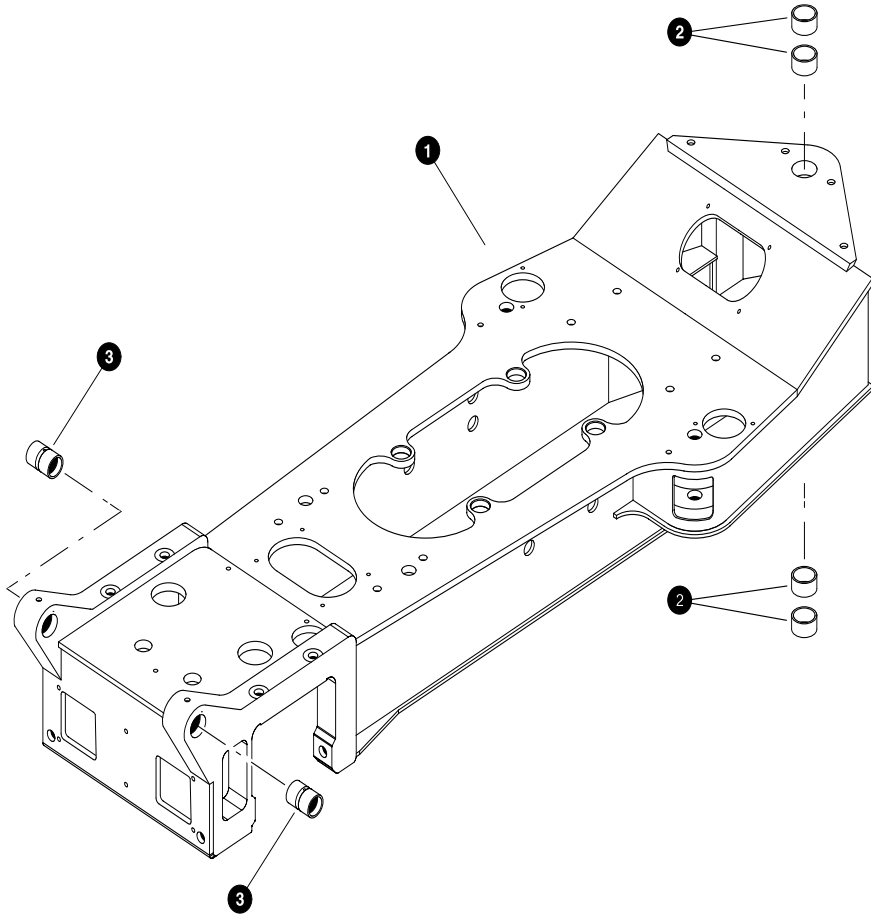


Section FR-1

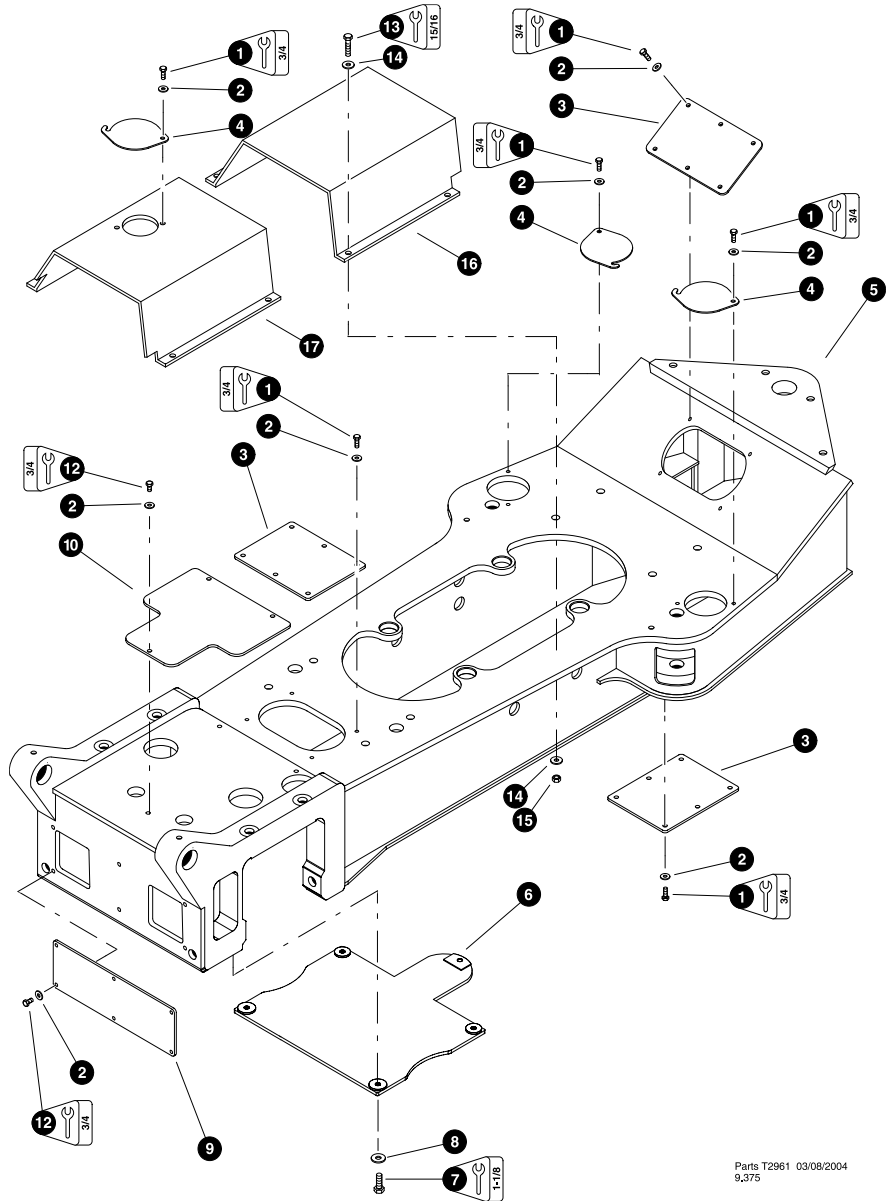
***TF 820 E Rear Frame -
Structural / Covers / Pins***



**REAR FRAME COMPONENTS
(Machines Built After 12/01/03)**

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	50960-FR	1	<input type="checkbox"/> REAR FRAME WELDMENT (Standard length)	
	50961-FR	1	<input type="checkbox"/> REAR FRAME WELDMENT (24" longer)	
	51383-FR	1	<input type="checkbox"/> REAR FRAME WELDMENT (48" longer)	
2	23104-FR	4	BUSHING - 3-1/2" x 1-1/2"	
3	11704-FR	2	BUSHING - 2-1/2" x 4-1/4"	

Kit or Assembly - includes all items indented underneath.

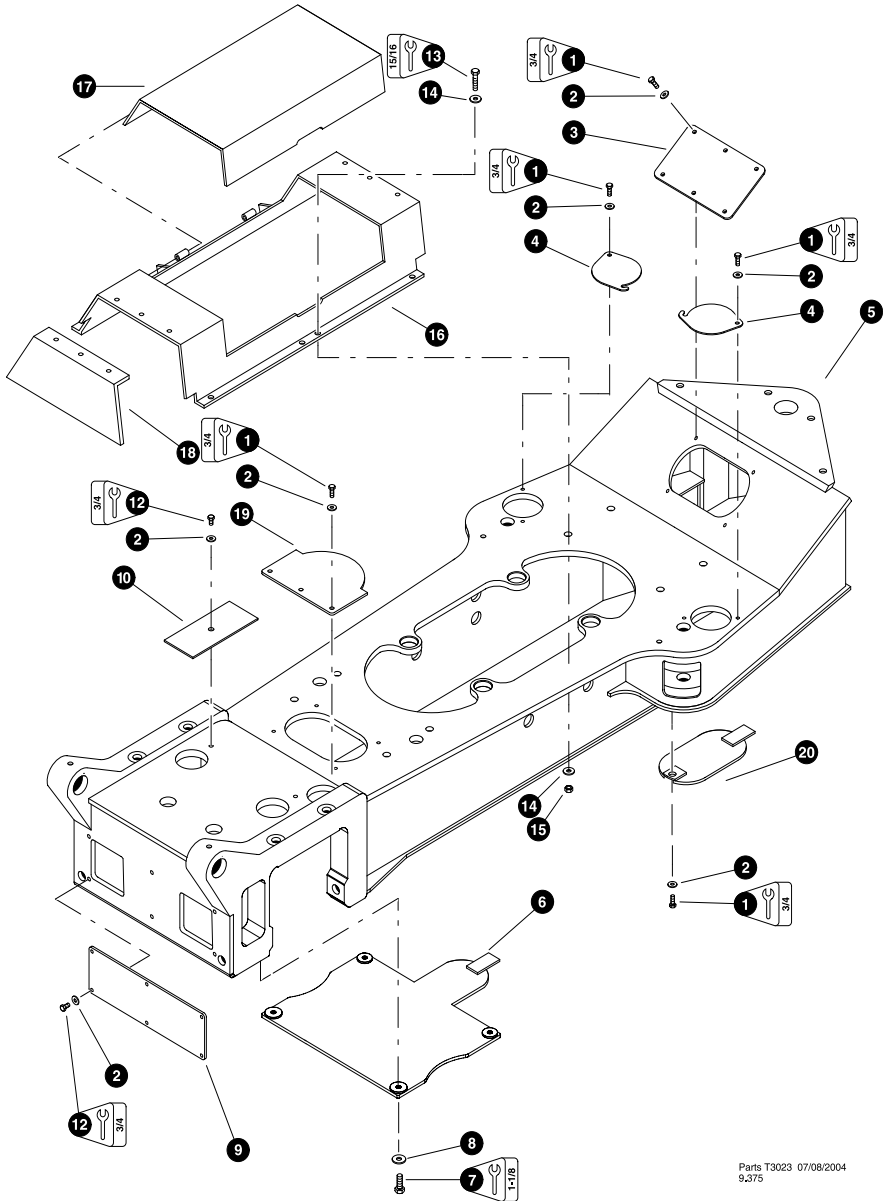


Parts T2961 03/08/2004
9,375

REAR FRAME ACCESS COVERS (Machines Built After 12/01/03)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	10739-FR	30	BOLT - 1/2" x 1-1/2"	
2	15534-FR	39	WASHER, SAE flat - 1/2"	
3	19395-FR	3	COVER, access - steerbox / axle	
4	12150-FR	2	COVER, access - steer cylinder	
5	REF.	1	REAR FRAME WELDMENT	FR-1
6	40954-FR	1	COVER, access - rear frame axle (Lower)	
7	10835-FR	2	BOLT - 1/2" x 4-1/2"	
8	10815-FR	2	NUT, lock - 1/2"	
9	80316-FR	1	COVER, access - axle box end	
10	42162-FR	1	COVER, access - rear frame axle	
11	19394-FR	1	COVER, access - driveshaft	
12	10783-FR	9	BOLT - 1/2" x 1"	
13	15681-FR	8	BOLT, 5/8 X 2.25"	
14	10771-FR	16	WASHER, SAE flat - 5/8	
15	10816-FR	8	NUT, LOCK 5/8	
16	80838-FR	1	GUARD, GEARBOX (front)	
17	80841-FR	1	GUARD, GEARBOX (rear)	

See referenced page for component or assembly breakdown.

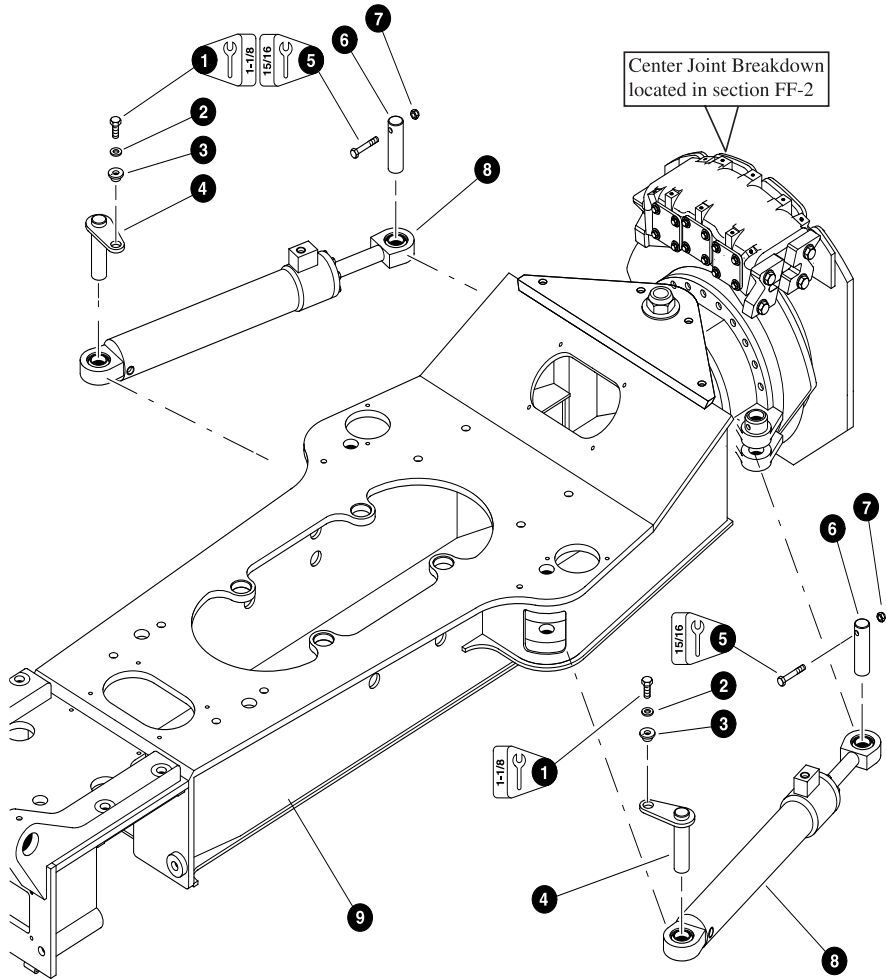


Parts T3023 07/08/2004
9.375

**REAR FRAME ACCESS COVERS
(Machines Built After 07/01/04)**

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	10739-FR	30	BOLT - 1/2" x 1-1/2"	
2	15534-FR	39	WASHER, SAE flat - 1/2"	
3	19395-FR	1	COVER, access - steerbox / axle	
4	12150-FR	2	COVER, access - steer cylinder	
5	REF.	1	REAR FRAME WELDMENT	FR-1
6	51415-FR	1	COVER, access - rear frame axle (Lower)	
7	10835-FR	2	BOLT - 1/2" x 4-1/2"	
8	10815-FR	2	NUT, lock - 1/2"	
9	80316-FR	1	COVER, access - axle box end	
10	42162-FR	2	COVER, access - rear frame axle top	
11	19394-FR	1	COVER, access - driveshaft	
12	10783-FR	9	BOLT - 1/2" x 1"	
13	15681-FR	8	BOLT, 5/8 X 2.25"	
14	10771-FR	16	WASHER, SAE flat - 5/8	
15	10816-FR	8	NUT, LOCK 5/8	
-	51553-FR	1	GUARD, GEARBOX (complete assembly)	
16	51554-FR	1	GUARD, GEARBOX (Frame)	
17	51555-FR	1	GUARD, GEARBOX (Cover)	
18	51556-FR	1	GUARD, end cap (Optional - used when no bunks are installed or custom bunks are used)	
19	42166-FR	1	COVER, access - rear frame top	
20	40983-FR	1	COVER, access - rear frame bottom (standard frame)	
-	40988-FR	1	COVER, access - rear frame bottom (2' longer frame)	
-	42163-FR	1	COVER, access - rear frame bottom (4' longer frame)	

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



STEER CYLINDER INSTALLATION (Machines Built After 12/01/03)

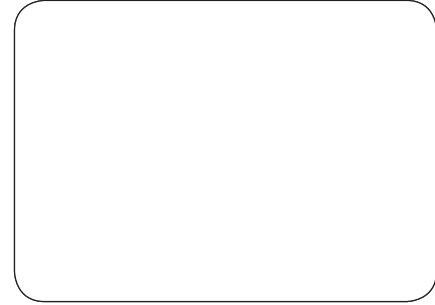
REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	15549-FR	2	BOLT - 3/4" x 2"	
2	15550-FR	2	WASHER, SAE flat - 3/4"	
3	18570-FR	2	WASHER, pin retaining	
4	80769-FR	2	PIN, steer cylinder mounting - base	
5	10719-FR	2	BOLT - 5/8" x 4"	
6	19448-FR	2	PIN, steer cylinder mounting - rod	
7	15563-FR	2	NUT, nylock - 5/8"	
8	REF.	2	STEER CYLINDER	FR-4
9	REF.	1	REAR FRAME WELDMENT	FR-1

See referenced page for component or assembly breakdown.

