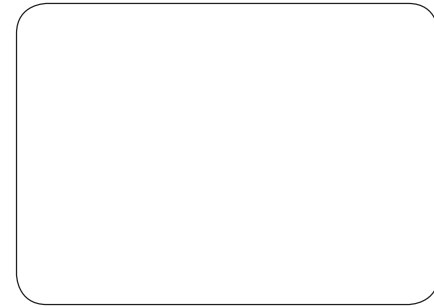
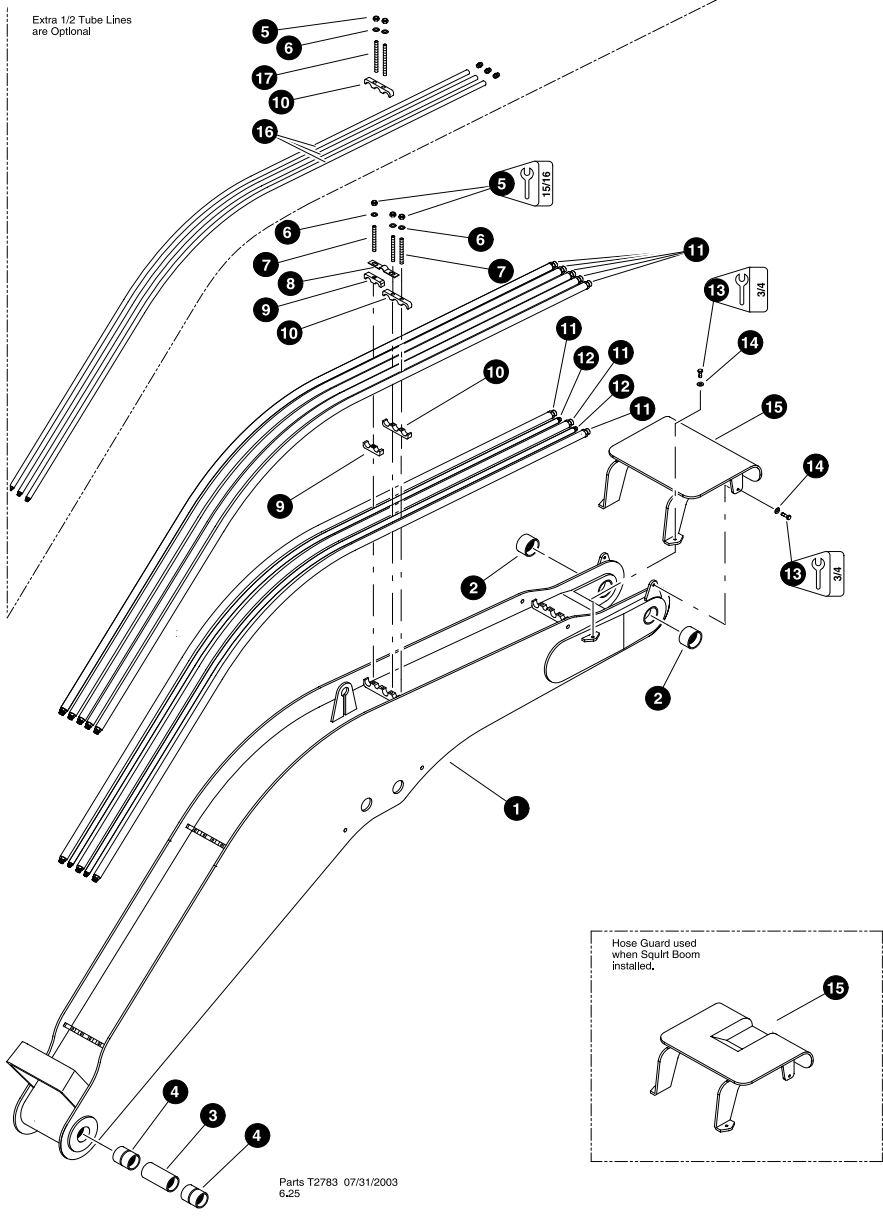


***Section HB-1***

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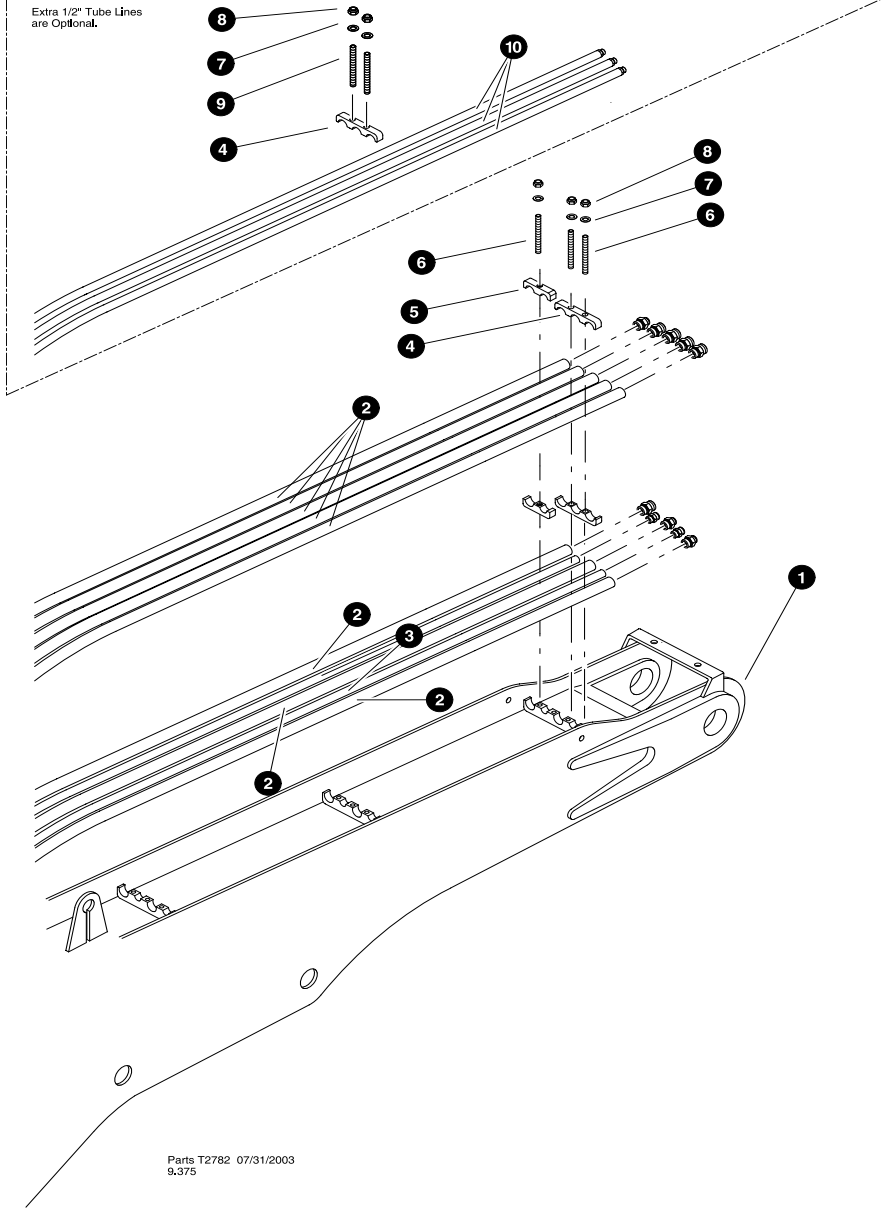
***Harvester Booms -  
Main Boom***



**MAIN BOOM COMPONENTS  
(Standard Boom)**

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	85140-HB	1	<input type="checkbox"/> WELDMENT, main boom - 3" pin	
2	18565-HB	2	BUSHING - 3-1/2" x 2-1/2"	
3	11706-HB	2	BUSHING - 3" x 4-1/4"	
4	12365-HB	1	SPACER, base - 3" x 7-1/2"	
5	15563-HB	15	NUT, nylock - 5/8"	
6	10771-HB	15	WASHER, SAE flat - 5/8"	
7	15672-HB	15	STUD - 5/8" x 6-1/4"	
8	12249-HB	5	CLAMP, case drain hose	
9	12447-HB	10	CLAMP, saddle top tube - 1" x 1"	
10	85086-HB	10	CLAMP, saddle top tube - 1" x 1" x 1"	
11	85096-HB	8	TUBELINE - 1" x 158" (Bent)	
	15225-HB	16	CONNECTOR, straight - FF1852T-1616S	
12	85294-HB	2	<input type="checkbox"/> TUBELINE - 3/4" x 159" (Bent)	
	15154-HB	4	CONNECTOR, straight - FF1852T-1212S	
13	10736-HB	4	BOLT - 1/2" x 2"	
14	10804-HB	4	WASHER, flat - 1/2"	
15	80496-HB	1	GUARD, hose - main boom elbow	
15	80524-HB	1	GUARD, hose - main boom (squirt) (Optional)	
16	85097-HB	3	<input type="checkbox"/> TUBELINE - 1/2 X 153 (Bent) (Optional)	
	15117-HB	6	CONNECTOR, straight - FF1852T -0808S	
17	17062-HB	10	STUD - 5/8" X 8" (Optional)	

Kit or Assembly - includes all items indented underneath.

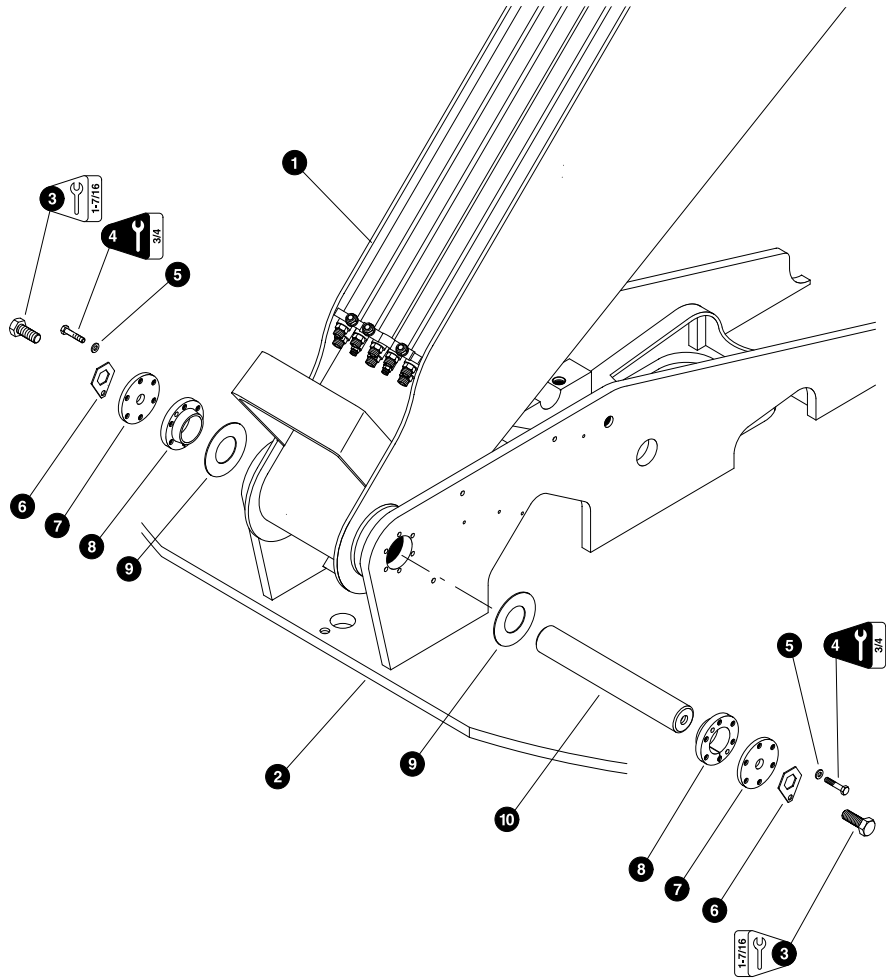


Parts T2782 07/31/2003  
9,375

### MAIN BOOM COMPONENTS (24" Longer Boom)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	85050-HB	1	<input type="checkbox"/> WELDMENT, main boom 24" Longer - 3" pin	
2	85096-HB	8	TUBELINE - 1" x 178" (Bent)	
	15225-HB	16	CONNECTOR, straight - FF1852T-1616S	
3	85294-HB	2	<input type="checkbox"/> TUBELINE - 3/4" x 178" (Bent)	
	15154-HB	4	CONNECTOR, straight - FF1852T-1212S	
4	85086-HB	10	CLAMP, saddle top tube - 1" x 1" x 1"	
5	12447-HB	10	CLAMP, saddle top tube - 1" x 1"	
6	15672-HB	15	STUD - 5/8" x 6-1/4"	
7	10771-HB	15	WASHER, SAE flat - 5/8"	
8	15563-HB	15	NUT, nylock - 5/8"	
9	17062-HB	10	STUD - 5/8" x 8" (Optional)	
10	80597-HB	3	<input type="checkbox"/> TUBELINE - 1/2 X 178 (Bent) (Optional)	
	15117-HB	6	CONNECTOR, straight - FF1852T -0808S	

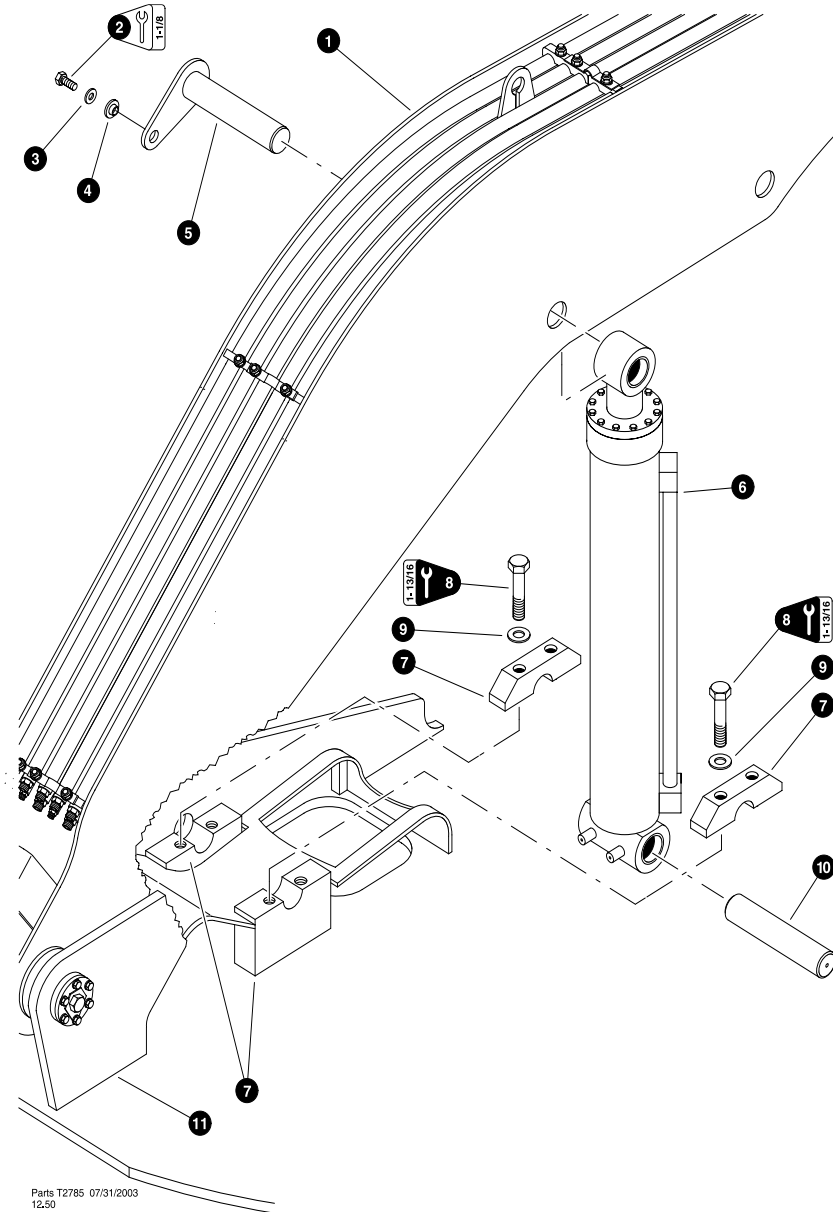
Kit or Assembly - includes all items indented underneath.



