAT COLLAR NUT	24	BM22x1,5 8	74361
18	119.302	LIMES TYPE RING	24	C22,5	74361
19	03.2108*.017.0	DISK SET	2	th=2,5 / 1,0	
19	121.113	SUPPORTING WASHER	n / a	SS 30x42x2,5	
19	121.295	ADJUSTING WASHER	n / a	SP 30x42x1,0	
20	102.107	ALLAN SCREW	12	M8x20	10.9 VP 912
21	...				
22	03.73151.028.2	WASHER	2		
23	...				
24	...				
25	...				
26	711-308	O-RING	2	180x4	Viton
27	05.78140.127.0	AXLE STUB	2		
28	101.547	RATCHED BOLT	20	M16x45	10.9
29	118.301	AXIAL FACE SEAL	2	7697- H1600	72 NBR 872
30	03.73060.019.1	AXLE STUB RING	2		
31	111.069	TAPERED ROLLER BEARING	2	320 21X	
32	101.301	HEX. SCREW	8	M12x30	10.9 933
33	03.71330.037.0	WHEEL STUD	24		
34	05.78280.081.1	WHEEL HUB	2		
35	117.755	O-RING	2	345x5	72 NBR 872
36	111.184	TAPERED ROLLER BEARING	2	330 20	
37	122.913	SNAP RING	2	SB 310	
38	03.78041.040.0	RING GEAR CARRIER	2	z = 66	
39	03.73290.036.0	NUT	2	M85x2	glued
40	03.78180.032.0	SUN GEAR SHAFT	2	z = 14	
41	...				

Blue - E



Vendor Component Info Packet -

***NAF
Rear Tandem Bogie Axle
PN# 19055***

Spare parts list

Type: TIM 03/0
Description: Tandem Axle
Valid as of factory .-No.: 01
Date of creation: 24.07.1996



NAF

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Important!

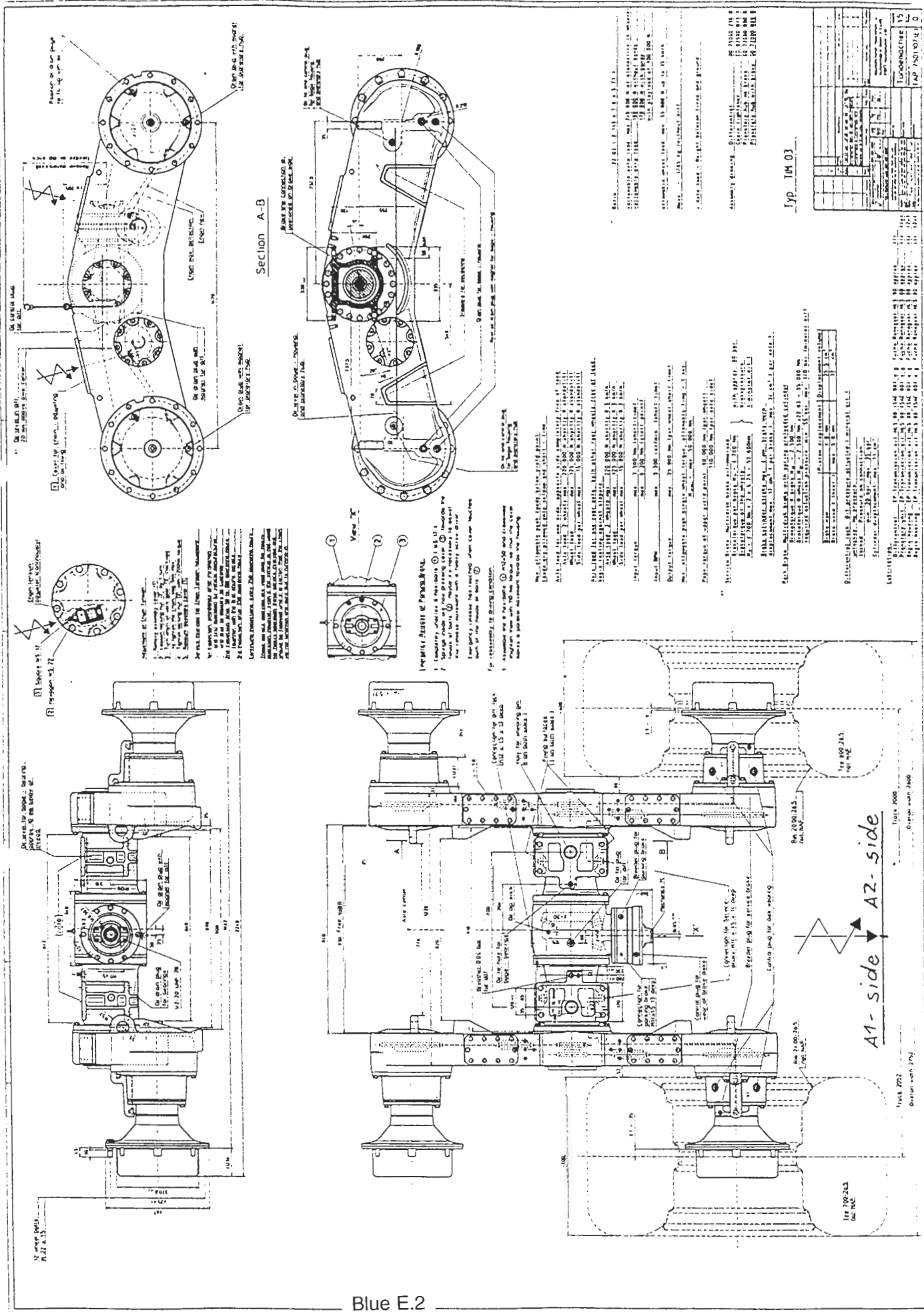
Indicate at order:

Vehicle type, manufacturer
NAF-Type, factory .-No.
Part description, part number
Desired qty
Exact shipping adress, method of shipment

Neunkirchener Maschinen- und
Achsenfabrik GmbH & Co. KG

Industriestraße 17
91077 Neunkirchen a.B.

Telephone: (09134) 702 0
Fax: (09134) 702 99

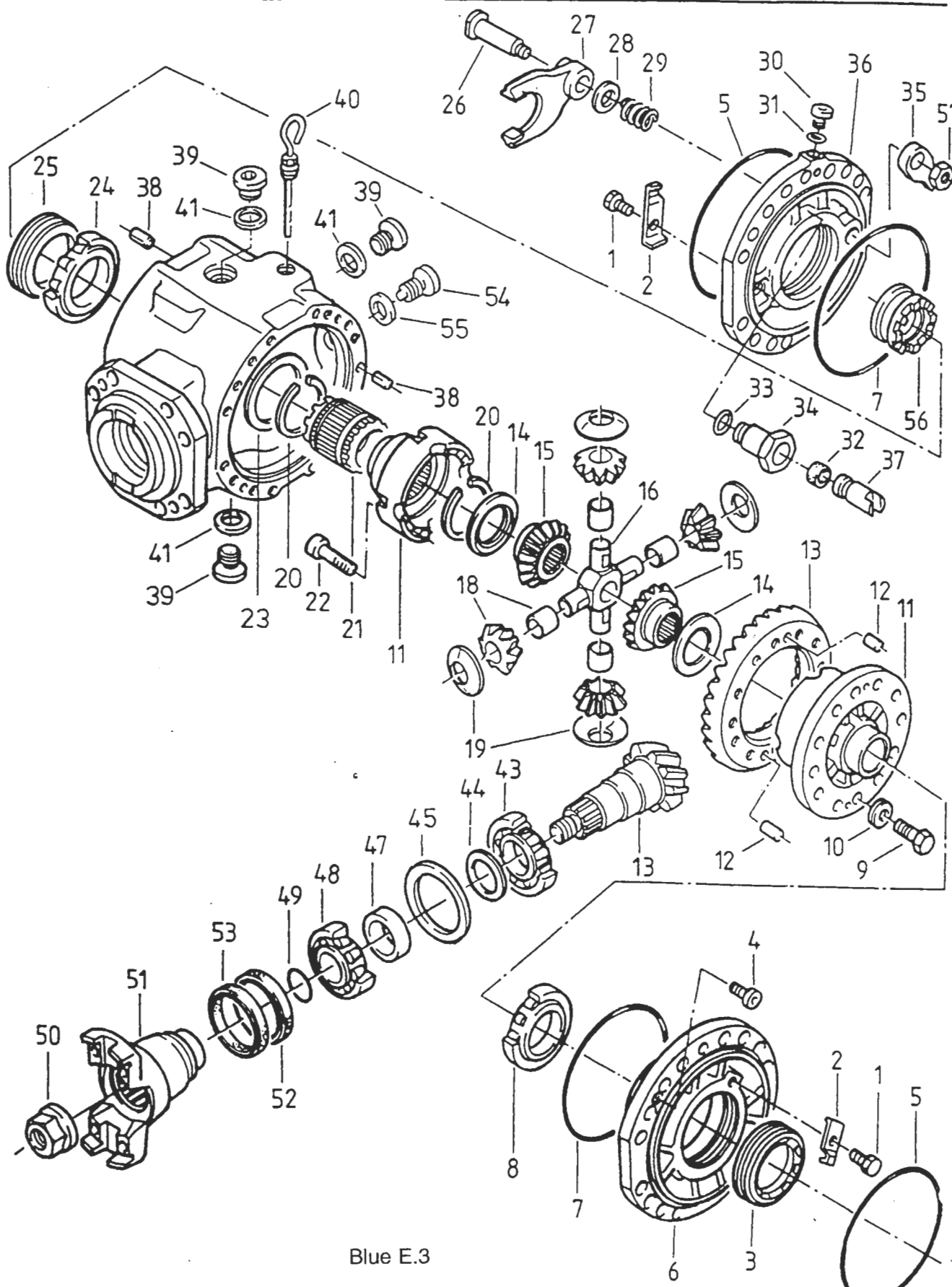


ERSATZTEILBILD



Bildnummer: 10.073.000.A

Bezeichnung: Differential R11



Spare parts list

Description: Differential R11
 Drawing No: 10.073.000.A
 List No: 10.105.000.01
 Date of creation: 24.07.1996