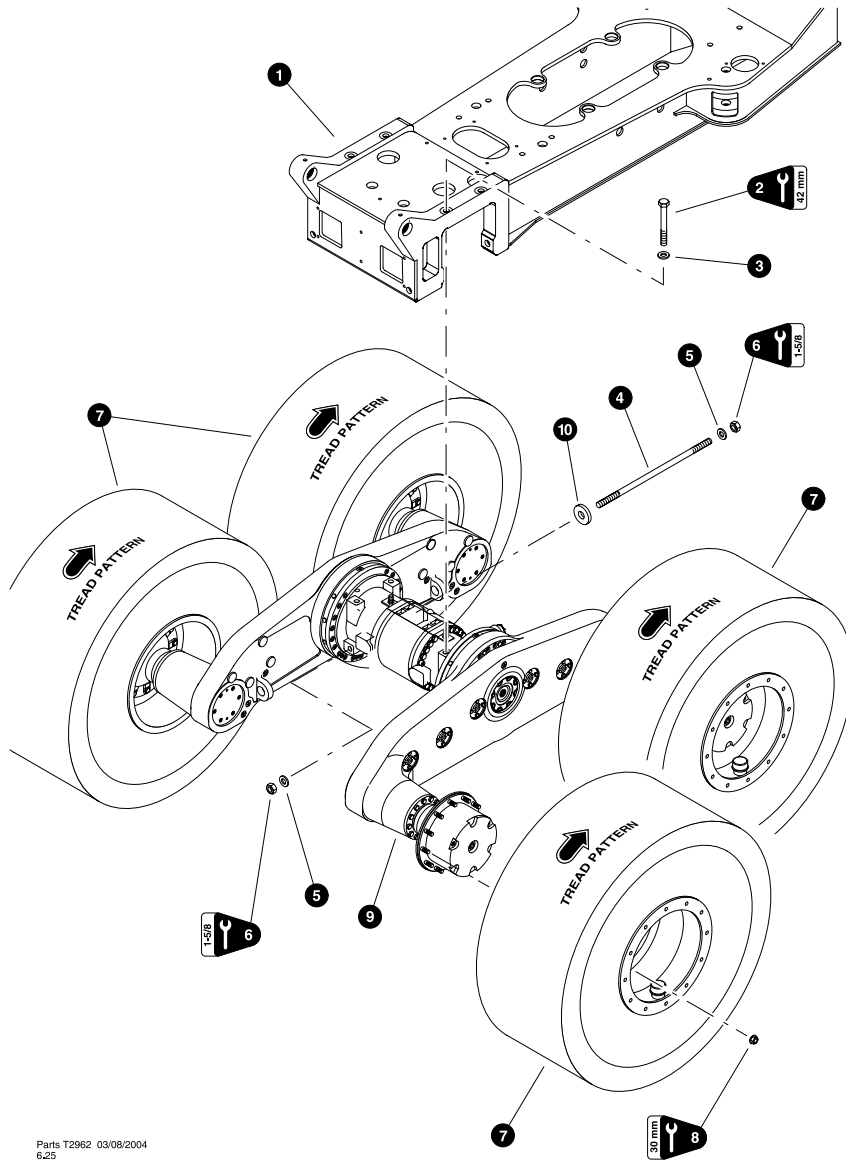
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A series of 20 horizontal lines for taking notes.

Section FR-2



820 Flattop Rear Frame - Frame & Drivetrain Installation

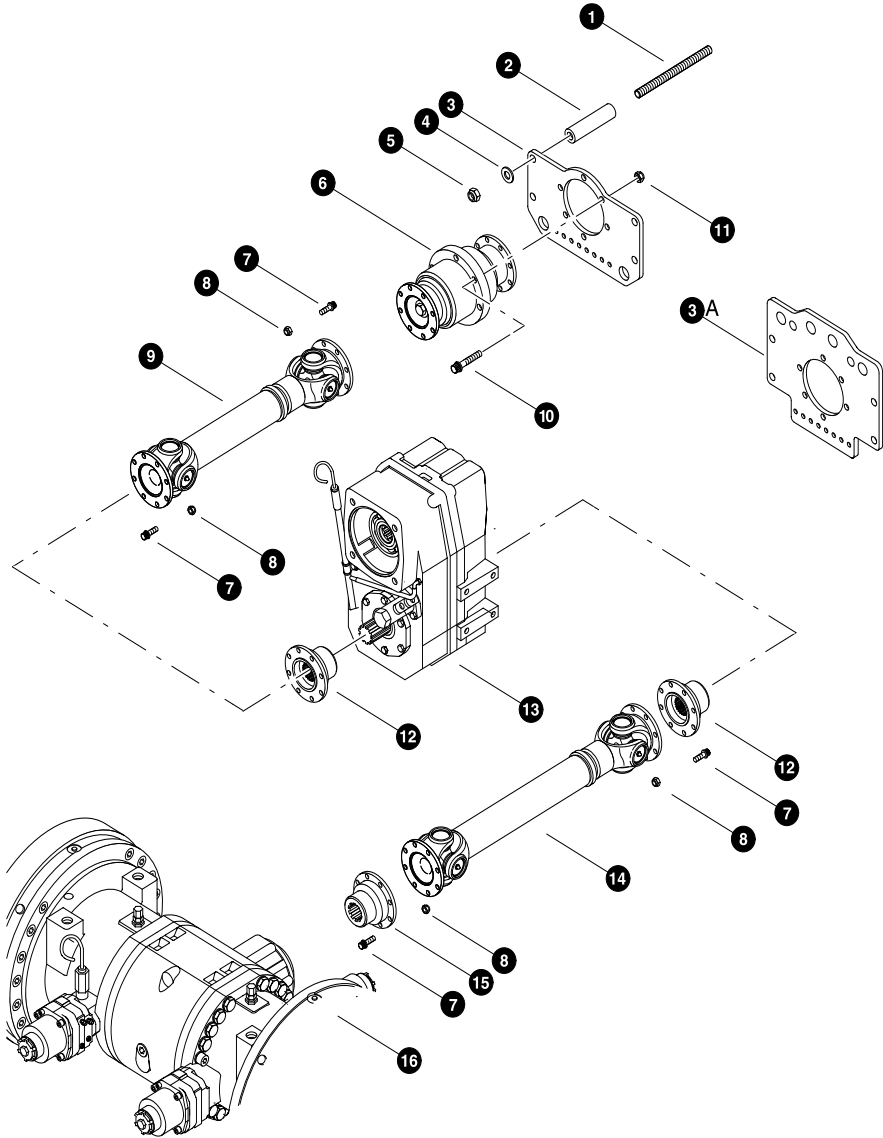


Parts T2962 03/08/2004
6.25

REAR AXLE INSTALLATION (Machines Built After 12/01/03)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF.	1	REAR FRAME WELDMENT	FR-1
2	23567-FR	4	BOLT - 30mm-3.5P x 220mm (Torque to 1100 ft.lbs. (1465 Nm))	
3	23568-FR	4	WASHER, hardened flat - 30mm	
4	23851-FR	2	STUD, axle spreader box - 1-1/4" (Torque to 1200 ft.lbs. (1600 Nm))	
5	22531-FR	4	WASHER, SAE flat - 1-1/4"	
6	23989-FR	4	NUT, lock - 1-1/4"	
7	REF.	4	WHEEL ASSEMBLY	AX-3
8	19361-FR	48	NUT, lug (Torque to 415 ft.lbs. (550 Nm))	
9	REF.	1	REAR AXLE	AX-1
10	24003-FR	2	SPACER, axle spreader box	

See referenced page for component or assembly breakdown.



Parts T2805 08/08/03
12.50

**DRIVE SHAFT INSTALLATION
(NAF 2-SPEED SHAFTS)**

(STANDARD FRAME)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	26037-FR	4	STUD, 3/4 X 8.5 (see note #2)	
2	80721-FR	4	SPACER	
3	80816-FR	1	BRACKET, bearing mount (used before 05/25/04)	
3	42202-FR	1	BRACKET, bearing mount (used after 05/25/04 and before 07/20/04)	
3A	42290-FR	1	BRACKET, bearing mount (used after 07/20/04)	
4	15550-FR	4	WASHER, SAE flat 3/4	
5	10817-FR	4	NUT, lock - 3/4"	
6	25218-FR	1	IDLER, driveshaft (HD)	
7	50261-FR	32	BOLT, 12 point - 12mm-1.75P x 35mm (See Note #1 Below)	
8	50262-FR	32	NUT, lock - 12mm	
9	- - -	1	☐ DRIVE SHAFT (Gearbox to Center) (469284-61)	
	50466-FR	2	KIT, CROSS & BEARING	
	50467-FR	2	YOKE, FLANGE (90mm)	
	50261-FR	16	BOLT, 12 point - 12mm-1.75P x 35mm (See Note #1 Below)	
	50262-FR	16	NUT, lock - 12mm	
10	50050	6	BOLT, 12 point - 5/8" x 3" (See Note #1 Below) (Torque to 130 ft.lbs. (175 Nm))	
11	10816-FR	6	NUT, lock - 5/8"	
12	50068-FR	1	YOKE, companion flange - gearbox (rear)	
	50069-FR	1	YOKE, companion flange - gearbox (front)	
13	REF.	1	☒ GEARBOX ASSY.	AX-4
14	- - -	1	☐ DRIVE SHAFT (Gearbox to Axle) (469284-61)	
	50466-FR	2	KIT, CROSS & BEARING	
	50467-FR	2	YOKE, FLANGE (90mm)	
	50261-FR	16	BOLT, 12 point - 12mm-1.75P x 35mm (See Note #1 Below)	
	50262-FR	16	NUT, lock - 12mm	
15	23997-FR	1	YOKE, companion flange - AXLE	
16	REF.	1	☒ AXEL ASSY.	AX-1-2
17	42290-FR	1		

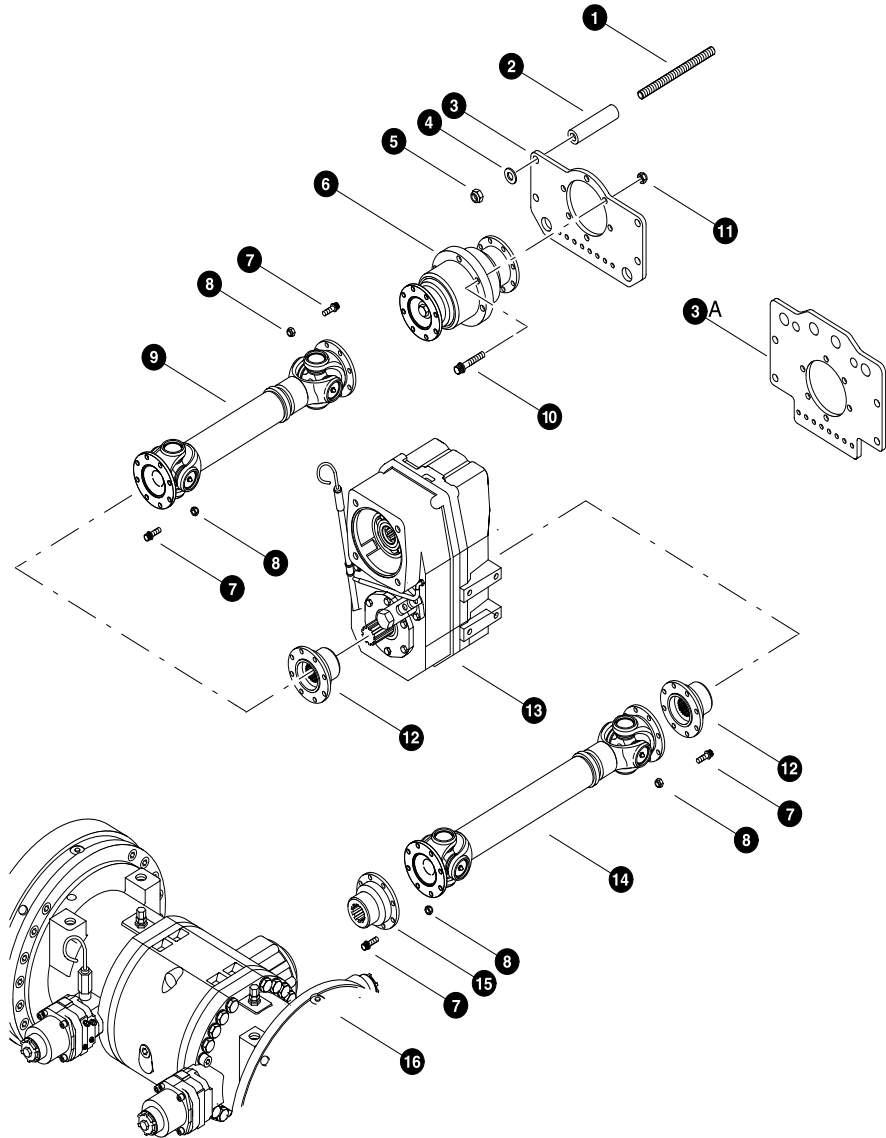
- ☒ See referenced page for component or assembly breakdown.
- ☐ Kit or Assembly - includes all items indented underneath.

Note #1:

Use Loctite 242 (blue) during installation.

Note #2:

Use Loctite 262 (red) during installation.



Parts T2805 08/08/03
12.50

DRIVE SHAFT INSTALLATION (NAF 2-SPEED SHAFTS)

(2-FOOT LONGER FRAME)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	26037-FR	4	STUD, 3/4 X 8.5 (see note #2)	
2	80721-FR	4	SPACER	
3	80816-FR	1	BRACKET, bearing mount (used before 05/25/04)	
3A	42202-FR	1	BRACKET, bearing mount (used after 05/25/04 and before 07/20/04)	
4	42290-FR	1	BRACKET, bearing mount (used after 07/20/04)	
4	15550-FR	4	WASHER, SAE flat 3/4	
5	10817-FR	4	NUT, lock - 3/4"	
6	25218-FR	1	IDLER, driveshaft (HD)	
7	50261-FR	32	BOLT, 12 point - 12mm-1.75P x 35mm (See Note #1 Below)	
8	50262-FR	32	NUT, lock - 12mm	
9	- - -	1	<input type="checkbox"/> DRIVE SHAFT (Gearbox to Center) (467754-61)	
	50466-FR	2	KIT, CROSS & BEARING	
	50467-FR	2	YOKE, FLANGE (90mm)	
	50261-FR	16	BOLT, 12 point - 12mm-1.75P x 35mm (See Note #1 Below)	
	50262-FR	16	NUT, lock - 12mm	
10	50050	6	BOLT, 12 point - 5/8" x 3" (See Note #1 Below) (Torque to 130 ft.lbs. (175 Nm))	
11	10816-FR	6	NUT, lock - 5/8"	
12	50068-FR	1	YOKE, companion flange - gearbox (rear)	
	50069-FR	1	YOKE, companion flange - gearbox (front)	
13	REF.	1	<input type="checkbox"/> GEARBOX ASSY.	AX-4
14	- - -	1	<input type="checkbox"/> DRIVE SHAFT (Gearbox to Axle) (472672-61)	
	50466-FR	2	KIT, CROSS & BEARING	
	50467-FR	2	YOKE, FLANGE (90mm)	
	50261-FR	16	BOLT, 12 point - 12mm-1.75P x 35mm (See Note #1 Below)	
	50262-FR	16	NUT, lock - 12mm	
15	23997-FR	1	YOKE, companion flange - AXLE	
16	REF.	1	<input type="checkbox"/> AXEL ASSY.	AX-1-2

