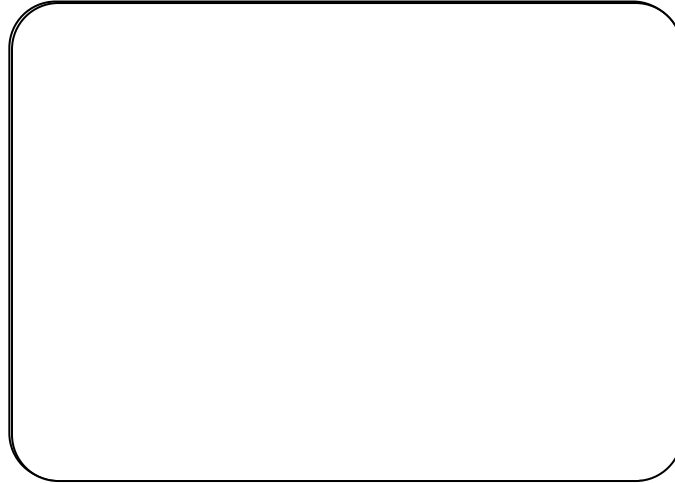
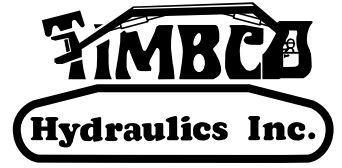
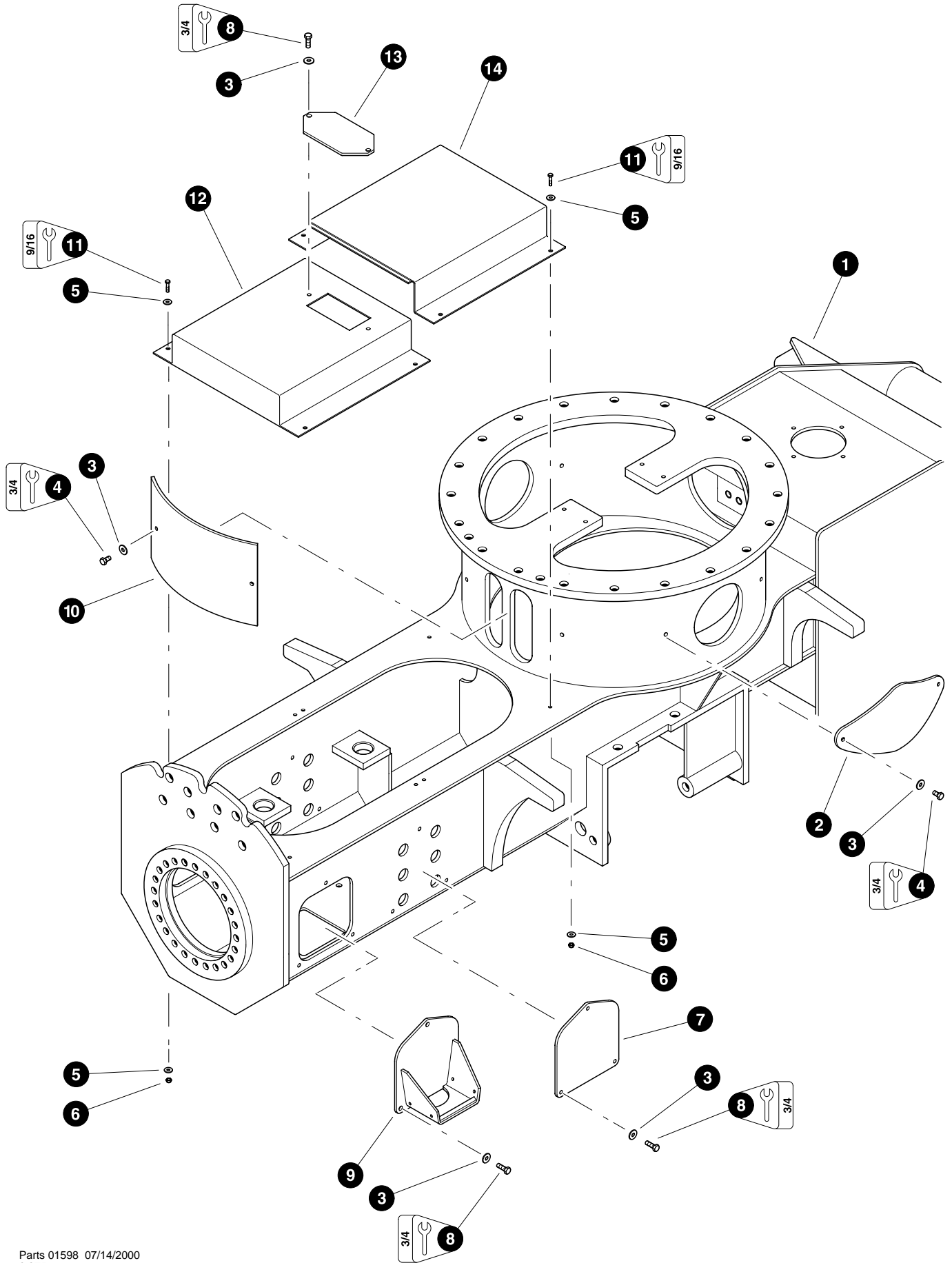


Section FF-1



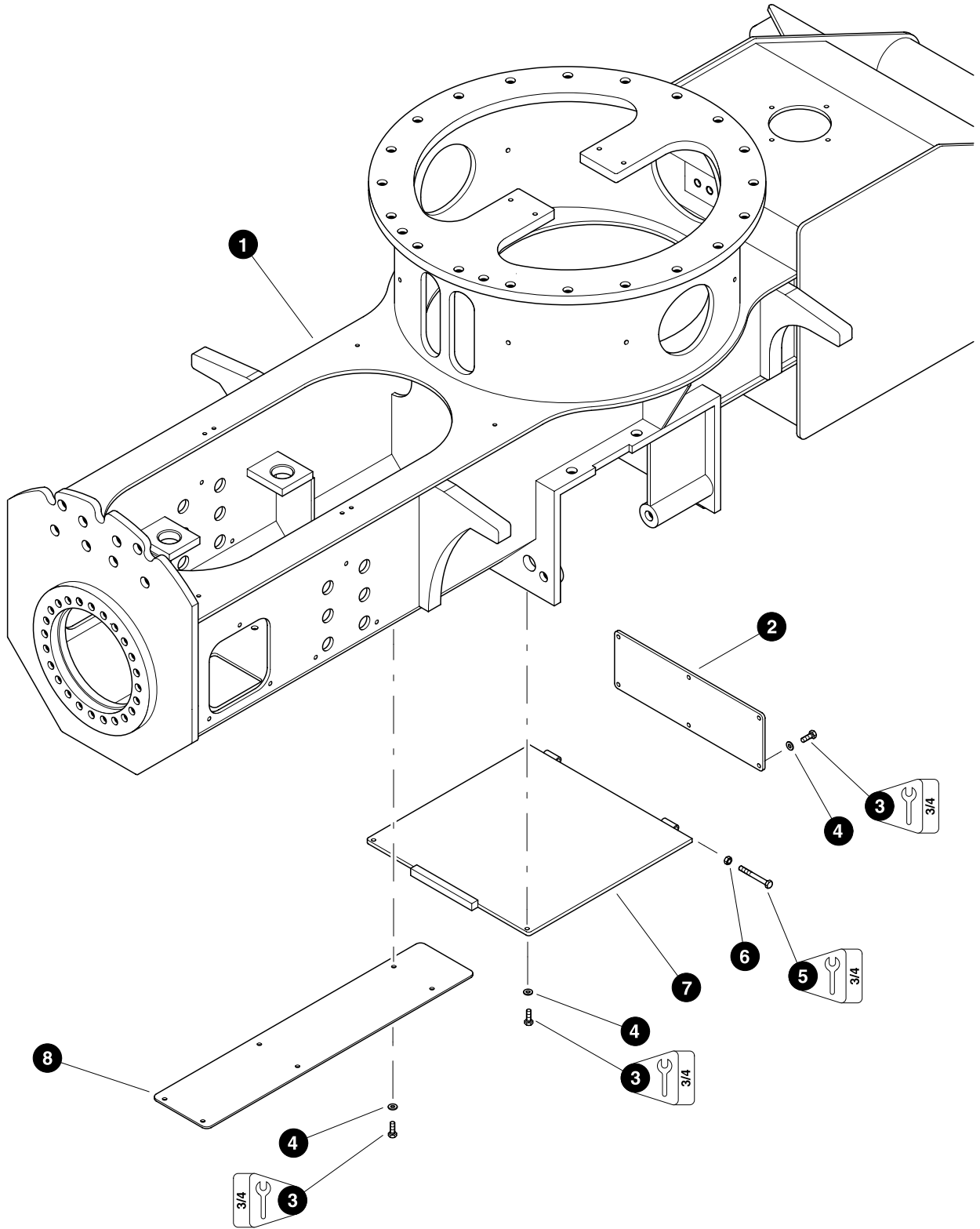
Set-Forward Front Frame - Structural



Parts 01598 07/14/2000
9.375

FRAME ACCESS COVERS (Upper Areas)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	80510-FF	1	WELDMENT, front frame	
2	20217-FF	2	COVER, access - turntable riser side (<i>Shown</i>)	
	22990-FF	1	COVER, access - turntable riser front (<i>Notched for fuel lines</i>) (<i>Not shown</i>)	
3	15534-FF	22	WASHER, SAE flat - 1/2"	
4	10783-FF	8	BOLT - 1/2" x 1"	
5	15528-FF	16	WASHER, SAE flat - 3/8"	
6	15507-FF	8	NUT, nylock - 3/8"	
7	80317-FF	3	COVER, access - frame side (<i>Without step</i>)	
8	10739-FF	14	BOLT - 1/2" x 1-1/2"	
9	20208-FF	1	COVER, access - frame side (<i>With step</i>)	
10	23107-FF	1	COVER, access - turntable riser rear	
11	10731-FF	8	BOLT - 3/8" x 1-1/2"	
12	20213-FF	1	COVER, access - rear drive motor	
13	13415-FF	1	COVER, access - dipstick	
14	20212-FF	1	COVER, access - front drive motor	

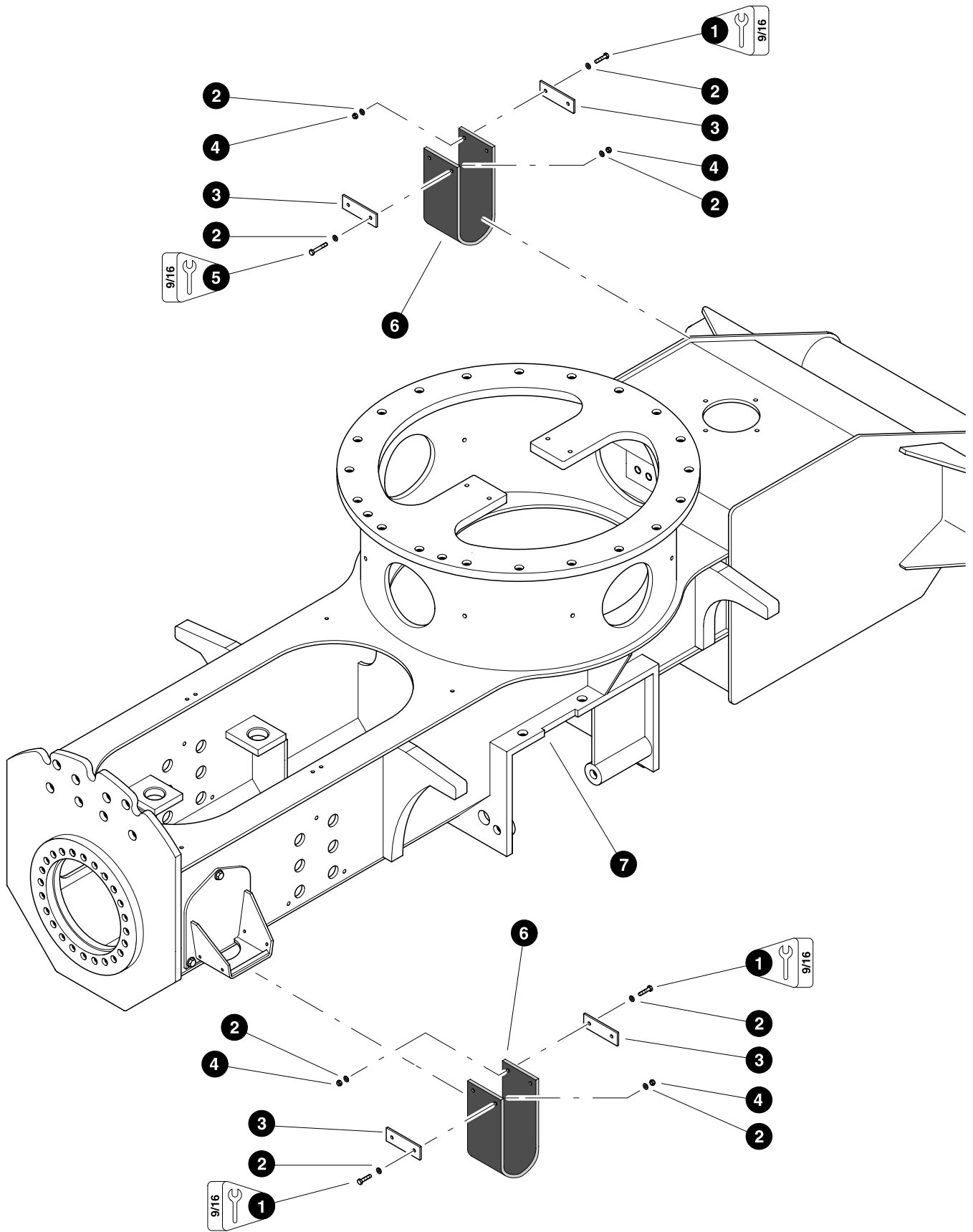


Parts 01599 07/14/2000
9.375

FRAME ACCESS COVERS (Lower Areas)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	FRONT FRAME WELDMENT	FF-1-2
2	80316-FF	1		COVER, access - axle box	
3	10739-FF	14		BOLT - 1/2" x 1-1/2"	
4	15534-FF	14		WASHER, SAE flat - 1/2"	
5	10835-FF	2		BOLT - 1/2" x 4-1/2"	
6	10815-FF	2		NUT, lock - 1/2"	
7	19817-FF	1		COVER, access - front frame axle	
8	80329-FF	1		COVER, access - belly pan	

✓ See referenced page for component or assembly breakdown.



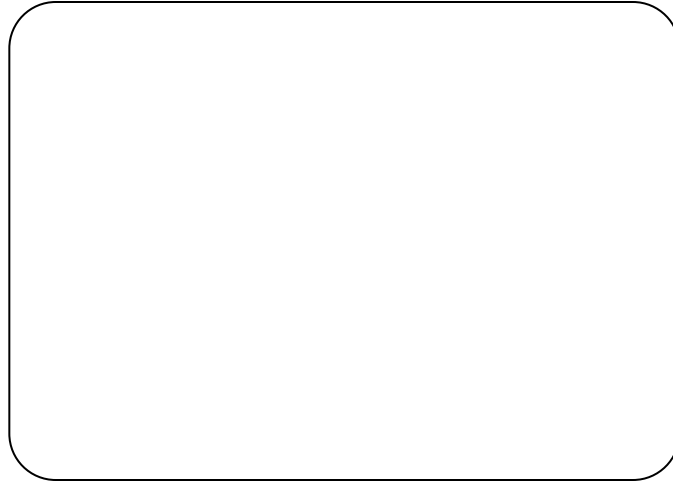
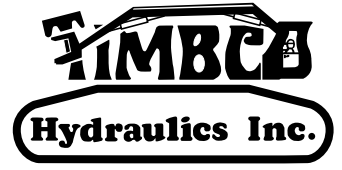
Parts 01597 03/02/2000
9.375

FRAME STEP INSTALLATION

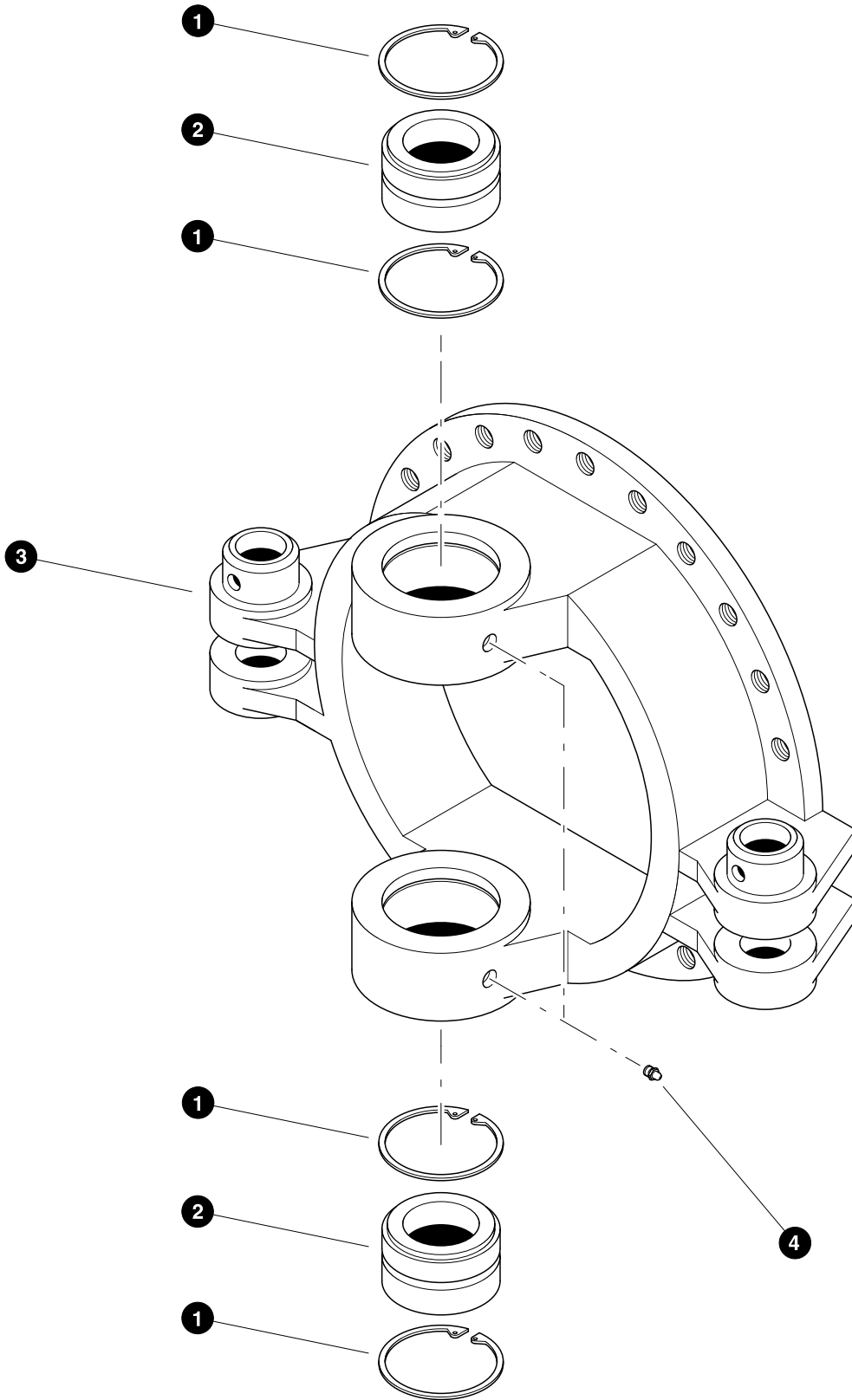
REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	20084-FF	6	BOLT - 3/8" x 1-3/4"	
2	15528-FF	16	WASHER, SAE flat - 3/8"	
3	20209-FF	4	RETAINER, rubber step	
4	10813-FF	8	NUT, lock - 3/8"	
5	10731-FF	2	BOLT - 3/8" x 1-1/2"	
6	20210-FF	2	STEP, rubber	
7	REF.	1	✓ FRONT FRAME WELDMENT	FF-1-2

✓ See referenced page for component or assembly breakdown.

Section FF-2



Set-Forward Front Frame - Articulation Components

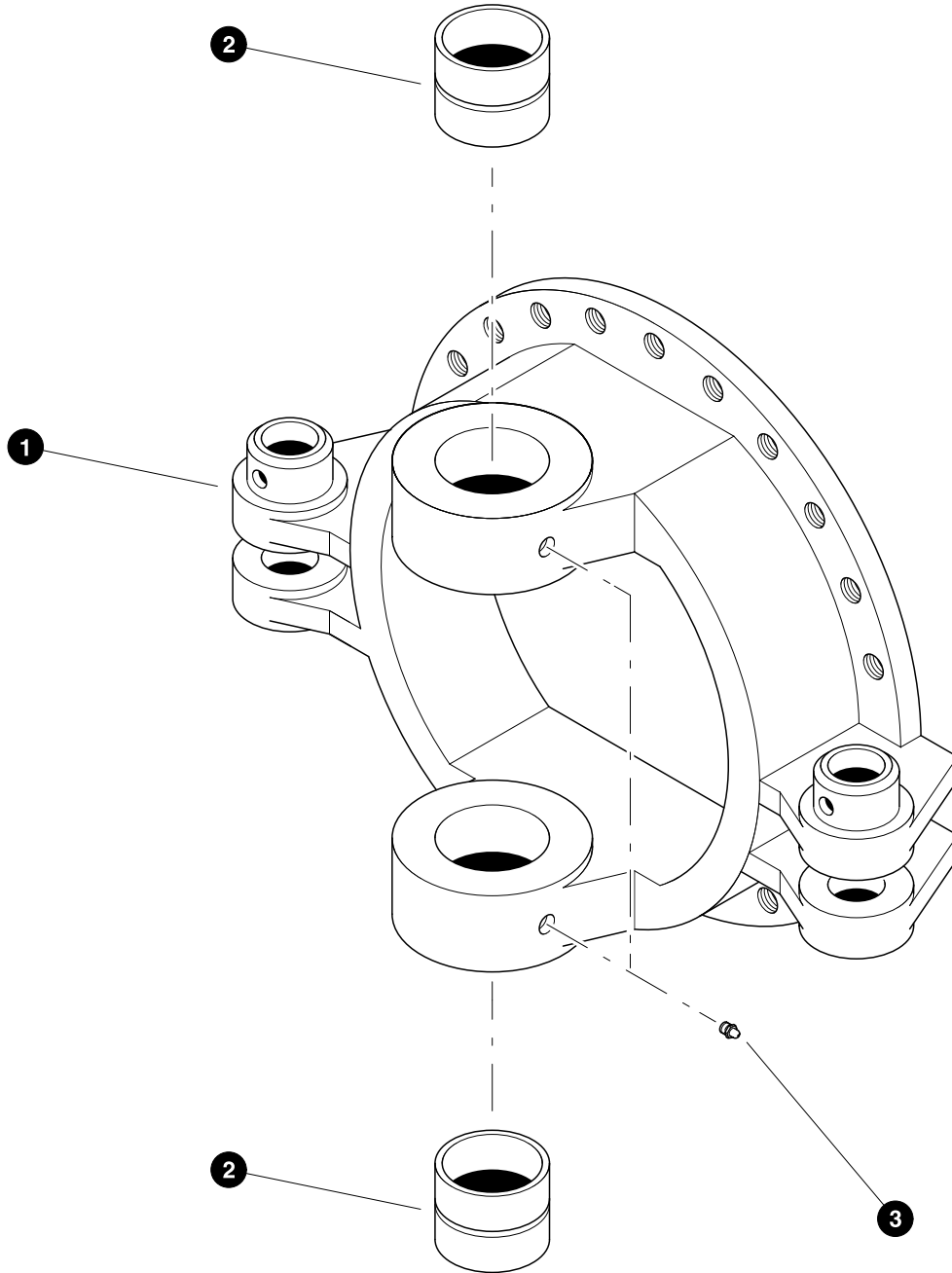


Parts 01867 10/26/2000
25.00

FRAME ARTICULATION CASTING

(Used on machines PDN# 127FWD and below)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	17833-FF	4	RING, snap - 3" spherical bushing	
2	23897-FF	2	BUSHING - 3" x 2-3/4" <i>(With step)</i>	
	23898-FF	2	BUSHING - 3-1/2" x 2-3/4" <i>(Used only with retrofitted 3-1/2" diameter articulation pin)</i>	
3	22529-FF	1	CASTING, frame articulation	
4	10704-FF	2	FITTING, grease - 1/8" pipe thread	

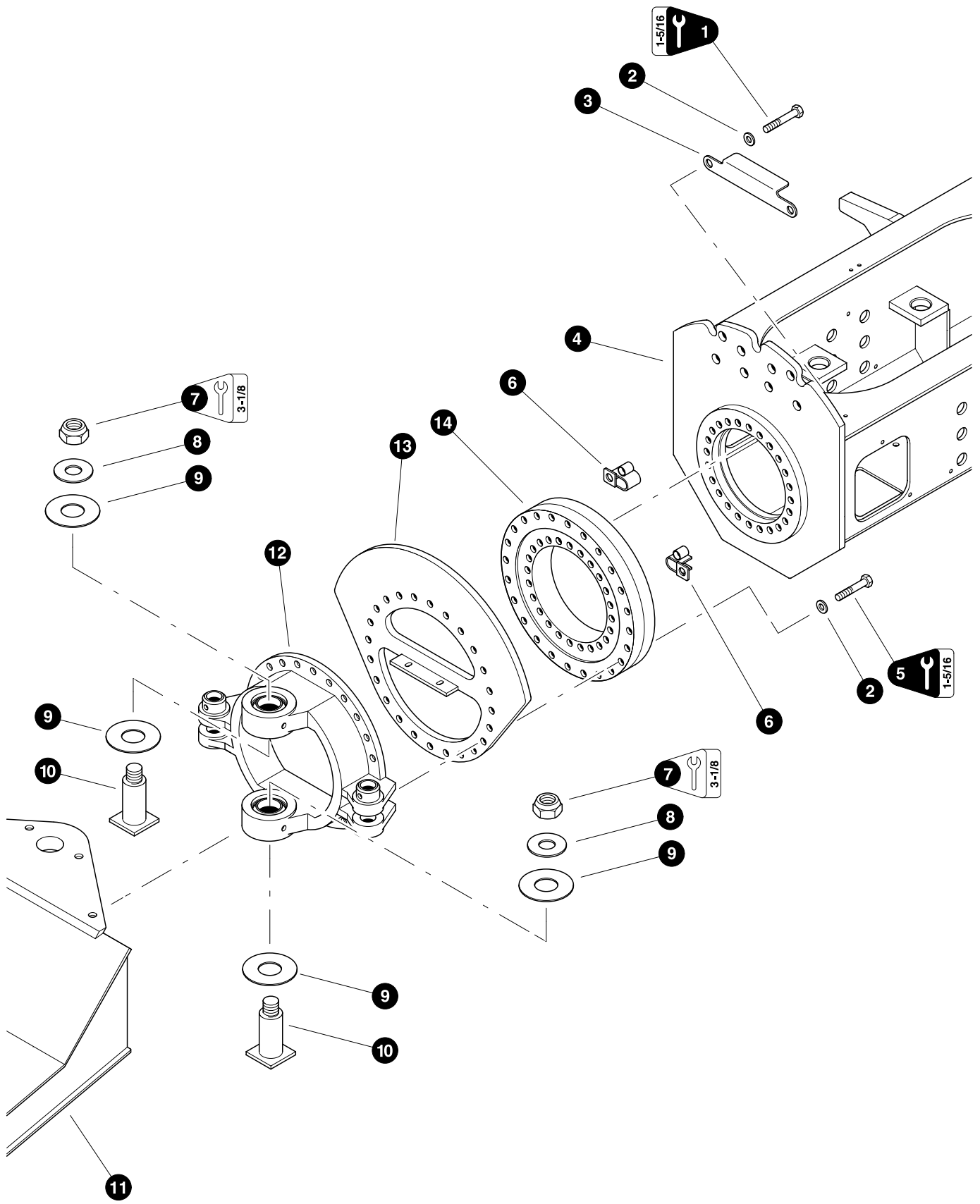


FRAME ARTICULATION CASTING

(Used on machines PDN# 128FWD and above)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	23099-FF	1	<input type="checkbox"/> CASTING, frame articulation	
2	23103-FF	2	BUSHING - 3-1/2" x 2-3/4"	
3	10704-FF	2	FITTING, grease - 1/8" pipe thread	

- Kit or Assembly - includes all items indented underneath.