NAF



Pos.	Part No.	Part description	Qty.	Remarks	DIN
---	---	Differential complete	1	with Parking brake	
1	1010.129	Hexagon screw	2	M8X16 10.9 VP	933
2	9566.010	Locking plate	2		
3	9310.034	Nut	1		
4	1020.203	Allen screw	4	M10X16 8.8	7984
5	1170.701	O-ring	2	OR 255x4, 72NBR 872	
6	7527.098	Flange	1		
7	1170.716	O-ring	2	OR 265X4, 72NBR 872	
8	1110.087	Tapered-roller bearing	1	JM612 949/910	
9	1010.534	Hexagon screw	16	M16X40 10.9 VP n.TI-58	933
10	7316.045	Plate	16		
11	2102.128	Differential cage	1		
12	1200.229	Straight pin	2	12M6x32 St.hardened	6325
13	2101.289	Crown wheel / pinion	1	Z=30/14	
14	7517.015	Check disk	2	S = 1,5/1,7/2,0/2,2	
15	7513.044	Differential gear	2		
16	7515.021	Crossbolt	1		
17	---				
18	7514.029	Planetary gear	4		
19	7518.021	Thrust washer	4		
20	1220.311	Spring ring	2	SW 85	
21	9813.114	Clutch-coupling sleeve	1		
22	1020.374	Allen screw	12	M12X80 10.9 VP	912
23	1210.157	Supporting washer	1	SS 110x140x3.5	
24	1110.175	Tapered-roller bearing	1	37431A/37625	
25	7329.012	Nut	1		
26	9816.039	Shifting rod	1		
27	9809.040	Shift fork	1		
28	7317.023	Adjusting washer	n.B.	s = 1,5/2,0/2,5	
29	7331.016	Pressure spring	1		
30	1040.172	Screw plug	1	M8X1 8.8	908
31	1180.524	Seal ring	1	A8x13x1 CU	7603
32	1180.734	Groove ring	1	Baur. NA 150 Simrit	
33	1180.507	Seal ring	1	A30x36x2 CU	7603
34	5263.054	Cylinder	1		
35	9809.041	Shifting lever	1		
36	7527.110	Flange	1		
37	5252.050	Pistons	1		
38	1200.448	Adapter sleeve	2	16X36 Sprig steel	1481
39	1040.103	Screw plug	3	M30X1.5 8.8	908
40	7325.024	Dipstick	1		
41	1180.507	Seal ring	3	A30x36x2 CU	7603
42	7506.169	Differential housing	1		
43	1110.073	Tapered-roller bearing	1	66 520/66 584	

Spare parts list

Description: Differential R11
Drawing No: 10.073.000.A
List No: 10.105.000.01
Date of creation: 24.07.1996

NAF



Pos.	Part No.	Part description	Qty.	Remarks	DIN
44	7317.037	Adjusting washer	1	th.=0,96 - 1,44 step 0,04	
45	7317.011	Adjusting washer	1	s=2.5 / 2,75 / 3,0	
46	-----				
47	7311.061	Spacer bush	1		
48	1110.030	Tapered-roller bearing	1	HM 907 643 / 614	
49	1170.013	O-ring	1	OR 42X4.5 72NBR 872	
50	7329.057	Nut	1	M40x1.5 adhesive coated	
51	7521.132	Cardan flange	1	7 C	
52	-----				
53	-----				
54	9556.021	Screw plug	1	M20x1.5 with Magnet	
55	1180.502	Seal ring	1	A20x24x1.5 CU	7603
56	9813.059	Shifting sleeve	1		
57	1060.003	Hex. nut	1	M14X1.5 10	934

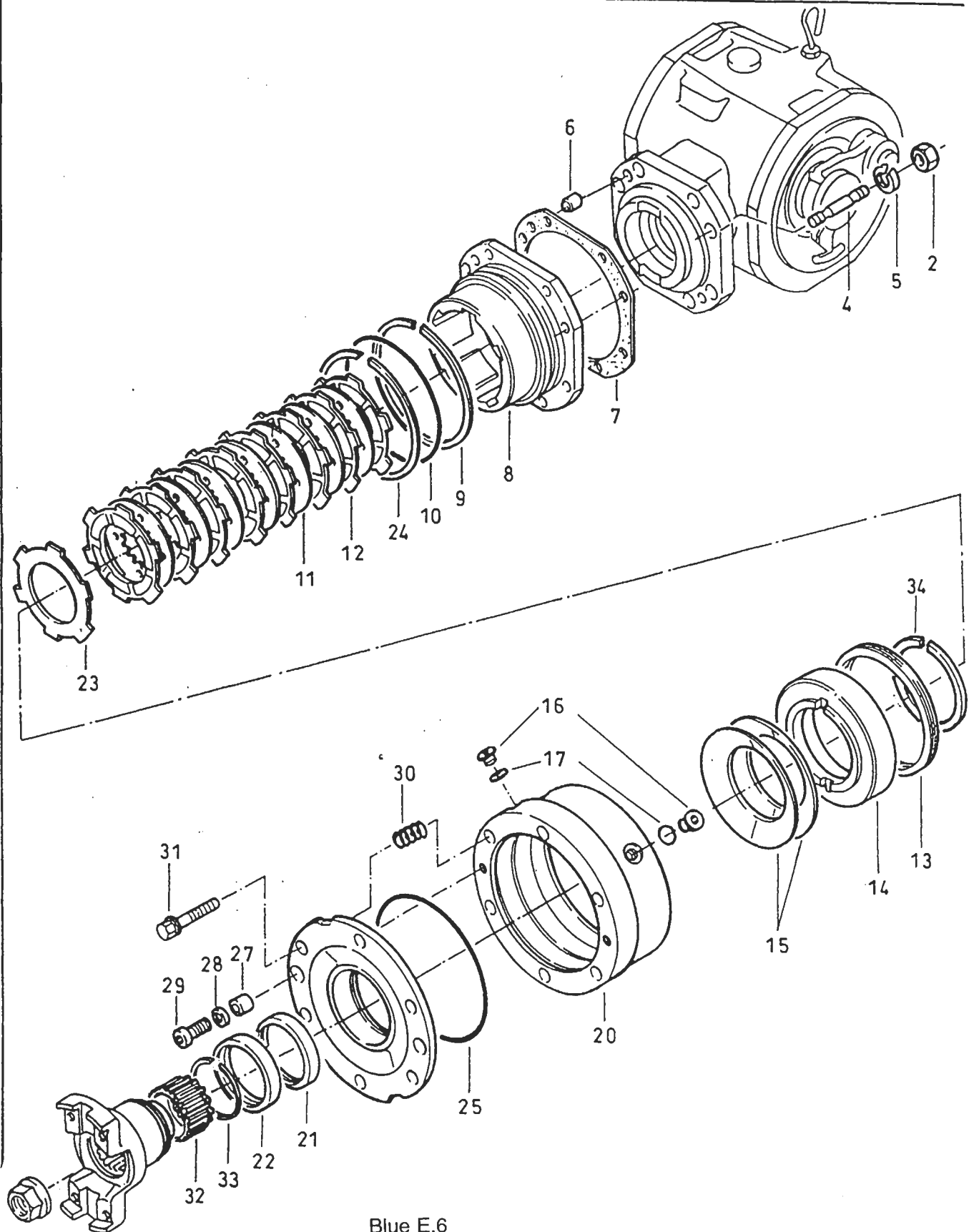
SGD01-1
P012-2/3
VL38-1
VL43-0/1
TIM03-0

ERSATZTEILBILD



Bildnummer: 10.006.010.C

Bezeichnung: Lamellen-Feststellbremse



Blue E.6

Spare parts list

Description: Multi disk Parking brake
 Drawing No: 10.006.010.C
 List No: 10.006.011.04
 Date of creation: 19.07.1996