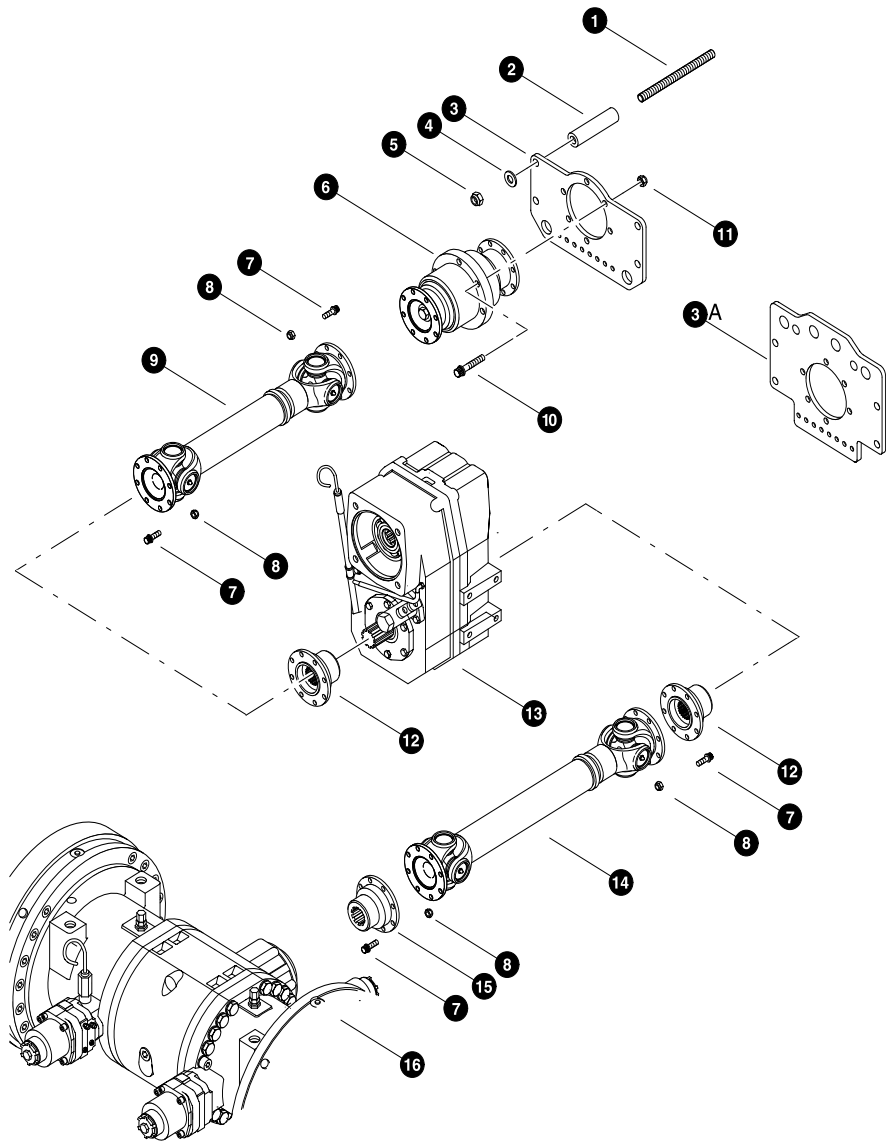
- See referenced page for component or assembly breakdown.
- Kit or Assembly - includes all items indented underneath.

Note #1:

Use Loctite 242 (blue) during installation.

Note #2:

Use Loctite 262 (red) during installation.



Parts T2805 08/08/03
12.50

**DRIVE SHAFT INSTALLATION
(NAF 2-SPEED SHAFTS)**

(4-FOOT LONGER FRAME)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	26037-FR	4	STUD, 3/4 X 8.5 (see note #2)	
2	80721-FR	4	SPACER	
3	80816-FR	1	BRACKET, bearing mount (used before 05/25/04)	
3A	42202-FR	1	BRACKET, bearing mount (used after 05/25/04 and before 07/20/04)	
4	42290-FR	1	BRACKET, bearing mount (used after 07/20/04)	
4	15550-FR	4	WASHER, SAE flat 3/4	
5	10817-FR	4	NUT, lock - 3/4"	
6	25218-FR	1	IDLER, driveshaft (HD)	
7	50261-FR	32	BOLT, 12 point - 12mm-1.75P x 35mm (See Note #1 Below)	
8	50262-FR	32	NUT, lock - 12mm	
9	- - -	1	☐ DRIVE SHAFT (Gearbox to Center) (467754-61)	
	50466-FR	2	KIT, CROSS & BEARING	
	50467-FR	2	YOKE, FLANGE (90mm)	
	50261-FR	16	BOLT, 12 point - 12mm-1.75P x 35mm (See Note #1 Below)	
	50262-FR	16	NUT, lock - 12mm	
10	50050	6	BOLT, 12 point - 5/8" x 3" (See Note #1 Below) (Torque to 130 ft.lbs. (175 Nm))	
11	10816-FR	6	NUT, lock - 5/8"	
12	50068-FR	1	YOKE, companion flange - gearbox (rear)	
	50069-FR	1	YOKE, companion flange - gearbox (front)	
13	REF.	1	☒ GEARBOX ASSY.	AX-4
14	- - -	1	☐ DRIVE SHAFT (Gearbox to Axle) (479637-61)	
	50466-FR	2	KIT, CROSS & BEARING	
	50467-FR	2	YOKE, FLANGE (90mm)	
	50261-FR	16	BOLT, 12 point - 12mm-1.75P x 35mm (See Note #1 Below)	
	50262-FR	16	NUT, lock - 12mm	
15	23997-FR	1	YOKE, companion flange - AXLE	
16	REF.	1	☒ AXEL ASSY.	AX-1-2

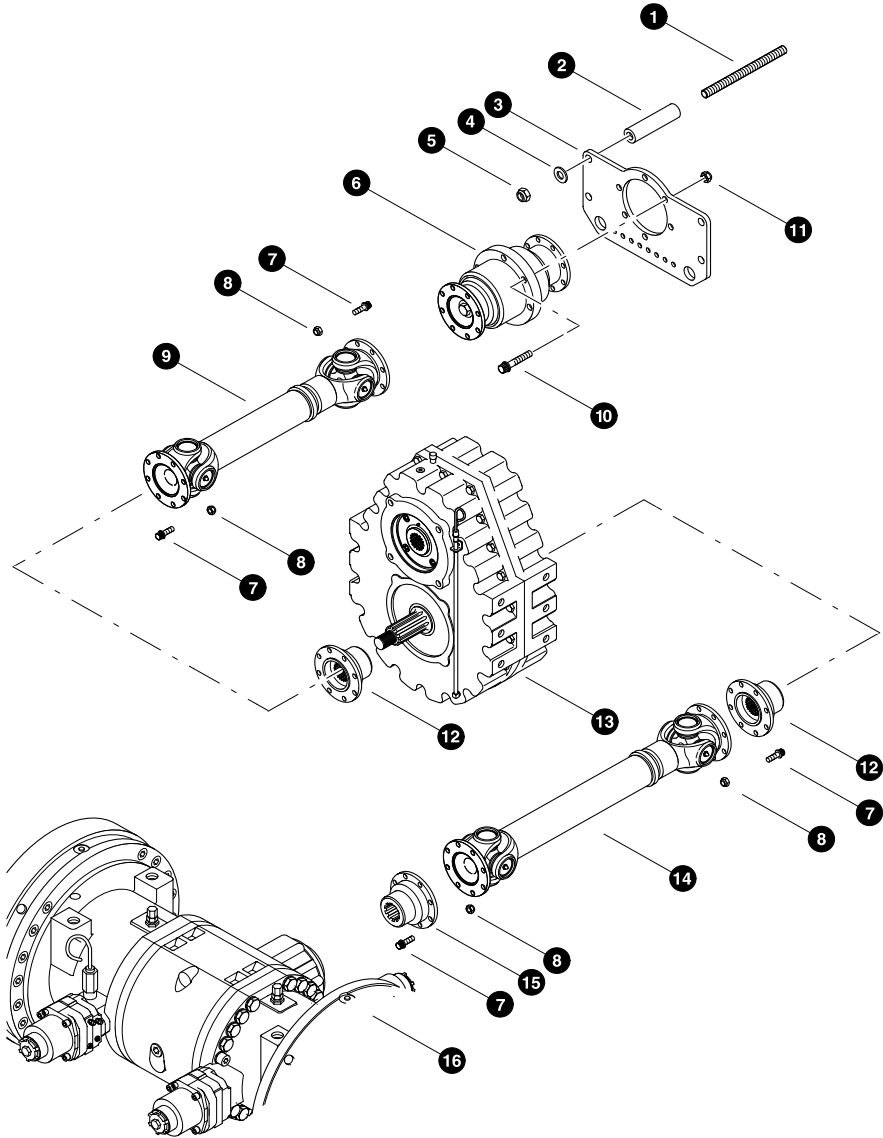
- ☒ See referenced page for component or assembly breakdown.
- ☐ Kit or Assembly - includes all items indented underneath.

Note #1:

Use Loctite 242 (blue) during installation.

Note #2:

Use Loctite 262 (red) during installation.



Parts T2806 08/08/03
12.50

**DRIVE SHAFT INSTALLATION
(SUPERIOR SINGLE-SPEED SHAFTS)**

(STANDARD FRAME)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	26037-FR	4	STUD, 3/4 X 8.5 (see note #2)	
2	80721-FR	4	SPACER	
3	80816-FR	1	BRACKET, bearing mount (used before 05/25/04)	
3	42202-FR	1	BRACKET, bearing mount (used after 05/25/04)	
4	15550-FR	4	WASHER, SAE flat 3/4	
5	10817-FR	4	NUT, lock - 3/4"	
6	25218-FR	1	IDLER, driveshaft (HD)	
7	50261-FR	32	BOLT, 12 point - 12mm-1.75P x 35mm (See Note #1 Below)	
8	50262-FR	32	NUT, lock - 12mm	
9	- - -	1	<input type="checkbox"/> DRIVE SHAFT (Gearbox to Center) (467754-61)	
	50466-FR	2	KIT, CROSS & BEARING	
	50467-FR	2	YOKE, FLANGE (90mm)	
	50261-FR	16	BOLT, 12 point - 12mm-1.75P x 35mm (See Note #1 Below)	
	50262-FR	16	NUT, lock - 12mm	
10	50050	6	BOLT, 12 point - 5/8" x 3" (See Note #1 Below) (Torque to 130 ft.lbs. (175 Nm))	
11	10816-FR	6	NUT, lock - 5/8"	
12	23998-FR	1	YOKE, companion flange - gearbox	
13	REF.	1	<input type="checkbox"/> GEARBOX ASSY.	AX-4
14	- - -	1	<input type="checkbox"/> DRIVE SHAFT (Gearbox to Axle) (469284-61)	
	50466-FR	2	KIT, CROSS & BEARING	
	50467-FR	2	YOKE, FLANGE (90mm)	
	50261-FR	16	BOLT, 12 point - 12mm-1.75P x 35mm (See Note #1 Below)	
	50262-FR	16	NUT, lock - 12mm	
15	23997-FR	1	YOKE, companion flange - AXLE	
16	REF.	1	<input type="checkbox"/> AXEL ASSY.	AX-1-2

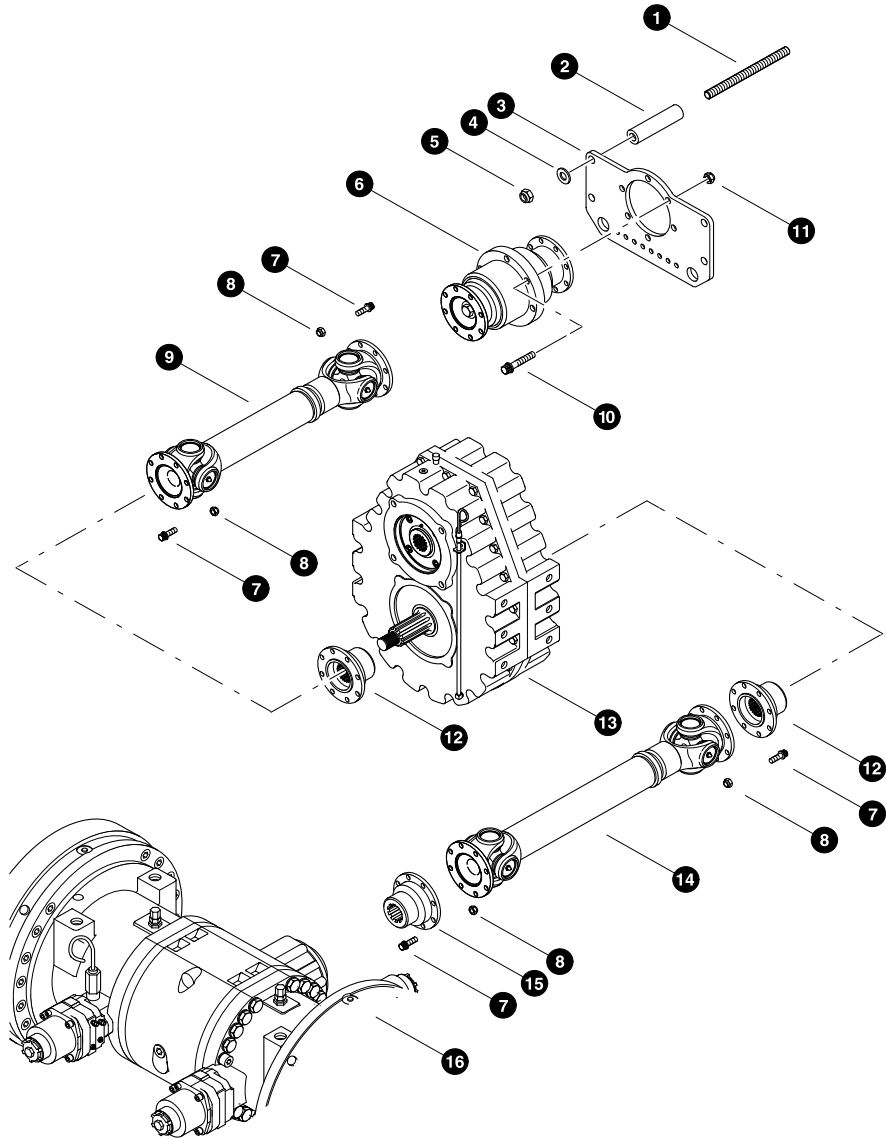
- See referenced page for component or assembly breakdown.
- Kit or Assembly - includes all items indented underneath.

Note #1:

Use Loctite 242 (blue) during installation.

Note #2:

Use Loctite 262 (red) during installation.



