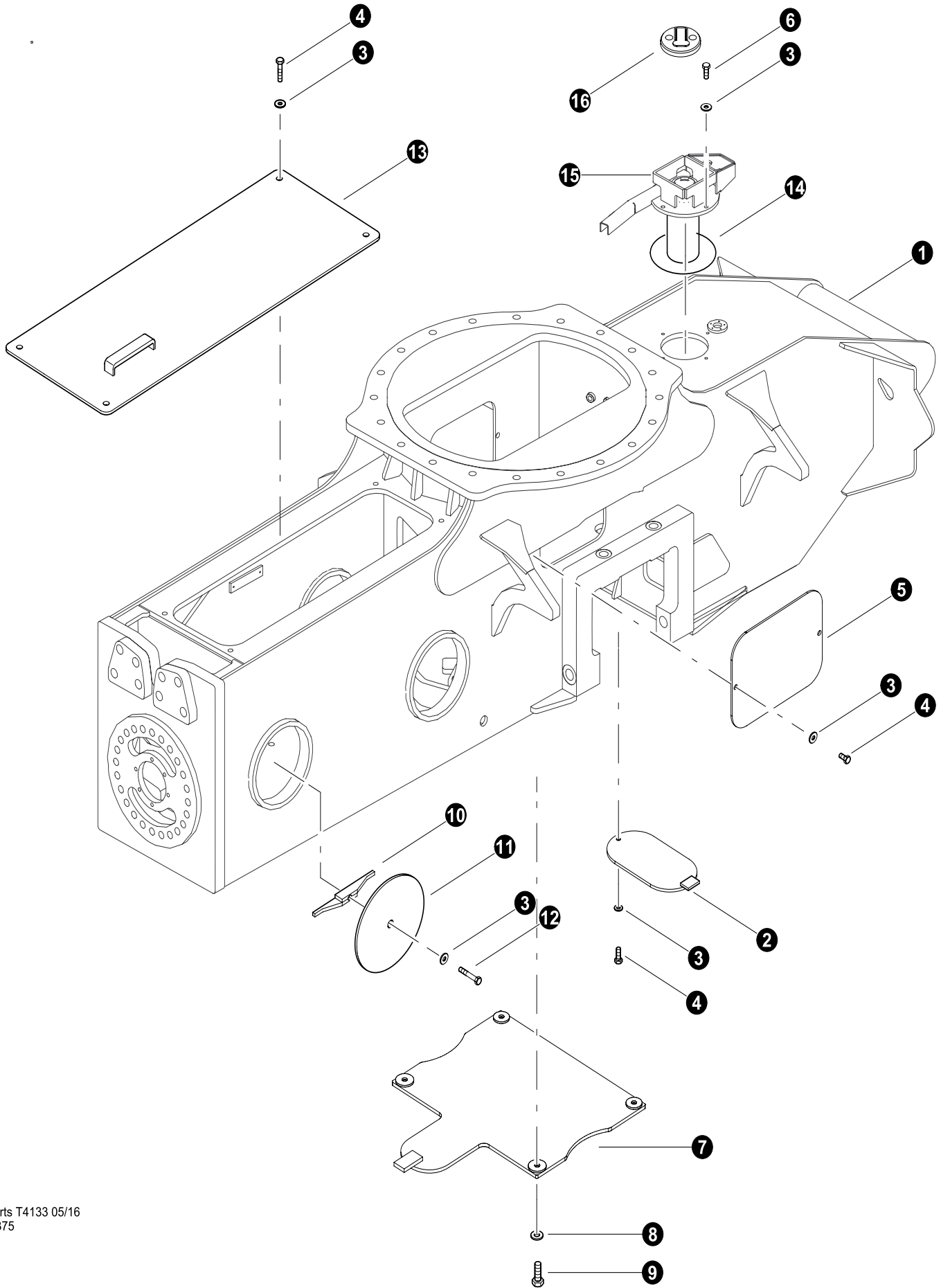


# ***Section FF-1***


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## ***830 & 840 Front Frame - Frame / Covers / Brackets / Steps***

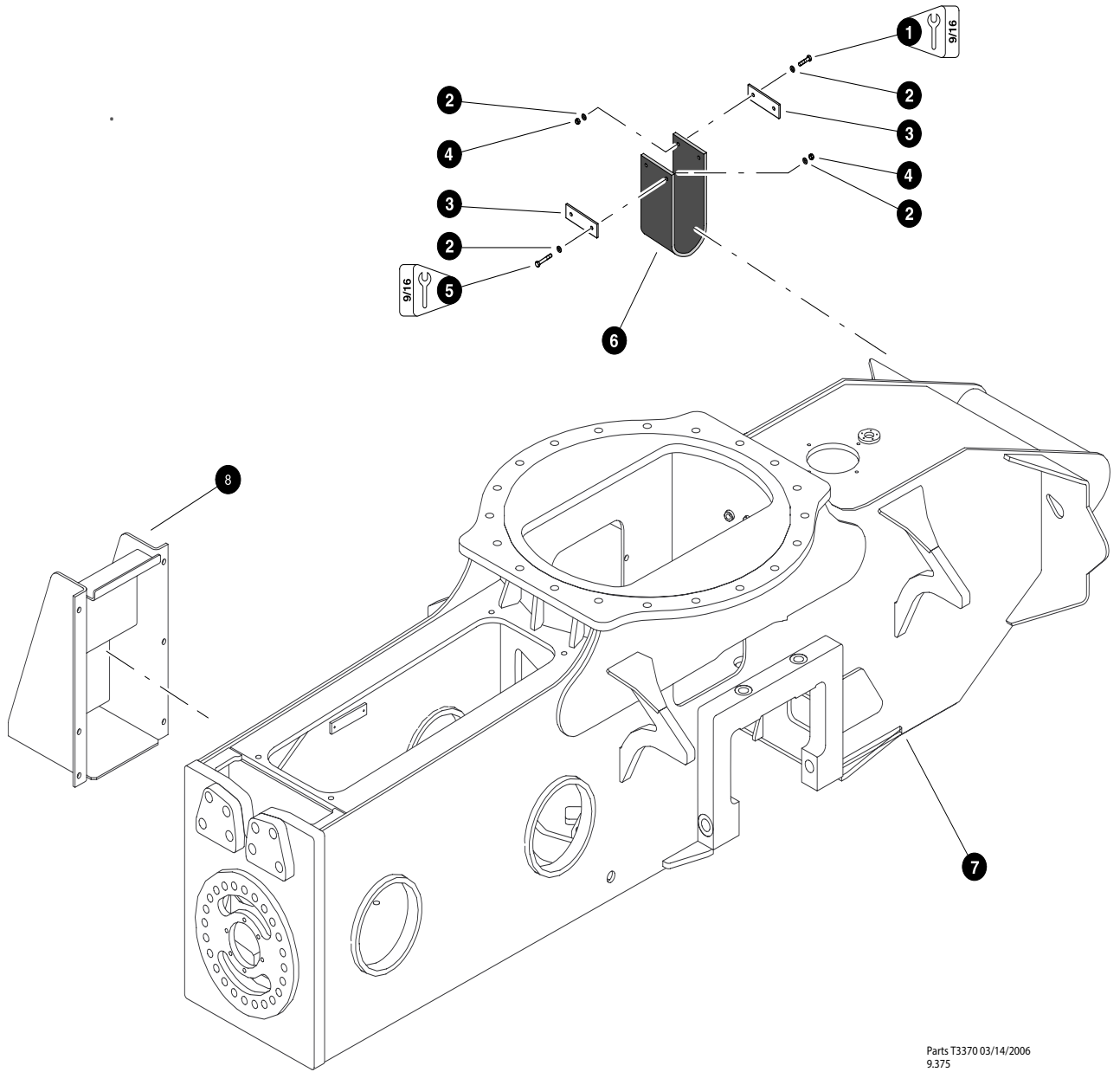


Parts T4133 05/16  
9.375

## FRONT FRAME AND ACCESS COVERS (Covers and Brackets)


REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	52408-FF	1	WELDMENT, front frame 800C	
2	52370-FF	1	COVER, AXLE BOX END (WITH FUEL SENSOR)	
3	15534-FF		WASHER, SAE flat - 1/2"	
4	15528-FF	4	BOLT - 1/2" x 1 1/2"	
5	40894-FF	2	COVER, RISER	
6	10783-FF	7	BOLT - 1/2" x 1"	
7	52215-FF	1	COVER, AXLE BOTTOM	
8	15550-FF	4	WASHER, SAE flat - 3/4	
9	10839-FF	4	BOLT - 3/4" X 1.5"	
10	52358-FF	4	RETAINER, ROUND COVER	
11	52357-FF	4	COVER, ROUND - FRONT FRAME	
12	15565-FF	2	BOLT - 1/2" X 2.5"	
13	52371-FF	1	COVER, TOP REAR	
14	15600-FF	1	O-RING, fuel tank cover	
15	REF	1	 COVER, FUEL .....	FF-4
16	16585-FF	1	CAP, FUEL (locking)	


 See referenced page for component or assembly breakdown.



Parts T3370 03/14/2006  
9.375

## FRAME STEPS INSTALLATION

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	20084-FF	2	BOLT - 3/8" x 1-3/4"	
2	15528-FF	8	WASHER, SAE flat - 3/8"	
3	20209-FF	2	RETAINER, rubber step	
4	10813-FF	8	NUT, lock - 3/8"	
5	20084-FF	2	BOLT - 3/8" x 1-3/4"	
6	20210-FF	1	STEP, rubber	
7	REF.	1	 FRONT FRAME WELDMENT.....	FF-1
8	54792-FF	1	STEP, 830 BOLT-ON	

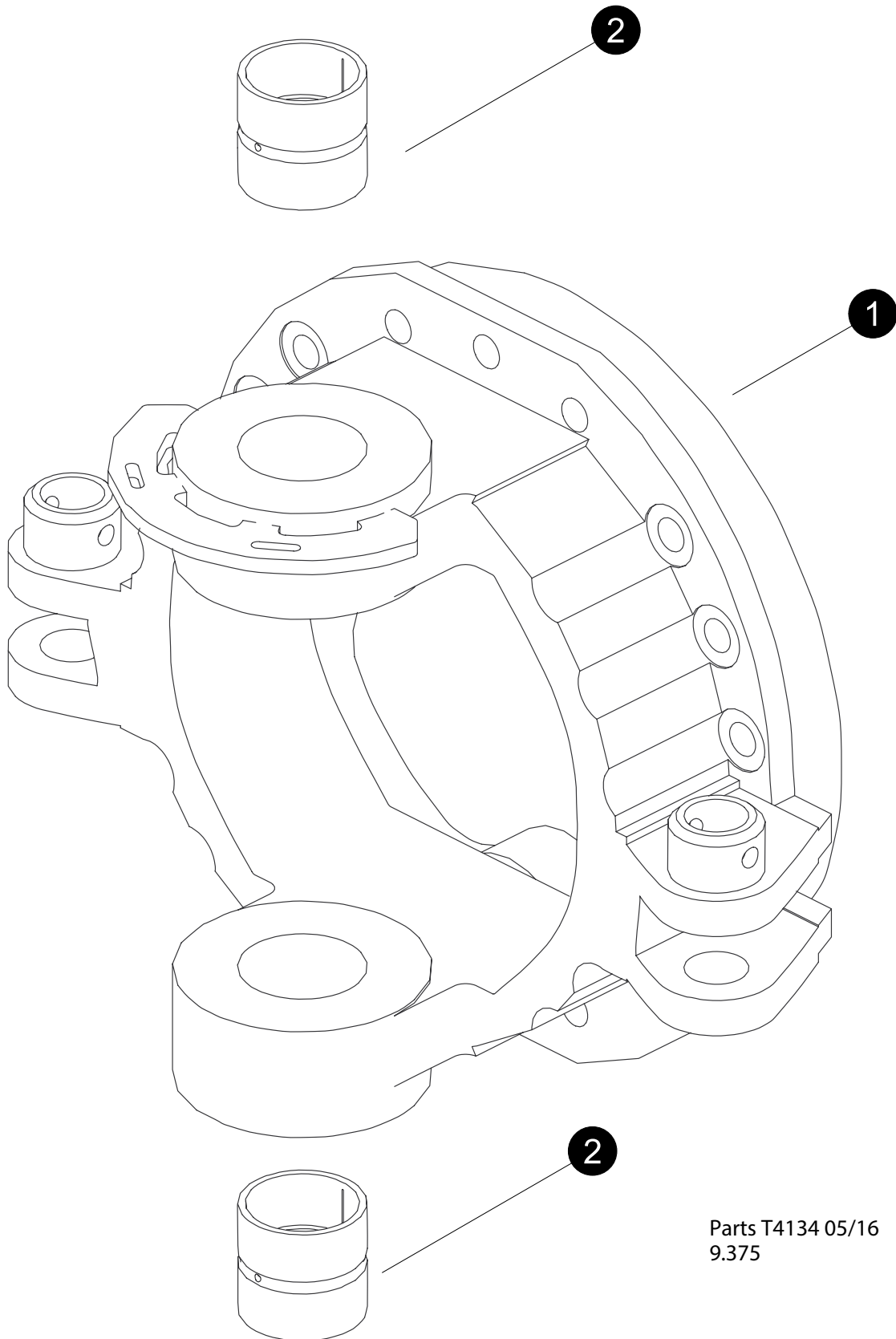
 See referenced page for component or assembly breakdown.



## ***Section FF-2***

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### ***830/840 Front Frame - Component Installation***



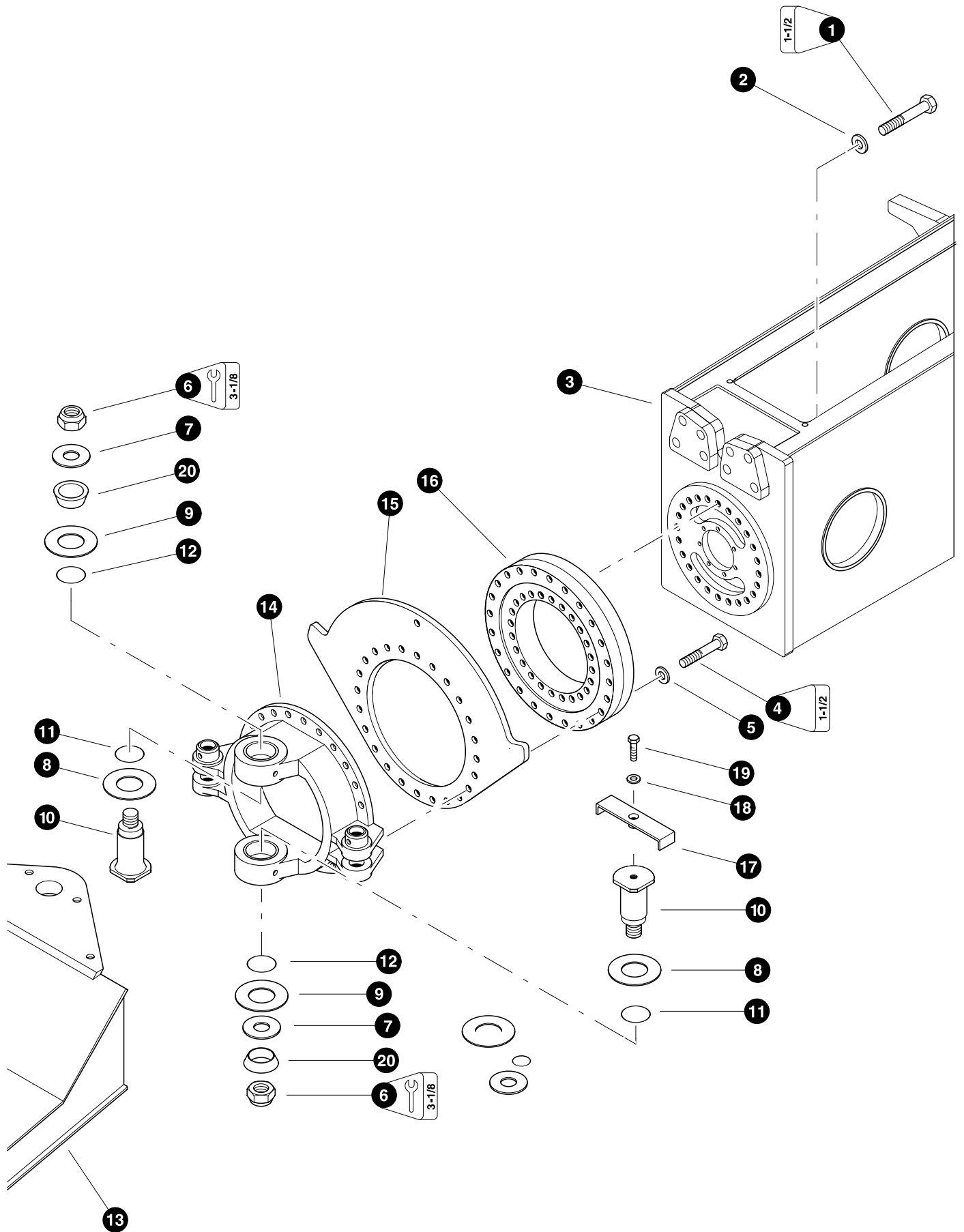
Parts T4134 05/16  
9.375



**FRAME ARTICULATION CASTING**




REF	PART #	QTY		DESCRIPTION	SEE SECTION
1	52038-FF	1	<input type="checkbox"/>	CASTING, HINGE PLATE - 830 3.5 PIN	
2	52021-FF	2		BUSHING - 3.5" X 3.75"(STRAIGHT GROOVES)	
3	10704-FF	2		FITTING, grease - 1/8" pipe thread	

- Kit or Assembly - includes all items indented underneath.