NAF

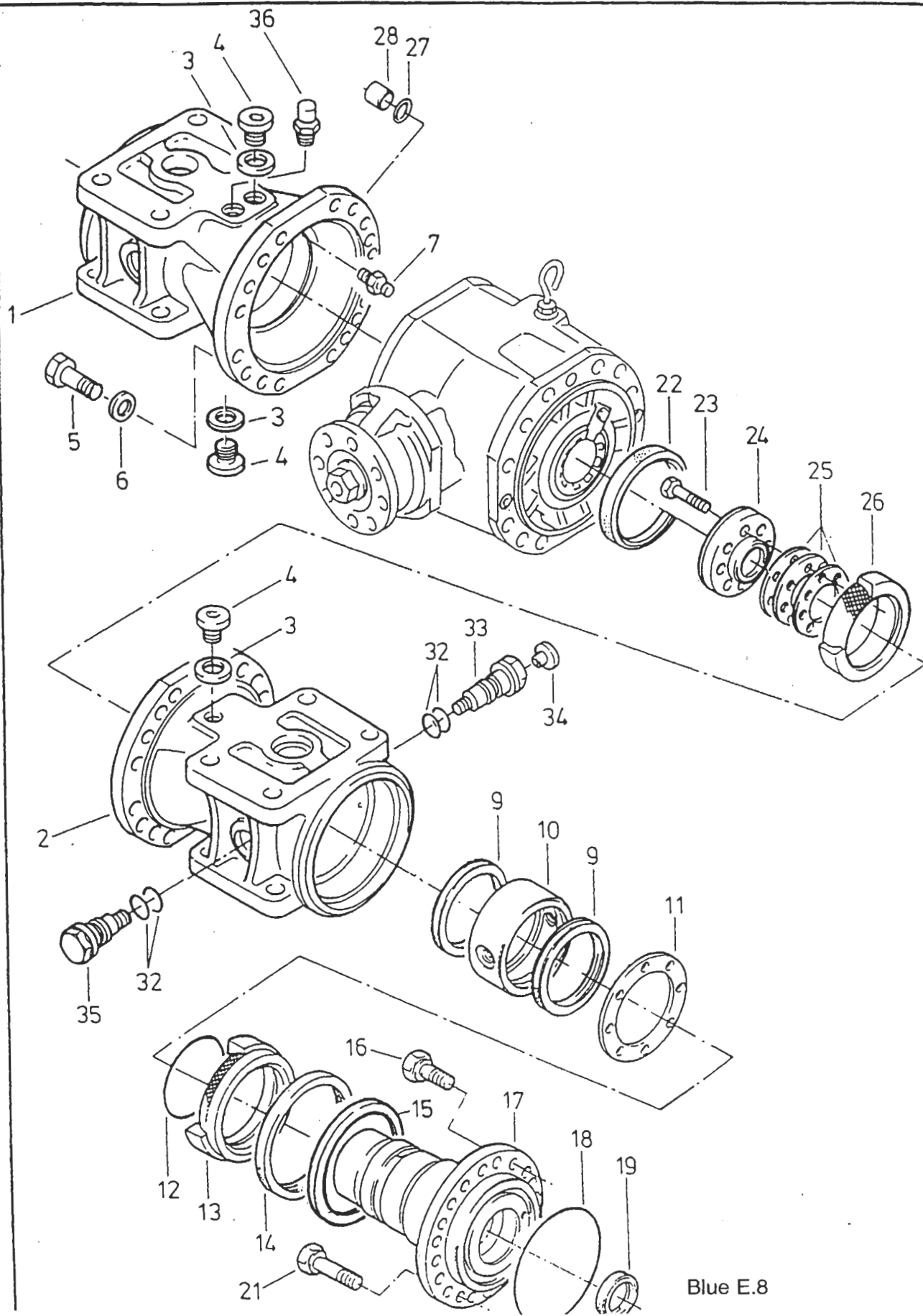


Pos.	Part No.	Part description	Qty.	Remarks	DIN
1	-----				
2	1060.007	Hex. nut	8	M10 10	934
3	-----				
4	1030.203	Bolt	8	M10X35 8.8	939
5	1190.015	Locking clip	8	VSK 10 Spring steel DACROM	
6	1200.289	Straight pin	2	12M6X18 St. hardened	6325
7	7319.022	Gasket	1	0.5 th. AFM 33	
8	9867.046	Disk support	1		
9	7307.046	Support washer	1		
10	1170.602	O-ring	1	OR200X5 72 NBR 872	
11	7345.019	Drive disk	7	th. = 2,3	
12	7344.024	Driven disk	8	th. = 2,4	
13	7308.025	Groove ring	1		
14	5252.077	Pistons	1		
15	7331.030	Disk spring	2		
16	1040.105	Screw plug	2	M14X1.5 8.8	908
17	1180.503	Seal ring	2	A14x18x1.5 CU	7603
18	-----				
19	1250.643	Plug	1	GPN300-F091 Kapsto	
20	7504.043	Housing	1		
21	1160.214	Oil seal	1	85x110x12 BA	
22	1160.215	Oil seal	1	85x110x12 BASL	
23	7344.025	Driven disk	n.B.	th. = 1,45	
24	1220.921	Spring ring	1	SW 200	
25	1170.757	O-ring	1	OR 215X4 72NBR 872	
26	7301.034	Cover	1		
27	7312.025	Bush	2		
28	7316.047	Plate	2		
29	1020.345	Allen screw	2	M12X35 8.8 VP	912
30	7331.040	Pressure spring	6		
31	1510.340	Lock screw	6	M12X50 10.9	
32	9867.047	Disk support	1		
33	1220.925	Seeger spring ring	1	SW 80	
34	1220.924	Seeger spring ring	1	SB 165	



Bildnummer: 30.055.000.C

Bezeichnung: Achsträger



Spare parts list

Description: Axle beam (Lock side)
 Drawing No: 30.055.000.C
 List No: 30.054.000.04
 Date of creation: 24.07.1996

NAF



Pos.	Part No.	Part description	Qty.	Remarks	DIN
-----	-----	Axle beam complete.	1	Lock side	
1	7276.027	Axle housing	1		
2	-----				
3	1180.525	Seal ring	2	A21x26x1.5 CU	7603
4	1040.125	Screw plug	2	R 1/2"	
5	1010.527	Hexagon screw	16	M16x70 10.9	931
6	1190.013	Locking clip	16	VSK16 Spring steel DACROM	
7	1250.001	Breather	1	M10X1 tapered	
8	-----				
9	1180.772	Shaft seal	2	140x160x14,5	
10	7307.031	Adapter	1		
11	7307.032	Ring	1		
12	1170.599	O-ring	1	OR144X4 72NBR	872
13	7305.010	Conical swing bearing	1	ELGES 31-94	
14	1160.391	Oil seal	1	195x230x16 BA	
15	7308.027	Ring	1		
16	1010.625	Hexagon screw	8	M20X50 10.9 VP n.TI-58	933
17	7814.125	Stub axle	1		
18	1170.756	O-ring	1	OR 225X5 72 NBR 872	
19	1160.227	Oil seal	1	D62XD80X10 BA	
20	-----				
21	1010.672	Hexagon screw	12	M20X150 10.9 VP n.TI-58	931
22	7308.034	Oil seal	1	160x190x15	
23	1010.631	Hexagon screw	8	M18X2X100 10.9VP	960
24	9272.050	Cover	1		
25	7512.019	Adjusting washer	n.B.	th.=0,4 - 3,0 step 0,1	
26	7280.017	Conical swing bearing	1	GE 120 SX-V 429	
27	1170.087	O-ring	1	OR13X5 72NBR 872	
28	7343.011	Pipe	1		
29	-----				
30	-----				
31	-----				
32	7308.028	O-ring	4	20X6 NBR40 - 45 SHORE	
33	7322.052	Threaded stud	1	M14 x 1,5 brake connection	
34	1250.643	Plug	1	TL-4-128	
35	7322.053	Threaded stud	1	without brake connection	
36	1250.015	Breather	1	R 1/2"	

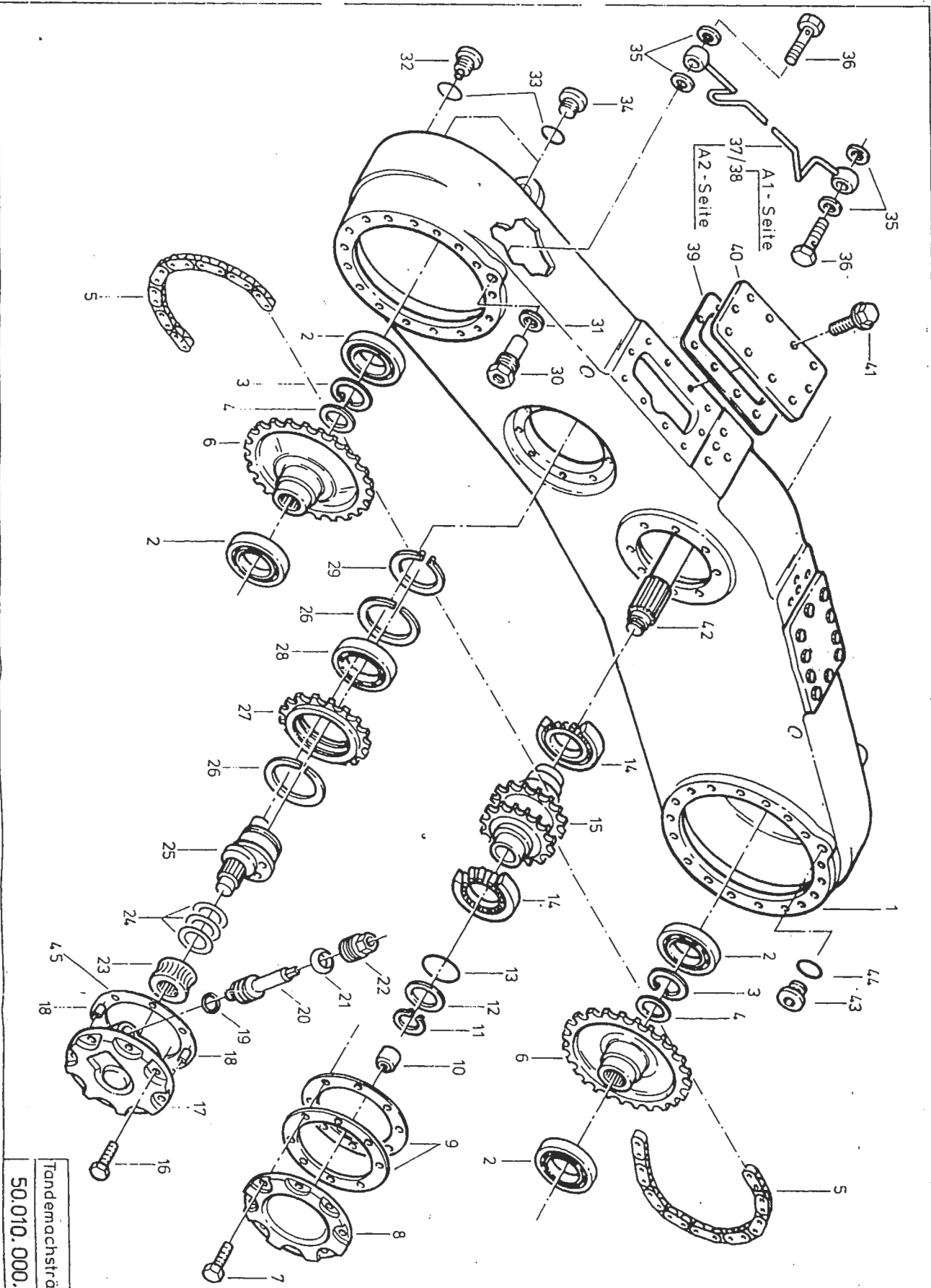
Spare parts list

Description: Axle beam (Crown gear side)
 Drawing No: 30.055.000.C
 List No: 30.055.000.04
 Date of creation: 24.07.1996



