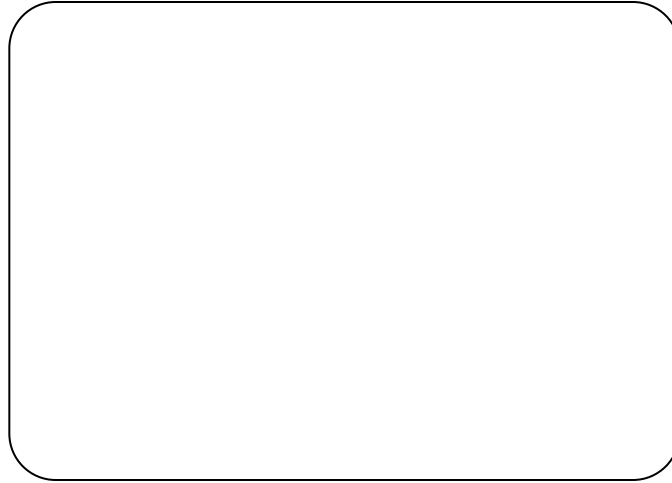
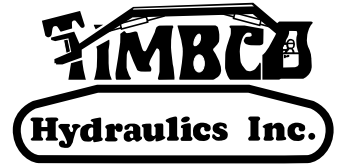
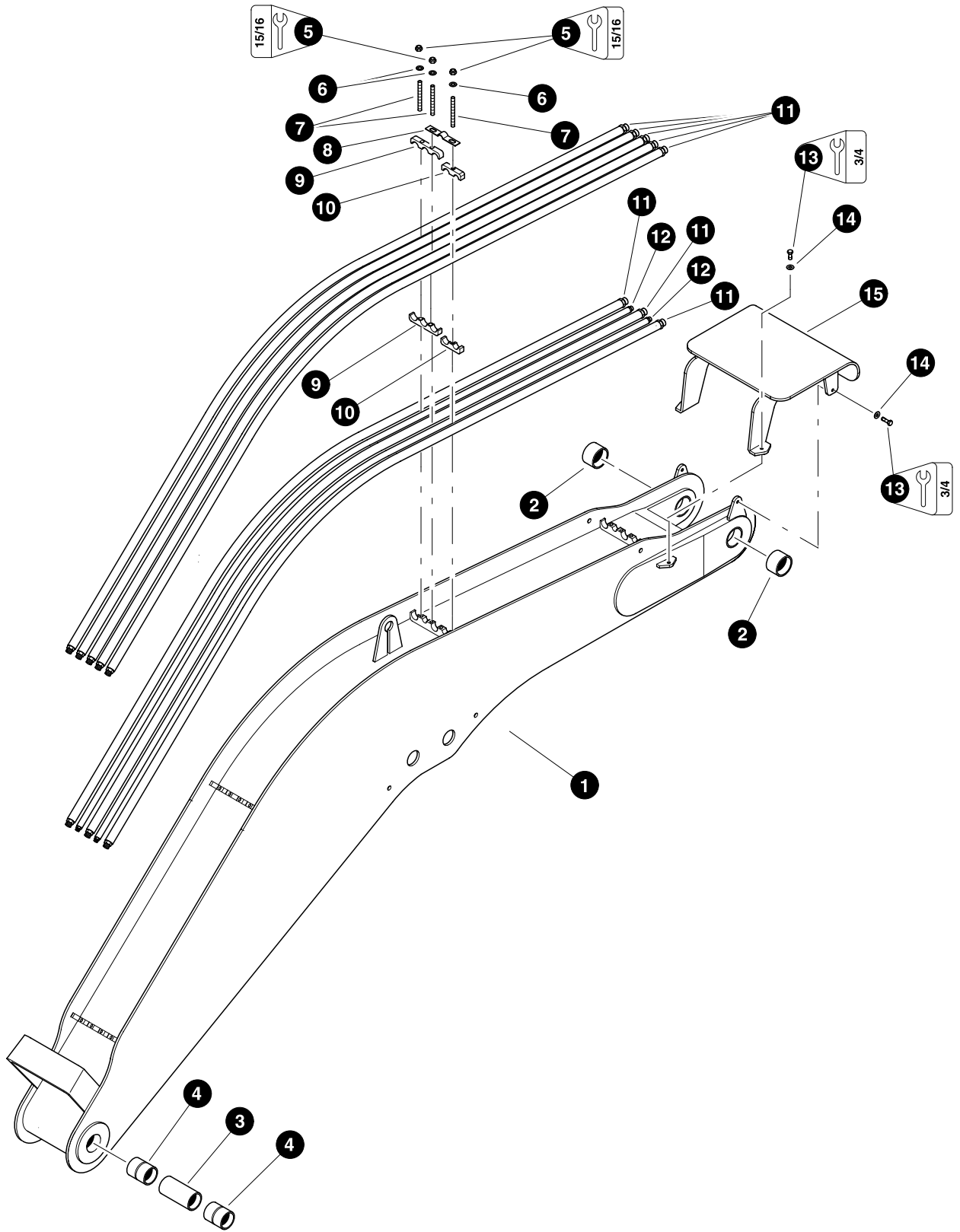


# **Section HB-1**

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## ***Harvester Booms - Main Boom***



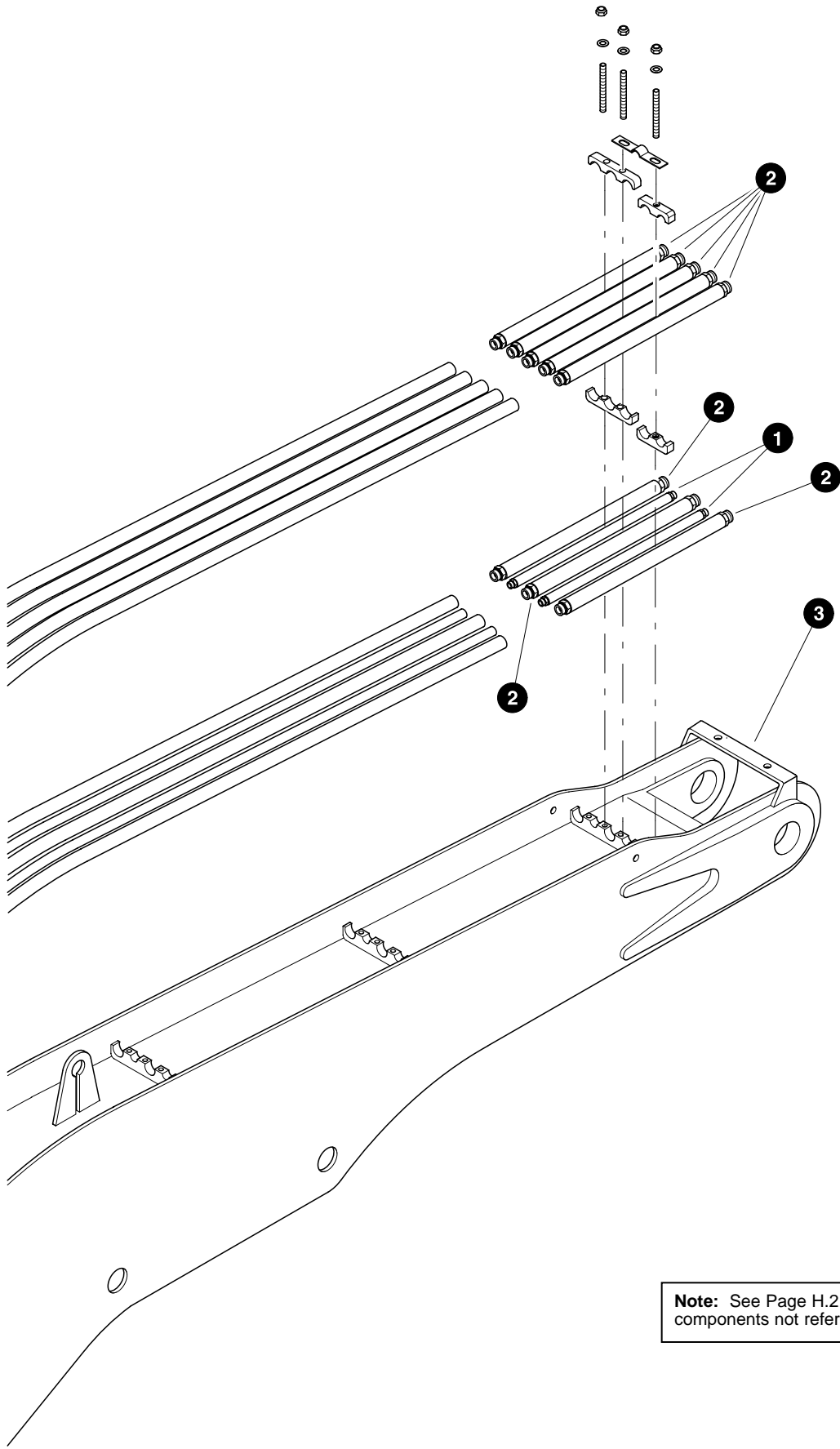
Parts 01462 11/18/99  
6.25

## MAIN BOOM COMPONENTS

(Standard Boom - With 1" Attachment Supply & Return Lines)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
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	10	NUT, nylock - 5/8"	
6	10771-HB	12	WASHER, SAE flat - 5/8"	
7	15672-HB	10	STUD - 5/8" x 6-1/4"	
8	12249-HB	8	CLAMP, case drain hose	
9	85086-HB	8	CLAMP, saddle top tube - 1" x 1" x 1"	
10	15236-HB	12	CLAMP, saddle top tube - 3/4" x 1"	
11	85096-HB	8	<input type="checkbox"/> TUBELINE - 1" x 158" ( <i>Bent</i> )	
	15225-HB	2	CONNECTOR, straight - FF1852T-1616S	
12	85294-HB	2	<input type="checkbox"/> TUBELINE - 3/4" x 159" ( <i>Bent</i> )	
	15152-HB	2	CONNECTOR, straight - FF1852T-1212S	
13	10783-HB	1	BOLT - 1/2" x 1"	
14	10804-HB	3	WASHER, flat - 1/2"	
15	80496-HB	1	GUARD, hose - main boom elbow	

Kit or Assembly - includes all items indented underneath.



**Note:** See Page H.2.1 for all other boom components not referenced.

Parts 01103 03/16/99  
9.375

## MAIN BOOM COMPONENTS

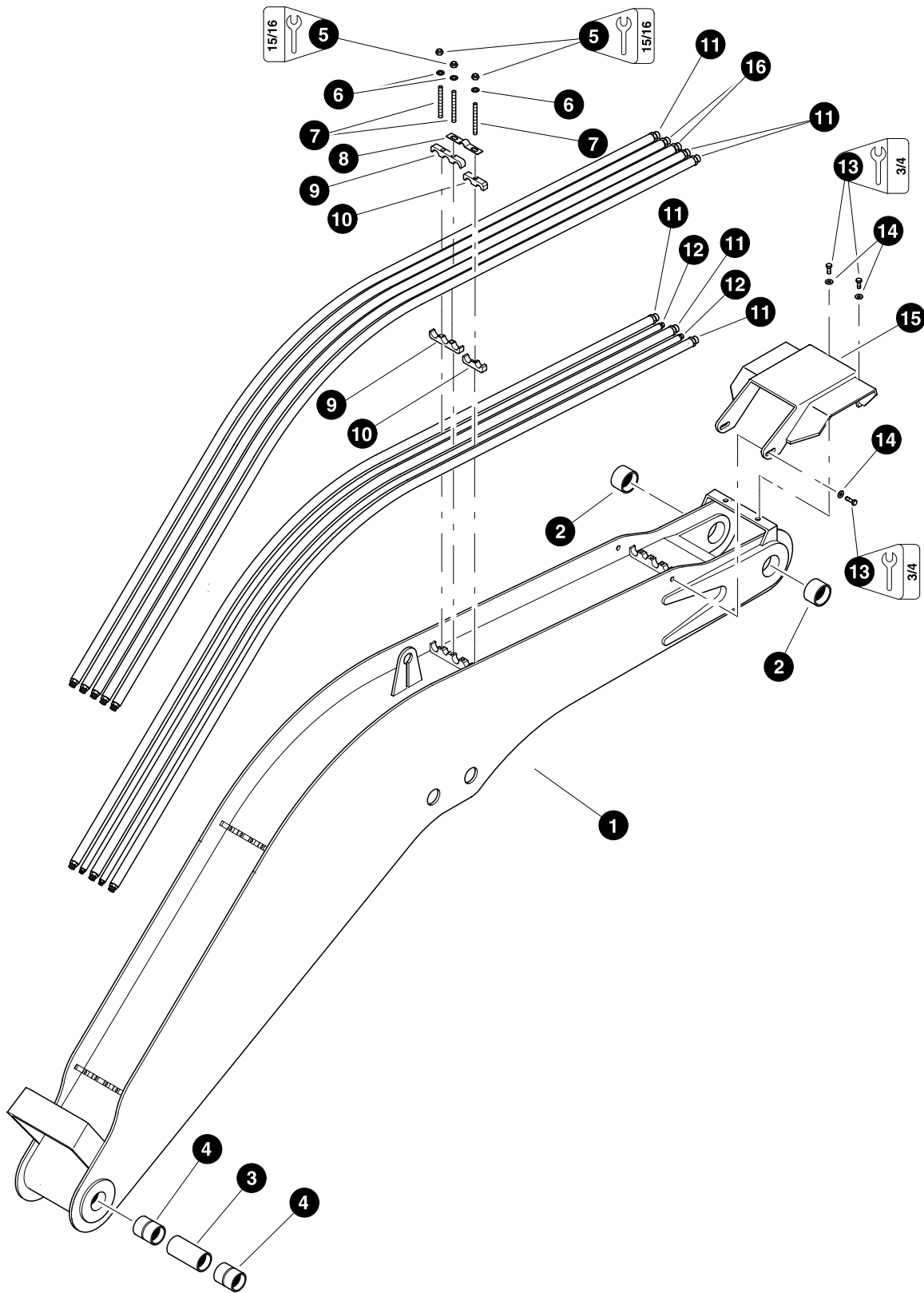
### (24" [61cm] Longer Boom - With 1" Attachment Supply & Return Lines)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	19496-HB	2	<input type="checkbox"/> TUBELINE - 3/4" x 24" CONNECTOR, straight - FF1852T-1212S (ORB-ORS) CONNECTOR, straight - 6403-12 (ORB-ORB)	
	15152-HB	1		
	19472-HB	1		
2	19497-HB	8	<input type="checkbox"/> TUBELINE - 1" x 24" CONNECTOR, straight - FF1852T-1616S (ORB-ORS) CONNECTOR, straight - 6403-16 (ORB-ORB)	
	15225-HB	1		
	19473-HB	1		
3	85050-HB	1	WELDMENT, main boom - 3-1/2" pin (24"[61cm] Longer)	

Kit or Assembly - includes all items indented underneath.

**Note:**

See Page H.2.2 for all other boom components not referenced.

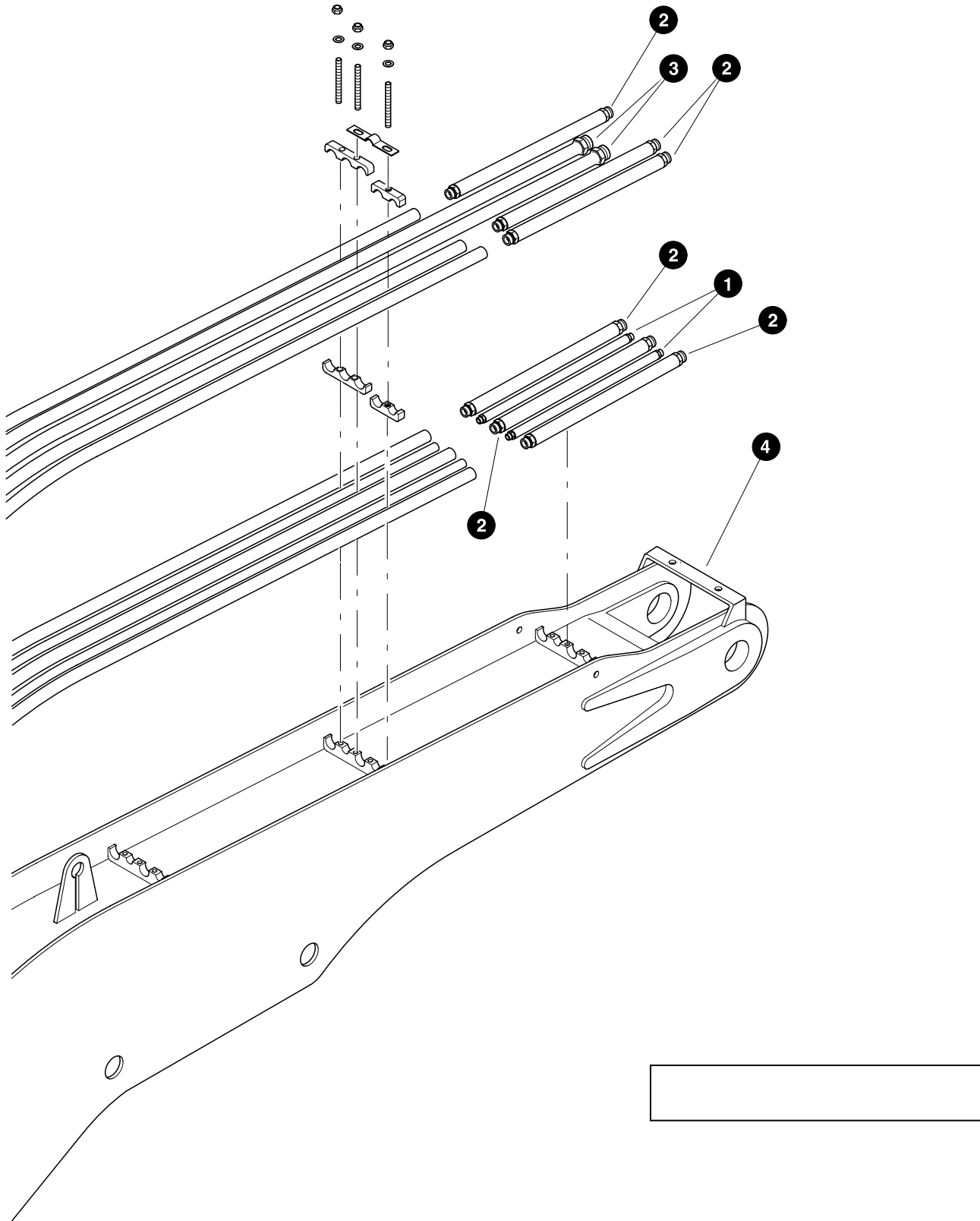


Parts 01109 03/16/99  
6.25

## MAIN BOOM COMPONENTS

(Standard Boom With 1-1/4" Attachment Supply & Return Lines)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
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	10	NUT, nylock - 5/8"	
6	10771-HB	12	WASHER, SAE flat - 5/8"	
7	15672-HB	10	STUD - 5/8" x 6-1/4"	
8	12249-HB	8	CLAMP, case drain hose	
9	85086-HB	8	CLAMP, saddle top tube - 1" x 1" x 1"	
10	15236-HB	12	CLAMP, saddle top tube - 3/4" x 1"	
11	85096-HB	6	<input type="checkbox"/> TUBELINE - 1" x 158" ( <i>Bent</i> )	
	15225-HB	2	CONNECTOR, straight - FF1852T-1616S	
12	85294-HB	2	<input type="checkbox"/> TUBELINE - 3/4" x 159" ( <i>Bent</i> )	
	15152-HB	2	CONNECTOR, straight - FF1852T-1212S	
13	10783-HB	1	BOLT - 1/2"	



