

# PARTS MANUAL

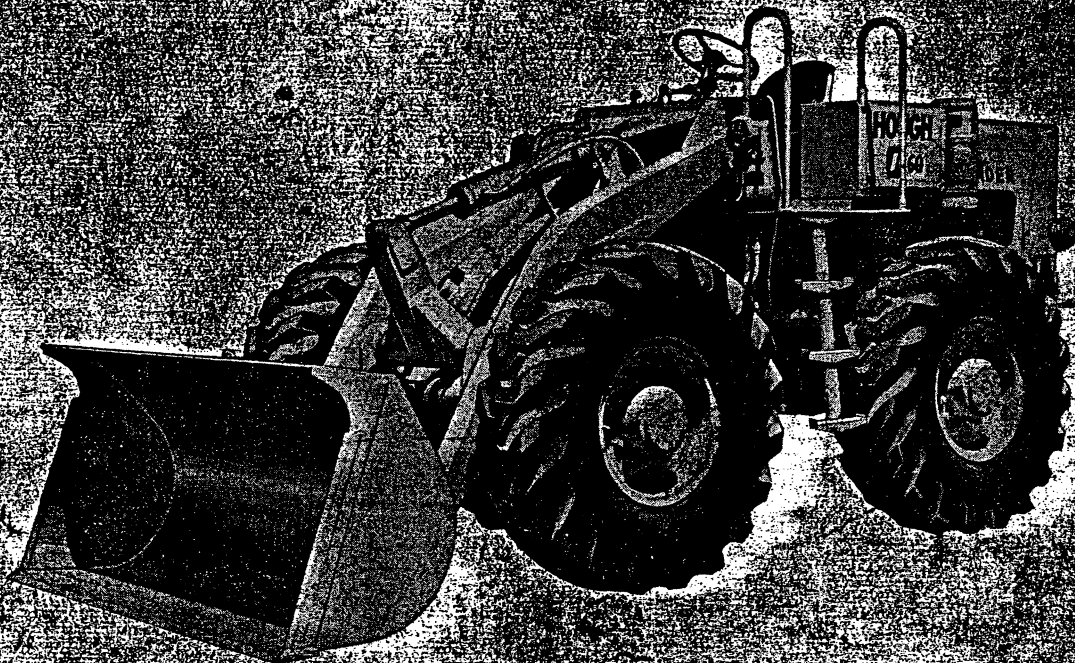
## PAYLOADER<sup>®</sup> TRACTOR-SHOVEL

model  
**H-60**  
4-wheel-drive

BEGINNING WITH SERIAL NUMBER

28 AH-1001 AND UP

29 AC-1003 AND UP



FORM  
PM-H-60

REVISED  
FEBRUARY 1965

# HOUGH



THE FRANK G. HOUGH CO.

LIBERTYVILLE, ILLINOIS

SUBSIDIARY - INTERNATIONAL HARVESTER COMPANY



IN CANADA - HOUGHCO PRODUCTS LTD.,  
CANADIAN, QUE.

IT IS THE POLICY OF OUR COMPANY TO IMPROVE ITS PRODUCTS WHEN EVER POSSIBLE AND PRACTICAL TO DO SO. WE RESERVE THE RIGHT TO MAKE CHANGES OR ADD IMPROVEMENTS AT ANY TIME WITHOUT INCURRING ANY OBLIGATION TO MAKE SUCH CHANGES ON MODELS PREVIOUSLY SOLD.

If you should need information not given in this manual, or required the services of a trained mechanic, we urge you to use the extensive facilities offered by our dealers. Dealers are kept informed on the best methods of servicing and are equipped to provide service in the field or in an up-to-date service shop.

Dealers carry ample stock of essential parts.

Listed below you will find the name of dealers with whom your parts orders should be placed and who should be called upon for any required information concerning proper operating and maintenance procedure.

OUR DEALER IS: \_\_\_\_\_  
\_\_\_\_\_

When ordering parts, always give the dealer both the name and part number of the part required, and also the SERIAL NUMBER OF THE TRACTOR.

SO THAT YOU MAY HAVE IT BEFORE YOU, WRITE THE TRACTOR, POWER UNIT, TRANSMISSION, HYDRAULIC PUMP AND HYDRAULIC VALVE SERIAL NUMBERS HERE:

TRACTOR SERIAL NO: \_\_\_\_\_

ENGINE UNIT SERIAL NO: \_\_\_\_\_

REAR AXLE SERIAL NO: \_\_\_\_\_

FRONT AXLE SERIAL NO: \_\_\_\_\_

HYDRAULIC PUMP SERIAL NO: \_\_\_\_\_

HYDRAULIC VALVE SERIAL NO: \_\_\_\_\_

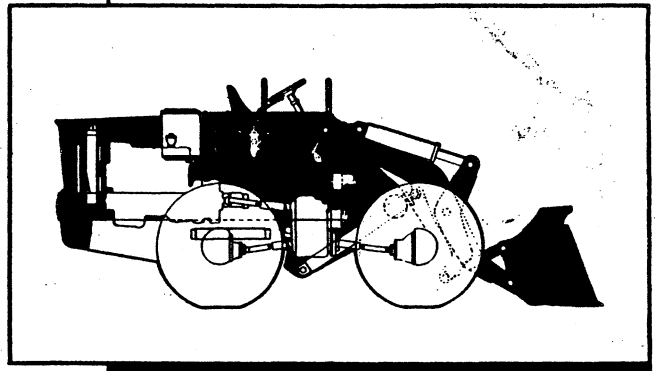
POWER TAKE-OFF SERIAL NO: \_\_\_\_\_

TORQUE CONVERTER SERIAL NO: \_\_\_\_\_

TRANSMISSION SERIAL NO: \_\_\_\_\_  
\_\_\_\_\_

# SECTION 1

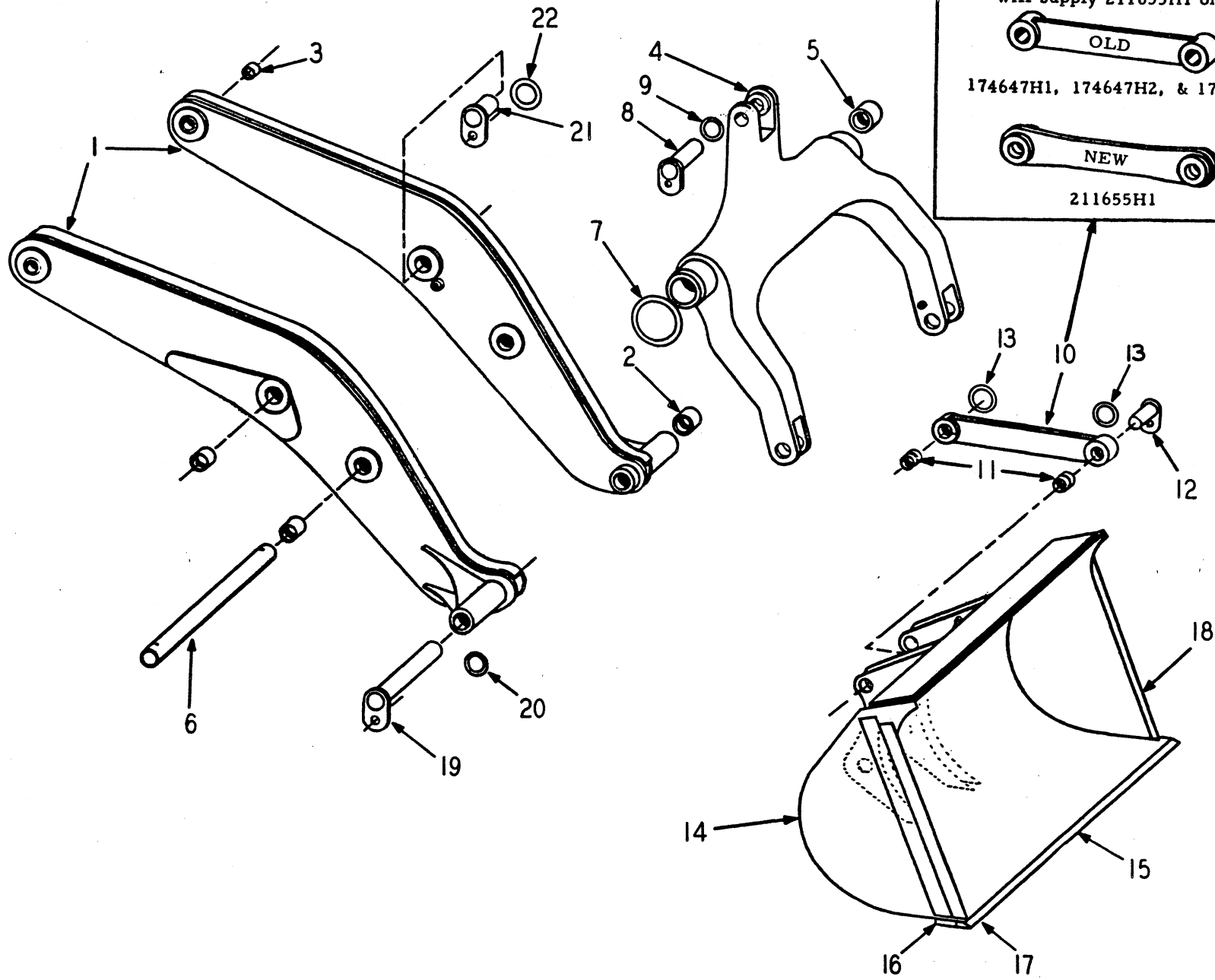
## CHASSIS



### Table Of Contents

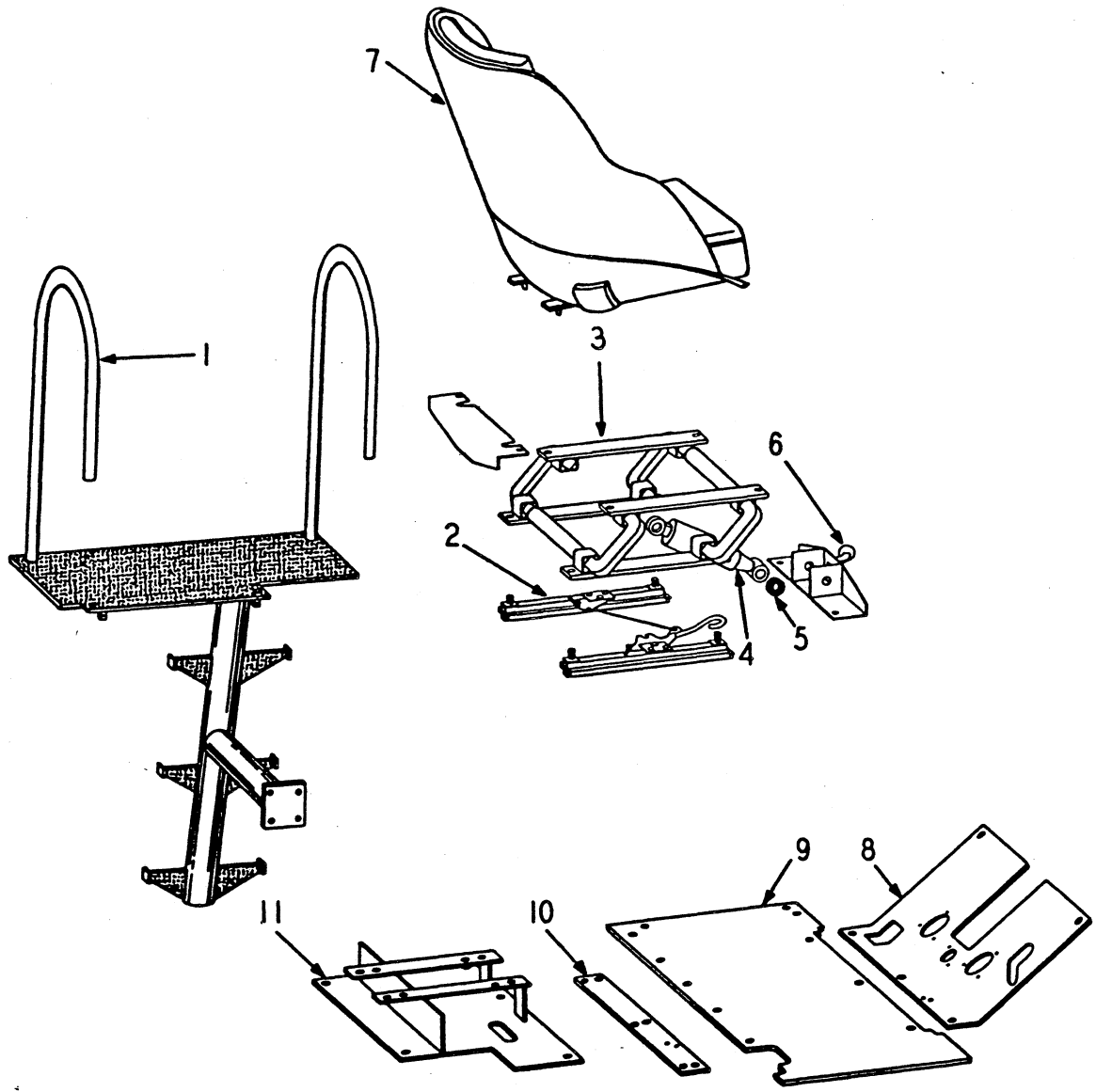
<b>Group</b>	<b>Page</b>
BOOM .....	1-3
BUCKET .....	1-3
COMPARTMENT, OPERATORS .....	1-5
COWLING, SHEET .....	1-9
FRAME, MAIN .....	1-7
LADDER .....	1-5
SEAT .....	1-5

BOOM & BUCKET



BOOM & BUCKET

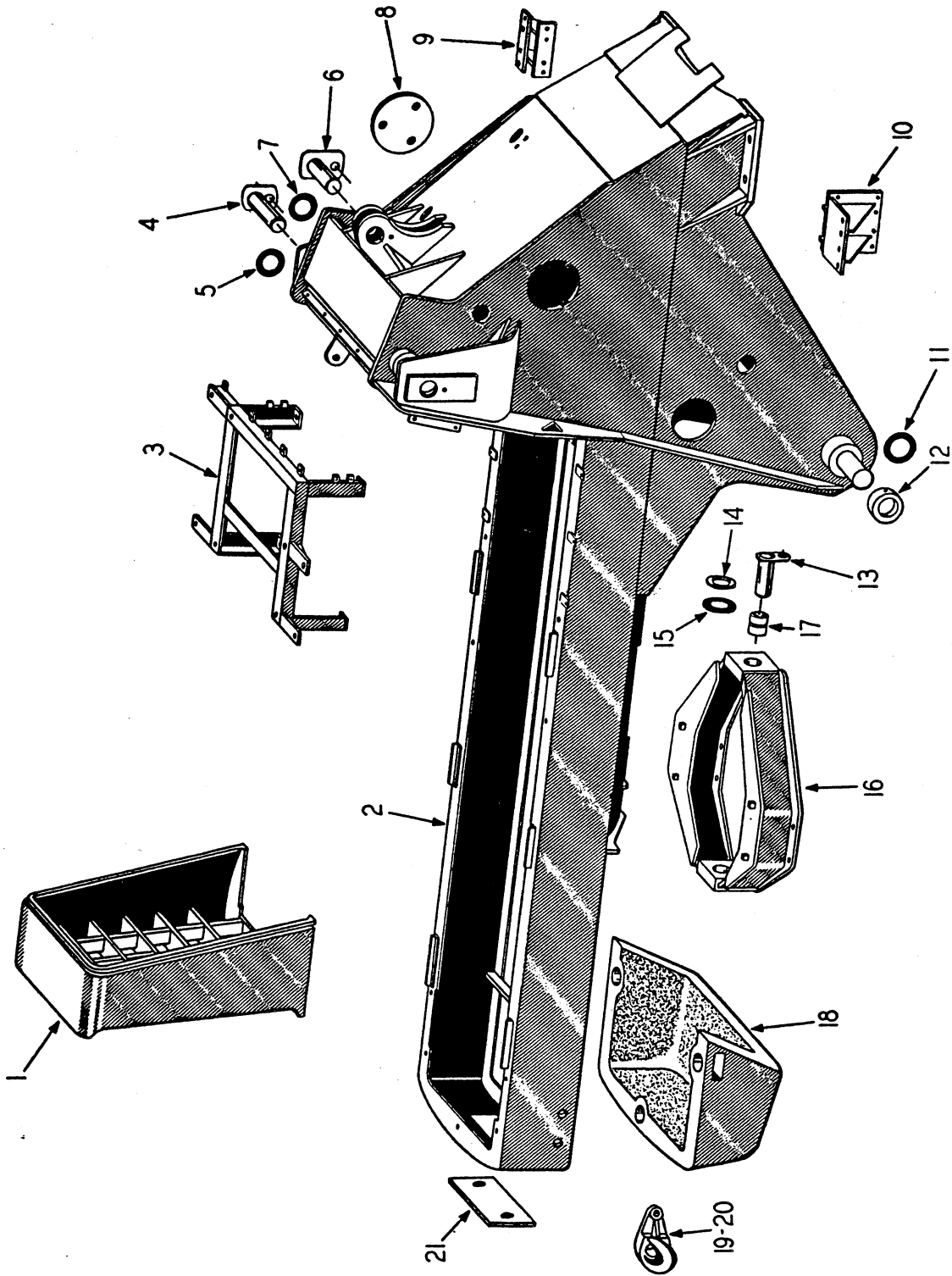
ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	TH
1	174024H1	BOOM, R. H. .... Includes (2) of	1		
1	174025H1	BOOM, L. H. .... Items 2 & 3	1		
2	174037H1	BUSHING .....	4		
3	172195H1	BUSHING .....	4		
4	174665H1	BELLCRANK .....	1		
5	172081H1	BUSHING .....	2		
	118491H1	FITTING, Grease .....	2		
6	172090H1	SHAFT, Pivot .....	1		
7	181614H1	RING, Cord (Replaces 171909H1) .....	4		
	S-1846	SCREW, Cap .....	2		
	E - 18	NUT, Lock .....	2		
8	179610H1	PINLOCK .....	1		
9	172143H1	RING, Cord (Replaces 172100H1) } Bucket Cylinder	2		
	S-187	SCREW, Cap ..... } Bellcrank	1		
	WF-18	WASHER, Flat ..... } End	1		
	WL-18	WASHER, Lock ..... }	1		
*10	211655H1	LINK, Bucket - 26 - 3/4" Long .....	2		
*10	174647H3	LINK, Bucket - 26 - 3/4" Long (See asterisk note) ....	2		
*10	174647H2	LINK, Bucket - 27" Long (See asterisk note) .....	2		
*10	174647H1	LINK, Bucket - 27" Long (See asterisk note) .....	2		
11	171890H1	BUSHING .....	4		
12	179521H1	PINLOCK .....	4		
	S-187	SCREW, Cap .....	4		
	WF-18	WASHER, Flat ..... } -Bucket Link	4		
	WL-18	WASHER, Lock .....	4		
13	172143H1	RING, Cord (Replaces 172100H1) }	8		
	118491H1	FITTING, Grease .....	4		
14	173983H1	BUCKET .....	1		
15	174261H1	EDGE, Cutting (Includes Items 16 & 17) .....	1		
16	174262H1	PLATE, Backing .....	1		
17	174263H1	TIP, Cutting Edge .....	1		
18	162251H1	EDGE, Cutting, Side .....	2		
19	179676H1	PINLOCK .....	2		
	S-187	SCREW, Cap .....	2		
	WF-18	WASHER, Flat ..... } -Bucket Pivot	2		
	WL-18	WASHER, Lock .....	2		
20	172143H1	RING, Cord (Replaces 171901H1) }	4		
21	179517H1	PINLOCK .....	2		
	S-187	SCREW, Cap .....	2		
	WF-18	WASHER, Flat ..... } -Boom Cylinder	2		
	WL-18	WASHER, Lock .....	2		
22	191418H1	RING, Cord (Replaces 172143H1) }	4		
	118491H1	FITTING, Grease .....	4		
NOTE: *On orders for (1) 174647H1, 174647H2 or 174647H3 Bucket Link, we will supply 211655H1 Bucket Link. See illustration.					



OPERATOR'S COMPARTMENT

OPERATOR'S COMPARTMENT

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers		
				FROM	THRU	
1	200688H1	LADDER (Replaces 174621) .....	1			
	200689H1	RAIL, Ladder .....	1			
	200690H1	RAIL, Ladder .....	1			
	S-11010	SCREW, Cap .....	2			
	WL-110	WASHER, Lock .....	2			
	165338H1	NUT, Weld .....	2			
	S-1811	SCREW, Cap .....	4			
	WL-18	WASHER, Lock .....	4			
	H - 18	NUT .....	4			
	189248H1	SCREW, Cap .....	2			
	WF-36	WASHER, Flat .....	2			
	WL-16	WASHER, Lock .....	2			
	H - 16	NUT .....	2			
	176445H1	SHOCKFREE BASE (Includes items 2 thru 6) .....	1			
	177299H1	SHOCK ABSORBER KIT (Includes items 4, 5 & 6) .....	1			
	2	177303H1	SLIDES, Adjustable .....	1		
	3	177298H1	SUSPENSION .....	1		
	4	177301H1	SHOCK ABSORBER .....	1		
	5	177302H1	BUSHING, Rubber .....	4		
	6	177300H1	HANDLE .....	1		
	7	160253H1	SEAT .....	1		
	S-1510	SCREW, Cap .....	4			
	WF-15	WASHER, Flat .....	4			
	WL-15	WASHER, Lock .....	4			
	H - 15	NUT .....	4			
8	174619H1	FLOORBOARD, Used prior to cable operated parking brake .....	1	28AH-1001 29AC-1001 & 1211	1188 1209	
8	187569H1	FLOORBOARD, Used with cable operated parking brake .....	1	28AH-1189 29AC-1210, 1212, 1215, 1217	Up Up	
	S-1613	SCREW, Cap (rear corners flbrd.) .....	2			
	S-168	SCREW, Cap (floorboard mtg.)....	3			
	WL-16	WASHER, Lock .....	5			
	WF-36	WASHER, Flat .....	7			
	H - 16	NUT .....	2			
9	174620H1	FLOORBOARD, Rear .....	1			
	S-168	SCREW, Cap .....	7			
	180107H1	SCREW, Cap .....	2			
	WF-36	WASHER, Flat .....	9			
	WL-16	WASHER, Lock .....	9			
10	174617H1	RUNNER .....	1			
	165338H1	NUT, Weld .....	4			
11	180994H1	DECK SEAT (As Shown Supply the next 5 items) .....	1			
11	186036H1	DECK, Seat .....	1			
	186031H1	SUPPORT .....	2			
	S-159	SCREW, Cap .....	8			
	H - 15	NUT .....	8			
	WL-15	WASHER, Lock .....	8			
	S-168	SCREW, Cap .....	5			
	WF-36	WASHER, Flat .....	5			
	WL-16	WASHER, Lock .....	5			



