

PARTS MANUAL

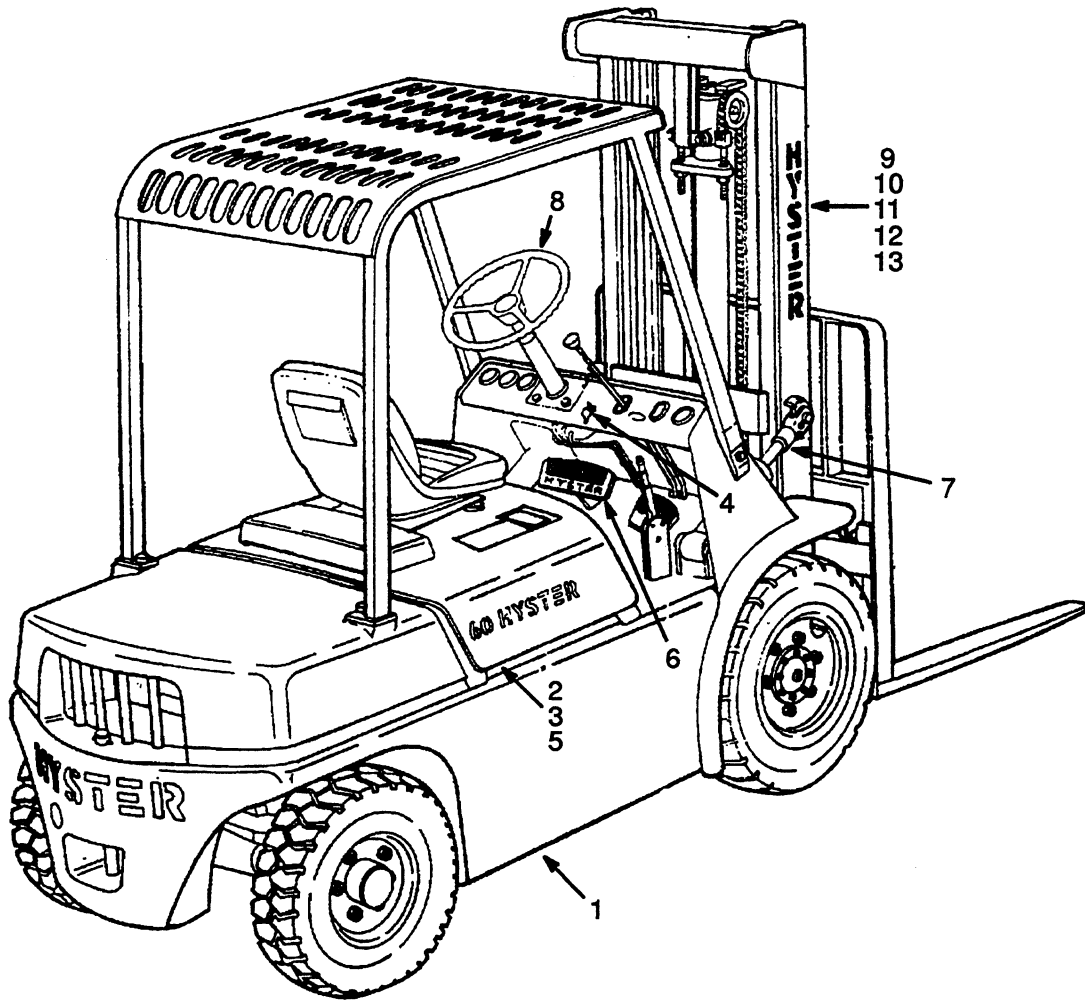
**CHALLENGER
H40-50J (H2.00-2.50J)
H60JS (H3.00JS)**

(F003)

CUSTOMER EDITION

HYSTER

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HOW TO USE ILLUSTRATED PARTS MANUAL

This parts manual describes and illustrates assemblies, subassemblies, and detail parts needed for service replacement.

The different constructions are indicated by keys, symbols and footnotes.



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CARRIAGE (Figure 197) VISTA 4-STG FFL

CARRIAGE (Figure 203) SIDE-SHIFT

CARRIAGE (Figure 204) SIDE-SHIFT

CLUTCH-FORWARD AND



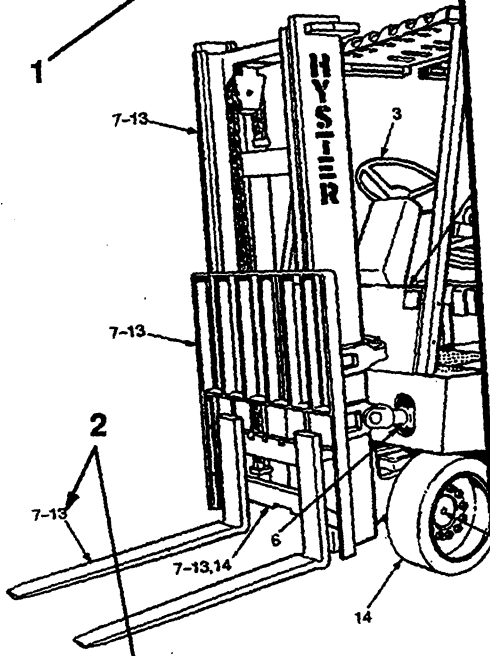
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INDEX—NUMERICAL

PART NO	REF FIGURE NO	PART NO	REF FIGURE NO	PART NO	REF FIGURE NO	PART NO	REF FIGURE NO	PART NO	REF FIGURE NO
126	51 28	90	13	97	19	33	20	129	14
				99	18	35	10	131	11
				101	19	36	16	15212	2 9

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ILLUSTRATED CONTENTS



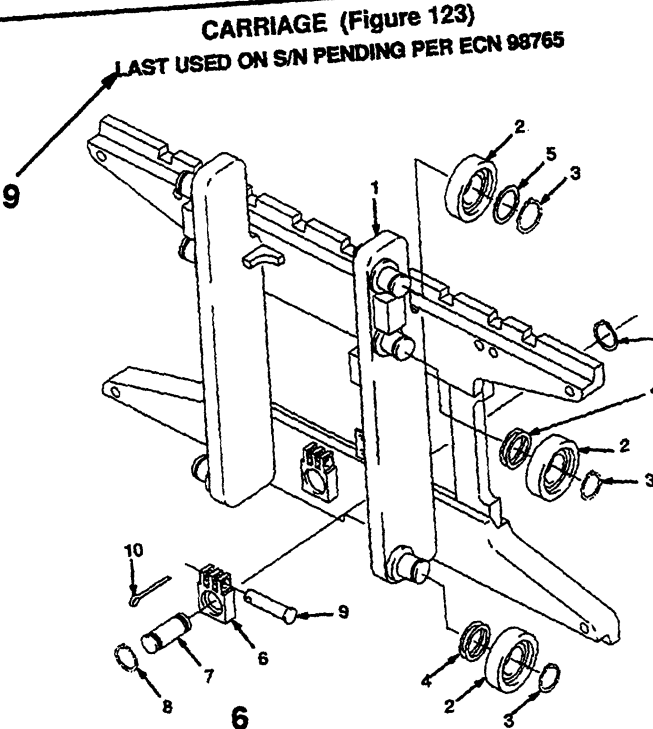
REF	DIVISION
1	Frame
2	Drive Axle
3	Steering
4	Brake/Accelerator
5	Electrical
6	Hydraulic
7	Mast-Vista Two-Stage Limited Free Lift
8	Mast-Global Two-Stage Limited Free Lift
9	Mast-Vista Three-Stage Full Free Lift
10	Mast-Global Three-Stage Full Free Lift
11	Mast-Vista Two-Stage Full Free Lift
12	Mast-Global Two-Stage Full Free Lift
13	Mast-Vista Four-Stage Full Free Lift
14	Optional Equipment

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CARRIAGE (Figure 123)

LAST USED ON S/N PENDING PER ECN 98765



KEY
A: E40-50XL
B: E60XL

REF	PART NO.	NAME OF PART	QTY
	1371660	Carriage	1
	1371661	Carriage	1
	1359245	Frame	1
1	1359245	Frame	1
1	1345218	Load Roller ("A" Standard)	6 6
2	1345219	Load Roller ("B" 0.03 in.)	6 6
2	1345220	Load Roller ("C" 0.06 in.)	6 6
3	12891	Snap Ring	6 6

REF	PART NO.	NAME OF PART
4	1345263	Shim
5	366116	Spacer
6	1369345	Chain Anchor
6	1369344	Chain Anchor
7	317735	Pin
8	131358	Snap Ring
9	323161	Pin
10	15200	Cotter Pin

HOW TO FIND THE DESIRED PART NUMBER

WHEN THE PART NUMBER AND THE NEXT HIGHER ASSEMBLY IS NOT KNOWN:

1. Determine the function and application of the part required. Turn to the illustrated index page immediately behind the front cover. Choose the general area of reference most likely to include the part.
2. Find the page number for the reference number you choose and turn to that page. Use the division index to determine the assembly which would normally contain the part required. Then locate the part on the assembly breakdown page.

WHEN THE PART NUMBER IS NOT KNOWN AND THE NEXT HIGHER ASSEMBLY IS KNOWN:

3. Determine the assembly the required part is used on. Turn to the Master Index immediately following the Illustrated Index.
4. Locate the assembly the required part is used on and turn to the page indicated for that assembly. Then locate the part on the assembly breakdown page.

WHEN THE PART NUMBER IS KNOWN:

5. Use the numerical index at the back of the manual to find the part number. Turn to the figure listed and locate the part as indicated by the reference number.

GENERAL:

The assembly breakdowns include part numbers, description, quantities required, keys and footnotes to help in selecting the correct parts.

6. Keys are used to show effective serial numbers for two or more similar assemblies, RH and LH assembly parts, etc. select the appropriate key, "A", "B", "C" or "D" and the corresponding quantity column to find the required parts.
7. Indented descriptions under "Name of Part" are used to indicate assemblies and sub-parts of assemblies. In the example (Item 2), *LOAD ROLLER* is a sub-part of the major assembly *CARRIAGE*.
8. Quantities shown are for one assembly. Note that two assemblies are shown, but the quantities of the subparts are indicated as six and six. This means six per assembly.
9. Engineering change notice (ECN) numbers for pending serial numbers are shown to allow for the inclusion of the most current parts information. Contact your local dealer for Hyster lift trucks for serial number information listed by ECN number.

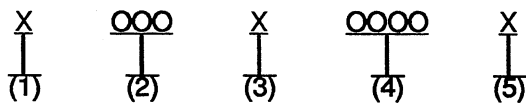
Additional fork lengths are available. Contact your dealer for Hyster lift trucks.

ORDERING PARTS:

When ordering replacement parts, give the unit serial number, part number, name of part and quantity required.

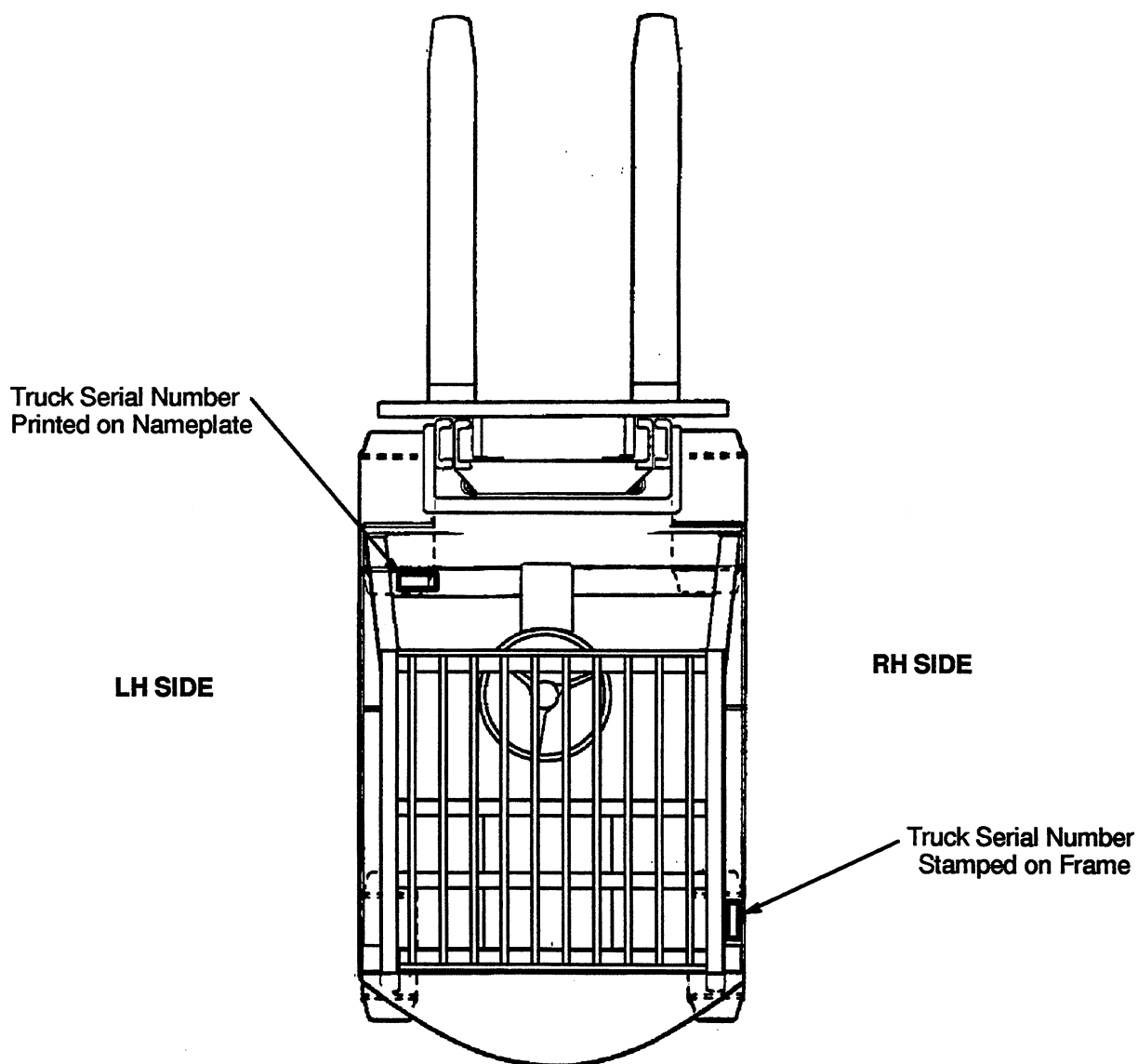
For any further information on parts, service, or ordering, consult your local dealer for Hyster lift trucks.

IDENTIFICATION OF TRUCK SERIAL NUMBERS



- (1) & (2) The first letter and three numbers indicates the truck model code.
- (3) The second letter indicates the plant of manufacture.
- (4) The four or five digit number series indicates the serial number of the truck.
- (5) The final letter indicates the year of manufacture starting with "A" in 1957 and 1980. The letters "I", "O", and "Q" will not be used.

For pending serial numbers contact your local dealer for Hyster lift trucks.

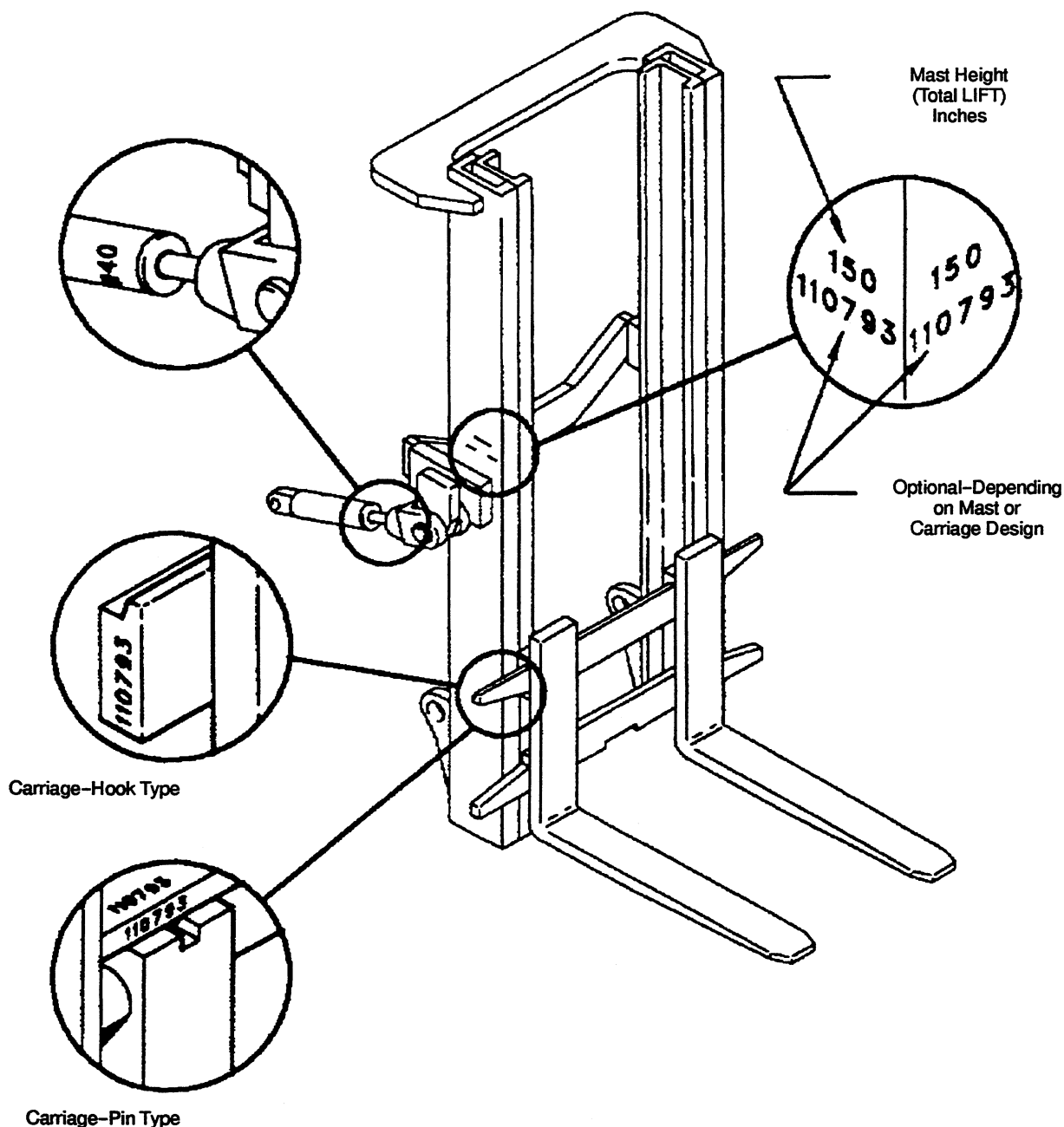


Parts referred to in this book as right or left hand parts are in accordance with the illustration above.

IDENTIFICATION OF MASTS NUMBERS

LIFT EQUIPMENT IDENTIFICATION

1. Mast group numbers and total lift heights are stamped on the right hand outer mast approximately four feet from the bottom of the fork. The group numbers include the inner and outer masts, lift cylinder, lift chain and bleeder hoses or pipes.
2. The carriage and tilt cylinder numbers are located as shown. Lift cylinder numbers are stamped on the cylinder shell near the bleeder screw or on the chain anchor. Fork part number, capacity rating, plant code letter and date of manufacture are stamped approximately six inches below the top RH side of forks. Always refer to these group and part numbers when ordering service parts.



FRAME

COUNTERWEIGHT (Figure 4) Page 8

COWLS AND FLOORPLATES (Figure 2) Page 4

HOOD/LINKAGE (Figure 3) Page 6

LABELS AND PAINT (Figure 7) Page 14

LOAD BACKREST EXTENSION (Figure 8) Page 16

OVERHEAD GURAD (Figure 5) Page 10

SEAT (Figure 6) Page 12

PUBLICATIONS (Figure 1) Page 2

PUBLICATIONS (Figure 1)

Every new lift truck is provided with at least three publications. These publications are the PARTS MANUAL, the OPERATING MANUAL, and the section of the SERVICE MANUAL called Periodic Maintenance.

The OPERATING MANUAL must always be available on every lift truck. This manual has information that the operator must know for inspection and operation of the lift truck. The section Periodic Maintenance has a rec-

ommended schedule of service intervals and the procedures for servicing the lift truck.

These manuals, other publications and programs are available from your Dealer for Hyster Lift Trucks to help you operate and maintain your lift truck professionally. See the list that follows for reference to items for lift trucks in this PARTS MANUAL.

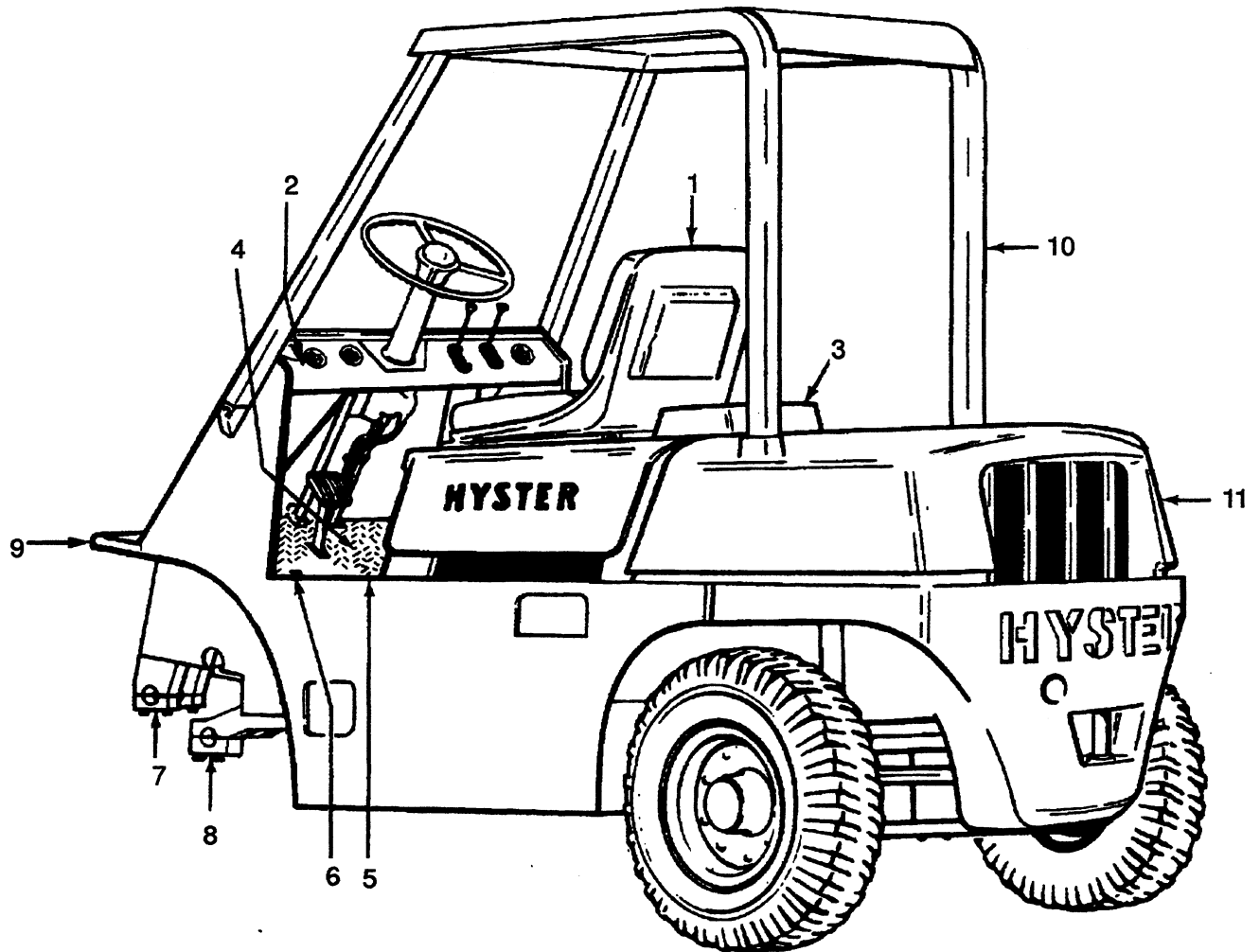
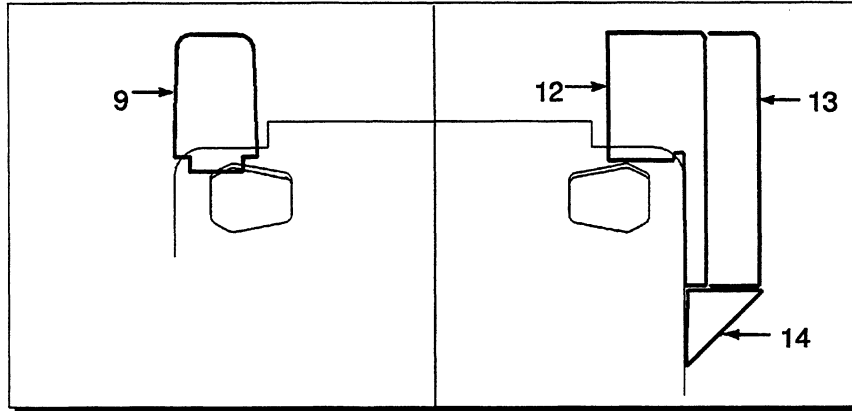
Operating Manual	Hyster Part Number
English	897152
Service Manual (complete)	599895
The Frame (100 SRM 179)	910258
The GM 4.153/4.181/6.250 Engine (600 SRM 3)	899766
The Perkins 4.203.2 Engine (600 SRM 169)	910007
The LPG Fuel System - IMPCO CA 50/100 (900 SRM 15)	899772
The Oil Clutch (1200 SRM 18)	910061
The Oil Clutch Transmission (1300 SRM 59)	910069
Single-Speed Powershift Transmission - Repairs (1300 SRM 43)	910067
The Drive Axle (1400 SRM 49)	910073
The Steering Control Unit (1600 SRM 54)	910076
The Steering Axle (1600 SRM 10)	899775
The Brake System (1800 SRM 80)	910083
The Master Cylinder (1800 SRM 13)	910082
The Hydraulic System (2000 SRM 65)	910097
The Hydraulic Pump Drive Assembly (1900 SRM 64)	899779
Hydraulic Gear Pumps (1900 SRM 97)	910091
The Tilt Cylinders (2100 SRM 103)	910102
The Alternator (2200 SRM 2)	899784
The Starter (2200 SRM 106)	910107
The High Energy Ignition System (2200 SRM 107)	899788
Electrical Gauges, Meters and Senders (2200 SRM 143)	910110
Electrical Warning Devices (2200 SRM 144)	910111
Electrical System Trouble Shooting (2200 SRM 153)	899793
Masts - Repair (4000 SRM 115)	910116
Masts - Description (4000 SRM 167)	899796
Lift Cylinders (4000 SRM 135)	910119
Vista Masts - Description (4000 SRM 197)	899797
Vista Masts - Repairs (4000 SRM 198)	899798
Periodic Maintenance (8000 SRM 180)	599903
Capacities and Specifications (8000 SRM 181)	910246
Diagrams (8000 SRM 182)	910247
Inch (SAE) and Metric Fasteners (8000 SRM 231)	910442

PUBLICATIONS

(Figure 1 Continued)

Parts Manual	599894
Operator Training Program	
Operator Training Kit Complete	
Slide Format with Carry Case	599628
1/2" VHS Format with Carry Case	852800
"Safety is an Attitude" (1/2" VHS)	852690
"Safety Rules" Playing Cards	852695
Sold Alone Kit Catalog	852505
Guide for Users of Industrial Trucks	852930

COWLS AND FLOORPLATES (Figure 2)



COWL & FLOORPLATES

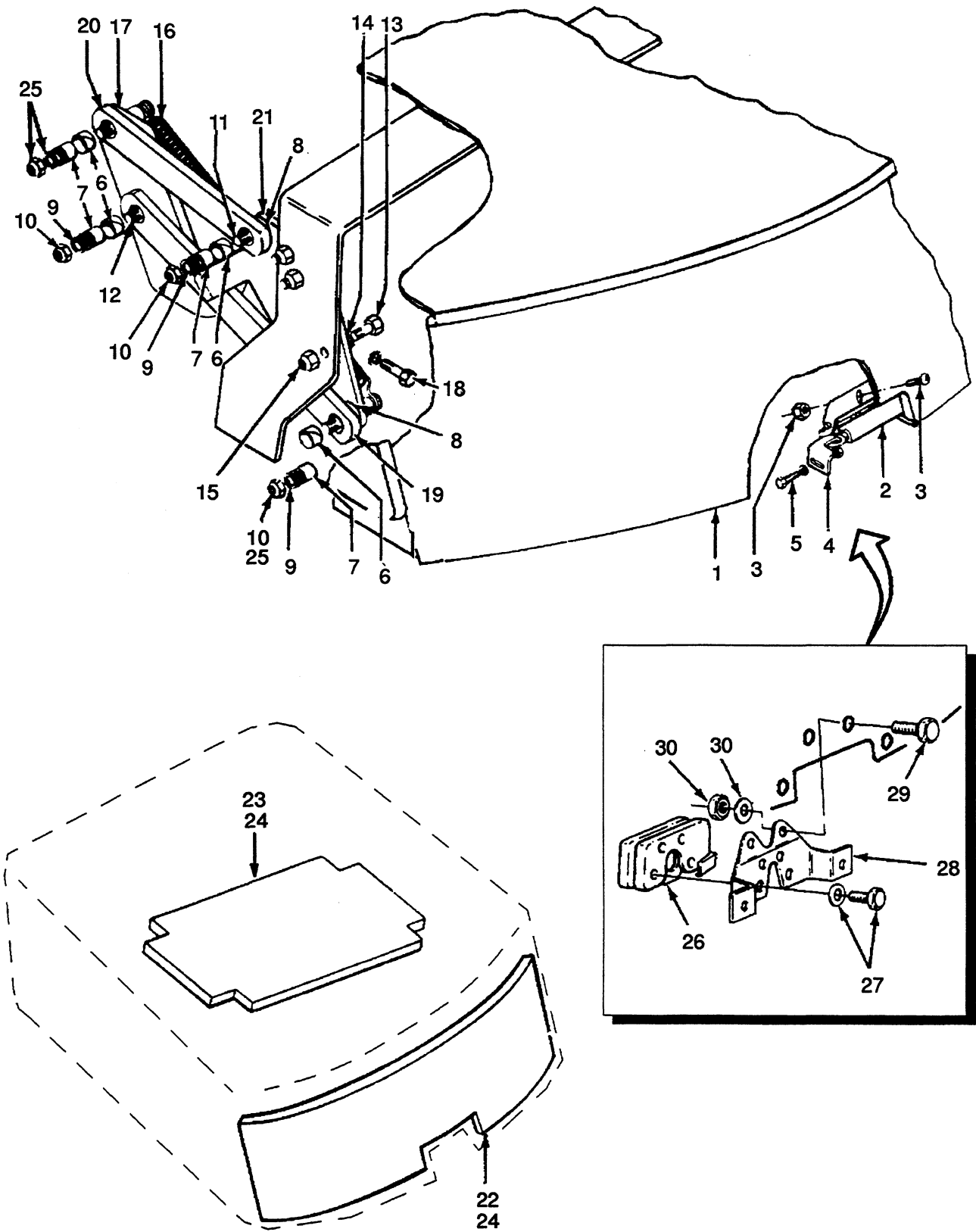
KEY

A: Single Wheel

B: Dual Wheel

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
1	.....	Seat	1	1	9	^d 137005	Plate (LH)	1	..
		☞ Figure 6			10	.....	Overhead Guard	1	1
2	.....	Instrument Panel	1	1			☞ Figure 5		
		☞ Figure 43			11	.....	Counterweight	1	1
3	.....	Hood	1	1			☞ Figure 4		
		☞ Figure 3			12	^k 144103	Fender-LH	1	..
4	^{ae} 294409	Floorplate	1	1	12	^k 144104	Fender-RH	1	..
4	^{ce} 294411	Floorplate	1	1	13	141710	Fender-LH .....	..	1
4	^{be} 294410	Floorplate	1	1	13	141711	Fender-RH .....	..	1
5	^f	Floorplate	1	1	14	153902	Step .....	..	2
5	^g 379187	Floorplate	1	1			^a Powershift With Monotrol Pedal		
6	174413	Capscrew	6	6			^b Powershift With Forward And Reverse Lever		
6	121485	Bumper	3	3			^c Oil Clutch		
7	316633	Mast Hanger	4	4			^d 7.00 X 15 Tire		
7	.....	Plate	4	4			^e Front		
7	16824	Capscrew	8	8			^f Rear		
7	129263	Washer	8	8			^g With Operator Restraint, First Used On S/N F3A-5161		
7	15158	Lockwasher	8	8			^h H40-50J (H2.00-2.50J) Standard		
8	316635	Axle Hanger	2	2			^k H60JS (H3.00JS) Standard And H40-50J (H2.00-2.50J) Optional Wheel		
8	.....	Plate	2	2					
8	16918	Capscrew	4	4					
8	15158	Lockwasher	4	4					
9	^d 137006	Plate (RH)	1	..					

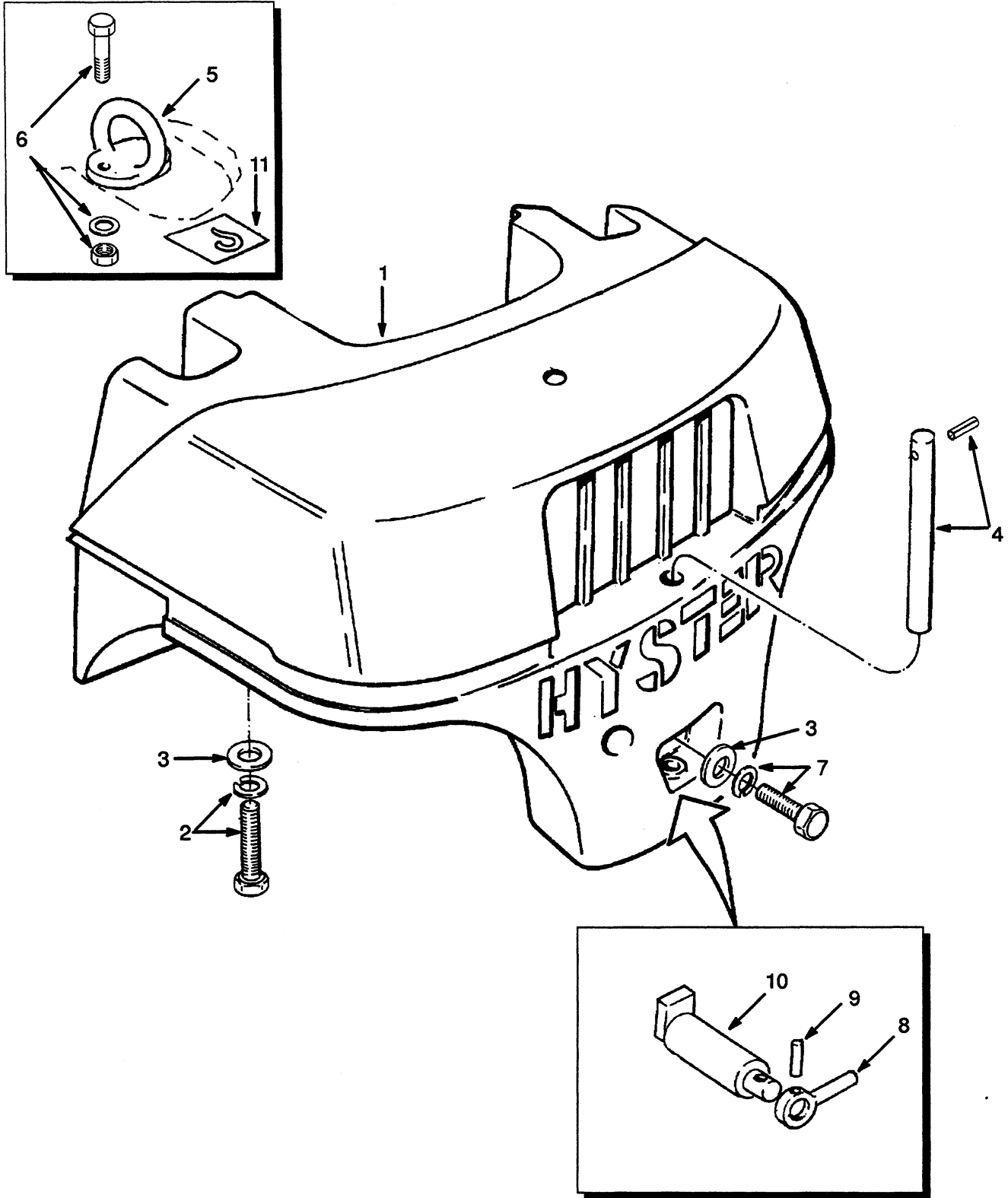
HOOD/LINKAGE (Figure 3)



HOOD/LINKAGE

REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
1	a 379177	Hood	1	21	cg 137080	Link	1
1	b 379178	Hood	1	21	dg 137083	Link	1
2	h 155873	Latch	1	22	379179	Mat	1
3	h 69071	Capscrew	2	23	290393	Mat	1
3	h 140284	Nut	2	24	246788	Washer	36
4	h 155881	Catch	1	25	15158	Lockwasher	4
5	h 18461	Capscrew	2	25	15028	Nut	4
5	h 15154	Lockwasher	2	26	k 364775	Latch	1
5	h 15127	Washer	2	27	k 364776	Capscrew	4
5	h 15004	Nut	2	27	k 197068	Washer	4
6	197557	Bushing	16	28	k 362927	Bracket	1
7	137085	Spacer	8	29	k 18527	Capscrew	4
8	103821	Spacer	4	30	k 145639	Locknut	4
9	15135	Washer	8	30	k 15175	Washer	4
10	138750	Locknut	8				
11	16808	Capscrew	2	a	Gasoline And Diesel		
12	16397	Capscrew	2	b	LPG		
13	16807	Capscrew	6	c	Left Hand		
14	15910	Lockwasher	6	d	Right Hand		
15	221355	Nut	6	e	Upper		
16	137090	Spring	2	f	Lower		
17	c 151442	Bracket	1	g	Front		
17	d 151443	Bracket	1	h	Without Operator Restraint Last Used		
18	16815	Capscrew	6		On S/N F3A-5160		
18	15156	Lockwasher	6	k	With Operator Restraint First Used		
19	f 137075	Link	2		On S/N F3A-5161		
20	e 137079	Link	2				

COUNTERWEIGHT (FIGURE 4)



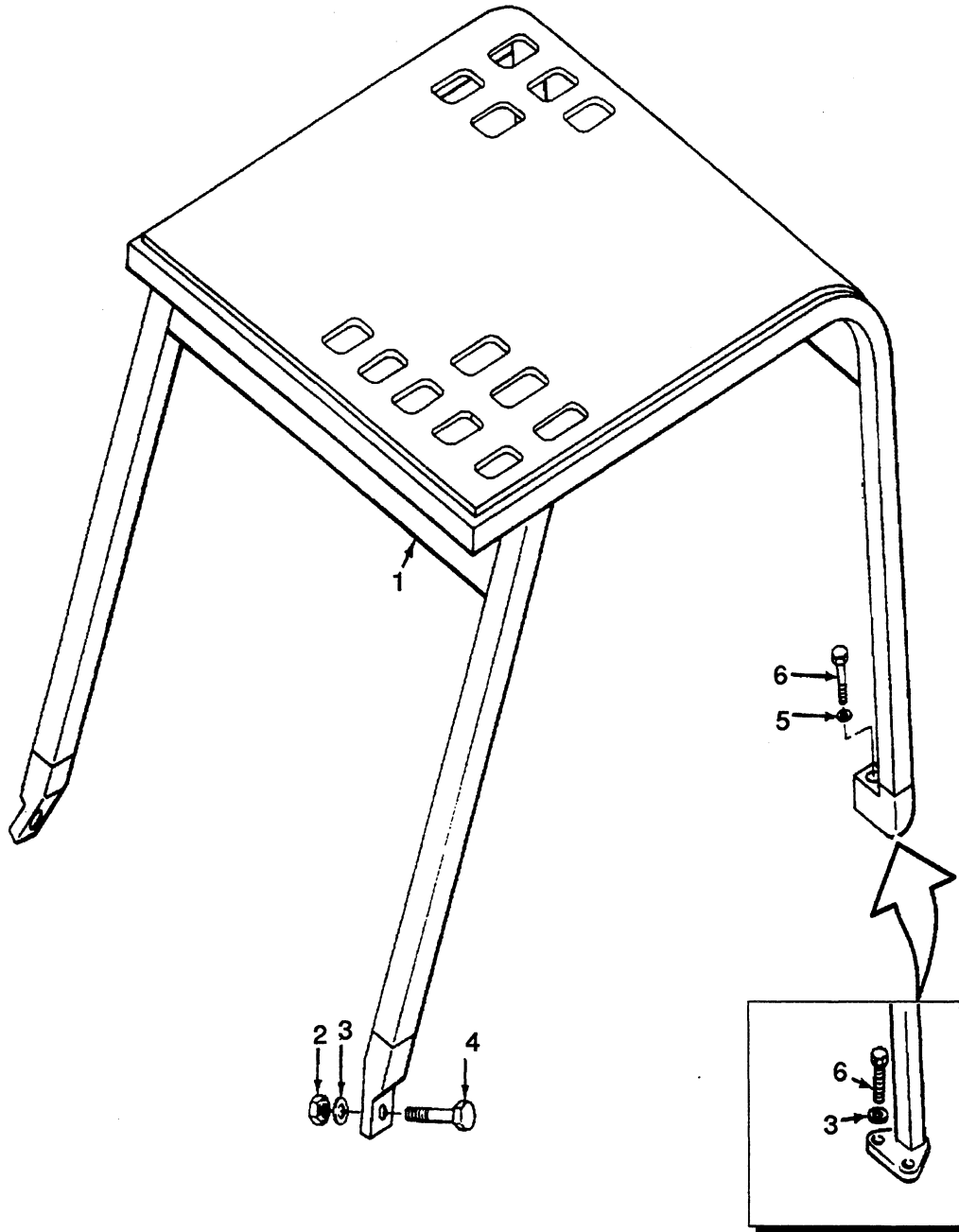
COUNTERWEIGHT

KEY

A: H40J (H2.00J)
B: H50J (H2.50J)
C: H60JS (H3.00JS)

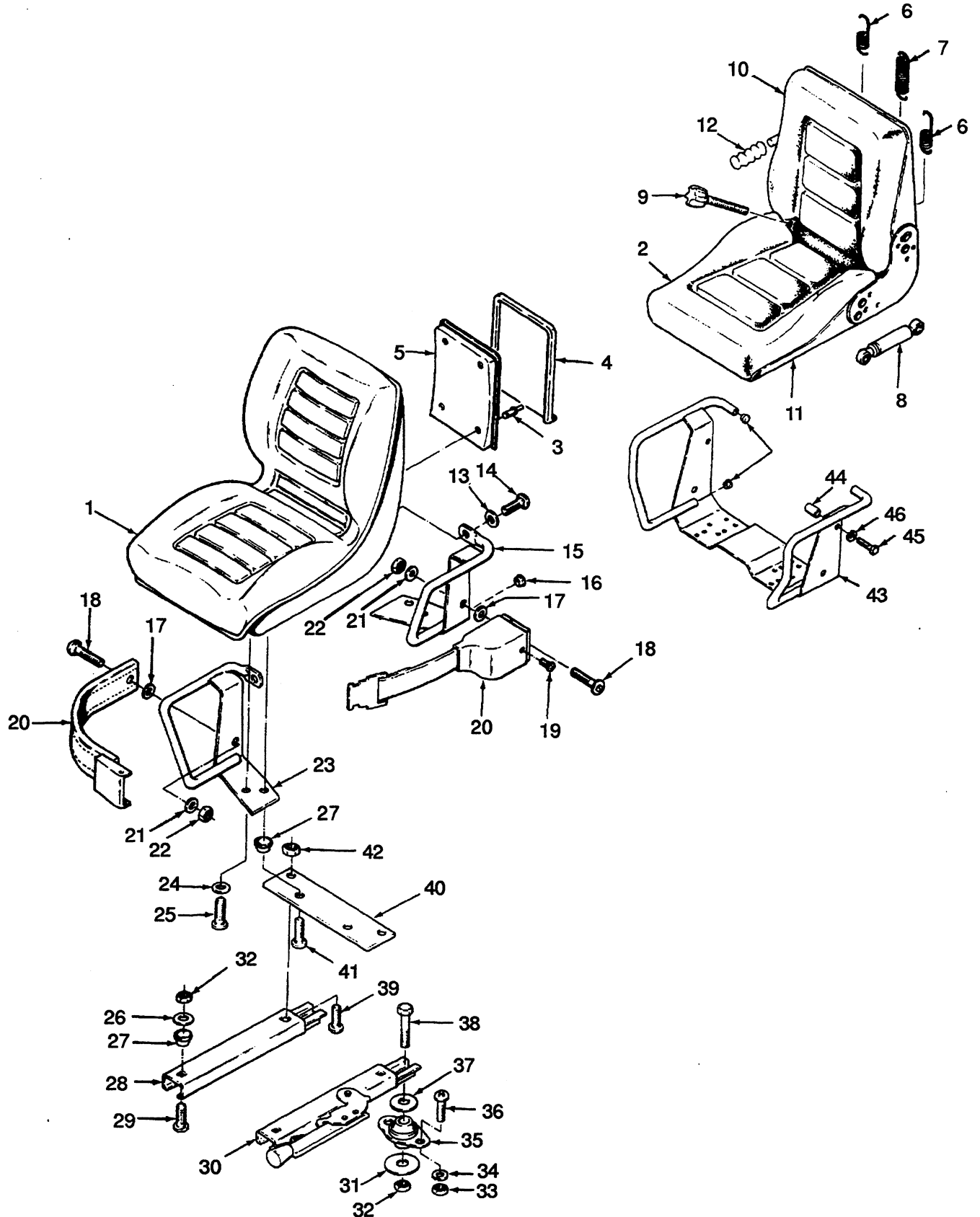
REF	PART NO.	NAME OF PART	QTY			REF	PART NO.	NAME OF PART	QTY		
			A	B	C				A	B	C
1	a 317005	Counterweight	1	..	..	6	b 214781	Capcrew	2	2	
1	c 317056	Counterweight	1	..	..	6	b 221780	Washer	2	2	
1	a 317003	Counterweight		1	..	6	b 127156	Locknut	2	2	
1	c 317054	Counterweight		1	..	7	221017	Capcrew	2	..	..
1	b 320121	Counterweight		1	..	7	221034	Capcrew	2	..	..
1	a 317004	Counterweight .....		..	1	7	17296	Capcrew .....	..	2	
1	c 317055	Counterweight .....		..	1	7	15166	Lockwasher	4	4	4
1	b 320120	Counterweight .....		..	1	8	b 263655	Latch Handle	1	1	
2	18668	Capcrew	2	2	2	9	b 80879	Spring Pin	1	1	
2	15166	Lockwasher	2	2	2	10	b 274623	Latch	1	1	
3	150181	Washer	4	4	4	11	b 316448	Lift Eye Label	1	1	
4	e 317002	Tow Pin	1	1	1		a	Overhead Exhaust			
4	f 387473	Tow Pin	1	1	1		b	Stevedoring			
4	e 226987	Groove Pin	1	1	1		c	Standard Exhaust			
4	f 302492	Groove Pin	1	1	1		d	Optional			
4	de 19940	Slotted Pin	1	1	1		e	Last Used On S/N F3A-5648			
4	b 263656	Tow Pin		1	1		f	First Used On S/N F3A-5649			
5	b 353023	Lift Eye		1	1						

OVERHEAD GURAD (Figure 5)



REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
1	b1314325	Overhead Guard	1	5	177951	Washer	2
1	^a 213202	Overhead Guard	1	6	16331	Capscrew	2
2	15062	Nut	2	6	^a 18621	Capscrew	4
3	15162	Lockwasher	2				
3	^a 15162	Lockwasher	6	^a		Stevedoring	
4	18781	Capscrew	2	^b		First Used On S/N F3A-6029	

SEAT (Figure 6)



SEAT

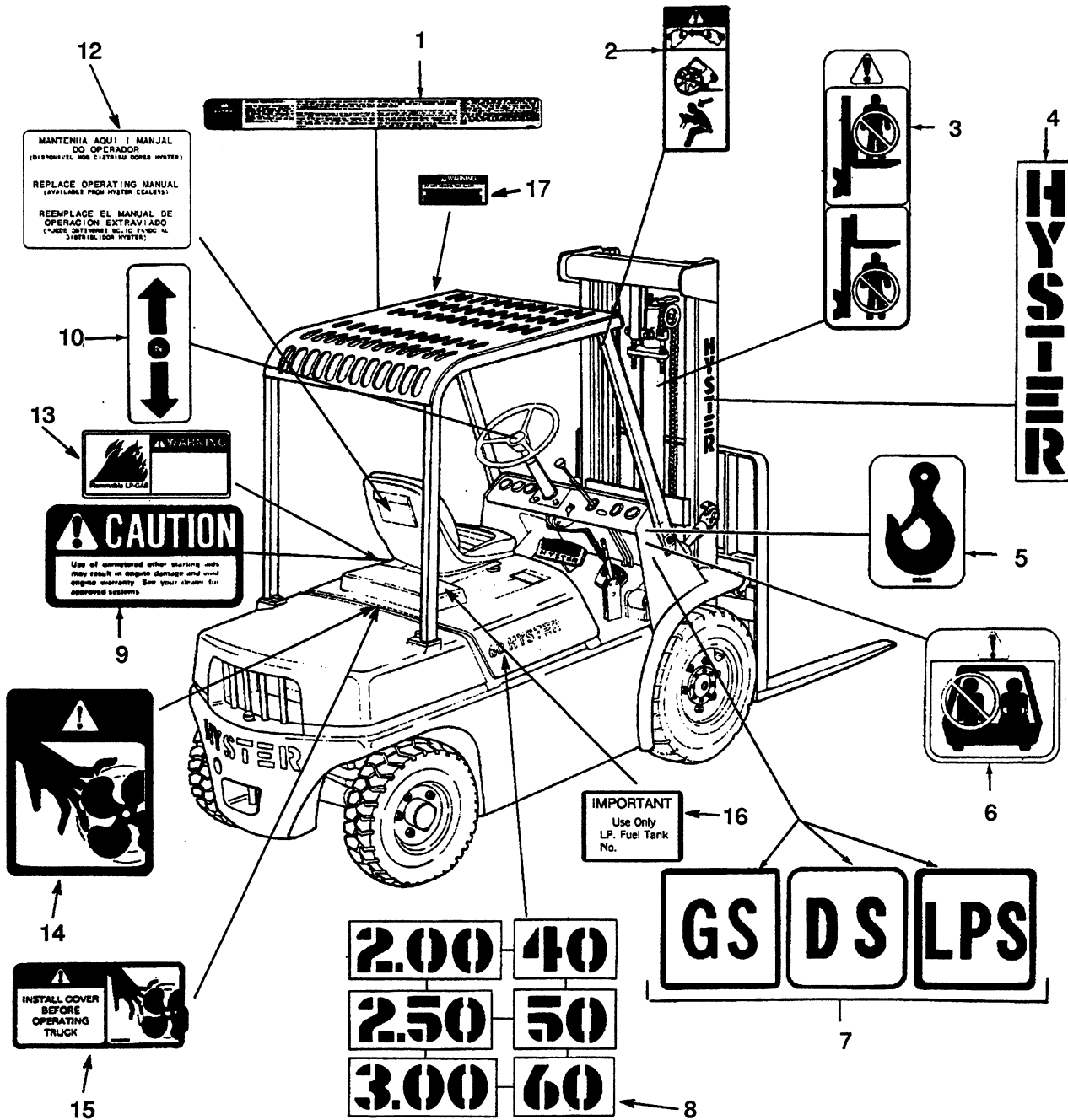
KEY

A: Standard

B: Suspension

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
1	377901	Seat	1	..	26	15175	Washer .....	..	4
2	377904	Seat .....	..	1	27	204114	Spacer	4	4
2	^c 374171	Seat .....	..	1	28	269449	Seat Rail	1	1
3	222029	Rivet	4	4	29	^a 18731	Capscrew	2	..
4	335991	Cover	1	1	29	^b 364914	Capscrew	2	..
5	335988	Base	1	..	29	18727	Capscrew .....	..	2
5	335989	Base .....	..	1	30	269448	Seat Rail	1	1
5	^d 1326337	Spacer .....	..	4	31	379181	Washer	4	4
6	326364	Coil Spring .....	..	2	32	145639	Locknut	4	8
7	326363	Spring (Tension) .....	..	1	33	15002	Nut	8	8
8	326978	Shock Absorber .....	..	1	34	15152	Lockwasher	8	8
9	326365	Spindle .....	..	1	35	228731	Isolator	4	4
10	326361	Cushion .....	..	1	36	16712	Screw	8	8
11	326360	Cushion .....	..	1	37	166120	Washer	4	4
12	326362	Knob .....	..	1	38	18509	Capscrew	4	4
13	^b 379198	Washer	2	..	39	18727	Capscrew	2	..
14	^b 379197	Capscrew	2	..	40	327105	Plate/Adapter	1	..
15	^b 364807	Restraint (LH)	2	..	41	^a 18497	Capscrew	2	..
16	^b 364854	Plug	2	4	41	^b 364914	Capscrew	2	..
17	^b 379697	Washer	2	2	41	18727	Capscrew .....	..	2
18	^b 379199	Capscrew	2	2	42	145639	Locknut	2	4
19	^b 379650	Screw	1	1	43	^b 364847	Restraint .....	..	1
20	^b 1374750	Belt	1	1	44	^b 364848	Spacer .....	..	2
21	^b 379697	Washer	2	2	45	^b 379674	Capscrew .....	..	2
22	^b 379698	Nut	2	2	46	^b 379675	Washer .....	..	2
23	^b 364808	Restraint (RH)	1	..		^a	Without Operator Restraint		
24	^b 18515	Washer	4	..		^b	With Operator Restraint First Used On S/N F3A-5161		
25	^b 18727	Capscrew	4	..		^c	Without Switch		
26	^a 221733	Washer	4	..		^d	Grammar Seat Only		
26	^b 221733	Washer	2	..					

LABELS AND PAINT (Figure 7)

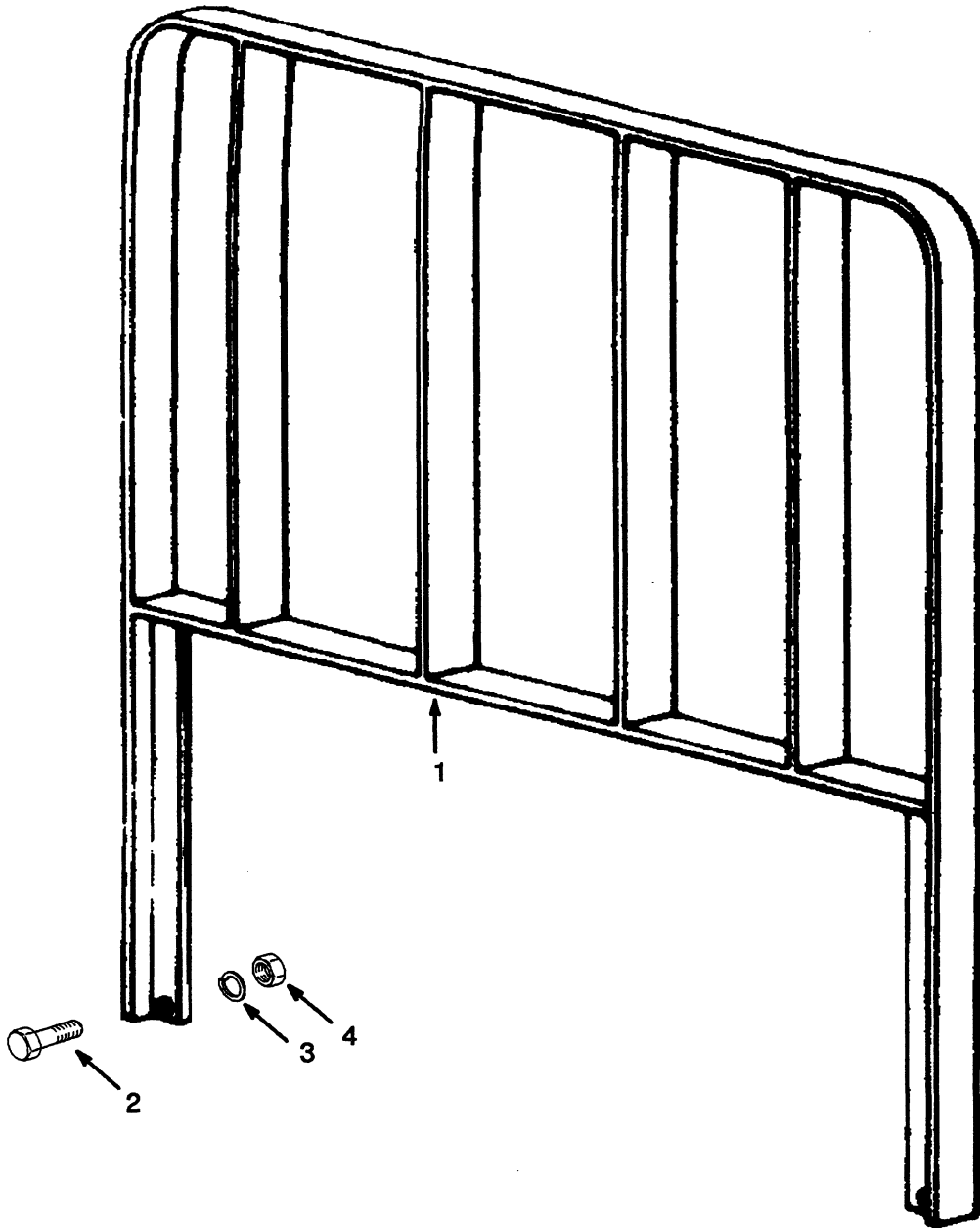


LABELS AND PAINT

KEY
A: Diesel
B: Gasoline
C: LPG

REF	PART NO.	NAME OF PART	QTY			REF	PART NO.	NAME OF PART	QTY		
			A	B	C				A	B	C
1	r 386079	Label (Safety)	1	1	1	11	bd1344901	Paint (Blk Spray)	AR	AR	AR
1	s1335142	Label (Safety)	1	1	1	11	67661	Paint (Blk 1 Gal)	AR	AR	AR
2	s 364918	Label (Safety)	2	2	2	11	c 328626	Paint	AR	AR	AR
3	n 327927	Label (Mast)	1	1	1	12	1328205	Label (Operator Manual) .	1	1	1
3	m 356154	Label (Safety)	2	2	2	13	1308623	Label (Flamable Gas)	1	1	1
4	ek 322755	Label (Hyster)	2	2	2	14	1300094	Label (Fan Warning)	1	1	1
4	eh 369857	Label (Hyster)	2	2	2	15	1300119	Label (Fan Warning)	1	1	1
4	fk 313506	Label (Hyster)	2	2	2	16	1304067	Nameplate (LP) .....	..	..	..
4	fh 369858	Label (Hyster)	2	2	2	17	t	Label (Ovrhd Grd Impact)	1	1	1
4	gk 270859	Label (Hyster)	2	2	2		a	Dual Wheels			
4	gh 369859	Label (Hyster)	2	2	2		b	Satin Finish			
5	q 316448	Label (Lift Eye)	5	5	5		c	Hi-Temp			
6	a 327030	Label (No Riders)	2	2	2		d	Unleaded			
7	154067	Label (DS)	2	..	..		e	Vista Three-Stage Mast 67.73 in			
7	154065	Label (GS)	2	..	..		f	Vista Two-Stage Mast 74.02 in			
7	154066	Label (LPS) .....	..	..	2			Vista Three-Stage Mast 72.64 in - 74.61 in			
8	318931	Label (H40)	2	2	2		g	Vista Two-Stage Mast 79.92 in - 127.24 in			
8	318932	Label (H50)	2	2	2			Vista Three-Stage Mast 78.54 in 93.31 in			
8	327043	Label (H60)	2	2	2			Non-Vista Freelif			
8	p 369853	Label (2.00)	2	2	2			Mast 74 in - 90 in			
8	p 369854	Label (2.50)	2	2	2		h	Black Mast			
8	p 369855	Label (3.00)	2	2	2		k	Yellow Mast			
9	194172	Label (Caution)	1	..	..		m	Vista Mast			
10	288701	Label (Fwd/Rev)	1	1	1		n	Non-Vista Mast			
11	b 316844	Paint (Red Spray)	AR	AR	AR		p	Metric			
11	b 317225	Paint (Yellow)	AR	AR	AR		q	Stevedoring			
11	b 317226	Paint (Yellow)	AR	AR	AR		r	Without Operator Restraint			
11	168811	Paint (Black)	AR	AR	AR		s	With Operator Restraint First Used On S/N F3A-5160			
11	bd1344902	Paint (Blk 1 Gal)	AR	AR	AR		t	Cocontact Your Local Hyster Dealer			

LOAD BACKREST EXTENSION (Figure 8)



Key

A: H40-50J (H2.00-2.50J)

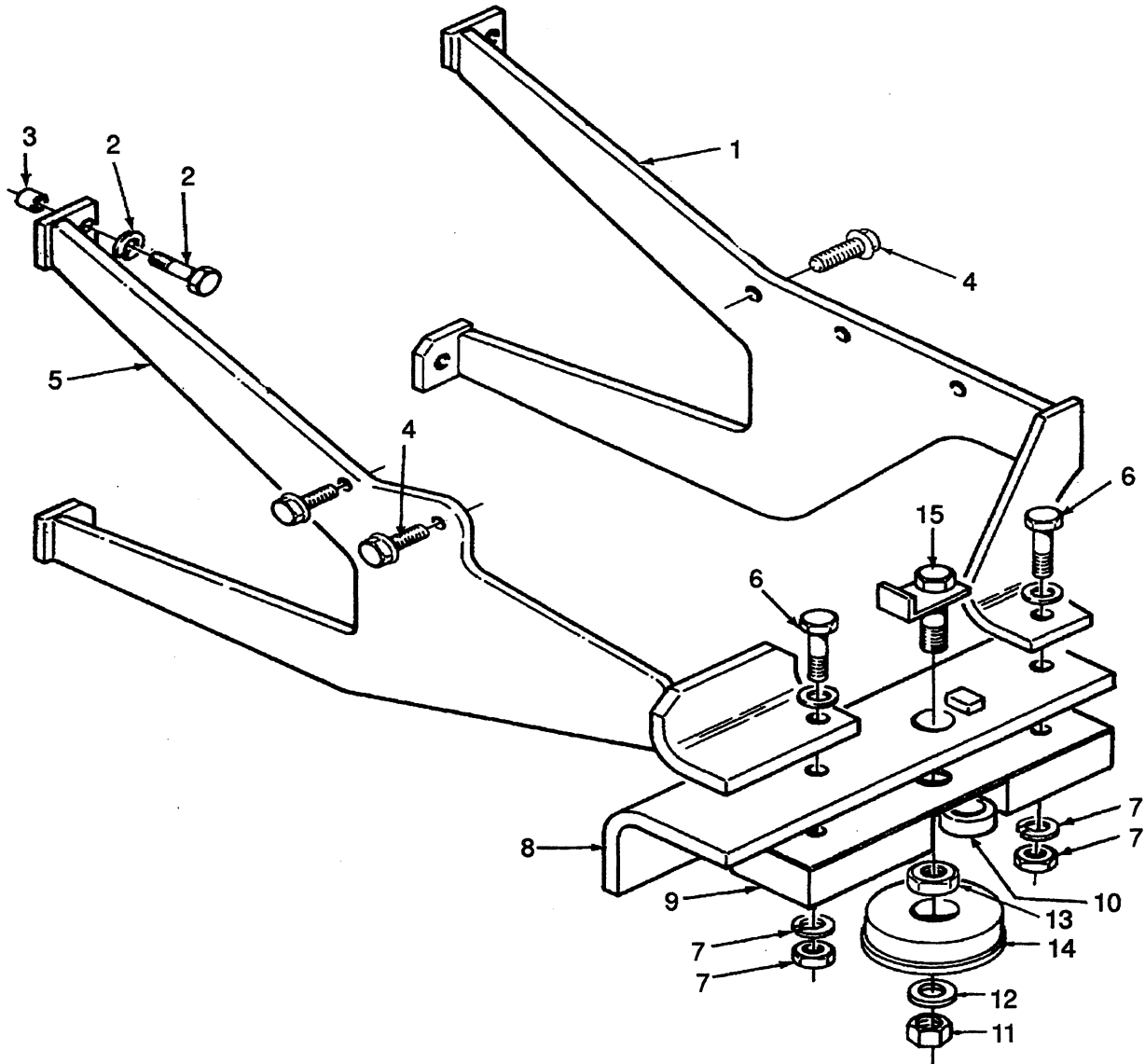
B: H60JS (H3.00JS)

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
1	1338642	Extension (42 inch)	1	..	3	221771	Washer	4	4
1	1338645	Extension (42 inch) .....	..	1	3	^a 15160	Lockwasher	6	6
1	^a 66487	Extension (48 inch)	1	1	4	300937	Nut	4	4
1	^a 207016	Extension (62 inch)	1					
2	1343990	Capscrew	4	4	^a	Block Handler			
2	^a 16823	Capscrew	6	6					

ENGINE

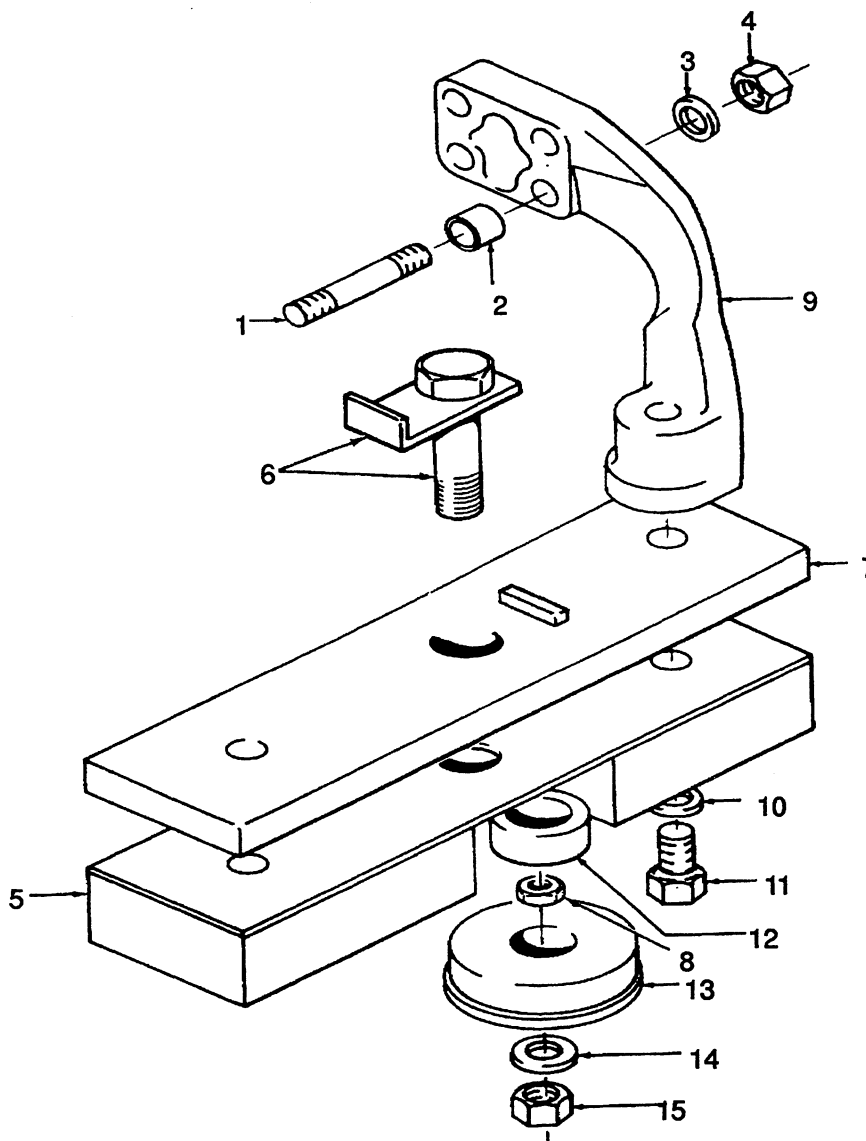
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CYLINDER BLOCK AND CRANKCASE (Figure 16) GASOLINE	Page 32
CYLINDER HEAD AND MANIFOLD (Figure 17) GASOLINE	Page 36
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ENGINE MOUNTS (Figure 9) GASOLINE	Page 18
EXHAUST (Figure 11)	Page 20
EXHAUST (Figure 13) OVERHEAD Stevedoring	Page 24
OIL PUMP (Figure 18) GASOLINE	Page 38
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ENGINE MOUNTS (FIGURE 9) GASOLINE



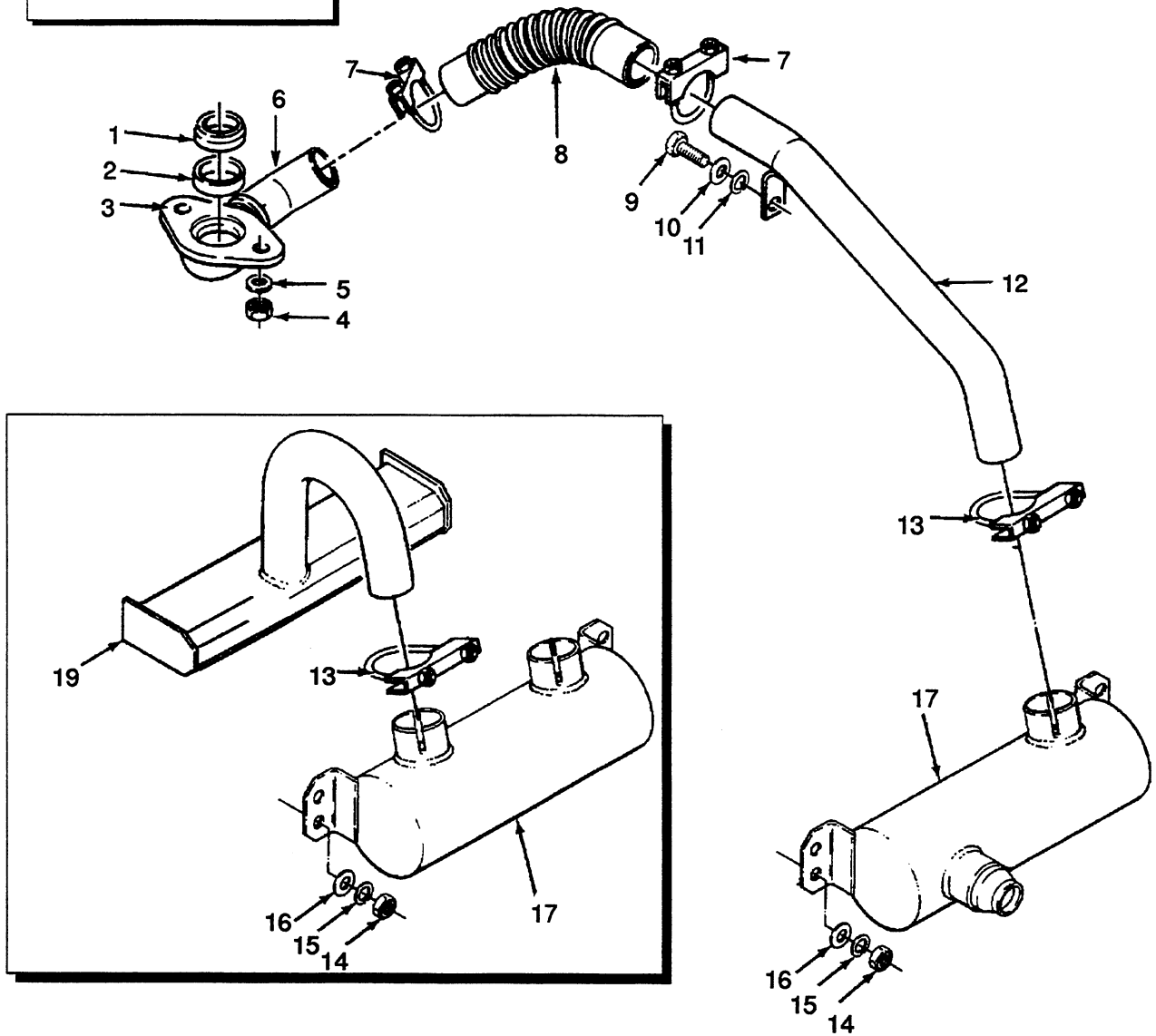
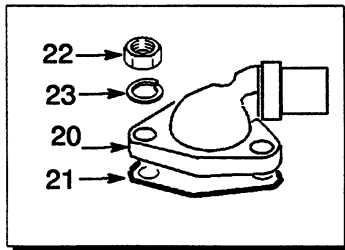
REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
1	299108	Bracket (RH)	1	8	299105	Plate	1
2	16813	Capscrew	4	9	137053	Mount	1
2	15158	Lockwasher	4	10	137057	Spacer	1
3	185867	Dowel/Sleeve	2	11	221355	Nut	1
4	174413	Capscrew	3	12	15178	Washer	1
5	291495	Bracket (LH)	1	13	15028	Nut	1
6	16085	Capscrew	2	14	186151	Mount	1
6	15178	Washer	2	15	257999	Bolt	1
7	15058	Nut	2	15	252175	Plate	1
7	15158	Lockwasher	2	15	16809	Capscrew	1

ENGINE MOUNTS (FIGURE 10) DIESEL



REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
	280097	Engine	1	9	291813	Mount (LH)	1
c	.....	Engine	1	10	15158	Lockwasher	2
1	a	148461 Stud	4	11	16085	Capscrew	2
1	b	148462 Stud	4	12	137057	Spacer	1
2		990332 Thimble	4	13	186151	Mount	1
3		15158 Lockwasher	8	14	15178	Washer	1
4		15008 Nut	8	15	221355	Nut	1
5		137053 Mount	1				
6		257999 Bolt	1	a		Left Hand	
7		250320 Plate	1	b		Right Hand	
8		15028 Nut	1	c		First Used On Engine S/N JGU578746J	
9		324105 Mount (RH)	1				

EXHAUST (Figure 11)



EXHAUST

KEY

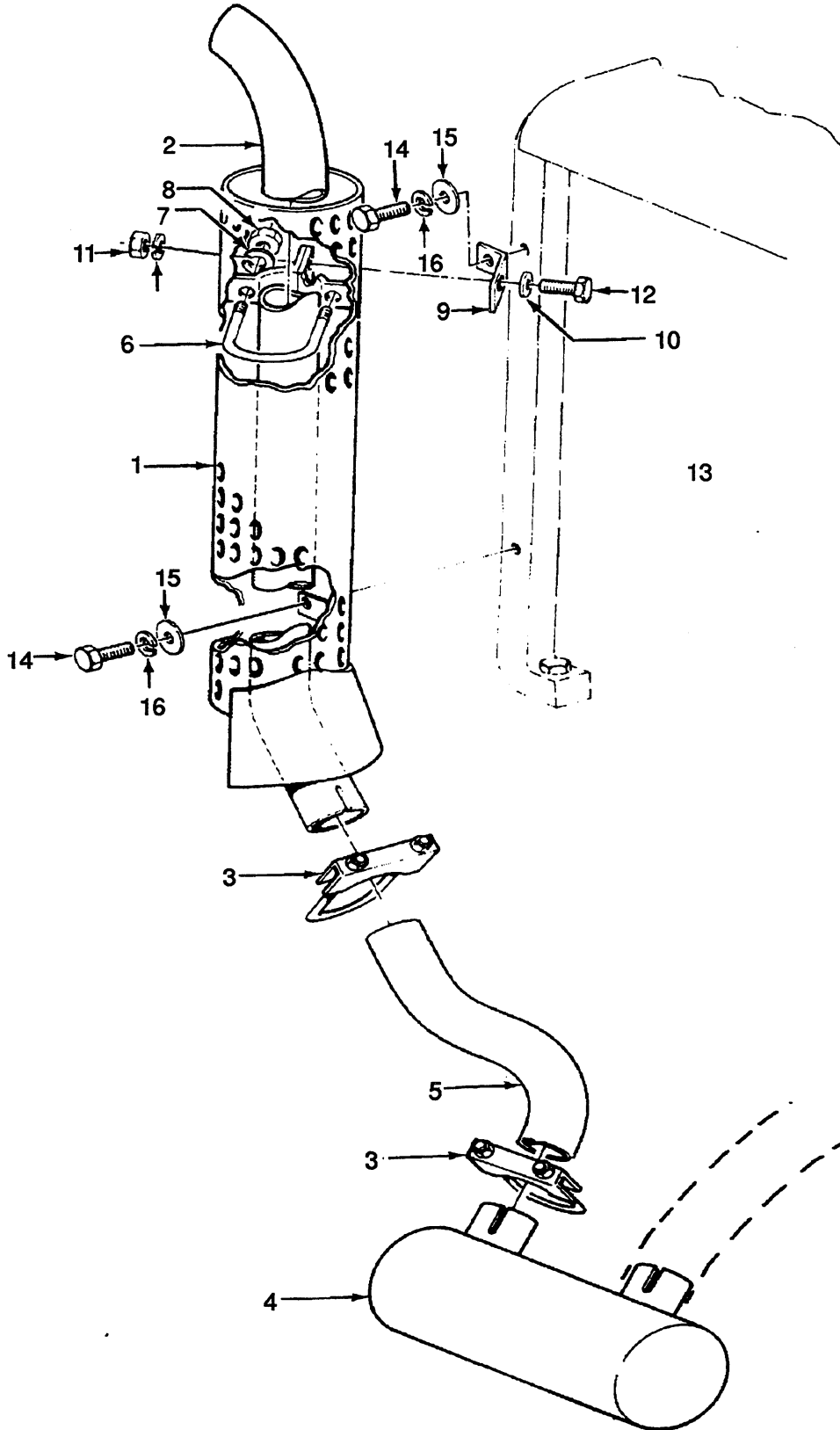
A: Gasoline And LPG

B: Diesel

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
1	66763	Gasket	1	..	15	15156	Lockwasher	2	2
2	189686	Sleeve	1	..	16	15134	Washer	2	2
3	319217	Elbow	1	..	17	317541	Muffler	1	..
4	16526	Nut	2	..	17	c 317540	Muffler	1	..
5	15156	Lockwasher	2	..	17	317538	Muffler .....	..	1
6	319217	Pipe	1	..	17	c 317539	Muffler .....	..	1
7	38738	Clamp	2	2	18	c 63116	Clamp	1	1
8	173620	Tube .....	..	1	19	ac 319210	Diffuser	1	1
8	316921	Tube	1	..	19	bc 319211	Diffuser	1	1
9	16597	Capscrew	1	1	20	291808	Elbow .....	..	1
10	15134	Washer	1	1	21	d	Gasket .....	..	1
11	15156	Lockwasher	1	1	22	d	Nut .....	..	3
12	b 317537	Pipe	1	..	23	d	Washer .....	..	3
12	b 317533	Pipe .....	..	1					
12	a 317531	Pipe .....	..	1					
12	a 317535	Pipe	1	..					
13	63116	Clamp	1	1					
14	15056	Nut	2	2					

- a H40-50J (H2.00-2.50J)
- b H60JS (H3.00JS)
- c Safety
- d Included With Engine

OVERHEAD EXHAUST (FIGURE 12) NON STEVEDORING



OVERHEAD EXHAUST NON STEVEDORING

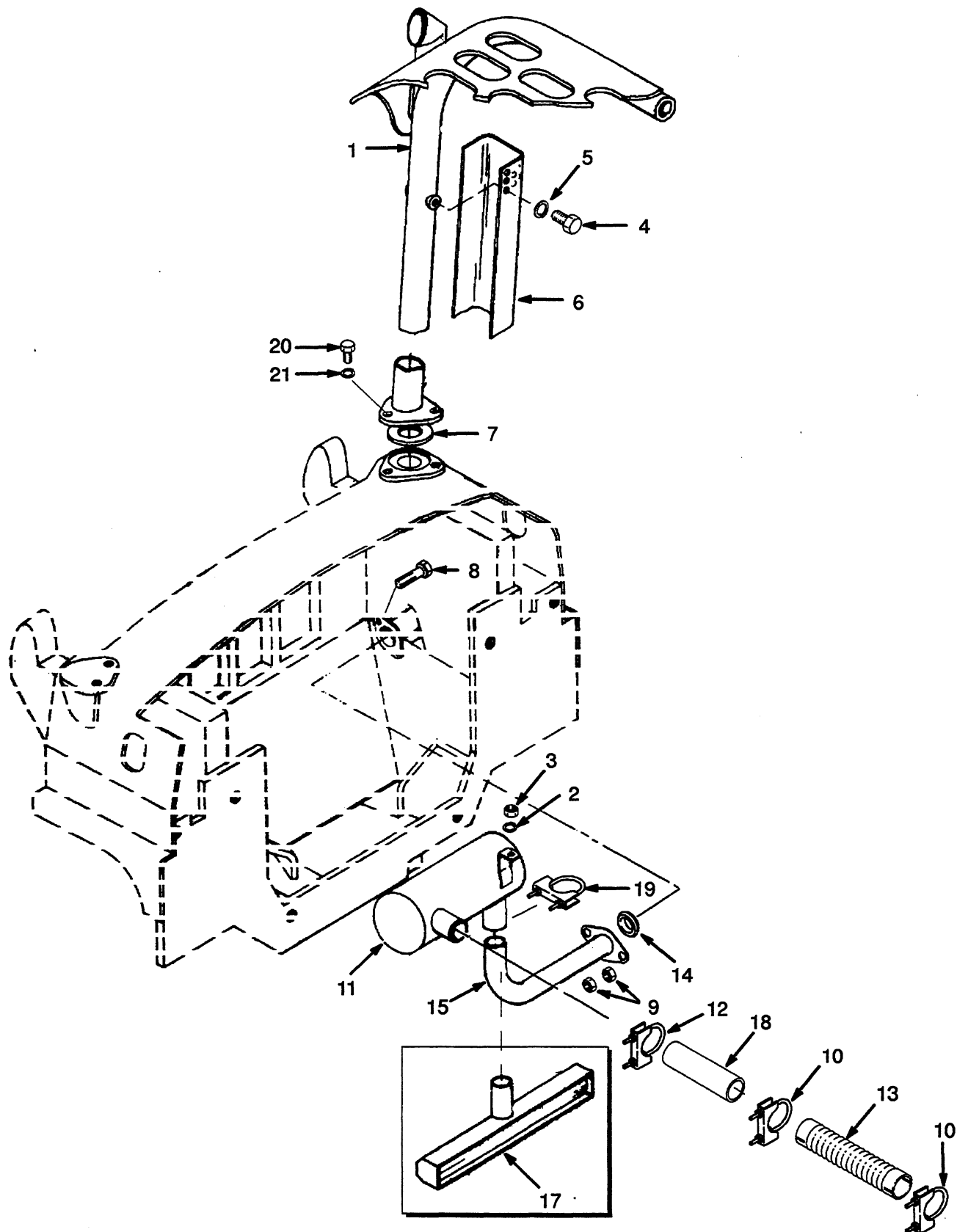
KEY

A: Gasoline And LPG

B: Diesel

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
1	213950	Shield	1	1	9	213174	Bracket	1	1
2	190548	Pipe	1	1	10	15155	Lockwasher	5	5
3	63116	Clamp	3	3	11	15055	Nut	3	3
4	317539	Muffler .....	..	1	12	18496	Capscrew	1	1
4	317540	Muffler	1	..	13	18515	Washer	1	1
5	acd 317531	Pipe .....	..	1	14	227116	Screw	2	2
5	bcd 317533	Pipe .....	..	1	15	18515	Washer	3	3
5	acd 317535	Pipe	1	..	16	15155	Lockwasher	3	3
5	bcd 317537	Pipe	1	..	a	H40-50J (H2.00-2.50J)			
6	189701	U-Bolt	1	1	b	H60JS (H3.00JS)			
7	15155	Lockwasher	2	2	c	Overhead Exhaust			
8	15055	Nut	2	2	d	Counterweight Exhaust			

EXHAUST (FIGURE 13) OVERHEAD STEVEDORING



EXHAUST OVERHEAD STEVEDORING

KEY

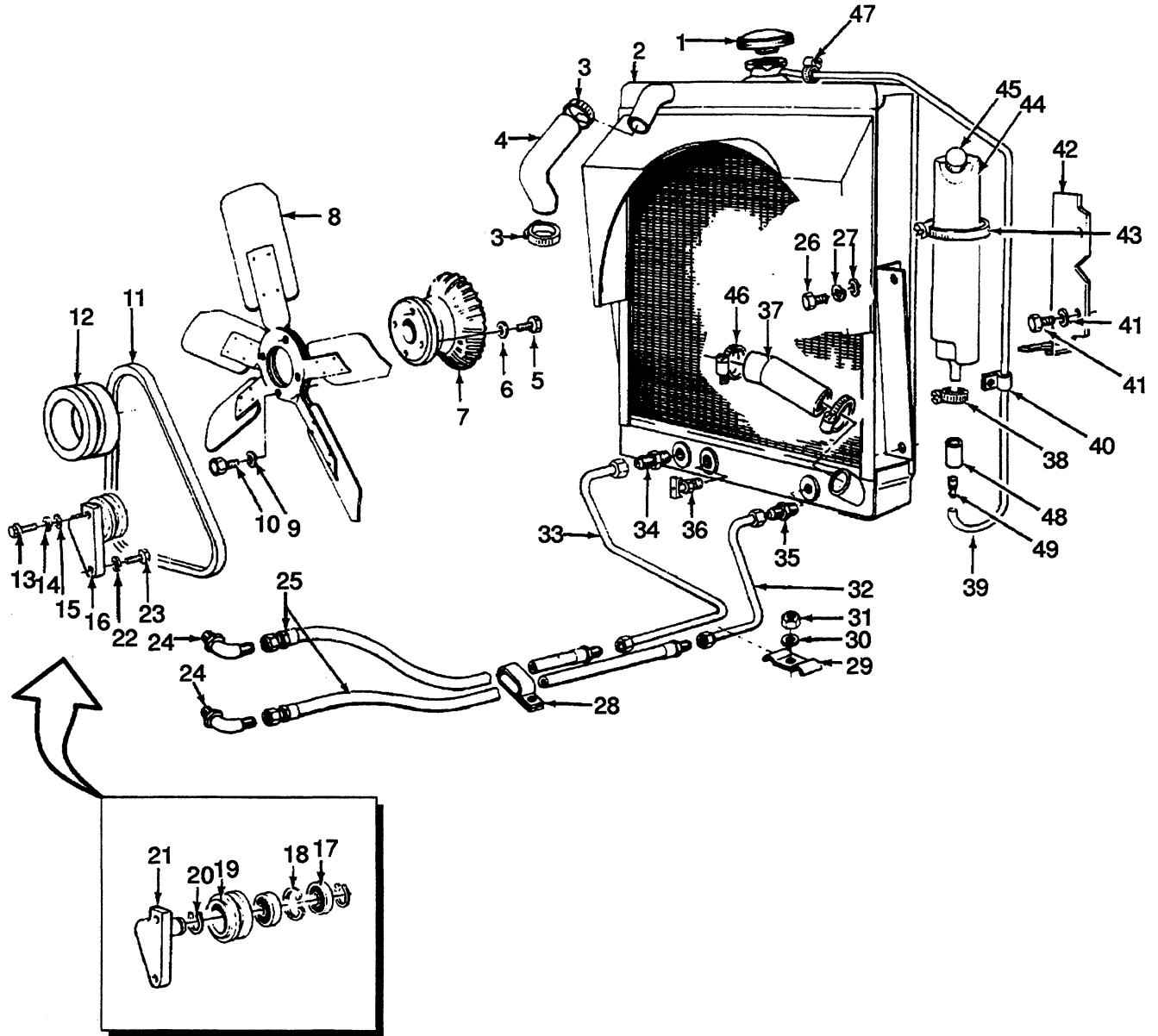
A: Gasoline And LPG

B: Gasoline Safety And LPG Safety

C: Diesel

REF	PART NO.	NAME OF PART	QTY			REF	PART NO.	NAME OF PART	QTY		
			A	B	C				A	B	C
1	.....	Guard	1	1	1	12	63116	Clamp	2	2	2
		☞ Figure 5				13	316921	Tube	1	1	..
2	15156	Lockwasher	2	2	2	13	173620	Tube .....	..	..	1
3	15056	Nut	2	2	2	14	1357096	Gasket	1	1	1
4	16870	Capscrew	3	3	3	15	317068	Pipe	1	..	1
5	15156	Lockwasher	3	3	3	16	16526	Nut	2	2	..
6	176114	Shield	1	1	1	17	158523	Diffuser .....	..	1	..
7	88157	Gasket	1	1	1	18	297710	Tube	1	1	..
8	16816	Capscrew	2	2	2	18	295561	Tube .....	..	..	1
9	16526	Nut	4	4	4	19	63116	Clamp	2	2	2
10	38738	Clamp	2	2	2	20	18621	Capscrew	4	4	4
11	.....	Muffler	1	1	..	21	15162	Washer	6	6	6
11	.....	Muffler .....	..	..	1						

COOLING (FIGURE 14)



COOLING

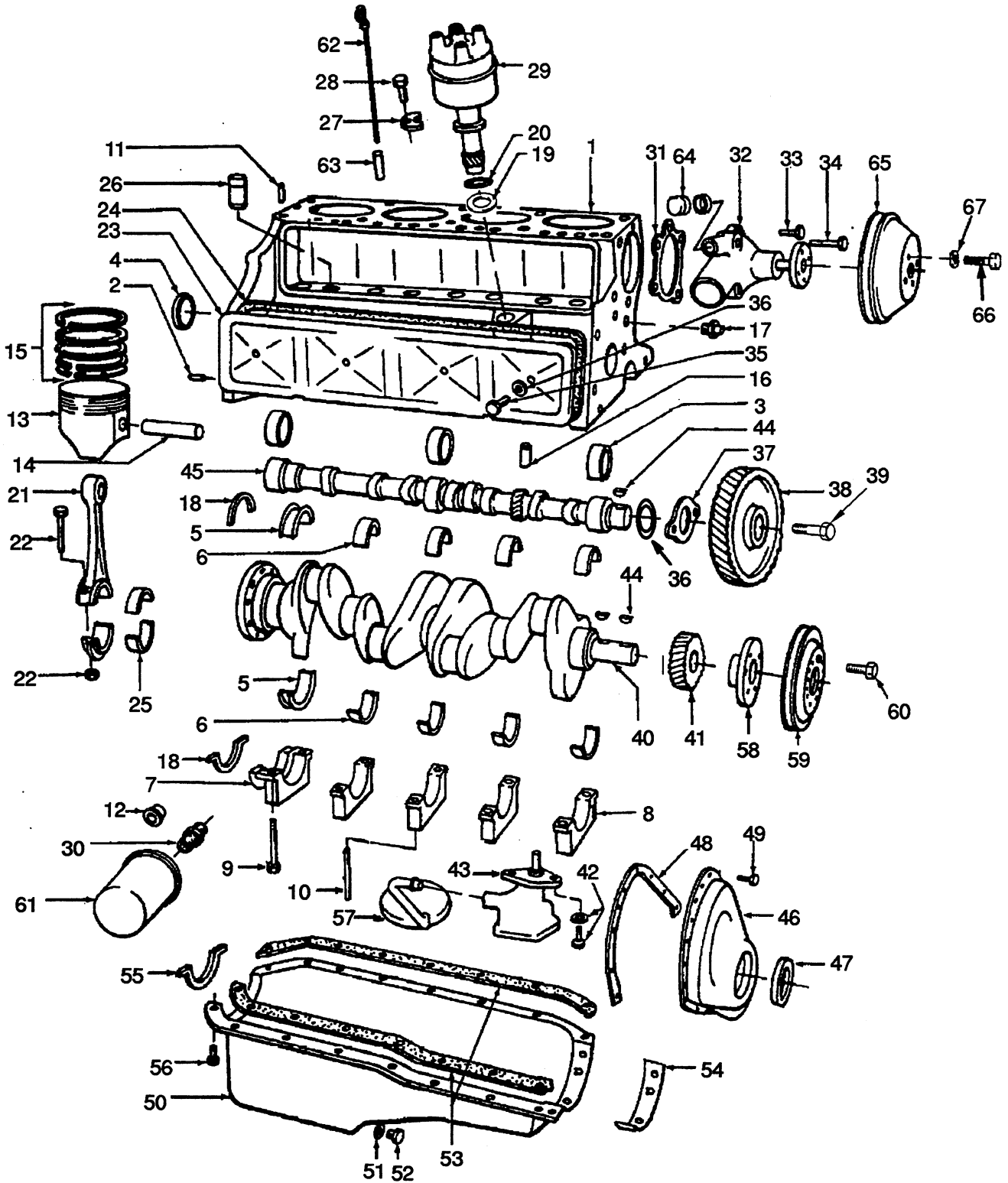
KEY

A: Gasoline And LPG

B: Diesel

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
1	178899	Cap	1	1	26	16634	Capscrew	4	4
2	b 288374	Radiator	1	..	27	15156	Lockwasher	4	4
2	a 281913	Radiator	1	..	27	15134	Washer	4	4
2	a 140647	Oil Cooler	1	..	28	a 140660	Clamp	1	1
2	b 295553	Radiator .....	..	1	29	a 114369	Clamp	1	1
2	a 295552	Radiator .....	..	1	30	a 15155	Lockwasher	1	1
2	a 140647	Oil Cooler .....	..	1	31	a 15055	Nut	1	1
3	369804	Clamp	3	3	32	a 290381	Tube	1	..
4	182662	Hose	1	..	32	a 319220	Tube .....	..	1
4	168592	Hose .....	..	1	33	a 290383	Tube .....	..	1
5	16836	Capscrew	4	4	33	a 290384	Tube	1	..
6	15155	Lockwasher	4	4	34	a 14676	Fitting	2	1
7	293111	Fan Drive	1	..	35	a 14547	Fitting .....	..	1
8	297708	Fan	1	..	36	12878	Drain Valve	1	1
8	.....	Fan .....	..	1	37	223974	Hose	1	..
9	15155	Lockwasher	4	..	37	155974	Hose .....	..	1
10	16818	Capscrew	4	..	38	130845	Clamp	1	1
11	86071	V-belt	1	..	39	298874	Hose	1	1
11	104728	V-belt .....	..	1	40	137852	Strap	1	1
12	148495	Pulley .....	..	1	41	16597	Capscrew	2	2
13	16805	Capscrew	1	..	41	15156	Lockwasher	2	2
14	15156	Lockwasher	1	..	42	344800	Bracket	1	1
15	15176	Washer	1	..	43	129563	Strap	1	1
16	291479	Idler Pulley	1	..	44	1330712	Reservoir	1	1
17	124623	Bearing	2	..	45	344722	Reservoir Kit	1	1
18	58914	Snap Ring	1	..	46	119236	Clamp	1	1
19	288362	Idler Pulley	1	..	47	168718	Clamp	1	1
20	209417	Snap Ring	2	..	48	1330716	Hose	1	1
21	291478	Plate	1	..	49	1330714	Reducer	1	1
22	15156	Lockwasher	1	..					
23	16815	Capscrew	1	..					
24	a 16558	Fitting	2	2	a		Powershift		
25	a 140659	Hose	2	2	b		Oil Clutch		

CYLINDER BLOCK AND CRANKCASE (FIGURE 15) GASOLINE



CYLINDER BLOCK AND CRANKCASE GASOLINE

KEY

- A: 1R 1981 Series Engine
- B: 2R/3R 1982/1983 Series Engine
- C: 4R 1984 Series Engine
- D: 5R 1985 Series Engine

REF	PART NO.	NAME OF PART	QTY				REF	PART NO.	NAME OF PART	QTY			
			A	B	C	D				A	B	C	D
		..... Engine	1	..	..	..	21	301190	Connecting Rod	4	4	4	4
		..... Engine .....	..	1	..	..	22	301191	Bolt	8	8	8	8
		..... Engine .....	..	..	1	..	22	221708	Nut	8	8	8	8
		..... Engine .....	..	..	..	1	23	244953	Push Rod Cover	1	1	1	1
1	301187	Cylinder Block	1	1	1	1	24	^b 388322	Gasket	1	1	1	1
1	159971	Plug	2	2	2	2	25	169964	Bearing Set (Std) ...	8	8	8	8
1	159972	Plug	1	1	1	1	25	^d 169965	Bearing Set (.001 in)	8	8	8	8
1	164022	Plug	1	1	1	1	25	^d 169966	Bearing Set (.002 in)	8	8	8	8
1	15314	Fitting	2	2	2	2	25	^d 169967	Bearing Set (.010 in)	8	8	8	8
2	1335499	Pin	2	2	2	2	25	^d 169752	Bearing Set (.020 in)	8	8	8	8
3	149605	Bearing	3	3	3	3	26	213690	Lifter	8	8	8	8
4	164017	Plug	1	1	1	1	27	274247	Clamp	1	1	1	1
5	149805	Main Brg (Std) ...	1	1	1	1	28	161195	Cap screw	1	1	1	1
5	^d 149807	Main Brg (.001 in)	1	1	1	1	29	.....	Distributor	1	1	1	1
5	^d 149808	Main Brg (.002 in)	1	1	1	1			☞ Figure 44				
5	^d 149809	Main Brg (.010 in)	1	1	1	1	30	159942	Connector	1	1	1	1
5	^d 149810	Main Brg (.020 in)	1	1	1	1	31	^c 160372	Gasket	1	1	1	1
5	^d 149811	Main Brg (.030 in)	1	1	1	1	32	388365	Water Pump	1	1	1	1
6	149806	Main Brg (Std) ...	4	4	4	4	33	221453	Cap screw	2	2	2	2
6	^d 149812	Main Brg (.001 in)	4	4	4	4	34	18508	Bolt	2	2	2	2
6	^d 149813	Main Brg (.002 in)	4	4	4	4	35	149976	Bolt And Seal	4	4	4	4
6	^d 149814	Main Brg (.010 in)	4	4	4	4	36	1324006	Spacer	1	1	1	1
6	^d 149815	Main Brg (.020 in)	4	4	4	4	37	1324005	Thrust Bearing	1	1	1	1
6	^d 149816	Main Bearing	4	4	4	4	38	244927	Gear	1	1	1	1
7	164021	Main Bearing Cap	1	1	1	1	39	162768	Screw And Lkwsht ..	2	2	2	2
8	244903	Bearing Cap	4	4	4	4	40	301189	Crankshaft	1	1	1	1
9	159973	Bolt	9	9	9	9	41	265509	Gear	1	1	1	1
10	164023	Stud	1	1	1	1	42	221453	Cap screw	2	2	2	2
11	159977	Pin	2	2	2	2	42	145641	Nut	1	1	1	1
12	127645	By Pass Valve	1	1	1	1	43	.....	Oil Pump	1	1	1	1
13	304619	Piston/Pin (Std) ..	4	4	4	4			☞ Figure 18				
13	^d 304620	Piston/Pin (.020 in)	4	4	4	4	44	7882	Key	3	3	3	3
14	.....	Pin	1	1	1	1	45	1362070	Camshaft	1	1	1	1
15	306774	Ring (Std)	4	4	4	4	45	7882	Key	1	1	1	1
15	^d 322178	Ring (.020 in)	4	4	4	4	46	189609	Cover	1	1	1	1
15	^d 263774	Ring (.030 in)	4	4	4	4	47	183076	Seal	1	..	..	..
16	149817	Bearing	1	1	1	1	47	^e 326359	Seal .....	..	1	1	1
17	148827	Nozzle	1	1	1	1	48	^e 388321	Gasket	1	1	1	1
18	^c 1334909	Oil Seal	2	2	2	2	49	133469	Screw	8	8	..	8
19	159974	Thrust Washer ...	1	1	1	1	49	369748	Lockwasher	8	8	..	8
20	149892	Gasket	1	1	1	1	49	Cap screw	8	..