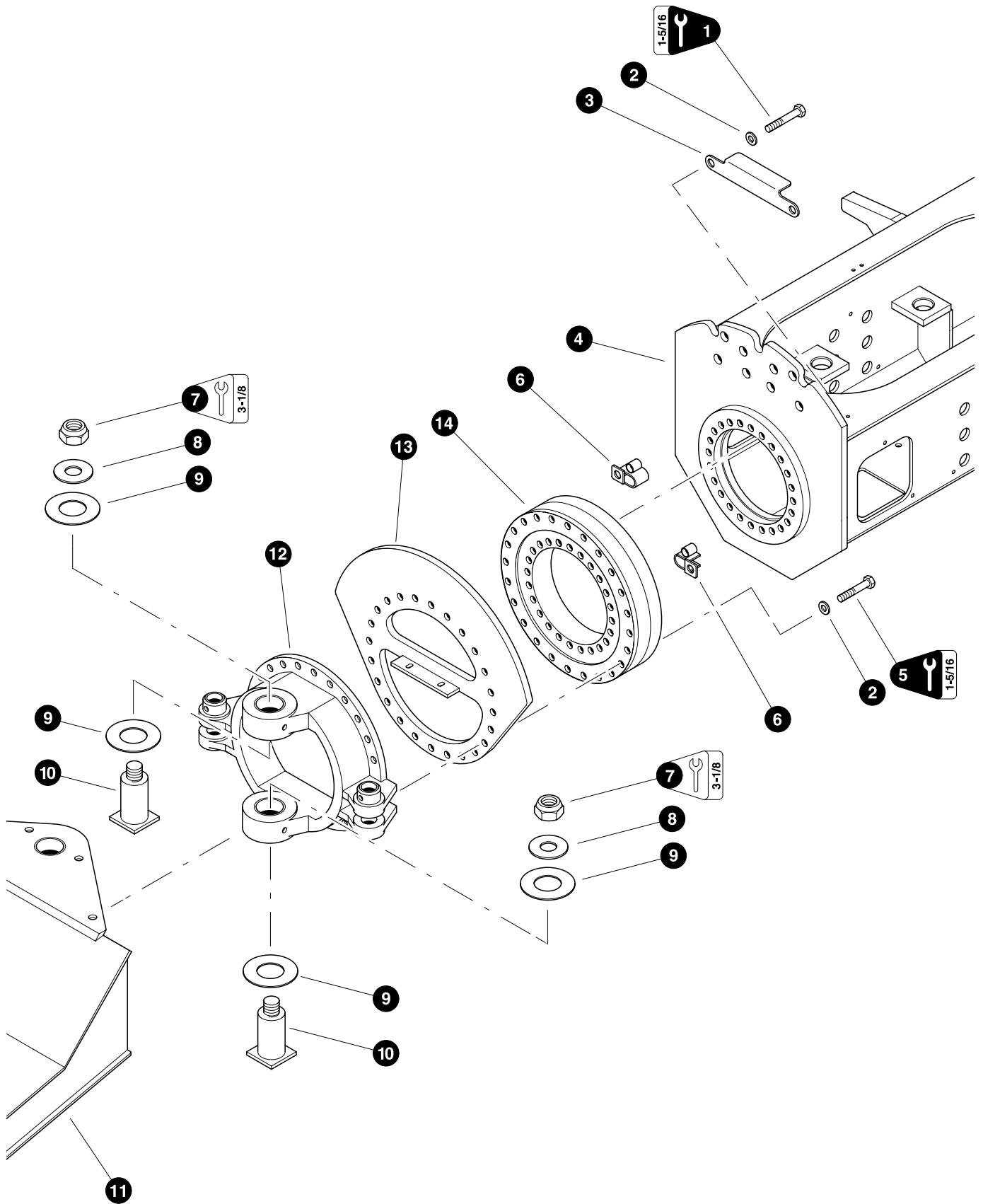
Parts 00575 11/22/99
9.375

FRAME ARTICULATION INSTALLATION

(Used on machines PDN# 127FWD and below)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	19072-FF	24	BOLT - 7/8" x 5-1/2" (Torque to 600 ft.lbs (800 Nm))	
2	10718-FF	24	WASHER, SAE flat - 7/8"	
3	80493-FF	1	BRACKET, hose carrier	
4	REF.	1	✓ FRONT FRAME WELDMENT	FF-1-2
5	22530-FF	24	BOLT - 7/8" x 6-1/2" (Torque to 600 ft.lbs (800 Nm))	
6	20855-FF	3	BRACKET, clam bunk hose	
7	10728-FF	2	NUT, nylock - 2"	
8	18709-FF	2	WASHER, articulation pin	
9	19486-FF	AR	WASHER, thrust - thin (<i>Brass</i>)	
	19487-FF	AR	WASHER, thrust - thick (<i>Brass</i>)	
10	19330-FF	2	PIN, articulation - 3" x 8-5/8"	
11	REF.	1	✓ REAR FRAME WELDMENT	FR-1-2
12	REF.	1	FRAME ARTICULATION CASTING	FF-2-2
13	80385-FF	1	PLATE, braking	
14	18834-FF	1	BEARING, articulation	

✓ See referenced page for component or assembly breakdown.



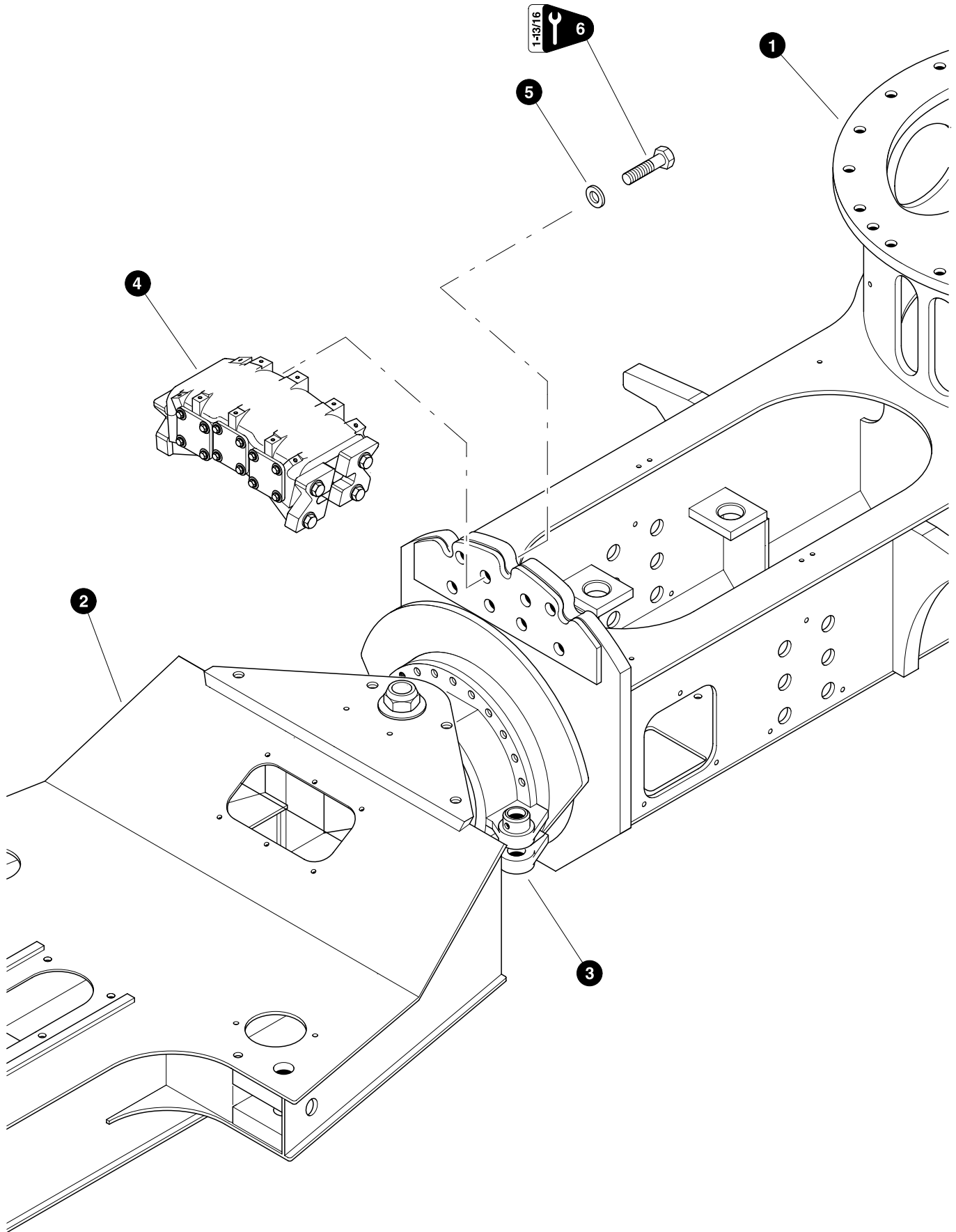
Parts 01721 08/11/2000
9.375

FRAME ARTICULATION INSTALLATION

(Used on machines PDN# 128FWD and above)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	23387-FF	24	BOLT - 1" x 6-1/2" (<i>Torque to 1000 ft.lbs (1330 Nm)</i>)	
2	18532-FF	48	WASHER, SAE flat - 1"	
3	80493-FF	1	BRACKET, hose carrier	
4	REF.	1	✓ FRONT FRAME WELDMENT	FF-1-2
5	18672-FF	24	BOLT - 1" x 7-1/2" (<i>Torque to 1000 ft.lbs (1330 Nm)</i>)	
6	20855-FF	3	BRACKET, clam bunk hose	
7	10728-FF	2	NUT, nylock - 2"	
8	22897-FF	2	WASHER, articulation pin	
9	23106-FF	AR	WASHER, thrust - thin (<i>Brass</i>)	
	23105-FF	AR	WASHER, thrust - thick (<i>Brass</i>)	
10	23102-FF	2	PIN, articulation - 3-1/2" x 8-5/8"	
11	REF.	1	✓ REAR FRAME WELDMENT	FR-1-2
12	REF.	1	FRAME ARTICULATION CASTING	FF-2-2
13	80535-FF	1	PLATE, braking	
14	23004-FF	1	BEARING, articulation	

✓ See referenced page for component or assembly breakdown.

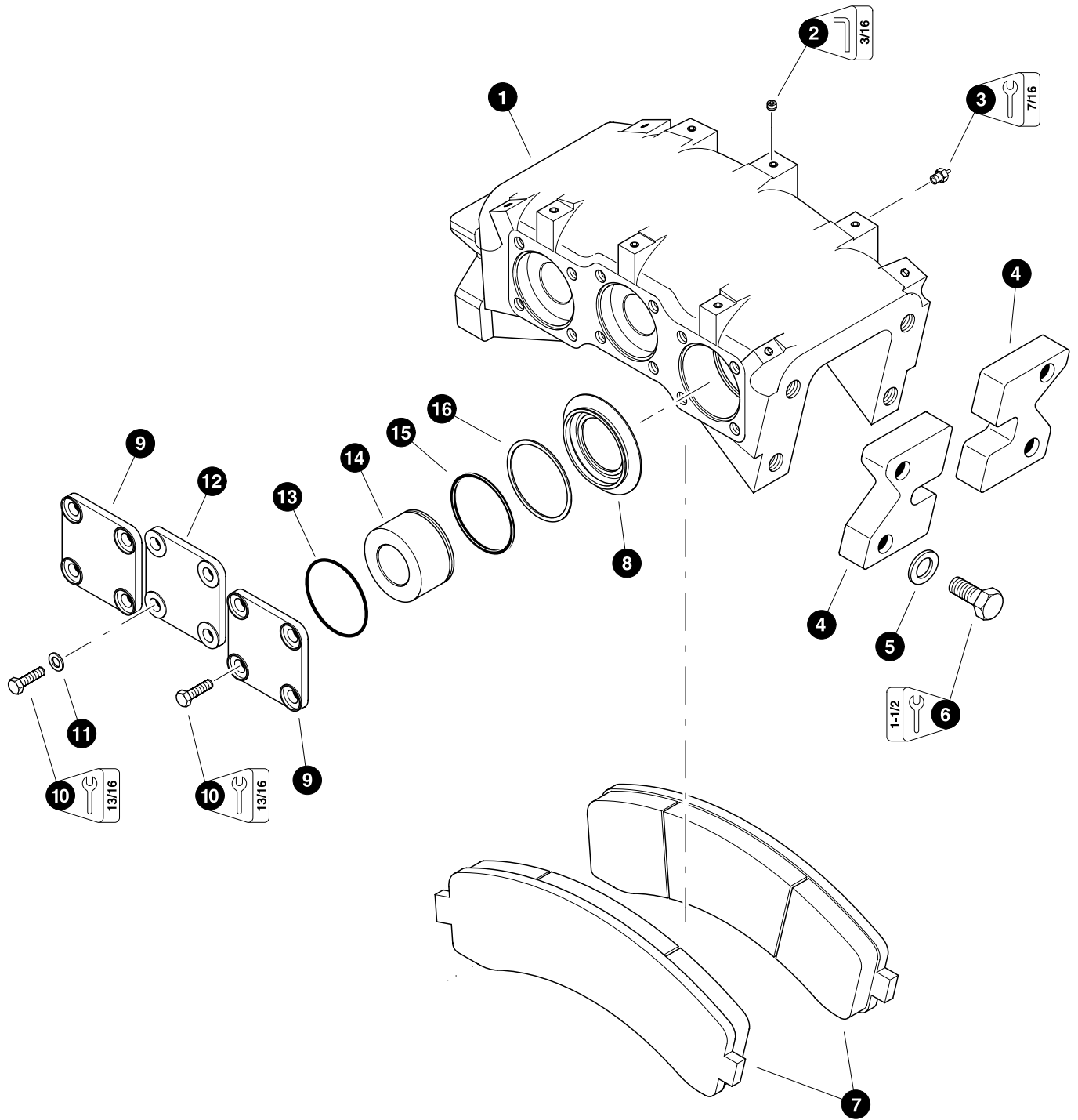


Parts 01738 08/10/2000
12.50

FRAME LOCK BRAKE INSTALLATION

REF	PART #	QTY	✓	DESCRIPTION	SEE PAGE
1	REF	1	✓	FRONT FRAME WELDMENT	FF-1-2
2	REF.	1	✓	REAR FRAME WELDMENT	FR-1-2
3	REF.	1	✓	FRAME ARTICULATION CASTING	FF-2-2
4	REF.	1	✓	FRAME LOCK BRAKE	FF-2-8
5	22531-FF	8		WASHER - 1-1/4"	
6	23351-FF	8		BOLT - 1-1/4" x 4-1/2" NF <i>(Used on machines PDN# 128FWD and above)</i>	
	22532-FF	8		BOLT - 1-1/4" x 3-1/2" NF <i>(Used on machines PDN# 127FWD and below)</i>	

✓ See referenced page for component or assembly breakdown.

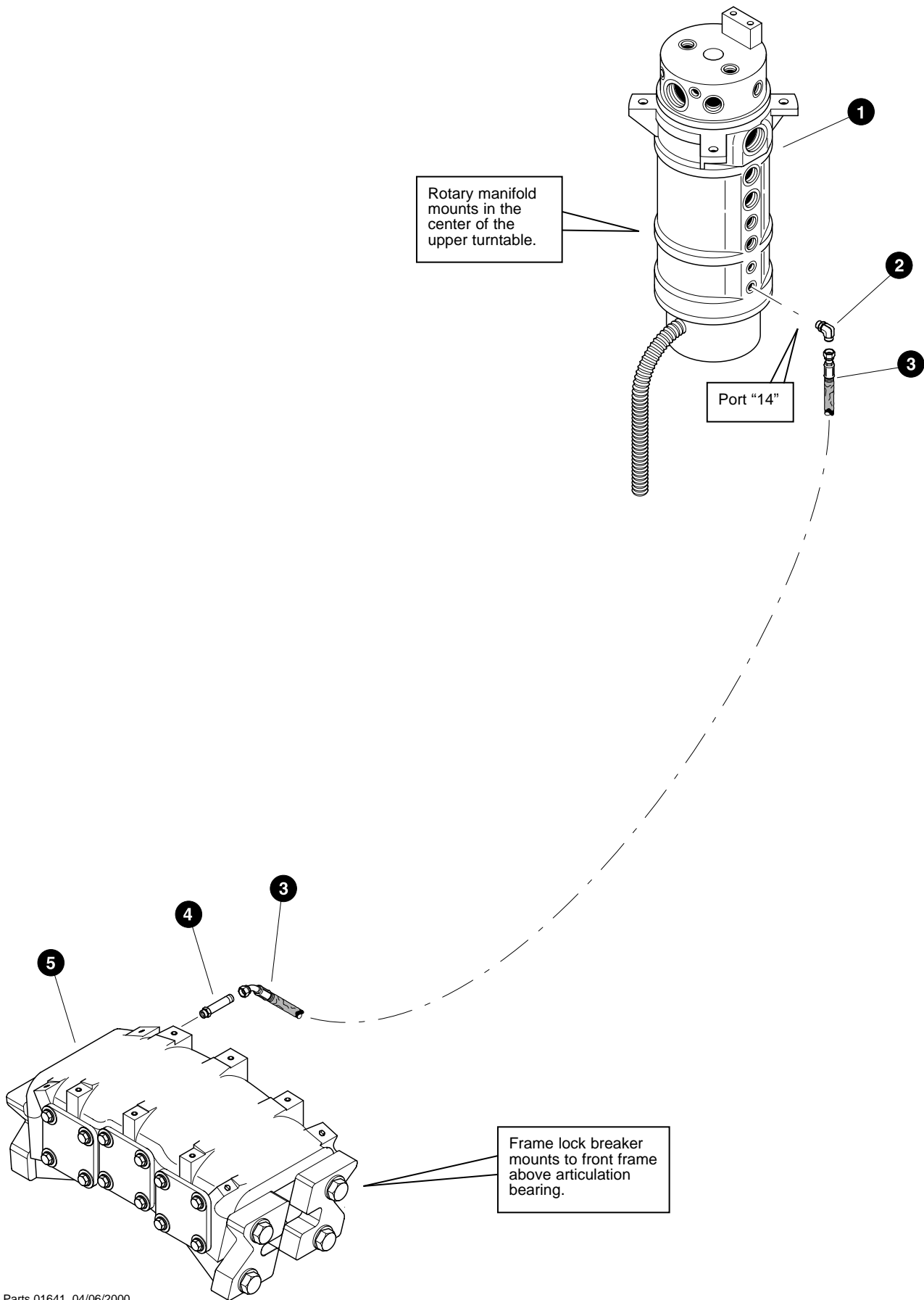


Parts 01736 07/08/2000
37.50

FRAME LOCK BRAKE

REF	PART #	QTY		DESCRIPTION	SEE PAGE
-	20953	1	☐	FRAME LOCK BRAKE	
1	NSS	1		HOUSING	
2	-----	13		PLUG	
3	-----	1		SCREW, bleed	
4	-----	4		RETAINER, brake pad	
5	-----	8		WASHER	
6	-----	8		BOLT	
7	-----	2		PAD, brake	
8	NSS	6	★	BOOT, piston	
9	23445	2		COVER, piston (<i>Machined special to countersink bolt heads</i>)	
10	-----	12		BOLT	
11	-----	4		WASHER	
12	23444	1		COVER, piston	
13	NSS	6	★	O-RING, piston cover	
14	-----	6	★	PISTON	
15	NSS	6	★	SEAL, piston	
16	NSS	6	★	RING, back-up	
-	23113	1		KIT, seal repair - frame lock brake	

- ☐ Kit or Assembly - includes all items indented underneath.
★ Included in seal repair kit PN# 23113.



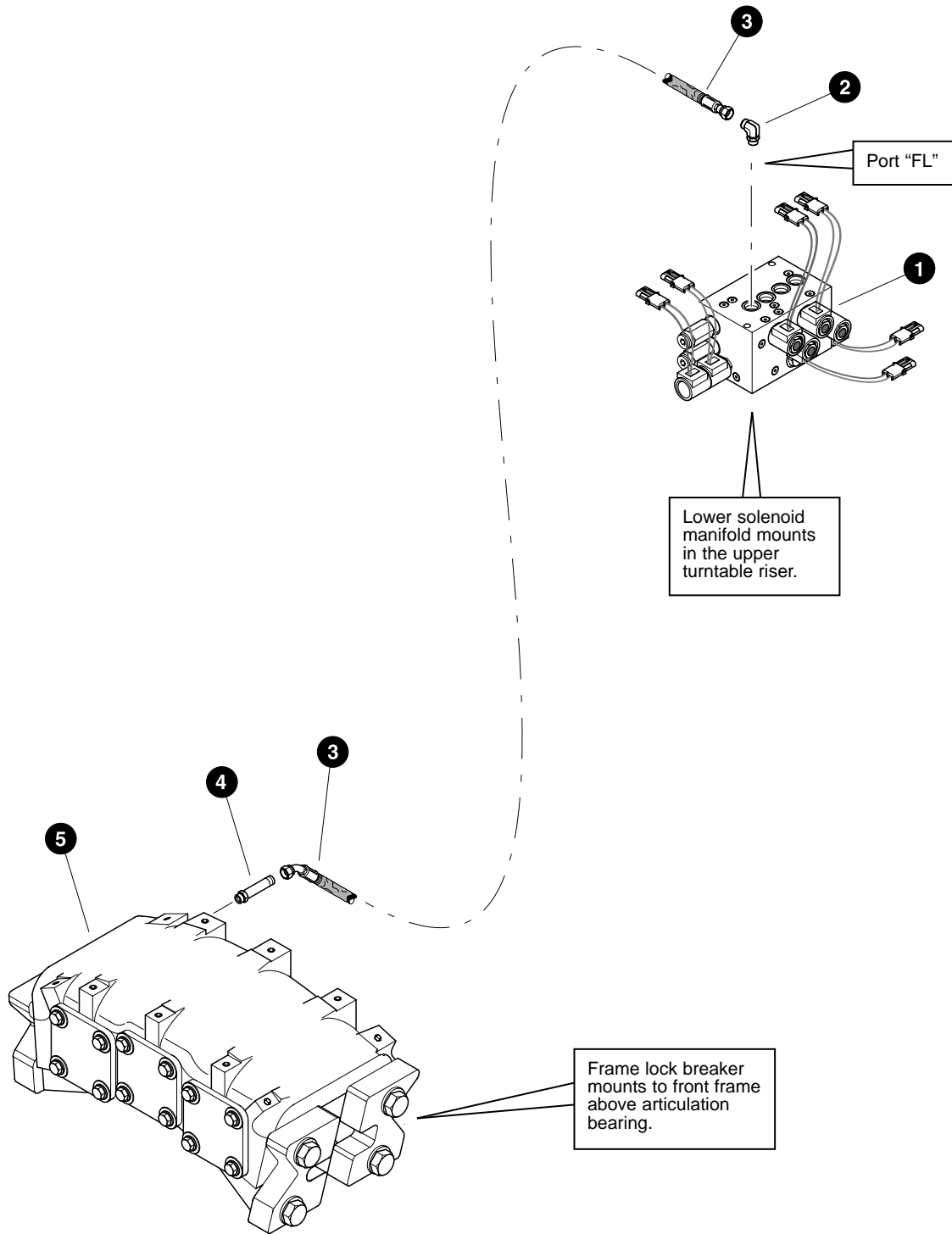
Parts 01641 04/06/2000
18.75

FRAME LOCK BRAKE RELEASE LINE (From Rotary Manifold)

(Used on machines PDN# 134FWD and below)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	REF.	1	✓ ROTARY MANIFOLD	UP-1-6
2	16540-FF	1	ELBOW, 90° - FF1868T-0404S	
3	22918-FF	1	HOSE ASSEMBLY - 2085-04-040S-0404-W <i>(Rotary manifold lower port "14" to frame lock brake port)</i>	
4	20991-FF	1	CONNECTOR, STR long - 848L-TTO-04 x 04	
5	REF.	1	✓ FRAME LOCK BRAKE	FF-2-8

✓ See referenced page for component or assembly breakdown.