Parts 01105 03/16/99  
9.375



## MAIN BOOM COMPONENTS

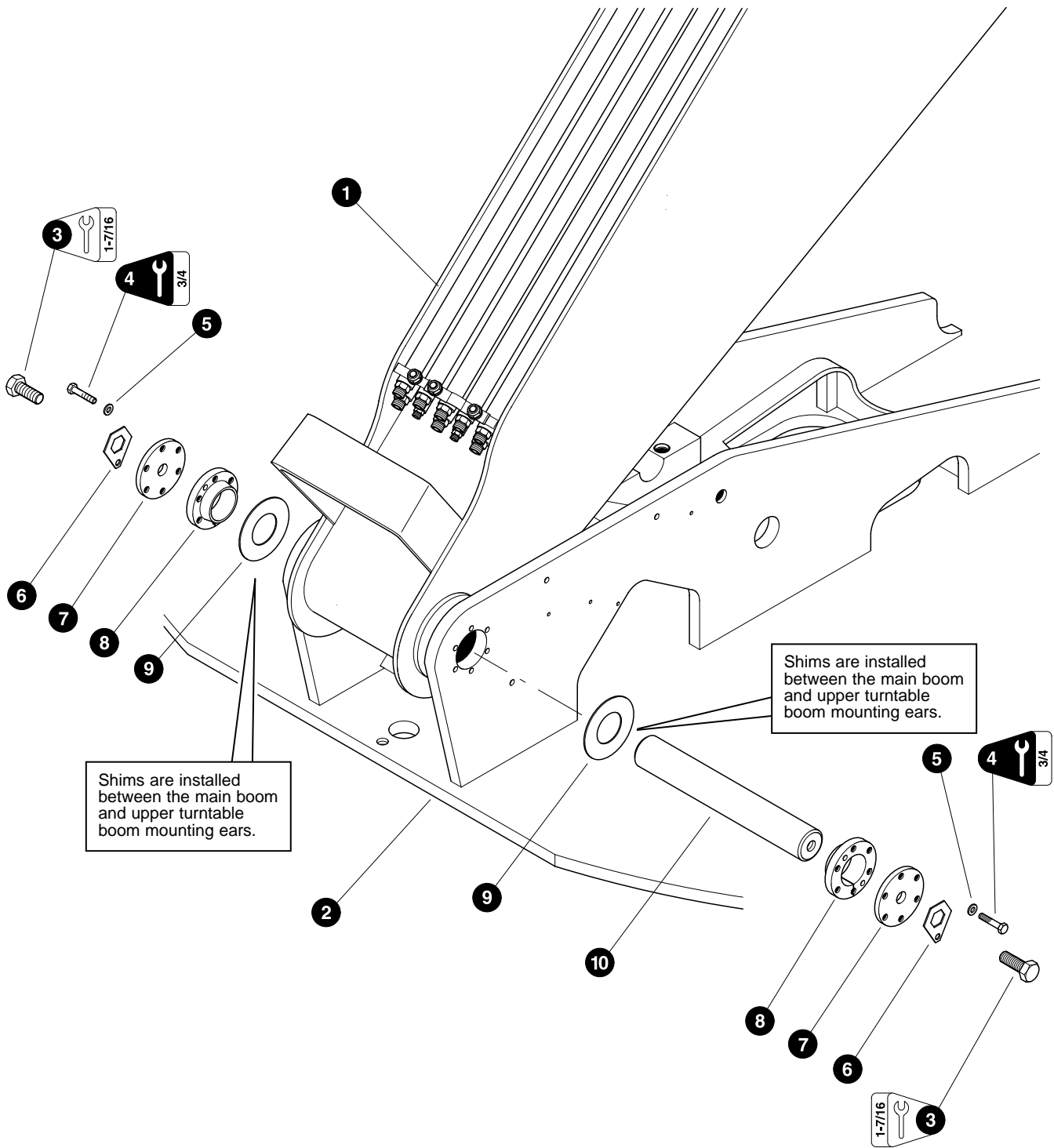
### (24" [61cm] Longer Boom - With 1-1/4" Attachment Supply & Return Lines)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	19496-HB	2	<input type="checkbox"/> TUBELINE - 3/4" x 24" CONNECTOR, straight - FF1852T-1212S (ORB-ORS) CONNECTOR, straight - 6403-12 (ORB-ORB)	
	15152-HB	1		
	19472-HB	1		
2	19497-HB	6	<input type="checkbox"/> TUBELINE - 1" x 24" CONNECTOR, straight - FF1852T-1616S (ORB-ORS) CONNECTOR, straight - 6403-16 (ORB-ORB)	
	15225-HB	1		
	19473-HB	1		
3	85219-HB	2	TUBELINE - 1-1/4" x 180" (Bent)(Weld-on fittings)	
4	85050-HB	1	WELDMENT, main boom - 3-1/2" pin (24"[61cm] Longer)	

Kit or Assembly - includes all items indented underneath.

**Note:**

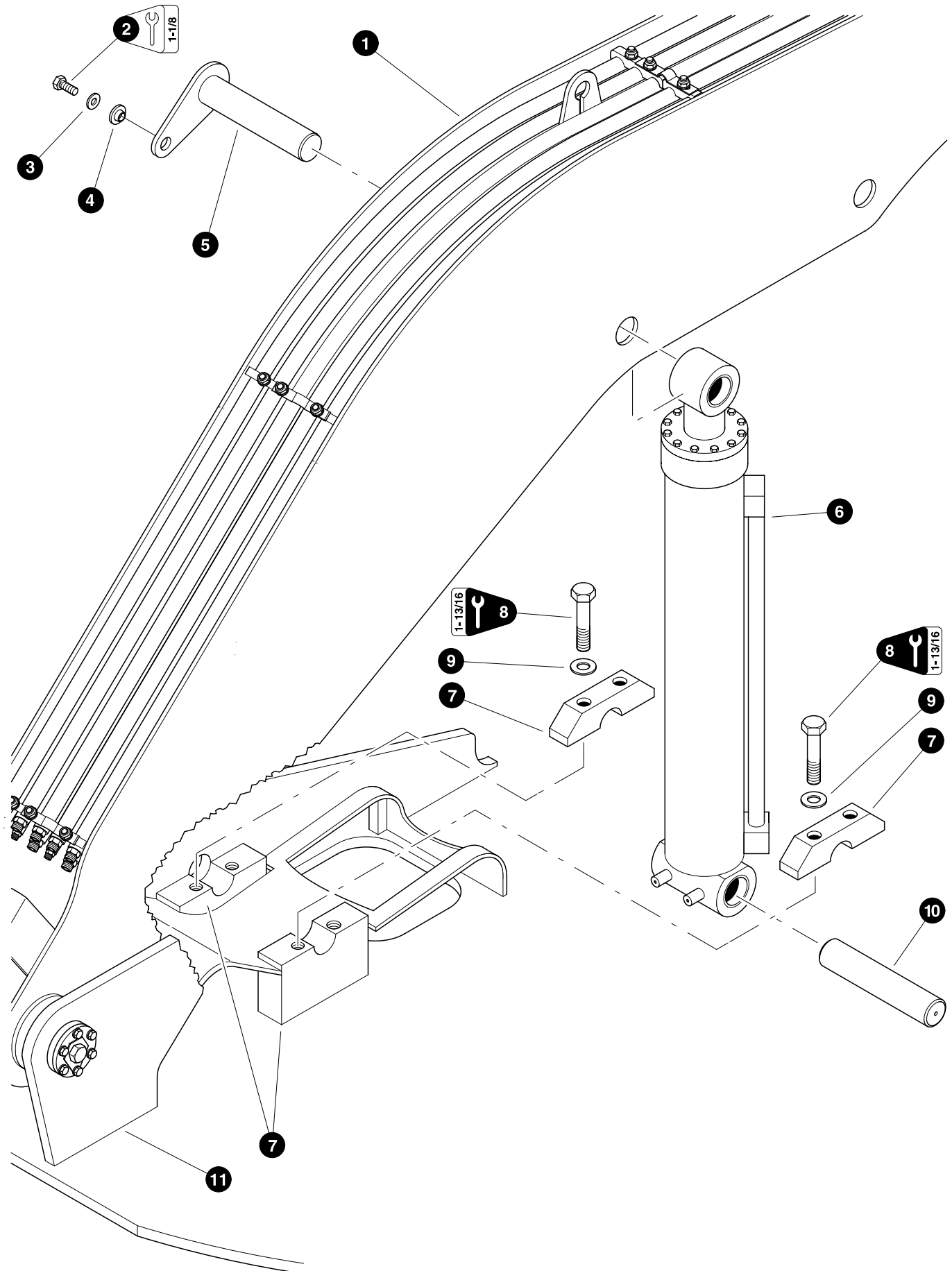
See Page H.2.8 for all other boom components not referenced.



## MAIN BOOM INSTALLATION

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	REF.	1	✓ MAIN BOOM ASSEMBLY .....	HB-1-2
2	REF.	1	✓ UPPER TURNTABLE WELDMENT	
3	15552-HB	2	BOLT - 1" x 2-1/2"	
4	15565-HB	12	BOLT - 1/2" x 2-1/2" <b>(100 ft.lbs. (135 Nm))</b>	
5	15534-HB	12	WASHER, SAE flat - 1/2"	
6	12116-HB	2	LOCK, center tapered hub bolt	
7	12115-HB	2	CAP, tapered hub	
8	12352-HB	2	HUB, tapered - 1-1/4" plate	
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" x 20"	

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



Parts 00584 07/07/98  
12.50

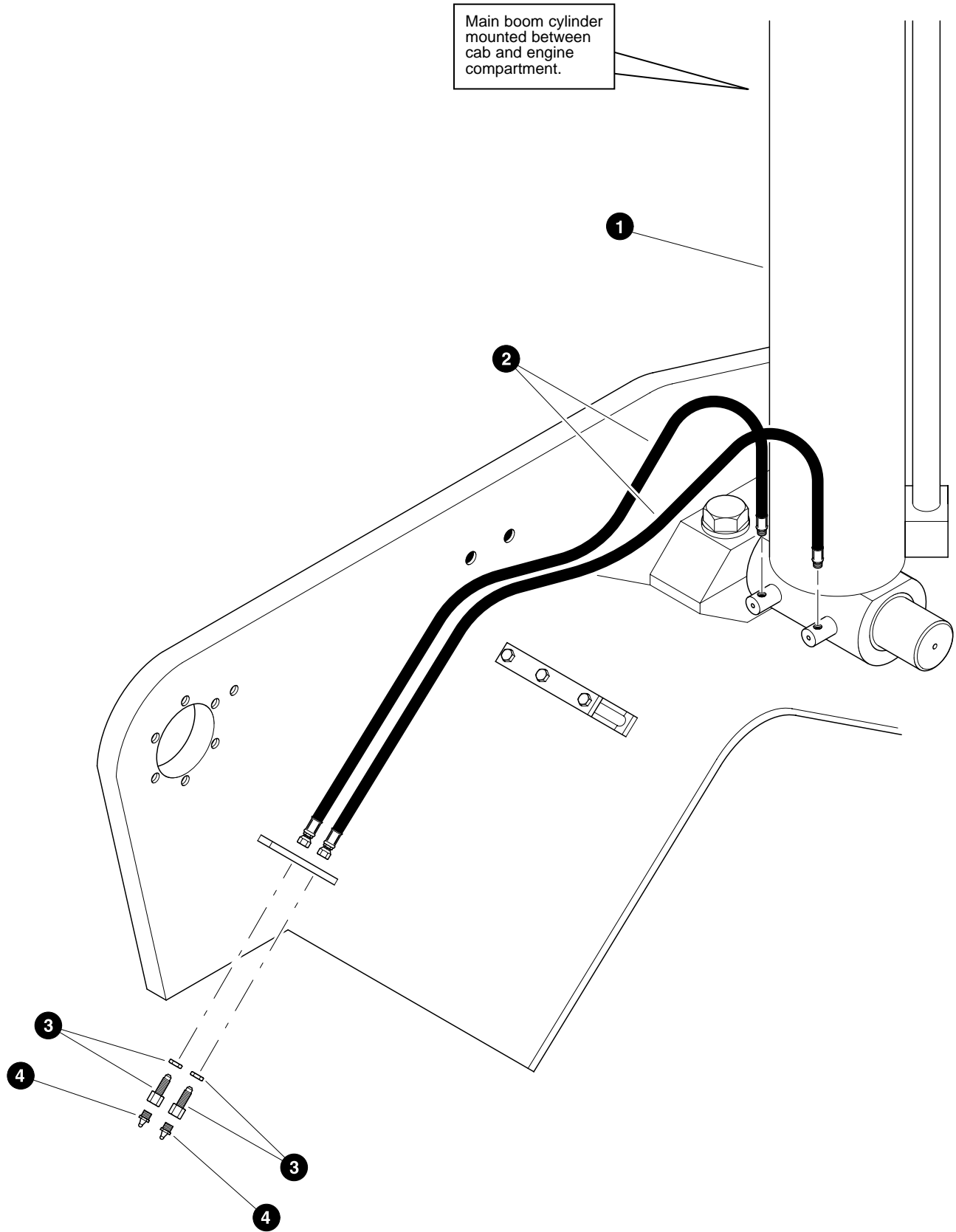
## MAIN BOOM (HOIST) CYLINDER INSTALLATION

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	MAIN BOOM ASSEMBLY .....	HB-1-2
2	15549-HB	1		BOLT - 3/4" x 2"	
3	15550-HB	1		WASHER, SAE flat - 3/4"	
4	18570-HB	1		WASHER, pin retaining	
5	21008-HB	1		PIN ASSEMBLY - 3" x 14-1/4"	
6	REF.	1	✓	MAIN BOOM (HOIST) CYLINDER .....	HB-5-2
7	12351-HB	2	☐	WELDMENT, pin retainer block - 3" pin ( <i>See Note Below</i> )	
	12066-HB	1		BLOCK, bottom	
	12067-HB	1		BLOCK, top	
8	15543-HB	2		BOLT - 1-1/4" x 5-1/2" ( <b>1500 ft.lbs. (2000 Nm)</b> )	
9	15544-HB	2		WASHER, flat - 1-1/4"	
10	18053-HB	1		PIN, chromed - 3" x 14-1/2"	
11	REF.	1	✓	UPPER TURNTABLE WELDMENT	

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

**Note:**

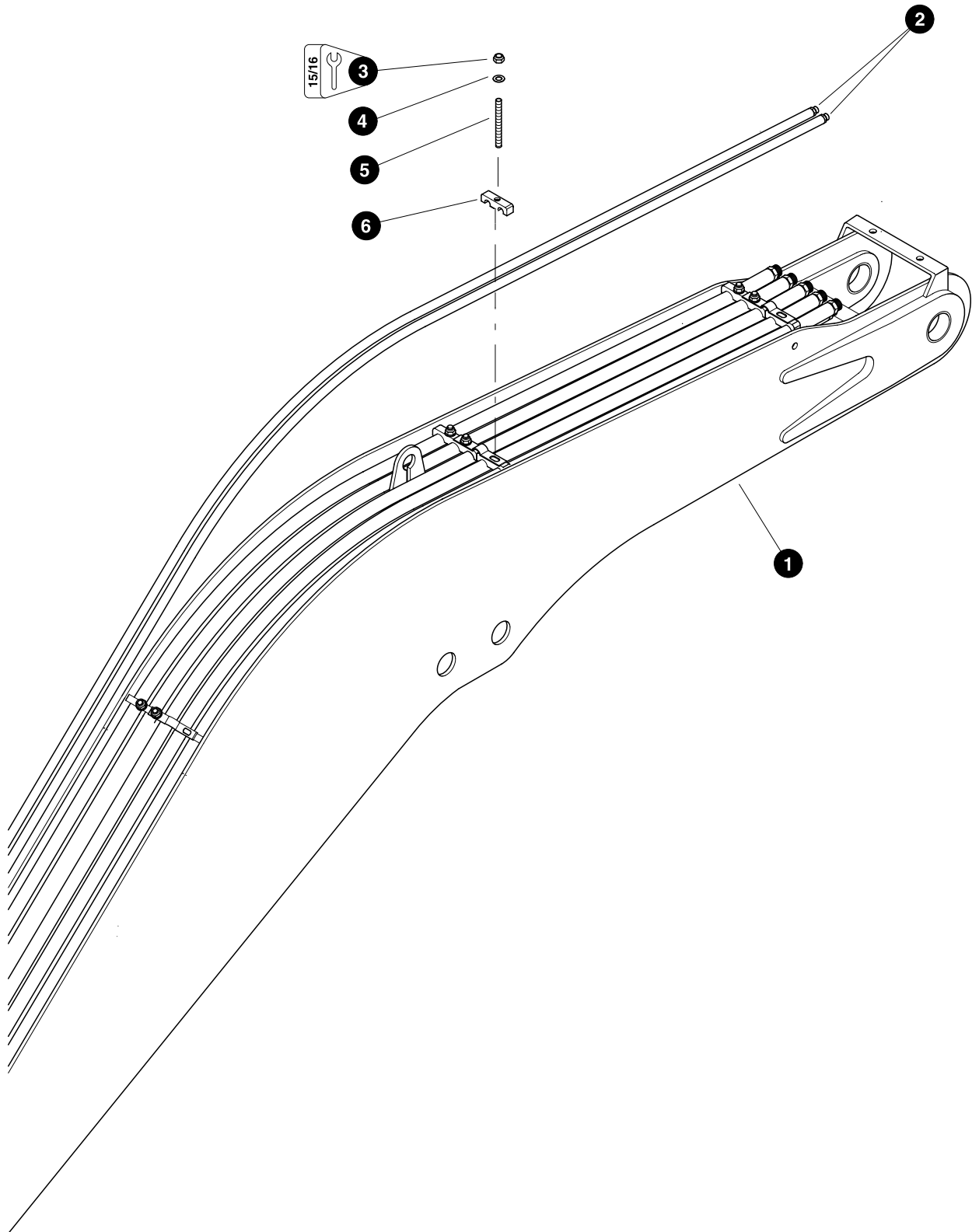
The pin retainer block weldments are machined assembled, therefore, the top (PN# 12067) and bottom (PN# 12066) blocks are a matched set. Timbco recommends installing a complete block weldment if either the top or bottom block must be replaced. This will insure the two halves mate properly to retain the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



## MAIN BOOM (HOIST) CYLINDER GREASE LINES

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	REF.	1	✓ MAIN BOOM (HOIST) CYLINDER .....	HB-5-2
2	17360-HB	2	HOSE ASSEMBLY - 2044-04-04PS-04JS ( <i>Grease line from rear of upper turntable to base of main boom cylinder</i> )	
3	15658-HB	2	CONNECTOR, straight bulkhead - 2239-2-4S	
4	10704-HB	2	FITTING, straight grease - 1/8" pipe thread	

✓ See referenced page for component or assembly breakdown.