MAIN FRAME



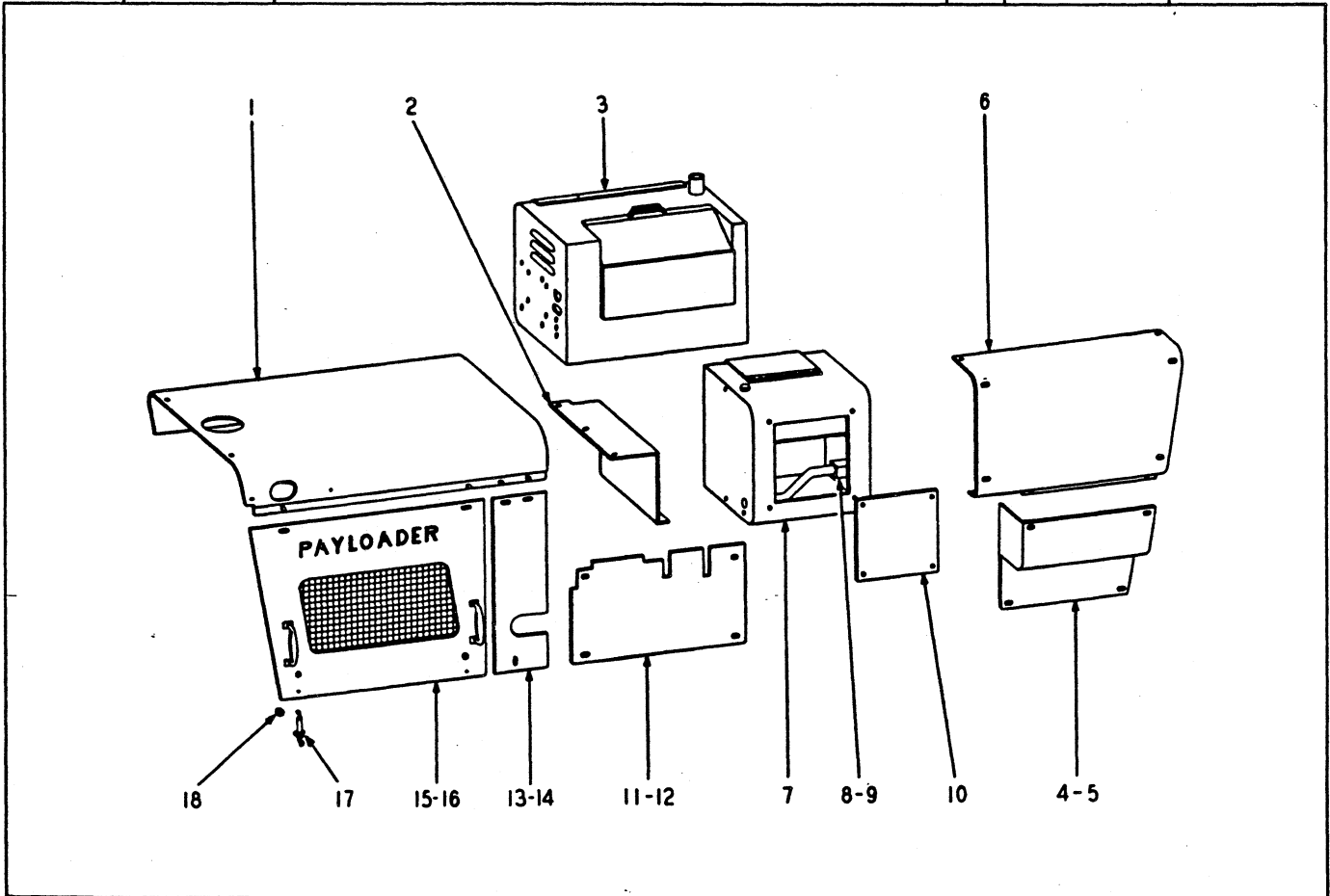
MAIN FRAME

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	172043H1	GRILLE .....	1		
	S-11026	SCREW, Cap .....	1		
	S-11030	SCREW, Cap .....	2		
	WF-310	WASHER, Flat .....	3		
	WL-110	WASHER, Lock .....	3		
	H-110	NUT .....	3		
2	174171H2	FRAME, Main .....	1	28AH-1001 29AC-1003 28AH-1079 29AC-1078, 79, 81	1078
2	181789H2	FRAME, Main .....	1		1077
					Up
3	180997H1	SUPPORT, Reservoir, Battery Box & Deck replaces 174604 .....	1		Up
	165338H1	WELDNUT .....	22		
	S-1816	SCREW, Cap .....	4	Support to Frame	
	WL-18	WASHER, Lock .....	4		
	H - 18	NUT .....	4		
	179513H1	PIN, Lock .....	2		
	S-1108	SCREW, Cap .....	2		
	WF-110	WASHER, Flat .....	2		
	WL-110	WASHER, Lock .....	2		
5	181615H1	RING, Cord replaces 171909 .....	4		
6	179678H1	PIN, Lock replaces 172091 .....	1		
	S-1108	SCREW, Cap .....	1		
	WF-110	WASHER, Flat .....	1		
	WL-110	WASHER, Lock .....	1		
7	181614H1	RING, Cord replaces 171909 .....	2		
8	172547H1	COVER, Access Hole .....	2		
	S-255	SCREW, Cap .....	6		
	WL-15	WASHER, Lock .....	6		
9	173949H1	BRACKET, Transmission Mounting, L.H. ....	1		
10	173947H1	BRACKET, Transmission Mounting, R.H. ....	1		
	S-2811	SCREW, Cap .....	7	R.H. Bracket to Transmission	
	WL-18	WASHER, Lock .....	7		
	S-1816	SCREW, Cap .....	4	L.H. Bracket to Transmission	
	E - 18	NUT .....	4		
	S-1816	SCREW, Cap .....	8	Bracket to Frame	
	WL-38	WASHER, Lock .....	8		
	E - 18	NUT .....	8		
11	181615H1	RING, Cord replaces 181614 .....	4		
12	171900H1	COLLAR .....	2		
	S-1842	SCREW, Cap .....	2		
	E - 18	NUT .....	2		
13	184371H1	PIN, Lock replaces 179521 .....	2		
	WF-18	WASHER, Flat .....	2		
	S-187	SCREW, Cap .....	2		
	WL-18	WASHER, Lock .....	2		
14	172142H1	SPACER .....	AR		
15	172143H1	RING, Cord .....	4		
	118492H1	FITTING, Grease .....	2		
16	173943H1	BOLSTER, Includes Item 17 .....	1		
17	158773H1	BUSHING .....	2		
	S-11222-8	SCREW, Cap .....	8	Axles Mounting	
	209135H1	NUT .....	8		
18	171626H2	COUNTERWEIGHT .....	1		
	S-11228	SCREW, Cap .....	1		
	WF-112	WASHER, Flat .....	1		
	WL-412	WASHER, Lock .....	1		
	H-112	NUT .....	1		
	S-11028	SCREW, Cap .....	2		
	WF-110	WASHER, Flat .....	2		
	WL-410	WASHER, Lock .....	2		
	H-110	NUT .....	2		
19	154813H2	HOOK, Towing, R.H. ....	1	28AH-1001 29AC-1003	1280
20	154814H2	HOOK, Towing, L.H. ....	1		1408
	S-11224	SCREW, Cap .....	2		

(Continued on following page)

MAIN FRAME (Continued)

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	WL-412	WASHER, Lock .....	2		
	H-112	NUT .....	2		
	S-11016	SCREW, Cap .....	2	28AH-1001	1280
	WL-410	WASHER, Lock .....	2	29AC-1003	1408
	H-110	NUT .....	2		
	196501H1	PIN, Drawbar .....	1	28AH-1281	Up
	CP-816	PIN, Cotter .....	1	29AC-1409	Up
				29AG-1409	Up
21	153805H1	COVER, Access Hole .....	1	28AH-1001	1280
				29AC-1003	1408
21	195715H1	COVER, Access Hole .....	1	28AH-1281	Up
				29AC-1409	Up
				29AG-1409	Up
	S-1610	SCREW, Cap .....	2		
	WF-16	WASHER, Flat .....	2		
	WL-16	WASHER, Lock .....	2		
	177976H1	SUPPORT, Front Light .....	2		
	173443H1	SETSCREW .....	4		
	180327H1	SUPPORT, Cross Pipe .....	1		
	153436H1	CLAMP .....	2		
	S-159	SCREW, Cap .....	3		
	H - 15	NUT .....	3		
	WL-15	WASHER, Lock .....	2		



SHEET COWLING

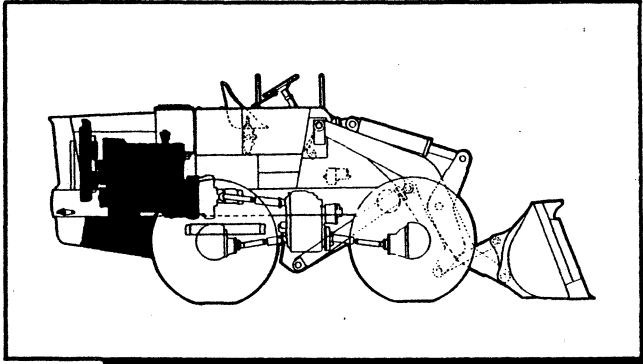
SHEET COWLING

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	176783H1	HOOD, G-372 & U-372 .....	1		
1	209249H1	HOOD, JF-6-CI (Replaced 176782H2) .....	1		
	209238H1	SPACER .....	2		
	S-1620	SCREW, Cap .....	4		
	S-1612	SCREW, Cap (rear mtg.) ...	4		
	S-168	SCREW, Cap (front mtg.) ...	3		
	WF-36	WASHER, Flat .....	11		
	WL-16	WASHER, Lock .....	7		
	H - 16	NUT .....	4		
	174760H1	PANEL, Rear .....	1	29AG-1001	Up
2	180995H1	PANEL, Rear (operators compartment rear) .....	1	29AC-1078	Up
3	174507H3	BOX, Battery .....	1		
	S-1812	SCREW, Cap .....	4		
	WL-18	WASHER, Lock .....	4		
	H - 18	NUT .....	4		
	200369H1	SCREW .....	2		
	143231H1	WASHER .....	2		
	200370H1	NUT .....	2		
4	174763H2	PANEL, Forward R.H. - lower side .....	1		
	S-166	SCREW, Cap .....	4		
	S-1610	SCREW, Cap .....	4		
	WF-36	WASHER, Flat .....	8		
	WL-16	WASHER, Lock .....	8		
5	174764H1	PANEL, Forward, L.H. - lower .....	1		
	S-167	SCREW, Cap .....	3		
	S-268	SCREW, Cap .....	1		
	WF-36	WASHER, Flat .....	3		
	WL-16	WASHER, Lock .....	3		
6	174765H1	PANEL, Forward, Upper R.H. .....	1		
	S-167	SCREW, Cap .....	6		
	180107H1	SCREW, Cap .....	2		
	WF-36	WASHER, Flat .....	8		
	WL-16	WASHER, Lock .....	8		
7	174766H1	ENCLOSURE, Hydraulic Manifold .....	1		
	165338H1	NUT, Weld .....	4		
	S-1812	SCREW, Cap .....	4		
	WL-18	WASHER, Lock .....	4		
	H - 18	NUT .....	4		
8	176105H1	COUPLING ASSEMBLY, Includes next 3 items .....	2		
	180701H1	COUPLING .....	1		
	180702H1	SEAL ASSEMBLY .....	1		
	180703H1	SLEEVE .....	1		
9	174774H1	TUBE .....	1		
10	174783H1	COVER .....	1		
	S-145	SCREW, Cap .....	4		
	WL-44	WASHER, Lock .....	4		
11	174761H2	PANEL, Center, Side R.H. .....	1		
12	174762H1	PANEL, Center, Side L.H. .....	1		
	S-168	SCREW, Cap .....	10		
	S-166	SCREW, Cap .....	6		
	WF-36	WASHER, Flat .....	16		
	WL-16	WASHER, Lock .....	16		
13	178156H1	PANEL, Rear, Side R.H. .....	1		
14	178157H1	PANEL, Rear, Side L.H. .....	1		
	S-166	SCREW, Cap, Panels to Hood .....	6		
	S-167	SCREW, Cap .....	2		
	WF-16	WASHER, Flat .....	2		
	WL-16	WASHER, Lock .....	2		
15	178154H1	PANEL, Rear, Side R.H. .....	1		
16	178155H1	PANEL, Rear, Side L.H. .....	1		
17	153618H1	LATCH .....	4		
	168753H1	SCREW, Latch to Frame .....	12		
18	153619H1	BUMPER, Latch .....	4		
	153640H1	SCREW .....	4		
	104469H1	WASHER, Lock .....	4		
	104467H1	NUT .....	4		



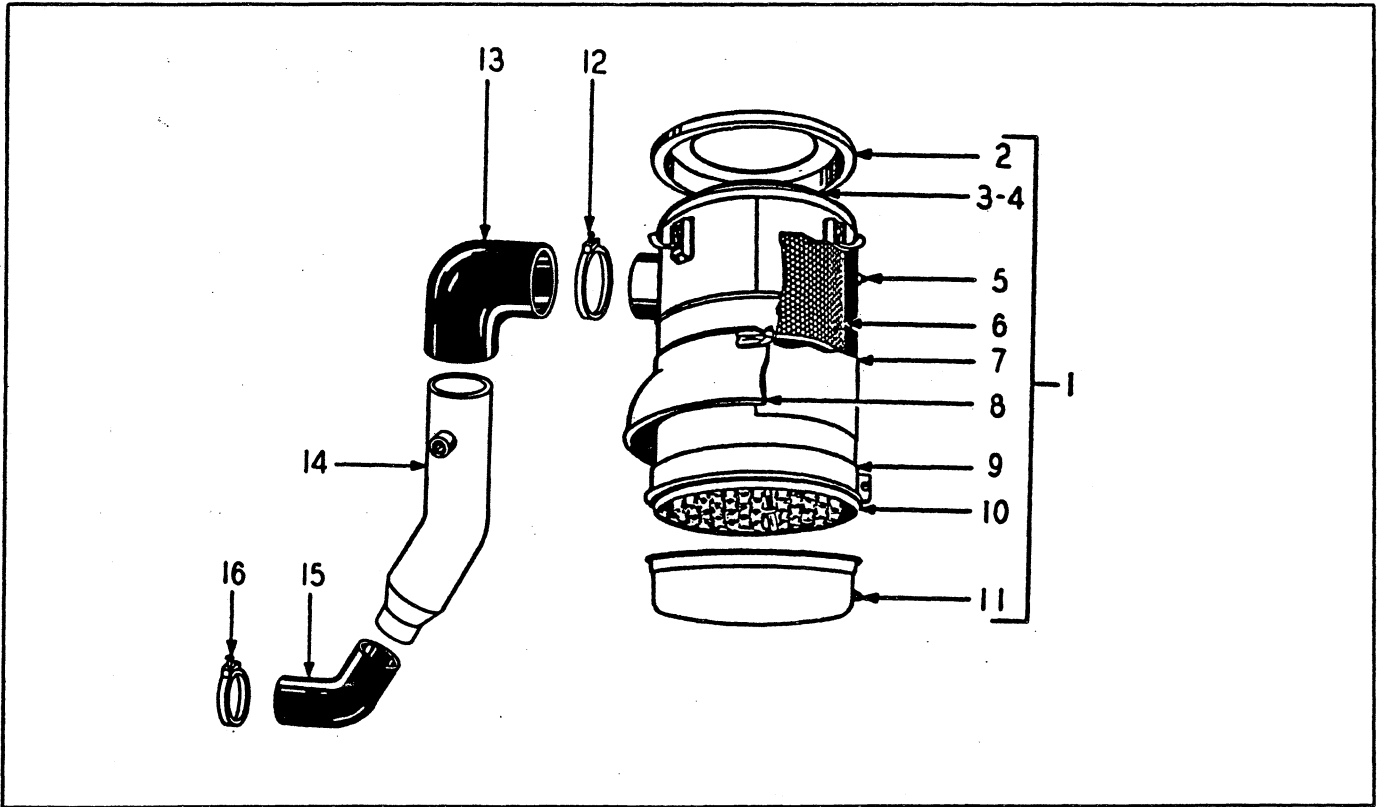
# SECTION 2

# ENGINE



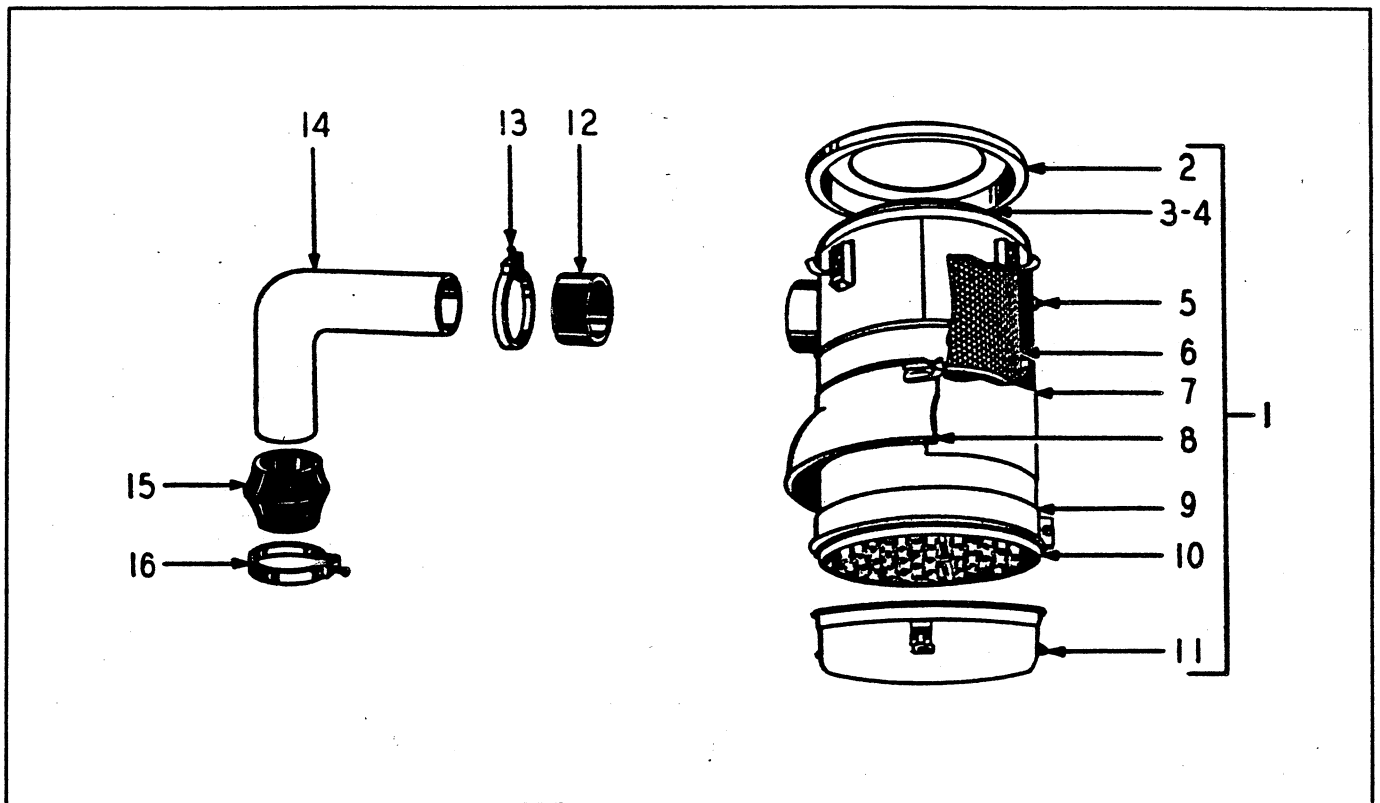
## Table Of Contents

<b>Group</b>	<b>Page</b>
AIR CLEANER - GAS .....	2-2
AIR CLEANER - DIESEL .....	2-3
ENGINE - GAS .....	2-5
ENGINE - DIESEL .....	2-9
EXHAUST - GAS .....	2-5
EXHAUST - DIESEL .....	2-9
FUEL TANK & LINES - GAS .....	2-12
FUEL TANK & LINES - DIESEL .....	2-13 - 14
RADIATOR - GAS .....	2-15
RADIATOR - DIESEL .....	2-16
STARTING AID - GAS .....	2-9
LUBER FINER - DIESEL .....	2-17



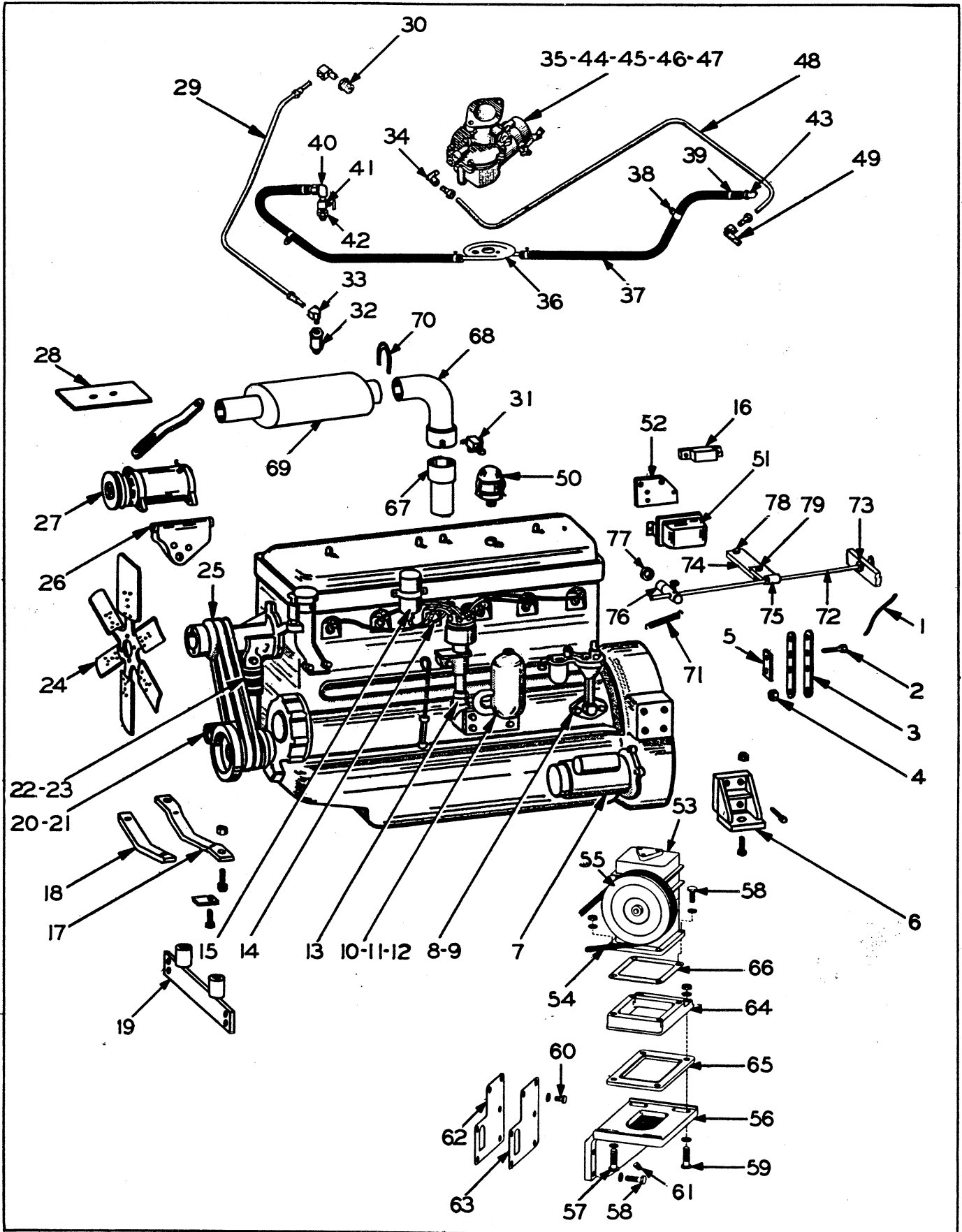
AIR CLEANER - U-372, G-372

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	154987H1	CLEANER, Air (Includes items 2 thru 11) .....	1		
	209238H1	SPACER .....	2		
	143855H1	BAND, Mounting .....	2		
	S-1620	SCREW, Cap (replaces S-157) ..	4		
	WL-16	WASHER, Lock (replaces WL-15) ] - Cleaner Mtg.	4		
	H - 16	NUT (replaces H-15) .....	4		
2	162138H1	COVER ASSEMBLY (Includes item 3) .....	1		
3	162139H1	GASKET .....	1		
4	155208H1	BOLT & GASKET ASSEMBLY .....	1		
5	P - 12	PLUG, Pipe .....	1		
6	162140H1	ELEMENT .....	1		
7	162141H1	BODY .....	1		
8	162142H1	SHROUD & SHIELD ASSEMBLY .....	1		
9	162144H1	CLAMP.....	1		
10	162143H1	GASKET .....	1		
11	162145H1	CUP .....	1		
12	152730H1	CLAMP, Upper .....	2		
13	150751H1	ELBOW .....	1		
14	176433H2	TUBE, Replaces 176433 .....	1		
15	176434H1	ELBOW .....	1		
16	168813H1	CLAMP, Lower .....	2		
	148670H1	HOSE .....	1		
	172818H1	CLAMP .....	2		
	175791H1	MANIFOLD INLET .....	1		
	173466H1	GASKET .....	1		
	175801H1	SCREW, Machine .....	2		
	108498H1	WASHER, Lock .....	2		
	193424H1	GASKET, Inner Cover .....	1		
	193423H1	COVER ASSEMBLY, Inner - part of 154987H1 .....	1		



AIR CLEANER - JF-6-CI

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	154987H1	CLEANER, Air (Includes items 2 thru 11)	1		
	209238H1	SPACER	2		
	143855H1	BAND, Mounting	2		
	S-1620	SCREW, Cap (replaces S-167)	4		
	WL-16	WASHER, Lock	4		
	H - 16	NUT	4		
2	162138H1	COVER ASSEMBLY (Includes item 3)	1		
3	162139H1	GASKET	1		
4	155208H1	BOLT & GASKET ASSEMBLY	1		
5	P - 12	PLUG, Pipe	1		
6	162140H1	ELEMENT	1		
7	162141H1	BODY	1		
8	162142H1	SHROUD & SHIELD ASSEMBLY	1		
9	162144H1	CLAMP	1		
10	162143H1	GASKET	1		
11	162145H1	CUP	1		
12	150227H1	HOSE, replaces 150584	1		
13	152730H1	CLAMP	2		
14	176438H1	ELBOW	1		
15	168885H1	HOSE, Hump	1		
16	156385H1	CLAMP	2		
	181618H1	HOSE	1		
	161178H1	CLAMP	2		
	176032H1	TUBE	1		
	193424H1	GASKET, Inner Cover	1		
	193423H1	COVER ASSEMBLY, Inner - part of 154987H1	1		