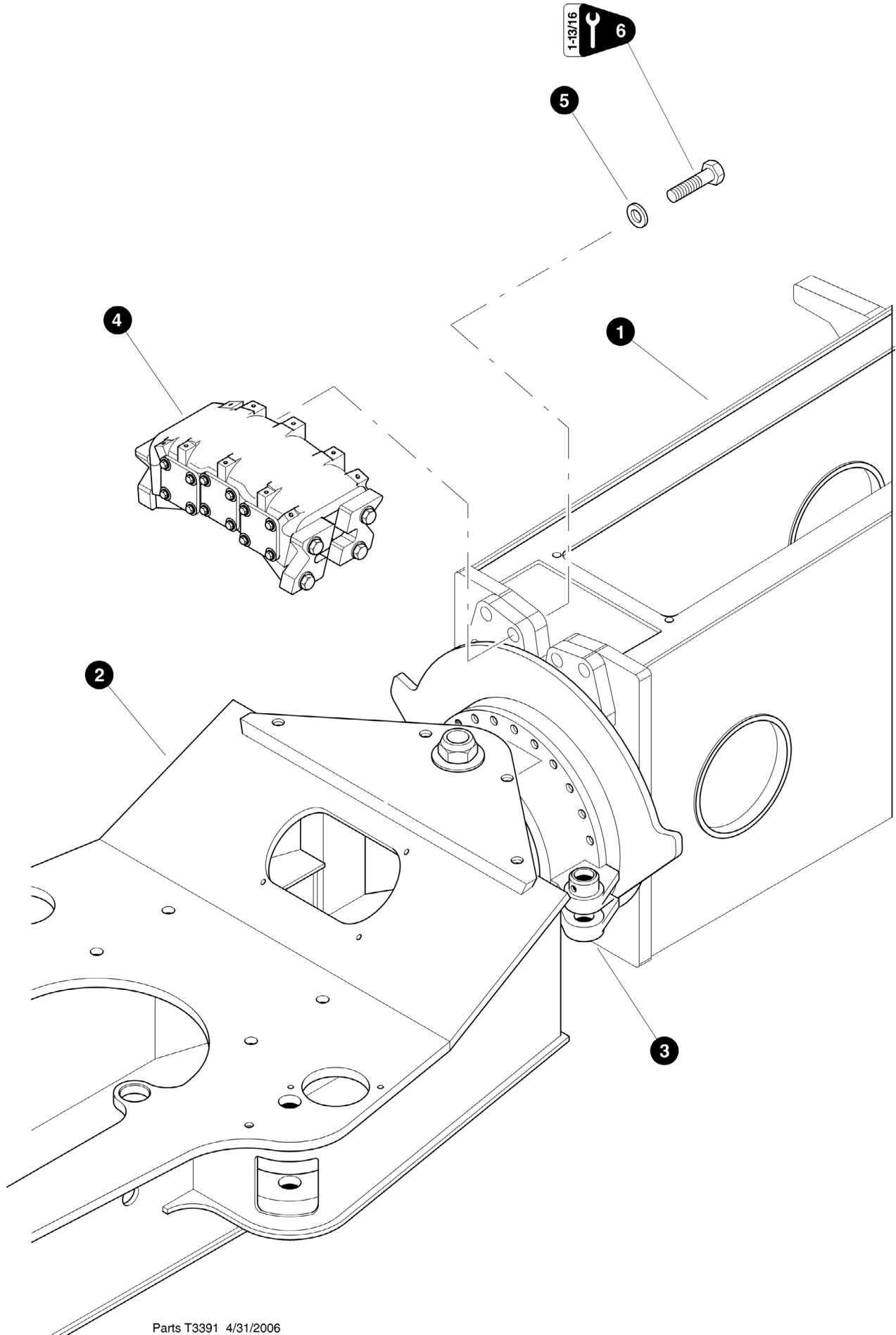


Parts T3642 08/08  
9.375

## FRAME ARTICULATION INSTALLATION





REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	23387-FF	24	BOLT - 1" x 6-1/2" (Torque to 1000 ft.lbs (1330 Nm) 1.5" Bearing Plate - machine 0273-081508 and before	
1	18672-FF	24	BOLT - 1" X 7-1/2" (Torque to 1000 ft.lbs (1330 Nm) 2" Bearing Plate - machine 0275-082708 and after	
2	18532-FF	24	WASHER, SAE FLAT - 1" (EXTRA THICK)	
3	REF.	1	 FRONT FRAME WELDMENT. . . . .	FF-1
4	18672-FF	24	BOLT - 1" x 7-1/2" (Torque to 1000 ft.lbs (1330 Nm))	
5	15579-FF	24	WASHER, SAE flat - 1"	
6	10728-FF	2	NUT, nylock - 2"	
7	51499-FF	2	WASHER, articulation pin (3/8" thick)	
8	23106-FF	2	WASHER, thrust - thin (Brass)	
9	23105-FF	2	WASHER, thrust - thick (Brass)	
10	52023-FF	2	PIN - 3.5 X 10.75" TAPERED	
11	21577-FF	2	O-RING - thin	
12	24546-FF	2	O-RING - thick	
13	REF.	1	 REAR FRAME WELDMENT. . . . .	FR-1
14	REF.	1	 FRAME ARTICULATION CASTING. . . . .	FF-2
15	80830-FF	1	PLATE, braking	
16	24999-FF	1	BEARING, articulation	
17	52490-FF	2	BRACKET, HOSE HOLD DOWN 830W/FRT TRANS	
18	15550-FF	1	WASHER, SAE flat - 3/4"	
19	10839-FF	1	BOLT - .75" X 1.5"-FF	
20	52040-FF	2	HUB, TAPERED 3.5"	

 See referenced page for component or assembly breakdown.

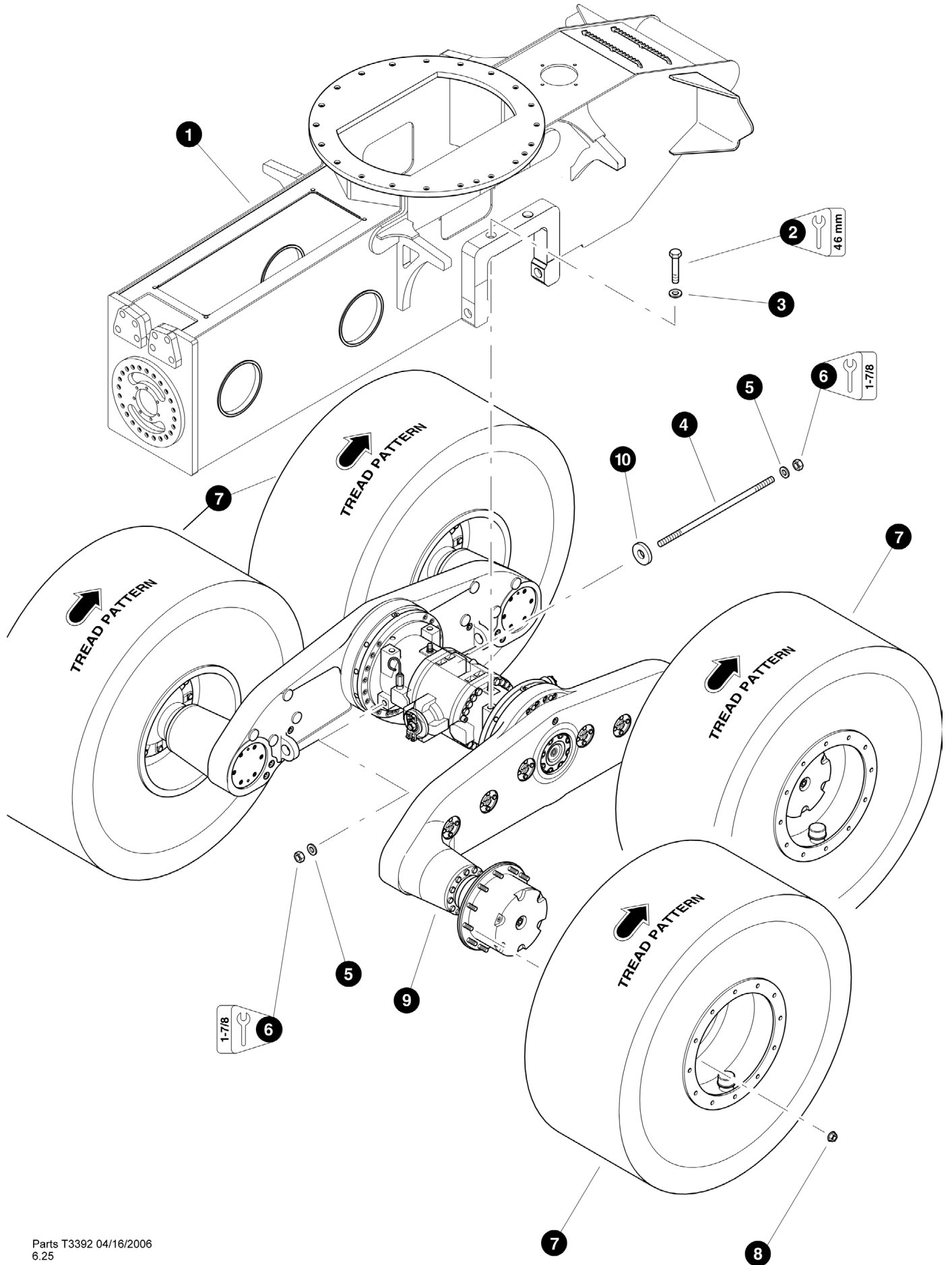


Parts T3391 4/31/2006  
12.50

## FRAME LOCK BRAKE INSTALLATION




REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF	1	 FRONT FRAME WELDMENT .....	FF-1
2	REF.	1	 REAR FRAME WELDMENT.....	FR-1
3	REF.	1	 FRAME ARTICULATION CASTING .....	FF-2
4	REF.	1	 FRAME LOCK BRAKE .....	FF-5
5	22531-FF	8	WASHER - 1-1/4"	
6	23351-FF	8	BOLT - 1-1/4" x 4-1/2" NF	

 See referenced page for component or assembly breakdown.

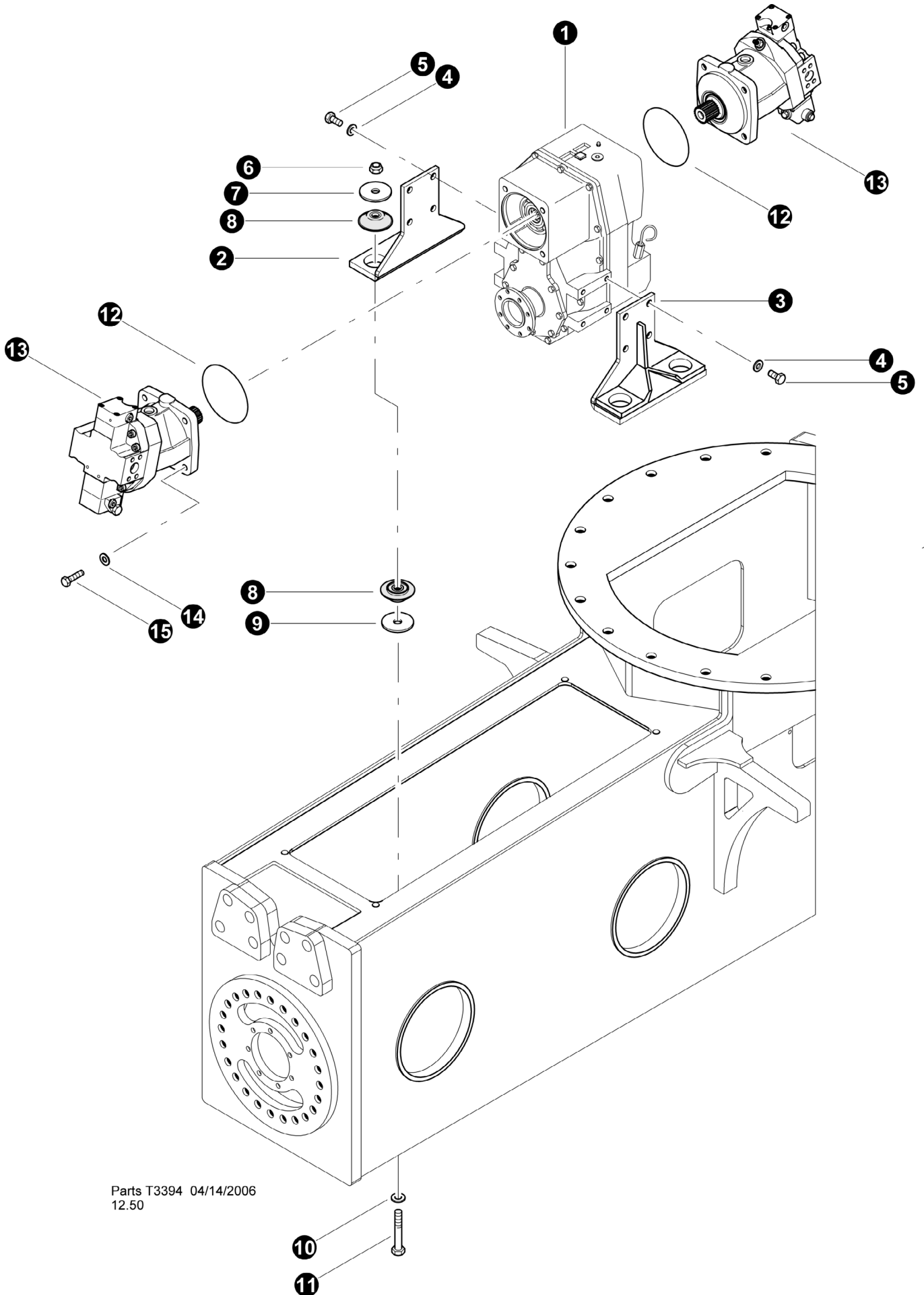


Parts T3392 04/16/2006  
6.25

## FRONT AXLE INSTALLATION

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	REF.	1	 FRONT FRAME WELDMENT . . . . .	FF-1
2	23567-FF	4	BOLT - 30mm-3.5P x 220mm (Torque to 1100 ft.lbs. (1465 Nm))	
3	23990	4	WASHER, SAE FLAT - 1.25" (EXTRA THICK)	
4	52485-FF	2	STUD - 1.25" - 7 X 27.50"	
5	22531-FF	4	WASHER, SAE flat - 1-1/4"	
6	23989-FF	4	NUT, lock - 1-1/4" (Torque to 1200 ft.lbs. (1600 Nm))	
7	REF.	4	 WHEEL ASSEMBLY . . . . .	AX-3
8	19361-FF	48	NUT, lug (Torque to 600 ft.lbs. (800 Nm))	
9	REF.	1	 FRONT AXLE . . . . .	AX-1
10	24003-FF	2	SPACER, axle spreader stud	

 See referenced page for component or assembly breakdown.