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CYLINDER BLOCK AND CRANKCASE GASOLINE

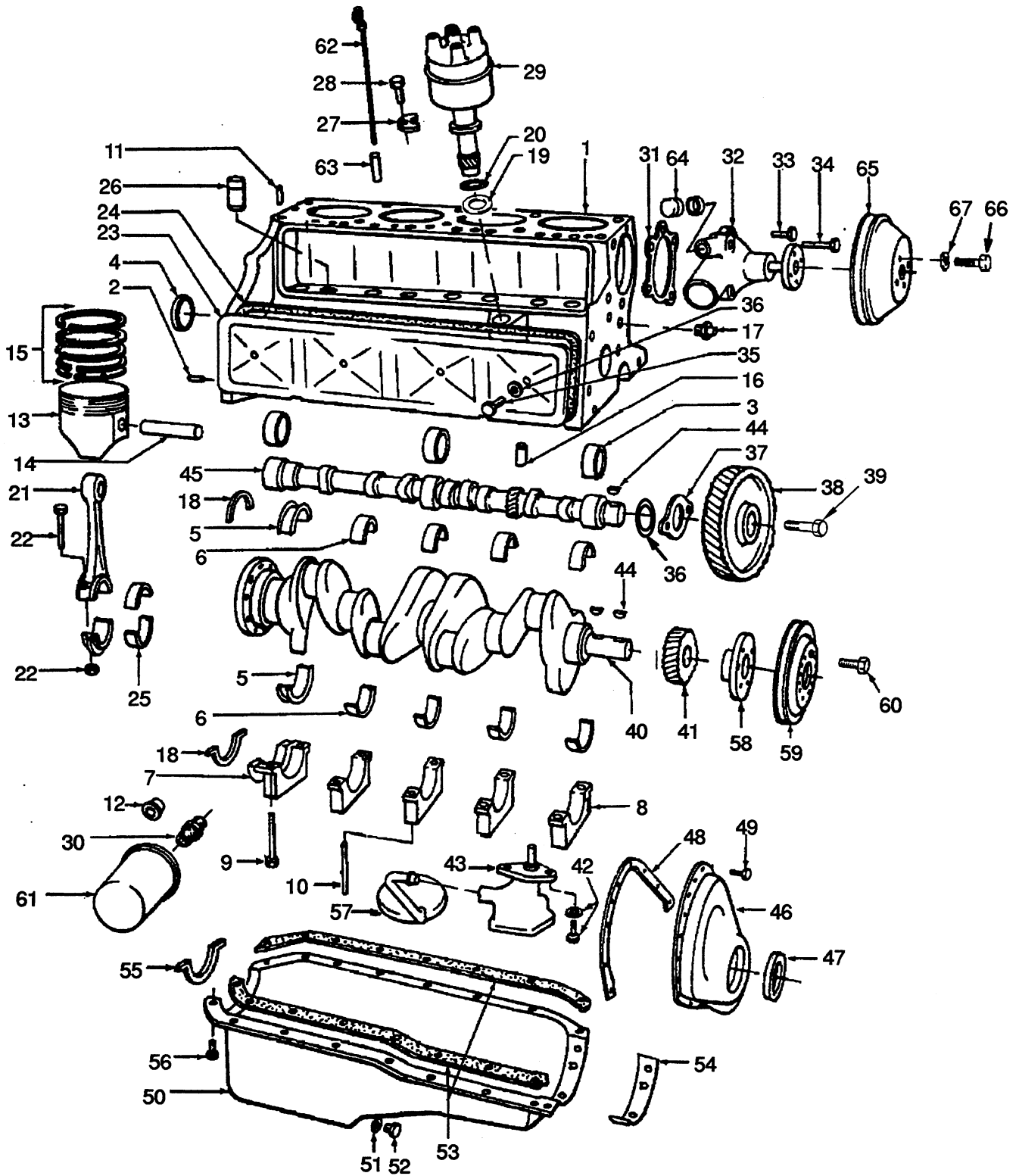
KEY

- A: 1R 1981 Series Engine
- B: 2R/3R 1982/1983 Series Engine
- C: 4R 1984 Series Engine
- D: 5R 1985 Series Engine

REF	PART NO.	NAME OF PART	QTY				REF	PART NO.	NAME OF PART	QTY			
			A	B	C	D				A	B	C	D
50	244918	Oil Pan	1	1	1	1	60	16594	Capscrew	3	3	3	3
51	388305	Gasket	1	1	1	1	60	15156	Lockwasher	3	3	3	3
52	308624	Screw	1	1	1	1	61	127644	Oil Filter	1	1	1	1
53	388320	Gasket	1	1	1	1	62	229142	Dipstick	1	1	1	1
53	.....	Gasket (LH).....	1	1	1	1	63	298836	Tube	1	1	1	1
53	.....	Gasket (RH)	1	1	1	1	64	149929	Cap	1	1	1	1
54	164746	Seal	1	1	1	1	64	130845	Clamp	1	1	1	1
55	164747	Seal	1	1	1	1	65	299947	Pulley	1	1	1	1
56	16374	Capscrew	18	18	18	18	66	16818	Capscrew	4	4	4	4
56	177946	Lockwasher	18	18	18	18	67	15155	Lockwasher	4	4	4	4
57	244920	Screen/Support	1	1	1	1	a	Optional					
57	164027	Clamp	1	1	1	1	b	Included In Gasket Set 1357095					
57	312942	Bolt	1	1	1	1	c	Included In Gasket Kit 1334900					
58	169942	Damper	1	1	1	1	d	Note: Oversize And Undersize Bearing And Oversize Pistons Are Not Included With Engine					
59	^a 298835	Pulley	1	1	1	1	e	Included In Kit 1334900					
59	293104	Pulley	1	1	1	1							
60	^a 18536	Capscrew	3	3	3	3							

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CYLINDER BLOCK AND CRANKCASE (FIGURE 16) GASOLINE



CYLINDER BLOCK AND CRANKCASE GASOLINE

KEY

- A: 6R 1986 Series Engine
- B: 1987 Series Engine
- C: 1988 Series Engine
- D: 1989 Series Engine

REF	PART NO.	NAME OF PART	QTY				REF	PART NO.	NAME OF PART	QTY			
			A	B	C	D				A	B	C	D
	.....	Engine	1	..	..	..	20	149892	Gasket	1	1	1	1
	.....	Engine .....	..	1	..	..	21	301190	Connecting Rod	4	4	4	4
	.....	Engine .....	..	..	1	..	22	301191	Bolt	8	8	8	8
	.....	Engine .....	..	..	..	1	22	221708	Nut	8	8	8	8
1	301187	Cylinder Block	1	1	1	1	23	244953	Push Rod Cover	1	..	..	..
1	159971	Plug	2	2	2	2	23	244933	Push Rod Cover ....	..	1	1	1
1	159972	Plug	1	1	1	1	24	b 388322	Gasket	1	1	1	1
1	164022	Plug	1	1	1	1	25	169964	Bearing Set (Std) ...	8	8	8	8
1	15314	Fitting	2	2	2	2	25	d 169965	Bearing Set (.001 in)	8	4	4	4
2	1335499	Pin	2	2	2	2	25	d 169966	Bearing Set (.002 in)	8	4	4	4
3	149605	Bearing	3	3	3	3	25	d 169967	Bearing Set (.010 in)	8	4	4	4
4	164017	Plug	1	1	1	1	25	d 169752	Bearing Set (.020 in)	8	4	4	4
5	149805	Main Brg (Std) ...	1	1	1	1	26	213690	Lifter	8	8	8	8
5	d 149807	Main Brg (.001 in)	1	1	1	1	27	274247	Clamp	1	1	1	1
5	d 149808	Main Brg (.002 in)	1	1	1	1	28	161195	Capscrew	1	1	1	1
5	d 149809	Main Brg (.010 in)	1	1	1	1	29	.....	Distributor	1	1	1	1
5	d 149810	Main Brg (.020 in)	1	1	1	1			☞ Figure 44				
5	d 149811	Main Brg (.030 in)	1	1	1	1	30	159942	Connector	1	1	1	1
6	149806	Main Brg (Std) ...	4	4	4	4	31	c 160372	Gasket	1	1	1	1
6	d 149812	Main Brg (.001 in)	4	4	4	4	32	388365	Water Pump	1	1	1	1
6	d 149813	Main Brg (.002 in)	4	4	4	4	33	221453	Capscrew	2	2	2	2
6	d 149814	Main Brg (.010 in)	4	4	4	4	34	18508	Bolt	2	2	2	2
6	d 149815	Main Brg (.020 in)	4	4	4	4	35	149976	Bolt And Seal	4	4	4	4
6	d 149816	Main Bearing	4	4	4	4	36	1324006	Spacer	1	1	1	1
7	164021	Main Bearing Cap	1	1	1	1	37	1356838	Thrust Bearing	1	1	1	1
8	244903	Bearing Cap	4	4	4	4	38	244927	Gear	1	1	1	1
9	159973	Bolt	9	9	9	9	39	162768	Screw And Lkwshr ..	2	2	2	2
10	164023	Stud	1	1	1	1	40	301189	Crankshaft	1	1	1	1
11	159977	Pin	2	2	2	2	41	265509	Gear	1	1	1	1
12	127645	By Pass Valve	1	1	1	1	42	221453	Capscrew	2	2	2	2
13	304619	Piston/Pin (Std) ..	4	4	4	4	42	145641	Nut	1	1	1	1
13	d 304620	Piston/Pin (.020 in)	4	4	4	4	43	.....	Oil Pump	1	1	1	1
14	.....	Pin	1	1	1	1			☞ Figure 18				
15	306774	Ring (Std)	4	4	4	4	44	7882	Key	3	3	3	3
15	d 322178	Ring (.020)	4	4	4	4	45	1362070	Camshaft	1	1	1	1
15	d 263774	Ring (.030)	4	4	4	4	45	7882	Key	1	1	1	1
16	149817	Bearing	1	1	1	1	46	189609	Cover	1	1	1	1
17	148827	Nozzle	1	1	1	1	47	e 326359	Seal	1	1	1	1
18	c1334909	Oil Seal	2	2	2	2	48	e 388321	Gasket	1	1	1	1
19	159974	Thrust Washer ...	1	1	1	1	49	133469	Screw	8	8	8	8
							49	369748	Lockwasher	8	8	8	8

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CYLINDER BLOCK AND CRANKCASE GASOLINE

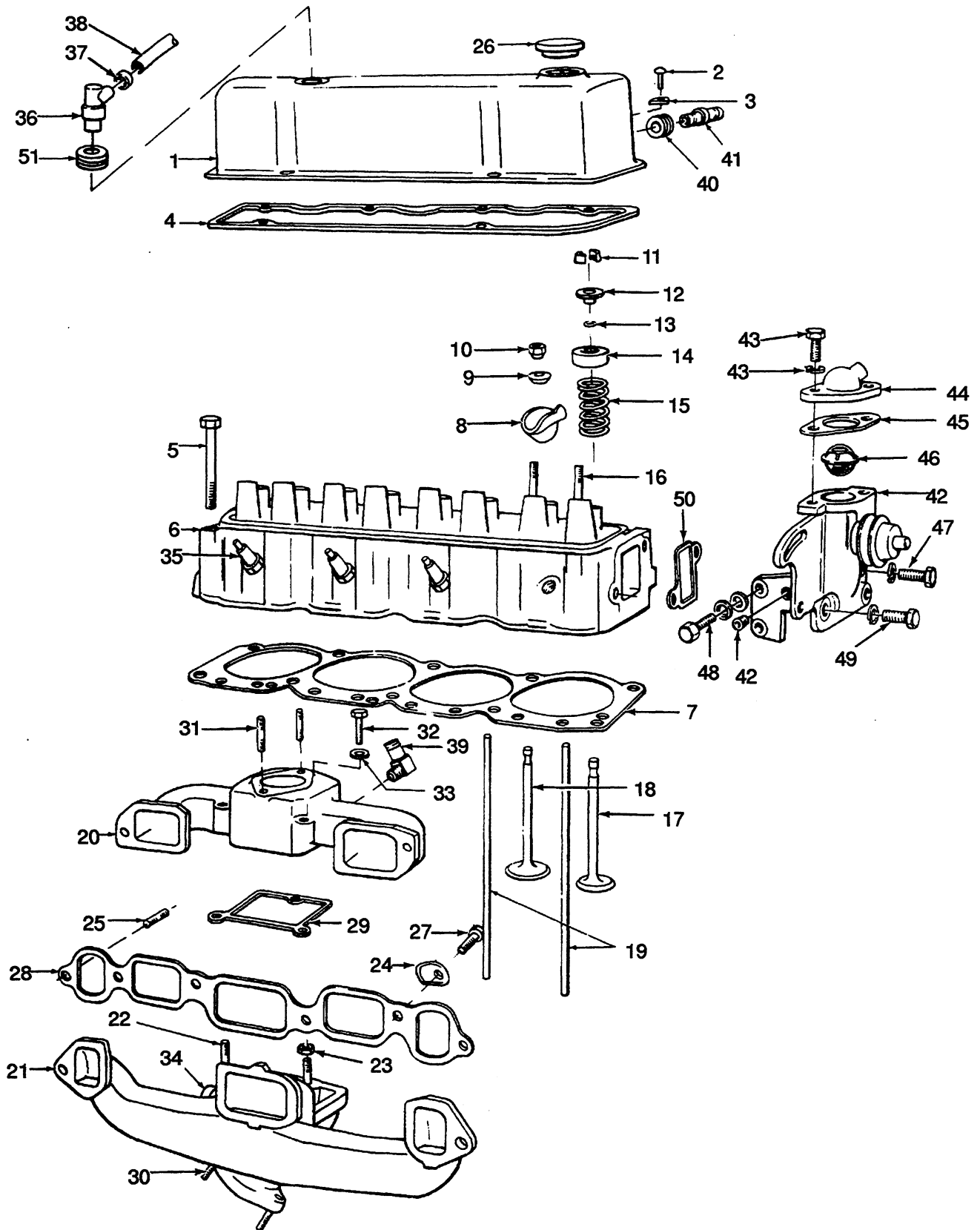
KEY

- A: 1R 1981 Series Engine
- B: 2R/3R 1982/1983 Series Engine
- C: 4R 1984 Series Engine
- D: 5R 1985 Series Engine

REF	PART NO.	NAME OF PART	QTY				REF	PART NO.	NAME OF PART	QTY			
			A	B	C	D				A	B	C	D
50	244918	Oil Pan	1	1	1	1	60	16594	Capscrew	3	3	3	3
51	388305	Gasket	1	1	1	1	60	15156	Lockwasher	3	3	3	3
52	308624	Screw	1	1	1	1	61	127644	Oil Filter	1	1	1	1
53	388320	Gasket	1	..	..	..	62	229142	Dipstick	1	1	1	1
53	.....	Gasket (LH)	1	..	..	..	63	298836	Tube	1	1	1	1
53	.....	Gasket (RH)	1	..	..	..	64	149929	Cap	1	1	1	1
53	388320	Gasket .....	..	1	1	1	64	130845	Clamp	1	1	1	1
54	164746	Seal	1	1	1	1	65	299947	Pulley	1	1	1	1
55	164747	Seal	1	1	1	1	66	16818	Capscrew	4	4	4	4
56	16374	Capscrew	18	18	18	18	67	15155	Lockwasher	4	4	4	4
56	177946	Lockwasher	18	18	18	18							
57	244920	Screen/Support	1	1	1	1	a	Optional					
57	164027	Clamp	1	1	1	1	b	Included In Gasket Set 1357095					
57	312942	Bolt	1	1	1	1	c	Included In Gasket Kit 1334900					
58	169942	Damper	1	1	1	1	d	Note: Oversize And Undersize Bearing And Oversize Pistons Are Not Included With Engine					
59	^a 298835	Pulley	1	1	1	1	e	Included In Kit 1334900					
59	293104	Pulley	1	1	1	1							
60	^a 18536	Capscrew	3	3	3	3							

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CYLINDER HEAD AND MANIFOLD (FIGURE 17) GASOLINE

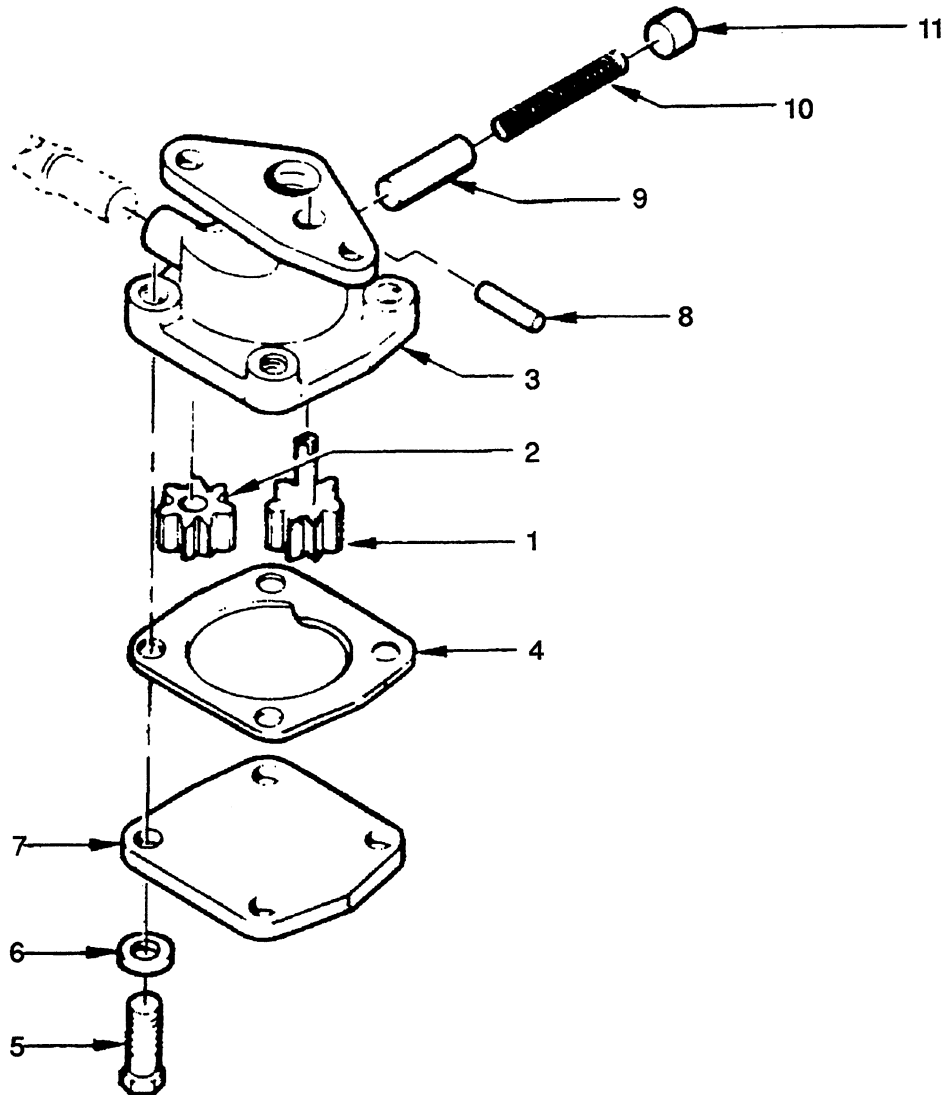


CYLINDER HEAD AND MANIFOLD GASOLINE

REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
	.....	Engine	1	28	^a 1346280	Gasket	1
1	245203	Cover Assembly	1	29	^b 279690	Gasket	1
2	133469	Capscrew	5	30	149952	Stud	2
3	149978	Retainer	5	31	178118	Stud	2
4	^e 388323	Gasket	1	32	161195	Capscrew	1
5	149977	Bolt	10	33	15156	Lockwasher	1
6	1334414	Cylinder Head	1	34	244925	Thermostat	1
6	160361	Plug	2	34	160377	Spring	1
7	^a 1331343	Gasket	1	35	281844	Spark Plug	4
8	245202	Rocker Arm	8	36	321734	Valve	1
9	189614	Ball	8	37	149922	Clamp	2
10	301195	Nut	8	38	85766	Hose	1
11	263750	Keeper	16	39	201808	Fitting	1
12	149868	Intake Valve Cap	4	40	189598	Grommet	1
12	149867	Exhaust Valve Rotator	4	41	244901	Arrestor	1
13	^a 145173	Seal	8	42	291477	Fan Drive	1
14	314539	Shield	8	42	291475	Bracket	1
15	145172	Spring	8	42	288371	Bearing	1
16	.....	Stud (Std)	8	42	288364	Pulley	1
16	149857	Stud (.003 in)	8	43	16805	Capscrew	2
16	149858	Stud (.013 in)	8	43	15156	Lockwasher	2
17	244909	Intake Valve (Std)	4	44	244946	Outlet	1
17	149864	Intake Valve (.003 in)	4	45	^a 149883	Gasket	1
17	244910	Intake Valve (.015 in)	4	46	^c 277088	Thermostat (195°F)	1
17	244911	Intake Valve (.030 in)	4	46	145668	Thermostat (Standard 170°F) ...	1
18	253985	Exhaust Valve (Std)	4	47	15156	Lockwasher	1
18	.....	Exhaust Valve (.003 in)	4	47	16815	Capscrew	1
18	.....	Exhaust Valve (.015 in)	4	48	16805	Capscrew	2
18	.....	Exhaust Valve (.030 in)	4	48	15156	Lockwasher	2
19	1330465	Push Rod	8	48	15156	Lockwasher	2
20	244922	Intake Manifold	1	49	16805	Capscrew	2
21	271949	Exhaust Manifold	1	49	15156	Lockwasher	2
21	.....	Spring	1	50	^a 1329567	Gasket	1
21	160376	Bushing	2	51	164050	Grommet	1
22	149952	Stud	2				
23	221708	Nut	2				
24	149888	Clamp	4				
25	149889	Stud	2				
26	388307	Cap	1				
27	263850	Capscrew	4				

- ^a Included In Kit 1357095
- ^b Included In Kit 1334900
- ^c 1R 1981 Series Engine
- ^e Included In Kit 1357095

OIL PUMP (FIGURE 18) GASOLINE



REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
		Engine	1	6	15154	Lockwasher	4
	1312813	Pump	1	7	149846	Cover	1
1		Gear	1	8	1330453	Retainer Pin	1
2		Gear	1	9	145176	Valve	1
3		Housing	1	10	145177	Spring	1
4	149847	Gasket	1	11	177563	Plug	1
5	16709	Screw	4				

DIESEL ENGINE

CRANKSHAFT AND PISTONS (Figure 23)
DIESEL Page 48

CYLINDER BLOCK (Figure 19)
DIESEL Page 40

CYLINDER HEAD AND MANIFOLD (Figure 20)
DIESEL Page 42

HYDRAULIC PUMP DRIVE (Figure 28)
DIESEL Page 56

MANIFOLDS (Figure 21)
DIESEL Page 44

OIL PIPES AND FILTER (Figure 27)
DIESEL Page 54

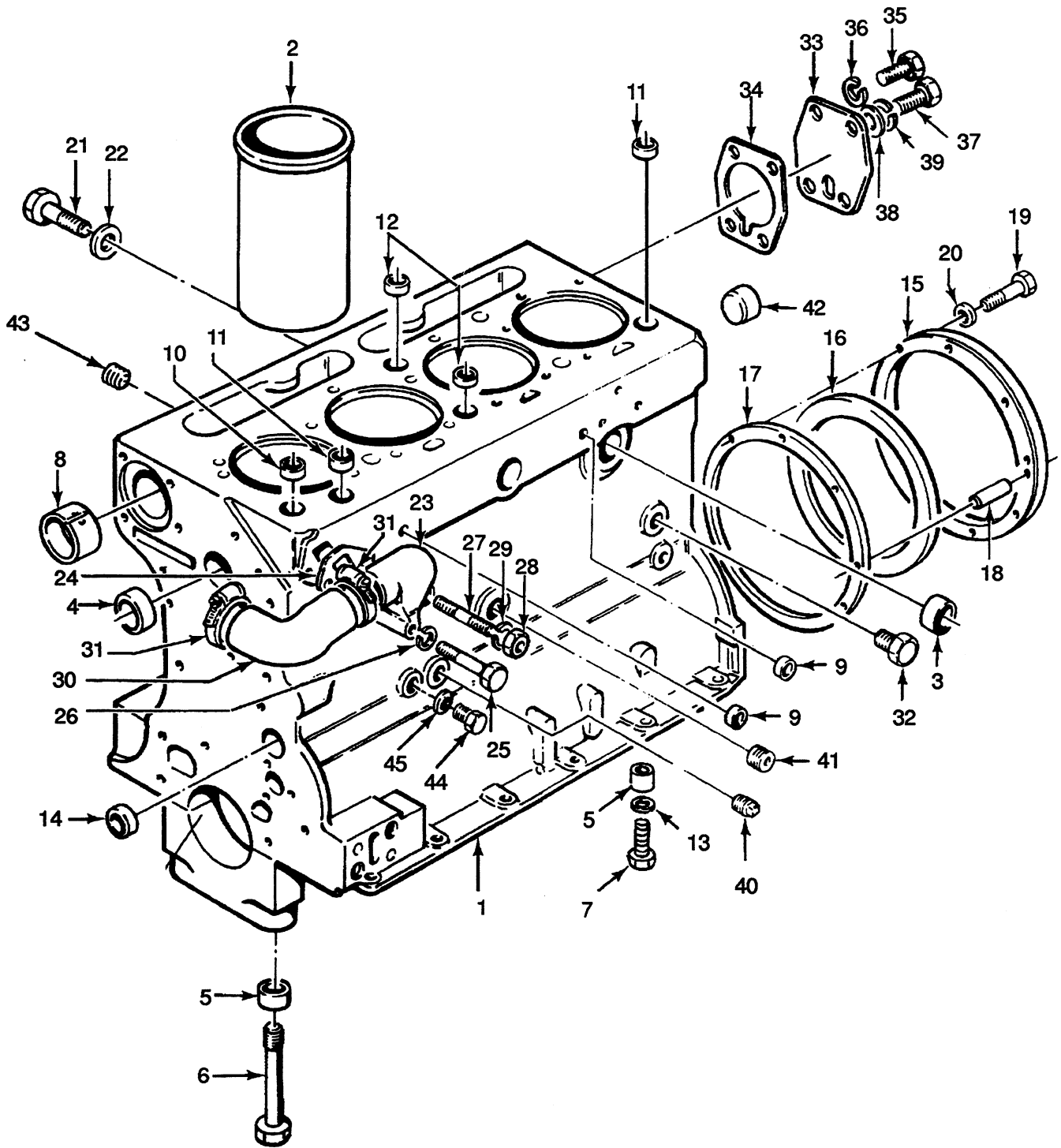
OIL PUMP AND OIL PAN (Figure 26)
Diesel Page 53

TIMING GEARS (Figure 24)
DIESEL Page 50

VALVE COVER AND ROCKER SHAFT (Figure 22)
DIESEL Page 46

WATER PUMP (Figure 25) Page 52

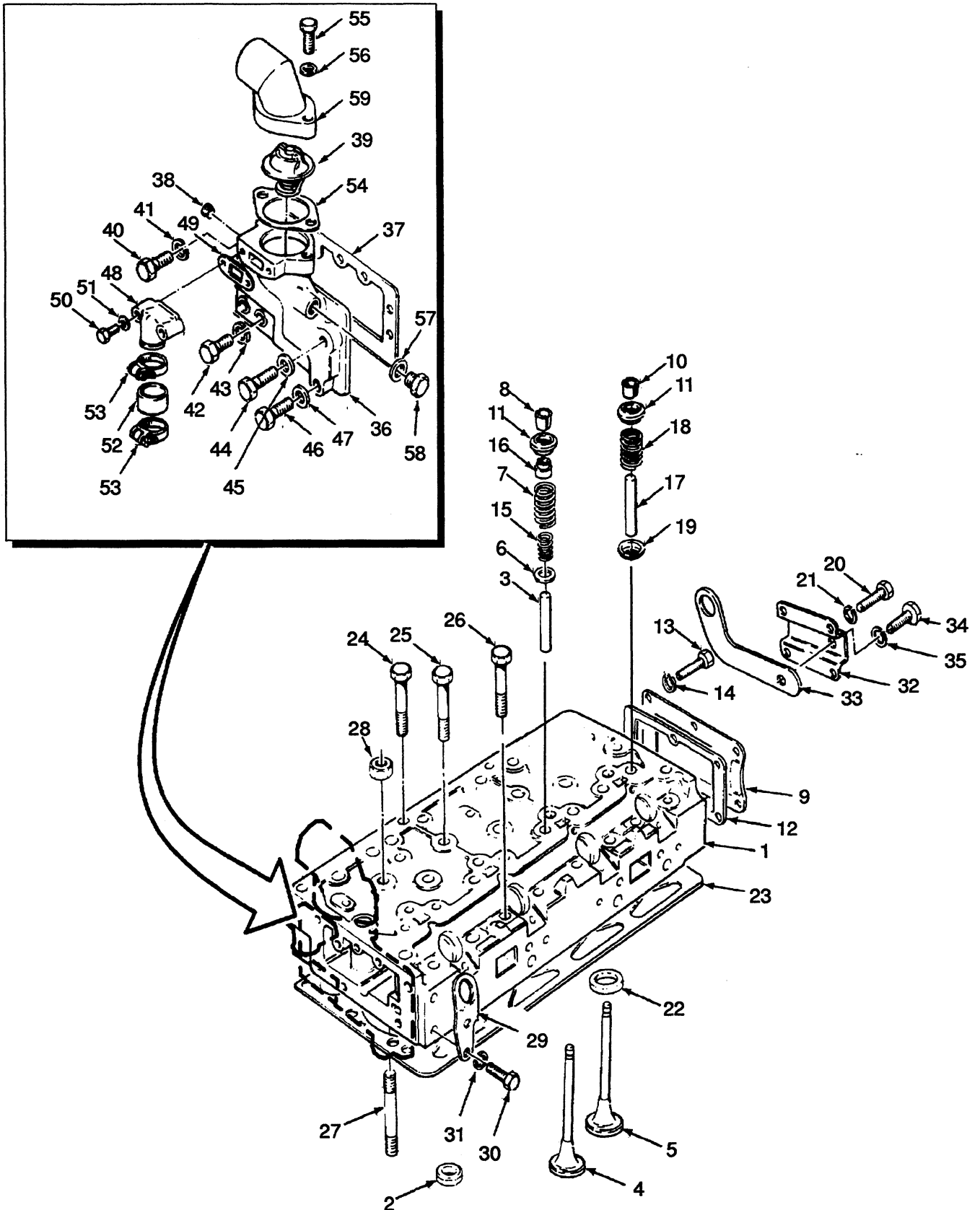
CYLINDER BLOCK (FIGURE 19) DIESEL



CYLINDER BLOCK DIESEL

REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
	b	Engine	1	26	15155	Lockwasher	1
	c	..... Engine	1	27	984467	Stud	1
1	1304373	Short Block	1	28	15005	Nut	1
2	302599	Liner	4	29	15155	Lockwasher	1
2	b 197544	Shim (.005 in)	AR	30	982332	Hose	1
3	990334	Plug	6	31	127045	Clamp	2
4	980727	Plug	1	32	245800	Plug	2
5	990332	Thimble	10	33	982238	Cover	1
6	983264	Capscrew	8	34	^a 1357822	Gasket	1
7	268457	Capscrew	2	35	16818	Capscrew	3
8	982221	Bushing	1	36	15155	Lockwasher	3
9	99580	Plug	2	37	16825	Capscrew	1
10	303225	Plug	2	38	279971	Washer	1
11	303226	Plug	2	39	15155	Lockwasher	1
12	303233	Plug	2	40	982155	Plug	2
13	268456	O-ring	2	41	15304	Fitting	1
14	990343	Fitting	2	42	990334	Plug	1
15	360817	Housing	1	43	223122	Housing	1
16	350397	Seal	1	43	184923	Pin	2
17	^a 1357849	Gasket	1	43	220489	Screw	3
18	991954	Dowel	2	43	15916	Washer	3
19	16691	Capscrew	9	44	15946	Bolt	4
20	18515	Washer	9	44	92948	Capscrew	4
21	17484	Capscrew	2	45	14603	Adapter	1
22	985299	Washer	2	46	288766	Plate	1
23	302644	Connector	1				
24	^a 1362128	Gasket	1	a	Included In Gasket Set 351297		
25	18512	Capscrew	1	b	Last Used With Engine S/N JGU578745J		
				c	First Used With Engine S/N JGU578746J		

CYLINDER HEAD AND MANIFOLD (FIGURE 20) DIESEL

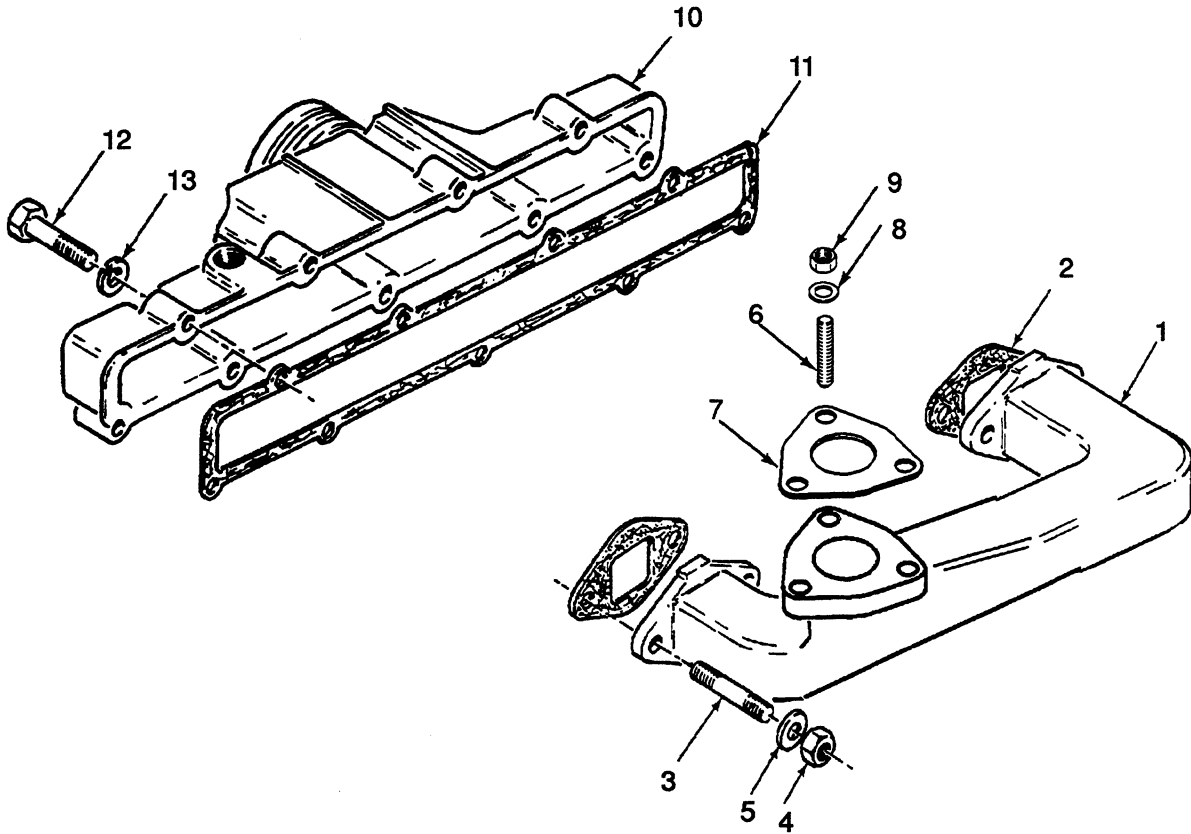


CYLINDER HEAD AND MANIFOLD DIESEL

REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
	d	..... Engine	1	32	302661	Bracket	1
	b	..... Engine	1	33	145581	Plate	1
1	331897	Cylinder Head	1	33	b 341819	Plate	1
2	982343	Plug	1	34	16372	Capscrew	1
3	302613	Guide	4	35	15156	Lockwasher	1
4	302614	Intake Valve	4	36	985639	Body	1
5	302615	Exhaust Valve	4	37	a 1357838	Gasket	1
5	b 341800	Exhaust Valve	4	38	15962	Fitting	1
6	302616	Seat	4	39	151570	Thermostat (170°F)	1
7	990356	Spring	4	40	18463	Capscrew	2
8	990359	Keeper	8	41	15154	Lockwasher	2
9	983772	Cover	1	42	18459	Capscrew	2
10	990359	Keeper	8	43	15154	Lockwasher	2
11	367902	Cap	8	44	234964	Bolt	1
11	c 367902	Cap	8	45	101985	Washer	1
12	a 983248	Gasket	1	46	983281	Capscrew	1
13	16663	Capscrew	2	47	101985	Washer	1
14	15155	Lockwasher	2	48	1344904	Connector	1
15	990357	Spring	4	49	a 1357827	Gasket	1
16	302673	Seal	4	50	983285	Capscrew	2
17	985145	Guide	4	51	186606	Washer	2
18	990356	Spring	4	52	982333	Hose	1
19	154424	Washer	4	53	127045	Clamp	2
20	16696	Capscrew	2	54	1357842	Gasket	1
21	15156	Lockwasher	2	55	16814	Capscrew	2
22	302617	Insert	4	56	15156	Lockwasher	2
23	a 302618	Gasket	1	57	986475	Washer	1
24	303227	Screw	4	58	992025	Plug	1
25	279969	Capscrew	9	59	990943	Elbow	1
26	221549	Capscrew	8				
27	303228	Stud	2				
28	99590	Nut	2				
29	985595	Plate	1				
30	16818	Capscrew	4				
31	15155	Lockwasher	4				

- a Included In Gasket Set 377540
- b First Used On Engine S/N JGU578746J
- c First Used On Engine S/N JGU588569K
- d Last Used On Engine S/N JGU578745J

MANIFOLDS (Figure 21) DIESEL

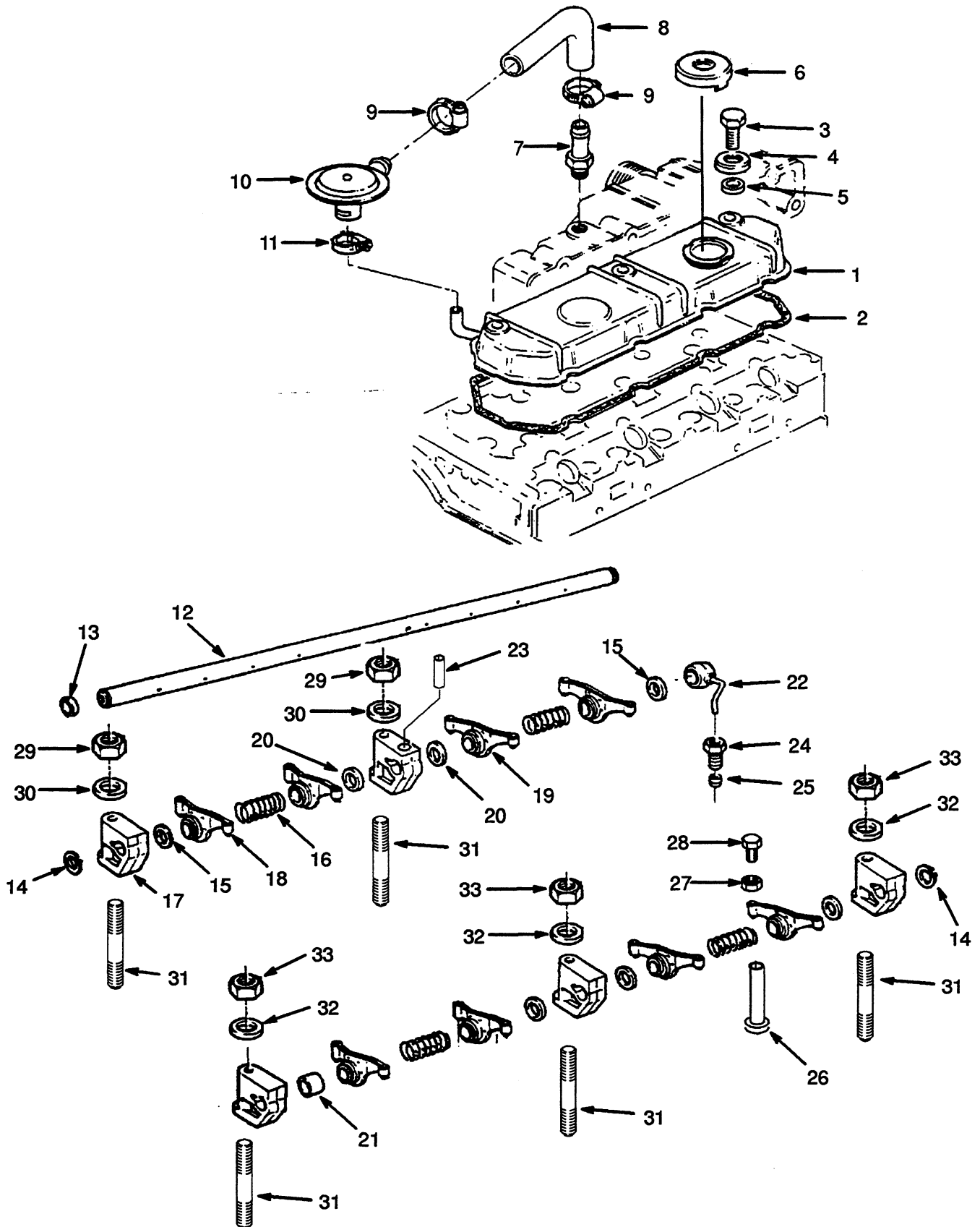


REF	PART NO.	NAME OF PART	QTY
1	302655	Manifold (Exhaust)	1
2	^a 1357788	Gasket	2
3	303234	Stud	1
4	257077	Nut	4
5	15134	Washer	4
6	319673	Stud	3
7	1357792	Gasket	1
8	15134	Washer	3

REF	PART NO.	NAME OF PART	QTY
9	257077	Nut	3
10	302653	Manifold (Intake)	1
11	^a 1357787	Gasket	1
12	18469	Capcrew	9
13	15154	Lockwasher	9

Included In Kit 377540

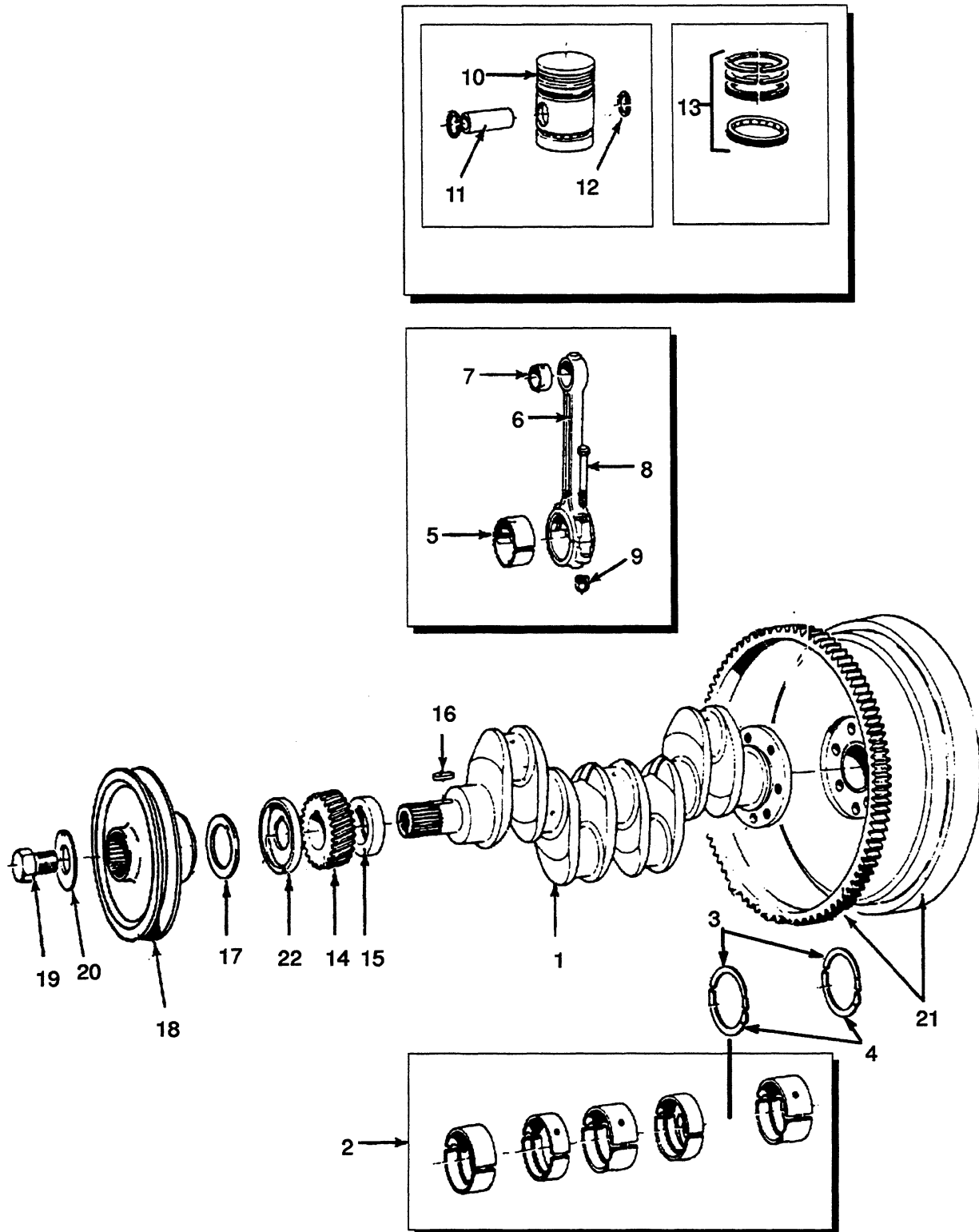
VALVE COVER AND ROCKER SHAFT (FIGURE 22) DIESEL




VALVE COVER AND ROCKER SHAFT DIESEL

REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
	e	..... Engine	1	18	c	980744 Lever (RH)	4
	b	..... Engine	1	19	c	980743 Lever (LH)	4
1	332540	Cover	1	20	991462	Spacer (Short)	4
2	a	302637 Gasket	1	21	991463	Spacer (Long)	1
3	16372	Capscrew	3	22	982309	Pipe	1
4	302668	Washer	3	23	d	366434 Pin	1
5	302669	Washer	3	24	982201	Nut	1
6	982341	Cap	1	25	51455	Sleeve	1
7	302638	Connector	1	26	980751	Tappet	8
8	302639	Hose	1	27	15026	Nut	8
9	130845	Clamp	2	28	980748	Screw	8
10	372099	PCV Valve	1	29	139743	Locknut	2
10	373137	Sleeve	1	30	15134	Washer	2
11	302642	Clamp	2	31	303230	Stud	5
12	c	366099 Shaft	1	32	331899	Washer	3
12	d	366099 Shaft	1	33	331898	Nut	3
12	c	992370 Shaft	1		a	Included In Kit 377540	
12	d	1312892 Shaft	1		b	First Used On Engine S/N JGU578746J	
13	990429	Plug	2		c	Last Used On Engine S/N U583102K	
14	58903	Snap Ring	2		d	First Used On Engine S/N U583103K	
15	990430	Shim .....	..		e	Last Used On Engine S/NJGU578745J	
16	991461	Spring	4				
17	992368	Bracket	5				

CRANKSHAFT AND PISTONS (FIGURE 23) DIESEL

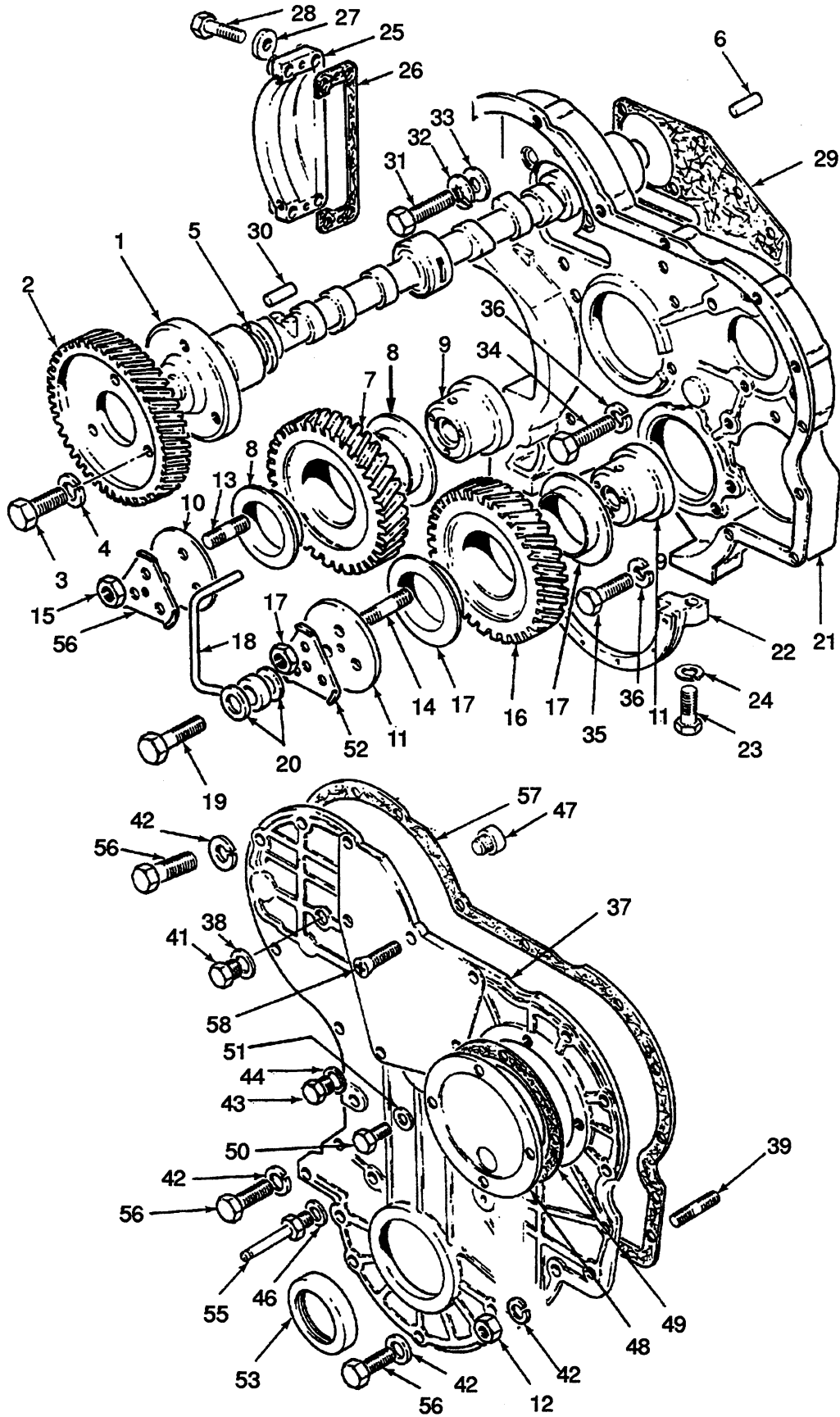


CRANKSHAFT AND PISTONS DIESEL

REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
1	302596	Crankshaft	1	9	176140	Nut	8
2	302604	Bearing Set (Standard)	1	10	317744	Piston	4
2	302605	Bearing Set (.010 inch)	1	10	.....	Piston	4
2	302606	Bearing Set (.020 inch)	1	11	.....	Pin	4
2	302607	Bearing Set (.030 inch)	1	12	990417	Snap Ring	8
3	266458	Washer (Standard)	2	13	302602	Ring Set	4
3	130843	Washer (.007 inch)	2	14	^a 982269	Gear	1
4	159828	Washer (Standard)	2	15	^a 982268	Spacer	1
4	130844	Washer (.007 inch)	2	16	^a 982271	Key	1
5	155894	Bearing Set (Standard)	1	17	^a 302603	Spacer	1
5	155895	Bearing Set (.010 inch)	1	18	^a 241953	Pulley	1
5	155896	Bearing Kit (.020 inch)	1	19	^a 985512	Screw	1
5	155897	Bearing Kit (.030 inch)	1	20	^a 985213	Washer	1
6	302600	Connecting Rod	4	21	^a	Flywheel	1
6	.....	Rod	4			 Figure 53	
6	.....	Cap	4				
7	990409	Bushing	4				
8	980701	Bolt	8				

^a Not Included With Short Block 1304373

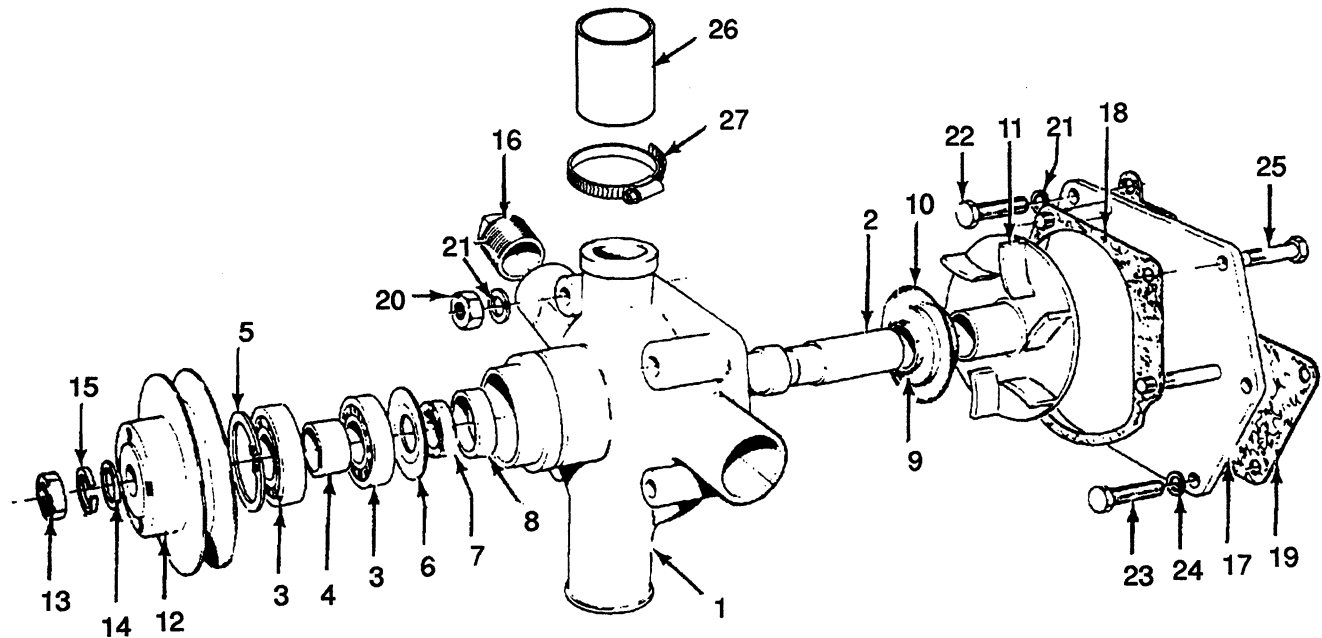
TIMING GEARS (FIGURE 24) DIESEL



TIMING GEARS DIESEL

REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
	^b	Engine	1	32	15918	Washer	4
	^c	Engine	1	33	133546	Shim	4
1	335880	Camshaft	1	34	16691	Capscrew	10
2	321924	Gear	1	35	983311	Bolt	1
3	16818	Capscrew	3	36	15155	Lockwasher	1
4	15155	Lockwasher	3	37	302622	Cover	1
5	982219	Plate	1	38	986475	Washer	1
6	53135	Pin	1	39	153399	Stud	3
7	983483	Gear	1	40	985299	Washer	5
8	983484	Bushing	2	41	992025	Plug	1
9	229875	Hub	2	42	15155	Lockwasher	8
10	982226	Plate	1	43	982260	Plug	1
11	302620	Plate	1	44	992642	Washer	1
12	15005	Nut	3	45	133469	Capscrew	2
13	983301	Stud	3	46	983313	Washer	2
14	983300	Stud	3	47	266456	Button	1
15	15006	Nut	6	48	302643	Cover	1
16	341817	Gear	1	49	^a 1357825	Gasket	1
17	983484	Bushing	1	50	1312897	Capscrew	9
18	1312893	Pipe	1	51	133573	Washer	4
19	983321	Bolt	1	52	302672	Washer	2
20	983322	Washer	2	53	1300286	Spider	1
21	302621	Housing	1	54	983313	Washer	1
22	982247	Cover	1	55	1319531	Pin	1
23	18509	Capscrew	2	56	18496	Capscrew	10
24	15155	Lockwasher	2	57	^a 1357850	Gasket	1
25	982245	Cover	1	58	16518	Screw	1
26	1357824	Joint	1				
27	186606	Washer	4				
28	18498	Capscrew	4				
29	^a 1357823	Joint	1	^a	Included In Gasket Set 351297		
30	982244	Dowel	2	^b	Last Used On Engine S/NJGU578745J		
31	983956	Screw	4	^c	First Used On Engine S/N JGU578746J		

WATER PUMP (Figure 25)

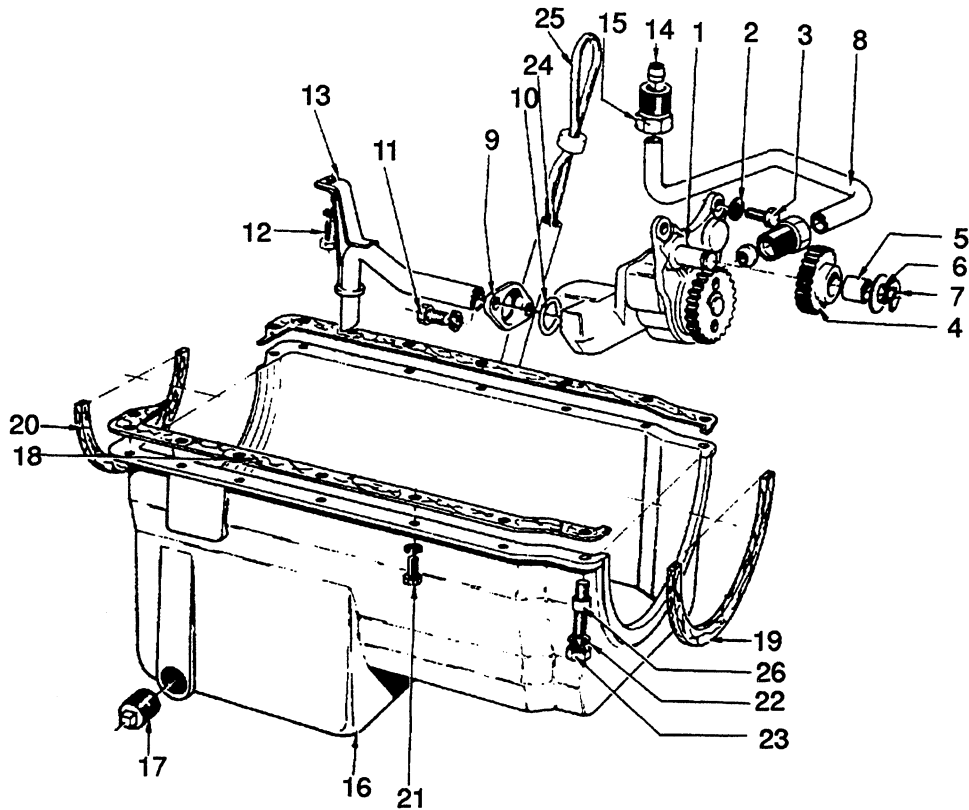


KEY

A: Water Pump 241831
B: Water Pump 1383603

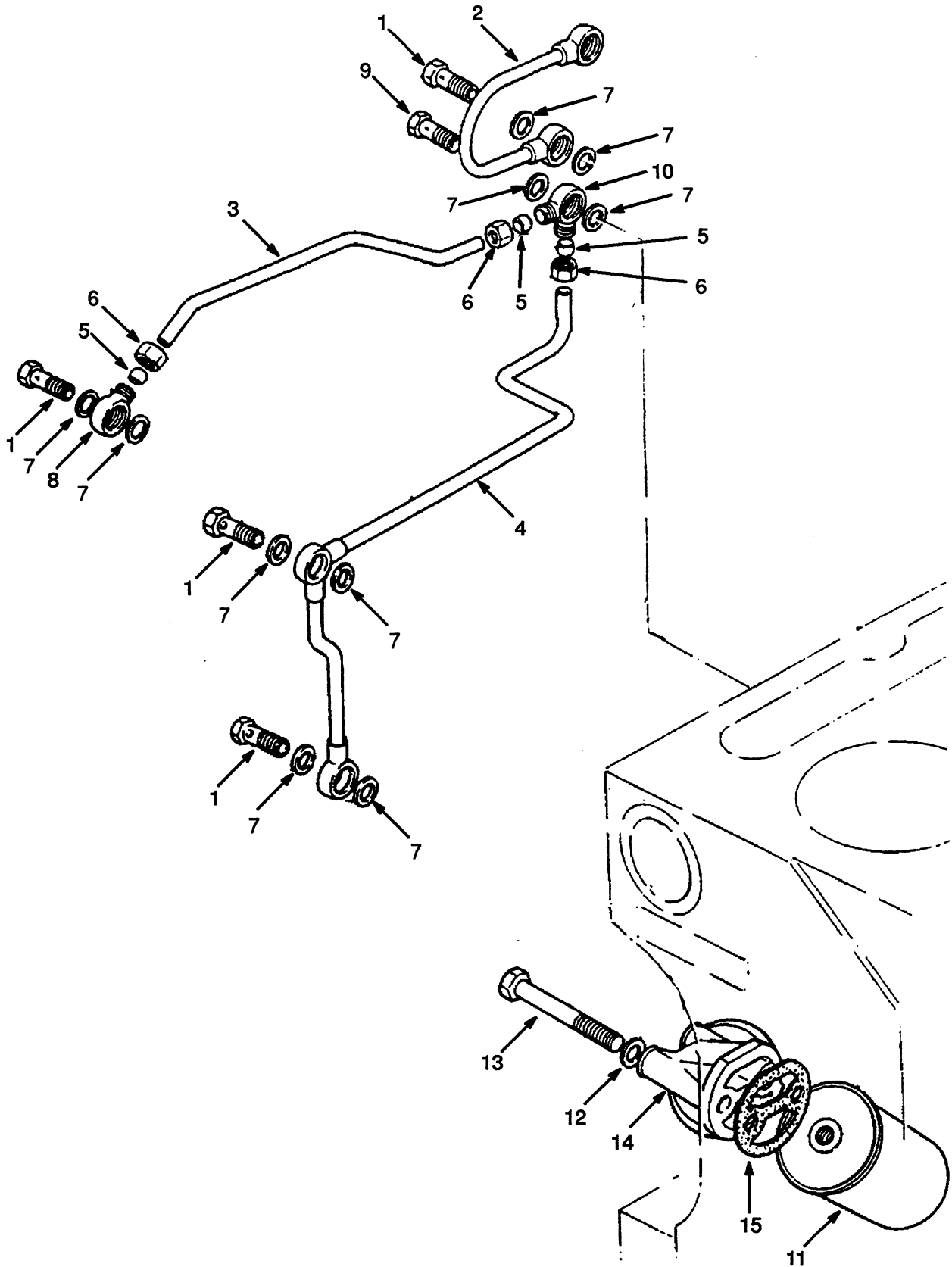
REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
1	241831	Pump	1	..	18	^g 1357817	Gasket	1	1
1	^d 1383603	Pump .....	..	1	19	^b 982321	Gasket	1	1
1	.....	Body	1	1	20	15006	Nut	4	4
2	^a	Shaft	1	1	21	15156	Lockwasher	6	6
2	^{ce}	Shaft .....	..	..	22	16815	Capscrew	2	2
3	^{ac}	Bearing	2	2	23	1319532	Capscrew	2	2
4	^{ac}	Spacer	1	1	24	15156	Washer	2	2
5	^{ac} 982328	Snap Ring	1	1	25	18451	Capscrew	1	1
6	^a	Plate	1	1	26	367900	Hose	1	1
7	^a 148496	Seal	1	1	26	127045	Clamp	1	1
7	^h 1307904	Seal .....	..	..	27	130845	Clamp	1	1
8	^a	Retainer	1	1	28	127045	Clamp	1	1
9	^a 224373	Seal	1	1	29	367901	Hose	1	1
10	^a 1307904	Seal (Ceramic)	1	1	29	127045	Clamp	1	1
11	^{ac}	Impeller	1	1					
12	148495	Pulley	1	..	^a	Included In Repair Kit 1323020			
13	15008	Nut	1	1	^b	Included In Gasket Set 351297			
14	15135	Washer	1	1	^c	Included In Repair Kit 375677			
15	15158	Lockwasher	1	1	^d	Remanufactured Water Pump 3002536 R			
16	15962	Fitting .....	..	..	^e	Splined Shaft			
16	15962	Fitting	1	1	^f	Last Used On S/N Pending Per ECN 51675			
17	366099	Plate	1	1	^g	First Used On S/N Pending Per ECN 51675			
18	^{fc} 258115	Gasket	1	1	^h	Included In Repair Kit 1369044			

OIL PUMP AND OIL PAN (Figure 26) DIESEL



REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
b	.....	Engine	1	13	15127	Washer	2
c	.....	Engine	1	13	15154	Lockwasher	1
1	302623	Pump	1	14	982302	Sleeve	2
1	167055	Plunger	1	15	984336	Nut	2
1	167056	Spring	1	16	266464	Pan	1
1	982286	Cap	1	16	266465	Insert	1
1	982287	Pin	1	17	361337	Plug	1
2	15918	Washer	3	17	1371717	Washer	1
3	16818	Capscrew	3	18	^a 1357777	Gasket	1
4	983326	Gear	1	19	982317	Gasket	1
5	.....	Bushing	1	20	266468	Gasket	1
6	983327	Washer	1	21	16818	Capscrew	14
7	982292	Snap Ring	1	21	15155	Lockwasher	14
8	984102	Pipe	1	22	15155	Lockwasher	2
9	982298	Flange	1	23	15005	Nut	2
10	982299	Seal	2	24	148489	Tube	1
11	16818	Capscrew	2	24	222936	Fitting	1
11	15155	Lockwasher	2	25	148490	Dipstick	1
12	18459	Capscrew	1	25	.....	Dipstick	1
12	15154	Lockwasher	1	25	125519	Washer	1
12	15127	Washer	1	26	983308	Stud	2
13	290510	Pipe	1				
13	290511	Bracket	1	a	Included In Gasket Kit 351297		
13	18461	Capscrew	1	b	Last Used On Engine S/N JGU578745J		
13	15004	Nut	1	c	First Used On Engine S/N JGU578746J		

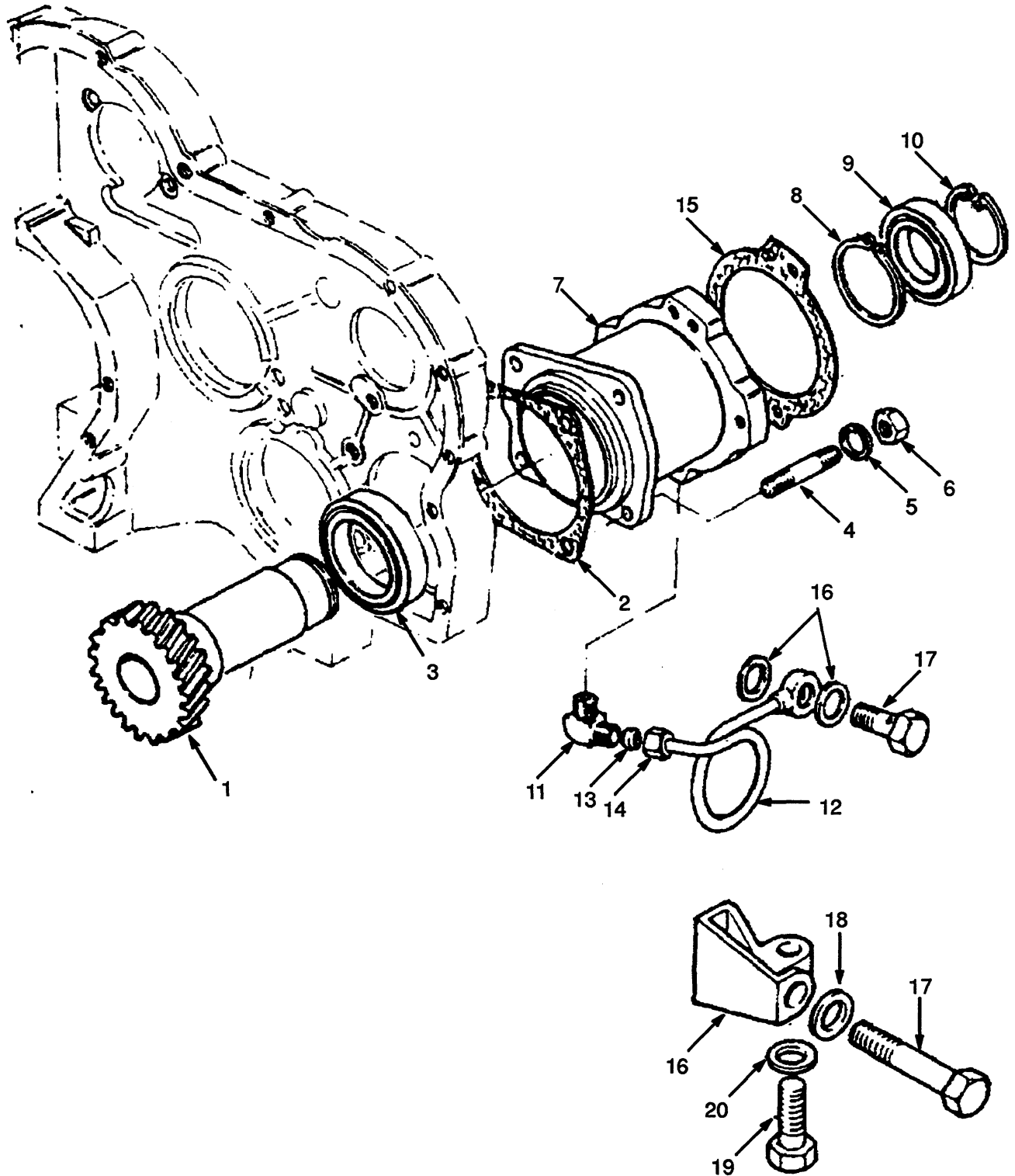
OIL PIPES AND FILTER (FIGURE 27) DIESEL



OIL PIPES AND FILTER DIESEL

REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
	a	..... Engine	1	10	982235	Connector	1
	b	..... Engine	1	11	259025	Filter	1
1	983319	Bolt	4	12	258524	Washer	2
2	171673	Pipe	1	13	17231	Capscrew	2
3	982237	Pipe	1	14	229324	Head	1
4	358699	Pipe	1	15	c-1357821	Gasket	1
5	51455	Sleeve	4				
6	16193	Fitting	4	a	Last Used On Engine S/N JGU578745J		
7	992645	Washer	10	b	First Used On Engine S/N JGU578746J		
8	982236	Fitting	1	c	Included In Gasket Set 351297		
9	983319	Bolt	2				

HYDRAULIC PUMP DRIVE (FIGURE 28) DIESEL



HYDRAULIC PUMP DRIVE DIESEL

REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
	a	Engine	1	11	51455	Sleeve	1
	b	Engine	1	12	16193	Fitting	1
1	148480	Shaft	1	13	302648	Gasket	1
2	1357509	Gasket	1	14	992645	Washer	2
3	44308	Bearing	1	15	148465	Bolt	1
4	984555	Stud	4	16	302650	Housing	1
4	15155	Lockwasher	4	17	17154	Capscrew	1
4	15005	Nut	4	18	1357787	Washer	1
5	302645	Housing	1	19	16817	Capscrew	1
6	148483	Snap Ring	1	20	302651	Washer	1
7	44309	Bearing	1				
8	152798	Snap Ring	1	a	Last Used On Engine S/N JGU578745J		
9	148463	Elbow	1	b	First Used On Engine S/N JGU578746J		
10	1319534	Pipe Assembly	1				

FUEL SYSTEM

AIR FILTER (Figure 32) Page 66

CARBURETOR (Figure 37)
GASOLINE Page 76

CARBURETOR (Figure 38)
LPG Page 78

CHOKE CONTROL (Figure 39)
GASOLINE Page 80

FUEL (Figure 29)
DIESEL Page 60

FUEL (Figure 30)
GASOLINE Page 62

FUEL (Figure 34)
LPG Page 70

FUEL FILTER AND LINES (Figure 31)
DIESEL Page 64

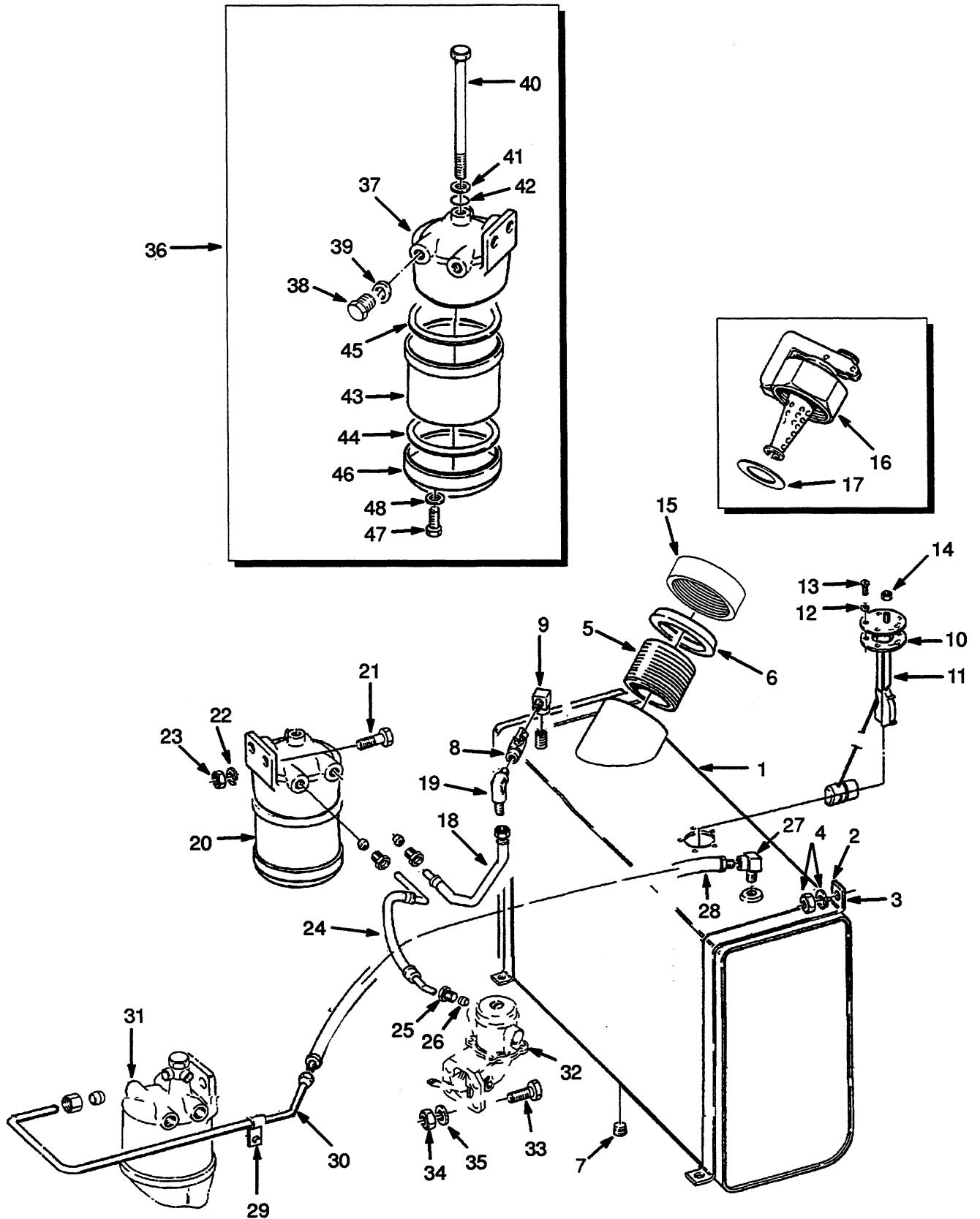
FUEL INJECTION (Figure 33)
DIESEL Page 68

LPG CONVERTER (Figure 36) Page 74

LPG TANK (Figure 35) Page 72

THROTTLE LINKAGE (Figure 40) Page 82

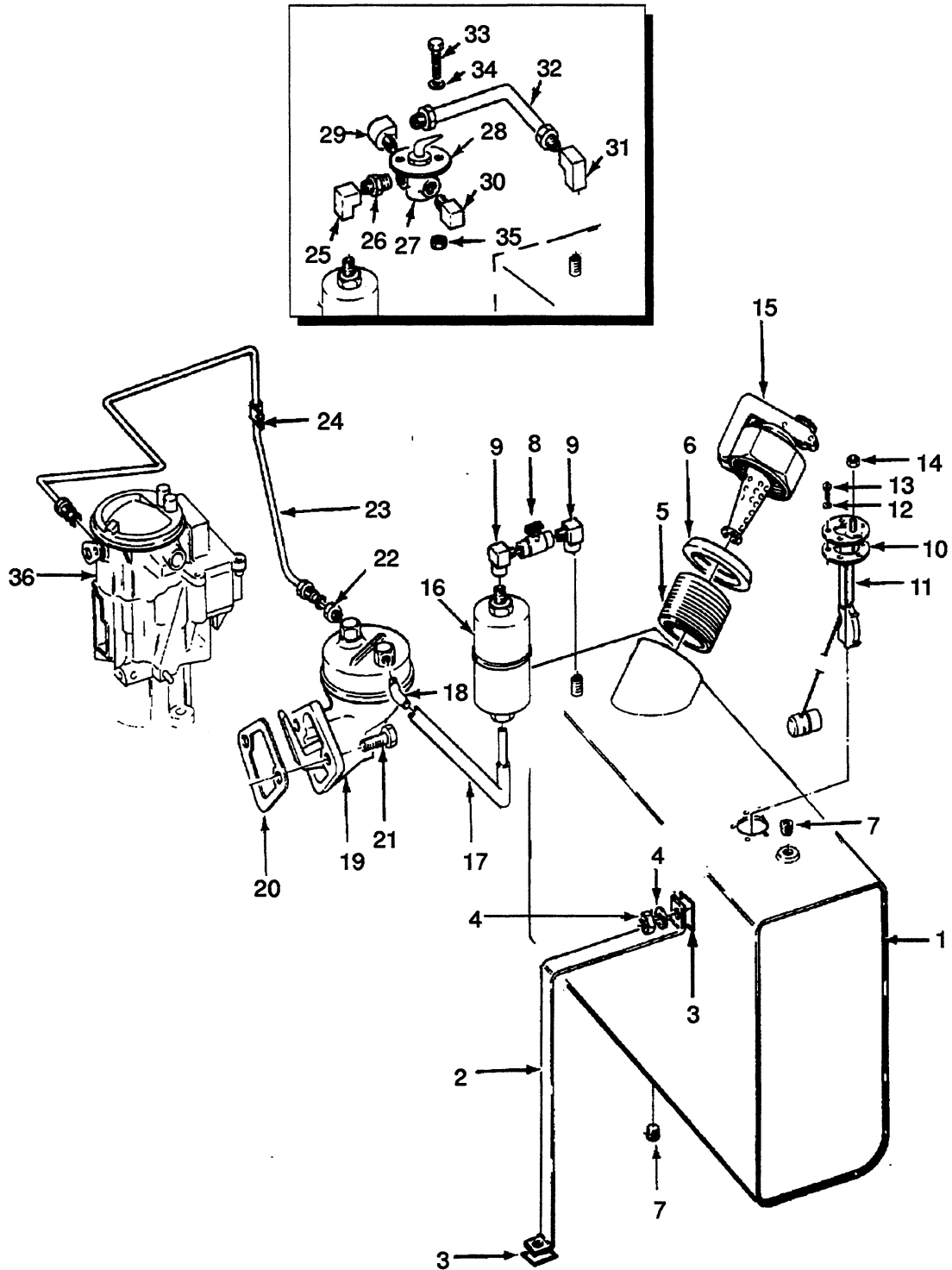
FUEL (Figure 29) DIESEL




FUEL DIESEL

REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
1	317038	Tank	1	27	17314	Fitting	1
2	137830	Strap	2	28	317042	Hose	1
3	137774	Pad	4	29	61824	Clamp	1
4	15056	Nut	4	30	295487	Tube	1
4	15156	Lockwasher	4	31	.....	Filter	1
5	298834	Pipe	1			☞ Figure 31	
5	273338	Thread Sealant	AR	32	b 335879	Lift Pump	1
6	61843	Grommet	1	32	b	Spring	2
7	15347	Fitting	1	32	b 1345754	Gasket	1
8	87446	Valve	1	32	327649	Repair Kit	1
9	16151	Fitting	1	33	b 983343	Stud	2
10	111561	Gasket	1	34	b 984383	Nut	2
11	169765	Sender	1	35	b 167549	Washer	2
12	350483	Seal	5	36	271047	Filter	1
13	16750	Screw	5	37	272273	Head	1
14	15002	Nut	5	38	170688	Plug	2
15	298832	Cap	1	39	272274	Washer	2
16	63899	Cap (Safety)	1	40	256219	Bolt	1
17	138880	Shim	AR	41	256220	Washer	1
18	291821	Hose And Tube Assembly	1	42	168914	Seal	1
19	17094	Fitting	1	43	177407	Element	1
20	271047	Filter-Water Seperator	1	44	292781	Bottom Seal	1
21	b 16828	Capscrew	2	45	292782	Top Seal	1
22	b 15156	Lockwasher	2	46	271443	Base	1
23	b 15056	Nut	2	47	271448	Drain Plug	1
24	305183	Tube	1	48	271449	Washer	1
25	985222	Nut	3				
26	16114	Fitting	3				
				b	Included With Diesel Engine 280097		

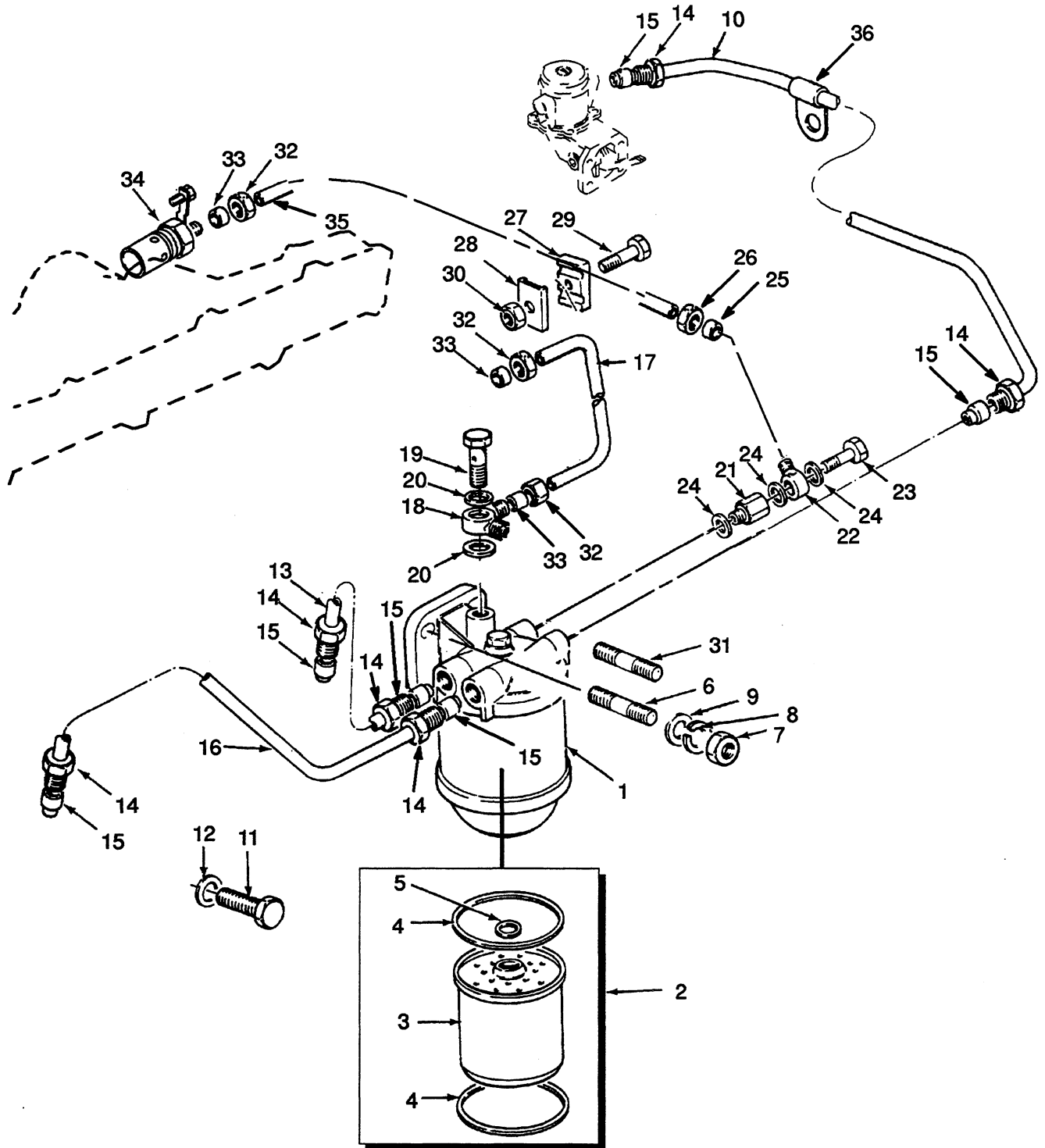
FUEL (Figure 30) GASOLINE



FUEL GASOLINE

REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
1	317038	Tank	1	20	^c 149934	Gasket	1
1	^a 326924	Tank	1	21	191820	Capscrew	2
2	137830	Strap	2	22	16138	Fitting	1
3	137774	Pad	4	23	291818	Tube	1
4	15056	Nut	4	24	118748	Clamp	1
4	15156	Lockwasher	4	25	^a 69392	Fitting	1
5	298834	Pipe	1	26	^a 16150	Adapter	1
5	273338	Thread Sealant	AR	27	^a 117767	Three-way Valve	1
6	61843	Grommet	1	28	^a 326907	Plate	1
7	15347	Fitting	1	29	^a 16185	Fitting	1
8	87446	Valve	1	30	^a 16151	Fitting	1
9	16151	Fitting	2	31	^a 14288	Fitting	1
10	111561	Gasket	1	32	^a 326922	Tube	1
11	169765	Sender	1	33	^a 220326	Screw	2
12	350483	Seal	5	34	^a 15165	Lockwasher	2
13	16750	Screw	5	35	^a 128436	Nut	2
14	15002	Nut	5	36	.....	Carburetor	1
15	^d 298831	Cap (Not Illustrated)	1			 Figure 37	
15	^a 63899	Cap	1				
15	^a 138880	Shim	AR				
16	172921	Filter	1	^a	Safety		
17	293125	Hose And Tube Assy	1	^b	Included With Diesel Engine 280097		
18	16369	Adapter	1	^c	Included In Gasket Set 1334900		
19	153995	Fuel Pump	1	^d	Standard		

FUEL FILTER AND LINES (Figure 31) DIESEL

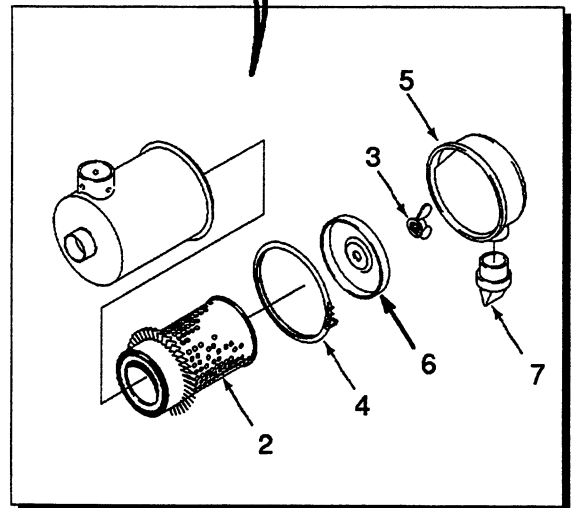
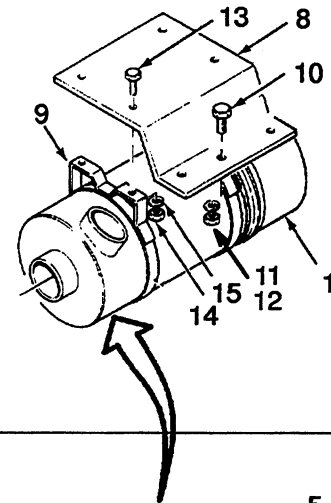
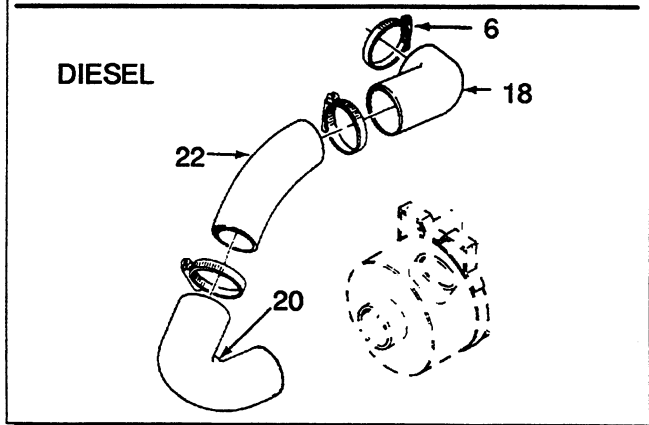
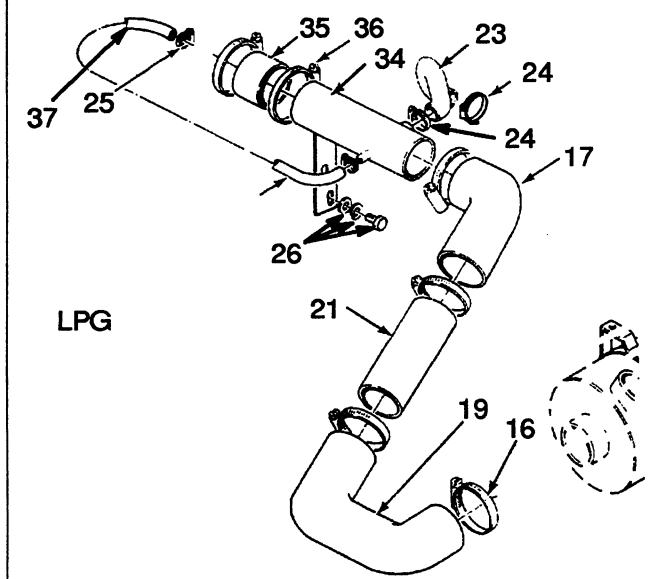
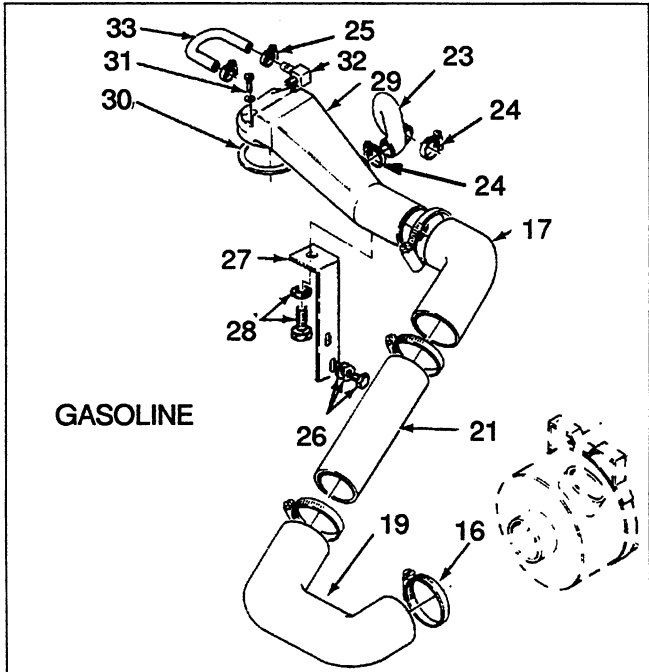


FUEL FILTER AND LINES DIESEL

REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
	b	..... Engine	1	19	983346	Bolt	1
	c	..... Engine	1	20	101985	Washer	2
1	173944	Filter	1	21	245884	Valve	1
2	124217	Kit	1	22	245784	Connector	1
3	.....	Element	1	23	982951	Bolt	1
4	292782	Seal (Top)	1	24	981652	Washer	3
4	292781	Seal (Bottom)	1	25	152608	Sleeve	1
5	124239	Seal	1	26	152609	Nut	1
6	1312419	Stud	2	27	99779	Damper	2
7	15006	Nut	2	28	99780	Plate	2
8	15134	Washer	2	29	220501	Screw	1
9	15156	Lockwasher	2	30	230882	Locknut	1
10	302658	Pipe	1	31	1312418	Stud	1
11	18536	Capscrew	1	32	152609	Nut	2
12	101985	Washer	1	33	152608	Olive	2
13	329593	Pipe	1	34	986104	Heater	1
14	158186	Fitting	2	35	302665	Pipe	1
15	158187	Olive	2	36	377995	Clip	1
16	302659	Pipe	1				
17	344225	Pipe	1				
18	982234	Connector	1				

b Last Used On Engine S/N JGU578745J
c First Used On Engine S/N JGU578746J

AIR FILTER (Figure 32)



AIR FILTER

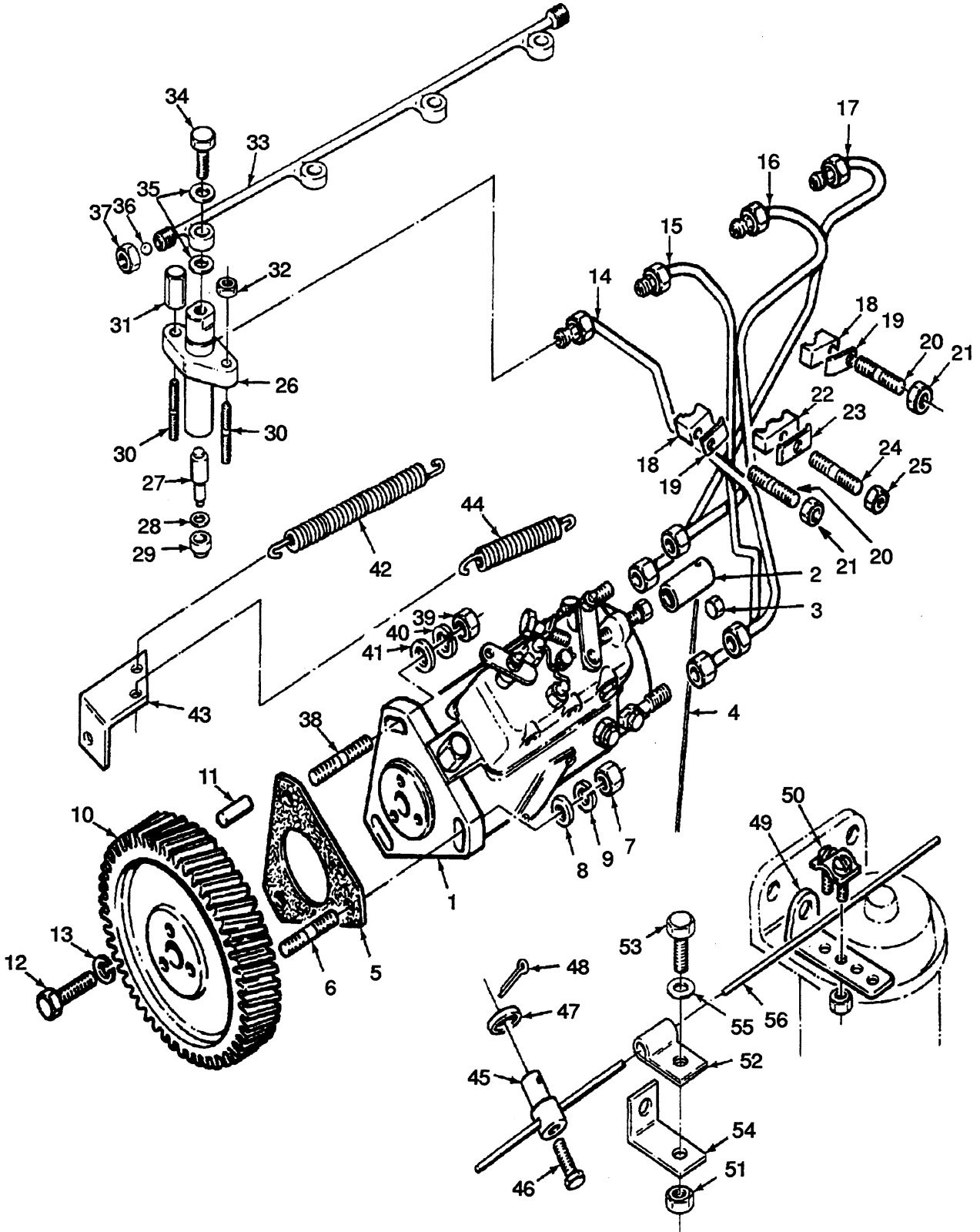
KEY

A: Gasoline
B: LPG
C: Diesel

REF	PART NO.	NAME OF PART	QTY			REF	PART NO.	NAME OF PART	QTY		
			A	B	C				A	B	C
1	281916	Filter	1	1	1	20	299115	Hose .....	..	..	1
1	^b 1320262	Filter (Non UL)	1	1	1	21	296919	Tube	1	1	..
2	305080	Element	1	1	1	22	299116	Tube .....	..	..	1
2	^b 1320263	Element	1	1	1	23	293141	Hose	1	1	..
2	^{bc} 320263	Element	1	1	1	24	130845	Clamp	2	2	..
3	125847	Nut/Washer	1	1	1	25	168718	Clamp	2	2	..
3	^{bc} 349801	Nut/Washer	1	1	1	26	15156	Lockwasher	2	2	..
4	290734	Clamp	1	1	1	26	16597	Capscrew	2	2	..
5	290733	Cup	1	1	1	26	15134	Washer	2	2	..
5	^{bc} 349802	Cup/Valve/Screw	1	1	1	27	293137	Bracket	1	..	..
6	290735	Baffle	1	1	1	28	227252	Capscrew	1	..	..
7	169307	Spring	1	1	1	28	15134	Washer	1	..	..
7	141276	Valve	1	1	1	29	1300180	Duct	1	..	..
8	323526	Bracket	1	1	1	30	^{ab} 275740	Gasket	1	..	..
9	281922	Band	2	2	2	31	220343	Screw	2	..	..
9	16737	Screw	2	2	2	31	310975	Washer-Seal	2	..	..
10	16828	Capscrew	2	2	2	32	17343	Fitting	1	..	..
11	15156	Lockwasher	2	2	2	33	195875	Hose	1	..	..
12	15056	Nut	2	2	2	34	293138	Duct .....	..	1	..
13	16597	Capscrew	4	4	4	35	197387	Hose .....	..	1	..
14	15056	Nut	4	4	4	36	112989	Clamp .....	..	2	..
15	15156	Lockwasher	4	4	4	37	140663	Hose .....	..	1	..
16	112989	Clamp	4	4	4	37	^c 140662	Hose .....	..	1	..
17	214335	Elbow	1	1	..						
18	104099	Boot .....	..	..	1						
19	271336	Hose	1	1	..						