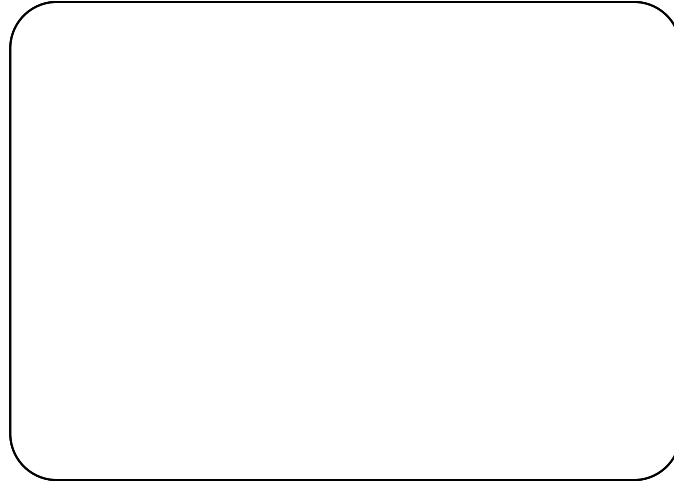
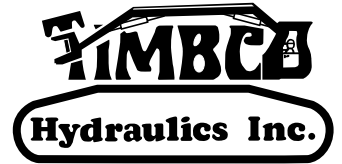
FRAME LOCK BRAKE RELEASE LINE (From Lower Solenoid Valve)

(Used on machines PDN# 135FWD and above)

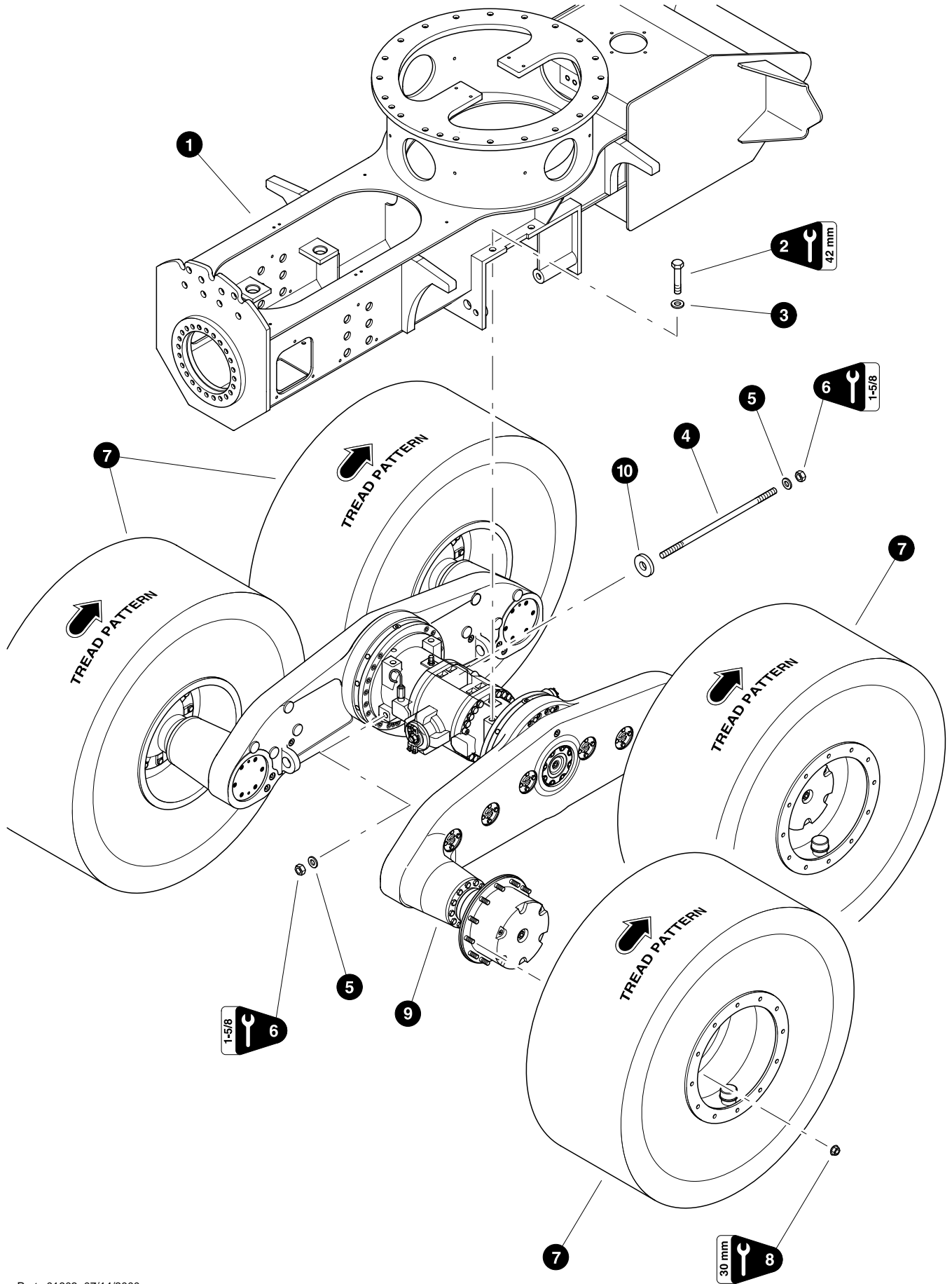
REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	LOWER SOLENOID MANIFOLD	FF-7-2
2	15133-FF	1		ELBOW, 90° - FF1868T-0406S	
3	23504-FF	1		HOSE ASSEMBLY - 2090-04-040S-0404-W <i>(Lower solenoid manifold port "FL" to frame lock brake port)</i>	
4	20991-FF	1		CONNECTOR, STR long - 848L-TTO-04 x 04	
5	REF.	1	✓	FRAME LOCK BRAKE	FF-2-8

✓ See referenced page for component or assembly breakdown.

Section FF-3



Set-Forward Front Frame - Drivetrain Installation



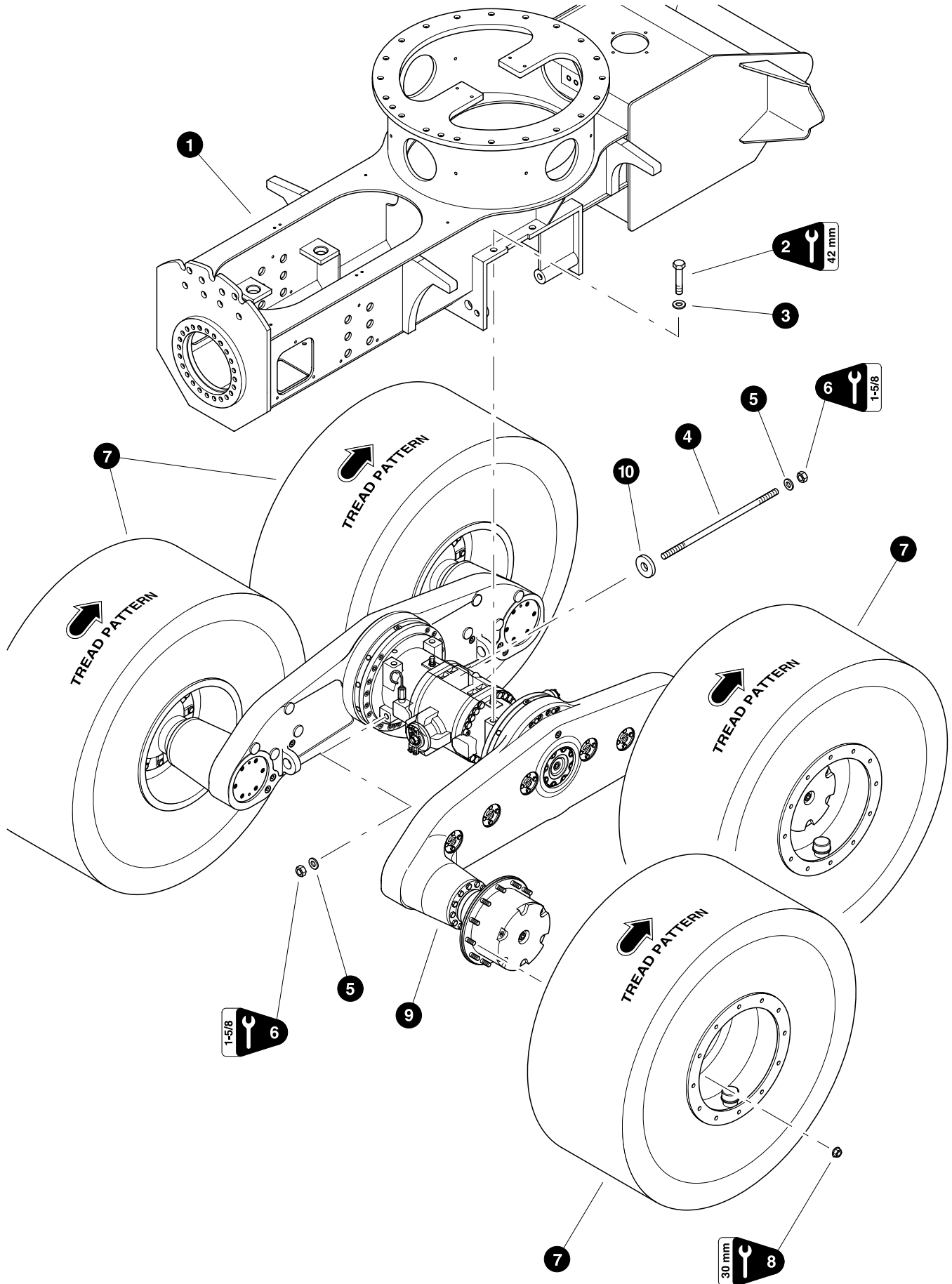
Parts 01603 07/14/2000
6.25

FRONT AXLE INSTALLATION

(Used on machines PDN# 146FWD and below)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	FRONT FRAME WELDMENT	FF-1-2
2	19898-FF	4		BOLT - 27mm-3.0P x 160mm (Torque to 1000 ft.lbs. (1330 Nm))	
3	19899-FF	4		WASHER, hardened flat - 27mm	
4	23136-FF	2		STUD, axle spreader box - 1-1/8" (Torque to 700 ft.lbs. (935 Nm))	
5	23211-FF	4		WASHER, SAE flat - 1-1/8" <i>(Extra thick)</i>	
6	17248-FF	4		NUT, lock - 1-1/8"	
7	REF.	4	✓	WHEEL ASSEMBLY	AX-3-2
8	19361-FF	48		NUT, lug (Torque to 415 ft.lbs. (550 Nm))	
9	REF.	1	✓	FRONT AXLE	AX-1-2
10	24054-FF	2		SPACER, axle spreader stud	

✓ See referenced page for component or assembly breakdown.



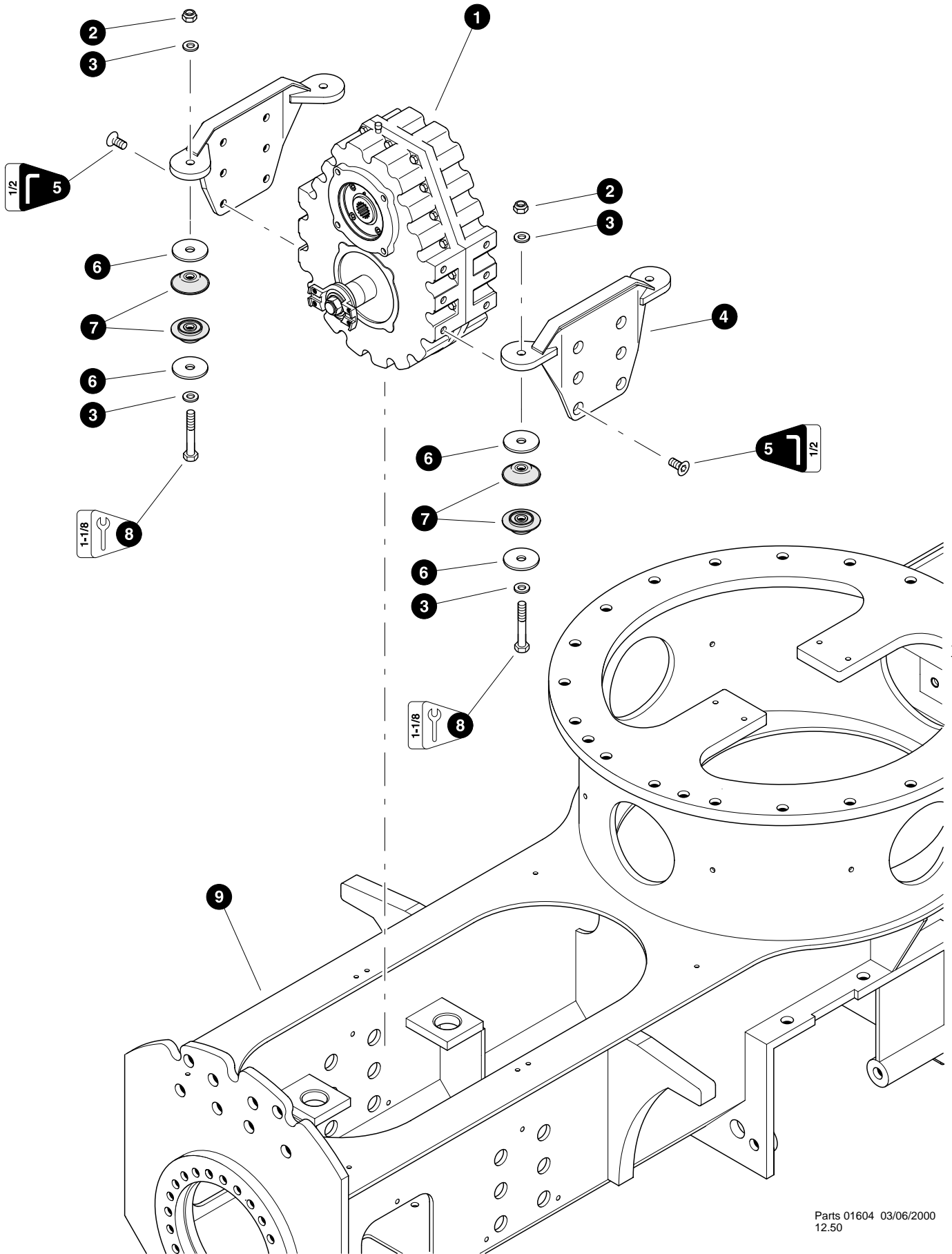
Parts 01603 07/14/2000
6.25

FRONT AXLE INSTALLATION

(Used on machines PDN# 147FWD and above)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	FRONT FRAME WELDMENT	FF-1-2
2	23566-FF	4		BOLT - 30mm-3.5P x 160mm (Torque to 1100 ft.lbs. (1465 Nm))	
3	23568-FF	4		WASHER, hardened flat - 30mm	
4	23851-FF	2		STUD, axle spreader box - 1-1/4" (Torque to 1200 ft.lbs. (1600 Nm))	
5	23990-FF	4		WASHER, SAE flat - 1-1/4" <i>(Extra thick)</i>	
6	23989-FF	4		NUT, lock - 1-1/4"	
7	REF.	4	✓	WHEEL ASSEMBLY	AX-3-2
8	19361-FF	48		NUT, lug (Torque to 415 ft.lbs. (550 Nm))	
9	REF.	1	✓	FRONT AXLE	AX-1-2
10	24003-FF	2		SPACER, axle spreader stud	

✓ See referenced page for component or assembly breakdown.



Parts 01604 03/06/2000
12.50

TRANSFER CASE INSTALLATION (Superior w/Dual Drive Motors)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	TRANSFER CASE	AX-2-2
2	10817-FF	4		NUT, lock - 3/4"	
3	15550-FF	8		WASHER, SAE flat - 3/4"	
4	80395-FF	2		BRACKET, gearbox mounting	
5	20968-FF	12		BOLT, flat head socket - 3/4" x 1-1/4" <i>(Torque to 300 ft.lbs. (400 Nm))(See Note #1 Below)</i>	
6	17918-FF	8		WASHER, isolator mount <i>(Used on machines PDN# 146FWD and below only)(See Note #2 Below)</i>	
7	17904-FF	8		ISOLATOR	
8	10844-FF	4		BOLT - 3/4" x 5"	
9	REF.	1	✓	FRONT FRAME WELDMENT	FF-1-2

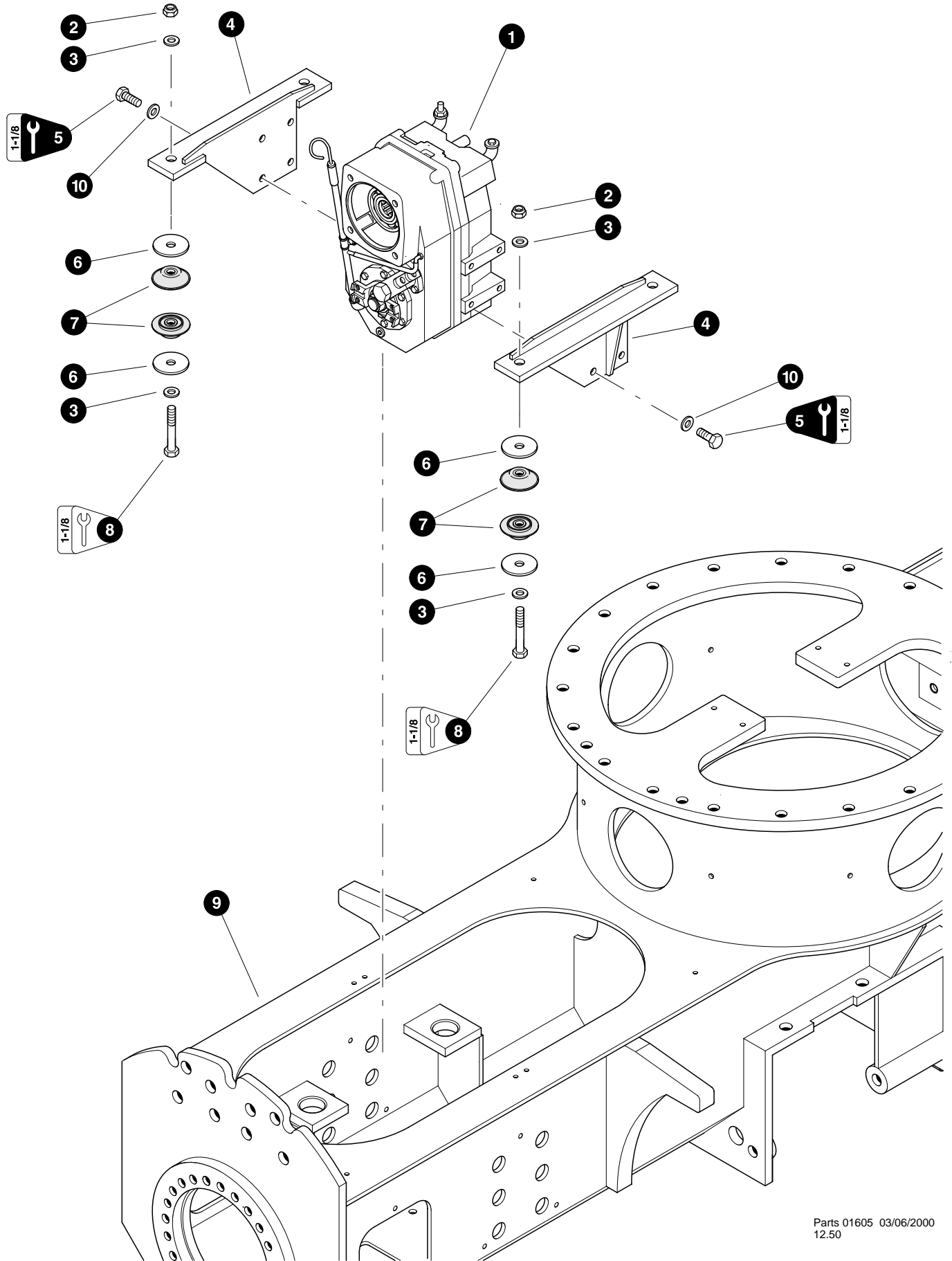
✓ See referenced page for component or assembly breakdown.

Note #1:

Use Loctite 242 (*blue*) during installation.

Note #2:

The isolator mount washer (Ref. #6) was deleted on machines PDN# 147FWD and above to reduce the drive shaft angle to the front axle when the transfer case is mounted in the set-forward front frame.



Parts 01605 03/06/2000
12.50

TRANSFER CASE INSTALLATION (NAF w/Single Drive Motor)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	TRANSFER CASE	AX-2-4
2	10817-FF	4		NUT, lock - 3/4"	
3	15550-FF	8		WASHER, SAE flat - 3/4"	
4	80395-FF	2		BRACKET, gearbox mounting	
5	20661-FF	8		BOLT, - 16mm-2.0P x 35mm (Torque to 300 ft.lbs. (400 Nm))(See Note #1 Below)	
6	17918-FF	8		WASHER, isolator mount <i>(Used on machines PDN# 146FWD and below only)(See Note #2 Below)</i>	
7	17904-FF	8		ISOLATOR	
8	10844-FF	4		BOLT - 3/4" x 5"	
9	REF.	1	✓	FRONT FRAME WELDMENT	FF-1-2
10	18777-FF	8		WASHER, flat - 16mm	

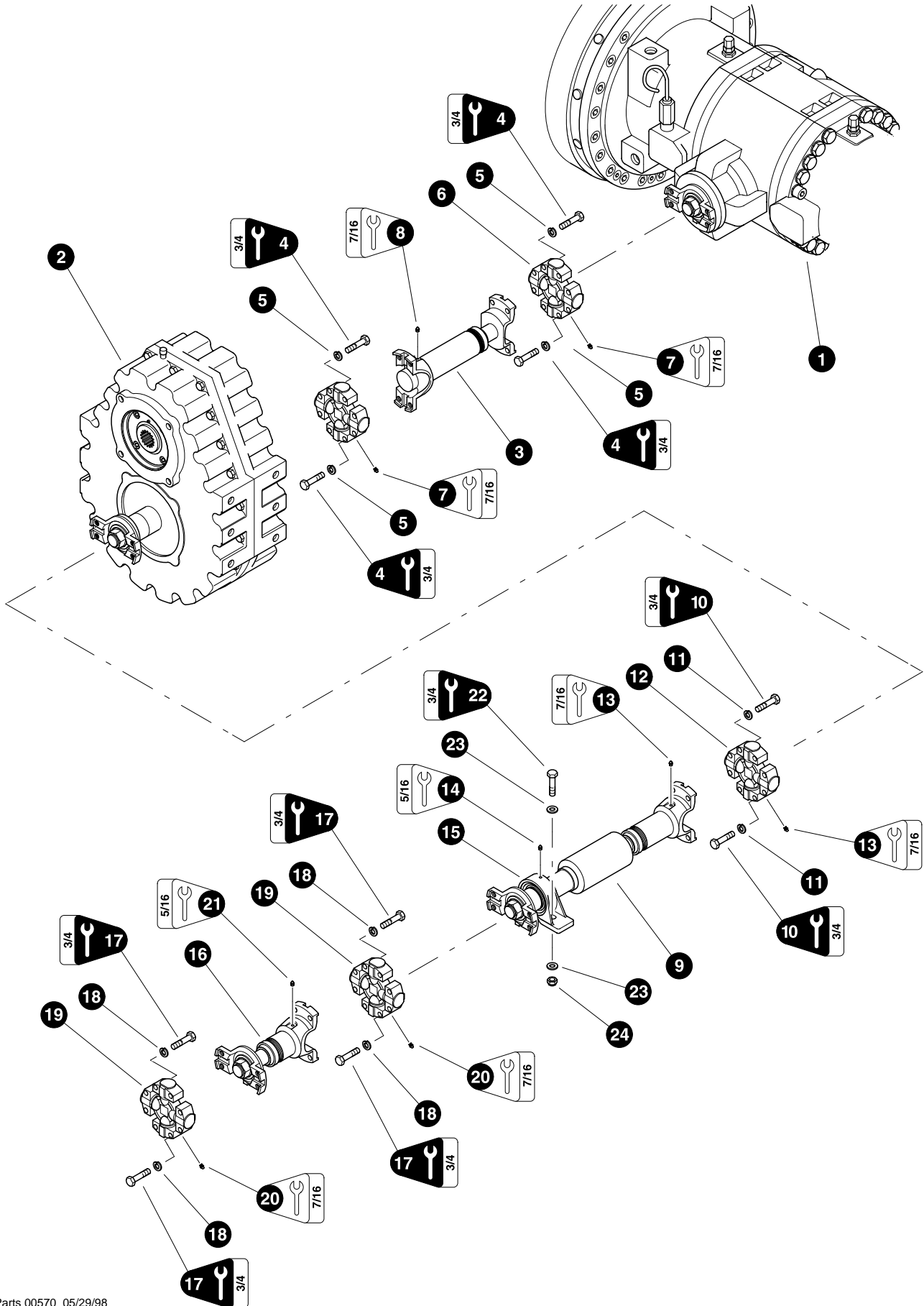
✓ See referenced page for component or assembly breakdown.