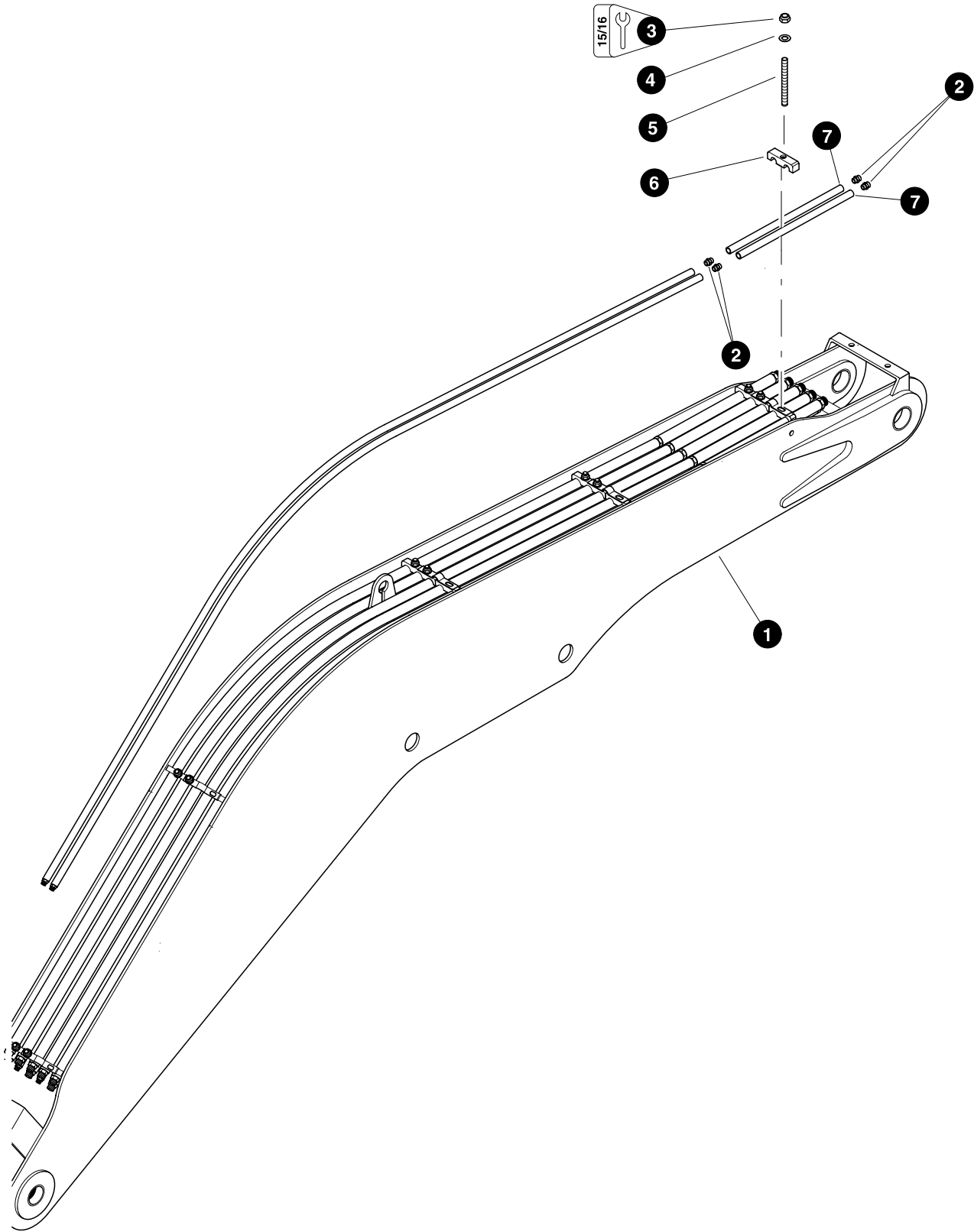
Parts 01107 03/16/99  
6.25



## OPTIONAL EXTRA 1/2" TUBELINES INSTALLATION (Standard Main Boom)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	<input checked="" type="checkbox"/>	MAIN BOOM WELDMNT .....	HB-1-2
2	85097-HB	2	<input type="checkbox"/>	TUBELINE - 1/2" x 153" ( <i>Bent</i> )	
	15117-HB	2		CONNECTOR, straight - FF1852T-0808S	
3	15563-HB	5		NUT, nylock - 5/8"	
4	10771-HB	5		WASHER, SAE flat - 5/8"	
5	17062-HB	5		STUD - 5/8" x 8"	
6	15272-HB	5		CLAMP, saddle top tube - 1/2" & 1/2"	

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



Parts 00588 07/07/98  
6.25

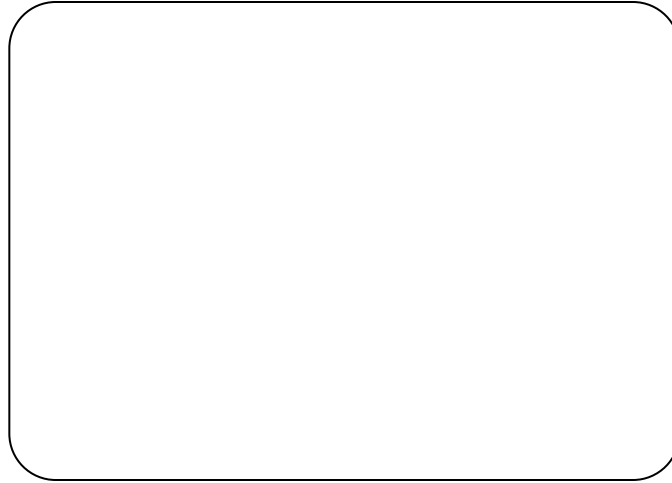
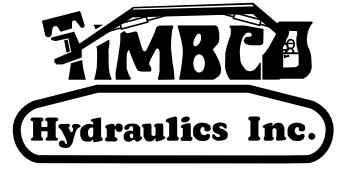
## OPTIONAL EXTRA 1/2" TUBELINES INSTALLATION (24"[61cm] Longer Main Boom)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	REF.	1	<input checked="" type="checkbox"/> MAIN BOOM WELDMENT .....	HB-1-2
2	19495-HB	2	<input type="checkbox"/> TUBELINE - 1/2" x 24"	
	15117-HB	1	CONNECTOR, straight - FF1852T-0808S (ORB-ORS)	
3	15563-HB	5	NUT, nylock - 5/8"	
4	10771-HB	5	WASHER, SAE flat - 5/8"	
5	17062-HB	5	STUD - 5/8" x 8"	
6	15272-HB	5	CLAMP, saddle top tube - 1/2" & 1/2"	

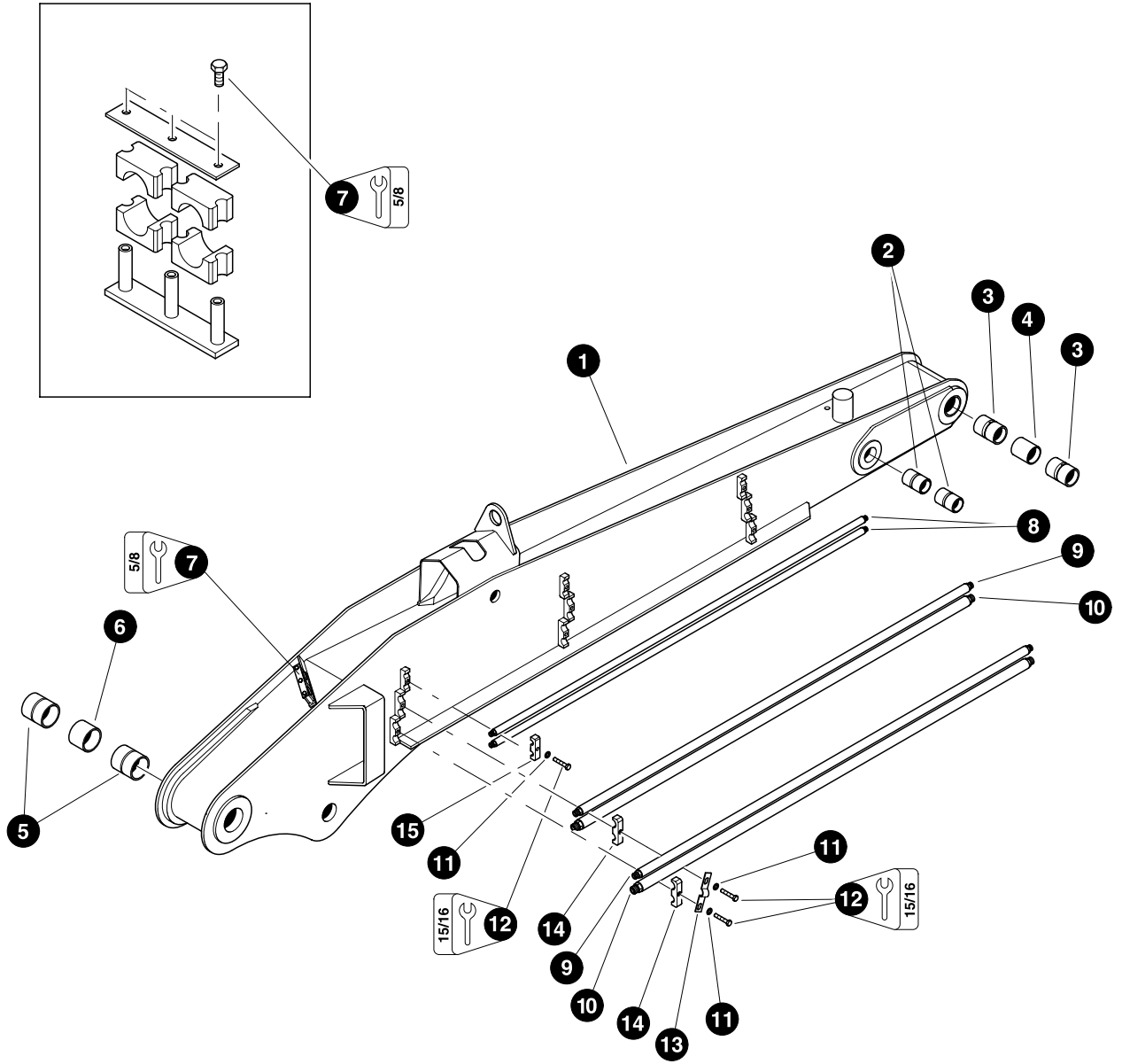
- See referenced page for component or assembly breakdown.
- Kit or Assembly - includes all items indented underneath.

# Section HB-2

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## *Harvester Booms - Stick Boom*

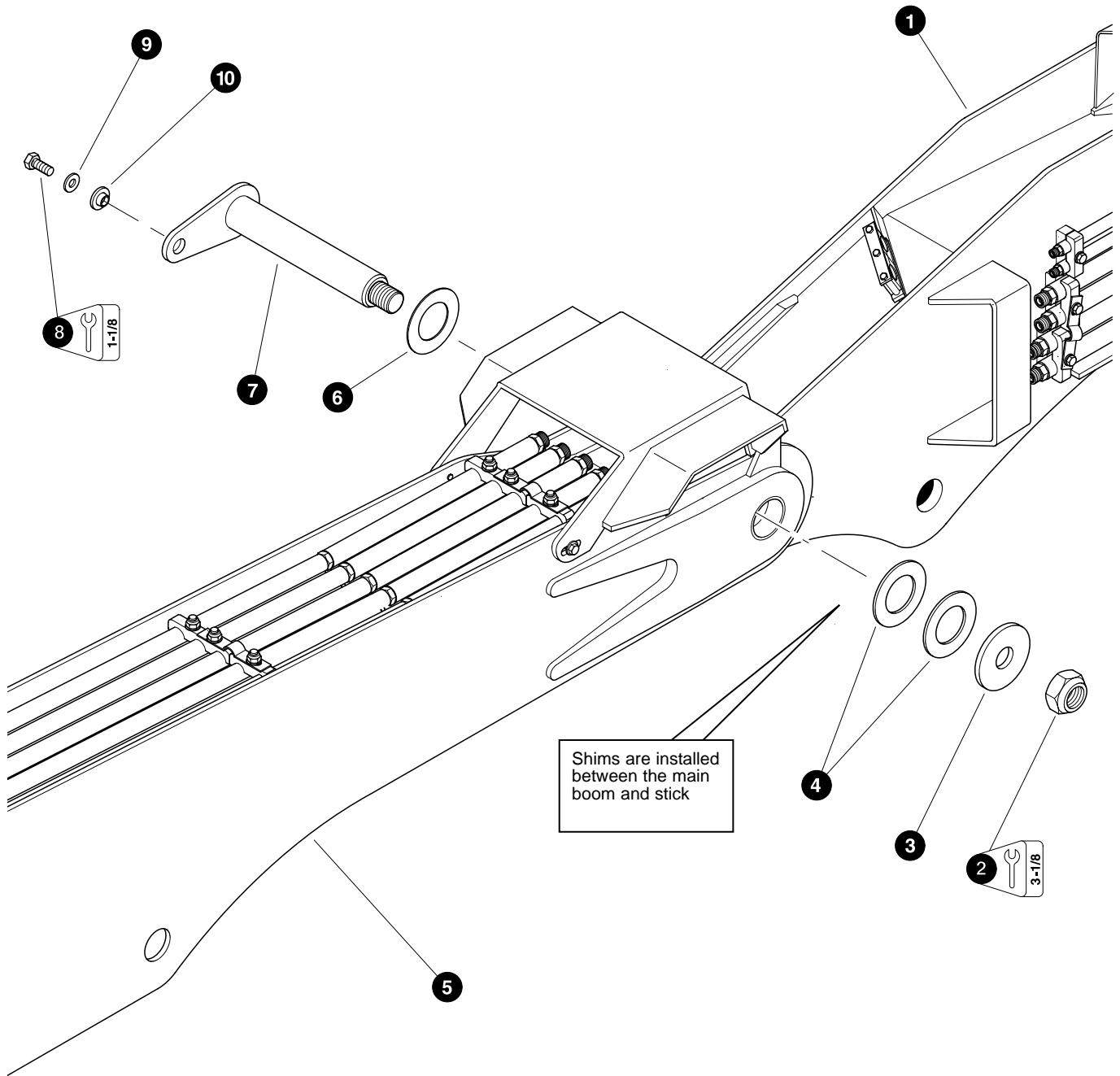


Parts 00590 07/08/98  
6.25

## STICK BOOM COMPONENTS

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	85070-HB	1	WELDMENT, stick boom - 3-1/2" pin	
2	12149-HB	2	BUSHING - 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" ( <i>Straight</i> )	
	15117-HB	2	CONNECTOR, straight - FF1852T-0808S	
9	16507-HB	1	<input type="checkbox"/> TUBELINE - 3/4" x 84" ( <i>Straight</i> )	
	15152-HB	2	CONNECTOR, straight - FF1852T-1212S	
10	16506-HB	1	<input type="checkbox"/> TUBELINE - 1" x 84" ( <i>Straight</i> )	
	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.

