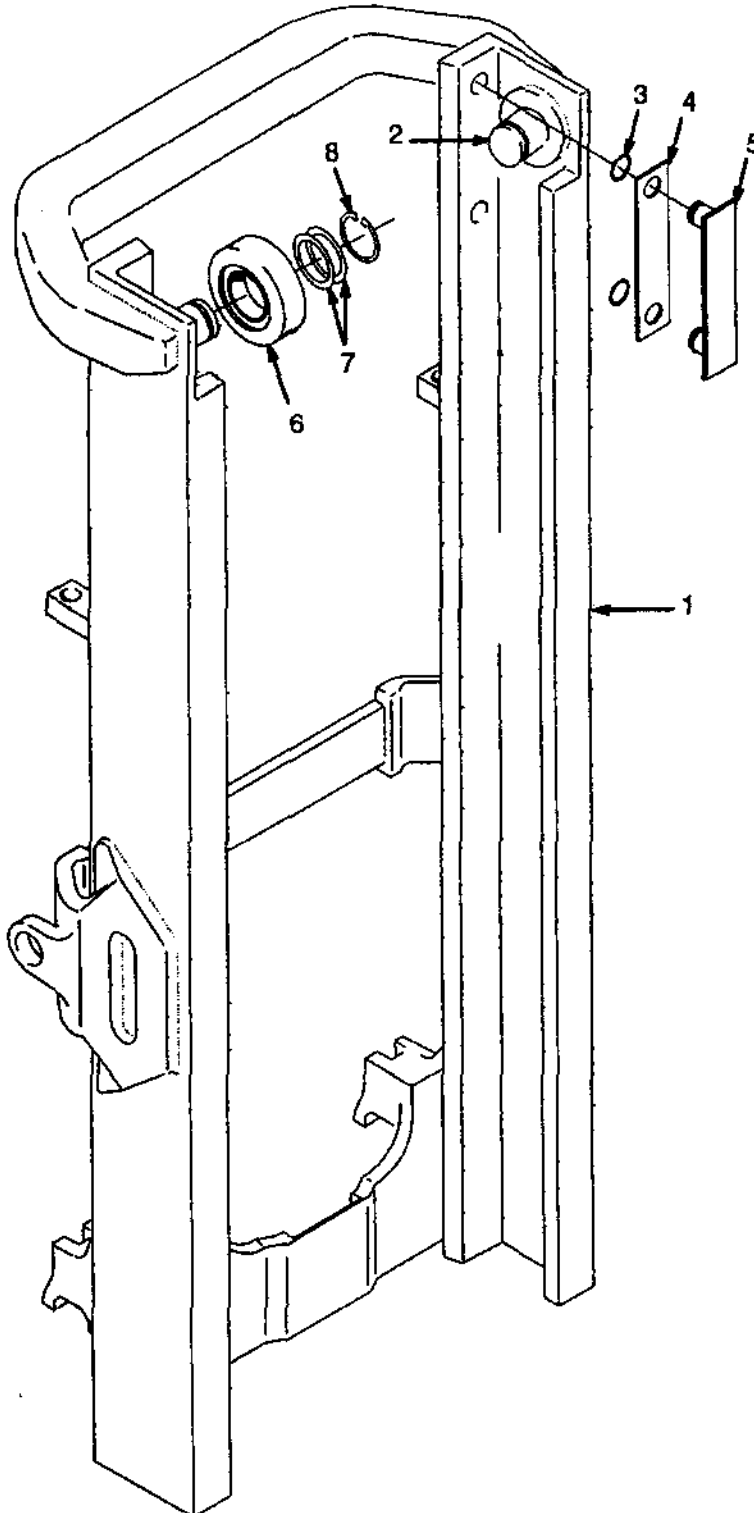


TWO-STAGE FFL

CARRIAGE	
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OUTER MAST TWO-STAGE FFL

(Figure 145)



**OUTER MAST
TWO-STAGE FFL**

H45-55XM

REF.	NAME OF PART 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		2482 mm	2582 mm
	Mast Group No.	B509 2482	B509 2582
1	Outer Mast	1341000	1341001

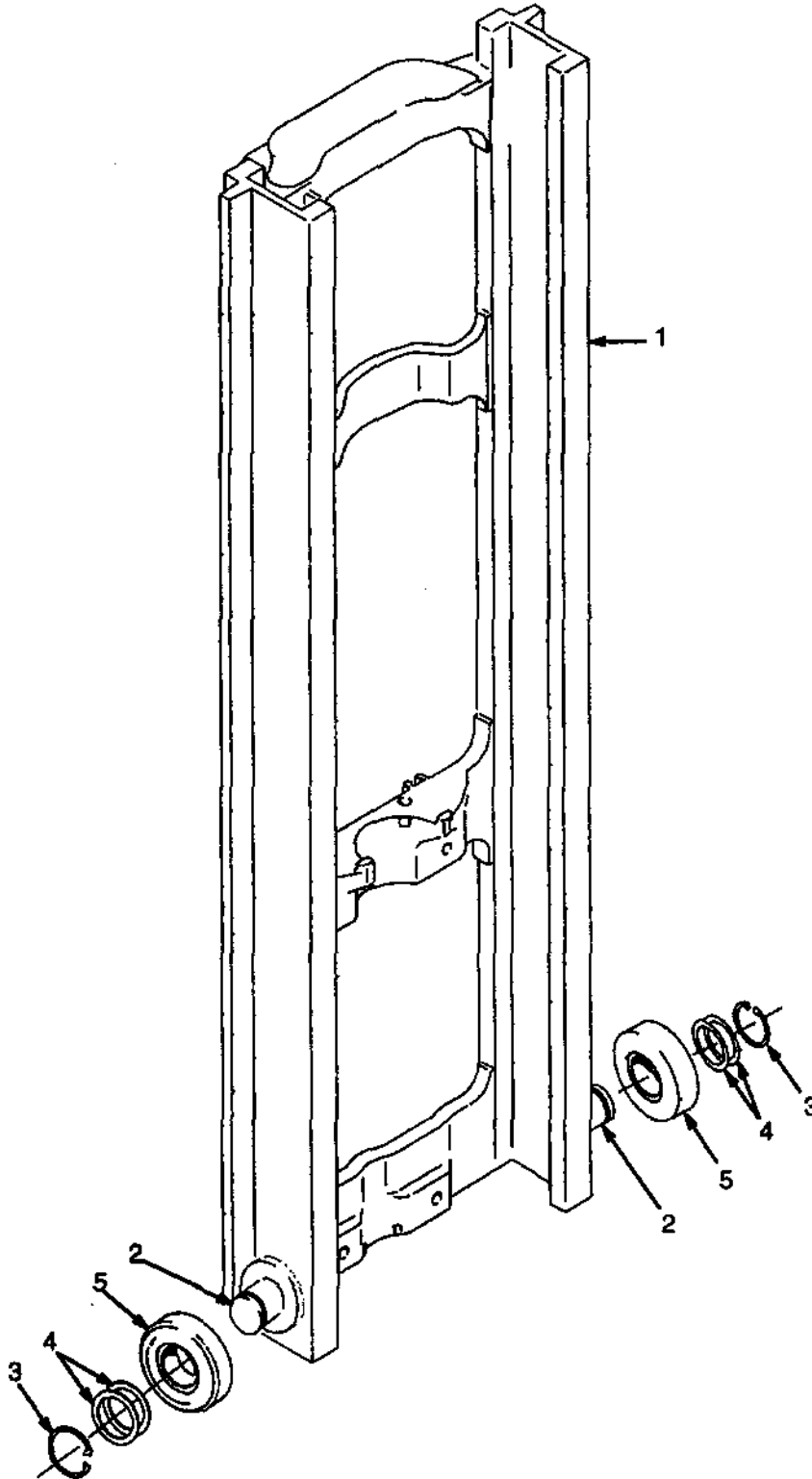
H60-65XM

REF.	NAME OF PART 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		2360 mm	2460 mm
	Mast Group No.	B564 2360	B564 2460
1	Outer Mast	1341000	1341001

REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
*	....	Mast	1	6	1333396	Load Roller (Standard)	2
1*	....	Outer Mast	1	6	1333397	Load Roller (1,52 mm)	2
2	1345216	Stubshaft	2	7	129387	Shim (0,020 in.)	AR
3	104506	O-Ring	4	8	58901	Circlip	2
4	131716	Shim (0,020 in)	4	* Table Above			
5	215211	Bearing Strip	2				

INNER MAST TWO-STAGE FFL

(Figure 146)



**INNER MAST
TWO-STAGE FFL**

H45-55XM

REF.	NAME OF PART 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		2482 mm	2582 mm
	Mast Group No.	B509 2482	B509 2582
1	Inner Mast	1342469	1342470

H60-65XM

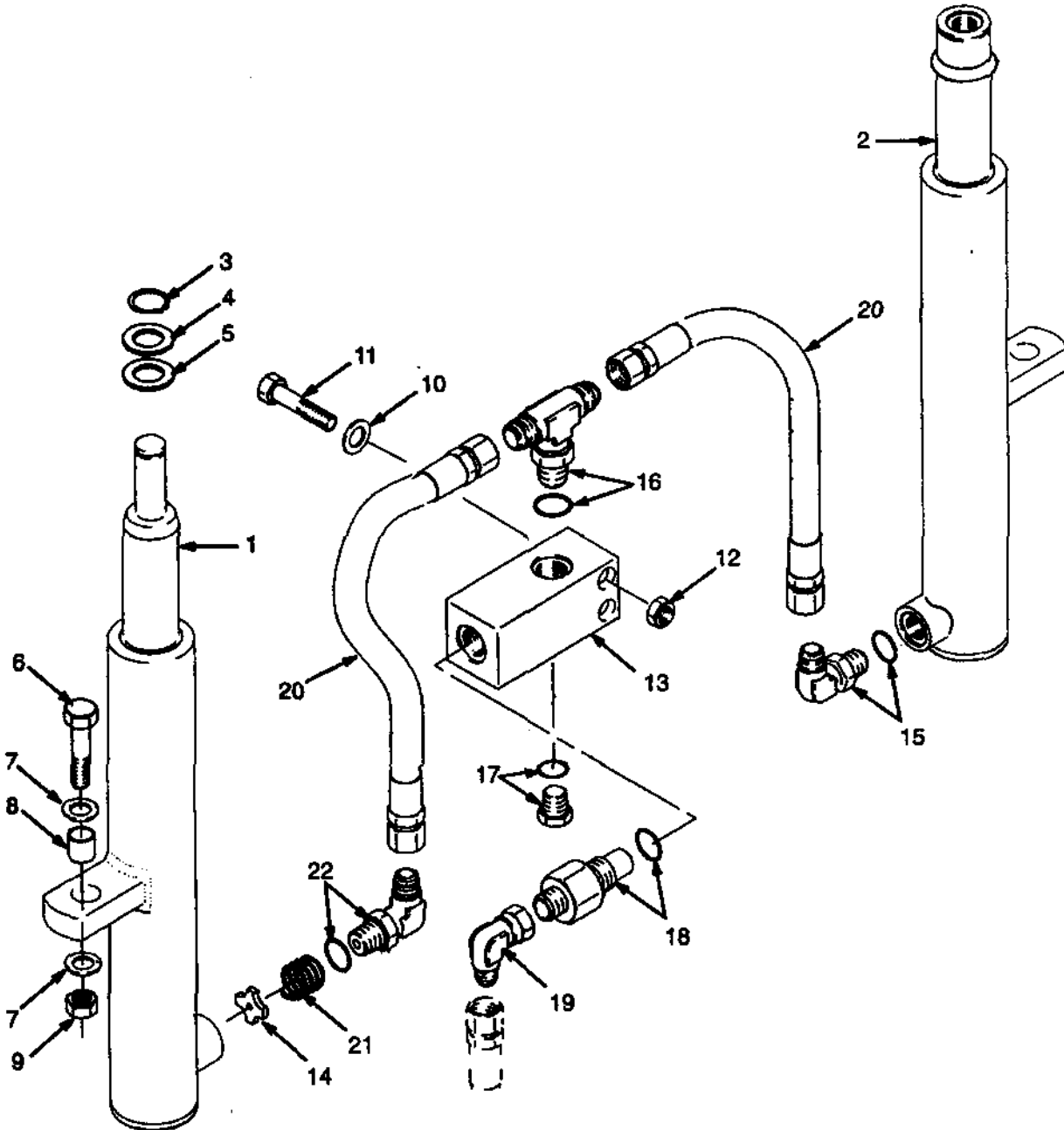
REF.	NAME OF PART 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		2360 mm	2460 mm
	Mast Group No.	B564 2360	B564 2460
1	Inner Mast	1342469	1342470

REF	PART NO.	NAME OF PART	QTY
*	....	Mast	1
1*	....	Inner Mast	1
2	1345216	Stubshaft	2
3	58901	Circlip.....	2
4	129387	Shim	AR

REF	PART NO.	NAME OF PART	QTY
5	1333396	Load Roller (Standard)	2
5	1333397	Load Roller (1,52 mm)	2
a	☐ Table Above		

MAIN LIFT TWO-STAGE FFL

(Figure 147)



MAIN LIFT TWO-STAGE FFL

KEY:

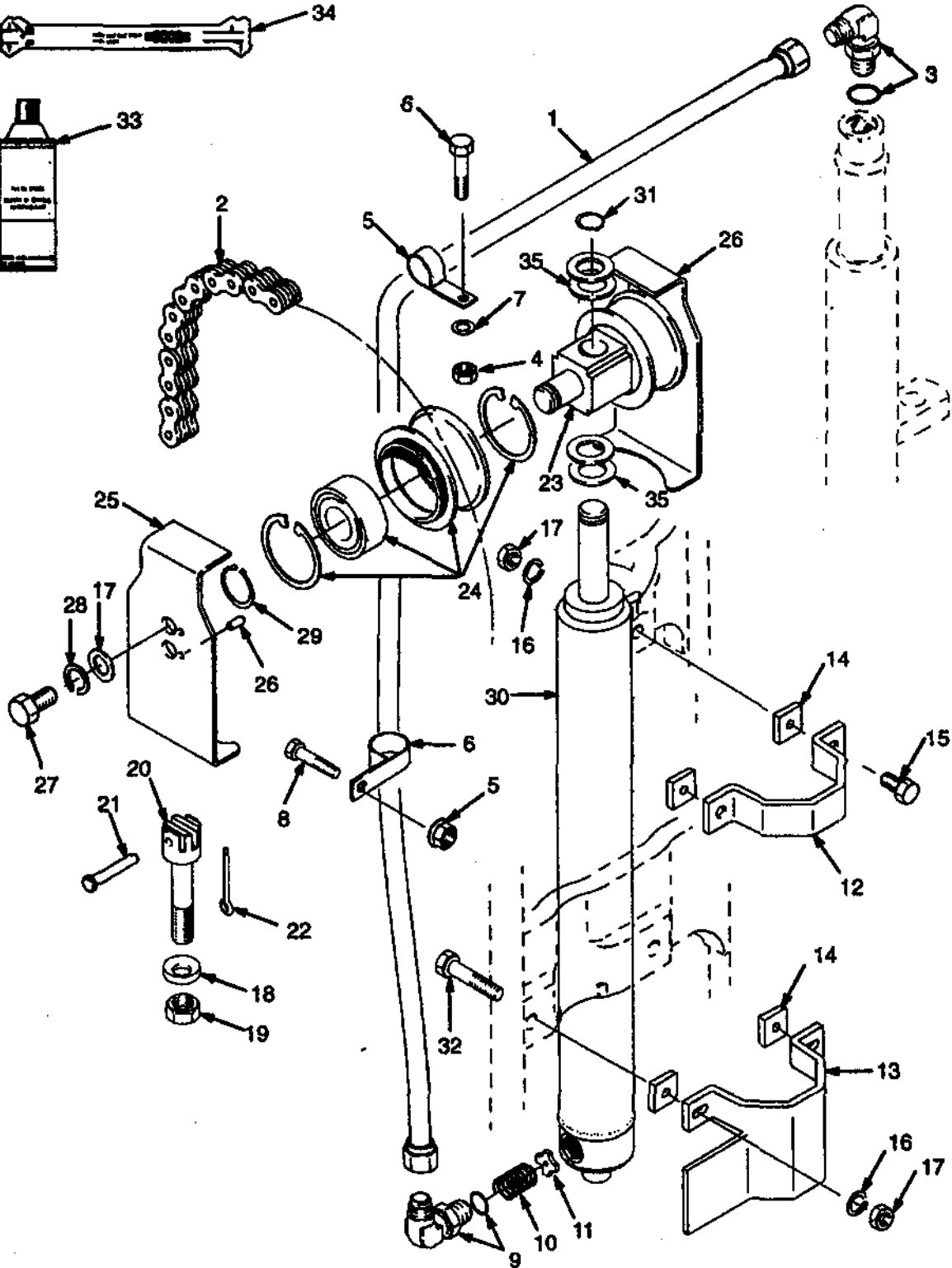
A: H45-55XM

B: H60-65XM

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
1	....	Lift Cylinder (RH) ☛ Figure 149	1	1	14	357749	Washer	1	1
2	....	Lift Cylinder (LH) ☛ Figure 148	1	1	15	16560	Fitting	1	1
3	131358	Circlip	1	1	15	16485	O-Ring	1	1
4	1333382	Washer	1	1	16	16578	Fitting	1	1
5	1354915	Washer	AR	AR	16	16485	O-Ring	1	1
5	1354916	Washer	AR	AR	17 ^a	14603	Fitting	1	1
5	1354917	Washer	AR	AR	17 ^a	16486	O-Ring	1	1
6	292532	Hex Head Bolt	2	2	18	8620050	Lowering Control Valve	1	..
7	296422	Washer	4	4	18	316306	Lowering Control Valve	1	1
8	323090	Spacer	2	2	18	16982	O-Ring	1	1
9	300937	Nut	2	2	19	16882	Fitting	1	1
10	320157	Washer	2	2	20	1345403	Hose	2	2
11	214364	Hex Head Bolt	2	2	21	337179	Spring	1	1
12	313828	Nut	2	2	22	189595	Fitting	1	1
13	1379687	Valve Housing	1	1	22	16485	O-Ring	1	1
13 ^a	1333392	Valve Housing	1	1	^a Optional				

FREE-LIFT TWO-STAGE FFL

(Figure 148)



**FREE-LIFT
TWO-STAGE FFL**

H45-55XM

REF.	NAME OF PART 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		2482 mm	2582 mm
	Mast Group No.	B509 2482	B509 2582
1	Tube	1345306	1345307
2	Lift Chain	182333	180030

H60-65XM

REF.	NAME OF PART 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		2360 mm	2460 mm
	Mast Group No.	B564 2360	B564 2460
1	Tube	1345306	1345307
2	Lift Chain	1342390	1342370

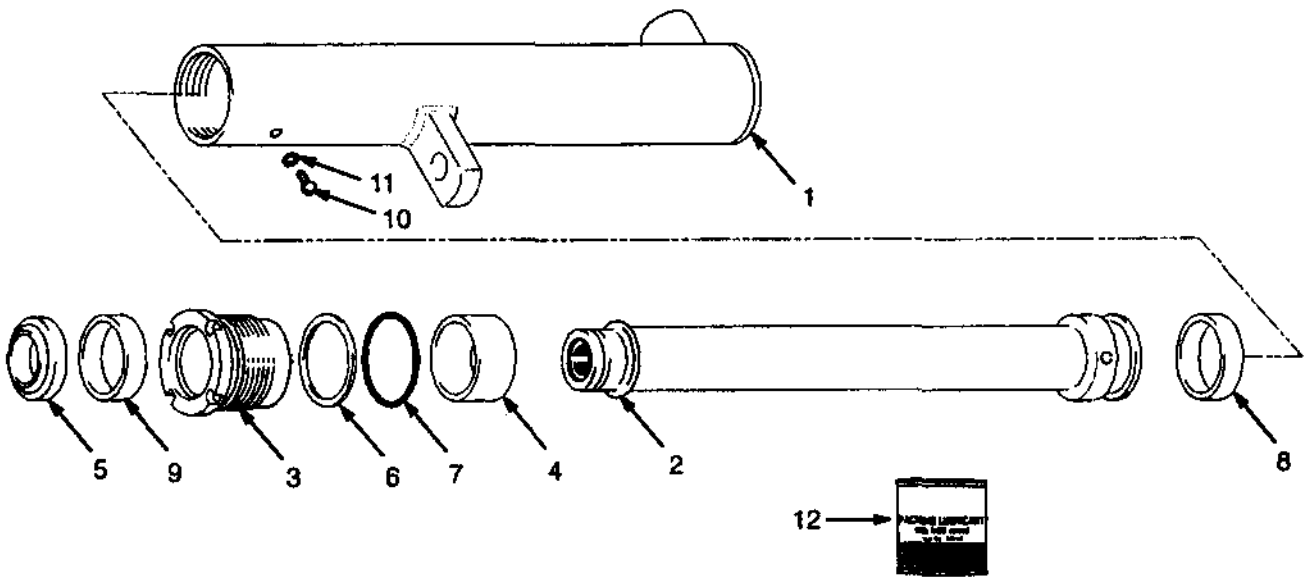
KEY:

A: H45-55XM

B: H60-65XM

REF.	PART NO.	NAME OF PART	QTY		REF.	PART NO.	NAME OF PART	QTY	
			A	B				A	B
1*	....	Mast	1	1	20	1369357	Chain Anchor	2	2
1*	....	Tube	1	1	21	323161	Pin	2	2
2*	....	Chain	2	2	22	15200	Split Pin	2	2
3	1380036	Fitting	1	1	23	1378690	Crosshead	1	1
3	16485	O-Ring	1	1	24	1379682	Chain Sheave	2	2
4	316826	Nut	2	2	24	1378692	Sheave	1	1
5	178119	Clamp	2	2	24	37752	Circlip	1	1
6	296028	Hex Head Bolt	1	1	24	1378699	Bearing	1	1
7	320159	Washer	1	1	25	1395285	Chain Guard	2	2
8	136985	Hex Head Bolt	1	1	26	302461	Pin	2	2
9	1354956	Fitting	1	1	27	292527	Hex Head Bolt	2	2
9	16485	O-Ring	1	1	28	292683	Lockwasher	2	2
10	154355	Spring	1	1	29	304526	Circlip	3	3
11	356505	Washer	1	1	30	....	Free-Lift Cylinder	1	1
12	1360387	Clamp	1	1			☞ Figure 150		
13	1354967	Bracket	1	1	31	131358	Circlip	1	1
14	1354902	Spacer	4		32	287837	Hex Head Bolt	2	2
15	292529	Hex Head Bolt	2	2	33	171350	Chain Lubricant	AR	AR
16	320161	Washer	6	6	34	599737	Chain Wear Scale	AR	AR
17	300937	Nut	4	4	35	1362433	Spacer	4	4
18	297649	Base Ring	2	2			☞ Table Above		
19	161003	Nut	2	2					

LIFT CYLINDER TWO-STAGE FFL LEFT HAND (Figure 149)



**LIFT CYLINDER
TWO-STAGE FFL
LEFT HAND**

H45-55XM

REF.	NAME OF PART 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		2482 mm	2582 mm
	Mast Group No.	B509 2482	B509 2582
	Group No. Lift Cylinder (LH)	8600701 13422171	8600709 342218
1	Shell	1355874	1355886
2	Rod	1355875	1355887