NAF

Pos.	Teilenummer	Part description	Menge	Bemerkung	DIN
-----	-----	Axle beam complete.	1	Tellerradseite	
1	-----				
2	7276.026	Axle housing	1		
3	1180.525	Seal ring	2	A21x26x1.5 CU	7603
4	1040.125	Screw plug	2	R 1/2"	
5	1010.527	Hexagon screw	16	M16x70 10.9	931
6	1190.013	Locking clip	16	VSK16 Federstahl DACROM	
7	1250.001	Breather	1	M10X1 keg.	
8	-----				
9	1180.772	Shaft seal	2	140x160x14,5	
10	7307.031	Adapter	1		
11	7307.032	Ring	1		
12	1170.599	O-ring	1	OR144X4 72NBR	872
13	7305.010	Conical swing bearing	1	ELGES 31-94	
14	1160.391	Oil seal	1	195x230x16 BA	
15	7308.027	Ring	1		
16	1010.625	Hexagon screw	8	M20X50 10.9 VP n.TI-58	933
17	7814.125	Stub axle	1		
18	1170.756	O-ring	1	OR 225X5 72 NBR 872	
19	1160.227	Oil seal	1	D62XD80X10 BA	
20	-----				
21	1010.672	Hexagon screw	12	M20X150 10.9 VP n.TI-58	931
22	7308.034	Oil seal	1	160x190x15	
23	1010.631	Hexagon screw	8	M18X2X100 10.9VP	960
24	9272.050	Cover	1		
25	7512.019	Adjusting washer	n.B.	s=0,4 bis 3,0 je 0,1 steigend	
26	7280.017	Conical swing bearing	1	GE 120 SX-V 429	
27	-----				
28	-----				
29	-----				
30	-----				
31	-----				
32	7308.028	O-ring	4	20X6 NBR40 - 45 SHORE	
33	7322.052	Threaded stud	1	M14 x 1,5 Bremsanschluß	
34	1250.643	Plug	1	TL-4-128	
35	7322.053	Threaded stud	1	ohne Bremsanschluß	



Tandemachströger
50.010.000.A

Blue E.11

11103-V / 11104-0 / 56002-0 / 56.010.000.A 1013

Spare parts list

Description: Tandem axle beam
 Drawing No: 50.010.000.A
 List No: 50.024.000.01
 Date of creation: 19.07.1996

NAF



Pos.	Part No.	Part description	Qty,	Remarks	DIN
---	---	Axle beam. Complete.	1	A 1 - SIDE	
---	---	Axle beam. Complete.	1	A 2 - SIDE	
1	7277.021	Axle beam	2		
2	1120.011	Grooved ball bearing	8	6213 C3	
3	1220.631	Seeger-ring	4	J45x1.75	472
4	1210.103	Supporting washer	4	SS 35x45x2.5	
5	9229.011	Roller chain with cotter lock	4	with Endlink and split	
6	9831.001	Sprocket-wheel	4	Z=27	
7	1010.233	Hexagon screw	16	M10X20 10.9 VP	933
8	7302.012	Cover	2		
9	7319.028	Gasket	n.B.	s = 0,5/0,75/1,0	
10	7321.026	Thrust stud	2		
11	1220.401	Seeger v-ring	2	AV 40 A40x1,75 V	
12	1210.102	Supporting washer	2	SS 40x50x2.5	
13	1170.091	O-ring	2	OR 42X5 72 NBR 872	
14	1110.003	Tapered-roller bearing	4	320 13X	
15	9831.004	Sprocket-wheel	2	Z=15	
16	1010.391	Hexagon screw	32	M12X25 10.9 VP	933
17	7302.025	Cover	4		
18	1200.474	Adapter sleeve	8	12X22 Spring steel	1481
19	1190.007	Locking clip	4	16 St.	
20	9278.010	Worm shaft	4		
21	1190.308	Limes type ring	4	C 16.5	74361
22	9310.099	Adjusting nut	4		
23	9277.010	Worm adjuster	4		
24	1210.210	Supporting washer	n.B.	50X62X0.3	
24	1210.254	Supporting washer	n.B.	50X62X1.0	
24	1210.211	Supporting washer	n.B.	50X62X0.5	
25	7321.025	Bolt	4		
26	1220.331	Spring ring	8	SB 115	
27	9831.002	Sprocket-wheel	4	Z=16	
28	1120.049	Grooved ball bearing	4	6015 C 3	
29	1220.118	Seeger ring	4	75X2.5	471
30	7322.031	Threaded stud	2		
31	1180.502	Seal ring	2	A20x24x1.5 CU	7603
32	7323.013	Screw plug	4	M30X1.5 with Magnet	
33	1180.507	Seal ring	12	A30x36x2 CU	7603
33	-----				
34	1040.103	Screw plug	8	M30X1.5 8.8	908
35	1180.554	Seal ring	8	A12x20x1.5 CU	7603
36	1040.333	Hollow screw	4	LL8 (M12X1.5)	7643
37	7334.002	Pipe complete.	1	A 2 - Side	
38	7334.001	Pipe complete	1	A 1 - Side	
39	9259.024	Gasket	4	3 thick	

Spare parts list

Description: Tandem axle beam
Drawing No: 50.010.000.A
List No: 50.024.000.01
Date of creation: 19.07.1996

NAF



Pos.	Part No.	Part description	Qty,	Remarks	DIN
40	9272.058	Cover	4		
41	1010.345	Lock screw	40	M12 x 35 10.9	
42	7220.078	Drive shaft	2		
43	1040.104	Screw plug	2	M20x1.5 8.8	908
44	1180.502	Seal ring	2	A20x24x1.5 CU	7603
45	9259.026	Gasket	4		

Spare parts list

NAF

Description: Outer component
R 11BB without brake
Drawing No: 20.049.000.A
List No: 20.048.000.03
Date of creation: 19.07.1996



Pos.	Part number	Share Description	Qty	Remark	DIN
-----	-----	Outer component complete.	2	without brake	
1	7801.042	Gear rim	2	Z=66	
2	1510.555	Hexagon screw	8	M16X85 10.9VP n.TI-58	931
3	7316.045	Plate	8		
4	7821.113	Planetary cage	2		
5	7313.011	Shear bushing	8		
6	7316.011	Check disk	8		
7	7807.053	Planetary stud	8		
8	1130.410	Cylinder roller	504		
9	1210.103	Supporting washer	32	SS 35x45x2.5	988
10	7806.050	Planetary gear	8	z=25	
11	7316.010	Check disk	8		
12	1750.639	Tolerance ring	8	0820 - 035 - 01 / BN35 x 8	
13	7821.112	Planetary cage	2		
14	1180.502	Seal ring	4	A20x24x1.5 CU	7603
15	9556.021	Screw plug	4	M20x1.5 with Magnet	
16	7323.016	Screw plug	2	M30X1.5 Adhesive coated	
17	1060.402	Flat nut	24	BM22x1.5 8	74361
18	1190.302	Lock washer	24	C22.5	74361
19	2108.017	Washer package	2	th.=2,5 / 1,0	
19	1210.113	Supporting washer	n.B.	SS30x42x2.5	
19	1210.295	SEEGER-washer	n.B.	PS30x42x1.0	
20	-----				
21	-----				
22	-----				
23	-----				
24	-----				
25	-----				
26	7308.011	O-ring	2	180-4 Viton	
27	7814.158	Stub axle	2		
28	1010.547	Lock screw	24	M16X45 10.9	
29	1180.301	Slide ring sealing	2	7697-H1600 72NBR 872	
30	7306.019	Axle stub ring	2		
31	1110.069	Tapered-roller bearing	2	320 21x	
32	1010.301	Hexagon screw	8	M12X30 10.9	933
33	7133.037	Wheel bolt	24		
34	7828.081	Wheel hub	2		
35	1170.755	O-ring	2	OR 345-5 72NBR 872	
36	1110.184	Tapered-roller bearing	2	330 20	
37	1220.913	Spring ring	2	SB310	
38	7804.040	Ring gear carrier	2	Z=66	
39	7329.036	Nut	2	M85X2 Adhesive coated	
40	7818.032	Sun gear shaft	2	Z=14	
41	-----				