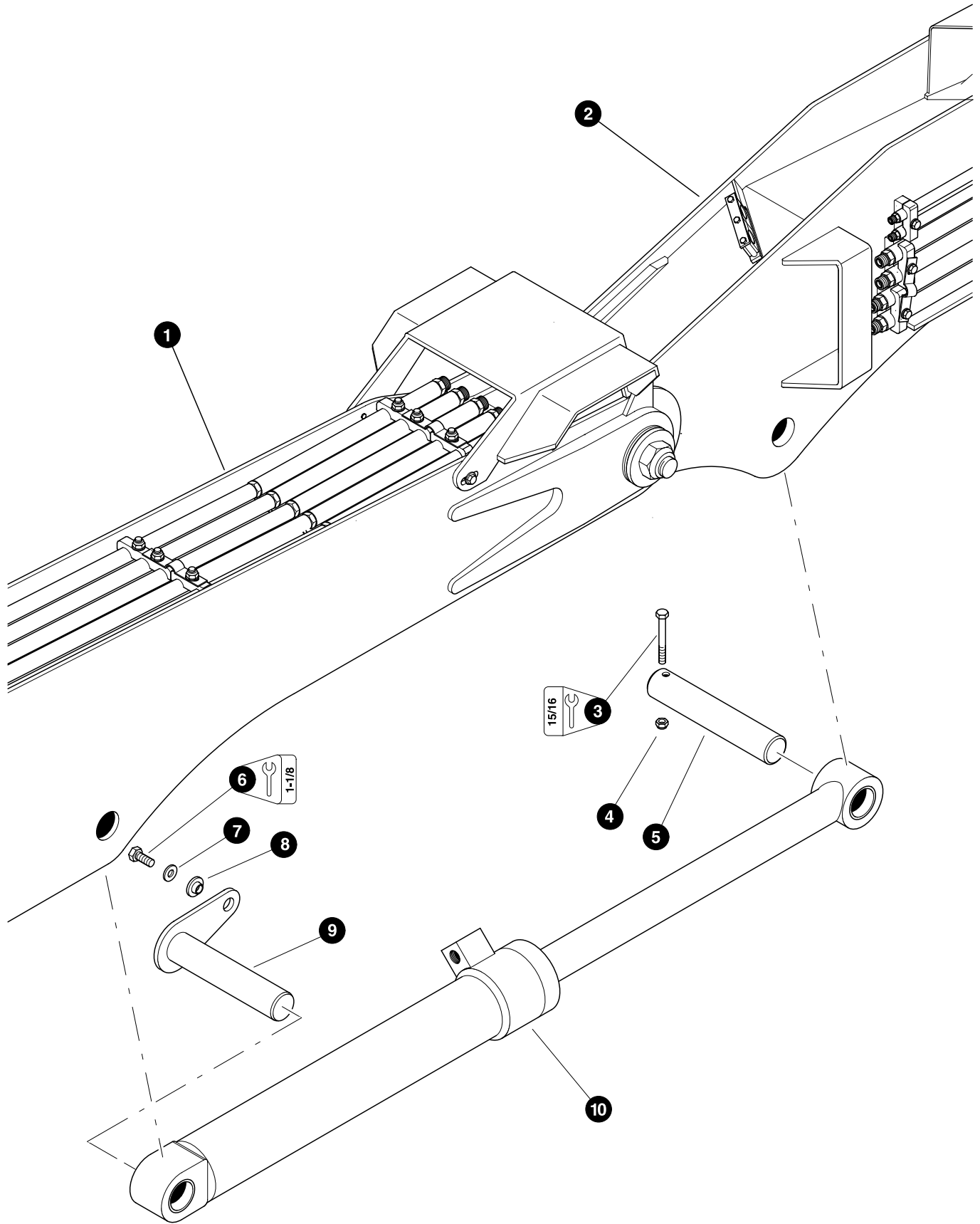


## STICK BOOM INSTALLATION

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	STICK BOOM ASSEMBLY .....	HB-2-2
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-1-2
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.



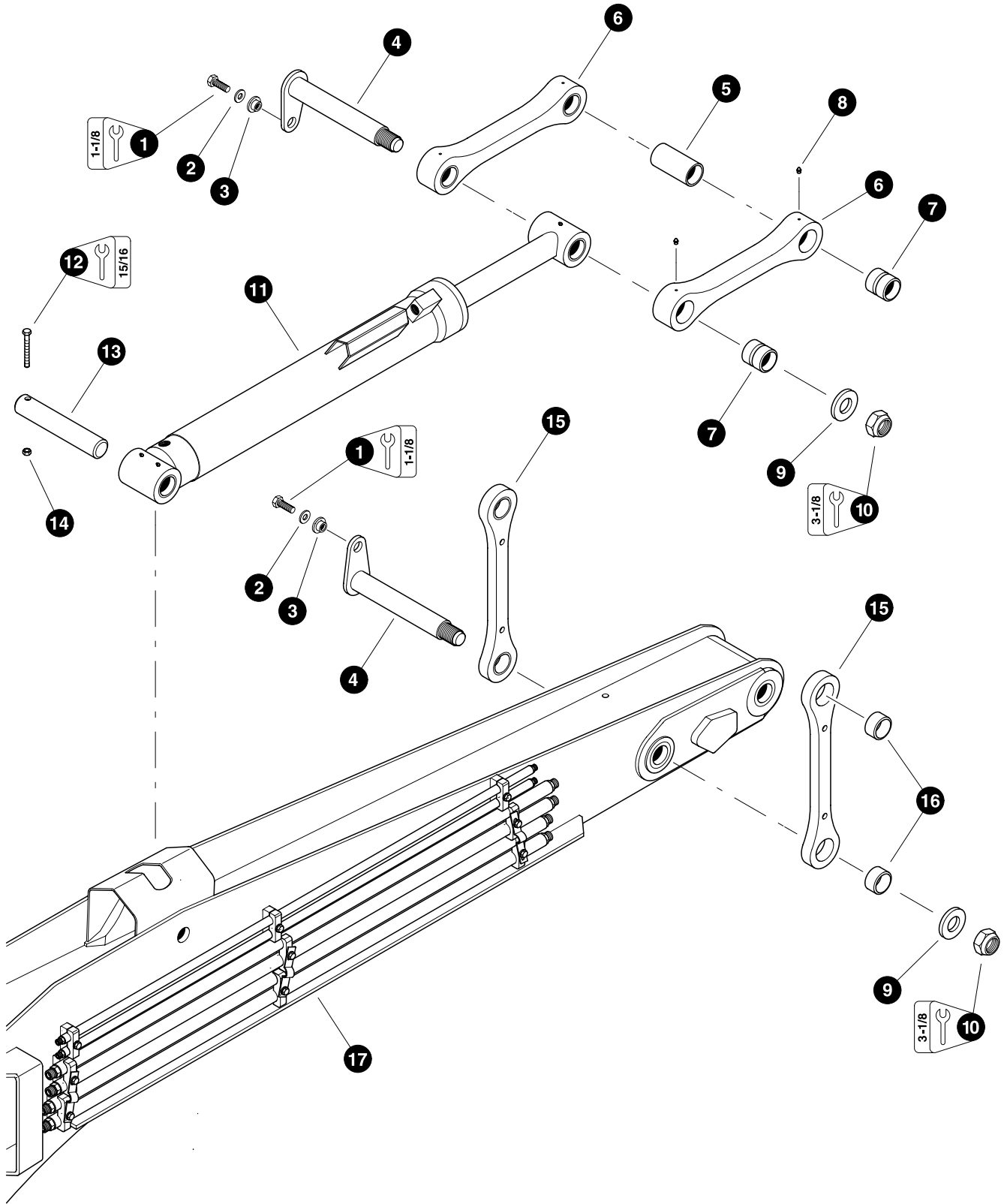


Parts 00587 07/07/98  
12.5

## STICK BOOM (JIB) CYLINDER INSTALLATION

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

✓ See referenced page for component or assembly breakdown.

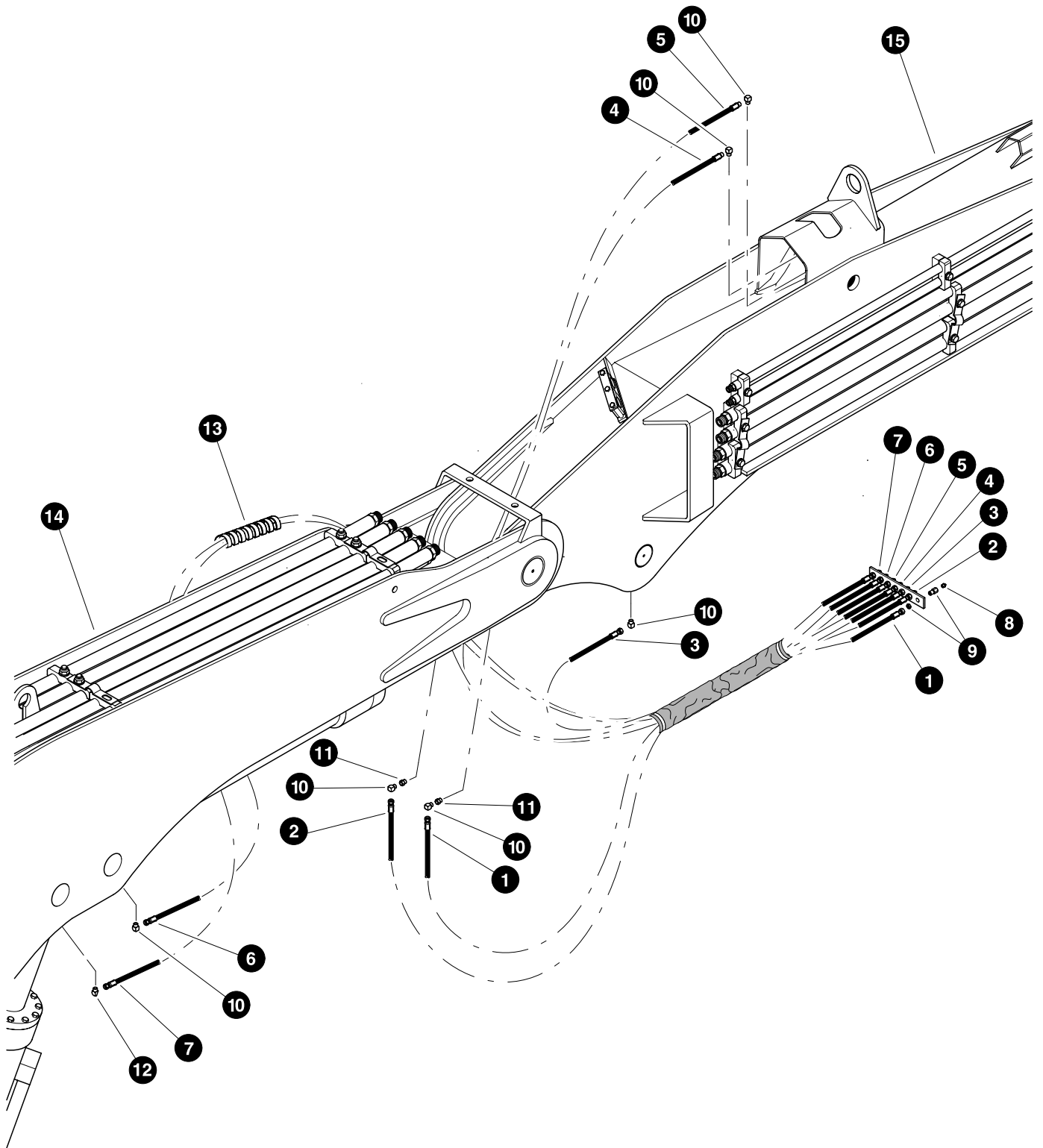


Parts 01284 08/19/99  
9.375

## 4-BAR LINKAGE INSTALLATION

REF	PART #	QTY	DESCRIPTION	SEE PAGE
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	<input type="checkbox"/> 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	<input checked="" type="checkbox"/> TOOL TILT CYLINDER .....	HB-5-6
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	<input type="checkbox"/> LINK, connecting - side	
16	14242-HB	2	BUSHING - 2-1/2" x 1-1/2"	
17	REF.	1	<input checked="" type="checkbox"/> STICK BOOM ASSEMBLY .....	HB-2-2

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

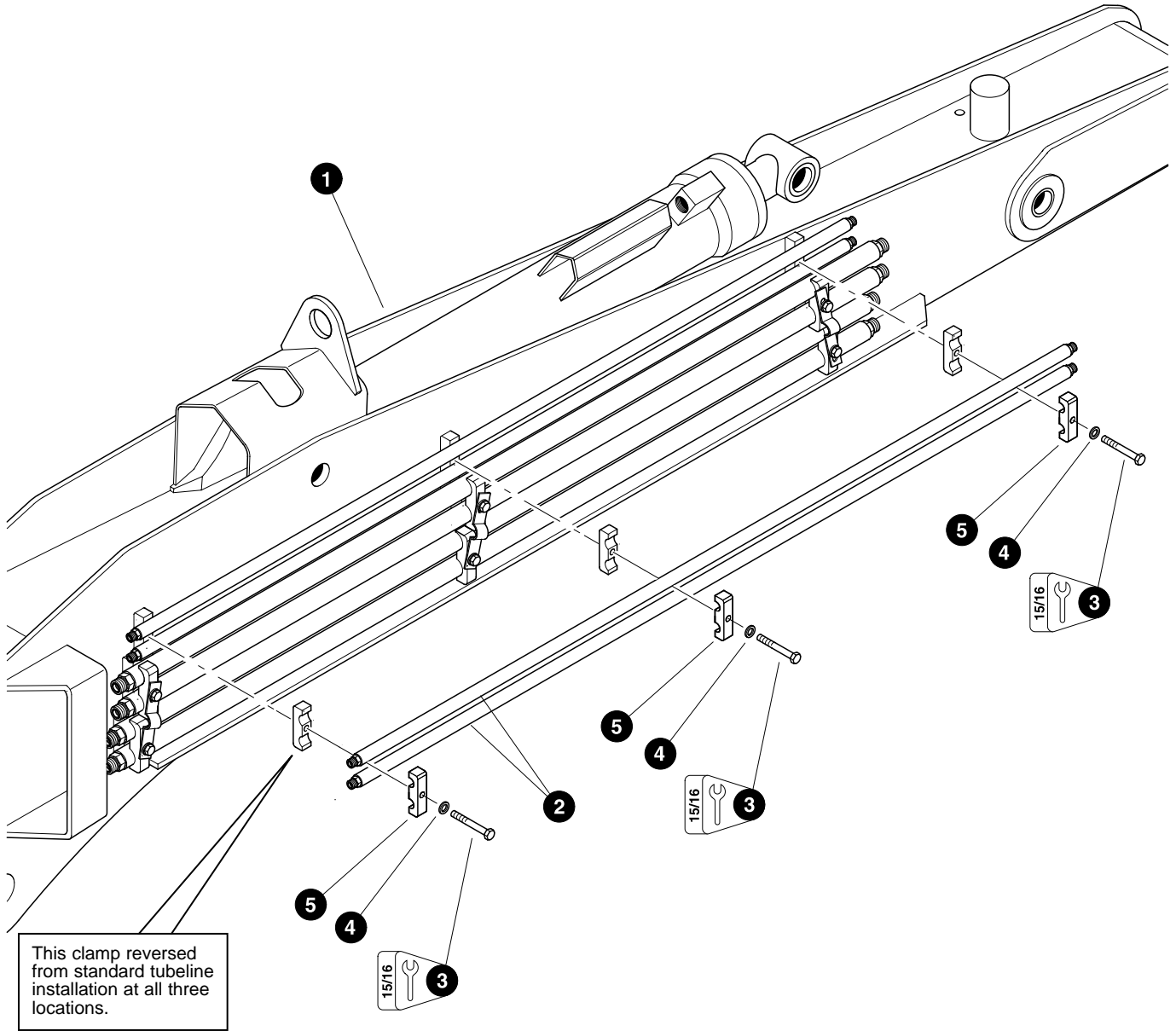


Parts 01114 03/18/99  
9.375

## BOOM GREASE LINES

REF	PART #	QTY	DESCRIPTION	SEE PAGE
-	22043-HB	1	KIT, hose - grease lines ( <i>Standard main boom</i> )	
-	21328-HB	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	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	✂ PROTECTOR, spiral hose wrap	
14	REF.	1	✓ MAIN BOOM ASSEMBLY .....	HB-1-2
15	REF.	1	✓ STICK BOOM ASSEMBLY .....	HB-2-2

✓ See referenced page for component or assembly breakdown.

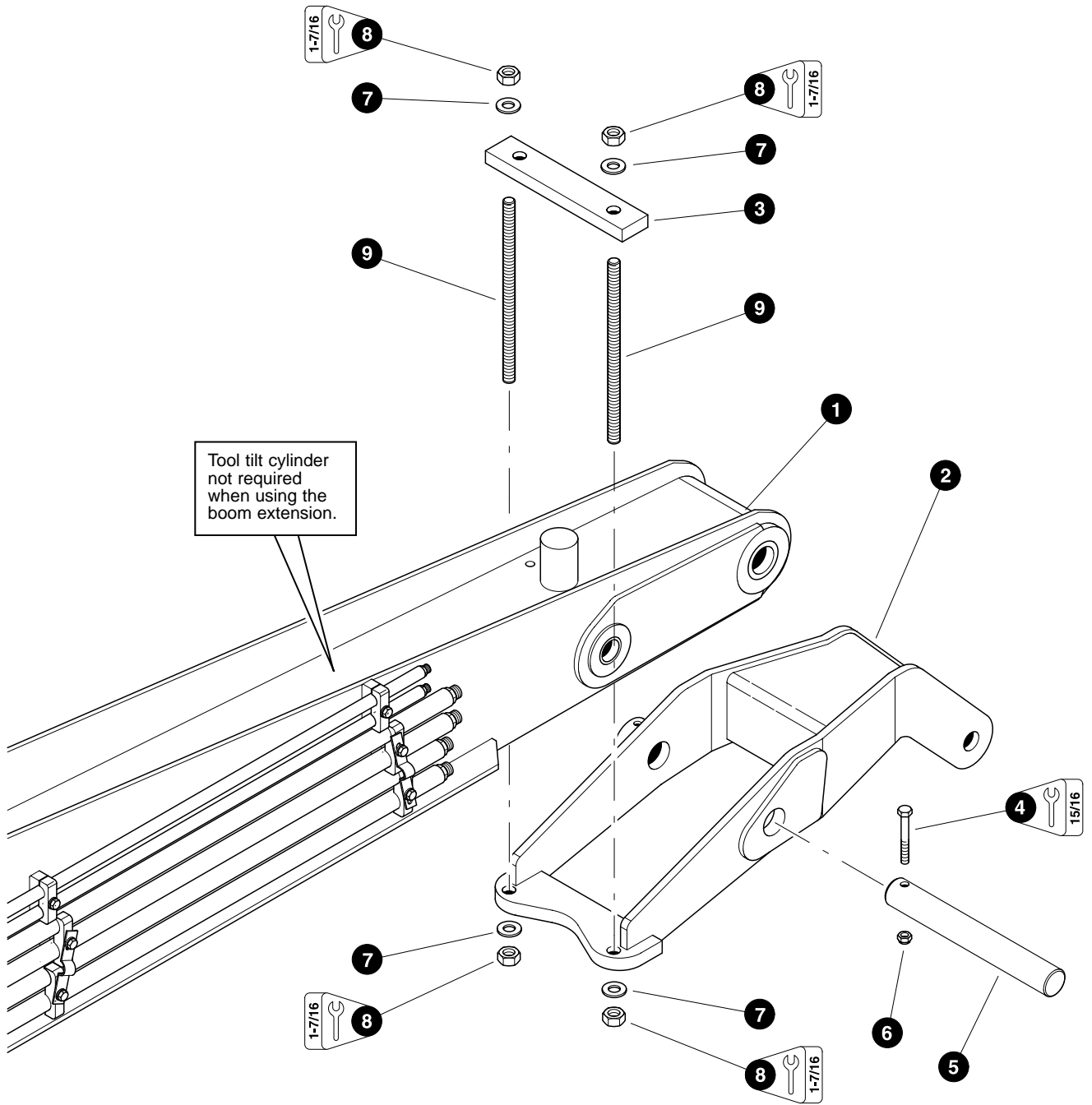


## OPTIONAL EXTRA 1/2" TUBELINES INSTALLATION

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	REF.	1	<input checked="" type="checkbox"/> STICK BOOM ASSEMBLY .....	HB-2-2
2	16513-HB	1	<input type="checkbox"/> TUBELINE - 1/2" x 80" ( <i>Straight</i> )	
	15117-HB	2	CONNECTOR, straight - FF1852T-0808S	
3	10719-HB	3	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"	