### MAIN BOOM INSTALLATION

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF.	1	MAIN BOOM ASSY. ....	HB-1-2
2	REF.	1	UPPER TURNTABLE ASSY. ....	UP-1-2
3	15552-HB	2	BOLT, 1" X 2 1/2"	
4	15565-HB	12	BOLT, 1/2" X 2 1/2" (100 ft.lbs. (135 Nm))	
5	15534-HB	12	WASHER, 1/2" SAE flat	
6	12116-HB	2	LOCK, tapered hub	
7	12115-HB	2	CAP, tapered hub	
8	12352-HB	2	HUB, tapered - 1 1/4"	
9	16636-HB	AR	SHIM, - 7 gauge	
	16637-HB	AR	SHIM, - 10 gauge	
	16638-HB	AR	SHIM, - 14 gauge	
10	18050-HB	1	PIN, chromed 3" - 20"	

Kit or Assembly - includes all items indented underneath.



Parts T2785 07/31/2003  
12.50

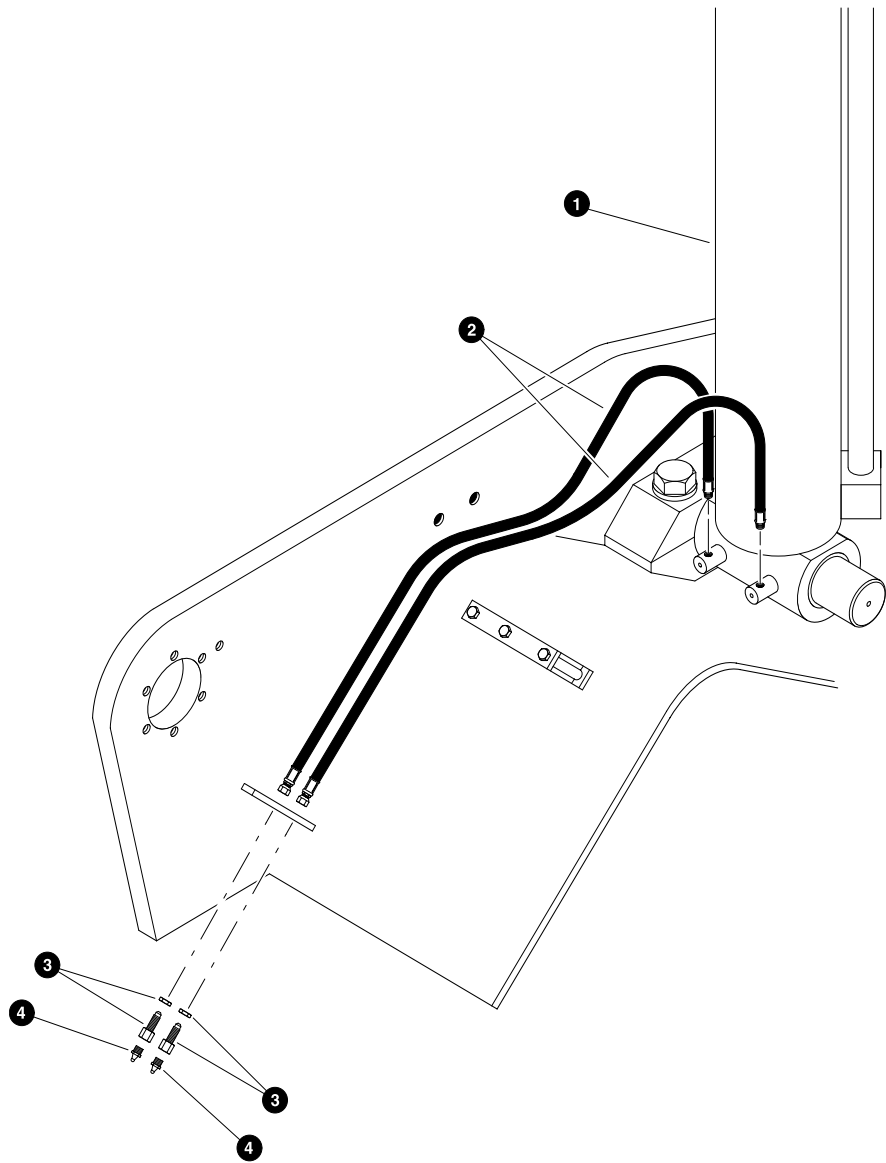
### MAIN BOOM (HOIST) CYLINDER INSTALLATION

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF	1	MAIN BOOM ASSEMBLY	
2	15449	1	BOLT - 3/4" X 2"	
3	15550	1	WASHER, SAE flat - 3/4"	
4	18570	1	WASHER, pin retaining	
5	21008	1	PIN ASSEMBLY - 3" X 14-14"	
6	REF	1	MAIN BOOM (HOIST) CYLINDER	
7	12351	2	WELDMENT, pin retainer block - 3" pin (See note below)	
	12066	1		BLOCK, bottom
8	15543	2	BOLT - 1-1/4" X 5-1/2"	
9	15544	2	WASHER, flat - 1-1/4"	
10	18053	1	PIN, chromed - 3" x 14-1/2"	
11	REF	1	UPPER TURNABLE WELDMENT	

□ Kit or Assembly - includes all items indented underneath.

**Note:**

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

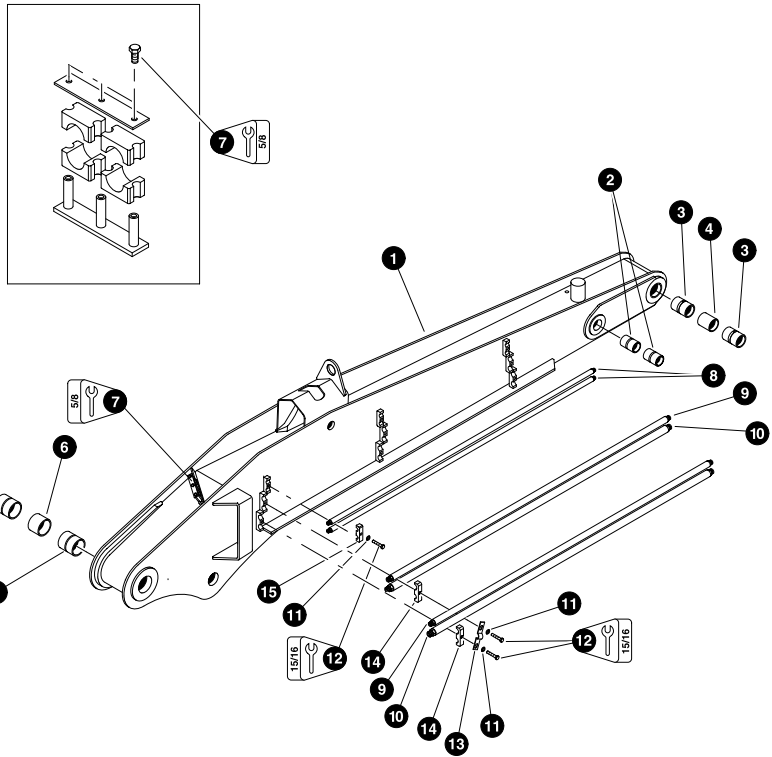


Parts T2784 07/31/2003  
25.00

### MAIN BOOM (HOIST) CYLINDER GREASE LINES

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





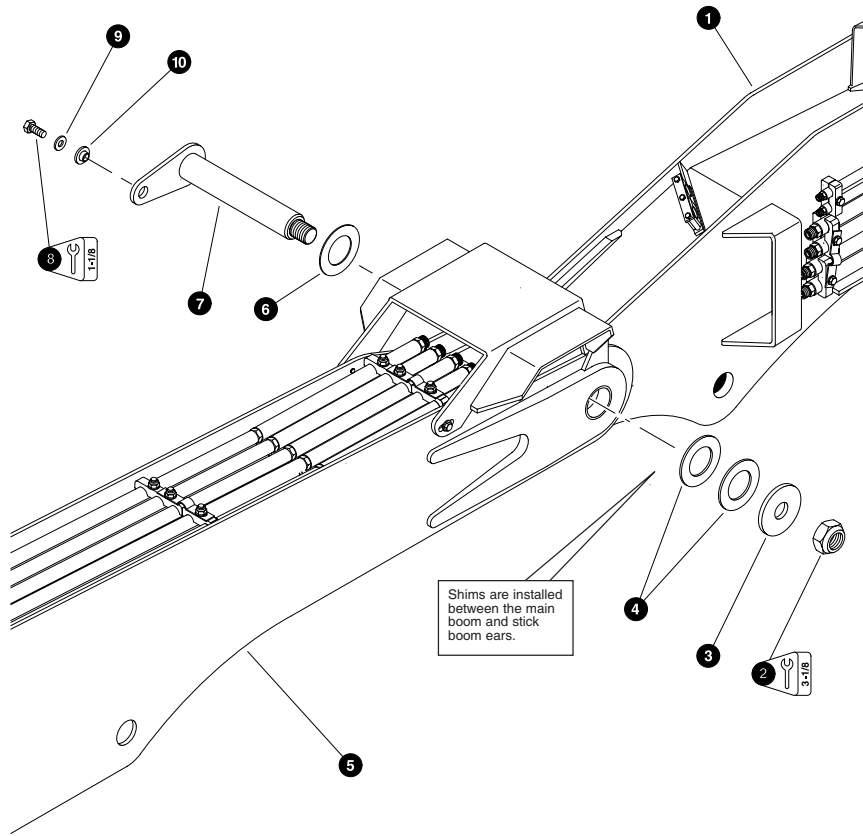
Parts 00590 11/29/2000  
6.25

### STICK BOOM COMPONENTS

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	85400-HB	1	WELDMENT, stick boom - 3-1/2" pin - 2-1/2" 4-bar pin	
2	11704-HB	2	BUSHING - 2-1/2" x 4-1/4"	
3	11704-HB	2	BUSHING - 2-1/2" x 4-1/4"	
4	12268-HB	1	SPACER, nose - 2-1/2" x 3-1/2"	
5	18565-HB	2	BUSHING - 3-1/2" x 2-1/2"	
6	15526-HB	3	BOLT - 5/8" x 2"	
7	12270-HB	1	CLAMP, vermatic - 1-1/2" x 1-1/2"	
8	16513-HB	1	<input type="checkbox"/> TUBELINE - 1/2" x 80" (Straight)	
	15117-HB	2	CONNECTOR, straight - FF1852T-0808S	
9	16507-HB	1	<input type="checkbox"/> TUBELINE - 3/4" x 84" (Straight)	
	15152-HB	2	CONNECTOR, straight - FF1852T-1212S	
10	16506-HB	1	<input type="checkbox"/> TUBELINE - 1" x 84" (Straight)	
	15225-HB	2	CONNECTOR, straight - FF1852T-1616S	
11	10771-HB	9	WASHER, SAE flat - 5/8"	
12	15517-HB	6	BOLT - 5/8" x 2-1/2"	
13	12249-HB	3	CLAMP, case drain hose	
14	15236-HB	6	CLAMP, saddle top tube - 3/4" x 1"	
15	15272-HB	3	CLAMP, saddle top tube - 1/2" x 1/2"	

Kit or Assembly - includes all items indented underneath.

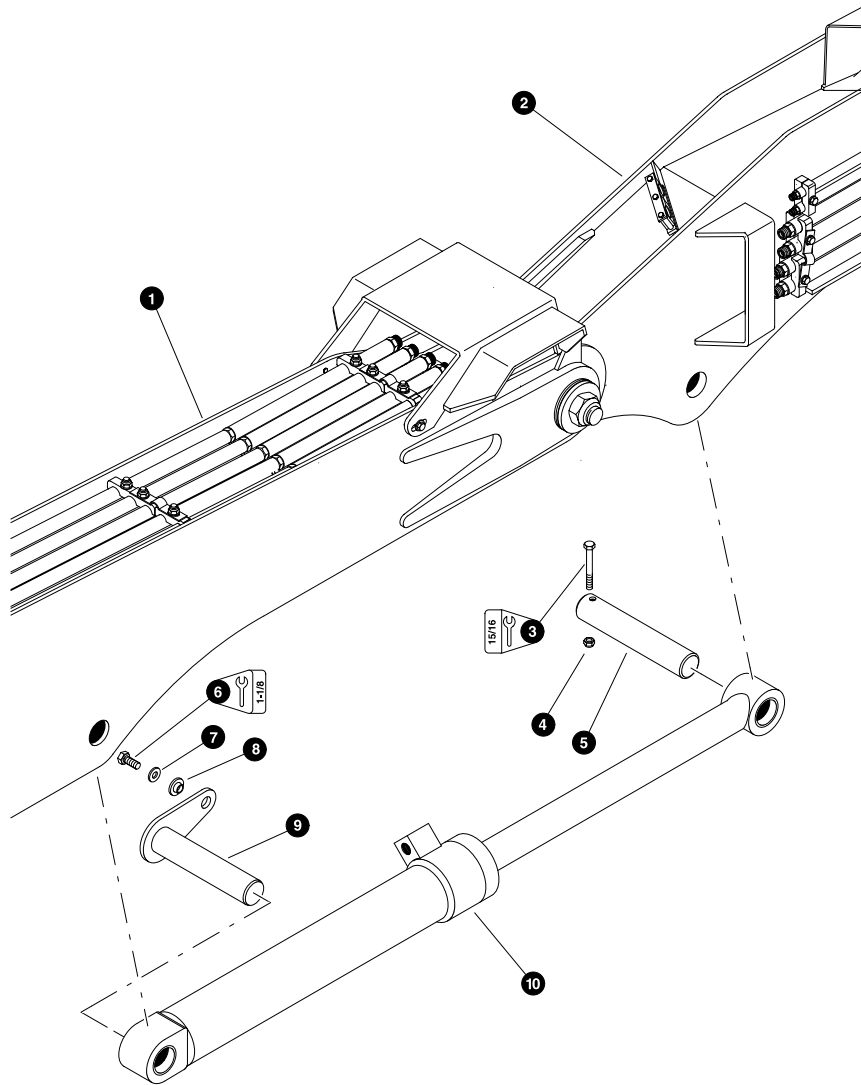




### STICK BOOM INSTALLATION

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF.	1	STICK BOOM ASSEMBLY .....	HB-2
2	10728-HB	1	NUT, nylock - 2"	
3	19384-HB	1	WASHER, burned	
4	19144-HB	AR	SHIM	
5	REF.	1	MAIN BOOM ASSEMBLY .....	HB-1
6	18678-HB	AR	SHIM - 7 gauge	
	18679-HB	AR	SHIM - 10 gauge	
	18680-HB	AR	SHIM - 14 gauge	
7	19385-HB	1	PIN, boom knuckle - 3-1/2"	
8	15549-HB	1	BOLT - 3/4" x 2"	
9	15550-HB	1	WASHER, SAE flat - 3/4"	
10	18570-HB	1	WASHER, pin retaining	

See referenced page for component or assembly breakdown.