Parts T3394 04/14/2006  
12.50



## TRANSFER CASE / GEARBOX AND MOTOR INSTALLATION

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	REF	1	Transfer Case NAF . . . . .	AX-4
2	52119-FF	1	MOUNT, TRANSMISSION TIM-15 TF810-840	
3	52119-FF	1	MOUNT, TRANSMISSION TIM-15 TF810-840	
4	50447-FR	8	WASHER, FLAT - 16MM	
5	50382-FR	8	BOLT - 16mm 2.00 X 40mm ( <b>Torque to 180 ft-lbs</b> ) (See Note #1 Below)	
6	10817-FR	4	NUT, lock 3/4"	
7	17918-FR	8	WASHER, isolator mount .875"	
8	17904-FR	8	ISOLATOR	
9	17918-FR	8	WASHER, isolator mount .875"	
10	15550-FR	8	WASHER, SAE flat - 3/4"	
11	10844-FR	4	BOLT - 3/4" x 5"	
12	20967-FR	2	O-RING, WHEEL DRIVE MOTOR PILOT (FWD)	
13	REF	1	WHEEL DRIVE MOTOR. . . . .	FF-4
14	42110-FR	8	WASHER, FLAT - 20MM	
15	18525-FR	8	BOLT, - 20mm X 50 mm (See Note #1 Below) ( <b>Torque to 180 ft-lbs</b> )	

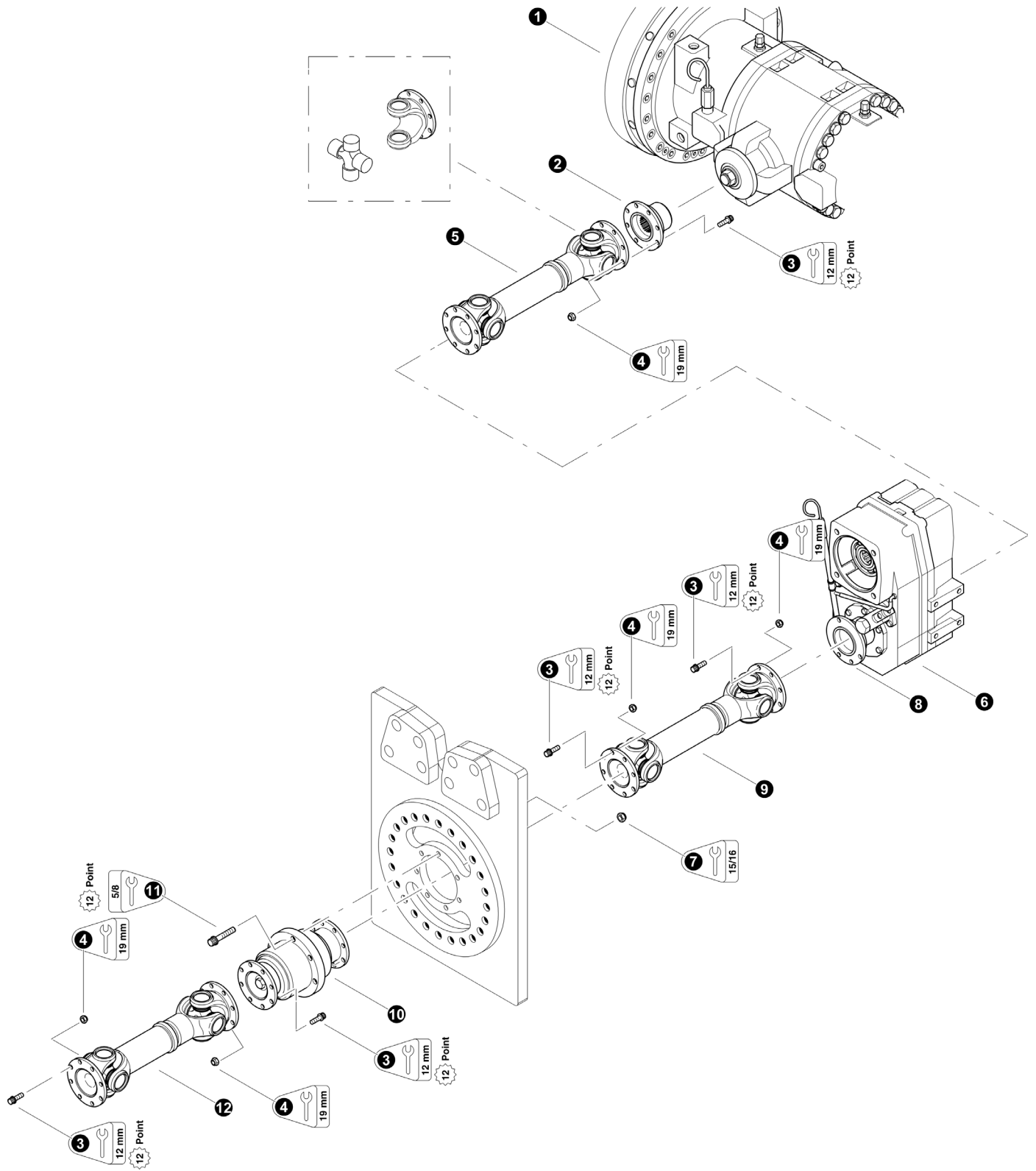
-  See referenced page for component or assembly breakdown.
- Kit or Assembly - includes all items indented underneath.

Note #1:

Use Loctite 243 (blue) on threads during installation.





Note #2:



Use Loctite 271 (red) on threads during installation.



Parts T3394 04/14/2006  
12.50

## FRONT DRIVE-SHAFT INSTALLATION

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	REF.	1	 FRONT AXLE . . . . .	AX-1
2	23997-FF	1	YOKE, companion flange - axle (Torque nut to 590 ft lbs.(800 Nm) (see note #2))	
3	50261-FF	48	BOLT, 12 point - 12mm-1.75P x 35mm (See Note #1 Below)	
4	50262-FF	48	NUT, lock - 12mm	
5	50283-FF	1	 DRIVE SHAFT, (Transfer Case to front axle)(464295-61)	
	-----	2	FITTING, 90° grease - 10mm	
	50466-FF	2	KIT, CROSS & BEARING	
	50467-FF	2	YOKE, FLANGE (90mm)	
6	REF	1	Transfer Case NAF . . . . .	AX-4
7	10816-FF	6	NUT, lock - 5/8"	
8	-FF	2	YOKE, HD flange - NAF Transercase (7521.238)	
9	23996-FF	1	 DRIVE SHAFT (Transfer Case to Carrier Bearing) (445731-61)	
	-----	2	FITTING, 90° grease - 10mm	
	50466-FF	2	KIT, CROSS & BEARING	
	50467-FF	2	YOKE, FLANGE (90mm)	
10	25218-FF	1	IDLER, driveshaft (HD)	
11	50050	6	BOLT, 12 point - 5/8" x 3" (See Note #1 Below) (Torque to 130 ft.lbs. (175 Nm))	
12	25968-FF	1	 DRIVE SHAFT (Center joint) (20" (503mm) C/L-C/L) (fits all TF front frames with HD driveshafts) (457176-61)	
	-----	2	FITTING, 90° grease - 10mm	
	50466-FF	2	KIT, CROSS & BEARING	
	50467-FF	2	YOKE, FLANGE (90mm)	

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

Note #1:

Use Loctite 243 (blue) on threads during installation.

Note #2:

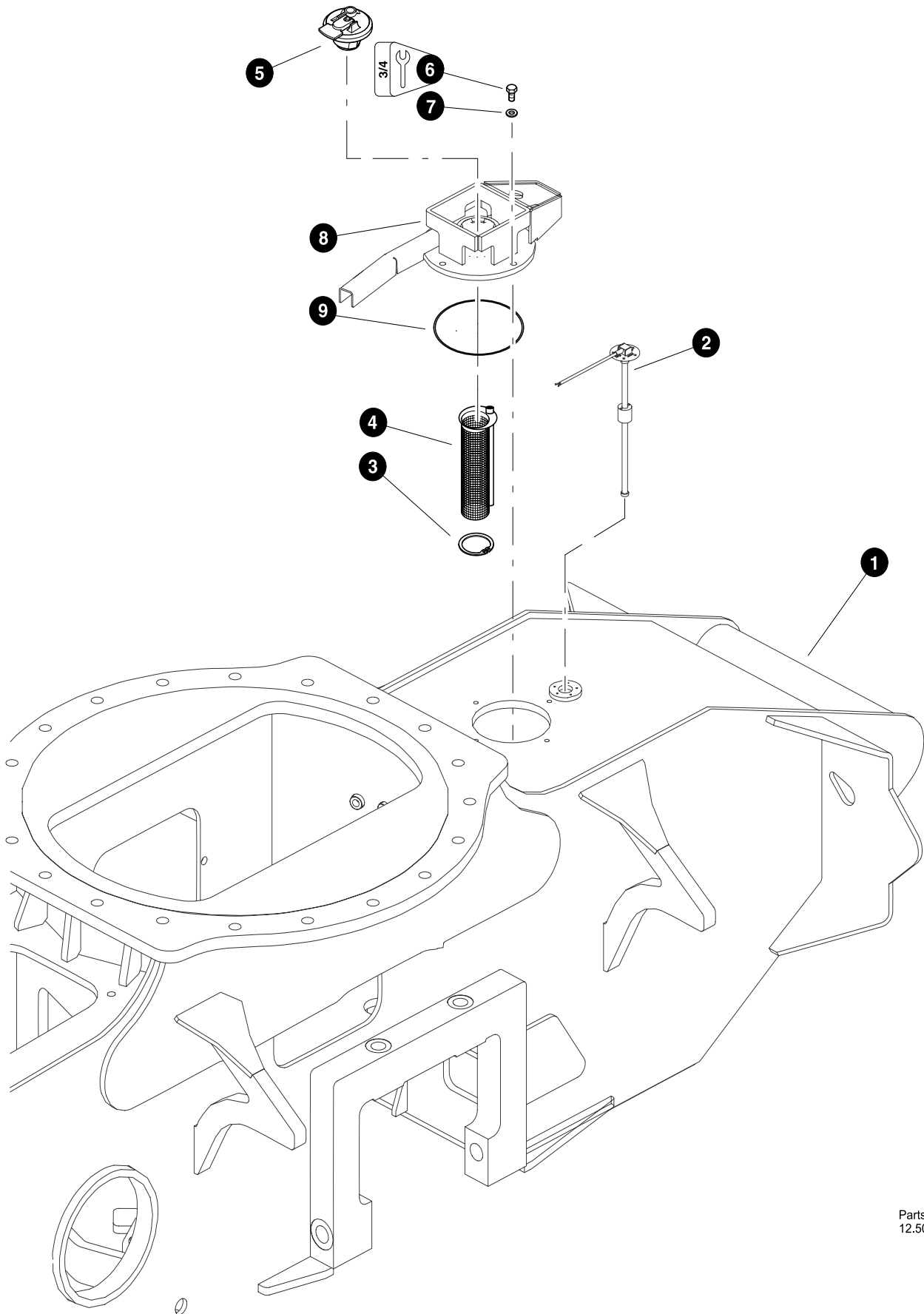
Use Loctite 271 (red) on threads during installation.



# ***Section FF-3***


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## ***830 / 840 Front Frame - Fuel Tank Components***

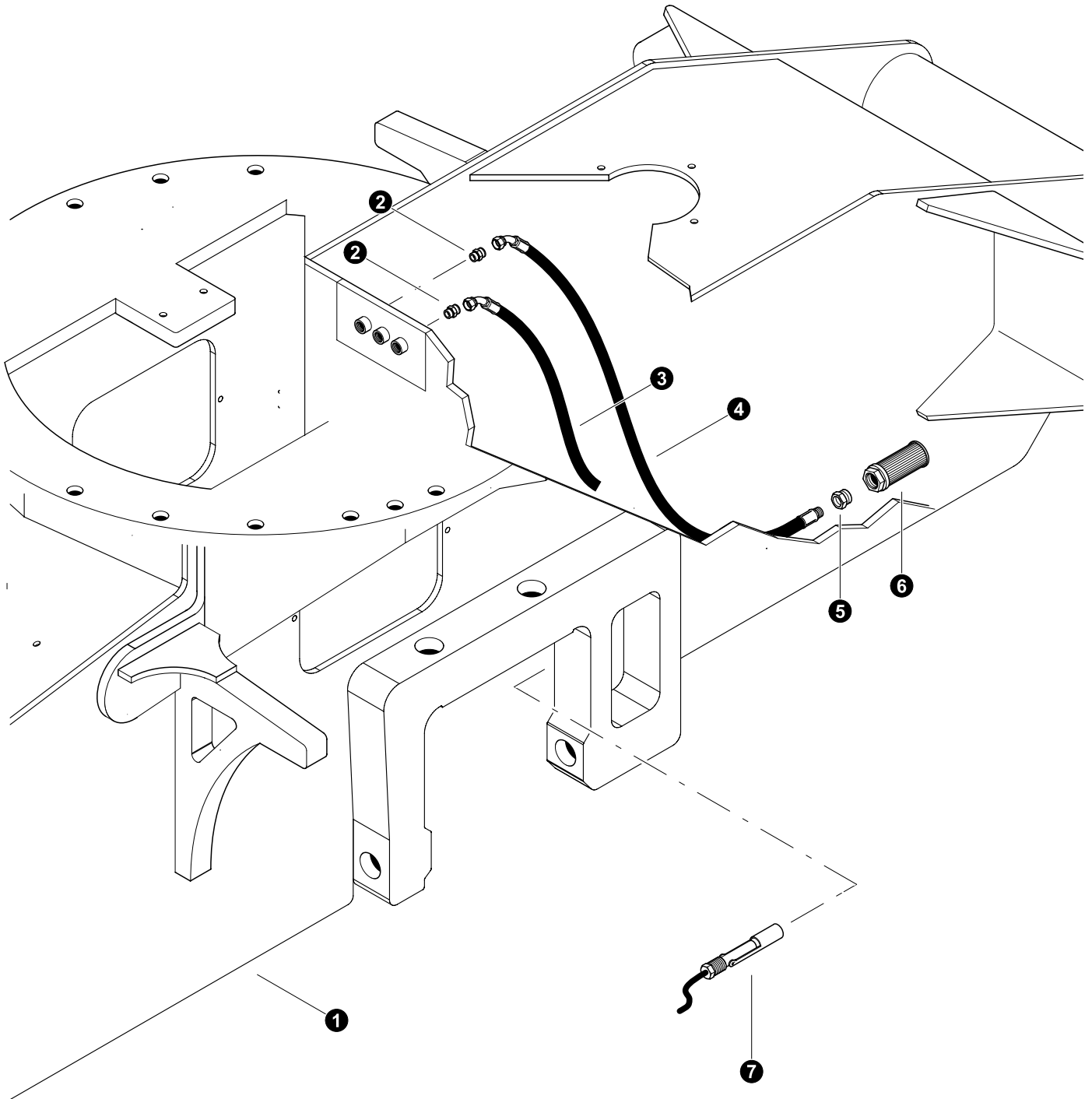


Parts T4135 05/16  
12.50

## FUEL FILL STRAINER INSTALLATION

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF.	1	 FRONT FRAME WELDMENT. ....	FF-1
2	57221-FF	1	SENDER, FUEL LEVEL W/FLOAT (WHEEL - 28")	
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	47951-FF	1	COVER, FUEL TANK ACCESS W/GAUGE	
9	15600-FF	1	O-RING - 8"	

 See referenced page for component or assembly breakdown.