Note #1:

Use Loctite 242 (*blue*) during installation.

Note #2:

The isolator mount washer (Ref. #6) was deleted on machines PDN# 147FWD and above to reduce the drive shaft angle to the front axle when the transfer case is mounted in the set-forward front frame.



Parts 00570 05/29/98
12.50

DRIVE SHAFT INSTALLATION (Superior Transfer Case)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	FRONT AXLE	AX-1-2
2	REF.	1	✓	TRANSFER CASE	AX-2-2
3	23464-FF	1	☐	DRIVE SHAFT (<i>Transfer case to front axle</i>)	
4	20662-FF	16		BOLT - 1/2" x 2-1/4" NF (<i>See Note #1 Below</i>) (Torque to 115 ft.lbs. (155 Nm))	
5	10710-FF	16		WASHER, lock - 1/2"	
6	20677-FF	2		U-JOINT, driveshaft	
7	10704-FF	2		FITTING, grease - 1/8" pipe thread	
8	18420-FF	1		FITTING, grease - 1/4-28"	
9	23468-FF	1	☐	DRIVE SHAFT (<i>Transfer case to articulation joint</i>)(<i>Used on machines PDN# 128FWD and above</i>)	
	23465-FF	1	☐	DRIVE SHAFT (<i>Transfer case to articulation joint</i>)(<i>Used on machines PDN# 127FWD and below</i>)	
10	20662-FF	8		BOLT - 1/2" x 2-1/4" NF (<i>See Note #1 Below</i>) (Torque to 115 ft.lbs. (155 Nm))	
11	10710-FF	8		WASHER, lock - 1/2"	
12	20677-FF	1		U-JOINT, driveshaft	
13	10704-FF	2		FITTING, grease - 1/8" pipe thread	
14	18420-FF	1		FITTING, grease - 1/4-28"	
15	19383-FF	1		BEARING, pillow block	
16	23457-FF	1	☐	DRIVE SHAFT (<i>Articulation joint</i>)	
17	20662-FF	16		BOLT - 1/2" x 2-1/4" NF (<i>See Note #1 Below</i>) (Torque to 115 ft.lbs. (155 Nm))	
18	10710-FF	16		WASHER, lock - 1/2"	
19	20677-FF	2		U-JOINT, driveshaft	
21	10704-FF	2		FITTING, grease - 1/8" pipe thread	
21	18420-FF	1		FITTING, grease - 1/4-28"	
22	10736-FF	2		BOLT - 1/2" x 2" (<i>See Note #2 Below</i>) (Torque to 110 ft.lbs. (135 Nm))	
23	15534-FF	4		WASHER, SAE flat - 1/2"	
24	10815-FF	2		NUT, lock - 1/2"	

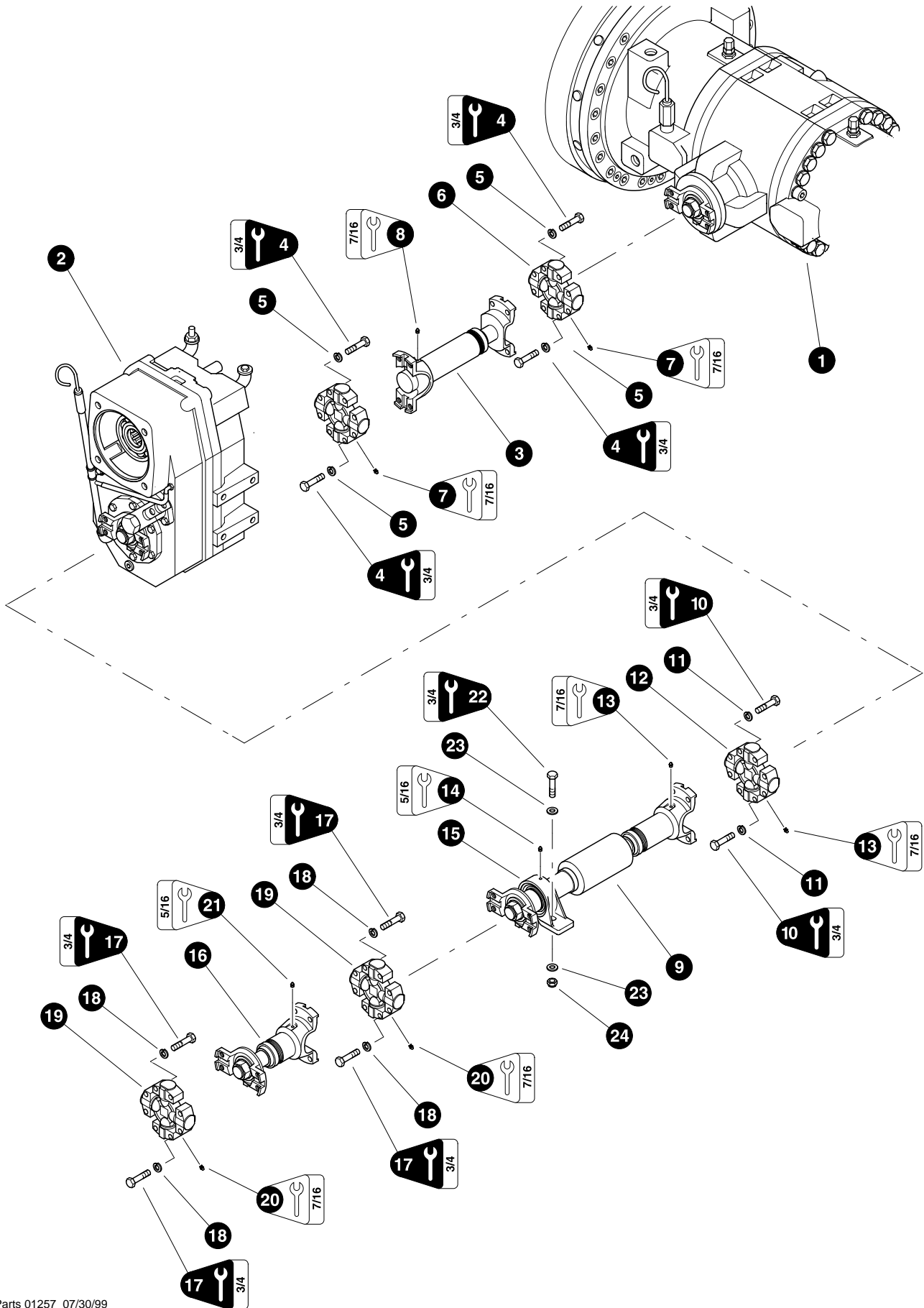
- ✓ See referenced page for component or assembly breakdown.
☐ Kit or Assembly - includes all items indented underneath.

Note #1:

Use Loctite 242 (*blue*) during installation.

Note #2:

Use Loctite 271 (*red*) during installation.



Parts 01257 07/30/99
12.50

DRIVE SHAFT INSTALLATION (NAF Transfer Case)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	FRONT AXLE	AX-1-2
2	REF.	1	✓	TRANSFER CASE	AX-2-4
3	23460-FF	1	☐	DRIVE SHAFT (<i>Transfer case to front axle</i>)	
4	20662-FF	16		BOLT - 1/2" x 2-1/4" NF (<i>See Note #1 Below</i>) (Torque to 115 ft.lbs. (155 Nm))	
5	10710-FF	16		WASHER, lock - 1/2"	
6	20677-FF	2		U-JOINT, driveshaft	
7	10704-FF	2		FITTING, grease - 1/8" pipe thread	
8	18420-FF	1		FITTING, grease - 1/4-28"	
9	23995-FF	1	☐	DRIVE SHAFT (<i>Transfer case to articulation joint</i>)(<i>Used on machines PDN# 128 and above</i>)	
	23461-FF	1	☐	DRIVE SHAFT (<i>Transfer case to articulation joint</i>)(<i>Used on machines PDN# 127 and below</i>)	
10	20662-FF	8		BOLT - 1/2" x 2-1/4" NF (<i>See Note #1 Below</i>) (Torque to 115 ft.lbs. (155 Nm))	
11	10710-FF	8		WASHER, lock - 1/2"	
12	20677-FF	1		U-JOINT, driveshaft	
13	10704-FF	2		FITTING, grease - 1/8" pipe thread	
14	18420-FF	1		FITTING, grease - 1/4-28"	
15	19383-FF	1		BEARING, pillow block	
16	23457-FF	1	☐	DRIVE SHAFT (<i>Articulation joint</i>)	
17	20662-FF	16		BOLT - 1/2" x 2-1/4" NF (<i>See Note #1 Below</i>) (Torque to 115 ft.lbs. (155 Nm))	
18	10710-FF	16		WASHER, lock - 1/2"	
19	20677-FF	2		U-JOINT, driveshaft	
21	10704-FF	2		FITTING, grease - 1/8" pipe thread	
21	18420-FF	1		FITTING, grease - 1/4-28"	
22	10736-FF	2		BOLT - 1/2" x 2" (<i>See Note #2 Below</i>) (Torque to 110 ft.lbs. (135 Nm))	
23	15534-FF	4		WASHER, SAE flat - 1/2"	
24	10815-FF	2		NUT, lock - 1/2"	

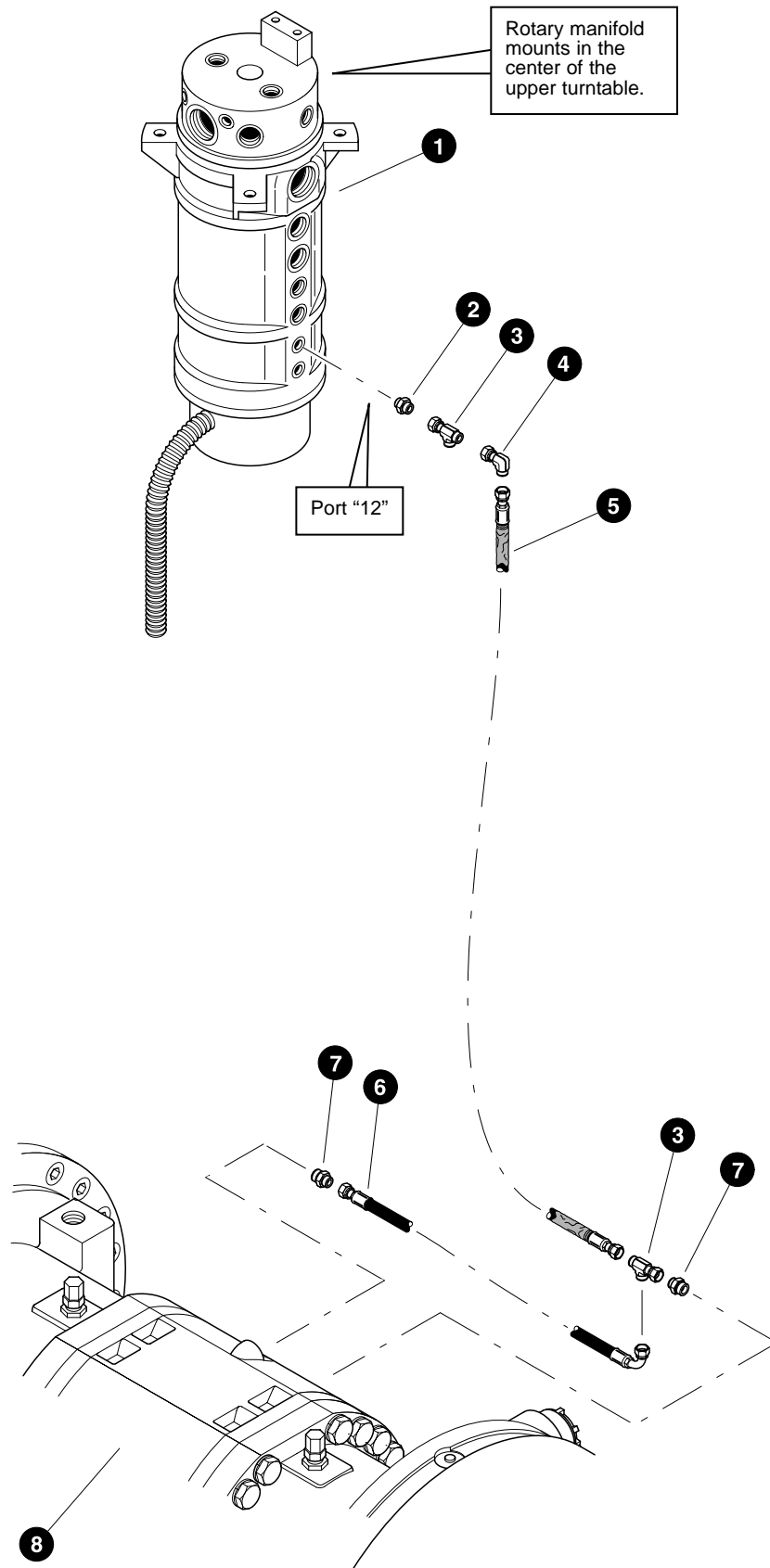
- ✓ See referenced page for component or assembly breakdown.
- ☐ Kit or Assembly - includes all items indented underneath.

Note #1:

Use Loctite 242 (*blue*) during installation.

Note #2:

Use Loctite 271 (*red*) during installation.

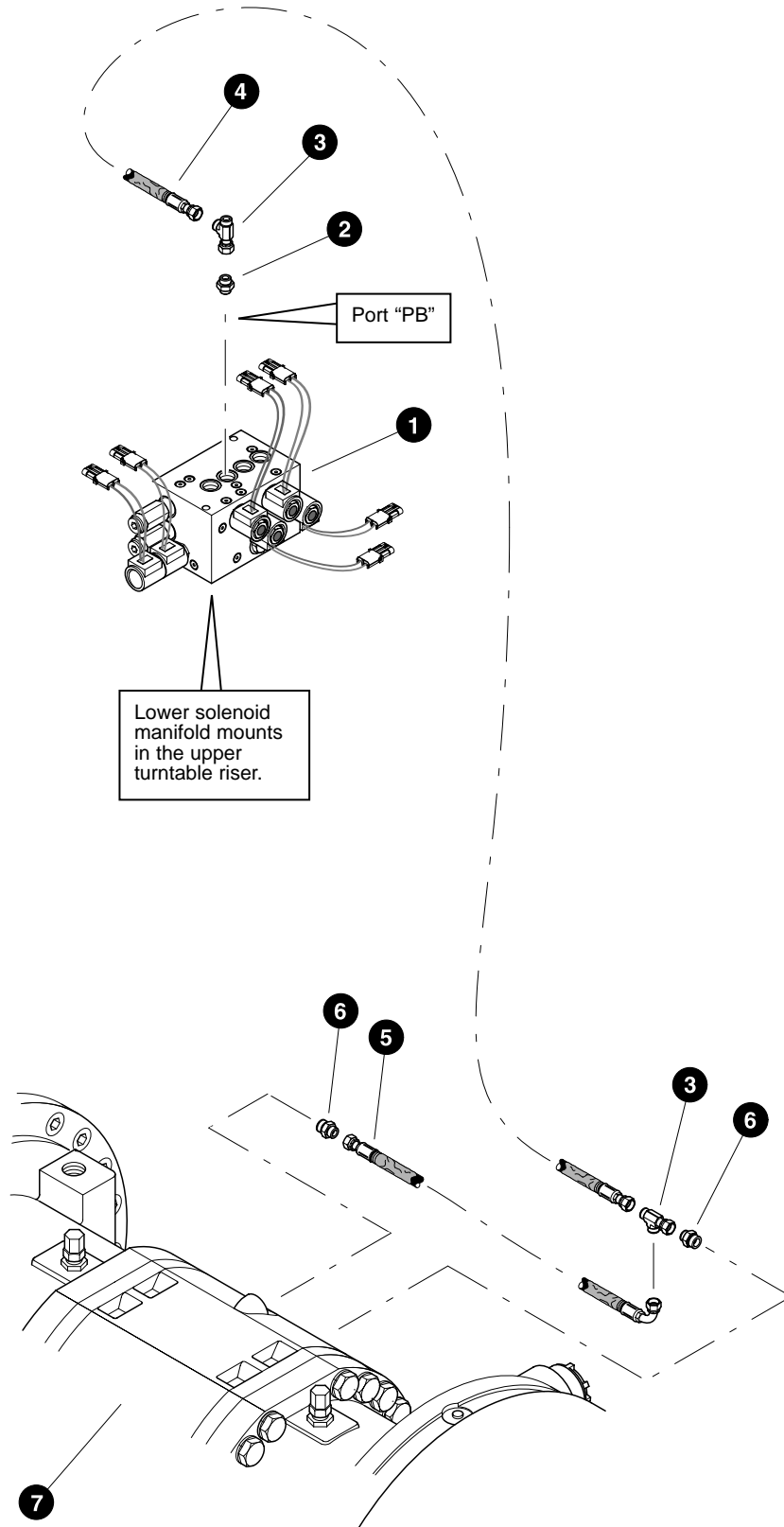


FRONT AXLE PARKING BRAKE LINES (From Rotary Manifold)

(Used on machines PDN# 134FWD and below)

REF	PART #	QTY	✓	DESCRIPTION	SEE PAGE
1	REF.	1	✓	ROTARY MANIFOLD	UP-1-6
2	16541-FF	1		CONNECTOR, straight - FF1852T-0404S	
3	15176-FF	2		TEE - FF2114T-0404S	
4	15145-FF	1		ELBOW, 90° swivel - FF2098T-0404S	
5	20103-FF	1		HOSE ASSEMBLY - 2052-04-040S-040S-W <i>(Rotary manifold lower port "12" tee to front axle parking brake tee)</i>	
6	20167-FF	1		HOSE ASSEMBLY - 2009.5-04-040S-0409 <i>(Front axle parking brake tee to RH brake chamber)</i>	
7	19470-FF	2		CONNECTOR, straight - 4M14F8OMLO-S	
8	REF.	1	✓	FRONT AXLE	AX-1-2

✓ See referenced page for component or assembly breakdown.

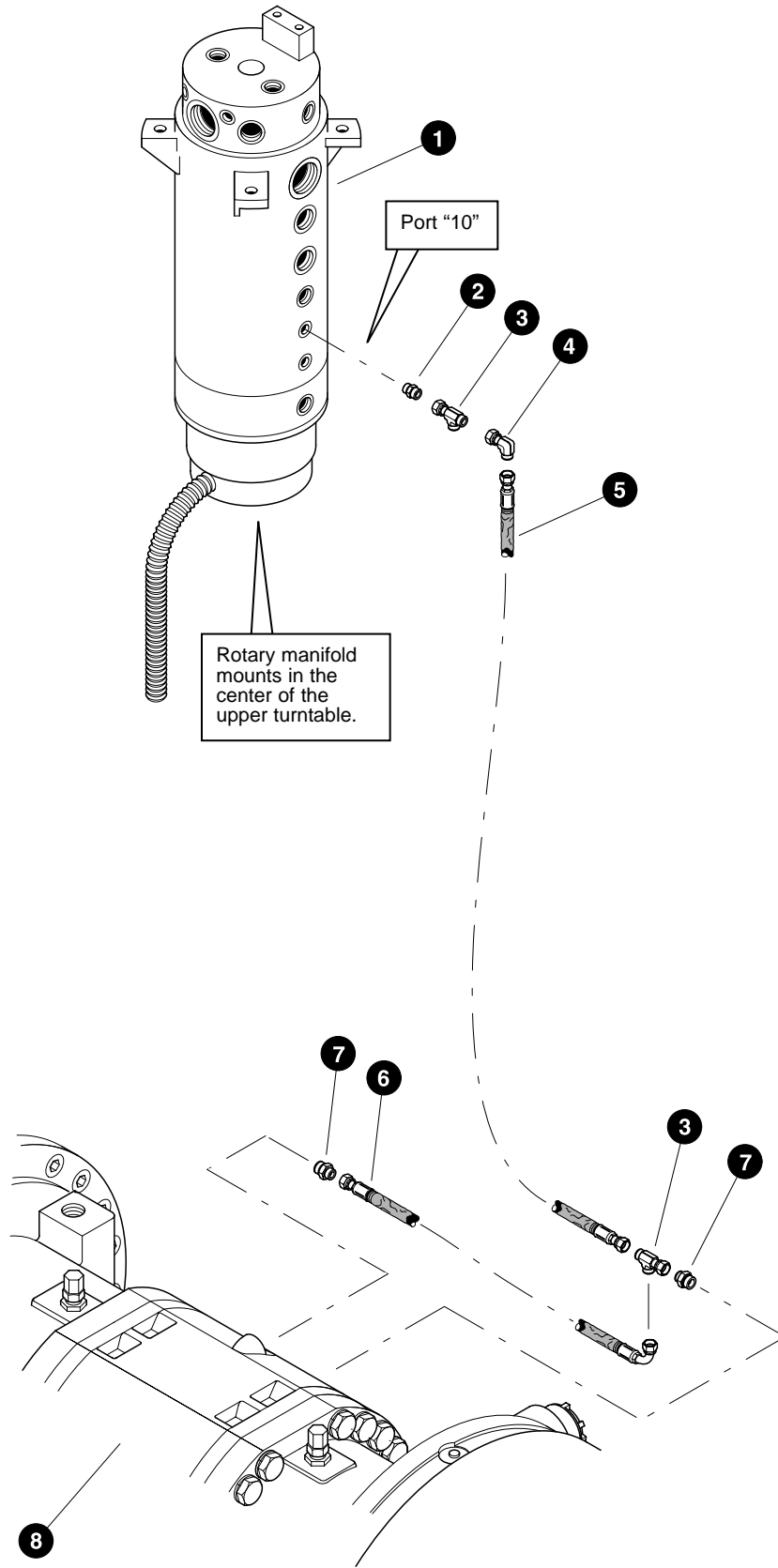


FRONT AXLE PARKING BRAKE LINES (From Lower Solenoid Manifold)

(Used on machines PDN# 135FWD and above)

REF	PART #	QTY	✓	DESCRIPTION	SEE PAGE
1	REF.	1	✓	LOWER SOLENOID MANIFOLD	FF-7-2
2	15124-FF	1		CONNECTOR, straight - FF1852T-0406S	
3	15176-FF	2		TEE - FF2114T-0404S	
4	20103-FF	1		HOSE ASSEMBLY - 2052-04-040S-040S-W <i>(Lower solenoid manifold port "PB" tee to front axle parking brake tee)</i>	
5	20167-FF	1		HOSE ASSEMBLY - 2009.5-04-040S-0409-W <i>(Front axle parking brake tee to RH brake chamber)</i>	
6	19470-FF	2		CONNECTOR, straight - 4M14F8OMLO-S	
7	REF.	1	✓	FRONT AXLE	AX-1-2

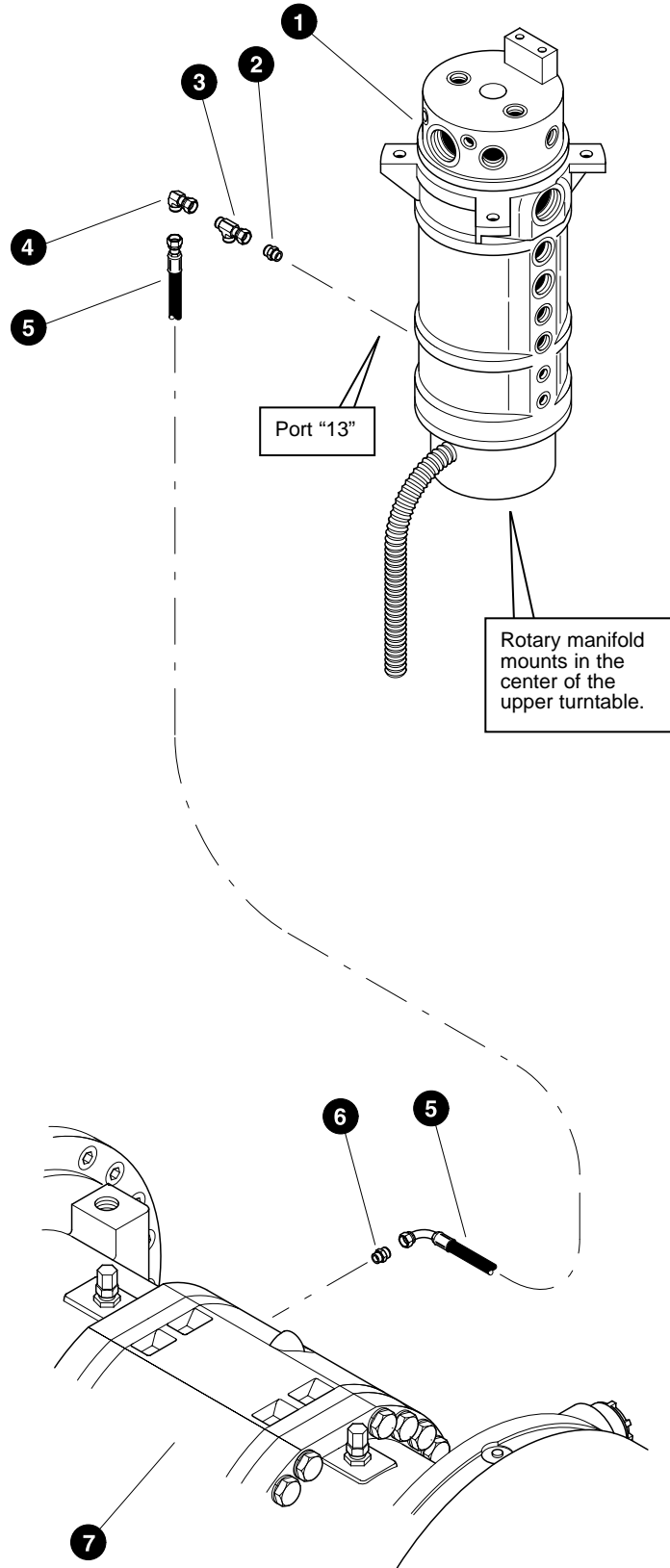
✓ See referenced page for component or assembly breakdown.