ENGINE - U-372



ENGINE-U-372

ITEM NO.	PART NO.	For machines of S/N 28AH-1001 thru 1213 PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	163967H1	ENGINE, Stripped, U-372 .....	1		
1	LW-165	WIRE, Lock .....	4		
2	143275H1	SCREW, Cap .....	8		
3	143277H1	STRAP .....	8		
4	130823H1	NUT .....	8		
5	129988H1	SPACER .....	4		
6	175286H1	BRACKET, Engine .....	2		
	163636H1	SCREW, Cap .....	4		
	S-2810	SCREW, Cap .....	4		
	WL-18	WASHER, Lock .....	8		
	S-11018	SCREW, Cap .....	4		
	WF-110	WASHER, Flat .....	4		
	E-110	NUT .....	4		
7	148023H1	STARTER .....	1		
	S-2610	SCREW, Cap .....	3		
	WL-16	WASHER, Lock .....	3		
8	169748H1	PUMP, Fuel .....	1		
9	147982H1	GASKET, Pump .....	1		
	S-2610	SCREW, Cap .....	2		
	WL-16	WASHER, Cap .....	2		
10	168894H2	FILTER, Oil replaces 168894 .....	1		
	172670H1	ELEMENT, Filter .....	1		
	148007H1	GASKET, Cover .....	1		
	S-2812	SCREW, Cap .....	3		
	WL-18	WASHER, Lock .....	4		
	H - 18	NUT .....	1		
11	168895H1	PIPE ASSEMBLY .....	1		
12	168896H1	GASKET, Pipe .....	2		
	S-256	SCREW, Cap .....	4		
	WL-15	WASHER, Lock .....	4		
13	151665H1	DISTRIBUTOR .....	1		
14	151666H1	CABLE SET .....	1		
	147998H1	CABLE, #1 & #6 Plug .....	2		
	147999H1	CABLE, #2 & #5 Plug .....	2		
	148001H1	CABLE, #3 & #4 Plug .....	2		
	148002H1	CABLE, Secondary .....	1		
	148005H1	CABLE, Primary .....	1		
	148003H1	RING, Cable, #4, 5 & 6 .....	1		
	148004H1	RING, Cable, #1, 2 & 3 .....	1		
15	181845H1	COIL (For service, replaces 155845) .....	1		
	S-255	SCREW, Cap .....	2		
	WL-15	WASHER, Lock .....	2		
	129900H1	WASHER, Lock .....	2		
16	179369H1	RESISTOR .....	1		
	156302H1	CABLE, Resistor to Coil .....	1		
17	147990H1	SUPPORT, Fan End .....	1		
18	147991H1	PAD .....	1		
	147992H1	SCREW, Cap .....	2		
	147993H1	LOCKPLATE .....	2		
19	175279H1	MOUNT, Engine .....	1		
	S-11014	SCREW, Cap .....	2		
	WL-110	WASHER, Lock .....	2		
	S-11020	SCREW, Cap .....	4		
	E-110	NUT .....	4		
20	156299H1	ELBOW .....	1		
21	148019H1	GASKET .....	1		
	P - 18	PLUG .....	1		
	147987H1	SCREW, Cap .....	2		
	WL-16	WASHER, Lock .....	2		
	169968H1	SCREW, Cap (Bracket to Engine) .....	4		
22	114654H1	HOSE .....	1		
23	156384H1	CLAMP, replaces C - 48 .....	2		

(Continued on following page)

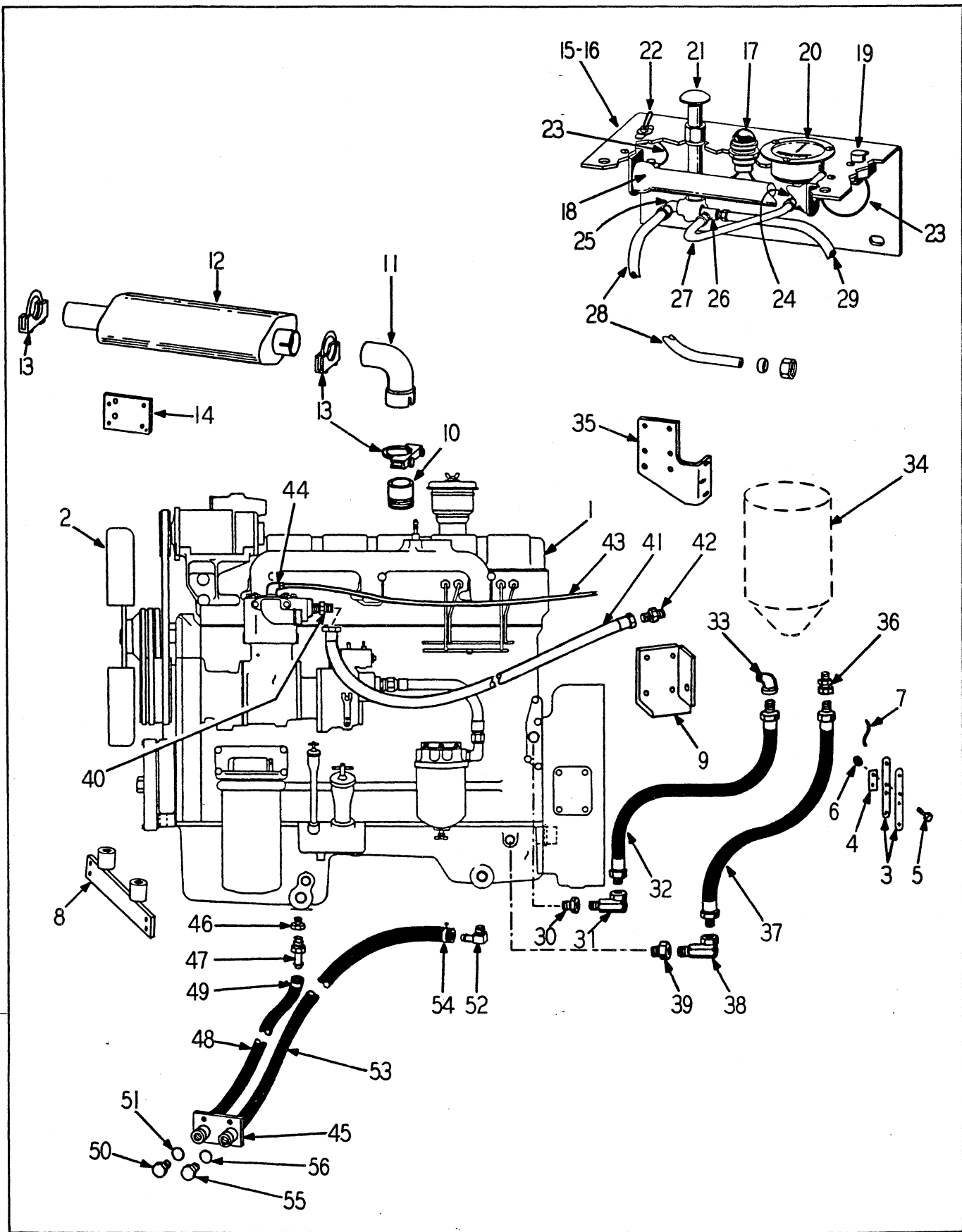
ENGINE-U-372 (Continued)

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
24	147988H1	FAN, Blower	1		
24	191692H1	FAN, Suction	1		
	S-256	SCREW, Cap	4		
	WL-15	WASHER, Lock	4		
25	147985H3	BELT, Fan replaces 147985	2		
26	148017H1	BRACKET, Generator	1		
	S-2510	SCREW, Cap	2		
	WL-15	WASHER, Lock	2		
	H - 25	NUT	2		
	S-267	SCREW, Cap	3		
27	148014H1	GENERATOR	1		
	148015H1	PULLEY	1		
	112681H1	FAN	1		
	158658H1	STRAP	1		
	S-257	SCREW, Cap	1		
	WF-35	WASHER, Flat	1		
	WL-15	WASHER, Lock	1		
	S-2628	SCREW, Cap	1		
	WL-16	WASHER, Lock	1		
28	148020H1	SHIELD	1		
	WF-36	WASHER, Flat	2		
	H - 26	NUT	2		
29	158659H1	PIPE, Vent	1		
30	127538H1	BUSHING, Reducer replaces 127537	1		
31	127525H1	VALVE, Drain	1		
32	148008H1	VALVE, Metering	1		
33	189738H1	ELBOW, 90° replaces 148011	2		
34	140570H1	ELBOW	1		
35	147975H2	CARBURETOR	1		
	151168H1	STUD	2		
	WL-16	WASHER, Lock	2		
	H - 36	NUT	2		
36	155573H2	HEAT EXCHANGER	1		
37	181192H1	HOSE	2		
38	152887H1	CLAMP	3		
39	168816H1	CLAMP, replaces C - 12	4		
40	180631H1	ELBOW	1		
41	132666H1	COCK, Shut-Off	1		
42	117378H1	BUSHING, Reducer	1		
43	176057H1	CONNECTOR	1		
44	147978H1	GASKET, Carburetor	2		
45	186193H1	GASKET, replaces 147977	1		
46	147994H2	GOVERNOR	1		
47	186193H1	GASKET, Governor replaces 147995	1		
	147996H1	SEAL & WIRE	1		
48	169747H2	PIPE, Fuel replaces 169747	1		
	S-164	SCREW, Cap	1		
	WL-16	WASHER, Lock	1		
	H - 16	NUT	1		
49	147981H1	ELBOW	1		
50	148009H1	BREATHER	1		
51	174002H1	REGULATOR, Voltage	1		
52	174508H1	PLATE, Mounting	1		
	S-147	SCREW, Cap	3		
	WL-14	WASHER, Lock	3		
	H - 14	NUT	3		
53	175678H1	COMPRESSOR, Air (See Page	1		
54	175679H1	BELT, Drive	1		
55	175674H1	PULLEY	1		
56	176731H1	BRACKET, Mtg.	1		
57	S-1622	SCREW, Cap	2		
	139502H1	WASHER	2		
	WL-16	WASHER, Lock	2		
	H - 16	NUT	2		

(Continued on following page)

ENGINE-U-372 (Continued)

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
58	S-2610	SCREW, Cap .....	6		
	WL-16	WASHER, Lock .....	6		
59	S-1716	SCREW, Cap .....	2		
	176734H1	WASHER .....	2		
	WL-17	WASHER, Lock .....	2		
	H - 17	NUT .....	2		
60	S-264	SCREW, Cap .....	2		
	WL-16	WASHER, Lock .....	2		
61	P - 12	PLUG, Pipe .....	1		
62	176736H1	GASKET .....	1		
63	176738H1	PLATE .....	1		
64	176739H1	ADAPTER, Plate .....	1		
65	176733H1	GASKET .....	1		
66	176735H1	GASKET .....	1		
67	176424H1	STACK, Exhaust .....	1		
68	176218H1	ELBOW, Exhaust .....	1		
69	176217H2	MUFFLER, replaces 176217 .....	1		
70	127487H1	CLAMP .....	3		
71	106475H1	SPRING .....	1		
72	186037H1	CABLE .....	1		
73	WF-36	WASHER .....	2		
74	177188H1	LUG .....	1		
75	163501H1	CLIP .....	1		
76	172842H1	FITTING, Connector .....	1		
77	WF-14	WASHER .....	1		
78	S-147	SCREW, Cap .....	1		
79	S-144	SCREW, Cap .....	1		
	H - 14	NUT .....	2		
	WL-14	WASHER, Lock .....	2		
	177647H1	HOSE, Line Compressor Oil Inlet .....	1		
	181183H1	TUBE .....	1		
	164839H1	ELBOW .....	1		
	144279H1	CLAMP .....	1		



ENGINE - JF-6-CI

ENGINE - JF-6-C1

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	174391H1	ENGINE, JF-6-C1 .....	1	29AC-1003	29AC-1117
1	183140H1	ENGINE, JF-6-C1 .....	1	29AC-1118	& up
2	176486H1	FAN, Blower .....	1		
3	143277H1	STRAP, Drive .....	8		
4	129988H1	SPACER .....	4		
5	153230H1	SCREW, Cap .....	8		
6	130823H1	NUT .....	8		
7	LW-188	WIRE, Lock .....	4		
8	175284H1	MOUNT, Engine (Fan End) .....	1		
	S-11018	SCREW, Cap .....	2		
	WL-110	WASHER, Lock .....	2		
	S-11020	SCREW, Cap .....	4		
	E-110	NUT .....	4		
9	175285H2	MOUNT, Engine (Flywheel End) .....	2		
	156815H1	SCREW, Cap .....	8		
	WL-18	WASHER, Lock .....	8		
	S-11018	SCREW, Cap .....	4		
	WF-110	WASHER, Flat .....	4		
	E-110	NUT .....	4		
10	150346H1	STACK .....	1		
11	176218H1	ELBOW .....	1		
12	176217H2	MUFFLER, Replaces 176217H1 .....	1		
13	127487H1	CLAMP .....	3		
	S-2820	SCREW, Cap .....	3		
	WL-18	WASHER, Lock .....	3		
	H - 28	NUT .....	3		
14	179305H1	BRACKET, Voltage Regulator .....	1		
	S-1410	SCREW, Cap .....	4		
	WL-14	WASHER, Lock .....	4		
	H - 14	NUT .....	4		
	S-266	SCREW, Cap .....	2		
	WL-16	WASHER, Lock .....	2		
15		STARTING AID ASSEMBLY (See Engine Manual) .....	1		
16	175381H1	BRACKET .....	1		
	S-166	SCREW, Cap .....	4		
	WF-16	WASHER, Flat .....	4		
	WL-16	WASHER, Lock .....	4		
	H - 16	NUT .....	4		
17	137491H1	LIGHT, Indicator .....	1		
18		RESISTOR .....	1		
	168456H1	SCREW, Cap .....	2		
	WL-24	WASHER, Lock .....	2		
	H - 24	NUT .....	2		
19		CIRCUIT BREAKER .....	1		
20	140746H1	SCREW, Breaker Mounting .....	2		
		GAUGE, Pressure .....	1		
	156438H1	SCREW .....	3		
	104469H1	WASHER, Lock .....	3		
	104467H1	NUT .....	3		
21		PRIMER, Hand .....	1		
22		SWITCH, Toggle .....	1		
23	134319H1	WIRE .....	2		
24	182866H1	ELBOW, Replaces 137486H1 .....	1		
25	175775H1	ELBOW, Replaces HA-791 .....	3		
26	182594H1	TEE .....	1		
27	182656H1	TUBE, Primer to Gauge .....	1		
28	175934H1	TUBE, Primer to Nozzle .....	1		
29	179938H1	TUBE, Primer to Intake Manifold .....	1		
	180080H1	SLEEVE .....	1		
	179783H1	CLIP .....	2		

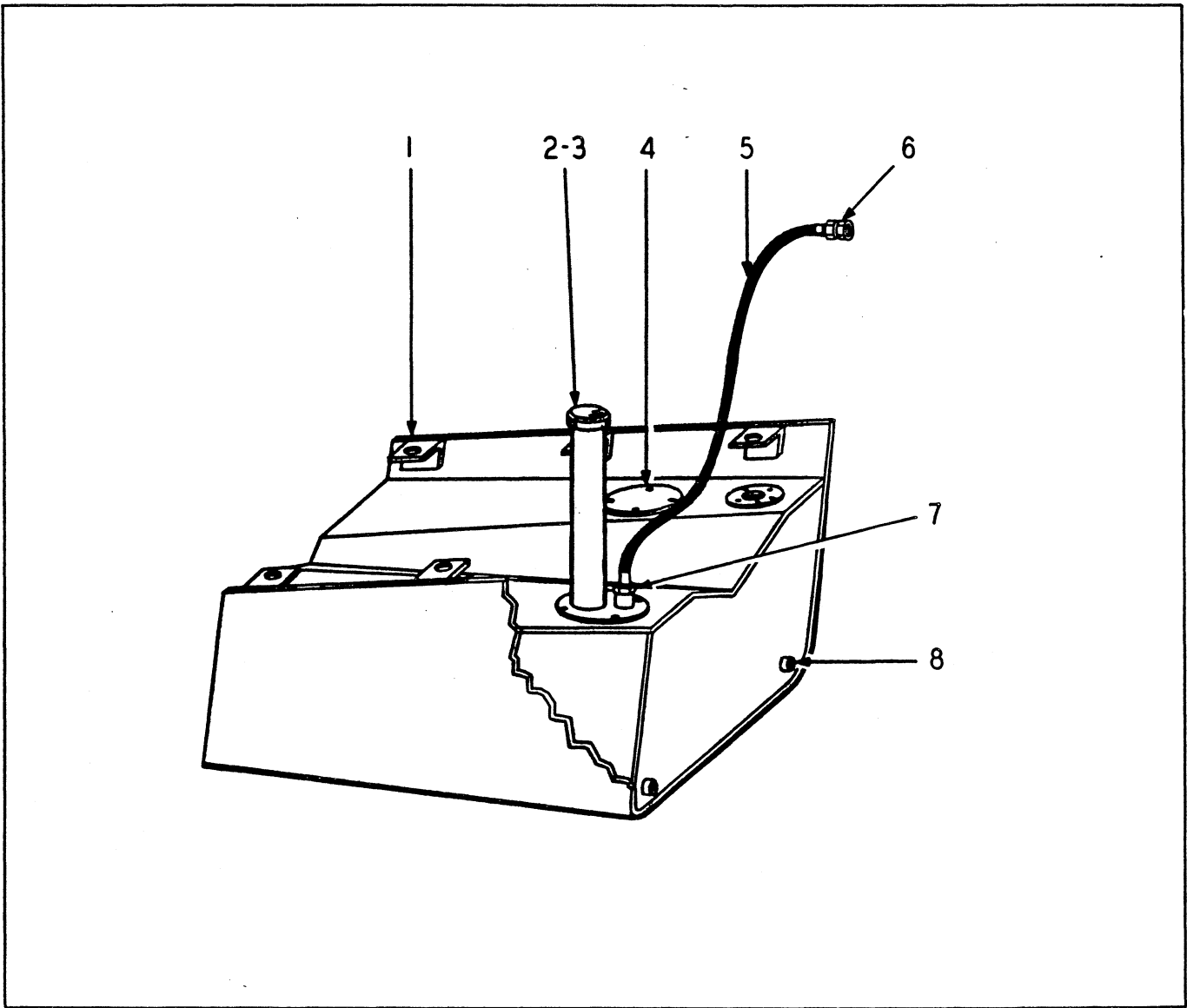
(Continued on following page)

ENGINE - JF-6-C1 (Continued)

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
LINE-ENGINE TO LUBE OIL BY-PASS FILTER					
30	127539H1	BUSHING, Reducer .....	1		
31	122763H1	ELBOW, 90° .....	1		
32	183638H1	HOSE, Engine to Lube Filter .....	1		
33	103488H1	ELBOW, 90° St. ....	1		
34		LUBER FINER (Refer to Page .....	1	29AC-1003	1117
34	183491H1	FILTER, Lube By-Pass (See Cummins Engine Manual) Replaces 175408H1 Luber Finer .....	1	29AC-1118	& up
	190963H1	ELEMENT .....	1		
	175357H1	BRACKET .....	1		
35	S-157	SCREW, Cap .....	6		
	S-1510	SCREW, Cap .....	3		
	WL-15	WASHER, Lock .....	9		
	H - 15	NUT .....	9		
	139017H1	STRAP .....	2		
LINE-BY-PASS FILTER TO ENGINE					
36	122761H1	ADAPTER, Union .....	1		
37	183638H1	HOSE .....	1		
38	103497H1	ELBOW, St., 45° .....	1		
39	127538H1	BUSHING, Reducer .....	1		
LINE-COMPRESSOR OUTLET					
40	181295H1	CONNECTOR .....	1		
41	181672H1	TUBE .....	1		
42	157919H1	CONNECTOR .....	1		
LINE-GOVERNOR TO COMPRESSOR					
43	175770H1	TUBING .....	1		
44	175775H1	ELBOW .....	1		
	139017H1	STRAP, Tube to Compressor Intake Hose .....	1		
ENGINE OIL PAN DRAIN					
45	184605H1	DRAIN, Oil .....	1		
	S-168	SCREW, Cap .....	2		
	WL-16	WASHER, Lock .....	2		
	H - 16	NUT .....	2		
OIL DRAIN LINE-REAR SUMP					
46	127547H1	BUSHING, Reducer .....	1		
47	167971H1	INSERT .....	1		
48	174937H1	HOSE .....	1		
49	172818H1	CLAMP .....	2		
50	210-8	PLUG .....	1		
51	OR2-8	"O" RING .....	1		
OIL DRAIN LINE-FRONT SUMP					
52	189528H1	ELBOW .....	1		
53	177351H1	HOSE .....	1		
54	172818H1	CLAMP .....	2		
55	210-8	PLUG .....	1		
56	OR2-8	"O" RING .....	1		
	202076H1	SEAL NUT .....	1		
(Continued on following page)					

ENGINE - JF-6-CI (Continued)

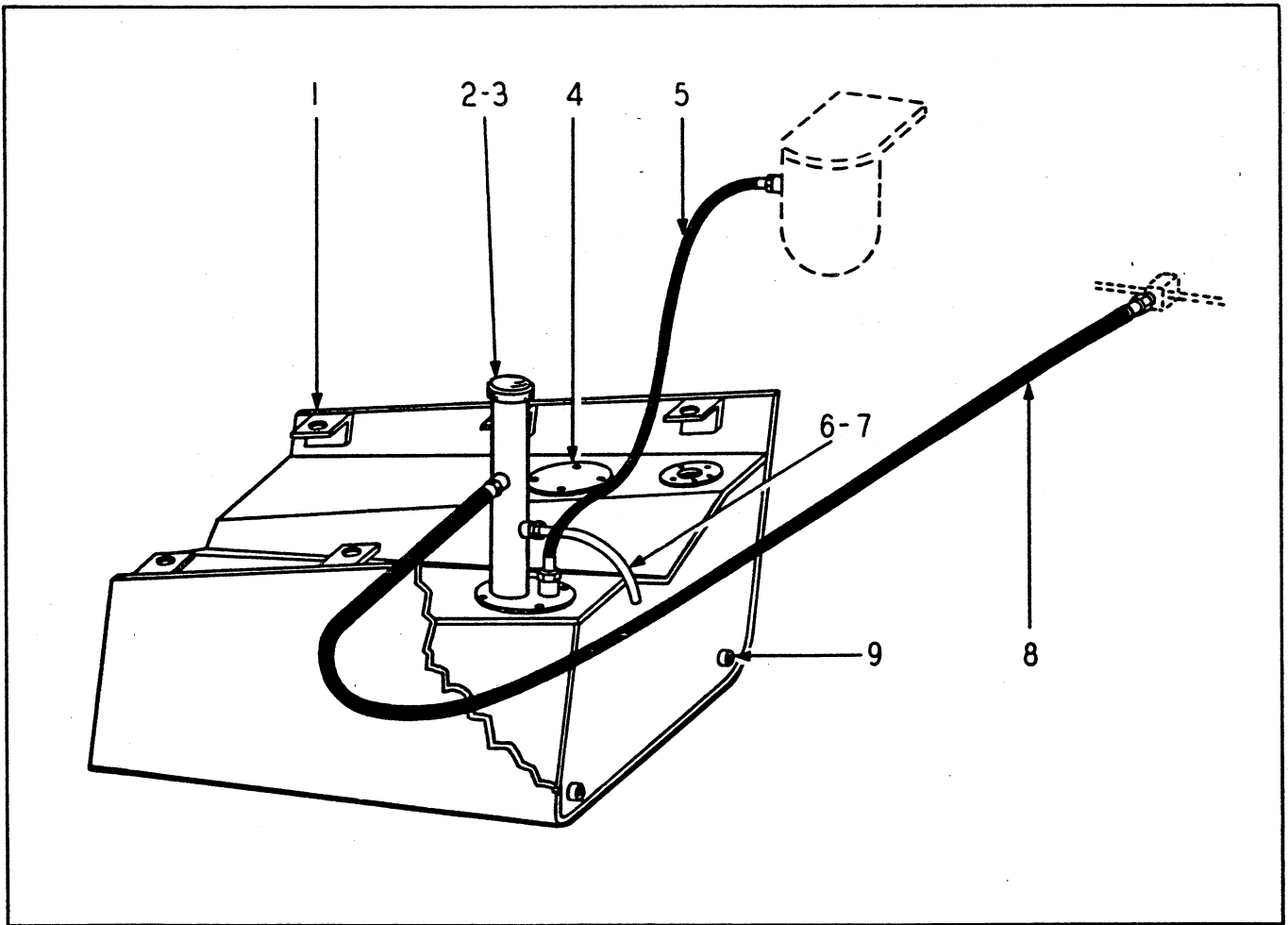
ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
		Effective on machines of S/N 29AC-1003 thru 29AC-1117 with Engine 174391H1.			
		LINE-ENGINE TO LUBE OIL BY-PASS FILTER			
	132231H1	BUSHING, Reducer .....	1		
	109181H1	ELBOW, Replaces 107863H1 Adapter .....	1		
	171733H1	HOSE .....	1		
	127537H1	BUSHING, Reducer .....	1		
		LINE BY-PASS FILTER TO ENGINE			
	127537H1	BUSHING, Reducer .....	2		
	103496H1	ELBOW .....	1		
	171732H1	HOSE .....	1		
	107863H1	ADAPTER, Straight .....	1		
		LINE-COMPRESSOR OUTLET			
	181295H1	CONNECTOR, Replaces 160997H1 Elbow .....	1		
	181672H1	TUBE, Replaces 146178H1 .....	1		
	157919H1	CONNECTOR .....	1		
		LINE-GOVERNOR TO COMPRESSOR			
	181193H1	TUBING, replaces 175770H1 .....	1		
	175775H1	ELBOW, replaces 175773H1 Connector .....	1		
	144279H1	CLAMP .....	1		
	139017H1	CLAMP .....	1		
		ENGINE OIL PAN DRAIN			
	103047H1	ELBOW, replaces 103470H1 .....	2		
	104408H1	HOSE .....	2		
	103508H1	TEE .....	1		
	P - 18	PLUG, Pipe .....	1		
	WF-16	WASHER, Flat .....	1		
	153676H1	"U" BOLT .....	1		
	WL-16	WASHER, Lock .....	2		
	H - 26	NUT .....	2		
	103489H1	ELBOW .....	1		
	127540H1	BUSHING, Reducer .....	1		