Parts T2806 08/08/03
12.50

**DRIVE SHAFT INSTALLATION
(SUPERIOR SINGLE-SPEED SHAFTS)**

(2-FOOT LONGER FRAME)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	26037-FR	4	STUD, 3/4 X 8.5 (see note #2)	
2	80721-FR	4	SPACER	
3	80816-FR	1	BRACKET, bearing mount (used before 05/25/04)	
3	42202-FR	1	BRACKET, bearing mount (used after 05/25/04)	
4	15550-FR	4	WASHER, SAE flat 3/4	
5	10817-FR	4	NUT, lock - 3/4"	
6	25218-FR	1	IDLER, driveshaft (HD)	
7	50261-FR	32	BOLT, 12 point - 12mm-1.75P x 35mm (See Note #1 Below)	
8	50262-FR	32	NUT, lock - 12mm	
9	- - -	1	☐ DRIVE SHAFT (Gearbox to Center) (467754-61)	
	50466-FR	2	KIT, CROSS & BEARING	
	50467-FR	2	YOKE, FLANGE (90mm)	
	50261-FR	16	BOLT, 12 point - 12mm-1.75P x 35mm (See Note #1 Below)	
	50262-FR	16	NUT, lock - 12mm	
10	50050	6	BOLT, 12 point - 5/8" x 3" (See Note #1 Below) (Torque to 130 ft.lbs. (175 Nm))	
11	10816-FR	6	NUT, lock - 5/8"	
12	23998-FR	1	YOKE, companion flange - gearbox	
13	REF.	1	☒ GEARBOX ASSY.	AX-4
14	- - -	1	☐ DRIVE SHAFT (Gearbox to Axle) (467755-61)	
	50466-FR	2	KIT, CROSS & BEARING	
	50467-FR	2	YOKE, FLANGE (90mm)	
	50261-FR	16	BOLT, 12 point - 12mm-1.75P x 35mm (See Note #1 Below)	
	50262-FR	16	NUT, lock - 12mm	
15	23997-FR	1	YOKE, companion flange - AXLE	
16	REF.	1	☒ AXEL ASSY.	AX-1-2

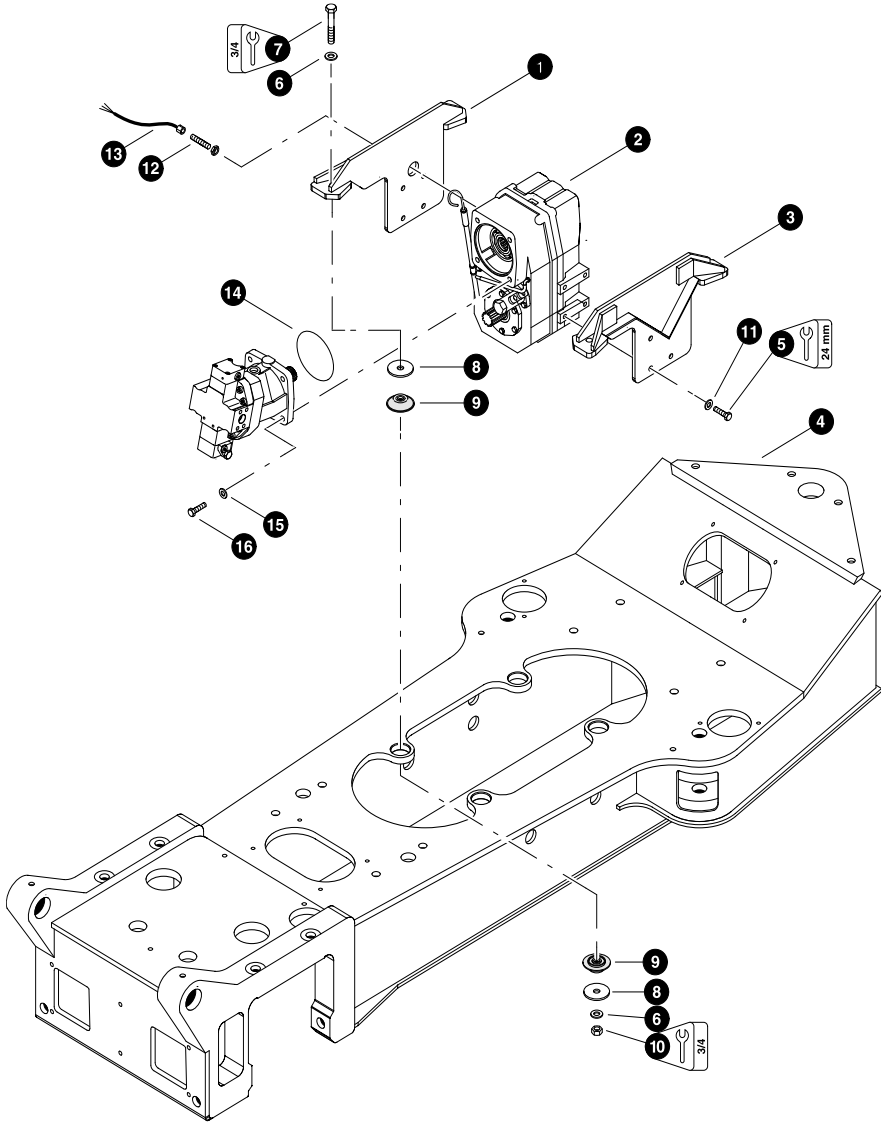
- ☒ See referenced page for component or assembly breakdown.
- ☐ Kit or Assembly - includes all items indented underneath.

Note #1:

Use Loctite 242 (blue) during installation.

Note #2:

Use Loctite 262 (red) during installation.



Parts T2963 03/08/04
9,375

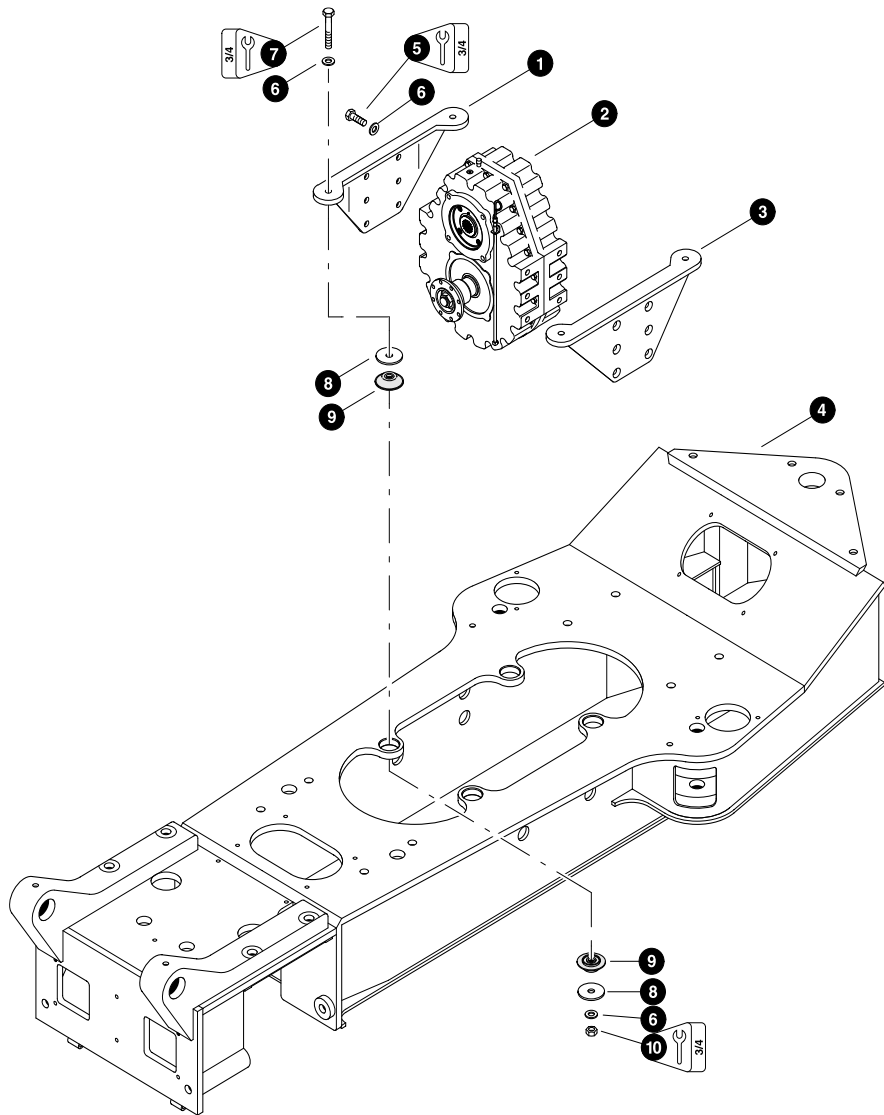
REAR FRAME GEARBOX MOUNTING
(NAF -DUEL MOTOR, 2 SPEED GEARBOX)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	50830-FR	1	MOUNT, NAF 2 SPEED gearbox LH	
2	REF.	1	TRANSFER CASE.....	AX-4
3	50829-FR	1	MOUNT, NAF 2 SPEED gearbox RH	
4	REF.	1	REAR FRAME WELDMENT.....	FR-1
5	50382-FR	8	BOLT - 16mm 2.00 X 40mm <i>(Torque to 180 ft-lbs) (C&A/E) (A/B/C/D) Ç Ç</i>	
6	15550-FR	8	WASHER, SAE flat - 3/4"	
7	10844-FR	4	BOLT - 3/4" x 5"	
8	17918-FR	8	WASHER, isolator mount .875"	
9	17904-FR	8	ISOLATOR	
10	10817-FR	4	NUT, lock 3/4"	
11	10771-FR	8	WASHER, SAE flat - 5/8"	
12	25280-FR	1	SENSOR, SPEED (VOAC) (Lock nut needs to cut down to .25" thick)	
13	25282-FR	1	CABLE, STRAIGHT (voac speed sensor)	
14	20967-FR	1	O-RING, WHEEL DRIVE MOTOR PILOT (FWD)	
15	-	8	WASHER, SAE flat - 20 mm (98273)	
16	18525-FR	8	BOLT, - 20mm X 50 mm <i>(C&A/E) (A/B/C/D) Ç Ç</i>	

See referenced page for component or assembly breakdown.

Note #1:

Use Loctite 242 *(C&S/V/C)* during install.



REAR FRAME GEARBOX MOUNTING (SUPERIOR SINGLE SPEED GEARBOX)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	40600-FR	1	MOUNT, SUPERIOR gearbox LH	
2	REF.	1	TRANSFER CASE	AX-4
3	40600-FR	1	MOUNT, SUPERIOR gearbox RH	
4	REF.	1	REAR FRAME WELDMENT	RF-1-2
5	15549-FR	12	BOLT - 3/4" x 2" (Torque to 325 ft.lbs. (435 Nm))	
6	15550-FR	20	WASHER, SAE flat - 3/4"	
7	10844-FR	4	BOLT - 3/4" x 5"	
8	17918-FR	8	WASHER, isolator mount .875"	
9	17904-FR	8	ISOLATOR	
10	10817-FR	4	NUT, lock 3/4"	

See referenced page for component or assembly breakdown.

Note #1:

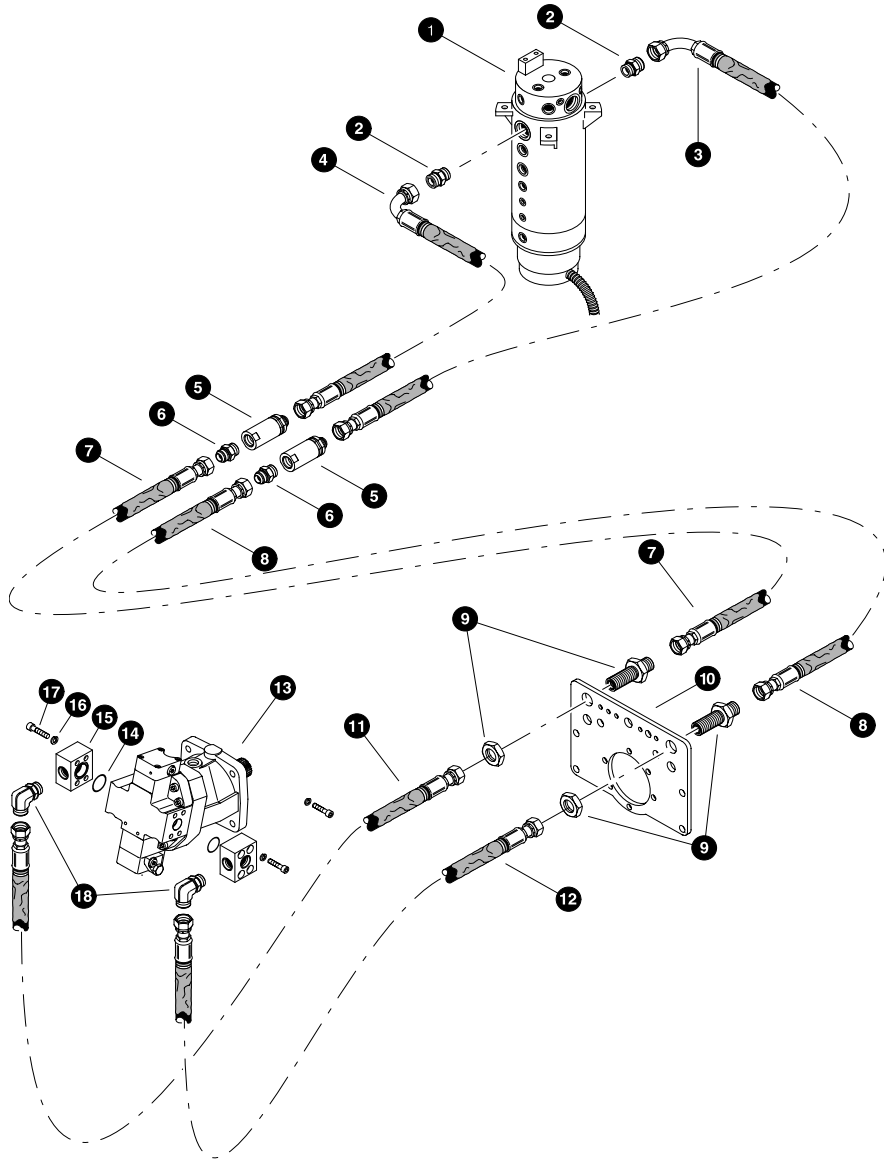
Use Loctite 242 during installation.

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Section FR-3



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I z esbvrijdt**



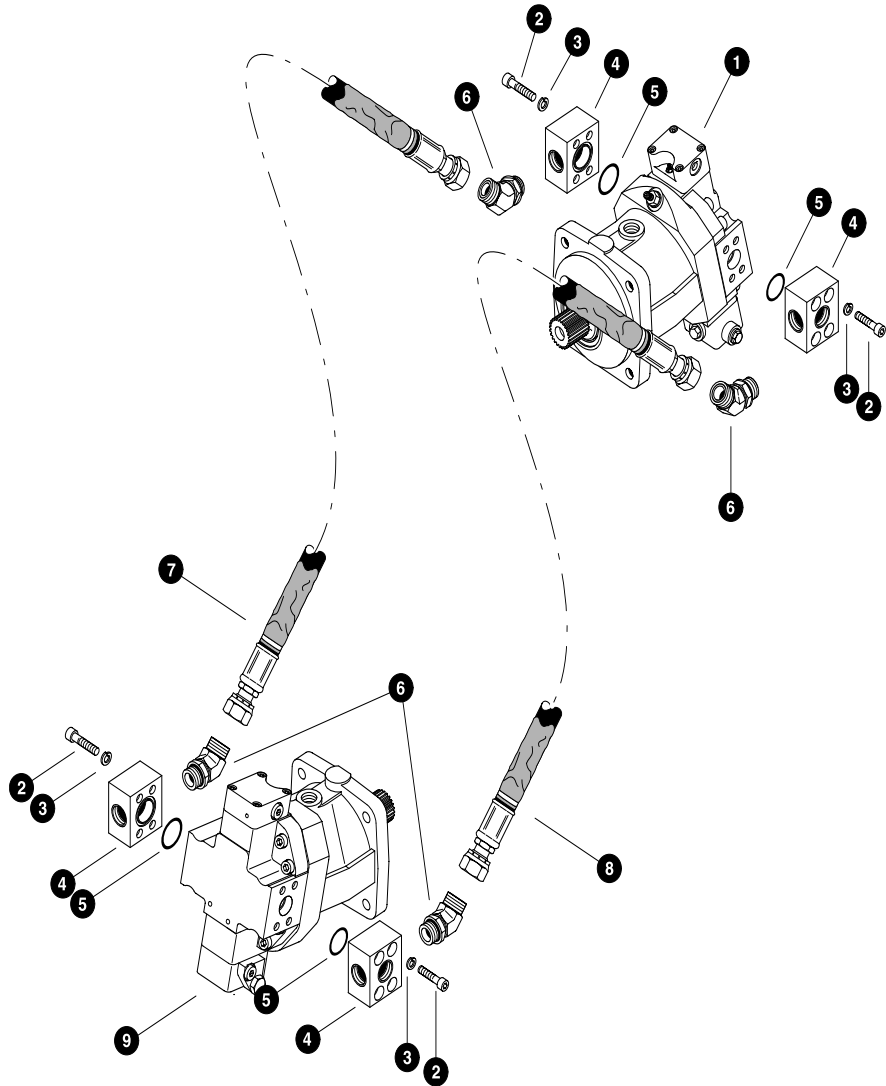
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)Tuboe bse!Gspot!boe!S fbs!Gbn f!*