FRONT AXLE TRAVEL BRAKE LINES (From Rotary Manifold)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	REF.	1	✓ ROTARY MANIFOLD	UP-1-6
2	15124-FF	1	CONNECTOR, straight - FF1852T-0404S (<i>Used on machines PDN# 135FWD and above</i>)	
	15504-FF	1	CONNECTOR, straight - FF1852T-0408S (<i>Used on machines PDN# 134FWD and below</i>)	
3	15176-FF	2	TEE - FF2114T-0404S	
4	15145-FF	1	ELBOW, 90° swivel - FF2098T-0404S	
5	23671-FF	1	HOSE ASSEMBLY - 2050-04-040S-040S-W (<i>Rotary manifold lower port "10" to front travel brake tee</i>)	
6	20167-FF	1	HOSE ASSEMBLY - 2009.5-04-040S-0409-W (<i>Front axle travel brake tee to LH brake chamber</i>)	
7	19470-FF	2	CONNECTOR, straight - 4M14F8OMLO-S	
8	REF.	1	✓ FRONT AXLE	AX-1-2

✓ See referenced page for component or assembly breakdown.

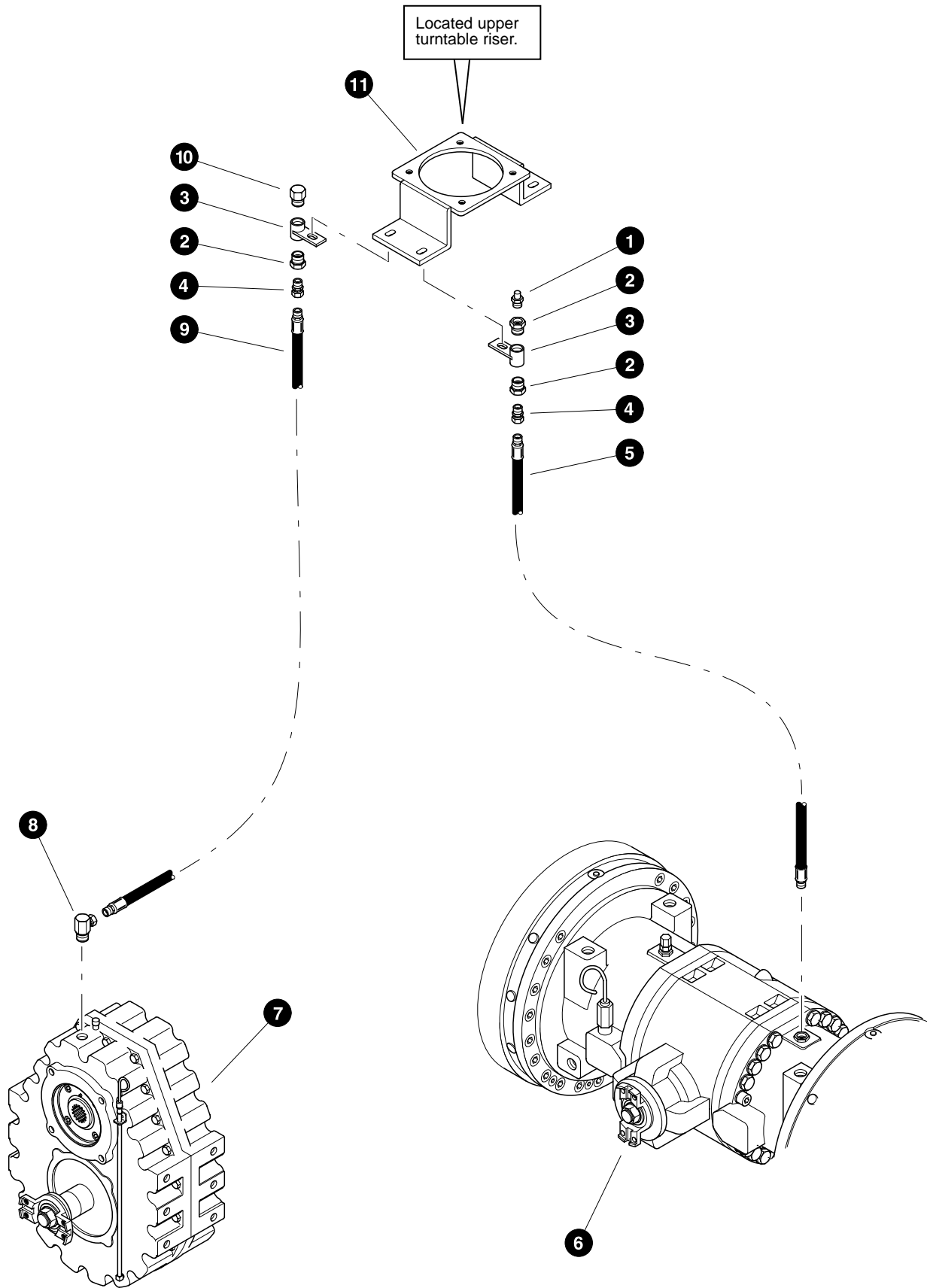


FRONT AXLE DIFFERENTIAL LOCK LINES (From Rotary Manifold)

(Used on machines PDN# 134FWD and below)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	ROTARY MANIFOLD	UP-1-6
2	15124-FF	1		CONNECTOR, straight - FF1852T-0406S	
3	15176-FF	1		TEE - FF2114T-0404S	
4	15145-FF	1		ELBOW, 90° swivel - FF2098T-0404S	
5	20462-FF	1		HOSE ASSEMBLY - 2037.5-04-040S-0409 <i>(Rotary manifold lower port "13" tee to front axle differential lock port)</i>	
6	19470-FF	1		CONNECTOR, straight - 4M14F8OMLO-S	
7	REF.	1	✓	FRONT AXLE	AX-1-2

✓ See referenced page for component or assembly breakdown.



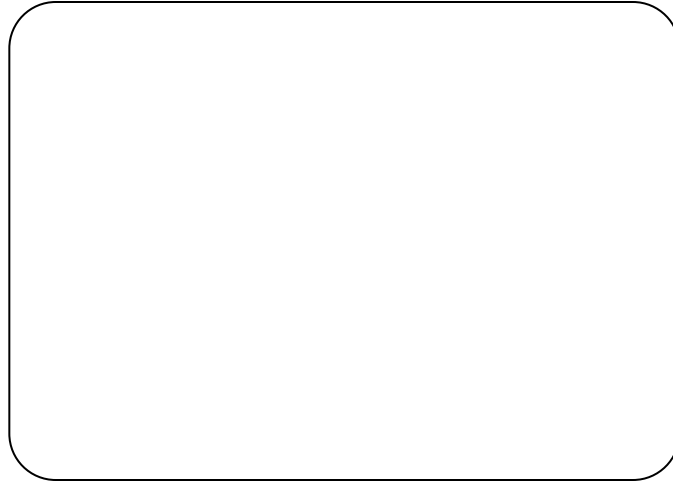
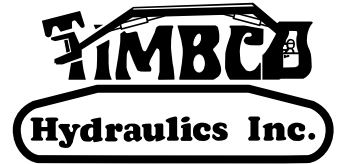
Parts 01779 08/25/2000
12.50

VENT LINES (Front Axle & Transfer Case)

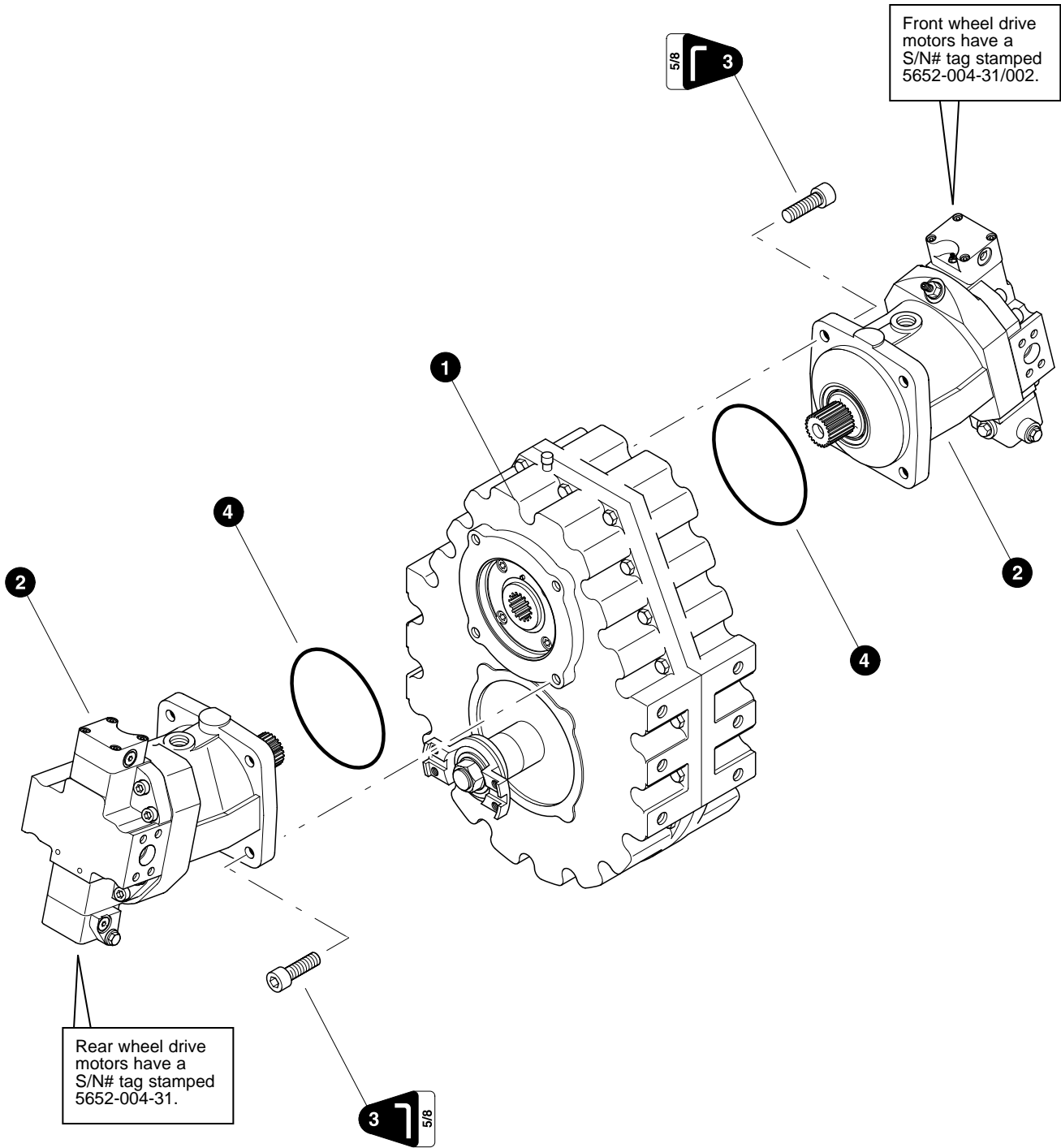
REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	22570-FF	1	BREATHER, axle differential	
2	15513-FF	3	BUSHING, reducer - 5406-12-8	
3	22203-FF	2	BRACKET, breather mounting	
4	10322-FF	2	CONNECTOR, straight swivel - 1404-8-8	
5	22389-FF	1	HOSE ASSEMBLY - 2030-08-08MP-08MP (<i>Axle vent port to vent mounting bracket</i>)	
6	REF.	1	✓ FRONT AXLE	AX-1-2
7	REF.	1	✓ TRANSFER CASE (<i>Superior shown</i>)	AX-2-2
8	10359-FF	1	ELBOW, 90° swivel - 1501-12-12	
9	22390-FF	1	HOSE ASSEMBLY - 2061-08-08PS-08PS (<i>Transfer case vent port to vent mounting bracket</i>)	
10	23395-FF	1	BREATHER, transfer case	
11	REF.	1	✓ ROTARY MANIFOLD MOUNTING BRACKET	UP-1-2

✓ See referenced page for component or assembly breakdown.

Section FF-4



Set-Forward Front Frame - Wheel Drive Hydraulics



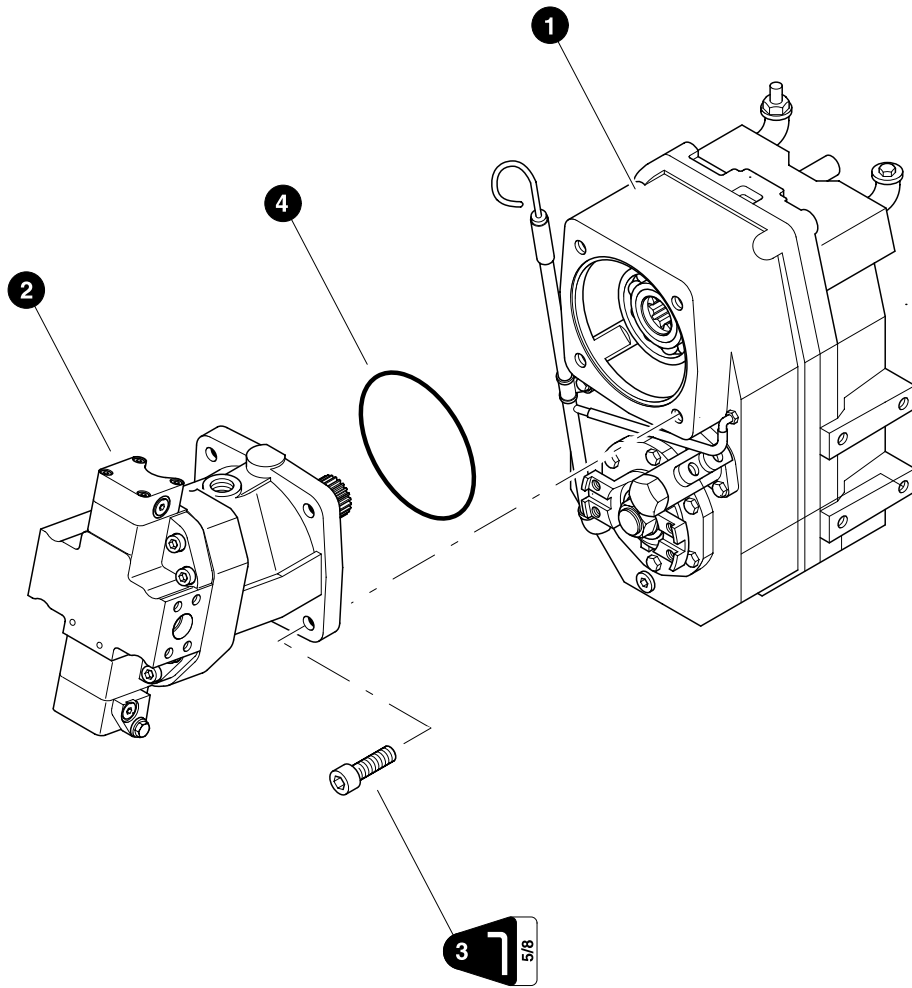
WHEEL DRIVE MOTOR INSTALLATION (Dual Mount - Superior Transfer Case)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	TRANSFER CASE	AX-2-2
2	REF.	2	✓	WHEEL DRIVE MOTOR	FF-5-2
3	20969-FF	8		BOLT, allen head - 3/4" x 2-3/4" (Torque to 300 ft.lbs. (400 Nm)) (See Note Below)	
4	20967-FF	2		O-RING	

✓ See referenced page for component or assembly breakdown.

Note:

Use Loctite 242 (*blue*) during installation.



Parts 01269 09/02/99
18.75

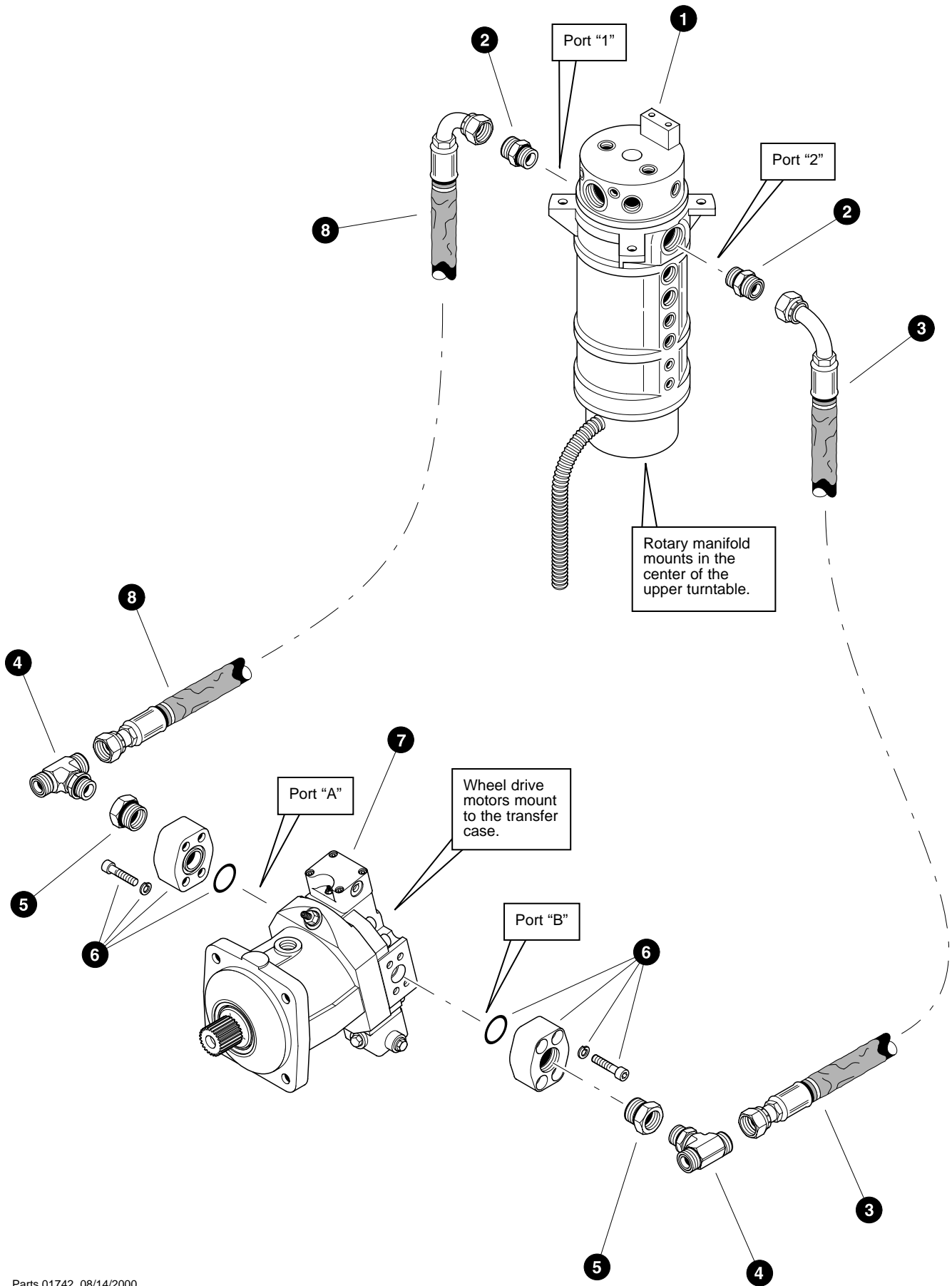
WHEEL DRIVE MOTOR INSTALLATION (Single Mount - NAF Transfer Case)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	TRANSFER CASE	AX-2-4
2	REF.	1	✓	WHEEL DRIVE MOTOR	FF-5-6
3	23446-FF	4		BOLT, allen head - 16mm-2.0P x 40mm <i>(Torque to 300 ft.lbs. (400 Nm))(See Note Below)</i>	
4	20967-FF	1		O-RING	

✓ See referenced page for component or assembly breakdown.

Note:

Use Loctite 242 (*blue*) during installation.



Parts 01742 08/14/2000
25.00

WHEEL DRIVE MOTOR PRESSURE LINES

(Rotary Manifold To Front Wheel Drive Motor - Superior Transfer Case)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	ROTARY MANIFOLD	UP-1-6
2	15225-FF	2		CONNECTOR, straight - FF1852T-1616S	
3	20978-FF	1		HOSE ASSEMBLY - 6044-16-160S-1609-W (<i>Rotary manifold lower port "2" to front wheel drive motor port "B" tee</i>)	
4	20065-FF	2		TEE, branch - 16-S50L0-S	
5	17015-FF	2		BUSHING, reducer - 6410-20-16	
6	17016-FF	2	☐	CONNECTOR, flange pad - 1-1/4" (<i>Code 62</i>)	
	15378-FF	1		O-RING - 1-1/4" SF	
7	REF.	1	✓	WHEEL DRIVE MOTOR	FF-5-2
8	23081-FF	1		HOSE ASSEMBLY - 6045-16-160S-1609-W (<i>Rotary manifold lower port "1" to front wheel drive motor port "A" tee</i>)	

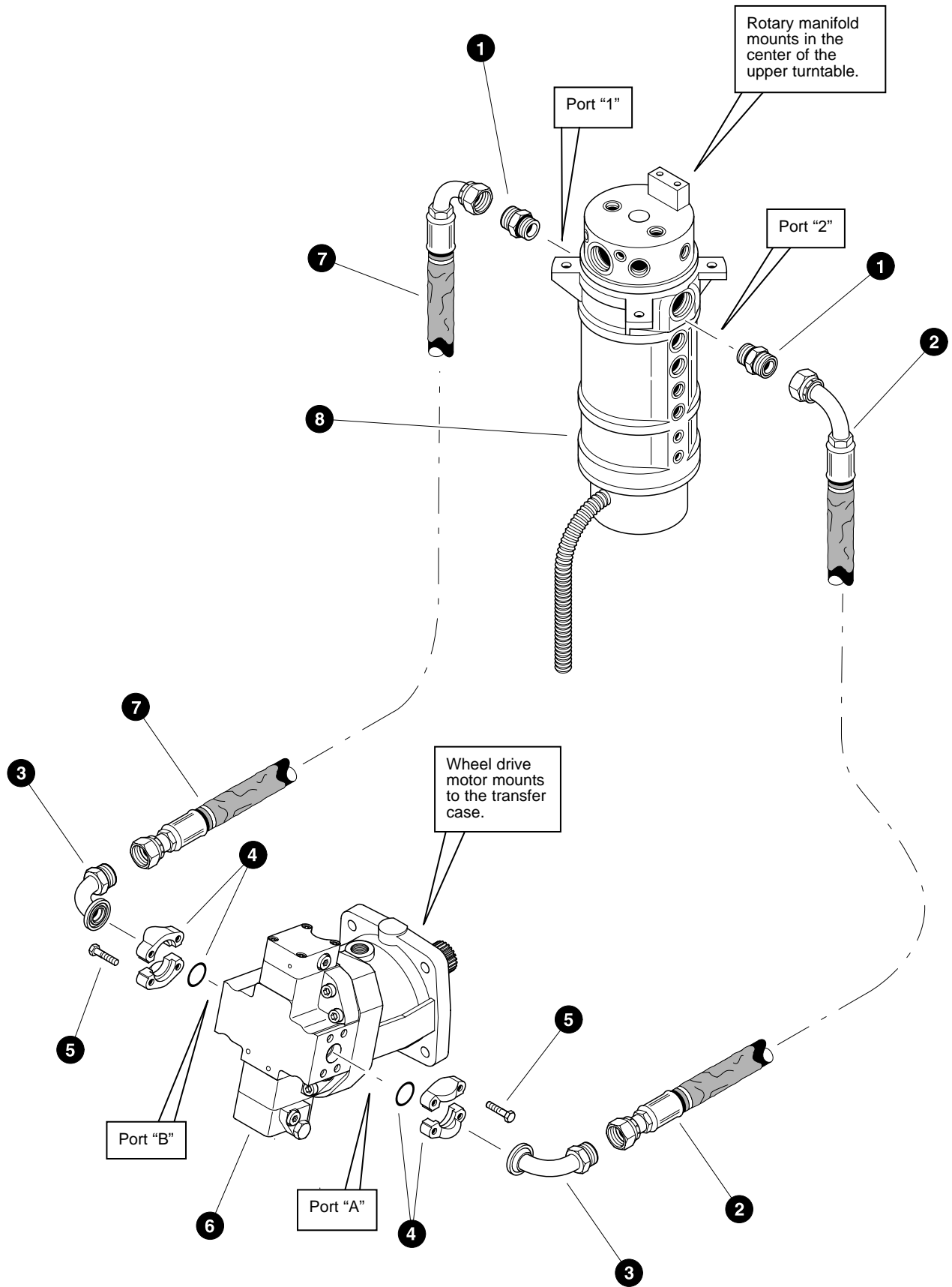
- ✓ See referenced page for component or assembly breakdown.
☐ Kit or Assembly - includes all items indented underneath.