^a Included In Gasket Set 321749
^b Europe Optional
^c Non-UL

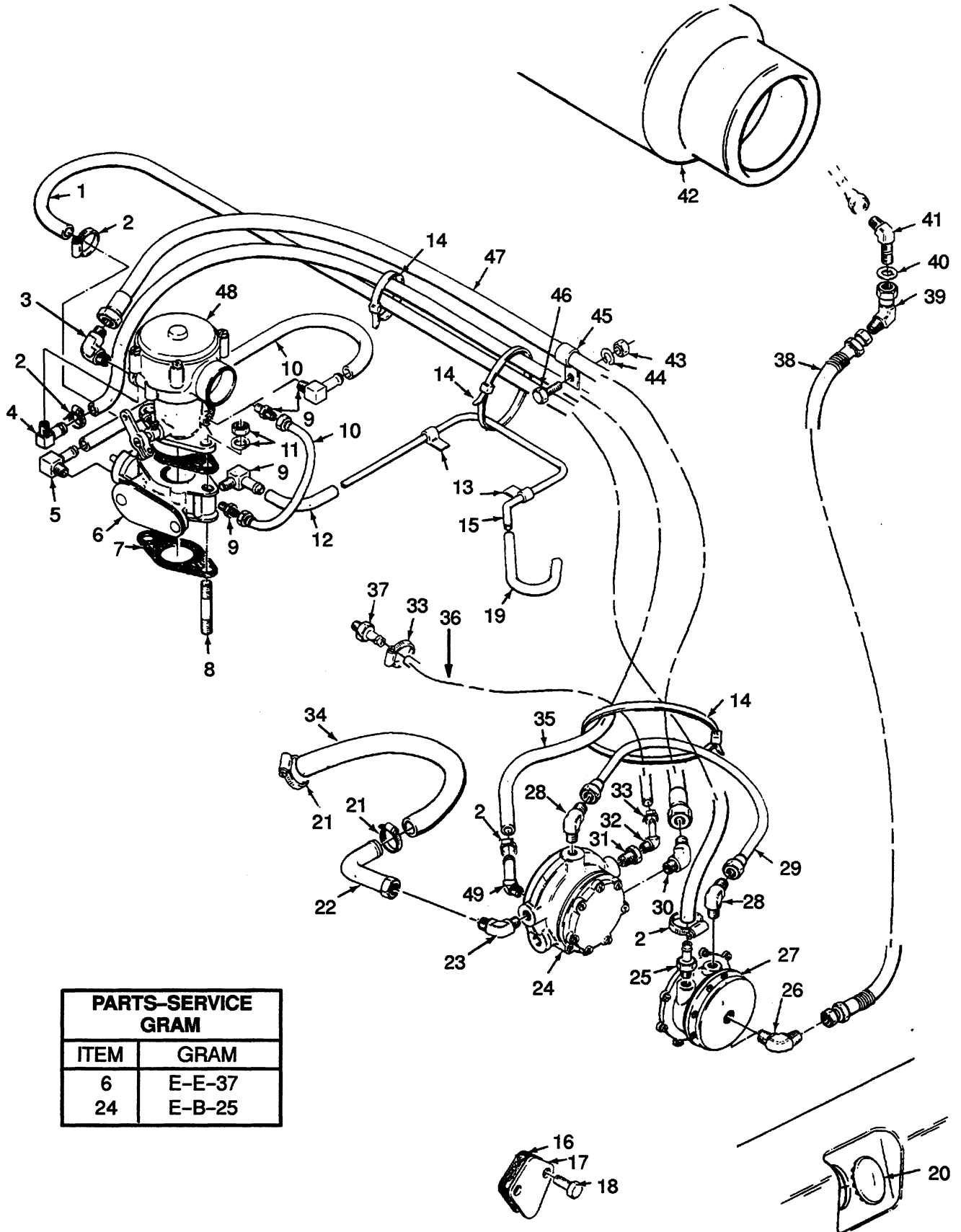
FUEL INJECTION (Figure 33) DIESEL



FUEL INJECTION DIESEL

REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
	^e	Engine	1	31	302666	Nut	4
	^f	Engine	1	32	15002	Nut	4
1	332282	Injection Pump	1	33	^c 302635	Pipe	1
1	281974	Kit (Shoe And Roller)	1	33	^d 340852	Pipe	1
1	268892	Kit	1	34	983340	Capscrew	4
2	134958	Sleeve	1	35	985567	Washer	8
3	151315	Seal	1	36	^c 55280	Ball	1
4	151316	Lock Wire	1	36	^d 341802	Fitting	1
5	^a 1344905	Gasket	1	37	^c 16193	Fitting	1
6	983304	Stud	2	37	^d 152609	Nut	1
7	15005	Nut	2	38	133563	Stud	1
8	18515	Washer	2	39	15005	Nut	1
9	15155	Lockwasher	2	40	18515	Washer	1
10	302625	Gear	1	41	15155	Lockwasher	1
11	159105	Dowel	1	42	168897	Spring	1
12	16691	Capscrew	3	43	328920	Bracket	1
13	15155	Lockwasher	3	44	301830	Spring	1
14	302626	Pipe (#1)	1	45	99786	Pin	1
15	302627	Pipe (#2)	1	46	99631	Screw	1
16	302628	Pipe (#3)	1	47	15132	Washer	1
17	302629	Pipe (#4)	1	48	15200	Pin	1
18	302630	Damper	2	49	224735	Bracket	1
19	271441	Plate	2	50	991854	Clip	1
20	377527	Stud	2	51	295493	Bracket	1
21	221342	Locknut	2	52	183247	Clamp	1
22	302631	Damper	1	53	18819	Screw	1
23	302632	Plate	1	54	15052	Nut	1
24	377527	Stud	1	55	15152	Lockwasher	1
25	221342	Locknut	1	56	143227	Cable	1
26	314999	Injector	4				
26	.....	Holder	4	^a	Included In Gasket Set 351297		
27	316103	Nozzle	4	^b	Included In Gasket Set 377540		
27	309860	Heat Shield	4	^c	Last Used On Engine S/N U573952H		
28	^b 302670	Washer	4	^d	First Used On Engine S/N U573953H		
29	161551	Shield	4	^e	Last Used On Engine S/N JGU578745J		
30	842920	Stud	8	^f	First Used On Engine S/N JGU578746J		

FUEL (Figure 34) LPG



PARTS-SERVICE GRAM	
ITEM	GRAM
6	E-E-37
24	E-B-25

FUEL LPG

KEY

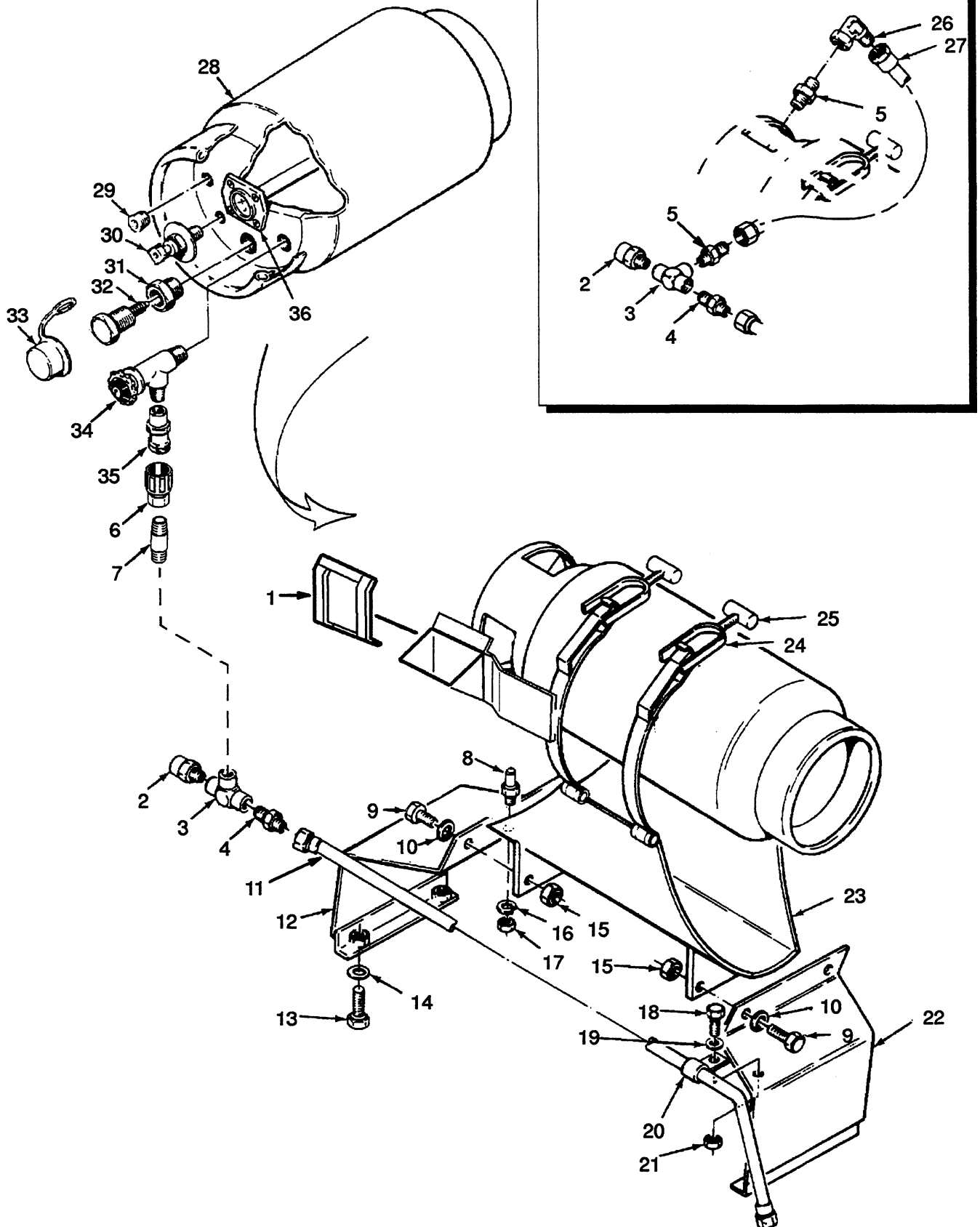
A: Last Used On S/N F3A-2736, F3D-2345, F3T-1547

B: First Used On S/N F3A 2737, F3D-2346, F3T-1548

REF	PART NO.	NAME OF PART	A	B	REF	PART NO.	NAME OF PART	A	B
1	1151268	Hose	1	1	24	258321	Fuel Lock And Filter	1	1
2	168718	Clamp	4	4	24	263958	Repair Kit	1	1
3	42958	Connector	1	1	25	16746	Fitting	1	1
4	213798	Fitting	1	1	26	107425	Fitting	1	1
5	175347	Fitting	1	1	27	.....	Converter	1	1
6	340405	Governor	1	..			☞ Figure 36		
6	340405	Governor .....	..	1	28	14538	Fitting	1	1
6	181765	Plug	1	..	29	294419	Tube	1	1
6	181764	Lockwasher	1	..	30	216197	Fitting	1	1
7	195771	Gasket	1	..	31	63108	Fitting	1	1
7	181763	Gasket .....	..	1	32	16694	Fitting	1	1
8	^a 175323	Stud	2	2	33	166857	Clamp	2	2
9	191805	Fitting	2	..	34	294985	Hose	1	1
9	175347	Fitting .....	..	2	35	327106	Hose	1	1
10	181442	Hose	1	..	36	164795	Hose	1	1
10	181082	Hose .....	..	1	37	17352	Fitting	1	1
11	^a 15026	Nut	2	2	38	317525	Hose	1	1
11	^a 15920	Lockwasher	2	2	39	16999	Fitting	1	1
12	321745	Hose	1	..	40	15926	Lockwasher	1	1
12	173690	Hose .....	..	1	41	16465	Fitting	1	1
13	101569	Clamp	2	2	42	.....	Tank	1	1
14	129563	Clamp	3	3			☞ Figure 35		
15	321746	Tube	1	..	43	15056	Nut	1	1
15	329426	Tube .....	..	1	44	15156	Lockwasher	1	1
16	149934	Gasket	1	1	45	178119	Clamp	1	1
17	145949	Cover	1	1	46	16598	Capscrew	1	1
18	199566	Capscrew	2	2	47	294987	Hose	1	1
19	190421	Hose	1	1	48	.....	Carburetor	1	1
20	180848	Plug	1	1			☞ Figure 38		
21	130845	Clamp	2	2	49	174374	Fitting	1	1
22	294986	Tube	1	1					
23	17536	Fitting	1	1					

^a Replaces Existing Part

LPG TANK (Figure 35)



LPG TANK

KEY

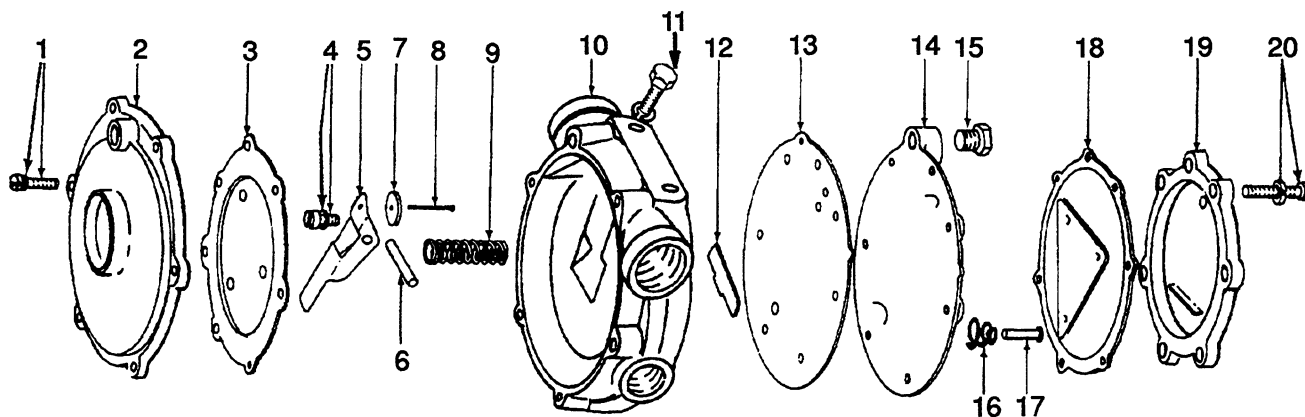
A: Counterweight Exhaust

B: Overhead Exhaust

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
1	261164	Tape (Foam)	AR	AR	25	147294	Nut	2	2
2	101809	Relief Valve	1	1	26	^a 16883	Fitting	1	1
3	63111	Fitting	1	1	27	^a 806919	Hose	1	1
4	14675	Fitting	1	1	28	^c 125789	Tank	1	..
5	^a 14675	Fitting	2	2	28	^c 172654	Tank .....	..	1
6	97999	Disconnect	1	1	29	15963	Fitting	1	1
7	15356	Fitting	1	1	30	197038	Gauge	1	1
8	^a 207169	Pin	1	1	30	^d 344232	Gauge (With Diptube)	1	..
8	196303	Pin	1	1	30	^d 344231	Gauge .....	..	1
9	16805	Capscrew	4	4	31	344228	Adapter	1	1
10	15156	Lockwasher	4	4	32	200170	Relief Valve	1	1
11	199329	Hose	1	1	33	200172	Rain Cap	1	1
12	199344	Bracket (RH)	1	1	34	233908	Valve	1	1
13	16598	Capscrew	4	4	35	124010	Coupler	1	1
14	15905	Washer	4	4	36	^f 344230	Gauge	1	..
15	15056	Nut	4	4	36	^f 344229	Gauge .....	..	1
16	15158	Lockwasher	1	1	36	^e 197041	Gauge	1	..
17	^a 221354	Locknut	1	1	36	^e 197040	Gauge .....	..	1
17	15058	Nut	1	1	36	^g 1332400	Guage .....	..	1
18	16598	Capscrew	2	2					
19	15156	Lockwasher	2	2					
20	101625	Clamp	1	1					
21	15056	Nut	2	2					
22	199345	Bracket (LH)	1	1					
23	^a 207170	Bracket	1	1					
23	^{bc} 196287	Bracket	1	1					
23	333576	Bracket	1	1					
24	196297	Latch	2	2					

- ^a United Kingdom
- ^b Non Us
- ^c Non Uk
- ^d Optional
- ^e Bolt On Type
- ^f Screw In Type 1-1/4 inch NPTF Universal
- ^g Screw In Type 3/4 inch NPTF Universal

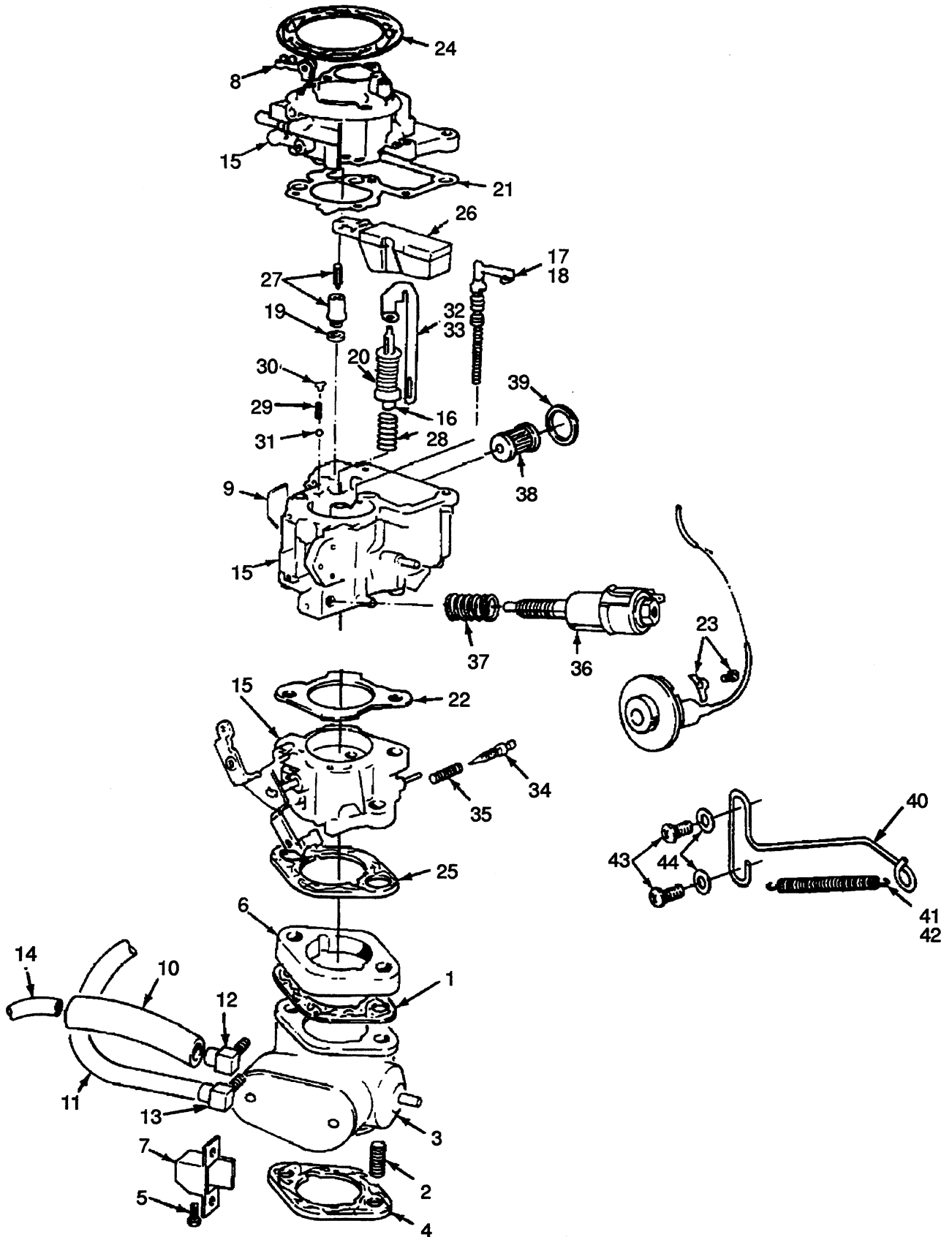
LPG CONVERTER (Figure 36)



REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
	1369571	Converter	1	12	a	Seat	1
1	a	Screw/Washer	6	13	a	Gasket	1
2		Cover	1	14		Plate	1
3	a	Diaphragm	1	15	15483	Fitting	1
4	a	Screw/Washer	1	16	204835	Spring	1
5	204829	Lever	1	17	a	Pin	1
6	204830	Pin	1	18	a	Diaphragm	1
7	a	Seat	1	19		Cover	1
8	a	Pin	1	20	a	Screw/Washer	7
9	204831	Spring	1				
10		Body	1				
11		Screw/Washer	2				

a Included In Repair Kit 204837

CARBURETOR (Figure 37) GASOLINE

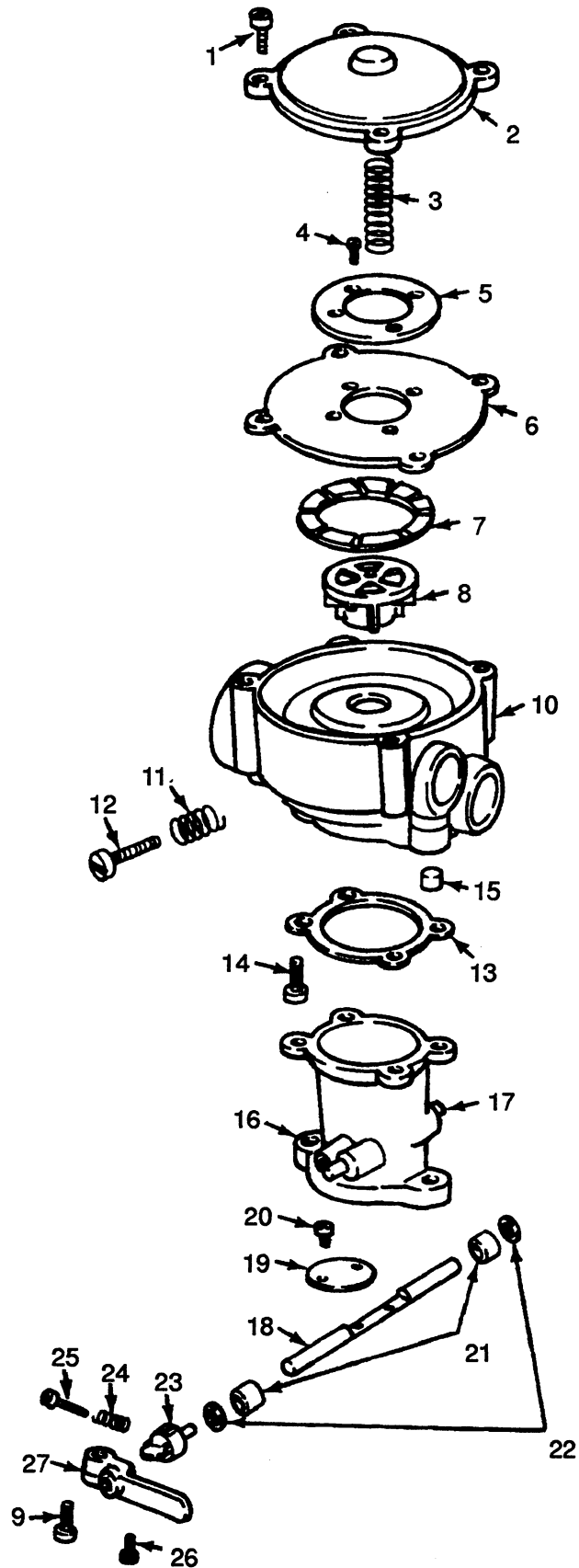


CARBURETOR GASOLINE

REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
1	ab 275375	Gasket	1	24	ab	Gasket	1
2	15026	Nut	2	25	ab	Gasket	2
2	15920	Lockwasher	2	26	a	Float	1
2	182942	Stud	2	26	a 329588	Float And Insert	1
3	b 340405	Governor	1	26	a	Float/Lever	1
3	c 340405	Governor	1	26	a	Pin/Hinge	1
3	b 181764	Lockwasher	1	27	a 329589	Needle/Seat	1
3	b 181765	Plug	1	28	a	Spring	1
4	b 195771	Gasket	2	29	a	Spring	1
4	c 181763	Gasket	2	30	a	Guide	1
5	239505	Capscrew	2	31	a	Ball	1
6	273328	Spacer	1	32	a	Bushing	1
7	.....	Choke Control	1	33	a	Plunger	1
		☞ Figure 39		34	a	Needle	1
8	272128	Clip	1	35	a	Spring	1
9	275872	Label	1	36	a 319021	Solenoid	1
10	b 321745	Hose	1	36	a	Solenoid	1
10	c 173690	Hose	1	37	a	Spring	1
11	b 173690	Hose	1	38	a 1313924	Filter	1
11	c 181082	Hose	1	38	a	Gasket	1
12	b 175347	Fitting	1	38	a	Filter	1
13	b 191805	Fitting	1	39	ab	Gasket	1
13	c 175347	Fitting	1	40	273325	Link	1
14	b 321746	Tube	1	41	272162	Spring	1
14	c 329426	Tube	1	42	275871	Spring	1
15	319018	Carburetor	1	43	16708	Screw	2
16	ab	Seal	1	44	197067	Washer	2
17	ab	Seal	1				
18	ab	Retainer	1				
19	ab	Gasket	1				
20	a 327626	Pump	1				
21	ab	Gasket	1				
22	ab	Gasket	1				
23	ab	Retainer	1				

- a Included In Power Kit 321748
- b Last Used On S/N F3A-2736, F3D-2345, F3T-1547
- c First Used On S/N F3A-2737, F3D-2346, F3T-1548

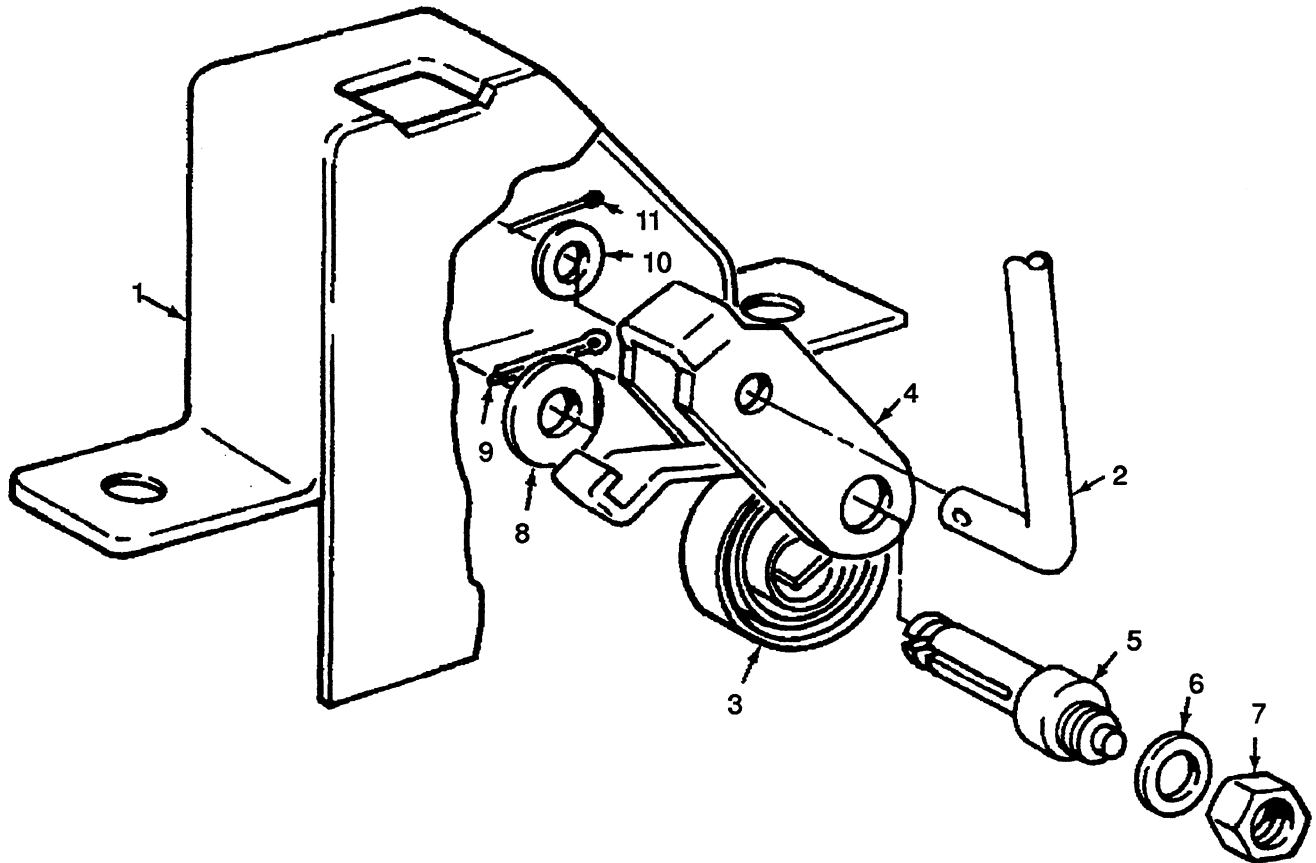
CARBURETOR (Figure 38) LPG



CARBURETOR LPG

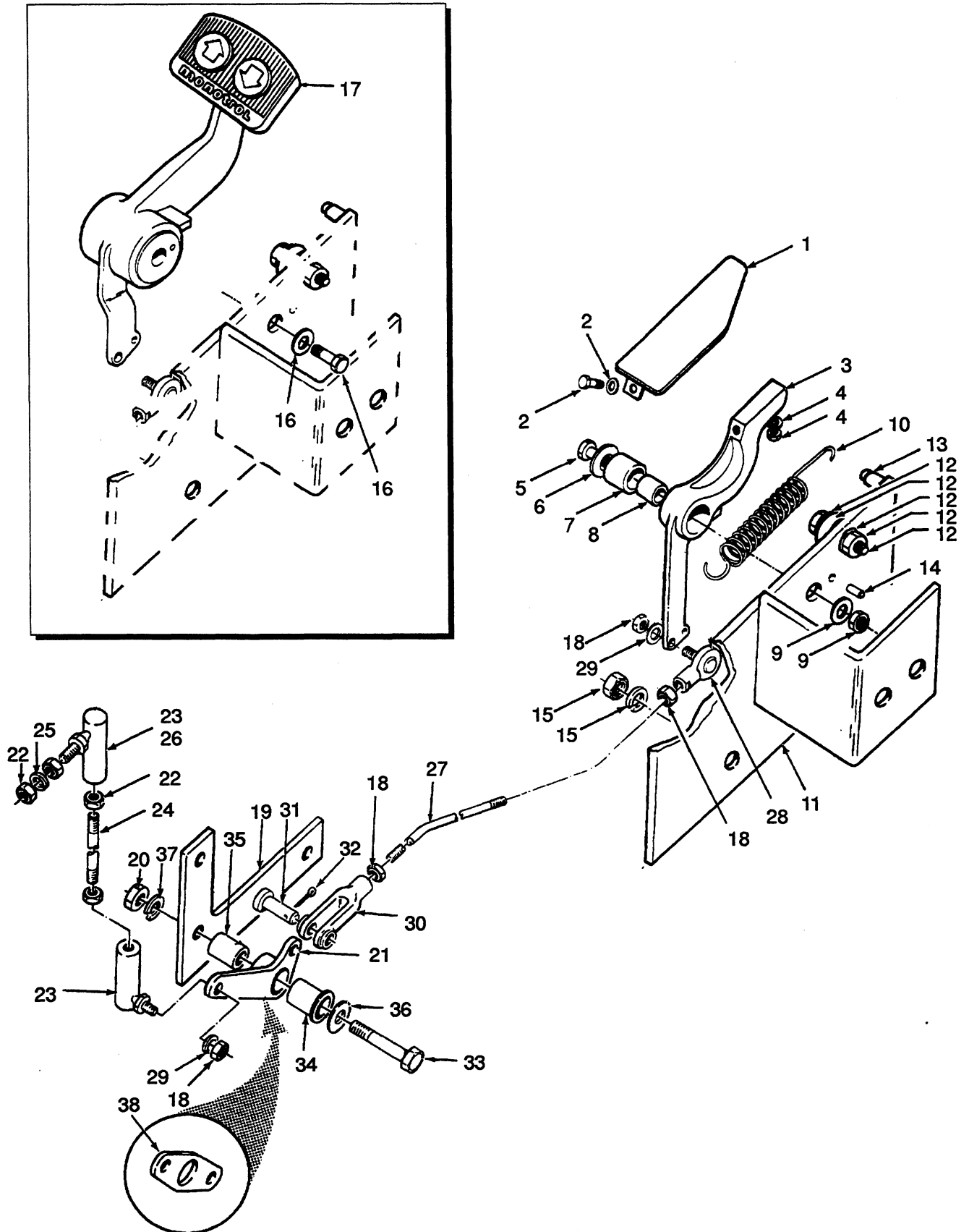
REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
	323540	Carburetor	1	14	204790	Screw	4
1	132473	Screw	4	15	.....	Plug	1
2	204780	Cover	1	16	332278	Venturi	1
3	204781	Spring	1	17	204863	Shaft	1
4	204782	Valve/Diaphragm Kit	1	18	.....	Pin	2
4	220283	Screw	4	19	204793	Fly	1
5	.....	Plate	1	20	12490	Screw	2
6	.....	Diaphragm	1	21	214121	Bearing	2
7	.....	Ring	1	22	204796	Seal	2
8	204859	Valve	1	23	262175	Lever/Stop	1
9	185544	Screw	1	24	.....	Spring	1
10	.....	Body	1	25	16751	Screw	1
11	332277	Spring	1	26	.....	Screw	1
12	.....	Screw	1	27	313539	Clamp	1
13	204787	Gasket	1	27	.....	Lever	1

CHOKE CONTROL (Figure 39) GASOLINE



REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
	322643	Control	1	6	15931	Lockwasher	1
1	322642	Housing	1	7	15002	Nut	1
2	274179	Choke Rod	1	8	15127	Washer	1
3	285813	Thermostat Coil	1	9	285812	Pin	1
4	285814	Bracket	1	10	197065	Washer	1
5	285815	Bracket	1	11	274184	Cotter Pin	1

THROTTLE LINKAGE (Figure 40)



THROTTLE LINKAGE

KEY

- A: Gasoline
- B: LPG
- C: Diesel

REF	PART NO.	NAME OF PART	QTY			REF	PART NO.	NAME OF PART	QTY		
			A	B	C				A	B	C
1	a 66958	Pedal	1	1	1	18	15024	Nut	4	4	4
2	a 133469	Capscrew	1	1	1	19	294983	Bracket	1	1	1
2	a 15154	Lockwasher	1	1	1	20	15056	Nut	1	1	1
3	a 191989	Lever	1	1	1	21	272109	Crank	1	1	..
4	a 15004	Nut	1	1	1	22	15002	Nut	4	4	..
4	a 15154	Lockwasher	1	1	1	22	15024	Nut .....	..	..	4
5	a 16376	Capscrew	1	1	1	23	161252	Joint	1	1	..
6	a 15176	Washer	1	1	1	23	139012	Joint .....	..	..	2
7	a 191990	Bearing	1	1	1	24	305187	Link	1	1	..
8	a 191842	Sleeve	1	1	1	24	392956	Link .....	..	..	1
9	a 15156	Lockwasher	1	1	1	25	15152	Lockwasher	1	1	..
9	a 15056	Nut	1	1	1	25	15154	Lockwasher .....	..	..	1
10	282247	Spring	1	1	1	26	227210	Joint (RH)	1	1	..
10	282248	Spring	1	1	1	27	291816	Link	1	1	1
11	332829	Bracket	1	1	1	28	357263	Joint	1	1	1
12	16815	Capscrew	1	1	1	29	15154	Lockwasher	2	2	2
12	15920	Lockwasher	2	2	2	30	125	Rod End	1	1	1
12	261746	Stop	1	1	1	31	126	Pin	1	1	1
12	145641	Nut	1	1	1	32	15200	Pin	1	1	1
12	a 210752	Washer	1	1	1	33	16816	Capscrew	1	1	1
13	16066	Pin	1	1	1	34	196480	Bearing	2	2	2
14	b 19866	Pin	1	1	1	35	196481	Bushing	1	1	1
15	15056	Nut	2	2	2	36	15176	Washer	1	1	1
15	15156	Lockwasher	2	2	2	37	15156	Lockwasher	1	1	1
16	b 18202	Capscrew	1	1	1	38	295565	Crank .....	..	..	1
16	b 15156	Lockwasher	1	1	1						
17	b	Pedal	1	1	1						

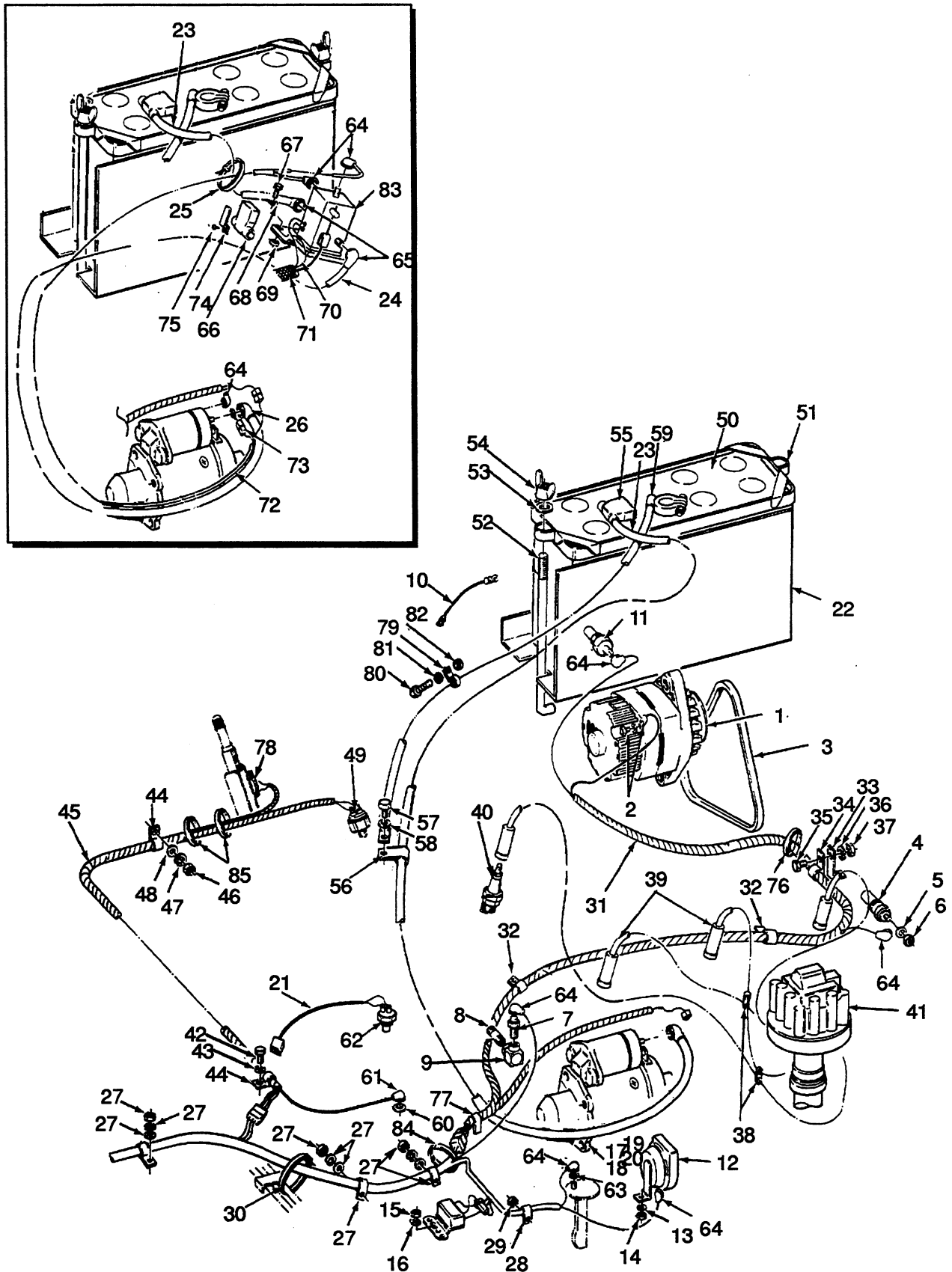
☞ Figure 63

- a Powershift With Forward And Reverse Lever, And Oil Clutch
- b Powershift With Monotrol

ELECTRICAL SYSTEM

ALTERNATOR (Figure 45)	Page 94
ALTERNATOR (Figure 46) SAFETY	Page 96
DISTRIBUTOR (Figure 44)	Page 92
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STARTER (Figure 49) DIESEL, EUROPE FIRST USED ON S/N F3A-1746	Page 102
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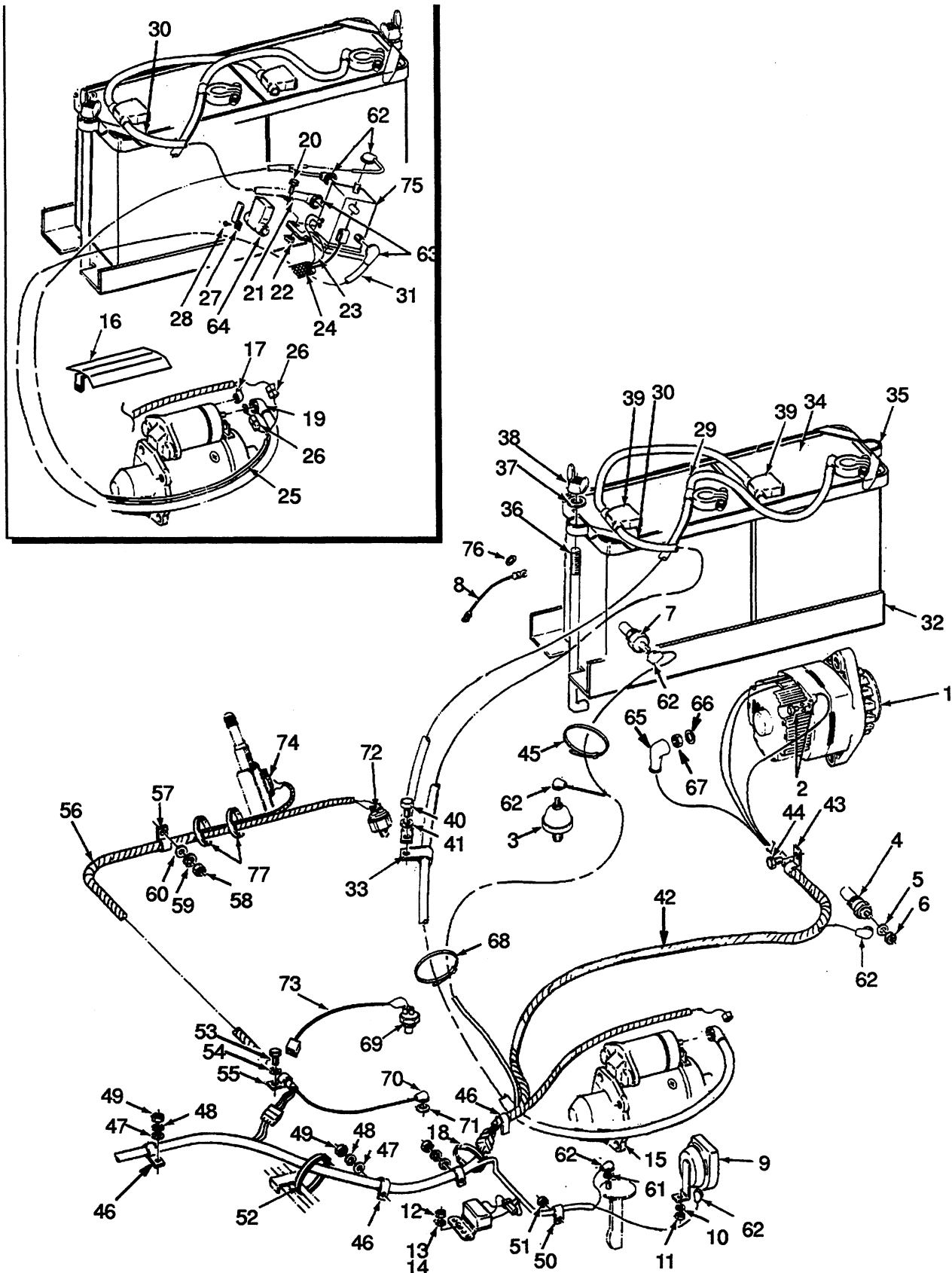
ELECTRICAL (FIGURE 41) GASOLINE AND LPG



ELECTRICAL GASOLINE AND LPG

REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
1	.....	Alternator	1	42	b 18535	Capscrew	1
		☞ Figure 45 And Figure 46		43	b 15156	Lockwasher	1
2	a 148626	Terminal	1	44	b 113341	Clamp	2
2	15155	Lockwasher	1	45	b 298042	Harness	1
2	136681	Capscrew	1	46	b 15055	Nut	1
3	188643	V-belt	1	47	b 15155	Lockwasher	1
4	1315441	Sender	1	48	b 15134	Washer	1
5	15931	Lockwasher	1	49	b 139173	Switch	1
6	15002	Nut	1	50	79792	Battery (Dry)	1
7	190252	Pressure Switch	1	50	74325	Battery (Wet)	1
8	15372	Fitting	1	51	74751	Retainer	1
9	69392	Fitting	1	52	69302	Stud	2
10	140747	Wire	1	53	18515	Washer	2
11	285123	Sender	1	54	17443	Nut	2
12	1383778	Hom	1	55	257241	Cover	1
13	15155	Lockwasher	1	56	132131	Clamp	1
14	15055	Nut	1	57	18497	Capscrew	1
15	15054	Nut	1	58	15155	Lockwasher	1
16	18515	Washer	1	59	199108	Cable (Negative)	1
16	15154	Lockwasher	1	60	ab 15174	Washer	1
17	.....	Starter	1	61	ab 190383	Cover	1
		☞ Figure 50		62	c 176409	Switch	1
18	1329626	Gasket	1	62	ca 204223	Cover	1
19	15156	Lockwasher	3	63	a 15174	Washer	1
20	16805	Capscrew	3	64	a 190383	Cover	8
21	c 298032	Harness	1	65	a 204223	Cover	2
22	a 299100	Tray	1	66	a 257241	Cover	1
22	298848	Tray	1	67	a 16378	Capscrew	3
23	a 147628	Cable (Positive)	1	68	a 15154	Lockwasher	3
23	298190	Cable (Positive)	1	69	a 15054	Nut	3
24	a 298189	Cable	1	70	a 146963	Wire	1
25	a 137852	Strap	4	71	a 146964	Harness	1
26	a 204223	Cover	1	72	a 275194	Harness	1
27	166112	Clamp	2	73	a 134812	Connector	2
27	15134	Washer	1	73	a 181046	Connector	2
27	15155	Lockwasher	1	74	a 111763	Clamp	1
27	15055	Nut	1	75	a 134102	Screw	1
28	164488	Clamp	1	76	114312	Strap	1
29	15056	Nut	1	77	101625	Clamp	1
30	129563	Clamp	3	78	88388	Switch	1
31	322640	Harness	1	79	176910	Clamp	1
32	273333	Clamp	2	80	16805	Capscrew	1
33	294990	Bracket	1	81	15156	Lockwasher	1
34	164488	Clamp	1	82	15056	Nut	1
35	16597	Capscrew	1	83	a	Switch	1
36	15156	Lockwasher	1			☞ Figure 43	
37	15056	Nut	1	84	273775	Strap	1
38	236626	Retainer	2	85	b 114312	Strap	2
39	323542	Harness	1			a Safety	
40	.....	Spark Plug	1			b Powershift	
		☞ Figure 17				c Oil Clutch	
41	.....	Distributor	1				
		☞ Figure 44					

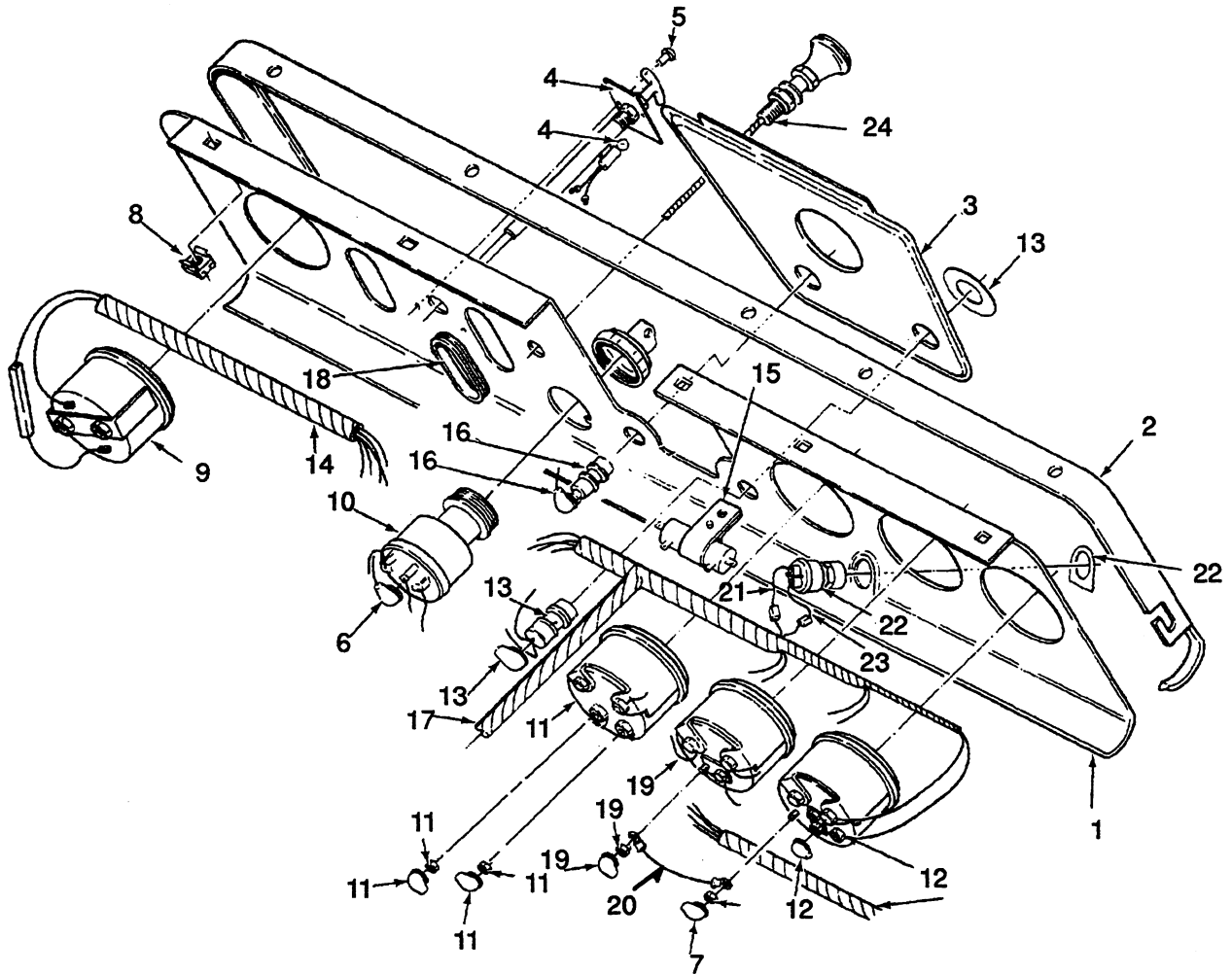
ELECTRICAL (Figure 42) DIESEL



ELECTRICAL DIESEL

REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
1	.....	Alternator	1	39	257241	Cover	2
		☞ Figure 45 And Figure 46		40	18497	Capscrew	1
2	a 148626	Terminal	1	41	15155	Lockwasher	1
2	136681	Capscrew	1	42	360275	Harness	1
2	15155	Lockwasher	1	43	124297	Clamp	1
3	190252	Switch	1	44	187742	Capscrew	1
4	1315441	Sender	1	45	129563	Clamp	1
5	15931	Lockwasher	1	46	166112	Clamp	4
6	15002	Nut	1	46	101625	Clamp	1
7	285123	Sender	1	47	15134	Washer	2
8	140747	Wire	1	48	15155	Lockwasher	2
9	371071	Horn	1	49	15055	Nut	2
10	15155	Lockwasher	1	50	164488	Clamp	1
11	15055	Nut	1	51	15056	Nut	1
12	15054	Nut	1	52	129563	Clamp	2
13	18515	Washer	1	53	b 18535	Capscrew	1
14	15154	Lockwasher	1	54	b 15156	Lockwasher	1
15	.....	Starter	1	55	b 113341	Clamp	1
		☞ Figure 47 And Figure 48 And Figure 49		56	b 298042	Harness	1
16	.....	Shield	1	57	b 113341	Clamp	1
17	292682	Lockwasher	1	58	b 15055	Nut	1
18	273775	Strap	1	59	b 15155	Lockwasher	1
19	204223	Cover	1	60	b 15134	Washer	1
20	a 16378	Capscrew	3	61	a 15174	Washer	1
21	a 15154	Lockwasher	3	62	a 190383	Cover	8
22	a 15054	Nut	3	63	a 204223	Cover	2
23	a 146963	Wire	1	64	a 257241	Cover	1
24	a 146964	Harness	1	65	ab 157065	Cover	1
25	a 275194	Harness	1	66	136687	Nut	1
26	a 181046	Connector	2	67	ab 15174	Washer	1
26	a 134812	Connector	2	68	ab 137852	Strap	2
27	a 111763	Clamp	1	69	c 176409	Switch	1
28	a 134102	Screw	1	69	ac 204233	Adapter	1
29	316917	Cable (Negative)	1	70	ab 15174	Washer	1
30	a 316919	Cable (Positive)	1	71	ab 190383	Cover	1
30	316916	Cable (Positive)	1	72	b 139173	Switch	1
31	a 146943	Cable	1	73	c 298032	Harness	1
32	a 146933	Tray	1	74	88388	Switch	1
32	146932	Tray	1	75	a	Switch	1
33	166285	Clamp	1			☞ Figure 43	
34	177894	Battery (Dry)	2	76	15134	Washer	1
34	146938	Battery (Wet)	1	77	b 114312	Strap	2
35	146928	Retainer	1				
36	69302	Stud	2	a	Safety		
37	18515	Washer	2	b	Powershift		
38	17443	Nut	2	c	Oil Clutch		

INSTRUMENT PANEL (Figure 43)



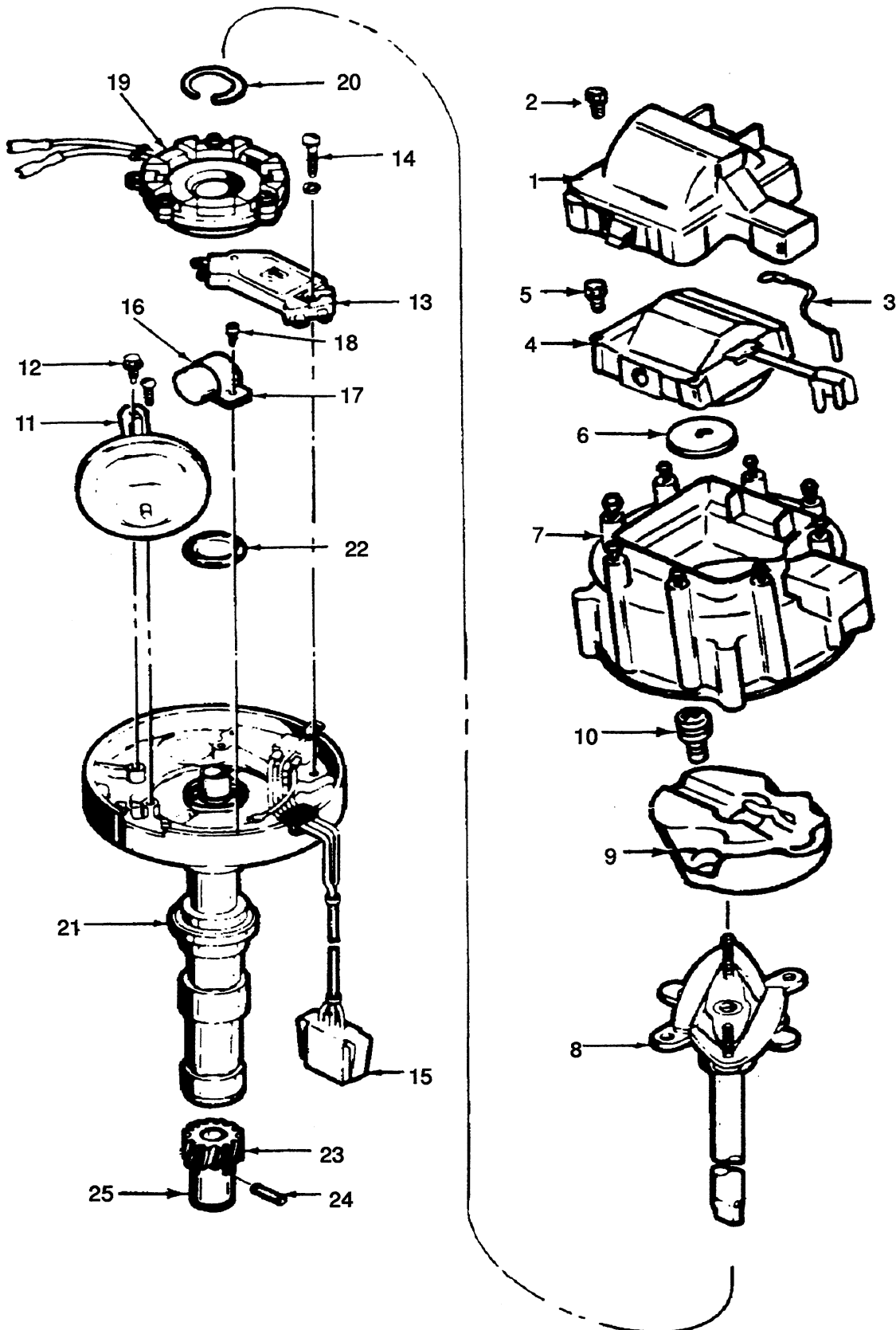
INSTRUMENT PANEL

KEY
A: LPG
B: Gasoline
C: Diesel

REF	PART NO.	NAME OF PART	QTY			REF	PART NO.	NAME OF PART	QTY		
			A	B	C				A	B	C
1	199154	Panel	1	..	..	13	358180	Lamp	1	1	1
1	^c 309270	Panel	1	..	..	13	134812	Connector	2	2	2
1	305170	Panel	1	..	..	13	129889	Fitting	2	2	2
1	^c 309269	Panel	1	..	..	13	^c 190383	Cover	1	1	1
1	143286	Panel .....	..	1	..	14	141046	Harness	1	1	1
1	^c 309271	Panel .....	..	1	..	15	155570	Resistor	1	1	1
2	.....	Molding	1	1	..	16	358177	Lamp	1	1	1
3	^a 139102	Plate	1	1	1	16	134812	Connector	2	2	2
3	^b 139107	Plate	1	1	1	16	129889	Fitting	2	2	2
4	^c 353305	Switch	1	1	1	16	^c 190383	Cover	1	1	1
4	^c 357447	Cable	1	1	1	17	335742	Harness	1	1	1
4	^c 74322	Bulb	1	1	1	18	^d 326482	Plate	1	1	1
5	^c 16899	Rivet	2	2	2	19	169775	Gauge (Fuel) .....	..	1	1
6	^c 190380	Cover	1	1	1	19	16743	Washer .....	..	2	2
7	^c 204223	Cover	1	1	1	19	15049	Nut .....	..	2	2
8	192981	Nut	5	5	5	19	^c 15174	Washer .....	..	2	..
9	275648	Hour Meter	1	1	1	19	^c 204223	Cover .....	..	2	..
10	272041	Switch	1	1	1	20	141459	Wire .....	..	1	1
11	169758	Ammeter	1	1	1	21	241880	Wire .....	..	..	1
11	^e 240240	Ammeter	1	1	1	22	98541	Switch .....	..	..	1
11	16743	Washer	2	2	2	22	192835	Bezel .....	..	..	1
11	15049	Nut	2	2	2	23	298176	Wire .....	..	..	1
11	^c 15174	Washer	2	2	2	24	143227	Cable .....	..	..	1
11	^c 190383	Cover	2	2	2						
12	285122	Gauge (Temperature)	1	1	1						
12	^c 190383	Cover	1	1	1						
12	^c 15174	Washer	2	2	2						
12	16743	Washer	2	2	2						
12	15049	Nut	2	2	2						

^a Forward And Reverse Lever, And Oil Clutch
^b Monotrol Pedal
^c Safety
^d Europe
^e Optional

DISTRIBUTOR (Figure 44)



DISTRIBUTOR

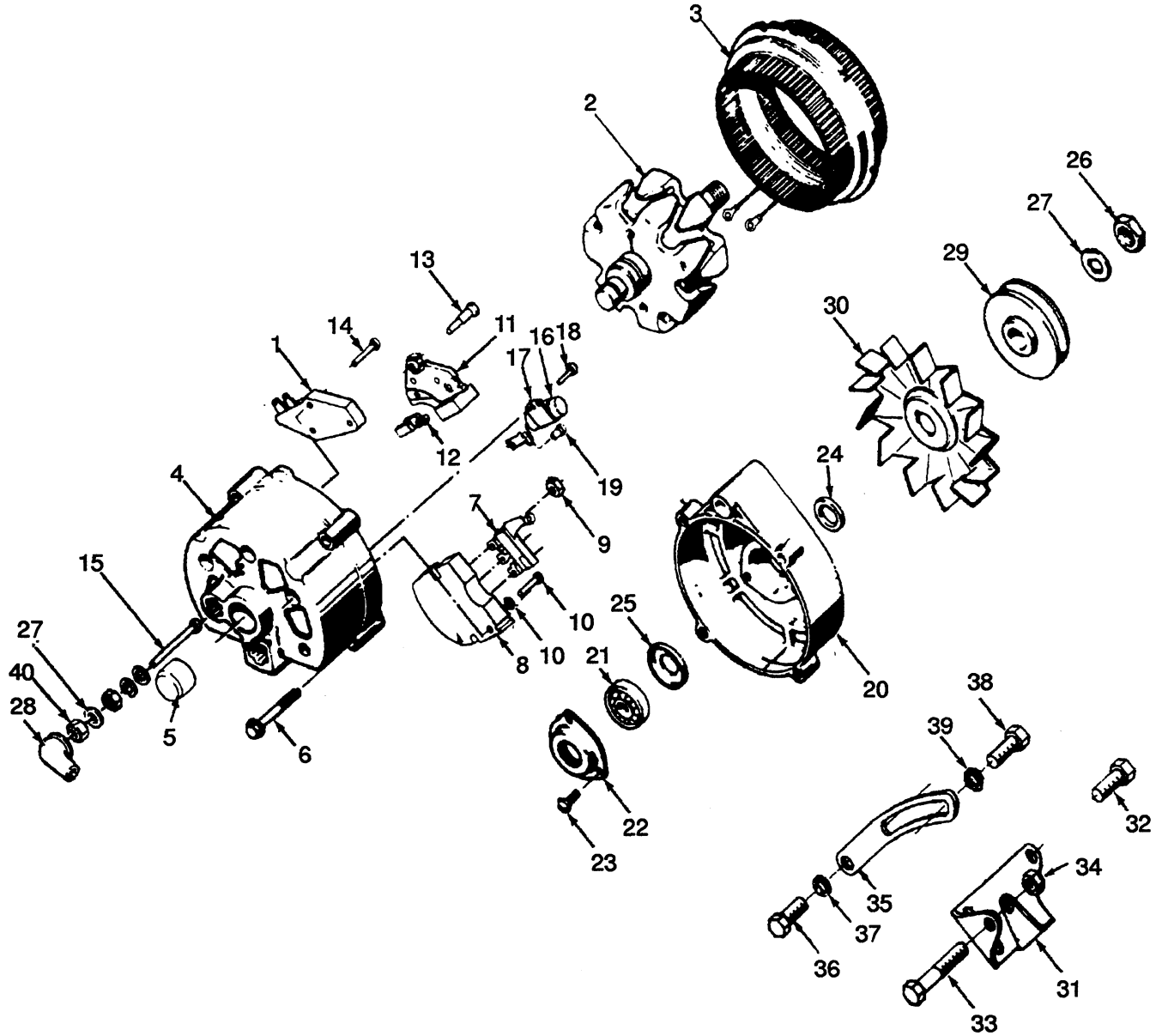
KEY

A: 1R/2R 1981/1982 Series Engines

B: 3R/4R/5R/6R 1983/1984/1985/1986 Series Engines

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
	355902	Distributor	1	..	12	220470	Screw .....	..	2
	355902	Distributor .....	..	1	13	271496	Module	1	1
1	274363	Cover	1	1	14	271497	Screw/Lkwshr	2	2
2	274364	Screw	2	2	15	300653	Harness	1	1
3	288032	Strap	1	1	16	.....	Capacitor	1	1
4	274366	Coil	1	1	17	.....	Bracket	1	1
5	274367	Screw/Washer	4	4	18	.....	Screw/Lkwshr	1	1
6	274368	Seal	1	1	19	271674	Pole Piece And Plate	1	1
7	288042	Cap	1	1	20	271668	Ring	1	1
7	274370	Brush	1	1	21	288036	Base	1	1
8	324058	Shaft	1	1	22	.....	Seal	1	1
9	281846	Rotor	1	1	23	.....	Gear	1	1
10	271494	Screw/Washer	2	2	24	19868	Pin	1	1
11	324059	Vacuum Control	1	..	25	281842	Shaft	1	1
11	356994	Vacuum Control .....	..	1	25	281843	Pin/Lower Shaft	1	1
12	220302	Screw	2	..					

ALTERNATOR (Figure 45)



ALTERNATOR

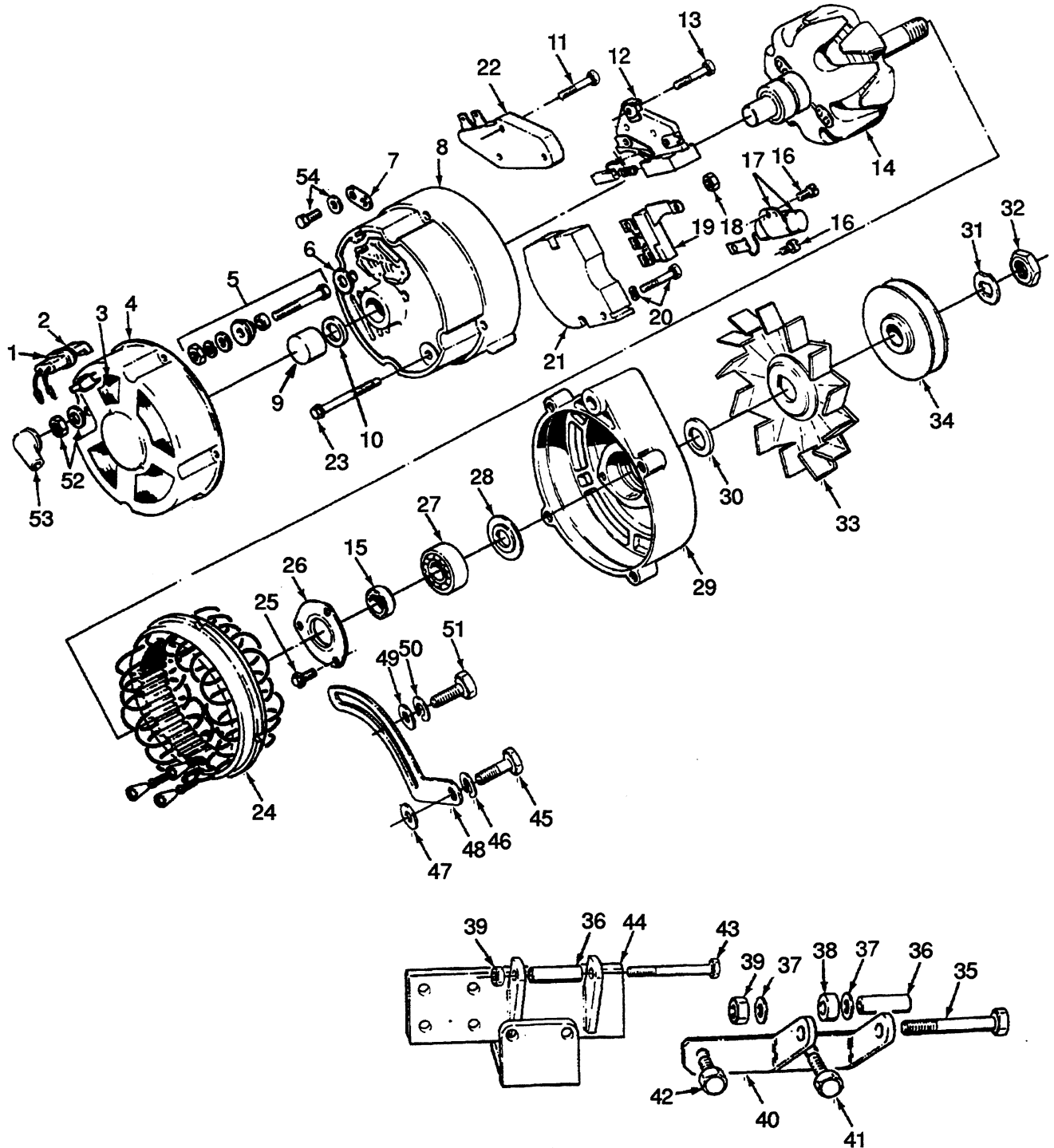
KEY

A: Last Used On S/N F3A-2681, F3D-2259, F3T-1545

B: First Used On S/N F3A 2682, F3D-2260, F3T-1546

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
	344235	Alternator	1	..	24	322177	Collar	1	1
	339599	Alternator .....	..	1	25	128835	Washer	1	1
1	290303	Regulator	1	1	26	55580	Nut	1	1
2	223090	Rotor	1	..	27	15915	Lockwasher	1	1
2	343046	Rotor .....	..	1	28	157065	Cover	1	1
3	343034	Stator	1	..	29	a 208483	Pulley	1	1
3	343039	Stator .....	..	1	29	b 137746	Pulley	1	1
4	310083	Frame	1	..	30	126358	Fan	1	1
4	343038	Frame .....	..	1	31	a 179920	Bracket	1	1
5	128838	Bearing	2	2	31	b 317527	Bracket	1	1
6	128852	Bolt	4	4	32	a 197853	Screw	1	1
7	223095	Diode	1	..	32	a 196898	Capscrew	1	1
7	343040	Diode .....	..	1	33	a 18546	Capscrew	1	1
8	223096	Rectifier	1	..	33	b 17231	Capscrew .....	..	1
8	343031	Rectifier .....	..	1	33	b 139743	Locknut	1	..
9	15039	Nut	3	3	33	b 305100	Sleeve	1	1
10	343032	Screw/Washer	1	1	33	a 261379	Washer	2	2
11	268354	Brush/Holder	1	..	33	a 189338	Spacer	1	1
11	343041	Brush/Holder .....	..	1	34	139743	Locknut	1	1
12	334970	Spring	2	2	35	a 1326931	Strap	1	1
13	268356	Screw	2	2	35	b 142531	Strap	1	1
14	271846	Screw	1	..	36	a 18498	Capscrew	1	1
14	343042	Screw .....	..	1	36	b 199571	Capscrew	1	1
15	310081	Kit	1	1	37	a 18515	Washer	1	1
16	198401	Capacitor .....	..	1	37	a 15155	Lockwasher	1	1
17	.....	Bracket	1	1	38	136749	Capscrew	1	1
18	198410	Screw	1	1	39	320158	Washer	1	1
19	198410	Screw	1	1	39	15155	Lockwasher	1	1
20	343033	Frame	1	1	40	136687	Nut	1	1
21	290506	Bearing	1	..					
21	290509	Bearing .....	..	1					
22	128831	Retainer	1	1	a	Gasoline And LPG			
23	344234	Screw	3	3	b	Diesel			

ALTERNATOR (Figure 46) SAFETY



ALTERNATOR SAFETY

KEY

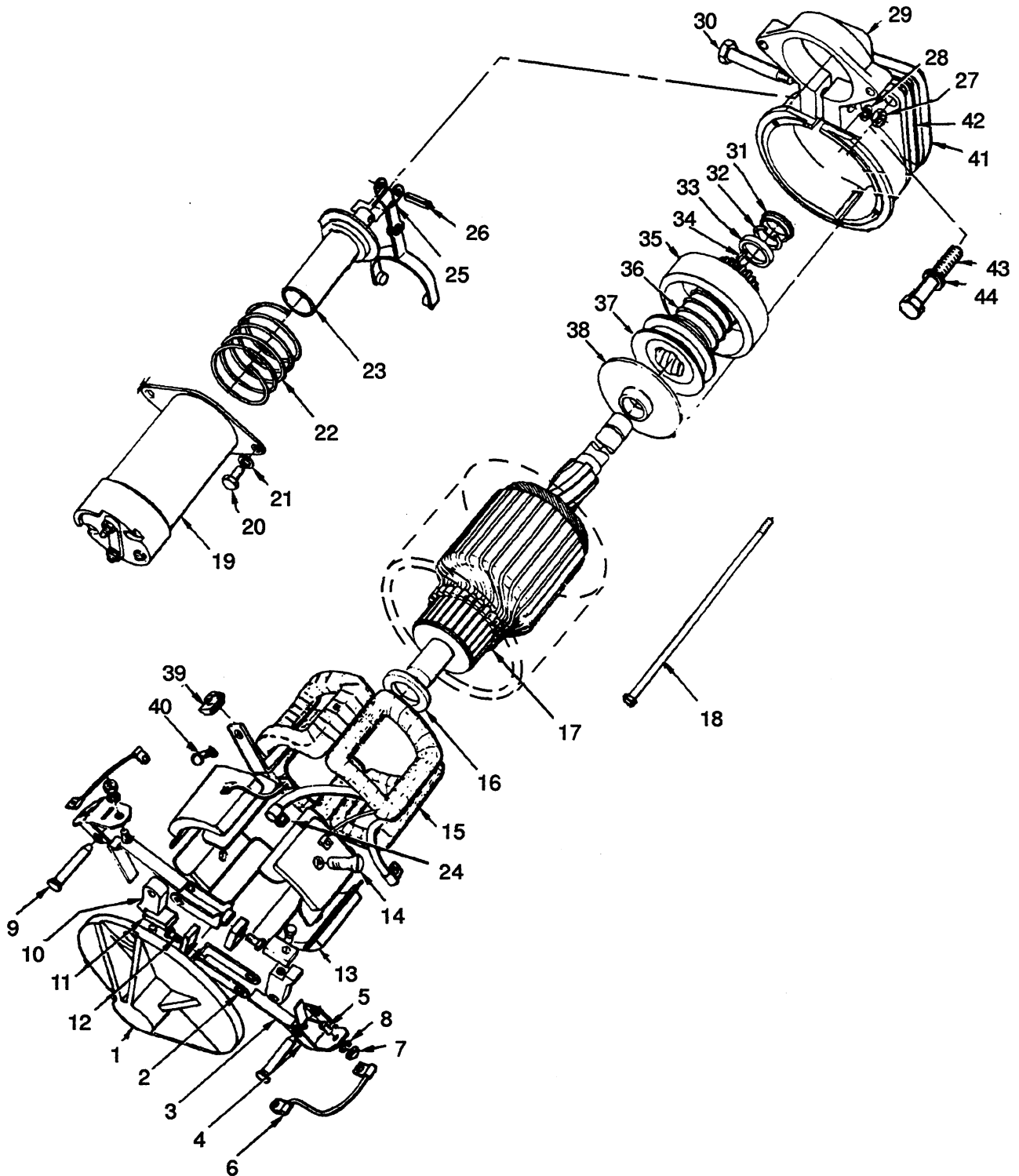
A: Last Used On S/N F3A-2681, F3D-2259, F3T-1545

B: First Used On S/N F3A-2682, F3D-2260, F3T-1546

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
	.....	Alternator	1	..	26	128831	Retainer	1	..
	.....	Alternator .....	..	1	26	202003	Retainer .....	..	1
1	.....	Connector .....	..	1	27	290509	Bearing .....	..	1
2	274648	Cover .....	..	1	28	.....	Slinger	1	..
3	.....	Screen .....	..	1	29	343033	Frame .....	..	1
4	.....	Cover .....	..	1	30	322177	Collar .....	..	1
5	310081	Terminal	1	1	31	128835	Washer .....	..	1
5	268359	Terminal	1	..	32	55580	Nut .....	..	1
5	274646	Cover	1	..	33	126358	Fan	1	1
6	.....	Washer .....	..	1	34	a 208483	Pulley	1	1
7	335600	Clip .....	..	1	34	b 137746	Pulley	1	1
8	268350	Frame	1	..	35	a 18546	Capscrew	1	1
8	343038	Frame .....	..	1	36	305100	Sleeve	1	1
9	128838	Bearing	1	1	37	a 261379	Washer	2	2
10	310080	Plug	1	..	38	a 189338	Spacer	1	1
11	271846	Screw	1	..	39	139743	Locknut	1	1
11	343042	Screw .....	..	1	40	a 179920	Bracket	1	1
12	268354	Brush/Holder	1	..	41	a 197853	Screw	1	1
12	343041	Brush/Holder .....	..	1	42	a 196898	Capscrew	1	1
12	334970	Spring	2	2	43	b 17231	Capscrew	1	1
13	268356	Screw	2	2	44	b 317527	Bracket	1	1
14	268351	Rotor	1	..	45	a 18498	Capscrew	1	1
14	343046	Rotor .....	..	1	45	b 199571	Capscrew	1	1
15	343029	Collar .....	..	1	46	a 15155	Lockwasher	1	1
16	198410	Screw	2	2	47	a 18515	Washer	1	1
17	198401	Capacitor	1	1	48	a 1326931	Strap	1	1
18	15039	Nut	3	3	48	b 142531	Strap	1	1
19	223095	Diode	1	..	49	320158	Washer	1	1
19	343040	Diode .....	..	1	50	15155	Lockwasher	1	1
19	334970	Spring	2	..	51	136749	Capscrew	1	1
20	343032	Screw/Washer	1	1	52	15915	Lockwasher	1	1
21	223096	Rectifier	1	..	52	136687	Nut	1	1
21	343031	Rectifier .....	..	1	53	157065	Cover	1	1
22	310078	Seal	1	..	54	220490	Screw	1	1
22	290303	Regulator	1	..	54	15916	Washer	1	1
22	343047	Regulator .....	..	1					
23	128852	Bolt	4	4					
24	223091	Stator	1	..					
24	343039	Stator .....	..	1					
25	344234	Screw	3	3					

a Gasoline And LPG
b Diesel

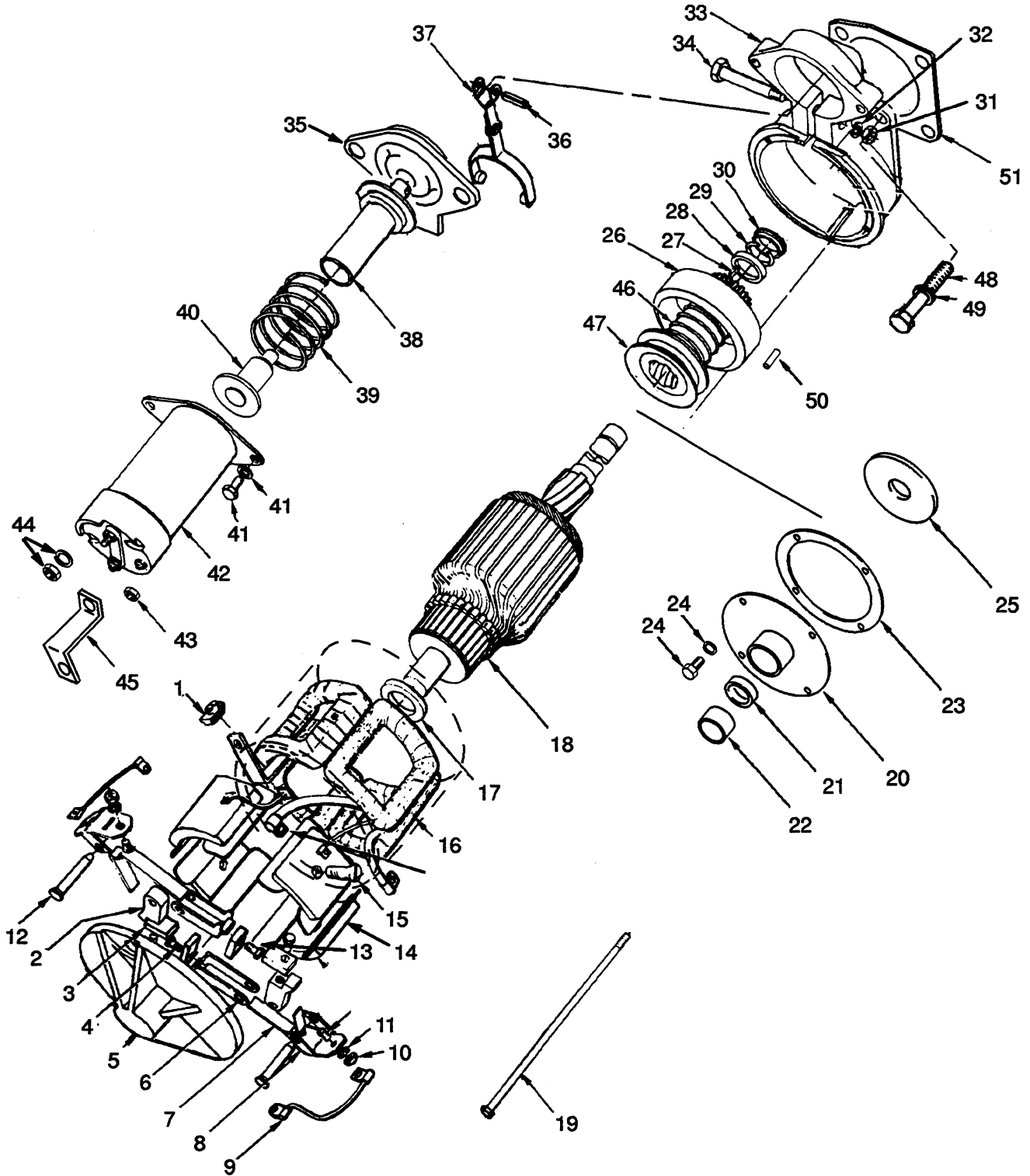
STARTER (Figure 47) DIESEL LAST USED ON S/N F3D-2496, F3T-1547



**STARTER
DIESEL
LAST USED ON S/N F3D-2496, F3T-1547**

REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
	136125	Starter	1	25	130676	Lever	1
1	97344	Frame	1	26	19869	Pin	1
1	55965	Bushing	1	27	15055	Nut	1
2	88572	Holder	2	28	97351	Washer	1
3	236069	Spring	2	29	15483	Fitting	1
4	236070	Kit	2	29	137699	Housing	1
5	16720	Screw	2	29	55585	Bushing	1
6	173217	Wire	1	30	236078	Stud	1
7	128436	Nut	2	31	137698	Washer	1
8	15152	Lockwasher	2	32	236081	Ring	1
9	164508	Pin	1	33	236082	Collar	1
10	354650	Holder	2	34	55894	Pin	1
11	97345	Brush	4	35	1309438	Drive	1
12	86985	Screw/Lkwshr	2	35	166337	Bushing	1
12	227098	Screw	2	36	166336	Spring	1
13	167009	Shoe	4	37	166479	Lock Wire	1
14	168665	Screw	8	38	123675	Bearing	1
15	97359	Coil	1	38	88035	Seal	1
16	55901	Washer	1	38	131172	Bushing	1
17	97358	Armature	1	38	131173	Gasket	1
18	97361	Bolt	2	38	133720	Screw	2
19	132728	Solenoid	1	38	55972	Washer	2
20	169308	Screw	2	38	55978	Washer	1
21	15154	Lockwasher	2	39	167010	Grommet	1
22	255724	Spring	1	40	220493	Screw	1
23	1344717	Plunger	1	40	15916	Washer	1
23	354492	Cover	1	41	288110	Spacer	1
24	167007	Connector	1	42	1329622	Gasket	1
24	15152	Lockwasher	1	43	16376	Capscrew	3
24	220317	Screw	1	44	15156	Lockwasher	3

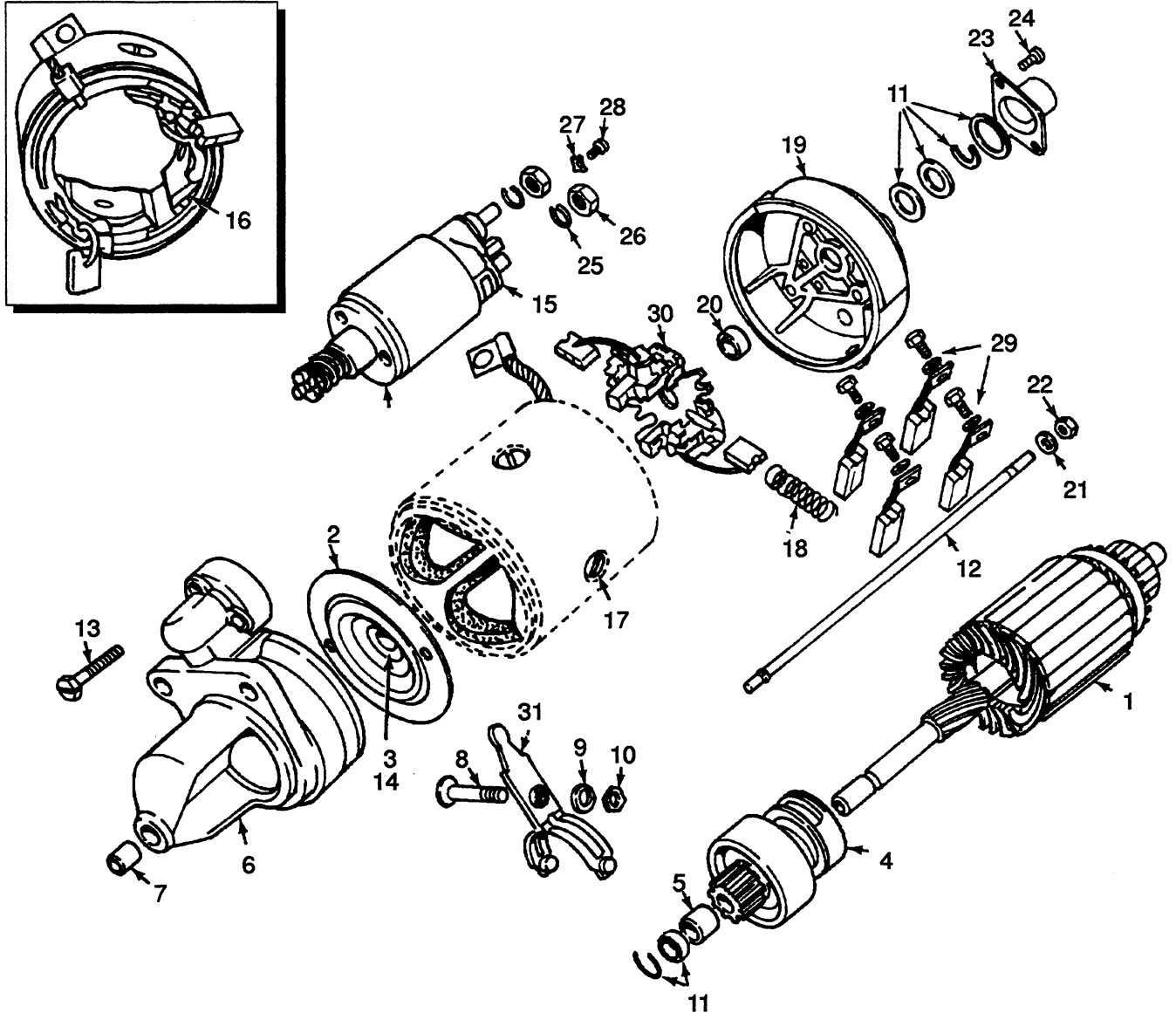
STARTER (Figure 48) DIESEL FIRST USED ON F3D-2487, F3T-1548