Parts T3059 04/19/2005  
12.50

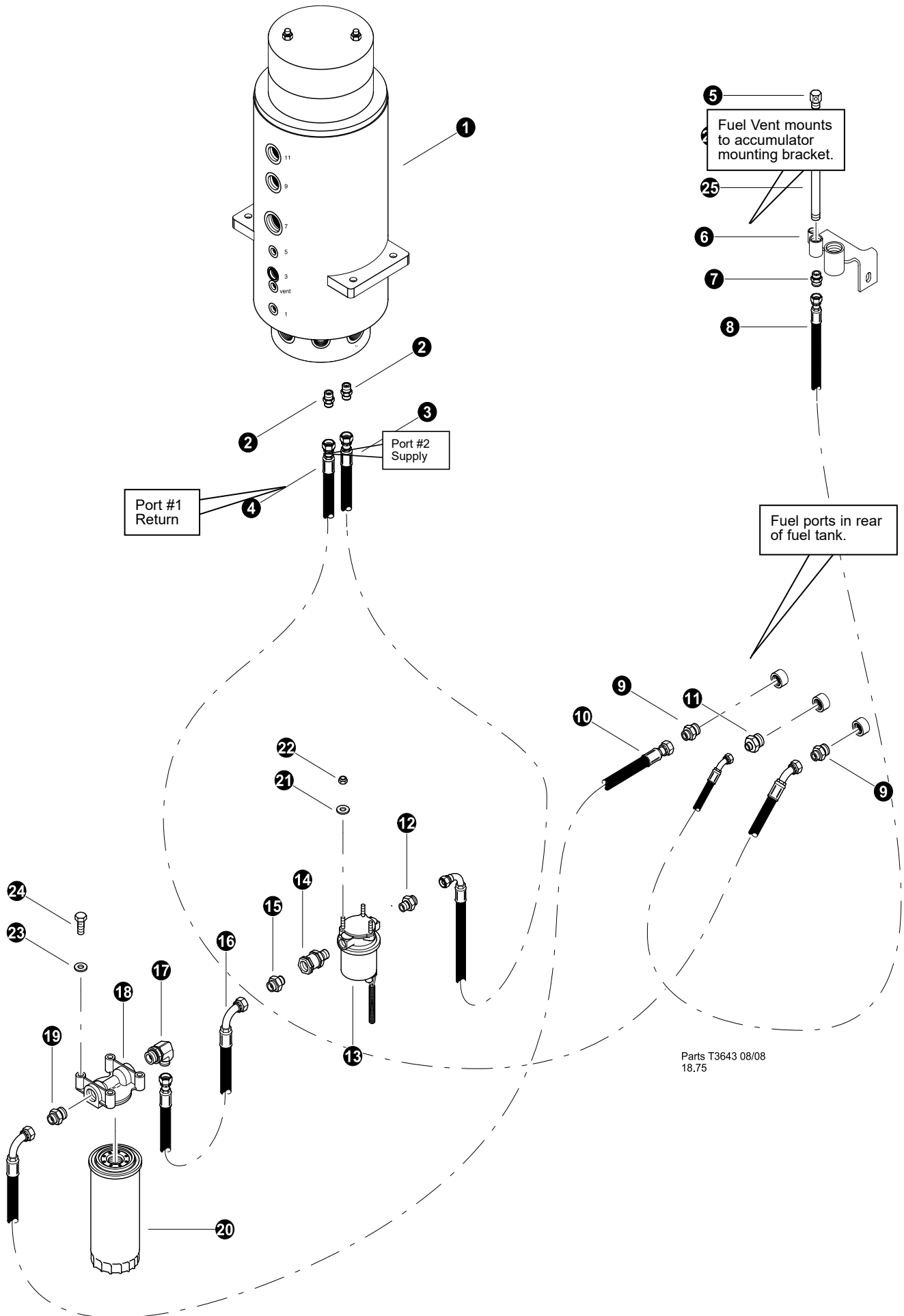


## FUEL LINES

(Supply & Return Lines Inside Fuel Tank)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF.	1	 FRONT FRAME WELDMENT. ....	FF-1
2	15117-FF	2	CONNECTOR, straight - FF1852T-0808S	
3	50576-FF	1	HOSE ASSEMBLY - 2018-08-0809-open (Fuel return)	
4	50577-FF	1	HOSE ASSEMBLY - 2067-08-0809-08MPS (Fuel supply)	
5	15513-FF	1	BUSHING, REDUCER - 5406-12-8	
6	17271-FF	1	FILTER, screen	
7	51379-FF		SWITCH, HYD.or Fuel OIL LEVEL .50 NPT GEMS (OPTIONAL)	


 See referenced page for component or assembly breakdown.



Parts T3643 08/08  
18.75

## FUEL LINES

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

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF.	1	 ROTARY MANIFOLD .....	UP-1
2	18034-FF	2	CONNECTOR, STR - FF1852T-0606S	
3	-FF	1	HOSE ASSEMBLY - 2041-06-060S-0609 (Fuel supply from rotary manifold port #2 to fuel tank)	
4	-FF	1	HOSE ASSEMBLY - 2031-06-060S-0604 (Fuel return from rotary manifold port #1 to fuel lift pump)	
5	22906-FF	1	BREATHER, fuel vent	
6	52218-FF	1	BRACKET, VENT MOUNT (.50&.25NPT)VERT.	
7	15131-FF	1	CONNECTOR, straight - FF2031T-0404S	
8	-FF	1	HOSE ASSEMBLY - 2022.5-04-040S-0404 (Fuel tank vent port to fuel vent breather)	
9	22902-FF	1	CONNECTOR, STR - 848-TT-08x06	
10	-FF	1	HOSE ASSEMBLY - 2070-06-060S-0609 (Fuel tank supply to lower filter inlet)	
11	15504-FF	1	CONNECTOR, straight - FF2031T-0408S	
12	51878-FF	1	CONNECTOR, STR - MALE PIPE (6-6 FL0-S)	
13	21966-FF	1	PUMP, fuel - 12 volt	
14	15652-FF	1	VALVE, check	
15	51878-FF	1	CONNECTOR, STR - MALE PIPE (6-6 FL0-S)	
16	-FF	1	HOSE ASSEMBLY - 2070-06-060S-0609 (Fuel filter outlet to fuel pump inlet)	
17	23084-FF	1	ELBOW, 90 - 6-10 C5OLO-S	
18	16574-FF	1	MOUNT, filter head	
19	51885-FF	1	CONNECTOR, STR - (6-10 F50L0-S)	
20	16575-FF	1	FILTER, spin-on fuel	
21	10757-FF	3	WASHER, SAE flat - 1/4"	
22	10755-FF	3	NUT, hex - 1/4"	
23	15559-FF	2	WASHER, SAE FLAT - .3125"	
24	15605-FF	2	BOLT - .3125" X .75"	

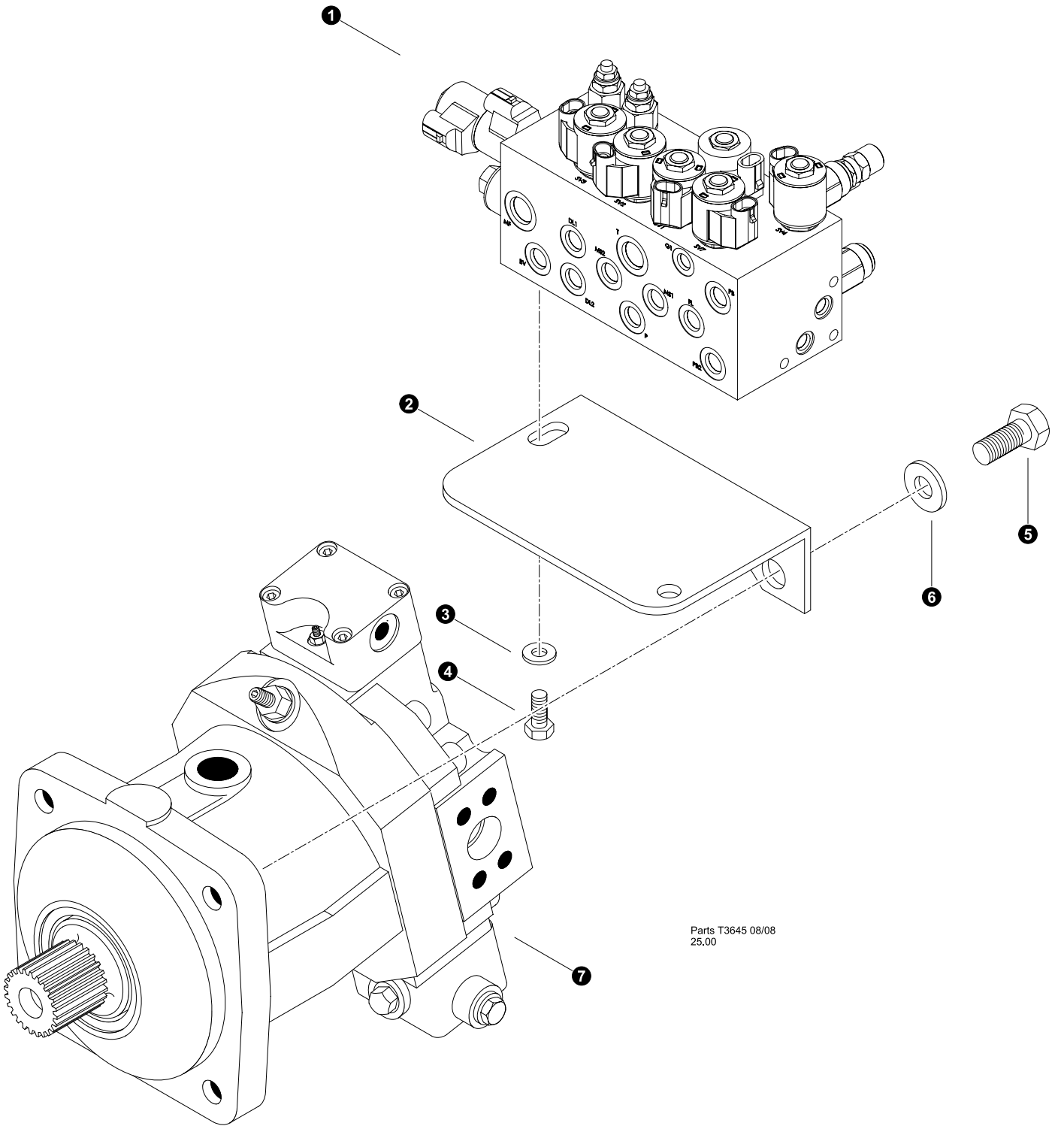
 See referenced page for component or assembly breakdown.




# ***Section FF-4***

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## ***830 / 840 Front Frame - Lower Solenoid Manifold Circuits and Components Breakdown***



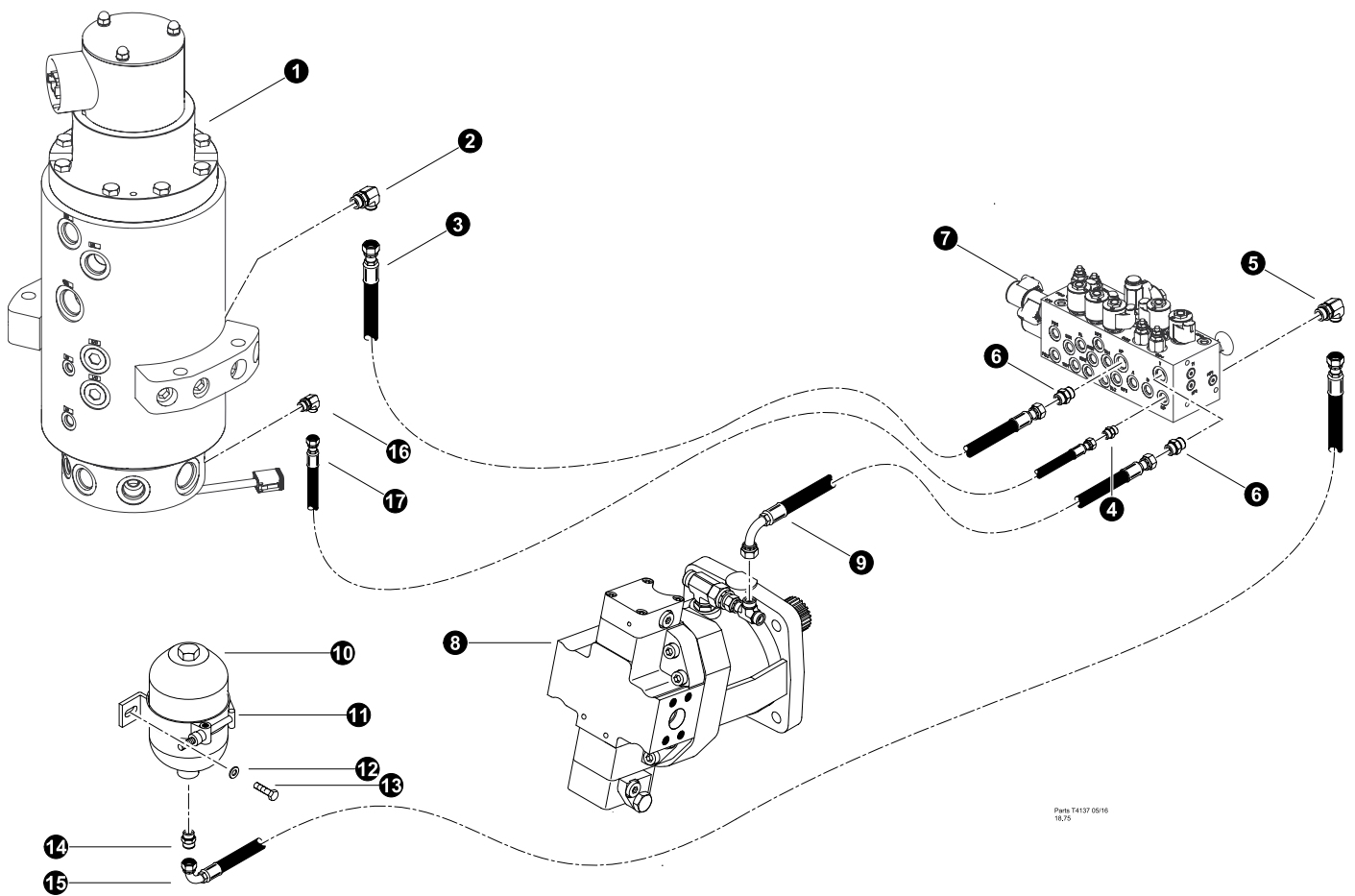
## Lower Solenoid Manifold Circuits and Components Breakdown (Lower Solenoid Manifold Mounting)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF.	1	 LOWER SOLENOID MANIFOLD . . . . .	FF-4
2	52380-FF	1	BRACKET, MANIFOLD MOUNT FRT FRAME	
3	10802-FF	2	WASHER, flat - 3/8"	
4	15542-FF	2	BOLT - .375" X .75"	
5	18525-FR	8	BOLT, - 20mm X 50 mm (See Note #1 Below) (Torque to 180 ft-lbs)	
6	42110-FR	8	WASHER, FLAT - 20MM	

 See referenced page for component or assembly breakdown.





**Note #1:**



Use Loctite 242 (BLUE) during install.