SFG!!QBSUIS!!!!!!!!!!!!!!!!!!!!RUZ!!!!!!!!!!!!EFTDSJQUP O!!TFF!QBHF

!12!!!!SFG!!!!!!!!!!!!!!!!!!!!	!2!!!!!!!	!IS P UBSZ!NBOJG P ME /!! VQ.2.7
!13!!!!2: 561.GS!!!!!!!!!!!!!!!!!!!!	!3!!!!!!!	!DP OOFDUP S-!tusbjhi t!.!GG2963U.2731T
!14!!!!623: .GS!!!!!!!!!!!!!!!!!!!!	!2!!!!!!!	!P TF!B!TTFN CMZ!.!7175/6.27.27KT.271: !)S pbsz!n bojgpra
!15!!!!62411.GS!!!!!!!!!!!!!!!!!!!!	!2!!!!!!!	!P TF!B!TTFN CMZ!.!7159/6.27.27KT.271: !)S pbsz!n bojgpra
!16!!!!2: 652.GS!!!!!!!!!!!!!!!!!!!!	!3!!!!!!!	!TX JWF M!joi jof!.!QT2721421.27.27.827
!17!!!!265: 8.GS!!!!!!!!!!!!!!!!!!!!	!3!!!!!!!	!DP OOFDUP S-!tusbjhi t!.!7511.27
!18!!!!6173: .GS!!!!!!!!!!!!!!!!!!!!	!2!!!!!!!	!P TF!B!TTFN CMZ!.!7176.27.27KT.271T!)E sjwf! jof!tx jwf m
!19!!!!61739.GS!!!!!!!!!!!!!!!!!!!!	!2!!!!!!!	!P TF!B!TTFN CMZ!.!7174.27.27KT.271T!)E sjwf! jof!tx jwf m
!20!!!!31144.GS!!!!!!!!!!!!!!!!!!!!	!3!!!!!!!	!DP OOFDUP S-!lvrihi fbe!.!27
!21!!!!91927.GS!!!!!!!!!!!!!!!!!!!!	!2!!!!!!!	!Q B U F-!C V M L I F B E
!22!!!!61738.GS!!!!!!!!!!!!!!!!!!!!	!2!!!!!!!	!P TF!B!TTFN CMZ!.!717: .27.27P T.271T!)E sjwf!N pups
!23!!!!61738.GS!!!!!!!!!!!!!!!!!!!!	!2!!!!!!!	!P TF!B!TTFN CMZ!.!717: .27.27P T.271T!)E sjwf!N pups!!
!24!!!!SFG!!!!!!!!!!!!!!!!!!!!	!2!!!!!!!	!X I FFMESJWF!N P U P S /!! GS.5.3
!25!!!!26489.GS!!!!!!!!!!!!!!!!!!!!	!3!!!!!!!	!P .SJOH-!2/36 !
!26!!!!37119.GS!!!!!!!!!!!!!!!!!!!!	!3!!!!!!!	!N B O J G P M E-!sfyspu!e sjwf!n pups
!27!!!!61186.GS!!!!!!!!!!!!!!!!!!!!	!9!!!!!!!	!X B T I F S-!M P D L!20
!28!!!!61185.GS!!!!!!!!!!!!!!!!!!!!	!9!!!!!!!	!C P M U-!B M M F O!20!Y!2!20
!29!!!!26595.GS!!!!!!!!!!!!!!!!!!!!	!3!!!!!!!	!F M C P X -: !1!.!GG7912!.!27

!!!!Tff!sf!g!f!odfe!qbfh!g!ps!d!pn!q!pof!out!s!bt!f!n!c!m!c!s!f!b!e!p!x!o/



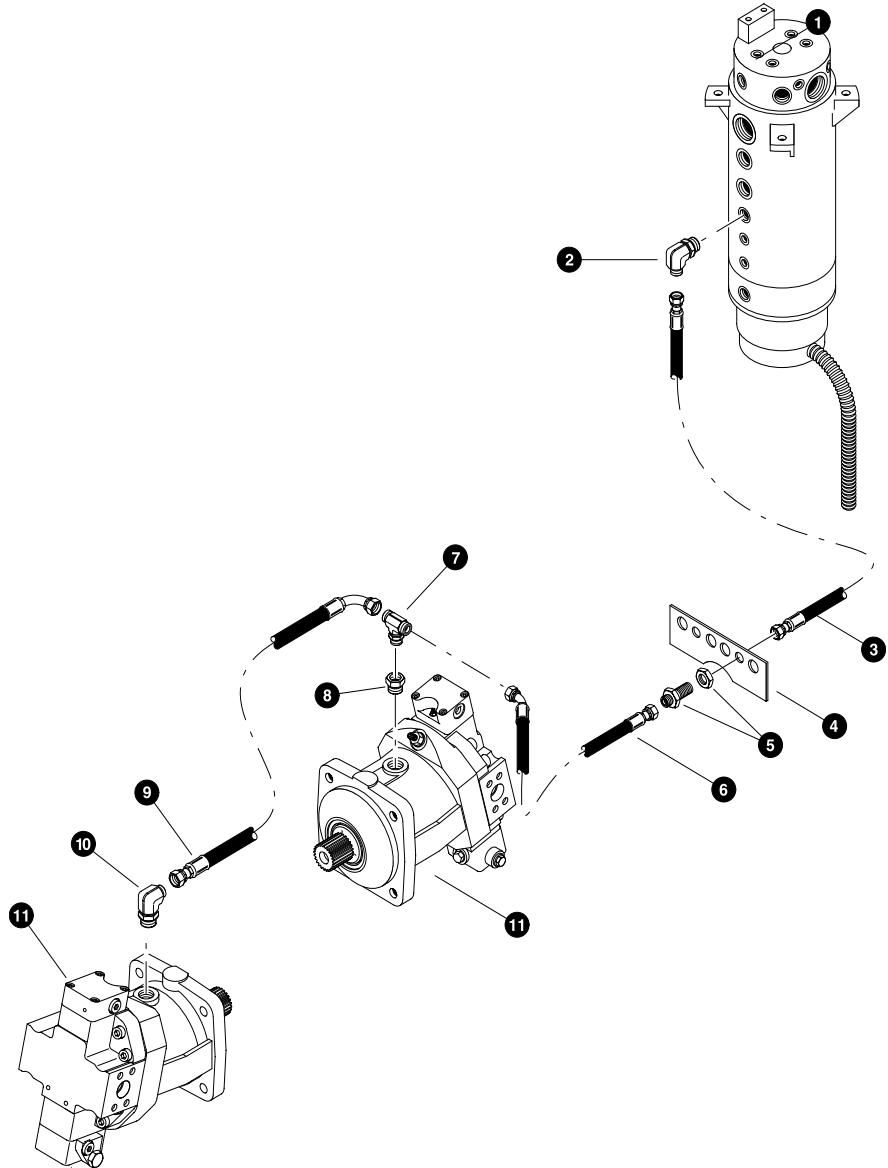
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)N bdi jof t!e vjnt!bgf!s!230!20!4*
)Tboe bse!Gspot!boe!S fbs!Gbn f*

SFG!!!QBSUIS!!!!!!!!!!!!!!RUZ!!!!!!!!!!EFTDSJQUP O!!TFF!QBHF

!!2!!!!SFG!!!!!!!!!!!!!!	!2!!!!!!!!!!	!X I FFMESJWF!N P UPS	/!!	!!!!!!GS .5.3
!!3!!!!61185.GS	!!!!!!19	!!!!!!CPMU!BMMFO!20Y!2!20B		
!!4!!!!61186.GS	!!!!!!19	!!!!!!XBTI!FS!-MPDL!20B		
!!5!!!!37119.GS	!!!!!!3	!!!!!!NBOJGP!ME!-sf yspu!le sjw!N pups		
!!6!!!!26489.GS	!!!!!!3	!!!!!!P.SJOH!-2/36		
!!7!!!!26584.GS	!!!!!!15	!!!!!!FMCPX!-56!GG7913!;!27		
!!8!!!!61: 15.GS	!!!!!!12	!!!!!!I PTF!B!TTFN!CMZ!;!7144.27.27!T.27!T!)Sfbsx i ff rfe sjw		
!!9!!!!61: 15.GS	!!!!!!12	!!!!!!I PTF!B!TTFN!CMZ!;!7144.27.27!T.27!T!)Sfbsx i ff rfe sjw		
!!1!!!!SFG!!!!!!!!!!!!!!	!2!!!!!!!!!!	!X I FFMESJWF!N P UPS	/!!	!!!!!!GS .5.3

!!!!!!Tff!sf!gf!odfe!qbnf!gpls!dnpn!qpof!oups!bt!fn!cm!cs!fbl!epx!o/



Parts T2966 03/10/04 18,75

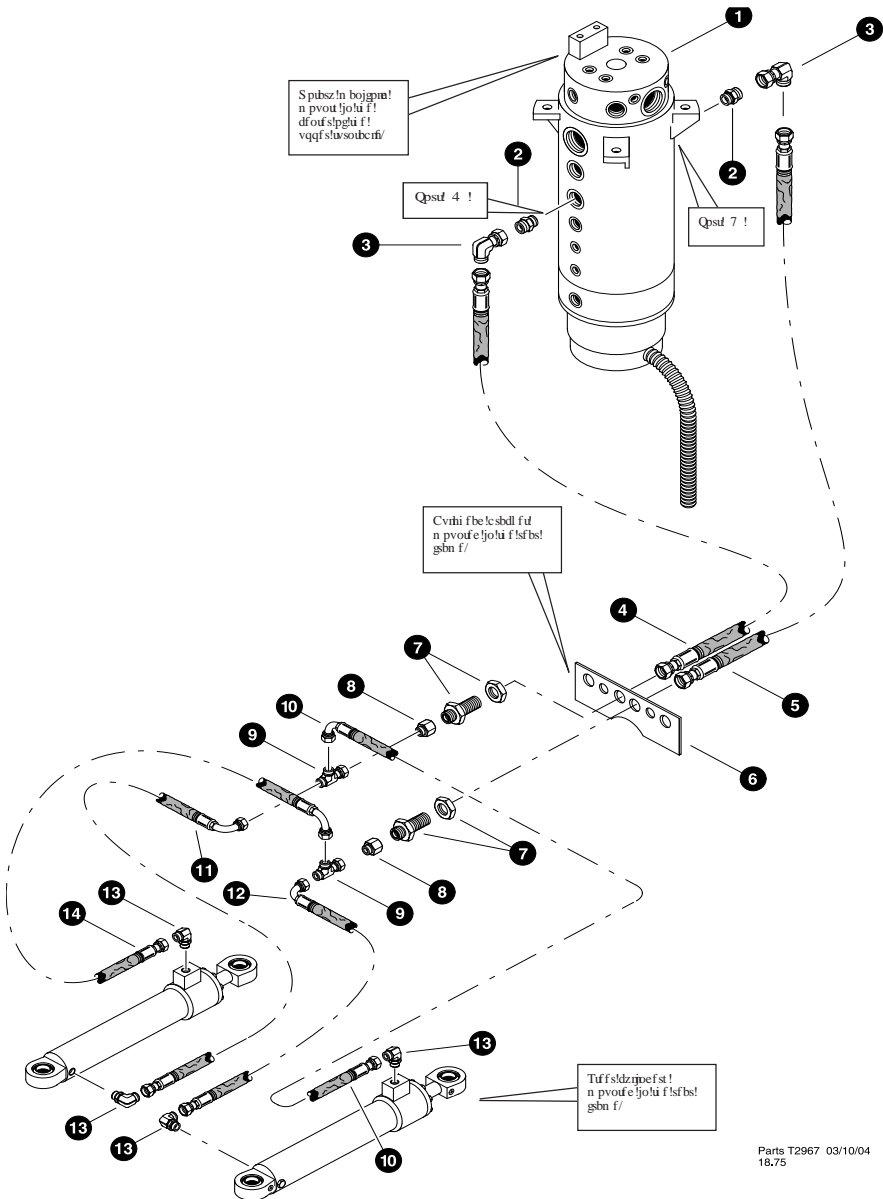
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)N bdi jof t!e vjnt!bgf s!230!20!4*
)Tuboe bse !Gspot!boe !S fbs!Gbn f*

SFG!!! QBSUS!!!!!!!!!!!!!! RUZ !!!!!!! EFTDS JQUP O!!!!!!!!!!!!!! TFF!QBHF

!!2!!!! SFG!!!!!!!!!!!!!! !2!!!!!! !IS P UBSZ!NBO!G P M E /!! VQ.2.7
 !!3!!!! 61147. GS!!!!!!!!!!!!!! !2!!!!!! !FMCP X -: !I !GG7912.2321
 !!4!!!! 623: 8. GS!!!!!!!!!!!!!! !2!!!!!! !I P TF!B TTFN CMZ!. !5221.21.21!T.21!T!)Cvrihi fbe!lp!spbsz!n bojgpra
 !!! !px f!sqpst 8 *
 !!5!!!! ! . ! . !!! !QMBUF!-!CVMLI FBE !)qbs!tp!gsf!bs!gbn f*
 !!6!!!! 61148. GS!!!!!!!!!!!!!! !3!!!!!! !DP OOFDUP S!-!CVMLI FBE!. !21
 !!7!!!! 61733. GS!!!!!!!!!!!!!! !2!!!!!! !I P TF!B TTFN CMZ!. !5163.21.21!T.21!T!)Cvrihi fbe!lp!Gspotn pups!dbt f!uf f*
 !!8!!!! 61149. GS!!!!!!!!!!!!!! !2!!!!!! !U F F!-!GG7914!. !21!!
 !!! !!!
 !!9!!!! 27469. GS!!!!!!!!!!!!!! !2!!!!!! !CVTI JOH!7521!. !2321
 !!:!!!! 6172: .GS!!!!!!!!!!!!!! !2!!!!!! !I P TF!B TTFN CMZ!. !5141.19.19PT.19P: !)Gspotn pups!lp!sf!bs!n pups!dbt f!!!!
 !!! !!! esbjo*
 21!!!! 26483. GS!!!!!!!!!!!!!! !2!!!!!! !FMCP X -: !I !GG7912.2321
 22!!!! SFG!!!!!!!!!!!!!! !3!!!!!! !X I FFMES JWF!N PUPS /!! GS.5.3
 !!!

!!!!!!!! Tff!sf!gf!sf!odfe!qbnf!lps!dnp!q!pof!outs!bt!fn!cm!csf!bl!epx!o/



Parts T2967 03/10/04 18.75

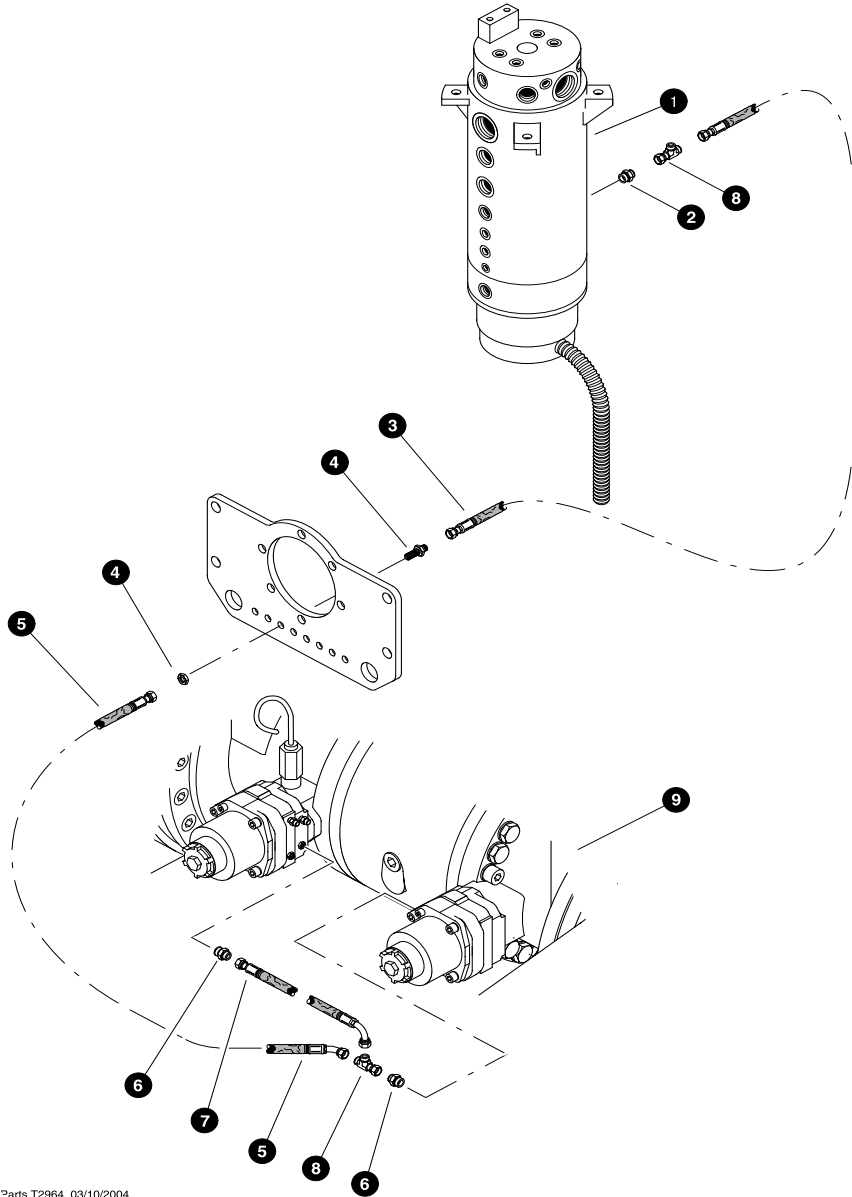
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)Tboe!bse!Cspot!boe!Sfbs!Gbn f*