**STARTER
DIESEL
FIRST USED ON F3D-2487, F3T-1548**

REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
	326460	Starter	1	27	354493	Pin	1
1	167010	Grommet	1	28	236082	Collar	1
2	354478	Holder	2	29	236081	Ring	1
3	354476	Brush	4	30	137698	Washer	1
4	354489	Screw	2	31	15055	Nut	1
5	354475	Frame	1	32	164513	Washer	1
5	55965	Bushing	1	33	137699	Housing	1
6	88572	Holder	2	33	142552	Bushing	1
7	354479	Spring	2	34	236078	Stud	1
8	354480	Kit	2	35	354492	Cover	1
9	354481	Lead	1	36	354485	Pin	1
10	128436	Nut	2	37	130676	Lever	1
11	15152	Lockwasher	2	38	1344710	Plunger	1
12	164508	Pin	1	39	236074	Spring	1
13	227098	Screw	2	40	339187	Switch	1
14	167009	Shoe	4	41	15154	Lockwasher	2
15	168665	Screw	8	41	169308	Screw	2
16	354499	Coil	1	42	339188	Solenoid	1
17	55901	Washer	1	43	354487	Nut	1
18	97358	Armature	1	44	354486	Lockwasher	2
19	354491	Bolt	2	44	292668	Nut	2
20	123675	Bearing	1	45	167007	Connector	1
21	131172	Bushing	1	46	166336	Spring	1
22	88035	Seal	1	47	166479	Lock Wire	1
23	131173	Gasket	1	48	16376	Capscrew	3
24	378434	Screw/Lkwshr	4	49	15156	Lockwasher	3
25	55978	Washer	1	50	354493	Pin	1
26	1309438	Drive	1	51	1329622	Gasket	1

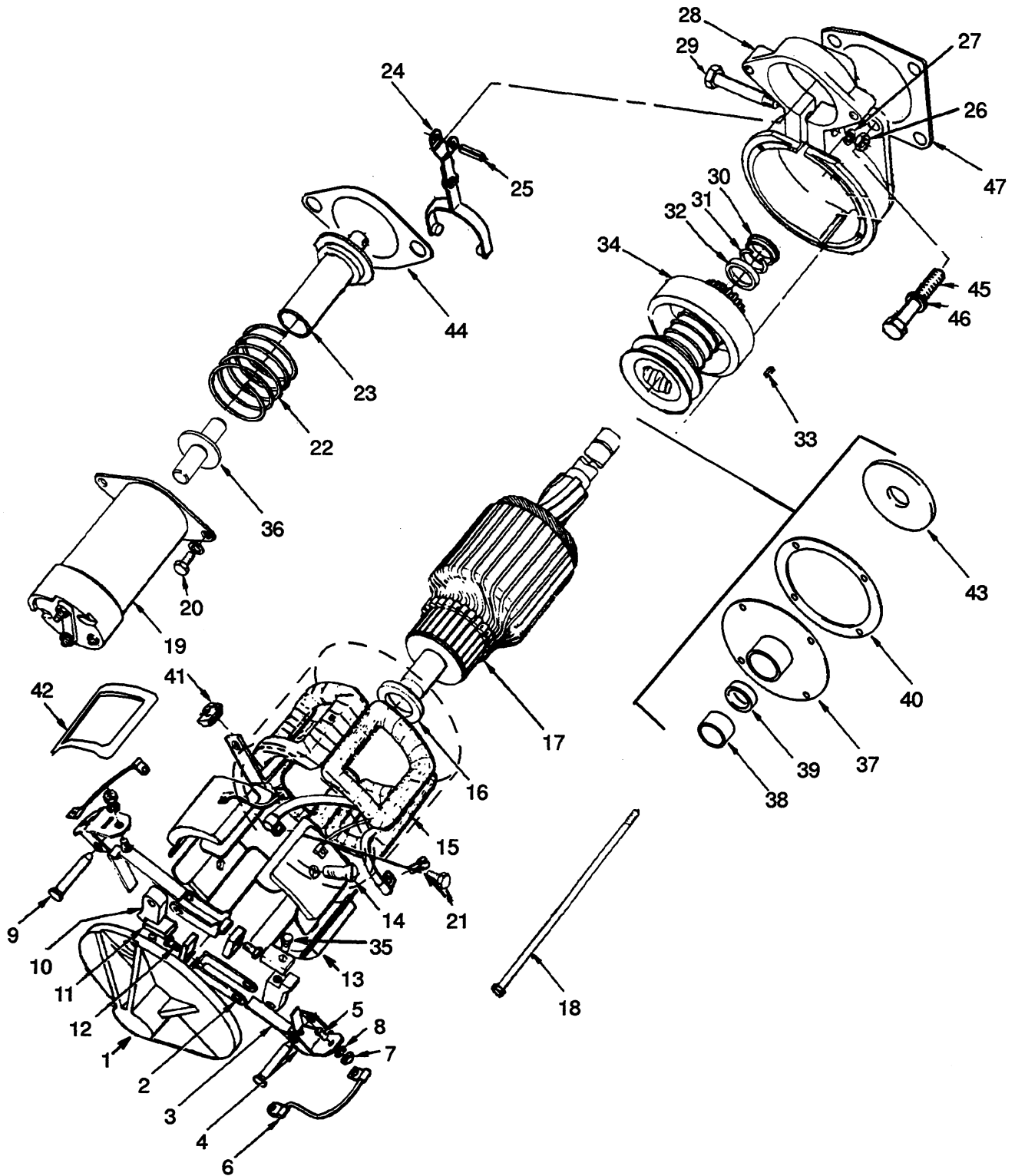
STARTER (Figure 49) DIESEL EUROPE FIRST USED ON S/N F3A-1746



**STARTER
 DIESEL
 EUROPE
 FIRST USED ON S/N F3A-1746**

REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
	326460	Starter	1	16	1357350	Coil	1
1	1356843	Armature	1	17	335888	Screw	4
2	329298	Support	1	18	329384	Spring	1
3	335884	Bushing	1	19	329289	Housing	1
4	329299	Drive	1	20	329290	Bushing	1
5	329375	Bushing	2	21	296417	Washer	2
6	329386	Housing	1	22	136687	Nut	2
7	152542	Bushing	1	23	329291	Capsule	1
8	335885	Screw	1	24	1356845	Screw	2
9	329377	Washer	1	25	335889	Lockwasher	2
10	329378	Nut	1	26	296128	Nut	2
11	1356848	Kit	1	27	329293	Plate	1
12	329380	Stud	2	28	1356847	Screw	1
13	1356844	Screw	1	29	329295	Set (Brush)	1
14	1383779	Seal	3	30	329296	Holder	1
15	335892	Solenoid	2	31	1357351	Lever	1

STARTER (Figure 50) GASOLINE AND LPG



STARTER GASOLINE AND LPG

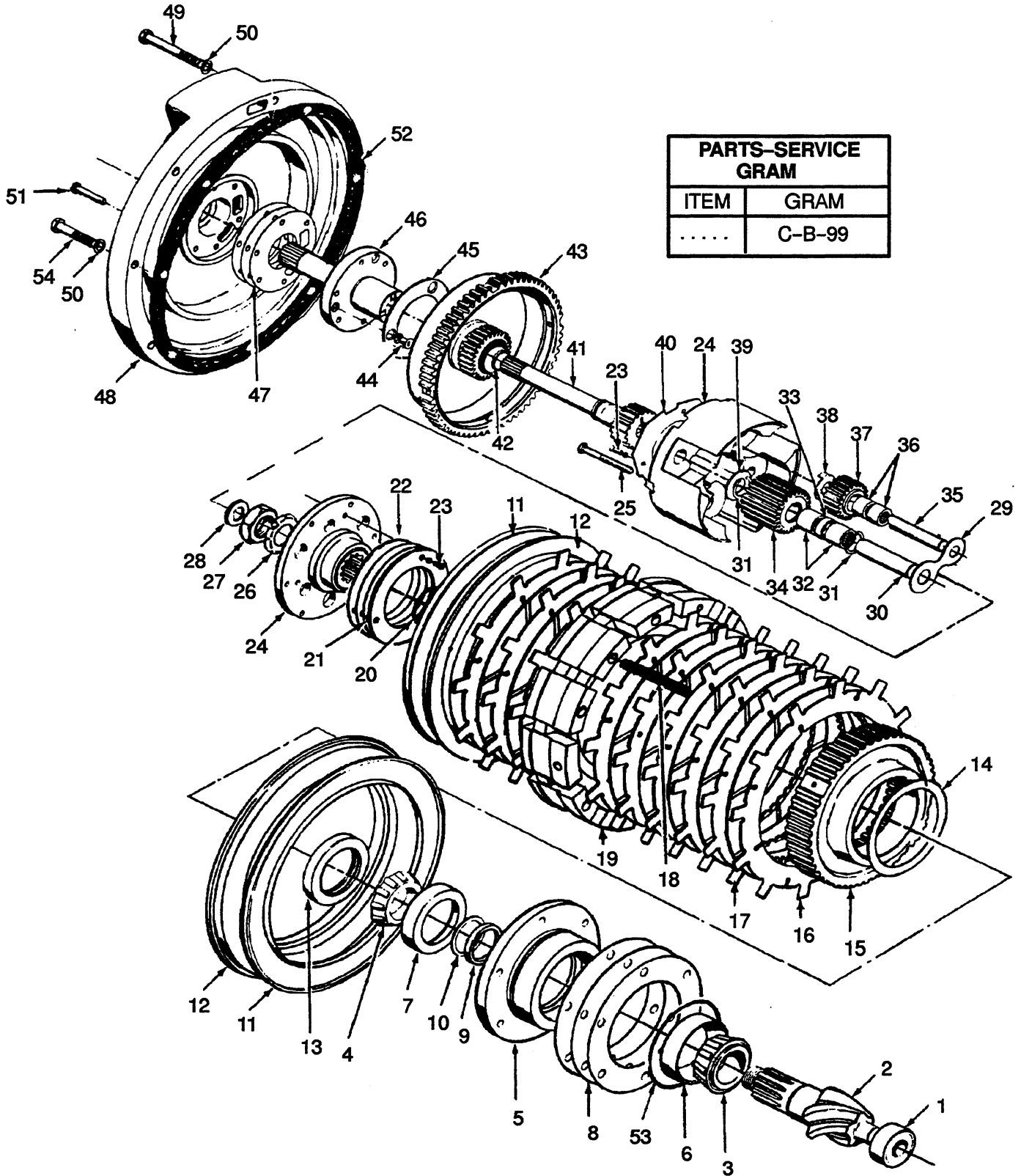
REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
	ab 1383779	Starter	1	24	130676	Lever	1
1	288917	Frame	1	25	354485	Pin	1
2	88572	Holder	2	26	164514	Nut	1
3	236069	Spring	2	27	164513	Washer	1
4	236070	Kit	2	28	142741	Housing	1
5	16720	Screw	2	28	55585	Bushing (.565 inch OD)	1
6	173217	Wire	1	28	142552	Bushing (.628 inch OD)	1
7	128436	Nut	2	29	236078	Stud	1
8	15152	Lockwasher	2	30	172813	Washer	1
9	164508	Pin	1	31	236081	Ring	1
10	354650	Holder	2	32	236082	Collar	1
11	170607	Brush	4	33	55894	Pin	1
11	b 236066	Brush	4	34	1309438	Drive	1
12	.....	Screw	2	35	164507	Screw	2
12	b 227097	Screw	2	36	b 339187	Switch	1
13	164510	Shoe	4	37	123675	Bearing	1
14	168665	Screw	4	38	88035	Seal	1
15	288915	Coil	1	39	131172	Bushing	1
16	55901	Washer	1	40	131173	Gasket	1
17	236084	Armature	1	41	288916	Grommet	1
18	88567	Bolt	2	42	339191	Insulator	4
19	132728	Solenoid	1	43	55978	Washer	1
19	b 339188	Solenoid	1	44	354492	Cover	1
20	16848	Screw	2	45	16806	Capscrew	3
21	220493	Screw	1	46	15156	Lockwasher	3
22	236074	Spring	1	47	1329626	Gasket	1
22	b 236074	Spring	1				
23	1344717	Plunger	1				
23	b 1344710	Plunger	1				

a Remanufactured Starter 3001023 R
b First Used On S/N F3A-2447, F3D-2092, F3T-1548

TRANSMISSION

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DIFFERENTIAL (Figure 57) EUROPE	Page 118
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PUMP DRIVE AND FLYWHEEL HOUSING (Figure 58) GASOLINE AND LPG	Page 120
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TRANSMISSION CONTROL VALVE (Figure 55) POWERSHIFT	Page 116
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TRANSMISSION HOUSING (Figure 53) POWERSHIFT	Page 112
TRANSMISSION HOUSING (Figure 54) OIL CLUTCH	Page 114

TRANSMISSION GEARS (Figure 51) POWERSHIFT



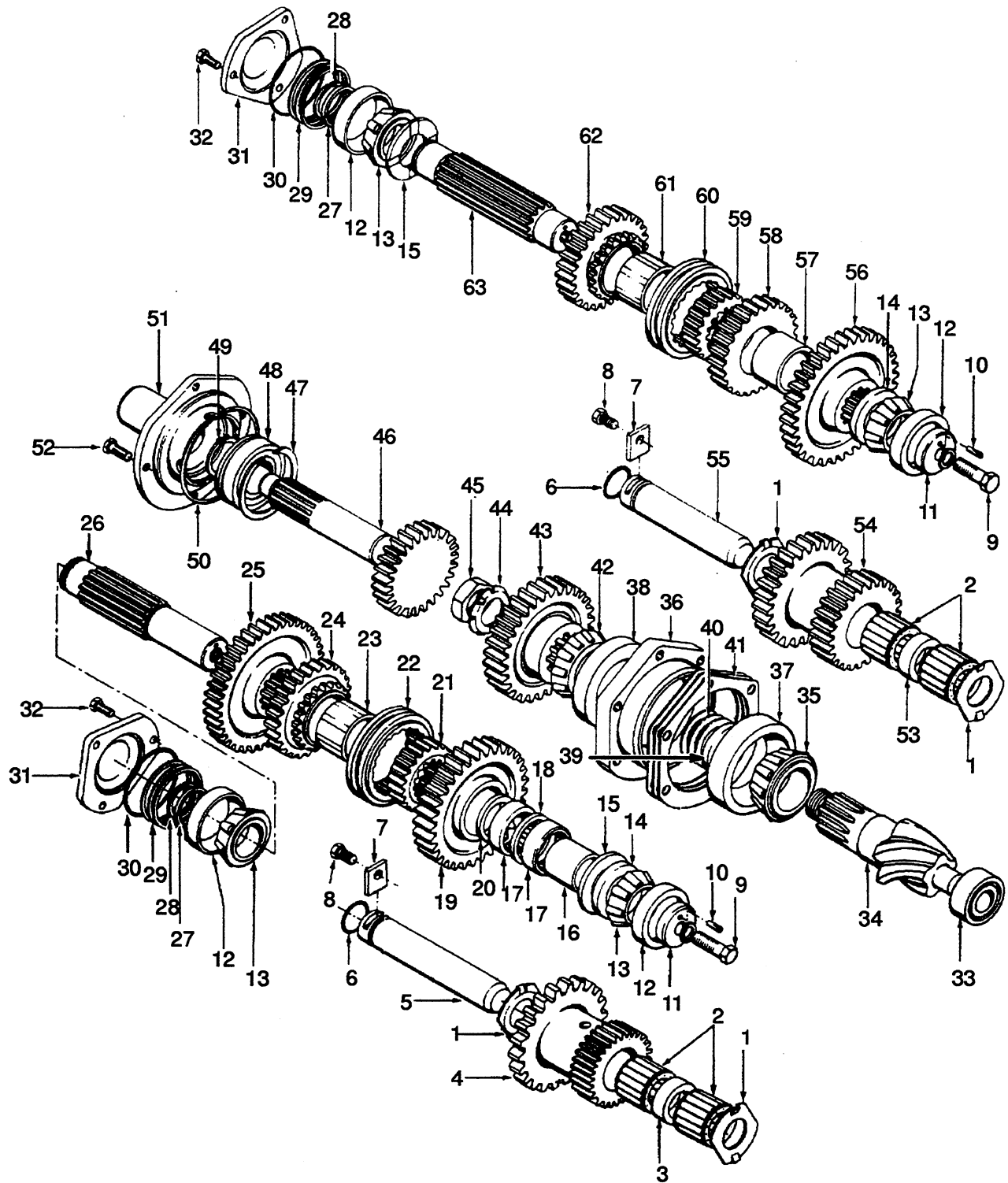
PARTS-SERVICE GRAM	
ITEM	GRAM
.....	C-B-99

TRANSMISSION GEARS POWERSHIFT

REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
	326913	Transmission	1	26	140739	Washer	1
1	135158	Bearing	1	27	140740	Nut	1
2	.....	Gear/Pinion	1	28	146543	Washer	1
2		☞ Figure 56 And Figure 57		28	146944	Shim	AR
3	135163	Bearing	1	29	135186	Washer	3
4	30172	Bearing	1	30	135193	Shaft	3
5	135161	Carrier	1	31	135189	Snap Ring	3
6	230419	Cup	1	32	135190	Bearing	6
7	30173	Cup	1	33	135191	Spacer	3
8	135165	Shim (.020 inch)	AR	34	245334	Pinion	3
8	135166	Shim (.007 inch)	AR	35	135187	Shaft	3
8	135167	Shim (.005 inch)	AR	36	135184	Bearing	6
9	135174	Spacer	1	37	245333	Pinion	3
10	135171	Shim (.020 inch)	AR	38	135185	Washer	3
10	135172	Shim (.007 inch)	AR	39	135192	Washer	3
10	135173	Shim (.005 inch)	AR	40	318730	Kit (Wear Plate)	1
11	135216	Seal	2	41	294401	Shaft	1
12	135215	Piston	2	42	135182	Ring	1
13	87656	Seal	1	43	295247	Gear	1
14	135214	Washer	1	44	135201	Capscrew	3
15	245335	Gear	1	45	318731	Kit (Wear Plate)	1
16	292989	Plate	11	46	294404	Sleeve	1
17	292990	Disc	6	46	135225	Bushing	1
17	^a 328154	Disc	6	46	294988	Bushing	1
18	135219	Spring	10	47	135227	Shim (.020 inch)	AR
19	333583	Ring	1	47	135228	Shim (.007 inch)	AR
20	140465	O-ring	1	47	135229	Shim (.005 inch)	AR
21	318732	Kit (Wear Plate)	1	48	316644	Housing	1
22	135203	Shim (.020 inch)	3	49	16741	Capscrew	4
22	135204	Shim (.007 inch)	3	50	15156	Lockwasher	2
22	135205	Shim (.005 inch)	3	51	18879	Bolt	6
23	135201	Capscrew	6	52	147309	Gasket	1
24	299346	Carrier	1	53	15887	O-ring	1
24	135197	Dowel	1	54	16816	Capscrew	1
24	222696	Pin	2				
25	135198	Bolt	6				

^a First Used On Transmission S/N T38M26
T38Z4717

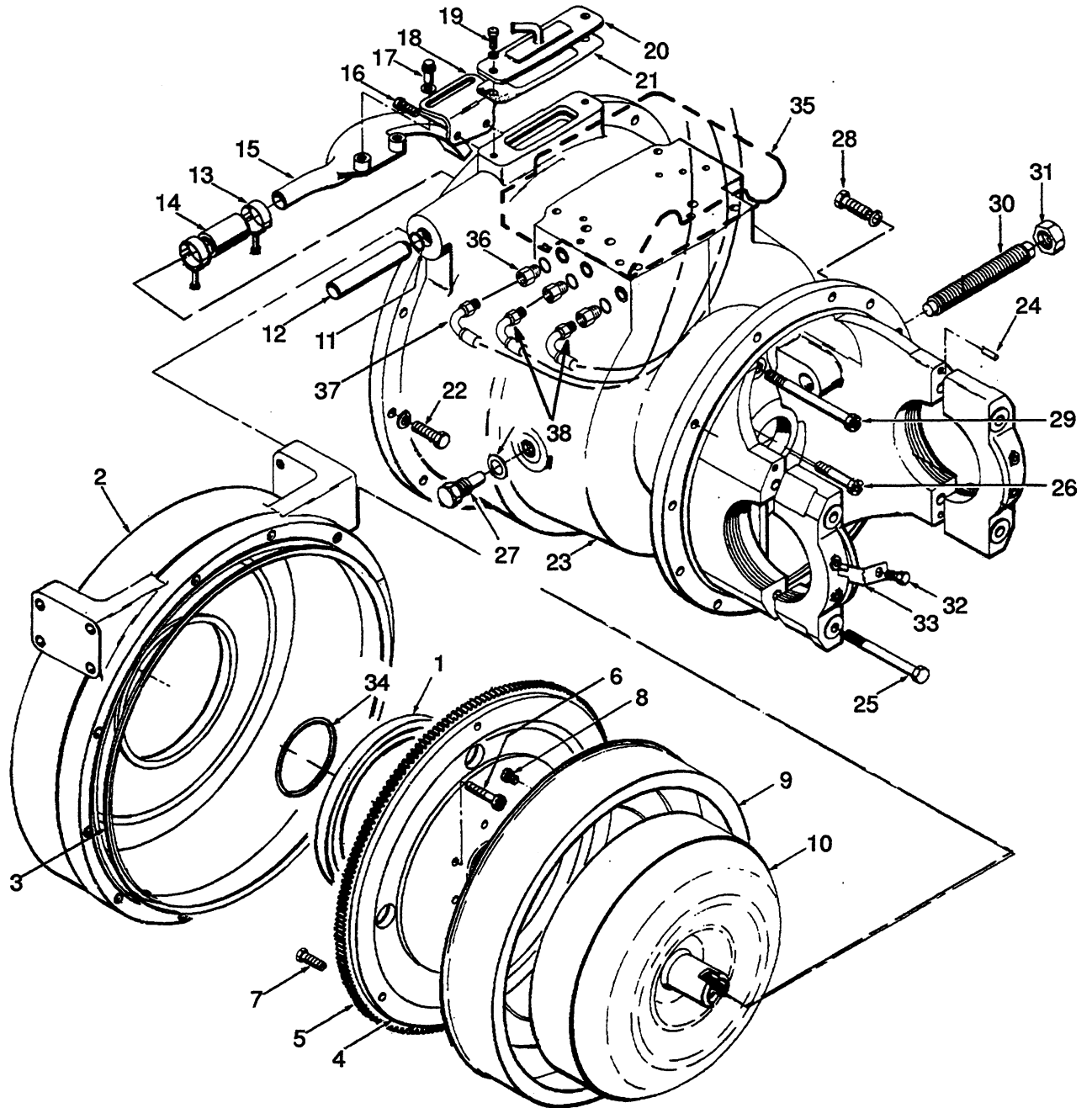
TRANSMISSION GEARS (Figure 52) OIL CLUTCH



TRANSMISSION GEARS OIL CLUTCH

REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
	324112	Transmission	1	33	135158	Bearing	1
1	135650	Washer	4	34	.....	Gear/Pinion	1
2	230418	Bearing	4	34		☐ Figure 56 And Figure 57	
3	135654	Spacer	1	35	135163	Cone	1
4	135655	Gear	1	36	135641	Carrier	1
5	135653	Shaft	1	37	230419	Cup	1
6	118365	O-ring	2	38	30173	Cup	1
7	37537	Keeper	2	39	135174	Spacer	1
8	135649	Capscrew	2	40	135171	Shim (.020 inch)	AR
9	16807	Capscrew	2	40	135172	Shim (.007 inch)	AR
9	15158	Lockwasher	2	40	135173	Shim (.005 inch)	AR
10	18882	Pin	2	41	135644	Shim (.020 inch)	AR
11	137398	Washer	2	41	135645	Shim (.007 inch)	AR
12	135658	Cup	4	41	135646	Shim (.005 inch)	AR
13	135657	Cone	4	42	30172	Cone	1
14	135659	Spacer	2	43	135647	Gear	1
15	135666	Washer	2	44	140739	Washer	1
16	135675	Sleeve	1	45	140740	Nut	1
17	14174	Bearing	2	46	203328	Shaft	1
18	135676	Spacer	1	47	148837	Snap Ring	1
19	135677	Gear	1	48	148840	Bearing	1
20	135678	Spacer	1	49	37065	Snap Ring	1
21	169814	Hub	1	50	39742	O-ring	1
22	169815	Clutch	1	51	148838	Carrier	1
23	135661	Spacer	1	52	135671	Capscrew	4
24	195682	Gear	1	53	135652	Spacer	1
25	203329	Gear	1	54	135651	Gear	1
26	135673	Shaft	1	55	135648	Shaft	1
27	137397	Washer	AR	56	135660	Gear	1
28	107234	Snap Ring	2	57	143182	Spacer	1
29	135668	Shim	AR	58	143183	Gear	1
29	135669	Shim	AR	58	143181	Bushing	1
29	135670	Shim	AR	59	169814	Hub	1
30	39674	O-ring	2	60	169815	Clutch	1
31	135672	Cover	2	61	135661	Spacer	1
32	135671	Capscrew	4	62	135665	Gear	1
32	271041	Capscrew	2	63	135656	Shaft	1

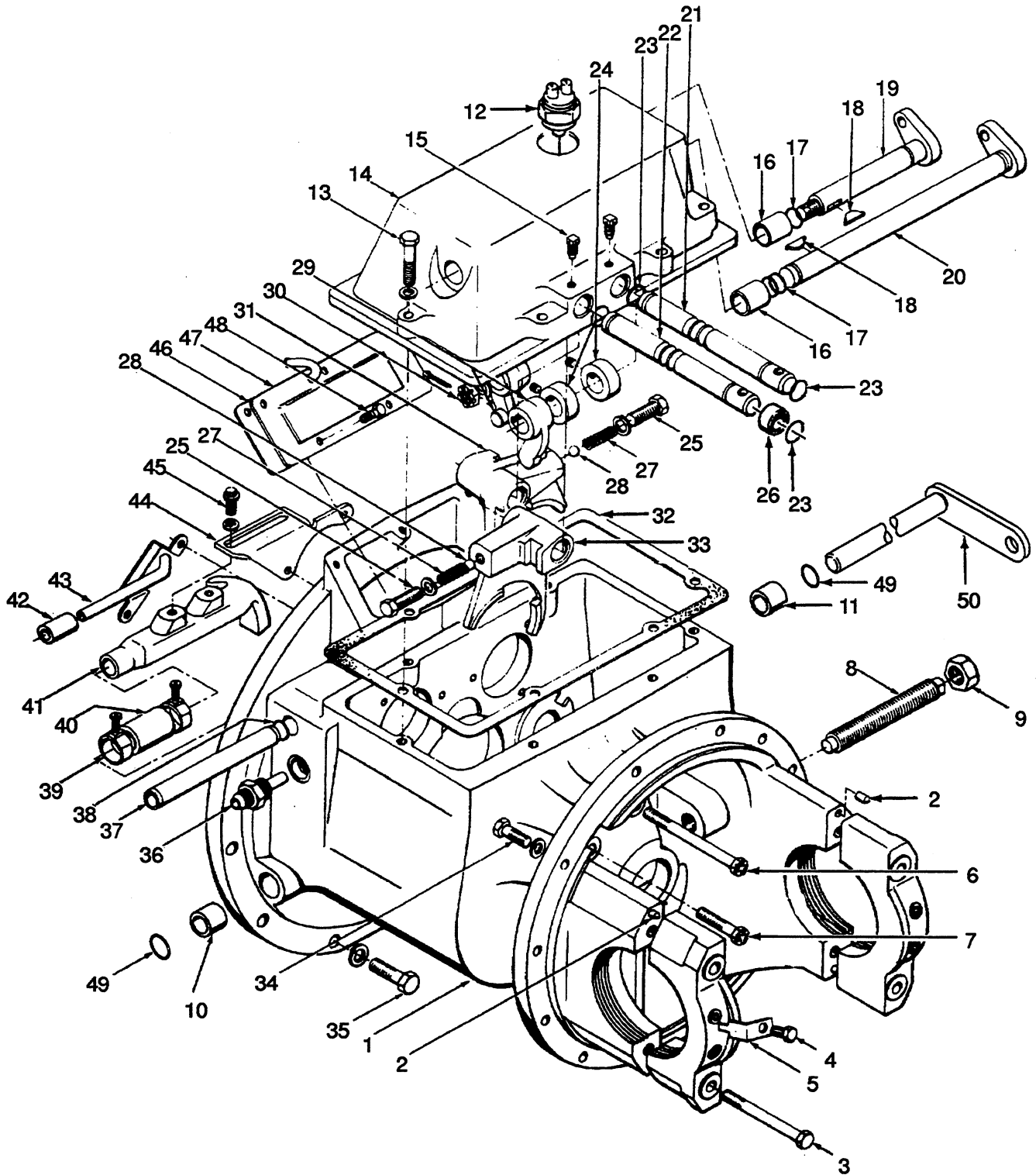
TRANSMISSION HOUSING (Figure 53) POWERSHIFT



TRANSMISSION HOUSING POWERSHIFT

REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
1	a 267538	Seal	1	22	16376	Capscrew	2
2	a 223122	Housing	1	22	15156	Lockwasher	11
2	b	Housing	1	23	326913	Transmission	1
		☞ Figure 58		23	.....	Differential	1
3	135156	Gasket	1			☞ Figure 56 And Figure 57	
4	a 316910	Flywheel	1	23	298031	Housing	1
4	b	Flywheel	1	23	21420	Plug	1
		☞ Figure 58		24	234038	Pin	4
5	a 195856	Ring Gear	1	25	218595	Capscrew	4
6	a 93260	Bolt	6	25	221773	Washer	4
7	237265	Capscrew	3	26	135169	Bolt	2
8	104702	Capscrew	4	27	183602	Capscrew	1
9	291491	Ring-scavenge	1	27	192293	O-ring	1
10	296913	Torque Converter	1	28	16828	Capscrew	12
11	138749	O-ring	1	28	15156	Lockwasher	12
12	137738	Tube	1	29	135168	Bolt	4
13	137737	Clamp	2	30	165780	Screw	1
14	152727	Hose	1	31	15032	Nut	1
15	297715	Scoop	1	32	15942	Bolt	2
16	16836	Capscrew	2	33	159143	Plate	2
16	15155	Lockwasher	2	34	a 185515	O-ring	2
17	14519	Capscrew	2	35	.....	Control Valve	1
17	151328	Washer	2			☞ Figure 55	
18	137731	Bracket	1	36	16538	Fitting	3
19	16374	Capscrew	2	37	16987	Fitting	1
19	15155	Lockwasher	2	38	16556	Fitting	2
20	137742	Cover	1				
21	137741	Gasket	1				
22	16828	Capscrew	9				
				a	Diesel		
				b	Gasoline And LPG		

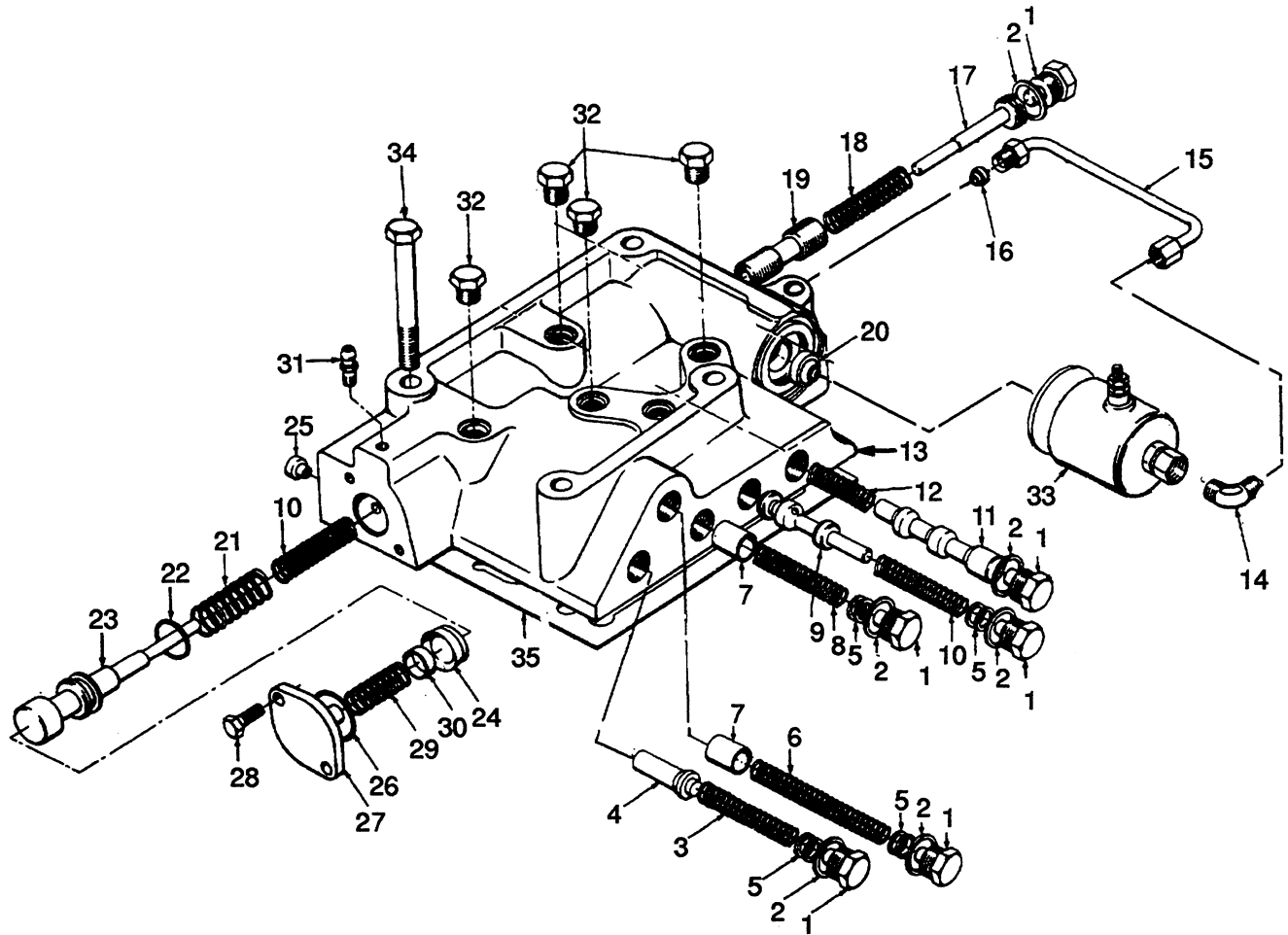
TRANSMISSION HOUSING (Figure 54) OIL CLUTCH



TRANSMISSION HOUSING OIL CLUTCH

REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
	324112	Transmission	1	28	21278	Ball	2
1	324110	Housing	1	29	135691	Crank	2
2	234038	Pin	4	30	15078	Nut	1
3	218595	Capscrew	4	30	15135	Washer	1
3	221773	Washer	4	30	15213	Pin	1
4	15942	Bolt	2	31	135694	Fork	2
5	159143	Plate	2	32	135695	Gasket	1
6	135168	Bolt	4	33	291822	Fork	1
7	18881	Bolt	2	34	16828	Capscrew	12
8	165780	Screw	1	34	15156	Lockwasher	12
9	15032	Nut	1	35	16828	Capscrew	10
10	137858	Bushing	2	35	16741	Capscrew	1
11	105412	Bushing	3	35	15156	Lockwasher	9
12	176409	Switch	1	35	145831	Washer	2
13	16816	Capscrew	6	36	137866	Fitting	1
13	15156	Lockwasher	6	37	137958	Tube	1
14	297712	Cover	1	38	138749	O-ring	1
15	27981	Screw	2	39	137738	Tube	2
15	67355	Lockwire .....	..	40	152727	Hose	1
16	135685	Bushing	4	41	137955	Scoop	1
17	118389	O-ring	3	42	137865	Hose	1
18	110059	Key	2	42	166857	Clamp	1
19	135689	Crank (fwd/rev)	1	43	298839	Tube	1
20	135686	Crank (low/high)	1	44	151540	Bracket	1
21	135692	Shaft (fwd/rev)	1	45	18496	Capscrew	2
22	135693	Shaft (high/low)	1	45	151328	Washer	1
23	100154	O-ring	4	46	137960	Gasket	1
24	9469	Set Collar	2	47	137961	Cover	1
25	18557	Capscrew	2	48	199565	Capscrew	5
25	15157	Lockwasher	2	49	39767	O-ring	2
26	274425	Spacer	1	50	159754	Crank	1
27	107288	Spring	2				

TRANSMISSION CONTROL VALVE (Figure 55) POWERSHIFT

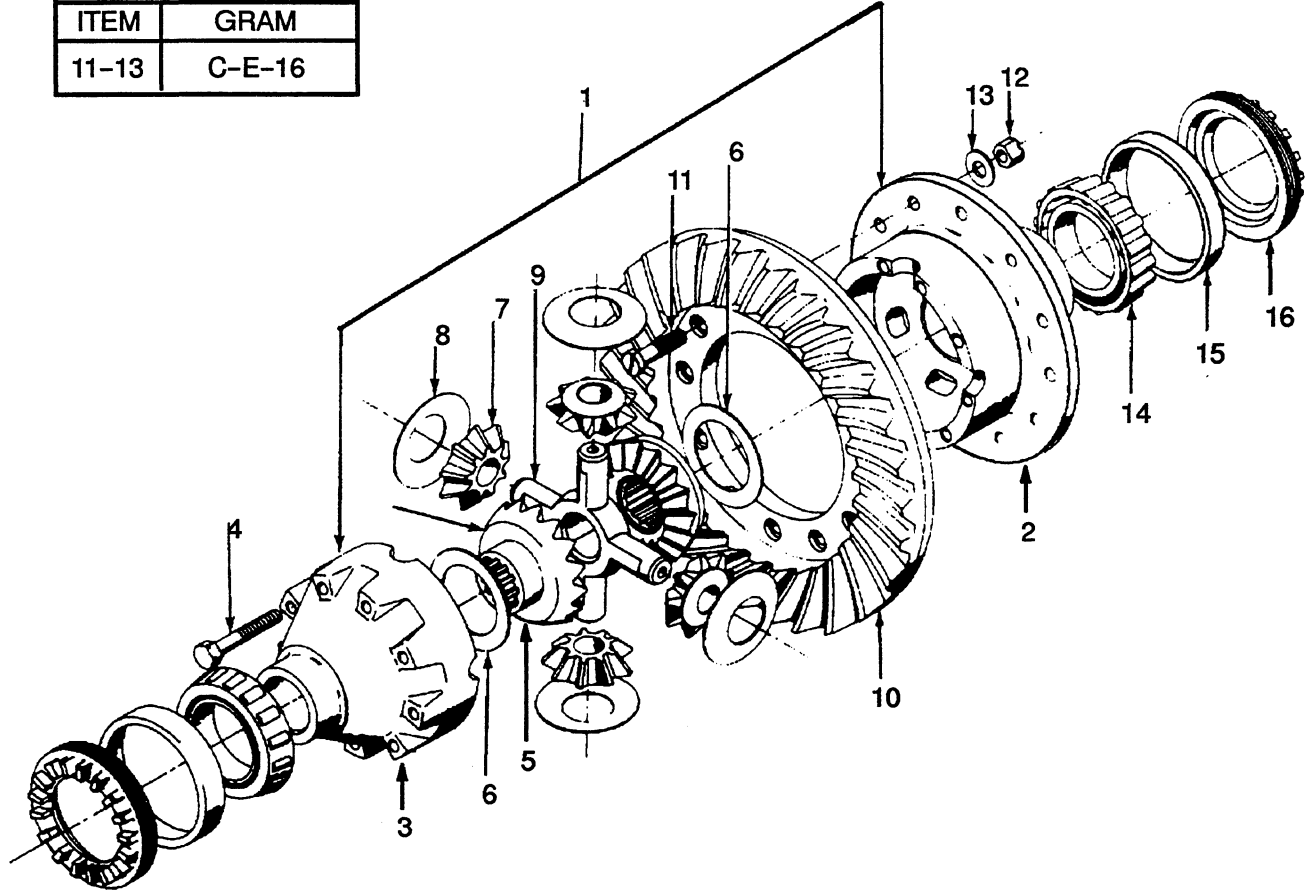


REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
	326913	Transmission	1	18	137117	Spring	1
	184893	Valve	1	19	137116	Spool	1
1	147220	Retainer	6	20	156897	Orifice	1
2	^a 29582	Gasket	6	21	136652	Spring	1
3	114280	Spring	1	22	^a 288301	O-ring	2
4	113645	Plunger	1	23	240083	Plunger	1
5	^a 108408	Washer	AR	24	^a 137110	Cup	1
5	^a 184552	Washer	AR	25	137111	Seat	1
6	146421	Spring	1	26	^a 137112	O-ring	1
7	108406	Plunger	2	27	184892	Cover	1
8	116541	Spring	1	28	199563	Capscrew	2
9	137125	Spool	1	29	141997	Spring	1
10	137124	Spring	2	30	140735	Spring	1
11	275873	Spool	1	31	28320	Screw	1
12	137122	Spring	1	32	14591	Adapter	4
13	153755	Body	1	33	137121	Solenoid	1
14	14499	Fitting	1	34	137126	Capscrew	5
15	137120	Tube	1	35	^a 153753	Gasket	1
16	291347	Tube Seat	1				
17	137118	Spool	1				

^a Included In Repair Kit 205796

DIFFERENTIAL (Figure 56)

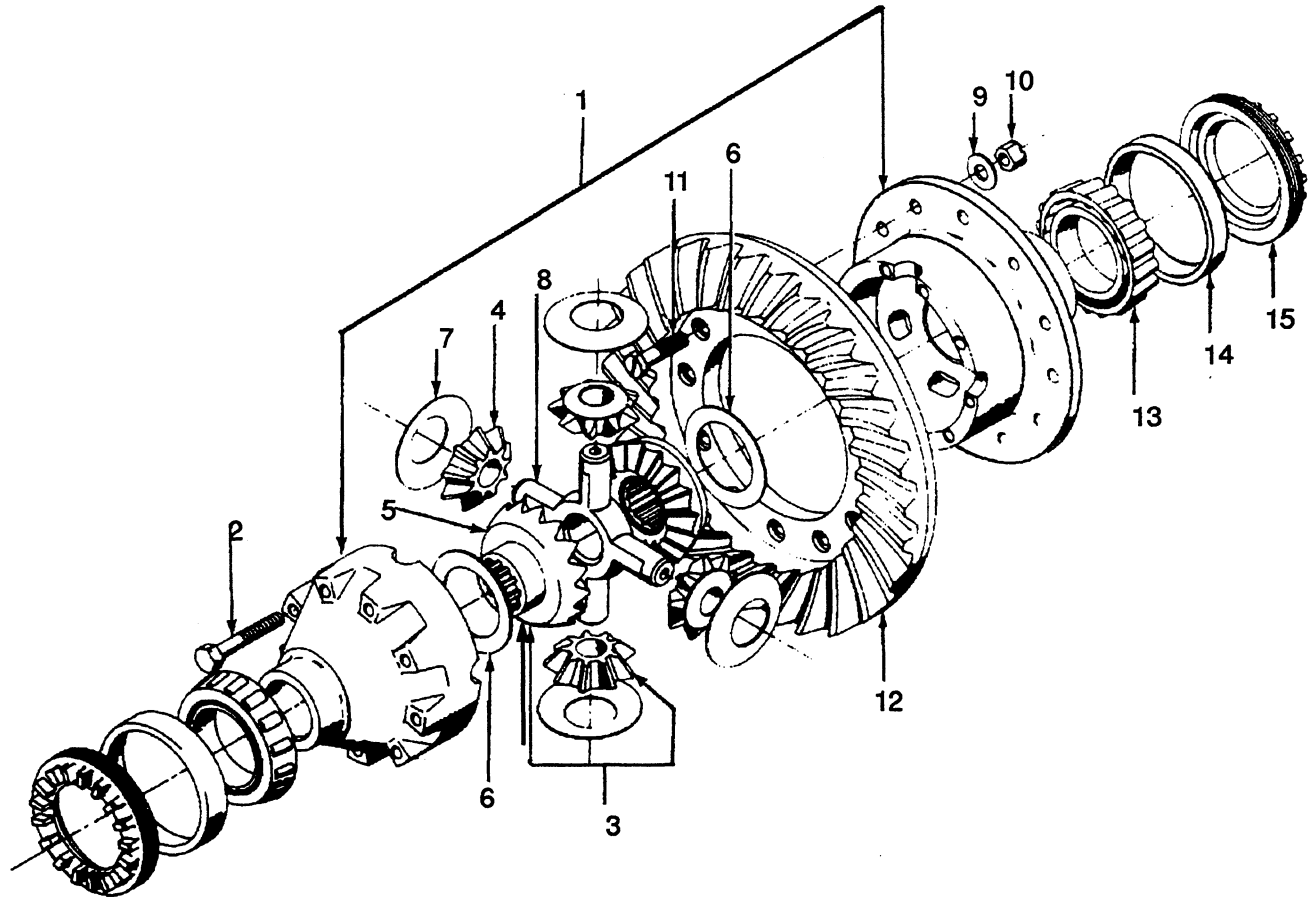
PARTS-SERVICE GRAM	
ITEM	GRAM
11-13	C-E-16



REF	PART NO.	NAME OF PART	QTY
	303662	Differential	1
1	303663	Differential Case Assy	1
2	.....	Flange Half	1
3	.....	Plain Half	1
4	295812	Cap screw	8
4	125607	Washer	8
5	a	.....	2
6	a	.....	2
7	a	.....	4
8	a	.....	4
9	a	.....	1
10	c 205247	Gear/Pinion	1
10	b 319671	Gear/Pinion	1

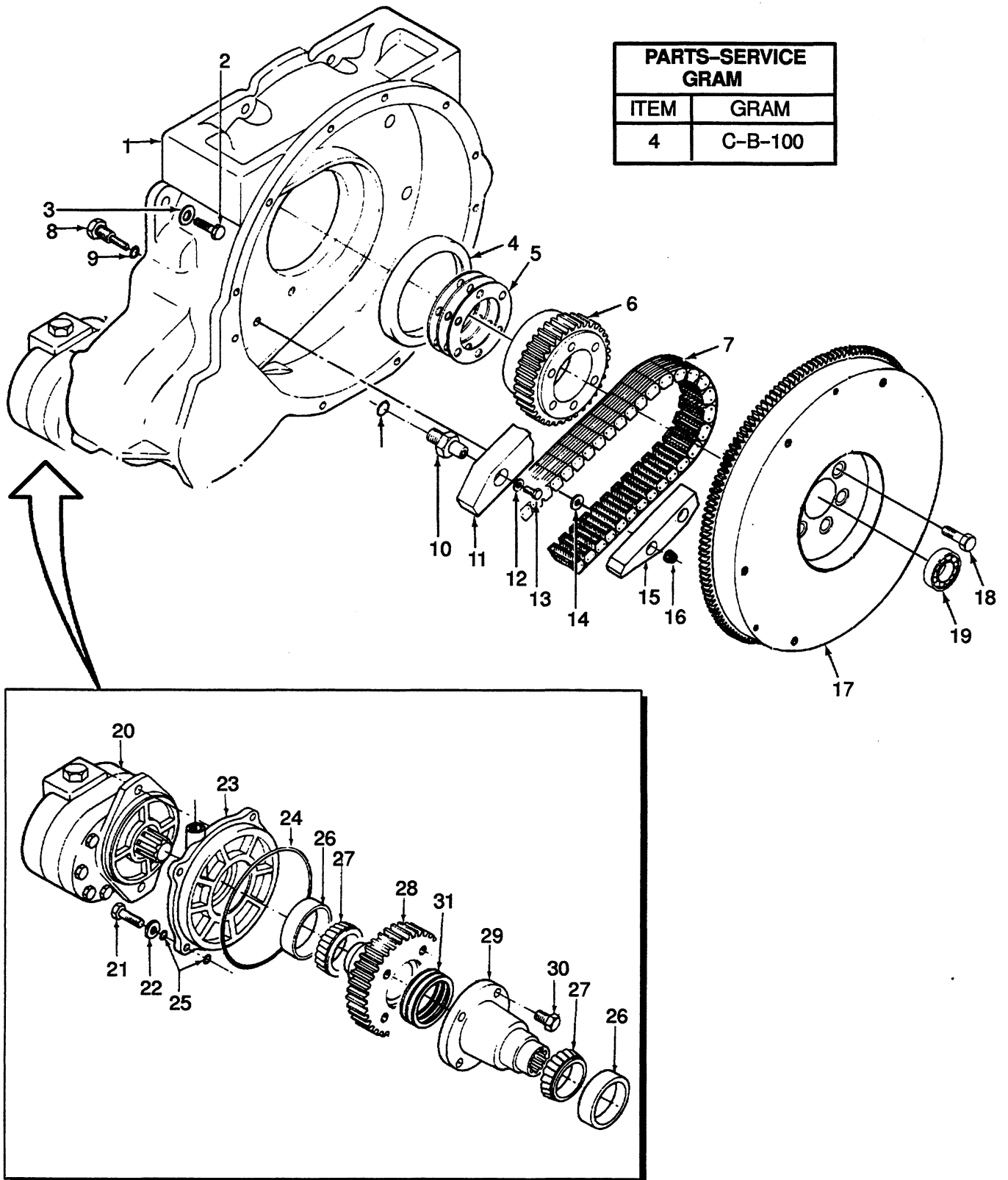
REF	PART NO.	NAME OF PART	QTY
10	c	.....	1
10	b	.....	1
		☐ Figure 51 And Figure 52	
11	277265	Bolt	12
12	358098	Nut	12
13	88587	Washer	12
14	230343	Cone	2
15	30076	Cup	2
16	135160	Adjuster	2
	a	Included In Differential Kit 304012	
	b	Oil Clutch	
	c	Powershift	

DIFFERENTIAL (Figure 57) EUROPE



REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
	312785	Differential	1	9	88587	Washer	12
1	312786	Differential Case Assy	1	10	221355	Nut	12
1	.....	Case	1	11	277265	Bolt	12
2	295812	Capscrew	8	12	205247	Gear/Pinion	1
3	317346	Gear/Pinion	1	12	.....	Gear	1
4	.....	Pinion	4	12	.....	Pinion	1
5	.....	Gear	2	13	230343	Cone	2
6	151573	Thrust Washer	2	14	30076	Cup	2
7	143431	Thrust Washer	4	15	135160	Adjuster	2
8	143432	Spider	1				

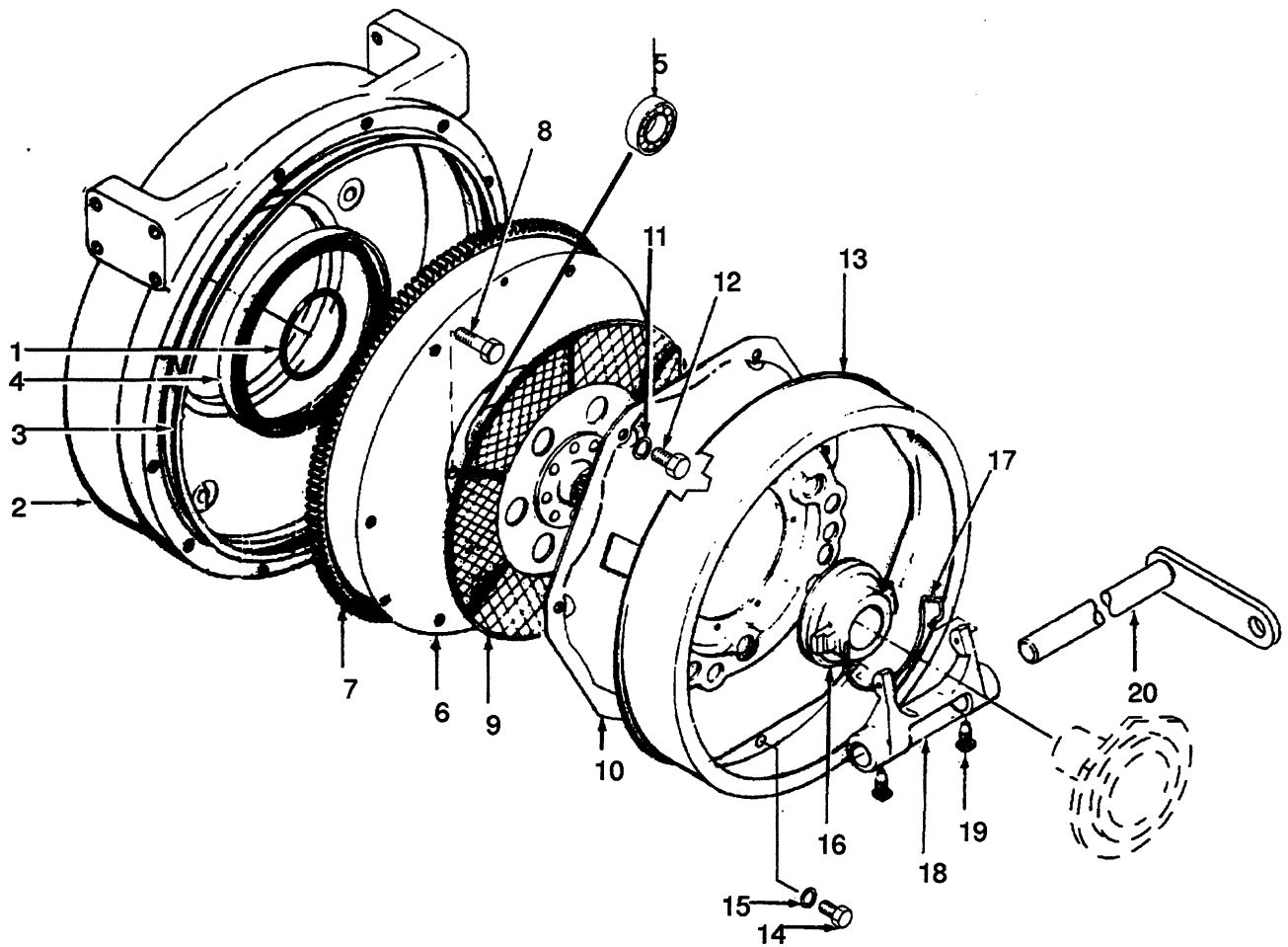
PUMP DRIVE AND FLYWHEEL HOUSING (Figure 58) GASOLINE AND LPG



PUMP DRIVE AND FLYWHEEL HOUSING GASOLINE AND LPG

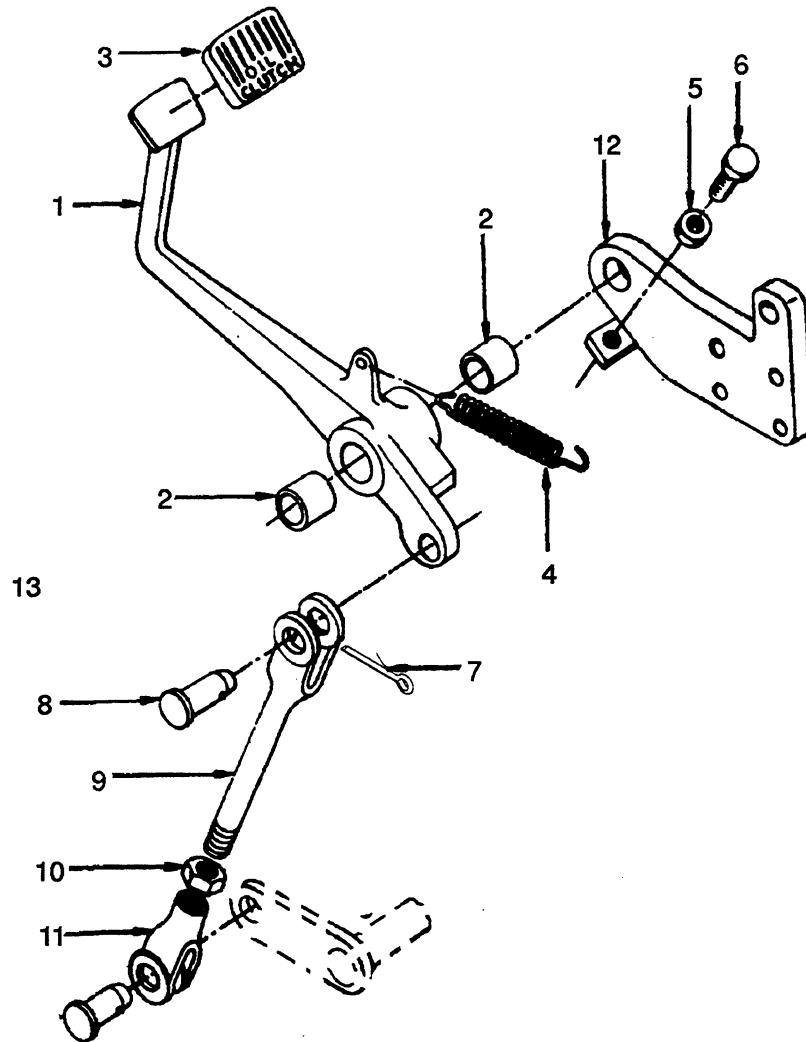
REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
1	324111	Housing	1	18	221545	Capscrew	6
2	221499	Capscrew	6	19	^a 43205	Bearing	1
3	221767	Washer	6	20	.....	Hydraulic Pump	1
4	339681	Seal	1			☞ Figure 72	
5	184928	Shim (.005 inch)	AR	21	221499	Capscrew	4
5	184929	Shim (.007 inch)	AR	22	261379	Washer	2
5	184930	Shim (.020 inch)	AR	22	210752	Washer	2
6	263401	Sprocket	1	23	259668	Adapter	1
7	259660	Chain	1	24	184962	O-ring	1
8	321735	Capscrew	2	25	79970	O-ring	4
9	16482	O-ring	4	26	135658	Cup	2
10	245263	Capscrew	2	27	135657	Cone	2
11	245262	Snubber	1	28	288352	Sprocket	1
12	221763	Washer	2	29	291487	Hub	1
13	221419	Capscrew	2	30	221495	Screw	4
14	18515	Washer	2	31	275867	Shim (.005 inch)	AR
15	261701	Snubber	1	31	275868	Shim (.007 inch)	AR
16	221342	Locknut	2	31	275869	Shim (.020 inch)	AR
17	^a 295559	Flywheel	1				
17	^b 316909	Flywheel	1	^a	Oil Clutch		
17	195856	Gear	1	^b	Powershift		

CLUTCH (Figure 59)



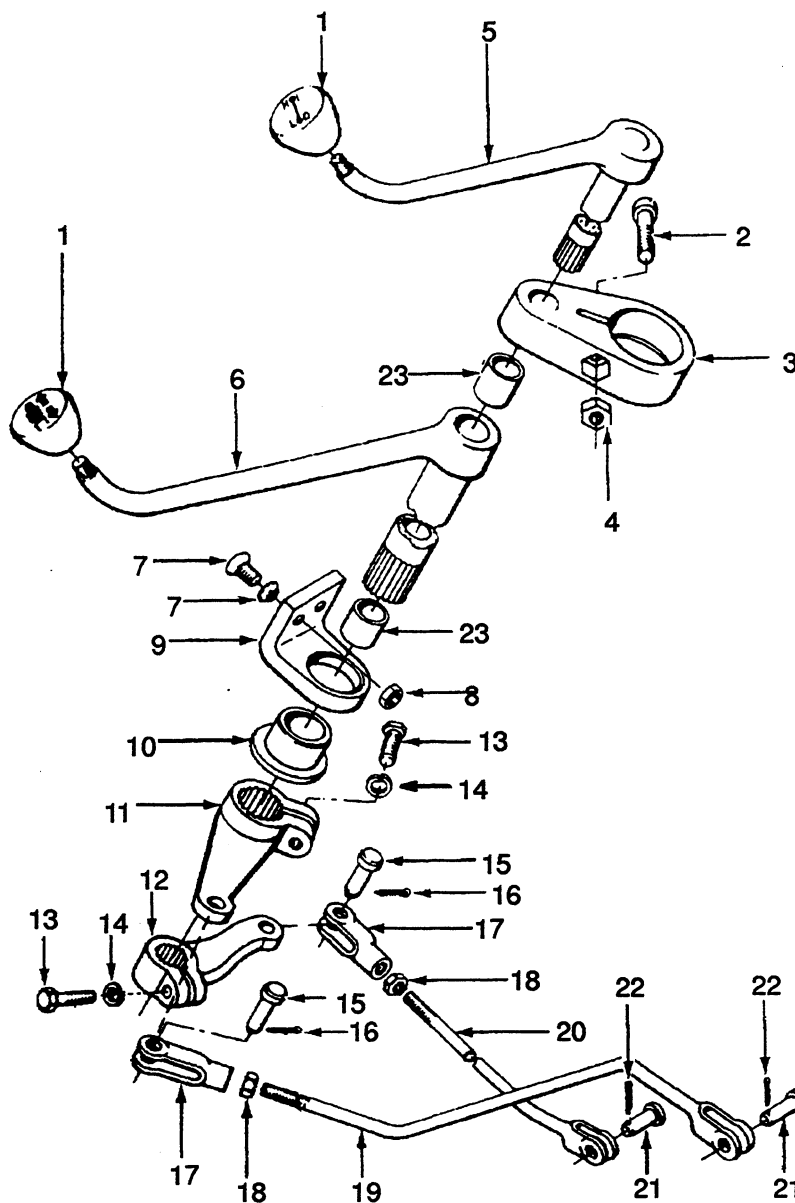
REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
1	a 185515	O-ring	1	11	177947	Washer	6
2	a	Housing	1	12	277826	Capscrew	6
		☞ Figure 53		13	137951	Ring	1
2	b	Housing	1	14	133469	Capscrew	3
		☞ Figure 58		15	15154	Lockwasher	3
3	135156	Gasket	1	16	137860	Bearing	1
4	a 267538	Seal	1	16	230303	Bearing	1
5	43205	Bearing	1	17	137861	Spring	1
6	a 223120	Flywheel	1	18	137859	Yoke	1
6	b 295559	Flywheel	1	19	27981	Screw	1
7	195856	Gear	1	19	67355	Wire	1
8	a 93260	Bolt	6	20	159754	Crank	1
8	b 221545	Capscrew	6	20	39767	O-ring	2
9	277010	Plate	1				
10	159119	Cover	1				
				a		Diesel	
				b		Gasoline	

CLUTCH PEDAL (Figure 60)



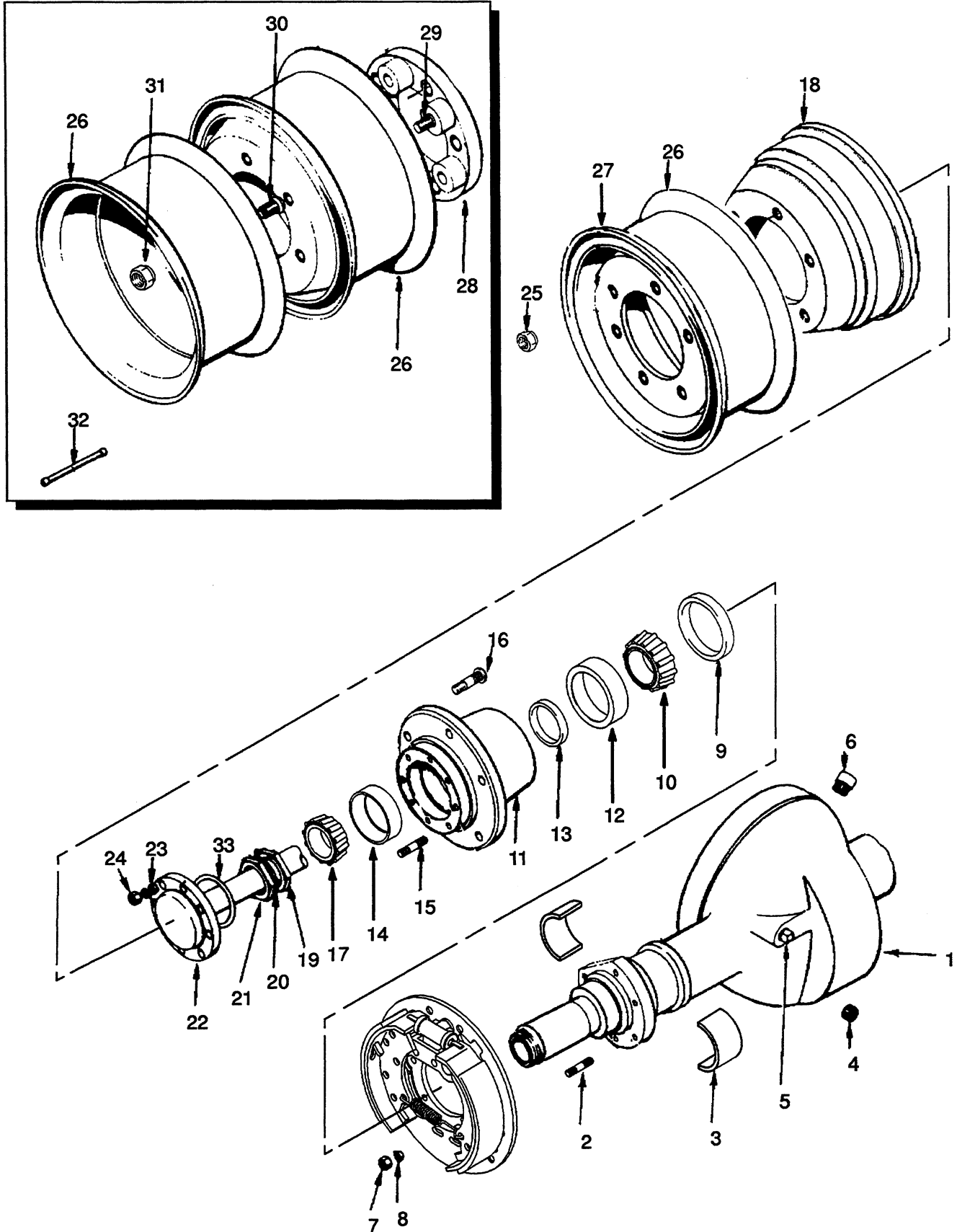
REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
1	204890	Pedal	1	9	159753	Link	1
2	106223	Bushing	2	10	15028	Nut	1
3	132690	Pad	1	11	152	Rod End	1
4	136018	Spring	1	12 a	195717	Bracket	1
5	15086	Nut	1	12 b	159762	Bracket	1
6	16828	Capscrew	1				
7	15223	Pin	2	a		Gasoline And LPG	
8	153	Pin	2	b		Diesel	

SHIFT LINKAGE (Figure 61) OIL CLUTCH



REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
1	.....	Knob	1	12	204888	Crank	1
		Figure 137		13	16805	Capscrew	2
2	38123	Capscrew	1	14	15156	Lockwasher	2
3	.....	Bracket	1	15	153	Pin	2
4	15006	Nut	1	16	15223	Pin	2
5	250117	Shaft	1	17	152	Rod End	2
6	250118	Tube	1	18	15028	Nut	2
7	18739	Capscrew	2	19	139127	Link (Forward/Reverse)	1
7	15920	Lockwasher	2	20	139126	Link (High/Low)	1
8	15056	Nut	2	21	150	Pin	2
9	139121	Bracket	1	22	15212	Pin	2
10	139122	Bushing	1	23	290555	Bushing	2
11	204887	Crank	1				

DRIVE AXLE (Figure 62)



+DRIVE AXLE

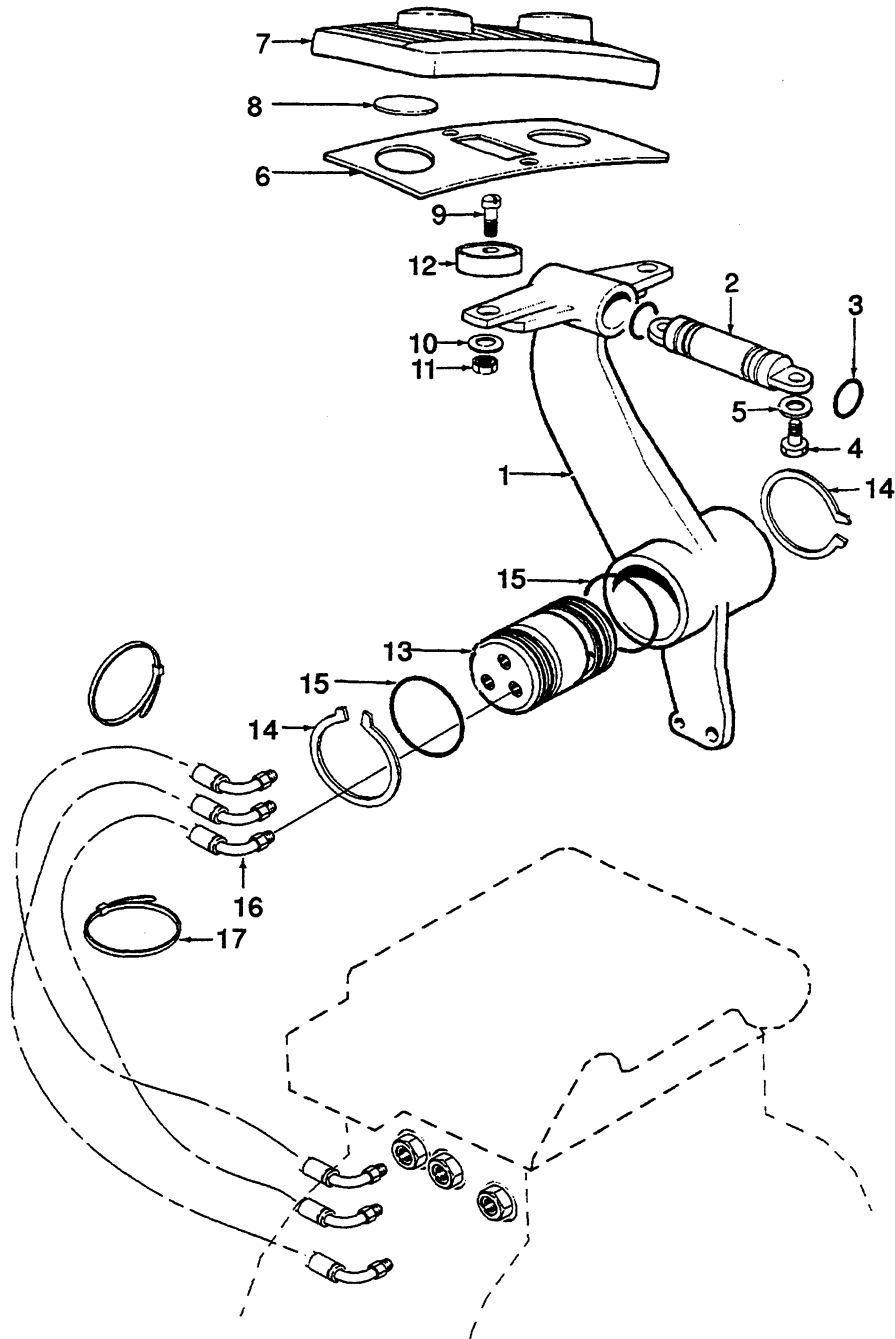
KEY

A: Single Wheel

B: Dual Wheel

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
1	296918	Housing	1	1	17	230325	Cone	2	2
2	158359	Stud	14	14	18	216468	Drum	2	2
2	226414	Adhesive	AR	AR	19	^a 53907	Nut	2	2
3	320993	Bushing	4	4	20	^a 53906	Washer	2	2
3	251979	Lubricant	AR	AR	21	^a 53905	Nut	2	2
4	15290	Fitting	1	1	22	262232	Shaft	2	2
5	15303	Fitting	1	1	23	155480	Thimble	16	16
6	21420	Plug	1	1	24	221710	Nut	16	16
6	16151	Fitting	1	1	24	177948	Washer	16	16
7	278326	Nut	14	14	25	11276	Nut	12	12
8	153778	Thimble	14	14	26	.....	Wheel	2	4
9	143040	Seal	2	2			Figure 134 And Figure 135		
10	137155	Cone	2	2	27	.....	Ring	2	4
11	164330	Hub	2	..			Figure 134 And Figure 135		
11	164329	Hub .....	..	2	28	141718	Spacer .....	..	2
12	230325	Bearing	2	2	29	141720	Stud .....	..	2
13	123270	Seal	1	1	30	11287	Nut .....	..	12
14	230324	Cup	1	1	31	11286	Nut .....	..	12
15	111805	Stud .....	..	8	32	141721	Extension .....	..	2
16	137154	Stud	6	..	33	313022	Sealant	2	2
16	141716	Stud .....	..	6			^a Included In Drive Axle Housing 296918		

MONOTROL PEDAL (Figure 63) POWERSHIFT



REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
	343847	Pedal	1	10	15163	Lockwasher	2
1	191901	Pedal	1	11	15039	Nut	2
2	316410	Spool	1	12	191908	Magnet	2
3	^a 191903	O-ring	2	13	343848	Shaft	1
4	220476	Screw	2	14	^a 122400	Snap Ring	2
5	15919	Lockwasher	2	15	^a 191910	O-ring	2
6	191905	Plate	1	16	288350	Hose	3
7	239405	Pad	1	17	129563	Clamp	2
8	191907	Plate	2				
9	16853	Screw	2				
				^a	Included In Seal Kit 291348		

BRAKE SYSTEM

BRAKE LINKAGE (Figure 65)
OIL CLUTCH Page 132

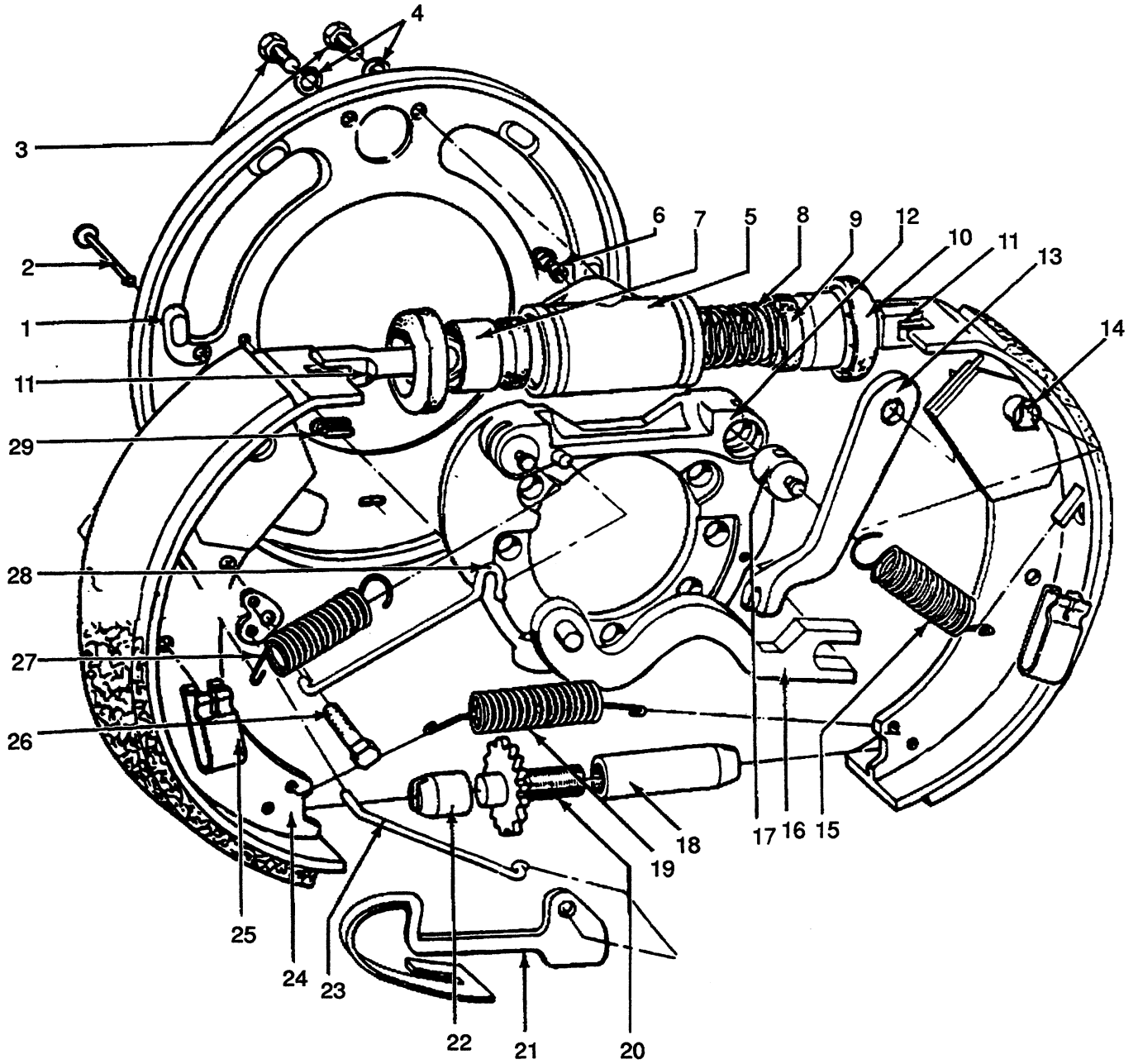
BRAKE LINKAGE (Figure 66)
POWERSHIFT Page 133

BRAKES (Figure 64) Page 130

MASTER CYLINDER (Figure 67) Page 134

PARK BRAKE (Figure 68) Page 135

BRAKES (Figure 64)

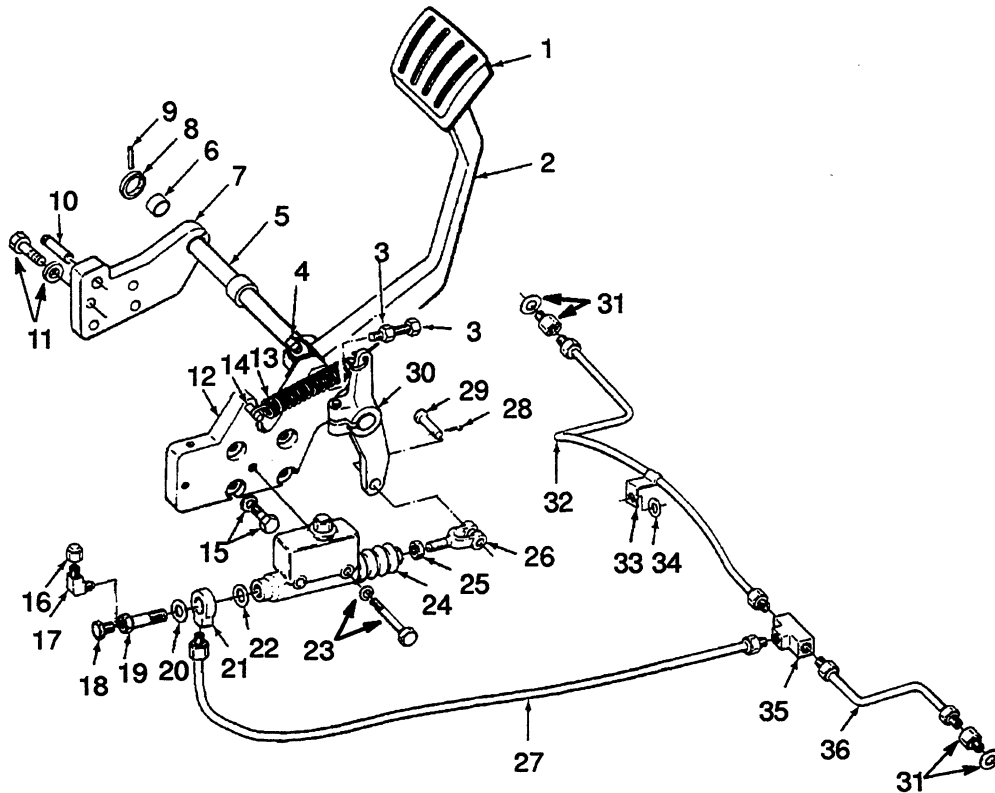


BRAKES

Key
A: Right Hand
B: Left Hand

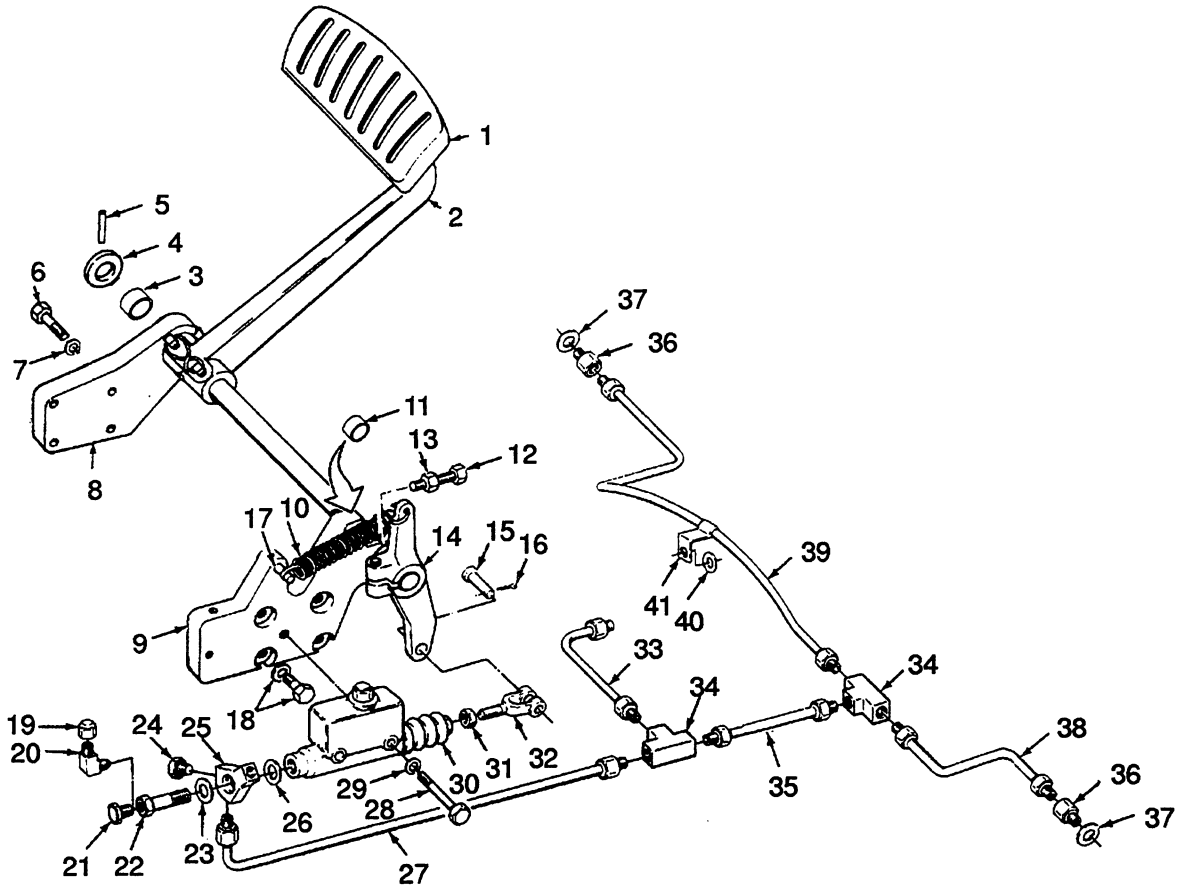
REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
	g	..... Brake (RH)	1	..	18	b	..... Nut	1	..
	g	..... Brake (LH) .....	..	1	18	c	..... Nut .....	..	1
1	351828	Kit	1	1	19	162138	Spring	1	1
1	200084	Plug	2	2	20	b	..... Screw	1	..
1	358092	Plug	2	2	20	c	..... Screw .....	..	1
1	358093	Plug	2	2	21	162144	Lever	1	..
2	d	..... Pin	3	3	21	162145	Lever .....	..	1
3	18496	Capscrew	2	2	22	b	..... Sleeve	1	..
4	15155	Lockwasher	2	2	22	c	..... Sleeve .....	..	1
5	200141	Cylinder	1	1	23	162146	Link	1	1
6	28340	Screw	1	1	24	162135	Shoe/Lining	2	2
7	.....	Piston	2	2	25	d	..... Clip	3	3
8	.....	Spring	1	1	26	162984	Screw/Link	1	..
9	a	..... Cup	2	2	26	162983	Screw/Link .....	..	1
10	a	..... Cover	2	2	27	e	..... Spring	1	1
11	.....	Rod	2	2	28	162147	Link	1	1
12	1300287	Spider	1	..	29	200084	Plug	2	2
12	1300286	Spider .....	..	1					
13	200149	Lever	1	..	a	Included In Repair Kit 200160			
13	200148	Lever .....	..	1	b	Included In Star Wheel Kit 162139			
14	200147	Clip	2	2	c	Included In Star Wheel Kit 162140			
15	e	..... Spring	1	1	d	Included In Retainer Kit 321779			
16	200146	Link	1	..	e	Included In Retainer Kit 321780			
16	200145	Link .....	..	1	f	Last Used On S/N F3A-5524			
17	200157	Pin	2	2	g	First Used On S/N F3A-5525			

BRAKE LINKAGE (Figure 65) OIL CLUTCH



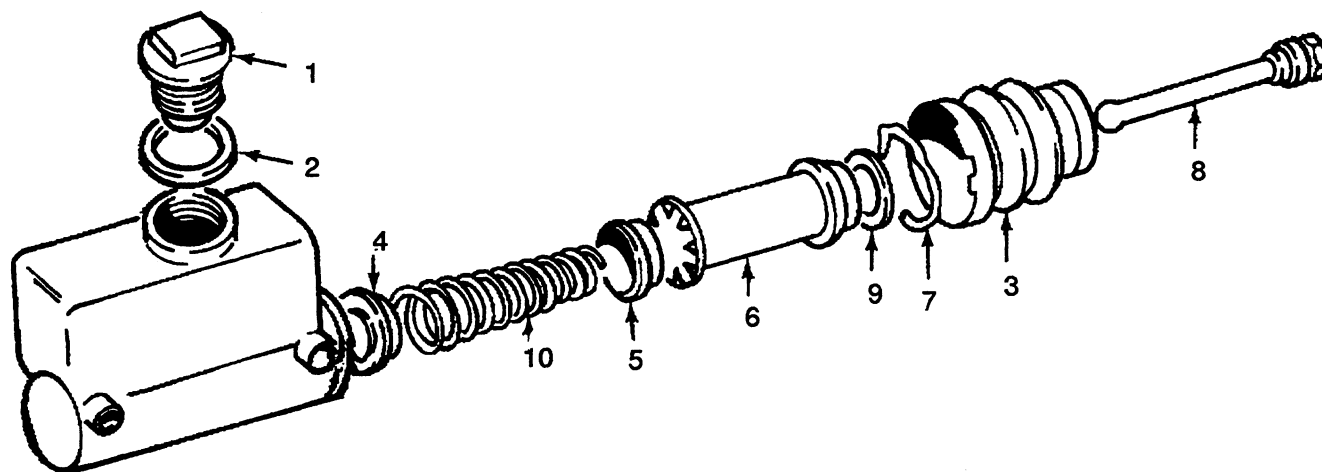
REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
1	114496	Pad	1	20	29582	Gasket	1
2	139053	Pedal	1	21	54624	Fitting	1
3	16634	Scarecrow	1	22	24092	Gasket	1
3	15026	Nut	1	23	18541	Capscrew	2
4	27936	Screw	2	23	15156	Lockwasher	2
4	67355	Wire	1	24		..... Master Cylinder	1
5	159761	Shaft	1			☞ Figure 67	
6	106223	Bushing	1	25	15027	Nut	1
7	a 195717	Bracket	1	26	69065	Rod End	1
7	b 159762	Bracket	1	27	295572	Tube	1
8	59362	Washer	1	28	15212	Pin	1
9	226972	Pin	1	29	150	Pin	1
10	a 227062	Pin	1	30	204886	Crank	1
10	b 15951	Pin	1	30	16828	Scarecrow	1
11	16815	Capscrew	4	30	15156	Lockwasher	1
11	15156	Lockwasher	4	31	26801	Fitting	2
12	293102	Bracket	1	31	29344	Gasket	2
12	106223	Bushing	1	32	139058	Tube	1
13	64037	Spring	1	33	139059	Clamp	1
14	17234	Pin	1	34	15134	Washer	1
15	16805	Capscrew	4	35	16195	Fitting	1
15	15156	Lockwasher	4	36	139057	Tube	1
16	c 281700	Nut	1				
17	c 52501	Fitting	1	a		Gasoline And LPG	
18	14349	Fitting	1	b		Diesel	
19	29583	Bolt	1	c		Optional	

BRAKE LINKAGE (Figure 66) POWERSHIFT



REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
1	139051	Pad	1	22	28301	Bolt	1
2	167470	Shaft/Pedal	1	23	29582	Gasket	1
3	106223	Bushing	1	24	78029	Plug	1
4	59362	Washer	1	25	139054	Fitting	1
5	226972	Pin	1	26	24092	Gasket	1
6	16815	Capscrew	4	27	295571	Tube	1
7	15156	Lockwasher	4	28	18541	Capscrew	2
8	a 195721	Bracket	1	29	15156	Lockwasher	2
8	b 159760	Bracket	1	30	.....	Master Cylinder	1
9	293102	Bracket	1			Figure 67	
10	64037	Spring	1	31	15027	Nut	1
11	106223	Bushing	1	32	69065	Rod End	1
12	16634	Capscrew	1	33	295569	Tube	1
13	15026	Nut	1	34	16195	Fitting	2
14	204886	Crank	1	35	295570	Tube	1
14	16828	Capscrew	1	36	26801	Fitting	2
14	15156	Lockwasher	1	37	29344	Gasket	2
15	150	Pin	1	38	139057	Tube	1
16	15212	Pin	1	39	139058	Tube	1
17	17234	Pin	1	40	15134	Washer	1
18	16805	Capscrew	4	41	139059	Clamp	1
18	15156	Lockwasher	4				
19	c 281700	Nut	1				
20	c 52501	Fitting	1				
21	14349	Fitting	1				
				a		Gasoline And LPG	
				b		Diesel	
				c		Optional	

MASTER CYLINDER (Figure 67)

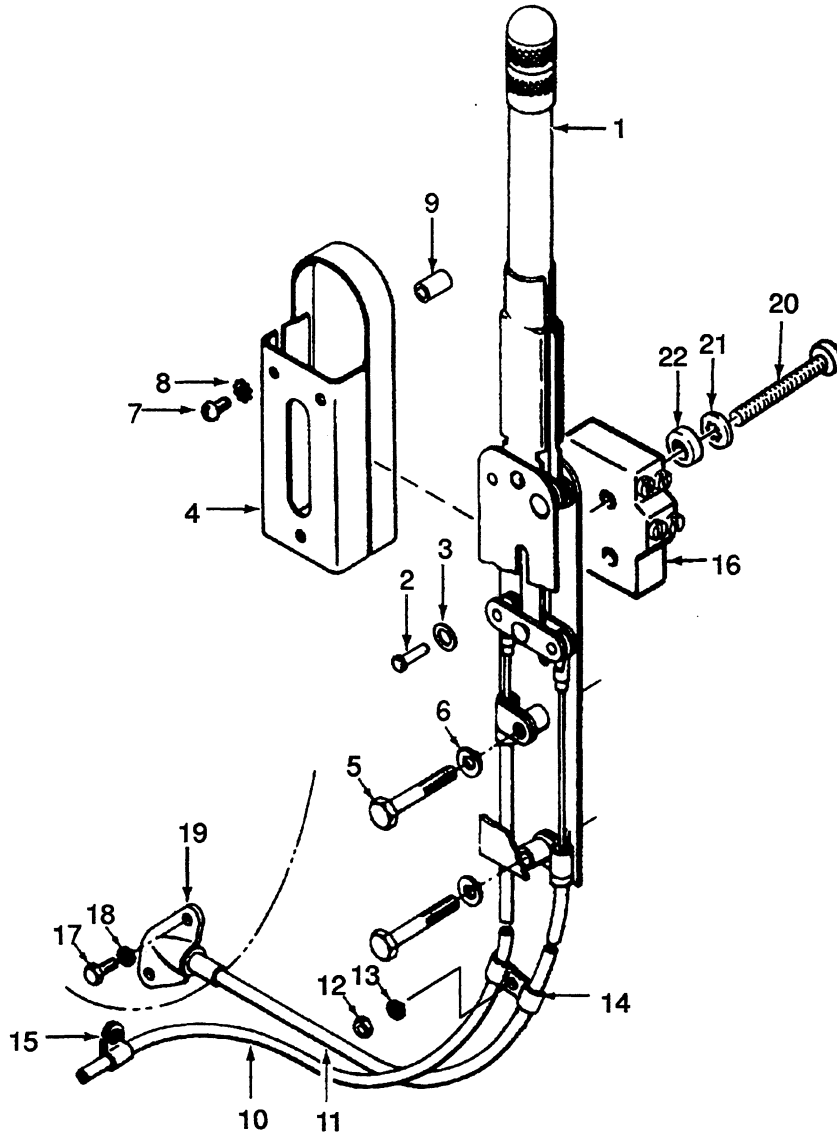


REF	PART NO.	NAME OF PART	QTY
	54955	Master Cylinder	1
1	236213	Cap	1
2	54659	Gasket	1
3	^a 54975	Cover	1
4	^a	Valve	1
5	^a	Cup	1
6	^a	Piston	1

REF	PART NO.	NAME OF PART	QTY
7	^a	Wire	1
8	.....	Rod	1
9	.....	Plate	1
10	.....	Spring	1

^a Included In Repair Kit 54977

PARK BRAKE (Figure 68)



KEY

- A: Oil Clutch
- B: Power Shift

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
1	139066	Lever	1	..	12	15055	Nut	1	1
1	311236	Lever .....	..	1	13	15155	Lockwasher	1	1
2	139067	Pin	2	2	14	139996	Clamp	1	1
3	18515	Washer	4	4	15	146047	Clamp	1	1
4	311239	Cover .....	..	1	16	88388	Switch .....	..	1
5	18509	Capscrew	2	2	17	16073	Screw	4	4
6	15155	Lockwasher	2	2	18	15154	Lockwasher	4	4
7	16704	Screw .....	..	1	19	339589	Clamp	2	2
8	15916	Washer .....	..	1	20	18815	Screw .....	..	2
9	311240	Spacer .....	..	2	21	138573	Lockwasher .....	..	2
10	139068	Cable LH	1	1	22	316132	Spacer .....	..	2
11	139069	Cable RH	1	1					