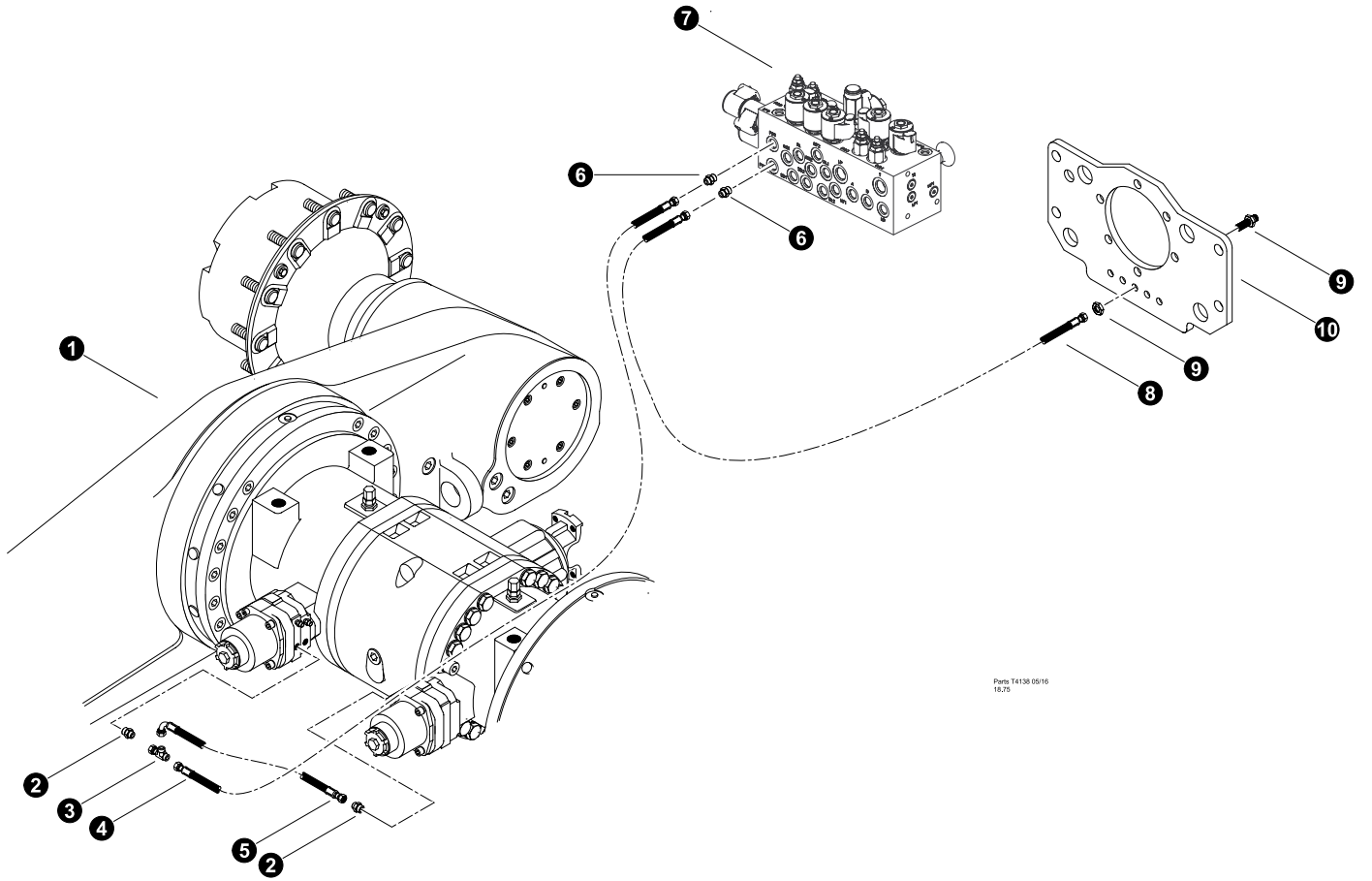




## Lower Solenoid Manifold Circuits and Components Breakdown (Lower Manifold - Pressure and Tank Connections)



1	REF.	1		ROTARY MANIFOLD . . . . .	UP-1
2	22405-FF	1		ELBOW, 90 - 8-6 C5OLO-S	
3	-FF	1		HOSE ASSEMBLY - 2068-08-08OS-08OS (Rotary Manifold Port "P" to Lower Manifold Port "LP")	
4	18034-FF	1		CONNECTOR, STR - FF1852T-0606S	
5	16360-FF	1		ELBOW, 90 - FF1868T-0808S	
6	15117-FF	1		CONNECTOR, STR - FF1852T-0808S	
7	REF.	1		LOWER SOLENOID MANIFOLD . . . . .	FF-4
8	REF.	1		WHEEL DRIVE MOTOR CASE DRAIN . . . . .	FF-5
9	-FF	1		HOSE ASSEMBLY - 2046-08-08OS-08O4 (Tank to Case Drain Tee)	
10	53970-FF	1		ACCUMULATOR, LOWER BRAKE MANIFOLD	
11	-FF	1		BRACKET, accumulator mounting	
12	10802-FF	2		WASHER, FLAT - .375"	
13	10731-FF	2		BOLT - .375" X 1.5"	
14	15117-FF	1		CONNECTOR, STR - FF1852T-0808S	
15	-FF	1		HOSE ASSEMBLY - 2078-08-08OS-08O9 ("ACC" port to accumulator)	
16	-FF	1		ELBOW, 90 - 8-6 C5OLO-S	
17	-FF	1		HOSE ASSEMBLY - 2068-06-06OS-06OS ("HP" port to "HO" on RM)	

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

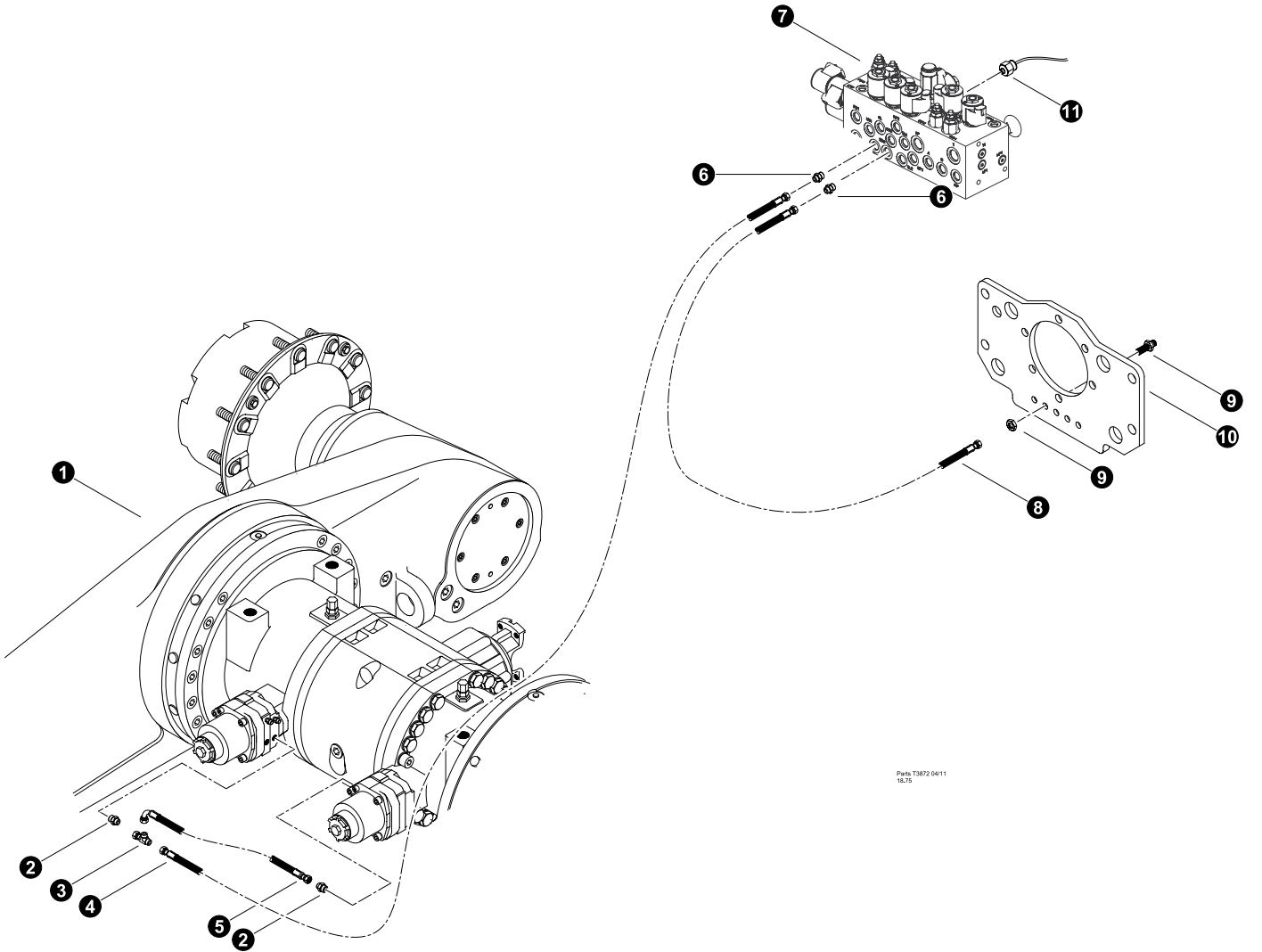


Parts T4138 05/16  
18/25

## Lower Solenoid Manifold Circuits and Components Breakdown (Front Frame - Parking Brake Connections)



REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF.	1	 FRONT AXLE . . . . .	AX
2	19470-FF	2	CONNECTOR, STR METRIC - 4M14F8OMLOS	
3	15176-FF	1	TEE - FF2114T-0404S	
4	-FF	1	HOSE ASSEMBLY - 2085.5-04-040S-040S (Front Axle Parking Brake to Lower Manifold "PB" port tee)	
5	50607-FF	1	HOSE ASSEMBLY - 2009.5-04-040S-0409 (Parking Brake Jumper)	
6	15124-FF	1	CONNECTOR, STR - FF1852T-0406S	
7	REF.	1	 LOWER SOLENOID MANIFOLD . . . . .	FF-4
8	-FF	1	HOSE ASSEMBLY - 2098-04-040S-040S (Lower Manifold "PB" tee to Parking Brake Bulkhead)	
9	18582-FF	1	CONNECTOR, STR BULKHEAD - FF1994T-0404S	
10	52486-FF	1	BRACKET, BRG MOUNT - DRIVELINE 830	


 See referenced page for component or assembly breakdown.

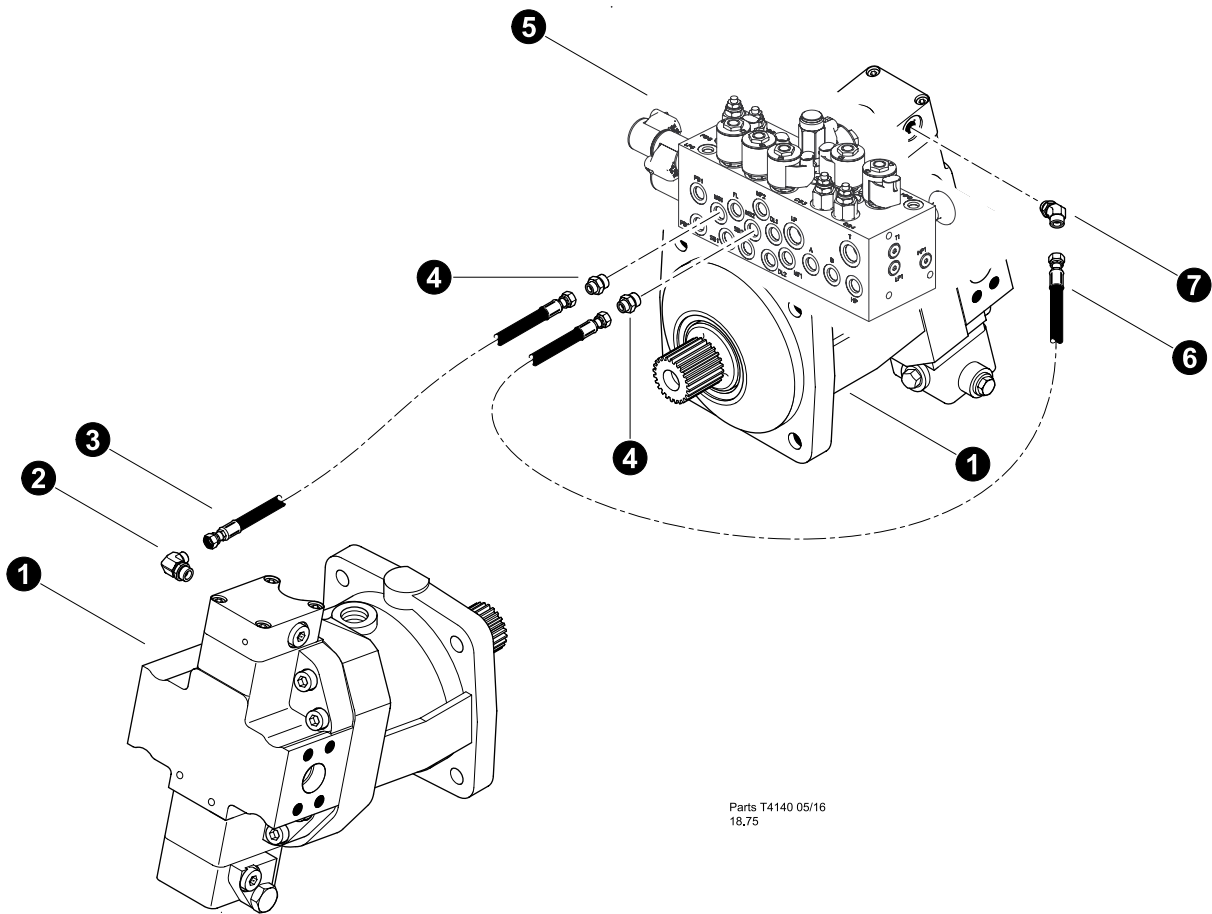


Part: T3872-0411  
18.75

## Lower Solenoid Manifold Circuits and Components Breakdown (Front Frame - Travel Brake Connections)



REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF.	1	 FRONT AXLE . . . . .	AX
2	19470-FF	2	CONNECTOR, STR METRIC - 4M14F8OMLOS	
3	15176-FF	1	TEE - FF2114T-0404S	
4	-FF	1	HOSE ASSEMBLY - 2087-04-040S-040S (Front Axle Travel Brake to Lower Manifold "TB" port tee)	
5	50607-FF	1	HOSE ASSEMBLY - 2009.5-04-04OS-04O9 (Travel Brake Jumper)	
6	15124-FF	1	CONNECTOR, STR - FF1852T-0406S	
7	REF.	1	 LOWER SOLENOID MANIFOLD . . . . .	FF-4
8	-FF	1	HOSE ASSEMBLY - 2103-04-040S-040S (Lower Manifold "TB" tee to Parking Brake Bulkhead)	
9	18582-FF	1	CONNECTOR, STR BULKHEAD - FF1994T-0404S	
10	52486-FF	1	BRACKET, BRG MOUNT - DRIVELINE 830	
11	54282-FF	1	SWITCH, PRESSURE - 30 PSI	

 See referenced page for component or assembly breakdown.

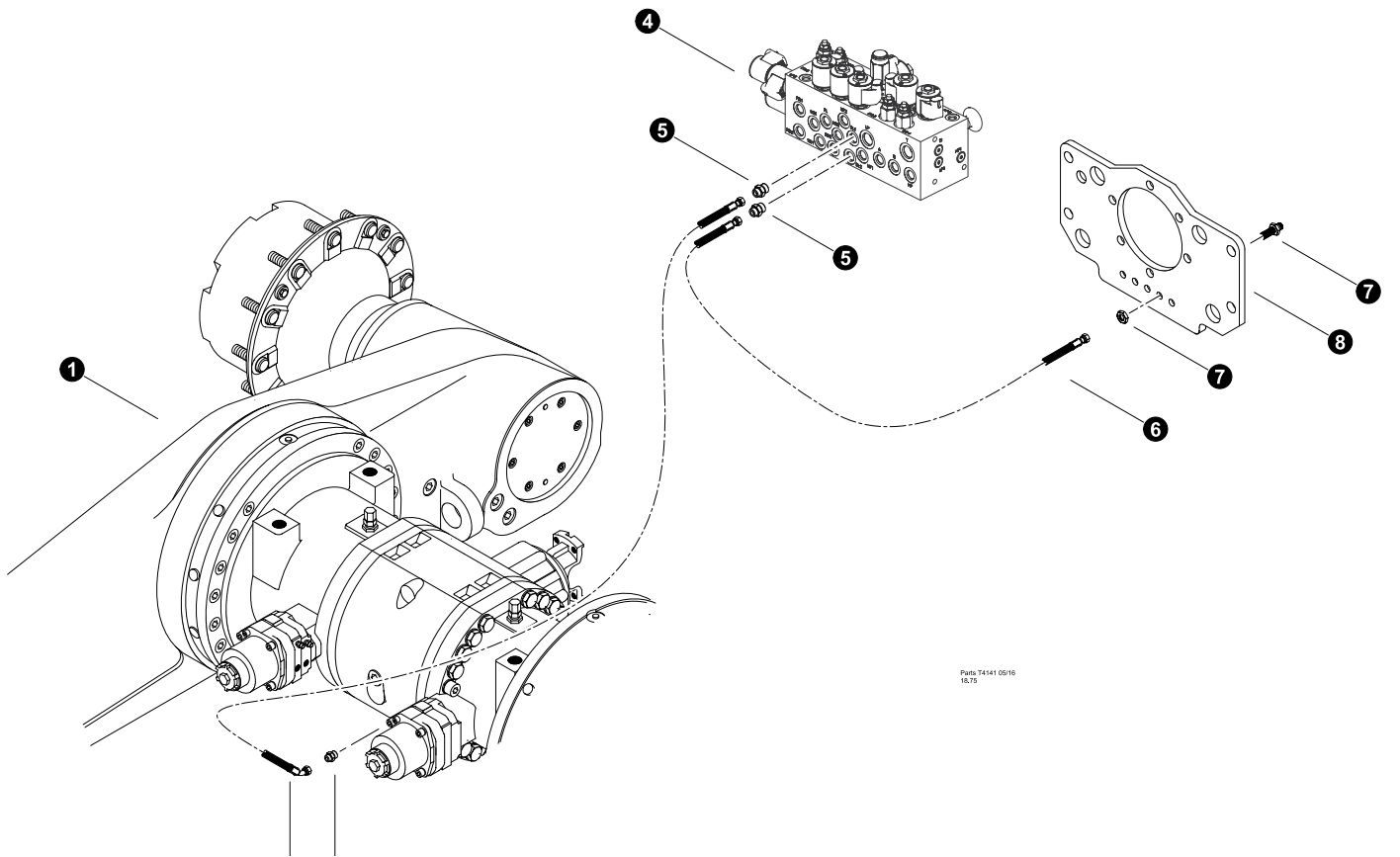


Parts T4140 05/16  
18,75

## Lower Solenoid Manifold Circuits and Components Breakdown (Front Frame - Motor Shift Connections)



REF	PART #	QTY		DESCRIPTION	SEE SECTION
1	REF	1		WHEEL DRIVE MOTOR. . . . .	FF-5
2	15133-FF			ELBOW, 90 - FF1868T-0406S	
3	-FF	1		HOSE ASSEMBLY - 2024-04-040S-040S (Front Motor to Lower Manifold "MS1" port)	
4	15124-FF			CONNECTOR, STR - FF1852T-0406S	
5	REF.	1		LOWER SOLENOID MANIFOLD . . . . .	FF-4
6	-FF	1		HOSE ASSEMBLY - 2055.5-04-040S-040S (Rear Motor to Lower Manifold "MS2" port)	
7	23322-FF	2		ELBOW, 45 - 6-4 V5OLO-S	

 See referenced page for component or assembly breakdown.