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





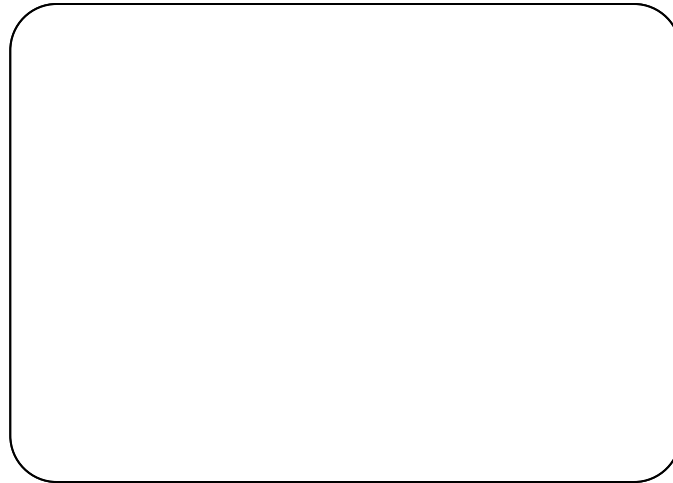
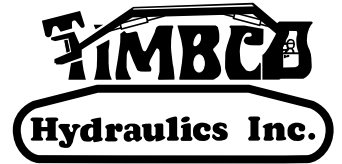
## OPTIONAL BOOM EXTENSION INSTALLATION (Used with "Dangle" Processor Cutting Attachments)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	REF.	1	<input checked="" type="checkbox"/> STICK BOOM ASSEMBLY .....	HB-2-2
2	17691-HB	1	<input type="checkbox"/> 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" ( <i>Grade 8 ready rod</i> )	

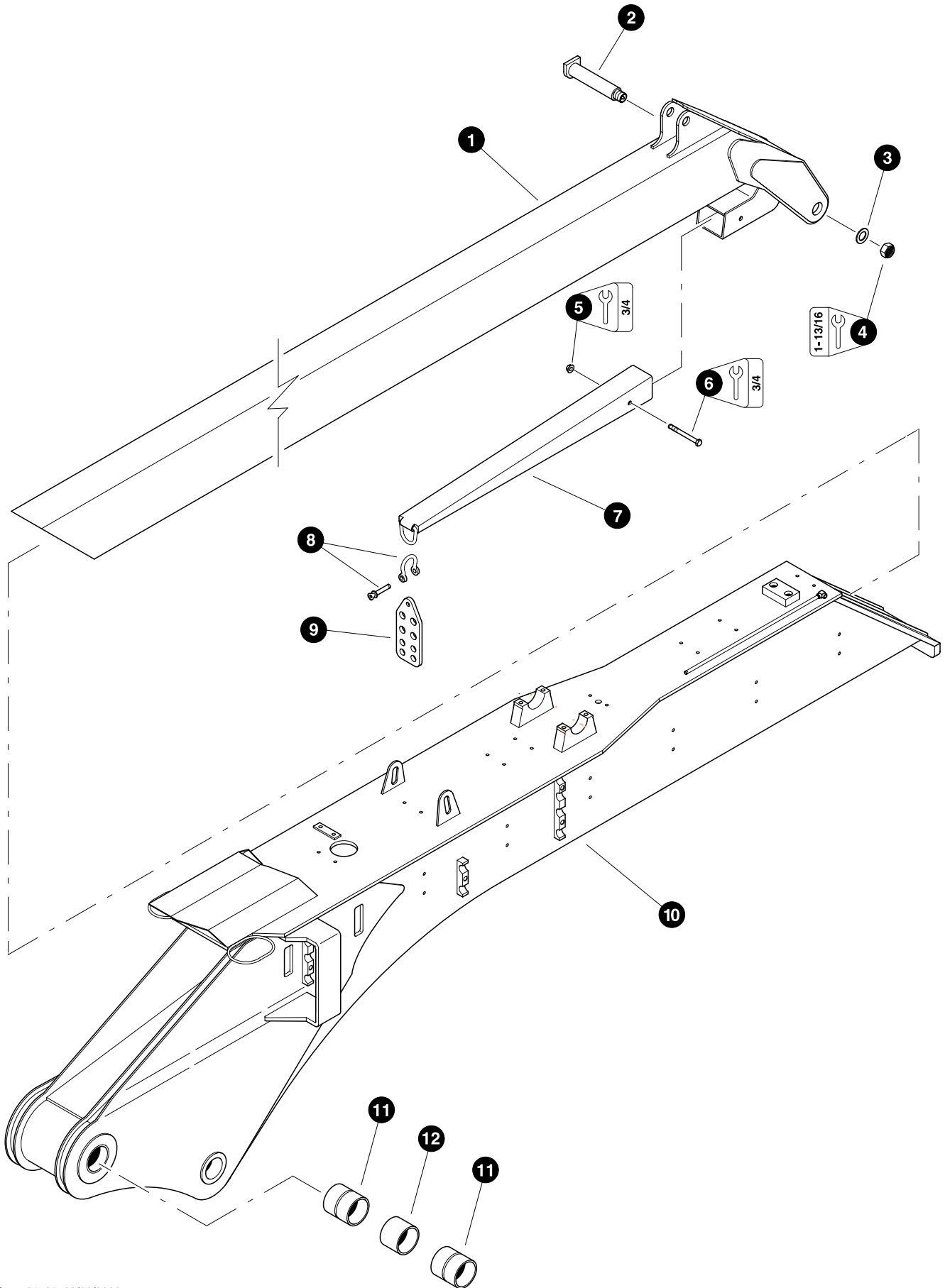
- See referenced page for component or assembly breakdown.
- Kit or Assembly - includes all items indented underneath.

# Section HB-3

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## *Harvester Booms - Telescopic Stick Boom*

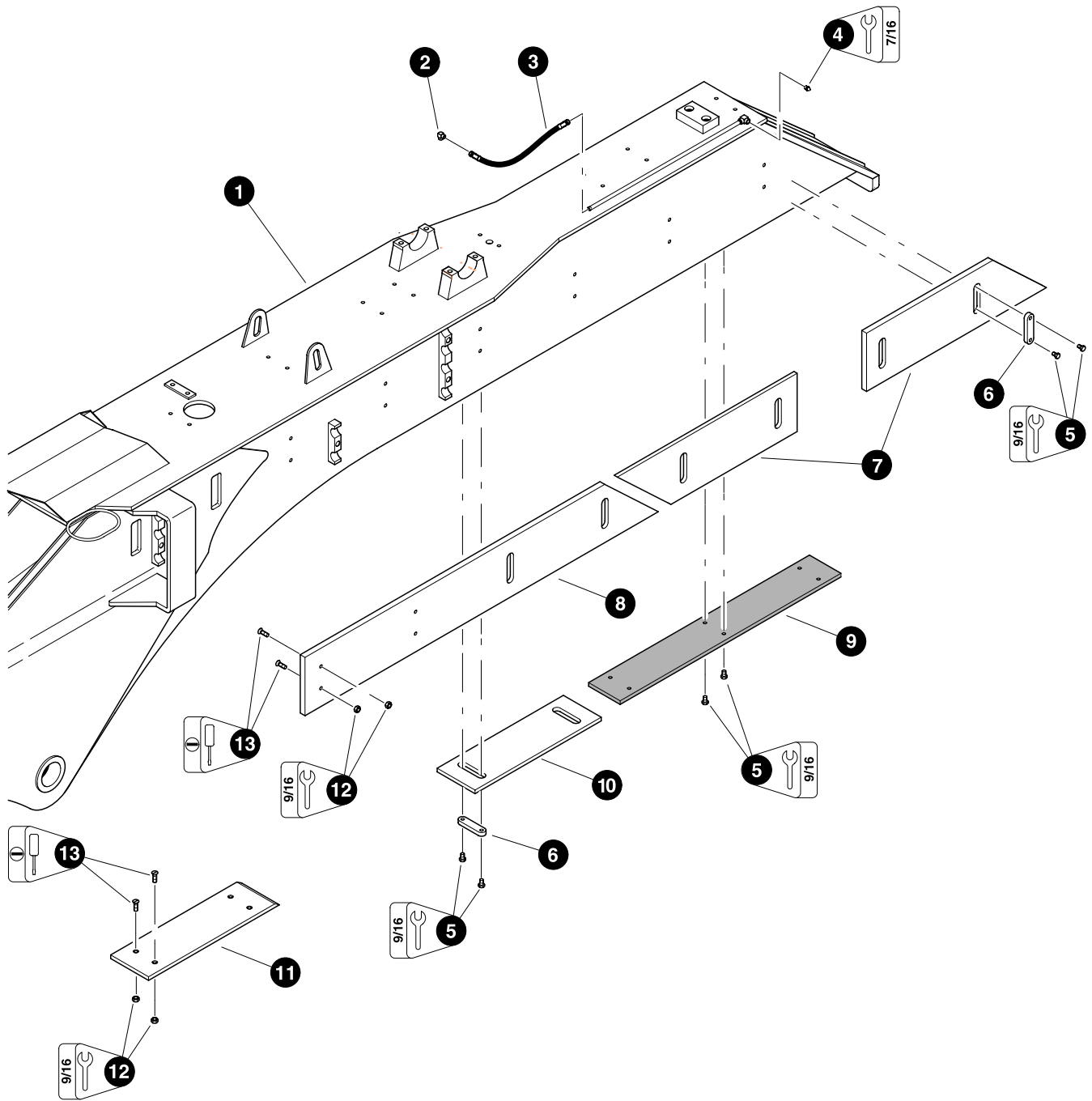


Parts 01789 08/30/2000  
9.375

**TELESCOPIC BOOM WELDMENT ASSEMBLY**

REF	PART #	QTY		DESCRIPTION	SEE PAGE
-	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.

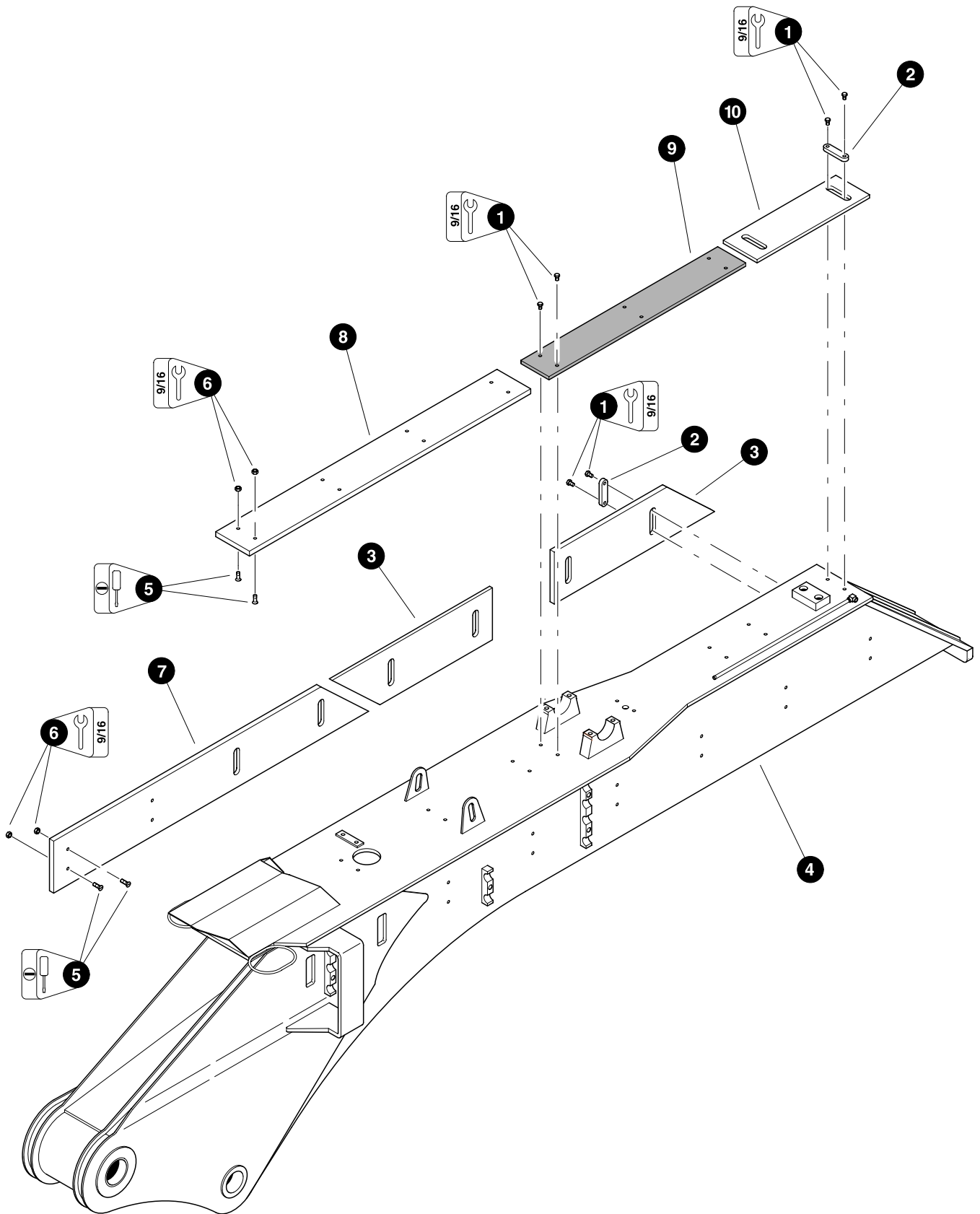


Parts 01790 08/30/2000  
9.375

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

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	WELDMENT, telescopic . . . . .	HB-3-2
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.



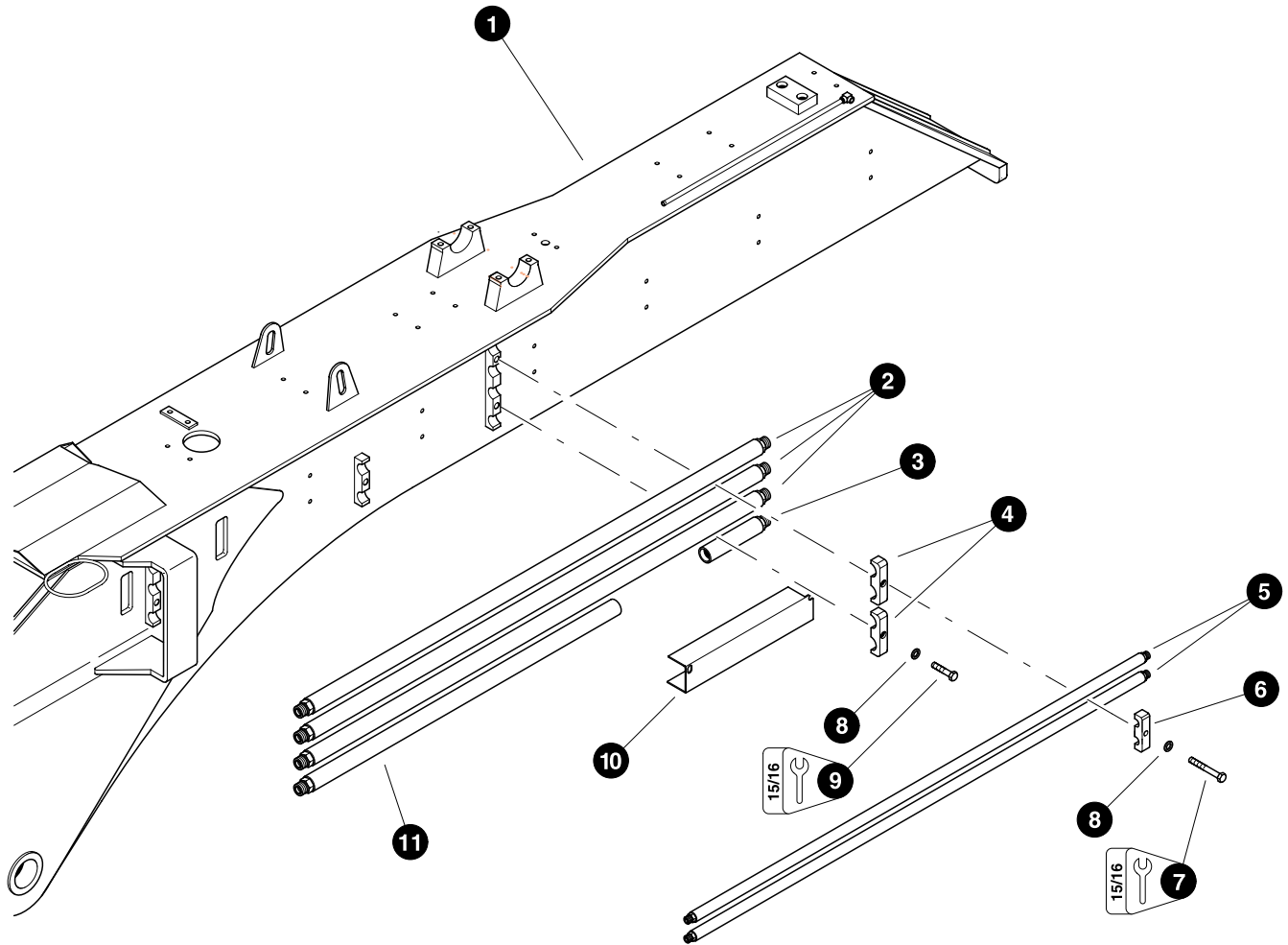
Parts 01791 08/31/2000  
9.375



## WEAR PLATE INSTALLATION (Left Side & Top Plates)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
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	<input type="checkbox"/> PLATE, wear - 8" x 19" - 45°	
	21071-HB	AR	SHIM, wear plate 8" x 19" - 45°	
4	REF.	1	<input checked="" type="checkbox"/> WELDMENT, telescopic .....	HB-3-2
5	21080-HB	8	SCREW, wear plate mounting	
6	10700-HB	8	NUT, hex - 3/8"	
7	21073-HB	1	<input type="checkbox"/> 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	<input type="checkbox"/> PLATE, wear - brass tapped	
	21075-HB	AR	SHIM, brass wear plate	
10	21076-HB	1	<input type="checkbox"/> PLATE, wear - 6" x 20"	
	21077-HB	AR	SHIM, wear plate - 6" x 20"	