FUEL TANK - U-372

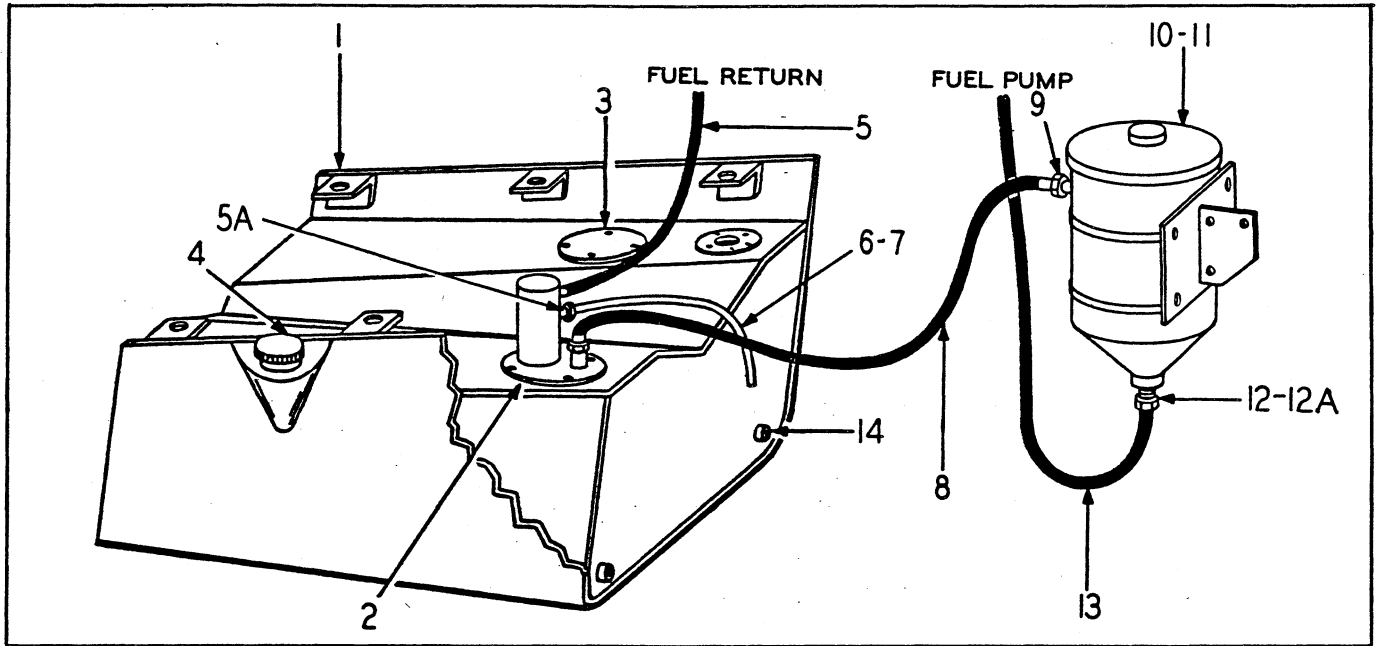
ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	171739H1	TANK, Fuel.....	1		
	S-11016	SCREW, Cap.....	6		
	WL-110	WASHER, Lock.....	6		
	H-110	NUT.....	6		
2	177406H1	TUBE, Filler.....	1		
	S-165	SCREW, Cap.....	4		
	WL-16	WASHER, Lock.....	4		
	155932H1	GASKET.....	1		
3	HA-1279	CAP.....	1		
4	125751H1	COVER, Handhole.....	1		
	S-168	SCREW, Cap.....	4		
	WL-16	WASHER, Lock.....	4		
	155932H1	GASKET.....	1		
5	113228H1	TUBE, Tank to fuel pump.....	1		
6	139436H1	CONNECTOR.....	1		
7	150270H1	COUPLING.....	1		
8	P - 18	PLUG, Pipe.....	2		





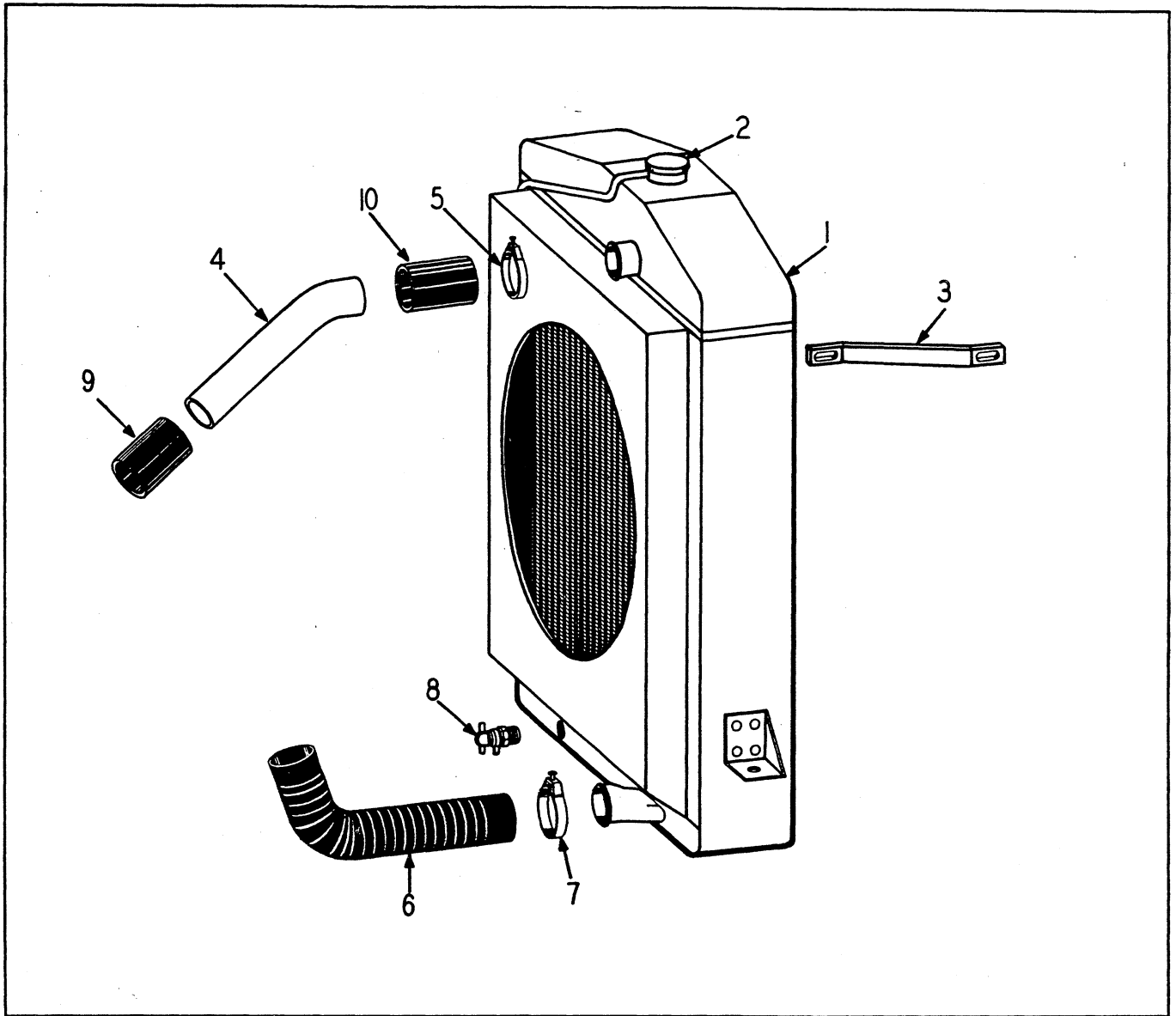
FUEL TANK JF-6-CI

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
		Used on machines of S/N 29AC-1003 thru 29AC-1137			
1	171739H1	TANK, Fuel.....	1		
	S-11016	SCREW, Cap.....	6		
	WL-110	WASHER, Lock.....	6		
		] Tank Mtg.			
2	171740H1	TUBE, Filler.....	1		
	S-165	SCREW, Cap.....	4		
	WL-16	WASHER, Lock.....	4		
	155932H1	GASKET.....	1		
		] Tank Mtg.			
3	HA-1279	CAP.....	1		
4	125751H1	COVER, Handhole.....	1		
	S-165	SCREW, Cap.....	4		
	WL-16	WASHER, Lock.....	4		
	155932H1	GASKET.....	1		
		] Cover Mtg.			
5	171743H1	HOSE, Filter.....	1		
6	125747H1	TUBE, Vent.....	1		
7	HS-972	CONNECTOR.....	1		
8	171745H1	HOSE, Return.....	1		
9	P - 18	PLUG, Pipe.....	2		
	116983H1	CLAMP.....	1		
	102818H1	CLAMP.....	1		



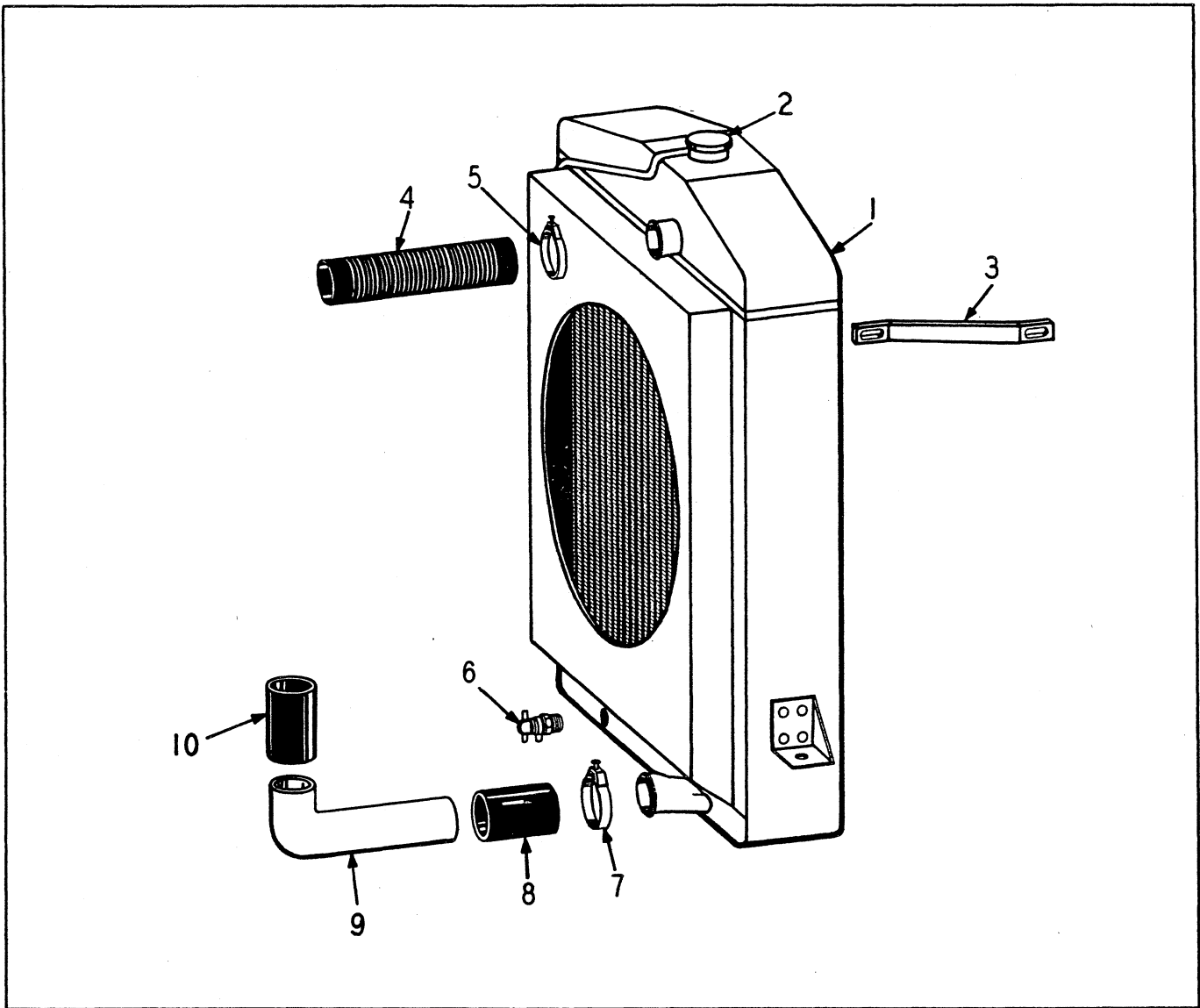
FUEL TANK - JF-6-CI  
Used on machines of S/N 29AC-1138 & Up

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	183635H1	TANK, Fuel .....	1		
	S-11016	SCREW, Cap .....	6		
	WL-110	WASHER, Lock .....	6		
	H-110	NUT .....	6		
2	183636H1	TUBE, Outlet .....	1		
	155932H1	GASKET .....	1		
	S-168	SCREW, Cap .....	4		
	WL-16	WASHER, Lock .....	4		
3	125751H1	COVER, Handhole .....	1		
	155932H1	GASKET .....	1		
	S-168	SCREW, Cap .....	4		
	WL-16	WASHER, Lock .....	4		
4	193481H1	CAP, W/Chain .....	1		
5	171745H1	HOSE, Return .....	1		
5A	103488H1	ELBOW, 90° .....	1		
6	145325H1	TUBE, Vent & Overflow .....	1		
7	HS-972	CONNECTOR .....	1		
8	183237H1	HOSE .....	1		
9	183164H1	ELBOW .....	1		
10	183126H1	FILTER, Fuel (Includes the next two items) .....	1		
	186306H1	ELEMENT .....	1		
	155366H1	GASKET .....	1		
11	183132H1	BRACKET .....	1		
	S-1510	SCREW, Cap .....	4		
	WF-35	WASHER, Flat .....	4		
	WL-15	WASHER, Lock .....	4		
	H - 15	NUT .....	4		
	S-2824	SCREW, Cap .....	2		
	S-2814	SCREW, Cap .....	2		
	WL-18	WASHER, Lock .....	4		
	183134H1	SPACER .....	2		
	186898H1	SPACER .....	2		
12	126559H1	NIPPLE, Close .....	1		
12A	103489H1	ELBOW .....	1		
13	183237H1	HOSE .....	1		
14	P - 18	PLUG, Pipe .....	2		
	116983H1	CLAMP .....	1		
	102818H1	CLAMP .....	1		



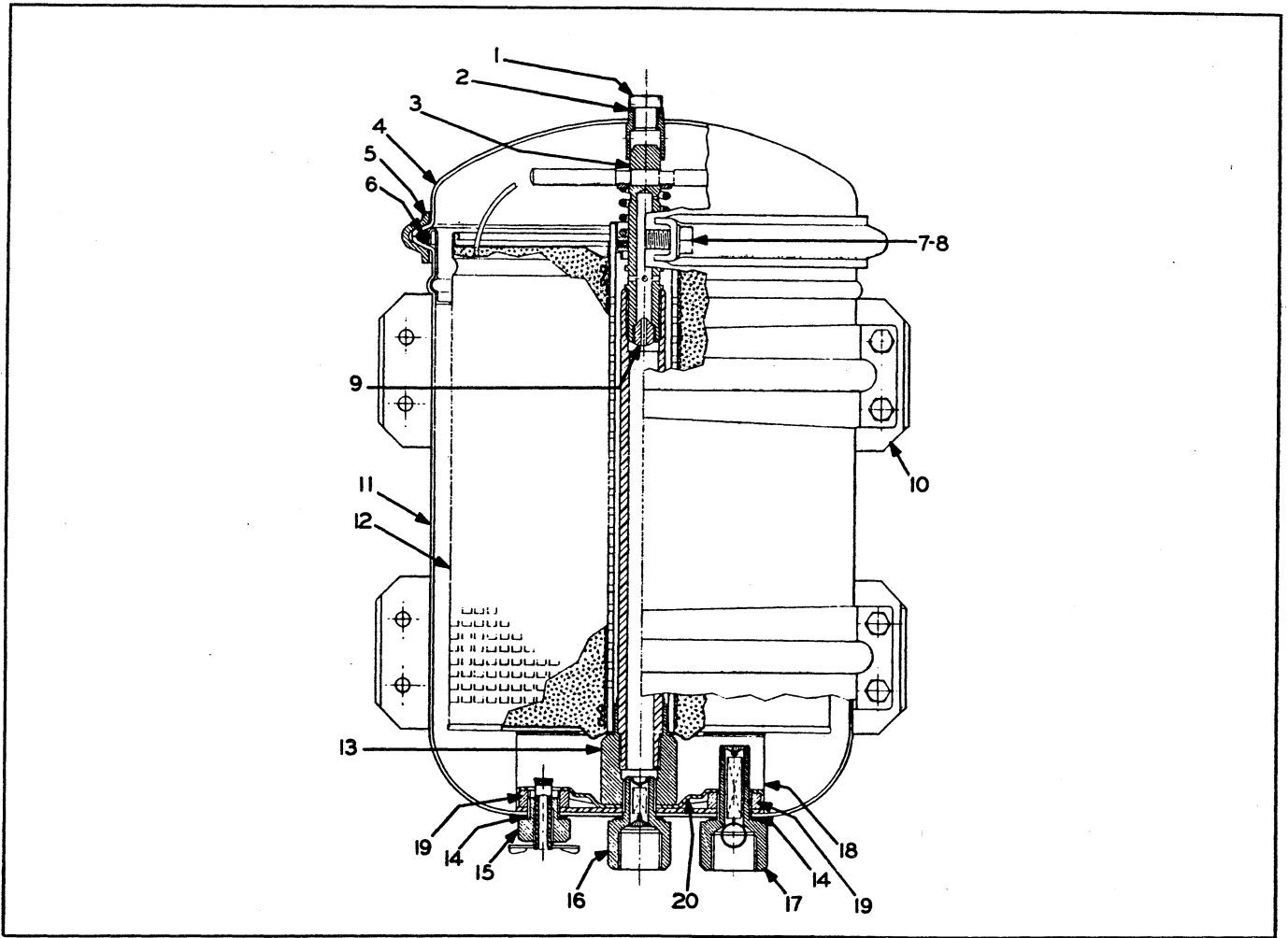
RADIATOR - U-372 & G-372

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	176369H3	RADIATOR, replaces 176369 .....	1		
2	HA-1274	CAP .....	1		
	S-1814	SCREW, Cap .....	2		
	WF-18	WASHER, Flat .....	2		
	E - 18	NUT .....	2		
3	174850H1	TIE BAR .....	2		
	S-168	SCREW, Cap .....	4		
	WF-16	WASHER, Flat .....	4		
	WL-16	WASHER, Lock .....	2		
	E - 16	NUT .....	2		
	165338H1	NUT, Weld .....	2		
4	181098H1	TUBE, replaces 128311 Hose .....	1		
5	153678H1	CLAMP, replaces C-40 .....	4		
6	147550H1	HOSE, replaces 177585 .....	1		
7	153678H1	CLAMP .....	2		
8	112002H1	COCK, Drain .....	1		
9	109758H1	HOSE .....	1		
10	117258H1	HOSE .....	1		



RADIATOR - JF-6-CI

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	176369H3	RADIATOR, replaces 176369 .....	1		
2	HA-1274	CAP.....	1		
	S-1814	SCREW, Cap.....	2		
	WF-18	WASHER, Flat.....	2		
	E-18	NUT.....	2		
3	174850H1	TIE BAR .....	2		
	S-168	SCREW, Cap.....	4		
	WF-16	WASHER, Flat.....	4		
	WL-16	WASHER, Lock.....	2		
	E-16	NUT .....	2		
	165338H1	NUT, Weld.....	2		
4	167725H1	HOSE.....	1		
5	C-40	CLAMP.....	2		
6	112002H1	COCK, Drain .....	1		
7	153678H1	CLAMP, replaces C-42 .....	2		
8	132647H1	HOSE, replaces 177586 ..	1		
9	146937H1	TUBE .....	1		
10	120584H1	HOSE .....	1		
		Replaced by 175726H1 Hose (1)			



LUBER - FINER - JF-6-CI

Used on machines of S/N 29AC-1003 thru 1117

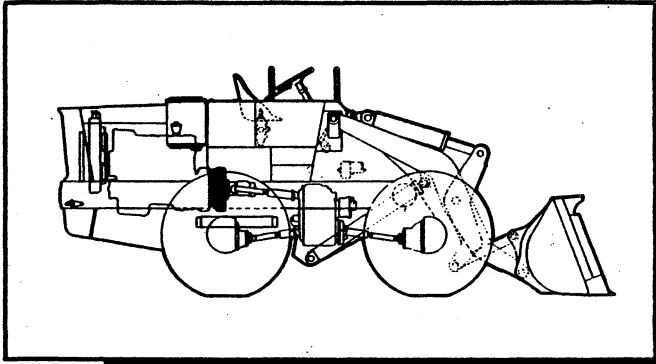
ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	175408H1	FILTER ASSEMBLY (Includes Items 1 thru 19) . . . .	1		
1	151520H1	SCREW, Cap (Vent Plug) . . . . .	1		
2	151521H1	WASHER . . . . .	1		
3	177709H1	PACK HOLD-DOWN ASSEMBLY . . . . .	1		
4	177713H1	COVER . . . . .	1		
5	177710H2	CLAMPING RING ASSEMBLY (Incl. Items 7 & 8) (Replaces 177710) . . . . .	1		
6	151519H1	GASKET, Cover . . . . .	1		
	191621H1	BOLT, (Supply with 177710H2) . . . . .	1		
7	177712H1	NUT . . . . .	1		
8	177711H1	SCREW . . . . .	1		
9	151529H1	PLUG, Orifice . . . . .	1		
10	151532H1	MOUNTING BRACKET . . . . .	2		
11	177707H1	HOUSING . . . . .	1		
12	177716H1	CARTRIDGE . . . . .	1		
13	177708H1	TUBE & NUT ASSEMBLY, Outlet . . . . .	1		
14	151525H1	WASHER . . . . .	3		
15	151522H1	COCK, Drain . . . . .	1		
16	151523H1	CHECK VALVE ASSEMBLY, Outlet . . . . .	1		
17	151524H1	CHECK VALVE ASSEMBLY, Inlet . . . . .	1		
18	151527H1	PACK, Support . . . . .	1		
19	H-310	NUT, (Inlet & Drain Fittings) . . . . .	2		
20	177715H1	RETAINER . . . . .	1		