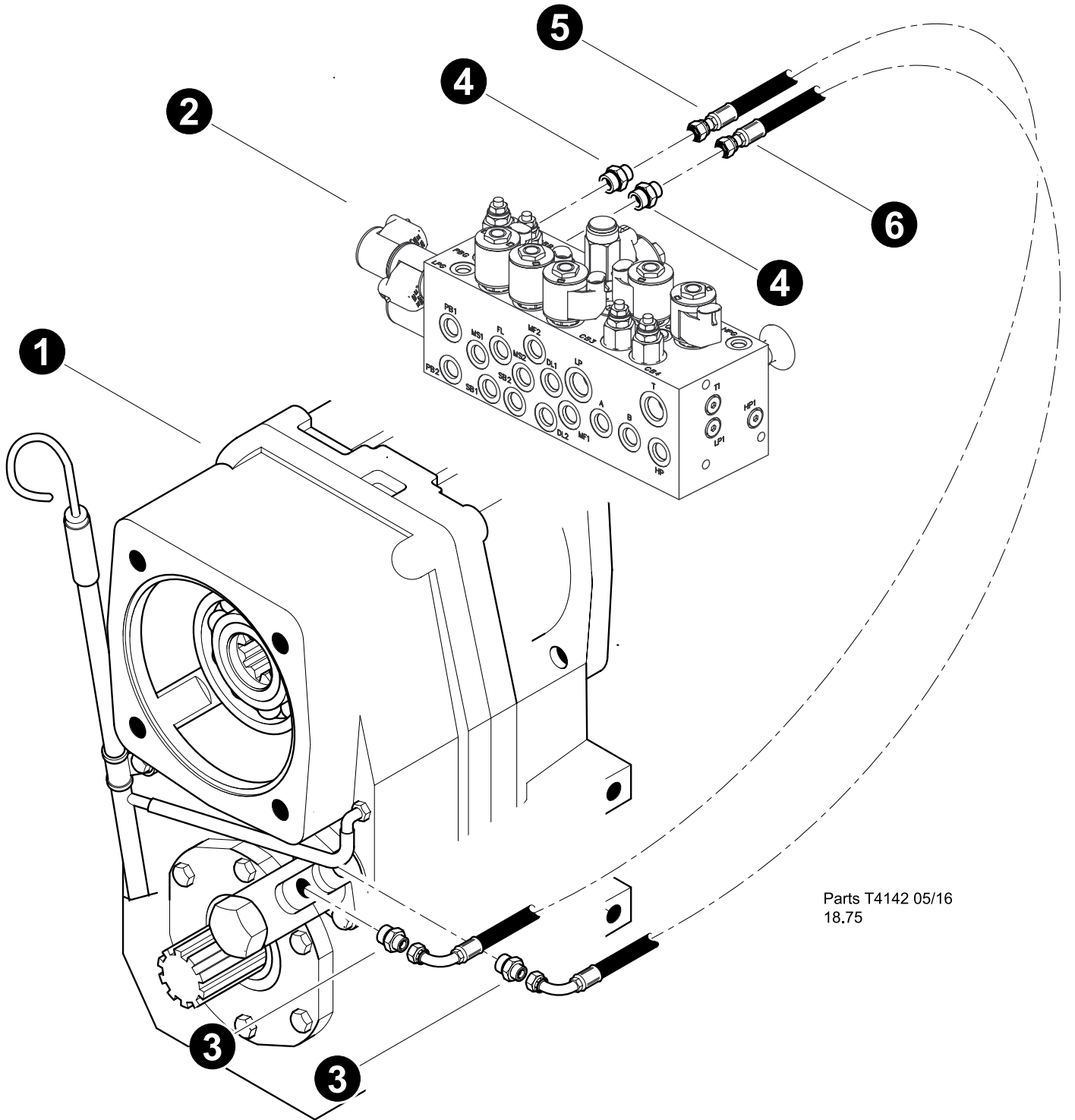






## Lower Solenoid Manifold Circuits and Components Breakdown (Front Frame - Differential Lock Connections)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF	1	 FRONT AXLE . . . . .	AX
2	19470-FF	1	CONNECTOR, STR METRIC - 4M14F8OMLOS	
3	-FF	1	HOSE ASSEMBLY - 2084-04-04OS-04O4 (Front Axle Differential Lock to Lower Manifold "DL" port)	
4	REF.	1	 LOWER SOLENOID MANIFOLD . . . . .	FF-4
5	15124-FF		CONNECTOR, STR - FF1852T-0406S	
6	-FF	1	HOSE ASSEMBLY - 2102-04-04OS-04OS (Differential Lock Bulkhead to Lower Manifold "DL2" port)	
7	18582-FF	1	CONNECTOR, STR BULKHEAD - FF1994T-0404S	
8	52486-FF	1	BRACKET, BRG MOUNT - DRIVELINE 830	
9	23322-FF	1	ELBOW, 45 - 6-4 V5OLO-S	

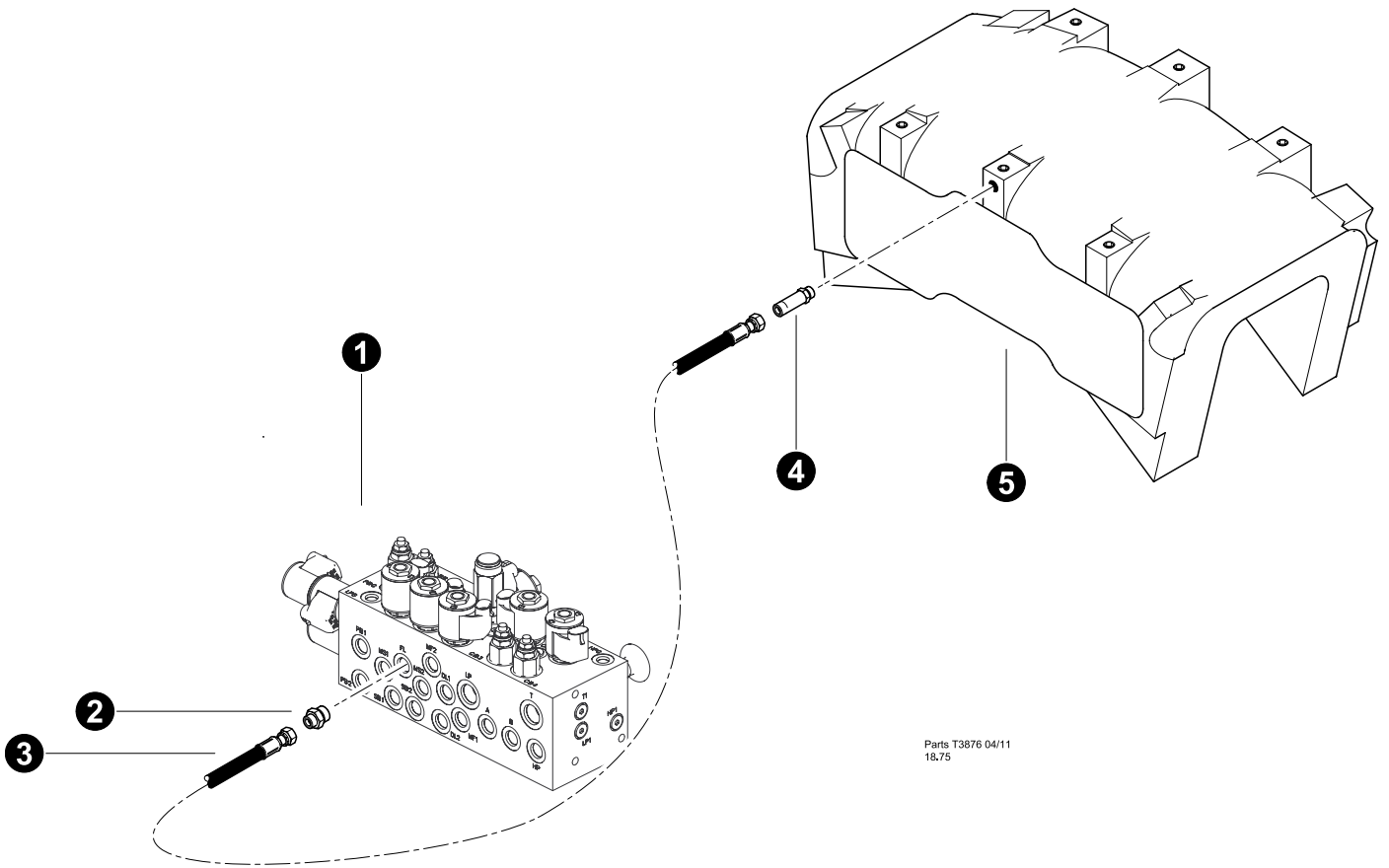
 See referenced page for component or assembly breakdown.



## Lower Solenoid Manifold Circuits and Components Breakdown (Front Frame - Gear Box Shift Connections)



REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF	1	 TRANSFER CASE (NAF).....	AX
2	REF.	1	 LOWER SOLENOID MANIFOLD.....	FF-4
3	19470-FF	2	CONNECTOR, STR METRIC - 4M14F8OMLOS	
4	15124-FF	1	CONNECTOR, STR - FF1852T-0406S	
5	-FF	1	HOSE ASSEMBLY - 2043.5-04-040S-0409 (Front Shift Port to Lower Manifold "GA" port)	
6	-FF	1	HOSE ASSEMBLY - 2039.5-04-040S-0409 (Rear Shift Port to Lower Manifold "GB" port)	


 See referenced page for component or assembly breakdown.

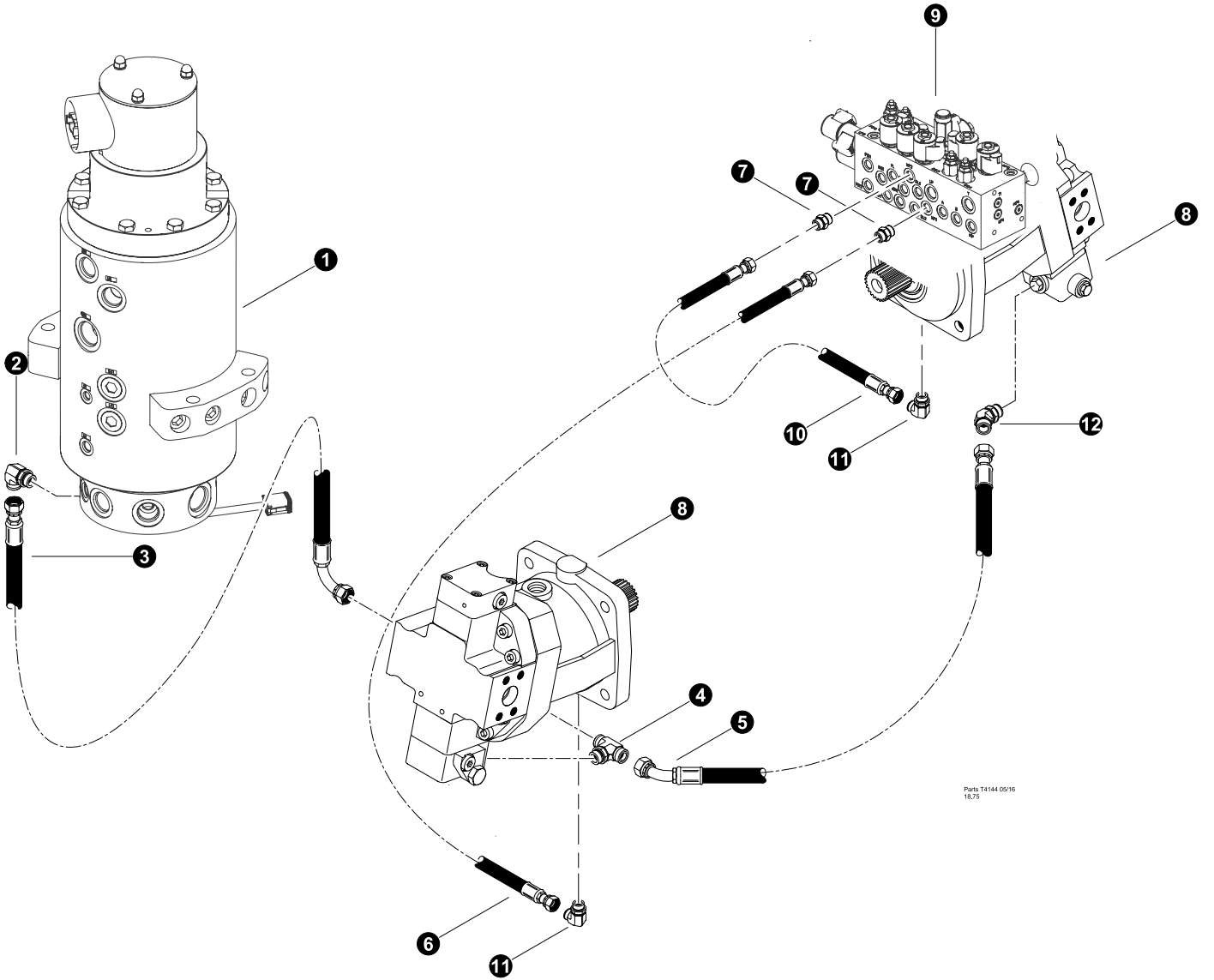


Parts T3876 04/11  
18.75




## Lower Solenoid Manifold Circuits and Components Breakdown (Front Frame - Frame Lock Connections)

REF	PART #	QTY		DESCRIPTION	SEE SECTION
1	REF.	1		LOWER SOLENOID MANIFOLD . . . . .	FF-4
2	15124-FF	1		CONNECTOR, STR - FF1852T-0406S	
3	-FF	1		HOSE ASSEMBLY - 2074-04-040S-040S (Lower Manifold "FL" port to frame lock caliper)	
4	20991-FF	2		CONNECTOR, STR LONG - 848L-TTO-04X04	
5	REF.	1		FRAME LOCK CALIPER BRAKE. . . . .	FF-4