HYDRAULIC SYSTEM

ATTACHING PARTS (Figure 75)
CONTROL VALVE Page 148

CONTROL VALVE (Figure 76)
TWO PLUNGER Page 150

CONTROL VALVE (Figure 77)
THREE PLUNGER Page 152

CONTROL VALVE (Figure 78)
FOUR PLUNGER Page 154

HYDRAULIC FILTER (Figure 71) Page 141

HYDRAULIC PUMP (Figure 72) Page 142

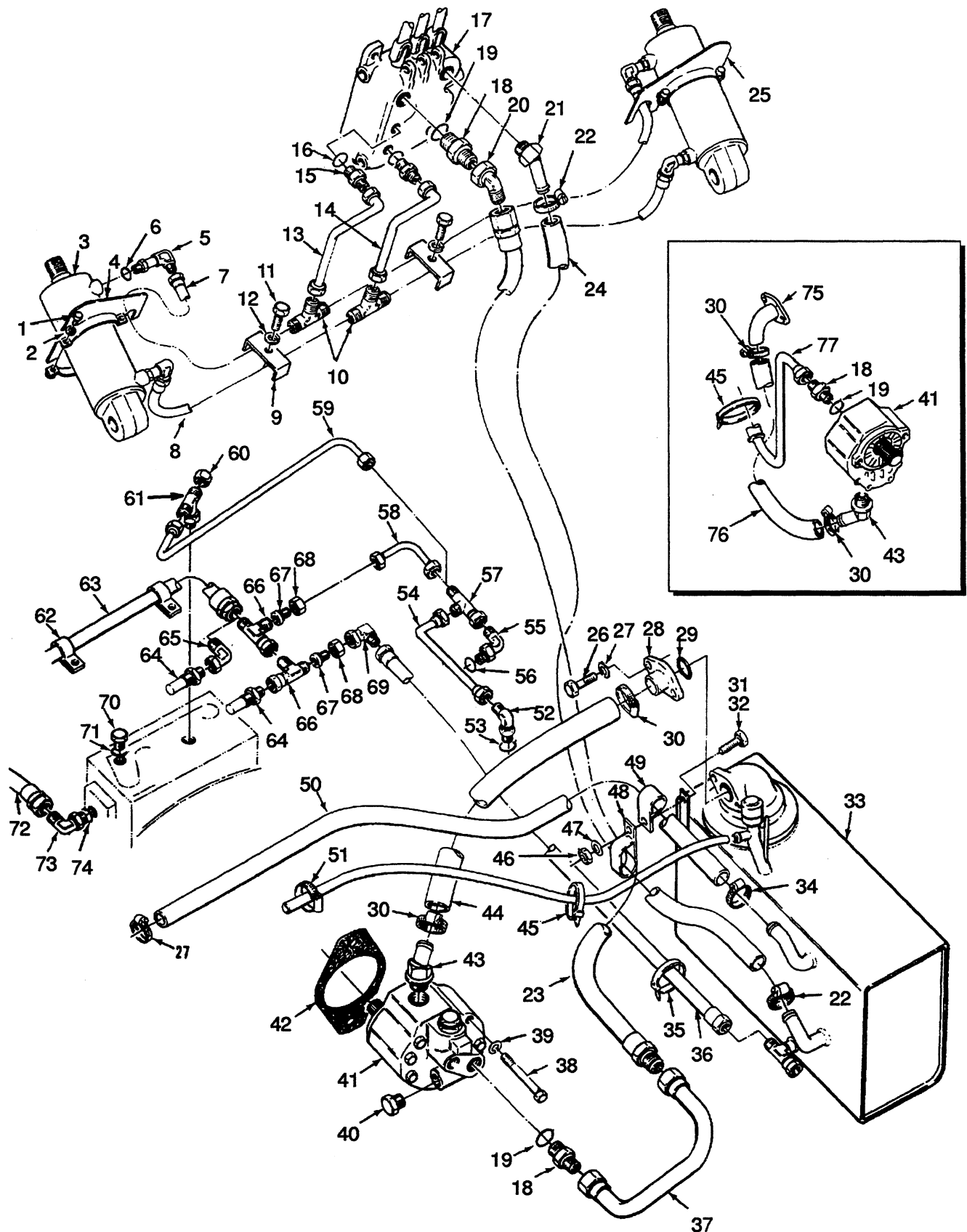
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HYDRAULIC SYSTEM (Figure 69)



HYDRAULIC

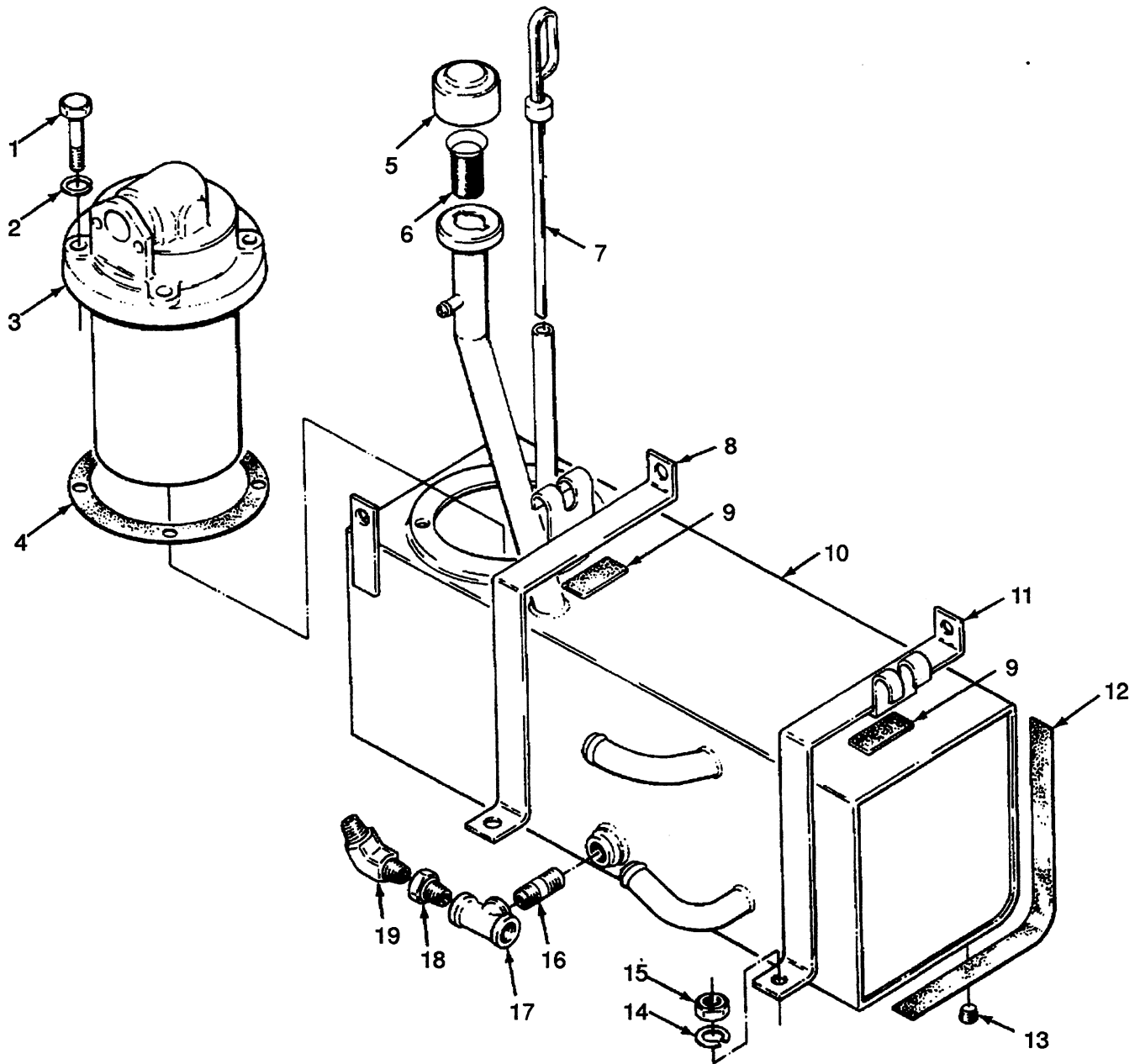
KEY

A: Gasoline And LPG

B: Diesel

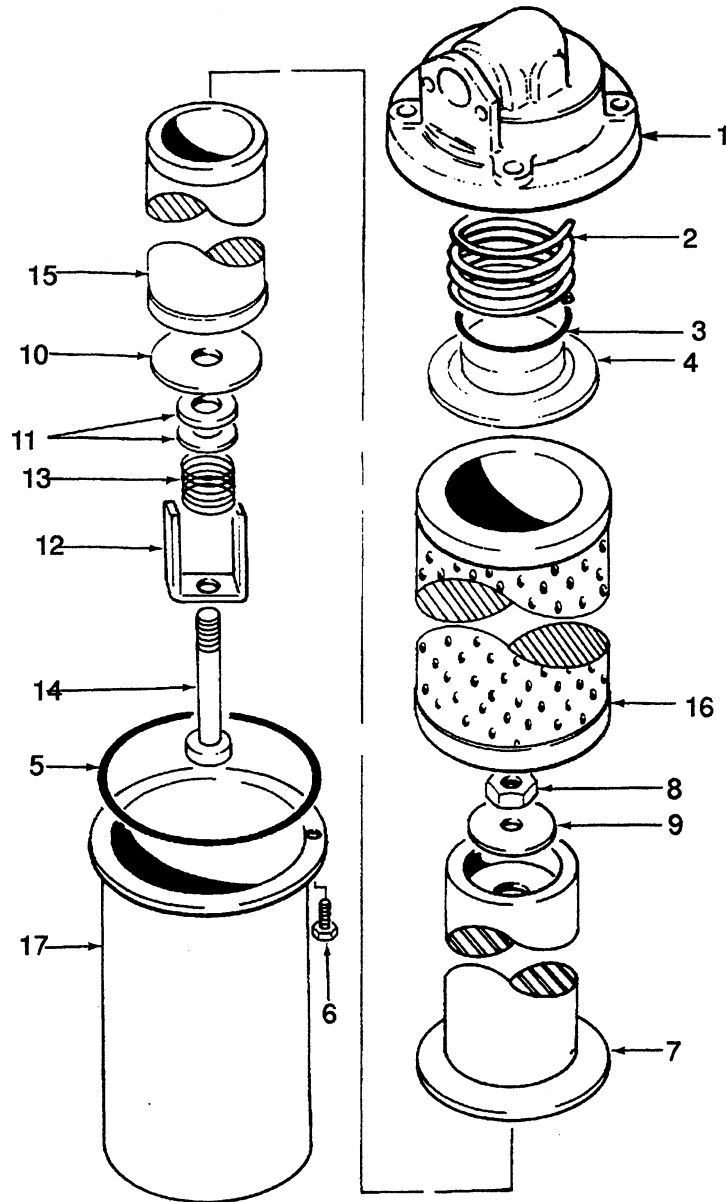
REF	PART NO.	NAME OF PART	A	B	REF	PART NO.	NAME OF PART	A	B
1	16718	Screw	4	4	42	1329624	Gasket	1	1
2	15915	Lockwasher	4	4	43	141486	Fitting	1	1
3	.....	Tilt Cylinder	2	2	44	296910	Hose	1	..
		☞ Figure 74			45	129563	Clamp	1	2
4	140225	Shield (LH)	1	1	46	15056	Nut	1	..
5	17119	Fitting	4	4	46	a 15056	Nut	..	1
6	16483	O-Ring	1	1	47	15156	Lockwasher	1	..
7	140221	Hose	2	2	47	a 15156	Lockwasher	..	1
8	140220	Hose	2	2	48	298829	Clamp	1	..
9	140222	Clamp	2	2	49	a 178119	Clamp	1	1
10	14560	Fitting	2	2	50	169130	Hose	1	1
11	16815	Capscrew	2	2	51	166857	Clamp	1	1
12	15156	Lockwasher	2	2	52	222399	Fitting	1	..
13	140223	Tube (Tilt)	1	1	53	16482	O-Ring	1	..
14	140224	Tube (Tilt)	1	1	54	291488	Tube	1	..
15	161656	Fitting	2	2	55	16556	Fitting	1	..
16	16485	O-Ring	1	1	56	16481	O-Ring	1	..
17	.....	Valve	1	1	57	17059	Fitting	1	..
		☞ Figure 76 And Figure 77 And Figure 78			58	a 298214	Tube	1	..
18	16543	Fitting	2	2	59	b 295566	Tube	1	..
19	16486	O-Ring	1	1	60	b 16923	Fitting	1	..
20	17040	Fitting	1	1	61	b 16574	Fitting	1	..
21	89056	Fitting	1	1	62	a 101625	Clamp	2	2
22	127045	Clamp	2	2	63	a 147572	Hose	1	1
23	328153	Hose	1	1	64	a 137866	Fitting	1	1
24	a 140615	Hose	1	1	65	a 16883	Fitting	..	1
25	140228	Shield (RH)	1	1	66	a 17061	Fitting	2	..
26	16805	Capscrew	2	2	67	a 17776	Fitting	2	..
27	15156	Lockwasher	2	2	68	a 14489	Fitting	2	..
28	288373	Elbow	1	..	69	a 16987	Fitting	1	..
29	98372	O-Ring	1	1	70	b 14594	Adapter	1	1
30	119236	Clamp	2	2	71	b 16483	O-Ring	1	1
31	16598	Capscrew	1	..	72	b 294976	Hose	1	1
32	a 16598	Capscrew	..	1	73	b 16558	Fitting	1	1
33	.....	Tank	1	1	74	b 16483	O-Ring	1	1
		☞ Figure 70			75	137750	Elbow	..	1
34	130845	Clamp	2	2	76	140734	Hose	..	1
35	a 129563	Clamp	1	..	77	141783	Hose	..	1
36	109002	Hose	1	..					
37	295557	Tube	1	..					
38	18551	Capscrew	2	2					
39	261379	Washer	2	2					
40	c 14603	Adapter	1	1					
41	.....	Hydraulic Pump	1	1					
		☞ Figure 72							
					a	Oil Clutch			
					b	Powershift			
					c	Last Used On S/N F3A-2125, F3D-1808, F3T-1522			

HYDRAULIC TANK (Figure 70)



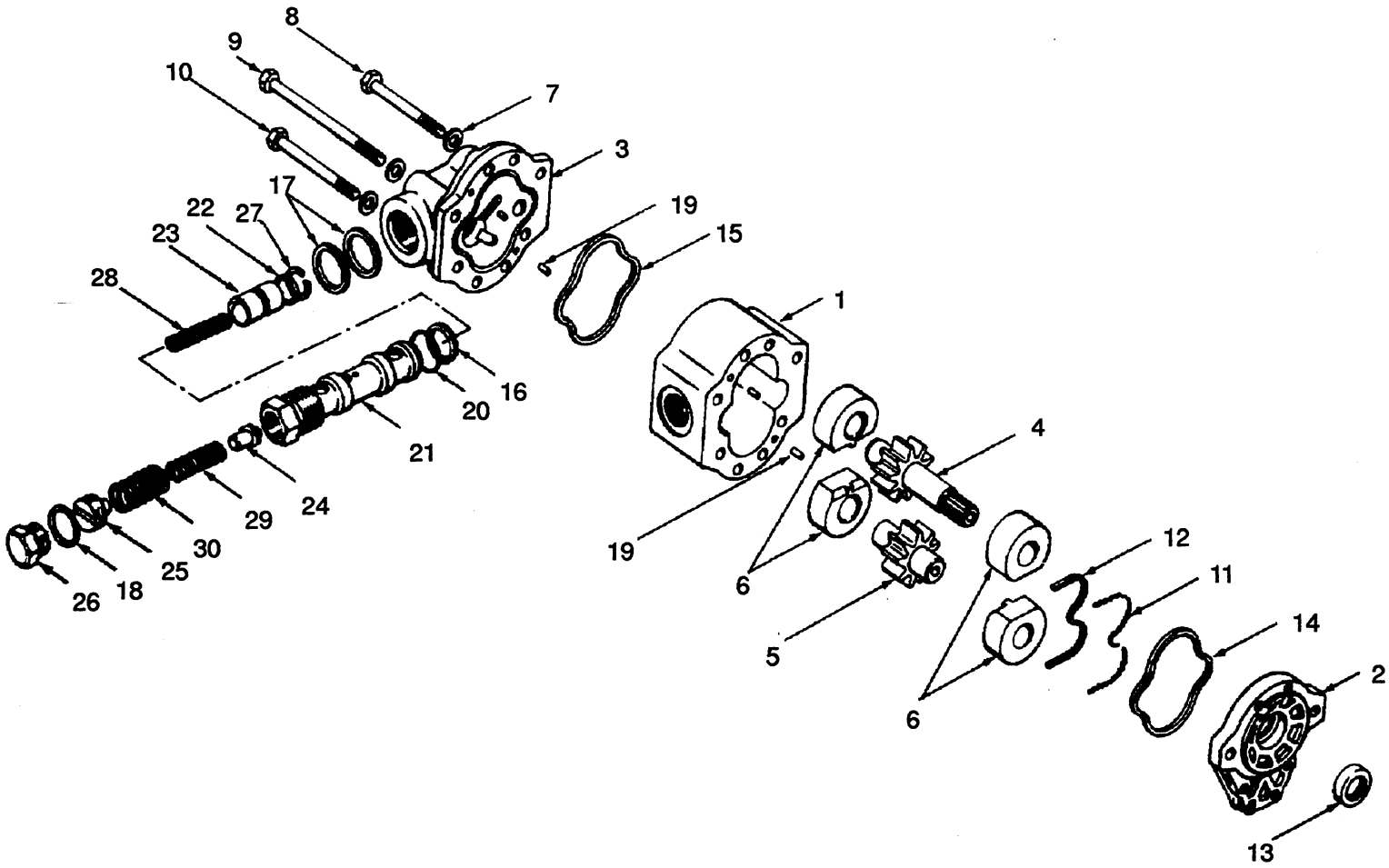
REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
1	18499	Capscrew	4	11	137779	Strap	1
2	15155	Lockwasher	4	12	137774	Pad	2
3	.....	Filter	1	13	15962	Fitting	1
		☞ Figure 71		14	15156	Lockwasher	4
4	262131	Gasket	1	15	15056	Nut	4
5	138843	Filter/Breather	1	16	a 15351	Fitting	1
6	137781	Screen	1	17	a 12840	Fitting	1
7	137783	Gauge	1	18	a 16151	Fitting	1
8	137775	Strap	1	19	a 14538	Fitting	1
9	137778	Pad	2				
10	296907	Tank	1	a		Gasoline, LPG, Oil Clutch	

HYDRAULIC FILTER (Figure 71)



REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
	138891	Filter	1	10	138851	Spacer	1
1	138887	Head	1	11	18515	Washer	1
2	130380	Spring	1	11	138854	Washer	1
3	141244	O-Ring	1	12	138856	Plate	1
4	138890	Cap	1	13	141982	Spring	1
5	141243	O-Ring	1	14	138858	Screw	1
6	16720	Screw	4	15	130371	Screen	1
7	130370	Can	1	16	75669	Element	1
8	221341	Locknut	1	17	143466	Can	1
9	138857	Plate	1				

HYDRAULIC PUMP (Figure 72)



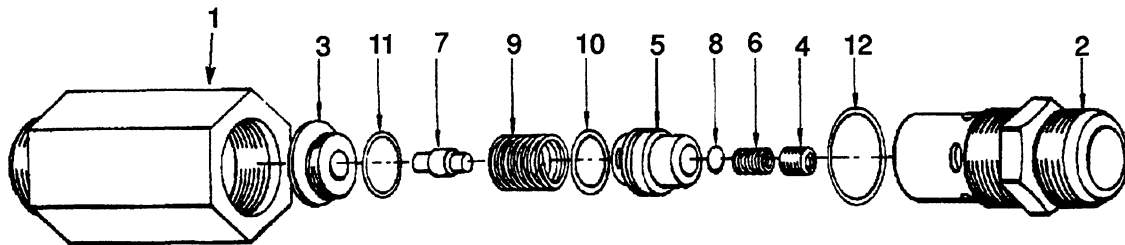
HYDRAULIC PUMP

KEY

- A: Gasoline And LPG
- B: Diesel Oil Clutch
- C: Diesel Powershift

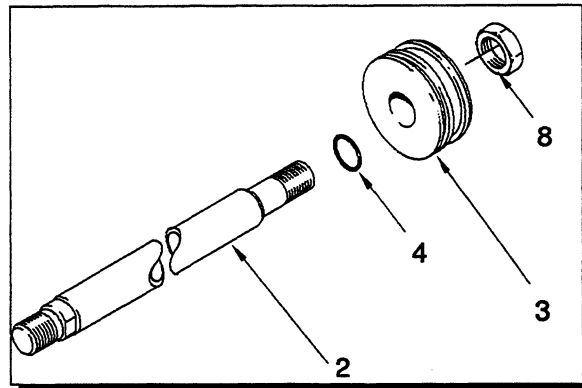
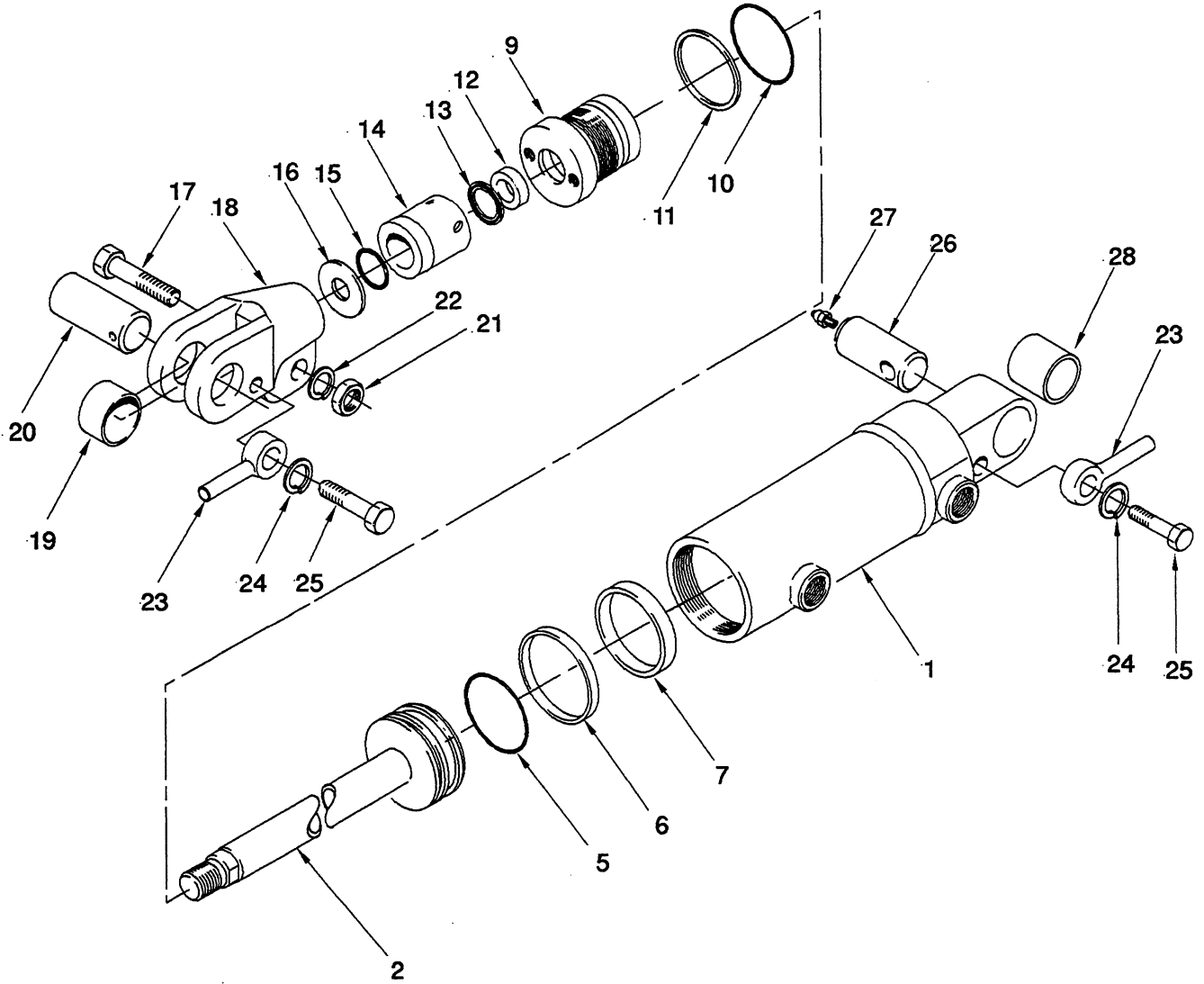
REF	PART NO.	NAME OF PART	QTY			REF	PART NO.	NAME OF PART	QTY		
			A	B	C				A	B	C
	m 291481	Hydraulic Pump	1	..	..	21	eg 333763	Flow Divider	1	..	1
	k 339981	Hydraulic Pump	1	..	..	21	kh 339984	Cartridge	1	1	1
	m 137787	Hydraulic Pump		1	..	22	d	O-Ring	1	1	1
	f 339982	Hydraulic Pump		1	..	23	.....	Piston	1	1	1
	m 305169	Hydraulic Pump .....		..	1	24	.....	Poppet	1	1	1
	kh 339982	Hydraulic Pump		1	1	25	.....	Screw	1	1	1
1	.....	Body	1	1	1	26	.....	Plug	1	1	1
2	.....	Cover (Front)	1	1	1	27	.....	Ring	1	1	1
3	.....	Cover (Rear)	1	1	1	28	.....	Spring	1	1	1
3	k 369416	Cover (Rear)	1	..	..	29	.....	Spring	1	1	1
3	kh 369417	Cover (Rear)		1	1	30	.....	Spring	1	1	1
4	a	Gear	1	1	1		a	Included In Gear Kit 168578			
5	a	Gear	1	1	1		b	Included In Minor Repair Kit 384385			
6	.....	Bearing	4	4	4		c	Included In Major Repair Kit 384384			
7	.....	Washer	6	6	6		d	Included In Cartridge Kit 144267			
8	.....	Screw	2	2	2		e	First Used On S/N F3A-1943, F3D-1956, F3T-1522			
9	.....	Screw	4	4	4		f	First Used On S/N F3A-2107, F3D-1944			
11	bc	Seal	1	1	1		g	First Used On S/N F3A-2126, F3D-1809, F3T-1523			
12	bc	Seal	1	1	1		h	First Used On S/N F3D-2310 Diesel Oil Clutch			
13	bc	Seal	1	1	1		k	First Used On S/N F3A-2450, F3D-2161, Also: 1885 1956 1982 1995 2022-2027 2051-20 2056-2057 2059-2062 2064 2066-2070 20 2074 2077 2084-2091 2094-2098 2101-21 2107-2110 2118-2120 2122 2124 2139 21 2150 2154 2157-2159 F3T-1548			
14	bc	Ring	1	1	1		m	Last Used On S/N F3D-1808 F3D-1943 F3D-1955 F3A-2125 F3A-2106 F3A-1942 F3T-1522 F3T1521			
15	bc	Ring	1	1	1						
16	d	O-Ring	1	1	1						
17	d	O-Ring	2	2	2						
18	d	Gasket	1	1	1						
19	.....	Dowel	2	2	2						
20	d	O-Ring	1	1	1						
21	168938	Flow Divider		1	..						
21	f 333762	Flow Divider		1	..						
21	321276	Flow Divider		1	..						

RELIEF VALVE (Figure 73)



REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
	147874	Relief Valve	1	6	.....	Spring	1
1	Housing	1	7	.....	Pin	1
2	Valve	1	8	.....	Ball	1
2	Housing	1	9	.....	Spring	1
3	Plug	1	10	15859	O-Ring	1
4	Set Screw	1	11	15860	O-Ring	1
5	Piston	1	12	150853	O-Ring	1

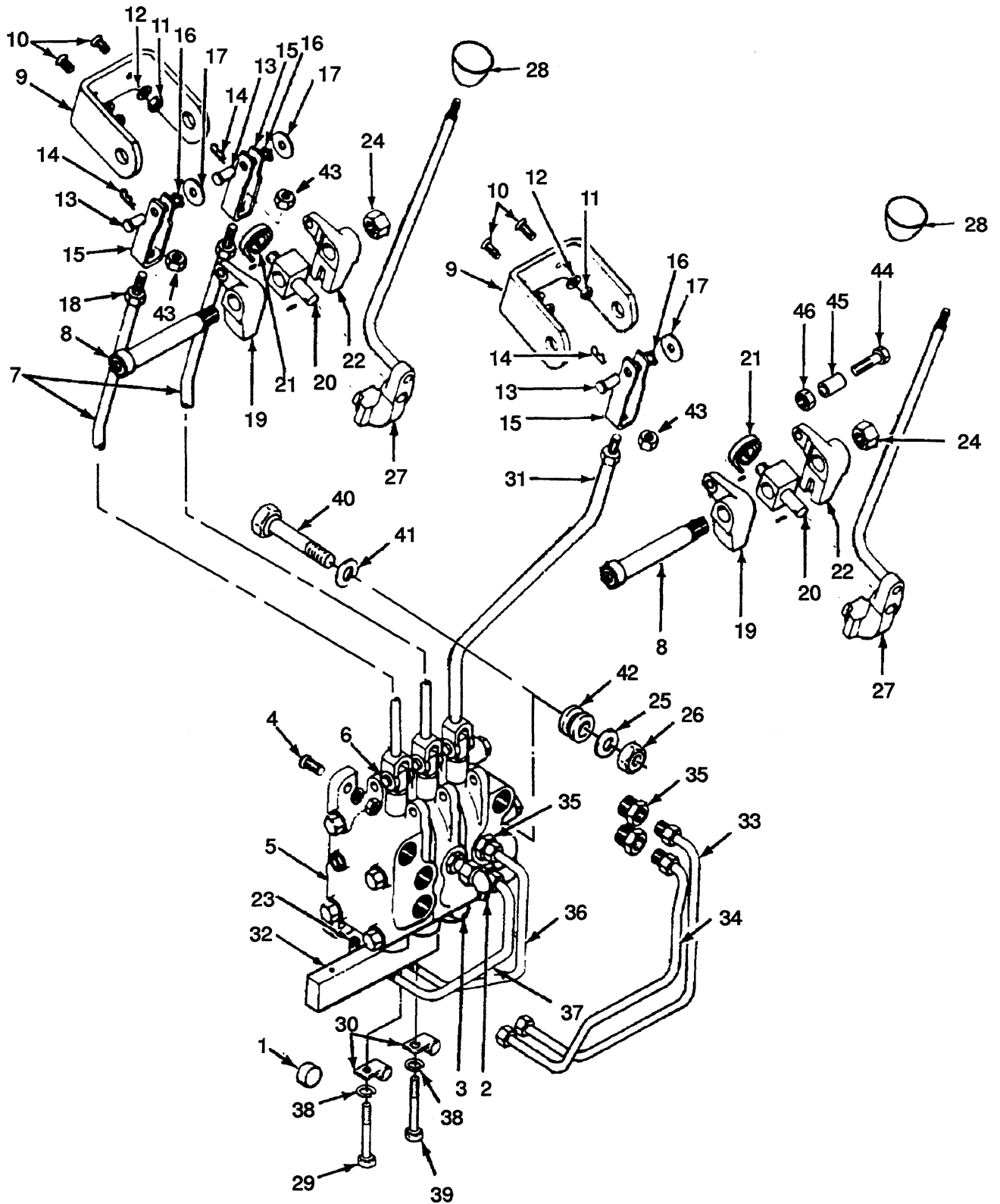
TILT CYLINDER (Figure 74)



TILT CYLINDER

REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
	q 188662	Cylinder Assembly	2	20	k 236838	Pin	2
	f 327319	Cylinder Assembly	2	21	m 15058	Nut	2
1	q 188655	Shell	1	22	m 15158	Lockwasher	2
1	f 327317	Shell	1	23	k 195566	Anchor	4
2	g 188659	Rod	1	24	k 15156	Lockwasher	4
2	fg 327318	Rod	1	25	k 16805	Capscrew	4
2	h 387057	Rod	1	26	238614	Pin	2
3	g 188660	Piston	1	27	222516	Fitting	1
4	de 199085	O-Ring	1	28	1335874	Bushing	2
5	ef 199084	O-Ring	1		a	5 Degree Forward 6 Degree Back	
6	de 199851	Seal	1		b	10 Degree Forward 5 Degree Back	
7	de 199852	Guide Ring	1		c	5 Degree Forward 10 Degree Back	
8	222679	Locknut	1		d	Included In Seal Kit 250051 For Cylinder 188662	
9	286108	Plug	1		e	Included In Seal Kit 328121 For Cylinder 327319	
9	f 327313	Plug	1		f	First Used On S/N F3D-1501, F3A-1925, F3T-1540	
10	dq 199086	O-Ring	1		g	Manufacturing Option	
10	ef 268619	O-Ring	1		h	One Piece Rod And Piston	
11	ef 147973	Back-up Ring	1		k	Included In Kit 1321196	
12	de 210180	Seal	1		m	Included In Kit 1321217	
13	de 199854	Wiper	1		n	Included In Kit 1321218	
14	ap 192877	Spacer	2		p	Included In Kit 1321219	
15	ap 55434	O-Ring	2		q	Last Used On S/N F3D-1500 F3A-1924 F3T-1539	
16	ap 134675	Shim (.060 inch) .....	..			
17	m 18589	Capscrew	2				
18	bn 192876	Rod End	2				
18	acm 192874	Rod End	2				
19	k 189066	Bushing	2				

ATTACHING PARTS (Figure 75) CONTROL VALVE



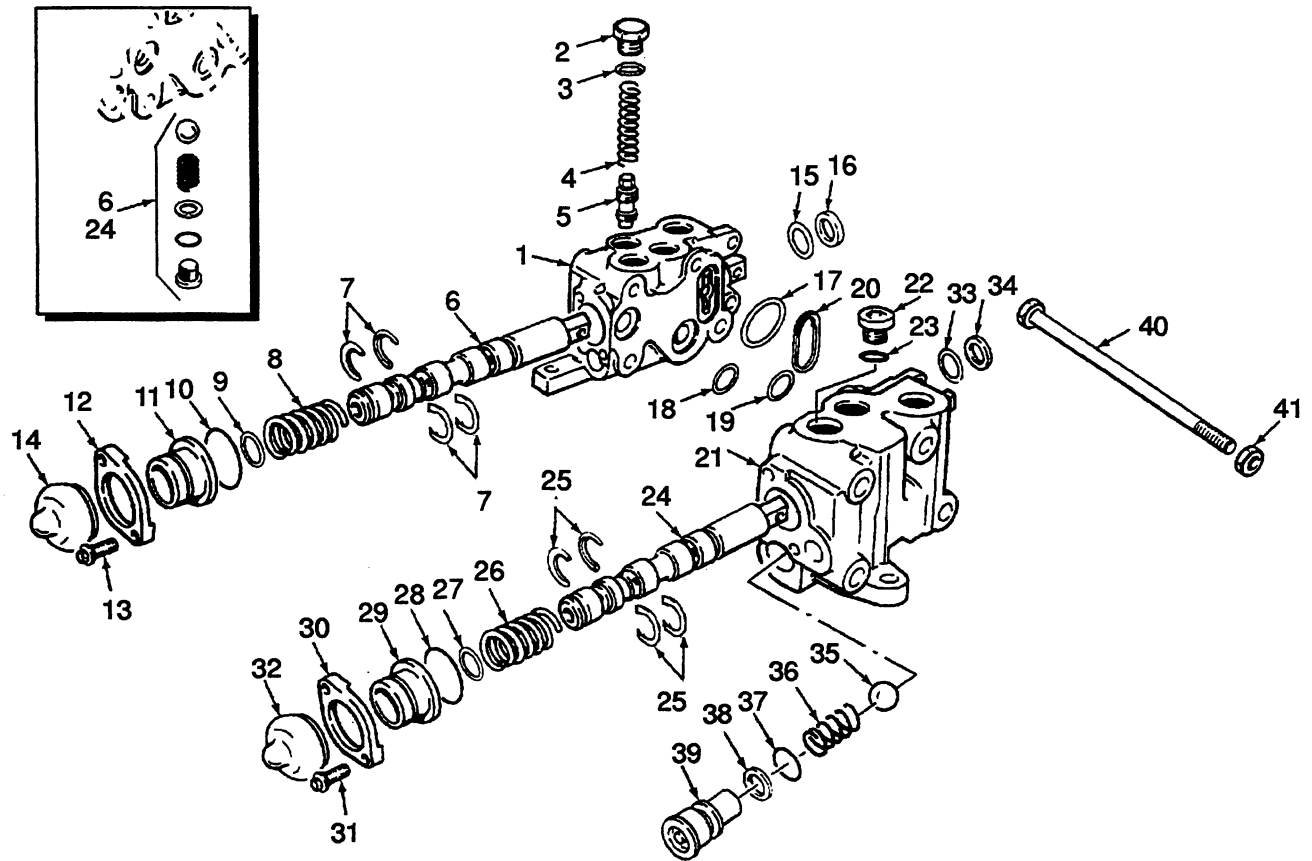
ATTACHING PARTS CONTROL VALVE

KEY

- A: Two Plunger
- B: Three Plunger
- C: Four Plunger

REF	PART NO.	NAME OF PART	QTY			REF	PART NO.	NAME OF PART	QTY		
			A	B	C				A	B	C
1	145555	Plug	4	2	2	24	222671	Nut	1	2	2
1	166296	Plug	AR	AR	AR	25	15176	Washer	1	1	1
2	83857	Fitting	1	1	1	26	145641	Nut	1	1	1
3	142682	Fitting	1	1	1	27	139148	Lever	1	1	2
3	16485	O-Ring	1	1	1	28	.....	Knob	1	1	1
4	18561	Capscrew	2	2	2			Figure 137			
4	221352	Nut	2	2	2	29	18099	Capscrew	2	2	
4	15129	Washer	2	2	2	30	a 140891	Clamp	1	2	
4	145641	Nut	2	2	2	30	b 85984	Clamp	2	2	
4	15176	Washer	3	3	3	30	b 140891	Clamp .....	..	1	
4	305161	Grommet	2	2	2	31	256603	Link	1	1	
5	.....	Valve	1	1	1	32	350966	Spacer	1	1	
		☞ Figure 76 And Figure 77 And Figure 78				33	261402	Tube .....	..	1	
6	142	Pin	3	3	4	34	261401	Tube .....	..	1	
6	15212	Pin	2	3	4	35	161656	Fitting	2	4	
7	223348	Link	2	2	2	36	261400	Tube	1	1	
8	151495	Screw	1	2	2	36	b 350967	Tube	1	1	
9	139147	Bracket	1	2	2	37	261403	Tube	1	1	
10	18739	Capscrew	2	4	4	38	15154	Lockwasher	2	2	
11	145641	Nut	2	4	4	38	b 15154	Lockwasher	3	3	
12	15176	Washer	2	4	4	39	b 12949	Capscrew	1	1	
13	240724	Pin	2	3	4	40	16376	Capscrew	1	1	1
14	19975	Pin	2	3	4	41	15176	Washer	1	1	1
15	139152	Rod End	2	3	4	42	305162	Grommet	1	1	1
16	140393	Washer	2	3	4	43	15026	Nut	4	2	2
17	15175	Washer	2	3	4	44	18509	Capscrew	1	..	
18	15026	Nut	4	6	8	45	149678	Spacer	1	..	
19	114381	Lever	1	1	2	46	145639	Nut	1	..	
20	199001	Pin	1	1	2						
21	19979	Spring	1	1	2	a	Last Used On S/N F3A-4731, F3D-2875, F3T-1564				
21	199000	Pin	1	1	2	b	First Used On S/N F3A-4732, F3D-2876, F3T-1564				
22	114382	Lever	1	1	2						
23	14479	Fitting	2	4							

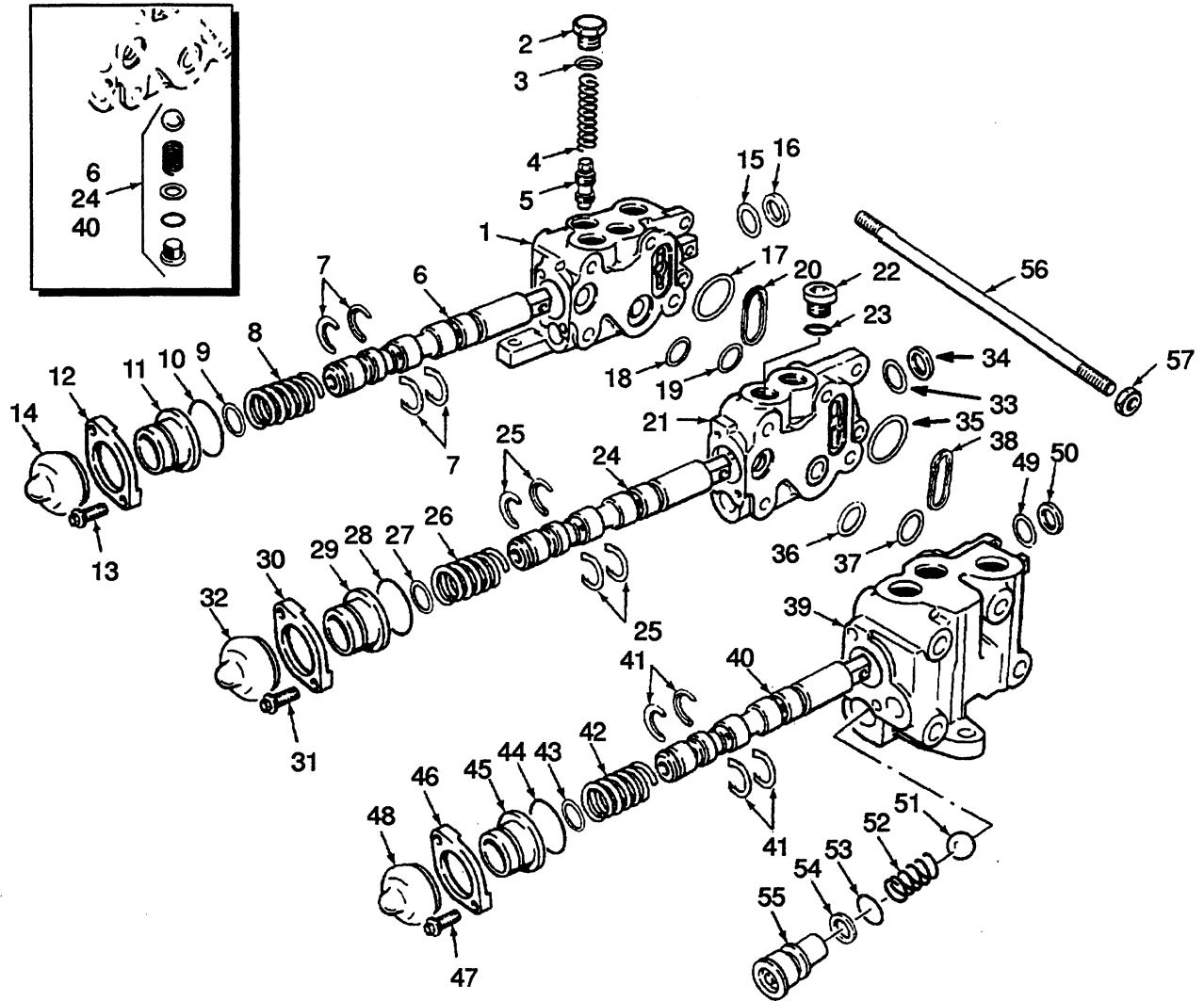
CONTROL VALVE (Figure 76) TWO PLUNGER



CONTROL VALVE TWO PLUNGER

REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
	329733	Valve	1	23	a	O-ring	1
1	322448	Inlet Section	1	24		Spool	1
2	14595	Fitting	1	24		Spool (Inner)	1
3	a	O-Ring	1	24	250525	Spring	1
4	144120	Spring	1	24	21278	Ball	1
5	280299	Valve	1	24	264310	Shim	AR
6		Spool	1	24	134436	Fitting	1
6		Spool (Inner)	1	24	16482	O-Ring	1
6	250525	Spring	1	25	144125	Washer	2
6	21278	Ball	1	26	144126	Spring	1
6	264310	Shim	AR	27	a	Ring	1
6	134436	Fitting	1	28	a	O-Ring	1
6	16482	O-Ring	1	29	144127	Sleeve	1
7	144125	Washer	2	30	144128	Retainer	1
8	144126	Spring	1	31	144129	Capscrew	2
9	a	Ring	1	32	1335566	Cover	1
10	a	O-Ring	1	33	a	Ring	1
11	144127	Sleeve	1	34	a	Back-up Ring	1
12	144128	Retainer	1	35	68965	Ball	1
13	144129	Capscrew	2	36	144136	Spring	1
14	1335566	Cover	1	37	a	O-ring	1
15	a	Ring	1	38	a	Back-up Ring	1
16	a	Back-up Ring	1	39	144137	Plug	1
17	a	Seal	1	40		Capscrew	4
18	a	Seal	1	40	a	Shim (Not Illustrated)	AR
19	a	Seal	1	41	15056	Nut	4
20	a	Retainer	1				
21	284069	Outlet Section	1				
22	216590	Fitting	1				
				a		Included In Seal Kit 362474	

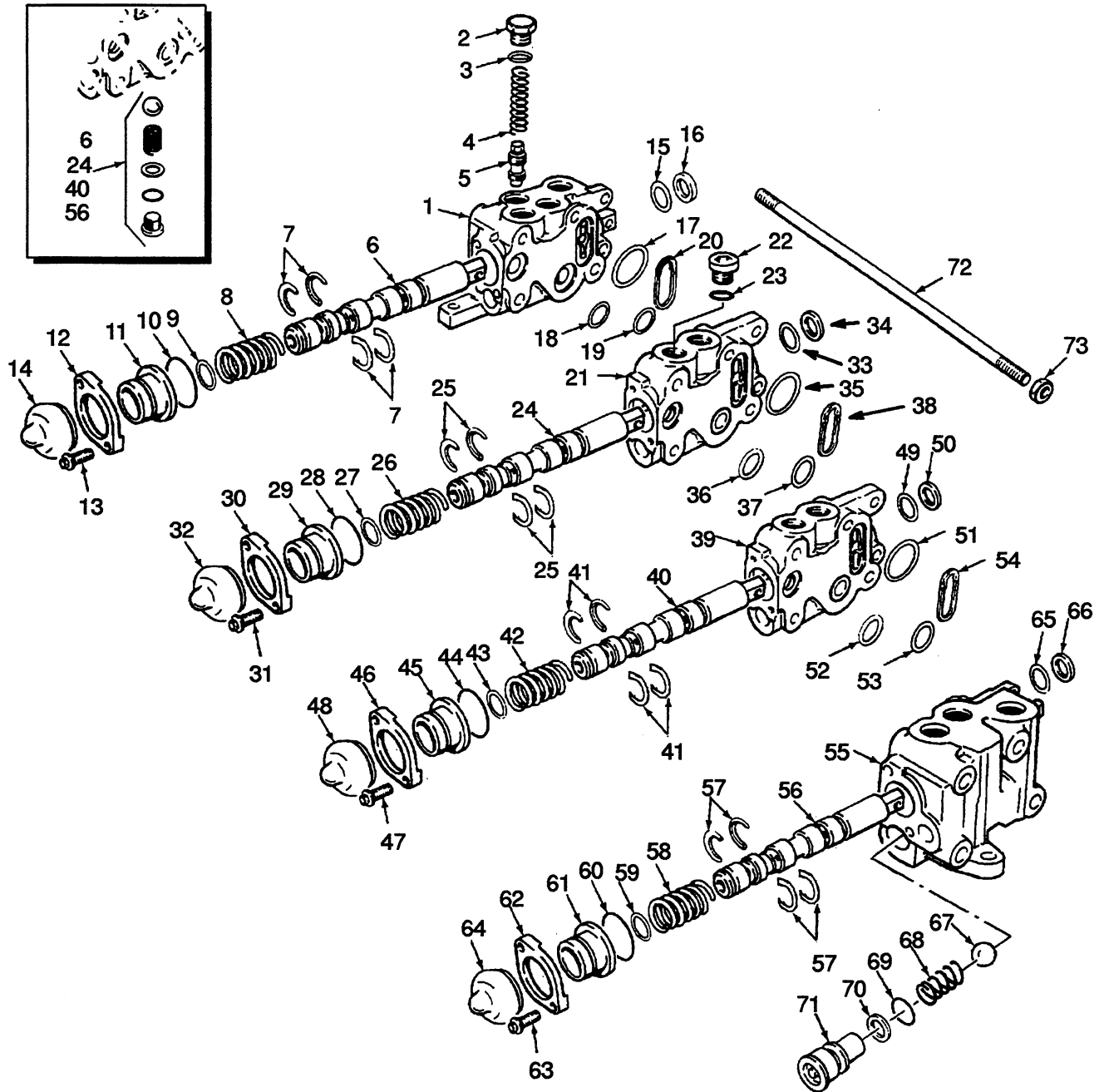
CONTROL VALVE (Figure 77) THREE PLUNGER



CONTROL VALVE THREE PLUNGER

REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
	329732	Valve	1	29	144127	Sleeve	1
1	322448	Inlet Section	1	30	144128	Retainer	1
2	14595	Fitting	1	31	144129	Capscrew	1
3	a	O-Ring	1	32	1335566	Cover	1
4	144120	Spring	1	33	a	Ring	1
5	280299	Valve	1	34	a	Ring	1
6	.....	Spool	1	35	a	Seal	1
6	.....	Spool (Inner)	1	36	a	Seal	1
6	250525	Spring	1	37	a	Seal	1
6	21278	Ball	1	38	a	Retainer	1
6	264310	Shim	AR	39	284070	Outlet Section	1
6	16482	O-Ring	1	40	.....	Spool	1
7	144125	Washer	2	40	.....	Spool Inner	1
8	144126	Spring	1	40	250525	Spring	1
9	a	Ring	1	40	21278	Ball	1
10	a	O-Ring	1	40	264310	Shim	AR
11	144127	Sleeve	1	40	134436	Fitting	1
12	144128	Retainer	1	40	16482	O-Ring	1
13	144129	Capscrew	2	41	144125	Washer	2
14	1335566	Cover	1	42	144126	Spring	1
15	a	Ring	1	43	a	Ring	1
16	a	Back-up Ring	1	44	a	O-Ring	1
17	a	Seal	1	45	144127	Sleeve	1
18	a	Seal	1	46	144128	Retainer	1
19	a	Seal	1	47	144129	Capscrew	2
20	a	Retainer	1	48	1335566	Cover	1
21	284067	Center Section	1	49	a	Ring	1
22	233693	Fitting	1	50	a	Back-up Ring	1
23	a	O-Ring	1	51	68965	Ball	1
24	.....	Spool	1	52	144136	Spring	1
24	.....	Spool (Inner)	1	53	a	O-Ring	1
24	250525	Spring	1	54	a	Back-up Ring	1
24	21278	Ball	1	55	144137	Plug	1
24	264310	Shim	AR	56	b	Stud	4
24	134436	Fitting	1	56	a	Shim (Not Illustrated)	AR
24	16482	O-Ring	1	57	b	Nut	8
25	144125	Washer	1				
26	144126	Spring	1				
27	a	Ring	1	a	Included In Seal Kit 362550		
28	a	O-Ring	1	b	Included In Stud Kit 377927		

CONTROL VALVE (Figure 78) FOUR PLUNGER



CONTROL VALVE FOUR PLUNGER

REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
	329731	Valve	1	39	284068	Center Section	1
1	322448	Inlet Section	1	40	.....	Spool	1
2	14595	Fitting	1	40	.....	Spool (Inner)	1
3	a	O-Ring	1	40	250525	Spring	1
4	144120	Spring	1	40	21278	Ball	1
5	280299	Valve	1	40	264310	Shim	AR
6	.....	Spool	1	40	134436	Fitting	1
6	.....	Spool (Inner)	1	40	16482	O-Ring	1
6	250525	Spring	1	41	144125	Washer	2
6	21278	Ball	1	42	144126	Spring	1
6	264310	Shim	AR	43	a	Ring	1
6	134436	Fitting	1	44	a	O-Ring	1
6	16482	O-Ring	1	45	144127	Sleeve	1
7	144125	Washer	2	46	144128	Retainer	1
8	144126	Spring	1	47	144129	Capscrew	2
9	a	Ring	1	48	1335566	Cover	1
10	a	O-Ring	1	49	a	Ring	1
11	144127	Sleeve	1	50	a	Back-up Ring	1
12	144128	Retainer	1	51	a	Seal	1
13	144129	Capscrew	2	52	a	Seal	1
14	1335566	Cover	1	53	a	Seal	1
15	a	Ring	1	54	a	Retainer	1
16	a	Back-up Ring	1	55	284070	Outlet Section	1
17	a	Seal	1	56	.....	Spool	1
18	a	Seal	1	56	.....	Spool (Inner)	1
19	a	Seal	1	56	250525	Spring	1
20	a	Retainer	1	56	21278	Ball	1
21	284067	Center Section	1	56	264310	Shim	AR
22	233693	Fitting	1	56	134436	Fitting	1
23	.....	O-Ring	1	56	16482	O-Ring	1
24	.....	Spool	1	57	144125	Washer	1
24	.....	Spool (Inner)	1	58	144126	Spring	1
24	250525	Spring	1	59	a	Ring	1
24	21278	Ball	1	60	a	O-Ring	1
24	264310	Shim	AR	61	144127	Sleeve	1
24	134436	Fitting	1	62	144128	Retainer	1
24	16482	O-Ring	1	63	144129	Capscrew	2
25	144125	Washer	2	64	1335566	Cover	1
26	144126	Spring	1	65	a	Ring	1
27	a	Ring	1	66	a	Back-up Ring	1
28	a	O-Ring	1	67	68965	Ball	1
29	144127	Sleeve	1	68	144136	Spring	1
30	144128	Retainer	1	69	a	O-Ring	1
31	144129	Capscrew	2	70	a	Back-up Ring	1
32	1335566	Cover	1	71	144137	Plug	1
33	a	Ring	1	72	377928	Stud	4
34	a	Back-up Ring	1	72	a	Shim (Not Illustrated)	AR
35	a	Seal	1	73	15056	Nut	8
36	a	Seal	1				
37	a	Seal	1				
38	a	Retainer	1	a	Included In Seal Kit 362551		

STEERING SYSTEM

HAND PUMP (Figure 83) Page 166

PLUMBING (Figure 79)
STEERING Page 158

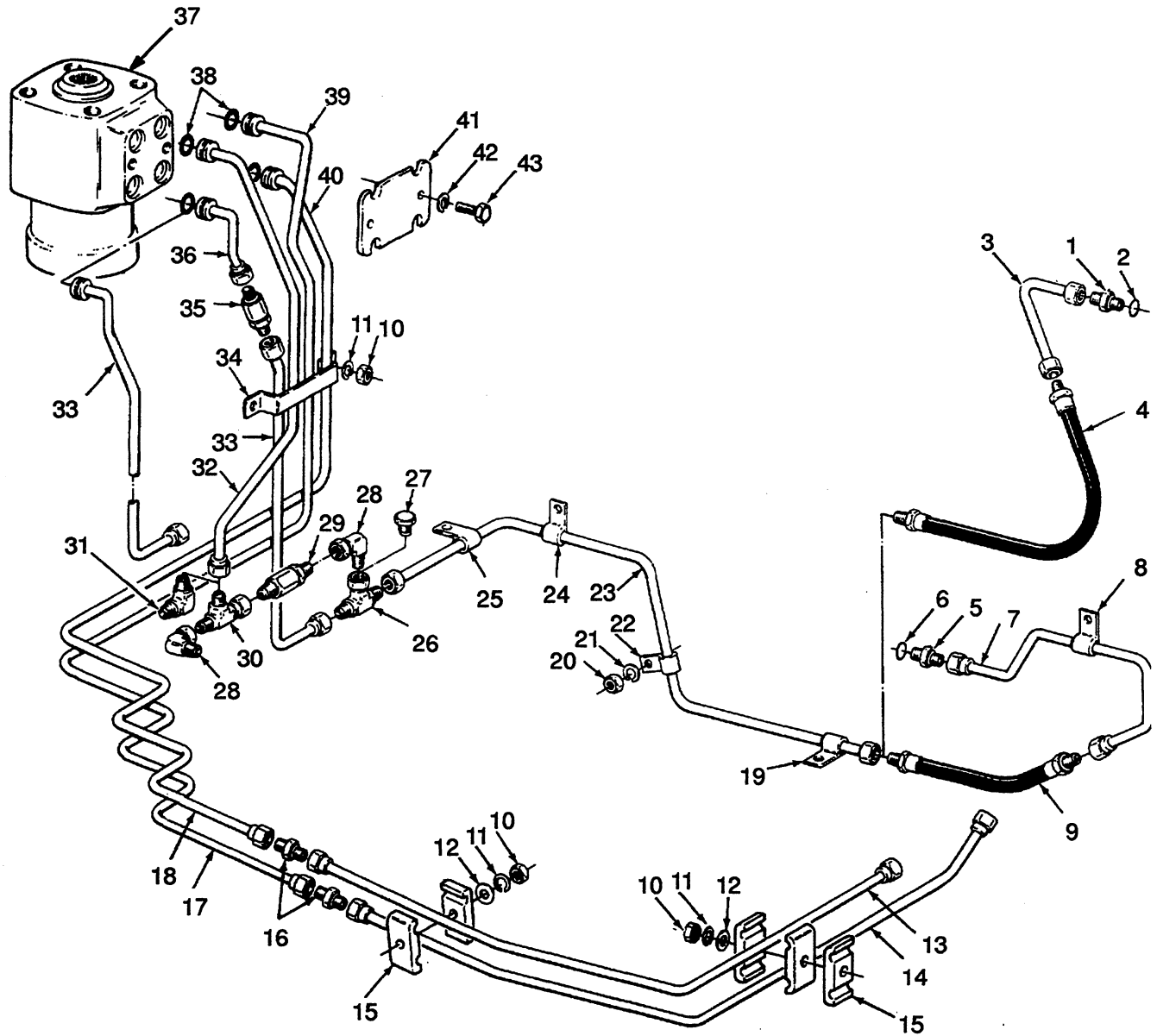
STEER AXLE (Figure 80) Page 160

STEERING CONTROL (Figure 81)
LAST USED ON S/N F3D-2190 POWER SHIFT,
F3D-2209 OIL CLUTCH Page 162

STEERING CONTROL (Figure 82)
FIRST USED ON S/N F3A-1501, F3H-1501,
F3D-2191 POWER SHIFT, F3D-2210 OIL CLUTCH Page 164

STEERING CYLINDER (Figure 84) Page 168

PLUMBING (Figure 79) STEERING



PLUMBING STEERING

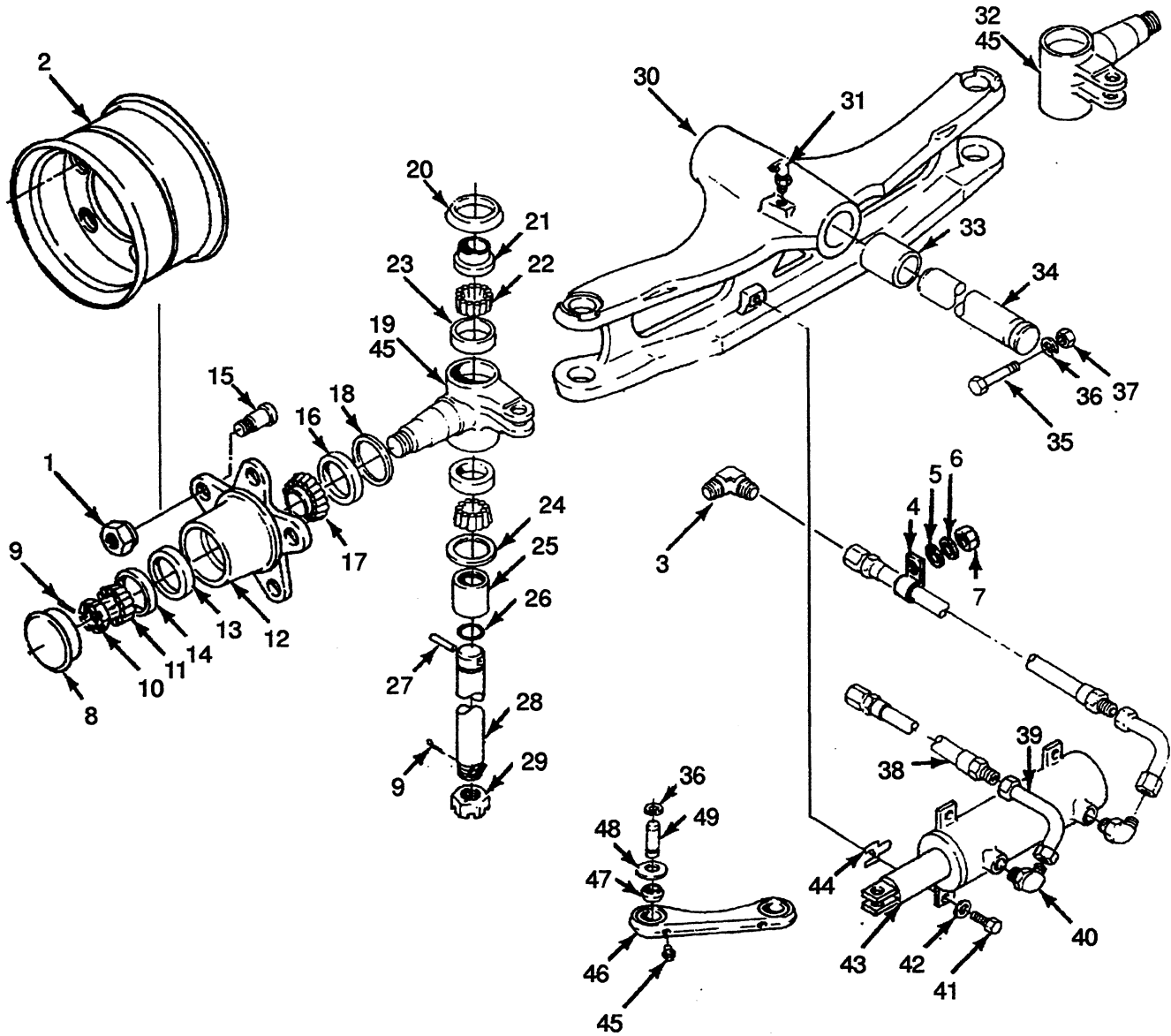
KEY

A: Gasoline And LPG

B: Diesel

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
1	16745	Fitting	1	1	28	a 16883	Fitting	2	2
2	16484	O-Ring	1	1	29	a 147874	Valve	1	1
3	298840	Tube .....	..	1	30	a 17061	Fitting	1	1
4	c 311247	Hose .....	..	1	31	b 14479	Fitting	1	1
5	16543	Fitting	1	1	32	294981	Tube	1	1
6	16486	O-Ring	1	1	33	294982	Tube	1	1
7	311234	Tube	1	..	33	c 334954	Tube	1	1
8	164365	Clamp	1	..	34	192288	Clamp	1	1
9	c 311248	Hose	1	..	35	c 141183	Check Valve	1	1
10	15055	Nut	4	4	36	c 334955	Tube	1	1
11	15155	Lockwasher	4	4	37	.....	Hand Pump	1	1
12	221733	Washer	2	2			☞ Figure 84		
13	316995	Tube	1	1	38	60653	O-Ring	4	4
14	316996	Tube	1	1	39	294980	Tube	1	1
15	269781	Clamp	5	5	40	294979	Tube	1	1
16	14691	Fitting	2	2	41	223033	Plate	1	1
17	294980	Tube	1	1	42	15156	Lockwasher	2	2
18	294979	Tube	1	1	43	16696	Capscrew	2	2
19	164365	Clamp	1	1					
20	15056	Nut	1	1	a	Powershift			
21	15156	Lockwasher	1	1	b	Oil Clutch			
22	164488	Clamp	1	1	c	First Used On S/N F3A-1943 Diesel Power Shift			
23	324120	Tube	1	1		F3A-2107 Diesel Oil Clutch F3A-2126 Gasoline			
24	119338	Clamp	1	1		F3D-1809 Gasoline LPG F3D-1944 Diesel			
25	188631	Clamp	1	1		F3D-1956 Diesel PS F3T-1522 Diesel Power			
26	17049	Fitting	1	1		Shift			
27	b 16933	Fitting	1	1		F3T-1523 Gasoline And LPG			

STEER AXLE (Figure 80)



STEER AXLE

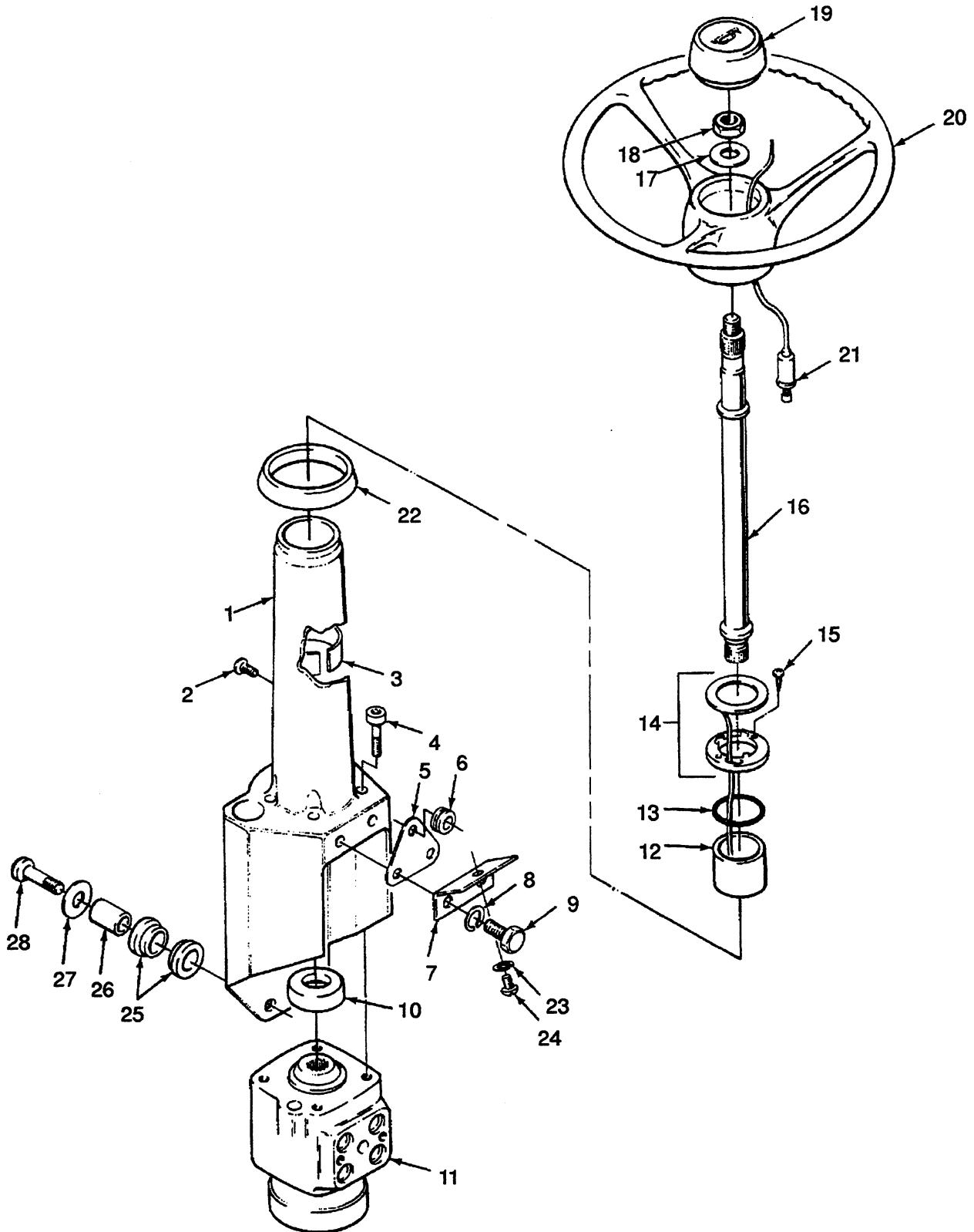
REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
1	60949	Nut	10	33	eh 305976	Bushing	2
2	.....	Wheel	2	34	c 300741	Pin	1
		☞ Figure 136		34	eh 306799	Pin	1
3	14479	Fitting	2	35	e 292537	Capscrew	1
4	298132	Clamp	2	36	58903	Snap Ring	8
5	15129	Washer	2	37	ce 300937	Nut	1
6	15156	Lockwasher	2	38	a 316997	Hose	2
7	15056	Nut	2	38	b 316998	Hose	2
8	69029	Cap	2	39	308994	Tube	2
9	15225	Pin	4	40	16558	Fitting	2
9	h 15226	Pin	4	40	16483	O-Ring	1
10	53641	Nut	2	41	293647	Capscrew	4
11	317076	Cone	2	41	g 92816	Capscrew	4
12	332831	Hub	2	42	292683	Lockwasher	4
13	163970	Cup	2	43	.....	Cylinder	1
14	317075	Cup	2			☞ Figure 84	
15	60945	Stud	10	44	231739	Shim (.005 inch)	4
16	d 164639	Sleeve	2	45	13957	Fitting	4
17	30273	Bearing	2	46	381298	Tie Rod	2
18	44542	Seal	2	47	300751	Bushing	4
19	n 1310599	Spindle (LH)	1	48	300752	Washer	8
19	p 1310599	Spindle (LH)	1	49	326498	Pin	4
20	264973	Seal	2				
21	d 300767	Spacer	2	a	H40-50J Standard, H50J And H60JS Stevedoring		
22	d 156195	Bearing	4	b	H60JS Standard		
23	d 156194	Bearing	4	c	Included In Center Pin Kit 334718		
24	d 98525	Seal	2	d	Included In Kingpin Kit 334717		
25	d 300766	Sleeve	2	e	Included In Center Pin Kit 306796		
26	d 39352	O-Ring	2	g	First Used On S/N F3A-2848, F3D-2518, F3T-1550		
27	d 226986	Pin	2	h	First Used On S/N F3A-3276 3257 3270 F3D-2518 F3T-1550		
28	d 300765	Kingpin	2	k	Last Used On S/N F3A-5372		
29	249289	Nut	2	m	First Used On S/N F3A-5373		
30	300726	Axle	1	n	Last Used On S/N F3A-6064		
30	hk 306795	Axle	1	p	First Used On S/N F3A-6065		
30	m 375638	Axle	1				
31	16015	Fitting	1				
32	1315425	Spindle (RH)	1				
33	c 309679	Bushing	2				

STEERING CONTROL

LAST USED ON S/N F3D-2190 POWER SHIFT, F3D-2209 OIL CLUTCH

REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
1	121138	Wheel	1	13	.....	Hand Pump	1
2	300545	Cover	1			☞ Figure 83	
3	63597	Button	1	14	294418	Bearing	1
4	21766	Contact Cup	1	15	130439	Ring	1
4	21764	Contact Cap	1	16	55467	Seal	1
4	111637	Spring	1	17	328469	Tube	4
5	111627	Plate	1	18	185790	Capscrew	4
5	16655	Screw	3	19	294414	Bracket	1
6	121137	Sleeve	1	20	130454	Bushing	1
6	121135	Spring	1	21	133469	Capscrew	2
6	123475	Brush	2	22	15154	Lockwasher	2
7	139096	Contact Ring Assembly	1	23	130453	Bracket	1
7	130471	Contact Ring	1	24	185792	Washer	4
7	138748	Wire	1	25	185793	Isolator	8
7	130470	Ring	1	26	185791	Spacer	4
8	164119	Screw	2	27	227096	Screw	1
9	15028	Nut	1	28	15152	Lockwasher	2
9	15135	Washer	1	28	16651	Screw	2
10	333787	Shaft	1	29	333782	Contact Assembly	1
11	^a 295564	Column	1			^a Powershift With Forward And Reverse Lever, And Oil Clutch	
11	^b	Column	1			^b Powershift With Monotrol Pedal	
12	1335866	Bushing	1				
12	61142	O-Ring	1				

STEERING CONTROL (Figure 82) FIRST USED ON S/N F3A-1501, F3H-1501, F3D-2191 POWER SHIFT, F3D-2210 OIL CLUTCH



STEERING CONTROL

FIRST USED ON S/N F3A-1501, F3H-1501,
F3D-2191 POWER SHIFT, F3D-2210 OIL CLUTCH

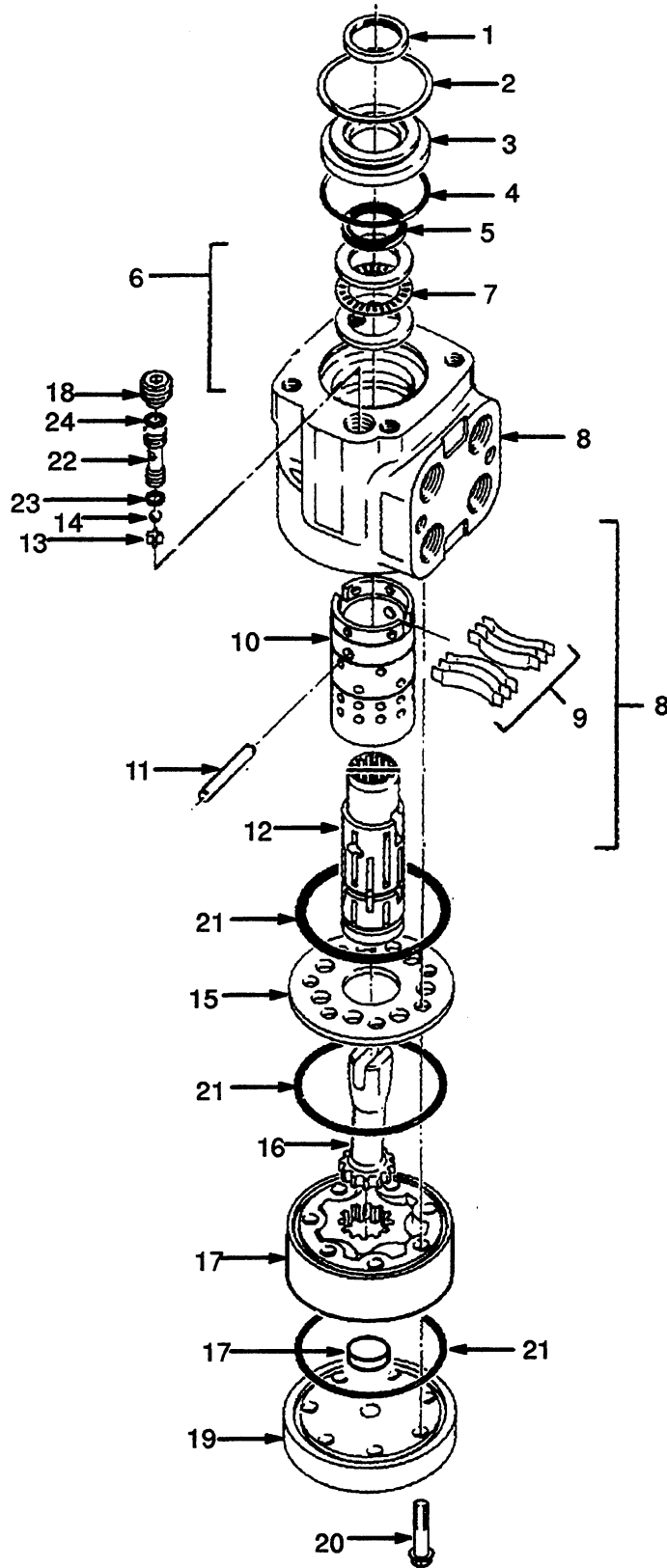
KEY

A: Monotrol

B: Forward/Reverse Shift Lever

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
	338195	Steering Control	1	..	14	139096	Contact Ring Assembly ...	1	1
	338196	Steering Control .....	..	1	14	130471	Contact Ring	1	1
1	.....	Column	1	..	14	138748	Wire	1	1
1	295564	Column .....	..	1	15	164119	Screw	2	2
2	227096	Screw	1	1	16	333787	Shaft	1	1
3	130439	Ring	1	1	17	15135	Washer	1	1
4	298197	Capscrew	4	4	18	15028	Nut	1	1
5	130453	Bracket	1	1	19	371666	Button	1	1
6	130454	Bushing	1	1	20	333783	Wheel	1	1
7	294414	Bracket	1	1	21	333782	Contact Assembly	1	1
8	15154	Lockwasher	2	2	22	61843	Washer	1	1
9	133469	Capscrew	2	2	23	15152	Lockwasher	2	2
10	294418	Bearing	1	1	24	16651	Screw	2	2
11	.....	Hand Pump	1	1	25	185793	Isolator	8	8
		☞ Figure 83			26	185791	Spacer	4	4
12	1335866	Bushing	1	1	27	185792	Washer	4	4
13	61142	O-Ring	1	1	28	185790	Capscrew	4	4

HAND PUMP (Figure 83)

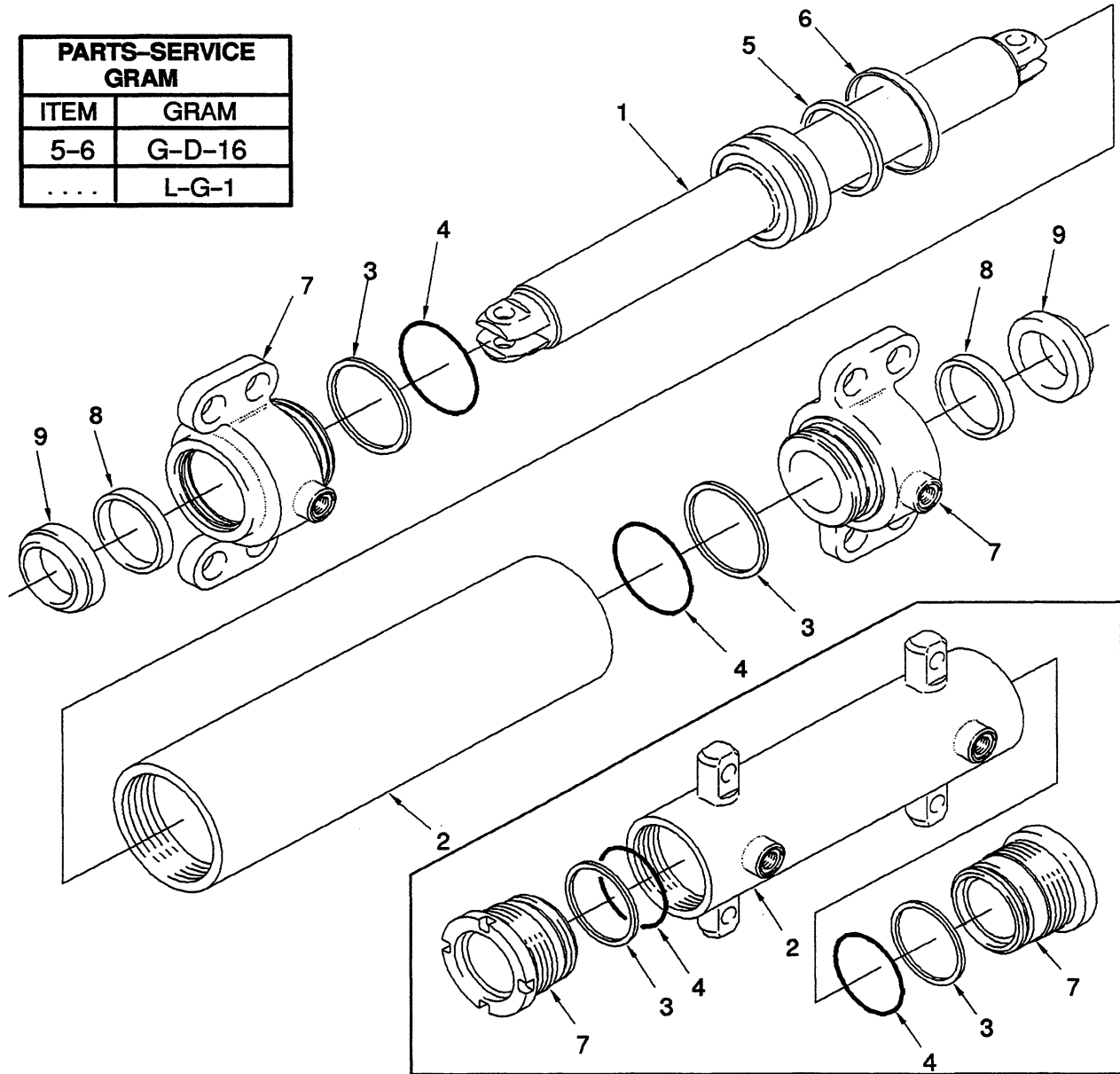


HAND PUMP

REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
	288263	Pump	1	14	291422	Ball	1
1	314993	Seal Kit	1	15	.....	Plate	1
2	258171	Ring	1	16	158832	Drive	1
3	258172	Bushing	1	17	290419	Gear Set	1
4	92861	O-ring	1	17	.....	Star	1
5	210356	Seal	1	17	.....	Ring	1
6	271288	Bearing Kit	2	17	.....	Spacer	1
7	209627	Bearing	1	18	291421	Setscrew	1
8	291417	Control Assembly	1	19	.....	Cap	1
8	.....	Housing	1	20	271287	Capscrew	7
9	389639	Spring Kit	6	21	291423	O-Ring	3
10	.....	Sleeve	1	22	291420	Seat	1
11	158839	Pin	1	23	15859	O-Ring	1
12	.....	Spool	1	24	15860	O-Ring	1
13	291418	Retainer	1				

STEERING CYLINDER (Figure 84)

PARTS-SERVICE GRAM	
ITEM	GRAM
5-6	G-D-16
....	L-G-1



Key

A: Last Used On S/N F3A-5372
B: First Used On S/N F3A-5373

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
	300748	Cylinder	1	..	5	243190	Seal .....	..	1
	8602201	Cylinder .....	..	1	6	^a 365055	Seal	1	..
1	300749	Rod	1	..	6	243190	Seal .....	..	1
1	375634	Rod .....	..	1	7	328393	Plug	2	..
2	300785	Shell	1	..	7	1321149	Plug .....	..	2
2	375635	Shell .....	..	1	8	^a 210183	Seal	2	2
3	^a 147983	Cover	2	2	9	^a 203071	Wiper	2	2
4	^a 55146	O-ring	2	..					
4	130825	O-ring .....	..	2					
5	^a 365054	Seal	1	..					

^a Included In Seal Kit 333742

INTERMEDIATE FREE LIFT MAST

CARRIAGE (Figure 89) Page 178

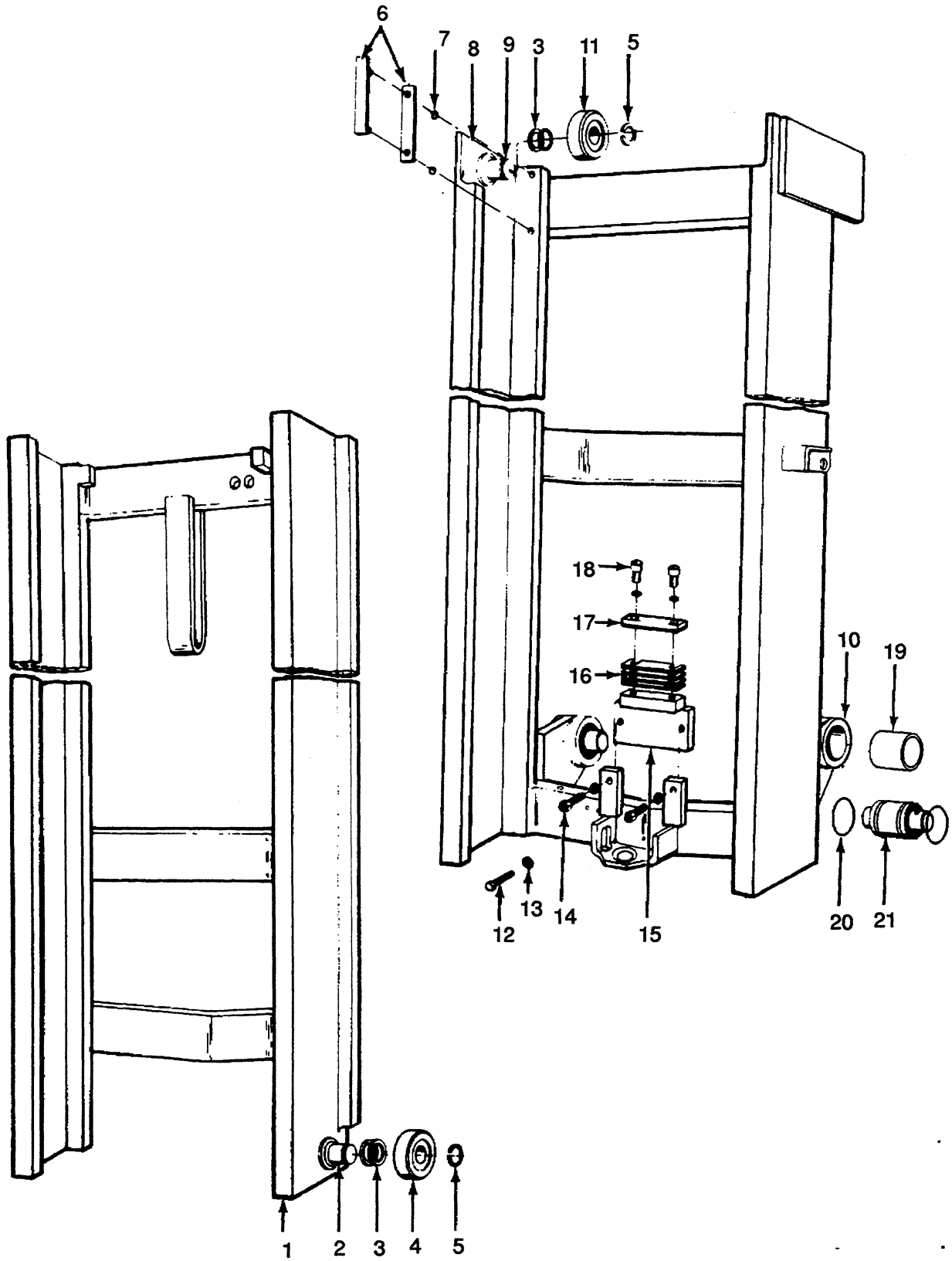
HEADER HOSE (Figure 87)
INTERMEDIATE FREE LIFT Page 174

LIFT CYLINDER (Figure 88) Page 176

LIFT (Figure 86) Page 172

MAST (Figure 85) Page 170

MAST (Figure 85)



MAST

H40-50J (H2.00-2.50J)

REF	NAME OF PART	Lift Height To Bottom Of Fork						QTY
		104.5 inch (2650 mm)	116.5 inch (2960 mm)	148.5 inch (3770 mm)	178.5 inch (4530 mm)	190.5 inch (4840 mm)	202.5 inch (5140 mm)	
	Upright	192862	192863	192865	289249	289250	289251	1
1	Inner	210264	210265	210267	289258	289259	289260	1
8	Outer	192870	192871	192873	289254	289255	289256	1

H60JS (H3.00JS)

REF	NAME OF PART	Lift Height To Bottom Of Fork						QTY
		98.5 inch (2500 mm)	110.5 in (2810 mm)	122.5 in (3110 mm)	142.5 in (3620 mm)	178.5 in (4530 mm)	190.5 in (4840 mm)	
	Upright	184751	184753	184754	184755	289321	289322	1
1	Inner	210271	210272	210273	210274	289352	289353	1
8	Outer	193053	193054	193055	193056	289324	289350	1

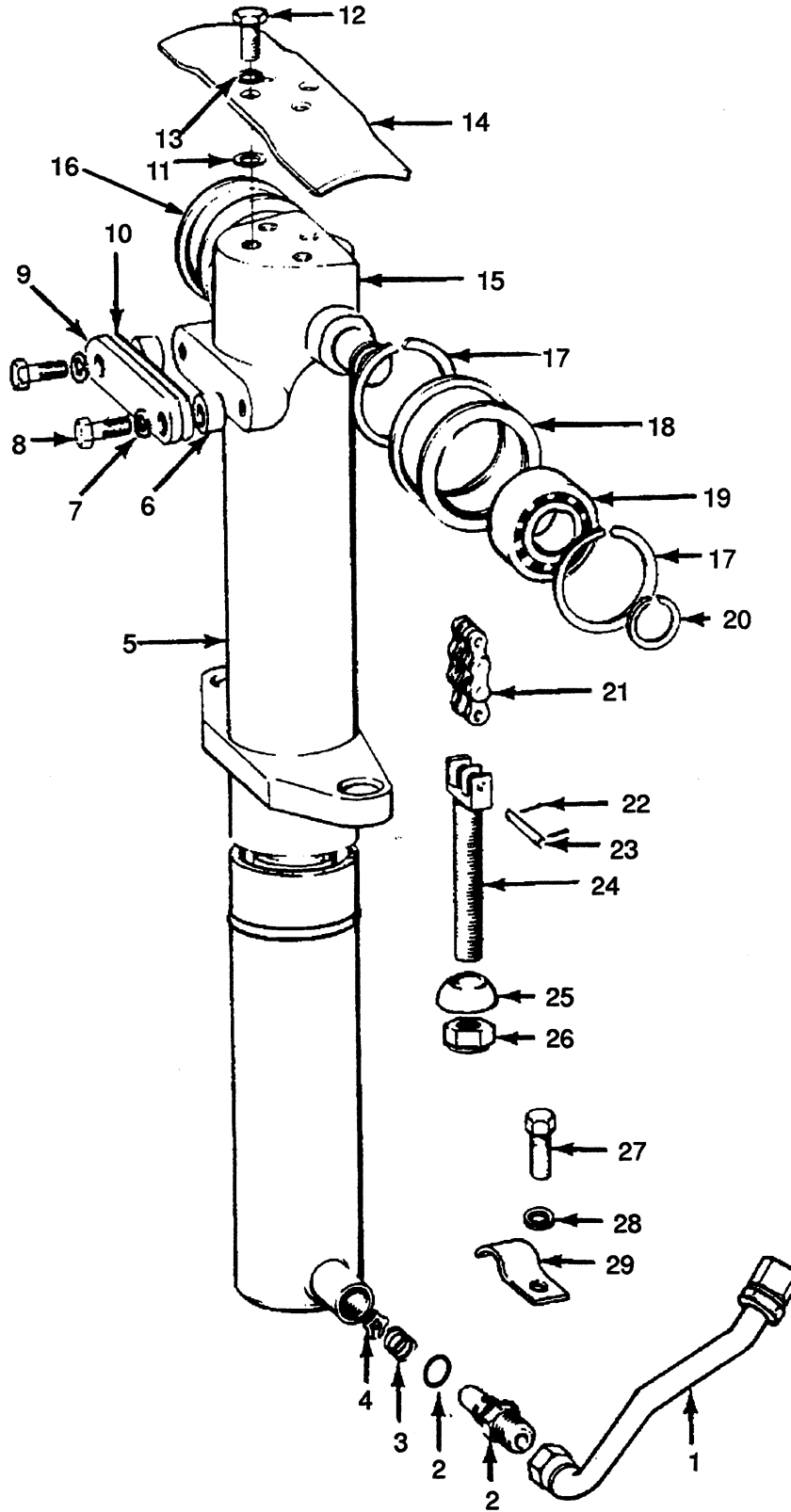
KEY

A: H40-50J (H2.00-2.50J)

B: H60JS (H3.00JS)

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
	a	..... Mast	1	1	14	37562	Capscrew	2	..
1	a	..... Mast (Inner)	1	1	14	16807	Capscrew	..	2
2	129259	Stub Shaft	2	2	14	15158	Lockwasher	2	2
3	129387	Shim	AR	AR	14	b 164638	Spacer	2	2
4	329091	Load Roller	2	2	15	135593	Bracket	1	..
5	58901	Snap Ring	4	4	15	143335	Bracket	..	1
6	c 215211	Bearing Strip	2	2	16	136310	Shim (.065 inch)	AR	AR
6	c 131716	Shim	AR	AR	16	150136	Shim (.035 inch)	AR	AR
7	c 104506	O-Ring	4	4	17	136309	Cushion	1	1
8	a	..... Mast (Outer)	1	1	18	16337	Capscrew	2	2
9	129259	Stub Shaft	2	2	18	177946	Lockwasher	2	2
10	135606	Hanger (LH)	1	..	19	148159	Bushing	2	2
10	135605	Hanger (RH)	1	..	20	118649	O-Ring	4	4
10	142986	Hanger (LH)	..	1	20	55407	O-Ring	2	2
10	142985	Hanger (RH)	..	1	21	328468	Pin	2	2
11	329090	Load Roller	2	2					
12	21844	Capscrew	..	1	a	See Chart Above			
13	177947	Lockwasher	..	1	b	Masts 148.5 Inch And Higher			
13	15134	Washer	..	3	c	Included In Bearing Kit 129354			

LIFT (Figure 86)



LIFT

H40-50J (H2.00-2.50J)

REF	NAME OF PART	Lift Height To Bottom Of Fork							QTY
		104.5 inch (2650mm)	116.5 inch (2960mm)	128.5 inch (3260mm)	148.5 inch (3770mm)	178.5 inch (4530mm)	190.5 inch (4840mm)	202.5 inch (5140mm)	
21	Lift Chain	135619	164474	135634	177352	336392	336393	336394	1

H60JS (H3.00JS)

REF	NAME OF PART	Lift Height To Bottom Of Fork							QTY
		98.5 inch (2500mm)	110.5 inch (2810mm)	122.5 inch (3110mm)	142.5 inch (3620mm)	166.5 inch (4230mm)	178.5 inch (4530mm)	190.5 inch (4840mm)	
21	Lift Chain	184711	184716	184721	184726	289363	315299	315348	1

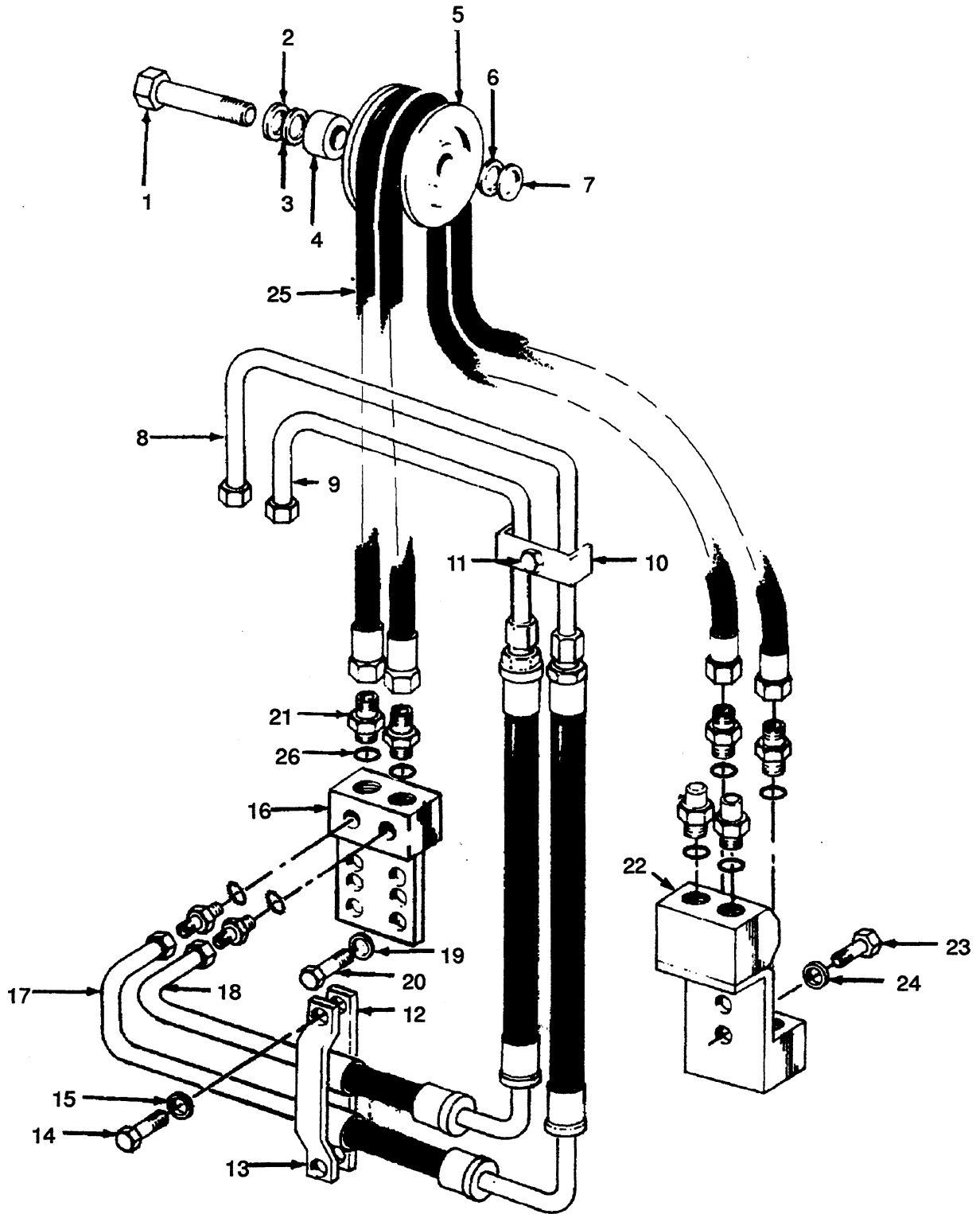
KEY

A: H40-50J (H2.00-2.50J)

B: H60JS (H3.00JS)

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
1	144495	Hose	1	..	15	184737	Crosshead .....	..	1
1	144883	Hose .....	..	1	16	216060	Sheave	2	..
2	197902	Fitting	1	..	16	216098	Sheave .....	..	2
2	197901	Fitting .....	..	1	17	60592	Snap Ring	4	4
3	145592	Spring	1	..	18	129356	Sheave	2	..
3	154355	Spring .....	..	1	18	184740	Sheave .....	..	2
4	113921	Washer	1	1	19	135609	Bearing	2	2
5	.....	Cylinder	1	1	20	58908	Snap Ring	2	2
		☞ Figure 88			21	^a	Chain	2	2
6	119256	Spacer	2	2	22	15211	Pin .....	..	4
7	15158	Lockwasher	2	2	22	15200	Pin	4	..
8	16085	Capscrew	2	2	23	135306	Anchor Pin	2	..
9	215706	Plate	1	1	23	147485	Anchor Pin .....	..	1
10	217207	Pad	1	1	24	88415	Anchor	2	..
11	184739	Spacer	1	1	24	184741	Anchor .....	..	2
12	16808	Capscrew .....	..	4	25	104267	Ring	2	..
12	16397	Capscrew	4	..	25	110516	Washer .....	..	2
13	15158	Lockwasher	4	4	26	43299	Locknut	2	..
14	184738	Guard .....	..	1	26	43685	Nut .....	..	2
14	181418	Guard	1	..	27	16811	Capscrew	1	1
15	216058	Crosshead Assembly	1	..	28	15156	Lockwasher	1	1
15	143568	Crosshead	1	..	29	128409	Clamp	1	1
15	216099	Crosshead Assembly .....	..	1			^a See Chart Above		

HEADER HOSE (Figure 87) INTERMEDIATE FREE LIFT



HEADER HOSE INTERMEDIATE FREE LIFT

H40-50J (H2.00-2.50J)

REF	LIFT HEIGHT	PART NUMBER	QTY.	
			A	B
25	104.5 in (2650 mm)	346151	2	4
	116.5 in (2960 mm)	367979	2	4
	128.5 in (3260 mm)	346155	2	4
	148.5 in (3770 mm)	346157	2	4
	166.5 in (4230 mm)	346159	2	4
	178.5 in (4530 mm)	346161	2	4
	190.5 in (4840 mm)	346163	2	4
	202.5 in (5140 mm)	346164	2	4
	214.5 in (5450 mm)	346165	2	4

H60JS (H3.00JS)

REF	LIFT HEIGHT	PART NUMBER	QTY.	
			A	B
25	98.5 in (2500 mm)	346150	2	4
	110.5 in (2810 mm)	346152	2	4
	122.5 in (3110 mm)	346154	2	4
	142.5 in (3620 mm)	346156	2	4
	166.5 in (4230 mm)	346158	2	4
	178.5 in (4530 mm)	346160	2	4
	190.5 in (4830 mm)	346162	2	4

KEY

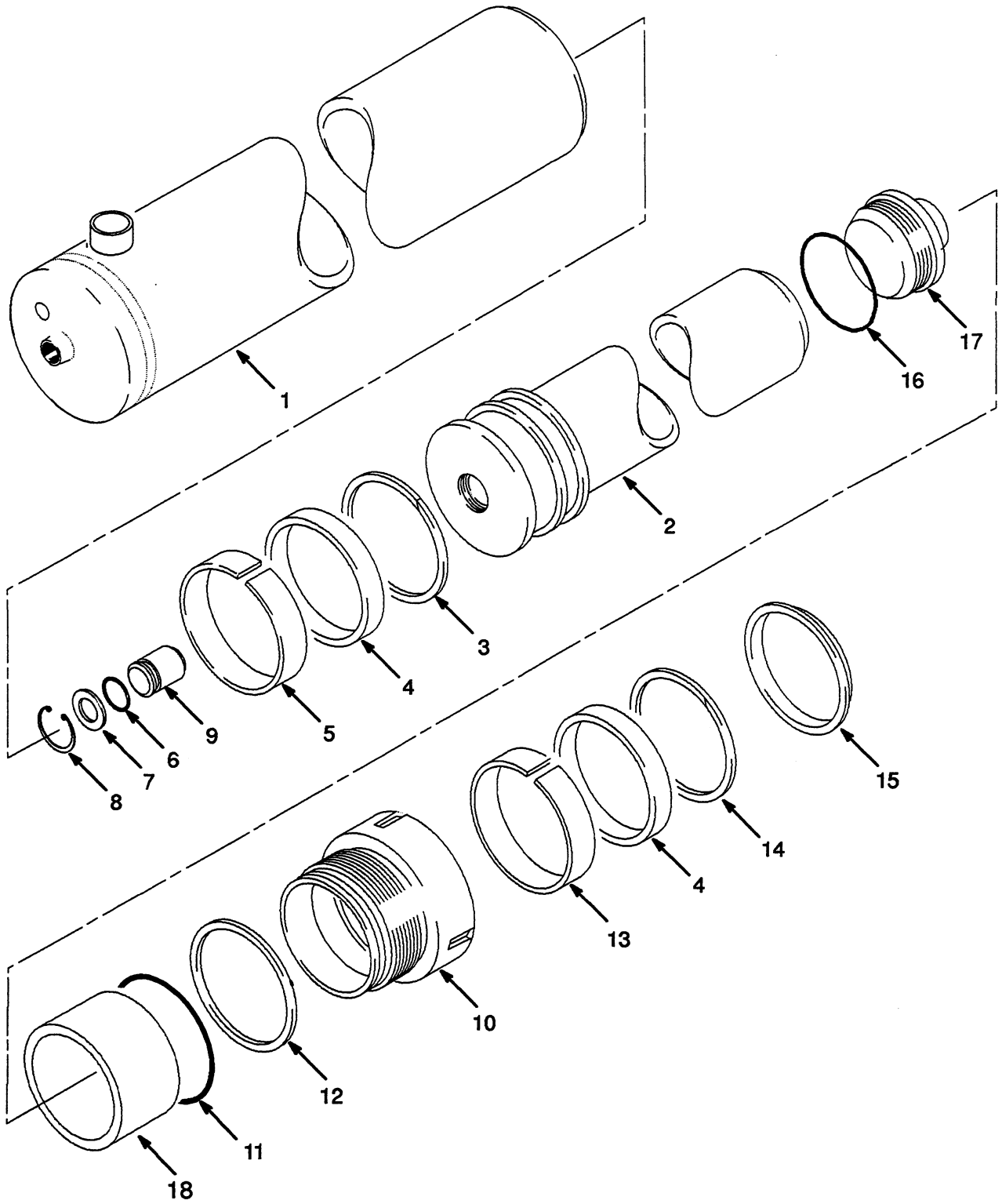
- A: Three Plunger Valve
- B: Four Plunger Valve

REF	PART NO.	NAME OF PART	QTY	
			A	B
1	221628	Capscrew	1	..
1	12487	Capscrew	..	1
2	a 15125	Washer	1	..
2	b 59929	Washer	2	..
3	15180	Washer	..	1
4	240438	Spacer	1	..
4	240437	Spacer	..	1
5	332329	Sheave	1	2
5	104518	Bushing	1	1
5	240458	Bracket	..	1
5	16829	Capscrew	..	1
5	177949	Washer	..	2
5	a 103821	Spacer	..	2
6	240440	Washer	2	4
6	59929	Washer	..	1
7	a 240436	Washer	1	2
8	328159	Tube	1	1
8	d 350968	Tube Assembly	1	2
8	806447	Tube	..	1
9	328152	Tube	1	1
9	806448	Tube	..	1
10	240433	Clamp	1	2
11	15156	Lockwasher	1	2
11	16805	Capscrew	1	2
12	240439	Bar	1	..
13	240431	Clamp	1	2
14	16696	Capscrew	2	..