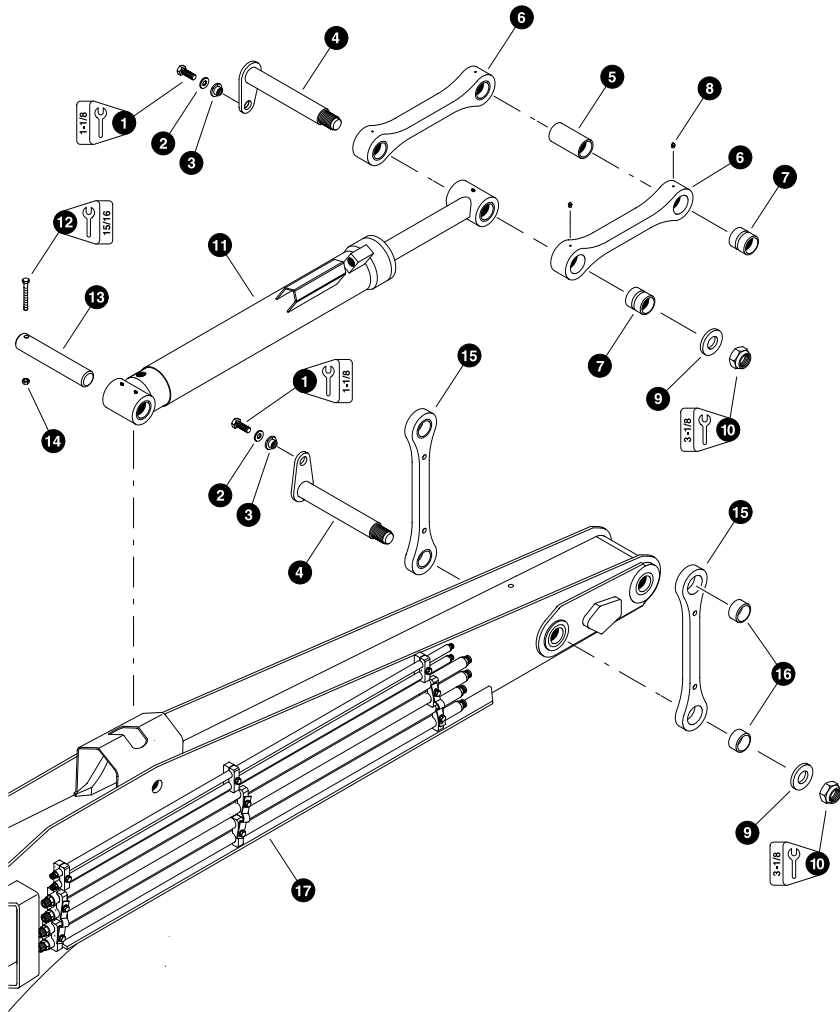


Parts 00587 07/07/98  
12.5

### STICK BOOM (JIB) CYLINDER INSTALLATION

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF.	1	MAIN BOOM ASSEMBLY	HB-1
2	REF.	1	STICK BOOM ASSEMBLY	HB-2
3	15587-HB	2	BOLT - 5/8" x 5-1/2"	
4	15563-HB	2	NUT, nylock - 5/8"	
5	18052-HB	1	PIN, chromed - 3" x 13-3/4"	
6	15549-HB	1	BOLT - 3/4" x 2"	
7	15550-HB	1	WASHER, SAE flat - 3/4"	
8	18570-HB	1	WASHER, pin retaining	
9	21008-HB	1	PIN ASSEMBLY - 3" x 14-1/4"	
10	REF.	1	STICK BOOM (JIB) CYLINDER	HB-5

☞ See referenced page for component or assembly breakdown.

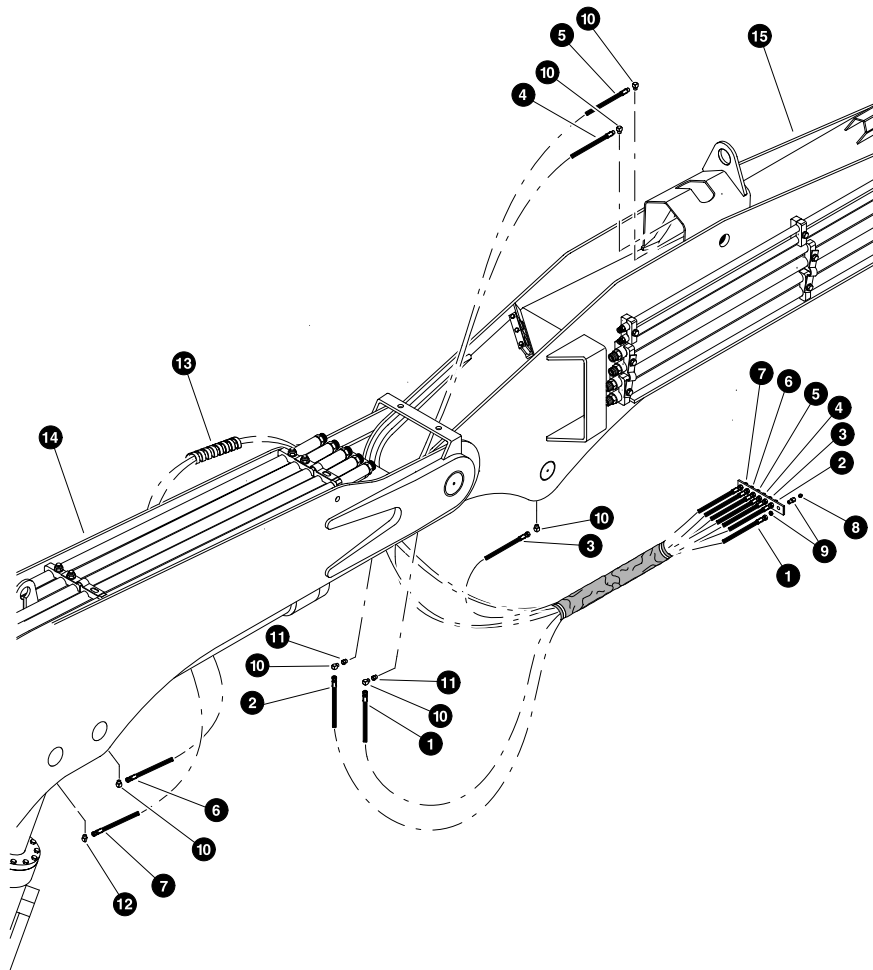


Parts 01284 11/29/2000  
9.375

### 4-BAR LINKAGE INSTALLATION

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	15549-HB	2	BOLT - 3/4" x 2"	
2	15550-HB	2	WASHER, SAE flat - 3/4"	
3	18570-HB	2	WASHER, pin retaining	
4	14246-HB	2	PIN, link mounting	
5	14243-HB	1	SPACER	
6	22451-HB	1	□ LINK, connecting - top	
7	14241-HB	2	BUSHING - 2-1/2" x 3"	
8	10704-HB	1	FITTING, straight grease - 1/8" pipe thread	
9	12021-HB	2	WASHER, burned	
10	10728-HB	2	NUT, nylock - 2"	
11	REF.	1	☞ TOOL TILT CYLINDER	HB-5
12	10719-HB	1	BOLT - 5/8" x 4"	
13	11714-HB	1	PIN - 2-1/2" x 13-3/4"	
14	15563-HB	1	NUT, nylock - 5/8"	
15	22450-HB	1	□ LINK, connecting - side	
16	14242-HB	2	BUSHING - 2-1/2" x 1-1/2"	
17	REF.	1	☞ STICK BOOM ASSEMBLY	HB-2

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

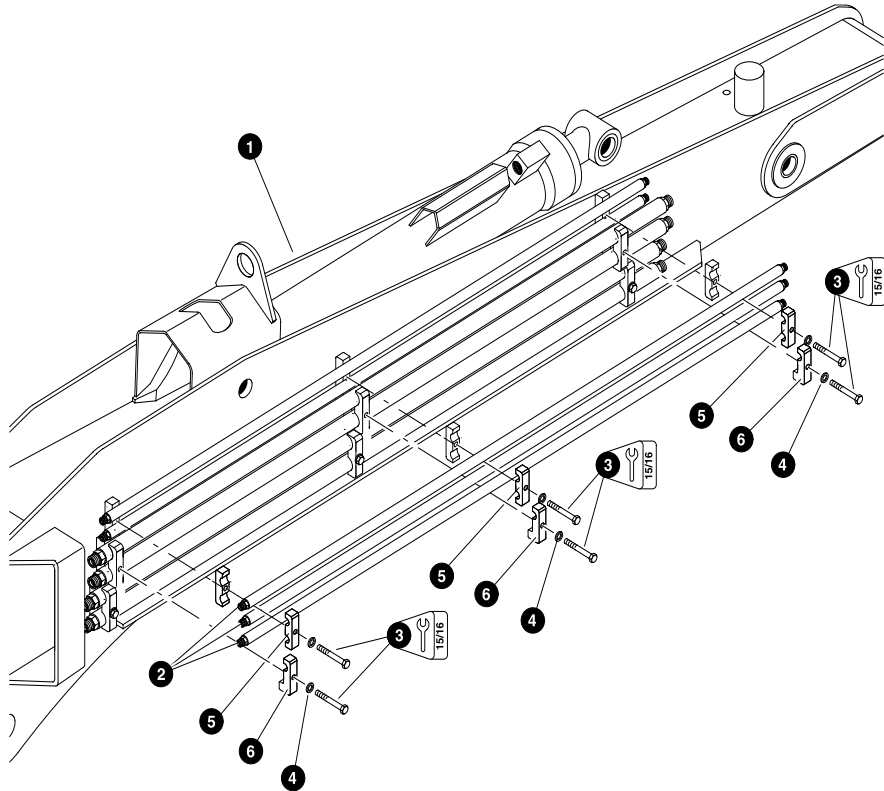


Parts 01114 11/29/2000  
9.375

### BOOM GREASE LINES

REF	PART #	QTY	DESCRIPTION	SEE SECTION
-	22043-HB	1	<input type="checkbox"/> KIT, hose - grease lines (Standard main boom)	
-	50483-HB	1	<input type="checkbox"/> KIT, hose - grease lines (Optional +24" main boom)	
1	NSS	1	BOOM PIVOT	
2	NSS	1	BOOM PIVOT	
3	NSS	1	STICK CYLINDER ROD	
4	NSS	1	TOOL CYLINDER BASE	
5	NSS	1	TOOL CYLINDER BASE	
6	NSS	1	STICK CYLINDER BASE	
7	NSS	1	MAIN CYLINDER ROD	
8	10704-HB	7	FITTING, straight grease - 1/8" pipe thread	
9	15658-HB	2	CONNECTOR, straight bulkhead - 2239-2-4S	
10	22281-HB	6	FITTING, 90° - 5546132	
11	16808-HB	1	BUSHING, reducer - 5406-8-2	
12	21671-HB	6	ELBOW, 45° - 5546134	
13	20843-HB	AR	<input type="checkbox"/> PROTECTOR, spiral hose wrap	
14	REF.	1	<input type="checkbox"/> MAIN BOOM ASSEMBLY	HB-1
15	REF.	1	<input type="checkbox"/> STICK BOOM ASSEMBLY	HB-2

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

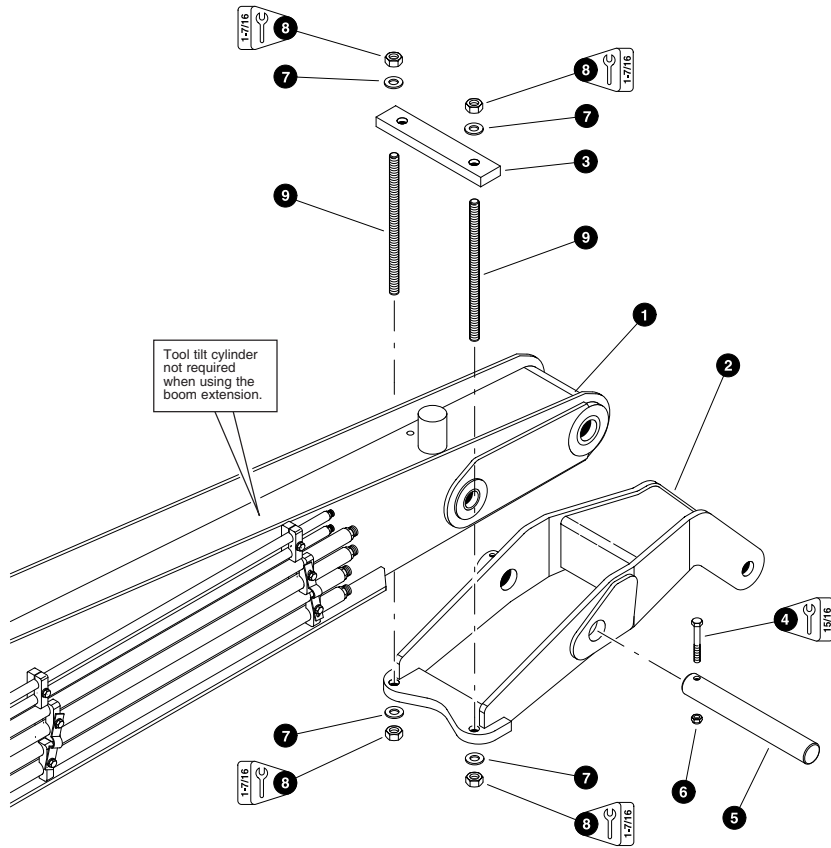


Parts T2786 08/01/2003  
12.5

**OPTIONAL EXTRA 1/2" TUBELINES INSTALLATION**

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF.	1	STICK BOOM ASSEMBLY .....	HB-2
2	16513-HB	3	TUBELINE - 1/2" x 80" (Straight)	
	15117-HB	6	CONNECTOR, straight - FF1852T-0808S	
3	10719-HB	6	BOLT - 5/8" x 4"	
4	10771-HB	3	WASHER, SAE flat - 5/8"	
5	15272-HB	3	CLAMP, saddle top tube - 1/2" & 1/2"	
6	23222-HB	3	CLAMP, saddle top tube - 1/2" (single)	

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

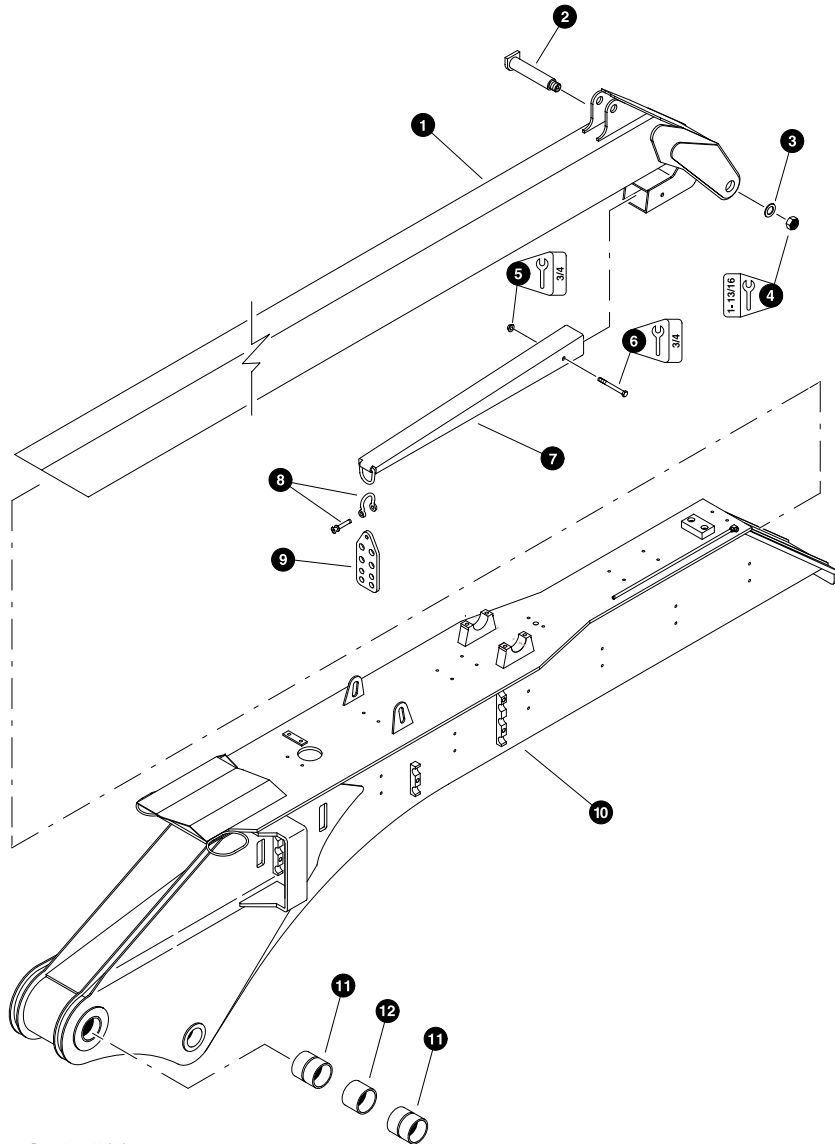


**OPTIONAL BOOM EXTENSION INSTALLATION**  
(Used with "Dangle" Processor Cutting Attachments)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF.	1	STICK BOOM ASSEMBLY .....	HB-2
2	17691-HB	1	WELDMENT, boom extension	
3	19024-HB	1	BAR, boom extension mounting	
4	10838-HB	1	BOLT - 5/8" x 5"	
5	10748-HB	1	PIN - 2-1/2" x 18-1/2"	
6	15563-HB	1	NUT, nylock - 5/8"	
7	15579-HB	4	WASHER, SAE flat - 1"	
8	18253-HB	4	NUT, lock - 1"	
9	19025-HB	2	ROD, threaded - 1" x 18" (Grade 8 ready rod)	