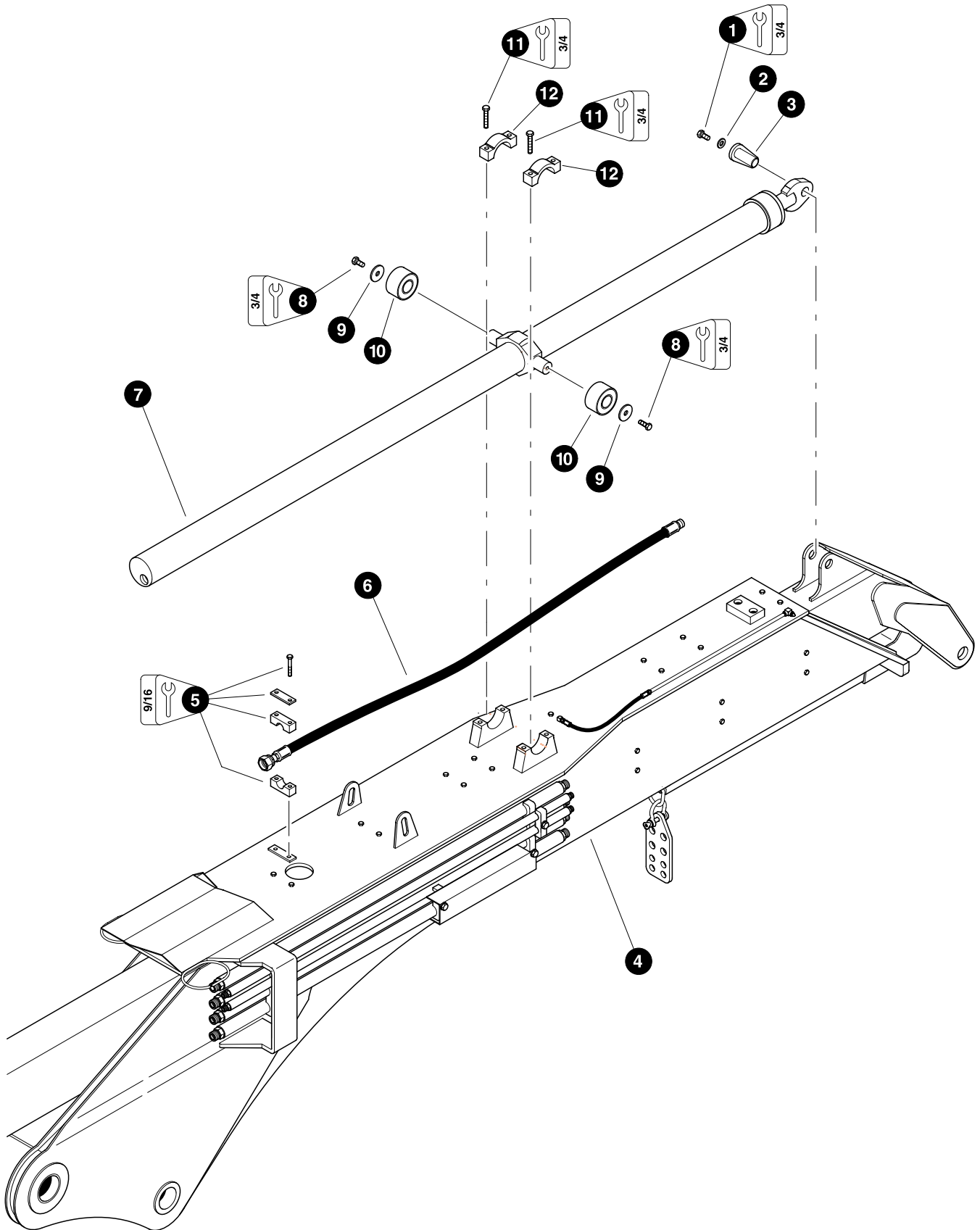
- Kit or Assembly - includes all items indented underneath.  
 See referenced page for component or assembly breakdown.



## TUBELINE INSTALLATION

REF	PART #	QTY	DESCRIPTION	SEE PAGE
1	REF.	1	✓ WELDMENT, telescopic . . . . .	HB-3-2
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 ( <i>electrical</i> )	
11	23500-HB	1	TUBELINE, electrical stub - 1"	

✓ See referenced page for component or assembly breakdown.

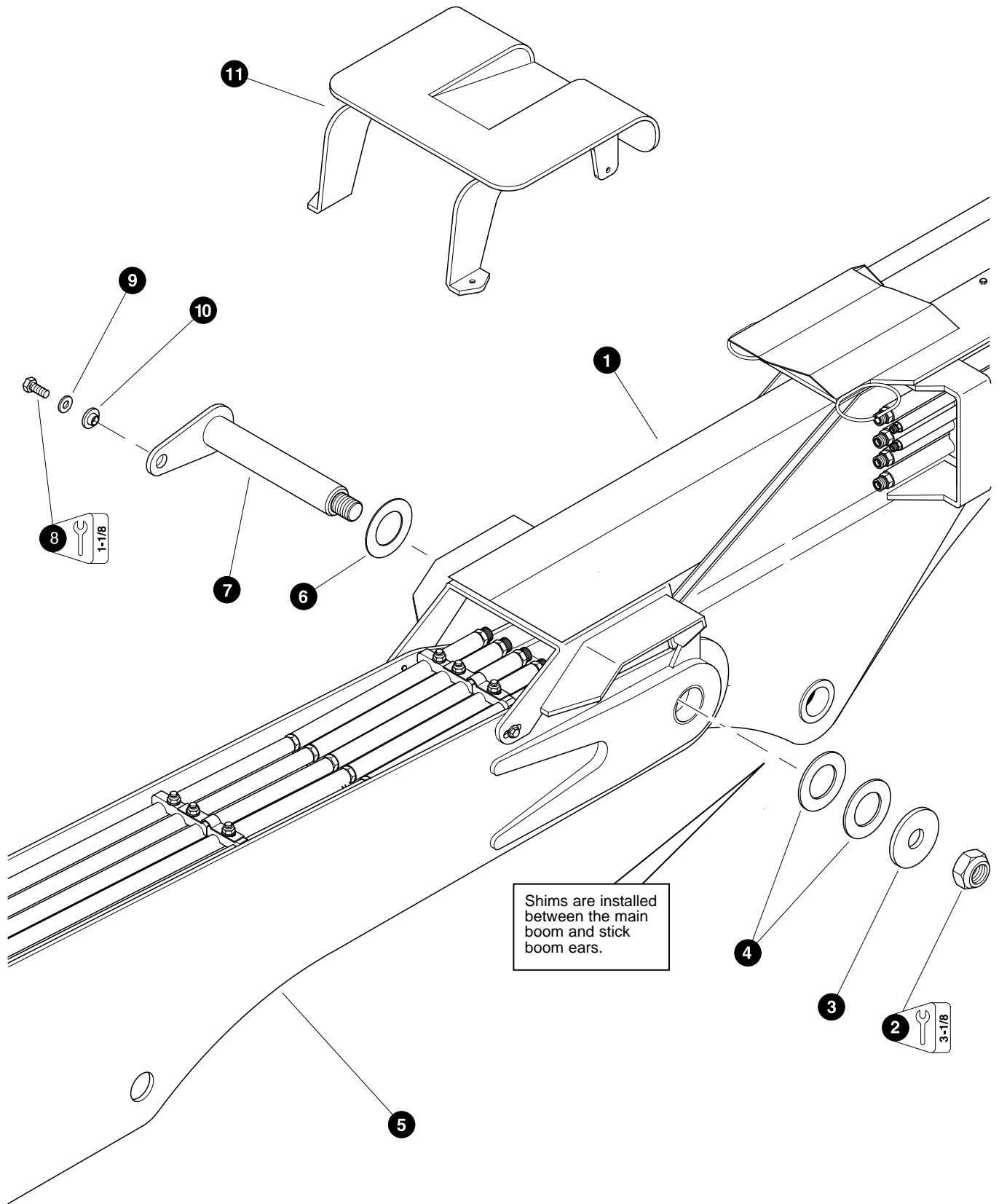


Parts 01793 08/31/2000  
9.375

## EXTENSION CYLINDER INSTALLATION

REF	PART #	QTY	DESCRIPTION	SEE PAGE
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-3-2
5	-----	1	CLAMP, vermatic	
6	23501	1	HOSE ASSEMBLY - 4081-12-160S-12PS ( <i>Vermatic clamp to extension cylinder rod end port</i> )	
7	REF.	1	✓ EXTENSION CYLINDER .....	HB-5-8
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.

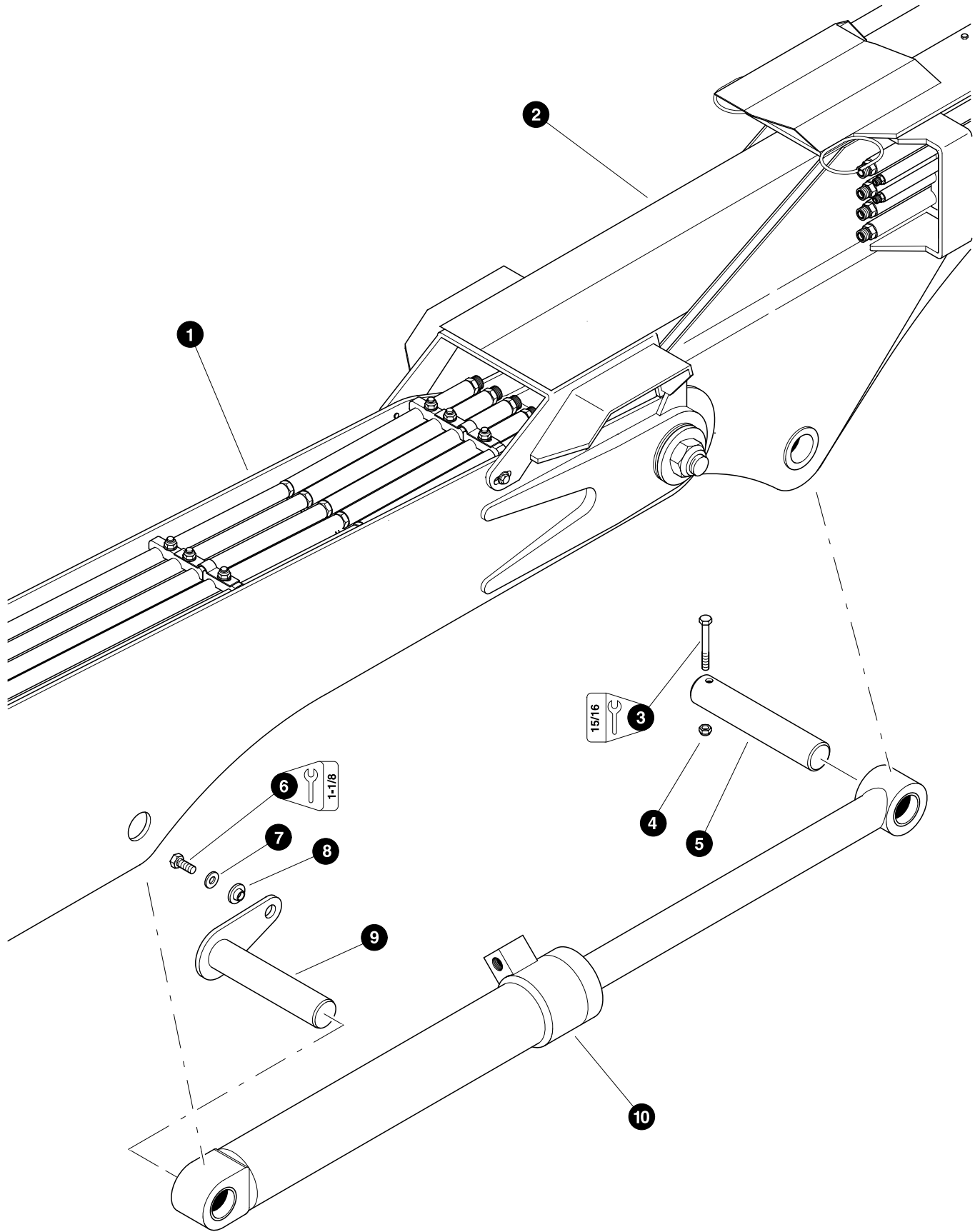


Parts 01794 08/31/2000  
12.50

## TELESCOPIC BOOM INSTALLATION

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	STICK BOOM ASSEMBLY .....	HB-2-2
2	10728	1		NUT, nylock - 2"	
3	19384	1		WASHER, burned	
4	19144	AR		SHIM	
5	REF.	1	✓	MAIN BOOM ASSEMBLY .....	HB-1-2
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 ( <i>Used only with telescopic boom</i> )	

✓ See referenced page for component or assembly breakdown.



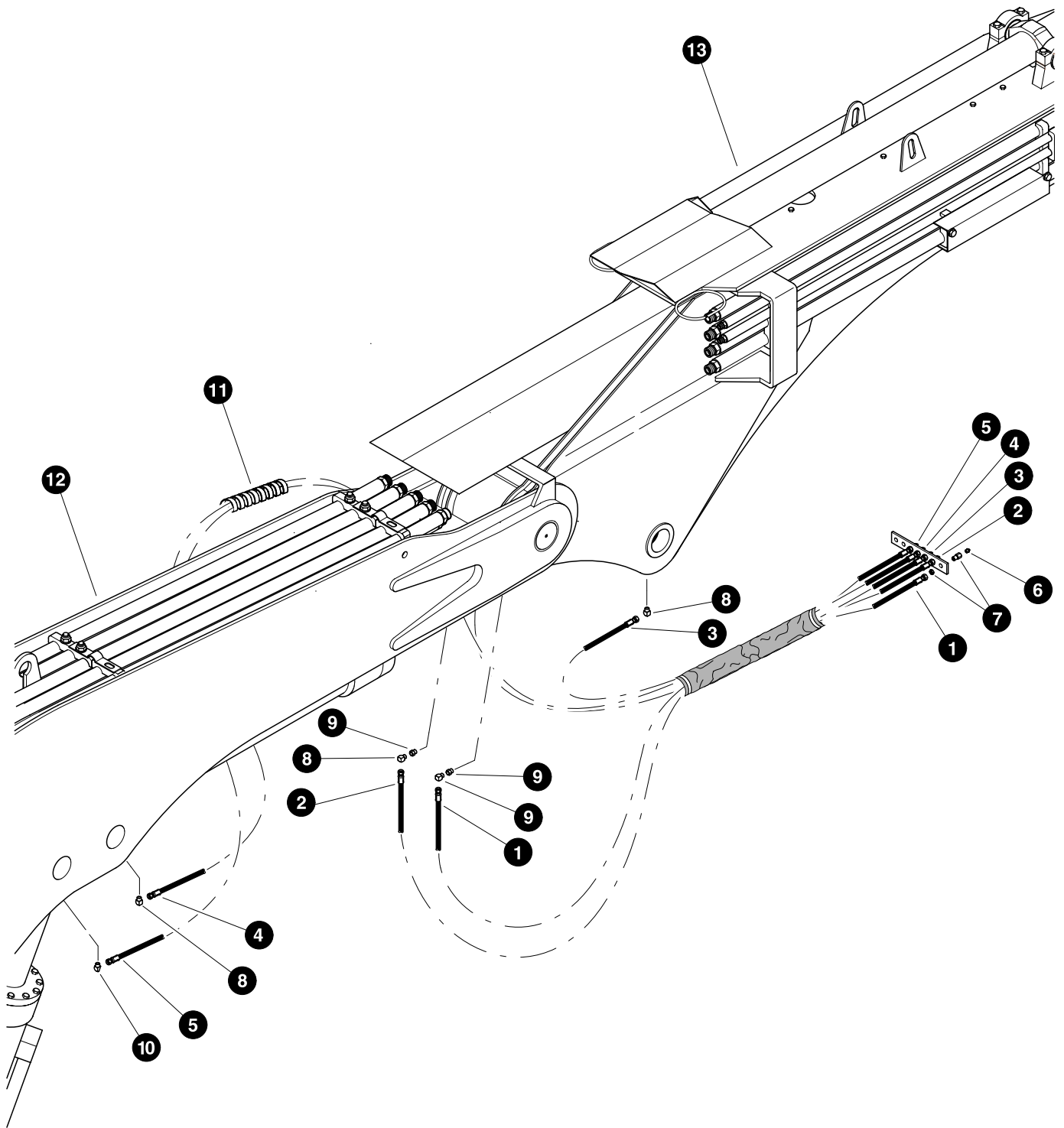
Parts 01795 08/31/2000  
12.50



## STICK BOOM (JIB) CYLINDER INSTALLATION

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	MAIN BOOM ASSEMBLY .....	HB-1-2
2	REF.	1	✓	STICK BOOM ASSEMBLY .....	HB-2-2
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-5-4
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 09/26/2000  
9.375

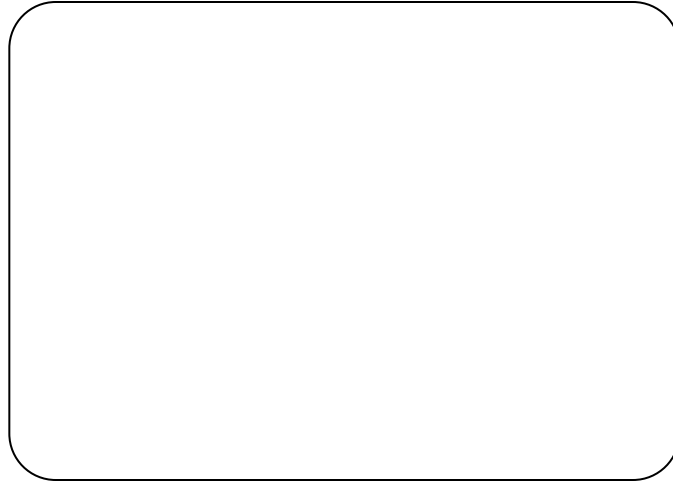
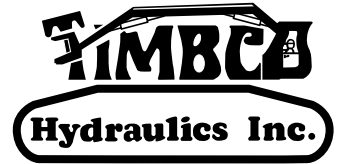
## BOOM GREASE LINES

REF	PART #	QTY	DESCRIPTION	SEE PAGE
-	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 .....	H.1.2
13	REF.	1	✓ STICK BOOM ASSEMBLY .....	H.2.2