WHEEL DRIVE MOTOR PRESSURE LINES

(Front Wheel Drive Motor To Rear Wheel Drive Motor - Superior Transfer Case)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	WHEEL DRIVE MOTOR (<i>Front</i>)	FF-5-2
2	REF.	1	✓	FLANGE PAD CONNECTIONS	FF-4-6
3	21162-FF	1		HOSE ASSEMBLY - 6031-16-160S-160S-W (<i>Front wheel drive motor port "B" tee to rear wheel drive motor port "A"</i>)	
4	17055-FF	2		ELBOW, 90° - FF1868T-1616S	
5	17015-FF	2		BUSHING, reducer - 6410-20-16	
6	17016-FF	2	☐	CONNECTOR, flange pad - 1-1/4" (<i>Code 62</i>)	
	15378-FF	1		O-RING - 1-1/4" SF	
7	REF.	1	✓	WHEEL DRIVE MOTOR (<i>Rear</i>)	FF-5-2
8	21162-FF	1		HOSE ASSEMBLY - 6031-16-160S-160S-W (<i>Rear wheel drive motor port "B" tee to front wheel drive motor port "A"</i>)	

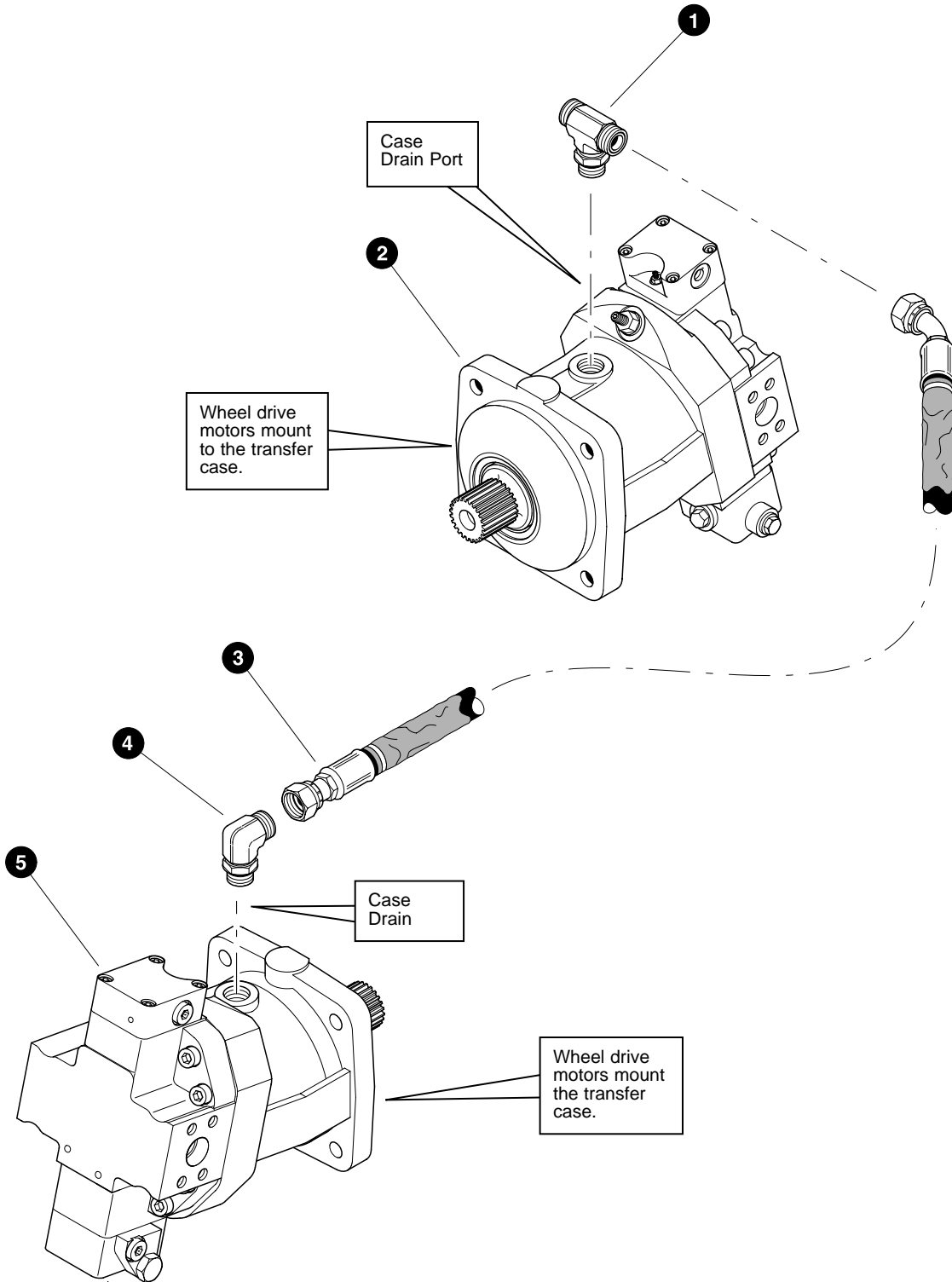
- ✓ See referenced page for component or assembly breakdown.
- ☐ Kit or Assembly - includes all items indented underneath.



WHEEL DRIVE MOTOR PRESSURE LINES (Rotary Manifold To Wheel Drive Motor - NAF Transfer Case)

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

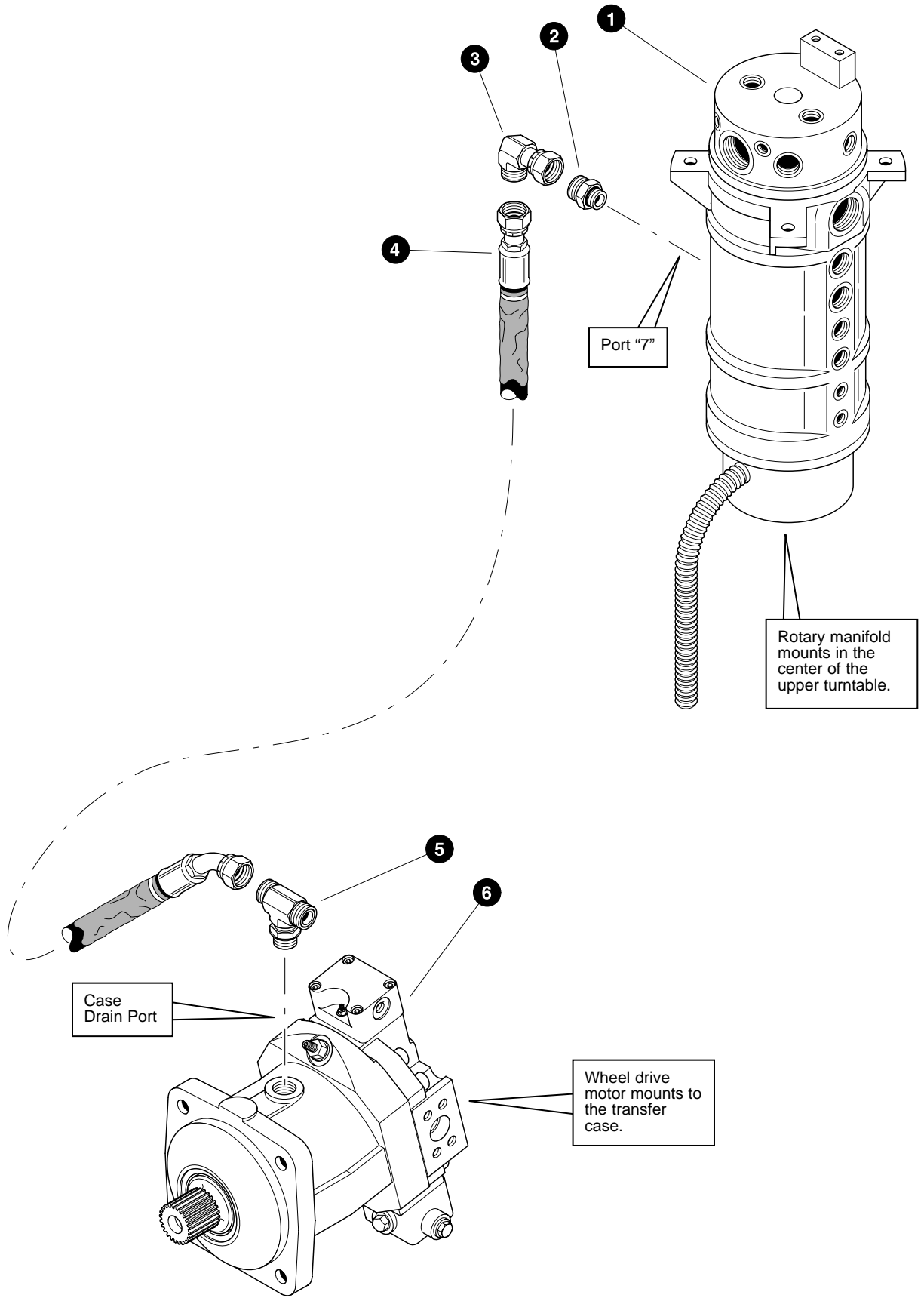
- See referenced page for component or assembly breakdown.
- Kit or Assembly - includes all items indented underneath.



WHEEL DRIVE MOTOR CASE DRAIN LINES
(Front Wheel Drive Motor To Rear Wheel Drive Motor - Superior Transfer Case)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	17687-FF	1		TEE - FF2114T-1212S	
2	REF.	1	✓	WHEEL DRIVE MOTOR (<i>Front</i>)	FF-5-2
3	21177-FF	1		HOSE ASSEMBLY - 2022.5-12-120S-1204-W (<i>Rear wheel drive motor case drain port to front wheel drive motor case drain port</i>)	
4	17688-FF	1		ELBOW, 90° - FF1868T-1212S	
5	REF.	1	✓	WHEEL DRIVE MOTOR (<i>Rear</i>)	FF-5-2

✓ See referenced page for component or assembly breakdown.

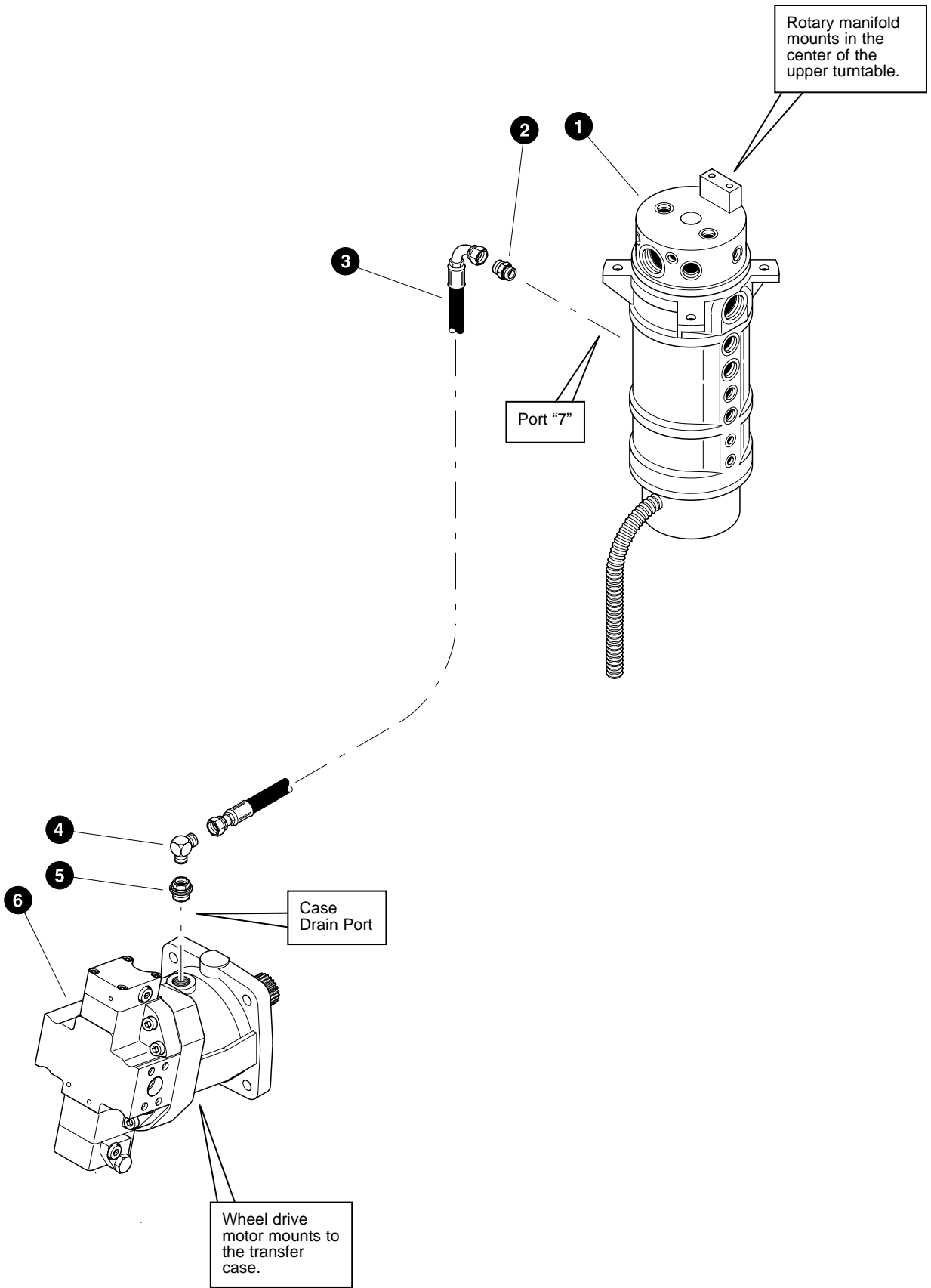


Parts 00941 12/04/98
25.00

WHEEL DRIVE MOTOR CASE DRAIN LINES
(Front Wheel Drive Motor To Rotary Manifold - Superior Transfer Case)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	ROTARY MANIFOLD	UP-1-6
2	16851-FF	1		CONNECTOR, straight - FF1852T-1210S	
3	17670-FF	1		ELBOW, 90° swivel - FF2098T-1212S	
4	21176-FF	1		HOSE ASSEMBLY - 2053-12-120S-1204-W (<i>Front wheel drive motor case drain port to rotary manifold lower port "7"</i>)	
5	17687-FF	1		TEE - FF2114T-1212S	
6	REF.	1	✓	WHEEL DRIVE MOTOR	FF-5-2

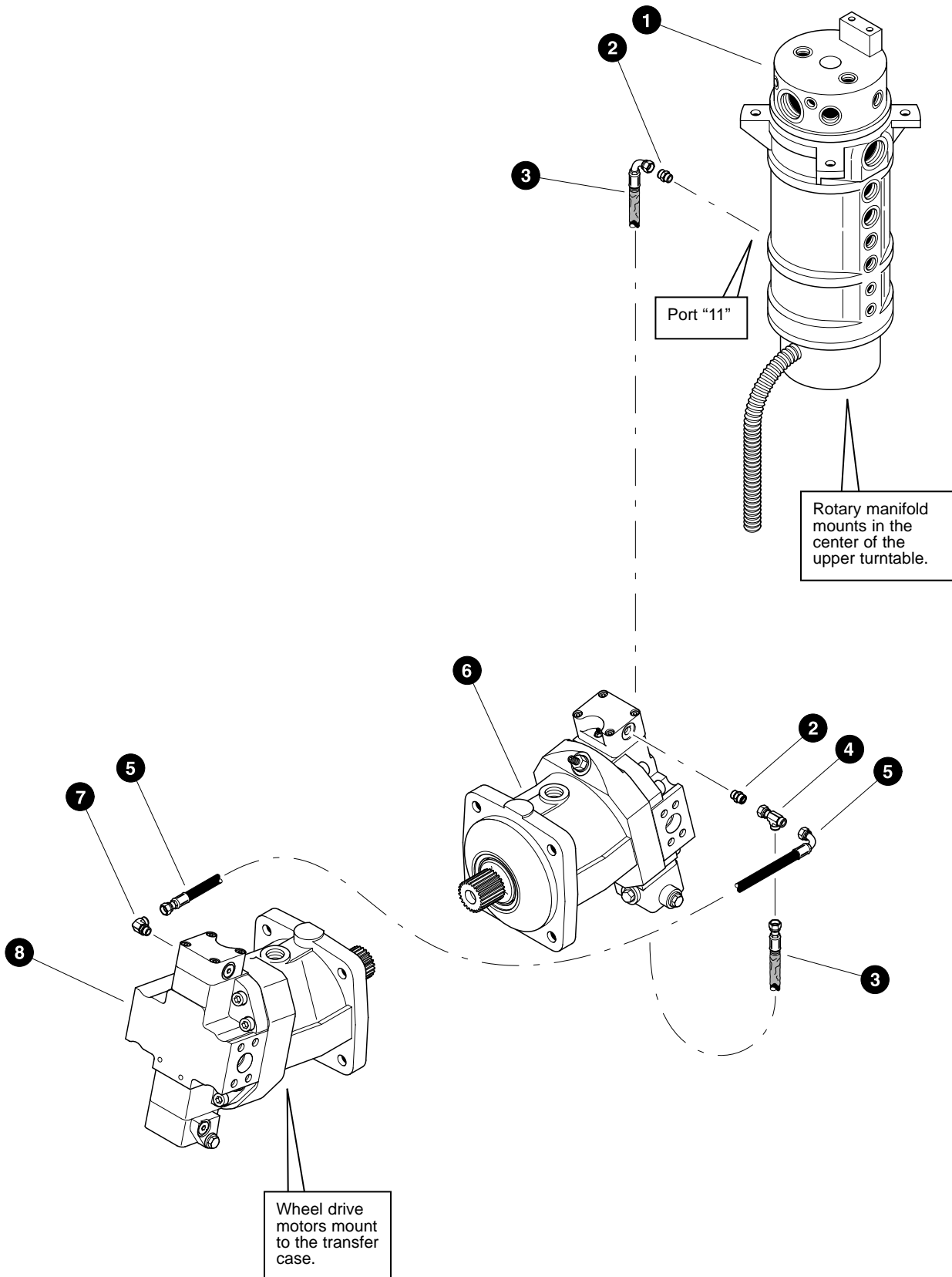
✓ See referenced page for component or assembly breakdown.



WHEEL DRIVE MOTOR CASE DRAIN LINES
(Wheel Drive Motor To Rotary Manifold - NAF Transfer Case)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	ROTARY MANIFOLD	UP-1-6
2	15117-FF	1		CONNECTOR, straight - FF1852T-0808S	
3	20158-FF	1		HOSE ASSEMBLY - 2063-08-080S-0809 (<i>Wheel drive motor case drain port to rotary manifold lower port "7"</i>)	
4	19576-FF	1		ELBOW, 90° - 8-CLO-S	
5	19577-FF	1		BUSHING, reducer	
6	REF.	1	✓	WHEEL DRIVE MOTOR	FF-5-6

✓ See referenced page for component or assembly breakdown.

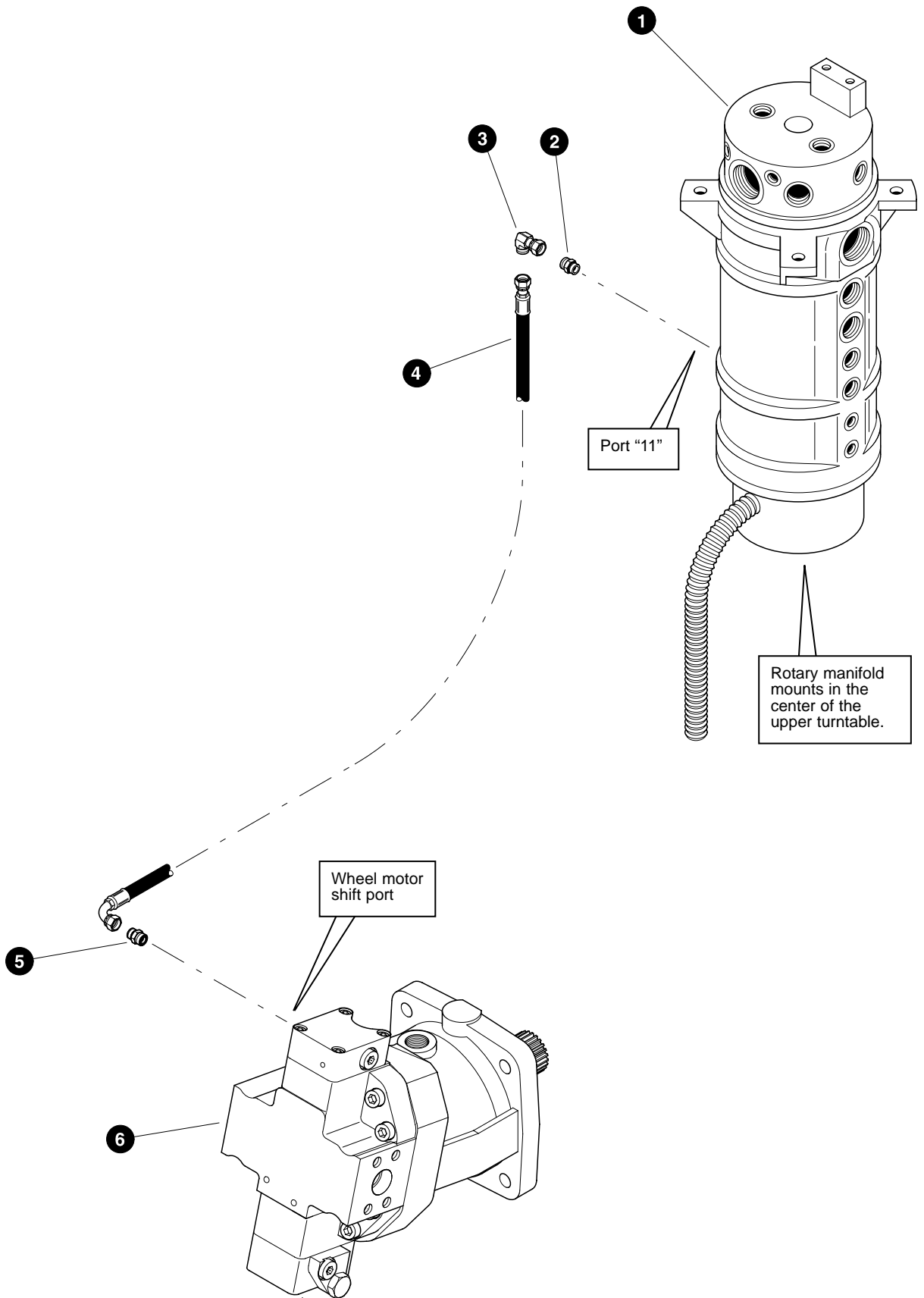


Parts 00954 12/04/98
18.75

WHEEL DRIVE MOTOR MAX DISPLACEMENT LOCK LINES
(Rotary Manifold To Wheel Drive Motors - Superior Transfer Case)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	ROTARY MANIFOLD	UP-1-6
2	15124-FF	2		CONNECTOR, straight - FF1852T-0406S	
3	21000-FF	1		HOSE ASSEMBLY - 2068-04-040S-0409-W (<i>Rotary manifold lower port "11" to front wheel drive motor tee</i>)	
4	15176-FF	1		TEE - FF2114T-0404S	
5	20981-FF	1		HOSE ASSEMBLY - 2032-04-040S-0409 (<i>Front wheel drive motor tee to rear wheel drive motor</i>)	
6	REF.	1	✓	WHEEL DRIVE MOTOR (<i>Front</i>)	FF-5-2
7	15133-FF	1		ELBOW, 90° - FF1868T-0406S	
8	REF.	1	✓	WHEEL DRIVE MOTOR (<i>Rear</i>)	FF-5-2

✓ See referenced page for component or assembly breakdown.