REF	PART NO.	NAME OF PART	QTY	
			A	B
14	16828	Capscrew	..	2
14	15056	Nut	..	2
15	177947	Washer	..	2
15	15156	Lockwasher	2	..
16	240452	Block	..	1
16	240453	Block	..	1
17	240465	Hose	1	1
17	240466	Hose	..	1
18	240469	Hose	1	1
18	240467	Hose	..	1
19	15156	Lockwasher	4	..
19	177947	Washer	..	2
20	16696	Capscrew	4	2
21	16540	Fitting	8	16
22	240449	Block	1	2
23	14466	Screw	2	4
24	15155	Lockwasher	2	..
24	177946	Lockwasher	..	4
25	c	Hose	2	4
26	16540	O-Ring	8	16

a H40-50J (H2.00-2.50J)
b H60JS (H3.00JS)
c See Chart Above
d First Used On S/N F3A-4732, F3A-2876, F3T-1564

LIFT CYLINDER (Figure 88)



LIFT CYLINDER

H40-50J (H2.00-2.50J)

REF	NAME OF PART	Lift Height To Bottom Of Fork							QTY
		104.5 inch (2650mm)	116.5 inch (2960mm)	128.5 inch (3260mm)	148.5 inch (3770mm)	178.5 inch (4530mm)	190.5 inch (4840mm)	202.5 inch (5140mm)	
	Lift Cylinder	181407	181411	181414	181417	289263	289264	289265	1
1	Shell	640613	640617	639595	640621	289267	289268	289269	1
2	Plunger	640614	640618	639596	640622	327348	327349	319000	1
18	Spacer	.....	.....	.....	.....	638880	638880	638880	1

H60JS (H3.00JS)

REF	NAME OF PART	Lift Height To Bottom Of Fork							QTY
		98.5 inch 2500 mm	110.5 inch 2810 mm	122.5 inch 3110 mm	142.5 inch 3620 mm	166.5 inch 4230 mm	178.5 inch 4530 mm	190.5 inch 4840 mm	
	Lift Cylinder	184710	184715	184720	184725	289354	289355	289356	1
1	Shell	643628	643630	643632	643634	289357	289358	289359	1
2	Plunger	645044	645046	645048	645050	289308	289309	289310	1
18	Spacer	.....	.....	.....	.....	639591	639591	639591	1

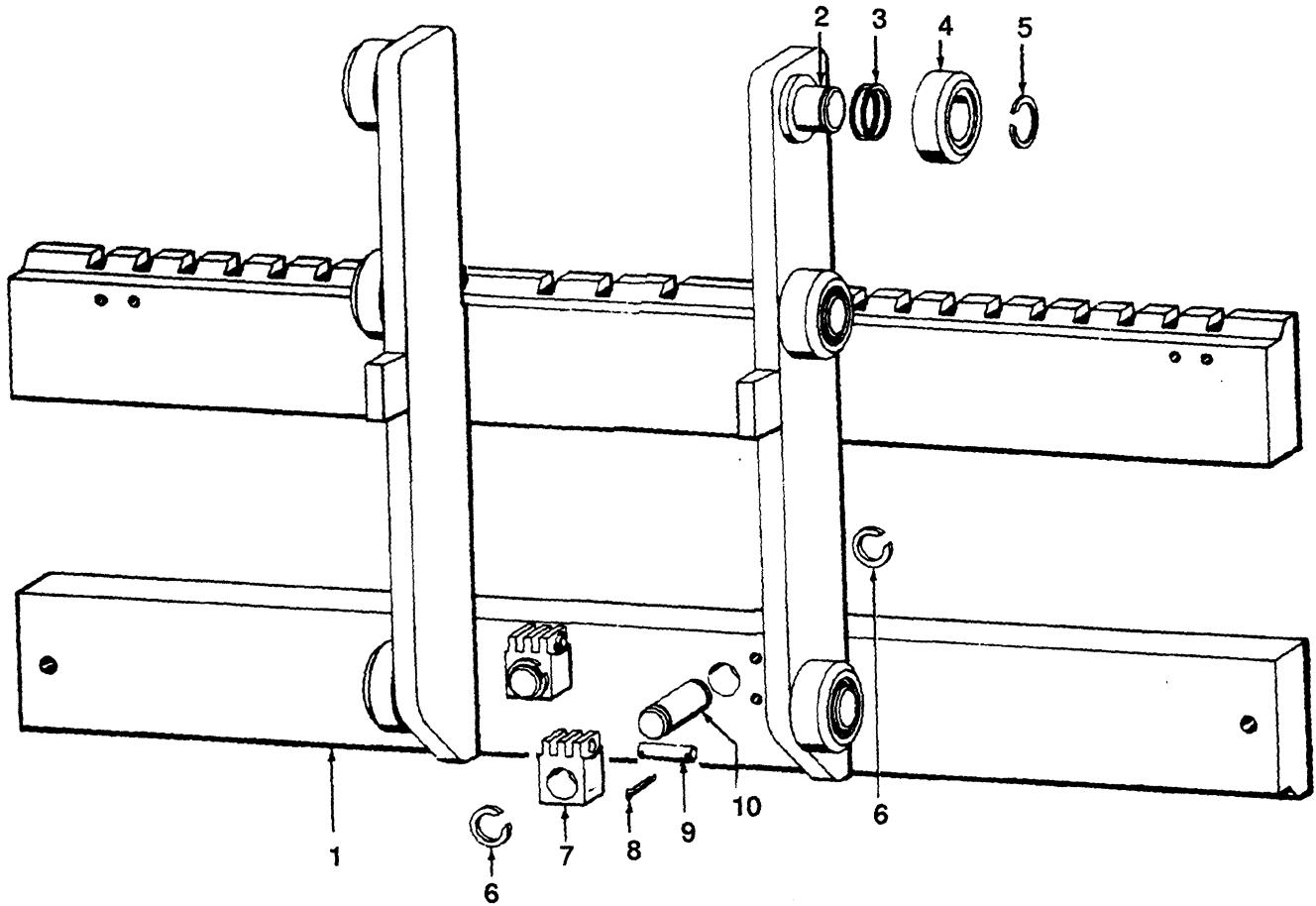
KEY

A: H40-50J (H2.00-2.50J)

B: H60JS (H3.00JS)

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
	d	..... Cylinder	1	1	12	a 154358	Back-up Ring	1	..
1	d	..... Shell	1	1	12	b 270015	Back-up Ring	..	1
2	d	..... Plunger	1	1	13	a 636900	Wear Ring	1	..
3	a	638292 Back-up Ring	1	..	13	b 636901	Wear Ring	..	1
3	a	638293 Back-up Ring	..	1	14	a 638251	Back-up Ring	1	..
4	a	637161 Seal	2	..	14	b 636071	Back-up Ring	..	1
4		637162 Seal	..	2	15	a 636858	Wiper Ring	1	..
5	a	636949 Wear Ring	1	..	15	b 636859	Wiper Ring	..	1
5	b	636950 Wear Ring	..	1	16	a 57664	O-Ring	1	..
6	abc	39348 O-Ring	1	1	16	b 46388	O-Ring	..	1
7	abc	637635 Washer	1	1	17	639460	Plug	1	..
8		187388 Snap Ring	1	1	17	639455	Plug	..	1
9	c	..... Check Valve	1	1	18	d	..... Spacer	1	1
10		638805 Retainer	1	..		a	Included In Repair Kit 639461		
10		639453 Retainer	..	1		b	Included In Repair Kit 639456		
11	a	15880 O-Ring	1	..		c	Included In Check Valve Kit 658947		
11	b	55468 O-Ring	..	1		d	See Chart Above		

CARRIAGE (Figure 89)



KEY

A: H40-50J (H2.00-2.50J)

B: H60JS (H3.00JS)

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
1	371029	Carriage (42 inch)	1	..	6	58933	Snap Ring	..	2
1	371033	Carriage (42 inch)	..	1	7	88452	Anchor	..	2
1	a 345079	Frame (42 inch)	1	..	7	126691	Anchor	..	2
1	b 371030	Frame (42 inch)	..	1	8	15200	Pin	..	4
1	a 345105	Frame (42 inch)	..	1	8	15211	Pin	..	4
1	b 371046	Frame (42 inch)	..	1	9	135306	Pin	..	2
2	129259	Stub Shaft	6	6	9	147485	Pin	..	2
3	129387	Shim	AR	AR	9	147224	Pin	..	2
4	329090	Load Roller	6	6	10	126692	Pin	..	2
5	58901	Snap Ring	6	6	a	210000, 345000 Series Carriage			
6	131358	Snap Ring	4	..	b	371000 Series Carriage			

FREE LIFT MAST

CARRIAGE (Figure 94) Page 188

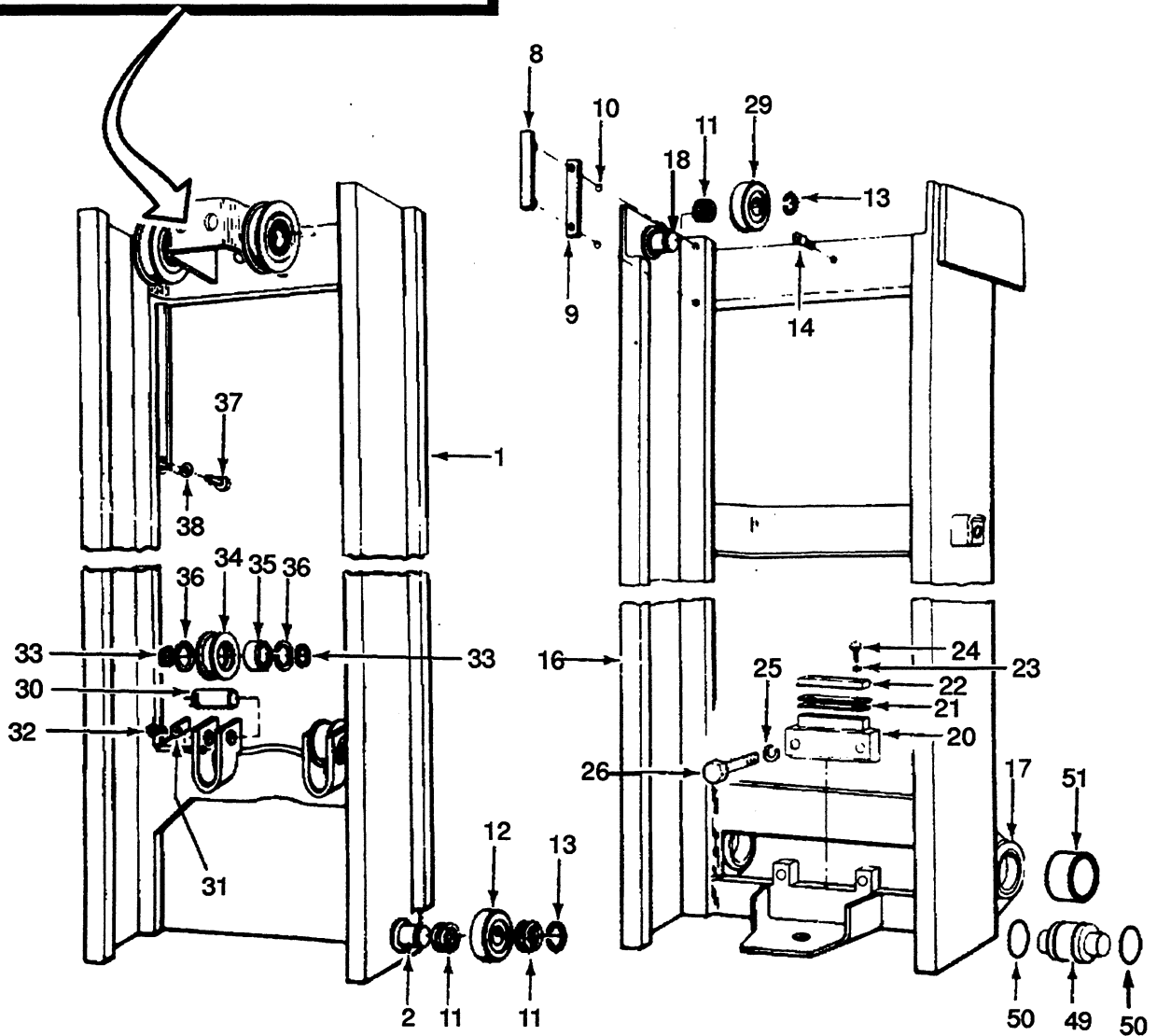
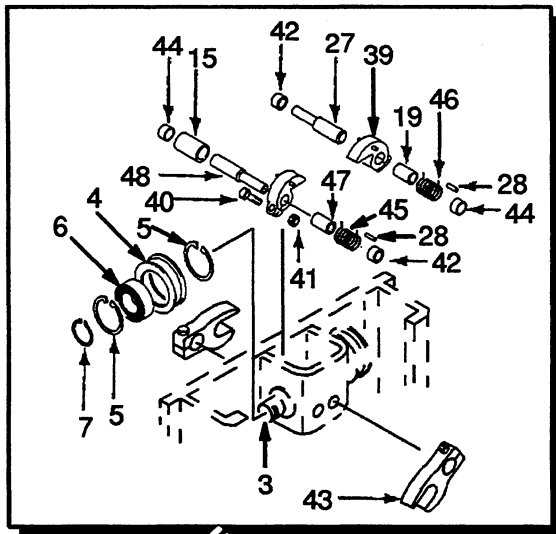
HEADER HOSE (Figure 92) Page 184

LIFT CYLINDER (Figure 93) Page 186

LIFT (Figure 91) Page 182

MAST (Figure 90) Page 180

MAST (Figure 90)



MAST

H40-50J (H2.00-2.50J)

REF.	NAME OF PART	Lift Height To Bottom Of Fork				QTY
		104.5 inch (2650 mm)	116.5 inch (2960 mm)	128.5 inch (3260 mm)	148.5 inch (3770 mm)	
	Mast	181500	181509	181512	181515	1
1	Inner Mast	181507	181511	181514	181517	1
16	Outer Mast	181504	181510	181513	181516	1

H60JS (H3.00JS)

REF.	NAME OF PART	Lift Height To Bottom Of Fork				QTY
		98.5 inch (2500 mm)	110.5 inch (2810 mm)	122.5 inch (3110 mm)	142.5 inch (3620 mm)	
	Mast	185470	185479	185482	185486	1
1	Inner Mast	185477	185481	185484	185488	1
16	Outer Mast	185474	185480	185483	185487	1

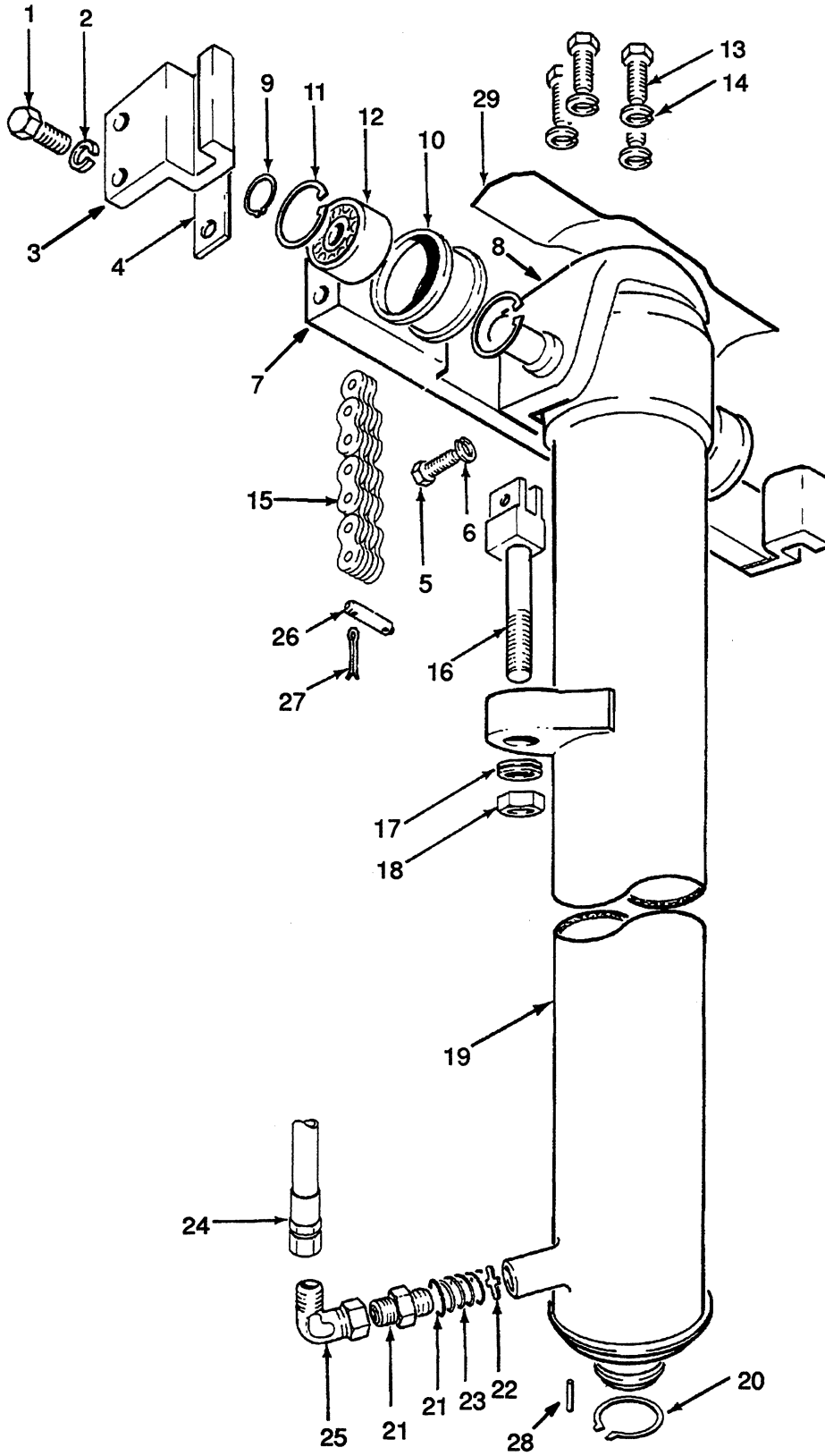
KEY

A: H40-50J (H2.00-2.50J)

B: H60JS (H3.00JS)

REF.	PART NO.	NAME OF PART	QTY		REF.	PART NO.	NAME OF PART	QTY	
			A	B				A	B
	a	Mast	1	1	27	185453	Shaft	1	1
1	a	Mast (Inner)	1	1	28	91527	Pin	2	2
2	129259	Stub Shaft	2	2	29	329090	Load Roller	2	2
3	135295	Stub Shaft	2	..	30	160992	Pin	2	..
3	185444	Stub Shaft	..	2	30	203747	Pin	..	2
4	216100	Sheave Assembly	2	..	31	135281	Keeper	2	2
4	226020	Sheave Assembly	..	2	32	16811	Capscrew	2	2
4	135276	Sheave	2	..	32	15156	Lockwasher	2	2
4	185458	Sheave	..	2	33	135280	Spacer	4	..
5	67551	Snap Ring	4	4	33	185457	Spacer	..	4
6	135277	Bearing	2	2	34	216105	Sheave Assembly	2	..
7	12891	Snap Ring	2	2	34	216054	Sheave Assembly	..	2
8	215211	Bearing Strip	2	2	34	135278	Sheave	2	..
9	131716	Shim	AR	AR	34	185456	Sheave	..	2
10	b	O-ring	4	4	35	129002	Bearing	2	2
11	129387	Shim	AR	AR	36	12921	Snap Ring	4	4
12	329091	Load Roller	2	2	37	16326	Capscrew	2	2
13	58901	Snap Ring	4	4	38	177949	Washer	2	2
14	181537	Capscrew	1	1	39	181540	Latch	2	2
15	181524	Spacer	1	..	40	16594	Capscrew	2	2
15	185454	Spacer	..	1	41	15026	Nut	2	2
16	a	Mast (Outer)	1	1	42	45645	Bushing	2	2
17	135289	Hanger (RH)	1	..	43	181541	Latch	2	2
17	135290	Hanger (LH)	1	..	43	16779	Capscrew	2	2
17	142985	Hanger (RH)	..	1	43	15026	Nut	2	2
17	142986	Hanger (LH)	..	1	44	46861	Bushing	2	2
18	129259	Stub Shaft	2	2	45	181539	Spring	1	1
19	213212	Spacer	1	1	46	181538	Spring	1	1
20	214380	Plate	1	..	47	213211	Spacer	1	1
20	142968	Plate	..	1	48	181523	Shaft	1	..
21	136310	Shim (.065 In)	AR	AR	48	185452	Shaft	..	1
21	150136	Shim (.035 In)	AR	AR	49	c 328468	Pin	2	2
22	136309	Cushion	1	1	50	c 55407	O-ring	4	4
23	177946	Lockwasher	2	2	51	148159	Bushing	2	2
24	14466	Screw	2	..					
24	18753	Capscrew	..	2					
25	15158	Lockwasher	2	2	a	See Chart Above			
26	16821	Capscrew	40	2	b	Included In Bearing Kit 129354			
27	181522	Shaft	1	..	c	Included In Kit 1321196			

LIFT (Figure 91)



LIFT

H40-50J (H2.00-2.50J)

REF.	NAME OF PART	Lift Height To Bottom Of Fork				QTY
		104.5 inch (2650 mm)	116.5 inch (2960 mm)	128.5 inch (3260 mm)	148.5 inch (3770 mm)	
15	Lift Chain	214448	278553	278554	278555	2

H60JS (H3.00JS)

REF.	NAME OF PART	Lift Height To Bottom Of Fork				QTY
		98.5 inch (2500 mm)	110.5 inch (2810 mm)	122.5 inch (3110 mm)	142.5 inch (3620 mm)	
15	Lift Chain	190078	140027	190080	185485	2

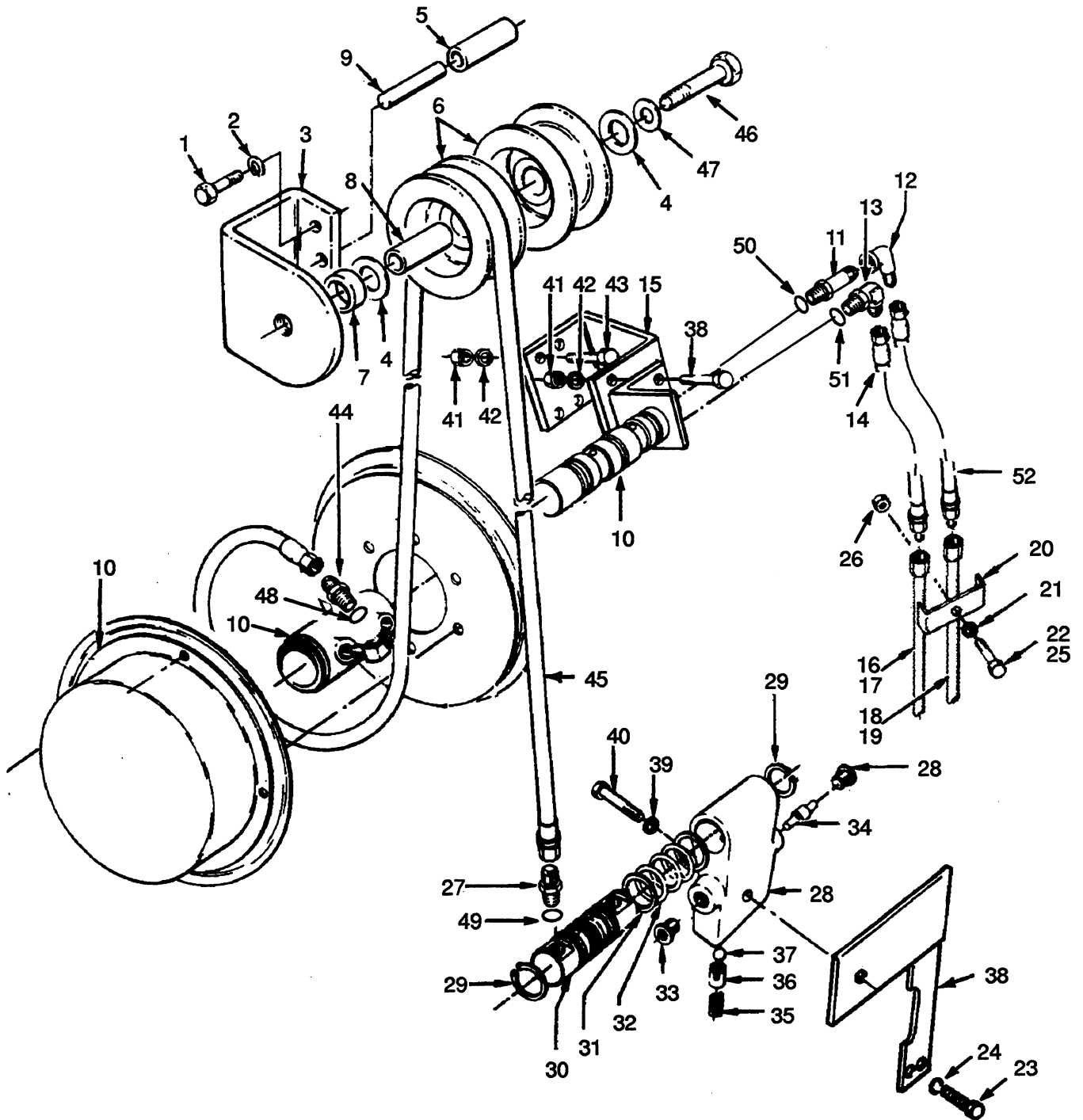
KEY

A: H40-50J (H2.00-2.50J)

B: H60JS (H3.00JS)

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
1	16807	Capscrew	4	4	16	190073	Anchor	..	2
2	15158	Lockwasher	4	4	16	^b 297569	Anchor	..	2
3	148104	Shoe	2	2	17	161004	Base Ring	2	2
4	135313	Shim	..	..	18	161003	Nut	2	2
5	18588	Capscrew	2	..	19	.....	Cylinder	1	1
5	16085	Capscrew	..	2			☞ Figure 93		
6	15158	Lockwasher	2	2	20	131358	Snap Ring	1	1
7	135310	Bracket	1	..	21	197902	Fitting	1	..
7	142965	Bracket	..	1	21	197901	Fitting	..	1
8	216102	Crosshead Assembly	1	..	22	113921	Washer	1	1
8	216056	Crosshead Assembly	..	1	23	145592	Spring	1	..
8	238739	Crosshead	1	..	23	154355	Spring	..	1
8	185500	Crosshead	..	1	24	138291	Hose	1	..
9	53908	Pin	2	2	24	76218	Hose	..	1
10	216105	Sheave Assembly	2	..	25	17040	Fitting	1	..
10	216054	Sheave Assembly	..	2	25	83857	Fitting	..	1
10	135278	Sheave	2	..	26	135306	Pin	2	..
10	185456	Sheave	..	2	26	147485	Pin	..	2
11	12921	Ring-snap	4	4	27	15200	Pin	4	..
12	129002	Bearing	2	2	27	15211	Pin	..	4
13	37562	Capscrew	4	..	28	190086	Pin	1	1
13	16808	Capscrew	..	4	29	185501	Plate	..	1
14	15158	Lockwasher	4	4					
14	15135	Washer	..	4					
15	^a	Chain	2	2	^a	See Chart Above			
16	161006	Anchor	2	..	^b	Optional			

HEADER HOSE (Figure 92)



HEADER HOSE

H40-50J (H2.00-2.50J)

REF	LIFT HEIGHT	PART NUMBER	QTY.	
			^a A	^b B
40	104.5 in (2650 mm)	117262	2	4
	116.5 in (2960 mm)	102510	2	4
	128.5 in (3260 mm)	612809	2	4
	148.5 in (3770 mm)	121171	2	4

H60JS (H3.00JS)

REF	LIFT HEIGHT	PART NUMBER	QTY.	
			^a A	^b B
40	98.5 in (2500 mm)	117262	2	4
	110.5 in (2810 mm)	102510	2	4
	122.5 in (3110 mm)	612809	2	4
	142.5 in (3620 mm)	121171	2	4

- ^a Three Spool Valve
- ^b Four Spool Valve

KEY

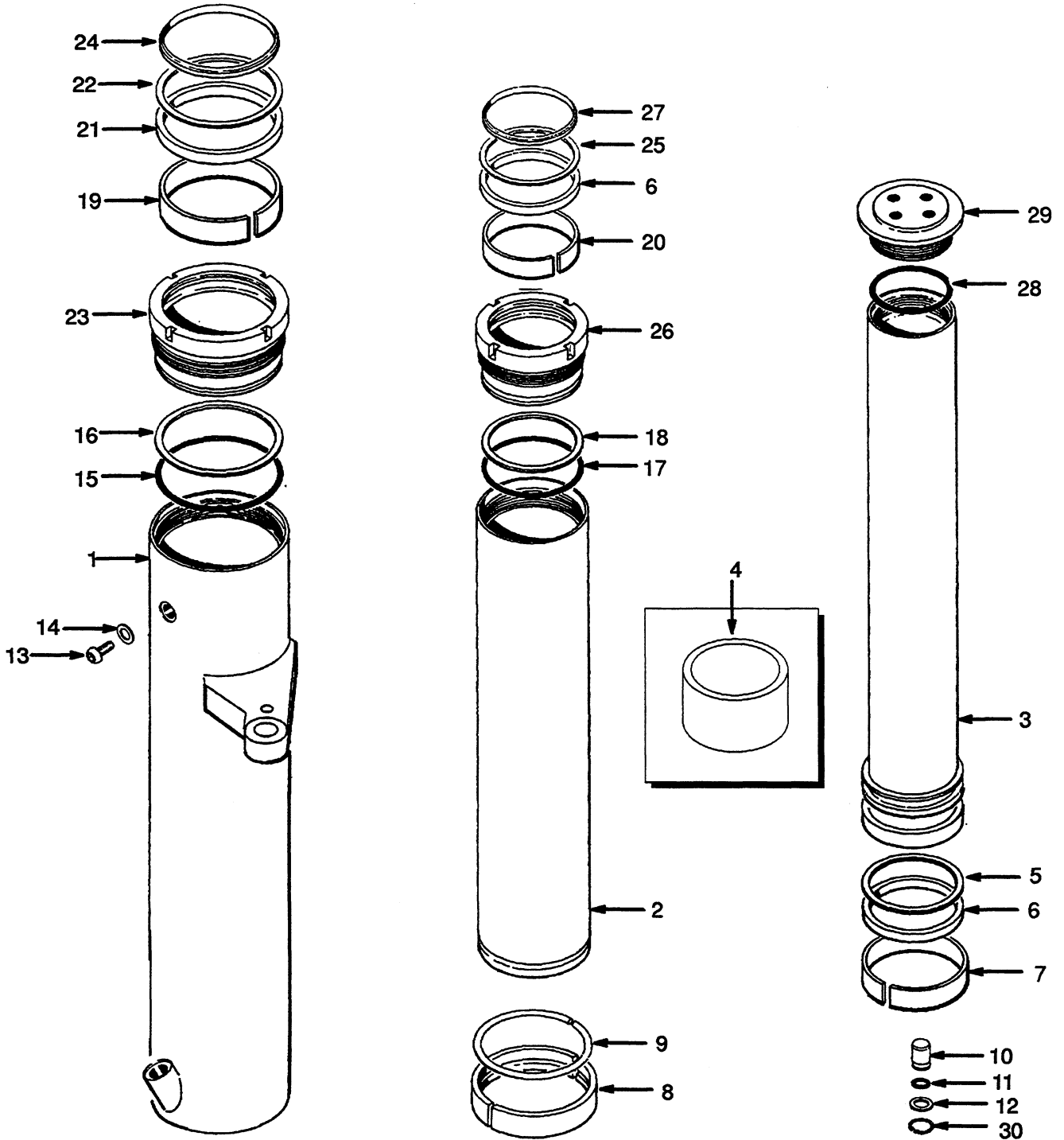
- A: Three Spool Valve
- B: Four Plunger Valve

REF	PART NO.	NAME OF PART	QTY	
			A	B
1	37562	Capscrew	2	4
2	15158	Lockwasher	2	4
3	332334	Plate	1	2
4	240440	Washer	2	4
5	240442	Roller	1	2
6	332329	Sheave	2	4
6	104518	Bushing	1	1
7	332333	Spacer	1	2
8	332332	Spacer	1	2
9	240441	Pin	1	2
10	388170	Reel (LH)	1	1
10	^c 389840	Reel (LH)	1	1
10	388169	Reel (RH)	1	1
10	^c 389839	Reel (RH)	1	1
11	16550	Fitting	1	2
12	16989	Fitting	1	2
13	16559	Fitting	1	2
14	240474	Hose	1	2
15	240459	Bracket (RH)	1	1
15	240460	Bracket (LH)	1	1
16	^e 350969	Tube	1	1
17	240468	Tube	1	1
18	328151	Tube	1	1
19	240443	Tube	1	1
20	240433	Clamp	1	3
21	15156	Lockwasher	1	3
22	16805	Capscrew	1	2
23	16815	Capscrew	2	4
24	15156	Lockwasher	2	4
25	16594	Capscrew	1	1
26	15026	Nut	1	1
27	16540	Fitting	2	4
28	388171	Block	1	2

REF	PART NO.	NAME OF PART	QTY	
			A	B
28	.....	Body	1	1
29	54128	Snap Ring	2	2
30	604832	Shaft	1	1
31	615940	Kit	1	1
31	61143	Back-up Ring	2	2
32	61142	O-ring	3	3
33	222443	Adapter	2	2
34	604834	Plunger	1	1
35	612518	Spring	2	2
36	612519	Spacer	2	2
37	236091	Ball	2	2
38	348050	Bracket (RH)	1	1
38	348049	Bracket (LH)	1	1
39	15156	Lockwasher	1	2
40	16814	Capscrew	1	2
41	15028	Nut	4	8
42	15158	Lockwasher	4	8
43	16807	Capscrew	4	8
44	16745	Fitting	2	4
45	^d	Hose	2	4
46	12487	Capscrew	1	2
47	15180	Washer	1	2
48	16745	O-Ring	2	4
49	16540	O-Ring	2	4
50	16550	O-Ring	1	2
51	16559	O-Ring	1	2
52	240473	Hose	1	2

- ^c Free Lift Over 222 inches And Three Stage Over 174 inches
- ^d See Chart Above
- ^e First Used On S/N F3A-4732, F3D-2876, F3T-1564

LIFT CYLINDER (Figure 93)



LIFT CYLINDER

H40-50J (H2.00-2.50J)

REF.	NAME OF PART	Lift Height To Bottom Of Fork				QTY
		104.5 inch (2650 mm)	116.5 inch (2960 mm)	128.5 inch (3260 mm)	148.5 inch (3770 mm)	
	Lift Cylinder	177496	177497	177498	177499	1
1	Shell	640634	640640	640646	639781	1
2	Tube	640636	640642	640648	638855	1
3	Plunger	640637	640643	640649	638863	1
4	Spacer	640631	640630	611264	639780	1

H60JS (H3.00JS)

REF.	NAME OF PART	Lift Height To Bottom Of Fork				QTY
		98.5 inch (2500 mm)	110.5 inch (2810 mm)	122.5 inch (3110 mm)	142.5 inch (3620 mm)	
	Lift Cylinder	184710	184715	184720	184725	1
1	Shell	643628	643630	643642	643634	1
2	Tube	640654	655116	655117	639565	1
3	Plunger	640655	655122	655123	639573	1
4	Spacer	640666	640844	651528	640666	1

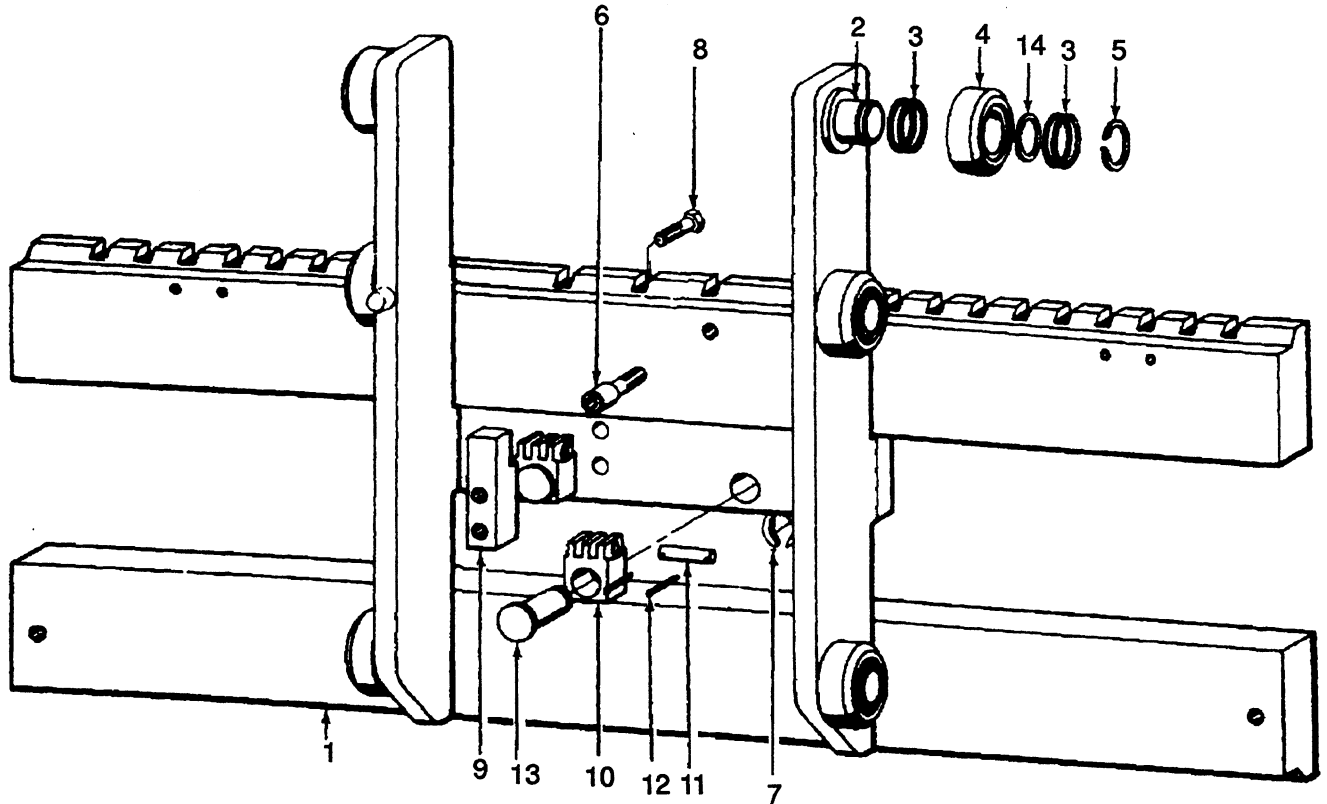
KEY

A: H40-50J (H2.00-2.50J)

B: H60JS (H3.00JS)

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
	d	..... Cylinder	1	1	19	a 318067	Bearing	1	1
1	d	..... Shell	1	1	20	b 215345	Wear Ring	1	..
2	d	..... Tube	1	1	20	a 636949	Wear Ring	1	..
3	d	..... Plunger	1	1	21	b 368486	Seal	1	..
4	d	..... Spacer	1	1	21	a 637166	Seal	1	..
5	b	638292 Back-up Ring	1	..	22	b 318069	Ring	1	..
5	a	638293 Back-up Ring	..	1	22	a 638224	Ring	..	1
6	b	293324 Seal	2	..	23	638020	Retainer	1	..
6	a	294588 Seal	..	2	23	639452	Retainer	..	1
7	b	636949 Wear Ring	1	..	24	b 626429	Wiper Ring	1	..
7	a	636950 Bearing	..	1	24	a 636862	Wiper Ring	..	1
8		638802 Piston (Half Ring)	2	..	25	b 638251	Back-up Ring	1	..
8		639450 Piston (Half Ring)	..	2	25	a 636701	Ring	..	1
9		638804 Ring	1	..	26	638805	Retainer	1	..
9		611125 Ring	..	1	26	639453	Retainer	..	1
10	c	..... Check Valve	1	1	27	b 636858	Wiper Ring	1	..
11	ac	39348 O-Ring	1	1	27	a 636859	Wiper Ring	..	1
12	c	637635 Washer	1	1	28	b 57664	O-Ring	1	..
13		632093 Capscrew	1	1	28	a 46388	O-Ring	..	1
14		190887 Seal	1	1	29	639459	Plug	1	..
15	b	15885 O-Ring	1	..	29	639454	Plug	..	1
15	a	15887 O-Ring	..	1	30	187388	Snap Ring	1	1
16	b	154679 Back-up Ring	1	..					
16	a	615148 Back-up Ring	..	1					
17	b	15880 O-Ring	1	..	a	Included In Repair Kit 639457			
17	a	55468 O-Ring	..	1	b	Included In Repair Kit 638884			
18	b	154358 Back-up Ring	1	..	c	Included In Check Valve Kit 658947			
18	a	270015 Back-up Ring	..	1	d	See Chart Above			
19	e	636952 Bearing	1	..	e	Included In Kit 378441			

CARRIAGE (Figure 94)



KEY

A: H40-50J (H2.00-2.50J)

B: H60JS (H3.00JS)

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
1	371027	Carriage (42 inch)	1	..	9	180115	Bar	1	..
1	371031	Carriage (42 inch)	..	1	10	135565	Anchor	2	..
1	ac 345071	Frame (42 inch)	1	..	10	126691	Anchor	..	2
1	d 371028	Frame (42 inch)	1	..	11	135306	Pin	2	..
1	b 185496	Frame (42 inch)	..	1	11	147485	Pin	..	2
1	c 345109	Frame (42 inch)	..	1	12	15200	Pin	4	..
1	d 371032	Frame (42 inch)	..	1	12	15211	Pin	..	4
2	129259	Stub Shaft	6	6	13	147223	Pin	2	..
3	129387	Shim (.020 inch)	AR	AR	13	185597	Pin	..	2
4	329090	Load Roller	6	6	14	366115	Spacer	2	2
5	58901	Snap Ring	6	6	a	181000 Series Carriage			
6	181537	Capscrew	1	1	b	185000 Series Carriage			
7	131358	Snap Ring	2	2	c	345000 Series Carriage			
8	38759	Capscrew	2	..	d	371000 Series Carriage			

THREE STAGE MAST

CARRIAGE (Figure 102) Page 204

FREE LIFT (Figure 97)
H40-50J (H2.00-2.50J) Page 194

FREE LIFT (Figure 98)
H60JS (H3.00JS) Page 196

HEADER HOSE (Figure 99) Page 198

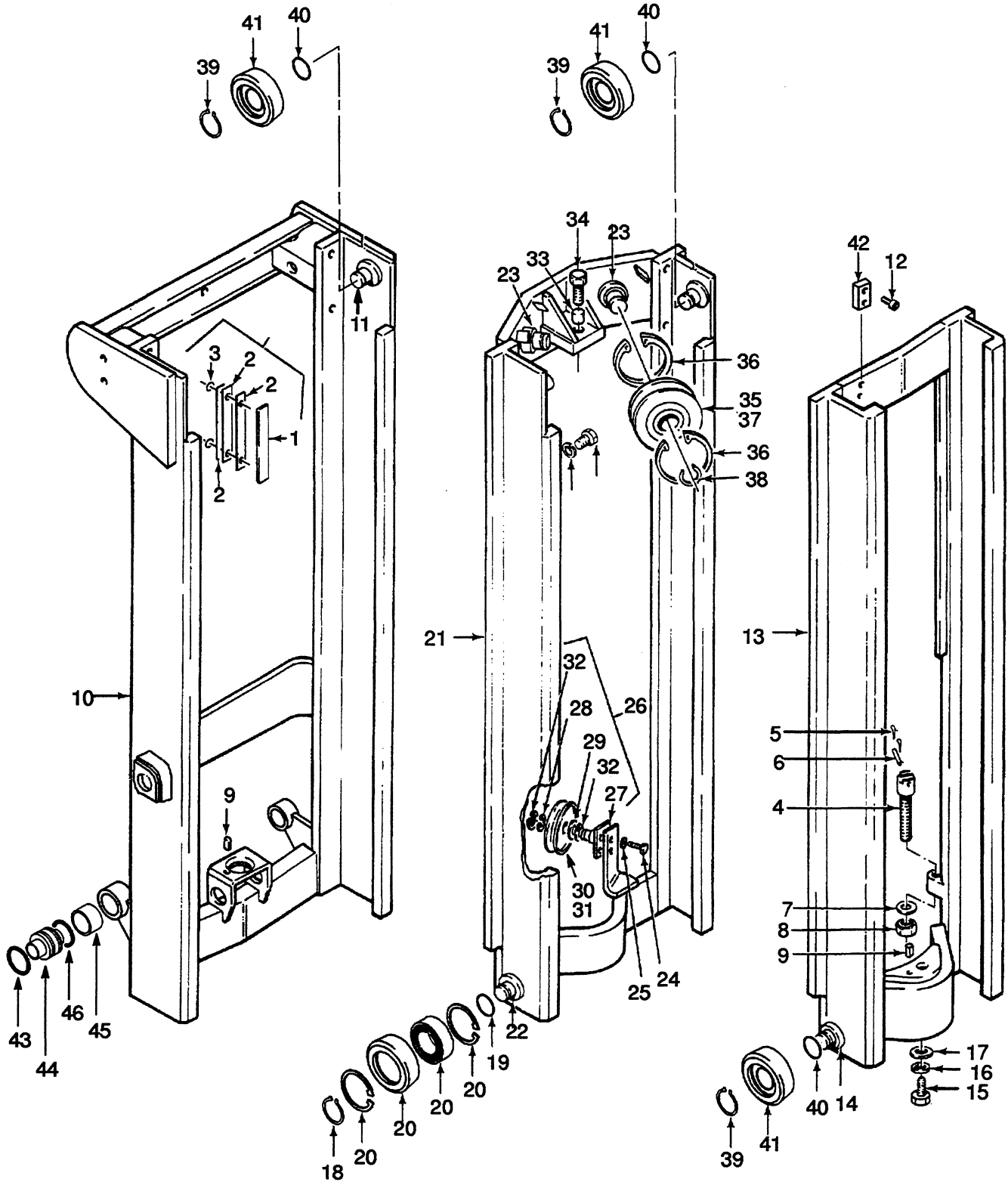
LIFT CYLINDER (Figure 100)
MAIN Page 200

LIFT CYLINDER (Figure 101)
FREE LIFT Page 202

MAIN LIFT (Figure 96) Page 192

MAST (Figure 95) Page 190

MAST (Figure 95)



MAST

H40-50J (H2.00-2.50J)

REF.	Name Of Part	Lift Height To Bottom Of Fork					QTY
		150 inch (3810 mm)	168 inch (4270 mm)	186 inch (4720 mm)	198 inch (5030 mm)	216 inch (5490 mm)	
	Mast	180210	180225	180232	180236	180261	1
13	Inner	180215	180228	180133	180157	180172	1
10	Outer	180212	180226	180233	180237	180239	1
21	Intermediate	238630	238631	238632	238633	238634	1

H60JS (H3.00JS)

REF.	Name Of Part	Lift Height To Bottom Of Fork					QTY
		139.5 inch 3540 mm	157.5 inch 4000 mm	175.5 inch 4460 mm	196.5 inch 4990 mm	214.5 inch 5450 mm	
	Mast	186932	186937	186939	186942	186944	1
13	Inner	186782	186805	186821	186797	186854	1
10	Outer	186933	186938	186940	186943	186945	1
21	Intermediate	238658	238659	238660	238661	238662	1

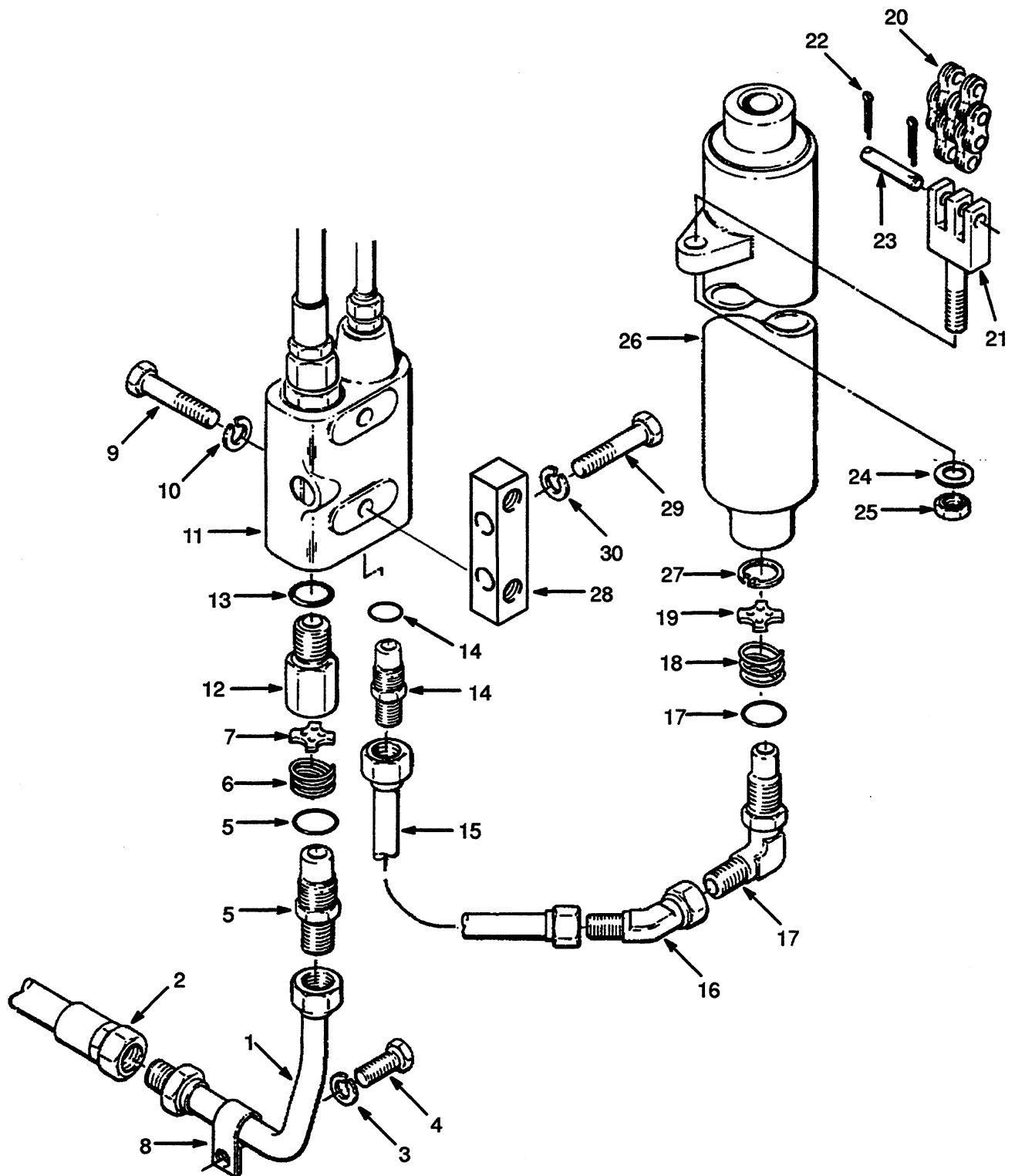
KEY

A: H40-50J (H2.00-2.50J)

B: H60JS (H3.00JS)

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
	a	..... Mast	1	1	24	16696	Capscrew	4	4
1	b	215211 Bearing Strip	4	4	25	15156	Lockwasher	4	4
2	b	131715 Shim (.007 inch)	AR	AR	26	226022	Sheave (Hose)	2	2
3	b	104506 O-Ring	8	8	27	180113	Bracket	2	2
4		225550 Anchor	2	..	28	162568	Shim (.060 inch)	AR	AR
4		161006 Anchor	2	..	29	46102	Snap Ring	4	4
4		190073 Anchor	..	2	30	128469	Bearing	2	2
5		15200 Pin	4	..	31	180042	Sheave	2	2
5		15211 Pin	..	4	32	160996	Snap Ring	2	2
6		135306 Pin	2	..	33	180107	Tube	1	..
6		147485 Pin	..	2	33	186915	Tube	..	1
7		161004 Base Ring	2	2	34	16800	Capscrew	1	..
8		161003 Nut	2	2	34	16831	Capscrew	..	1
9		168800 Pin	2	2	35	226020	Sheave Assembly	..	2
10	a	..... Mast (Outer)	1	1	35	180148	Sheave Assembly	2	..
11		129259 Stub Shaft	2	2	35	185458	Sheave	..	2
12		28055 Capscrew	2	..	36	67551	Snap Ring	..	4
12		37297 Capscrew	..	2	36	67551	Snap Ring	4	..
13	a	..... Mast (Inner)	2	2	37	135277	Bearing	2	2
14		129259 Stub Shaft	2	2	38	12891	Snap Ring	2	2
15		277283 Capscrew	1	1	39	58901	Snap Ring	6	6
16		15160 Lockwasher	1	1	40	129387	Shim	AR	AR
17		15125 Washer	1	1	41	329090	Load Roller	6	6
18		58901 Snap Ring	2	2	42	180115	Bar	1	..
19		129387 Shim	AR	AR	42	172848	Bar	..	1
20		329091 Load Roller	2	2	43	55407	O-Ring	2	2
20		1378699 Bearing	2	2	44	328468	Pin	2	2
20		37752 Snap Ring	2	2	45	148159	Bushing	2	2
21	a	..... Mast (Intermediate)	1	1	46	118649	O-Ring	4	4
22		129259 Stub Shaft	4	4					
23		180099 Stub Shaft	2	..	a	See Chart Above			
23		186909 Stub Shaft	..	2	b	Included In Bearing Kit 129354			

MAIN LIFT (Figure 96)



MAIN LIFT

H40-50J (H2.00-2.50J)

REF.	NAME OF PART	Lift Height To Bottom Of Fork					QTY
		150 inch (3810 mm)	168 inch (4270 mm)	186 inch (4720 mm)	198 inch (5030 mm)	216 inch (5490 mm)	
20	MAIN CHAIN	88436	88441	129361	177352	180172	2

H60JS (H3.00JS)

REF.	NAME OF PART	Lift Height To Bottom Of Fork					QTY
		139.5 inch (3540 mm)	157.5 inch (4000 mm)	175.5 inch (4460 mm)	196.5 inch (4990 mm)	214.5 inch (5450 mm)	
20	MAIN CHAIN	186789	186808	186824	186840	186858	2

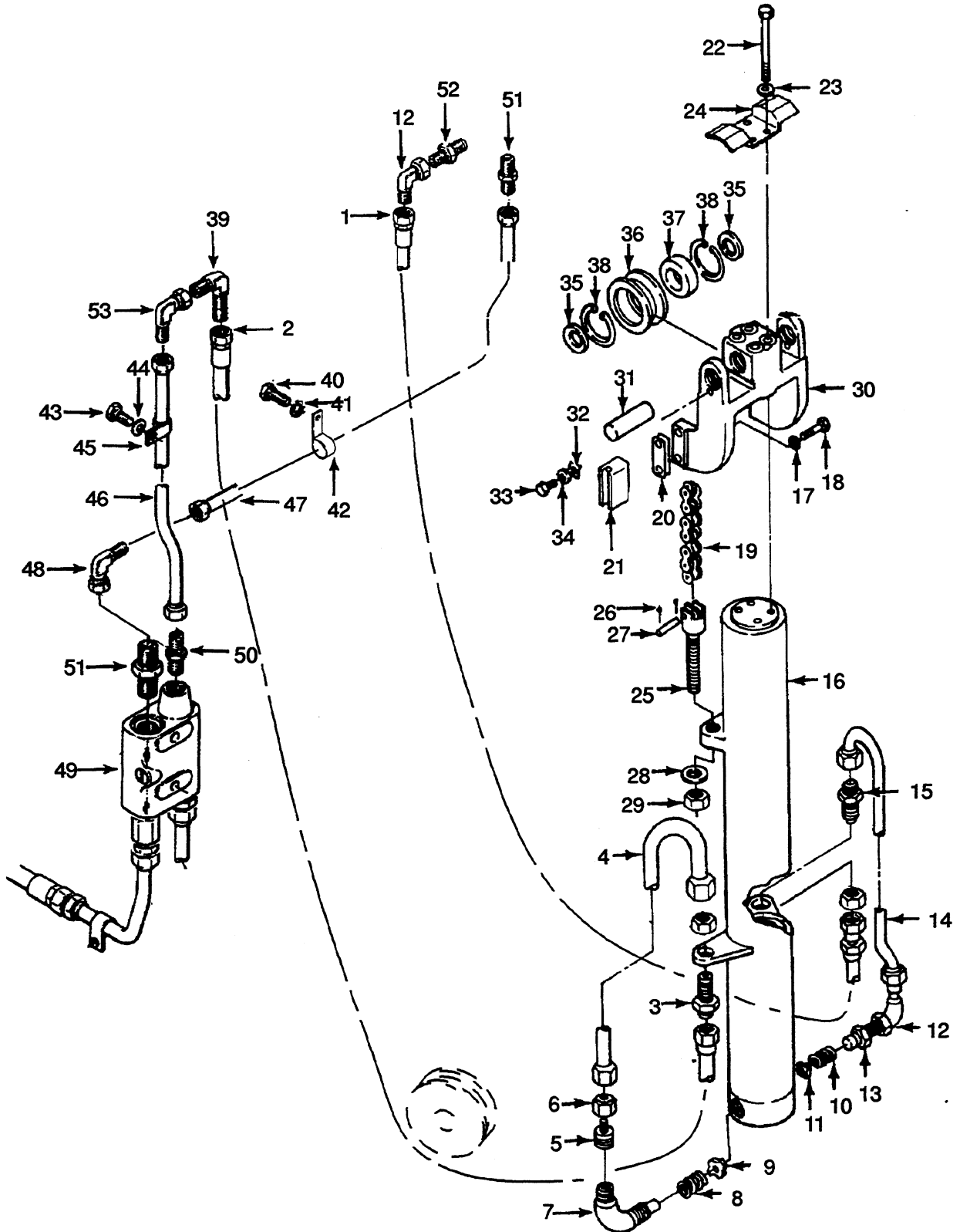
KEY

A: H40-50J (H2.00-2.50J)

B: H60JS

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
1	238645	Tube	1	1	18	288648	Spring	1	1
2	122991	Hose	1	1	19	300689	Washer	1	..
3	15156	Lockwasher	3	3	19	295385	Washer .....	..	1
4	16597	Capscrew	3	..	20	^b	Chain	2	2
4	16598	Capscrew .....	..	3	21	161006	Anchor	2	..
5	^a 194730	Fitting	1	1	21	190073	Anchor .....	..	2
6	^a 279818	Spring	1	1	22	15200	Pin	4	..
7	^a 189253	Washer	1	1	22	15211	Pin .....	..	4
8	154278	Clamp	3	3	23	135306	Pin	2	..
9	18539	Setscrew	2	..	23	147485	Pin .....	..	2
9	18538	Capscrew .....	..	2	24	161004	Base Ring	2	2
10	15156	Lockwasher	2	2	25	161003	Nut	2	2
11	^a 238017	Phasing Valve	1	1	26	^b	Cylinder	1	1
12	^a 238107	Adapter	1	1			☞ Figure 100		
13	^a 16487	O-Ring	1	1	27	122400	Ring-snap	1	1
14	^a 121259	Fitting	1	1	28	238656	Adapter	1	..
15	238132	Tube	1	..	29	221506	Capscrew	2	..
15	238676	Tube .....	..	1	30	15156	Lockwasher	2	..
16	17040	Fitting	1	..			^a Included In Phasing Valve 274022		
17	238637	Fitting	1	1			^b See Chart Above		

FREE LIFT (Figure 97) H40-50J (H2.00-2.50J)

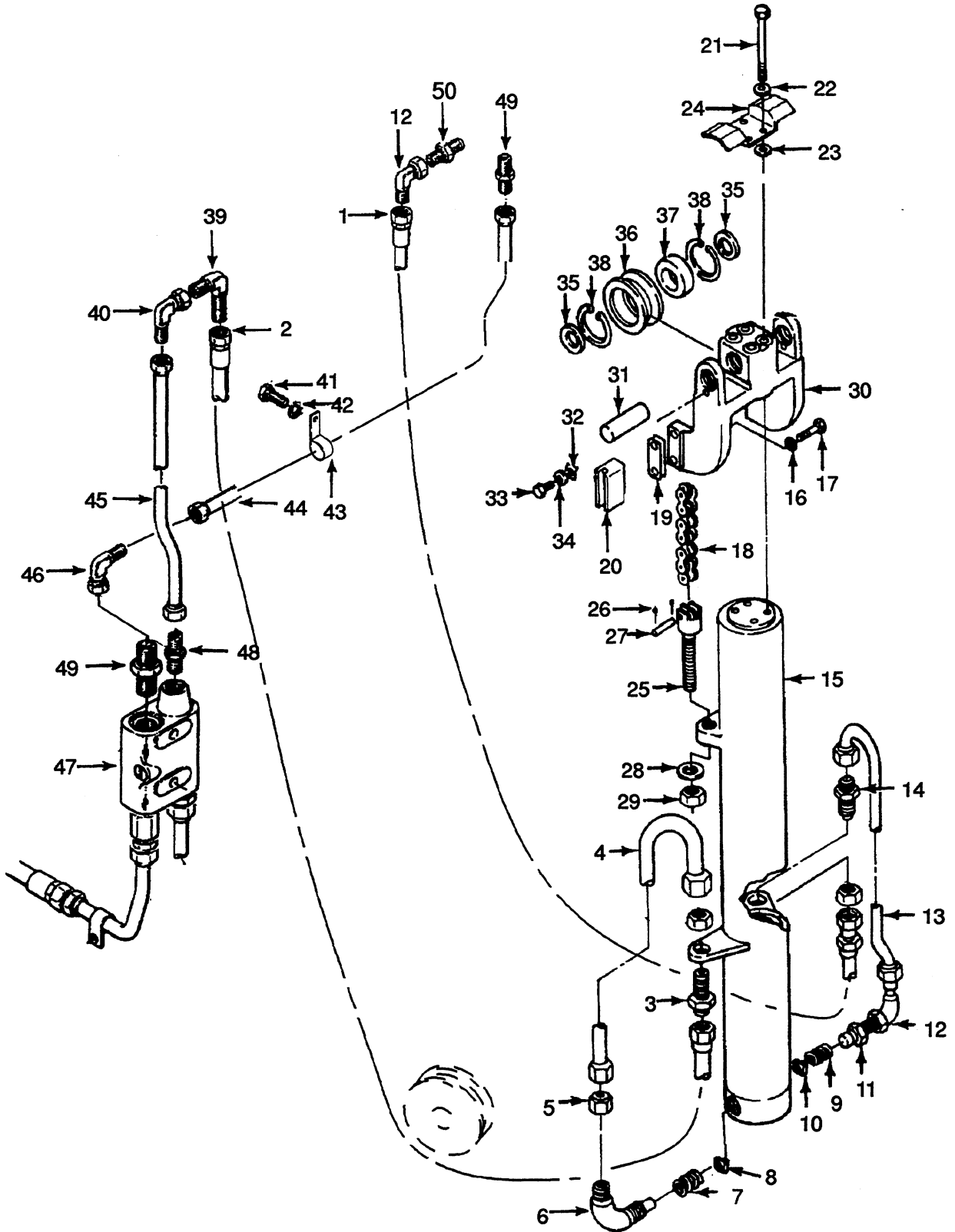


FREE LIFT H40-50J (H2.00-2.50J)

REF.	NAME OF PART	Lift Height To Bottom Of Fork					QTY
		150 inch (3810 mm)	168 inch (4270 mm)	186 inch (4720 mm)	198 inch (5030 mm)	216 inch (5490 inch)	
1	Hose	180041	180060	280538	280539	117577	1
2	Hose	76265	117265	188701	184310	243973	1
46	Tube	238127	238128	238129	238130	238131	1
47	Tube	238121	238122	238123	238124	238125	1
19	Chain	180030	180060	180074	161059	180177	2

REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
1	^a	Hose	1	28	161004	Ring	2
2	^a	Hose	1	29	161003	Nut	2
3	16447	Fitting	1	30	216104	Crosshead	1
4	285956	Tube	1	30	180147	Crosshead	1
5	14491	Fitting	1	31	160992	Pin	2
6	17778	Fitting	1	32	135281	Keeper	2
7	189595	Fitting	1	33	16597	Capscrew	2
8	154355	Spring	1	34	15156	Lockwasher	2
9	113921	Washer	1	35	135280	Spacer	4
10	279818	Spring	1	36	216105	Sheave Assembly	2
11	300690	Washer	1	36	135278	Sheave	2
12	16882	Fitting	1	37	129002	Bearing	2
13	189254	Fitting	1	38	12921	Snap Ring	4
14	180112	Tube	1	39	16457	Fitting	1
15	16449	Fitting	1	40	16597	Capscrew	3
16	.....	Cylinder	1	41	15156	Washer	3
		☞ Figure 101		42	154278	Clamp	2
17	15156	Lockwasher	4	43	16836	Capscrew	2
18	16814	Capscrew	4	44	15155	Washer	2
19	^a	Chain	2	45	154459	Clamp	2
20	167817	Shim (.030 inch)	AR	46	.....	Tube	1
20	160994	Shim (.062 inch)	AR	47	.....	Tube	1
21	160993	Guide Shoe	2	48	83857	Fitting	1
22	16597	Capscrew	4	49	238017	Valve	1
23	15158	Lockwasher	4	50	16540	Fitting	1
24	180108	Keeper	1	51	16543	Fitting	2
25	161006	Anchor	2	52	201783	Fitting	1
26	15200	Pin	4	53	16457	Fitting	1
27	135306	Pin	2		^a	See Chart Above	

FREE LIFT (Figure 98) H60JS (H3.00JS)



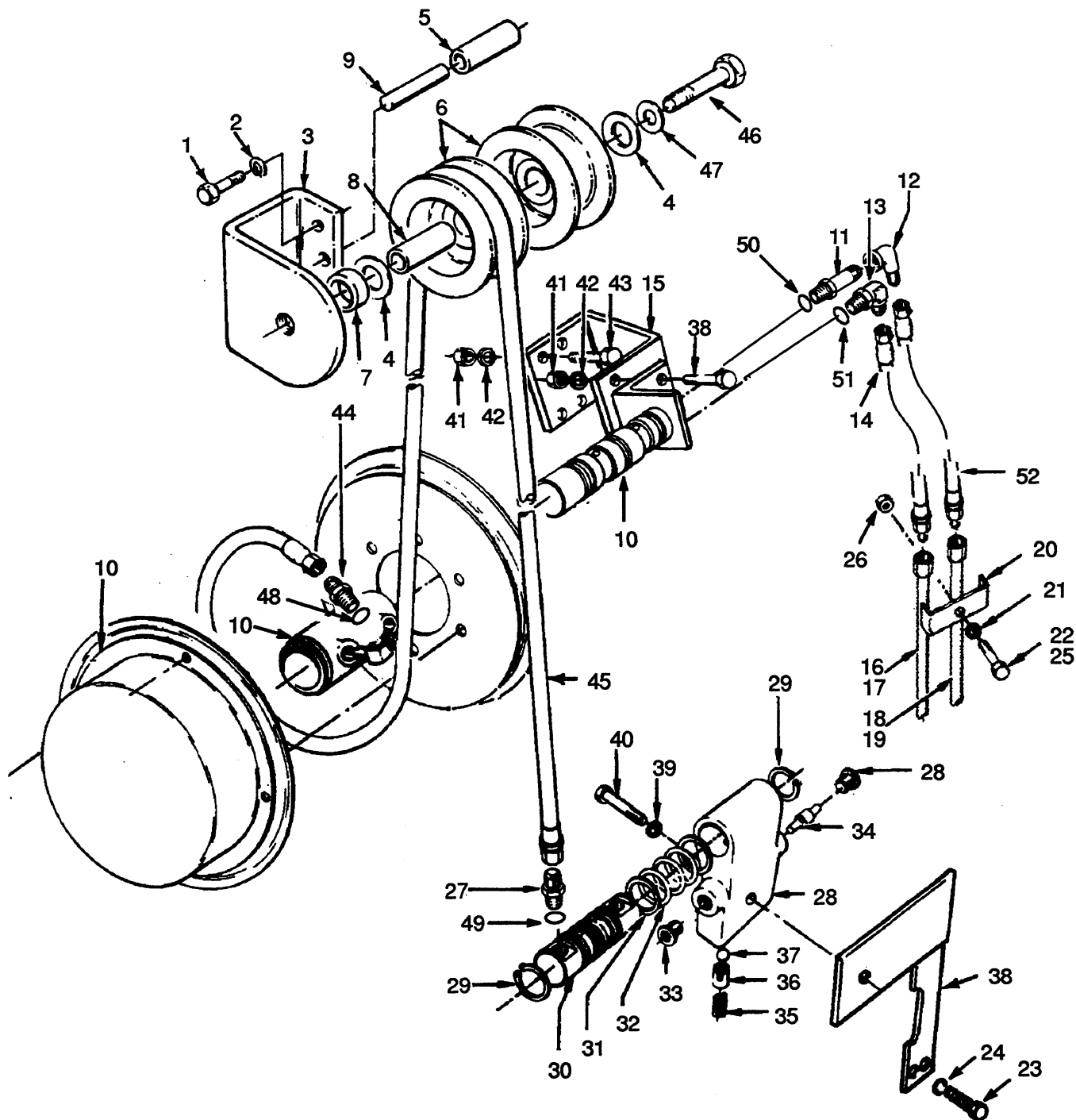
FREE LIFT H60JS (H3.00JS)

H60JS (H3.00JS)

REF.	NAME OF PART	Lift Height To Bottom Of Fork					QTY
		139.5 inch (3540 mm)	157.5 inch (4000 mm)	175.5 inch (4460 mm)	196.5 inch (4990 mm)	214.5 inch (5450 mm)	
1	Hose	243995	116048	180076	243997	243998	1
2	Hose	112886	76265	117265	189370	189369	1
44	Tube	238665	238666	238667	238668	238669	1
45	Tube	238671	238672	238673	238674	238675	1
18	Chain	266703	266704	266705	266706	184711	2

REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
1	^a	Hose	1	27	147485	Pin	2
2	^a	Tube	1	28	161004	Ring	2
3	16447	Fitting	1	29	161003	Nut	2
4	285956	Tube	1	30	226018	Crosshead Assembly	1
5	17778	Fitting	1	30	186916	Crosshead	1
6	189595	Fitting	1	31	186920	Pin	2
7	154355	Spring	1	32	135281	Keeper	2
8	113921	Washer	1	33	16597	Capscrew	2
9	279818	Spring	1	34	15156	Lockwasher	2
10	300690	Washer	1	35	186921	Spacer	4
11	189254	Fitting	1	36	226019	Sheave Assembly	2
12	16882	Fitting	1	36	126578	Sheave	2
13	180112	Tube	1	37	231020	Bearing	2
14	16449	Fitting	1	38	37752	Snap Ring	4
15	.....	Cylinder	1	39	16457	Fitting	1
		☞ Figure 101		40	16883	Fitting	1
16	15156	Lockwasher	4	41	16598	Capscrew	3
17	16814	Capscrew	4	42	15156	Washer	3
18	^a	Chain	2	43	154278	Clamp	3
19	167817	Shim .....	..	44	^a	Tube	1
19	160994	Shim .....	..	45	^a	Tube	1
20	160993	Guide Shoe	2	46	83857	Fitting	1
21	18597	Capscrew	4	47	238017	Valve	1
22	15158	Lockwasher	4	48	16540	Fitting	1
23	15135	Washer	4	49	16543	Fitting	2
24	186917	Keeper	1	50	16542	Fitting	1
25	190073	Anchor	2				
26	15211	Pin	4	^a	See Chart Above		

HEADER HOSE (Figure 99)



HEADER HOSE

H40-50J (H2.00-2.50J)

REF	LIFT HEIGHT	PART NUMBER	QTY.	
			a _A	b _B
40	104.5 in (2650 mm)	117262	2	4
	116.5 in (2960 mm)	102510	2	4
	128.5 in (3260 mm)	612809	2	4
	148.5 in (3770 mm)	121171	2	4

H60JS (H3.00JS)

REF	LIFT HEIGHT	PART NUMBER	QTY.	
			a _A	b _B
40	98.5 in (2500 mm)	117262	2	4
	110.5 in (2810 mm)	102510	2	4
	122.5 in (3110 mm)	612809	2	4
	142.5 in (3620 mm)	121171	2	4

a Three Spool Valve
b Four Spool Valve

KEY

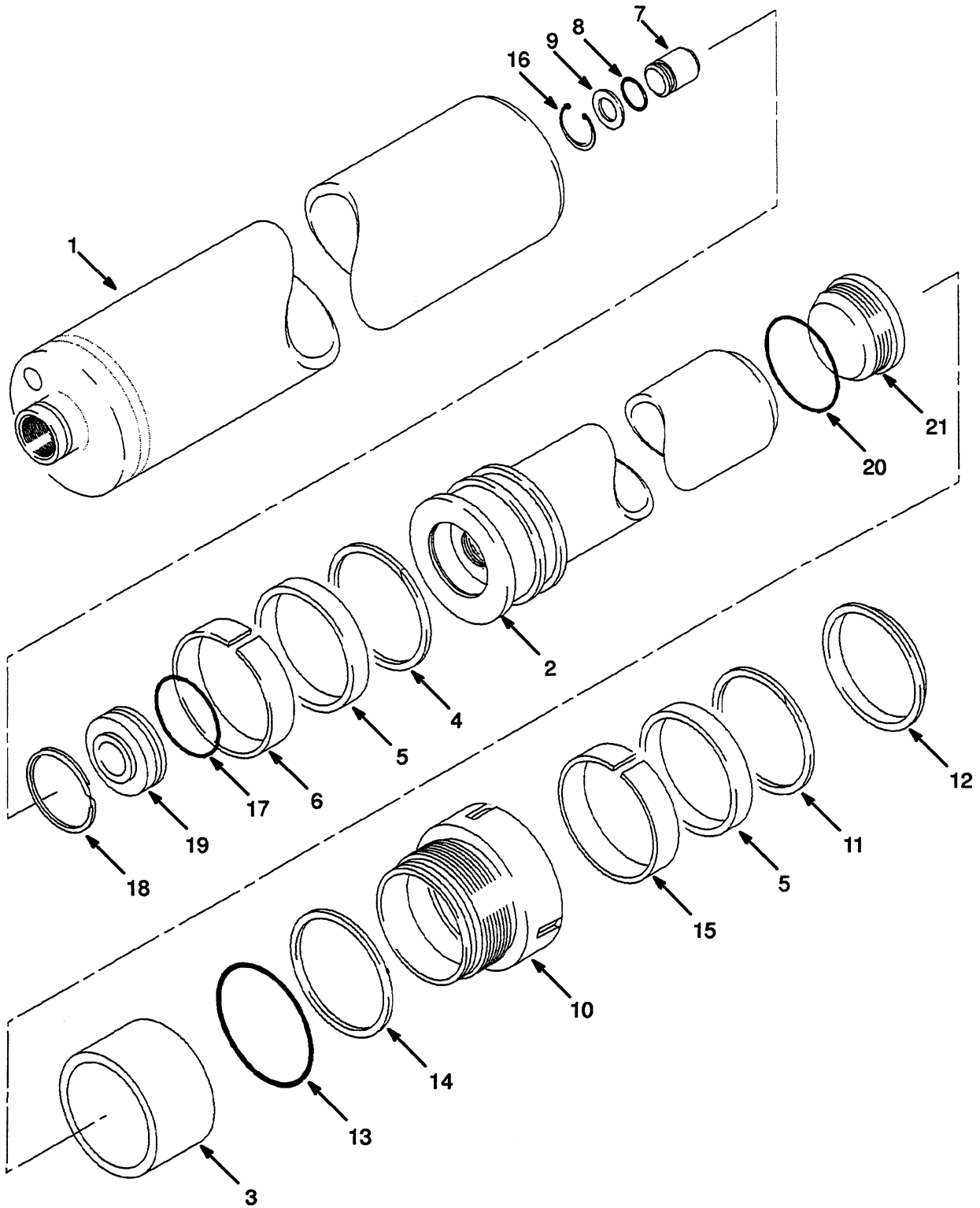
A: Three Spool Valve
B: Four Plunger Valve

REF	PART NO.	NAME OF PART	QTY	
			A	B
1	37562	Capscrew	2	4
2	15158	Lockwasher	2	4
3	332334	Plate	1	2
4	240440	Washer	2	4
5	240442	Roller	1	2
6	332329	Sheave	2	4
6	104518	Bushing	1	1
7	332333	Spacer	1	2
8	332332	Spacer	1	2
9	240441	Pin	1	2
10	388170	Reel (LH)	1	1
10	^c 389840	Reel (LH)	1	1
10	388169	Reel (RH)	1	1
10	^c 389839	Reel (RH)	1	1
11	16550	Fitting	1	2
12	16989	Fitting	1	2
13	16559	Fitting	1	2
14	240474	Hose	1	2
15	240459	Bracket (RH)	1	1
15	240460	Bracket (LH)	1	1
16	^e 350969	Tube	1	1
17	240468	Tube	1	1
18	328151	Tube	1	1
19	240443	Tube	1	1
20	240433	Clamp	1	3
21	15156	Lockwasher	1	3
22	16805	Capscrew	1	2
23	16815	Capscrew	2	4
24	15156	Lockwasher	2	4
25	16594	Capscrew	1	1
26	15026	Nut	1	1
27	16540	Fitting	2	4
28	388171	Block	1	2

REF	PART NO.	NAME OF PART	QTY	
			A	B
28	.....	Body	1	1
29	54128	Snap Ring	2	2
30	604832	Shaft	1	1
31	615940	Kit	1	1
31	61143	Back-up Ring	2	2
32	61142	O-ring	3	3
33	222443	Adapter	2	2
34	604834	Plunger	1	1
35	612518	Spring	2	2
36	612519	Spacer	2	2
37	236091	Ball	2	2
38	348050	Bracket (RH)	1	1
38	348049	Bracket (LH)	1	1
39	15156	Lockwasher	1	2
40	16814	Capscrew	1	2
41	15028	Nut	4	8
42	15158	Lockwasher	4	8
43	16807	Capscrew	4	8
44	16745	Fitting	2	4
45	^d	Hose	2	4
46	12487	Capscrew	1	2
47	15180	Washer	1	2
48	16745	O-Ring	2	4
49	16540	O-Ring	2	4
50	16550	O-Ring	1	2
51	16559	O-Ring	1	2
52	240473	Hose	1	2

^c Free Lift Over 222 inches And Three Stage Over 174 inches
^d See Chart Above
^e First Used On S/N F3A-4732, F3D-2876, F3T-1564

LIFT CYLINDER (Figure 100) MAIN



LIFT CYLINDER MAIN

H40-50J (H2.00-2.50J)

REF.	NAME OF PART	Lift Height To Bottom Of Fork					QTY
		150 inch (3810 mm)	168 inch (4270 mm)	186 inch (4720 mm)	198 inch (5030 mm)	216 inch (5490 mm)	
	Main Cylinder	180216	180229	180136	180159	180174	1
1	Shell	644063	644067	644071	644075	644079	1
2	Plunger	644064	644068	644072	644076	644080	1
3	Spacer	.....	.....	.....	644082	644082	1

H60JS (H3.00JS)

REF.	NAME OF PART	Lift Height To Bottom Of Fork					QTY
		139.5 inch (3540 mm)	157.5 inch (4000 mm)	175.5 inch (4460 mm)	196.5 inch (4990 mm)	214.5 inch (5450 mm)	
	Main Cylinder	186785	186806	186822	186838	186856	1
1	Shell	644924	644925	644926	644927	640424	1
2	Plunger	644928	644929	644930	644931	640425	1
3	Spacer	640666	640666	640666	639697	639697	1

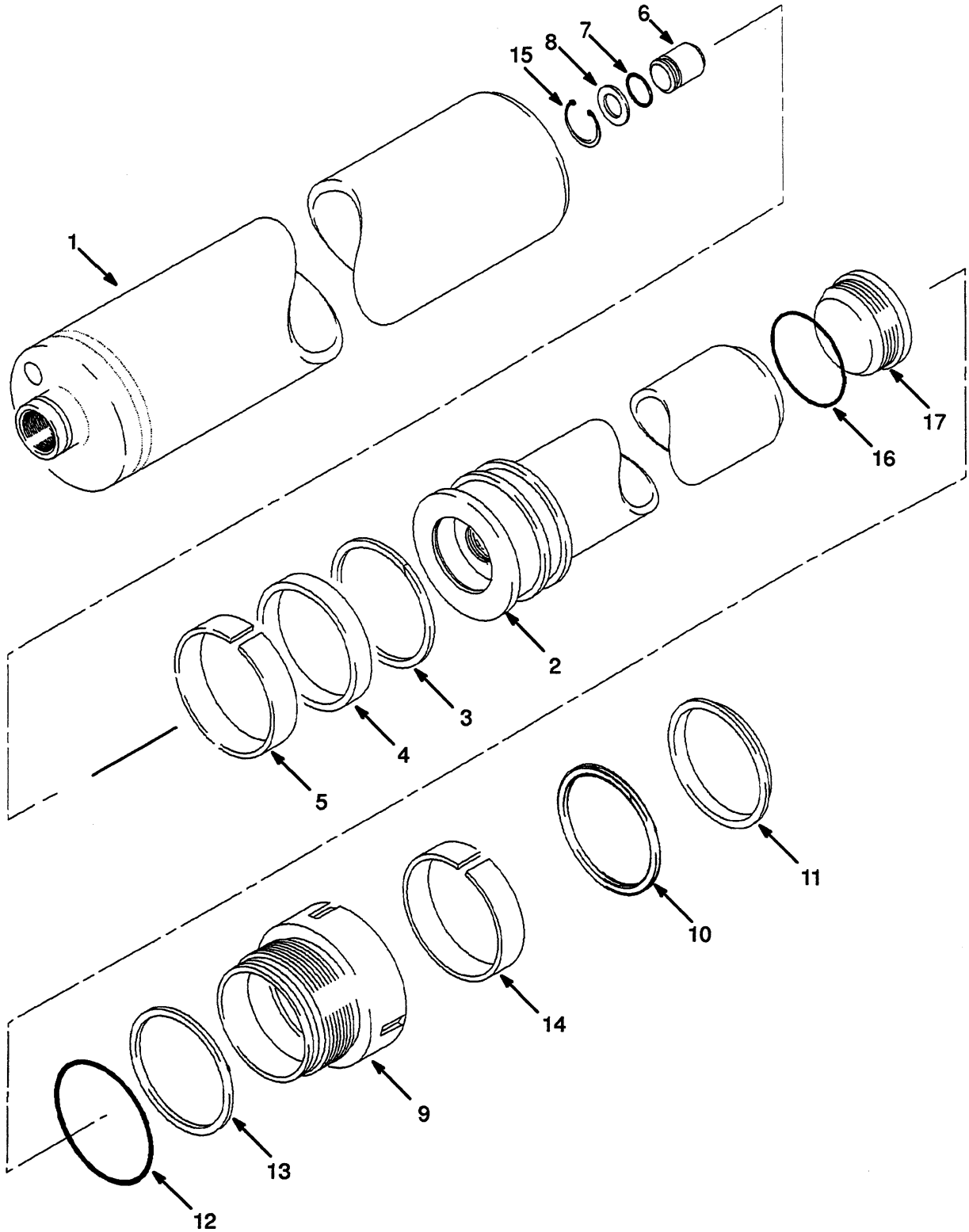
KEY

A: H40-50J (H2.00-2.50J)

B: H60JS (H3.00JS)

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
	a	..... Cylinder	1	1	13	cd 55468	O-Ring	1	1
1	a	..... Shell	1	1	14	b 154358	Back-up Ring	1	..
2	a	..... Plunger	1	1	14	cd 270015	Back-up Ring	1	1
3		..... Spacer	1	1	15	b 215345	Bearing	1	..
4	b	638292 Back-up Ring	1	..	15	cd 636949	Bearing	1	1
4	cd	638293 Back-up Ring .....	..	1	16	187388	Snap Ring	1	1
5	b	637161 Seal	2	..	17	640429	Ring	1	1
5	cd	637162 Seal .....	..	2	18	15969	Snap Ring	1	1
6	b	636949 Bearing	1	..	19	640428	Ring (Cushion)	1	1
6	cde	636950 Bearing .....	..	1	20	b 57664	O-Ring	1	..
7		658947 Valve	1	1	20	d 46388	O-Ring	1	1
8	f	39348 O-Ring	1	1	21	644032	Plug	1	..
9		637635 Washer	1	1					
10		638805 Retainer	1	..	a	See Chart Above			
10		639453 Retainer .....	..	1	b	Included In Repair Kit 639461			
11	b	638251 Back-up Ring	1	..	c	Included In Repair Kit 643280			
11	cd	636071 Back-up Ring .....	..	1	d	Included In Repair Kit 639456			
12	b	636858 Wiper Ring	1	..	e	Included In Repair Kit 640388			
12	cd	636859 Wiper Ring .....	..	1	f	Included In Repair Kit 639461, 643280, 639456, 640388			
13	b	15880 O-Ring	1	..					