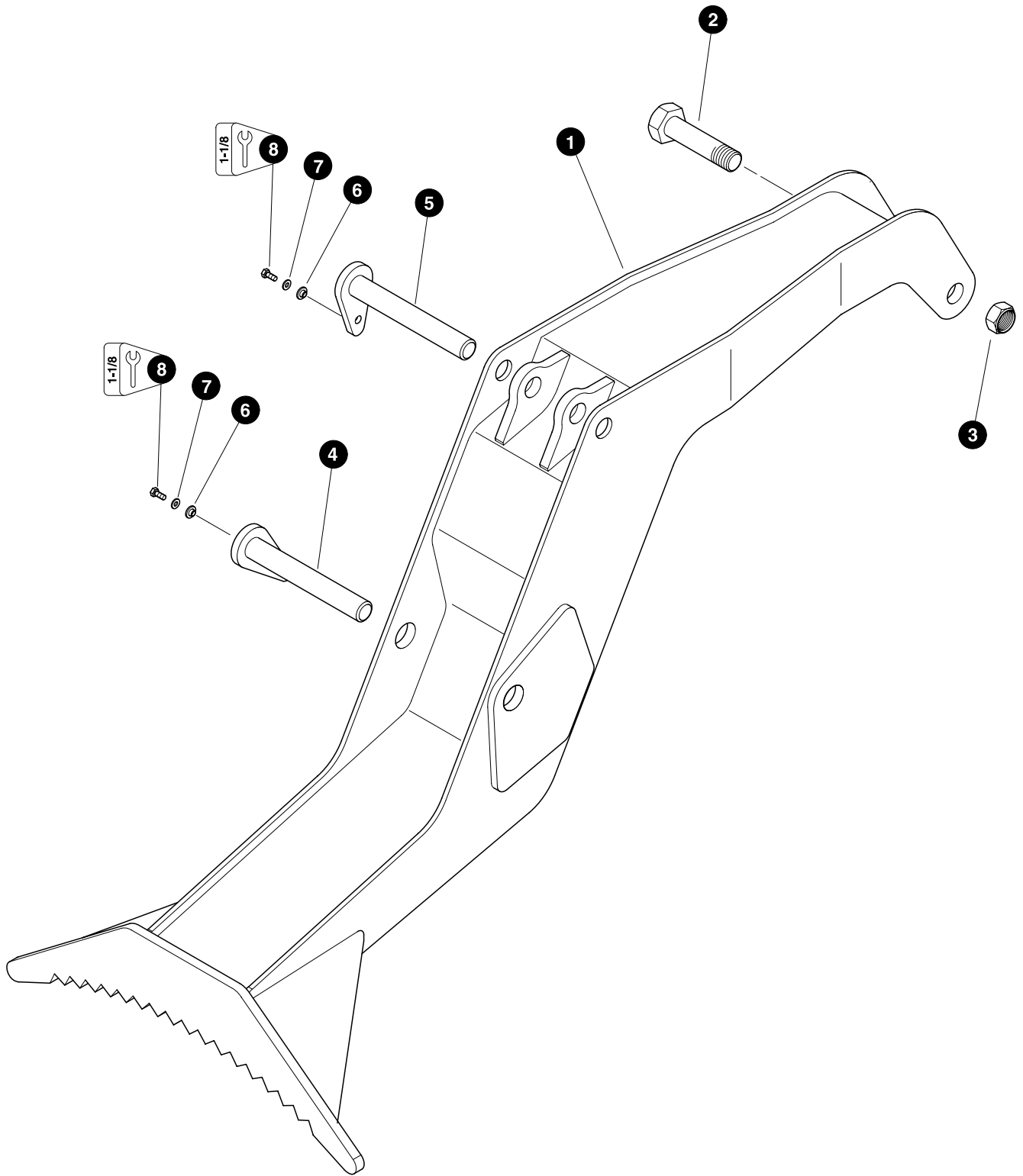
✓ See referenced page for component or assembly breakdown.

# Section HB-4

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## ***Harvester Booms - Heel Boom (Shovel Logging Adapter)***

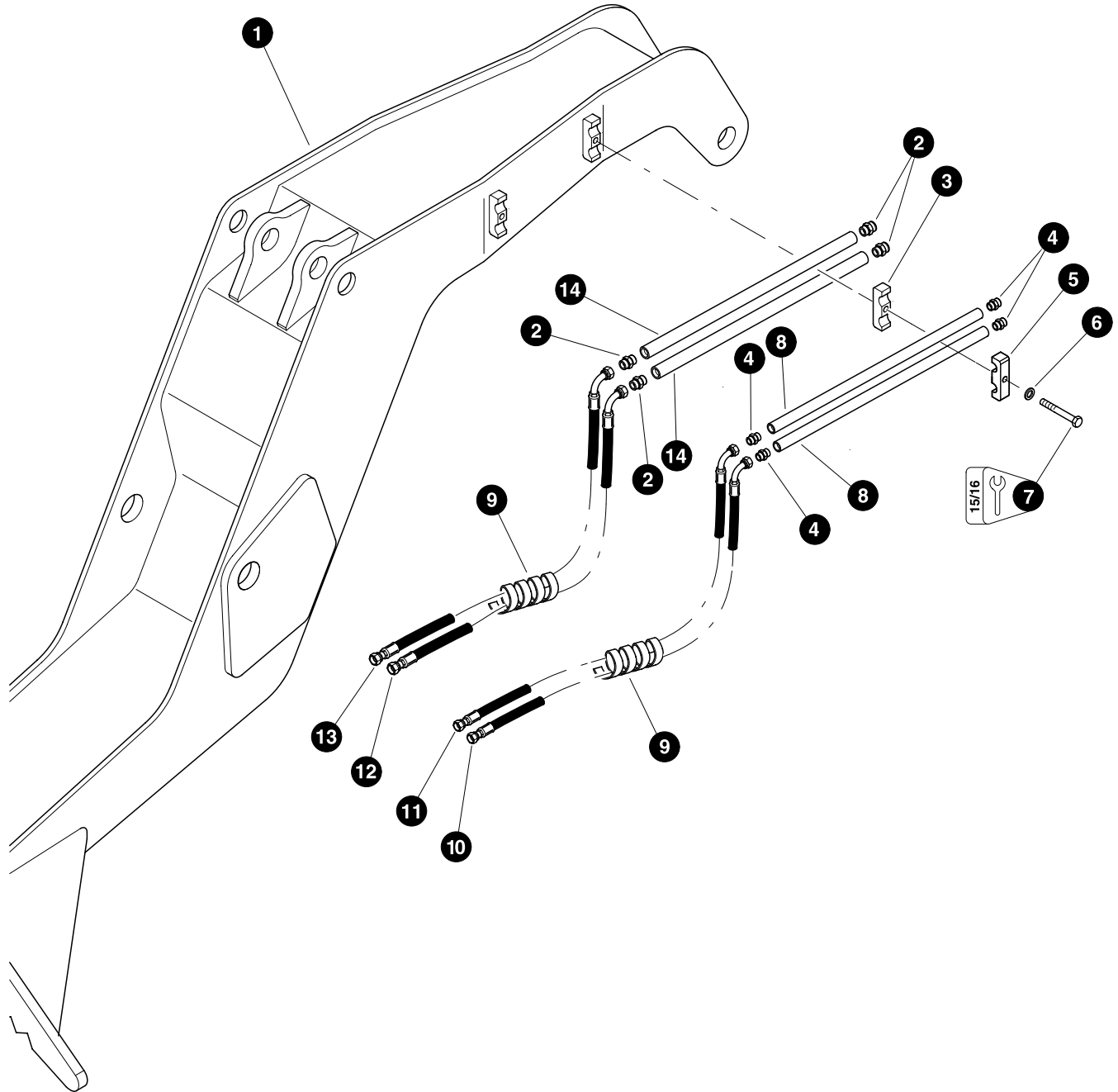


Parts 00916 12/01/98  
12.50

**HEEL BOOM WELDMENT INSTALLATION**

<b>REF</b>	<b>PART #</b>	<b>QTY</b>	<b>DESCRIPTION</b>	<b>SEE PAGE</b>
1	20181-HB	1	HEEL BOOM WELDMENT	
2	22045-HB	1	PIN, heel to attachment	
3	10728-HB	1	NUT, nylock - 2"	
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"	

- ✓ See referenced page for component or assembly breakdown.



Parts 00913 12/01/98  
12.50

## HEEL BOOM TUBELINES & HOSES

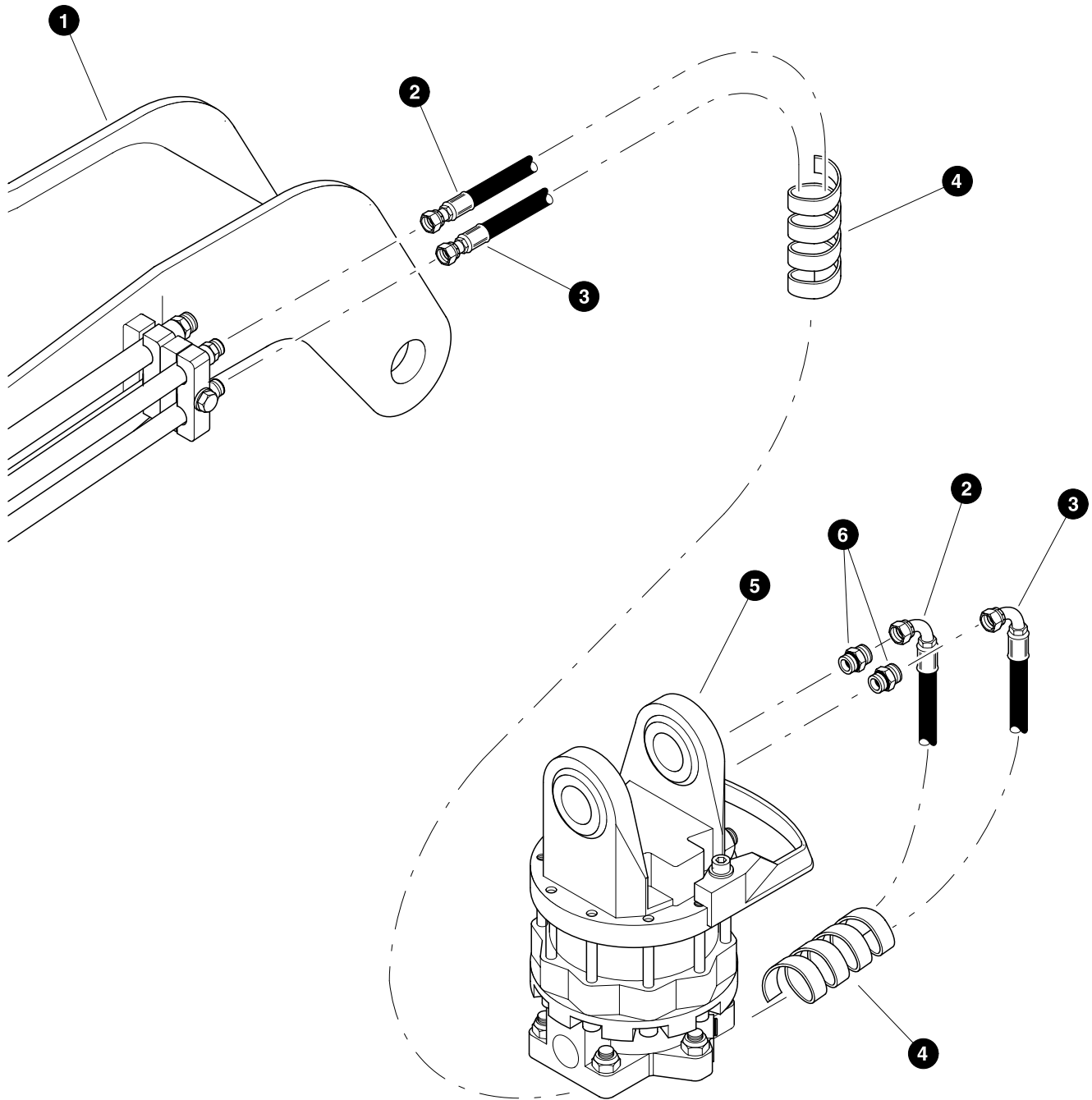
(With - 1/2" and 3/4" Attachment Supply Lines)

REF	PART #	QTY		DESCRIPTION	SEE PAGE
1	REF.	1	✓	HEEL BOOM WELDMENT .....	HB-4-2
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"	

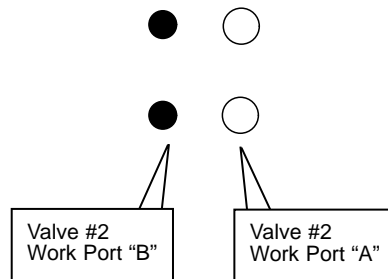
✓ See referenced page for component or assembly breakdown.

>∞ 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 12/01/98  
25.00

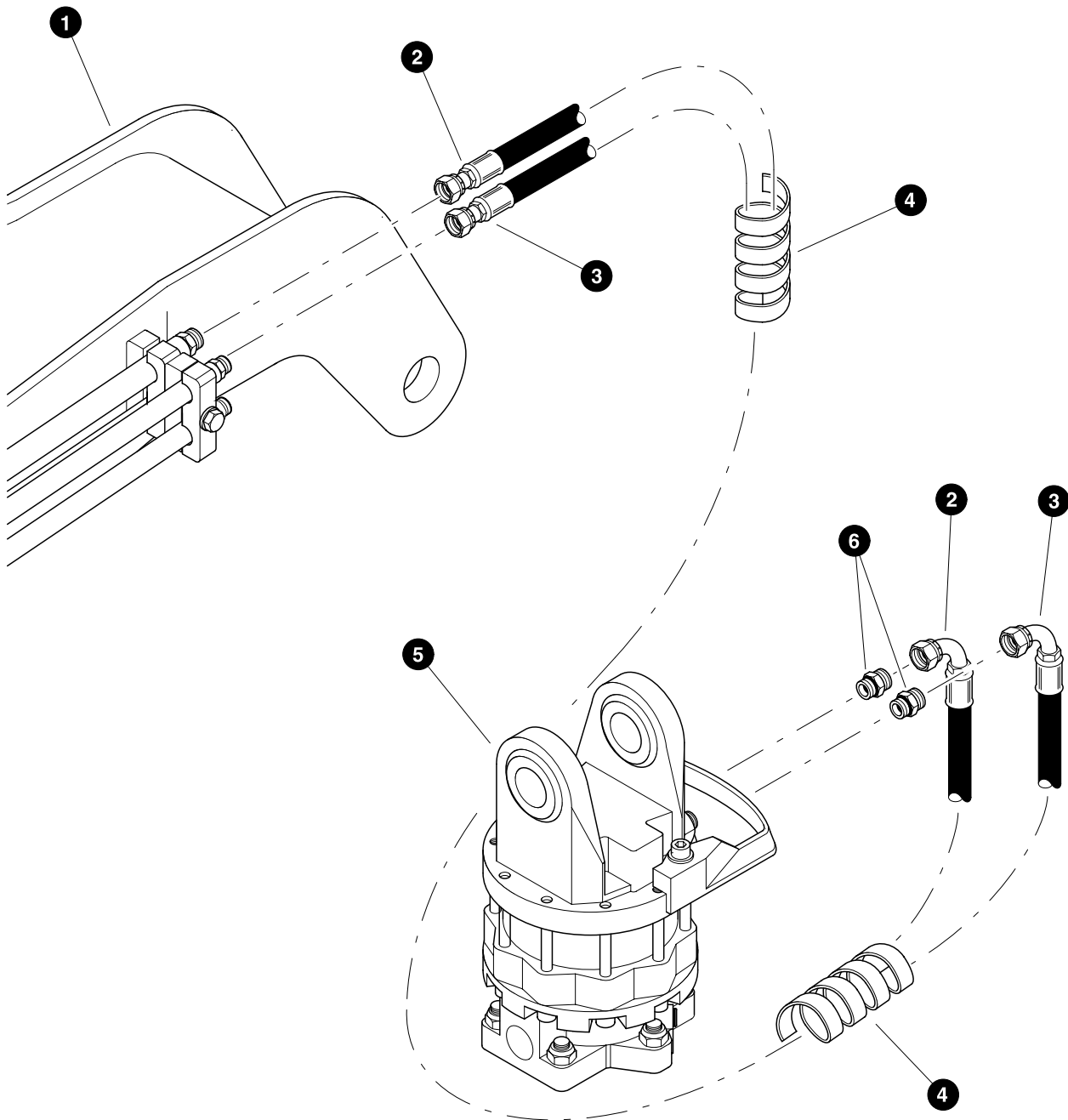
## WORK LINES - GRAPPLE OPEN/CLOSE FUNCTION (Heel Boom Tubelines To Grapple Rotator)

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

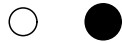
- ✓ See referenced page for component or assembly breakdown.
- >∞ Bulk material - order length required in feet or meters.
- ☐ Kit or Assembly - includes all items indented underneath.

**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.



Valve #4  
Work Port "B"

Valve #4  
Work Port "A"

Parts 00917 12/01/98  
25.00

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

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

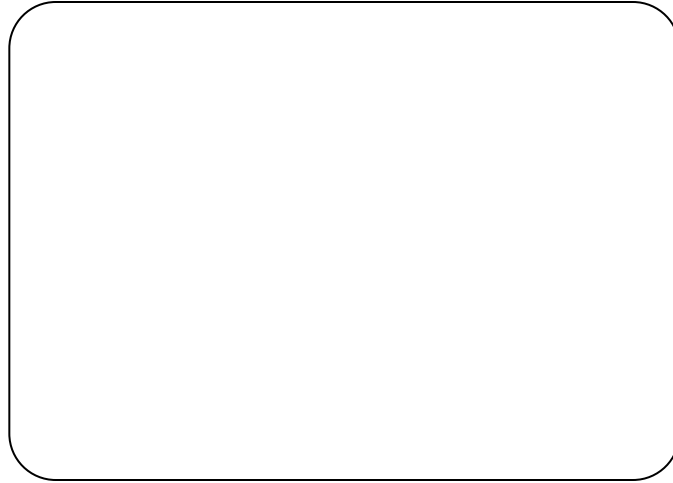
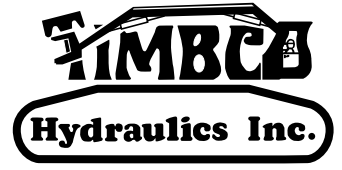
- ✓ See referenced page for component or assembly breakdown.
- >∞ Bulk material - order length required in feet or meters.