H60-65XM

REF.	NAME OF PART 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		2360 mm	2460 mm
	Mast Group No.	B564 2360	B564 2460
	Group No. Lift Cylinder (LH)	8609901 1342275	8600902 1342276
1	Shell	1355874	1355886
2	Rod	1355875	1355887

KEY:

A: H45-55XM

B: H60-65XM

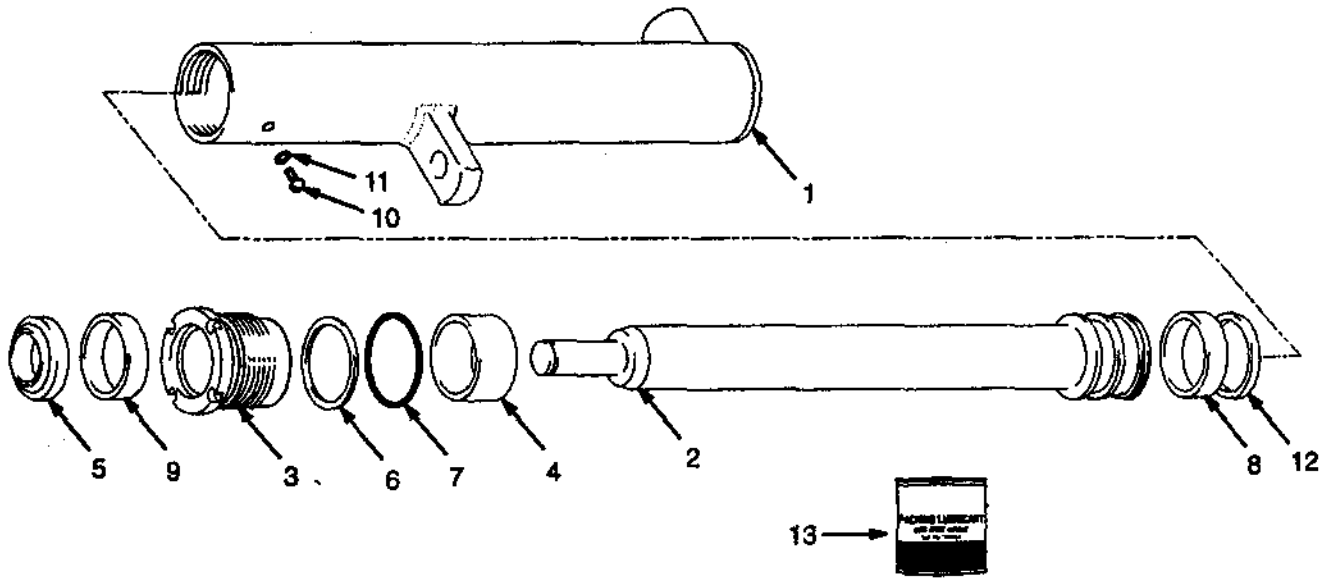
REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
a	....	Mast	1	1	8 ^b	1356747	Wear Ring	1	1
a	....	Lift Cylinder (Main)	1	1	9 ^b	1356749	Seal	1	1
1 ^a	....	Shell	1	1	10	295649	Screw	1	1
2 ^a	....	Piston Rod	1	1	11 ^b	190887	Seal	1	1
3	1355284	Retainer	1	1	12	186061	Packing Lube	AR	AR
4	1356058	Spacer		1					
5 ^b	1319668	Rod Wiper	1	1					
6 ^b	147972	Back-Up Ring	1	1					
7 ^b	59229	O-Ring	1	1					

^a ☞ Table Above

^b Included In Seal Kit 1358963

LIFT CYLINDER TWO-STAGE FFL RIGHT HAND

(Figure 150)



**LIFT CYLINDER
TWO-STAGE FFL
RIGHT HAND
H45-55XM**

REF.	NAME OF PART 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		2482 mm	2582 mm
	Mast Group No.	B509 2482	B509 2582
	Group No. Lift Cylinder (RH)	8600801 1356754	8600709 1356755
1	Shell	1356778	1356779
2	Rod	1358932	1358933

H60-65XM

REF.	NAME OF PART 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		2360 mm	2460 mm
	Mast Group No.	B564 2360	B564 2460
	Group No. Lift Cylinder (RH)	8609901 1342275	8600902 1342276
1	Shell	1355874	1355886
2	Rod	1355875	1355887

KEY:

A: H45-55XM
B: H60-65XM

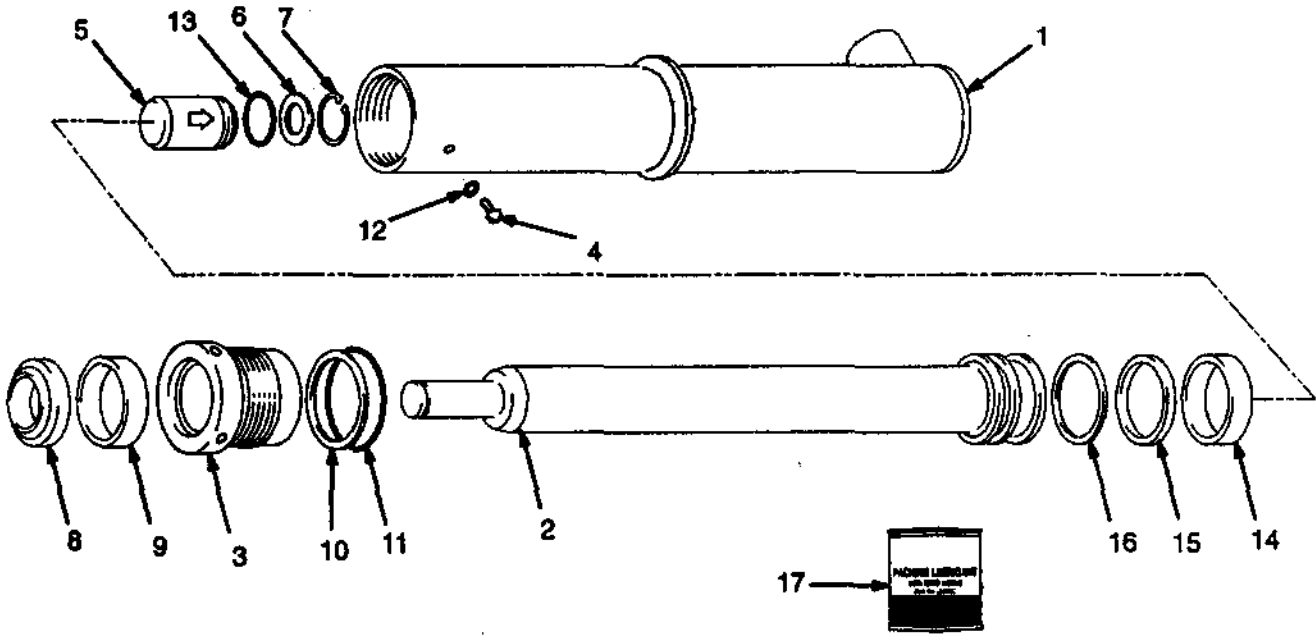
REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
•	••••	Mast	1	1	8 ^b	1356747	Wear Ring	1	1
•	••••	Lift Cylinder (Main)	1	1	9 ^b	1356749	Seal	1	1
1 ^a	••••	Shell	1	1	10	295649	Screw	1	1
2 ^a	••••	Piston Rod	1	1	11 ^b	190887	Seal	1	1
3	1355284	Retainer	1	1	12 ^b	1356748	Piston Ring	1	1
4	1356058	Spacer	1		13	186061	Packing Lube	AR	AR
5 ^b	1319668	Rod Wiper	1	1					
6 ^b	147972	Back-Up Ring	1	1					
7 ^b	59229	O-Ring	1	1					

^a ☞ Table Above

^b Included In Seal Kit 1360142

FREE LIFT CYLINDER TWO-STAGE FFL

(Figure 151)