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





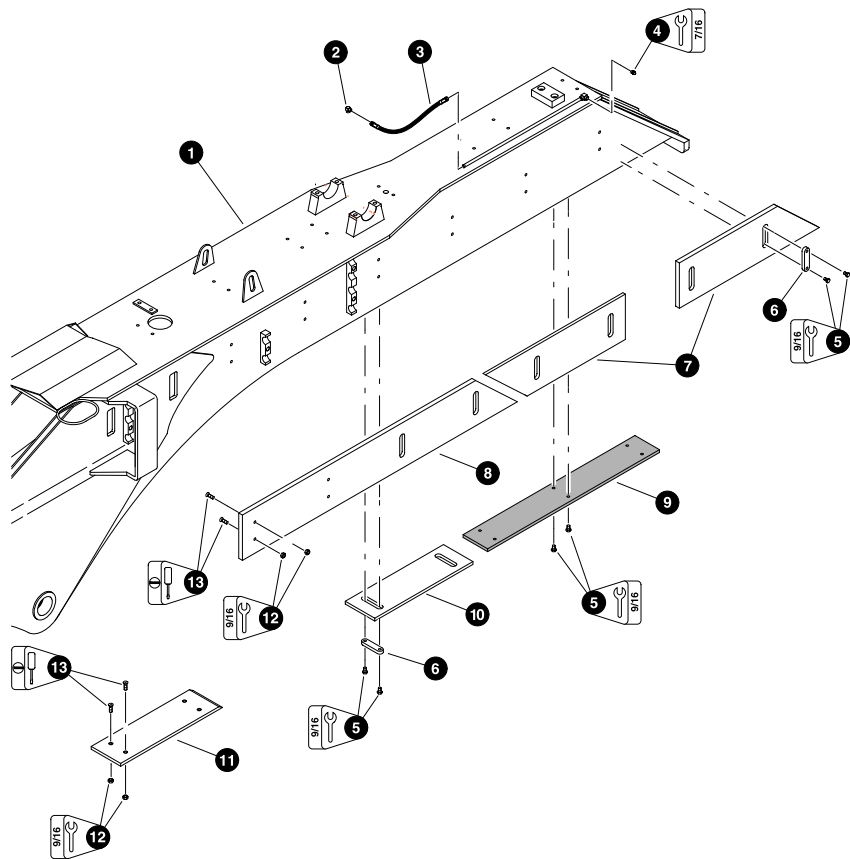
Parts 01789 11s/30/2000  
9.375

**TELESCOPIC (SQUIRT) BOOM WELDMENT ASSEMBLY**

REF	PART #	QTY	DESCRIPTION	SEE SECTION
-	22675	1	<input type="checkbox"/> TELESCOPIC STICK BOOM	
1	----	1	WELDMENT, slide boom	
2	21097-HB	1	PIN, nose	
3	15544-HB	1	WASHER, flat - 1-1/4"	
4	20995-HB	1	NUT, nylock - 1-1/4"	
5	10815-HB	1	NUT, lock 1/2"	
6	10836-HB	1	BOLT - 1/2" x 5-1/2"	
7	21063-HB	1	WELDMENT, slide boom stinger	
8	21064-HB	1	SHACKLE, screw pin anchor 1/2"	
9	21065-HB	1	PLATE, bulkhead stinger	
10	NSS	1	<input type="checkbox"/> WELDMENT, telescopic	
11	18565-HB	2	BUSHING - 3-1/2" x 2-1/2"	
12	85095-HB	1	SPACER, base - 3-1/2" x 3"	

Kit or Assembly - includes all items indented underneath.



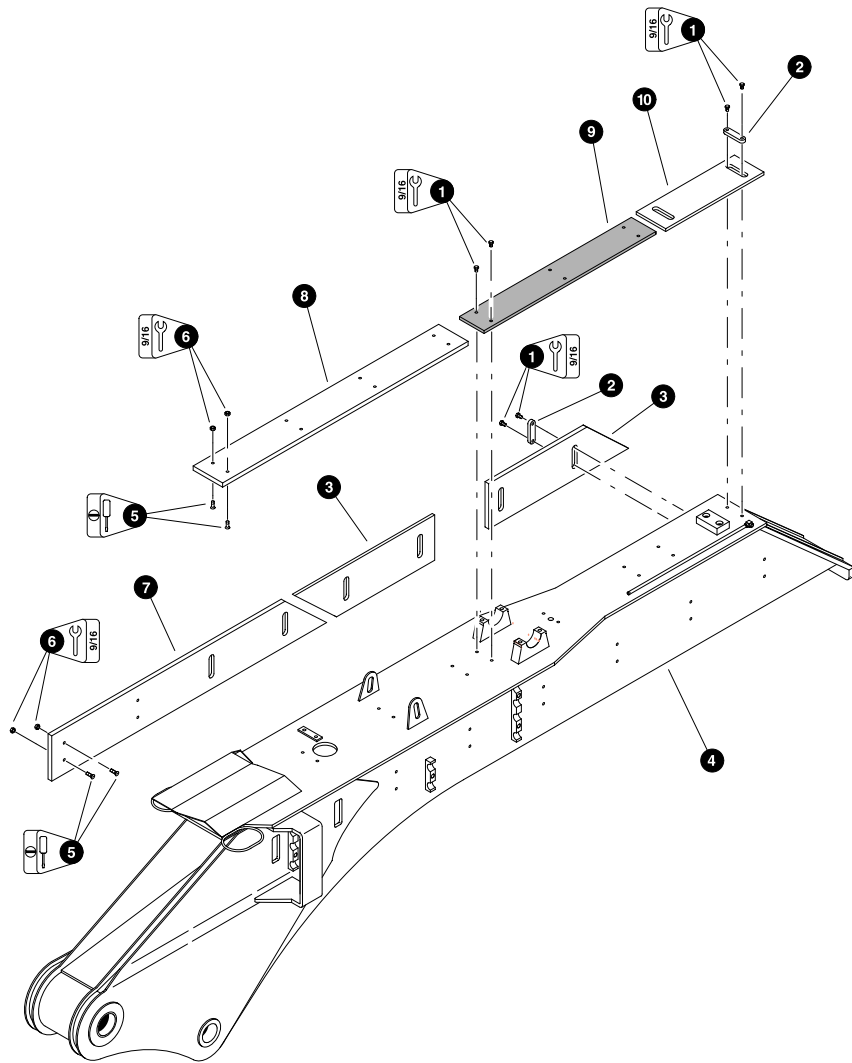


Parts 01790 11/30/2000  
9.375

### WEAR PLATE INSTALLATION (Right Side & Bottom Plates)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF.	1	WELDMENT, telescopic .....	HB-3
2	21066-HB	1	ELBOW, 90°	
3	21067-HB	1	HOSE ASSEMBLY, grease	
4	10704-HB	1	FITTING, grease	
5	21068-HB	22	BOLT, brass - 3/8" x 7/8"	
6	21069-HB	8	PUCK, tapped - ( <i>Wear strip</i> )	
7	21070-HB	2	PLATE, wear - 8" x 19" - 45°	
	21071-HB	AR	SHIM, wear plate 8" x 19" - 45°	
8	21072-HB	1	PLATE, wear - 8" x 47" - 45° RH	
9	21074-HB	1	PLATE, wear - brass tapped	
	21075-HB	AR	SHIM, brass wear plate	
10	21076-HB	1	PLATE, wear - 6" x 20"	
	21077-HB	AR	SHIM, wear plate - 6" x 20"	
11	21078-HB	1	PLATE, wear - 6" x 20"	
	21079-HB	AR	SHIM, wear plate - 6" x 20"	
12	10700-HB	8	NUT, hex - 3/8"	
13	21080-HB	8	SCREW, wear plate mounting	

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

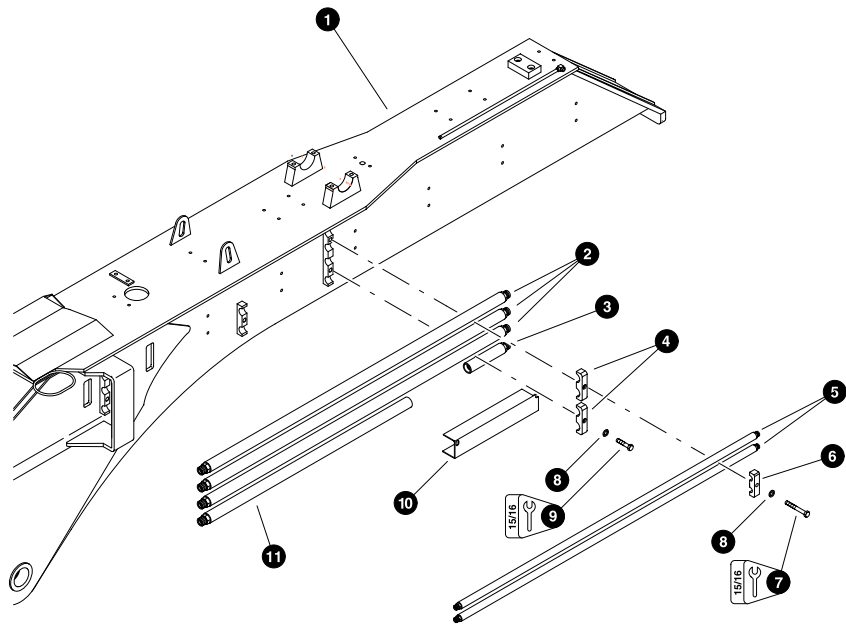


USA and Canada  
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**WEAR PLATE INSTALLATION**  
(Left Side & Top Plates)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	21068-HB	1	BOLT, brass - 3/8" x 7/8"	
2	21069-HB	8	PUCK, tapped - ( <i>Wear strip</i> )	
3	21070-HB	2	PLATE, wear - 8" x 19" - 45°	
	21071-HB	AR	SHIM, wear plate 8" x 19" - 45°	
4	REF.	1	WELDMENT, telescopic	HB-3
5	21080-HB	8	SCREW, wear plate mounting	
6	10700-HB	8	NUT, hex - 3/8"	
7	21073-HB	1	PLATE, wear - 8" x 47" - 45° LH	
	21071-HB	AR	SHIM, wear plate 8" x 19" - 45°	
8	21081-HB	1	PLATE, wear - 6" x 50" - CS	
9	21074-HB	1	PLATE, wear - brass tapped	
	21075-HB	AR	SHIM, brass wear plate	
10	21076-HB	1	PLATE, wear - 6" x 20"	
	21077-HB	AR	SHIM, wear plate - 6" x 20"	


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

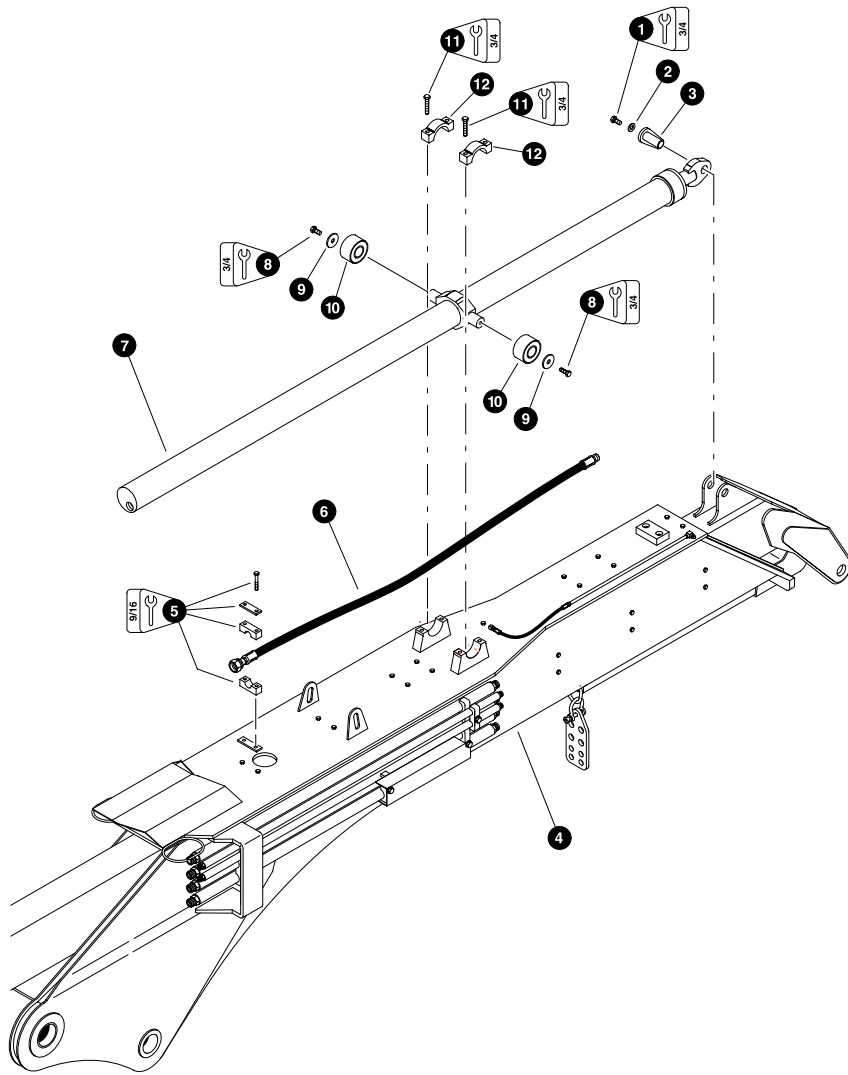


Parts 01792 12/01/2000  
9.375

### TUBELINE INSTALLATION

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF.	1	WELDMENT, telescopic	HB-3
2	22959-HB	3	TUBELINE - 1" x 60"	
3	21082-HB	1	TUBELINE, electrical stub - 1"	
4	12447-HB	5	CLAMP, tubeline - 1" x 1"	
5	22958-HB	2	TUBELINE - 1/2" x 60"	
6	15272-HB	2	CLAMP, tubeline - 1/2" x 1/2"	
7	10719-HB	2	BOLT - 5/8" x 4"	
8	10771-HB	5	WASHER, SAE flat - 5/8"	
9	15517-HB	3	BOLT - 5/8" 2-1/2"	
10	21087-HB	1	GUARD, tubeline (electrical)	
11	23500-HB	1	TUBELINE, electrical stub - 1"	

 See referenced page for component or assembly breakdown.