LIFT CYLINDER (Figure 101) FREE LIFT



LIFT CYLINDER FREE LIFT

H40-50J (H2.00-2.50J)

REF.	NAME OF PART	Lift Height To Bottom Of Fork					QTY
		150 inch (3810 mm)	168 inch (4270 mm)	186 inch (4720 mm)	198 inch (5030 mm)	216 inch (5490 mm)	
	Free Lift Cylinder	295747	295748	285962	285963	285964	1
1	Shell	304825	304826	298093	298094	298095	1
2	Plunger	644865	644869	644873	644877	644881	1

H60JS (H3.00JS)

REF.	NAME OF PART	Lift Height To Bottom Of Fork					QTY
		139.5 inch (3540 mm)	157.5 inch (4000 mm)	175.5 inch (4460 mm)	196.5 inch (4990 mm)	214.5 inch (5450 mm)	
	Free Lift Cylinder	285966	285967	285968	285969	285970	1
1	Shell	297675	297676	297677	297678	297679	1
2	Plunger	643988	643992	643996	644000	640405	1

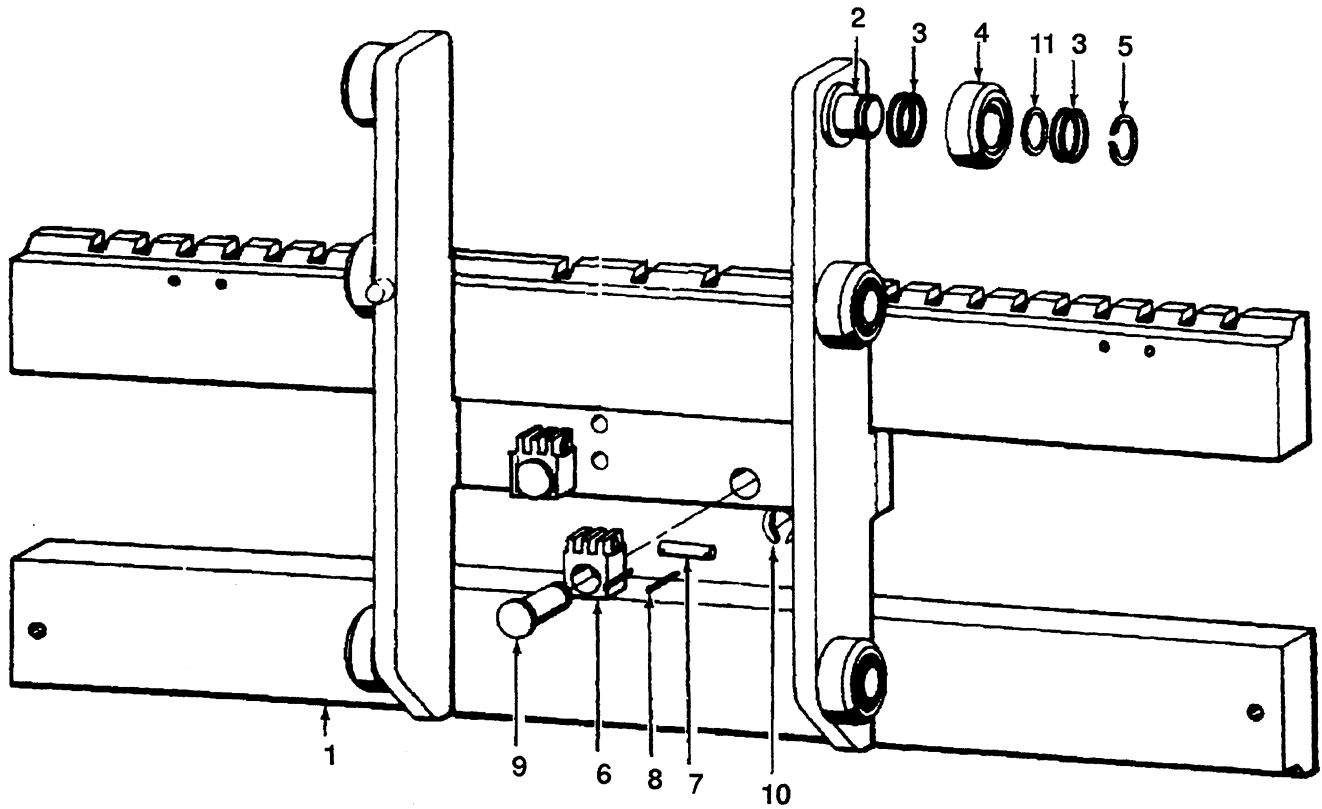
KEY

A: H40-50J (H2.00-2.50J)

B: H60JS (H3.00JS)

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
	a	..... Cylinder	1	1	12	cd 55468	O-ring	1	..
1	a	..... Shell	1	1	12	e 46629	O-ring	1	1
2	a	..... Plunger	1	1	13	cd 270015	Back-up Ring	1	..
3	cd	638293 Back-up Ring	1	..	13	e 270330	Back-up Ring	1	1
3	e	638294 Back-up Ring .....	..	1	14	cd 636901	Bearing	1	..
4	cd	637162 Seal	2	..	14	e 636902	Bearing .....	..	1
4	e	637163 Seal .....	..	2	15	187388	Snap Ring	1	1
5	cde	636902 Bearing	1	1	16	e 55146	O-ring .....	..	1
6		658947 Valve	1	1	17	639453	Plug	1	..
7	f	39348 O-ring	1	1	17	640386	Plug .....	..	1
8		637635 Washer	1	1					
9		639453 Retainer	1	..	a	See Chart Above			
9		640386 Retainer .....	..	1	b	Included In Repair Kit 639461			
10	cd	636071 Ring	1	..	c	Included In Repair Kit 643280			
10	e	638294 Ring .....	..	1	d	Included In Repair Kit 639456			
11	cd	636859 Wiper Ring	1	..	e	Included In Repair Kit 640388			
11	e	636860 Wiper Ring .....	..	1	f	Included In Repair Kit 639461, 643280, 639456, 640388			

CARRIAGE (Figure 102)



KEY

A: H40-50J (H2.00-2.50J)
B: H60JS (H3.00JS)

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
	180244	Carriage (42 inch)	1	..	6	126691	Anchor	..	2
	186950	Carriage (42 inch)	..	1	7	135306	Pin	2	..
1	180245	Frame (42 inch)	1	..	7	147485	Pin	..	2
1	186951	Frame (42 inch)	..	1	8	15200	Pin	4	..
2	129259	Stub Shaft	6	6	8	15211	Pin	..	4
3	129387	Shim (.020 inch)	AR	AR	9	147223	Pin	2	..
4	329090	Load Roller	6	6	9	185597	Pin	..	2
5	58901	Snap Ring	6	6	10	131358	Snap Ring	2	2
6	136330	Anchor	2	..	11	366115	Spacer	2	..

VISTA TWO STAGE MAST

CARRIAGE (Figure 109) Page 218

CARRIAGE (Figure 110) Page 219

HEADER HOSE (Figure 106)
VISTA 2 STAGE
315000 SERIES MAST Page 212

HEADER HOSE (Figure 107)
VISTA 2 STAGE
372000, 38400 SERIES MAST Page 214

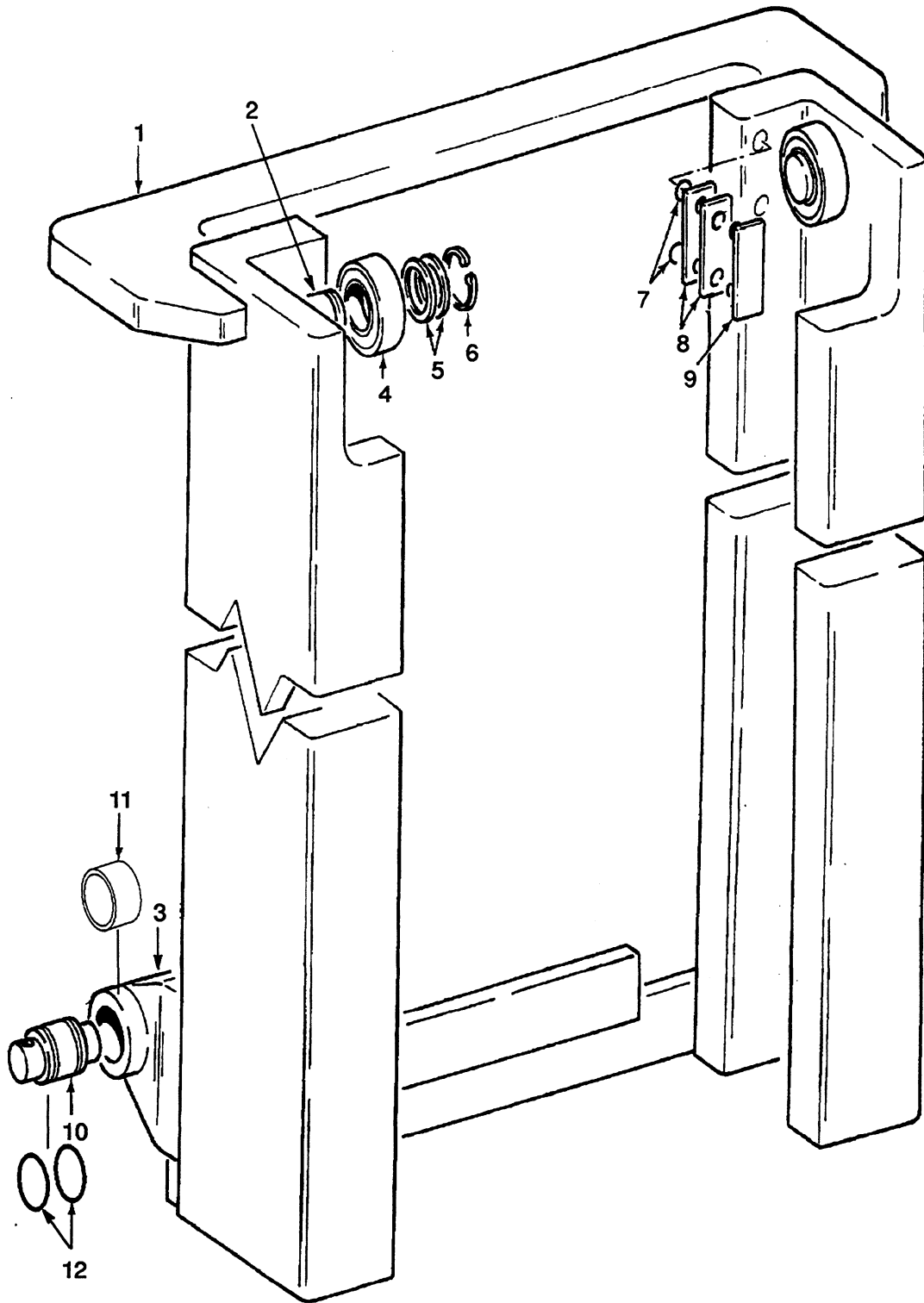
LIFT CYLINDER (Figure 108) Page 216

LIFT (Figure 105) Page 210

MAST (Figure 103)
OUTER Page 206

MAST (Figure 104)
INNER Page 208

MAST (Figure 103) OUTER



MAST OUTER

H40-50J (H2.00-2.50J)

REF	NAME OF PART	Lift Height To Bottom Of Fork							
		116.5 in (2960 mm)	128.5 in (3260 mm)	148.5 in (3760 mm)	167.5 in (4260 mm)	179.5 in (4560 mm)	191.5 in (4860 mm)	203 in (5160 mm)	215 in (5460 mm)
	Mast	384267	384268	284269	384270	372523	384271	372700	384272
1	Outer	^a 315193 ^b 384259	^a 315194 ^b 384260	^a 315195 ^b 384261	^a 315196 ^b 384262	^a 315198	^a 315045 ^b 384264	^a 315047	^a 315048 ^b 384266

- a 315000, 372000 Series Mast
- b 384000 Series Mast

H60JS (H3.00JS)

REF	NAME OF PART	Lift Height To Bottom Of Fork						
		110 inch (2800 mm)	122 inch (3100 mm)	141.5 in (3600 mm)	161.5 inch (4100 mm)	173.5 inch (4400 mm)	185 inch (4700 mm)	197 inch (4950 mm)
	Mast	372721	384273	384274	384350	384351	372526	372527
1	Outer	^a 315193	^a 315194 ^b 384260	^a 315195 ^b 384261	^a 315196 ^b 384262	^a 315198 ^b 384263	^a 315045	^a 315047 ^b 384265

- a 315000, 323000, 372000 Series Mast
- b 384000 Series Mast

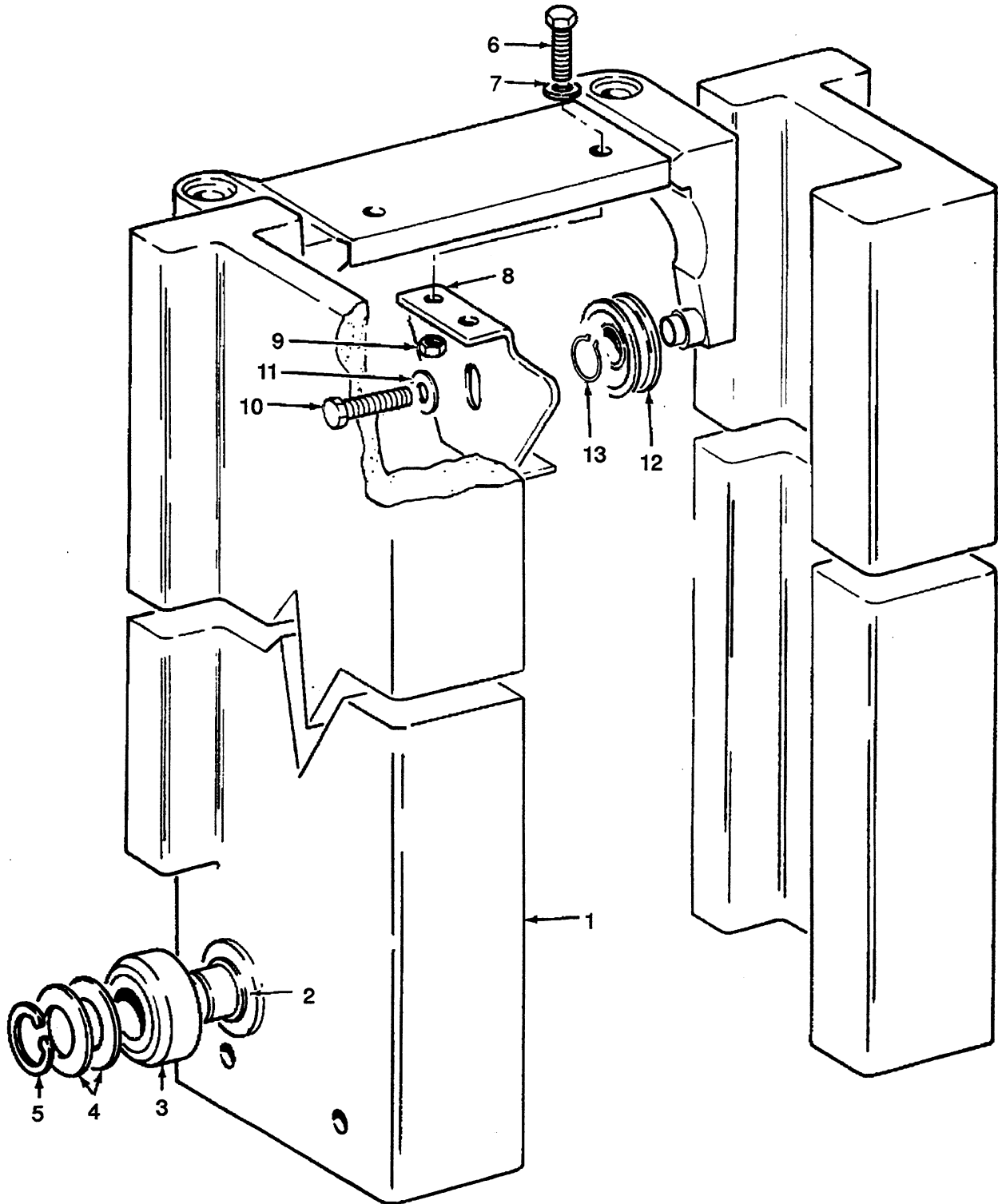
KEY

- A: H40-50J (H2.00-2.50J)
- B: H60JS (H3.00JS)

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
	^c	Mast	1	1	8	131716	Shim (.020 inch)	AR	AR
1	^c	Mast (Outer)	1	1	8	315212	Shim (.125 inch)	AR	AR
2	297565	Stub Shaft	2	2	9	215211	Bearing Strip	2	2
3	315287	Hanger	2	2	10	328468	Pin	2	2
4	329091	Load Roller	2	2	11	148159	Bushing	2	2
5	129387	Shim	AR	AR	12	55407	O-Ring	4	4
6	58901	Snap Ring	2	2					
7	104506	O-Ring	4	4					

^c See Chart Above

MAST (Figure 104) INNER



MAST INNER

H40-50J (H2.00-2.50J)

REF	NAME OF PART	Lift Height To Bottom Of Fork							
		116.5 in (2960 mm)	128.5 in (3260 mm)	148.5 in (3760 mm)	167.5 in (4260 mm)	179.5 in (4610 mm)	191.5 in (4860 mm)	203 in (5160 mm)	215 in (5460 mm)
	Mast	384267	384268	384269	384270	372523	384271	372700	384272
1	Inner	372472	372473	372474	372475	372476	372477	372478	372479

H60JS (H3.00JS)

REF	NAME OF PART	Lift Height To Bottom Of Fork						
		110 inch (2800 mm)	122 inch (3100 mm)	141.5 inch (3600 mm)	161.5 inch (4100 mm)	173.5 inch (4400 mm)	185 inch (4700 mm)	197 inch (5000 mm)
	Mast	372721	384273	384274	384350	384351	372526	384352
1	Inner	372472	372473	372474	372475	372476	372477	372478

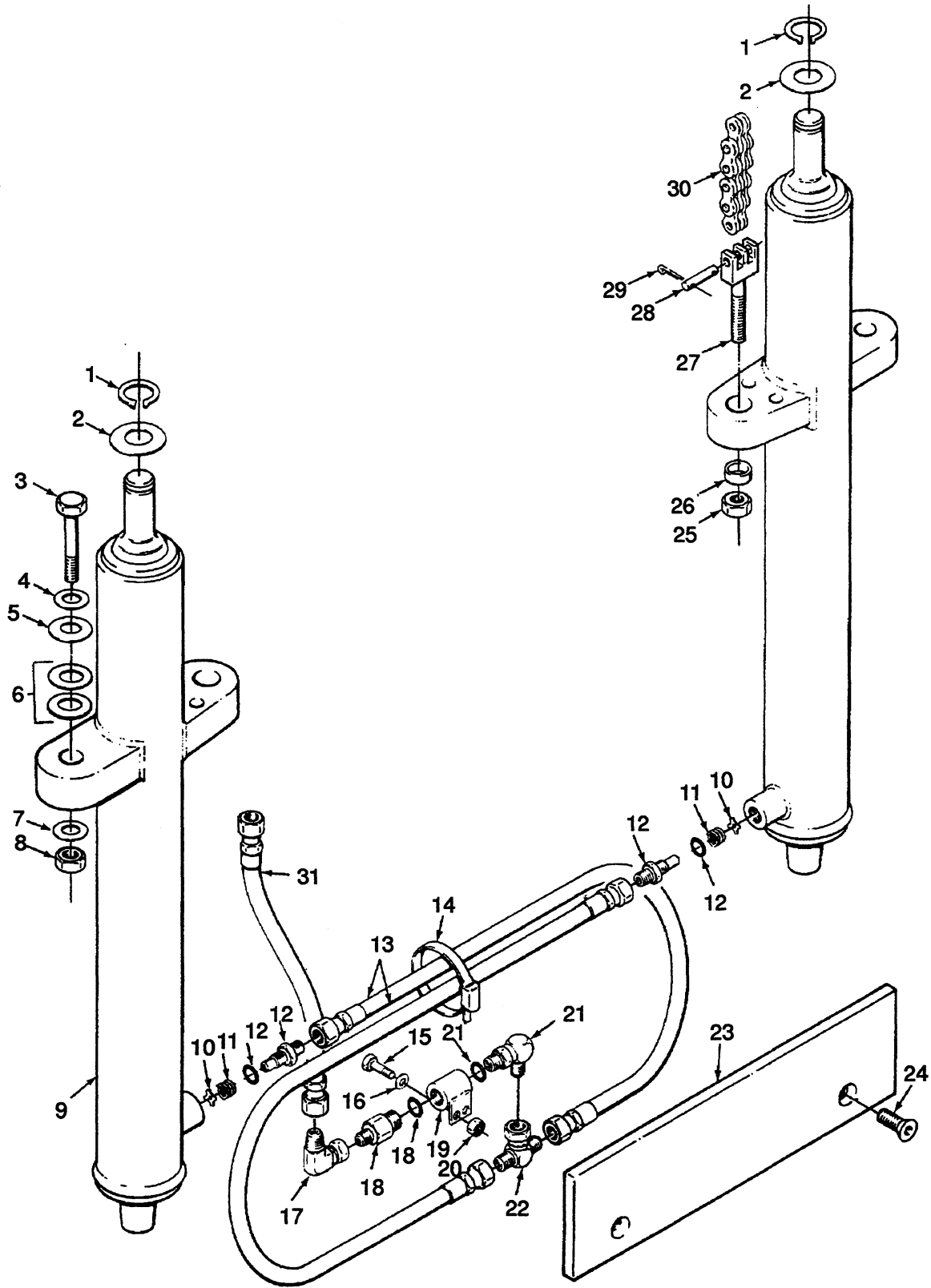
KEY

A: H40-50J (H2.00-2.50J)

B: H60JS (H3.00JS)

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
	a	..... Mast	1	1	9	221705	Nut	2	2
1	a	..... Mast (Inner)	1	1	10	16597	Capscrew	2	2
2	297565	Stub Shaft	2	2	11	15134	Washer	2	2
3	329091	Load Roller	2	2	12	315311	Sheave	2	..
4	129387	Shim	AR	AR	12	315312	Sheave .....	..	2
5	58901	Snap Ring	2	2	13	304526	Snap Ring	2	2
6	16782	Capscrew	2	2		a	See Chart Above		
7	221765	Washer	2	2		b	315000 323000 Series Mast		
8	b	328464 Plate	2	2		c	372000 384000 Series Mast		
8	c	369271 Plate	2	2					

LIFT (Figure 105)



LIFT

H40-50J (H2.00-2.50J)

REF	NAME OF PART	Lift Height To Bottom Of Fork								QTY
		116.5 in (2960mm)	128.5 in (3260mm)	148 in (3760mm)	167.5 (4260mm)	179.5 in (4560mm)	191.5 in (4860mm)	203 in (5160mm)	215 in (5460mm)	
	Mast	384267	384268	384269	384270	372523	384271	372700	384272	1
29	Lift Chain	135634	129361	180176	197327	129358	315341	315338	315344	2

H60JS (H3.00JS)

REF	NAME OF PART	Lift Height To Bottom Of Fork							QTY
		110 inch (2800mm)	122 inch (3100mm)	141.5 in (3600mm)	161.5 in (4100mm)	173 inch (4400mm)	185 inch (4700mm)	197 inch (4950mm)	
	Mast	372721	384273	384274	384350	384351	372526	384352	1
29	Lift Chain	186824	315346	186858	315299	315348	315349	323793	2

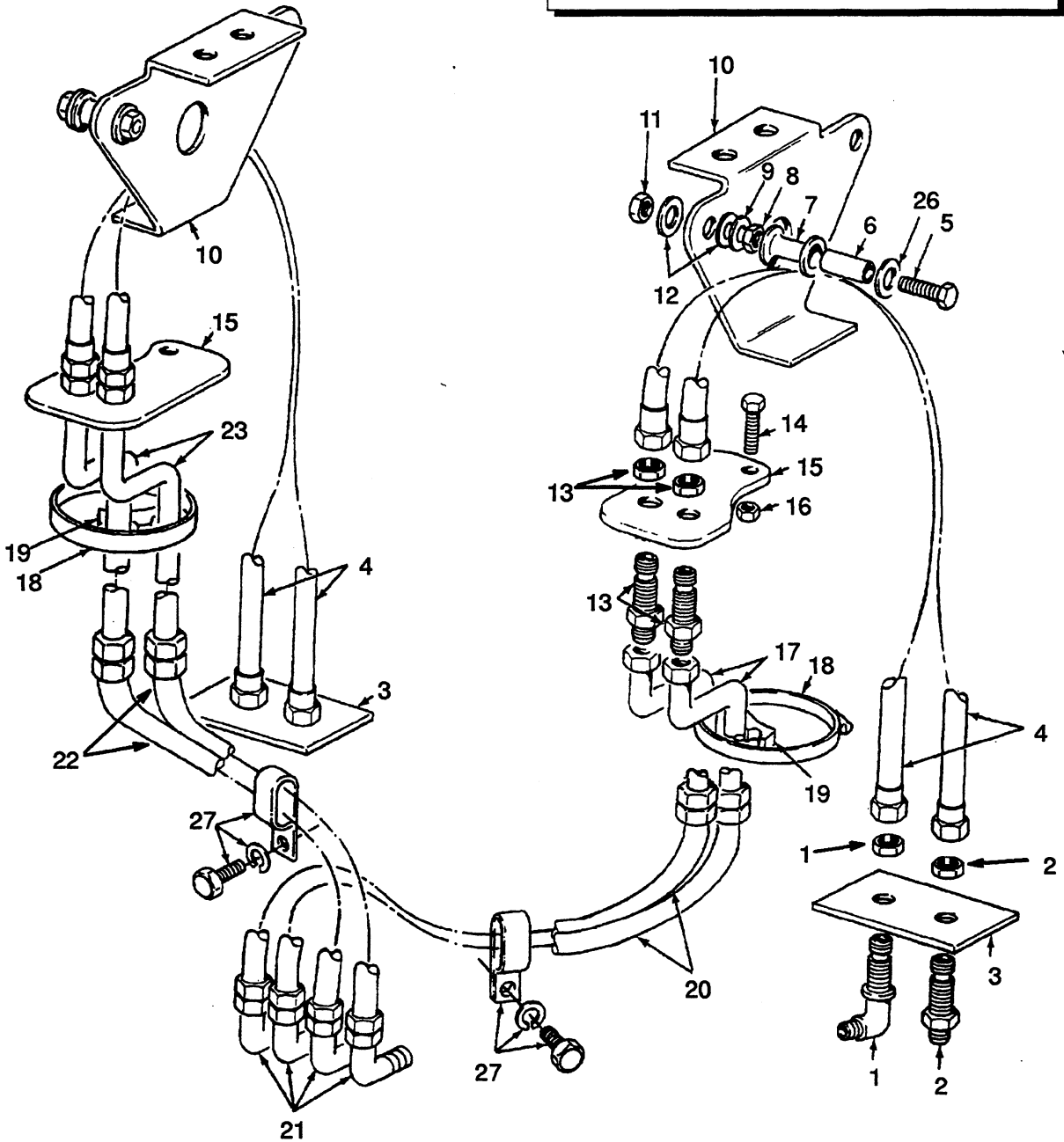
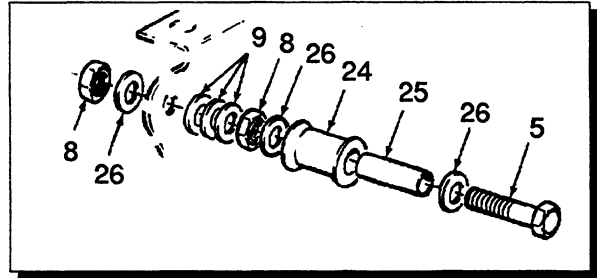
KEY

A: H40-50J (H2.00-2.50J)

B: H60JS (H3.00JS)

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
	^c	Mast	1	1	20	15056	Nut	2	2
1	131357	Snap Ring	2	2	21	16560	Fitting	1	1
2	328492	Washer	2	2	21	16485	O-Ring	1	1
3	221155	Capscrew	2	2	22	17051	Fitting	1	1
4	221775	Washer	2	2	23	^c 384358	Shield	1	1
4	^b 296426	Washer	2	2	24	^c 139140	Capscrew	2	2
5	221777	Washer	2	2	25	161003	Nut	2	2
6	134674	Shim (.060 inch)	AR	AR	26	161004	Base Ring	2	2
7	221775	Washer	2	2	26	^b 297649	Base Ring	2	2
7	^b 296426	Washer	2	2	27	161006	Anchor	2	..
8	221357	Nut	2	2	27	^b 320313	Anchor	2	..
9	.....	Cylinder	2	2	27	190073	Anchor .....	..	2
		☞ Figure 108			27	^b 297569	Anchor .....	..	2
10	320334	Washer	2	2	28	135306	Pin	2	..
11	154355	Spring	2	2	28	147485	Pin .....	..	2
12	184799	Fitting	2	2	29	15200	Pin	4	..
13	346937	Hose	2	2	29	15211	Pin .....	..	4
14	129563	Clamp	1	1	30	^a	Chain	2	2
15	16815	Capscrew	2	2	31	^d 394175	Hose	1	1
16	15134	Washer	2	2					
17	83857	Fitting	1	1	^a	See Chart Above			
18	315262	Valve	1	1	^b	Optional			
18	.....	O-Ring	1	1	^c	384000 Series Mast			
19	349312	Housing	1	1	^d	Included In Kit 1321196			

HEADER HOSE (Figure 106) VISTA 2 STAGE 315000 SERIES MAST



HEADER HOSE VISTA 2 STAGE 315000 SERIES MAST

LIFT HEIGHT		REF 4		REF 17	REF 23
H40-50J (H2.00-2.50J)	H60JS (H3.00JS)	3/8 Hose	5/16 Hose		
116.5 inch (2960 mm)	110 inch (2800 mm)	315576	357404	342463	342450
128.5 inch (3260 mm)	122 inch (3100 mm)	315577	357405	342464	342451
148 inch (3760 mm)	142.5 inch (3620 mm)	315578	357406	342465	342452
167.5 inch (4260 mm)	161.5 inch (4100 mm)	315579	357407	342466	342453
179.5 inch (4560 mm)	173 inch (4400 mm)	315580	357408	342467	342454
191.5 inch (4860 mm)	185 inch (4700 mm)	315581	357409	342468	342455
203 inch (5160 mm)	197 inch (5000 mm)	315582	357410	342469	342456
215 inch (5460 mm)	.....	315583	357411	342470	342457

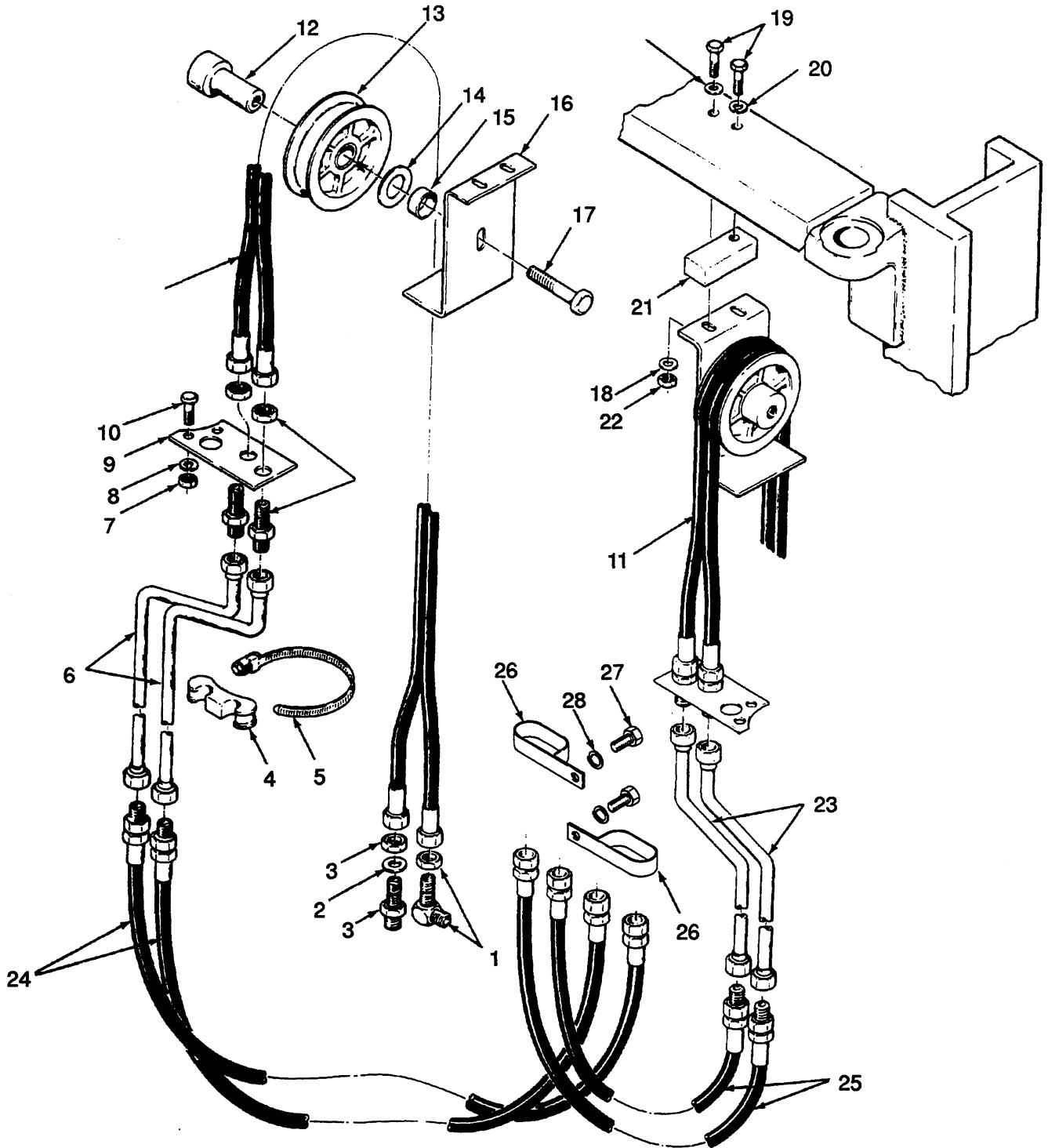
KEY

- A: Three Plunger Valve
- B: Four Plunger Valve

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
1	16457	Fitting	1	2	17	^a	Tube	2	2
1	14760	Adapter	1	1	18	115696	Clamp	3	6
2	16447	Fitting	1	2	19	340053	Spacer	3	6
2	14760	Adapter	1	1	20	^b 315049	Hose	2	2
3	315295	Plate	1	2	21	16883	Fitting	2	4
4	^a	Hose	1	2	22	^b 315075	Hose .....	..	2
5	344502	Capscrew	2	4	23	^a	Tube .....	..	2
6	320343	Tube	2	4	24	^c 341673	Roller	4	8
7	^b 320344	Roller	2	4	25	^c 365795	Tube	2	4
8	15055	Nut	2	4	26	^b 18515	Washer	2	4
9	18515	Washer	AR	AR	26	^c 18515	Washer	3	6
10	328464	Plate	2	2	27	140660	Clamp	1	2
11	145639	Locknut	2	4	27	18535	Capscrew	1	2
12	^b 15175	Washer	4	8	27	15156	Lockwasher	1	2
13	16447	Fitting	2	4					
13	14760	Adapter	1	1					
14	18471	Capscrew	2	4					
15	372450	Plate	1	2					
16	221703	Nut	2	4					

- ^a See Chart Above
- ^b 3/8 inch Hose
- ^c 5/16 inch Hose

HEADER HOSE (Figure 107) VISTA 2 STAGE 372000, 38400 SERIES MAST



HEADER HOSE VISTA 2 STAGE 372000, 38400 SERIES MAST

LIFT HEIGHT				REF 6	REF 11	REF 23
H40-50J (H2.00-2.50J)		H60JS (H3.00JS)				
inch	mm	inch	mm			
116.5	2960	110	2800	372435	372508	372426
128.5	3260	122	3100	372436	372509	372427
148	3760	141.5	3600	372437	372510	372428
167.5	4260	161.5	4100	372438	372511	372429
169.5	4560	173	4400	372439	372512	372430
191.5	4860	185	4700	372440	372513	372431
203	5160	197	5000	372441	372514	372432
215	5460	.....	.....	372442	372515	372433

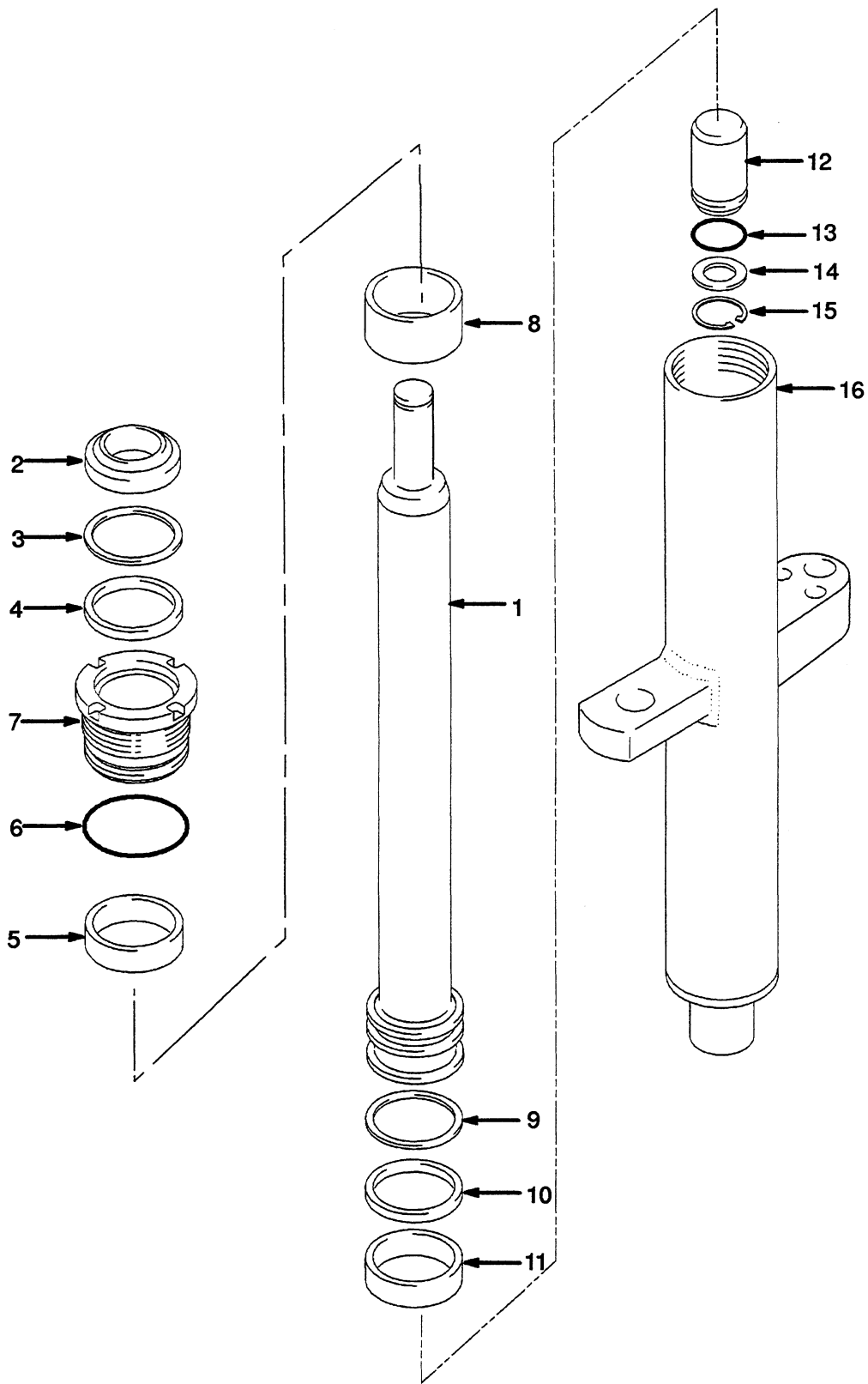
KEY

- A: Three Plunger Control Valve**
- B: Four Plunger Control Valve**

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
1	16457	Fitting	1	2	15	367279	Spacer	1	2
1	14760	Adapter	1	1	16	369272	Plate	1	2
2	15146	Washer	1	2	17	18538	Capscrew	1	2
3	16447	Fitting	3	6	18	296420	Washer	2	4
3	14760	Adapter	1	1	19	292519	Capscrew	2	4
4	340053	Spacer	3	6	20	292682	Lockwasher	1	2
5	115696	Clamp	3	6	21	369273	Plate	1	2
6	^a	Tube	2	2	22	136692	Nut	1	2
7	15054	Nut	2	4	23	^a	Tube .....	..	2
8	15154	Lockwasher	2	4	24	266374	Hose	2	2
9	372450	Plate	1	2	25	383095	Hose .....	..	2
10	18471	Capscrew	2	4	26	140660	Clamp	1	2
11	^a	Hose	1	2	27	18535	Capscrew	1	2
12	318335	Shaft	1	2	28	15156	Lockwasher	1	2
13	309248	Sheave	1	2					
14	15130	Washer	1	2					

^a See Chart Above

LIFT CYLINDER (Figure 108)



LIFT CYLINDER

H40-50J (H2.00-2.50J)

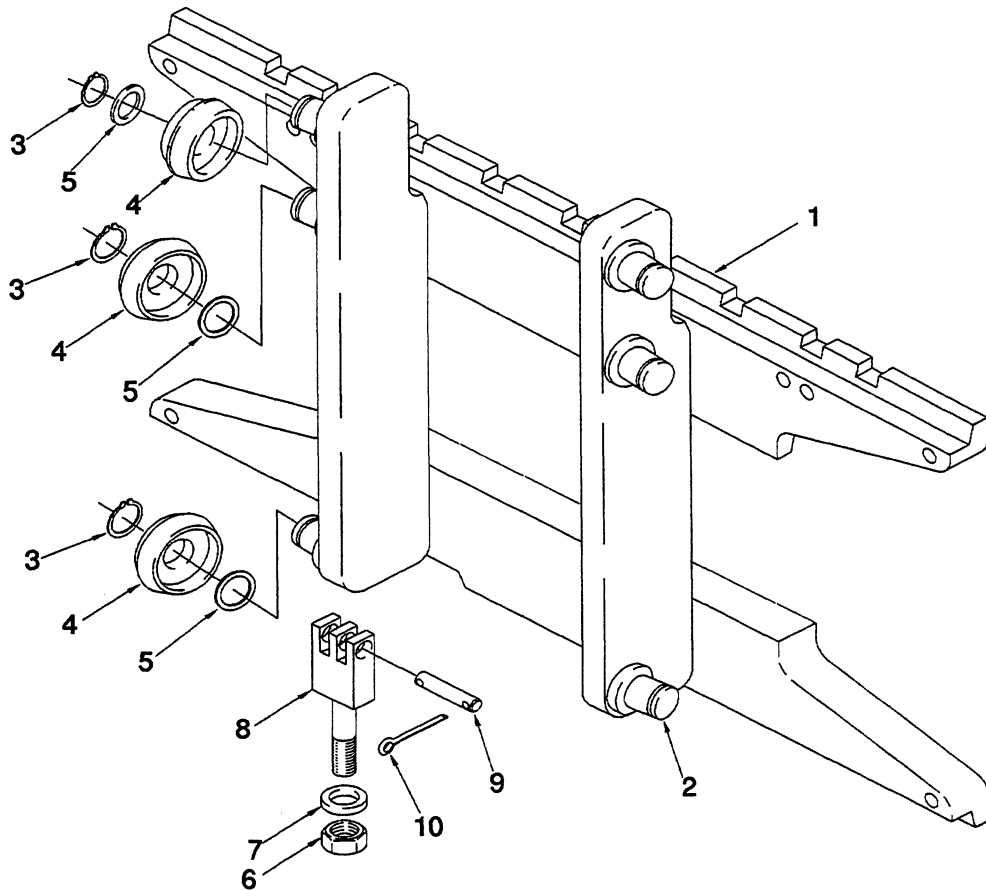
REF	NAME OF PART	Lift Height To Bottom Of Fork								QTY
		116.5 in (2960mm)	128.5 in (3260mm)	148.5 in (3760mm)	167.5 in (4260mm)	179.5 in (4560mm)	191.5 in (4860mm)	203 in (5100mm)	215 in (5460mm)	
	Cylinder	315369	315371	315373	315394	315396	315398	315297	315298	2
1	Rod	315479	315480	315481	315482	315484	315486	315488	315489	1
8	Spacer	.....	.....	.....	315339	315339	315339	315339	315339	1
16	Shell	315446	315447	315448	315449	315451	315453	315455	315456	1

H60JS (H3.00JS)

REF	NAME OF PART	Lift Height To Bottom Of Fork							QTY
		110 inch (2800mm)	122 inch (3100mm)	141.5 inch (3600mm)	161.5 inch (4100mm)	173 inch (4400mm)	185 inch (4700mm)	197 in (5000mm)	
	Cylinder	315370	315372	315374	315395	315397	315399	323794	2
1	Rod	315479	315480	315481	315482	315484	315486	315488	1
8	Spacer	315337	315337	315337	315340	315340	315340	315340	1
16	Shell	315446	315447	315448	315449	315451	315453	315455	1

REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
	a	..... Cylinder	2	10	b 270077	Seal	1
1	a	..... Rod	1	11	b 297532	Wear Ring	1
2	b 215430	Wiper Ring	1	12	658947	Valve	1
3	b 638248	Back-up Ring	1	13	b 39348	O-Ring	1
4	b 215924	Seal	1	14	637635	Washer	1
5	b 215427	Wear Ring	1	15	187388	Snap Ring	1
6	b 198518	O-Ring	1	16	a	..... Shell	1
7	361628	Retainer	1		a	See Chart Above	
8	a	..... Spacer	1		b	Included In Seal Kit 323785	
9	b 638249	Back-up Ring	1				

CARRIAGE (Figure 109)



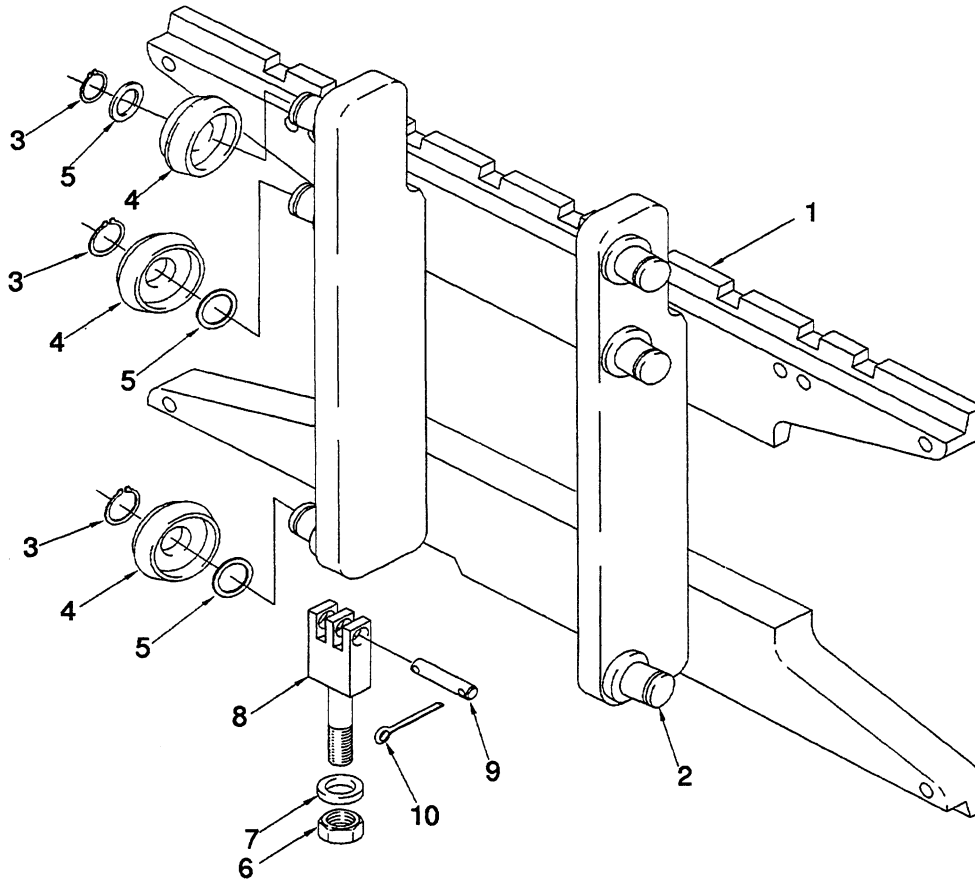
KEY

A: H40-50J (H2.00-2.50J)

B: H60JS (H3.00JS)

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
	372451	Carriage (42 inch)	1	..	7	^a 297649	Base Ring	2	2
	^e 372455	Carriage (42 inch)	1	..	8	225550	Anchor	2	..
	^a 315556	Carriage (42 inch)	1	..	8	^a 1365140	Anchor	2	..
	372459	Carriage (42 inch)	..	1	8	190073	Anchor	..	2
1	^b	Frame (42 inch)	1	..	8	^a 297569	Anchor	..	2
1	^c 372281	Frame (42 inch)	1	..	9	135306	Pin	2	..
1	^d 372452	Frame (42 inch)	1	..	9	147485	Pin	..	2
1	^b 340098	Frame (42 inch)	..	1	10	15200	Pin	4	..
1	^d 372460	Frame (42 inch)	..	1	10	15211	Pin	..	4
2	297565	Stub Shaft	6	6					
3	58901	Snap Ring	6	6	^a	Optional			
4	329090	Load Roller	6	6	^b	315000, 341000 Series Carriage			
5	129387	Shim (.020 inch)	AR	AR	^c	315000 Series Mast			
6	161003	Nut	2	2	^d	372000, 384000 Series Carriage			
7	161004	Base Ring	2	2	^e	European			

CARRIAGE (Figure 110)



KEY

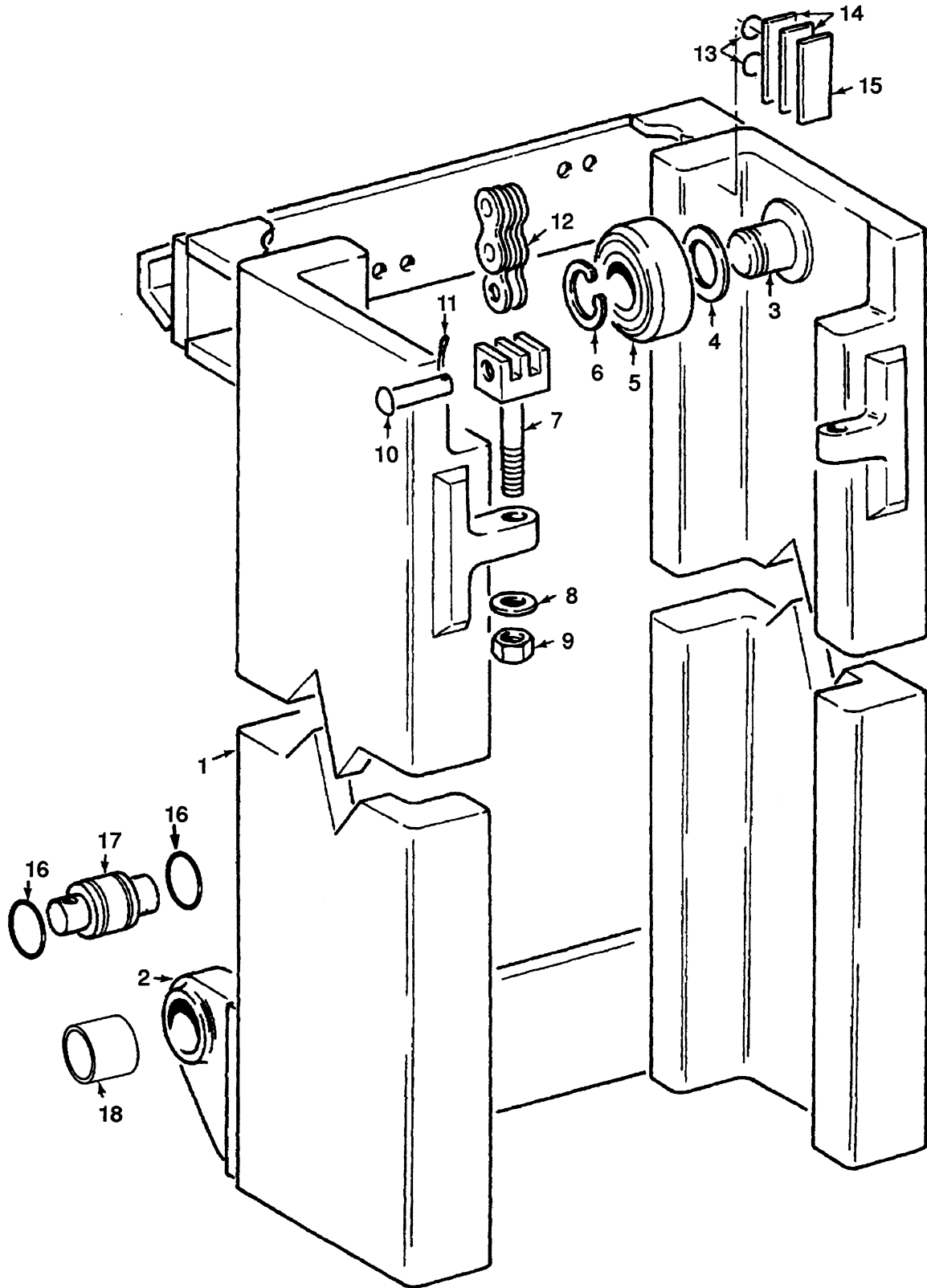
A: H40-50J (H2.00-2.50J)
B: H60JS (H3.00JS)

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
	^a 361645	Carriage (42 inch)	1	..	7	^a 297649	Base Ring	2	2
	^e 372455	Carriage (42 inch)	1	..	8	225550	Anchor	2	..
	^a 361646	Carriage (42 inch)	1	..	8	^a 1365140	Anchor	2	..
1	^{ab} 361635	Frame (42 inch)	1	..	8	190073	Anchor	..	2
1	^c 371217	Frame (42 inch)	1	..	8	^a 297569	Anchor	..	2
1	^d 372456	Frame (42 inch)	1	..	9	135306	Pin	2	..
1	^b 361642	Frame (42 inch)	..	1	9	147485	Pin	..	2
1	^c 371222	Frame (42 inch)	..	1	10	15200	Pin	4	..
2	297565	Stub Shaft	6	6	10	15211	Pin	..	4
3	58901	Snap Ring	6	6		^a	Optional		
4	329090	Load Roller	6	6		^b	361000 Series Carriage		
5	129387	Shim (.020 inch)	AR	AR		^c	371000 Series Carriage		
6	161003	Nut	2	2		^d	372000 Series Carriage		
7	161004	Base Ring	2	2		^e	European		

VISTA THREE STAGE MAST

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MAST (Figure 113) INNER	Page 226

MAST (Figure 111) OUTER



MAST OUTER

H40-50J (2.00-2.50J)

REF	NAME OF PART	Lift Height To Bottom Of Fork						QTY
		150 inch (3810 mm)	167.5 inch (4260 mm)	173.5 inch (4410 mm)	185.5 inch (4710 mm)	197 inch (5010 mm)	215 inch (5460 mm)	
	Mast	320433	320434	320435	320436	320437	320438	1
1	Outer	320375	320376	320377	320378	320453	320454	1
12	Lift Chain	88431	180217	182343	986559	180137	88446	2

H60JS (H3.00JS)

REF	NAME OF PART	Lift Height To Bottom Of Fork						QTY
		140 inch (3550 mm)	157.5 inch (4000 mm)	163.5 inch (4150 mm)	175 inch (4450 mm)	187 inch (4750 mm)	213.5 inch (5425 mm)	
	Mast	320694	320695	315685	315686	315687	315688	1
1	Outer	320702	320703	320684	315681	315682	315683	1
12	Lift Chain	320711	320712	186808	297640	320396	315347	2

KEY

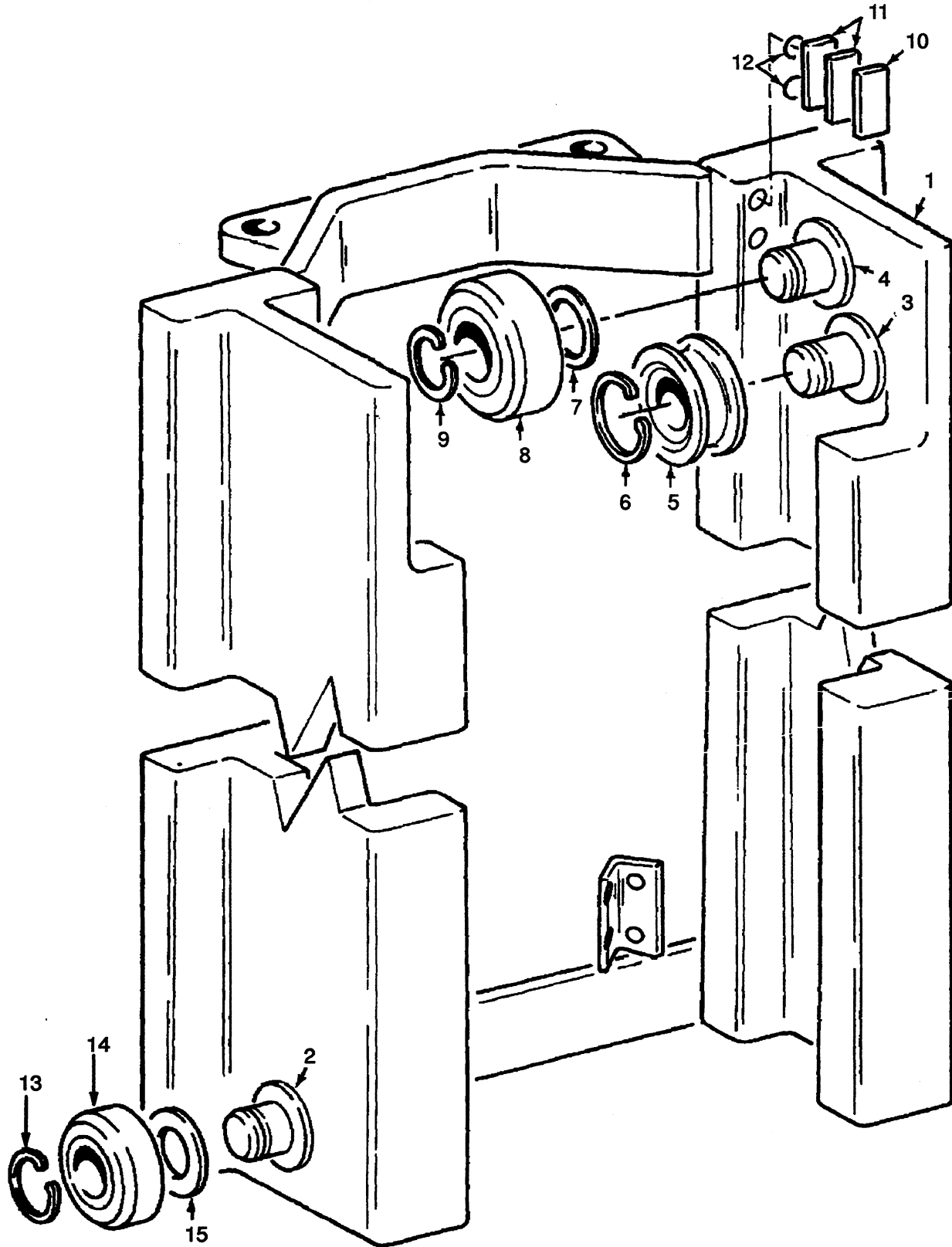
A: H40-50J (2.00-2.50J)

B: H60JS (H3.00JS)

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
	^a	Mast	1	1	10	315634	Pin	2	2
1	^a	Mast (Outer)	1	1	11	15200	Pin	2	..
2	297549	Hanger (RH)	1	1	11	15211	Pin	2	2
2	297545	Hanger (LH)	1	1	12	^a	Chain	2	2
3	343382	Stub Shaft	2	2	13	104506	O-Ring	4	4
4	129387	Shim (.020 inch)	AR	AR	14	131716	Shim (.020 inch)	AR	AR
5	329091	Load Roller	2	2	15	215211	Bearing Strip	2	2
6	58901	Snap Ring	2	2	16	55407	O-Ring	4	4
7	320313	Anchor	2	..	17	328468	Pin	2	2
7	297569	Anchor .....	..	2	18	148159	Bushing	2	2
8	297649	Base Ring	2	2					
9	161003	Nut	2	2					
10	315635	Pin	2	..					

^a See Chart Above

MAST (Figure 112) INTERMEDIATE



MAST INTERMEDIATE

H40-50J (2.00-2.50J)

REF	NAME OF PART	Lift Height To Bottom Of Fork						QTY
		150 inch (3810 mm)	167.5 inch (4260 mm)	173.5 inch (4410 mm)	185.5 inch (4710 mm)	197 inch (5010 mm)	215 inch (5460 mm)	
	Mast	320433	320434	320435	320436	320437	320438	1
1	Intermediate	346424	347200	347201	347202	347203	347204	1

H60JS (H3.00JS)

REF	NAME OF PART	Lift Height To Bottom Of Fork						QTY
		140 inch (3550 mm)	157.5 in (4000 mm)	163.5 inch (4150 mm)	175 inch (4450 mm)	187 inch (4750 mm)	213.5 in (5425 mm)	
	Mast	320694	320695	315685	315686	315687	315688	1
1	Intermediate	346418	346419	346420	346421	346422	346423	1

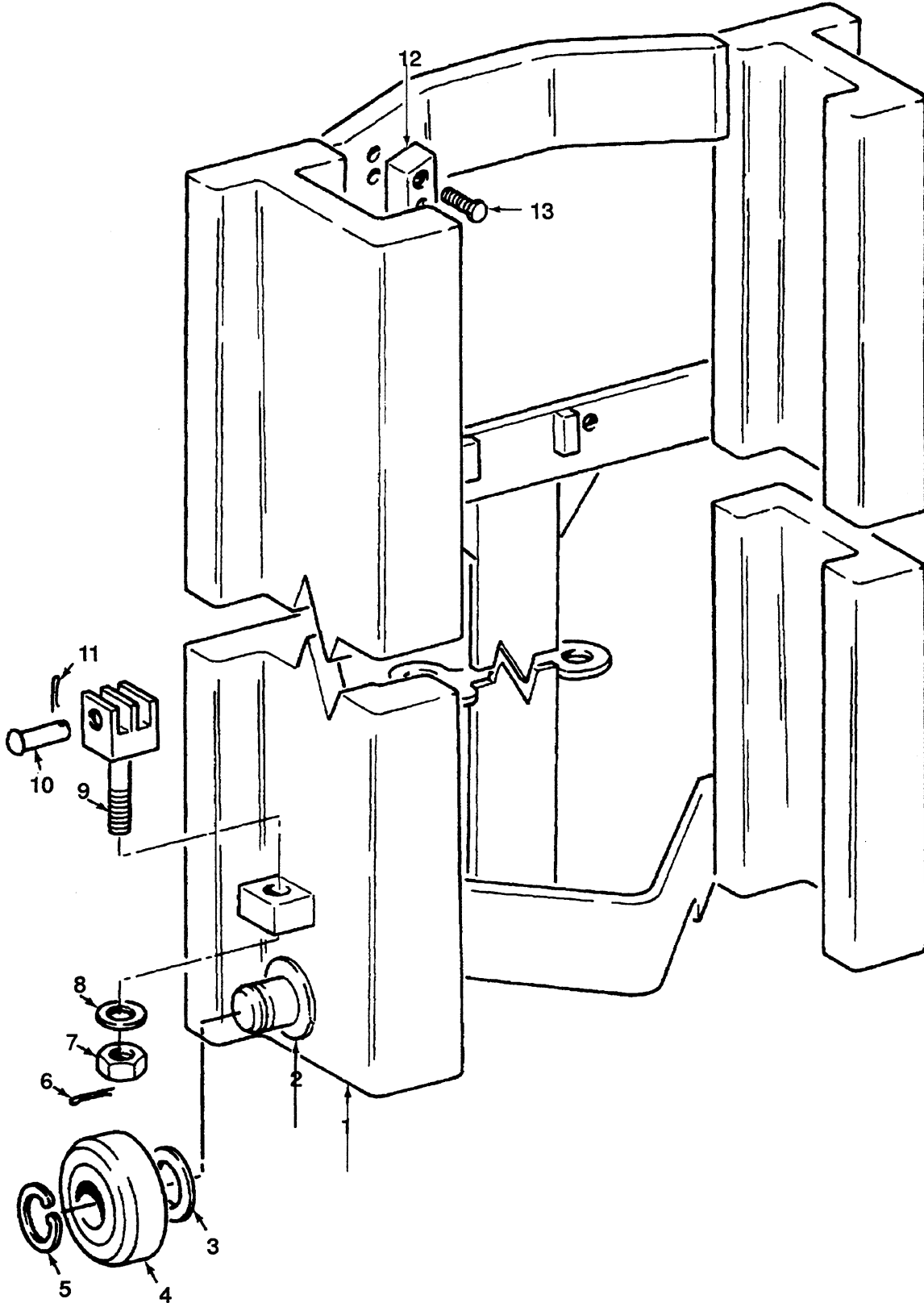
KEY

A: H40-50J (2.00-2.50J)

B: H60JS (H3.00JS)

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
	a	..... Mast	1	1	7	129387	Shim (.020 inch)	AR	AR
1	a	..... Mast (Intermediate)	1	1	8	329090	Load Roller	2	2
2	297565	Stub Shaft	2	2	9	58901	Snap Ring	2	2
3	320308	Stub Shaft	2	..	10	297568	Bearing Strip	2	2
3	297574	Stub Shaft .....	..	2	11	297571	Shim (.020 inch)	AR	AR
4	333392	Stub Shaft	2	..	12	104506	O-Ring	4	4
4	333393	Stub Shaft .....	..	2	13	58901	Snap Ring	2	2
5	216105	Sheave	2	..	14	329091	Load Roller	2	2
5	315632	Sheave .....	..	2	15	129387	Shim (.020 inch)	AR	AR
6	58908	Snap Ring	2	..		a	See Chart Above		
6	58901	Snap Ring .....	..	2					

MAST (Figure 113) INNER



MAST INNER

H40-50J (2.00-2.50J)

REF	NAME OF PART	Lift Height To Bottom Of Fork						QTY
		150 inch (3810 mm)	167.5 inch (4260 mm)	173.5 inch (4410 mm)	185.5 inch (4710 mm)	197 inch (5010 mm)	215 inch (5460 mm)	
	Mast	320433	320434	320435	320436	320437	320438	1
1	Inner	320367	320368	320369	320370	320441	320442	1

H60JS (H3.00JS)

REF	NAME OF PART	Lift Height To Bottom Of Fork						QTY
		140 inch (3550 mm)	157.5 inch (4000 mm)	163.5 inch (4150 mm)	175 inch (4450 mm)	187 inch (4750 mm)	213.5 inch (5425 mm)	
	Mast	320694	320695	315685	315686	315687	315688	1
1	Inner	320658	320659	315713	297595	.....	315715	1

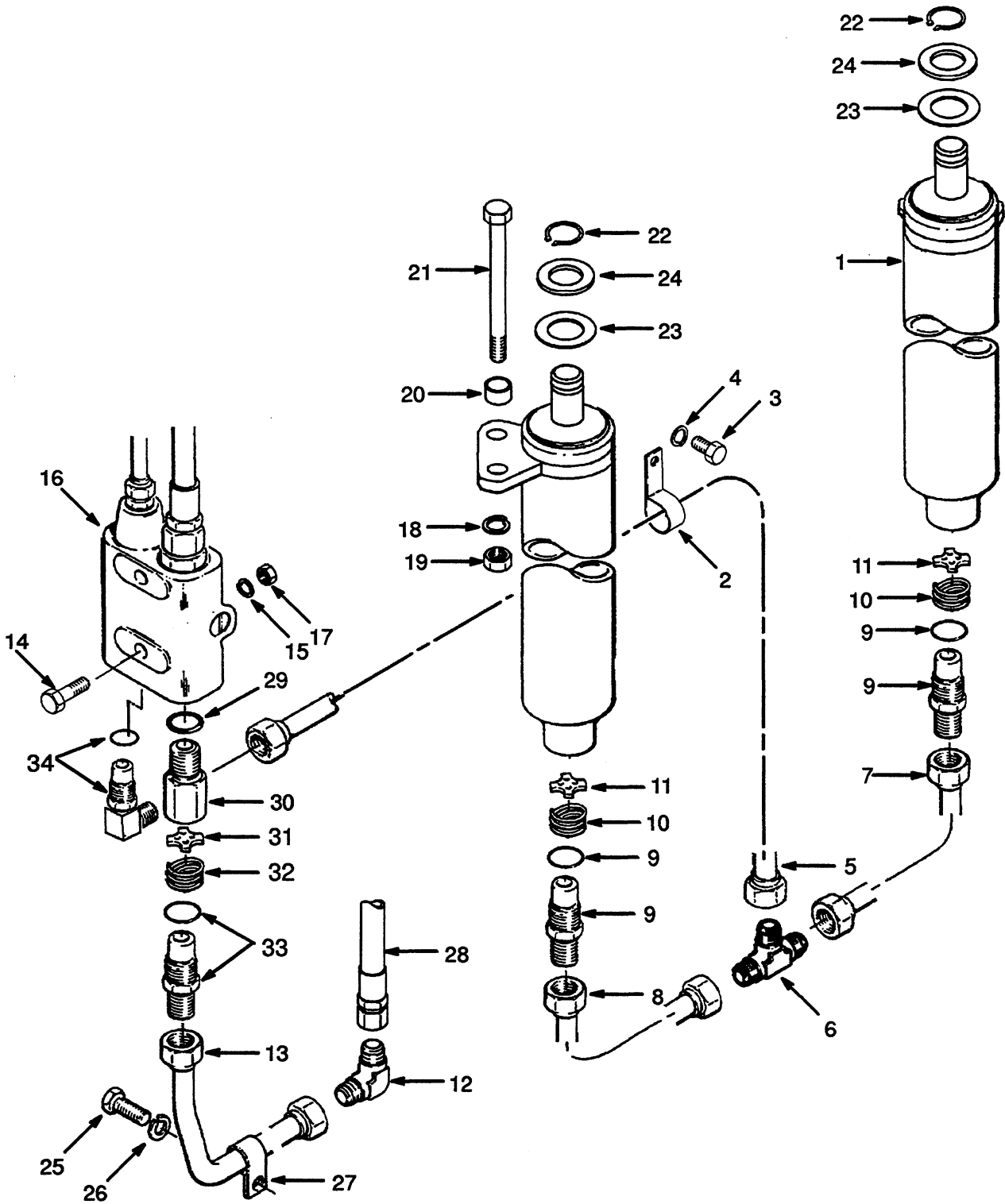
KEY

A: H40-50J (2.00-2.50J)

B: H60JS (H3.00JS)

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
	^a	Mast	1	1	9	297580	Anchor .....	..	2
1	^a	Mast (Inner)	1	1	10	315635	Pin	2	..
2	297564	Stub Shaft	2	2	10	315634	Pin .....	..	2
3	129387	Shim (.020 inch)	AR	AR	11	15200	Pin	2	..
4	329090	Load Roller	2	2	11	15211	Pin .....	..	2
5	58901	Snap Ring	2	2	12	172848	Bar	1	1
6	15223	Pin	2	2	13	37297	Capscrew	2	2
7	161003	Nut	2	2					
8	297649	Base Ring	2	2					
9	1365140	Anchor	2	..					
					^a	See Chart Above			

LIFT (Figure 114) MAIN



LIFT MAIN

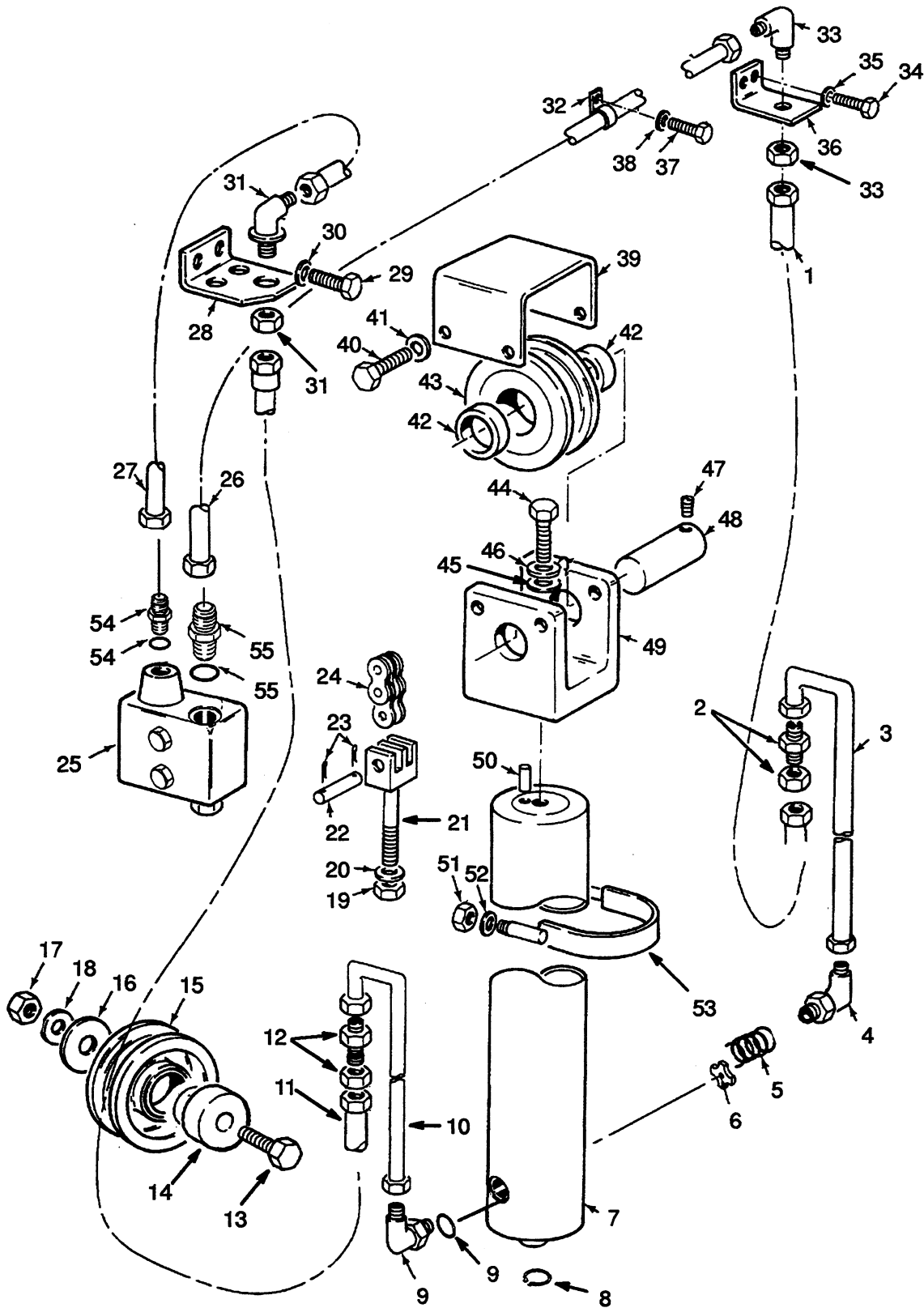
KEY

A: H40-50J (2.00-2.50J)

B: H60JS (H3.00JS)

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
1	.....	Cylinder	2	2	18	15158	Lockwasher	4	4
	.....	☞ Figure 119			19	15058	Nut	4	4
2	154278	Clamp	1	1	20	297639	Spacer	2	2
3	16597	Capscrew	1	1	21	17269	Capscrew	4	4
4	15156	Lockwasher	1	1	22	131357	Snap Ring	2	2
5	315651	Tube	1	1	23	346410	Shim (.060 inch)	AR	AR
6	315611	Fitting	1	1	24	328492	Washer	2	2
7	315799	Tube	1	1	25	16597	Capscrew	1	1
8	315774	Tube	1	1	26	15156	Lockwasher	1	1
9	184799	Fitting	2	2	27	183779	Clamp	1	1
10	288648	Spring	2	2	28	242081	Hose	1	1
11	320334	Washer	2	2	29	16487	O-Ring	1	1
12	14482	Fitting	1	1	30	320336	Adapter	1	1
13	315661	Tube	1	1	31	189253	Washer	1	1
14	16741	Capscrew	2	2	32	279818	Spring	1	1
15	15156	Lockwasher	2	2	33	238107	Adapter	1	1
16	315669	Valve	1	1	33	.....	O-Ring	1	1
17	15056	Nut	2	2	34	83857	Fitting	1	1


FREE LIFT (Figure 115)



FREE LIFT

H40-50J (2.00-2.50J)

REF	NAME OF PART	Lift Height To Bottom Of Fork						QTY
		150 inch (3810 mm)	167.5 inch (4260 mm)	173.5 inch (4410 mm)	185.5 inch (4710 mm)	197 inch (5010 mm)	215 inch (5460 mm)	
	Mast	320433	320434	320435	320436	320437	320438	1
1	Hose	320519	320520	320391	320392	320393	320716	1
11	Hose	320414	320415	320400	320401	320402	320715	1
24	Lift Chain	320466	320467	320468	194665	194608	182319	1
26	Tube	320523	320524	315834	315835	315836	315837	1
27	Tube	356086	356087	356088	356089	356090	356091	1

REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
	^a	Mast	1	28	355724	Bracket	1
1	^a	Hose	1	29	16597	Capscrew	2
2	16449	Fitting	1	30	15156	Lockwasher	2
3	315816	Tube	1	31	16457	Fitting	1
4	271954	Fitting	1	32	154278	Clamp	1
5	271980	Spring	1	33	315616	Fitting	1
6	300690	Washer	1	34	16597	Capscrew	2
7	.....	Cylinder	1	35	15156	Lockwasher	2
		 Figure 120		36	297542	Bracket	1
8	131358	Snap Ring	1	37	16597	Capscrew	1
9	16558	Fitting	1	38	15156	Lockwasher	1
10	356096	Tube	1	39	367290	Guard	1
11	^a	Hose	1	40	16597	Capscrew	4
12	16447	Fitting	1	41	15156	Lockwasher	4
13	18538	Capscrew	2	42	297573	Spacer	2
14	297613	Stub Shaft	2	43	320424	Sheave	1
15	309007	Sheave	2	44	222163	Capscrew	1
15	136045	Bushing	1	45	15136	Washer	1
16	333395	Washer	2	46	15162	Lockwasher	1
17	15056	Nut	2	47	221149	Screw	1
18	15156	Lockwasher	2	48	297555	Pin	1
19	182377	Nut	1	49	297558	Crosshead	1
20	182376	Base Ring	1	50	226857	Pin	1
21	351666	Anchor	1	51	15058	Nut	2
22	129339	Pin	1	52	15158	Lockwasher	2
23	15222	Pin	2	53	297592	Bracket	2
24	^a	Chain	1	54	16540	Fitting	1
25	315669	Valve	1	55	16543	Fitting	1
26	^a	Tube	1				
27	^a	Tube	1	^a	See Chart Above		

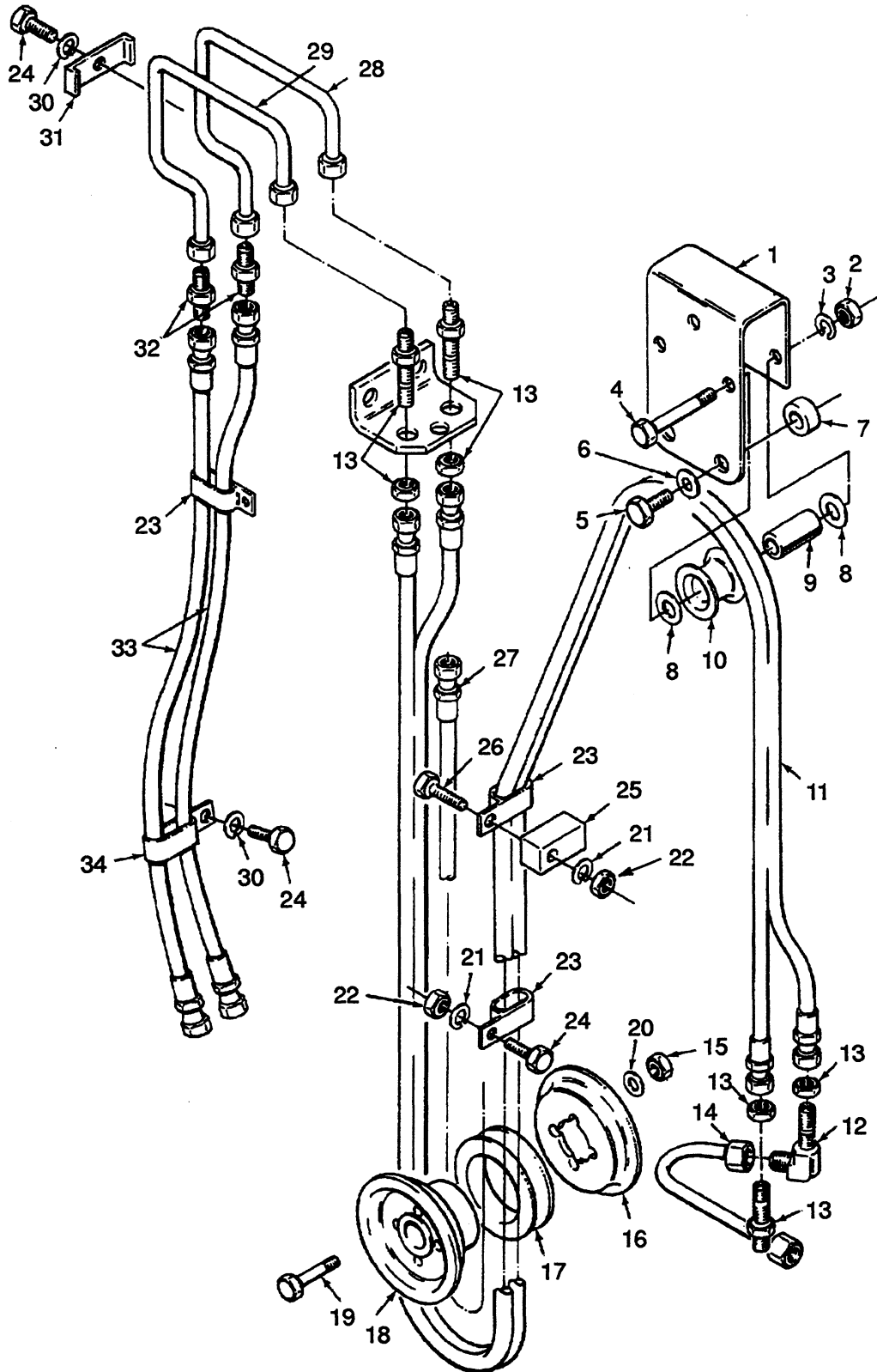
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**FREE LIFT
(CONTINUED)****H60JS (H3.00JS)**

REF	NAME OF PART	Lift Height To Bottom Of Fork						QTY
		140 inch (3550 mm)	157.5 inch (4000 mm)	163.5 inch (4150 mm)	175.5 inch (4450 mm)	187 inch (4750 mm)	213.5 inch (5425 mm)	
	MAST	320694	320695	315685	315686	315687	315688	1
1	HOSE	320519	320520	320391	320392	320393	320394	1
11	HOSE	320414	320415	320400	320401	320402	320403	1
24	LIFT CHAIN	320713	320714	320395	297640	320396	320397	1
26	TUBE	320523	320524	315834	315835	315836	320732	1
27	TUBE	356086	356087	356088	356089	356090	356092	1

CONTINUED FROM PREVIOUS PAGE

HEADER HOSE (Figure 116) VISTA THREE STAGE THREE PLUNGER CONTROL VALVE



HEADER HOSE VISTA THREE STAGE THREE PLUNGER CONTROL VALVE

LIFT HEIGHT				REF 11	REF 27	REF 33
H40-50J (H2.00-2.50J)		H60JS (H3.00JS)				
inch	mm	inch	mm			
150	3810	140	3550	360332	358333	130419
167.5	4260	157	4000	360333	358334	320542
173.5	4410	163.5	4150	360334	320415	320543
184.5	4710	175	4450	360335	358336	172431
197	5010	187	4750	360336	358337	320717
215	5460	.....	.....	360337	358338	213788
.....	.....	213.5	5425	360338	358339	189366

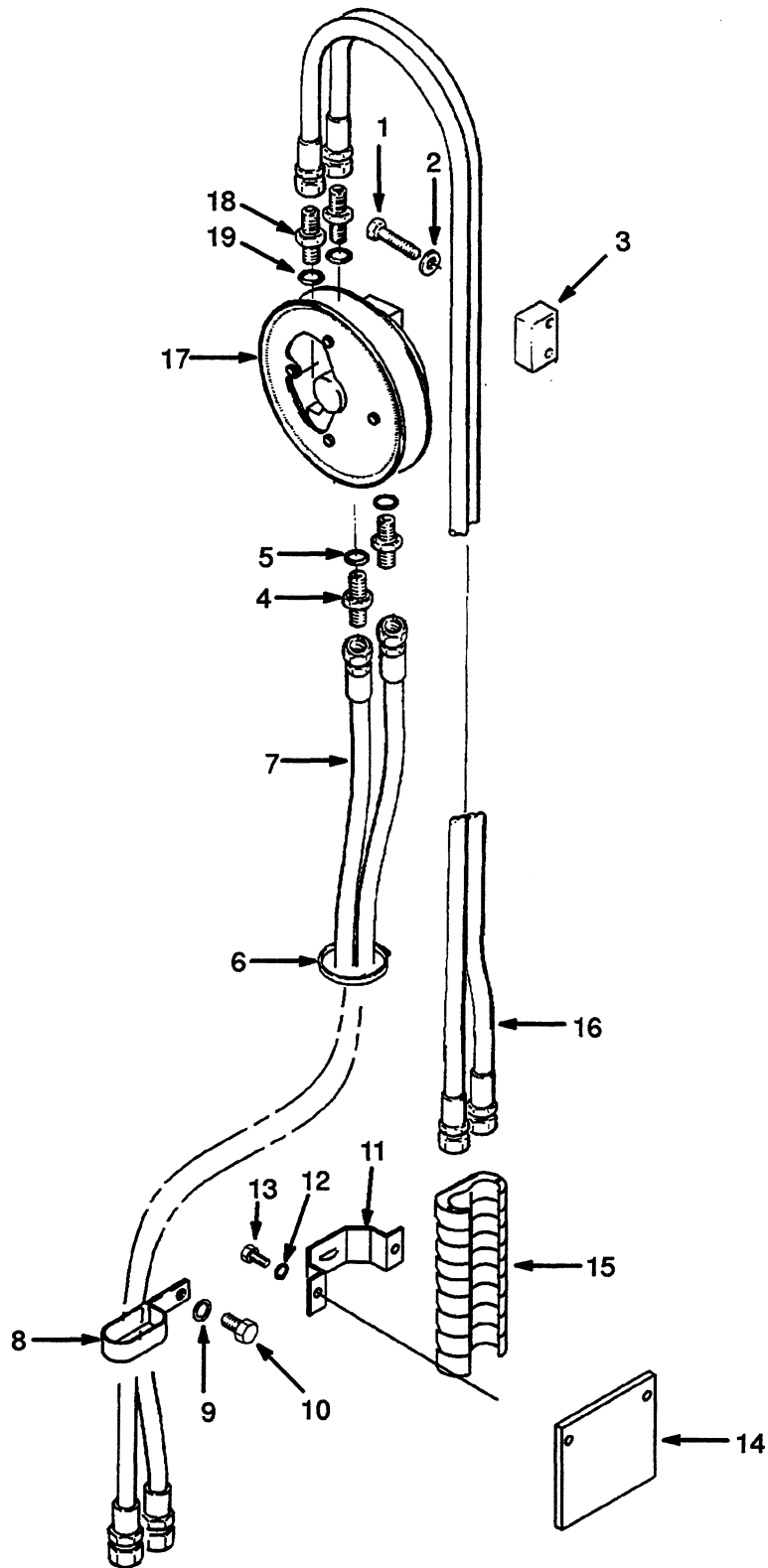
REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
1	320346	Bracket	1	19	18343	Capscrew	4
2	15055	Nut	3	20	15127	Washer	4
3	15155	Lockwasher	3	21	15156	Lockwasher	2
4	18513	Capscrew	3	22	15056	Nut	2
5	16816	Capscrew	2	23	203230	Clamp	3
6	15134	Washer	2	24	16805	Capscrew	3
7	320342	Spacer	2	25	356095	Spacer	1
8	86936	Washer	AR	26	18537	Capscrew	1
9	320343	Tube	3	27	a	Hose	2
10	320344	Roller	3	28	356084	Tube	1
11	a	Hose	1	29	356083	Tube	1
12	16457	Fitting	1	30	15156	Lockwasher	2
13	16447	Fitting	3	31	282463	Clamp	1
13	14760	Adapter	1	32	14691	Fitting	2
14	348843	Tube	1	33	a	Hose	2
15	169874	Locknut	4	34	140660	Clamp	1
16	347217	Plate	1				
17	332173	Ring	1				
18	347220	Hub	1	a	See Chart Above		

HEADER HOSE VISTA 3 STAGE FOUR PLUNGER CONTROL VALVE NON-TWINLINE

LIFT HEIGHT				REF 7	REF 8
H40-50J (H2.00-2.50J)		H60JS (H3.00JS)			
inch	mm	inch	mm		
150	3810	140	3550	97962	320726
167.5	4260	157.5	4000	229371	78513
173.5	4410	163.5	4150	252390	320728
184.5	4710	175	4450	252391	134638
197	5010	187	4750	276637	320730
215	5460	.....	.....	252394	87500
.....	.....	213.5	5425	252395	320731

REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
1	320461	Plate	1	14	317577	Block Mounting	1
2	16828	Capscrew	2	15	16541	Fitting	2
3	15156	Lockwasher	2	16	^b 388165	Hose Reel (RH)	1
4	15056	Nut	2	16	^c 388167	Hose Reel (RH)	1
5	646054	Block	1	17	140660	Clamp	1
6	16541	Fitting	2	18	16805	Capscrew	1
7	^a	Hose	2	19	15156	Lockwasher	1
8	^a	Hose	2	20	16540	O-Ring	4
9	129563	Strap	1	21	131460	O-Ring	2
10	18593	Capscrew	2				
11	15158	Lockwasher	2	^a	See Chart Above		
12	16559	Fitting	1	^b	187 inch (4750mm) And Below Lift Height		
13	169592	Fitting	1	^c	197 inch (5010mm) And Above Lift Height		

HEADER HOSE (Figure 118) VISTA THREE STAGE FOUR PLUNGER CONTROL VALVE TWINLINE



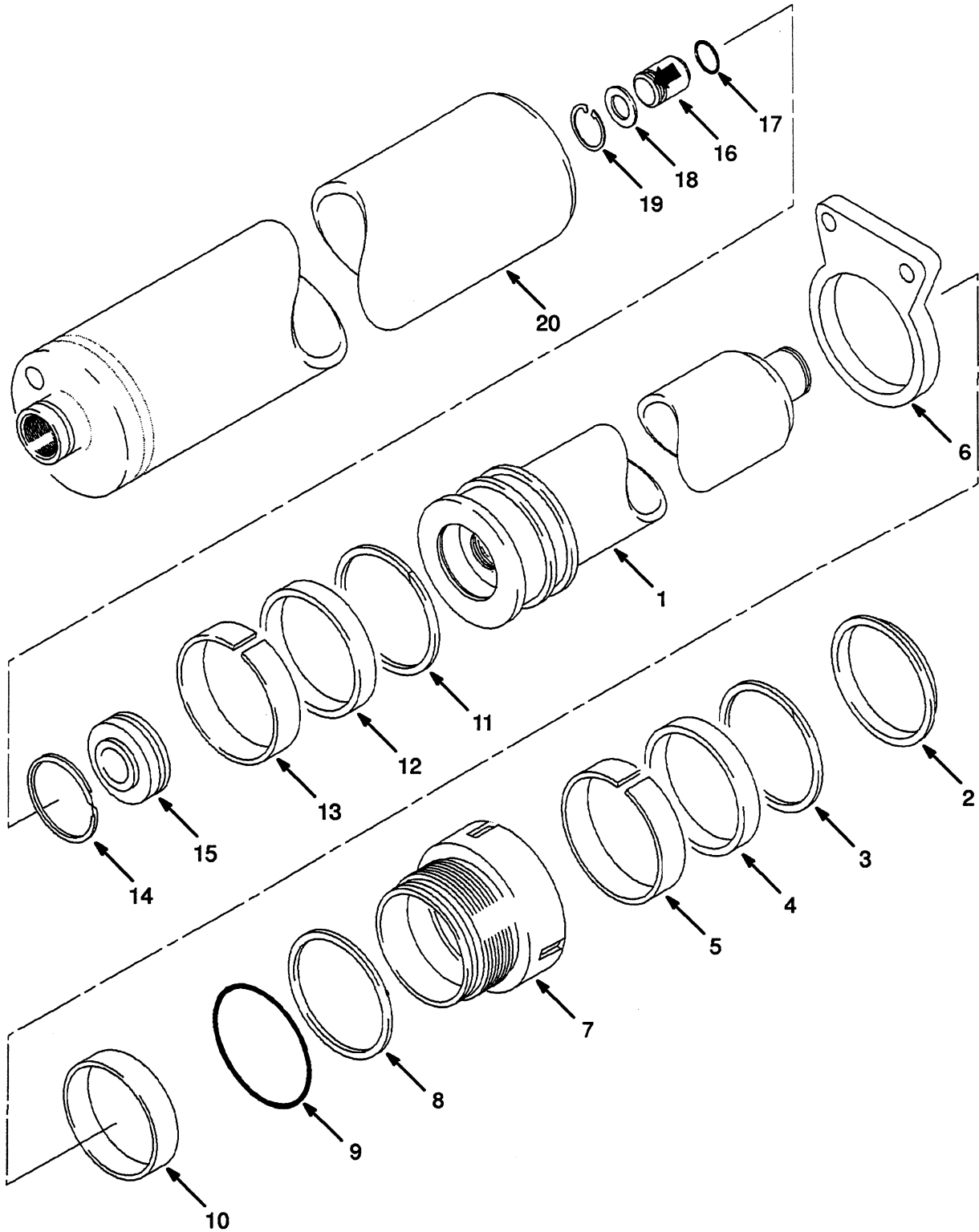
HEADER HOSE VISTA THREE STAGE FOUR PLUNGER CONTROL VALVE TWINLINE

LIFT HEIGHT				REF 7	REF 15
H40-50J (H2.00-2.50J)		H60JS (H3.00JS)			
inch	mm	inch	mm		
150	3810	140	3550	320726	323190
167.5	4260	157	4000	78513	323190
173.5	4410	163.5	4150	320728	323190
184.5	4710	175	4450	134638	323190
197	5010	187	4750	320730	360337
215	5460	.....	.....	87500	360337
.....	.....	213.5	5425	320731	360337

REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
1	292533	Capscrew	2	12	313805	Nut	2
2	320161	Washer	2	13	337239	Capscrew	2
3	354472	Plate	1	14	354471	Plate	1
4	131460	Fitting	2	15	340047	Strain Relief	1
5	16483	O-ring	2	16	^a	Hose	1
6	129563	Strap	3	17	323187	Reel	1
7	^a	Hose	2	18	16540	Fitting	2
8	140660	Clamp	1	19	16483	O-ring	2
9	15156	Lockwasher	1				
10	16805	Capscrew	1				
11	337229	Bracket	1				

^a See Chart Above

CYLINDER (Figure 119) MAIN



CYLINDER MAIN

H40-50J (2.00-2.50J)