SFG!!!QBSUS!!!!!!!!!!!!!!!!!!!!!!RUZ!!!!!!!!!!EFTDS!QJUP O!!TFF!QBHF

!!2!!!!!!SFG!!!!!!!!!!!!!!!!!!!!!!	!2!!!!!!	!!	!!SPUBSZ!NBOJGME /!!	!!!!!!VQ.2.7
!!3!!!!!!26263.CS!!!!!!!!!!!!!!!!!!!!!!	!3!!!!!!	!!	!!DPOOFDUP S!-ltusbjhi d. !GG2963U.2323T!	
!!4!!!!!!28781.CS!!!!!!!!!!!!!!!!!!!!!!	!3!!!!!!	!!	!!FMCP X -!: 1-!.!GG31: 9U.2323T	
!!5!!!!!!623: 9.CS!!!!!!!!!!!!!!!!!!!!!!	!2!!!!!!	!!	!!P TF!B TTFN CMZ!. !5223. 23. 231T. 231T!Mpx fs!spbsz	
!!	!!!!!!!!!!!!!!!!!!!!!!	!!!!!!	!!!!!!n bojn!n!qpsd!\$4!p!rfig!c!vhi fbe!gjujoh*	
!!6!!!!!!62413.CS!!!!!!!!!!!!!!!!!!!!!!	!2!!!!!!	!!	!!P TF!B TTFN CMZ!. !5231. 23. 231T. 231T!Mpx fs!spbsz	
!!	!!!!!!!!!!!!!!!!!!!!!!	!!!!!!	!!!!!!n bojn!n!qpsd!\$7!p!sjhi!t!c!vhi fbe!gjujoh*	
!!7!!!!!!!.!.!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!	!!!!!!!!!!!!!!!!!!!!!!	!!!!!!	!!!!!!QMBUF!-CVMLI FBE!jqbst!p!g!sf!bs!gbn f*	
!!8!!!!!!2: 865.CS!!!!!!!!!!!!!!!!!!!!!!	!3!!!!!!	!!	!!DPOOFDUP S!-ltusbjhi!t!c!vhi fbe!.!23X MI. X MDMT	
!!9!!!!!!29692.CS!!!!!!!!!!!!!!!!!!!!!!	!3!!!!!!	!!	!!DPOOFDUP S!-lsf!evdf!st. !GG3392U.1923T	
!!:!!!!!!26544.CS!!!!!!!!!!!!!!!!!!!!!!	!3!!!!!!	!!	!!UFF!.!GG3225U.1919T	
!!1!!!!!!615: 5.CS!!!!!!!!!!!!!!!!!!!!!!	!2!!!!!!	!!	!!P TF!B TTFN CMZ!. !5169. 19. 191T. 191: !Sjhi!t!c!vhi fbe!t!ff	
!!	!!!!!!!!!!!!!!!!!!!!!!	!!!!!!	!!!!!!p!rfig!t!uf!f!s!dz!joe!f!s!spe!l!qpsd*	
!!2!!!!!!61728.CS!!!!!!!!!!!!!!!!!!!!!!	!5!!!!!!	!!	!!P TF!B TTFN CMZ!. !5159. 19. 191T. 191: !M!g!c!vhi fbe!t!ff	
!!	!!!!!!!!!!!!!!!!!!!!!!	!!!!!!	!!!!!!p!rfig!t!uf!f!s!dz!joe!f!s!c!bt!f!l!qpsd*	
!!3!!!!!!61728.CS!!!!!!!!!!!!!!!!!!!!!!	!3!!!!!!	!!	!!P TF!B TTFN CMZ!. !5159. 19. 191T. 191: !M!g!c!vhi fbe!t!ff	
!!	!!!!!!!!!!!!!!!!!!!!!!	!!!!!!	!!!!!!p!rfig!t!uf!f!s!dz!joe!f!s!c!bt!f!l!qpsd*	
!!4!!!!!!27471.CS!!!!!!!!!!!!!!!!!!!!!!	!2!!!!!!	!!	!!FMCP X -!: 1-!.!GG2979U.1919T	
!!5!!!!!!615: 5.CS!!!!!!!!!!!!!!!!!!!!!!	!2!!!!!!	!!	!!P TF!B TTFN CMZ!. !5169. 19. 191T. 191: !M!g!c!vhi fbe!t!ff	
!!	!!!!!!!!!!!!!!!!!!!!!!	!!!!!!	!!!!!!p!rfig!t!uf!f!s!dz!joe!f!s!spe!l!qpsd*	
!!:!!!!!!SFG!!!!!!!!!!!!!!!!!!!!!!	!3!!!!!!	!!	!!TUFFS!DZ!MOEFST /!!	!!!!!!CS.5.7

!!!!!!Tff!sf!g!sf!odfe!l!q!bhf!l!g!ps!d!pn!q!pof!oups!bt!f!n!c!m!c!s!f!bl!epx!o/



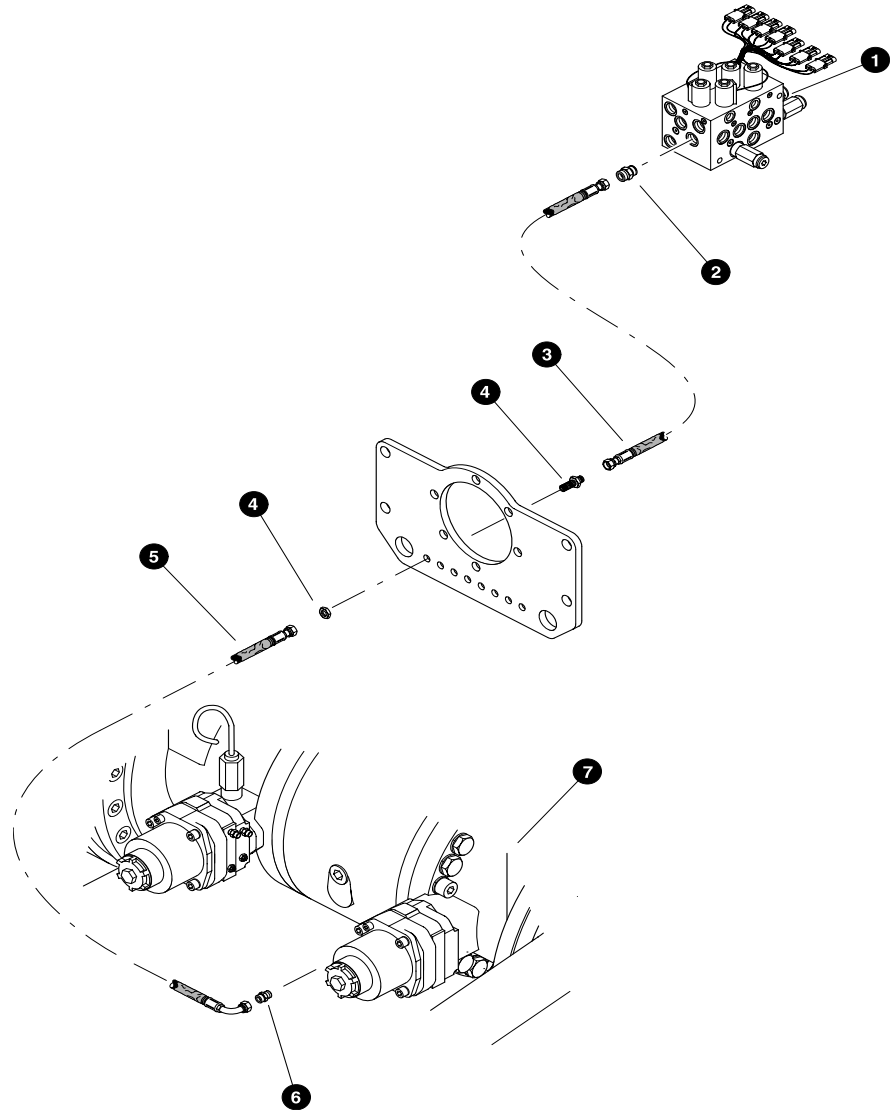
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)N bdi jof t!cvjnt!bgfs230!20!4*
)Tuboe bse!Gspot!boe!Sfbs!Gbn f*

SFG!!QBSUS!!!!!!!!!!!!!!!!!!!!RUZ!!!!!!!!!!!!EFTDSJQJPO!!TFF!QBHF

!!2!!!!SFG!!!!!!!!!!!!!!!!!!!!2!!!!!!!!!!!!IS P UBSZ!NBOJG P ME /!!VQ.2.7
 !!3!!!!26287.GS!!!!!!!!!!!!!!!!!!!!3!!!!!!!!!!!!UUFF!.!15
 !!4!!!!623. 2. GS!!!!!!!!!!!!!!!!!!!!2!!!!!!!!!!!!I P TF!B TTFN CMZ!.!3242. 15. 15P T. 15P T!)\$21!qps!tup!s!fbs!gbn f!
 !!!UC!Cvrih fbe*
 !!5!!!!29693.GS!!!!!!!!!!!!!!!!!!!!2!!!!!!!!!!!!DP OOFDUP S!-CVMLI FBE!15
 !!.!.!91927.GS!!!!!!!!!!!!!!!!!!!!2!!!!!!!!!!!!QMBUF!-CVMLI FBE
 !!6!!!!61611.GS!!!!!!!!!!!!!!!!!!!!2!!!!!!!!!!!!I P TF!B TTFN CMZ!.!3236. 15. 15P T. 15P 5!)UC!Cvrih fbe!tup!s!fbs!Byfrn
 !!7!!!!2. 581.GS!!!!!!!!!!!!!!!!!!!!3!!!!!!!!!!!!DP OOFDUP S!-TUS!.!15.25n
 !!8!!!!61718.GS!!!!!!!!!!!!!!!!!!!!2!!!!!!!!!!!!I P TF!B TTFN CMZ!.!311:/6. 15. 15P T. 15P :)Csbl f!dbojt!f!s!lvn qf s*
 !!9!!!!26287.GS!!!!!!!!!!!!!!!!!!!!3!!!!!!!!!!!!UUFF!.!15
 !t: !!!!!SFG!!!!!!!!!!!!!!!!!!!!2!!!!!!!!!!!!IS FBS!BYMF!B TTFN CMZ /!!BY.2.3

!!!!Tff!sf!g!sf!odfe!qbhf!qps!dpm!qpof!outps!bt!fn!cm!cs!fbl!epx!o/



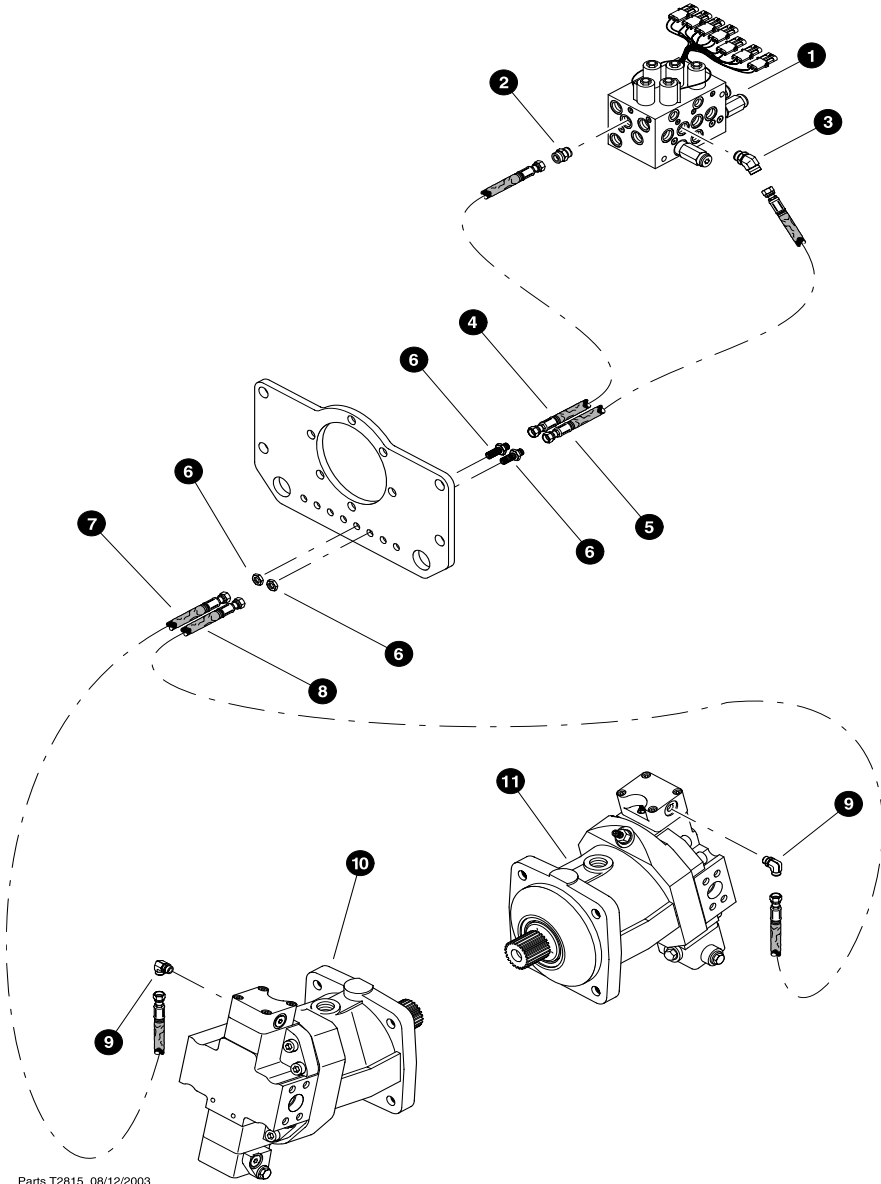
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)Tuboe bse !Cspot!boe !S fbs!Gbn f*

S FG!! QBS US!!!!!!!!!!!!!!!!!!!!!!RUZ!!!!!!!!!!E FTDSJQUIP O!!TFF!QB HF

!!2!!!!S FG!!!!!!!!!!!!!!!!!!!!!!2!!!!!!!!!! [] !MP X FS !N P OP . CMP DL /!!CS .5.21
 !!3!!!!26235.CS!!!!!!!!!!!!!!!!!!!!!!2!!!!!!!!!! [] !DP OOFDUP S -!TUS /!GG2963U!.11517
 !!4!!!!61132.CS!!!!!!!!!!!!!!!!!!!!!!2!!!!!!!!!! [] !I P TF!B!TTFN CMZ!.!3185.15.15P T.15P T!)E M!qps!tp!sf!bs!gbn f!cvrhi fbe*
 !!5!!!!29693.CS!!!!!!!!!!!!!!!!!!!!!!2a!!!!!!!!!!!!!! [] !DP OOFDUP S -!CVML I FBE!!5
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 !!7!!!!2: 581.CS!!!!!!!!!!!!!!!!!!!!!!3!!!!!!!!!! [] !DP OOFDUP S -!TUS !!5.25n
 !!8!!!!S FG!!!!!!!!!!!!!!!!!!!!!!2!!!!!!!!!! [] !S FBS !B YMF !B TTFN CMZ /!!BY.2.3