**SECTION 3**

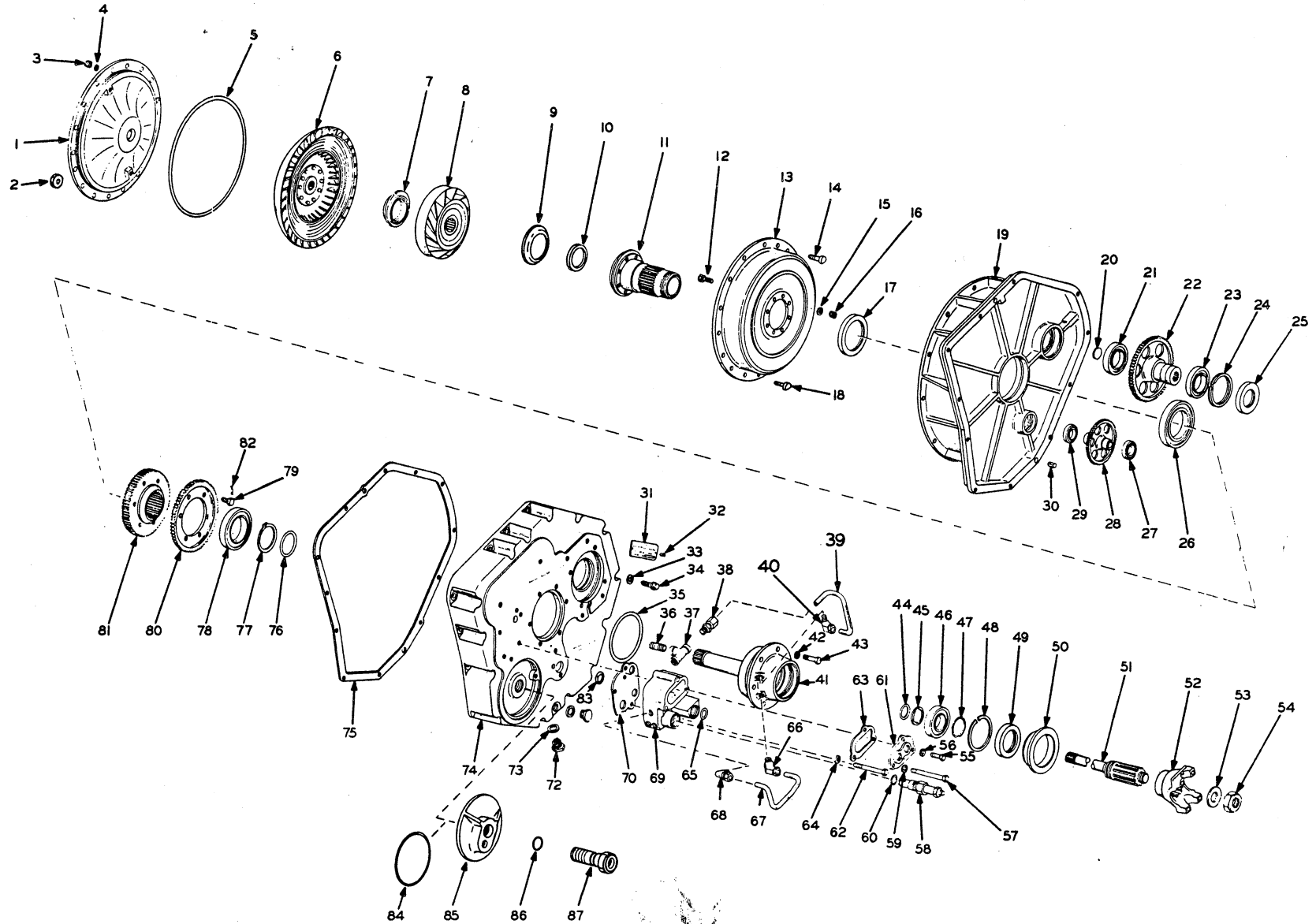
**ACCESSORY  
DRIVE**

**TORQUE  
CONVERTER**



**Table Of Contents**

<b>Group</b>	<b>Page</b>
ACCESSORY DRIVE .....	3-3
PUMP, ACCESSORY DRIVE .....	3-6 & 3-7
TORQUE CONVERTER .....	3-3



TORQUE CONVERTER & ACCESSORY DRIVE



TORQUE CONVERTER & ACCESSORY DRIVE

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	173530H2	TORQUE CONVERTER & ACCESSORY DRIVE ASSY. . .	1	28AH-1001	1390
	205498H1	TORQUE CONVERTER & ACCESSORY DRIVE ASSY. . .	1	29AC-1003	1639 1641
				28AH-1391	& Up
				29AC-1640	42 & Up
1	148460H2	PLATE, Cover . . . . .	1		
2	143274H1	NUT, Spacer (Drive Straps) . . . . .	8		
3	H - 15	NUT . . . . .	10		
4	WL-15	WASHER, Lock . . . . .	10		
5	148459H1	GASKET . . . . .	1		
6	148454H3	TURBINE ASSEMBLY . . . . .	1		
7	173536H1	WASHER, Thrust . . . . .	1		
8	173531H3	STATOR ASSEMBLY, replaces 173531H1 . . . . .	1		
9	151506H1	SPACER . . . . .	AR		
	151507H1	SPACER . . . . .	AR		
	151508H1	SPACER . . . . .	AR		
		Use 1 as required			
10	OR3-6	"O" RING . . . . .	1		
11	147945H1	HUB, Impeller . . . . .	1		
12	143276H1	SCREW, Cap . . . . .	8		
13	148440H2	IMPELLER . . . . .	1		
14	148461H1	BOLT, Cover . . . . .	10		
15	OR4-5	"O" RING . . . . .	8		
16	143294H1	NUT, Lock . . . . .	8		
17	130005H1	SEAL . . . . .	1		
18	143273H1	BOLT, Cover . . . . .	8		
19	129301H1	HOUSING, Converter . . . . .	1		
	207713H1	GEAR ASSEMBLY (Includes Items 20 & 22) (Replaces 161808H1) . . . . .	1		
20	131197H1	PLUG, Expansion . . . . .	1		
	103495H1	ELBOW, 45° Street . . . . .	1		
21	118524H1	BEARING, Ball . . . . .	2		
	152127H1	BREATHER . . . . .	1		
22		GEAR (76T) (Order 161808H1) . . . . .	1		
23	118524H1	BEARING, Ball . . . . .	1		
24	130009H1	RING, Retaining . . . . .	1		
25	146458H1	SEAL . . . . .	1		
26	130006H1	BEARING, Ball . . . . .	1		
27	118515H1	BEARING, Ball . . . . .	2		
28#	130010H1	GEAR (54T) . . . . .	1		
28*	174518H1	GEAR (54T) . . . . .	1		
29	118515H1	BEARING, Ball . . . . .	1		
30	116641H1	DOWEL . . . . .	2		
31	123246H1	PLATE, Identification . . . . .	1		
32	123250H1	SCREW, Drive . . . . .	2		
33	WL-16	WASHER, Lock . . . . .	12		
34	141095H1	SCREW . . . . .	12		
35	OR3-26	"O" RING . . . . .	1		
36	109820H1	NIPPLE, Pipe . . . . .	1		
37	103507H1	TEE, Pipe . . . . .	1		
38	143149H1	CONNECTOR . . . . .	1	28AH-1315 & Up	
39	152981H1	TUBE . . . . .	1	29AC-1468 & Up	
40	152983H1	ELBOW ASSEMBLY . . . . .	1		
41	163872H2	SHAFT & CAP ASSEMBLY (Includes 147951H1 Dowel) . . . . .	1		
42	WL-16	WASHER, Lock . . . . .	6		
43	S-268	SCREW, Cap . . . . .	6		
44	130031H1	RING, Seal . . . . .	1		
45	130030H1	RING, Retaining . . . . .	1		
46	130029H1	BEARING, Ball . . . . .	1		
47	142562H1	GASKET . . . . .	1		
48	135310H1	RING, Retaining . . . . .	1		
49	129370H1	SEAL, Oil . . . . .	1		
50	131193H1	RETAINER, Seal . . . . .	1		
51	143280H3	SHAFT, Converter . . . . .	1		

(Continued on following page)

TORQUE CONVERTER & ACCESSORY DRIVE (Continued)

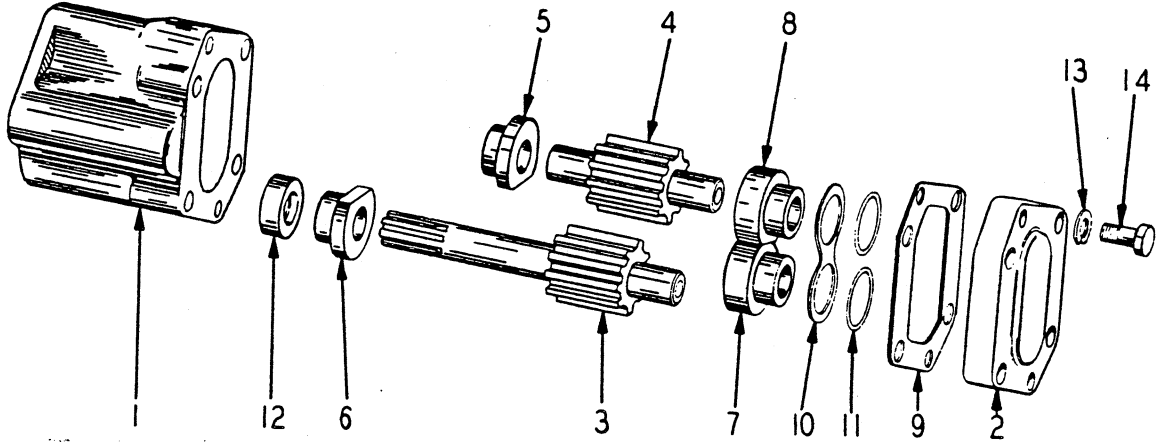
ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	197938H1	SPACER .....	1		
	124161H1	RING, Retaining .....	AR		
	197941H1	SHIM .020 .....	AR		
	197942H1	SHIM .030 .....	AR		
	197943H1	SHIM .060 .....	AR		
52	151797H1	YOKE, Universal Joint .....	1		
53	130033H1	WASHER, Flat .....	1		
	174663H1	GASKET .....	1		
54	123298H1	NUT .....	1		
55	141095H1	SCREW, Cap .....	1		
56	WL-16	WASHER, Lock .....	1		
57	188791H1	SCREW, Cap .....	2		
58	148510H1	VALVE, Pressure Regulating .....	1		
59	WL-16	WASHER, Lock .....	3		
60	OR4-14	"O" RING .....	1		
61	130052H2	COVER .....	1		
62	S-2622	SCREW, Cap .....	1		
63	130051H1	GASKET .....	1		
64	WL-16	WASHER, Lock .....	1		
65	OR4-11	"O" RING .....	3		
66	152983H1	ELBOW ASSEMBLY .....	1		
	P - 16	PLUG .....	1		
67	152982H1	TUBE .....	1		
68	129554H1	ELBOW ASSEMBLY .....	1		
69	153009H1	BODY, Pressure Regulating Valve .....	1		
	135081H1	REDUCER .....	1		
	103487H1	ELBOW, 90° .....	1		
	P - 14	PLUG .....	1		
70	149348H1	GASKET .....	1		
72	121508H1	PLUG, Pipe .....	1		
73	114851H1	WASHER, Flat .....	1		
74#	155448H2	HOUSING, Front replaces 155448H1 .....	1		
74*	205359H1	HOUSING, Front .....	1		
75	130021H1	GASKET .....	1		
76	130018H1	RING, Seal .....	1		
77	129557H1	RING, Retaining .....	1		
78	130016H1	BEARING, Ball .....	1		
	133514H1	GEAR ASSEMBLY (Includes Items 79 thru 82) .....	1		
79	130015H1	SCREW, Cap .....	6		
80	130014H1	GEAR (82T) .....	1		
81	130013H1	GEAR (75T) .....	1		
82	LW-1620	WIRE, Lock .....	1		
83#	OR4-14	"O" RING .....	1		
84#	OR3-33	"O" RING .....	1		
85#	173925H1	CAP, Oil Filter Supply .....	1		
86#	OR4-20	"O" RING .....	1		
87#	173924H1	SHAFT, Oil Return .....	1		
	142896H1	GASKET KIT (Includes the following) .....	1		
	130021H1	GASKET, Front Housing to Converter Housing .....	1		
	132259H1	GASKET, Oil Pump to Front Housing .....	1		
*	174660H1	GASKET, Oil Pump to Front Housing .....	1		
*	S-2610	SCREW, Cap .....	2		
*	WL-16	WASHER, Lock .....	2		
	130051H1	GASKET, Relief Valve Cover to Body .....	1		
	142562H1	GASKET, Between Fitting Yoke and Bearing .....	1		
	149348H1	GASKET, Relief Valve to Front Housing .....	1		
	142898H1	"O" RING KIT (Includes the following) .....	1		
	OR3-26	"O" RING, Stator Shaft & Cap Assembly .....	1		
	OR4-14	"O" RING, Oil Pump to Front Housing .....	1		
	OR4-14	"O" RING, Relief Valve to Front Housing .....	1		
	OR3-33	"O" RING, Cap to Front Housing .....	3		

(Continued on following page)

TORQUE CONVERTER & ACCESSORY DRIVE (Continued)

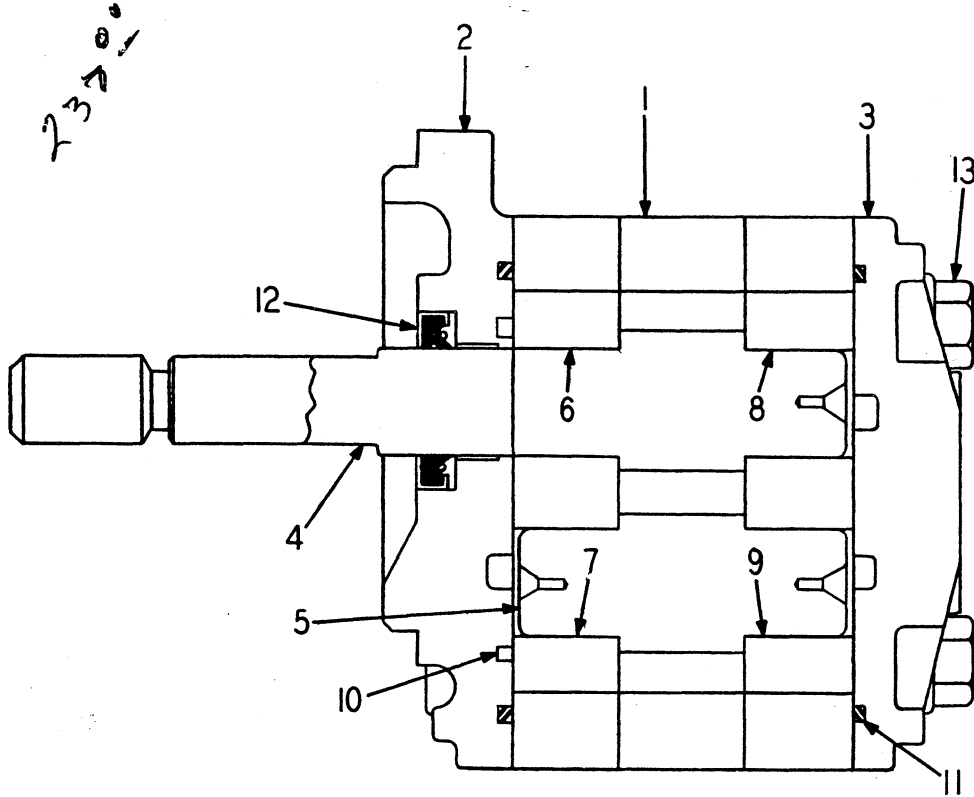
ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	OR4-11	"O" RING, Relief Valve to Front Housing .....	1		
	OR4-20	"O" RING, Shaft to Cap Assembly .....	1		
	142901H2	OIL SEAL KIT (Includes the following) .....	1		
	130005H1	SEAL, Converter Housing to Shaft .....	1		
	129370H1	SEAL, Adapter to Output Yoke .....	1		
	146458H1	SEAL, Pump Drive Gear .....	1		
	141095H1	SCREW, Cap .....	12		
	WL-16	WASHER, Lock .....	12		
		<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">} Converter Housing</div> </div>			
		<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">} to Flywheel Housing</div> </div>			
		# All parts marked with a # are for machines of S/N 28AH-1001 thru 1390 and 29AC-1003 thru 1639 and 1641.			
		* All parts marked with an * are for machines of S/N 28AH-1391 & up & 29AC-1640, 1642 and up.			

338001



PUMP ACCESSORY DRIVE

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	132258H1 ✓	PUMP COMPLETE .....	1	28AH-1001	1390
2	134830H1	BODY .....	1	29AC-1003	1639 & 1641
3	134831H1	COVER .....	1		
4		GEAR, Drive .....	1		
5		GEAR, Driven .....	1		
6		BEARING, Body .....	1		
7		BEARING, Body .....	1		
8		BEARING, Cover .....	1		
9		BEARING, Cover .....	1		
10		GASKET .....	1		
11		SPRING .....	1		
12		"O" RING .....	2		
13		SEAL, Shaft .....	1		
14		WASHER .....	4		
		SCREW, Cap .....	4		
	151835H1	MAJOR REPAIR KIT (Incl. Items 5, 6, 7, 8, 10, 13, 14 and 151834H1 Minor Repair Kit) .....			
	151834H1	MINOR REPAIR KIT (Incl. Items 9, 11 and 12) .....			
	151836H1	GEAR KIT (Incl. Items 3 and 4) .....			
	132259H1	GASKET (Pump to Torque Converter) .....	1		
	S-2428	SCREW, Cap .....	2		
	WL-14	WASHER, Lock .....	2		
		]- Pump Mounting			



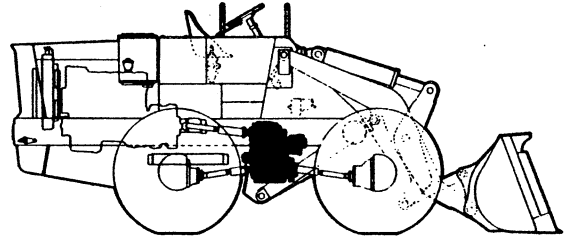
PUMP ACCESSORY DRIVE

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	205256H1	PUMP COMPLETE .....	1	28AH-1391	& Up
2	185396H1	BODY .....	1	29AC-1640	42 & Up
3	185397H1	COVER, Front .....	1		
4	185398H1	COVER, Rear .....	1		
5		GEAR, Drive .....	1		
6		GEAR, Driven .....	1		
7		BEARING, Body .....	1		
8		BEARING, Body .....	1		
9		BEARING, Cover .....	1		
10		BEARING, Cover .....	1		
11		GASKET .....	1		
12		SEAL .....	2		
13		SEAL, Shaft .....	1		
		SCREW, Cap .....	4		
	212527H1	MAJOR REPAIR KIT (Incl. Items 6, 7, 8, 9, 13 and 212529H1 Minor Repair Kit) .....	1		
	212529H1	MINOR REPAIR KIT (Incl. Items 10, 11 and 12) ..	1		
	212528H1	GEAR KIT (Incl. Items 4 and 5) .....	1		
	174662H1	ADAPTER .....	1		
	S-2610	SCREW, Cap .....	2		
	WL-16	WASHER, Lock .....	2		
	186219H1	SCREW, Ferry Head .....	1		
	S-147	SCREW, Cap .....	1		
	WL-14	WASHER, Lock .....	1		
	174660H1	GASKET, Pump to Torque Converter .....	1		



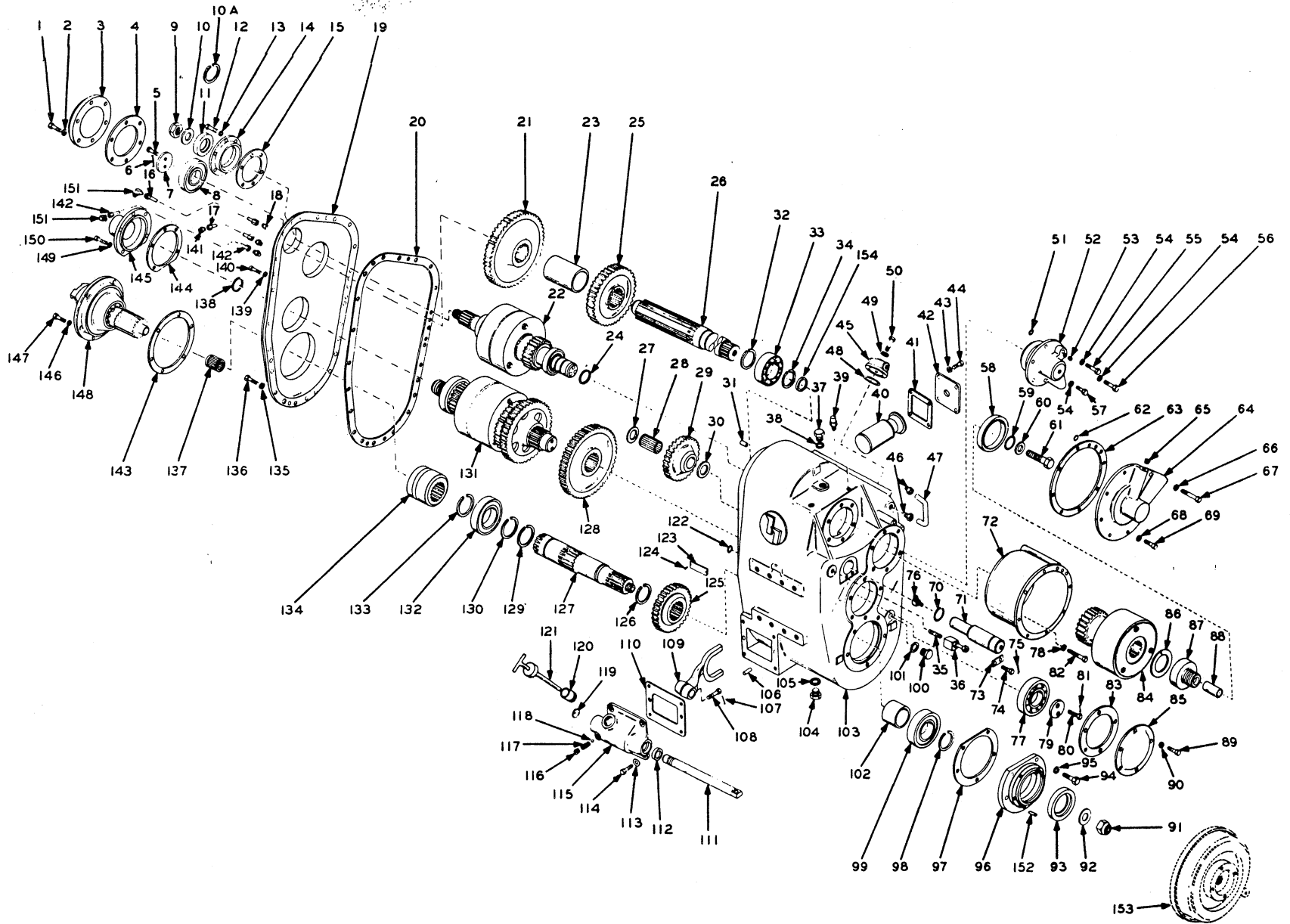
# SECTION 4

# TRANSMISSION



## Table Of Contents

<b>Group</b>	<b>Page</b>
BRAKE, PARKING .....	4-11
CLUTCH ASSEMBLY, 1st GEAR .....	4-7
CLUTCH ASSEMBLY, 2nd & 3rd GEAR .....	4-8
CLUTCH ASSEMBLY, FORWARD & REVERSE ....	4-9
SHAFT, REAR OUTPUT .....	4-10
TRANSMISSION COMPLETE .....	4-3
VALVE, TRANSMISSION .....	4-12



TRANSMISSION



TRANSMISSION

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	# 173822	TRANSMISSION ASSEMBLY (Incl. Items 1 thru 154)...	1		
	142895	GASKET SET (Incl. Items 4, 15, 20, 41, 83, 97, 110, 143 and 144) .....	AR		
	142899	SEAL KIT (Incl. Items 11 and 93) .....	1		
	187452	"O" RING KIT, Consists of "O" Rings -			
	16	OR4-7 Bushing to Tube 5 126563			Dynaseal Washer, 1/2 Dia Screw
	16	146898 Bushing to Hsg. 1 OR3-6			Manifold to Case
	1	OR4-27 Rev. Idler Shaft 6 OR4-9			Trans. Cont. Valve
	3	OR4-11 Lube Tubes 1 OR2-8			Trans. Cont. Valve
	5	133600 Piston Seal Ring OD 1 OR4-19			Trans. Cont. Valve
	5	133601 Piston Seal Ring ID 1 OR2-12			Trans. Cont. Valve
	3	OR4-9 Cap Clutch Assy. 1 OR4-6			Trans. Cont. Valve
	4	OR4-9 Cap, Oil Supply 1 OR4-16			Relief Valve
	12	125003 Dynaseal Washer, 3/8 Dia. Screw			
1	S-268	SCREW, Cap .....	6		
2	WL-16	WASHER, Lock .....	6		
3	116610	CAP, Countershaft .....	1		
4	116611	GASKET, Cap .....	1		
5	S-266-D	SCREW, Cap .....	2		
6	LW-187	WIRE .....	1		
7	116623	WASHER, Retaining .....	1		
8	116598	BEARING, Ball .....	1		
9	123298	NUT .....	1		
10	WF-316	WASHER, Flat .....	1		
10A	114362	RING, Retaining .....	1		
11	104705	SEAL .....	1		
12	S-268	SCREW, Cap .....	6		
13	WL-16	WASHER, Lock .....	6		
14	116608	CAP, Shaft, Input .....	1		
15	116609	GASKET, Cap .....	1		
16	152125	TUBE, 3rd Gear .....	1		
17	143052	TUBE, 2nd Gear .....	1		
18	129553	ADAPTER, Straight .....	3		
19	143053	COVER, Transmission .....	1		
20	125524	GASKET .....	1		
21	125563	GEAR, Spur, 55 Teeth .....	1		
22	# 163403	CLUTCH ASSEMBLY, Forward and Reverse (Incl. All Items Shown on Page 4-9) .....	1		
23	125564	SPACER .....	1		
24	129509	RING, Seal .....	3		
25	159658	GEAR, Spur, 37 Teeth .....	1		
	156972H2	COUNTERSHAFT ASSEMBLY (Includes Upper Countershaft #157196H2 & Items 32 thru 34) See Service Note at end of list.	1		
	190994	COUNTERSHAFT ASSEMBLY (Includes Upper Countershaft #190919 & Items 32 thru 34) See Service Note at end of list.	1		
26	157196H2	COUNTERSHAFT, Upper, Part of #156972H2 .....	1		
26	190919	COUNTERSHAFT, Upper, Part of #190994 .....	1		
27	150429	WASHER, Flat .....	1		
28	125522	BEARING, Roller .....	1		
29	159653	IDLER GEAR, 30 Teeth .....	1		
30	150429	WASHER, Flat .....	1		
31	116641	PIN, Dowel .....	2		
32	125566	RING, Retaining .....	1		
33	118046	BEARING, Ball .....	1		
34	125567	RING, Retaining .....	1		
35	180871	NIPPLE, Pipe .....	1		
36	153005	VALVE ASSEMBLY, Relief (Includes the following 4 Items) .....	1		
	155522	CARTRIDGE ASSEMBLY .....	1		
	OR4-16	"O" RING .....	1		
	OR4-11	"O" RING .....	1		
	NSS	BODY .....	1		
37	116716	PLUG .....	1		
38	114851	WASHER .....	3		

(Continued on following page)

TRANSMISSION (Continued)