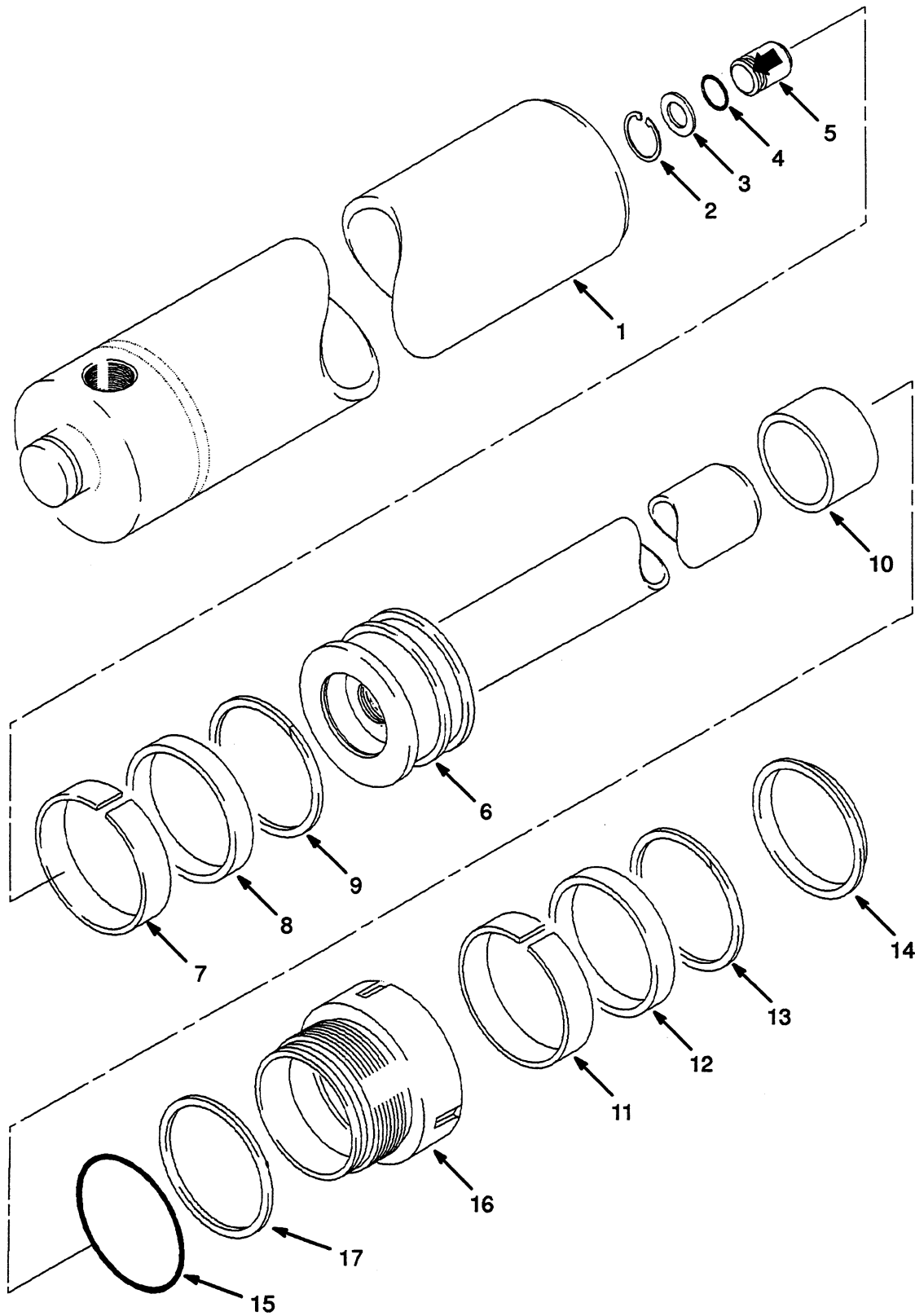
REF	NAME OF PART	Lift Height To Bottom Of Fork						QTY
		150 inch (3810 mm)	167.5 inch (4260 mm)	173.5 inch (4410 mm)	185.5 inch (4710 mm)	197 inch (5010 mm)	215 inch (5460 mm)	
	Cylinder	320489	320490	315717	315718	315719	315720	2
1	Rod	320495	320496	315689	297514	319521	319522	1
10	Spacer	.....	.....	.....	.....	315678	315678	1
20	Shell	320491	320492	315695	297520	319517	319518	1

H60JS (H3.00JS)

REF.	NAME OF PART	Lift Height To Bottom Of Fork						QTY
		140 inch (3550 mm)	157.5 inch (4000 mm)	163.5 inch (4150 mm)	175 inch (4450 mm)	187 inch (4750 mm)	213.5 inch (5428 mm)	
	Cylinder	320662	320663	315704	297524	315705	315706	2
1	Rod	320495	320496	315689	297514	319521	315691	1
10	Spacer	297529	297529	297529	297529	315679	315679	1
20	Shell	320491	320492	315695	297520	319517	315697	1

REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
	a	..... Cylinder	2	12	b 270077	Seal	1
1	a	..... Rod	1	13	b 297532	Wear Ring	1
2	b 215430	Wiper Ring	1	14	12931	Snap Ring	1
3	b 638248	Back-up Ring	1	15	215295	Piston	1
4	b 215924	Seal	1	16	297530	Check Valve	1
5	b 215427	Wear Ring	1	17	b 265787	O-Ring	1
6	297516	Plate	1	18	297531	Washer	1
7	297536	Retainer	1	19	187388	Snap Ring	1
8	b 615130	Back-up Ring	1	20	a	..... Shell	1
9	b 301991	Seal	1				
10	a	..... Spacer	1	a	See Chart Above		
11	b 638249	Back-up Ring	1	b	Included In Seal Kit 297454		

CYLINDER (Figure 120) FREE LIFT



CYLINDER FREELIFT

H40-50J (2.00-2.50J)

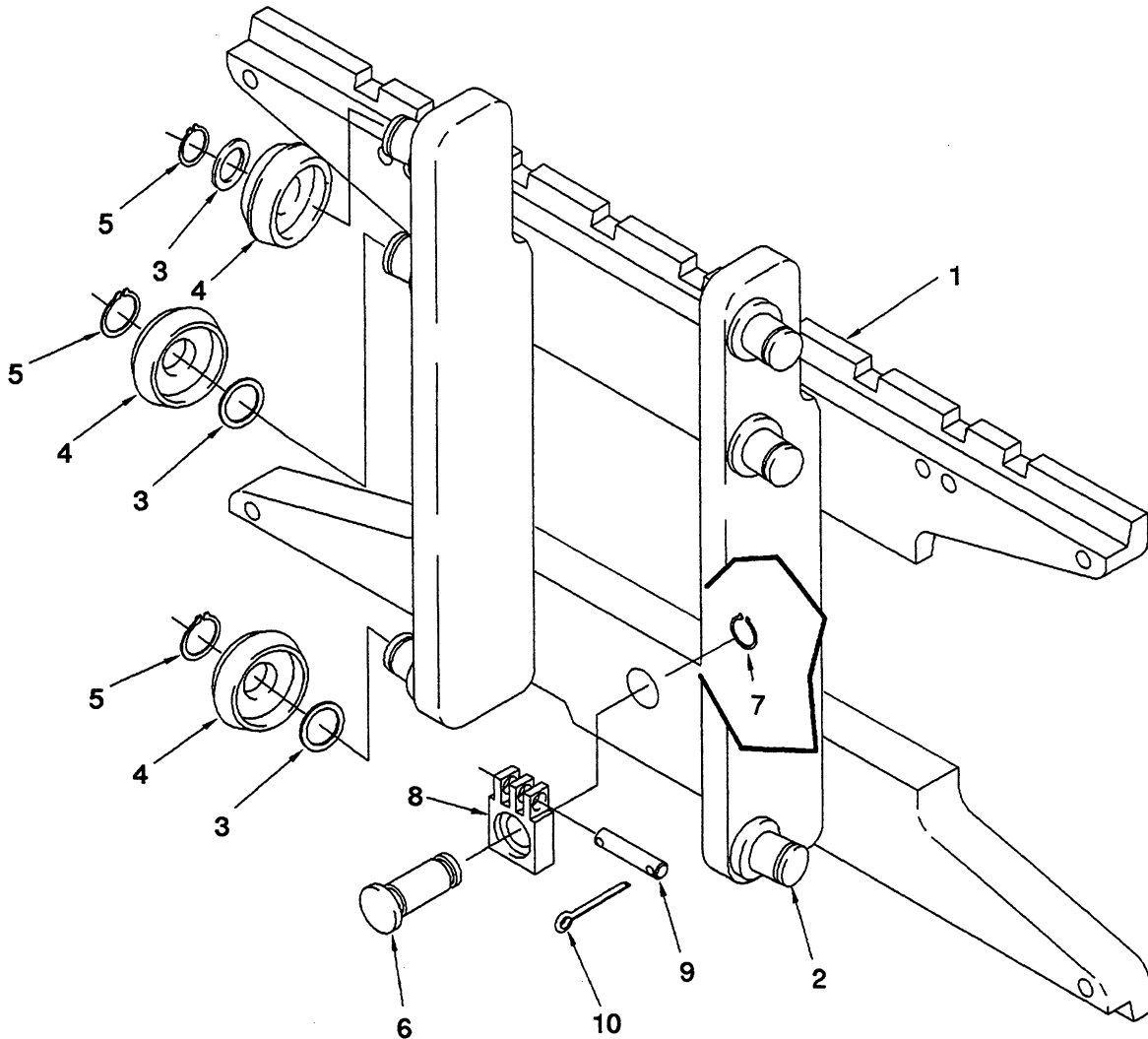
REF	NAME OF PART	Lift Height To Bottom Of Fork						QTY
		150 inch (3810 mm)	167.5 inch (4260 mm)	173.5 inch (4410 mm)	185.5 inch (4710 mm)	197 inch (5010 mm)	215 inch (5460 mm)	
	Cylinder	320501	320502	319511	319512	319513	319514	1
1	Shell	320507	320508	315793	297501	315794	320707	1
6	Rod	320509	320510	315813	297483	315814	315815	1
10	Spacer	.....	.....	.....	.....	.....	.....	1

H60JS (H3.00JS)

REF.	NAME OF PART	Lift Height To Bottom Of Fork						QTY
		140 inch (3550 mm)	157.5 inch (4000 mm)	163.5 inch (4150 mm)	175 inch (4450 mm)	187 inch (4750 mm)	213.5 inch (5425 mm)	
	Cylinder	320505	320506	315820	297503	315821	315822	2
1	Shell	320507	320508	315793	297501	315794	320707	1
6	Rod	320509	320510	315813	297483	315814	320710	1
10	Spacer	315762	315762	315762	315762	315762	315762	1

REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
	a	..... Cylinder	1	12	b 215924	Seal	1
1	a	..... Shell	1	13	b 638248	Back-up Ring	1
2	187388	Snap Ring	1	14	b 215430	Wiper Ring	1
3	c 637635	Washer	1	15	b 157237	Washer	1
4	b 190580	O-Ring	1	15	b 297484	O-Ring	1
5	658947	Valve	1	16	297476	Retainer	1
6	a	..... Rod	1	17	297485	Back-up Ring	1
7	b 297489	Wear Ring	1		a	See Chart Above	
8	b 297491	Seal	1		b	Included In Seal Kit 297455	
9	b 297485	Back-up Ring	1		c	Optional	
10	a	..... Spacer	1				
11	b 215427	Wear Ring	1				

CARRIAGE (Figure 121)



KEY

A: H40-50J (2.00-2.50J)

B: H60JS (H3.00JS)

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
	371937	Carriage (42 inch)	1	..	7	a 122400	Snap Ring	1	..
	371935	Carriage (42 inch)	..	1	7	b 131358	Snap Ring	..	1
1	371938	Frame (42 inch)	1	..	8	320328	Anchor	1	..
1	371936	Frame (42 inch)	..	1	8	a 315602	Anchor	..	1
2	297565	Stub Shaft	6	6	8	b 341558	Anchor	..	1
3	129387	Shim (.020 inch)	AR	AR	9	129339	Pin	1	..
4	329090	Load Roller	6	6	9	a 151294	Pin	..	1
5	58901	Snap Ring	6	6	9	b 338644	Pin	..	1
6	320327	Pin	1	..	10	15222	Pin	2	2
6	a 297553	Pin	..	1					
6	b 321519	Pin	..	1	a	315000, 341000 Series Carriage			
7	131358	Snap Ring	1	..	b	371000 Series Carriage			

OPTIONAL

BLOCK HANDLER (Figure 124) Page 248

CARRIAGE (Figure 129)
SIDE SHIFT VISTA TWO STAGE AND THREE STAGE Page 256

CONTROL KNOBS (Figure 137) Page 269

CYLINDER (Figure 130) Page 258

FIRE EXTINGUISHER (Figure 125) Page 249

FORKS (Figure 122) Page 246

FORKS (Figure 123) Page 247

FORWARD AND REVERSE LEVER (Figure 133)
POWER SHIFT Page 262

LIGHTS (Figure 126) Page 250

SIDE SHIFT CARRIAGE (Figure 127)
INTERMEDIATE FREE LIFT Page 252

SIDE SHIFT CARRIAGE (Figure 128)
THREE STAGE AND FREE LIFT Page 254

SIDESHIFT CYLINDER (Figure 131) Page 259

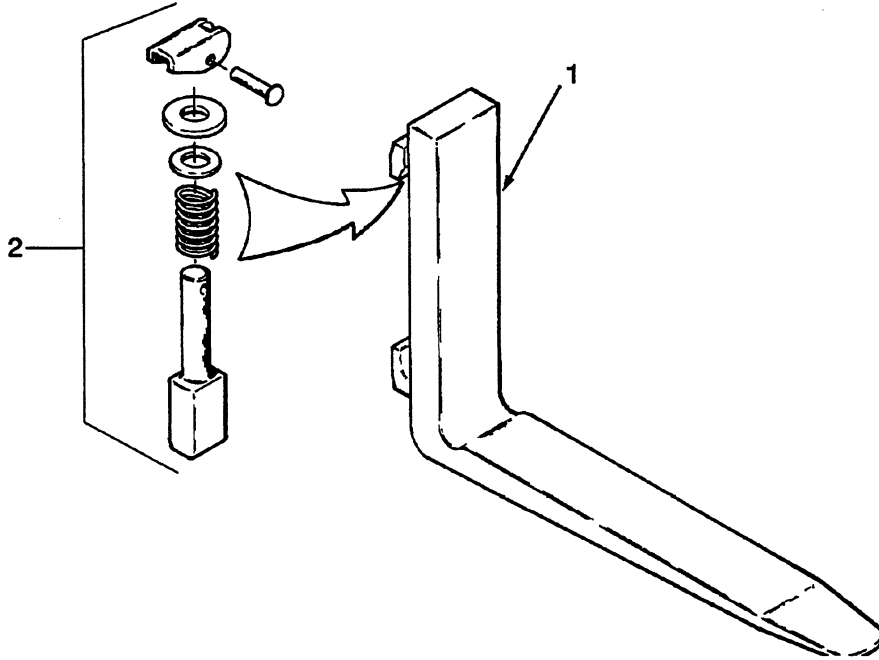
SIDESHIFT CYLINDER (Figure 132) Page 260

TIRES AND WHEELS (Figure 134)
SINGLE DRIVE WHEELS Page 264

TIRES AND WHEELS (Figure 135)
DUAL DRIVE WHEELS Page 266

TIRES AND WHEELS (Figure 136)
STEERING Page 268

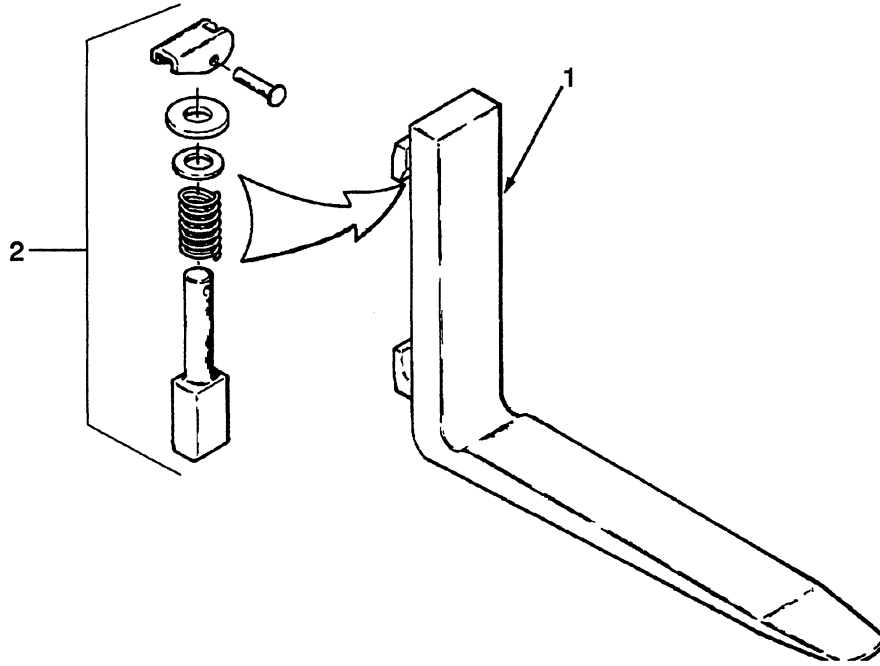
FORKS (Figure 122)



REF	NAME OF PART		STANDARD TAPER			FULL BOTTOM TAPER			QTY
			FORK		H40-50J (H2.00-2.50J)	H60JS (H3.00JS)	H40-50J (H2.00-2.50J)	H60JS (H3.00JS)	
	inch	mm	1.5 X 4 in	1.5 X 5 in	2 X 5 in	1.5 X 4 in	1.5 X 5 in	1.5 X 7 in	
1	30	762	384210	^a 249209	2
	36	914	384211	^a 249211	367419	1338076	^a 1338087	1338097	
	42	1067	384213	^a 249215	367420	1338077	^a 1338088	1338098	
	47.5	1207	.....	.....	.....	.....	.....	.....
	48	1219	384214	^a 249217	367421	1338078	^a 1338089	.....
	54	1372	384215	^a 249219	367422	.....	.....	1332745
	60	1524	384216	^a 249221	367423	.....	.....	.....
	72	1829	.....	.....	367424	.....	.....	.....
2	LATCH		369795	369795	369796	369795	369795	369796	1

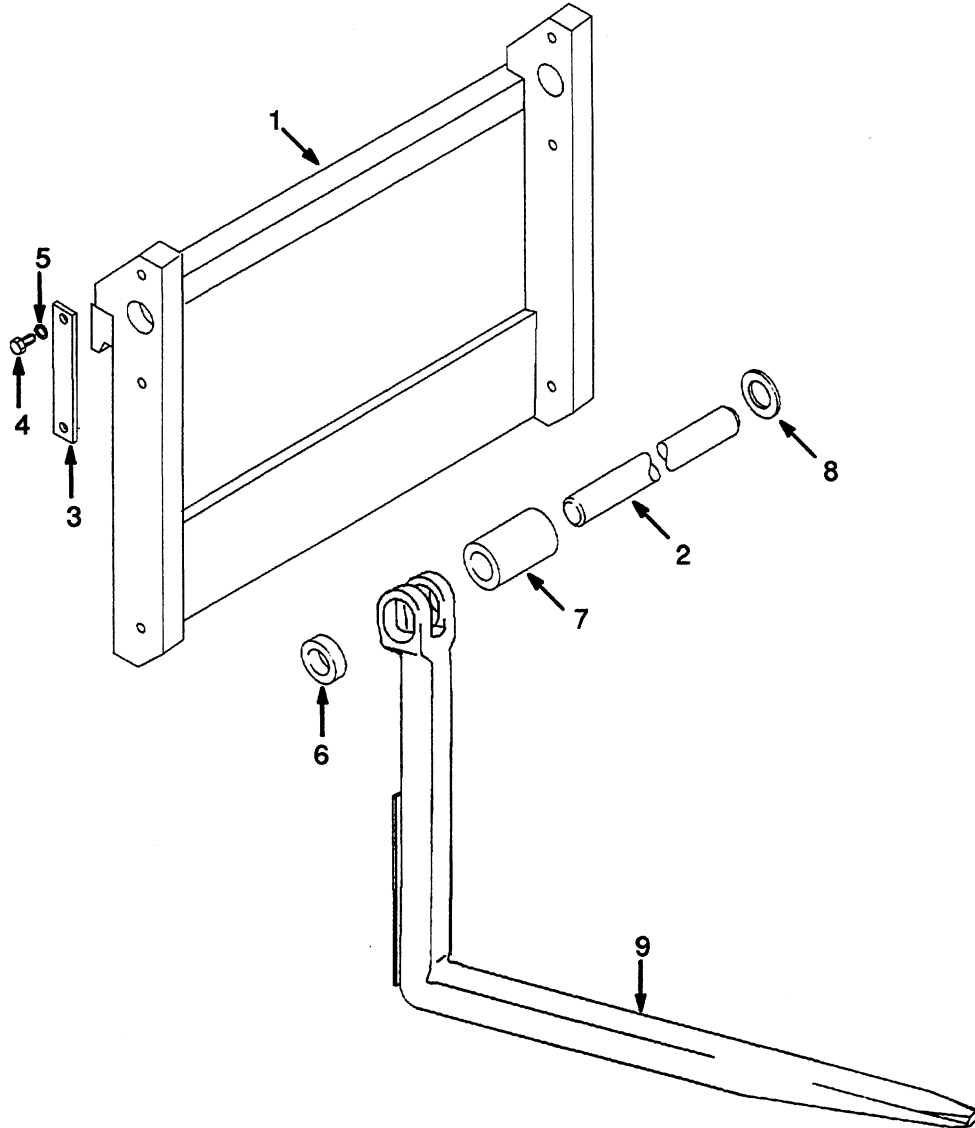
^a Optional

FORKS (Figure 123)



REF	NAME OF PART		STANDARD TAPER		FULL BOTTOM TAPER		QTY
			H40-50J (H2.00-2.50J)	H60JS (H3.00JS)	H40-50J (H2.00-2.50J)	H60JS (H3.00JS)	
	inch	mm	1.5 X 5 inch	2 X 5 inch	1.5 X 5 inch	1.5 X 7 inch	
1	30	762	384210	2
	36	914	384211	367419	1338087	1338097	
	42	1067	1326663	367420	1338088	1338098	
	47.5	1207	.....	.....	.....	.....
	48	1219	384214	367421	1338089	.....
	54	1372	384215	367422	.....	1332745
	60	1524	384216	367423	.....	.....
	72	1829	.....	367424	.....	.....
2	LATCH		369795	369796	369795	369796	1

BLOCK HANDLER (Figure 124)



KEY

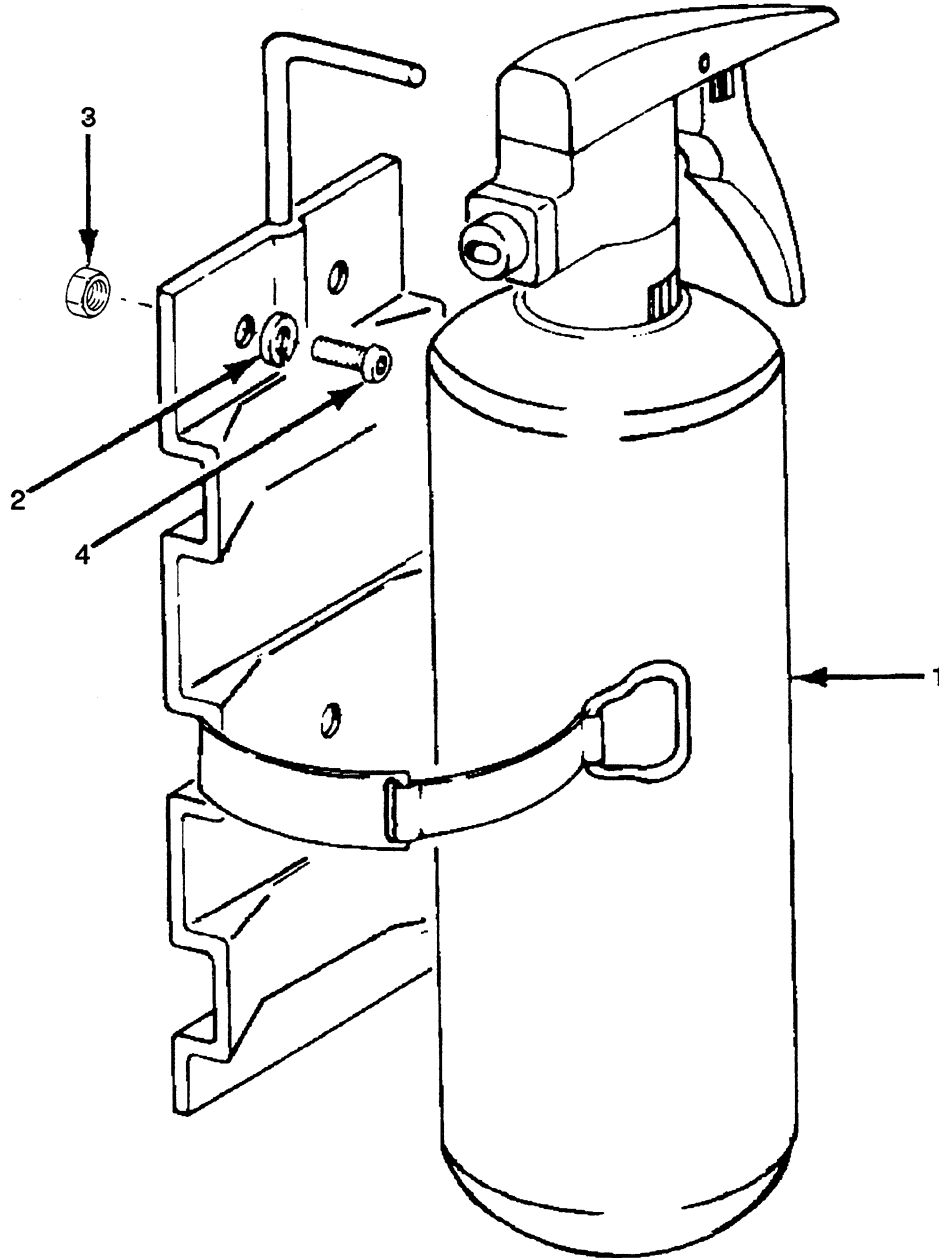
A: 48 Inch Block Handler H40-50J (H2.00-2.50J)

B: 48 Inch Block Handler H60JS (H3.00JS)

C: 62 Inch Block Handler H60JS (H3.00JS)

REF	PART NO.	NAME OF PART	QTY			REF	PART NO.	NAME OF PART	QTY			
			A	B	C				A	B	C	
1	172772	Adapter	2	..	..	7	171488	Hose (4 1/4 inch)	4	4	6
1	172782	Adapter	2	..	..	8	171516	Spacer	2	2	..
1	172785	Adapter	2	9	a	368719	Fork (38 inch)	6	6	8
2	66467	Pin	2	2	..	9	b	368719	Fork (38 inch)	6	6	8
2	171481	Pin	2	9	a	368720	Fork (45 5/8 inch)	6	6	8
2	66468	Plate	2	2	2	9	b	368720	Fork (45 5/8 inch)	6	6	8
4	16804	Capscrew	4	4	4							
5	15160	Lockwasher	4	4	4							
6	171512	Hose (1 inch)	2	2	..							
						a		US				
						b		Europe				

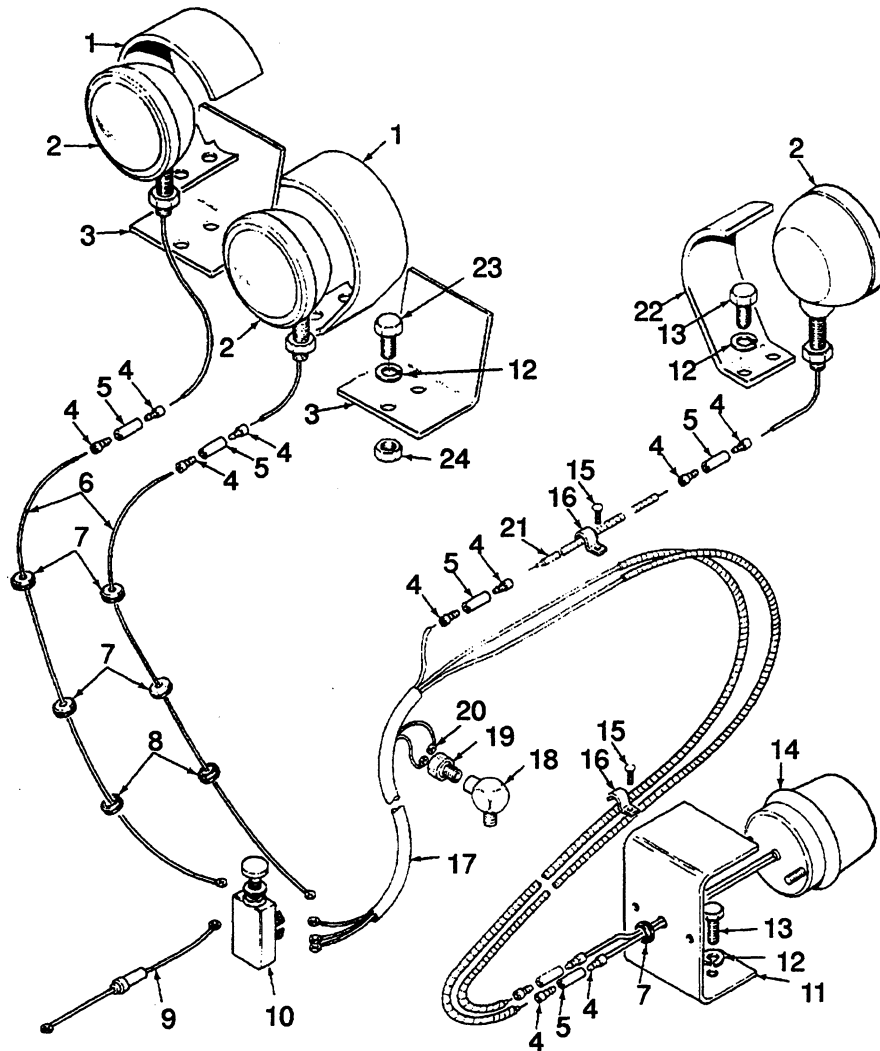
FIRE EXTINGUISHER (Figure 125)



REF	PART NO.	NAME OF PART	QTY
1	146540	Extinguisher	1
2	15923	Washer	3
2	15127	Washer	3

REF	PART NO.	NAME OF PART	QTY
3	12428	Nut	3
4	18719	Capscrew	3
4	18717	Capscrew	3

LIGHTS (Figure 126)

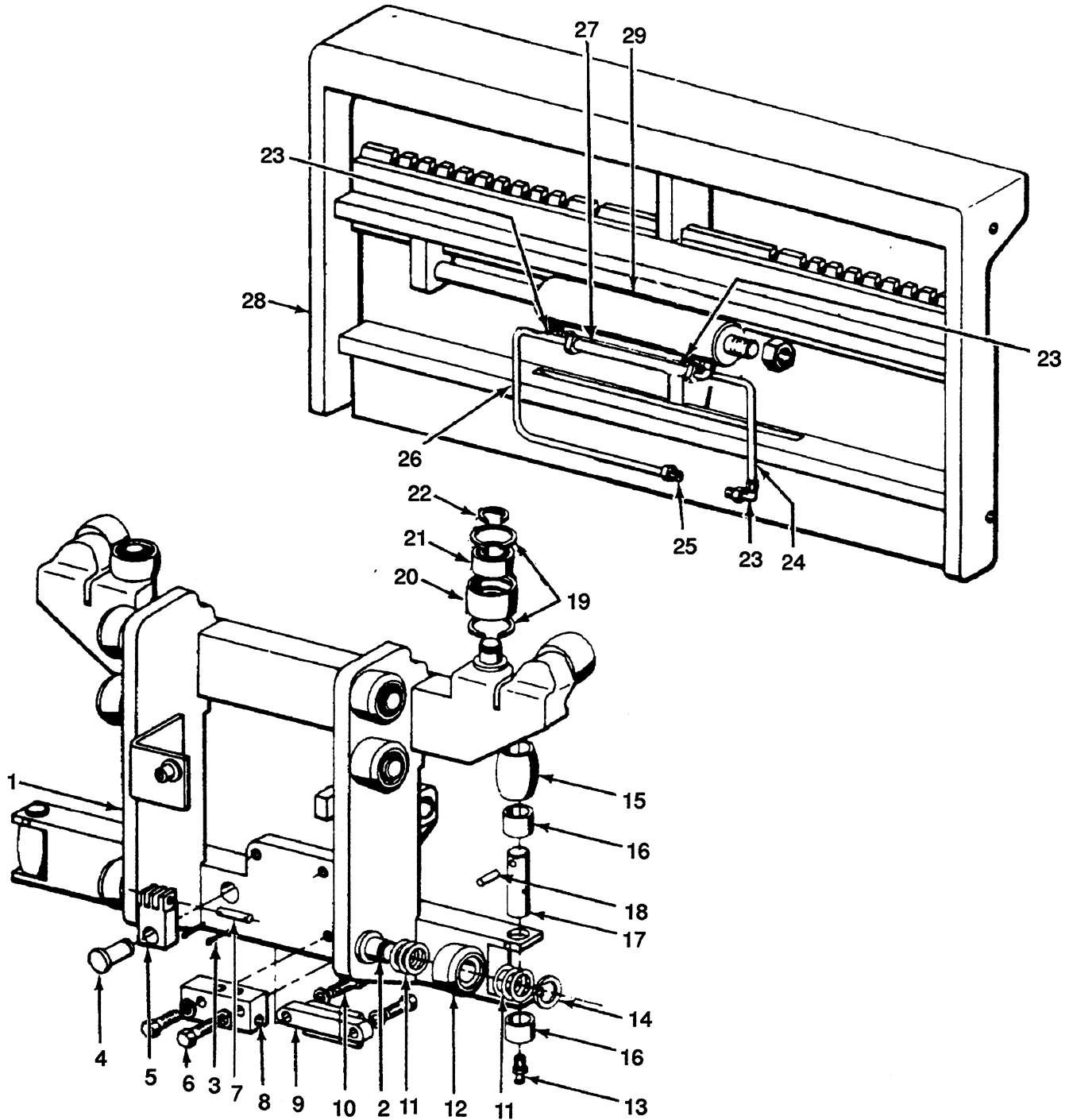


KEY

- A:** Headlight
- B:** Headlight, Stop/Tail Light
- C:** Headlight, Rear Drive Light
- D:** Headlight, Rear Drive Light, Stop/Tail Light

REF	PART NO.	NAME OF PART	QTY				REF	PART NO.	NAME OF PART	QTY			
			A	B	C	D				A	B	C	D
	345876	Light Kit	1	..	..	..	11	147947	Bracket	1	..	1	
	345877	Light Kit	..	1	..	..	12	15156	Lockwasher	2	4	4	6
	345878	Light Kit	..	..	1	..	13	16598	Capscrew	..	2	2	4
	345879	Light Kit	..	..	..	1	14	388520	Light	1	..	1	
1	372141	Bracket	2	2	2	2	15	16672	Screw	..	6	4	10
2	146843	Light	2	2	3	3	16	18905	Clamp	..	6	4	10
3	345880	Bracket	2	2	2	2	17	147704	Harness	..	1	1	2
4	16792	Fitting	4	8	8	12	18	16151	Fitting	..	1	..	1
5	42958	Connector	2	4	4	6	19	196506	Switch	..	1	..	1
6	345882	Wire	2	2	2	2	20	148604	Fitting	..	2	..	2
7	26284	Grommet	4	5	4	5	21	148912	Wire	..	..	1	1
8	393386	Grommet	2	2	2	2	22	147700	Bracket	..	..	1	1
9	71217	Holder-fuse	1	1	1	1	23	16805	Capscrew	..	2	2	2
9	21778	Fuse (20 Amp)	..	1	1	1	24	15056	Nut	..	2	2	2
10	62886	Switch	1	1	1	1							

SIDE SHIFT CARRIAGE (Figure 127) INTERMEDIATE FREE LIFT



SIDE SHIFT CARRIAGE INTERMEDIATE FREE LIFT

KEY

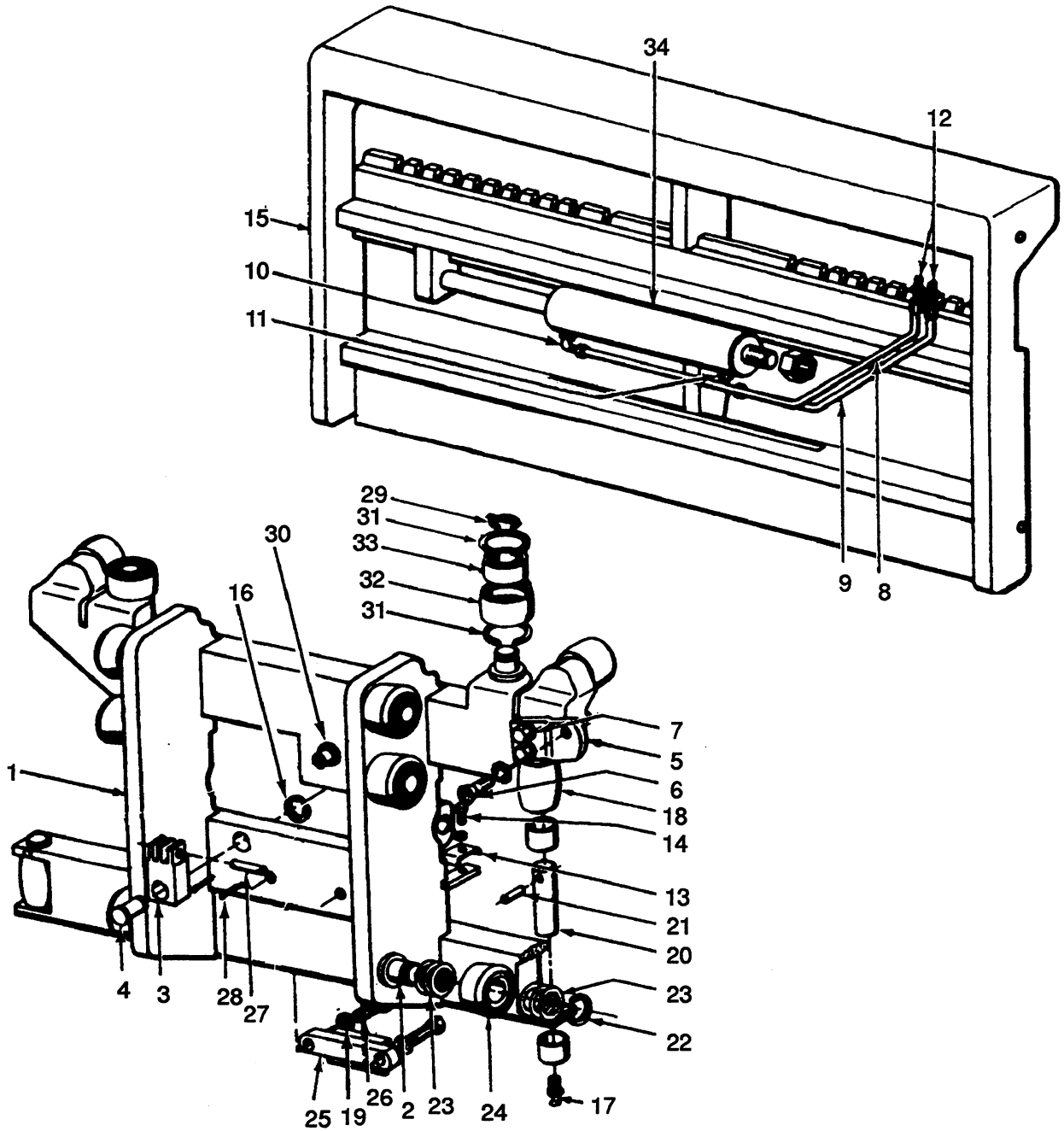
A: H40-50J (H2.00-2.50J)

B: H60JS (H3.00JS)

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
	257482	Carriage (45 inch)	1	..	15	161281	Spacer	1	1
	257486	Carriage (45 inch) .....	..	1	15	161282	Snap Ring	2	2
1	210283	Frame (45 inch)	1	..	15	161283	Seal	2	2
1	190439	Frame (45 inch) .....	..	1	16	161280	Bearing	1	1
2	129259	Stub Shaft	6	6	17	161284	Pin	2	2
3	15200	Pin	4	..	18	122997	Pin	2	2
3	15211	Pin .....	..	4	19	24702	Snap Ring	8	8
4	147222	Pin	2	..	20	140844	Roller	4	4
4	190673	Pin .....	..	2	21	129002	Bearing	4	4
4	131358	Snap Ring	2	2	22	34507	Snap Ring	4	4
5	136330	Anchor	2	..	23	16558	Fitting	3	3
5	126691	Anchor .....	..	2	23	16483	O-ring	1	1
6	18510	Capscrew	2	2	23	16585	Nut/Fitting	1	1
6	15155	Lockwasher	2	2	24	170195	Tube	1	..
7	135306	Pin	2	..	24	170196	Tube .....	..	1
7	147485	Pin .....	..	2	25	16540	Fitting	3	3
8	144970	Block	1	1	25	16483	O-ring	1	1
9	257349	Stop	1	1	26	170194	Tube	1	..
10	16397	Capscrew	2	2	26	170197	Tube .....	..	1
10	15158	Lockwasher	2	2	27	170191	Hose	2	2
11	129387	Shim (.020 inch)	AR	AR	28	257479	Apron (45 inch)	2	2
12	329090	Load Roller	6	6	28	257488	Apron (45 inch) .....	..	1
13	16001	Fitting	2	2	29	.....	Cylinder	1	1
14	58901	Snap Ring	6	6					
15	161278	Roller	2	2					

☞ Figure 130

SIDE SHIFT CARRIAGE (Figure 128) THREE STAGE AND FREE LIFT



SIDE SHIFT CARRIAGE THREE STAGE AND FREE LIFT

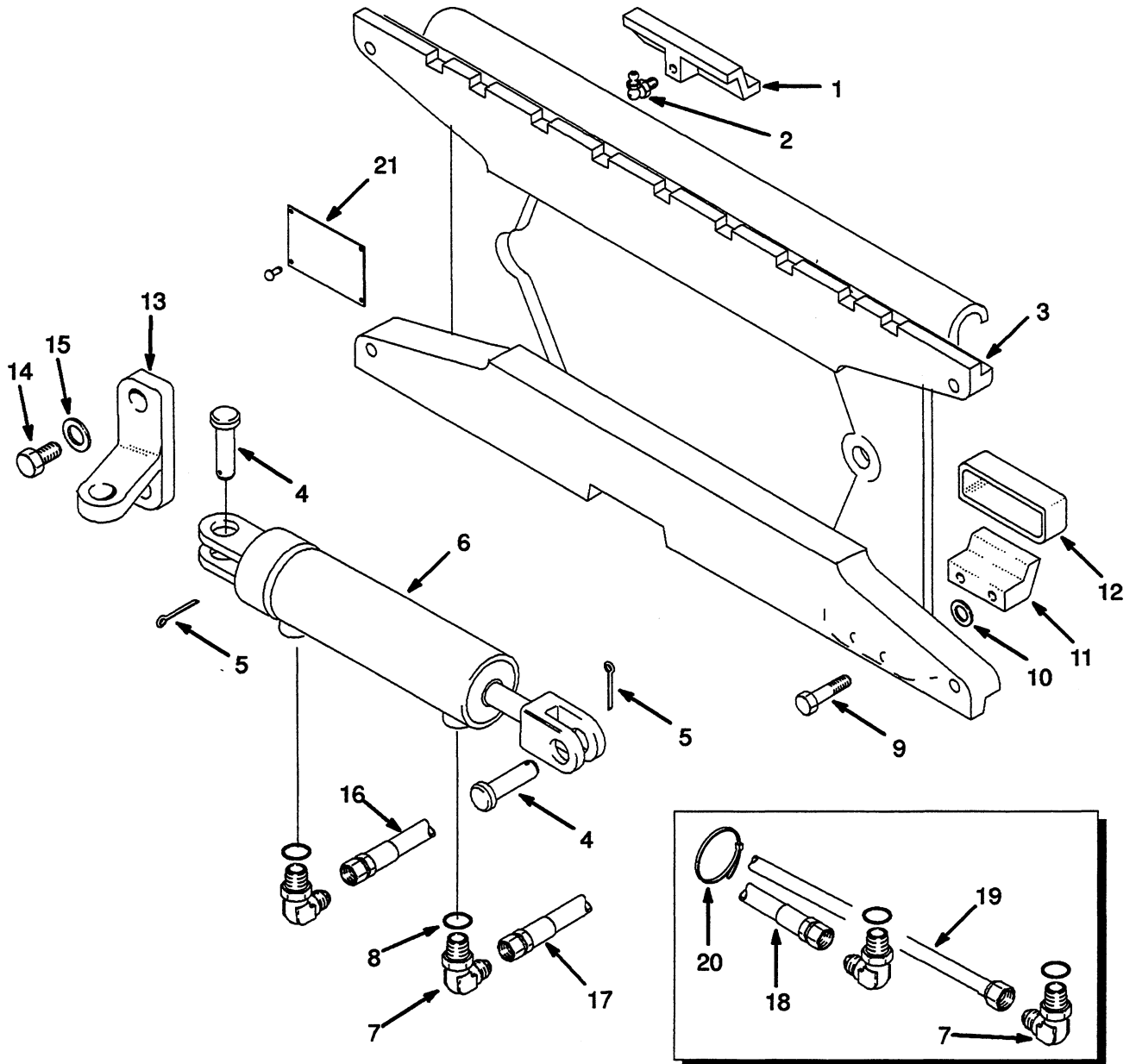
KEY

A: Three Stage

B: Free Lift

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
	a 257484	Carriage (45 inch)	1	..	14	15154	Lockwasher	1	1
	b 257492	Carriage (45 inch)	1	..	15	a 257479	Apron (45 inch)	1	1
	a 257477	Carriage (45 inch)	1	..	15	b 257488	Apron (45 inch)	1	1
	b 257490	Carriage (45 inch)	1	..	16	131358	Snap Ring	2	2
1	a 190430	Frame (45 inch)	1	..	17	16001	Fitting	2	2
1	b 190697	Frame (45 inch)	1	..	18	161278	Roller	2	2
1	a 190302	Frame (45 inch)	1	..	18	161280	Bearing	2	2
1	b 190444	Frame (45 inch)	1	..	18	161281	Spacer	1	1
2	129259	Stub Shaft	6	6	18	161282	Snap Ring	2	2
3	a 135565	Anchor	2	2	18	161283	Seal	2	2
3	b 126691	Anchor	2	2	19	15158	Lockwasher	2	2
4	a 147223	Pin	2	2	20	161284	Pin	2	2
4	b 185597	Pin	2	..	21	122997	Pin	2	2
5	140877	Bracket	1	1	22	58901	Snap Ring	6	6
6	16351	Capscrew	2	2	23	129387	Shim (.020 inch)	AR	AR
6	15933	Lockwasher	2	2	24	329090	Load Roller	6	6
7	16634	Capscrew	2	2	25	257448	Stop	1	1
7	15156	Lockwasher	2	2	26	16397	Capscrew	2	2
8	b 150079	Tube	1	1	27	a 135306	Pin	2	2
8	a 150074	Tube	1	1	27	b 147485	Pin	2	2
9	a 150075	Tube	1	1	28	a 15200	Pin	4	4
9	b 150078	Tube	1	1	29	34507	Snap Ring	4	4
10	17119	Fitting	1	1	28	b 15211	Pin	4	4
10	16585	Nut	1	1	30	262350	Capscrew .....	..	1
10	16483	O-ring	1	1	31	24702	Snap Ring	8	8
11	16558	Fitting	1	1	32	140844	Roller	4	4
11	16585	Nut	1	1	33	129002	Bearing	4	4
11	16483	O-ring	1	1	34	.....	Cylinder	1	1
12	16540	Fitting	2	2			☞ Figure 130		
13	128259	Clamp	1	1	a	H40-50J (H2.00-2.50J)			
14	18858	Capscrew	1	1	b	H60JS (H3.00JS)			

CARRIAGE (Figure 129) SIDE SHIFT VISTA TWO STAGE AND THREE STAGE



Side shift Carriage Vista Two-stage 315000 SERIES UPRIGHT

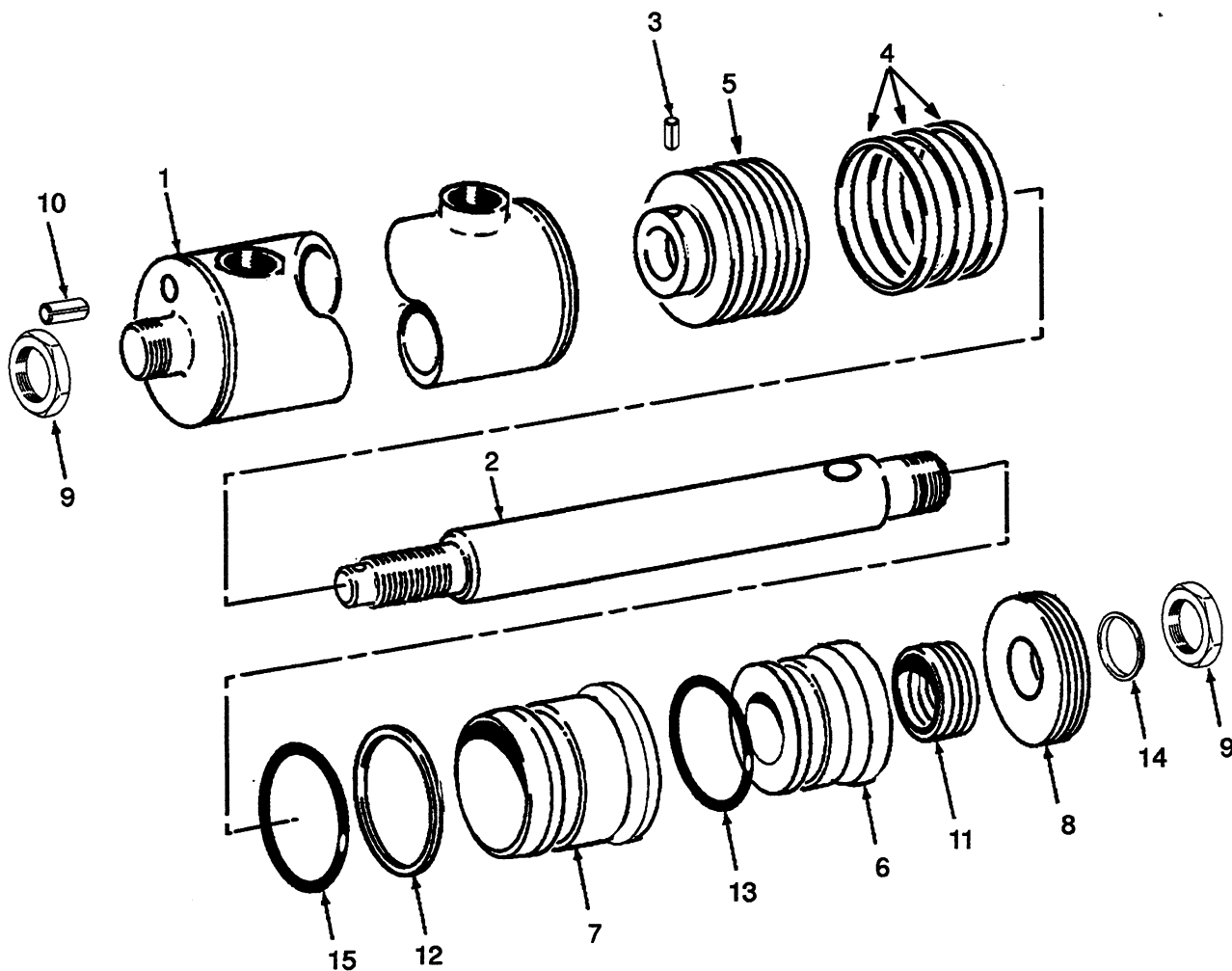
KEY

A: H40-50J (H2.00-2.50J)
 B: H60JS (H3.00JS)

REF	PART NO.	NAME OF PART	QTY		REF	PART NO.	NAME OF PART	QTY	
			A	B				A	B
	1356918	Carriage (42 inch)	1	..	10	251099	Adhesive	AR	AR
	1356882	Carriage (42 inch) .....	..	1	11	343961	Hook	2	2
1	373471	Bearing	4	..	12	^a 351458	Block	2	2
1	373472	Bearing .....	..	4	13	1310360	Bracket	2	2
2	16046	Fitting	1	..	14	332462	Capscrew	2	2
2	16046	Fitting .....	..	1	15	296430	Washer	2	2
3	374205	Apron (42 inch)	1	..	16	144578	Hose	1	1
3	374207	Apron (42 inch) .....	..	1	17	130790	Hose	1	1
4	172	Pin	2	2	18	359103	Hose	1	1
5	15234	Pin	2	2	19	377955	Tube	1	..
6	.....	Cylinder	1	1	19	340096	Tube .....	..	1
		☞ Figure 131			20	137852	Strap	1	1
7	16558	Fitting	2	2	21	1317062	Nameplate	1	1
8	16483	O-ring	1	1					
9	343970	Capscrew	4	4					
10	296426	Washer .....	..	4					

^a Optional

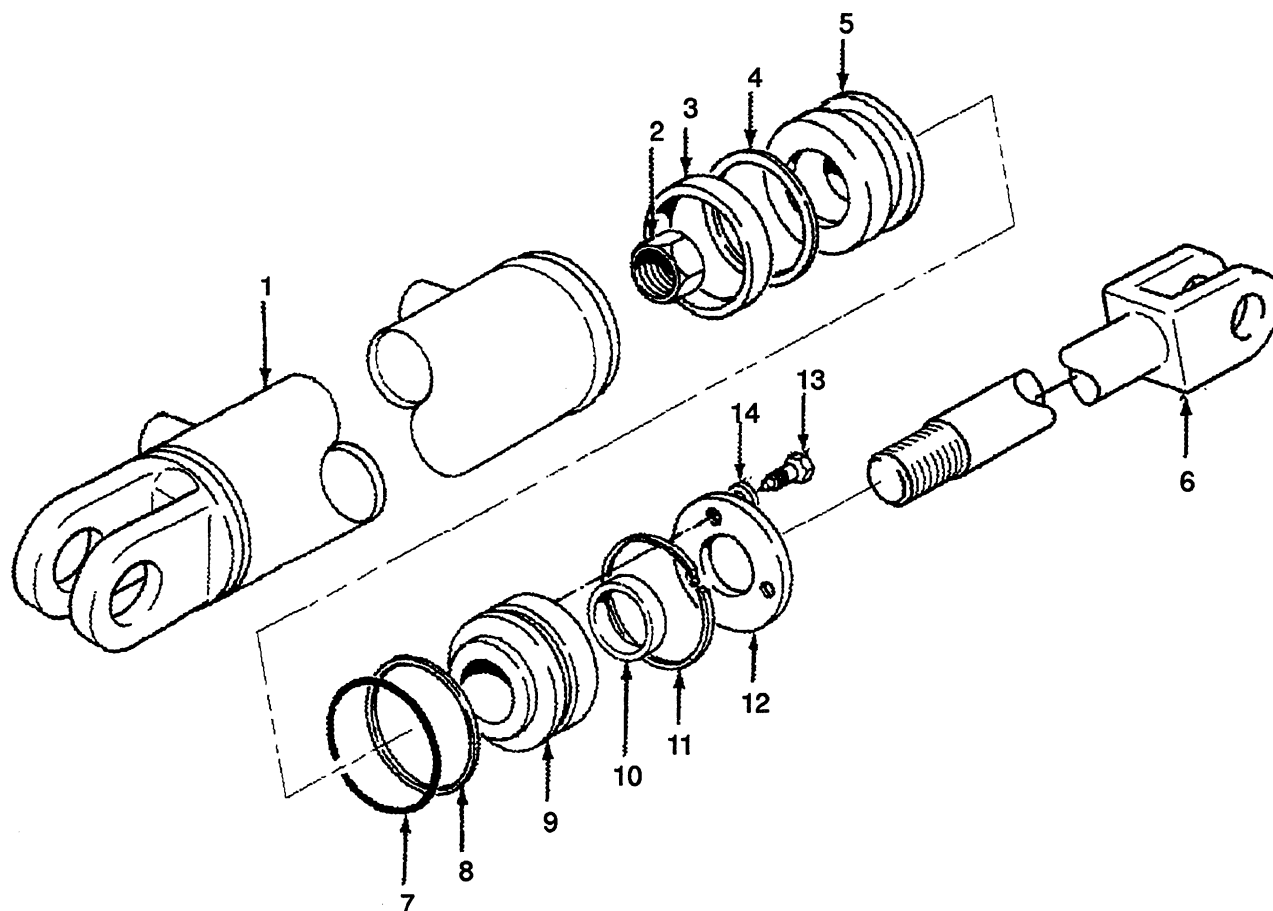
CYLINDER (Figure 130)



REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
	147233	Cylinder	1	9	174056	Locknut	2
1	621153	Shell	1	10	19864	Pin	1
2	604854	Rod	1	11	^a 232362	Packing	1
3	19979	Pin	1	12	^a 153919	Back-up Ring	1
4	602193	Ring	3	13	^a 39152	O-ring	1
5	601618	Piston	1	14	^a 202783	Wiper Ring	1
6	601627	Bushing	1	15	^a 55407	O-ring	1
7	601626	Retainer	1				
8	601628	Washer	1				

^a included in Seal Kit 145378

SIDESHIFT CYLINDER (Figure 131)

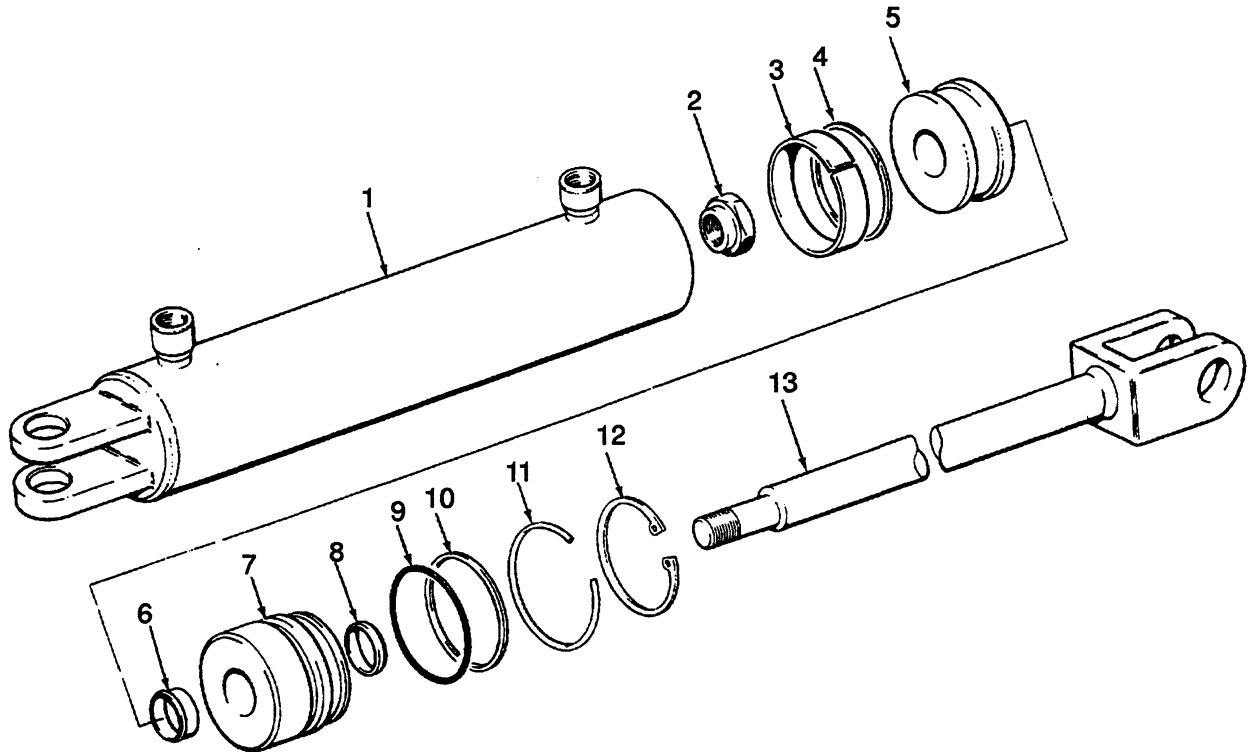


REF	PART NO.	NAME OF PART	QTY
	.....	Cylinder	1
1	332793	Shell	1
2	43299	Locknut	1
3	^a 270077	Seal	1
4	^a 638249	Back-up Ring	1
5	332795	Piston	1
6	332794	Rod	1
7	^a 59229	O-ring	1
8	^a 615130	Back-up Ring	1

REF	PART NO.	NAME OF PART	QTY
9	332796	Retainer	1
10	^a 239145	Seal	1
11	332797	Ring	1
12	332799	Washer	1
13	18718	Capscrew	3
14	15154	Lockwasher	3

^a included in Repair Kit 332798

SIDESHIFT CYLINDER (Figure 132)

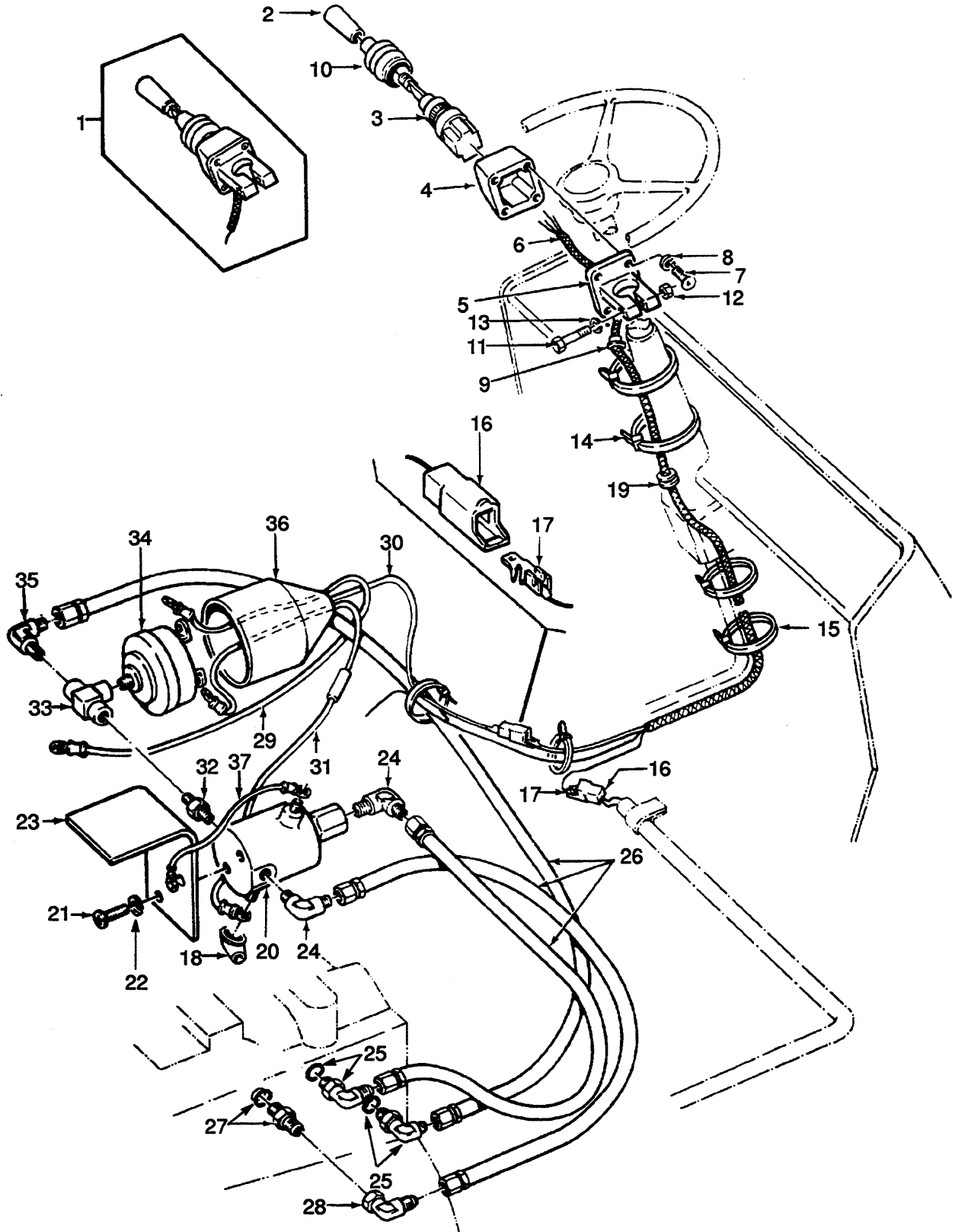


REF	PART NO.	NAME OF PART	QTY
	343875	Cylinder	1
1	341674	Shell	1
2	53163	Locknut	1
3	^a 334156	Seal	1
4	^a 335012	Back-up Ring	1
5	341666	Piston	1
6	^a 294643	Seal	1
7	341669	Retainer	1

REF	PART NO.	NAME OF PART	QTY
8	^a 636851	Wiper	1
9	^a 55407	O-ring	1
10	^a 153919	Back-up Ring	1
11	343876	Ring	1
12	307268	Snap Ring	1
13	1334440	Rod	1

^a included in Seal Kit 369967

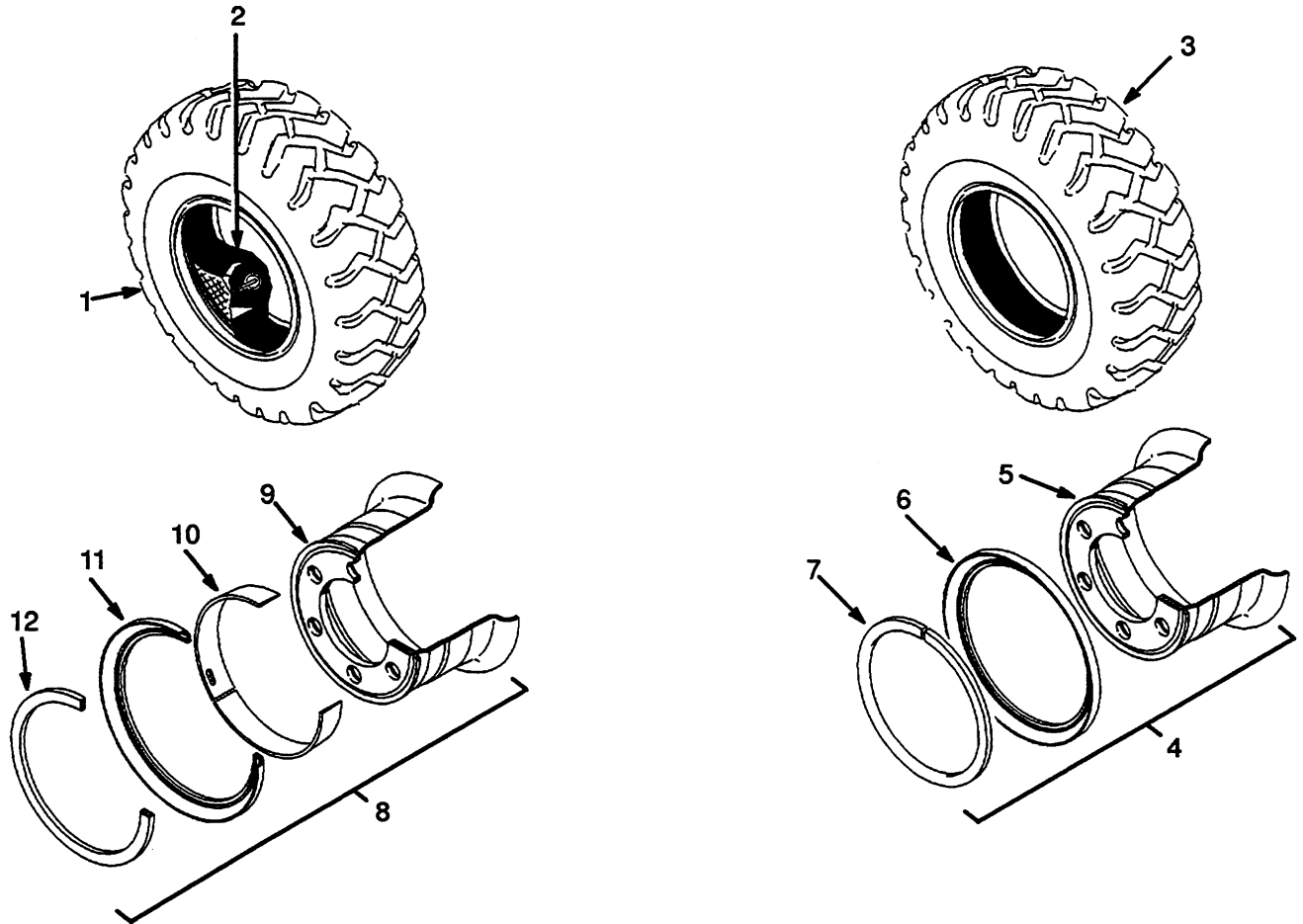
FORWARD AND REVERSE LEVER (Figure 133) POWER SHIFT



FORWARD AND REVERSE LEVER POWER SHIFT

REF	PART NO.	NAME OF PART	QTY	REF	PART NO.	NAME OF PART	QTY
1	289167	Lever	1	20	286900	Solenoid Valve	1
2	289143	Handle	1	21	220493	Screw	2
3	1324745	Switch	1	22	15152	Lockwasher	2
4	286906	Housing	1	23	288722	Bracket	1
5	286910	Bracket	1	24	14501	Fitting	3
6	289132	Harness	1	25	16556	Fitting	2
7	18706	Screw	4	26	^a 119700	Hose	3
8	15152	Lockwasher	4	27	16538	Fitting	1
9	286901	Bushing	1	28	16987	Fitting	1
10	289166	Cover	1	29	288928	Wire	1
11	16741	Capscrew	1	30	30492	Cover	AR
12	15056	Nut	1	31	304884	Wire	1
13	15156	Lockwasher	1	32	16167	Fitting	1
14	129563	Clamp	2	33	12838	Fitting	1
15	114312	Strap	5	34	300539	Switch	1
16	181045	Connector	2	35	222310	Fitting	1
17	134810	Terminal	2	36	190380	Cover	1
18	190382	Cover	2	37	69309A	Wire	1
19	109783	Grommet	1				

TIRES AND WHEELS (Figure 134) SINGLE DRIVE WHEELS

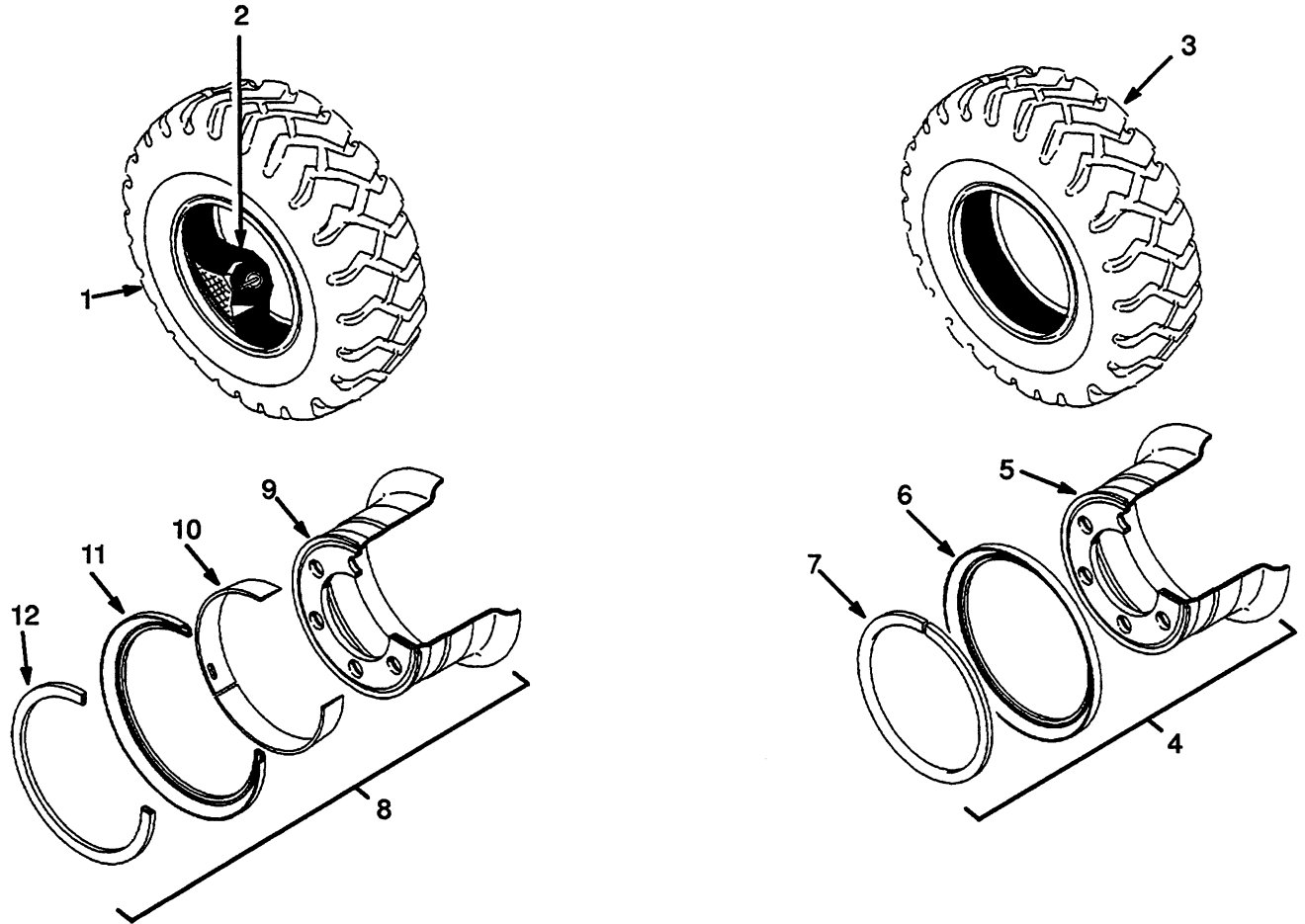


TIRES AND WHEELS SINGLE DRIVE WHEELS

REF	NAME OF PART	US		NON US			QTY
		H40-50J (H2.00-2.50J)	H60JS (H3.00JS)	H40-50J (H2.00-2.50J)		H60JS (H3.00JS)	
		29 X 8.00 X 15	28 X 9 X 15	29 X 8.00 X 15	200mm X 15	250mm X 15	
1	Industrial 12 Ply	137134	145096	137134	181398		2
	Tire	^a 237532 137135	145097	137135	181399		2 1
	Tube	^a 237528 137136	145157	137136	181838		1 1
1 2	Industrial 14 Ply Wheel Assembly					181397	2
	Tire Tube					181840 181841	1 1
3 4 5 7 6	Cushion: Tire And Wheel	161721	161717				2
	Tire	^b 323207	^b 323208				2
	Wheel	^c 336088 174214 181379	..... 174211 181380				2 1 1
	Rim	^b 322230	^b 322236				1
	Lock Ring	^b 322240	^b 322237				1
	Side Ring	980542 ^b 322637 980541 ^b 322638	980542 ^b 322637 160653 ^b 322638				1 1 1 1
8 9 10 12 11	Pneumatic: Wheel	160644	155065	160640	980533	155065	2
	Rim	^b 322230	^b 322236				2
	Rim Ring	^b 322240	^b 322237		980538		1
	Lock Ring	806557 980542 ^b 322638	806557 980542 ^b 322638	160654	806557 980542	806557 980542	1 1 1
	Side Ring	980541 ^b 322637	160653 ^b 322637	160652	980541	160653	1 1
	Washer		162748			162748	2

- ^a Steel Cord
- ^b Optional
- ^c Soft Ride

TIRES AND WHEELS (FIGURE 135) DUAL DRIVE WHEELS

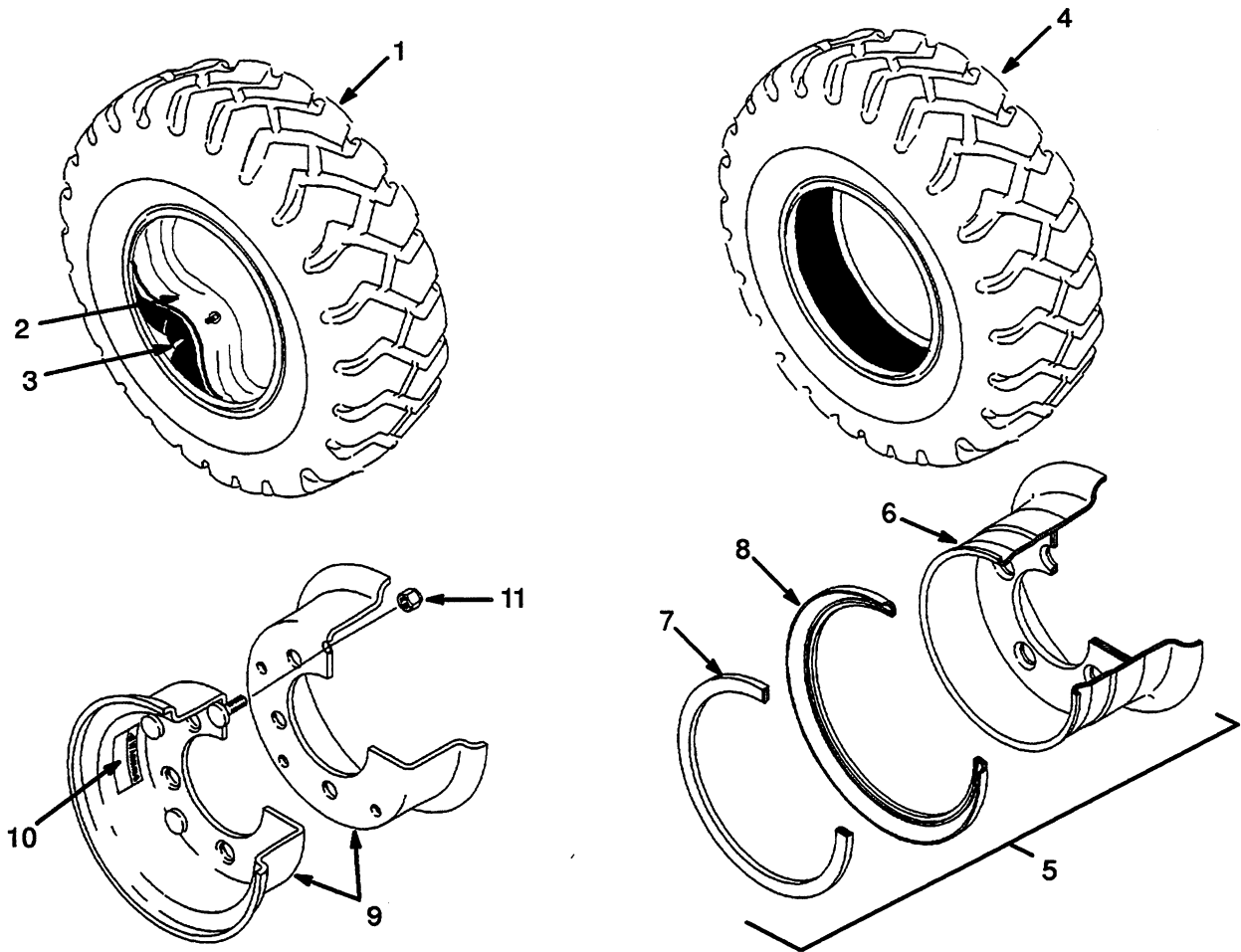


TIRES AND WHEELS DUAL DRIVE WHEELS

REF	NAME OF PART	US	NON US		QTY
		29 X 8.00 X 15 inch	29 X 8.00 X 15 inch	200 mm X 15 inch	
1	Industrial 12 Ply	137134	137134	181398	4
	Tire	^a 237532 137135	137135	181399	4 1
2	Tube	^a 237528 137136	137136	181838	1 1
3	Cushion: Tire And Wheel	161720			4
	Tire	^b 323210 ^{cd} 323123 174214			4 4 1
4	Wheel	181381			1
5	Rim	^{bc} 322232			1
		^{bd} 281471			1
7	Lock Ring	^b 160647			1
		^{bc} 322233			1
6	Side Ring	^{bd} 281472			1
		980542			1
8	Pneumatic: Wheel	^{bc} 322638			1
		^{bd} 107013			1
9	Rim	980541			1
		^{bc} 322637			1
10	Rim Ring	160646	160642	980538	1
		^{be} 281471			4
12	Lock Ring	^{bf} 322232			4
		160647	160643		1
11	Side Ring	^b 281472			1
		^{bf} 322233			1
12	Lock Ring	806557		806557	1
		980542	160654	980542	1
11	Side Ring	^{be} 107013			1
		^{bf} 322638			1
		980541	160652	980541	1
		^{bf} 322637			1

- ^a Steel Cord
- ^b Optional
- ^c Used On Tire And Wheel 323210
- ^d Used On Tire And Wheel 323213
- ^e Used On Wheel 281471
- ^f Used On Wheel 322232


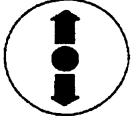
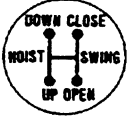

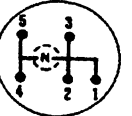
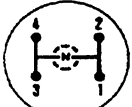
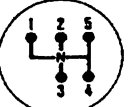












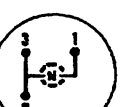
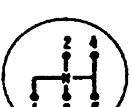


















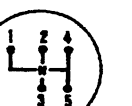
TIRES AND WHEELS (Figure 136) STEERING



REF	NAME OF PART	PART NUMBER	QTY
1	Tire Assembly	137138	2
2	Tire W/Flap	137139	1
3	Flap	135921	1
3	Tube	135920	1
1	^a Tire Assembly	237522	2
2	^a Tire W/Flap	237521	1
3	Flap	135921	1
3	Tube	135920	1
4	Cushion: Tire And Wheel	161650	2
4	Tire	174208	1
5	Wheel	161891	1
6	Rim	174202	1
7	Lock Ring	161894	1
8	Side Ring	161895	1

^a Steel Cord

CONTROL KNOBS (Figure 137)

<p>POWER DISCONNECT PUSH</p>  <p>1141628</p>	<p>FORWARD/REVERSE</p>  <p>154878</p>	<p>LIFT/SWING</p>  <p>154879</p>	<p>SIDESHIFT/LOAD GRAB</p>  <p>154881</p>	<p>FIVE SPEED</p>  <p>154882</p>
<p>FOUR SPEED</p>  <p>154884</p>	<p>FIVE SPEED</p>  <p>154885</p>	<p>LOW/HIGH</p>  <p>154886</p>	<p>LIFT/TILT</p>  <p>154887</p>	<p>THREE SPEED</p>  <p>154888</p>
<p>HIGH/LOW</p>  <p>154889</p>	<p>ROTATOR</p>  <p>154890</p>	<p>LOAD GRAB</p>  <p>154891</p>	<p>SIDESHIFT</p>  <p>154892</p>	<p>SIDESHIFT/LOAD GRAB</p>  <p>154893</p>
<p>LOAD GRAB/ROTATOR</p>  <p>154894</p>	<p>LOAD PUSH-PULL/SIDESHIFT</p>  <p>154895</p>	<p>LOAD GRAB/SIDESHIFT</p>  <p>154896</p>	<p>ROTATOR/LOAD GRAB</p>  <p>154897</p>	<p>THREE SPEED</p>  <p>154899</p>
<p>FIVE SPEED</p>  <p>154900</p>	<p>SIDESHIFT/ROTATOR</p>  <p>154902</p>	<p>LIFT</p>  <p>154904</p>	<p>TILT</p>  <p>154905</p>	<p>LOAD PUSH-PULL</p>  <p>154906</p>
<p>TRIP/RESET</p>  <p>154907</p>	<p>ROTATE/TRIP/RESET</p>  <p>154908</p>	<p>THREE SPEED</p>  <p>158747</p>	<p>SIDESHIFT/LOAD PUSH-PULL</p>  <p>161917</p>	<p>REVERSE/FORWARD</p>  <p>168597</p>
<p>FORK POSITION</p>  <p>169237</p>	<p>BLANK</p>  <p>169238</p>	<p>BRAKE OFF/ON SWITCH</p>  <p>172744</p>	<p>REVERSE/FORWARD BRAKE OFF/INCH</p>  <p>172747</p>	<p>THREE SPEED</p>  <p>175212</p>
<p>REACH/RETRACT</p>  <p>193725</p>	<p>SIDESHIFT/FORK POSITION</p>  <p>280491</p>	<p>FAST/SLOW</p>  <p>284077</p>	<p>THREE SPEED</p>  <p>287174</p>	<p>FIVE SPEED</p>  <p>316528</p>

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142	149	6	14591	116	32		71	11		21	14		44	5
150	124	21	14594	139	70		77	2		229	17		44	8
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	133	15		153	2		133	31		235	22		65	8
152	123	11		155	2	15028	123	10		237	4		67	26
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	124	15	14675	73	4		165	18		263	12		87	48
172	257	4		73	5		185	41		61	23		89	47
7882	29	44	14676	27	34		18	13		61	4		89	60
	29	45	14691	159	16		199	41		63	4		89	76
	33	44		235	32		19	8		67	12	15135	115	30
	33	45	14760	213	1		7	25		67	14		163	9
9469	115	24		213	13	15032	113	31		71	43		165	17
11276	127	25		213	2		115	9		73	15		183	14
11286	127	31		215	1	15039	128	11		73	21		197	23
11287	127	30		215	3		95	9		83	15		52	14
12428	249	3		235	13		97	18		83	20		7	9
12487	175	1	15002	13	33	15049	91	11		83	9	15136	231	45
	185	46		61	14		91	12		87	29	15146	215	2
	199	46		63	14		91	19		87	37	15152	101	11
12490	79	20		69	32	15052	69	54		87	82		105	8
12838	263	33		80	7	15054	215	7		89	51		13	34
12840	140	17		83	22		87	15	15058	147	21		163	28
12878	27	36		87	6		87	69		18	7		165	23
12891	181	7		89	6		89	12		229	19		263	22
	191	38	15004	53	13		89	22		231	51		263	8
12921	181	36		7	5	15055	101	31		73	17		69	55
	183	11		83	4		135	12	15062	10	2		83	25
	195	38	15005	41	28		159	10	15078	115	30		99	24
12931	241	14		51	12		213	8	15086	123	5		99	8
12949	149	39		53	23		235	2	15125	175	2	15154	101	41
13957	161	45		57	4		23	11		191	17		122	15
14174	111	17		69	39		23	8	15127	235	20		135	18
14288	63	31		69	7		27	31		249	2		149	38
14349	132	18	15006	124	4		87	14		53	12		149	38
	133	21		51	15		87	27		53	13		163	22
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	159	31		52	13		89	58		161	5		259	14
	161	3	15024	83	18		99	27	15130	215	14		38	6
14482	229	12		83	22	15056	124	8	15132	69	47		43	41
14489	139	68	15026	132	3		139	46	15134	132	34		43	43
14491	195	5		133	13		139	46		133	40		44	13
14499	116	14		149	18		140	15		171	13		53	12
14501	263	24		149	43		151	41		209	11		53	13
14519	113	17		181	41		155	73		211	16		7	5
14538	140	19		181	43		159	20		21	10		83	2
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	87	68		97	46		21	15		87	19		91	11
	89	14		97	50		21	5		87	36		91	12
	89	21	15156	101	49		229	15		87	43		91	19
	99	21		105	46		229	26		87	81	15175	13	26
15155	113	16		109	50		229	4		89	54		149	17
	113	19		113	22		231	18		99	44		213	12
	131	4		113	28		231	30	15157	115	25		7	30
	135	13		115	13		231	35	15158	111	9	15176	149	12
	135	6		115	34		231	38		147	22		149	25
	140	2		115	35		231	41		171	14		149	4
	159	11		124	14		235	21		173	13		149	41
	175	24		132	11		235	30		173	7		27	15
	195	44		132	15		237	19		181	25		83	36
	235	3		132	23		237	3		183	14		83	6
	23	10		132	30		239	9		183	2	15178	18	12
	23	16		133	14		250	12		183	6		18	6
	23	7		133	18		255	7		185	2		19	14
	253	6		133	29		25	2		185	42	15180	175	3
	27	30		133	7		25	5		18	2		185	47
	27	6		139	12		263	13		18	7		199	47
	27	9		139	27		27	14		195	23	15200	173	22
	30	67		139	47		27	22		197	22		178	8
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	255	28	15923	249	2		34	56		257	8		199	13
15212	124	22	15926	71	40	16376	101	48	16484	159	2		199	51
	132	28	15931	80	6		113	22	16485	139	16		237	12
	133	16		87	5		149	40		149	3	16560	211	21
	149	6		89	5		83	5		211	21	16574	139	61
15213	115	30	15933	255	6		99	43	16486	139	19	16585	253	23
15222	231	23	15942	113	32	16378	87	67		159	6		255	10
	244	10		115	4		89	20	16487	193	13		255	11
15223	123	7	15946	41	44	16397	173	12		229	29	16594	181	40
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	227	6	15962	140	13		255	26	16526	21	4		199	25
15225	161	9		43	38		7	12		25	16		30	60
15226	161	9		52	16	16447	195	3		25	9		34	60
15234	257	5		52	16		197	3	16538	113	36	16597	193	4
15290	127	4	15963	73	29		213	13		263	27		195	22
15303	127	5	15969	201	18		213	2	16540	175	21		195	33
15304	41	41	16001	253	13		215	3		175	26		195	40
15314	29	1		255	17		231	12		185	27		197	33
	33	1	16015	161	31		235	13		185	49		209	10
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15351	140	16	16066	83	13		231	2		199	27		229	3
15356	73	7	16073	135	17	16457	195	39		199	49		231	29
15372	87	8	16085	173	8		195	53		231	54		231	34
15483	74	15		183	5		197	39		237	20		231	37
	99	29		18	6		213	1		239	18		231	40
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	167	23	16114	61	26		231	31		255	12		67	13
15860	144	11	16138	63	22		235	12	16541	237	15		67	26
	167	24	16150	63	26	16465	71	41		237	6		87	35
15880	177	11	16151	127	6	16481	139	56	16542	197	50	16598	139	31
	187	17		140	18	16482	121	9	16543	139	18		139	32
	201	13		250	18		139	53		159	5		193	4
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15905	73	14	16167	263	32		153	40	16550	185	11		73	13
15910	7	14	16185	63	29		153	6		185	50		73	18
15915	139	2	16193	55	6		155	24		199	11	16634	132	3
	95	27		57	12		155	40		199	50		133	12
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	41	43		133	34	16483	139	6		263	25	16651	163	28
	97	54	16326	181	37		139	71	16558	139	73		165	24
	99	40	16331	10	6		139	74		161	40	16655	163	5
15918	51	32	16337	171	18		161	40		231	9	16663	43	13
	53	2	16351	255	6		239	19		253	23	16672	250	15
15919	128	5	16369	63	18		239	5		255	11	16691	41	19
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	175	20	16806	105	45		115	35	17314	61	27		69	40
	191	24	16807	111	9		123	6	17343	67	32		69	8
	43	20		171	14		132	30	17352	71	37		87	16
16704	135	7		183	1		133	14	17443	87	54		87	53
16708	77	43		185	43		175	14		89	38		89	13
16709	38	5		199	43		237	2	17484	41	21		89	37
16712	13	36		7	13		61	21	17536	71	23		95	37
16718	139	1	16808	173	12		67	10	17776	139	67		97	47
16720	105	5		183	13	16829	175	5	17778	195	6	18527	7	29
	141	6		7	11	16831	191	34		197	5	18535	213	27
	99	5	16809	18	15	16836	113	16	18099	149	29		215	27
16737	67	9	16811	173	27		195	43	18202	83	16		87	42
16741	109	49		181	32		27	5	18343	235	19		89	53
	115	35	16813	18	2	16848	105	20	18451	52	25	18536	30	60
	229	14	16814	185	40	16853	128	9	18459	43	42		34	60
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16743	91	11		197	17	16882	195	12	18461	53	13	18537	235	26
	91	12		199	40		197	12		7	5	18538	193	9
	91	19		43	55	16883	139	65	18463	43	40		215	17
16745	159	1	16815	132	11		159	28	18469	44	12		231	13
	185	44		133	6		197	40	18471	213	14	18539	193	9
	185	48		139	11		213	21		215	10	18541	132	23
	199	44		185	23		73	26	18496	115	45		133	28
	199	48		199	23	16899	91	5		131	3	18546	95	33
16746	71	25		211	15	16918	5	8		23	12		97	35
16750	61	13		27	23	16923	139	60		51	56	18551	139	38
	63	13		37	47	16933	159	27	18497	13	41	18557	115	25
16751	79	25		52	22	16987	113	37		87	57	18561	149	4
16779	181	43		7	18		139	69		89	40	18588	183	5
16782	209	6		83	12		263	28	18498	51	28	18589	147	17
16792	250	4	16816	109	54	16989	185	12		95	36	18593	237	10
16800	191	34		115	13		199	12		97	45	18597	197	21
16804	248	4		235	5	16999	71	39	18499	140	1	18621	10	6
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	199	22		43	30		159	30	18512	41	25		13	29
	235	24		51	3	17094	61	19	18513	235	4		13	39
	237	18		53	11	17119	139	5	18515	121	14		13	41
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	250	23		53	3	17154	57	17		13	24	18739	124	7
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18881	115	7		111	38	53135	51	6		191	18		133	10
18882	111	10	30273	161	17	53163	260	2		191	39	66467	248	2
18905	250	16	30492	263	30	53641	161	10		204	5	66468	248	2
19864	258	10	34507	253	22	53905	127	21		207	6	66487	16	1
19866	83	14		255	29	53906	127	20		209	5	66763	21	1
19868	93	24	37065	111	49	53907	127	19		218	3	66958	83	1
19869	99	26	37297	191	12	53908	183	9		219	3	67355	115	15
19940	9	4		227	13	54128	185	29		223	6		122	19
19975	149	14	37537	111	7		199	29		225	13		132	4
19979	149	21	37562	171	14	54624	132	21		225	6	67551	181	5
	258	3		183	13	54659	134	2		225	9		191	36
21278	115	28		185	1	54955	134			227	5		191	36
	151	24		199	1	54975	134	3		244	5	67661	15	11
	151	6	37752	191	20	54977	134			253	14	68965	151	35
	153	24		197	38	55146	168	4		255	22		153	51
	153	40	38123	124	2		203	16	58903	161	36		155	67
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	155	24		25	10	55407	171	20	58908	173	20	69065	132	26
	155	40	38759	188	8		181	50		225	6		133	32
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21420	113	23		187	11		223	16	59229	259	7		89	36
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21764	163	4		203	7		260	9		133	4	69392	63	25
21766	163	4		217	13	55434	147	15	59929	175	2		87	9
21778	250	9	39352	161	26	55467	163	16		175	6	71217	250	9
21844	171	12	39674	111	30	55468	177	11	60592	173	17	74322	91	4
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24702	253	19		122	20		203	12	60949	161	1	75669	141	16
	255	31	42958	250	5	55580	95	26	61142	163	12	76218	183	24
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26801	132	31	43205	121	19	55585	105	28		185	32		197	
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27936	132	4	43299	173	26	55894	105	33	61143	185	31	78513	237	
27981	115	15		259	2		99	34		199	31		239	
	122	19	43685	173	26	55901	101	17	61824	61	29	79792	87	50
28055	191	12	44308	57	3		105	16	61843	165	22	79970	121	25
28301	133	22	44309	57	7		99	16		61	6	80879	9	9
28320	116	31	44542	161	18	55965	101	5		63	6	83857	149	2
28340	131	6	45645	181	42		99	1	62886	250	10		183	25
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29583	132	19	46861	181	44		187	28		25	12	85984	149	30
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	239		101809	73	2		89	55		255	21		195	37
87656	109	13	101985	43	45		89	57	123270	127	13		253	21
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	105	38		65	12	113921	173	4	123675	101	20	129259	171	2
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88157	25	7	102510	185			195	9		99	38		178	2
88388	135	16		185			197	8	124010	73	35		181	18
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	89	74		199		114312	263	15	124239	65	5		188	2
88415	173	24	103821	175	5		87	76	124297	89	43		191	11
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88436	193		104099	67	18		89	77	125519	53	25		191	22
88441	193		104267	173	25	114369	27	29	125607	117	4		204	2
88446	223		104506	171	7	114381	149	19	125789	73	28		253	2
88452	178	7		181	10	114382	149	22	125847	67	3		255	2
88567	105	18		191	3	114496	132	1	126358	95	30	129263	5	7
88572	101	6		207	7	115696	213	18		97	33	129339	231	22
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97999	73	6	108408	116	5	119338	159	24	128409	173	29		223	4
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286910	263	5	289355	177			65	4		165	1	297542	231	36
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