[] !!!!!Tff!sf!gf!odfe!qbnf!qps!dpn!qpo!oups!bt!f!n!cm!cs!f!bl!epx o/



Parts T2815 08/12/2003
18.75

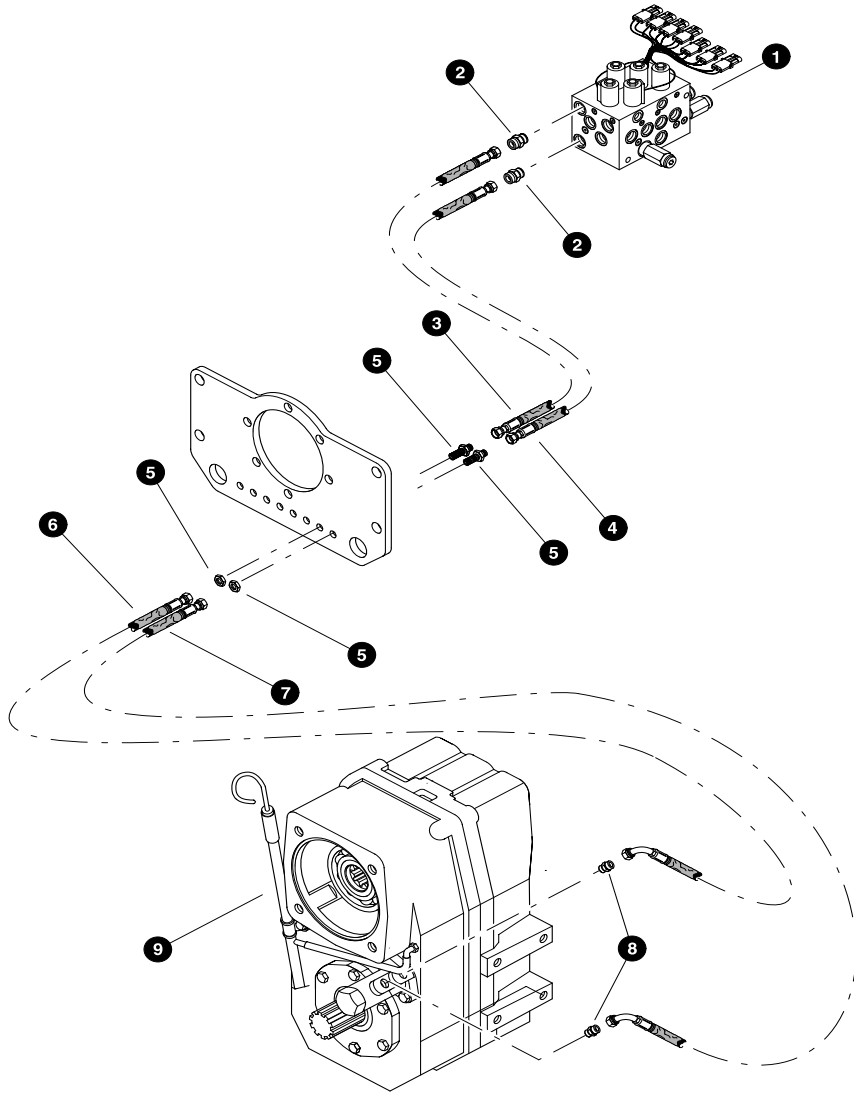
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)N bdi jof t!cvjnt!bgfs!230I20I4*
)Tuboe bse!Gspot!boe!Sfbs!Gbn f!*

SFG!!QBSUS!!!!!!!!!!!!!!!!!!!!RUZ!!!!!!!!!!!!EFTDSJQUPO!!TFF!QBHF

!!2!!!!SFG!!!!!!!!!!!!!!!!!!!!	!!2!!!!	!!MP X FS !N POP .CMP DL /!!	!!!!!!CS.5.21
!!3!!!!26235.CS!!!!!!!!!!!!!!!!!!!!	!!2!!!!	!!DP OOFDUPS -!TUS /!GG2963U!.!!1517	
!!4!!!!28757.CS!!!!!!!!!!!!!!!!!!!!	!!2!!!!	!!FMCP X -!56!W61MP T!1517	
!!5!!!!615.8.CS!!!!!!!!!!!!!!!!!!!!	!!2!!!!	!!P TF!B TTFN CMZ!.!3194.15.15P T.15P T!)N T2!qps!up!sfbs!gbn f!cvrhi fbe*	
!!6!!!!61711.CS!!!!!!!!!!!!!!!!!!!!	!!2!!!!	!!P TF!B TTFN CMZ!.!3189.15.15P T.15P T!)N T!qps!up!sfbs!gbn f!cvrhi fbe*	
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!!8!!!!61714.CS!!!!!!!!!!!!!!!!!!!!	!!2!!!!	!!P TF!B TTFN CMZ!.!31: 4.15.15P T.15P T!)N T2!qps!up!sfbs!n pups*	
!!9!!!!616: .CS!!!!!!!!!!!!!!!!!!!!	!!2!!!!	!!P TF!B TTFN CMZ!.!3162.15.15P T.15P T!)N T!qps!up!spotn pups*	
!!:!!!!26244.CS!!!!!!!!!!!!!!!!!!!!	!!3!!!!	!!FMCP X -: !!.!GG2979U!1517	
21!!!!SFG!!!!!!!!!!!!!!!!!!!!	!!2!!!!	!!X I FFMESJWF!N P UPS /!!	!!!!!!CS.5.3
22!!!!SFG!!!!!!!!!!!!!!!!!!!!	!!2!!!!	!!X I FFMESJWF!N P UPS /!!	!!!!!!CS.5.3

!!!!Tff!sf!g!odfe!qbhf!qps!dpn!qpof!outps!bt!fn!cm!lcs!bl!epx!o/



MP X FS !N P OP . CMP DL !I ZES BVMDT

)HfbsCpy!Ti jgtDjdsvjlt*

)OBG3.Tqffe!HfbsCpy*

)N bdi jof t!cvjntbgrf s!230!20!4*

)Tuboese!Gspoutboe!Sfbs!Gbn f*

S FG!! QBS US!!!!!!!!!!!!!!!!!!!! R UZ !!!!!!!!! E FTDS JQUP O !!! TFF!QB HF

!!2!!!!S FG!!!!!!!!!!!!!!!!!!!!!!2!!!!!!!!!!!!!!MP X FS !N P OP . CMP DL /!!CS.5.21

!!3!!!!26235.GS!!!!!!!!!!!!!!!!!!!!!!3!!!!!!!!!!!!!!DP OOFDUP S -!TUS /!GG2963U!.11517

!!4!!!!61138.GS!!!!!!!!!!!!!!!!!!!!!!2!!!!!!!!!!!!!!I P TF!B TTFN CMZ!.!3198.15.15P T!)HB!qpsutp!sfbs!gsbn f!cvrhi fbe*

!!5!!!!615.9.GS!!!!!!!!!!!!!!!!!!!!!!2!!!!!!!!!!!!!!I P TF!B TTFN CMZ!.!3197.15.15P T!)HC!qpsutp!sfbs!gsbn f!cvrhi fbe*

!!6!!!!29693.GS!!!!!!!!!!!!!!!!!!!!!!3!!!!!!!!!!!!!!DP OOFDUP S -!CVML I FBE!15

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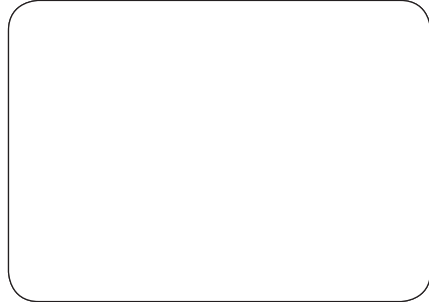
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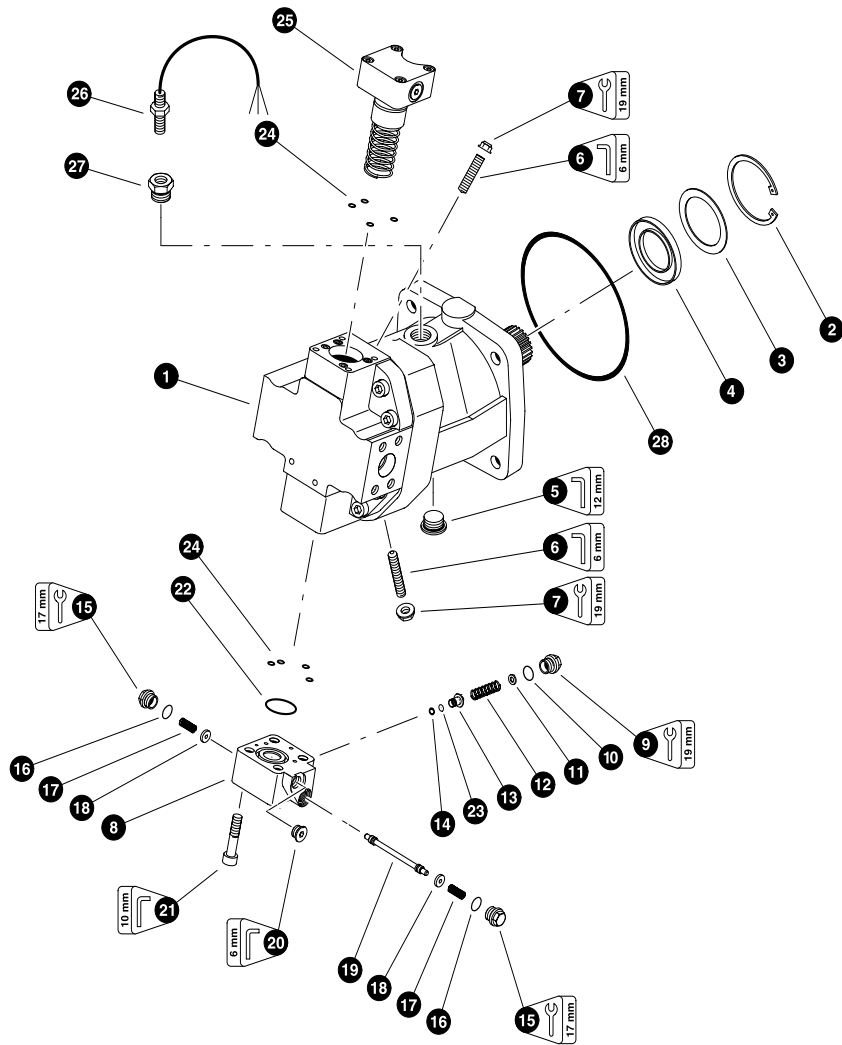
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Section FR-4



TF 820 Rear Frame - Hydraulic Components Breakdown



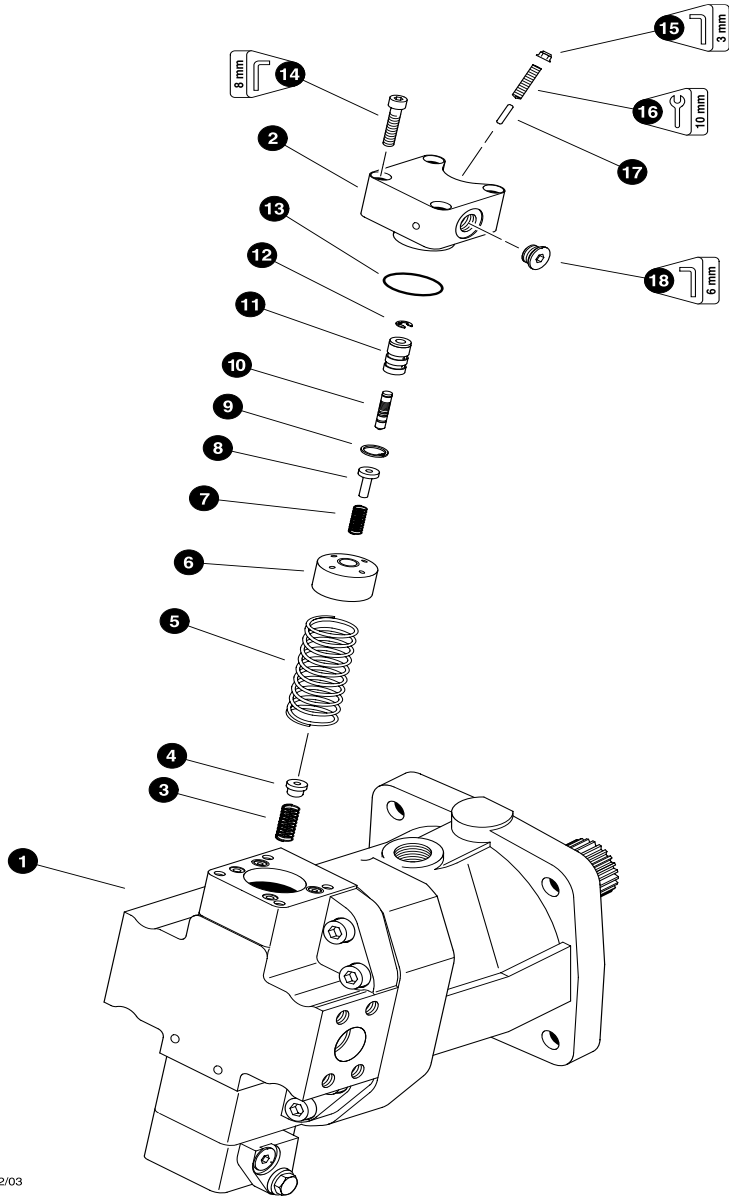
REXROTH 160cc MOTOR

REF	PART #	QTY		DESCRIPTION	SEE SECTION
1	19900-FR	1	☐	MOTOR, wheel drive - Rexroth AA6VM160 (Front) (Vg Min = 0 cubic meters)	
	19901-FR	1	☐	MOTOR, wheel drive - Rexroth AA6VM160 (Rear) (Vg Min = 70 cubic meters)	
	50513-FR	1	☐	MOTOR, wheel drive - Rexroth AA6VM160 (Rear) (w/speed counter) (Vg Min = 70 cubic meters)	
2	20685-FR	1		RING, snap	
3	20686-FR	1		SHIM, shaft seal	
4	20687-FR	1	⌘	SEAL, shaft	
5	19692-FR	1		PLUG - 26mm-1.5P (BSPP thread)	
6	20688-FR	2		SCREW, adjusting (Displacement min & max)	
7	20689-FR	2	⌘	NUT, seal	
8	20690-FR	1	☐	STROKING PISTON COVER ASSEMBLY	
9	20691-FR	1		PLUG	
10	20713-FR	1	⌘	O-RING	
11	20714-FR	1		SHIM	
12	20715-FR	1		SPRING	
13	20716-FR	1		POPPET	
14	20718-FR	1		RING, snap	
15	20719-FR	2		PLUG	
16	20720-FR	2	⌘	O-RING	
17	20721-FR	2		SPRING	
18	20722-FR	2		RETAINER, spring	
19	NSS	1		SPOOL	
20	20693-FR	1		PLUG - 14mm-1.5P (BSPP thread)	
21	20723-FR	4		BOLT, allen head	
22	20724-FR	1	⌘	O-RING	
23	20717-FR	1		ORIFICE, flushing - 1.2mm	
24	NSS	8		O-RING	
25	REF.	1		STROKING PISTON CONTROL ASSEMBLY.....	CR-4-4
26	24656-FR	1		SENSOR, SPEED PICKUP (rexroth hydro motor)	
27	51098-FR	1		FITTING, speed pickup rexroth (sae)	
28	20967-FR	1		O-RING, WHEEL DRIVE MOTOR (gearbox pilot)	
-	20725-CR	1		KIT, seal repair - complete AA6VM160 motor	

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

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.