**FREE LIFT CYLINDER
TWO-STAGE FFL**

H45-55XM

REF.	NAME OF PART 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		2482 mm	2582 mm
	Mast Group No.	B500 2482	B500 2582
	Group No. Lift Cylinder	860240 1370749	8603402 1366729
1	Shell	2307457	2308980
2	Rod	1356295	1356298

H60-65XM

REF.	NAME OF PART 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		2360 mm	2460 mm
	Mast Group No.	B564 2360	B564 2460
	Group No. Lift Cylinder	8603501 1369843	8603502 1369544
1	Shell	2309136	2307201
2	Rod	1356658	1356667

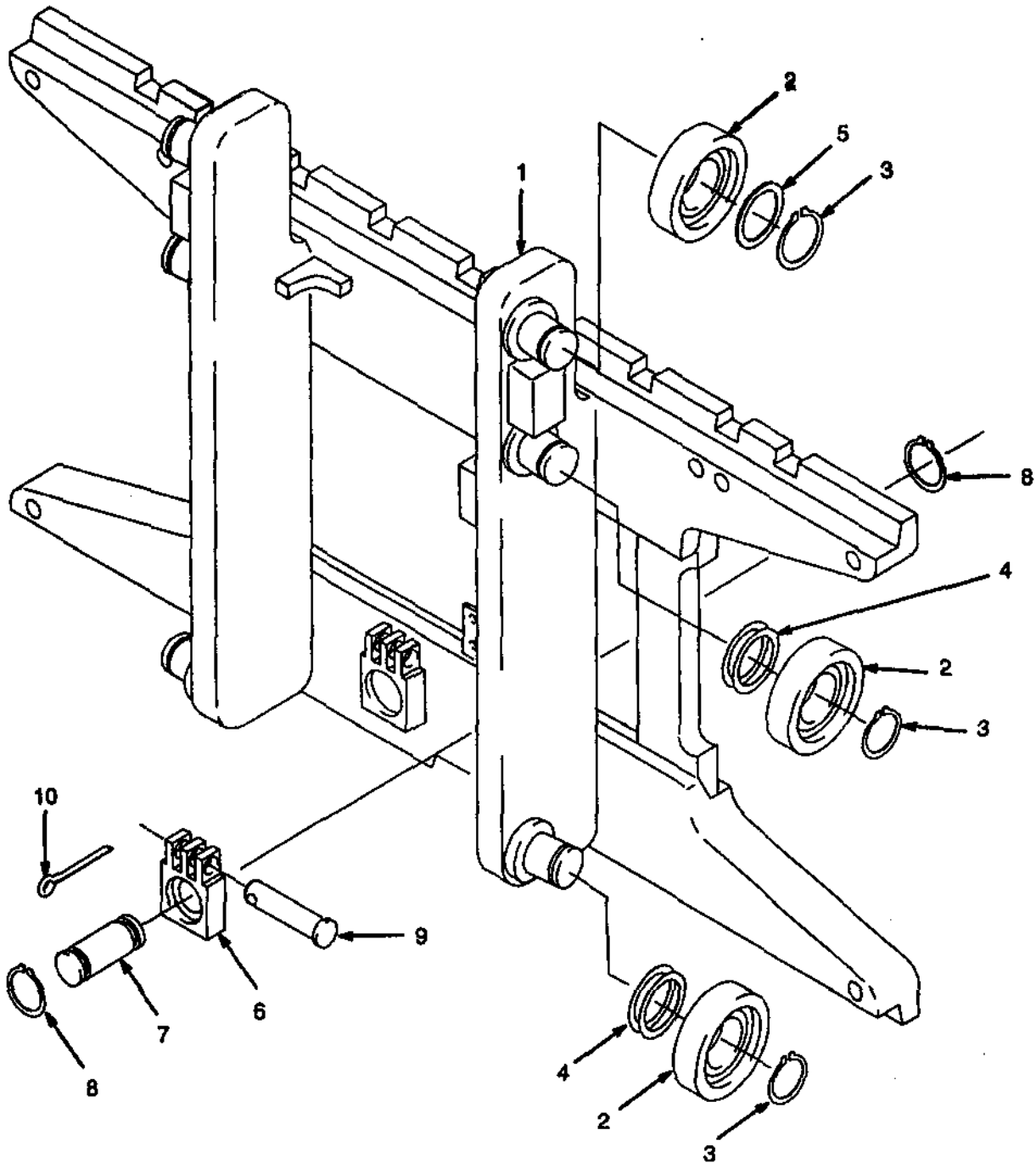
KEY:

A: H45-55XM

B: H60-65XM

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
a	....	Mast	1	1	11 ^b	90263	0-Ring	1	..
a	....	Free-Lift Cylinder	1	1	11 ^c	15880	0-Ring	1	1
1 ^a	....	Shell	1	1	12 ^{bc1}	90887	Seal	1	1
2 ^a	....	Rod	1	1	13 ^{bc}	39348	0-Ring	1	1
3	1356292	Retainer	1	..	14 ^b	1358972	Wear Ring	1	..
3	1356661	Retainer	1	..	14 ^c	636941	Wear Ring	1	..
4	1361302	Screw	1	1	15 ^b	2013088	Seal	1	..
5	257913	Check Valve	1	1	15 ^c	309062	Seal	1	..
6	297531	Washer	1	1	16 ^b	2013089	Back-UpRing	1	..
7	187388	Circlip	1	1	16 ^c	637565	Back-UpRing	1	..
8 ^{bc}	2013099	Rod Wiper	1	1	17	186061	Packing Lubricant	AR	AR
9 ^{bc}	1358970	Rod Wiper	1	1	^a ☐ Table Above ^b Included In Seal Kit 1358969 ^c Included In Seal Kit 1356662				
10 ^b	147973	Back-UpRing	1	..					
10 ^c	164840	Back-UpRing	1	..					

CARRIAGE TWO-STAGE FFL SIX ROLLER (Figure 152)



**CARRIAGE
 TWO-STAGE FFL
 SIX ROLLER**

	H45-55XM 1067mm	H45-55XM 1219mm	H60-65XM 1067mm	H60-65XM 1219mm
Group No.	8500011	8500152	8500012	8500157
Carriae	1343844	1360637	1343845	1360633

KEY:

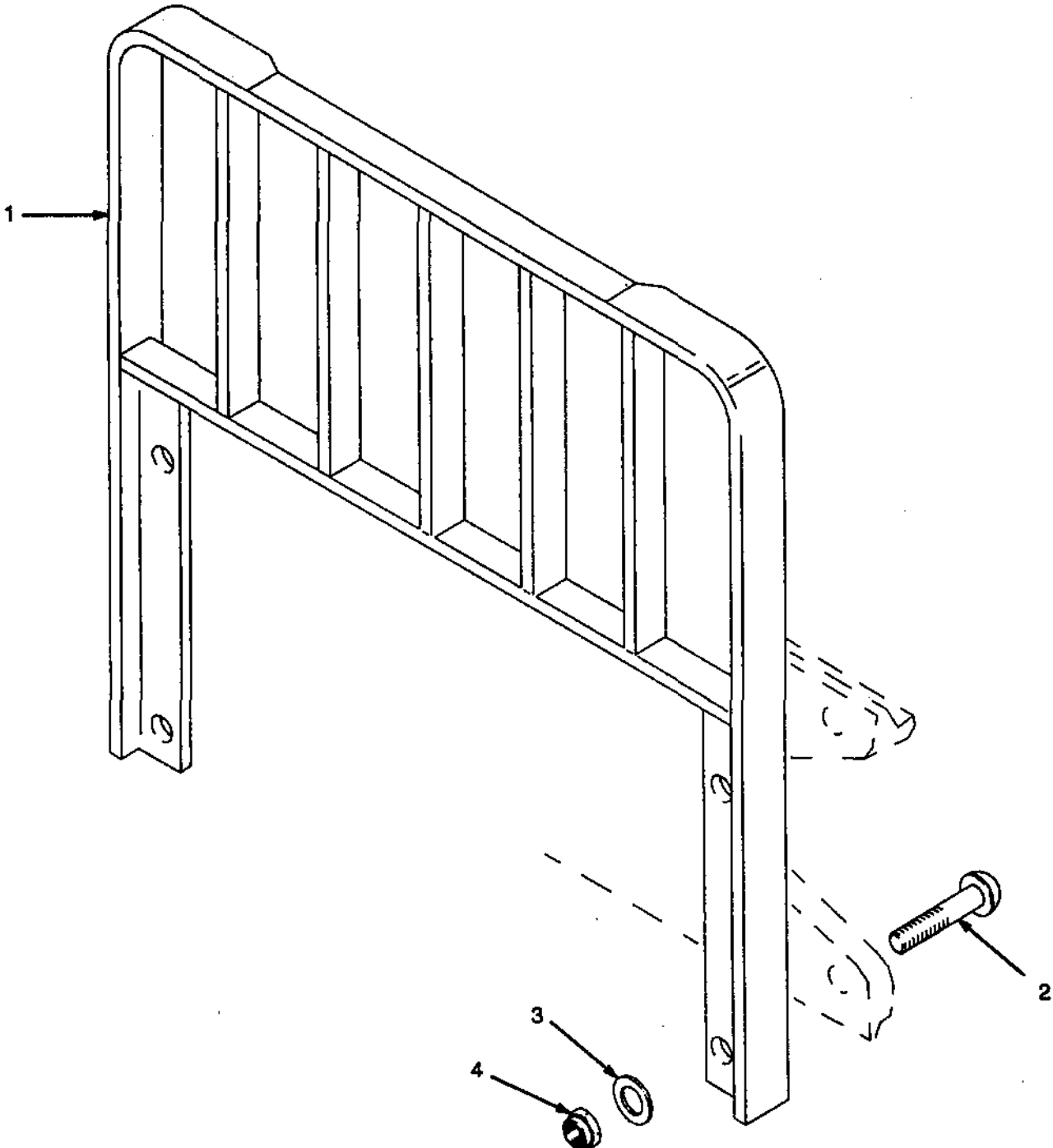
A: H45-55XM

B: H60-65XM

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
^a	....	Carriage Assy	1	..	5	366116	Spacer	2	2
^a	....	Carriage Assy	1	..	6	1369345	Chain Anchor	2	..
1	1345239	Frame	1	..	6	1369344	Chain Anchor	2	2
1	1345240	Frame	1	..	7	317735	Pin	2	2
1	1345216	Stubshaft	6	6	8	131358	Circlip	4	4
2	1345219	Load Roller (Standard)	6	6	9	323161	Pin	2	2
2	1345220	Load Roller (1,52 mm)	6	6	10	15200	Split Pin	2	2
3	12891	Circlip	6	6			^a Table Above		
4	1345263	Shim	AR	AR					

LOAD BACKREST EXTENSION TWO-STAGE FFL

(Figure 153)



**LOAD BACKREST EXTENSION
 TWO-STAGE FFL**

KEY:

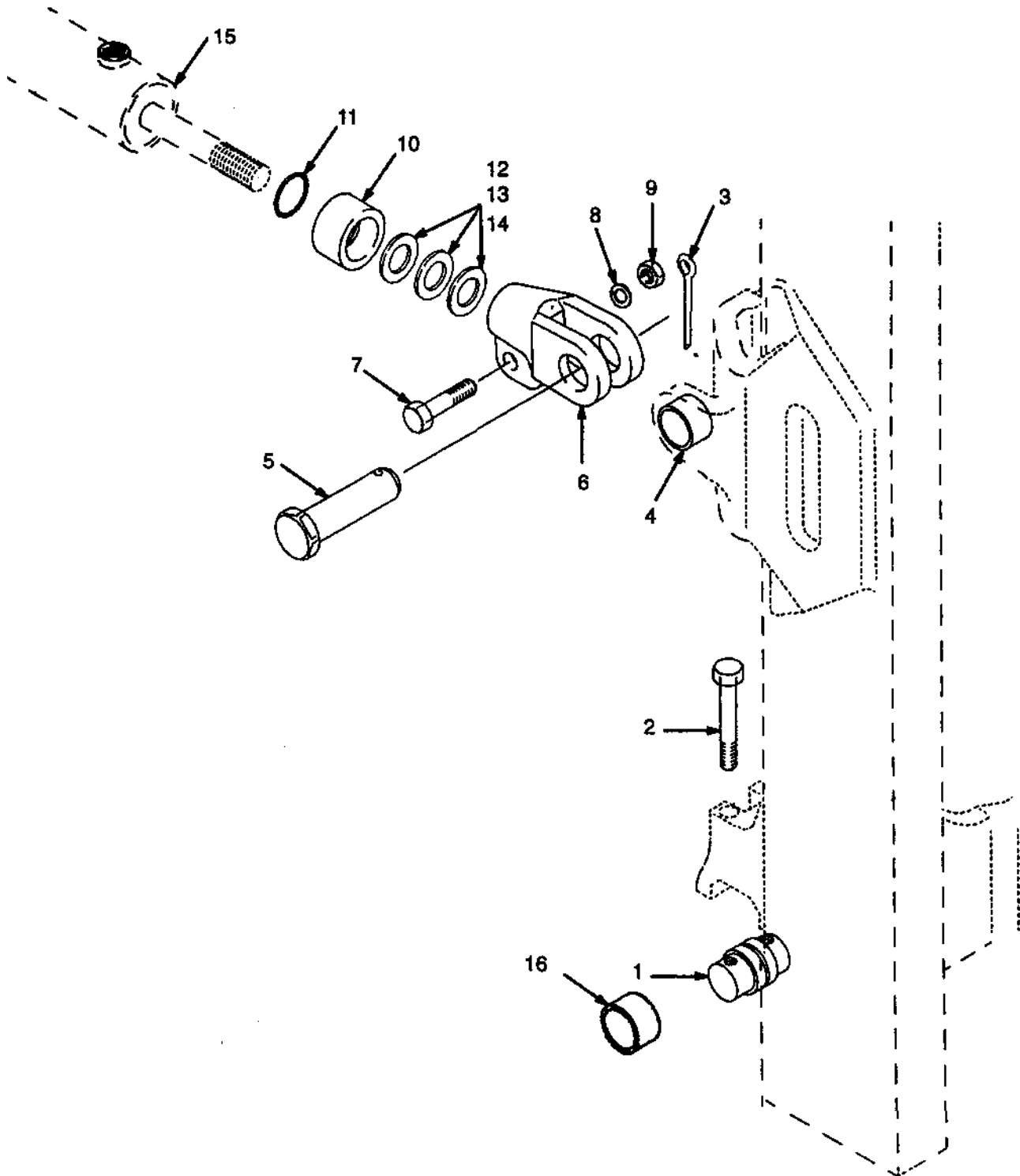
A: H45-S5XM

B: H60-65XM

REF	PART NO.	NAME OF PART	QTY	
			A	B
1 ^c	1338642	Load Backrest Extension	1	..
1 ^c	1338645	Load Backrest Extension	1	..
1 ^d	1376338	Load Backrest Extension	1	..
1 ^a	1345267	Load Backrest Extension	1	..
2	1343990	Hex Head Bolt	4	..
2	1354923	Hex Head Bolt	4	..
3	221771	Washer	4	4

REF	PART NO.	NAME OF PART	QTY	
			A	B
3 ^b	296423	Washer	4	4
4	300937	Nut	4	4
	^a	Polished Fork With Full Bottom Taper		
	^b	Optional		
	^c	42 in.		
	^d	48 in.		