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
39	152127	BREATHER .....	1		
40	129569	STRAINER ELEMENT, Sediment .....	1		
41	129570	GASKET, Cover .....	1		
42	129568	COVER, Strainer .....	1		
43	WL-16	WASHER, Lock .....	4		
44	S-268	SCREW, Cap .....	4		
45	140734	MANIFOLD AND RELIEF VALVE ASSEMBLY .....	1		
46	127302	ADAPTER, Straight, Pipe to Tube .....	2		
47	137572	TUBE .....	1		
48	OR3-6	"O" RING .....	1		
49	125003	WASHER .....	1		
50	S-2618	SCREW, Cap .....	1		
51	OR4-9	"O" RING .....	3		
52	125560	CAP .....	1		
53	139509	PLUG, Pipe .....	6		
54	125003	WASHER .....	6		
55	S-2618	SCREW, Cap .....	1		
56	S-2614	SCREW, Cap .....	1		
57	S-268	SCREW, Cap .....	4		
58	157197	BEARING, Roller .....	1		
59	129509	RING, Seal .....	2		
60	189926	WASHER, Lock .....	1		
61	129508H2	SCREW, Cap .....	1		
62	OR4-9	"O" RING .....	4		
63	129513	GASKET .....	1		
64	156949	COVER, Gear, 1st Gear .....	1		
65	139509	PLUG, Pipe .....	2		
66	WL-16	WASHER, Lock .....	1		
67	S-2618	SCREW, Cap .....	1		
68	WL-16	WASHER, Lock .....	7		
69	S-2610	SCREW, Cap .....	7		
70	OR4-27	"O" RING .....	1		
71	157209	SHAFT, Idler Gear .....	1		
72	129510	HOUSING, Clutch .....	1		
73	125523	PLATE, Lock .....	1		
74	S-266-D	SCREW, Cap .....	2		
75	LW-187	WIRE, Lock .....	1		
76	113081	ELBOW .....	1		
77	120261	BEARING, Roller .....	1		
78	WL-16	WASHER, Lock .....	6		
79	116623	WASHER, Retaining .....	1		
80	S-266-D	SCREW, Cap .....	2		
81	LW-187	WIRE, Lock .....	1		
82	S-2616	SCREW, Cap .....	6		
83	129548	GASKET .....	1		
84	163402H2	CLUTCH ASSEMBLY, 1st Gear (Replaced #163402) For Service Parts .....	1		
		See Page 4-7 .....	1		
84	163402H3	CLUTCH ASSEMBLY, 1st Gear (Replaced #163402H2) For Service Parts .....	1		
		See Page 4-7 .....	1		
85	129549	CAP .....	1		
		NOTE: Parts below indicated by an asterisk * will be replaced by #189329 Cylinder & Sleeve Assembly, and a Lockwasher #189926 on future units.			
*86	156971H2	GASKET, Clutch Replaces 156971 .....	1		
*	156939H3	HUB ASSEMBLY (Incl. Items 87 & 88) Replaces 156939	1		
*87	NSS	HUB .....	1		
*88	NSS	SLEEVE .....	1		
*	S-2616	SCREW, Cap .....	4		
*	WL-166	WASHER, Lock..... } Hub Attaching	4		
	189329	CYLINDER & SLEEVE ASSEMBLY .....	1		
	189926	WASHER, Lock (Use with #189329) .....	1		

(Continued on following page)

TRANSMISSION (Continued)

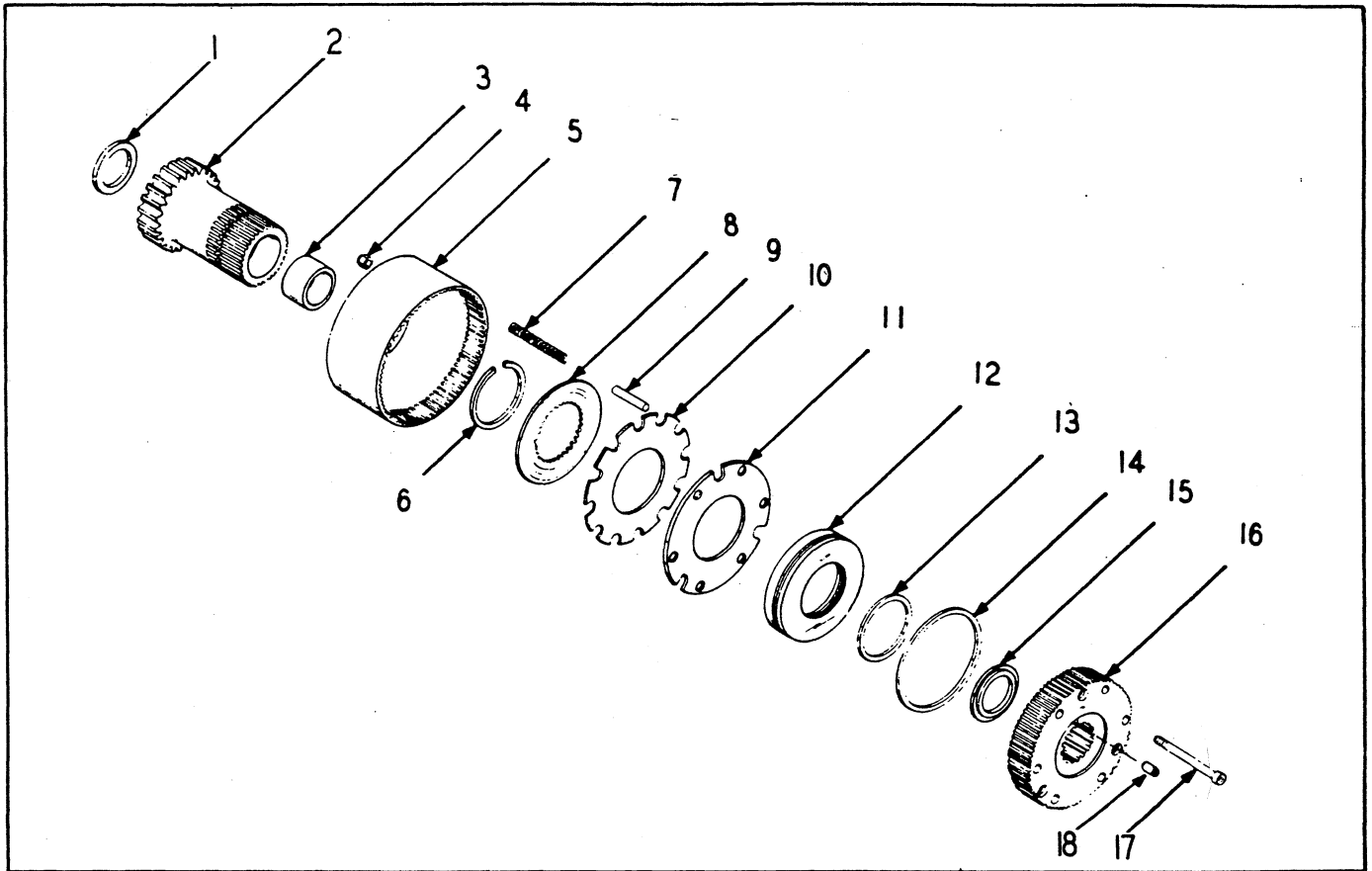
ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
89	S-268	SCREW, Cap .....	5		
90	125003H1	WASHER .....	5		
91	123298H1	NUT .....	1		
92	137974H1	WASHER, Flat .....	1		
93	130534H1	SEAL .....	1		
94	S-2812	SCREW, Cap .....	5		
95	126563H1	WASHER .....	5		
	199157H1	ADAPTER ASSEMBLY (Includes items 93 & 96).....	1		
96	137663H1	CAP .....	1		
97	129560H1	GASKET, Adapter .....	1		
98	118060H1	RING, Retaining .....	1		
99	120260H1	BEARING, Ball .....	1		
100	169320H1	PLUG .....	1		
101	114851H1	WASHER, Flat .....	1		
102	129559H1	SPACER .....	1		
	160000H1	HOUSING & TUBE ASSEMBLY (Incl. next 12 items) ...	1		
103	NSS	HOUSING, Main .....	1		
	125511H1	TUBE, Forward Clutch .....	1		
	125512H1	TUBE, Reverse Clutch.....	1		
	125513H1	TUBE, First Gear Clutch .....	1		
	125514H1	TUBE, First Gear Lube .....	1		
	125515H1	TUBE, Forward and Reverse Lube .....	1		
	125516H1	TUBE, Second and Third Gear Lube .....	1		
	125517H1	TUBE, Second Gear Clutch .....	1		
	125518H1	TUBE, Third Gear Clutch .....	1		
	OR4-7	"O" RING .....	16		
	125509H1	BUSHING, Sleeve.....	16		
	146898H1	WASHER .....	16		
	121508H1	PLUG, Magnetic .....	1		
105	114851H1	WASHER, Flat .....	1		
106	116594H1	PIN .....	2		
107	LW-187	WIRE .....	1		
108	116148H1	SCREW, Lock .....	1		
109	120268H1	FORK, Shifting .....	1		
110	120275H1	GASKET .....	1		
111	120267H1	RAIL, Shifting .....	1		
112	116596H1	SEAL .....	1		
113	WL-16	WASHER, Lock .....	4		
114	S-267	SCREW, Cap .....	4		
115	159210H1	HOUSING, Shifter .....	1		
116	116593H1	SETSCREW .....	1		
117	116640H1	SPRING .....	1		
118	115451H1	BEARING, Ball .....	1		
119	116595H1	PLUG, Expansion .....	1		
120	171649H1	PIPE, Dipstick .....	1		
121	171650H1	DIPSTICK .....	1		
122	OR4-11	"O" RING .....	3		
123	NSS	PLATE, Identification .....	1		
124	123250H1	SCREW, Drive .....	2		
125	159045H1	GEAR, 30 Teeth .....	1		
126	130537H1	RING, Retaining .....	1		
127	156960H1	SHAFT, Output .....	1		
128	129547H1	GEAR, 53 Teeth.....	1		
129	125566H1	RING, Retaining .....	1		
130	129557H1	RING, Retaining .....	1		
131	173824H2	CLUTCH ASSEMBLY, 2nd and 3rd Gear (Includes all items shown on Page 4-8) .....	1		
132	129556H1	BEARING, Ball .....	1		
133	129557H1	RING, Retaining .....	1		
134	156968H1	CLUTCH, Sliding Sleeve .....	1		
135	WL-16	WASHER, Lock .....	19		
136	S-2610	SCREW, Cap .....	19		
137	156963H1	BEARING, Roller .....	1		
138	129509H1	RING, Seal .....	3		
139	WL-16	WASHER, Lock .....	2		

(Continued on following page)

TRANSMISSION (Continued)

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
140	143049	SCREW, Cap, Counter Bore .....	2		
141	129553	ADAPTER, Straight, Pipe to Tube .....	1		
142	143051	TUBE, 2nd & 3rd Lube .....	1		
143	120248	GASKET .....	1		
144	120243	GASKET .....	1		
145	129551	CAP .....	1		
	139509	PLUG, Pipe .....	2		
146	WL-16	WASHER, Lock .....	6		
147	S-268	SCREW, Cap .....	6		
148	NSS	SHAFT ASSEMBLY, Rear Output (See Page 4-10 .....	1		
149	WL-16	WASHER, Lock .....	6		
150	S-268	SCREW, Cap .....	6		
151	129554	ELBOW, Pipe to Tube .....	2		
152	137660	PIN .....	1		
153		BRAKE, Parking (See Page 4-11) .....	1		
154	178828	SPACER, Used with upper countershaft #157196 .....	1		
154	188645	RING, Retaining, Used with upper countershaft #157196H2 .....	1		
		*Service Note: On orders for #156972H2 Upper Countershaft Assy., #190994 Shaft will be supplied together with 1 189329 Cylinder & Sleeve Assy., & 1 189926 Lockwasher.			

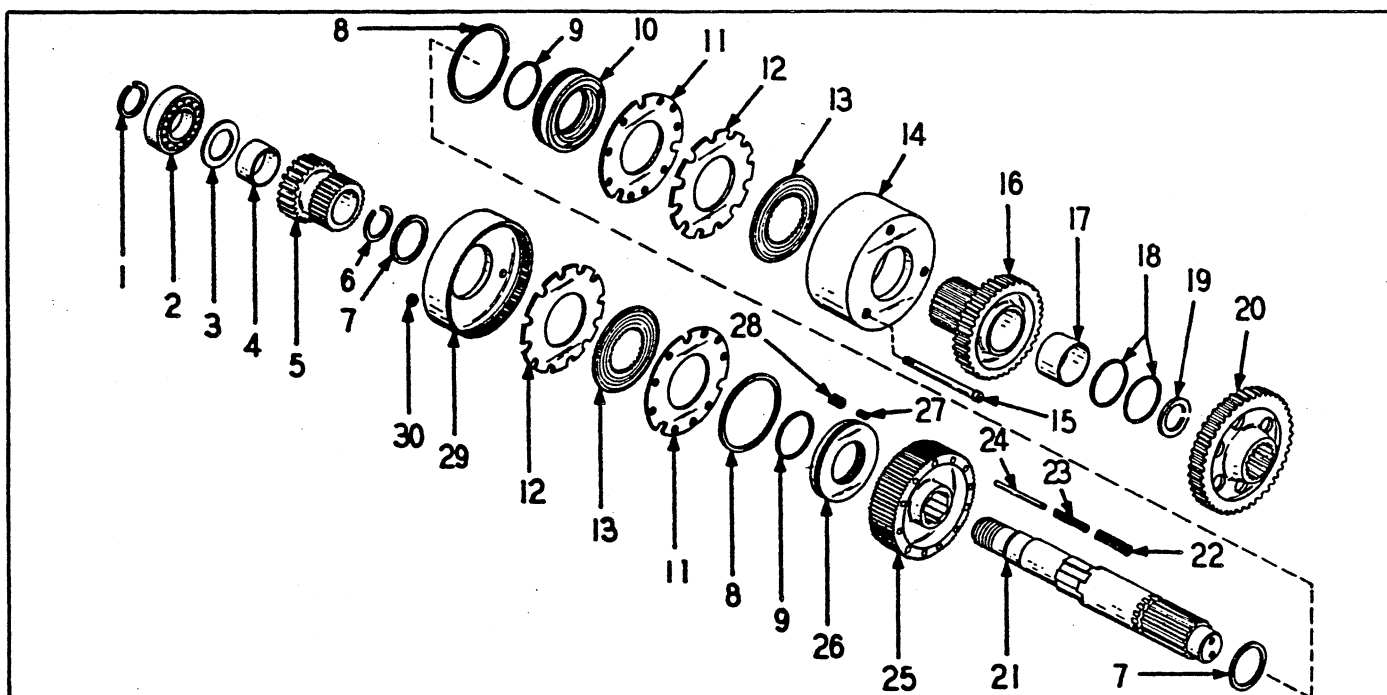
Suffix H1 should be applied to all Hough six digit numbers unless advanced.



CLUTCH ASSEMBLY -1st GEAR

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
*	163402H2	CLUTCH ASSEMBLY, 1st Gear, Includes parts marked * in addition to unmarked common parts. Replaces 163402	1		
#	163402H3	CLUTCH ASSEMBLY, 1st Gear, Includes parts marked # in addition to unmarked common parts. Replaces #163402H2.	1		
1	150432	WASHER	1		
*	125570H2	GEAR ASSEMBLY, Includes Items 2 & 3 Replaces 125570	1		
#	125570H3	GEAR ASSEMBLY, Includes Items 2 & 3	1		
2	NSS	GEAR	1		
3	NSS	BUSHING	3		
4	125553	NUT	3		
5	129505	PLATE, Backing	1		
6	125573	RING, Retaining	1		
7	129504	SPRING	6		
8	125504	PLATE, Clutch	13		
9	129503	GUIDE, Spring	6		
10	125505	PLATE, Clutch	12		
11	125506	PLATE, Spring Retaining	1		
12	129502H2	PISTON Replaces 129502	1		
13	133601	RING, Seal	1		
14	133600	RING, Seal	1		
15	150427	WASHER, Thrust	1		
*16	157185H2	CYLINDER Replaces 157185	1		
#16	189329	CYLINDER & SLEEVE (Includes Inner Race #189328)	1		
17	129506	SCREW, Cap	3		
*18	176417	PIN, Dowel	1		

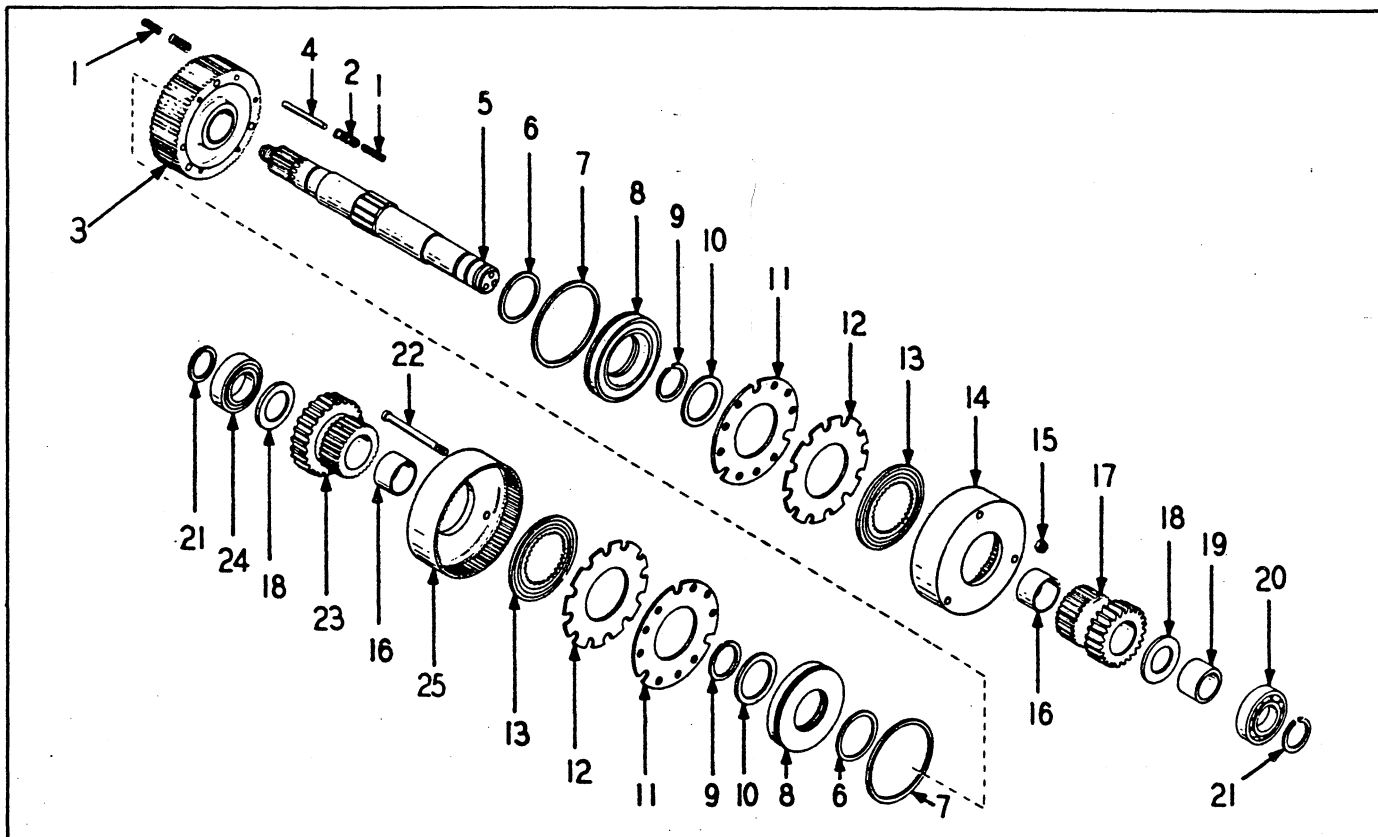
Suffix H1 should be applied to all Hough six digit numbers unless advanced.



CLUTCH ASSEMBLY 2nd & 3rd GEAR

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	# 173824	CLUTCH ASSEMBLY, 2nd & 3rd Gear	1		
2	116719	RING, Retaining	1		
3	116598	BEARING, Ball	1		
3	150431	WASHER	1		
	129523H2	GEAR ASSEMBLY, Includes Items 4 & 5 W/Staked Bushing, Start on Trans. S/N T50-3-2198	1		
	129523H3	GEAR ASSEMBLY, Includes Items 4 & 5. Replaces #129523H2	1		
4	NSS	BUSHING	2		
5	NSS	GEAR	1		
6	156970	RING, Retaining	1		
7	175217	WASHER	2		
8	133600	RING, Seal	2		
9	133601	RING, Seal	2		
10	129535H2	PISTON Replaces 159535	1		
11	129529	PLATE, Spring Retaining	2		
12	125505	PLATE, Clutch	14		
13	125504	PLATE, Clutch	16		
14	129538	PLATE, Backing	1		
15	129539	SCREW, Cap	3		
	159659H2	GEAR ASSEMBLY, Includes Items 16 & 17 W/Staked Bushing. Start on Trans. S/N T50-3-2198	1		
	159659H3	GEAR ASSEMBLY, Includes Items 16 & 17 Replaces #159659H2	1		
16	NSS	GEAR 39T	1		
17	NSS	BUSHING	2		
18	150434	WASHER	2		
19	134466	RING, Retaining	1		
20	159044	GEAR, Spur	1		
21	157187	SHAFT ASSEMBLY	1		
22	129537	SPRING	9		
23	129536	SPRING	9		
24	129530	GUIDE, Spring	9		
25	156938	CYLINDER	1		
26	129528H2	PISTON Replaces 129528	1		
27	129532	SPRING	9		
28	129531	SPRING	9		
29	129533	PLATE, Backing	1		
30	125553	NUT	3		

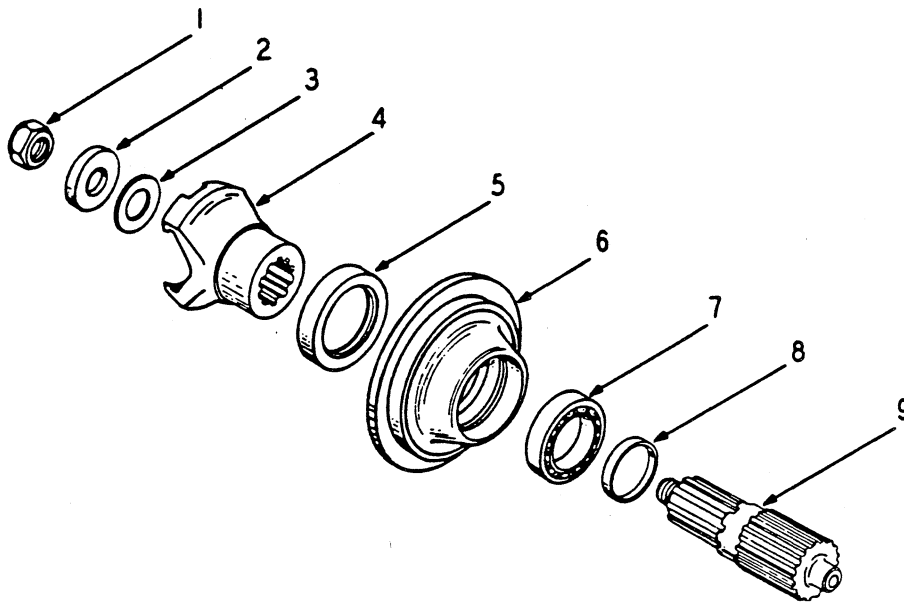
Suffix H1 should be applied to all Hough six digit numbers unless advanced. # Suffix H2 should be applied to these Hough numbers.