Spare parts list

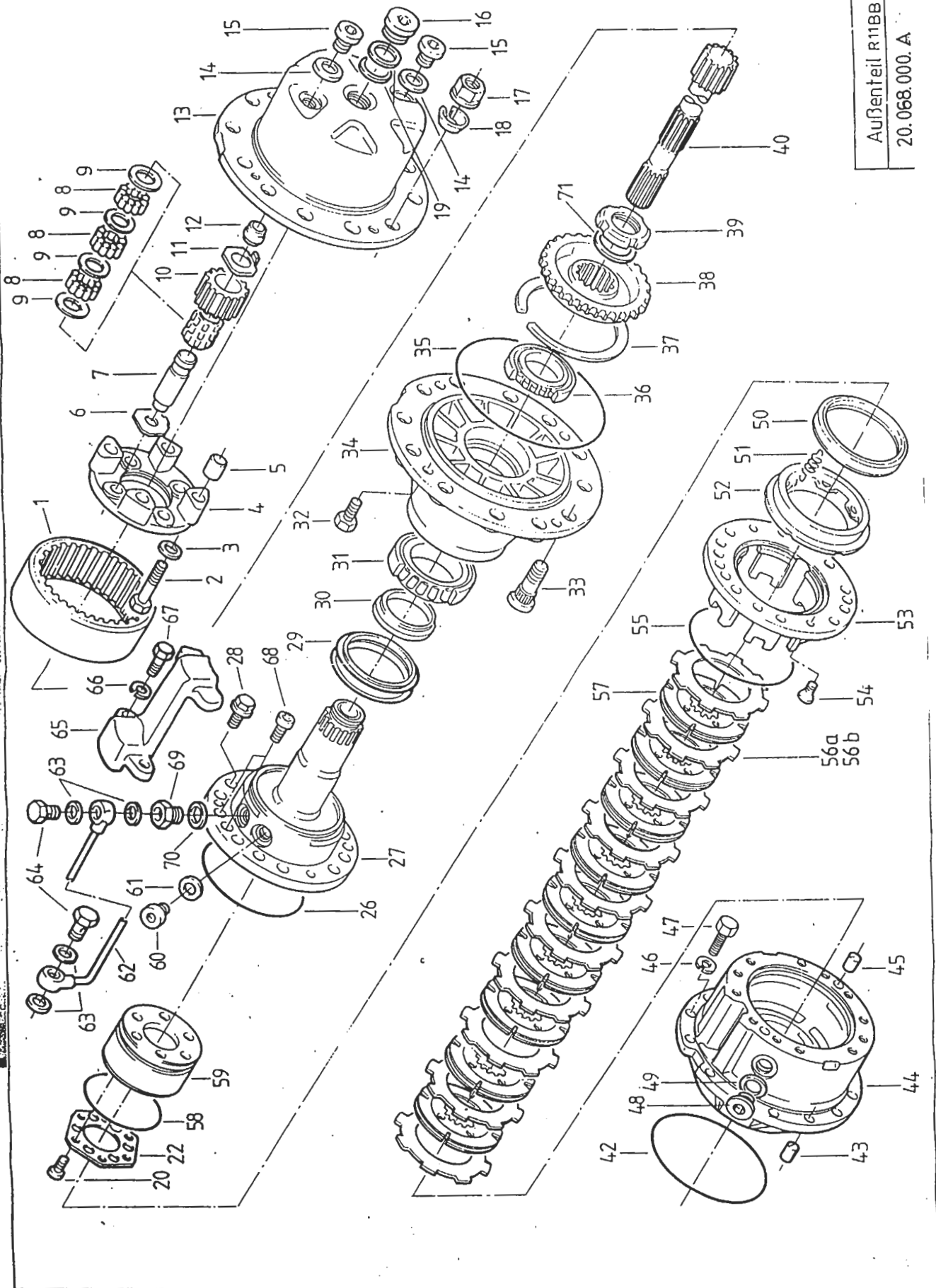
Description: Outer component
R 11BB without brake
Drawing No: 20.049.000.A
List No: 20.048.000.03
Date of creation: 19.07.1996



NAF

Pos.	Part number	Share Description	Qty	Remark	DIN
42	1170.732	O-ring	2	OR 290X5 72NBR 872	
43	1200.286	Straight pin	4	16M6X32 St. hardened	6325
44	7528.013	Connecting flange	2		
45	1200.286	Straight pin	4	16M6X32 St. hardened	6325
46	1190.013	Locking clip	24	VSK16 Spring steel DACROM	
47	1010.501	Hexagon screw	24	M16X40 10.9	933
48	7317.027	Adjusting washer	2	1,375 - 2,5 step 0,125	

0-50 11188-000-0



Außenteil R1188
20.068.000. A

Spare parts list

NAF

Description: Outer component
R11 BB with brake
Drawing No: 20.068.000.A
List No: 20.078.000.01
Date of creation: 24.07.1996



Pos.	Part No.	Description	Qty	Remark	DIN
---	-----	Outer component complete.	2	with brake	
1	7801.042	Gear rim	2	Z=66	
2	1510.555	Hexagon screw	8	M16X85 10.9VP n.TI-58	931
3	7316.045	Plate	8		
4	7821.113	Planetary cage	2		
5	7313.011	Shear bushing	8		
6	7316.011	Check disk	8		
7	7807.053	Planetary stud	8		
8	1130.410	Cylinder roller	504		
9	1210.103	Supporting washer	32	SS 35x45x2.5	988
10	7806.050	Planetary gear	8	z = 25	
11	7316.010	Check disk	8		
12	1750.639	Tolerance ring	8	0820 - 035 - 01 / BN35 x 8	
13	7821.112	Planetary cage	2		
14	1180.502	Seal ring	4	A20x24x1.5 CU	7603
15	9556.021	Screw plug	4	M20x1.5 with Magnet	
16	7323.016	Screw plug	2	M30X1.5 Adhesive coated	
17	1060.402	Flat nut	24	BM22x1.5 8	74361
18	1190.302	Lock washer	24	C22.5	74361
19	2108.017	Washer package	2	th. = 2,5 / 1,0	
19	1210.113	Supporting washer	n.B.	SS30x42x2.5	
19	1210.295	SEEGER-washer	n.B.	PS30x42x1.0	
20	1020.107	Allen screw	12	M8x20 10.9 VP n.TI-58	912
21	-----				
22	7315.028	Plate	2		
23	-----				
24	-----				
25	-----				
26	7308.011	O-ring	2	180-4 Viton	
27	7814.127	Stub axle	2		
28	1010.547	Lock screw	20	M16X45 10.9	
29	1180.301	Slide ring sealing	2	7697-H1600 72NBR 872	
30	7306.019	Axle stub ring	2		
31	1110.069	Tapered-roller bearing	2	320 21x	
32	1010.301	Hexagon screw	8	M12X30 10.9	933
33	7133.037	Wheel bolt	24		
34	7828.081	Wheel hub	2		
35	1170.755	O-ring	2	OR 345-5 72NBR 872	
36	1110.184	Tapered-roller bearing	2	330 20	
37	1220.913	Spring ring	2	SB310	
38	7804.040	Ring gear carrier	2	Z=66	
39	7329.036	Nut	2	M85X2 Adhesive coated	
40	7818.030	Sun gear shaft	2	Z=14	
41	-----				

Spare parts list

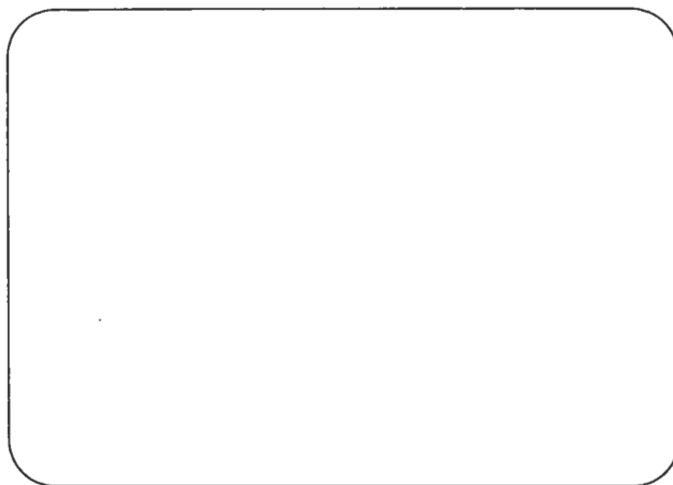
NAF

Description: Outer component
R11 BB with brake
Drawing No: 20.068.000.A
List No: 20.078.000.01
Date of creation: 24.07.1996



Pos.	Part No.	Description	Qty	Remark	DIN
42	1170.732	O-ring	2	OR 290X5 72NBR 872	
43	1200.286	Straight pin	4	16M6X32 St. hardened	6325
44	7528.024	Connecting flange	2		
45	1200.286	Straight pin	4	16M6X32 St. hardened	6325
46	1190.013	Locking clip	20	VSK16 Spring steel DACROM	
47	1010.501	Hexagon screw	20	M16X40 10.9	933
48	1040.103	Screw plug	4	M30X1.5 8.8	908
49	1180.507	Seal ring	4	A30x36x2 CU	7603
50	7308.024	Shaft seal	2	Viton	
51	7331.032	Tension spring	12		
52	5252.054	Pistons	2		
53	9867.045	Disk support	2		
54	1040.217	Counter sunk bolt	4	M8X20 8.8	7991
55	7308.012	O-ring	2	OR 190-4 Viton	
56a	7344.023	Driven disk	20	th. = 2,3	
56b	7344.022	Driven disk	n.B.	th. = 2,8	
57	7345.017	Drive disk	18	th. = 2.9	
58	9276.020	O-ring	2	OR140-4 Viton	
59	5263.037	Cylinder	2		
60	1040.105	Screw plug	2	M14X1.5 8.8	908
61	1180.503	Seal ring	2	A14x18x1.5 CU	7603
62	7149.078	Pipe compl	2		
63	1180.530	Seal ring	8	A10x16x1 CU	7603
64	1040.335	Hollow screw	4	LL6 M10x1	7643
65	9834.001	Shutter	2		
66	1190.013	Locking clip	4	VSK16 Spring steel DACROM	
67	1010.504	Hexagon screw	4	M16X55 10.9	931
68	1020.521	Allen screw	4	M16X45 10.9 VP	912
69	1250.594	Threaded stud	2	M14x1,5/M10x1	
70	1180.521	Seal ring	2	14x20x1.5 CU	7603
71	7317.027	Adjusting washer	1	th.=1,375 - 2,5 step 0,125	