MAST INSTALLATION TWO-STAGE FFL (Figure 154)



**MAST INSTALLATION
TWO-STAGE FFL**

KEY:

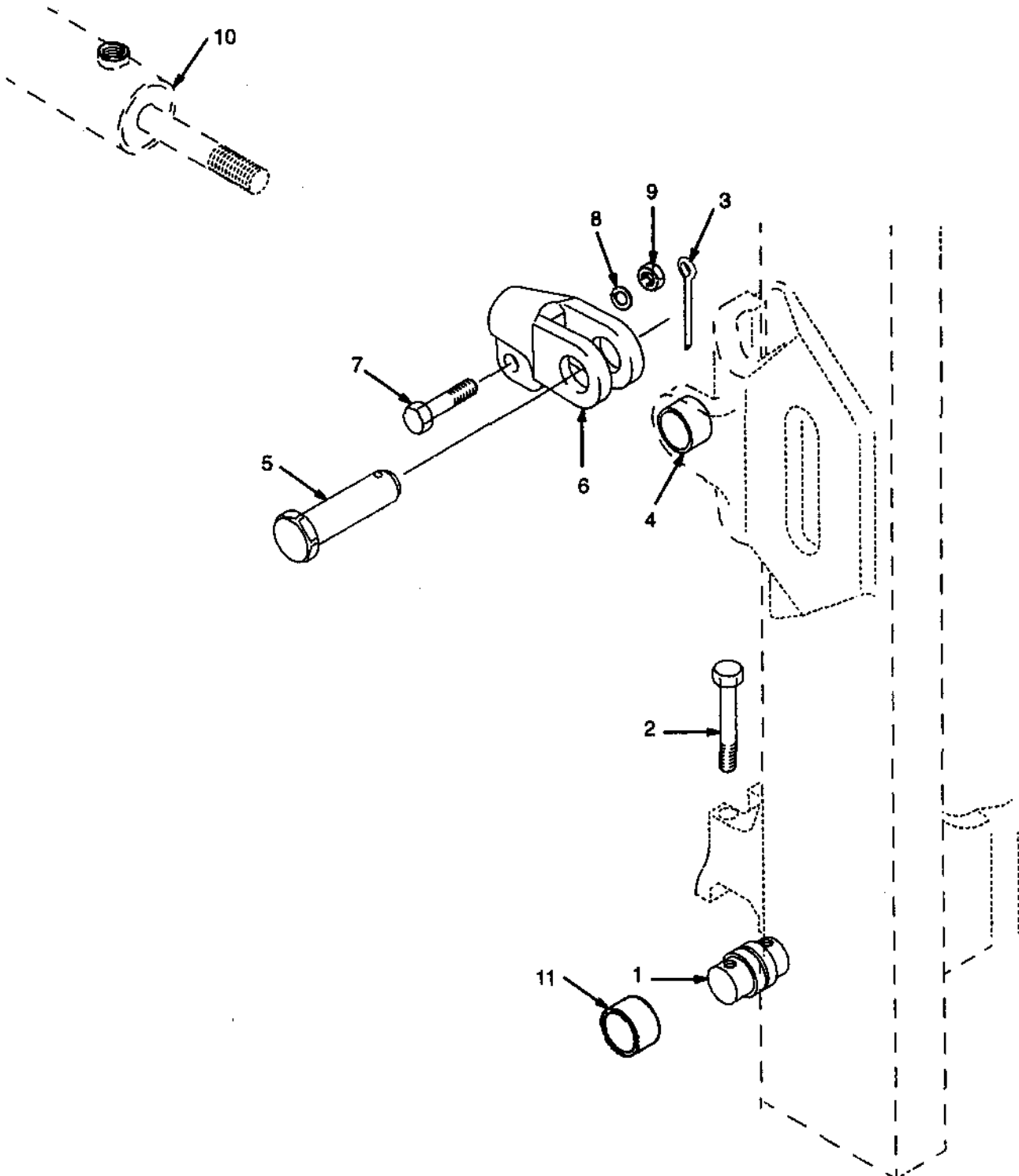
A: 6° Forward Tilt/10° Back Til

B: 6° Forward Tilt/6° Back Tilt

C: 6° Forward Tilt/5° Back Tilt

REF	PART NO.	NAME OF PART	QTY			REF	PART NO.	NAME OF PART	QTY		
			A	B	C				A	B	C
1	1376424	Pin	2	2	2	10	384101	Spacer .....	..	2	
2	1376423	Hex Head Bolt	4	4	4	11	55434	O-Ring . .....	..	2	2
3	15236	Split Pin	2	2	2	12	134675	Shim .....	..	AR	AB
4	300982	Bush	2	2	2	13	1325119	Shim .....	..	AR	AR
5	1345354	Pin	2	2	2	14	1361948	Shim .....	..	AR	
6	1307641	Rod End	2	2	2	15	....	Tilt Cylinder.	2	2	2
7	293650	Hex Head Bolt	2	2	2			☞ Figure 114			
8	292683	Lockwasher	2	2	2	16	1333385	Bush	2	..	
9	216877	Nut	2	2	2	16	1380115	Bush (Optional)	2	2	
10	1451788	Spacer	2	..							

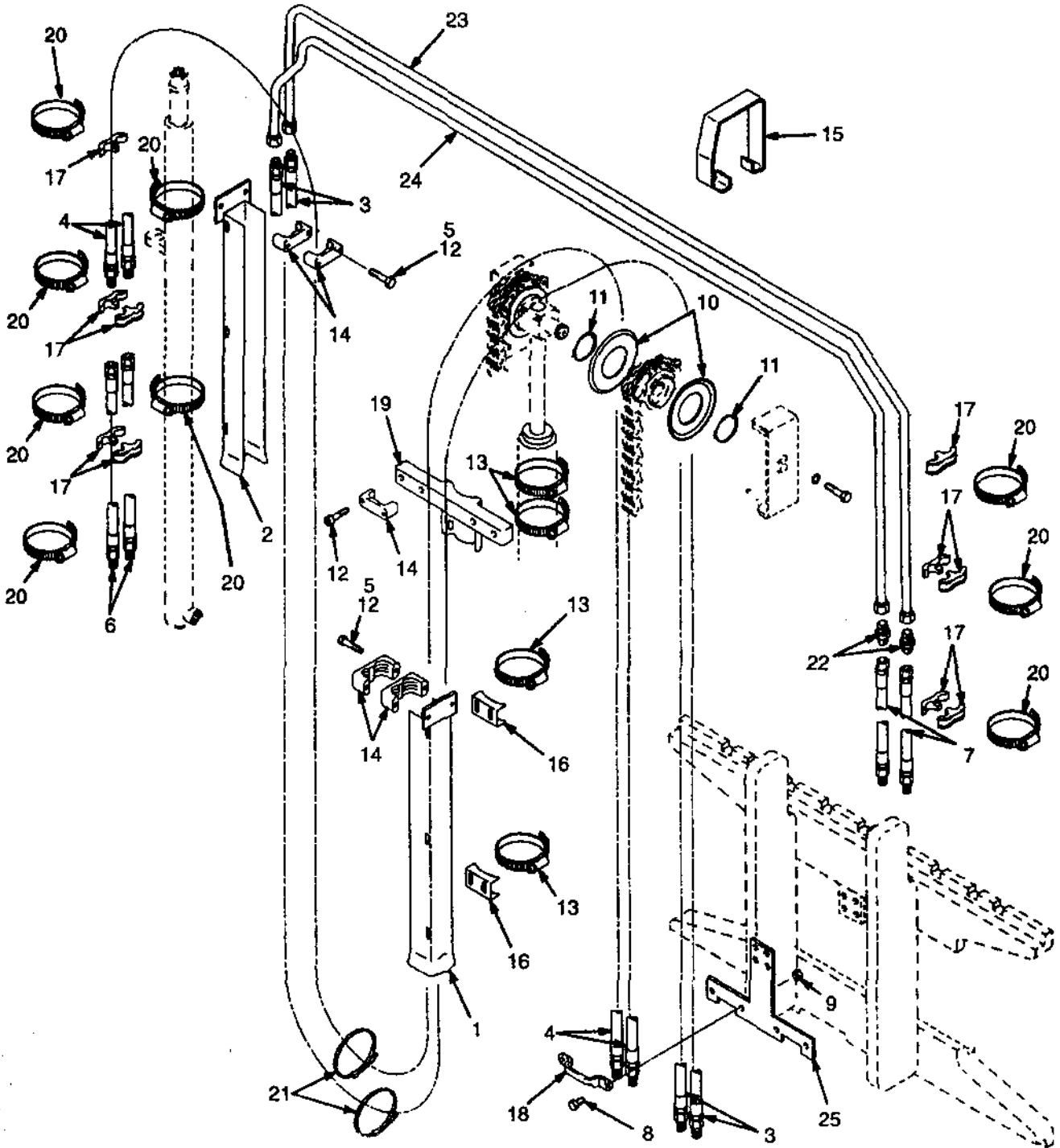
MAST INSTALLATION TWO-STAGE FFL (Figure 155)