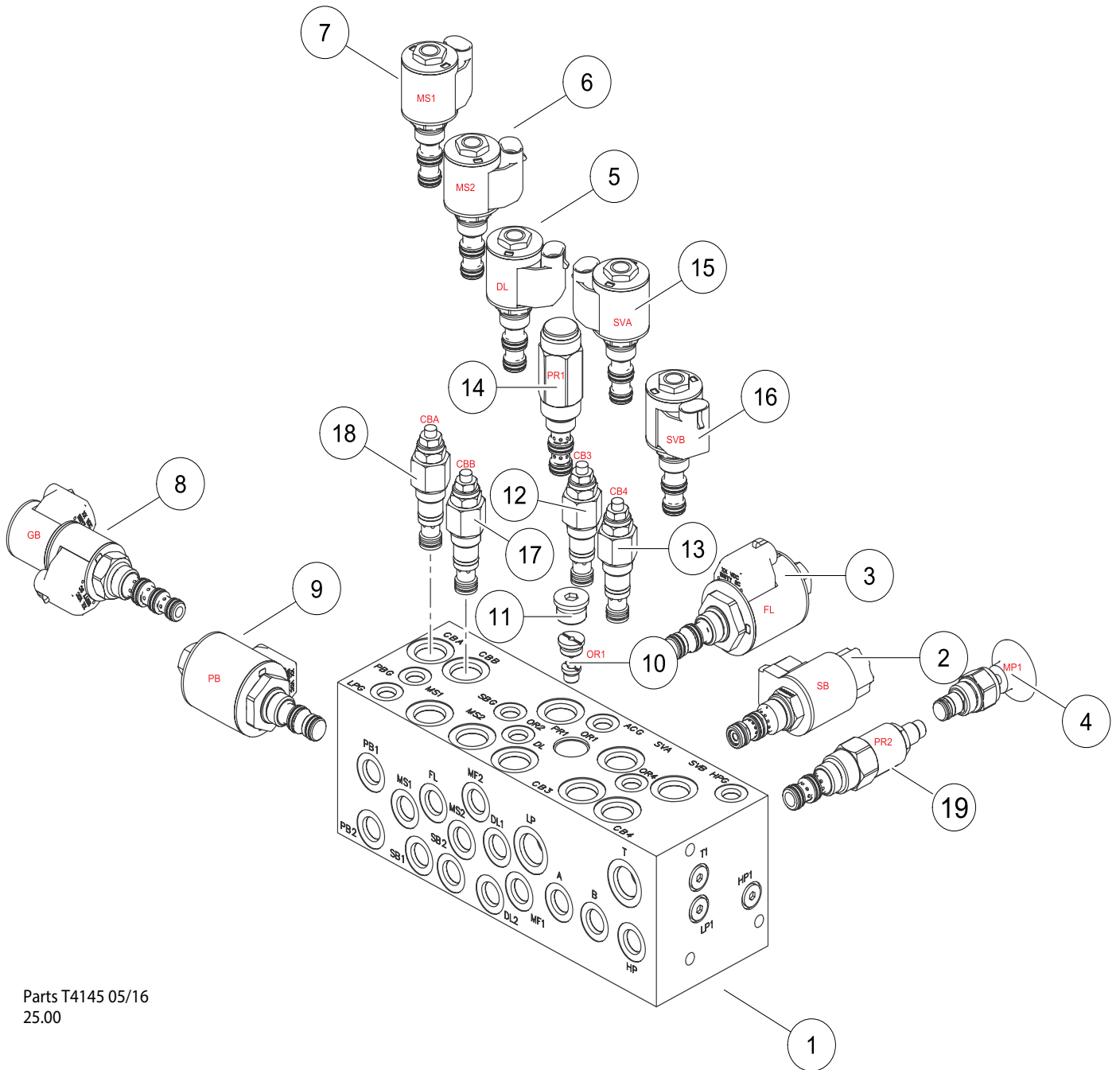
 See referenced page for component or assembly breakdown.



## Lower Solenoid Manifold Circuits and Components Breakdown (Front Frame - Motor Flushing Supply and Return Connections)

REF	PART #	QTY		DESCRIPTION	SEE SECTION
1	REF.	1		ROTARY MANIFOLD . . . . .	UP-1
2	16360-FF	1		ELBOW, 90 - FF1868T-0808S	
3	-FF	1		HOSE ASSEMBLY - 2051-08-080S-0809 (Rotary Manifold port "LV1" to flushing return tee) "No Clam Bunk Installed"	
4	20066-FF	1		TEE - 8 S5OLO-S - BRANCH	
5	-FF			HOSE ASSEMBLY - 2043-08-080S-0804 (Front to Rear Motor Flushing Return Lines)	
6	-FF	1		HOSE ASSEMBLY - 2026.5-06-06OS-06OS (MF1 to Front Motor)	
7	18034-FF	2		CONNECTOR, STR - FF1852T-0606S	
8	REF.	1		WHEEL DRIVE MOTOR . . . . .	FR-5
9	REF.	1		LOWER SOLENOID MANIFOLD . . . . .	FF-4
10	-FF	1		HOSE ASSEMBLY - 2046-08-08OS-08OS (MF2 to Rear Motor)	
11	20031-FF	1		ELBOW, 90 - 6-8 C5OLO-S	
12	19126-FF	1		ELBOW, 45 - FF2068T-0808S	

 See referenced page for component or assembly breakdown.

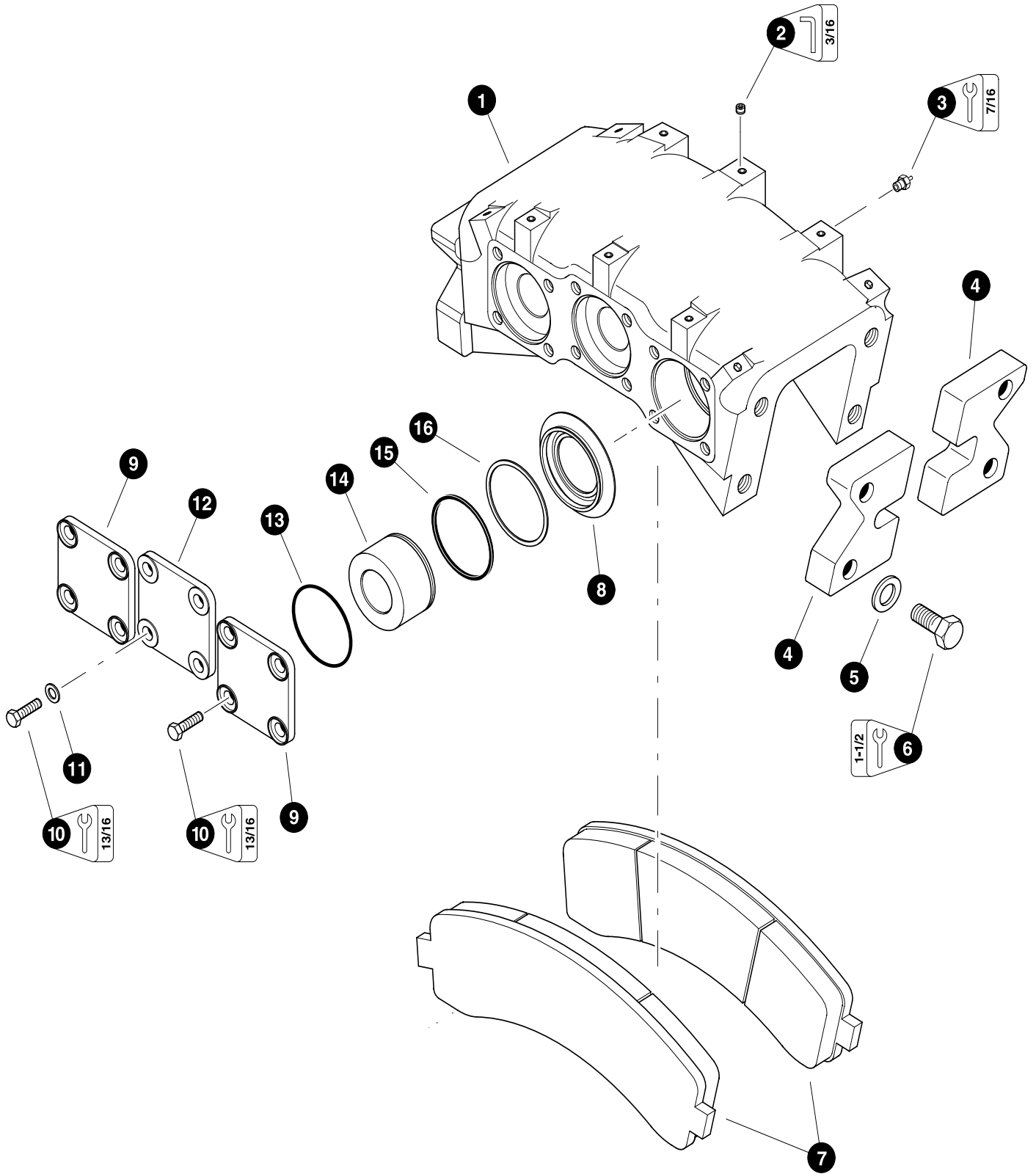


Parts T4145 05/16  
25.00








## Lower Solenoid Manifold Circuits and Components Breakdown (Lower Solenoid Manifold Breakdown)


REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	54263	1	☐ VALVE, LOWER MANIFOLD - Fluid Systems	
2	55403	1	■ Valve, Proportional (PDR08-01-C-N-110-24PN-8.8) Service Brake	
3	-FF	1	⌘ Valve, Directional Control (SV38-38-N-24EY) Frame Lock	
4	-FF	1	☒ Valve, Manual Directional Valve (MP08-20J) ACC Pressure Bleed	
5	-FF	1	⌘ Valve, Directional Control (SV08-31-0-N-24EY) Diff Lock	
6	-FF	1	⌘ Valve, Directional Control (SV08-31-0-N-24EY) Motor Shift 1	
7	-FF	1	⌘ Valve, Directional Control (SV08-31-0-N-24EY) Motor Shift 2	
8	-FF	1	◆ Valve, Directional Control (SV08-47D-0-N-24EY) Gear Box Shift	
9	-FF	1	⌘ Valve, Directional Control (SV38-38-N-24EY) Parking Brake	
10	-FF	1	VENTURI PLUG, 210101804 - 90 & 91	
11	-FF	1	PLUG, 08 ORB	
12	54128	1	❖ Valve, Counterbalance (5008-3-500)	
13	54128	1	❖ Valve, Counterbalance (5008-3-500)	
14	-FF	1	⊗ Valve, Pressure Reducing (PR58-38H-0-N-20/9.0) 900PSI PARK BRAKE	
15	-FF	1	⌘ Valve, Directional Control (SV08-31-0-N-24EY) Step Valve A	
16	-FF	1	⌘ Valve, Directional Control (SV08-31-0-N-24EY) Step Valve B	
17	54128	1	❖ Valve, Counterbalance (5008-3-500) Gear Shift Load Check Valve	
18	54128	1	❖ Valve, Counterbalance (5008-3-500) Gear Shift Load Check Valve	
19	-FF	1	⊗ Valve, Pressure Reducing (PR58-38H-0-N-20/5.0) 500 PSI STEP	
-	53921-FF	1	☐ VALVE, GATE VALVE (optional)	
23	-FF	1	◆ Valve, Directional Control (SV08-47D-0-N-24EY) Gate Control	
24	54128	1	❖ Valve, Counterbalance (5008-3-500)	
25	54128	1	❖ Valve, Counterbalance (5008-3-500)	
26	-FF	1	BLOCK, (204101401-44B)	
27	-FF	1	O-Rings	
28	-FF	1	Bolts,	
☐	Kit or Assembly - includes all items indented underneath.			
⌘	Seal Repair Kit (TP# 17799; Supp. # SK08-3N-MM) / Coil (4303810) / Nut (7004400)			
●	Seal Repair Kit (TP# 20293; Supp. # SK10-3N-BM)			
■	Seal Repair Kit (03054795) / Coil (24PN-8.8-40-1836)			
◆	Seal Repair Kit (SK08-4N-MMM) / Coil (4303810) / Nut (7004400) / Spacer (4534720)			
❖	Seal Repair Kit (12106)			
☒	Seal Repair Kit (SK08-2X-T)			
⊗	Seal Repair Kit (SK08-3X-BM)			



## Lower Solenoid Manifold Circuits and Components Breakdown (Frame Lock Caliper Breakdown)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
-	20953-FF	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	24406-FF	1		PAD, brake (pair)	
8	NSS	6		BOOT, piston	
9	23445-FF	2		COVER, piston (Machined special to countersink bolt heads)	
10	24088-FF	12		BOLT - 9/16" x 1-1/4"	
11	-----	4		WASHER	
12	23444-FF	1		COVER, piston	
13	NSS	6		O-RING, piston cover	
14	24434-FF	6		PISTON, brake caliper	
15	NSS	6		SEAL, piston	
16	NSS	6		RING, back-up	
-	23113-FF	1		KIT, seal repair - frame lock brake	

 Kit or Assembly - includes all items indented underneath.

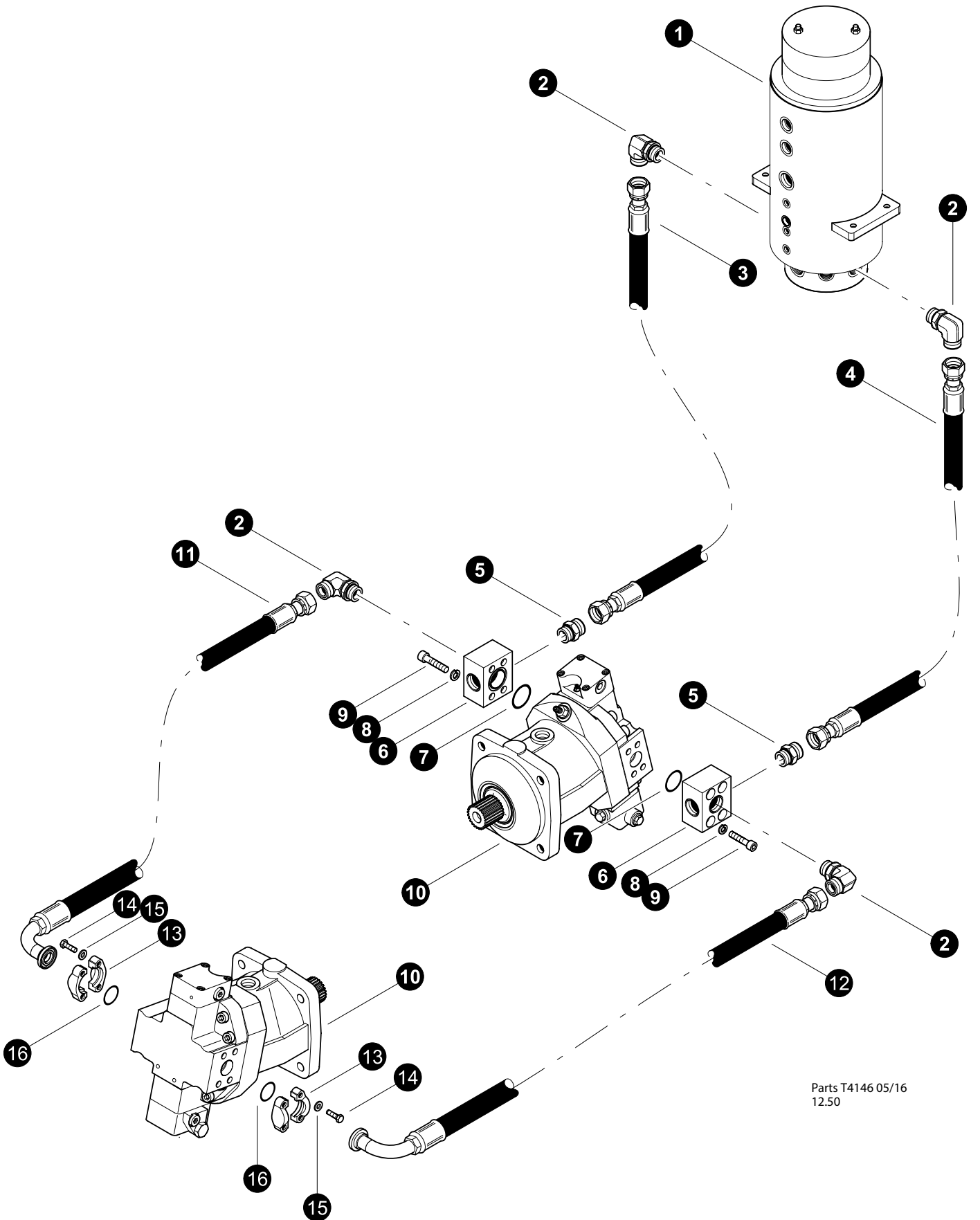
 Included in seal repair kit PN# 23113.