Blue - F



Vendor Component Info Packet -

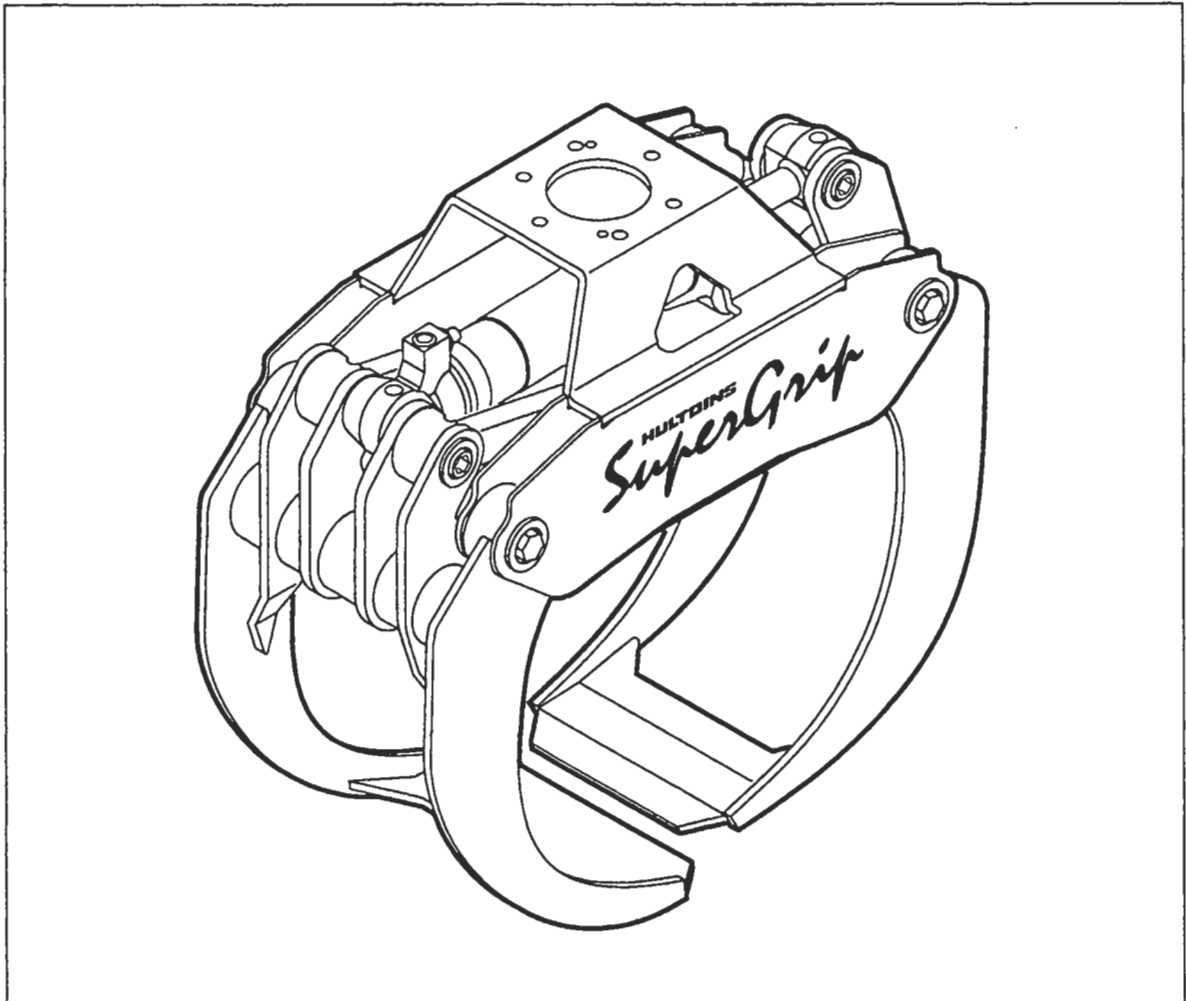
***HULTDINS/INDEXATOR
Grapple Buckets & Rotators...***

360 Grapple - PN# 19057

360S Grapple - PN# 19980

GV11US Rotator - PN# 20207

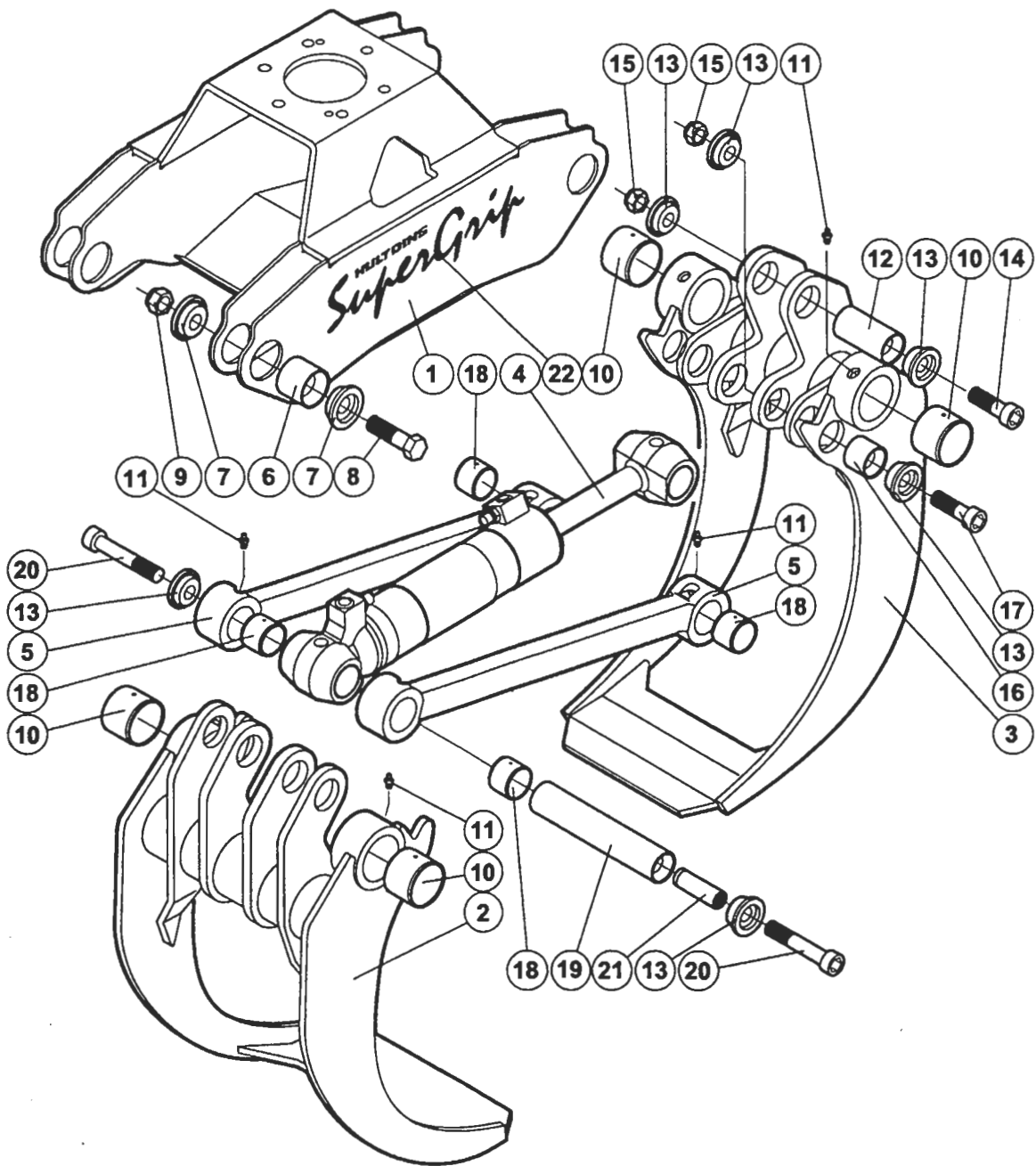
HULTOINSTM *SuperGrip*



SuperGrip 360

Parts manual

Grapple compl.

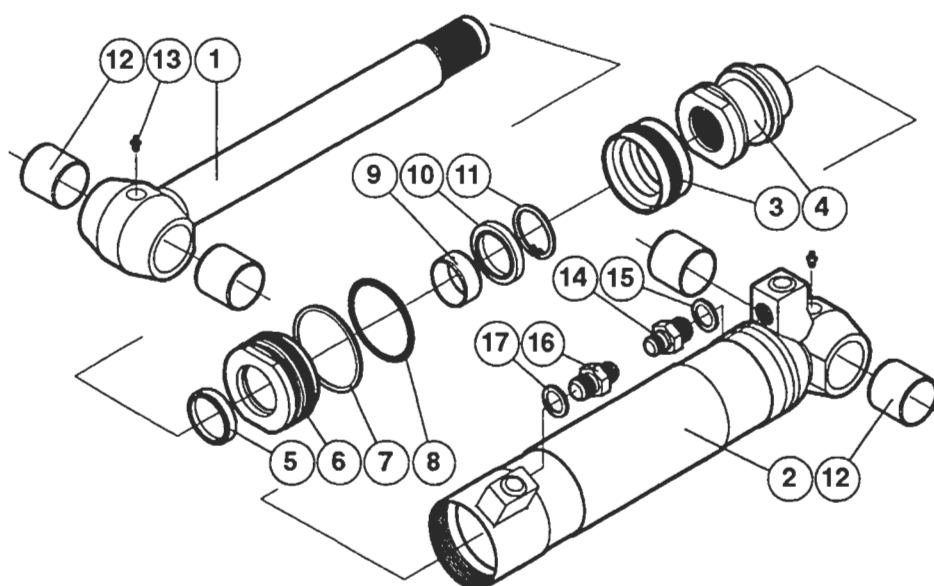


Blue F.2

Pos	Qty	Part no.	Description	Notes
-	1	0680000	SuperGrip 360	Pos 1-22
1	1	0680001	Frame	
2	1	0680008	Grapple arm, female	
3	1	0680007	Grapple arm, male	
4	1	0680004	Cylinder assy. compl.	Ø 90/50
5	2	0680030	Rod	
6	4	0680009	Pin	
7	8	0680021	Washer	
8	4	0104616	Hex. bolt	M6S 20 x100 10.9
9	4	0106032	Nut	M6M 20 GB10 FOS.
10	4	0680071	Bushing	
11	8	0114004	Grease nipple	M6 x 1
12	1	0680077	Pin	
13	8	0680054	Washer	
14	1	0104132	Socket head cap screw	MC6S 16 x160 12.9
15	3	0106030	Nut	M6M 16 GB10 FOS.
16	2	0680015	Pin	
17	2	0104502	Socket head cap screw	MC6S 16 x110 12.9
18	4	0680072	Bushing	
19	1	0680075	Pin	
20	1	0104502	Socket head cap screw	MC6S 16 x110 12.9
20	1	0104132	Socket head cap screw	MC6S 16 x160 12.9
21	1	0660263	Nut	
22	2	0146026	Decal	SuperGrip 360

Blue F.3

Cylinder assy. compl.