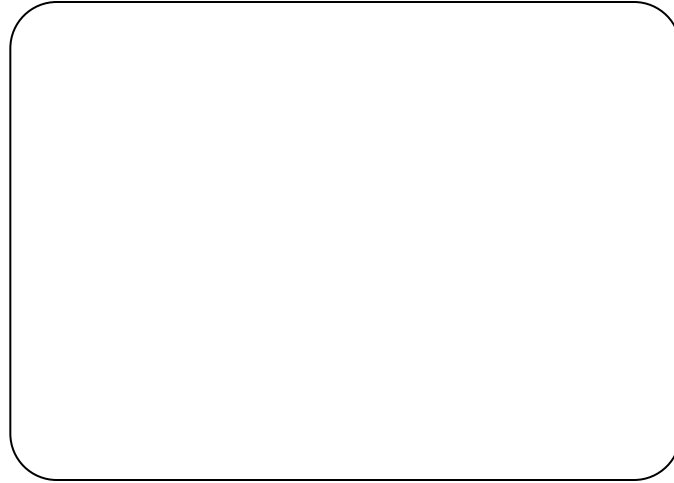
Parts 01272 08/02/99
25.00

**WHEEL DRIVE MOTOR SHIFT SIGNAL LINE
(Rotary Manifold To Wheel Drive Motor - NAF Transfer Case)**

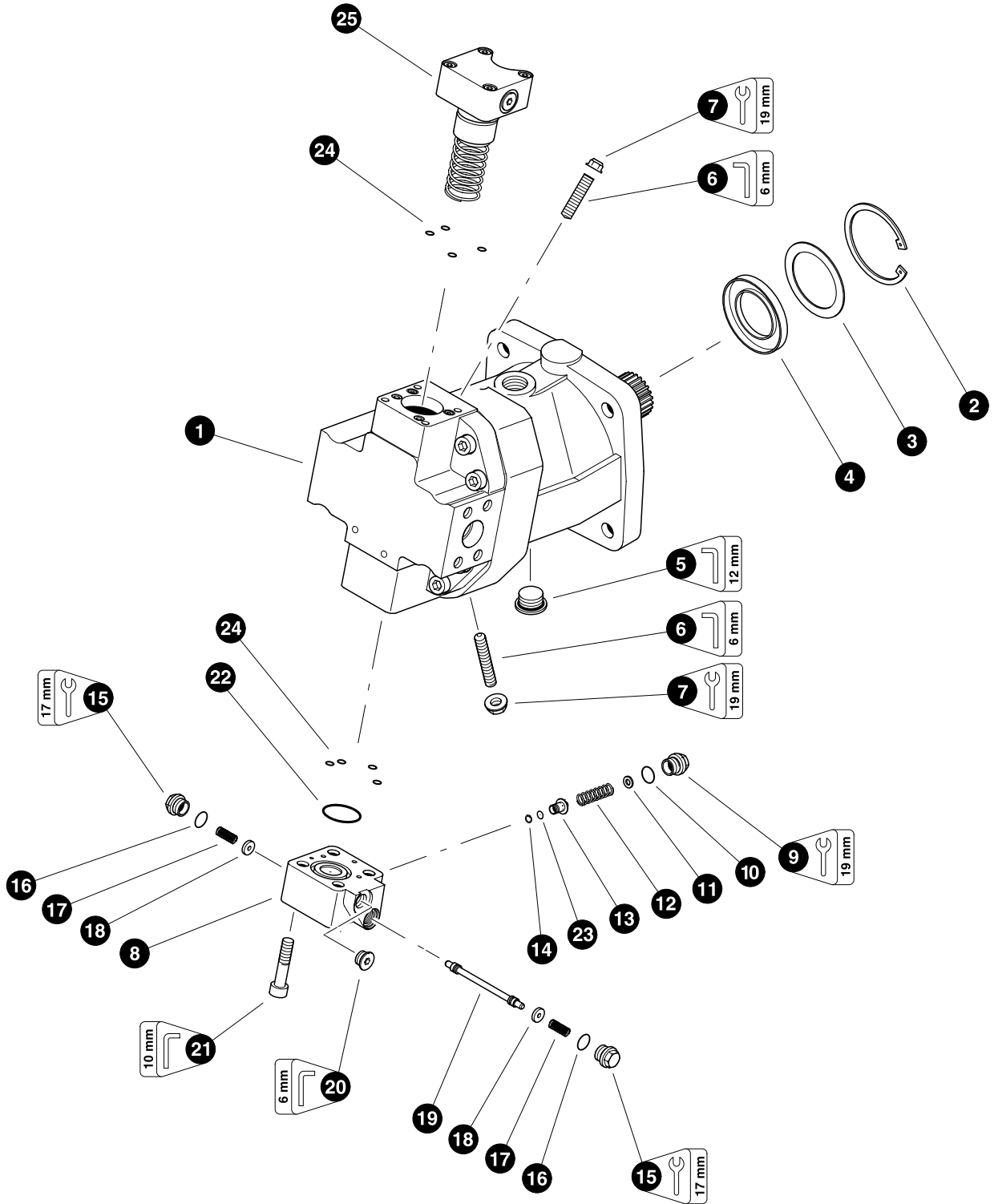
REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	ROTARY MANIFOLD	UP-1-6
2	15124-FF	1		CONNECTOR, straight - FF1852T-0406S (ORB to ORS) <i>(Used on machines PDN# 026FWD and above)</i>	
	19372-FF	1		CONNECTOR, straight - 4-4-F42EDMLO-S (BSPP to ORS) <i>(Used on machines PDN# 025FWD and below)</i>	
3	15145-FF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

✓ See referenced page for component or assembly breakdown.

Section FF-5



Set-Forward Front Frame - Wheel Drive Motors



Parts 00474 02/22/98
25.00

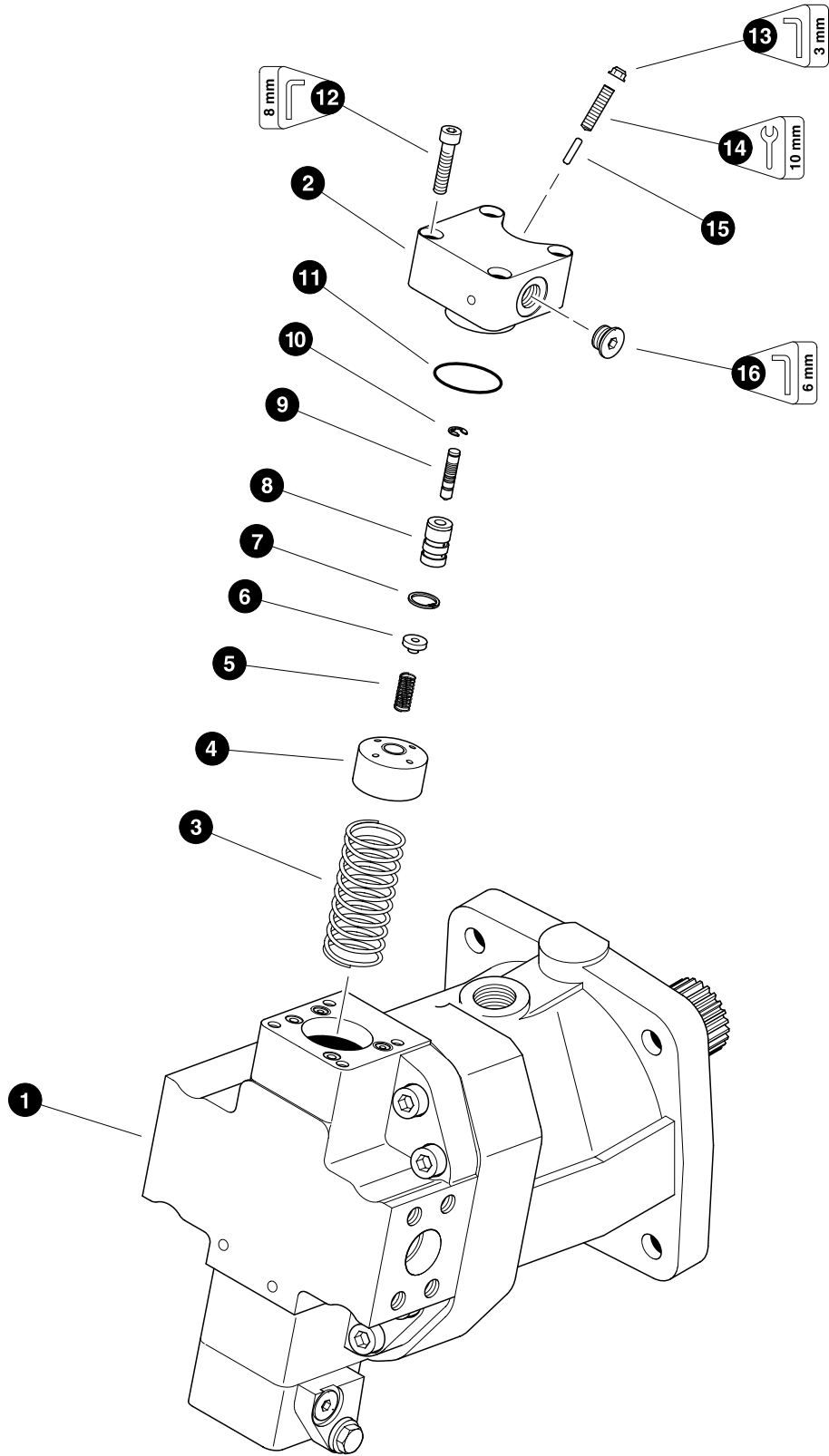
WHEEL DRIVE MOTOR - DUAL MOTOR INSTALLATION (Motor Housing & Stroker Piston Cover Assembly)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	19900-FF	1	☐	MOTOR, wheel drive - Rexroth AA6VM160 (<i>Front</i>) (S/N# tag No. 5652-004-030)	
	19901-FF	1	☐	MOTOR, wheel drive - Rexroth AA6VM160 (<i>Rear</i>) (S/N# tag No. 5652-004-031)	
2	20685-FF	1		RING, snap	
3	20686-FF	1		SHIM, shaft seal	
4	20687-FF	1	★	SEAL, shaft	
5	19692-FF	1		PLUG - 26mm-1.5P (<i>BSPP thread</i>)	
6	20688-FF	2		SCREW, adjusting (<i>Displacement min & max</i>)	
7	20689-FF	2	★	NUT, seal	
8	20690-FF	1	☐	STROKING PISTON COVER ASSEMBLY	
9	20691-FF	1		PLUG	
10	20713-FF	1	★	O-RING	
11	20714-FF	1		SHIM	
12	20715-FF	1		SPRING	
13	20716-FF	1		POPPET	
14	20718-FF	1		RING, snap	
15	20719-FF	2		PLUG	
16	20720-FF	2	★	O-RING	
17	20721-FF	2		SPRING	
18	20722-FF	2		RETAINER, spring	
19	NSS	1		SPOOL	
20	20693-FF	1		PLUG - 14mm-1.5P (<i>BSPP thread</i>)	
21	20723-FF	4		BOLT, allen head	
22	20724-FF	1	★	O-RING	
23	20717-FF	1		ORIFICE, flushing - 1.2mm	
24	NSS	8		O-RING	
25	REF.	1		STROKING PISTON CONTROL ASSEMBLY	FF-5-4
-	20725-FF	1		KIT, seal repair - complete AA6VM160 motor	

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

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.



Parts 00478 02/22/98
37.50

WHEEL DRIVE MOTOR - DUAL MOTOR INSTALLATION (HA1T Control Assembly)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	19900-FF	1	☐	MOTOR, wheel drive - Rexroth AA6VM160 (<i>Front</i>) (S/N# tag No. 5652-004-030)	
	19901-FF	1	☐	MOTOR, wheel drive - Rexroth AA6VM160 (<i>Rear</i>) (S/N# tag No. 5652-004-031)	
2	20726-FF	1	☐	STROKING PISTON CONTROL ASSEMBLY (<i>HA1T</i>)	
3	20727-FF	1		SPRING	
4	20728-FF	1		BUSHING, spring	
5	20729-FF	1		SPRING	
6	20730-FF	1		RETAINER, spring	
7	20731-FF	1		RING, snap	
8	20732-FF	1		BUSHING, control spool	
9	20733-FF	1		SPOOL, control	
10	20734-FF	1		E-CLIP, control spool	
11	20735-FF	1	★	O-RING	
12	20736-FF	4		BOLT, allen head	
13	20737-FF	1	★	NUT, seal	
14	20738-FF	1		SCREW, adjusting (<i>Stroke control</i>)	
15	20739-FF	1		PIN, stroke adjustment	
20	20693-FF	1		PLUG - 14mm-1.5P (<i>BSPP thread</i>)	
-	20725-FF	1		KIT, seal repair - complete AA6VM160 motor	

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

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.

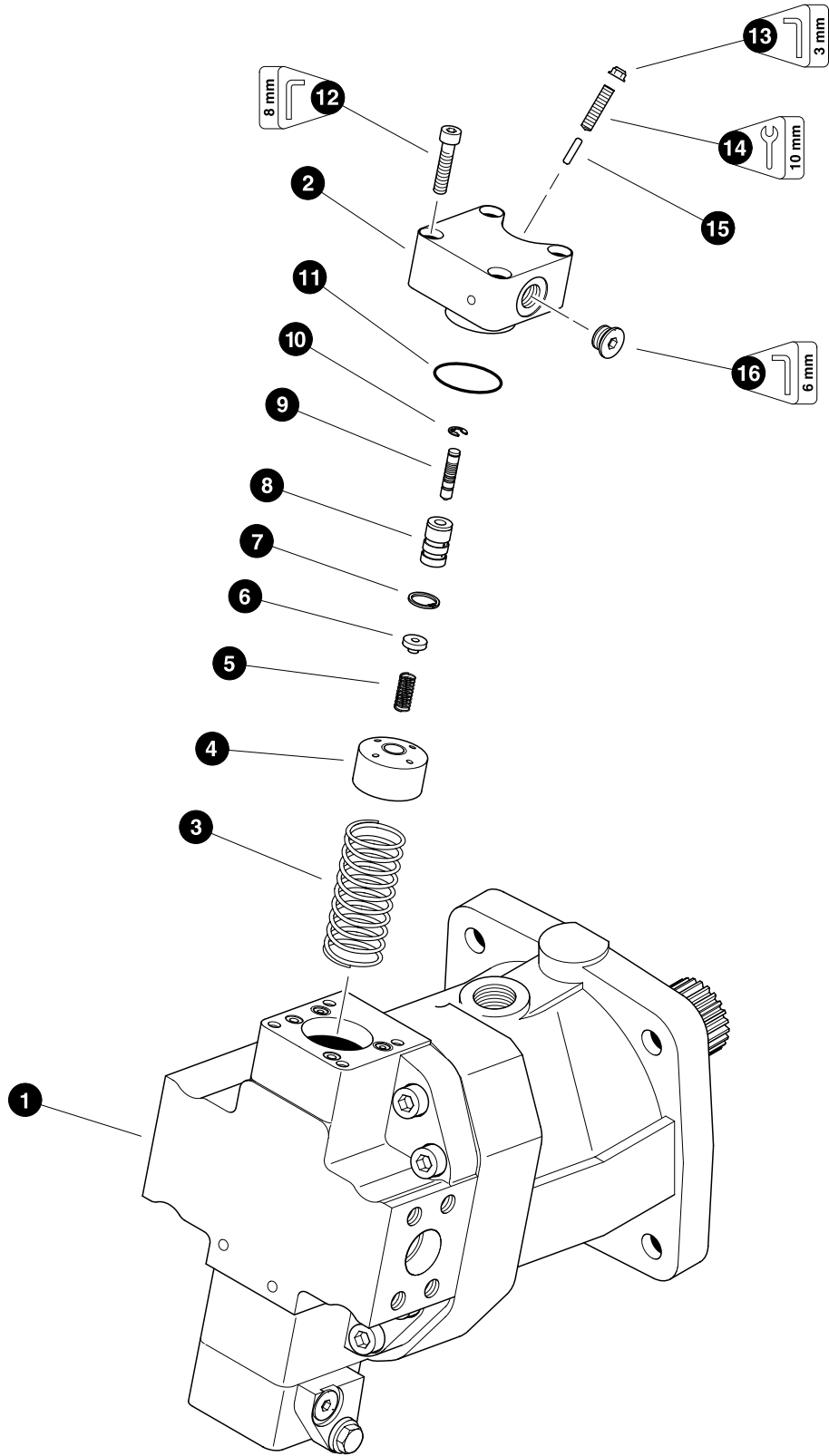
WHEEL DRIVE MOTOR - SINGLE MOTOR INSTALLATION (Motor Housing & Stroker Piston Cover Assembly)

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

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

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.



Parts 00478 02/22/98
37.50

WHEEL DRIVE MOTOR - SINGLE MOTOR INSTALLATION (HA1T Control Assembly)

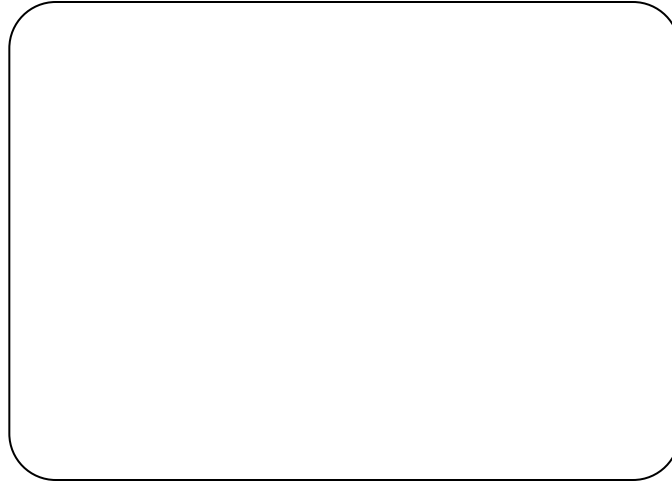
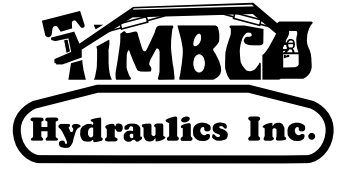
REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	19900-FF	1	<input type="checkbox"/>	MOTOR, wheel drive - Rexroth AA6VM160 (<i>Front</i>) (S/N# tag No. 5652-004-030)	
	19901-FF	1	<input type="checkbox"/>	MOTOR, wheel drive - Rexroth AA6VM160 (<i>Rear</i>) (S/N# tag No. 5652-004-031)	
2	20726-FF	1	<input type="checkbox"/>	STROKING PISTON CONTROL ASSEMBLY (<i>HA1T</i>)	
3	20727-FF	1		SPRING	
4	20728-FF	1		BUSHING, spring	
5	20729-FF	1		SPRING	
6	20730-FF	1		RETAINER, spring	
7	20731-FF	1		RING, snap	
8	20732-FF	1		BUSHING, control spool	
9	20733-FF	1		SPOOL, control	
10	20734-FF	1		E-CLIP, control spool	
11	20735-FF	1	★	O-RING	
12	20736-FF	4		BOLT, allen head	
13	20737-FF	1	★	NUT, seal	
14	20738-FF	1		SCREW, adjusting (<i>Stroke control</i>)	
15	20739-FF	1		PIN, stroke adjustment	
20	20693-FF	1		PLUG - 14mm-1.5P (<i>BSPP thread</i>)	
-	20725-FF	1		KIT, seal repair - complete AA6VM160 motor	

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

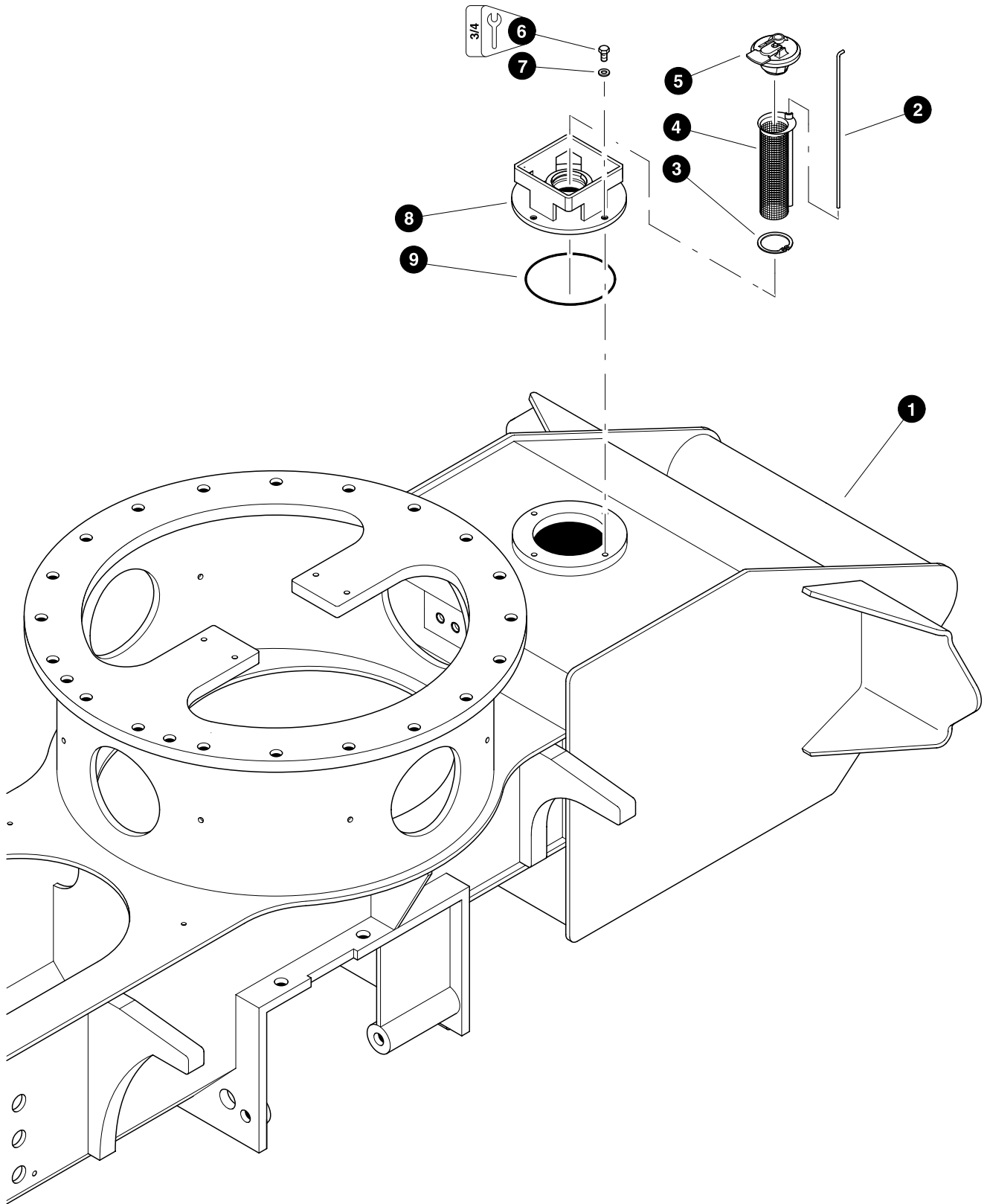
Note:

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.

Section FF-6



Set-Forward Front Frame - Fuel Tank Components

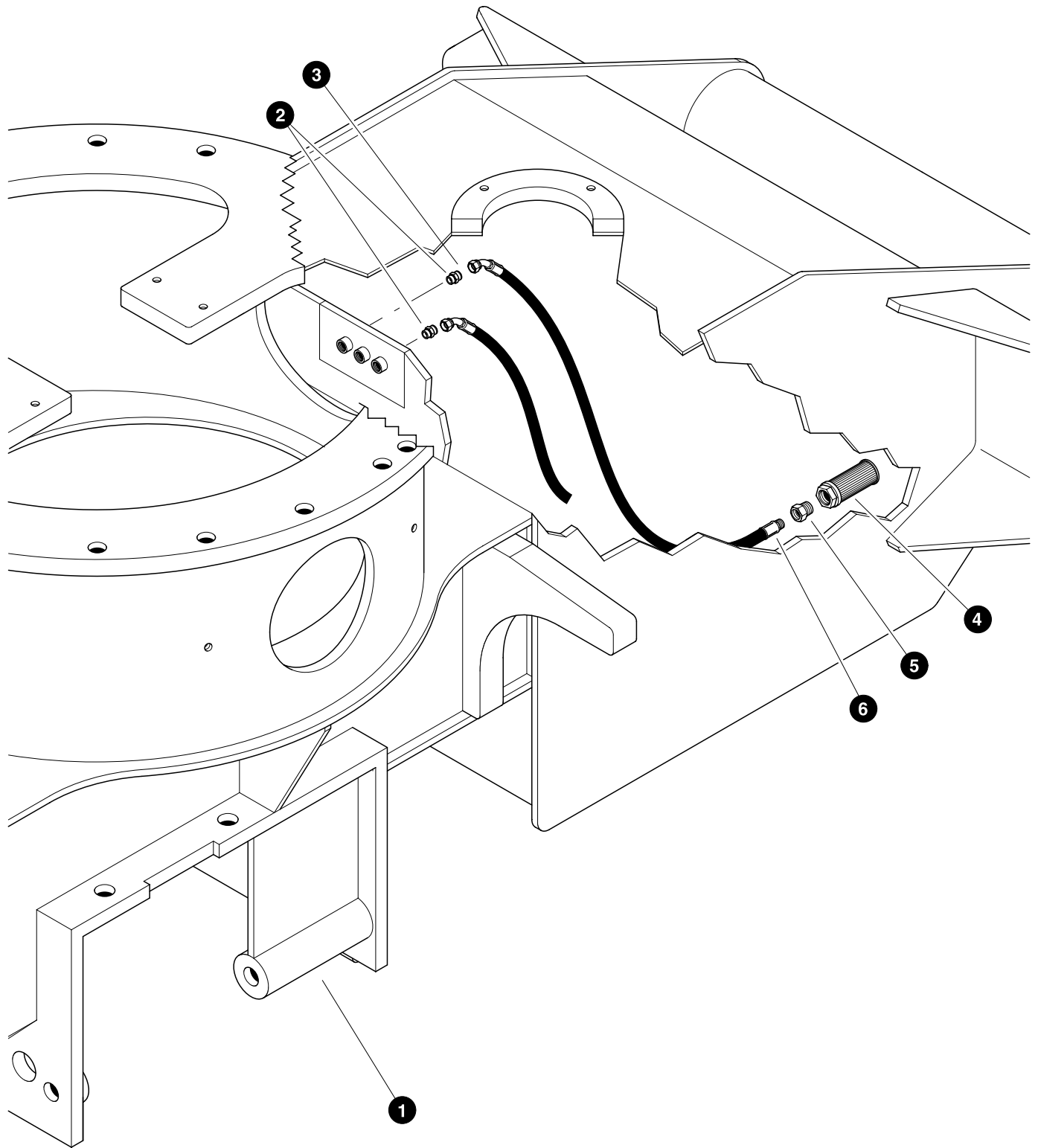


Parts 01611 03/010/2000
12.50

FUEL FILL STRAINER INSTALLATION

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	FRONT FRAME WELDMENT	FF-1-2
2	17492-FF	1		DIPSTICK, fuel level	
3	17115-FF	1		RING, snap - fuel strainer retainer	
4	17114-FF	1		STRAINER, fuel	
5	16585-FF	1		CAP, fuel	
6	10783-FF	4		BOLT - 1/2" x 1"	
7	15534-FF	4		WASHER, SAE flat - 1/2"	
8	16516-FF	1		COVER, fuel tank	
9	15600-FF	1		O-RING - 8"	

✓ See referenced page for component or assembly breakdown.