# ***Section FF-5***

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## ***830, 840 Front Frame - Drive Motor Hydraulics***



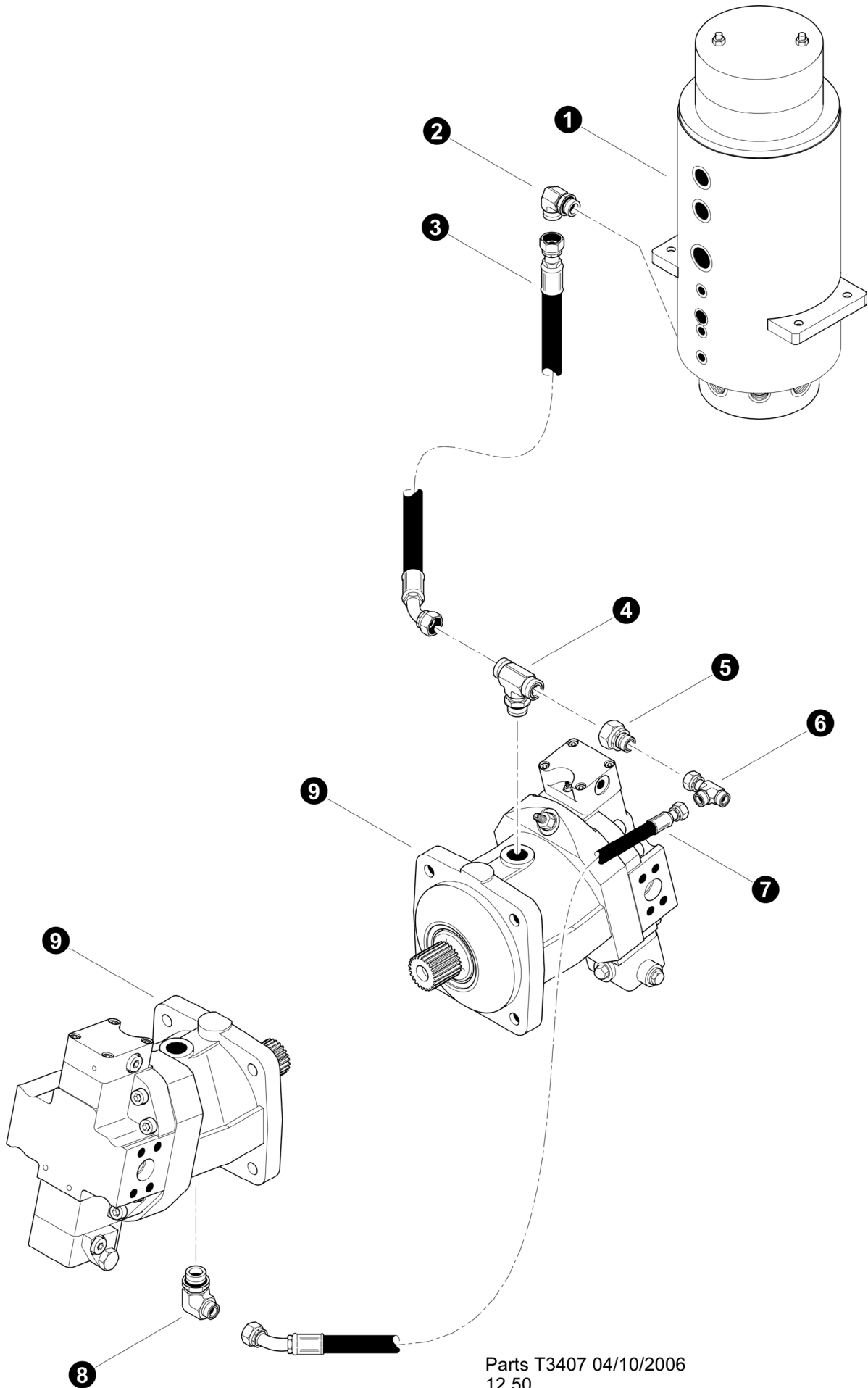
Parts T4146 05/16  
12.50

## DRIVE MOTOR HYDRAULICS

### Front to Rear Hydraulic Motor Connection - Pressure (Standard Front and All Rear Frames)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF.	1	 ROTARY MANIFOLD. ....	UP-1
2	15484-FF	2	ELBOW, 90 - 6801-16	
3	-FF	1	HOSE ASSEMBLY - 6033-16-16OS-16OS (Rotary manifold lower port "WD1" to Drive Motor)	
4	-FF	1	HOSE ASSEMBLY - 6033-16-16OS-16OS (Rotary manifold lower port "WD2" to Drive Motor)	
5	15497-FF	2	CONNECTOR, straight - 6400-16	
6	26008-FF	4	MANIFOLD, rexroth drive motor	
7	15378-FF	2	O-RING, 1.25"	
8	50075-FF	8	WASHER, LOCK 1/2	
9	50074-FF	8	BOLT, ALLEN 1/2 X 1 1/2"	
10	REF	1	HYDRAULIC WHEEL DRIVE MOTOR .....	FF-5
11	-FF	2	HOSE ASSEMBLY - 6037.5-16-16OS-16OS (Front Drive Motor to Rear Drive Motor)	
12	-FF	2	HOSE ASSEMBLY - 6039-16-16OS-16OS (Front Drive Motor to Rear Drive Motor)	
13	15114-FF	2	KIT, SPLIT FLANGE - 1.25" (CODE 62)	
14	-FF	8	BOLT	
15	-FF	8	LOCK WASHER	
16	15378-FF	2	O-RING - 1.25" SF (CODE 61/62)	

 See referenced page for component or assembly breakdown.




Parts T3407 04/10/2006  
12.50

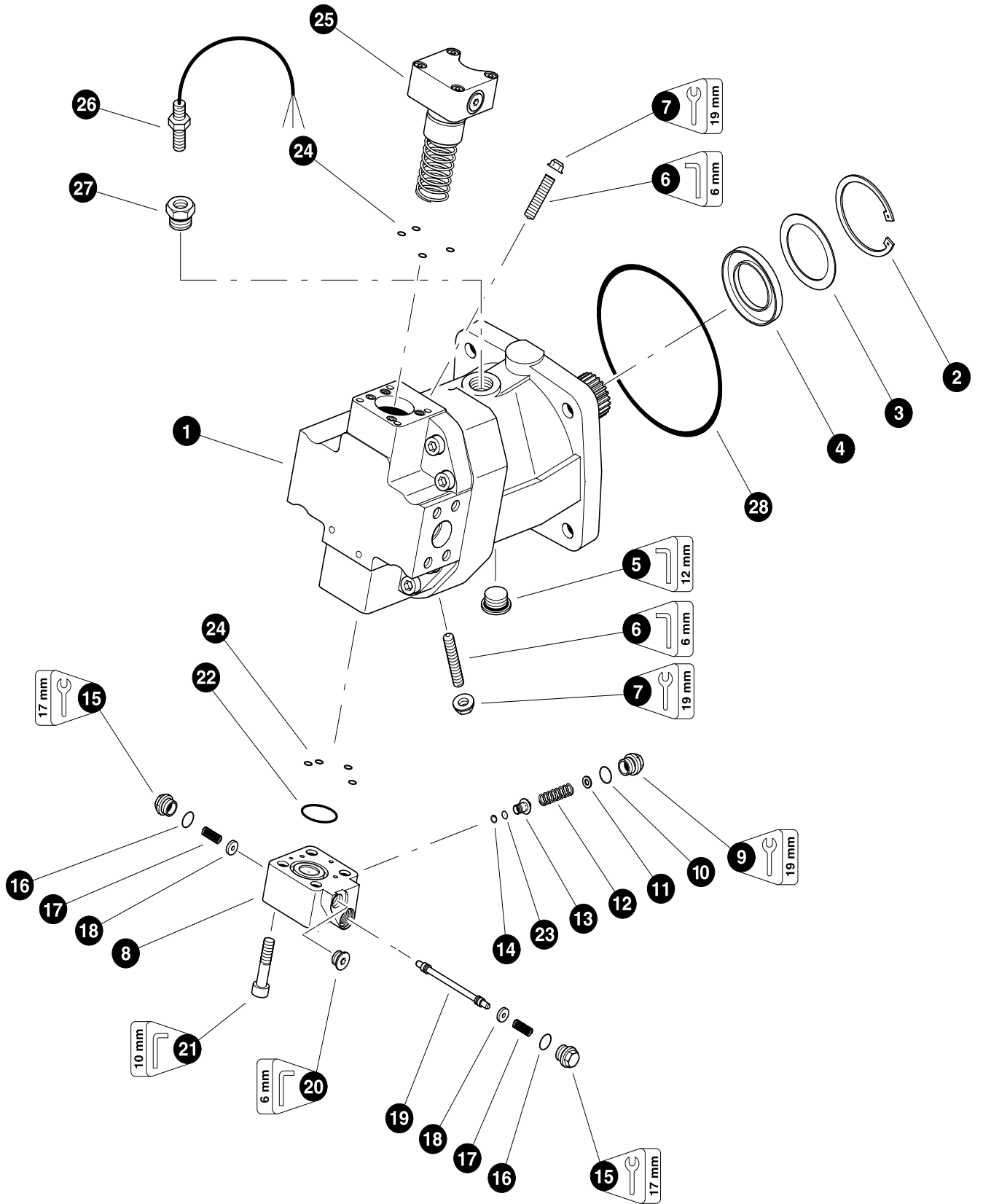


## DRIVE MOTOR HYDRAULICS

### ROTARY MANIFOLD TO REAR DRIVE MOTOR (Standard Front and All Rear Frames)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF.	1	 ROTARY MANIFOLD. ....	UP-1
2	17688-FF	1	ELBOW, 90 - FF1868T-1212S	
3	-FF	1	HOSE ASSEMBLY - 2049-12-120S-1204 (Motor Case Drain to port "V1")	
4	20029-FF	1	TEE, BULKHEAD RUN - 12 WJJLO-WLNL-S	
5	15117-FF	1	CONNECTOR, REDUCER - ORS FF2281T-0812S	
6	20066-FF	1	TEE - 8 S5OLO-S - BRANCH	
7	50975-FF	1	HOSE ASSEMBLY - 2039.5-08-080S-0804 (Case Drain Motor Jumper)	
8	15372-FF	1	ELBOW, 90 - FF1868T-0812S	
9	REF	1	HYDRAULIC WHEEL DRIVE MOTOR .....	FF-5

 See referenced page for component or assembly breakdown.



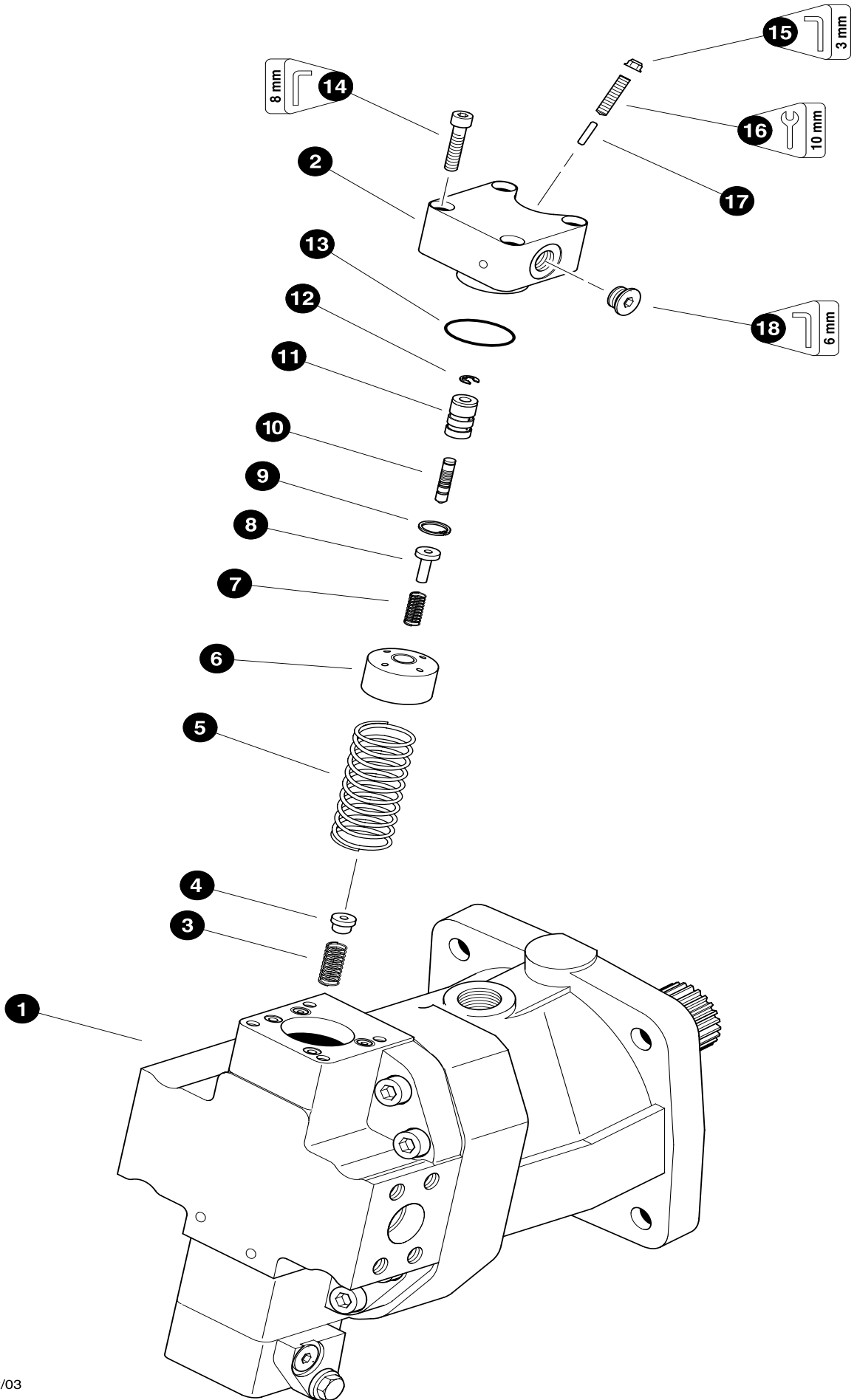
## REXROTH 160cc MOTOR (Standard)

REF	PART #	QTY		DESCRIPTION	SEE SECTION
1	51869-0-FF	1	☐	MOTOR, wheel drive - Rexroth AA6VM160 (Front) (w/speed counter ring) (Vg Min = 0 cubic meters) (flushing)	
	51869-70-FF	1	☐	MOTOR, wheel drive - Rexroth AA6VM160 (Rear) (w/speed counter ring) (Vg Min = 70 cubic meters) (flushing)	
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	51987-FF	1		SCREW, adjusting (0 - Displacement min)(needed for front motor)	
	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
26	24656-FF	1		SENSOR, SPEED PICKUP (rexroth hydro motor)	
27	51098-FF	1		FITTING, speed pickup rexroth (sae)	
28	20967-FF	1		O-RING, WHEEL DRIVE MOTOR (gearbox pilot)	
-	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 component suppliers, it is not recommended that the component be disassembled further than is shown in the illustration.



## REXROTH 160cc MOTOR HA2T Control Brakedown

(Standard)

REF	PART #	QTY		DESCRIPTION	SEE SECTION
1	51869-0-FF	1	☐	MOTOR, wheel drive - Rexroth AA6VM160 ( <i>Front</i> ) ( <i>w/speed counter ring</i> ) ( <i>Vg Min = 0 cubic meters</i> ) ( <i>flushing</i> )	
	51869-70-FF	1	☐	MOTOR, wheel drive - Rexroth AA6VM160 ( <i>Rear</i> ) ( <i>w/speed counter ring</i> ) ( <i>Vg Min = 70 cubic meters</i> ) ( <i>flushing</i> )	
2	20726-FF	1	☐	CONTROL, MOTOR STROKE ASSEMBLY ( <i>HA2T</i> )	
3	---	1		SPRING, (HU00444549)	
4	---	1		RETAINER, spring (HU00421860)	
5	---	1		SPRING (HU00651116)	
6	---	1		BUSHING, spring (HU00651118)	
7	20729-FF	1		SPRING	
8	---	1		RETAINER, spring (HU00921351)	
9	20731-FF	1		RING, snap	
10	---	1		SPOOL, control (HU00430748)	
11	20732-FF	1		BUSHING, control spool	
12	20734-FF	1		E-CLIP, control spo	
13	---	1	⌘	O-RING (68103-025)	
14	---	4		BOLT, allen head (60118-063)	
15	20737-FF	1	⌘	NUT, seal	
16	20738-FF	1		SCREW, adjusting ( <i>Stroke control</i> )	
17	---	1		PIN, stroke adjustment (69116-019)	
18	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 component suppliers, it is not recommended that the component be disassembled further than is shown in the illustration.