**Note:**

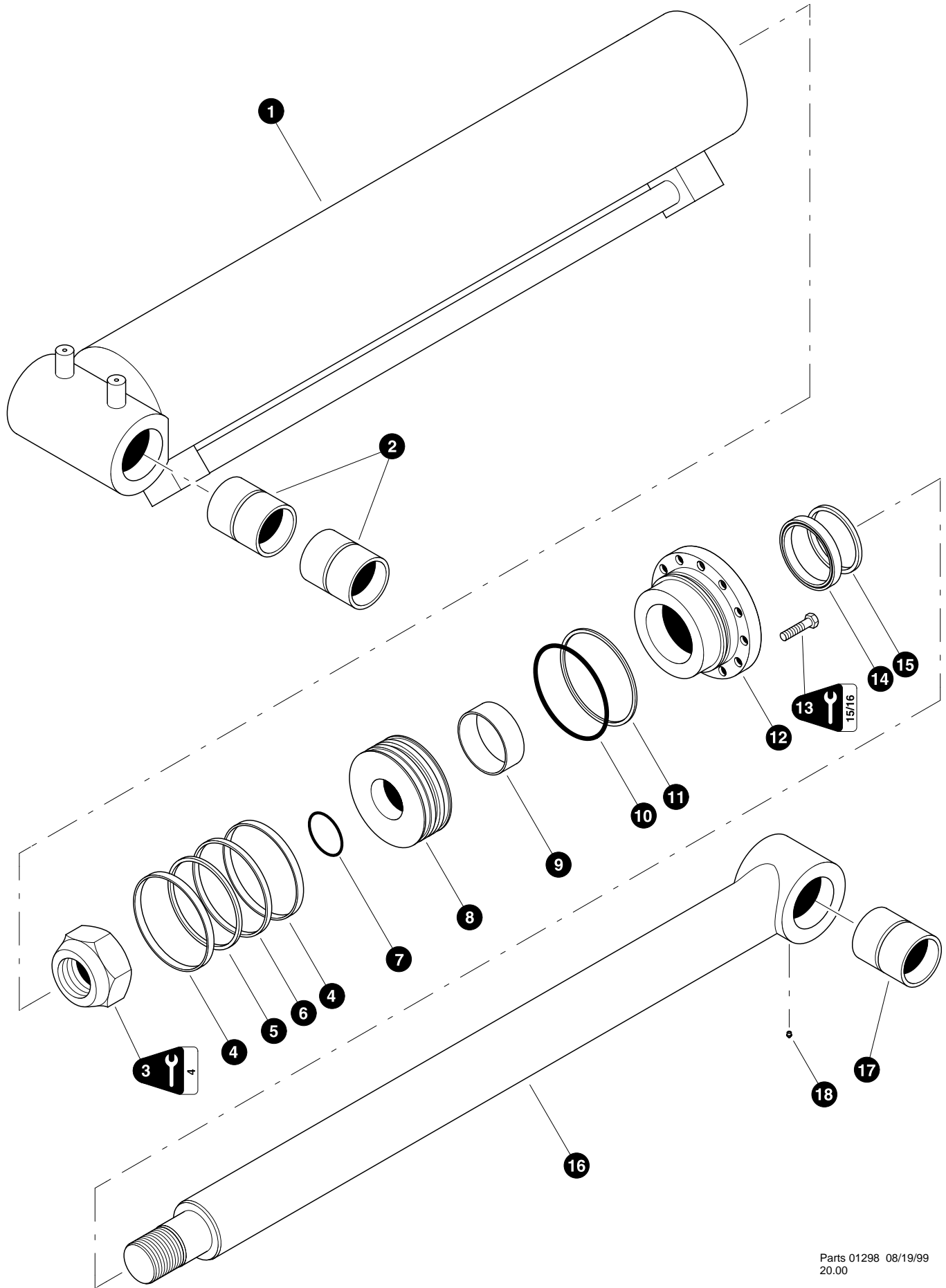
Reference product manuals supplied by grapple manufacturer.

# Section HB-5

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## *Harvester Booms - Cylinders*



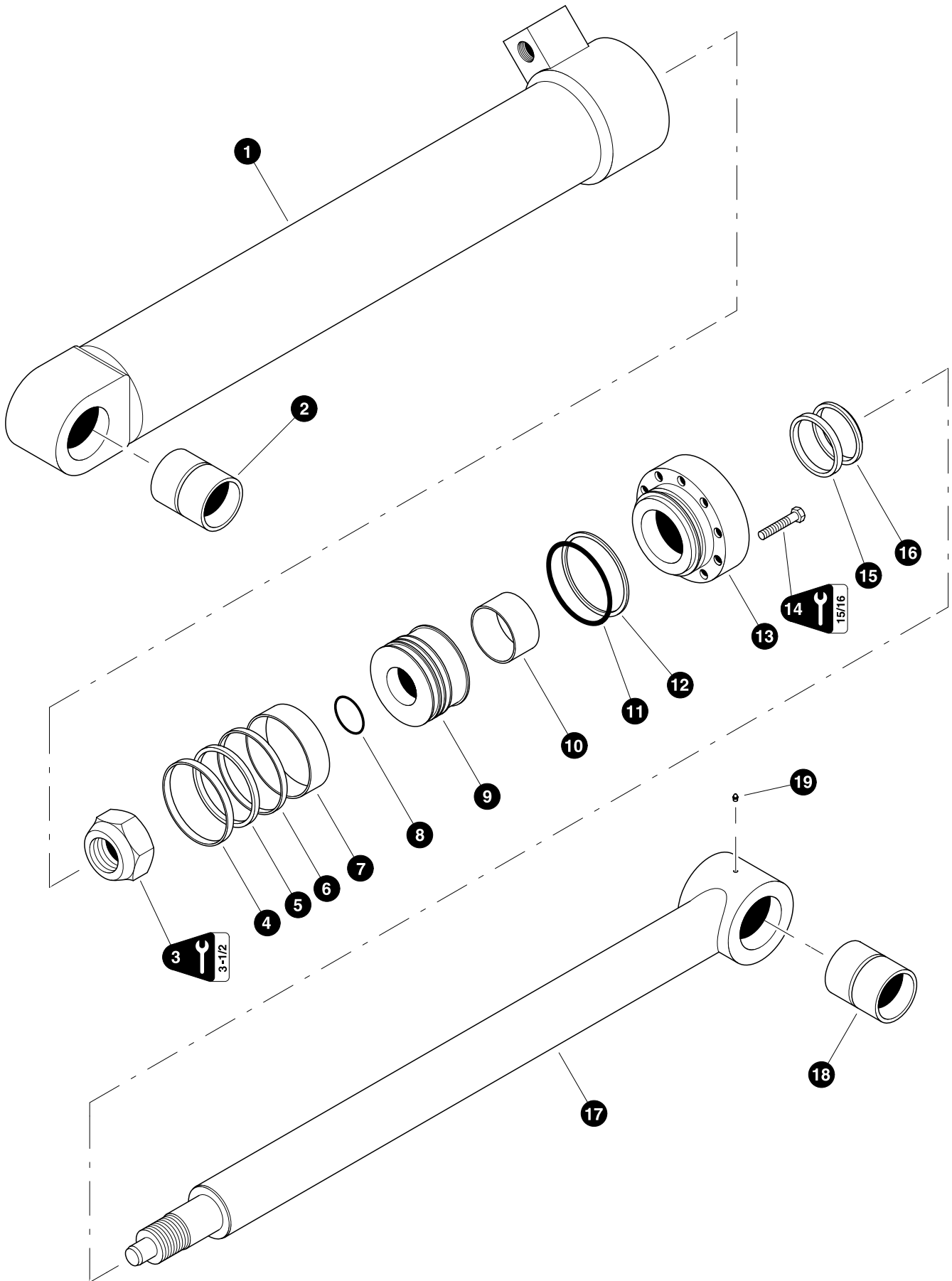
Parts 01298 08/19/99  
20.00

## MAIN BOOM (HOIST) CYLINDER

REF	PART #	QTY	DESCRIPTION	SEE PAGE
-	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" <b>(2700 +/- 200 ft.lbs. (3600 +/- 265 Nm))</b>	
4	NSS	2	★ RING, piston wear	
5	NSS	1	★ RING, piston square	
6	NSS	1	★ RING, piston chem-cast	
7	NSS	1	★ O-RING, piston	
8	19575-HB	1	PISTON	
9	NSS	1	★ RING, rod bearing wear	
10	NSS	1	★ O-RING, rod bearing	
11	NSS	1	★ RING, rod bearing back-up	
12	16559-HB	1	BEARING, rod	
13	15681-HB	12	BOLT - 5/8" x 2-1/4" <b>(175 ft.lbs (233 Nm))</b>	
14	NSS	1	★ U-CUP, rod bearing	
15	NSS	1	★ 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	KIT, seal repair - main boom cylinder	

Kit or Assembly - includes all items indented underneath.

★ Included in seal repair kit Part # 22539-HB.



Parts 00032 03/29/96



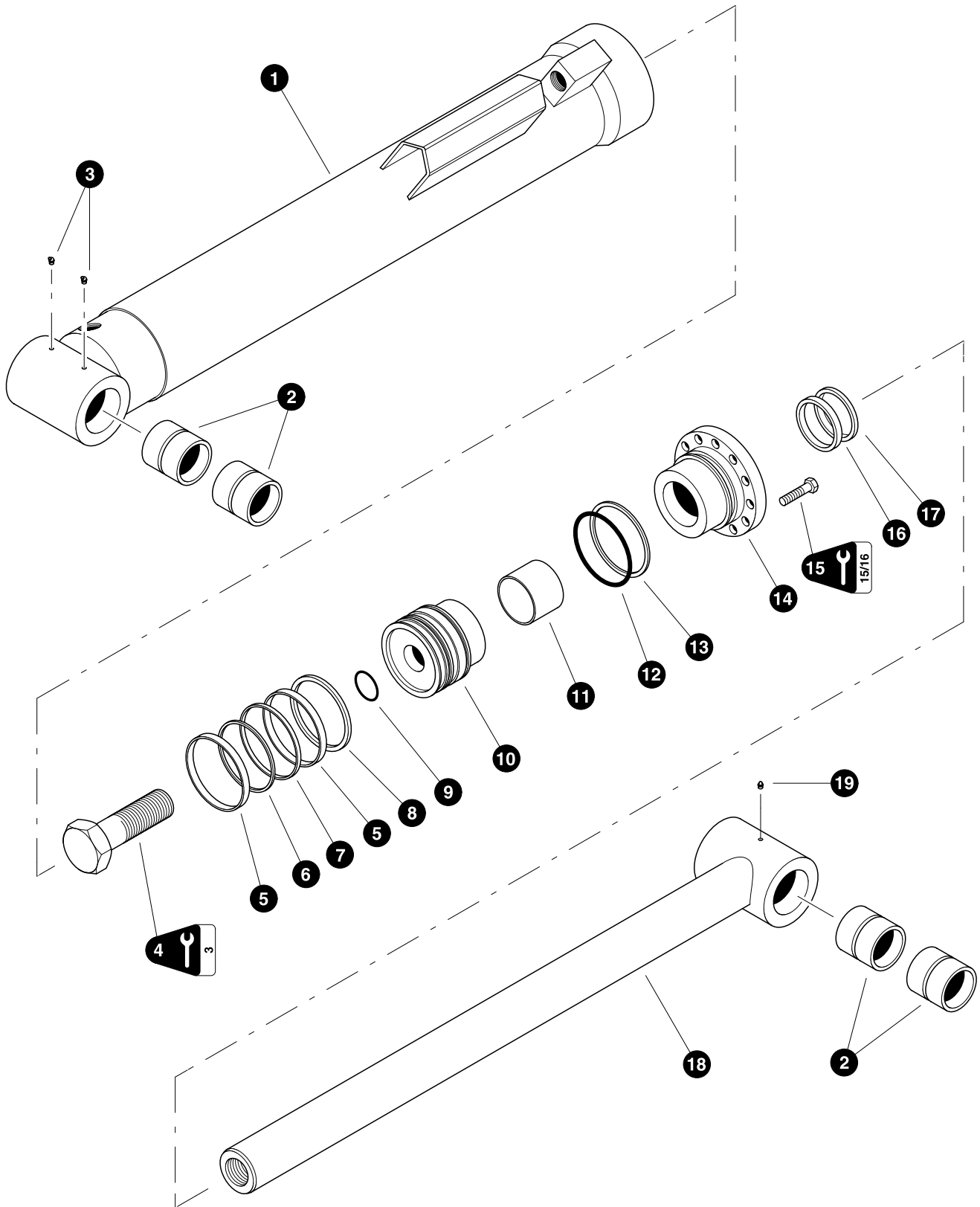
## STICK BOOM (JIB) CYLINDER

REF	PART #	QTY		DESCRIPTION	SEE PAGE
-	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" <b>(2700 +/- 200 ft.lbs. (3600 +/- 265 Nm))</b>	
4	NSS	1	★	RING, piston wear	
5	NSS	1	★	RING, piston square	
6	NSS	1	★	RING, piston chem-cast	
7	NSS	1	★	RING, piston wear	
8	NSS	1	★	O-RING, piston	
9	19574-HB	1		PISTON	
10	NSS	1	★	RING, rod bearing wear	
11	NSS	1	★	O-RING, rod bearing	
12	NSS	1	★	RING, rod bearing back-up	
13	16567-HB	1		BEARING, rod	
14	10720-HB	10		BOLT - 5/8" x 3" <b>(175 ft.lbs (233 Nm))</b>	
15	NSS	1	★	U-CUP, rod bearing	
16	NSS	1	★	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		KIT, seal repair - stick boom cylinder <i>(See Note Below)</i>	

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

**Note:**

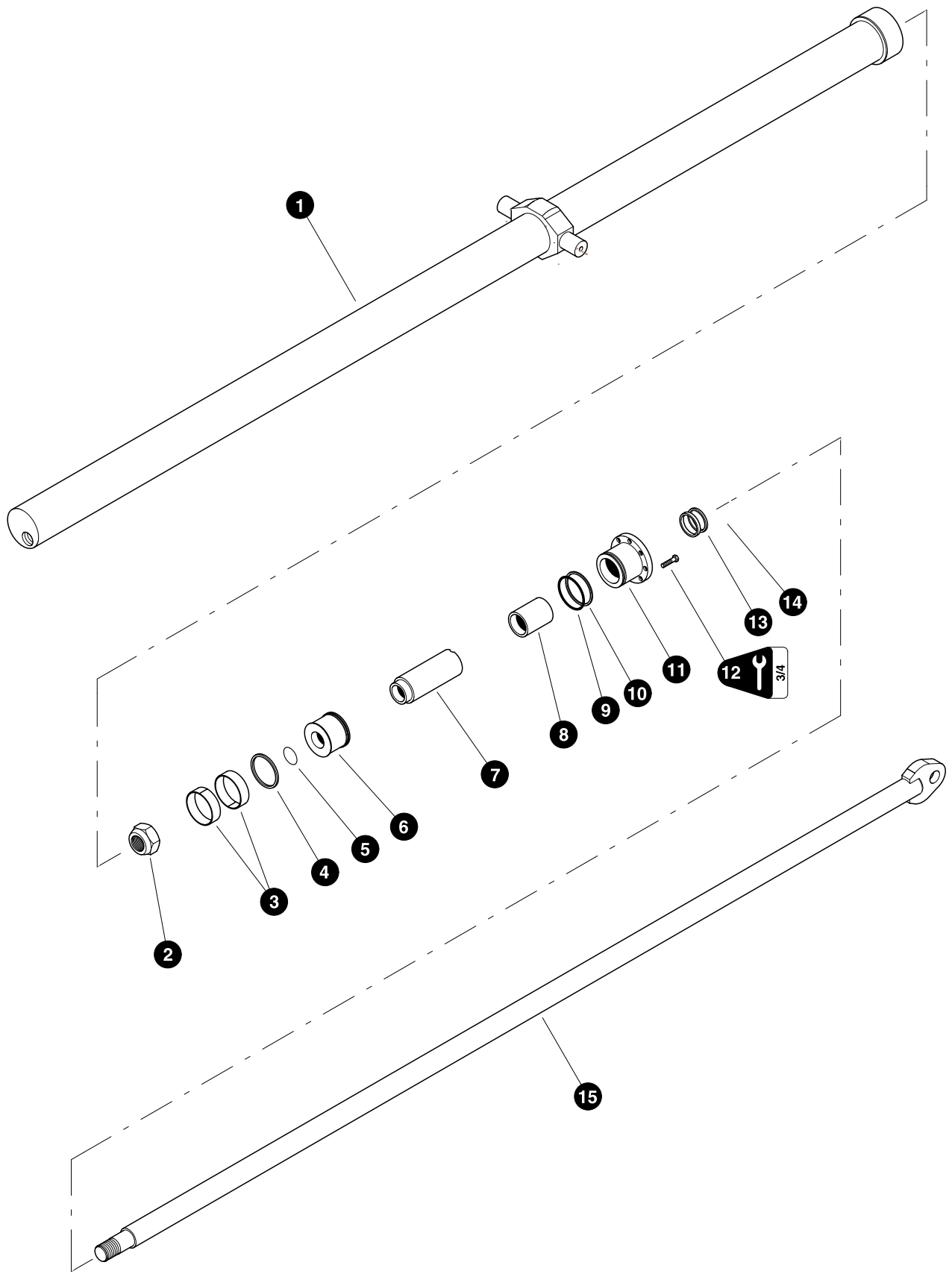
Seal kit, PN# 19566-HB, contains all the items required to re-seal all main boom cylinders PDN# 114FB and above.



## TOOL TILT CYLINDER (Used With 4-Bar Linkage)

REF	PART #	QTY	DESCRIPTION	SEE PAGE
-	22449-HB	1	<input type="checkbox"/> TOOL TILT CYLINDER ASSEMBLY	
1	22534-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	19956-HB	1	BOLT, cylinder rod - 2" x 4-1/4" <b>(2700 +/- 200 ft.lbs. (3600 +/- 265 Nm))</b>	
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" <b>(175 ft.lbs (233 Nm))</b>	
15	NSS	1	★ U-CUP, rod bearing	
16	NSS	1	★ WIPER, rod	
17	22537-HB	1	<input type="checkbox"/> 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 01027 01/06/99  
12.50

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

REF	PART #	QTY	DESCRIPTION	SEE PAGE
-	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.