CLUTCH ASSEMBLY - FORWARD & REVERSE

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	163403	CLUTCH ASSEMBLY, Fwd. & Rev. ....	1		
1	125549	SPRING .....	12		
2	125548	SPRING .....	12		
3	157180	CYLINDER .....	1		
4	125545	PIN .....	6		
5	157178	SHAFT ASSEMBLY .....	1		
6	133601	RING, Seal .....	2		
7	133600	RING, Seal .....	2		
8	125541H2	PISTON Replaces 125541 .....	2		
9	156970	RING, Retaining .....	2		
10	175217	WASHER, Thrust .....	2		
11	129529	PLATE, Spring Retaining .....	2		
12	125505	PLATE, Clutch .....	12		
13	125504	PLATE, Clutch .....	14		
14	125551	PLATE, Backing .....	1		
15	125553	NUT .....	3		
	159655H2	GEAR ASSEMBLY, W/Staked Bushings, Incl. Items 16 & 17. On Trans. of S/N T50-3-2198 .....	1		
	159655H3	GEAR ASSEMBLY, Incl. Items 16 & 17 Replaces #159655H2 .....	1		
16	NSS	BEARING, Sleeve .....	1		
17	NSS	GEAR, Spur .....	1		
18	150433	WASHER .....	2		
19	150430	SPACER, Sleeve .....	1		
20	104706	BEARING, Ball .....	1		
21	114362	RING, Retaining .....	2		
22	125552	SCREW, Cap .....	3		
	125536H2	GEAR ASSEMBLY, W/Staked Bushings, Include Item 23 & 2 of Item 16 on Trans. S/N T50-3-2198 .....	1		
	125536H3	GEAR ASSEMBLY, Includes Item 23 & 2 of Item 16 Replaces #125536H2.....	1		
23	NSS	GEAR, Spur .....	1		
24	116599	BEARING, Ball .....	1		
25	125551	PLATE, Backing .....	1		

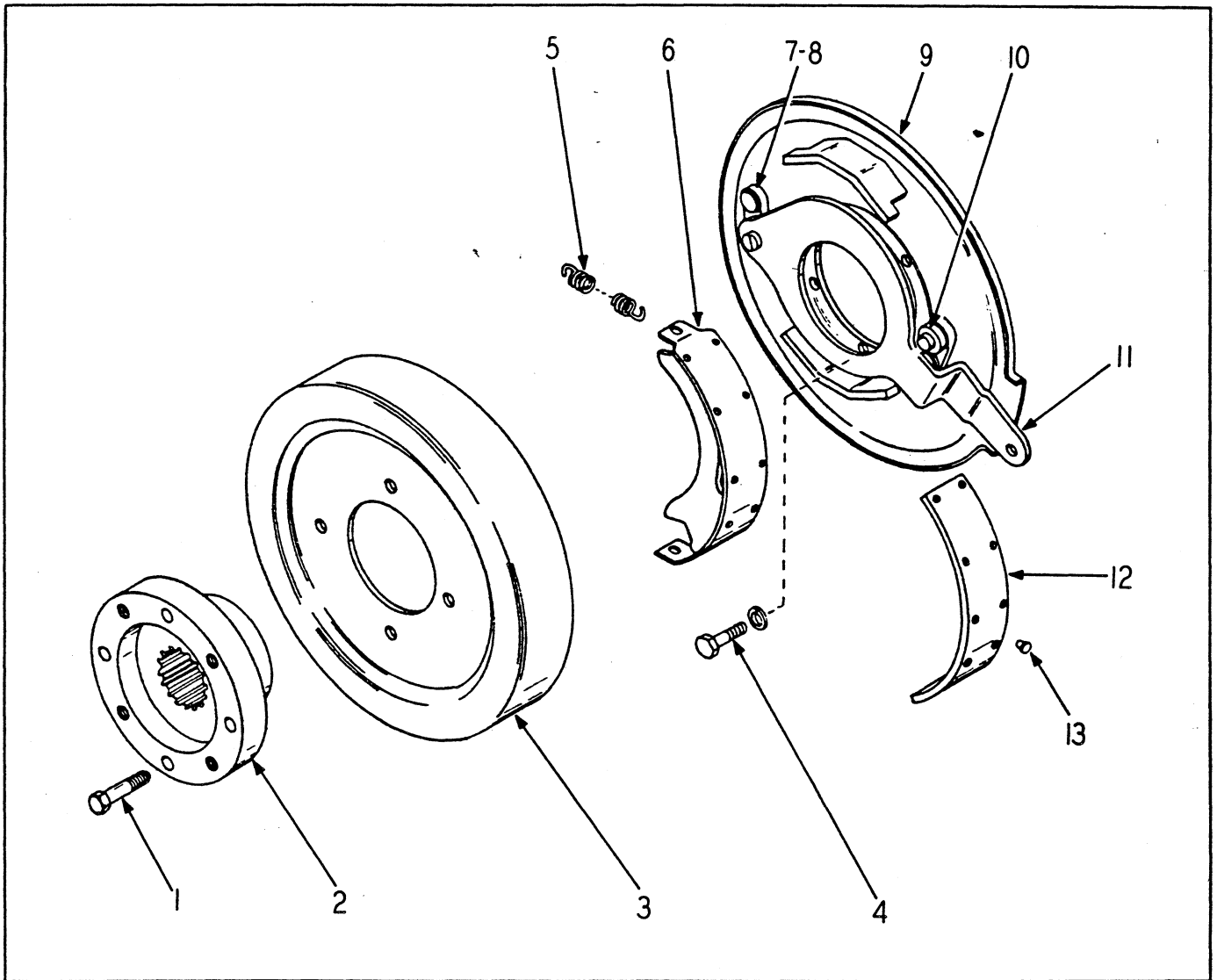
Suffix H1 should be applied to all Hough six digit numbers unless advanced.



SHAFT ASSEMBLY - REAR OUTPUT

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	123298H1	NUT .....	1		
2	WF-116	WASHER .....	1		
3	202965H1	WASHER (Replaces 130044) .....	1		
4	151802H1	YOKE .....	1		
5	118086H1	OIL SEAL .....	1		
6	157201H1	CAP .....	1		
7	147173H1	BEARING .....	1		
8	156969H1	SPACER.....	1		
9	156964H1	SHAFT, Output .....	1		

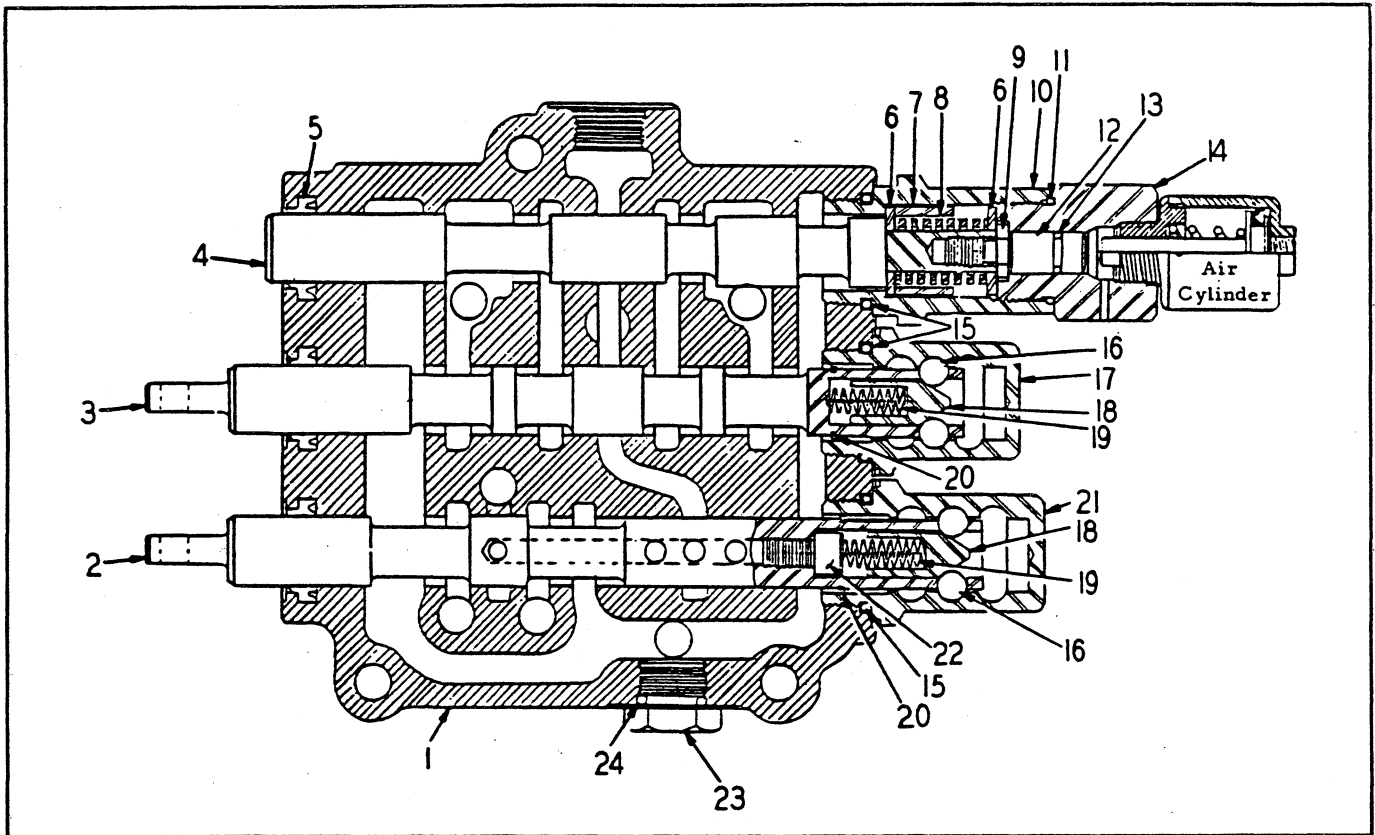




PARKING BRAKE

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	141183	BRAKE, Shoe Type (Incl. Items 5 thru 13).....	1		
	S-1614	SCREW, Cap .....	4		
	WL-16	WASHER, Lock.....	4		
	H-16	NUT .....	4		
2	151804	FLANGE .....	1		
3	130539	DRUM.....	1		
4	S-267	SCREW, Cap.....	4		
	WL-16	WASHER, Lock.....			
5	139038	SPRING.....	2		
	139037	BRAKE SHOE SET, (Incls. Items 6, 12, & 13).....			
6	NSS	SHOE .....	2		
7	139342	PAWL .....	2		
8	139343	RIVET .....	2		
9	139035	PLATE ASSEMBLY .....	1		
10	139040	ROLLER .....	1		
11	139039	LEVER.....	1		
12	161643	KIT, Lining (Incl. Items 12 & 13).....	1		
	NSS	LINING.....			
13	NSS	RIVET.....	20		

Suffix H1 should be applied to all Hough six digit numbers unless advanced.



TRANSMISSION VALVE

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	174960	VALVE, Transmission Includes Items 1 thru 24 .....	1		
1		HOUSING, Valve .....	1		
2		PLUNGER, Speed Change .....	1		
3		PLUNGER, Forward & Reverse. ....	1		
4		PLUNGER, Special .....	1		
5	124516	SEAL, Wiper .....	3		
6	176418	WASHER .....	2		
7	176144	SPACER .....	1		
8	180940	SPRING .....	1		
9	# 124519	SCREW .....	1		
10	176142	PLUG .....	1		
11	OR2-12	"O" RING .....	1		
12	176145	PIN .....	1		
13	OR4-6	"O" RING .....	1		
14	176143	PLUG, Adapter .....	1		
15	OR4-19	"O" RING .....	3		
16	129646	BALL .....	8		
17	144633	PLUG, Detent .....	1		
18	144635	CAM, Detent .....	2		
19	119183	SPRING .....	2		
20	136366	RING, Snap .....	2		
21	144634	PLUG, Detent .....	1		
22	136363	SCREW, Cap, Socket Hd. ....	1		
23	210-8	PLUG .....	1		
24	OR2-8	"O" RING .....	1		
	OR4-9	"O" RING .....	6		
	S-2622	SCREW, Cap .....	3		
	WL-16	WASHER, Lock .....	3		
	159751	CYLINDER, Air, (See Brake Line-Air & Hydraulic) ..	1	Prior T50-3-2226	
	186242	CYLINDER, Air .....	1	T50-3-2226 & Up	

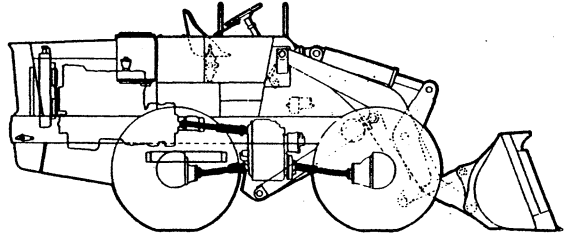
4-12

Suffix H1 should be applied to all Hough six digit numbers unless advanced.

# Suffix H2 should be applied to these Hough numbers.

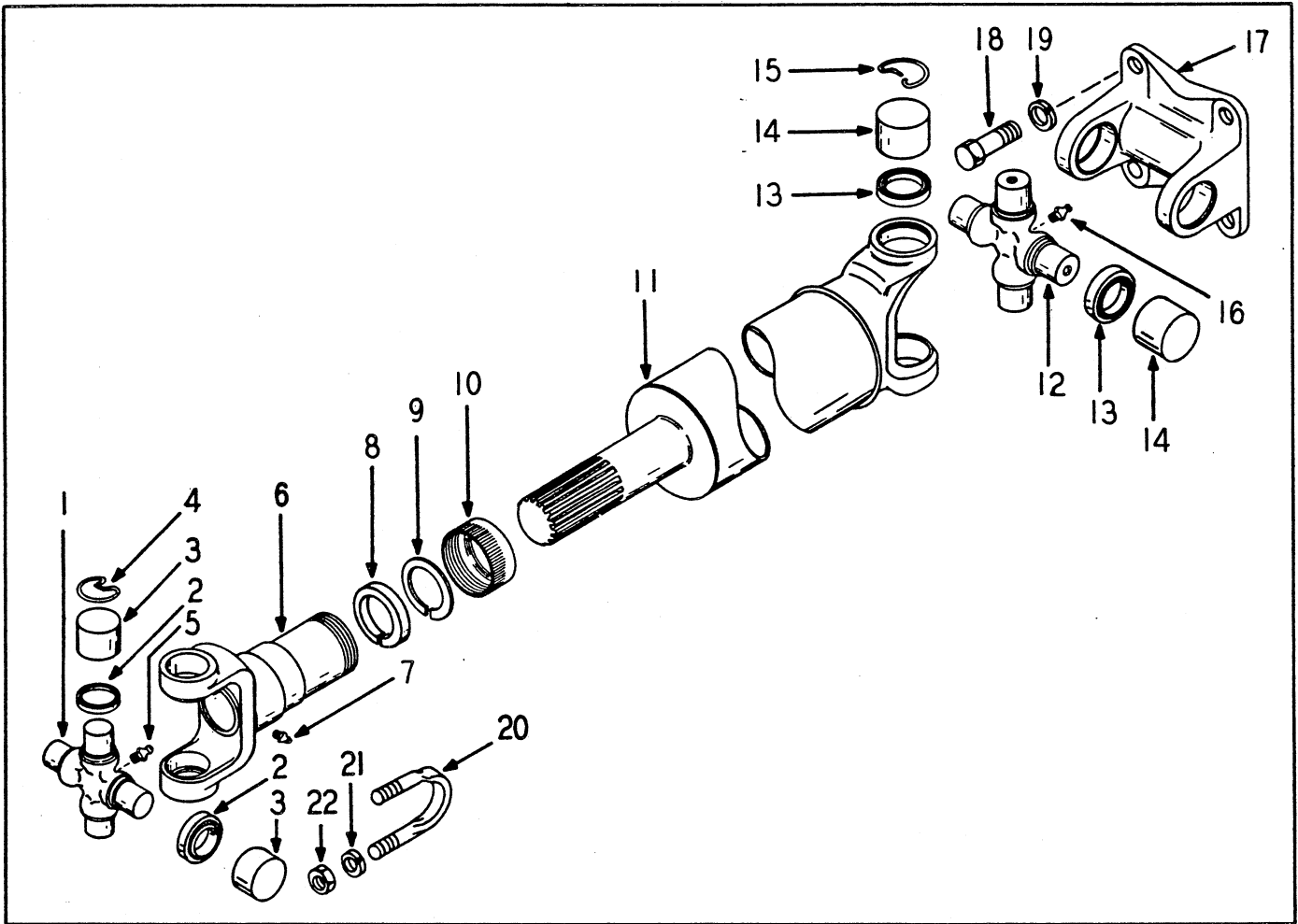
# SECTION 5

## DRIVE SHAFT



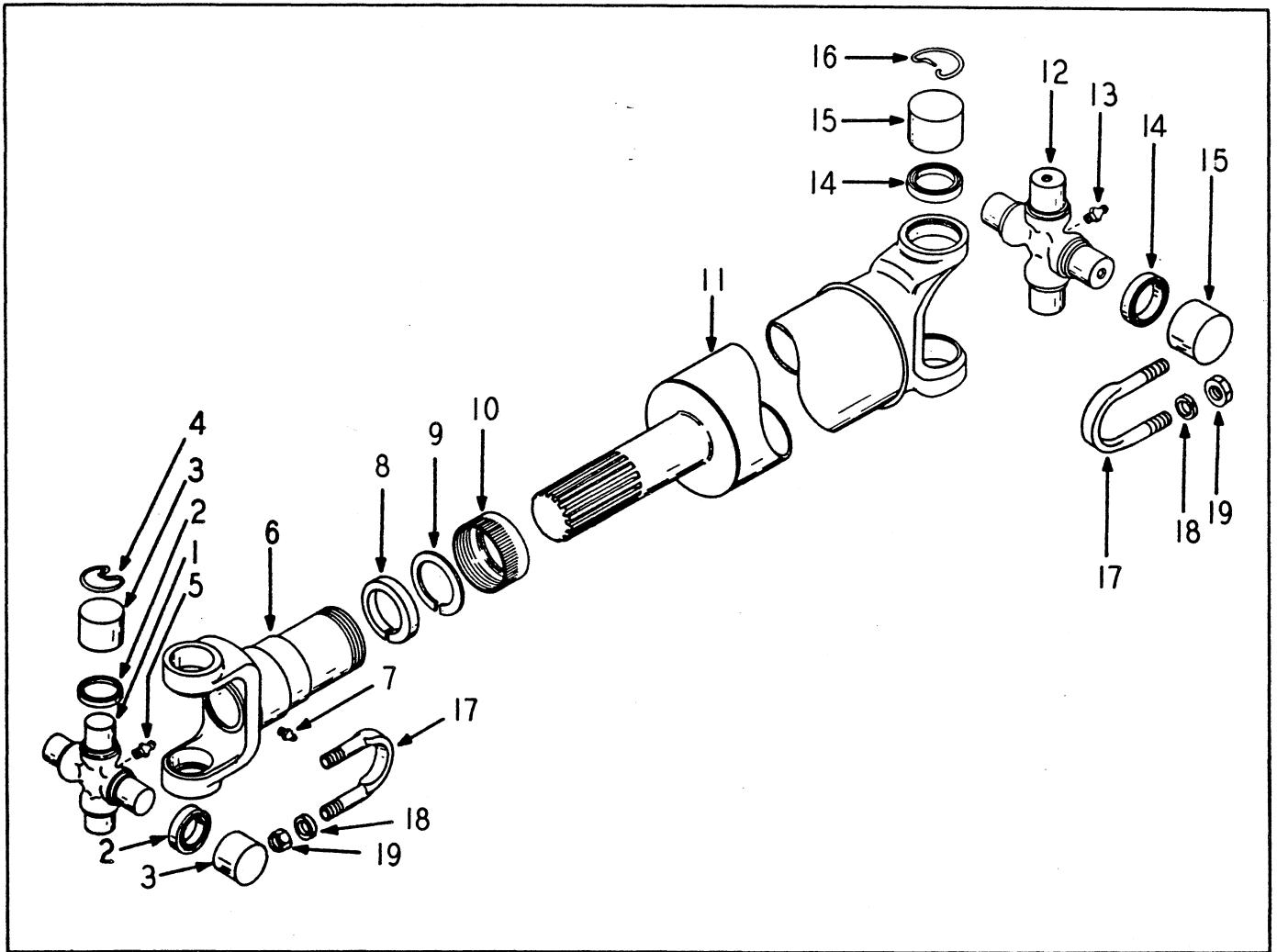
### Table Of Contents

<b>Group</b>	<b>Page</b>
SHAFT, DRIVE, LOWER FRONT .....	5-2
SHAFT, DRIVE, LOWER REAR .....	5-3
SHAFT, DRIVE, UPPER REAR .....	5-4



DRIVE SHAFT (LOWER FRONT)

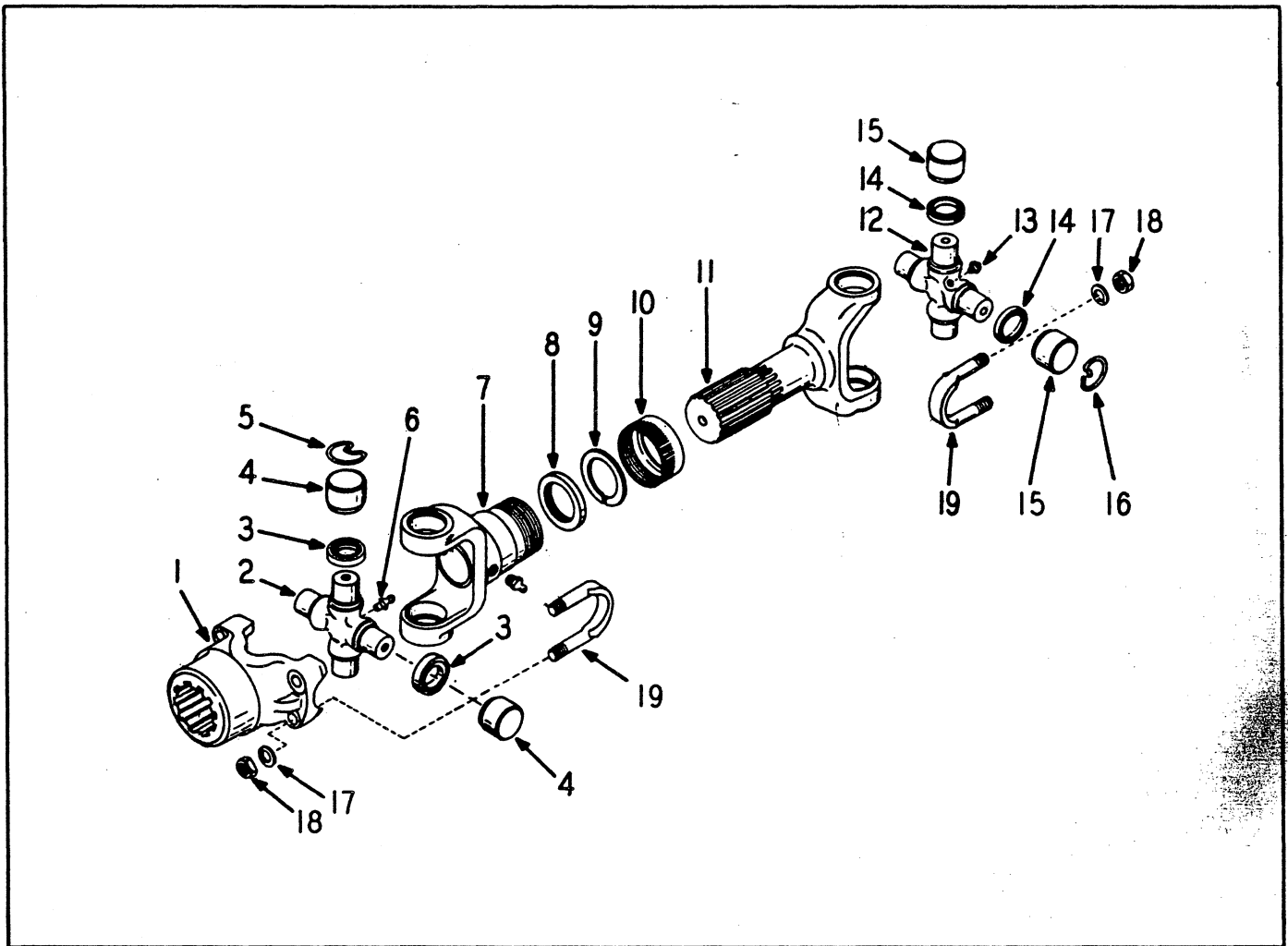
ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	154073	JOURNAL & BEARING ASSEMBLY (Incl. Items 1 thru 5)	1		
1		SPIDER .....	1		
2	154075	GASKET .....	4		
3		BEARING .....	4		
4	154074	RING, Snap .....	4		
5	118493	FITTING, Grease .....	1		
	177582	SLEEVE YOKE & SHAFT ASSEMBLY, (Incl. Items 6 thru 11) .....	1		
6		SLEEVE, Yoke .....	1		
7	118491	FITTING, Grease .....	1		
8	154078	WASHER, Cork .....	1		
9	154077	WASHER, Steel .....	1		
10	154076	CAP, Dust .....	1		
11		SHAFT .....	1		
	154073	JOURNAL & BEARING ASSEMBLY (Incl. Items 12 thru 16)	1		
12		SPIDER .....	1		
13	154075	GASKET .....	4		
14		BEARING .....	4		
15	154074	RING, Snap .....	4		
16	118493	FITTING, Grease .....	1		
17	158031	YOKE, Flange .....	1		
18	S-1811	SCREW, Cap .....	4		
19	WL-18	WASHER, Lock .....	4		
20	151803	"U" BOLT .....	2		
21	WL-17	WASHER, Lock .....	4		
22	H-17	NUT .....	4		



DRIVE SHAFT (LOWER REAR)

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	154073	JOURNAL & BEARING ASS'Y (Incl. Items 1 thru 5) ...	1		
1		SPIDER.....	1		
2	154075	GASKET.....	4		
3		BEARING.....	4		
4	154074	RING, Snap.....	4		
5	118493	FITTING, Grease.....	1		
	176381	SLEEVE YOKE & SHAFT ASS'Y. (Incl. Items 6 thru 11)	1		
6		SLEEVE YOKE.....	1		
7	118491	FITTING, Grease.....	1		
8	154078	WASHER, Cork.....	1		
9	154077	WASHER, Steel.....	1		
10	154076	CAP, Dust.....	1		
11		SHAFT.....	1		
	154073	JOURNAL & BEARING ASS'Y (Incl. Items 12 thru 16)..	1		
12		SPIDER.....	1		
13	118493	FITTING, Grease.....	1		
14	154075	GASKET.....	4		
15		BEARING.....	4		
16	154074	RING, Snap.....	4		
17	151803	"U" BOLT.....	4		
18	WL-17	WASHER, Lock.....	8		
19	H-17	NUT.....	8		

Suffix H1 should be applied to all Hough six digit numbers unless advanced.