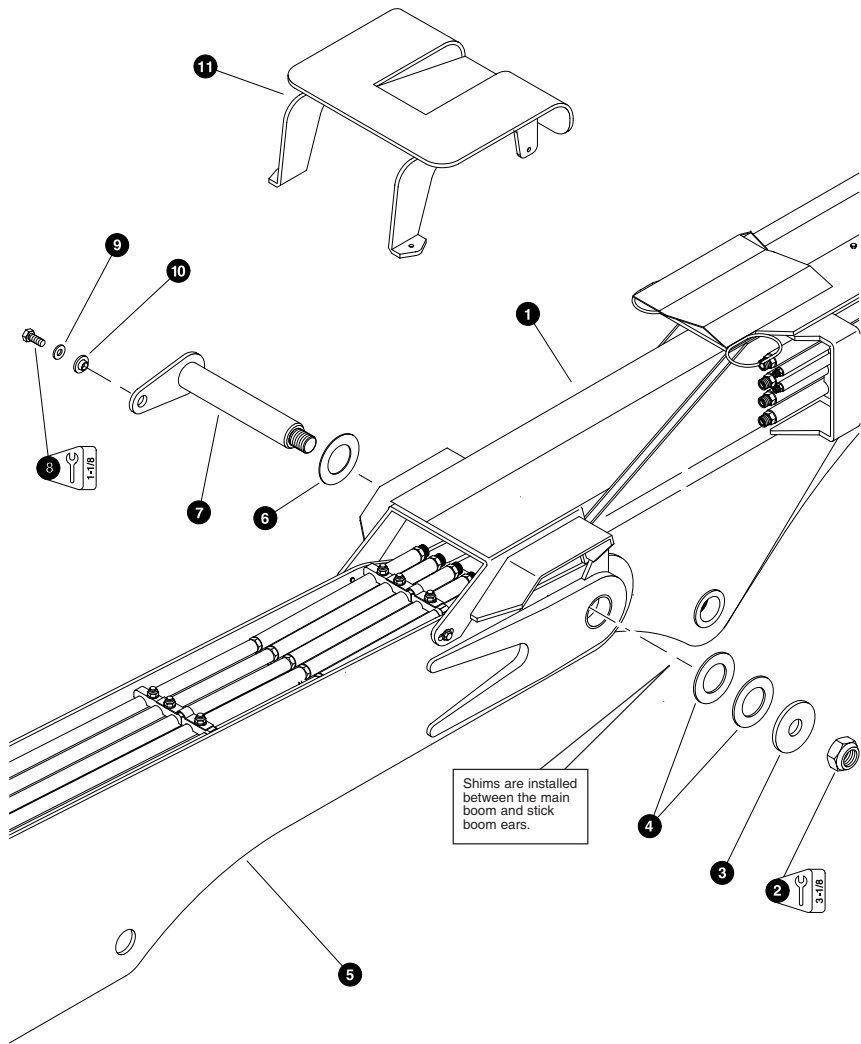


Parts 01793 12/01/2000  
9.375

### EXTENSION CYLINDER INSTALLATION

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	10783-HB	1	BOLT, - 1/2" x 1"	
2	15534-HB	1	WASHER, SAE flat - 1/2"	
3	21091-HB	1	PIN, extension cylinder	
4	REF.	1	TELESCOPIC BOOM WELDMENT	HB-3
5	----	1	CLAMP, vermatic	
6	23501	1	HOSE ASSEMBLY - 4081-12-160S-12PS (Vermatic clamp to extension cylinder rod end port)	
7	REF.	1	EXTENSION CYLINDER	HB-5
8	10739-HB	2	BOLT, - 1/2" x -1/2"	
9	21093-HB	2	WASHER, retaining	
10	21094-HB	2	BUSHING, trunion	
11	15565-HB	4	BOLT, - 1/2" x 2-1/2"	
12	21098-HB	2	BLOCK, trunion extension cylinder	

See referenced page for component or assembly breakdown.

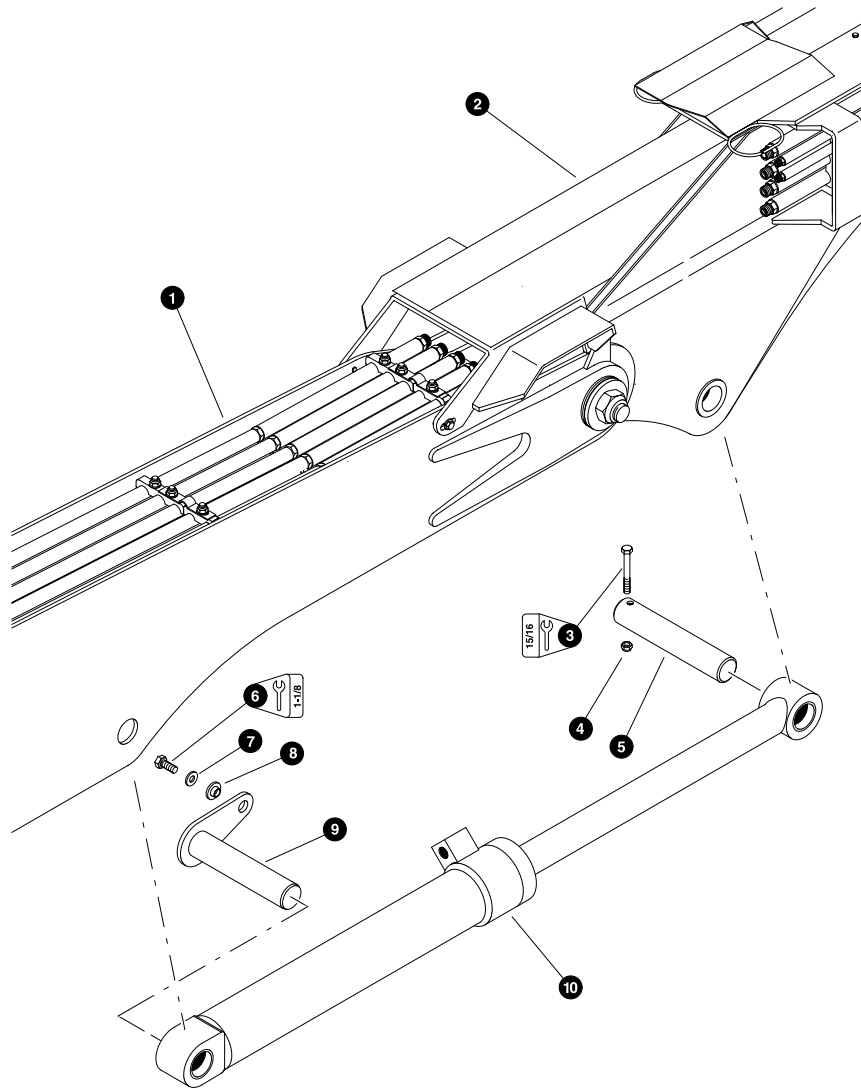


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### TELESCOPIC BOOM INSTALLATION

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF.	1	☞ STICK BOOM ASSEMBLY .....	HB-2
2	10728	1	NUT, nylock - 2"	
3	19384	1	WASHER, burned	
4	19144	AR	SHIM	
5	REF.	1	☞ MAIN BOOM ASSEMBLY .....	HB-1
6	18678	AR	SHIM - 7 gauge	
	18679	AR	SHIM - 10 gauge	
	18680	AR	SHIM - 14 gauge	
7	19385	1	PIN, boom knuckle - 3-1/2"	
8	15549	1	BOLT - 3/4" x 2"	
9	15550	1	WASHER, SAE flat - 3/4"	
10	18570	1	WASHER, pin retaining	
11	80524	1	GUARD, hose (Used only with telescopic boom)	

☞ See referenced page for component or assembly breakdown.

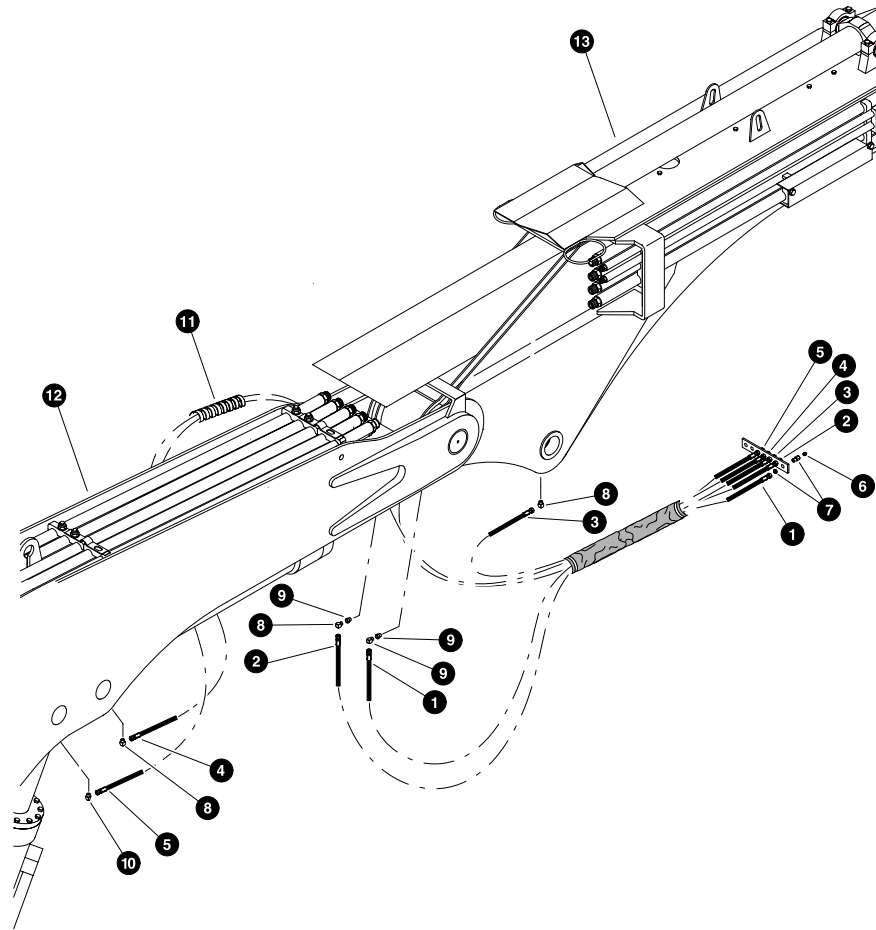


Parts 01795 12/01/2000  
12.50

### STICK BOOM (JIB) CYLINDER INSTALLATION

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF.	1	MAIN BOOM ASSEMBLY	HB-1
2	REF.	1	STICK BOOM ASSEMBLY	HB-2
3	15587	1	BOLT - 5/8" x 5-1/2"	
4	15563	1	NUT, nylock - 5/8"	
5	18052	1	PIN, chromed - 3" x 13-3/4"	
6	REF.	1	STICK BOOM (JIB) CYLINDER	HB-5
7	21008	1	PIN ASSEMBLY - 3" x 14-1/4"	
8	18570	1	WASHER, pin retaining	
9	15550	1	WASHER, SAE flat - 3/4"	
10	15549	1	BOLT - 3/4" x 2"	

See referenced page for component or assembly breakdown.



Parts 01853 12/01/2000  
9.375

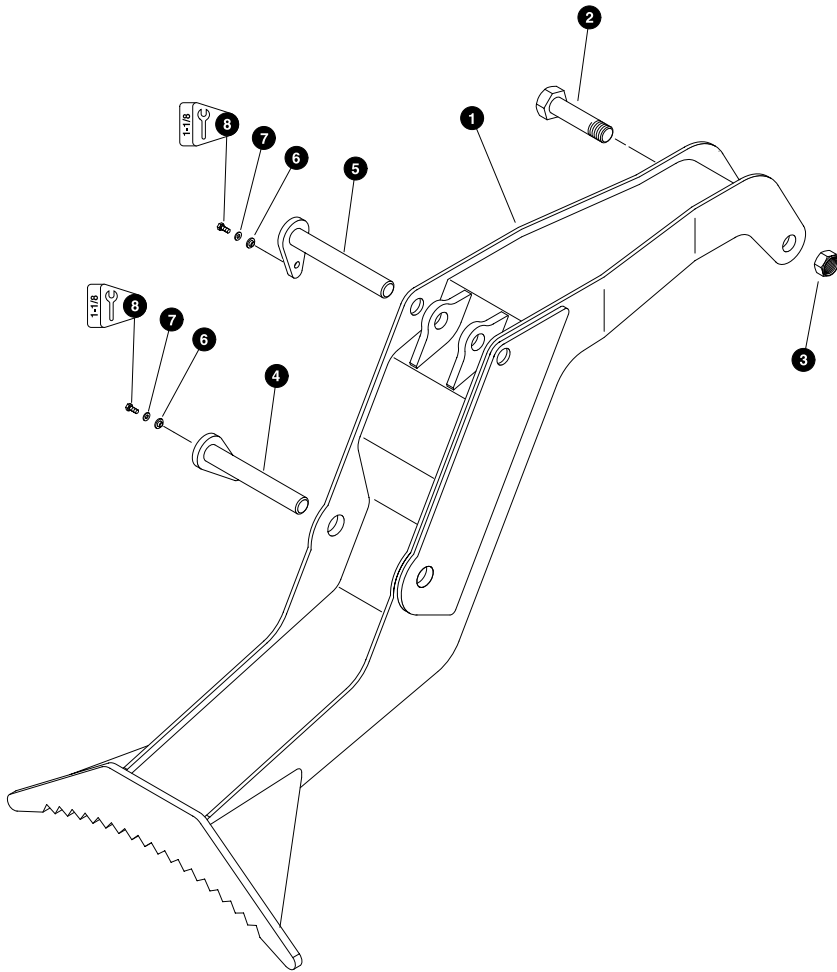
### BOOM GREASE LINES

REF	PART #	QTY	DESCRIPTION	SEE SECTION
-	23613	1	KIT, hose - grease lines ( <i>Standard main boom</i> )	
-	21334	1	KIT, hose - grease lines ( <i>Optional +24" main boom</i> )	
1	NSS	1	BOOM PIVOT	
2	NSS	1	BOOM PIVOT	
3	NSS	1	STICK CYLINDER ROD	
4	NSS	1	STICK CYLINDER BASE	
5	NSS	1	MAIN CYLINDER ROD	
6	10704	7	FITTING, straight grease - 1/8" pipe thread	
7	15658	2	CONNECTOR, straight bulkhead - 2239-2-4S	
8	22281	6	FITTING, 90° - 5546132	
9	16808	1	BUSHING, reducer - 5406-8-2	
10	21671	6	ELBOW, 45° - 5546134	
11	20843	AR	PROTECTOR, spiral hose wrap	
12	REF.	1	MAIN BOOM ASSEMBLY	HB.1
13	REF.	1	STICK BOOM ASSEMBLY	HB.2

See referenced page for component or assembly breakdown.