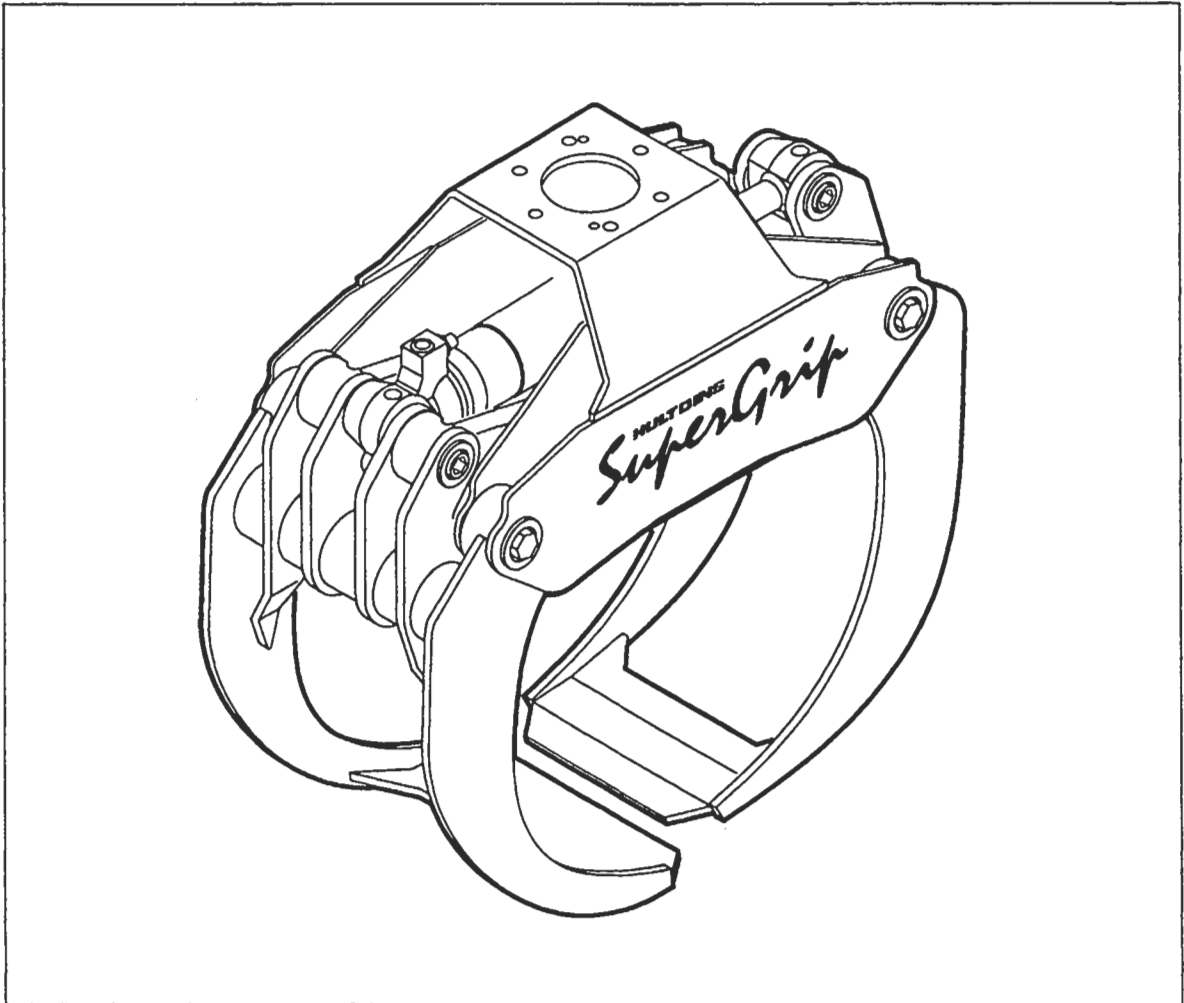


Pos	Qty	Part no.	Description	Notes
	1	0680004	Cylinder assy. compl.	Pos 1-17, Ø 90/50
1	1	0680006	Piston rod	
2	1	0680005	Tube assembly	
3	1	0120041	Piston seal	Ø 090/70 x 22.4
4	1	0680034	Piston	
5	1	0116001	Dust seal	Ø 50/60 x7 x10
6	1	0680033	Cap	
7	1	0118529	Support ring	Ø 85/95
8	1	0118103	O-ring	Ø 84.1 x 5.7
9	1	0124017	Bushing	
10	1	0120019	Piston rod seal	Ø 050/065 x 10.5
11	1	0112007	Locking ring	SGH 65
12	4	0680073	Bushing	
13	2	0114004	Grease nipple	M6 x 1
14	1	0130064	Nipple	BSPP 3/4"
14*	1	9008002	Nipple	BSPP 3/4" - #8 JIC
15	1	0106584	Bonded seal	3/4"
16	1	0130008	Nipple	BSPP 1/2"
16*	1	9008001	Nipple	BSPP 1/2" - #8 JIC
17	1	0106577	Bonded seal	1/2"
-	-	0121034	Seal kit	Pos 3, 5, 7-10

*) For use in Canada.

Blue F.5

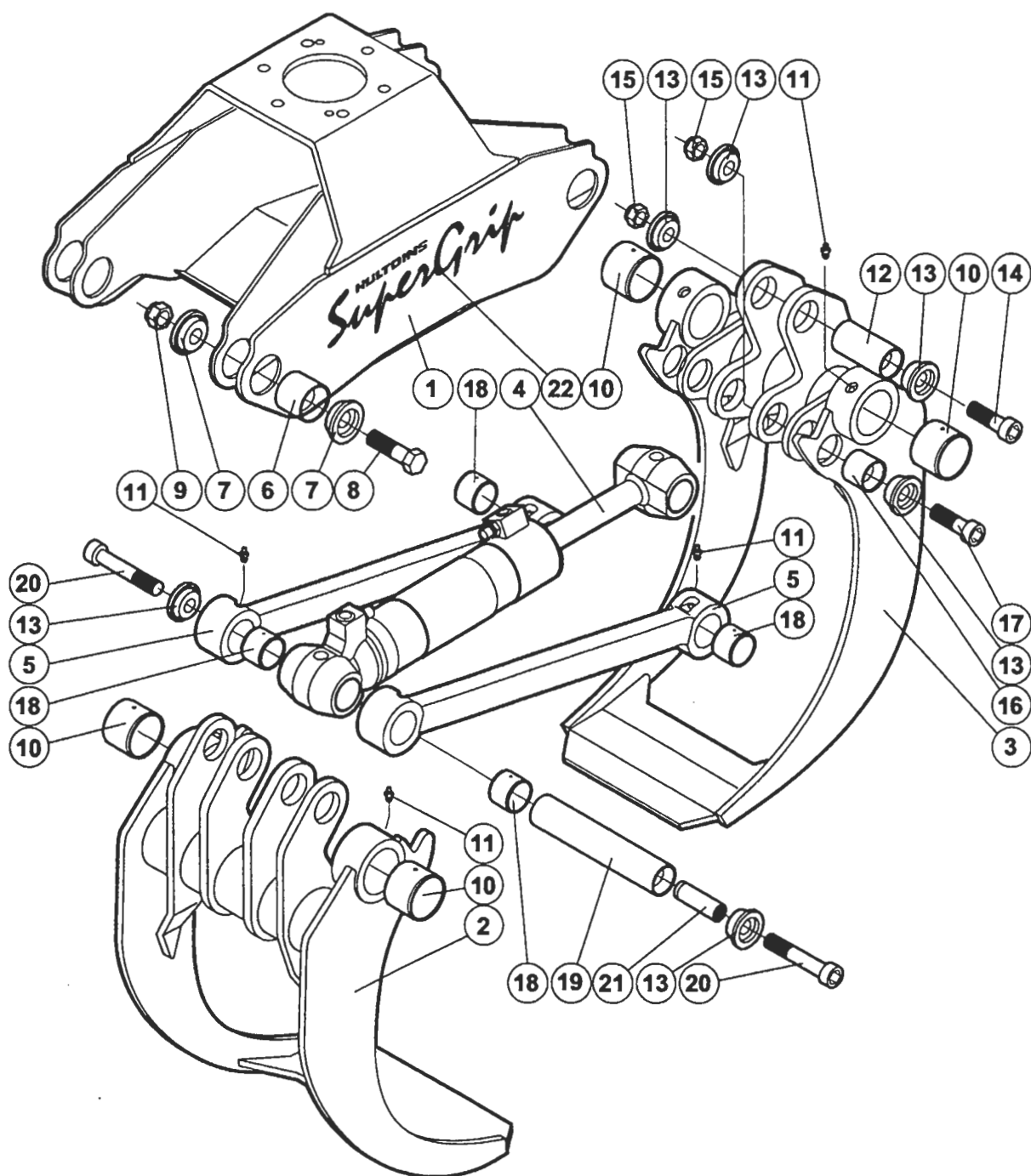
HULTDINSTM SuperGrip



SuperGrip 360S

Parts manual

Grapple compl.