Parts 01612 04/05/2000
12.50

FUEL LINES

(Supply & Return Lines Inside Fuel Tank)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	FRONT FRAME WELDMENT	FF-1-2
2	15117-FF	2		CONNECTOR, straight - FF1852T-0808S	
3	22930-FF	1		HOSE ASSEMBLY - 4018-08-0809 (<i>Fuel return</i>)	
4	17271-FF	1		FILTER, screen	
5	15630-FF	1		BUSHING, reducer - 5406-8-6	
6	22936-FF	1		HOSE ASSEMBLY - 4067-08-0809-08PS (<i>Fuel supply</i>)	

✓ See referenced page for component or assembly breakdown.

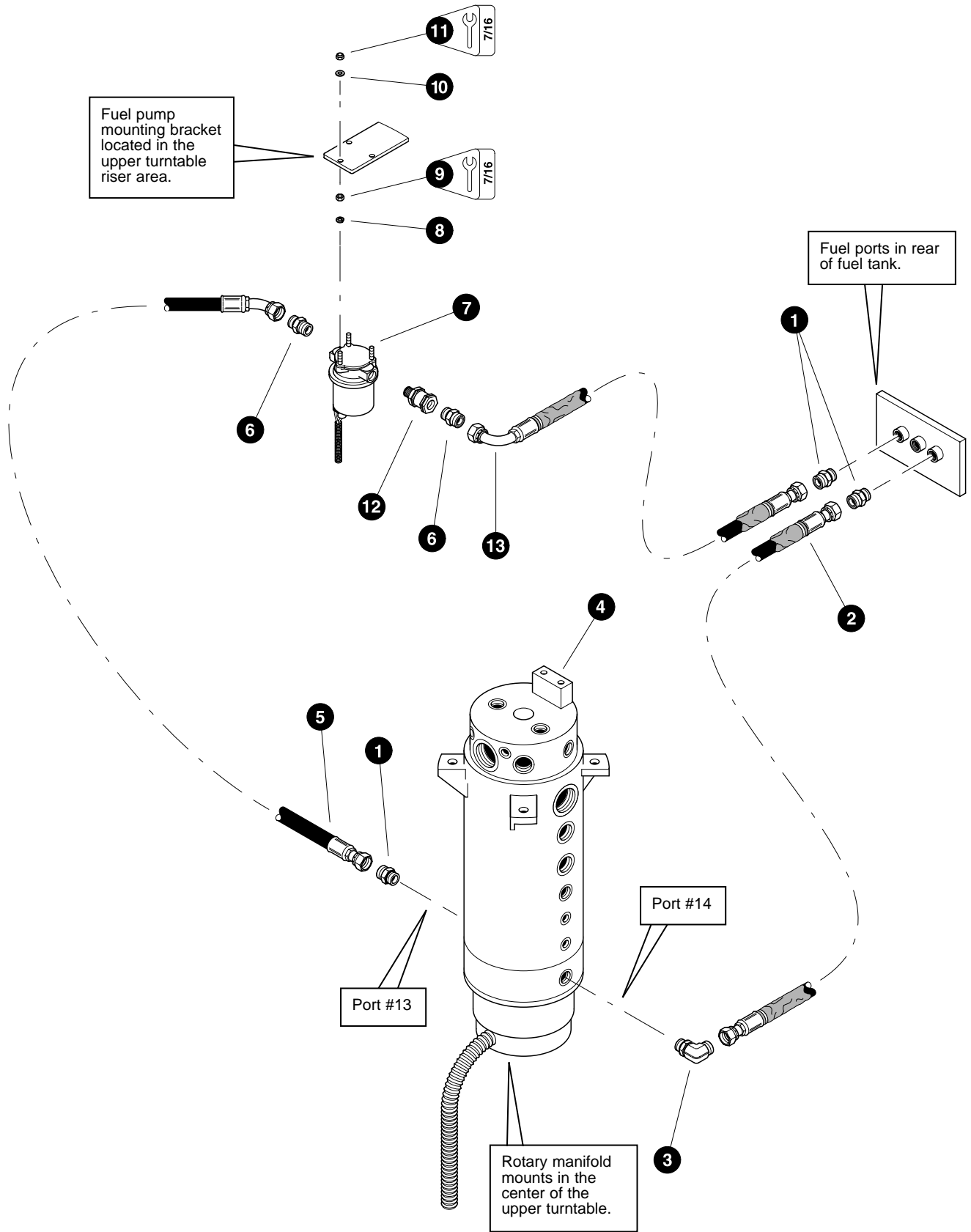
FUEL LINES

(Supply & Return Lines From Fuel Tank To Rotary Manifold)

(Used on machines PDN# 134FWD and below)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	15117-FF	2	CONNECTOR, straight - FF1852T-0808S	
2	22925-FF	1	HOSE ASSEMBLY - 4026-08-080S-080S-W <i>(Fuel return from lower rotary manifold port #8 to fuel tank return port)</i>	
3	16360-FF	2	ELBOW, 90° - FF1868T-0808S	
4	REF.	1	✓ ROTARY MANIFOLD	UP-1-6
5	22932-FF	1	HOSE ASSEMBLY - 4019-08-080S-0804 <i>(Fuel supply from fuel pump outlet port to lower rotary manifold port #9)</i>	
6	15258-FF	2	CONNECTOR, straight - FF2031T-0808S	
7	21966-FF	1	PUMP, fuel	
8	10756-FF	3	WASHER, lock - 1/4"	
9	10755-FF	3	NUT, hex - 1/4"	
10	10757-FF	3	WASHER, SAE flat - 1/4"	
11	15509-FF	3	NUT, nylock - 1/4"	
12	15652-FF	1	VALVE, check	
13	22931-FF	1	HOSE ASSEMBLY - 4017-08-080S-0804-W <i>(Fuel supply from fuel tank supply port to fuel pump inlet port)</i>	

✓ See referenced page for component or assembly breakdown.



Parts 01939 12/13/2000
18.75

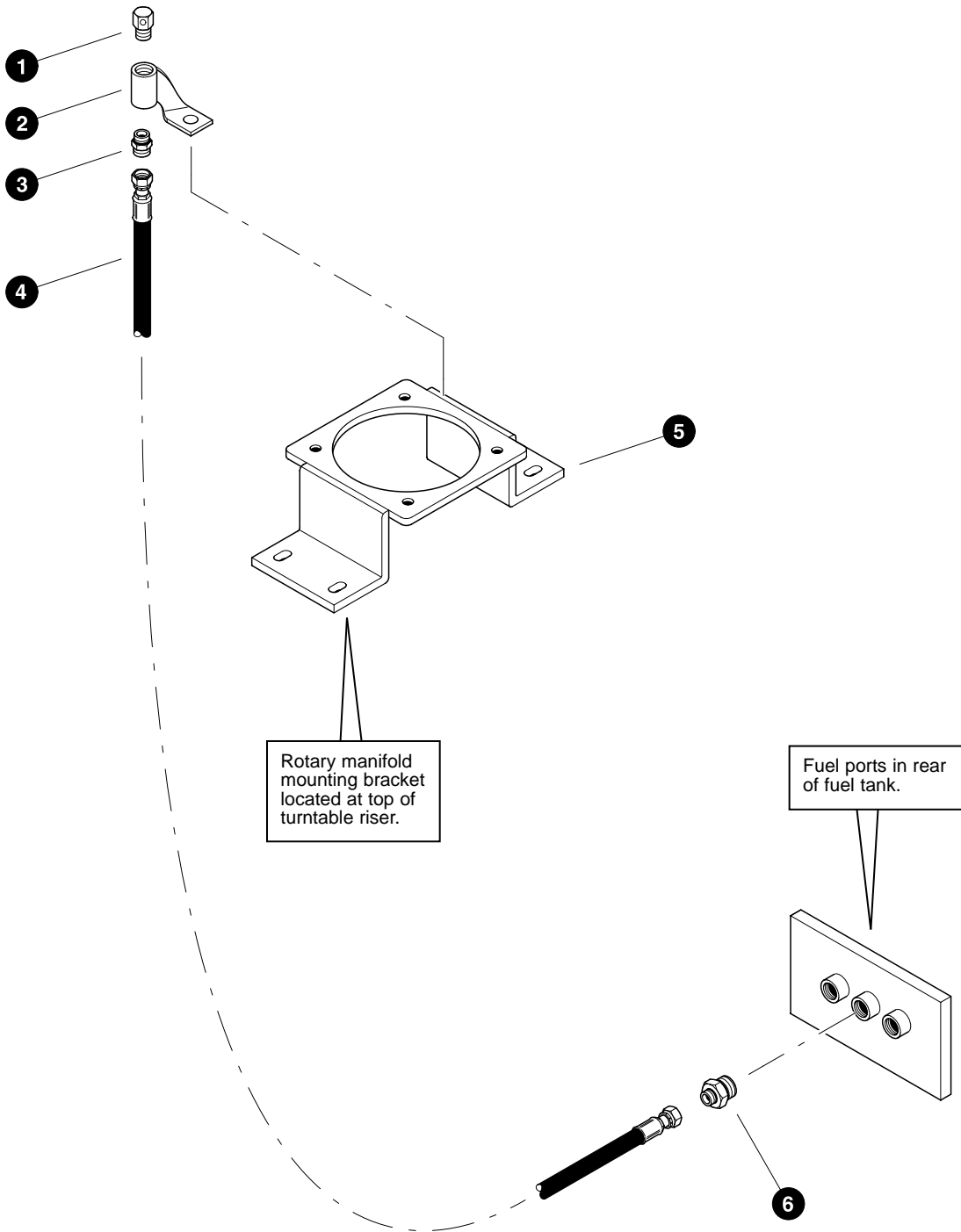
FUEL LINES

(Supply & Return Lines From Fuel Tank To Rotary Manifold)

(Used on machines PDN# 135FWD and above)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	15117-FF	3	CONNECTOR, straight - FF1852T-0808S	
2	22925-FF	1	HOSE ASSEMBLY - 4026-08-080S-080S-W <i>(Fuel return from lower rotary manifold port #14 to fuel tank return port)</i>	
3	16360-FF	1	ELBOW, 90° - FF1868T-0808S	
4	REF.	1	✓ ROTARY MANIFOLD	UP-1-6
5	22932-FF	1	HOSE ASSEMBLY - 4019-08-080S-0804 <i>(Fuel supply from fuel pump outlet port to lower rotary manifold port #13)</i>	
6	15258-FF	2	CONNECTOR, straight - FF2031T-0808S	
7	21966-FF	1	PUMP, fuel	
8	10756-FF	3	WASHER, lock - 1/4"	
9	10755-FF	3	NUT, hex - 1/4"	
10	10757-FF	3	WASHER, SAE flat - 1/4"	
11	15509-FF	3	NUT, nylock - 1/4"	
12	15652-FF	1	VALVE, check	
13	23472-FF	1	HOSE ASSEMBLY - 4018-08-080S-0809-W <i>(Fuel supply from fuel tank supply port to fuel pump inlet port)</i>	

✓ See referenced page for component or assembly breakdown.

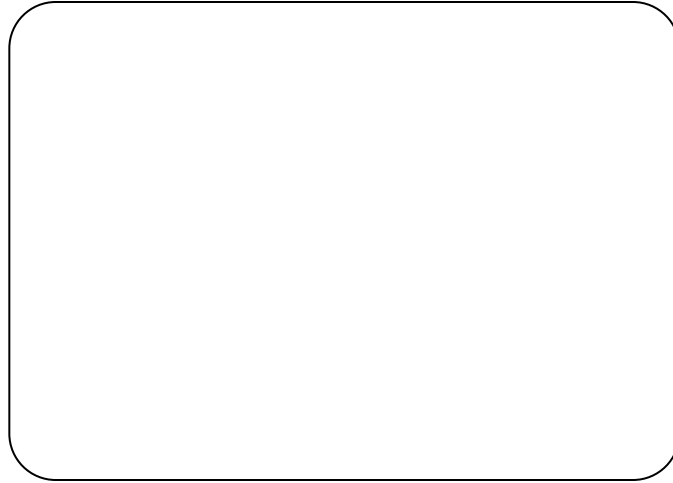


FUEL LINES (Fuel Tank Vent)

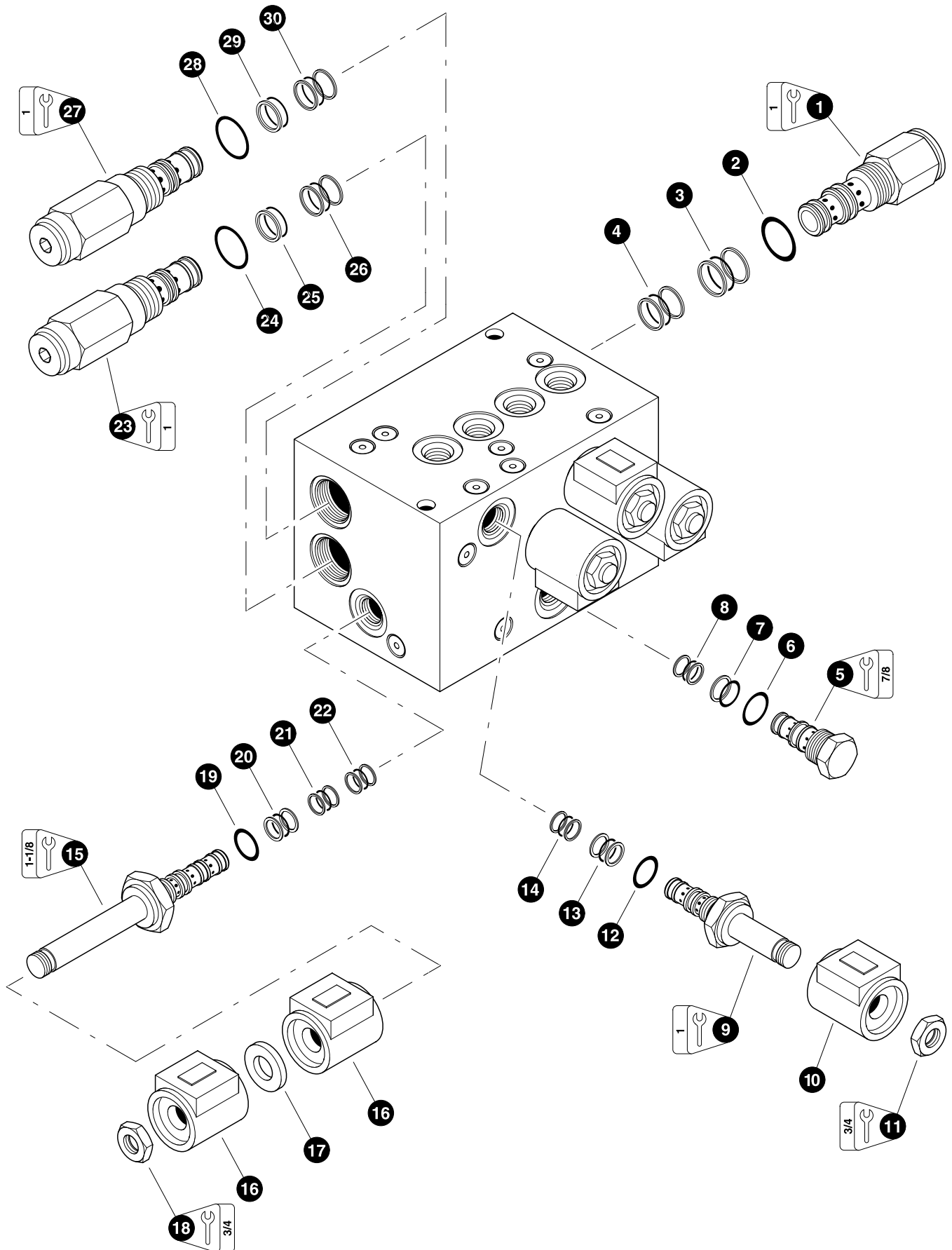
REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	22906-FF	1	BREATHER, fuel vent	
2	23078-FF	1	BRACKET, vent hose	
3	15131-FF	1	CONNECTOR, straight - FF2031T-0404S	
4	22916-FF	1	HOSE ASSEMBLY - 2022-04-040S-040S (<i>Fuel tank vent port to fuel vent breather</i>)	
5	REF.	1	✓ ROTARY MANIFOLD MOUNTING BRACKET	UP-1-2
6	15504-FF	1	CONNECTOR, straight - FF2031T-0408S	

✓ See referenced page for component or assembly breakdown.

Section FF-7



Set-Forward Front Frame - Lower Solenoid Manifold



Parts 01926 12/08/2000
62.50

LOWER SOLENOID MANIFOLD

REF	PART #	QTY		DESCRIPTION	SEE PAGE
-	23139-FF	1	☐	MANIFOLD, lower solenoid - 12V	
-	23611-FF	1	☐	MANIFOLD, lower solenoid - 24V	
1	24070-FF	1		CARTRIDGE, shift interlock (PD10-34-0-N-110)	
2	NSS	1	★	O-RING, body	
3	NSS	1	★	SEALS, chamber (Large)	
4	NSS	1	★	SEALS, chamber (Small)	
5	24071-FF	2	☐	CARTRIDGE, check valve (PC08-30-0-N-25)	
6	NSS	1	☆	O-RING, body	
7	NSS	1	☆	SEALS, chamber (Large)	
8	NSS	1	☆	SEALS, chamber (Small)	
9	20286-FF	4	☐	CARTRIDGE, solenoid valve - 12V (SV07-31-0-N-12DW)	
	24072-FF	4	☐	CARTRIDGE, solenoid valve - 24V (SV07-31-0-N-24DW)	
10	23621-FF	1		COIL - 12V (Red harness wires)	
	23622-FF	1		COIL - 24V (Green harness wires)	
11	NSS	1		NUT	
12	NSS	1	●	O-RING, body	
13	NSS	1	●	SEALS, chamber (Large)	
14	NSS	1	●	SEALS, chamber (Small)	
15	24073-FF	4	☐	CARTRIDGE, solenoid valve - 12V (SV08-47D-0-N-12DW)	
	24074-FF	4	☐	CARTRIDGE, solenoid valve - 24V (SV08-47D-0-N-24DW)	
16	23621-FF	2		COIL - 12V (Red harness wires)	
	23622-FF	2		COIL - 24V (Green harness wires)	
17	NSS	1		SPACER, coil	
18	NSS	1		NUT	
19	NSS	1	○	O-RING, body	
20	NSS	1	○	SEALS, chamber (Large)	
21	NSS	1	○	SEALS, chamber (Medium)	
22	NSS	1	○	SEALS, chamber (Small)	
23	24075-FF	1	☐	CARTRIDGE, relief valve (PR10-3115H-0-N-06.5/4.0)	
24	NSS	1	■	O-RING, body	
25	NSS	1	■	SEALS, chamber (Large)	
26	NSS	1	■	SEALS, chamber (Small)	
27	24076-FF	1	☐	CARTRIDGE, relief valve (PR10-31H-0-N-35/8.0)	
28	NSS	1	■	O-RING, body	
29	NSS	1	■	SEALS, chamber (Large)	
30	NSS	1	■	SEALS, chamber (Small)	
-	24080-FF	1		KIT, seal repair - shift interlock cartridge	
-	24083-FF	1		KIT, seal repair - check valve cartridge	
-	20288-FF	1		KIT, seal repair - solenoid valve cartridge (SV07)	
-	24084-FF	1		KIT, seal repair - solenoid valve cartridge (SV08)	
-	24085-FF	1		KIT, seal repair - relief valve cartridge	

☐ Kit or Assembly - includes all items indented underneath.

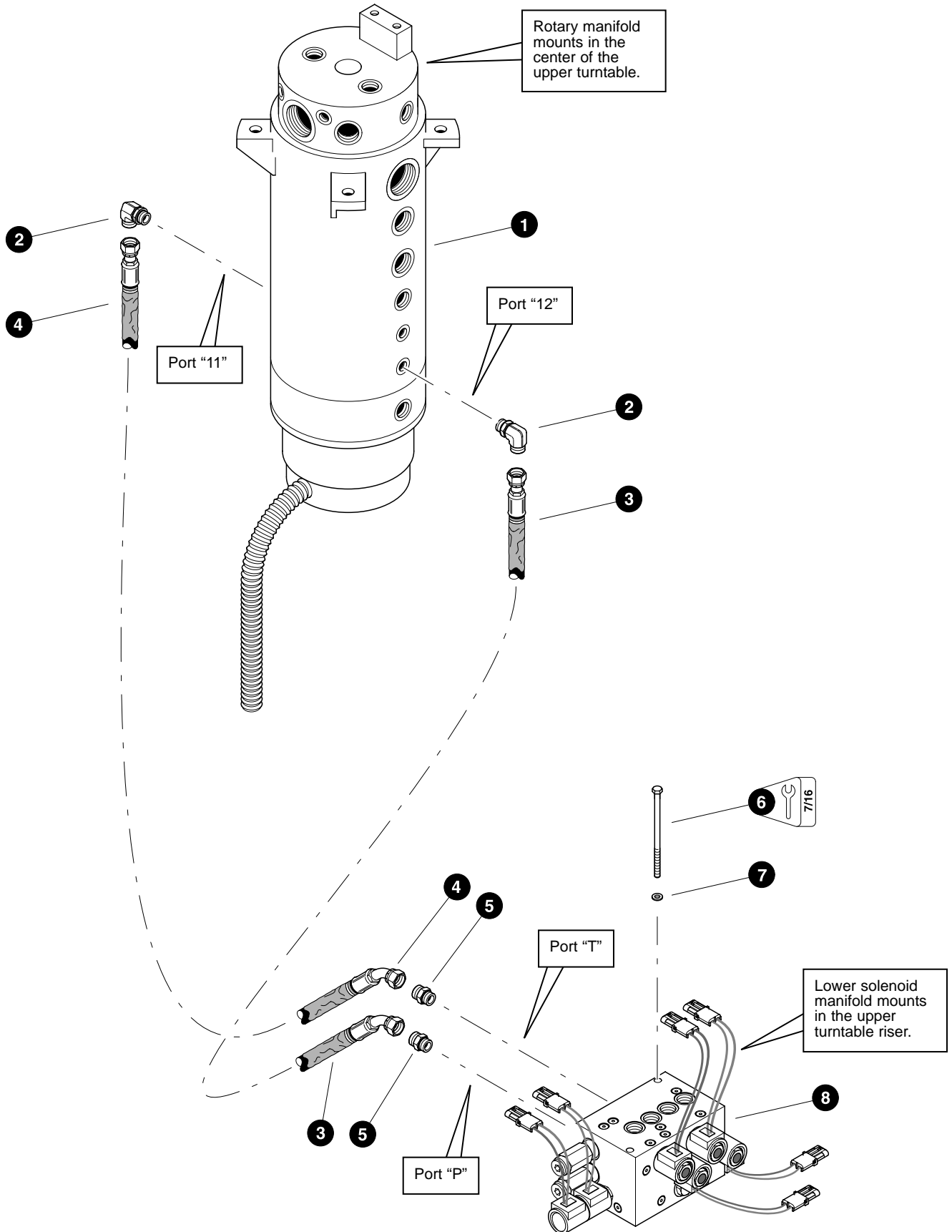
★ Included in seal repair kit Part # 24080-FF.

☆ Included in seal repair kit Part # 24083-FF.

● Included in seal repair kit Part # 20288-FF.

○ Included in seal repair kit Part # 24084-FF.

■ Included in seal repair kit Part # 24085-FF.



Parts 01940 12/13/2000
25.00

LOWER SOLENOID MANIFOLD PRESSURE & RETURN LINES

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	ROTARY MANIFOLD	UP-1-6
2	16296-FF	2		ELBOW, 90° - FF1868T-0606S	
3	23506-FF	1		HOSE ASSEMBLY - 4021-06-060S-0604-W (<i>Rotary manifold lower port "12" to lower solenoid manifold port "P"</i>)	
4	23914-FF	1		HOSE ASSEMBLY - 4026-06-060S-0604-W (<i>Lower solenoid manifold port "T" to rotary manifold lower port "11"</i>)	
5	15124-FF	2		CONNECTOR, straight - FF1852T-0406S	
6	23540-FF	2		BOLT - 1/4" x 4-1/2"	
7	10757-FF	2		WASHER, SAE flat - 1/4"	
8	REF.	1	✓	LOWER SOLENOID MANIFOLD	FF-7-2

✓ See referenced page for component or assembly breakdown.

LOWER SOLENOID MANIFOLD PRESSURE GAUGE TEST LINES

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	LOWER SOLENOID MANIFOLD	FF-7-2
2	16540-FF	2		ELBOW, 90° - FF1868T-0404S	
3	24056-FF	1		HOSE ASSEMBLY - 2014-04-040S-040S-W (<i>Lower solenoid manifold port "G2" to pressure check manifold</i>)	
4	24055-FF	1		HOSE ASSEMBLY - 2012-04-040S-040S-W (<i>Lower solenoid manifold port "G1" to pressure check manifold</i>)	
5	15124-FF	2		CONNECTOR, straight - FF1852T-0406S	
6	23544-FF	1		MANIFOLD, pressure check	
7	23892-FF	1		BRACKET, pressure check manifold	
8	15528-FF	2		WASHER, SAE flat - 3/8"	
9	10813-FF	1		NUT, lock - 3/8"	
10	15604-FF	2		BOLT - 1/4" x 3/4"	
11	10757-FF	2		WASHER, SAE flat - 1/4"	
12	16037-FF	2		TAP, gauge port (#4 SAE)	
13	20084-FF	1		BOLT - 3/8" x 1-3/4"	

✓ See referenced page for component or assembly breakdown.