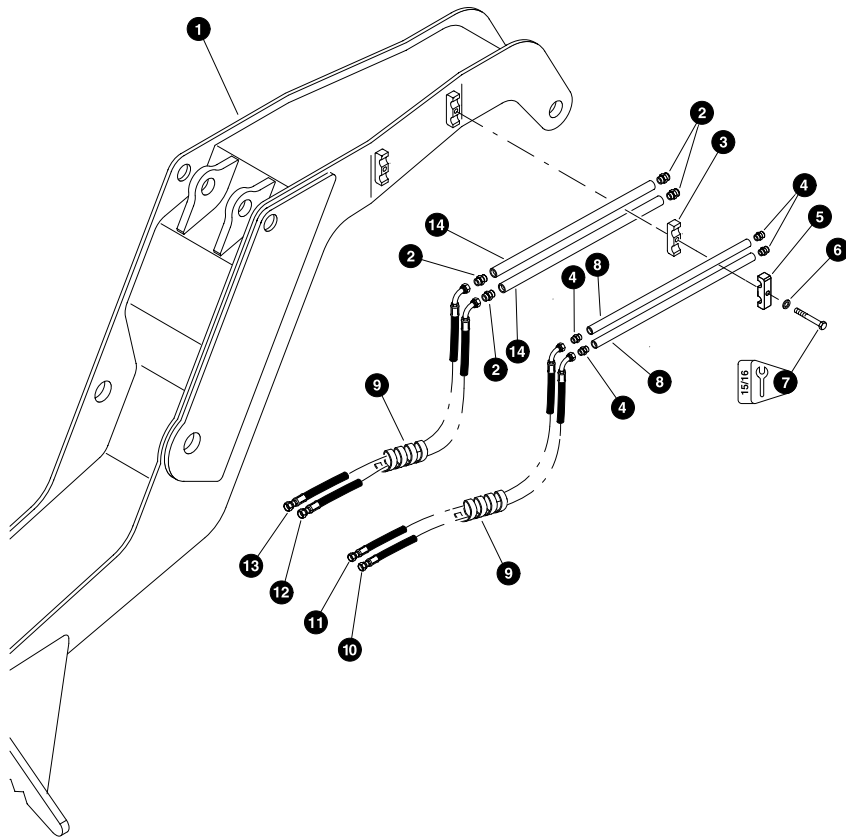




Parts 00916 12/01/98  
12.50

### HEEL BOOM WELDMENT INSTALLATION

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	51137-HB	1	HEEL BOOM WELDMENT	
2	51138-HB	1	PIN, 1-3/4" heel to attachment	
3	18402-HB	1	NUT, nylock - 1-3/4"	
4	19718-HB	1	PIN, heel to stick boom	
5	19720-HB	1	PIN, heel to 4 bar knuckle	
6	18570-HB	2	WASHER, pin retaining	
7	15501-HB	2	WASHER, flat - 5/8"	
8	15549-HB	2	BOLT - 3/4" x 2"	

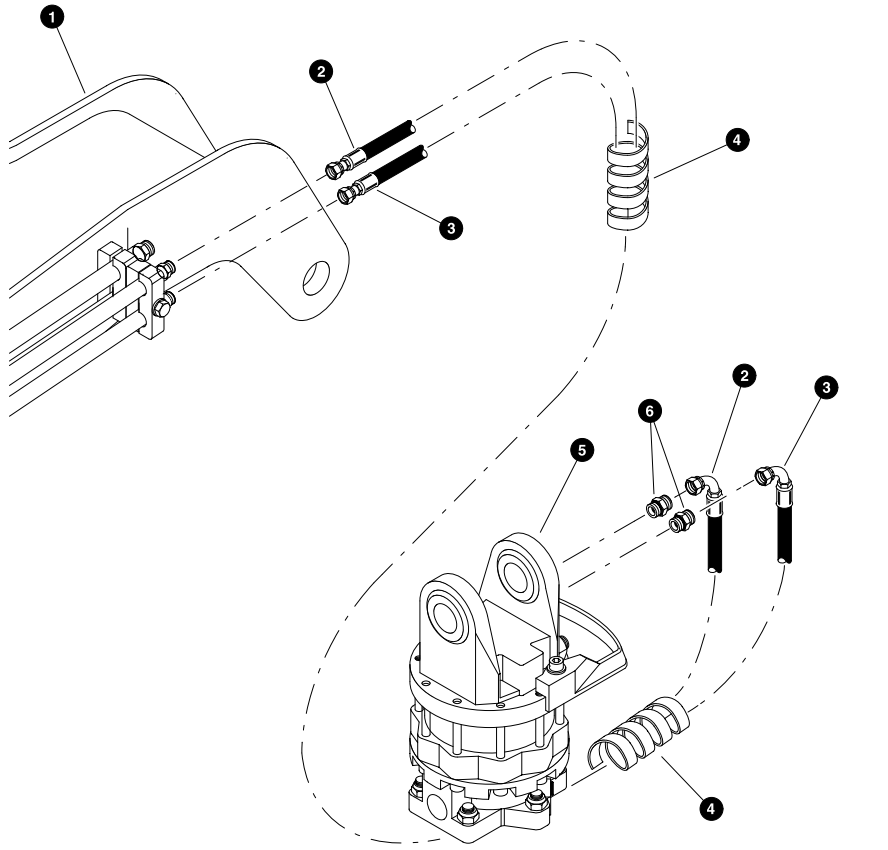


Parts 00913 12/01/2000  
12.50

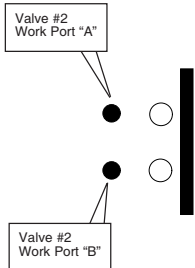
**HEEL BOOM TUBELINES & HOSES**  
(With - 1/2" and 3/4" Attachment Supply Lines)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF.	1	HEEL BOOM WELDMENT .....	HB-4
2	15152-HB	4	CONNECTOR, straight - FF1852T-1212S	
3	19324-HB	2	CLAMP, saddle - 3/4" x 3/4"	
4	15272-HB	4	CLAMP, saddle - 1/2" x 1/2"	
5	15117-HB	4	CONNECTOR, straight - FF1852T-0808S	
6	10771-HB	2	WASHER, sae flat 5/8"	
7	10719-HB	2	BOLT - 5/8" x 4"	
8	19495-HB	2	TUBELINE - 1/2" x 24"	
9	19677-HB	AR	PROTECTOR, spiral hose wrap - 1-1/4"	
10	21536-HB	1	HOSE ASSEMBLY - 4072-08-080S-0809 ( <i>Heel boom bottom outside tubeline to stick boom tubelines</i> )	
11	20488-HB	1	HOSE ASSEMBLY - 4075-08-080S-0804 ( <i>Heel boom top outside tubeline to stick boom tubelines</i> )	
12	21537-HB	1	HOSE ASSEMBLY - 4072-12-120S-1204 ( <i>Heel boom bottom inside tubeline to stick boom tubelines</i> )	
13	21538-HB	1	HOSE ASSEMBLY - 4074-12-120S-1209 ( <i>Heel boom top inside tubeline to stick boom tubelines</i> )	
14	19496-HB	2	TUBELINE - 3/4" x 24"	

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



Heel boom tubeline connections as viewed from the nose of the heel boom looking towards the rear of the machine.



Parts 00918 12/01/2000  
25.00

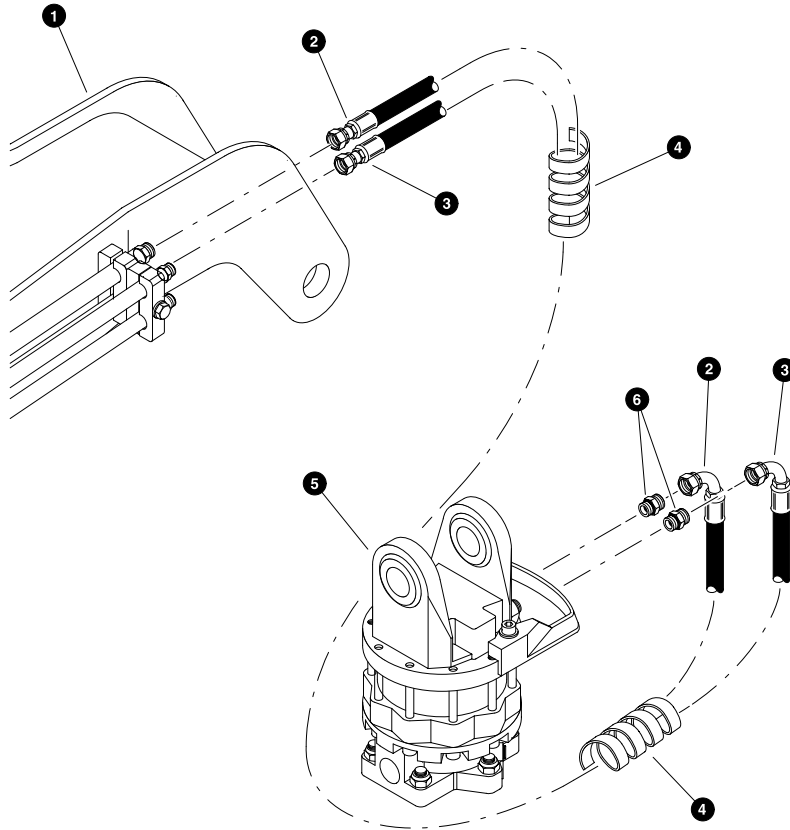
**WORK LINES - GRAPPLE OPEN/CLOSE FUNCTION**  
(Heel Boom Tubelines To Grapple Rotator)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF.	1	HEEL BOOM WELDMENT .....	HB-4
2	16407-HB	1	HOSE ASSEMBLY - 4038-08-080S-0809 (Heel boom top outside tubeline to grapple outer engine-side port)	
3	21535-HB	1	HOSE ASSEMBLY - 4037-08-080S-0809 (Heel boom bottom outside tubeline to grapple middle engine-side port)	
4	19677-HB	AR	PROTECTOR, spiral hose wrap - 1-1/4"	
5	REF.	1	GRAPPLE BUCKET ROTATOR (See Note Below)	
6	REF.	2	CONNECTOR, straight (See Note Below)	

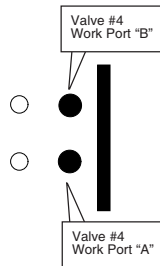
- See referenced page for component or assembly breakdown.
- Bulk material - order length required in feet or meters.
- Kit or Assembly - includes all items indented underneath.

**Note:**

Reference product manuals supplied by grapple manufacturer.



Heel boom tubeline connections as viewed from the nose of the heel boom looking towards the rear of the machine.



Parts 00917 12/01/2000  
25.00

**WORK LINES - GRAPPLE ROTATE FUNCTION**  
(Heel Boom Tubelines To Grapple Rotator)

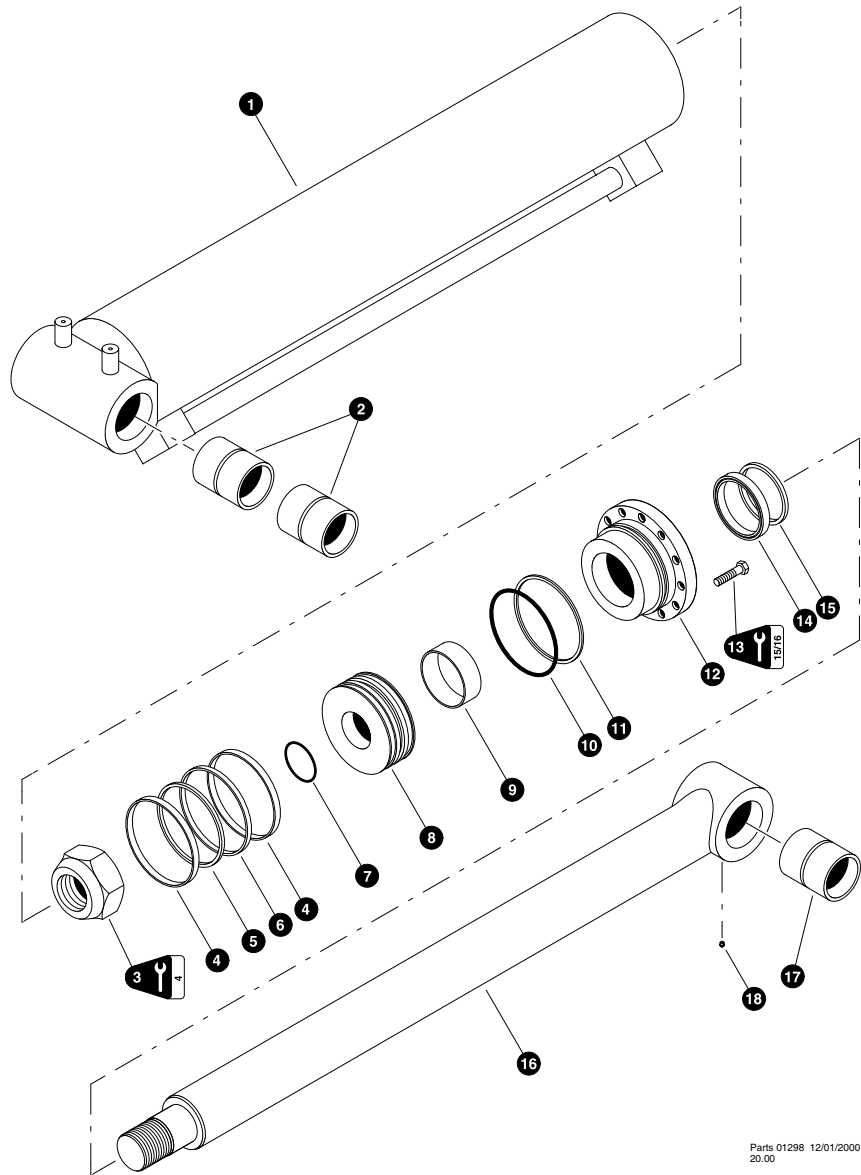
REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF.	1	HEEL BOOM WELDMENT .....	HB-4
2	21533-HB	1	HOSE ASSEMBLY - 4038-12-120S-1209 (Heel boom top inside tubeline to grapple outer engine-side port)	
3	21533-HB	1	HOSE ASSEMBLY - 4035-12-120S-1209 (Heel boom bottom inside tubeline to grapple middle engine-side port)	
4	19677-HB	AR	PROTECTOR, spiral hose wrap - 1-1/4"	
5	REF.	1	GRAPPLE BUCKET ROTATOR (See Note Below)	
6	REF.	2	CONNECTOR, straight (See Note Below)	

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

**Note:**

Reference product manuals supplied by grapple manufacturer.