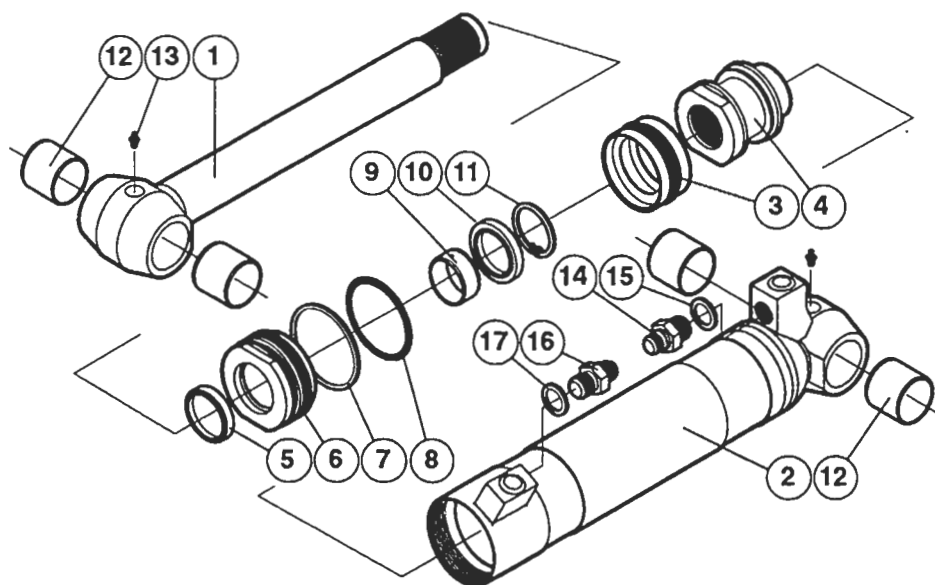


Blue F.7

Pos	Qty	Part no.	Description	Notes
-	1	0680500	SuperGrip 360S	Pos 1-22
1	1	0680501	Frame	
2	1	0680508	Grapple arm, female	
3	1	0680507	Grapple arm, male	
4	1	0680004	Cylinder assy. compl.	Ø 90/50
5	2	0680030	Rod	
6	4	0680521	Pin	
7	8	0683021	Washer	
8	4	0104634	Hex. bolt	M6S 24 x110 10.9
9	4	0106033	Nut	M6M 24 GB10 FOS.
10	4	0683071	Bushing	
11	8	0114004	Grease nipple	M6 x 1
12	1	0680077	Pin	
13	8	0680054	Washer	
14	1	0104132	Socket head cap screw	MC6S 16 x160 12.9
15	3	0106030	Nut	M6M 16 GB10 FOS.
16	2	0680015	Pin	
17	2	0104502	Socket head cap screw	MC6S 16 x110 12.9
18	4	0680072	Bushing	
19	1	0680075	Pin	
20	1	0104502	Socket head cap screw	MC6S 16 x110 12.9
20	1	0104132	Socket head cap screw	MC6S 16 x160 12.9
21	1	0660263	Nut	
22	2	0146038	Decal	SuperGrip 360S

Blue F.8

Cylinder assy. complete



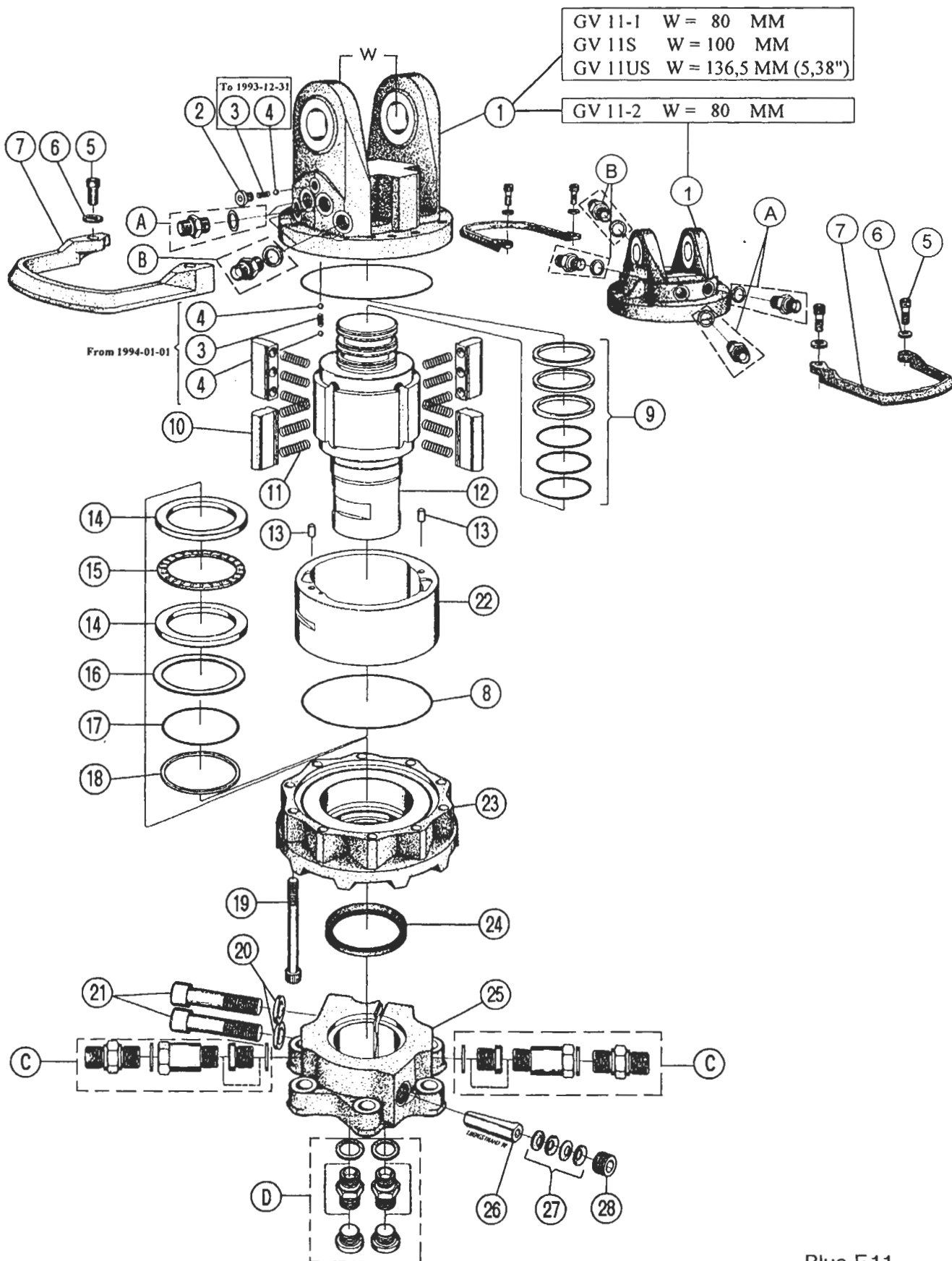
Blue F.9

Pos	Qty	Part no.	Description	Notes
	1	0680004	Cylinder assy. compl.	Pos 1-17, Ø 90/50
1	1	0680006	Piston rod	
2	1	0680005	Tube assembly	
3	1	0120041	Piston seal	Ø 090/70 x 22.4
4	1	0680034	Piston	
5	1	0116001	Dust seal	Ø 50/60 x7 x10
6	1	0680033	Cap	
7	1	0118529	Support ring	Ø 85/95
8	1	0118103	O-ring	Ø 84.1 x 5.7
9	1	0124017	Bushing	
10	1	0120019	Piston rod seal	Ø 050/065 x 10.5
11	1	0112007	Locking ring	SGH 65
12	4	0680073	Bushing	
13	2	0114004	Grease nipple	M6 x 1
14	1	0130064	Nipple	BSPP 3/4"
14*	1	9008002	Nipple	BSPP 3/4" - #8 JIC
15	1	0106584	Bonded seal	3/4"
16	1	0130008	Nipple	BSPP 1/2"
16*	1	9008001	Nipple	BSPP 1/2" - #8 JIC
17	1	0106577	Bonded seal	1/2"
-	-	0121034	Seal kit	Pos 3, 5, 7-10

*) For use in Canada.

Blue F.10

ROTATOR GV 11, GV 11S, GV 11US



Blue F.11

DATUM / DATE
950301

 **Indexator**

ROTATOR GV 11, GV 11S, GV 11US

POS FIG	DETALJ NR PART NO	ANT QTY	BENÄMNING	DESCRIPTION	SATS KIT	ANM NOTES
1	5011 049	1	GV 11-1, komplett	GV 11-1, complete		
5	5011 013	1	Övre statorhalva	Stator plate, upper		
	1016 203	2	Skruv	Screw		
1	5011 048	1	GV11-2, komplett	GV11-2, complete		
5	5011 032	1	Övre statorhalva	Stator plate, upper		
6	1016 203	4	Skruv	Screw		
7	1017 326	4	Bricka	Washer		
	5011 006	2	Nippelskydd	Hoseguard		
1	5011 075	1	GV 11S, komplett	GV 11S, complete		
5	5011 017	1	Övre statorhalva	Stator plate, upper		
	1016 203	2	Skruv	Screw		
1	5011 180	1	GV 11US, komplett	GV 11US, complete		
5	5011 178	1	Övre statorhalva	Stator plate, upper		
	1019 926	2	Skruv	Screw		
2	5001 381	1	Propp	Plug		R 1/8"
3	1020 536	1	Fjäder	Spring		
4	1005 545	2	Kula	Ball		
6	1017 326	2	Bricka	Washer		
7	5011 006	1	Nippelskydd	Hoseguard		
8	1013 515	2	O-ring	O-ring	*	
9	1005 669	3	Glid-o-ring	Glide ring	*	
10	5011 037	5	Vinge	Vane		
11	5006 030	15	Fjäder	Spring		
12	5011 026	1	Rotatoraxel	Rotator shaft		
13	1019 900	2	Spiralspännstift	Pin		
14	1018 951	2	Löppbricka	Washer		
15	1015 080	1	Axialnålkrans	Axial needle bearing		
16	5010 081	1	Sims, sats	Shim, set		
	1016 658	1	Shims	Shim		0,100 mm
	1017 029	1	Shims	Shim		0,125 mm
	1016 641	1	Shims	Shim		0,150 mm
	1017 425	1	Shims	Shim		0,178 mm
17	1007 269	1	O-ring	O-ring	*	
18	1015 064	1	Stödring	Support ring	*	
19	1002 120	10	Skruv	Screw		
20	1019 496	2	Bricka	Washer		
21	1019 488	2	Skruv	Screw		M20 x 100
22	5011 023	1	Statorring	Stator frame		
23	5011 020	1	Undre statorhalva	Stator plate, lower		
24	1019 470	1	Rotationsavstrykare	V-ring	*	
25	5011 022	1	Nedre länk	Link, lower		
26	5010 038	1	Kil	Wedge		
27	1015 643	4	Tallriksfjäder	Cup spring		
28	5010 039	1	Låsskruv	Locking screw		
*	5011 047	1	Tätningssats	Seal kit		
A-D			Nippelsats se förteckning nästa sida	Adapter set see spec list next page		

DATUM / DATE

940401

 Indexator

Blue F.12