**MAST INSTALLATION
TWO-STAGE FFL**

<u>REF</u>	<u>PART NO.</u>	<u>NAME OF PART</u>	<u>QTY</u>	<u>REF</u>	<u>PART NO.</u>	<u>NAME OF PART</u>	<u>QTY</u>
1	1376424	Pin	2	8	292683	Lockwasher	2
2	1376423	Hex Head Bolt	4	9	216877	Nut	2
3	15236	Split Pin	2	10	.....	Tilt Cylinder	2
4	300982	Bush	2			☞ Figure 114	
5	1345354	Pin	2	11	1333385	Bush	2
6	1356318	Rod End	2	11	1380115	Bush (Optional)	2
7	293650	Hex Head Bolt	2				

HEADER HOSE TWO-STAGE FFL (Figure156)



**HEADER HOSE
 TWO-STAGE FFL**

H45-55XM

REF.	NAME OF PART 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		2482 mm	2582 mm
	Mast Group No.	B509 2482	B509 2582
1	Channel	1365500	1365500
2	Channel	1365504	1365506
3	Hose	1390420	1390421
4	Hose	1390426	1369633
23	Tube	1360326	1360327
24	Tube	1360356	1360357
25	Bracket	1381771	1381771

H60-65XM

REF.	NAME OF PART 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS	
		2360 mm	2460 mm
	Mast Group No.	B564 2360	B564 2460
1	Channel	1365500	1365500
2	Channel	1365504	1365506
3	Hose	1390420	1390421
4	Hose	1390426	1369633
23	Tube	1360326	1360334
24	Tube	1360356	1360357
25	Bracket	1381772	1381772

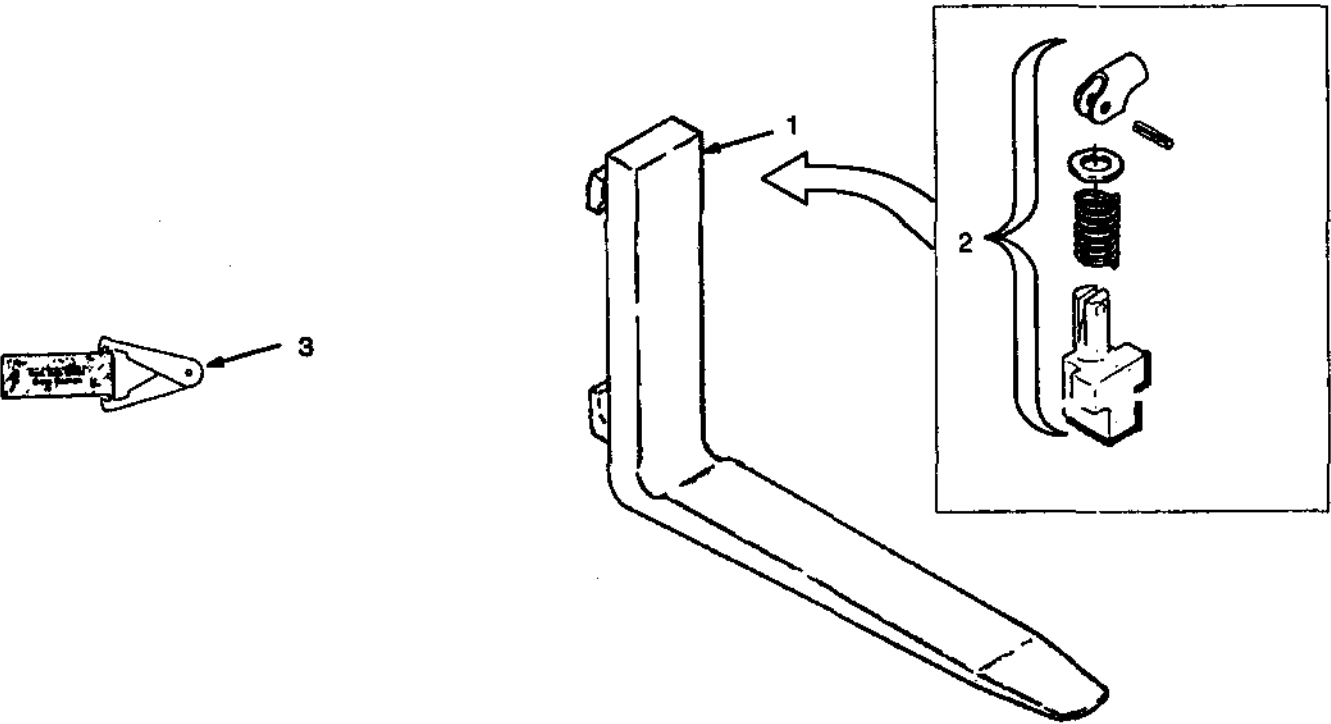
HEADER HOSE TWO-STAGE FFL

KEY:
A: Three Function
B: Four Function

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
*	....	Mast	1	1	14	1360386	Clamp	3	6
1*	....	Channel	1	1	15	1365062	Clip	1	1
2*	....	Channel	1	1	16	1345423	Clamp	2	2
3a	....	Hose	2	2	17	1353530	Clamp	5	10
4*	....	Hose	2	2	18	1369333	Clamp	1	2
5	293799	Hex Head Bolt	4	4	19	1354918	Bracket	1	1
6	1390411	Hose	2	2	20	1360507	Clamp	8	8
7	1390410	Hose	2	2	21	2004005	Strap Clamp	1	2
8	136749	Hex Head Bolt	6	8	22	14692	Fitting	2	2
9	313828	Nut	6	8	23*	....	Tube	1	1
10	1345199	Hose Guide	2	4	24*	....	Tube	1	1
11	1345204	Circlip	2	4	25*	....	Bracket	1	1
12	293796	Hex Head Bolt	6	6					
13	1360508	Clamp	4	4					

* Table

FORKS TWO-STAGE FFL (Figure 157)



**FORKS
TWO-STAGE FFL**

H45-55XM

	1 2 3 4	Standard Taper		Full Bottom Taper	Qty
1	Fork	125 mm x 40 mm	100 mm x 40 mm	125 mm x 40 mm	2
	762mm	1326660	384210	....
	914mm	1326661	384211	1338087	
	1067mm	1326663	384213	1338088	
	1219mm	1326664	384214	1338089	
	1372mm	1326665	384215	....
	1524mm	1326666	384216	....
2	Latch	369795	369795	369795	1
3	Fork Tool	3020387	3020387	3020387	AR

H45-55XM

REF	NAME OF PART 1 2 3 4	Standard Taper		Full Bottom Taper	Qty
1	Fork	100 mm x 45 mm	100 mm x 40 mm	125 mm x 40 mm	2
	914mm	1333018	384210	....
	1076 mm	1333020	367420	1338097	
	1207mm	....	....	1338098
	1219mm	1333021	367421	....
	1372mm	1333022	367422	1332745	
	1524mm	1333023	367423	....
	1829mm	1333024	367424	....
2	Latch	369796	369796	369796	1
3	Fork Tool	3020387	3020387	3020387	AR

Note: Other Fork Dimensions Available On Request, Contact Your Hyster Dealer