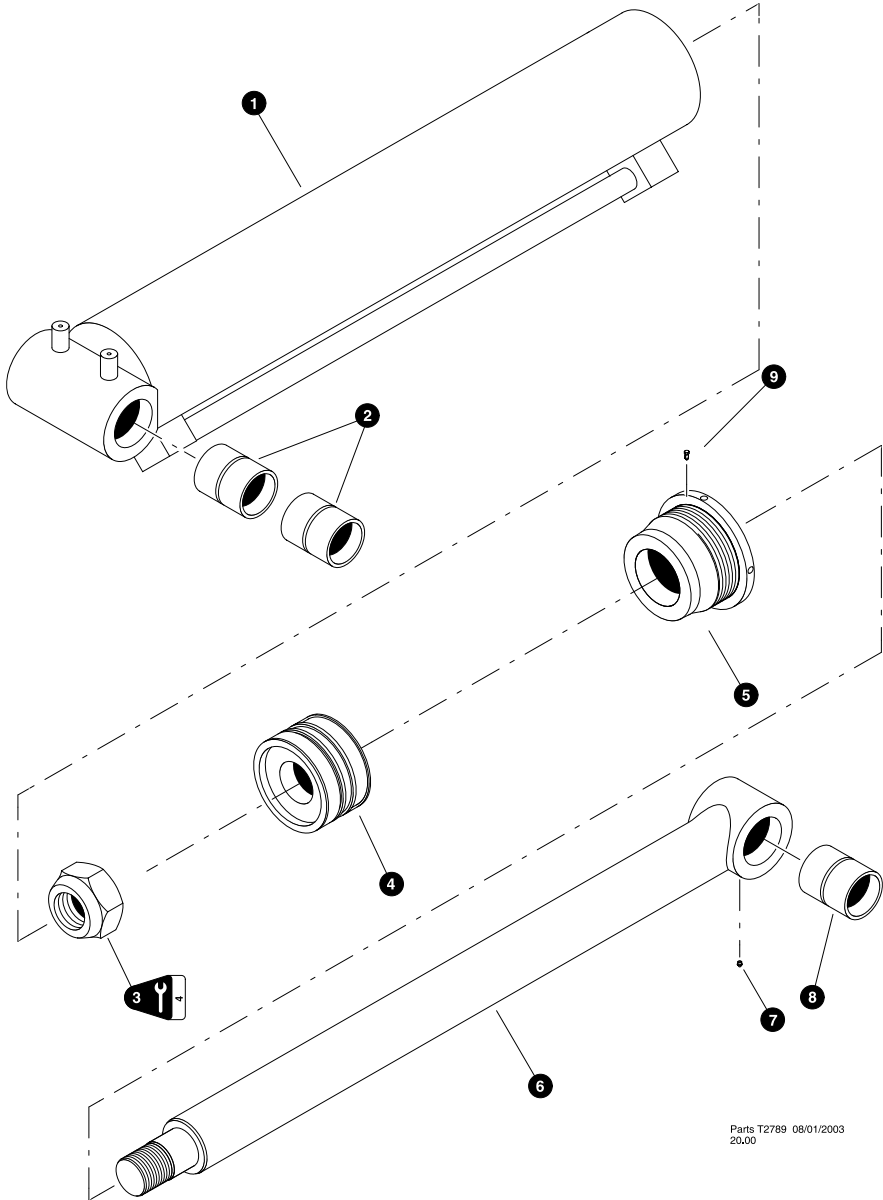


Parts 01298 12/01/2000  
20.00

**MAIN BOOM (HOIST) CYLINDER**  
(Used on machines built before 5/22/03)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
-	22374-HB	1	<input type="checkbox"/> MAIN BOOM CYLINDER ASSEMBLY	
1	22375-HB	1	<input type="checkbox"/> BARREL ASSEMBLY	
2	11706-HB	2	BUSHING - 3" x 4-1/4"	
3	16561-HB	1	NUT, cylinder rod - 2-3/4" (2700 +/- 200 ft.lbs. (3600 +/- 265 Nm))	
4	NSS	2	<input type="checkbox"/> RING, piston wear	
5	NSS	1	<input type="checkbox"/> RING, piston square	
6	NSS	1	<input type="checkbox"/> RING, piston chem-cast	
7	NSS	1	<input type="checkbox"/> O-RING, piston	
8	19575-HB	1	PISTON	
9	NSS	1	<input type="checkbox"/> RING, rod bearing wear	
10	NSS	1	<input type="checkbox"/> O-RING, rod bearing	
11	NSS	1	<input type="checkbox"/> RING, rod bearing back-up	
12	16559-HB	1	BEARING, rod	
13	15681-HB	12	BOLT - 5/8" x 2-1/4" (175 ft.lbs (233 Nm))	
14	NSS	1	<input type="checkbox"/> U-CUP, rod bearing	
15	NSS	1	<input type="checkbox"/> WIPER, rod	
16	18282-HB	1	<input type="checkbox"/> ROD ASSEMBLY	
17	11706-HB	1	BUSHING - 3" x 4-1/4"	
18	10704-HB	1	FITTING, straight grease - 1/8" pipe thread	
-	22539-HB	1	<input type="checkbox"/> KIT, seal repair - main boom cylinder	

- Kit or Assembly - includes all items indented underneath.
- Included in seal repair kit Part # 22539-HB.



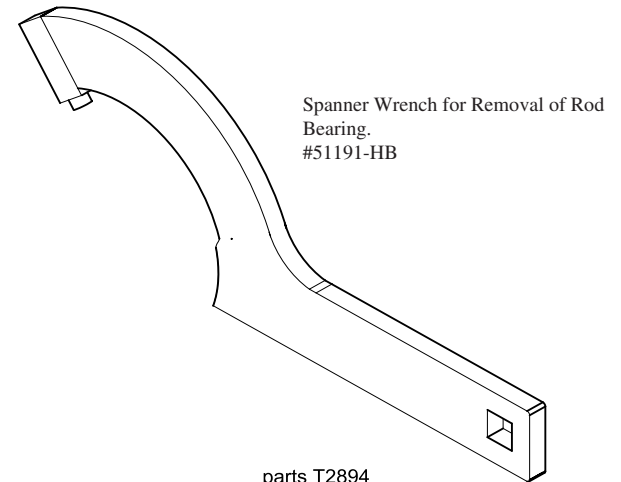
Parts T2789 08/01/2003  
20.00

**MAIN BOOM (HOIST) CYLINDER  
(Ram Rod)**  
(Used on machines built after 5/22/03)

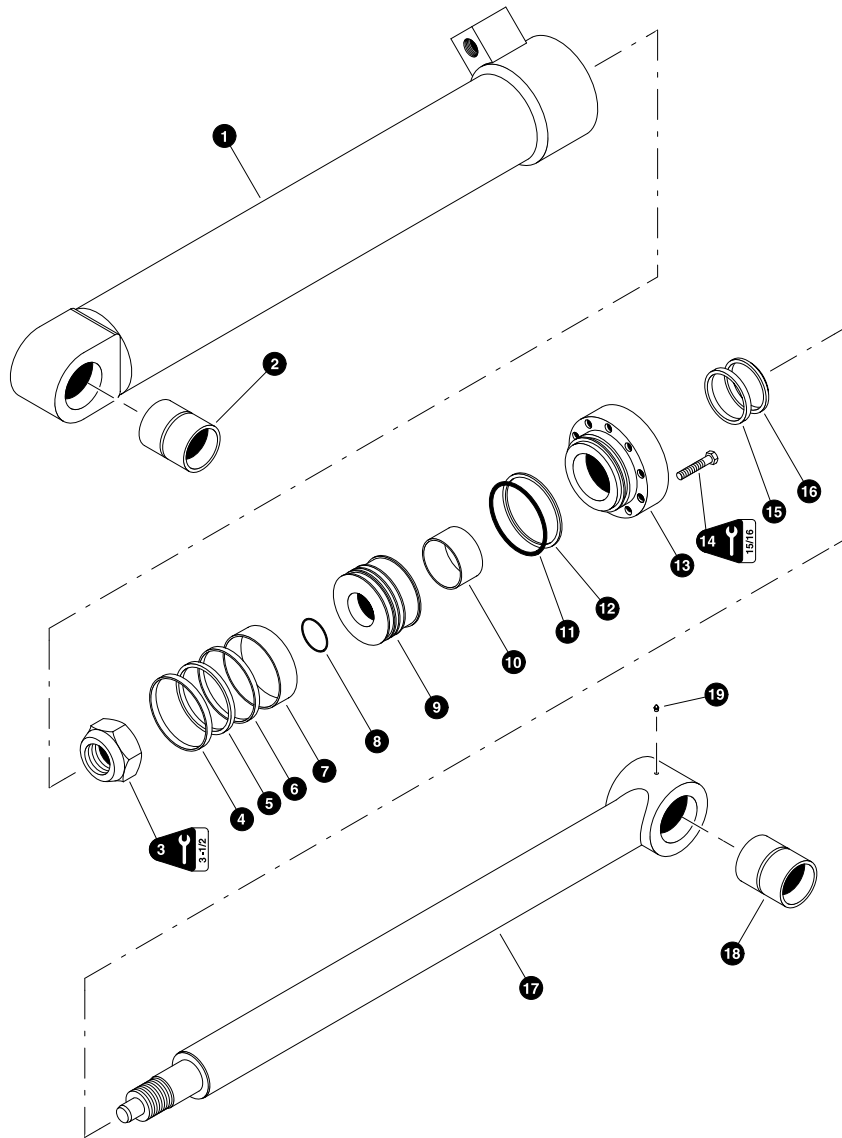
REF	PART #	QTY	DESCRIPTION	SEE SECTION
-	50491-HB	1	☐ MAIN CYLINDER ASSEMBLY	
1	51079-HB	1	☐ BARREL ASSEMBLY	
2	11706-HB	2	BUSHING - 3" x 4-1/4"	
3	51083-HB	1	NUT, cylinder rod - 2.50-12UNF (3400 ft-lbs (+ / - 340)) (lube threads with high temperature lubricant before assembly)	
4	51081-HB	1	PISTON	
-	NSS	1	⌘ KIT, seal repair - Tool Cyl. Piston	
5	51082-HB	1	BEARING, rod (see note #1)	
-	NSS	1	⌘ KIT, seal repair - Tool Cyl Rod Bearing	
6	51080-HB	1	☐ ROD ASSEMBLY	
7	10704-HB	1	FITTING, straight grease - 1/8" pipe thread	
8	11706-HB	1	BUSHING - 3" x 4-1/4"	
9	- - -	1	SCREW, self tapping - rod bearing lock (711004)	
-	51084-HB	1	KIT, Seal Repair Main Cyl.	

- ☐ Kit or Assembly - includes all items indented underneath.
- ⌘ Included in seal repair kit Part # 51084-HB.

Note #1  
Threads should be thoroughly cleaned and dry. Install lubricated Anti-seize before assembly. Torque head until fully seated against barrel. Increase torque by 100 ft-lbs and apply final torque. Drill and tap #8-32nc X .25 deep between head flange and barrel for locking screw.



parts T2894



Parts 00032 03/29/96

**STICK BOOM (JIB) CYLINDER**  
 (Used on machines built before 5/22/03)

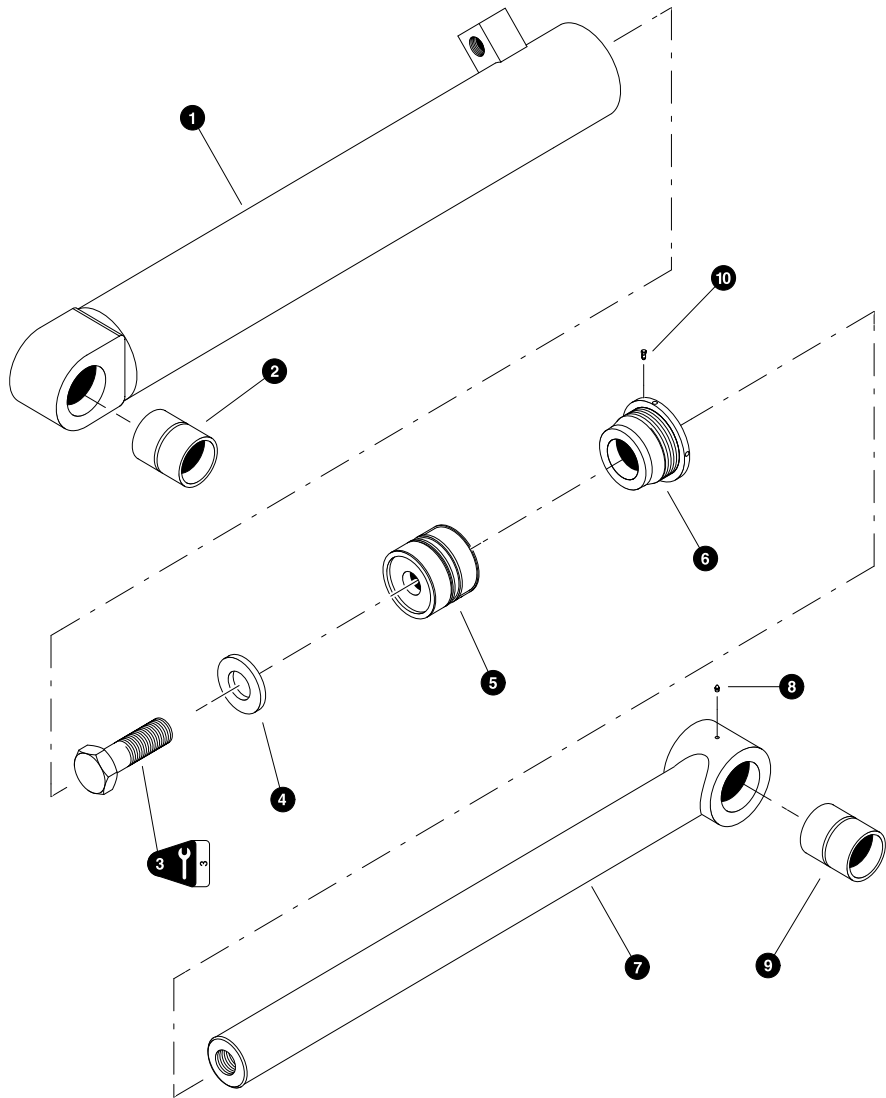
REF	PART #	QTY	DESCRIPTION	SEE SECTION
-	19570-HB	1	<input type="checkbox"/> STICK BOOM CYLINDER ASSEMBLY	
1	18281-HB	1	<input type="checkbox"/> BARREL ASSEMBLY	
2	11706-HB	1	BUSHING - 3" x 4-1/4"	
3	16566-HB	1	NUT, cylinder rod - 2-1/4" (2700 +/- 200 ft.lbs. (3600 +/- 265 Nm))	
4	NSS	1	<input type="checkbox"/> RING, piston wear	
5	NSS	1	<input type="checkbox"/> RING, piston square	
6	NSS	1	<input type="checkbox"/> RING, piston chem-cast	
7	NSS	1	<input type="checkbox"/> RING, piston wear	
8	NSS	1	<input type="checkbox"/> O-RING, piston	
9	19574-HB	1	PISTON	
10	NSS	1	<input type="checkbox"/> RING, rod bearing wear	
11	NSS	1	<input type="checkbox"/> O-RING, rod bearing	
12	NSS	1	<input type="checkbox"/> RING, rod bearing back-up	
13	16567-HB	1	BEARING, rod	
14	10720-HB	10	BOLT - 5/8" x 3" (175 ft.lbs (233 Nm))	
15	NSS	1	<input type="checkbox"/> U-CUP, rod bearing	
16	NSS	1	<input type="checkbox"/> WIPER, rod	
17	18280-HB	1	<input type="checkbox"/> ROD ASSEMBLY	
18	11706-HB	1	BUSHING - 3" x 4-1/4"	
19	10704-HB	1	FITTING, straight grease - 1/8" pipe thread	
-	19566-HB	1	<input type="checkbox"/> KIT, seal repair - stick boom cylinder (See Note Below)	

- Kit or Assembly - includes all items indented underneath.
- Included in seal repair kit Part # 19566-HB.

**Note:**

Seal kit, PN# 19566-HB, contains all the items required to re-seal all main boom cylinders PDN# 114FB and above.





Parts T2788 07/01/03  
18.75

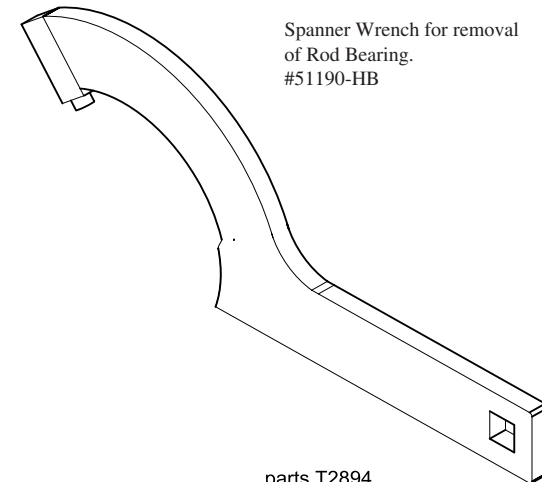
**STICK BOOM (JIB) CYLINDER  
(Ram Rod)**  
(Used on machines built after 5/22/03)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
-	50492-HB	1	<input type="checkbox"/> STICK CYLINDER ASSEMBLY	
1	51074-HB	1	<input type="checkbox"/> BARREL ASSEMBLY	
2	11706-HB	1	BUSHING - 3" x 4-1/4"	
3	51073-HB	1	BOLT, cylinder rod - 2" x 4" (2600 ft-lbs (+/- 260)) (lube threads with high tempature lubricant before assembly)	
4	---	2	WASHER, FLAT - 2.00-12UNF X 4 G8 (718048)	
5	51076-HB	1	PISTON	
-	NSS	1	<input type="checkbox"/> KIT, seal repair - Tool Cyl. Piston	
6	51077-HB	1	BEARING, rod (see note #1)	
-	NSS	1	<input type="checkbox"/> KIT, seal repair - Tool Cyl Rod Bearing	
7	51075-HB	1	<input type="checkbox"/> ROD ASSEMBLY	
8	10704-HB	1	FITTING, straight grease - 1/8" pipe thread	
9	11706-HB	1	BUSHING - 3" x 4-1/4"	
10	---	1	SCREW, self tapping - rod bearing lock (711004)	
-	51078-HB	1	<input type="checkbox"/> KIT, Seal Repair Stick Cyl.	