Parts T2811 08/12/03
37.50

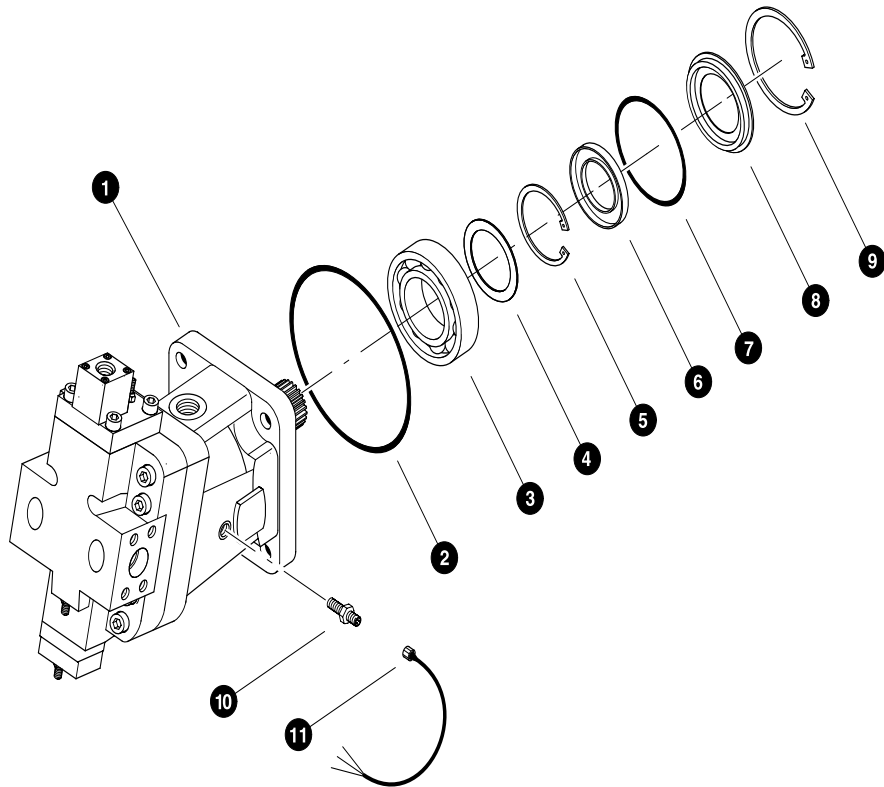
REXROTH 160cc MOTOR (HA2T CONTROLLER)

REF	PART #	QTY		DESCRIPTION	SEE SECTION
1	19900-FR	1	☐	MOTOR, wheel drive - Rexroth AA6VM160 (Front) (Vg Min = 0 cubic meters)	
	19901-FR	1	☐	MOTOR, wheel drive - Rexroth AA6VM160 (Rear) (Vg Min = 70 cubic meters)	
	50513-FR	1	☐	MOTOR, wheel drive - Rexroth AA6VM160 (Rear) (w/speed counter) (Vg Min = 70 cubic meters)	
2	20726-FR	1	☐	CONTROL, MOTOR STROKE ASSEMBLY (HA2T)	
3	---	1		SPRING, (HU00444549)	
4	---	1		RETAINER, spring (HU00421860)	
5	---	1		SPRING (HU00651116)	
6	---	1		BUSHING, spring (HU00651118)	
7	20729-FR	1		SPRING	
8	---	1		RETAINER, spring (HU00921351)	
9	20731-FR	1		RING, snap	
10	---	1		SPOOL, control (HU00430748)	
11	20732-FR	1		BUSHING, control spool	
12	20734-FR	1		E-CLIP, control spo	
13	---	1	⊗	O-RING (68103-025)	
14	---	4		BOLT, allen head (60118-063)	
15	20737-FR	1	⊗	NUT, seal	
16	20738-FR	1		SCREW, adjusting (Stroke control)	
17	---	1		PIN, stroke adjustment (69116-019)	
18	20693-FR	1		PLUG - 14mm-1.5P (BSPP thread)	
-	20725-FR	1		KIT, seal repair - complete AA6VM160 motor	

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

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.



Parts T2821 08/14/03
25.00

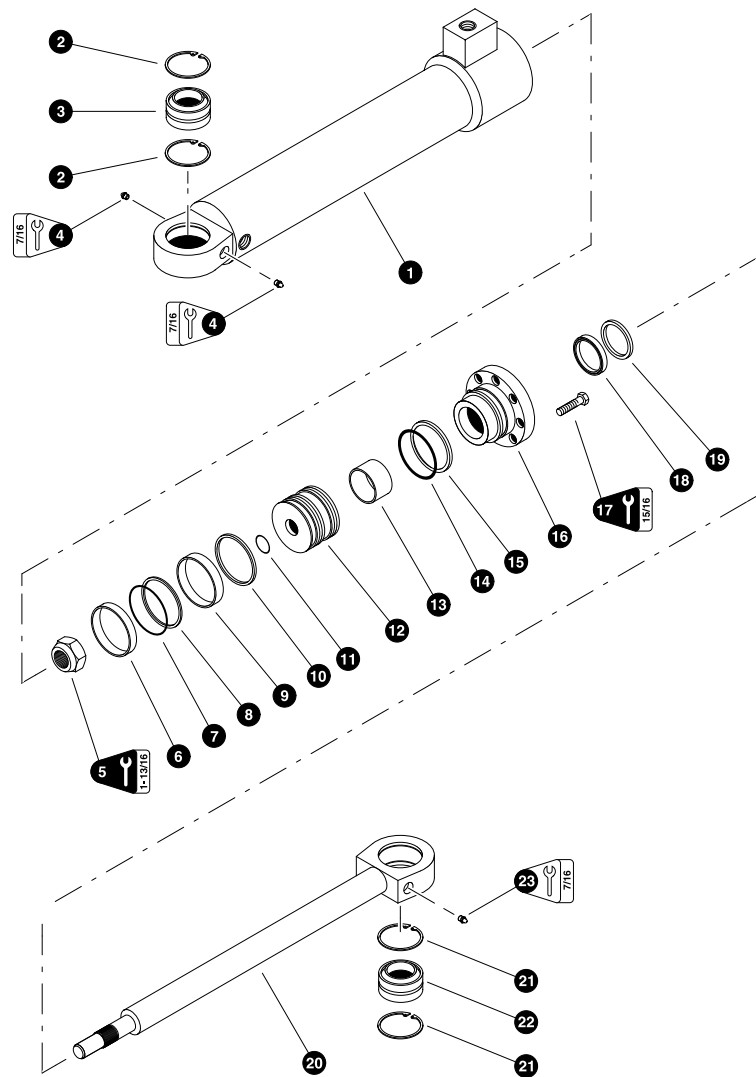
VOAC V12 - 160cc MOTOR

REF	PART #	QTY		DESCRIPTION	SEE SECTION
1	50480-FR	1	☐	MOTOR, wheel drive - Voac V12-160 (Front) (Vg Min = 0 cubic meters)	
	50481-FR	1	☐	MOTOR, wheel drive - Voac V12-160 (Rear) (Vg Min = 70 cubic meters)	
2	20967-FR	1		O-RING, WHEEL DRIVE MOTOR (gearbox pilot)	
3	---	1		BEARING, (184762)	
4	---	1		SPACER, 0.5 (946297) 0.6 (977618) 0.8 (977619)	
5	---	1		RING, RETAINING (914476)	
6	51099-FR	1	⌘	SEAL, SHAFT (3793420)	
7	---	1	⌘	O-RING, (3796541)	
8	---	1		CARRIER, SHAFT SEAL (3791954)	
9	---	1		RING, RETAINING (914552)	
10	25280-FR	1		SENSOR, SPEED (VOAC)	
11	25282-FR	1		CABLE, STRAIGHT (voac speed sensor)	
11	25281-FR	1		CABLE, 90 (voac speed sensor)	
-	51100-FR	1	⌘	KIT, SEAL REPAIR (3796388)	

- ☐ Kit or Assembly - includes all items indented underneath.
- ⌘ Included in seal repair kit # 51100-FR

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.



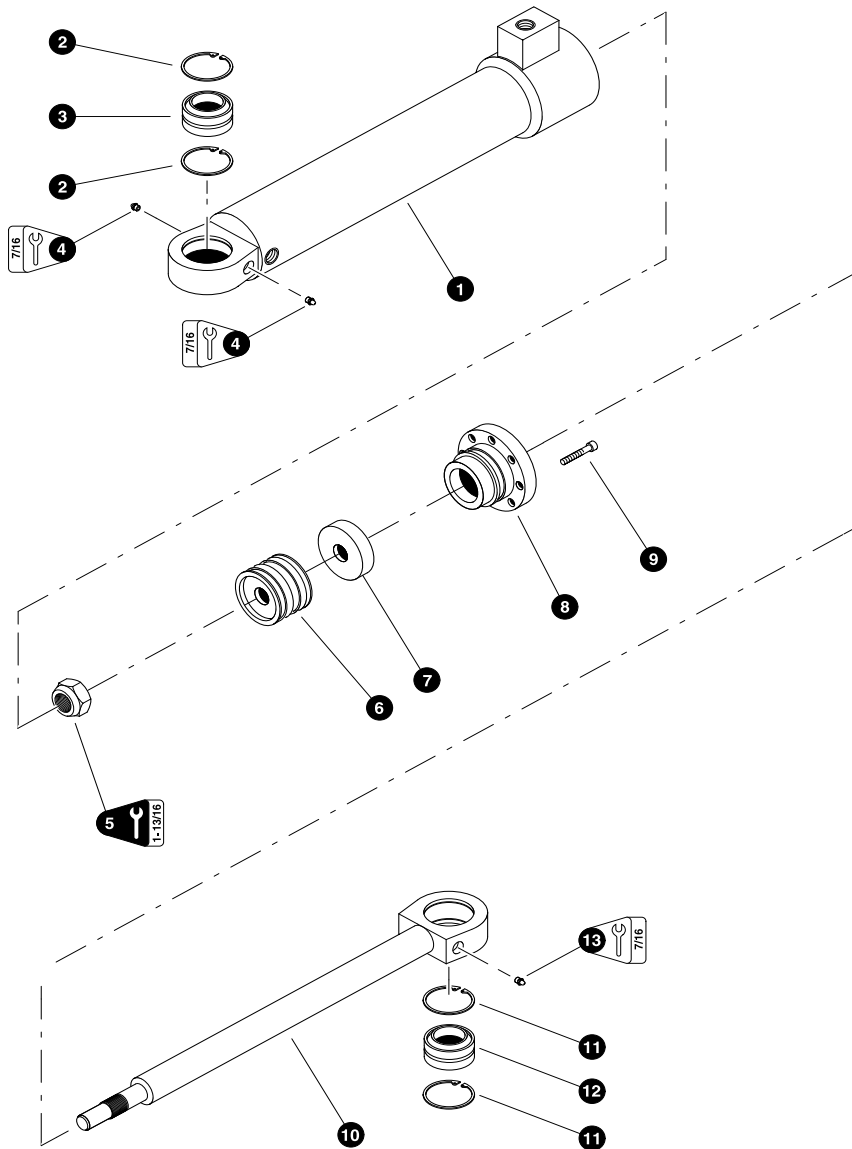
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STEER CYLINDER

(used on machines built before 08/20/02)

REF	PART #	QTY		DESCRIPTION	SEE SECTION
-	19746-FR	2	<input type="checkbox"/>	STEER CYLINDER ASSEMBLY	
1	19238-FR	1	<input type="checkbox"/>	BARREL ASSEMBLY	
2	19916-FR	2		RING, snap	
3	19917-FR	1		BUSHING, spherical - 2"	
4	10704-FR	1		FITTING, straight grease - 1/8" pipe thread	
5	19232-FR	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-FR	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-FR	1		BEARING, rod	
17	15681-FR	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-FR	1	<input type="checkbox"/>	ROD ASSEMBLY	
21	19916-FR	2		RING, snap	
22	19917-FR	1		BUSHING, spherical - 2"	
23	10704-FR	1		FITTING, straight grease - 1/8" pipe thread	
-	19750-FR	1		KIT, seal repair - steer cylinder	

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

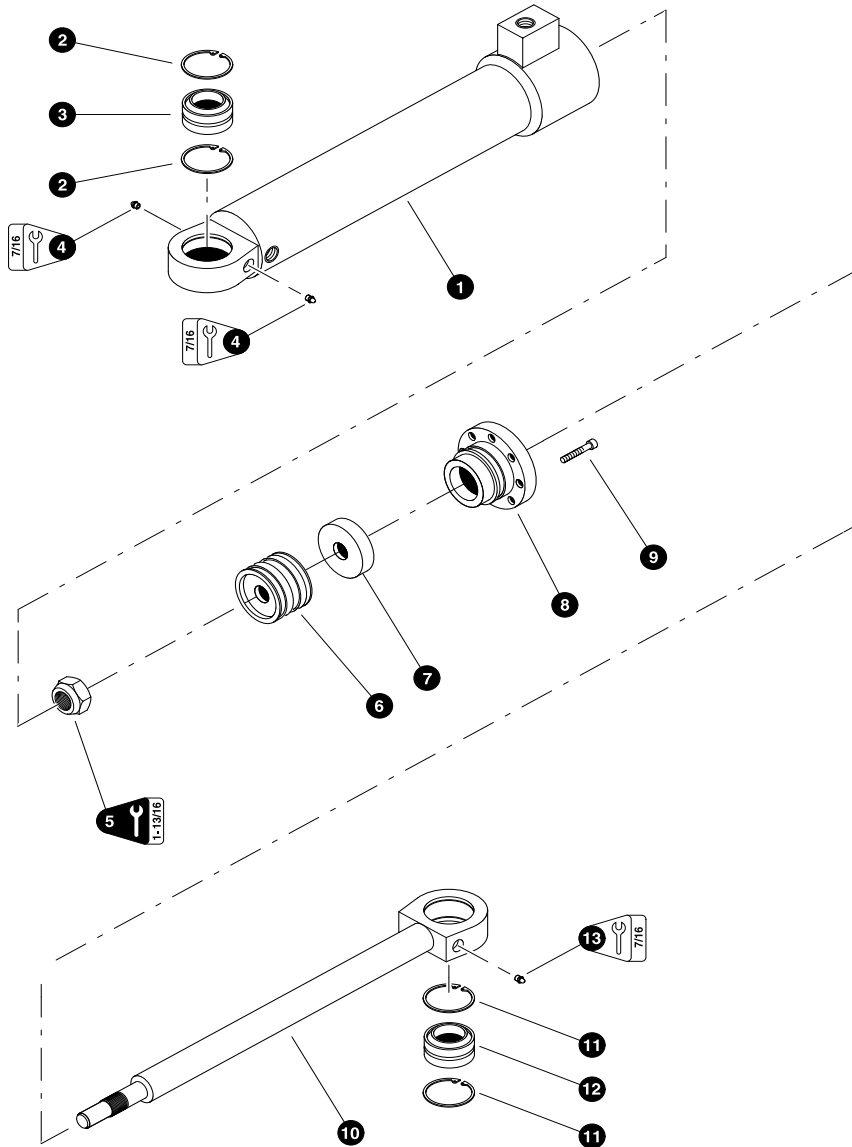


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**STEER CYLINDER
(Ram Rod)
(2" Rod)
(used on machines built after 08/20/02)**

REF	PART #	QTY	DESCRIPTION	SEE SECTION
-	50003-FR	2	<input type="checkbox"/> STEER CYLINDER ASSEMBLY	
1	50242-FR	1	<input type="checkbox"/> BARREL ASSEMBLY	
2	19916-FR	2	RING, snap	
3	19917-FR	1	BUSHING, spherical - 2"	
4	10704-FR	1	FITTING, straight grease - 1/8" pipe thread	
5	- - -	1	NUT, cylinder rod - 1-1/4" (<i>Torque to 770 ft-lbs.</i>) (712005)	
6	50244-FR	1	PISTON	
7	50245-FR	1	PISTON EXTENTION	
8	50246-FR	1	BEARING, rod	
9	- - -	14	BOLT - 3/8 X 1 3/4" (<i>Torque to 20 ft-lbs.</i>) (711073)	
10	50243-FR	1	<input type="checkbox"/> ROD ASSEMBLY	
11	19916-FR	2	RING, snap	
12	19917-FR	1	BUSHING, spherical - 2"	
13	10704-FR	1	FITTING, straight grease - 1/8" pipe thread	
-	50247-FR	1	<input type="checkbox"/> KIT, seal repair - steer cylinder	

Kit or Assembly - includes all items indented underneath.



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**STEER CYLINDER
(Ram Rod)
(2 1/4 " Rod)
(used on machines built after 02/01/04)**

REF	PART #	QTY	DESCRIPTION	SEE SECTION
-	51348-FR	2	<input type="checkbox"/> STEER CYLINDER ASSEMBLY	
1	50242-FR	1	<input type="checkbox"/> BARREL ASSEMBLY	
2	19916-FR	2	RING, snap	
3	19917-FR	1	BUSHING, spherical - 2"	
4	10704-FR	1	FITTING, straight grease - 1/8" pipe thread	
5	---	1	NUT, cylinder rod - (712038)	
6	-FR	1	PISTON (410619)	
7	-FR	1	PISTON EXTENTION	
8	-FR	1	BEARING, rod (510671)	
9	---	14	BOLT - 3/8 X 1 3/4" (Torque to 20 ft-lbs.) (711073)	
10	-FR	1	<input type="checkbox"/> ROD ASSEMBLY (300740)	
11	19916-FR	2	RING, snap	
12	19917-FR	1	BUSHING, spherical - 2"	
13	10704-FR	1	FITTING, straight grease - 1/8" pipe thread	
-	51407-FR	1	KIT, seal repair - steer cylinder	

Kit or Assembly - includes all items indented underneath.