- Kit or Assembly - includes all items indented underneath.
- Included in seal repair kit Part # 51078-HB.

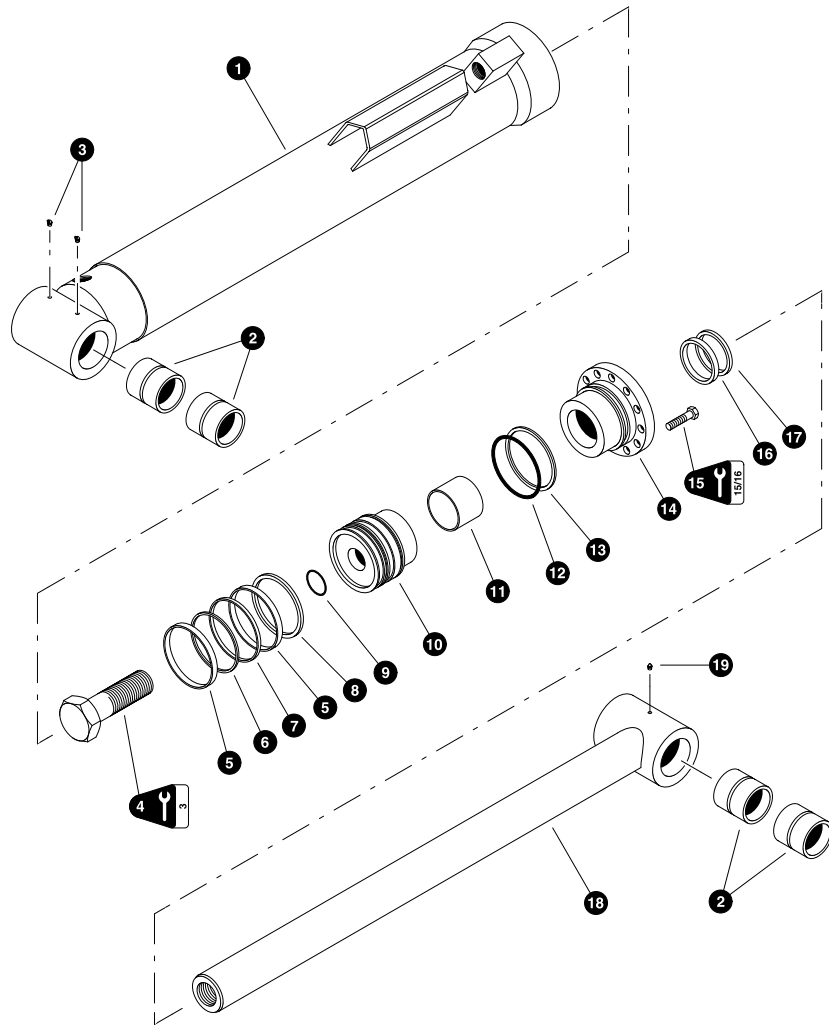
Note #1

Threads should be thoroughly cleaned and dry. Install lubricated Anti-seize before assembly. Torque head until fully seated against barrel. Increase torque by 100 ft-lbs and apply final torque. Drill and tap #8-32nc X .25 deep between head flange and barrel for locking screw.



Spanner Wrench for removal  
of Rod Bearing.  
#51190-HB

parts T2894

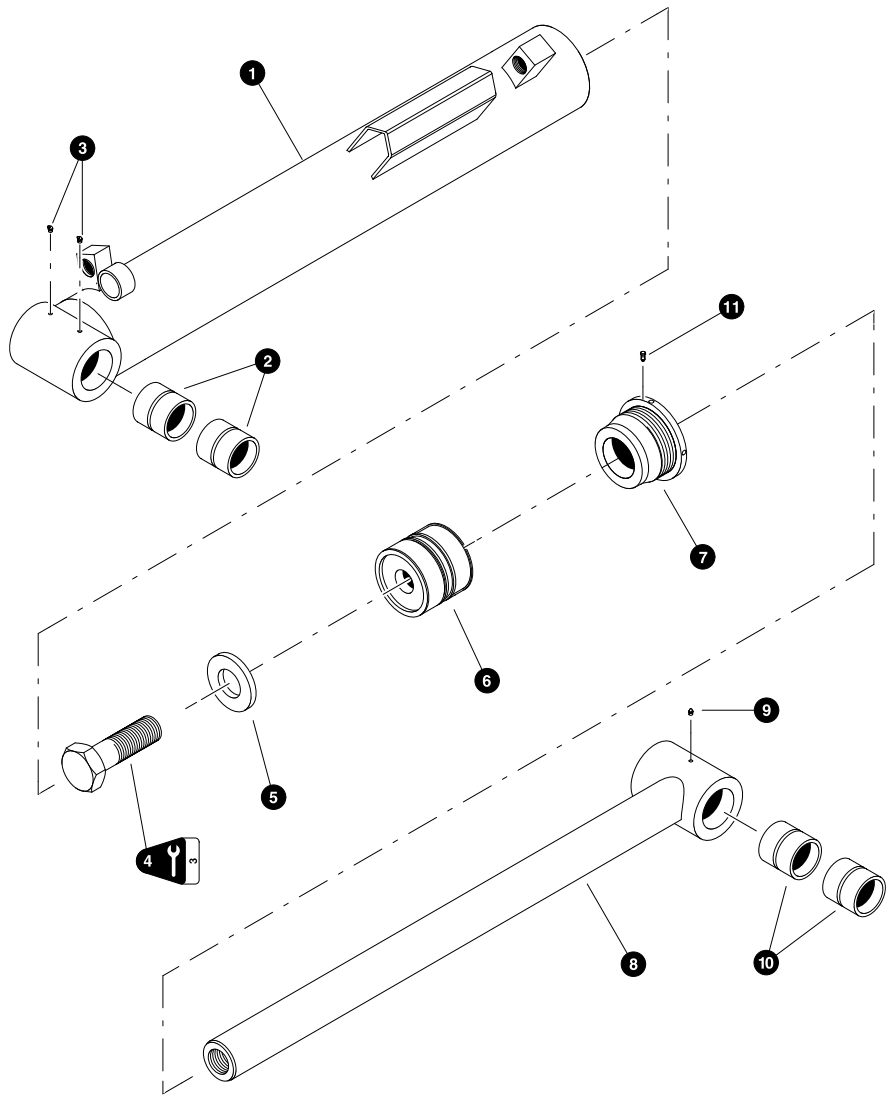


Parts 02132 03/16/2001  
18.75

**TOOL TILT CYLINDER**  
**(Used With 4-Bar Linkage)**  
**(Used on machines built before 5/22/03)**

REF	PART #	QTY		DESCRIPTION	SEE SECTION
-	22449-HB	1	☐	TOOL TILT CYLINDER ASSEMBLY	
1	22534-HB	1	☐	BARREL ASSEMBLY	
2	14241-HB	2		BUSHING - 2-1/2" x 3"	
3	15683-HB	2		FITTING, 45 grease - 1/8" pipe thread	
4	19956-HB	1		BOLT, cylinder rod - 2" x 4-1/4" (2700 +/- 200 ft.lbs. (3600 +/- 265 Nm))	
5	NSS	2	⊗	RING, piston wear	
6	NSS	1	⊗	RING, piston square	
7	NSS	1	⊗	RING, piston chem-cast	
8	NSS	1	⊗	RING, piston wear	
9	NSS	1	⊗	O-RING, piston	
10	22535-HB	1		PISTON	
11	NSS	1	⊗	RING, rod bearing wear	
12	NSS	1	⊗	RING, rod bearing back-up	
13	22536-HB	1		BEARING, rod	
14	15681-HB	12		BOLT - 5/8" x 2-1/4" (175 ft.lbs (233 Nm))	
15	NSS	1	⊗	U-CUP, rod bearing	
16	NSS	1	⊗	WIPER, rod	
17	22537-HB	1	☐	ROD ASSEMBLY	
18	14241-HB	2		BUSHING - 2-1/2" x 3"	
19	10704-HB	1		FITTING, straight grease - 1/8" pipe thread	
-	22538-HB	1		KIT, seal repair - tool tilt cylinder	

- ☐ Kit or Assembly - includes all items indented underneath.
- ⊗ Included in seal repair kit Part # 22538-HB.



Parts T2787 08/01/2003  
18.75

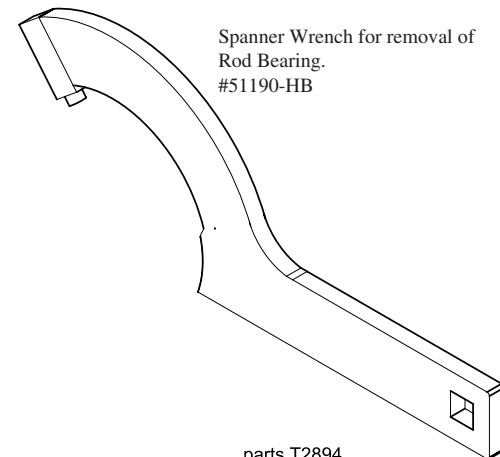
**TOOL TILT CYLINDER**  
**(Used With 4-Bar Linkage)(Ram Rod)**  
**(Used on machines built after 5/22/03)**

REF	PART #	QTY	DESCRIPTION	SEE SECTION
-	50493-HB	1	<input type="checkbox"/> TOOL TILT CYLINDER ASSEMBLY	
1	51072-HB	1	<input type="checkbox"/> BARREL ASSEMBLY	
2	14241-HB	2	BUSHING - 2-1/2" x 3"	
3	15683-HB	2	FITTING, 45 grease - 1/8" pipe thread	
4	51073-HB	1	BOLT, cylinder rod - 2" x 4" (2300 ft-lbs(+ / - 230)) (lube threads with high temperature lubricant before assembly)	
5	---	2	WASHER, FLAT - 2.00-12UNF X 4 G8 (718048)	
6	51069-HB	1	PISTON	
-	NSS	1	<input type="checkbox"/> KIT, seal repair - Tool Cyl. Piston	
7	51070-HB	1	BEARING, rod (see note #1)	
-	NSS	1	<input type="checkbox"/> KIT, seal repair - Tool Cyl Rod Bearing	
8	51071-HB	1	<input type="checkbox"/> ROD ASSEMBLY	
9	10704-HB	1	FITTING, straight grease - 1/8" pipe thread	
10	14241-HB	2	BUSHING - 2-1/2" x 3"	
11	---	1	SCREW, self tapping - rod bearing lock (711004)	
-	51068-HB	1	<input type="checkbox"/> KIT, Seal Repair Tool Cyl.	

- Kit or Assembly - includes all items indented underneath.
- Included in seal repair kit Part # 51068-HB.

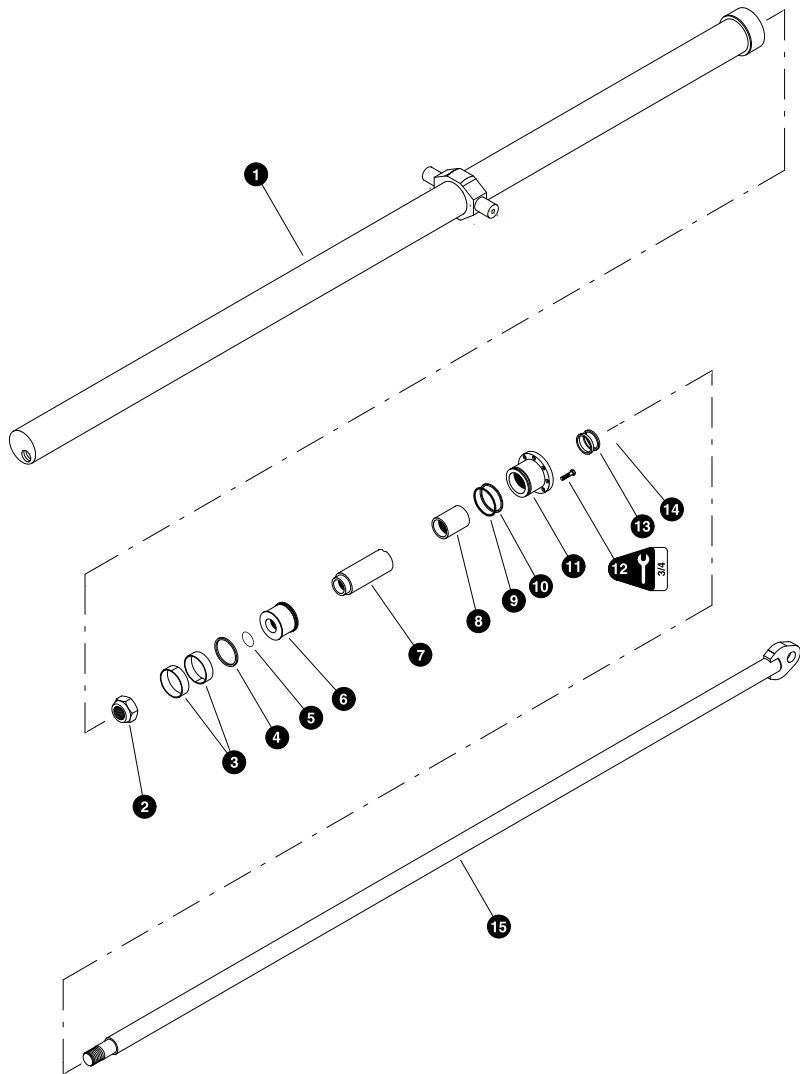
Note #1

Threads should be thoroughly cleaned and dry. Install lubricated Anti-seize before assembly. Torque head until fully seated against barrel. Increase torque by 100 ft-lbs and apply final torque. Drill and tap #8-32nc X .25 deep between head flange and barrel for locking screw.



Spanner Wrench for removal of  
Rod Bearing.  
#51190-HB

parts T2894



Parts 01027 12/04/2000  
12.50

**BOOM EXTENSION CYLINDER  
(Used With Telescopic Stick Boom)**

REF	PART #	QTY		DESCRIPTION	SEE SECTION
-	21943-HB	1	☐	BOOM EXTENSION CYLINDER ASSEMBLY	
1	21944-HB	1		BARREL	
2	21945-HB	1		NUT, cylinder rod - 1-1/2"	
3	NSS	2	⌘	RING, piston wear	
4	NSS	1	⌘	RING, piston square	
5	NSS	1	⌘	O-RING, piston	
6	21946-HB	1		PISTON	
7	21947-HB	1		LIMITER, stroke	
8	21951-HB	1		BUSHING, rod bearing ( <i>Bronze</i> )	
9	NSS	1	⌘	O-RING, rod bearing	
10	NSS	1	⌘	RING, rod bearing back-up	
11	21948-HB	1		BEARING, rod	
12	10739-HB	8		BOLT - 1/2" x 1-1/2" ( <b>100 ft.lbs (133 Nm)</b> )	
13	NSS	1	⌘	U-CUP, rod bearing	
14	NSS	1	⌘	WIPER, rod	
15	21949-HB	1		ROD ASSEMBLY	
-	21950-HB	1		KIT, seal repair - boom extension cylinder	

- ☐ Kit or Assembly - includes all items indented underneath.
- ⌘ Included in seal repair kit Part # 21950-HB.