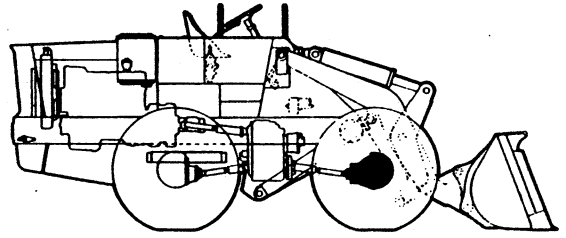


DRIVE SHAFT (UPPER REAR)

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	154080	YOKE .....	1		
	154081	JOURNAL & BEARING ASS'Y (Incl. Items 2 thru 6)....	1		
2		SPIDER .....	1		
3	154083	GASKET .....	4		
4		BEARING .....	4		
5	154082	RING, Snap .....	4		
6	118493	FITTING, Grease .....	1		
	176382	SLEEVE YOKE & SHAFT ASS'Y. (Incl. Items 7 thru 11)	1		
7		YOKE .....	1		
8	154086	WASHER, Cork .....	1		
9	154085	WASHER, Steel .....	1		
10	153916	CAP, Dust .....	1		
11		SHAFT .....	1		
	154081	JOURNAL & BEARING ASS'Y (Incl. Items 12 thru 16) .	1		
12		SPIDER .....	1		
13	118493	FITTING, Grease .....	1		
14	154083	GASKET .....	4		
15		BEARING .....	4		
16	154082	RING, Snap .....	4		
17	WL-16	WASHER, Lock .....	8		
18	H-16	NUT .....	8		
19	151799	"U" BOLT .....	4		

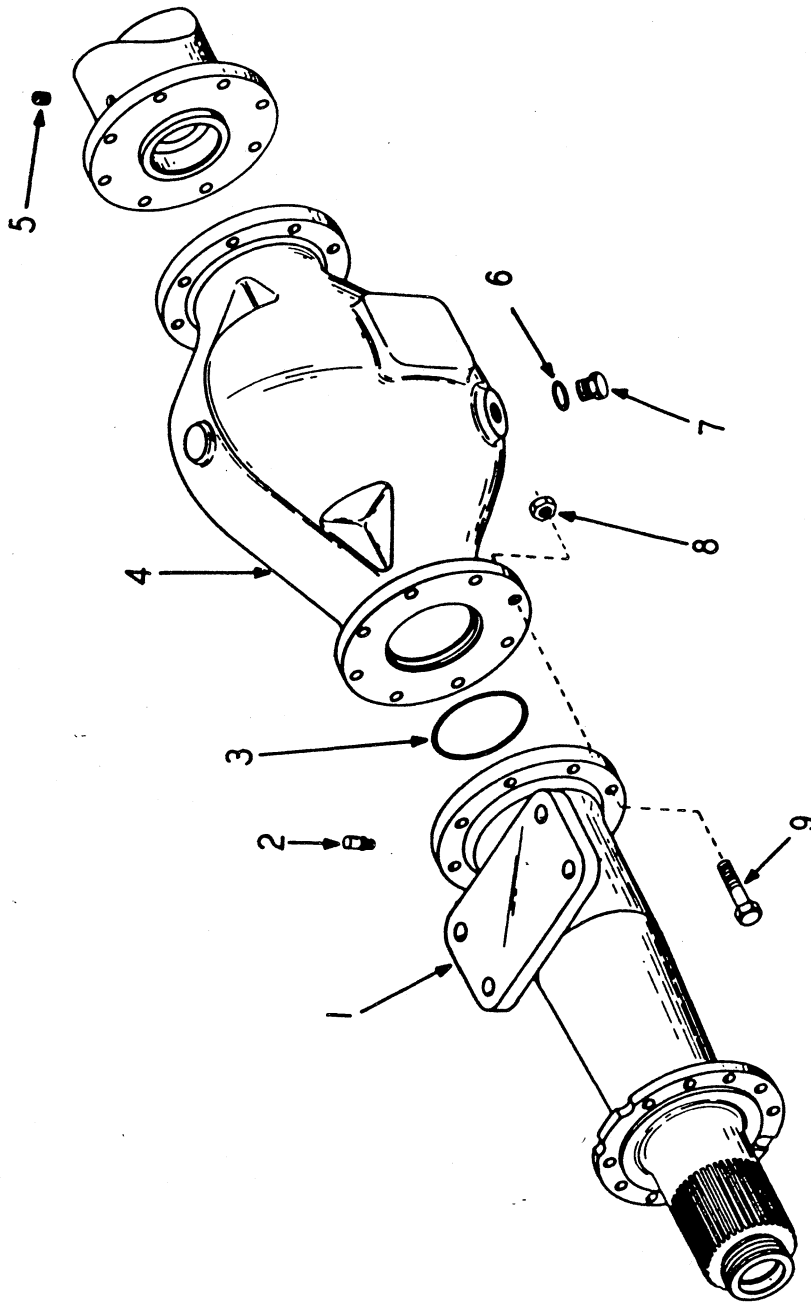
# SECTION 6

## SOLID AXLE



### Table Of Contents

<b>Group</b>	<b>Page</b>
BRAKE .....	6-9
DIFFERENTIAL .....	6-5
HOUSING .....	6-3
SHAFT & HUB .....	6-7

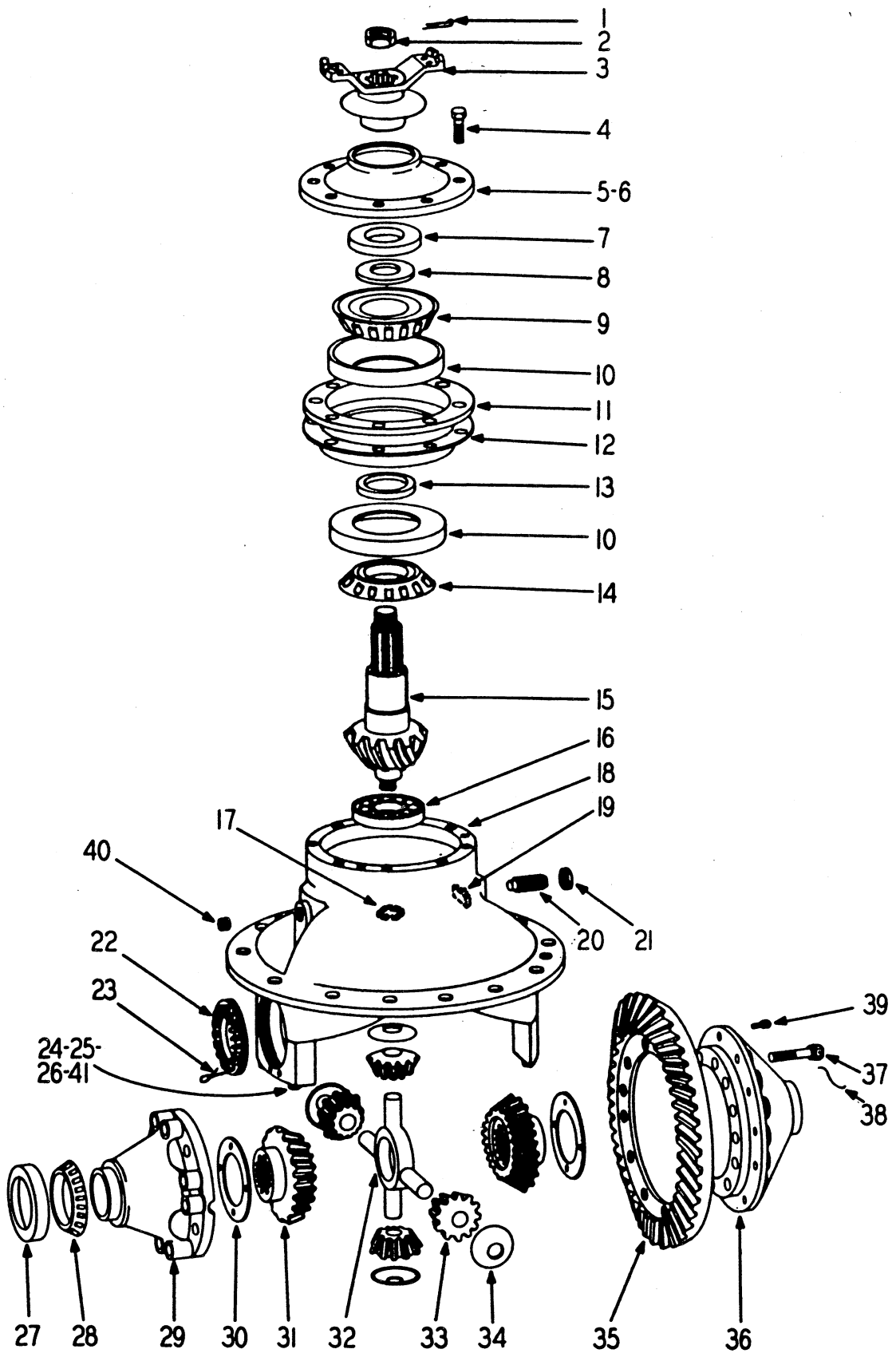


SOLID AXLE - HOUSING



SOLID AXLE - HOUSING

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	173422H1	AXLE, Drive .....	1	28AH-1001 29AC-1003	1236 1324, 26, 28, 32, 36, 39 & 40
	173422H2	AXLE, Drive .....	1	28AH-1237 29AC-1325- 27-29-30-31- 33-34-35-37- 38-41	1390
	173422H3	AXLE, Drive .....	1	28AH-1391 29AC-1640- 42	1639 & 41 & Up & Up
1	161943H3	HOUSING, Axle .....	2		
2	152127H1	BREATHER .....	1		
3	OR3-18	"O" RING .....	2		
4	173426H2	BOWL, Axle replaces 173426H1 .....	1		
5	P - 42	PLUG, Pipe .....	1		
6	OR2-8	"O" RING .....	1		
7	190302H1	PLUG .....	1		
8	E - 18	NUT .....	40		
9	S-1818	SCREW, Cap .....	32		
	173951H1	WHEEL .....	4		
	138546H1	FLANGE .....	4		
	138547H1	RING, Lock .....	4		
	138548H1	"O" RING .....	4		
		TIRE - TUBELESS 14:00 x 24 T 16 Ply } Buy From	4		
		VALVE - TR-623 ..... } Local Dealer	4		
		See Page 1-7 for Axle Attaching Hardware.			

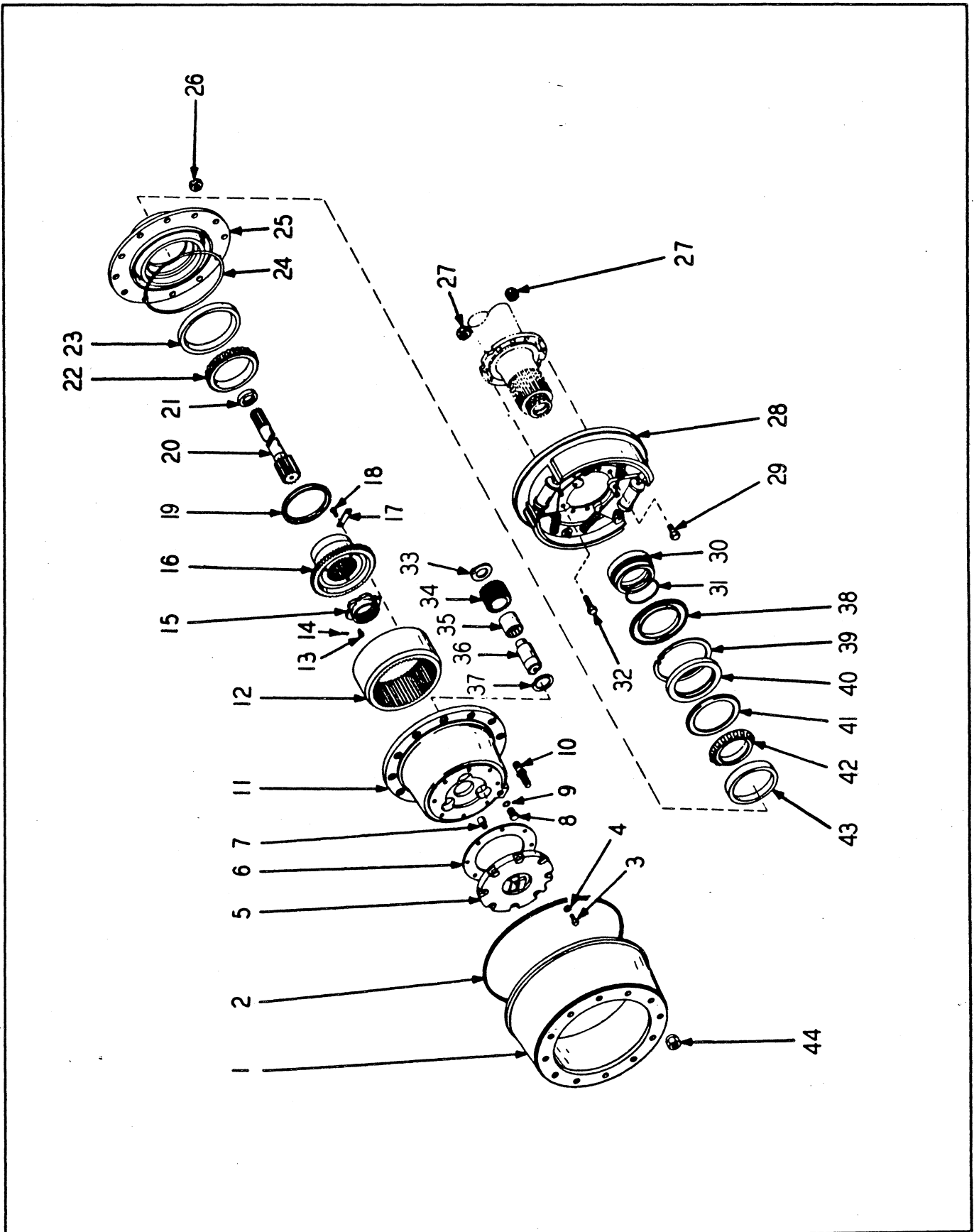


SOLID AXLE - DIFFERENTIAL

SOLID AXLE - DIFFERENTIAL

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	173419	DIFFERENTIAL CARRIER ASSY. (Includes the following)	1		
	174816	DIFFERENTIAL CARRIER & CAP ASSY. (Includes Items 18, 24, 25, 26 & 41)	1		
	174819	DIFFERENTIAL ASSY. (Includes Items 29 thru 34, 36 & 38)	1		
	174828	GEAR & PINION SET (Includes Items 15 & 35)	1		
	174829	BEARING CAGE ASSY. (Incl. Items 9, 10, 11, 13 & 14)	1		
1	CP-414	PIN, Cotter	1		
2	104078	NUT	1		
3	178180	YOKE & SLINGER ASSEMBLY	1		
4	S-269	SCREW, Cap	8		
5	174842	COVER & SEAL ASSEMBLY (Includes Item 7)	1		
6	174841	GASKET	1		
7	174843	SEAL	1		
8	127079	WASHER	1		
9	179504	CONE, Top	1		
10	179502	CUP, Top	1		
10	179501	CUP, Bottom	1		
11	174830	CAGE & CUP ASSEMBLY (Includes Item 10)	1		
12	174814	SHIM - (.003)	AR		
	174815	SHIM - (.005)	AR		
13	174831	SPACER - (.172)	Use Two As Required		
	174832	SPACER - (.173)			
	174833	SPACER - (.174)			
	174834	SPACER - (.175)			
	174835	SPACER - (.176)			
	174836	SPACER - (.177)			
	174837	SPACER - (.183)			
	174838	SPACER - (.189)			
	174839	SPACER - (.195)			
	174840	SPACER - (.201)			
14	179503	CONE	1		
15		PINION (Order 174828)	1		
16	137130	BEARING	1		
17	137146	RING, Lock	1		
18		CARRIER, Differential (Order 174816)	1		
19	132804	BLOCK	1		
20	136785	SCREW	1		
21	136786	NUT	1		
22	174813	RING, Adjust	2		
23	137586	LOCK	2		
	132780	SCREW, Cap	4		
	LW-1618	WIRE, Lock	2		
24		BEARING CAP (Order 174816)	2		
25	132793	DOWEL	4		
26	174817	SCREW, Cap	4		
27	108931	CUP	2		
28	174826	BEARING	2		
29		CASE, Plain Half (Order 174819)	1		
30	174823	WASHER, Thrust	2		
31	174822	GEAR, Differential Side	2		
32	174824	SPIDER	1		
33	174820	PINION, Differential	4		
34	174821	WASHER	4		
35		GEAR, (Order 174828)	1		
36		CASE, Flange Half (Order 174819)	1		
37	174825	SCREW, Cap (Case)	8		
38	LW-1620	WIRE, Lock	4		
39	104553	RIVET, Drive Gear	12		
40	P-212	PLUG, Oil Filler & Level	1		
41	164846	WASHER	4		
	173420	GASKET	1		
	S-2712	SCREW, Cap	8		
	S-2714	SCREW, Cap	4		
	WL-17	WASHER, Lock	12		

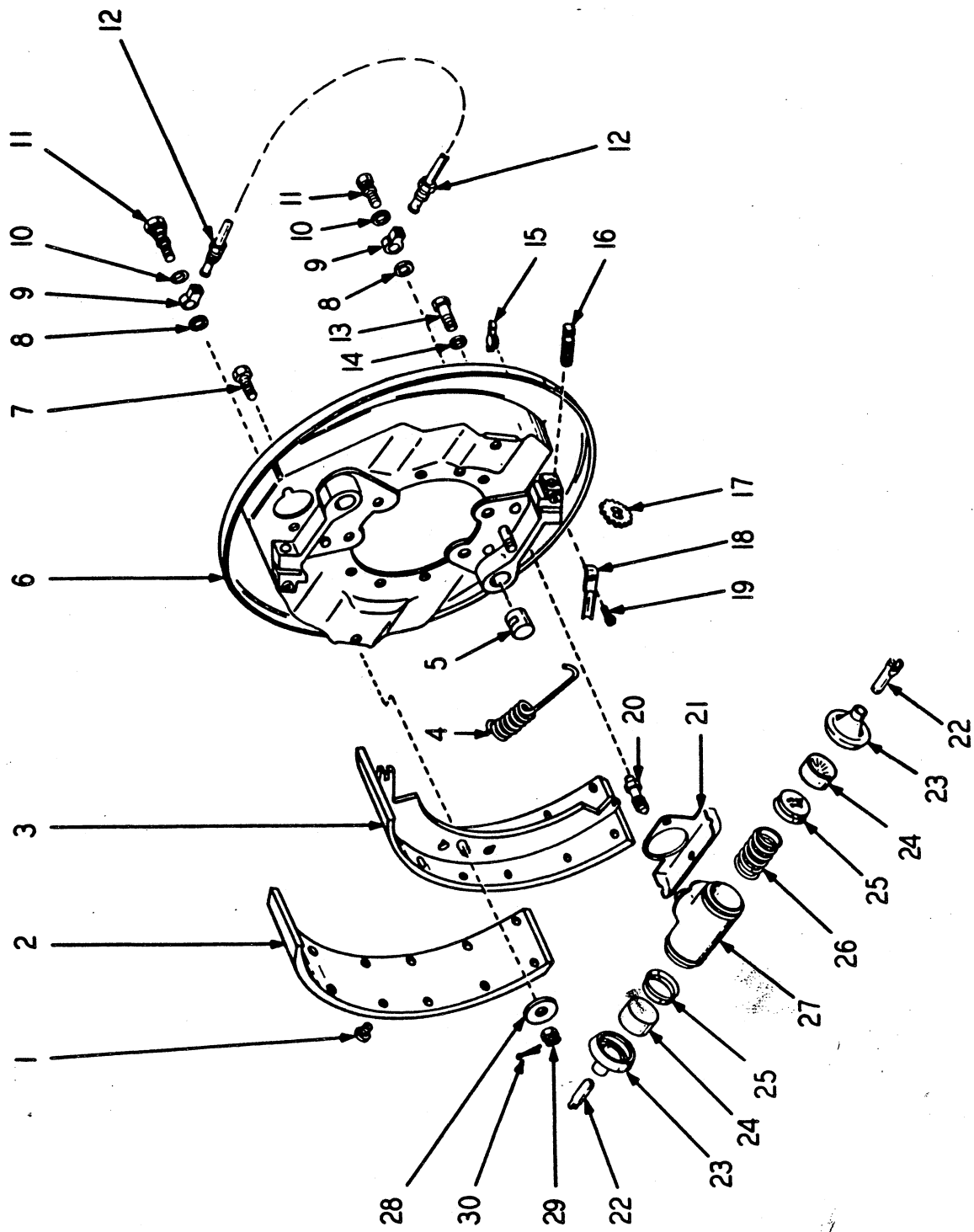
Suffix H1 should be applied to all Hough six digit numbers unless advanced.



SOLID AXLE - SHAFT & HUB

SOLID AXLE - SHAFT & HUB

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	157123H1	DRUM, Brake	2		
2	157124H1	SEAL, Brake	2		
3	S-268	SCREW, Cap	16		
4	125003H1	WASHER, Sealing	16		
5	157043H1	COVER	2		
6	157044H1	GASKET	2		
7	157045H1	BUTTON, Thrust	2		
8	190302H1	PLUG	2		
9	OR2-8	"O" RING	2		
10	157071H1	STUD	24		
11	157041H1	CARRIER, Planetary	2		
12	157051H1	GEAR, Ring	2		
13	157061H1	SCREW, Cap (socket head)	2		
14	CP-25	PIN, Cotter	2		
15	157060H1	NUT	2		
16	157053H1	HUB	2		
17	157054H1	PLATE, Lock	8		
18	157055H1	SCREW, Cap	16		
19	157058H1	SPACER	2		
20	173423H2	SHAFT, Axle (replaces 173423)	2		
21	161919H2	SEAL, Oil	2		
22	157056H1	BEARING, Roller	2		
23	157057H1	CUP, Bearing	2		
24	OR3-52	"O" RING	2		
25	163019H1	HUB ASSEMBLY (Includes next item & items 23 & 43)	2		
26	157068H1	HUB	2		
26	101735H1	NUT	24		
27	E - 17	NUT	20		
28		BRAKE, L.H.	1		
		BRAKE, R.H.	1		
29	S-1710	SCREW, Cap	20		
30	197643H1	RETAINER, Seal	2		
31	OR3-19	"O" RING	2		
32	S-1714	SCREW, Cap for machines of S/N 28AH-1001 thru 1112 & 29AC-1003 thru 1119 & 1123	8		
32	185200H1	SCREW, Cap for machines of S/N 28AH-1113 thru 1236 & 29AC-1120, 1121, 1122, 1124 thru 1324	8		
32	193048H1	SCREW, Cap for machines of S/N 28AH-1237 & Up & 29AC-1325, 27, 29, 30, 31, 33, 34, 35, 37, 38, 41 and Up	8		
33	157421H1	WASHER, Thrust	6		
*	209689H1	PLANET CARRIER & GEAR	2		
34*	209690H1	PINION, Planet	6		
35*	209691H1	BEARING ASSEMBLY	12		
*	209692H1	SPACER	6		
36*	209693H1	SHAFT, Planet Pinion	6	28AH-1391	& Up
37*	209694H1	WASHER, Thrust	6	29AC-1651	& Up
	163018H1	RETAINER ASSEMBLY (Includes Items 30 & 38)	2		
38	157703H1	SCAVENGER, Oil	2		
39	157080H1	RING, Retaining	2		
40	157078H1	SEAL, Oil	2		
41	157079H1	SPACER	2		
42	157065H1	BEARING, Roller	2		
43	157066H1	CUP, Bearing	2		
44	209564H1	NUT (replaces 102430)	24		
		*Items marked with an asterisk replaced the following:			
	157046H2	PINION ASSEMBLY (Includes next 2 items)	6		
		PINION, Planet	6		
		BUSHING	6		
	157050H1	SHAFT, Planet Pinion	6	28AH-1001	1390
	157049H1	WASHER, Thrust	6	29AC-1003	1650



SOLID AXLE - BRAKE

SOLID AXLE - BRAKE

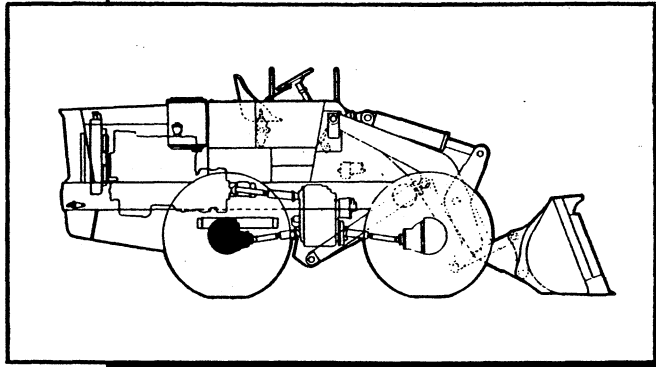
ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	193249H1	BRAKE, L.H. (replaces 173424)	1		
	193250H1	BRAKE, R.H. (replaces 173425)	1		
	179527H1	BRAKE SHOE SET (Incl. 1 of items 2 & 3 & 14 of Item 1)	2		
1	107578H1	RIVET	56		
2	179528H1	LINING	4		
3	179598H1	SHOE, Brake LINING KIT, Front Brake (Incl. 4 of Item 2, and 56 of Item 1)	4		
4	158932H1	SPRING	4		
5	158929H1	PIN, Anchor	4		
6	193783H1	PLATE ASSEMBLY, Backing L.H. (Incl. items 16 thru 18) (replaces 158923)	1		
6	193784H1	PLATE ASSEMBLY, Backing R.H. (Incl. items 16 thru 18) (replaces 158943)	1		
	179529H1	BOLT ASSEMBLY (Includes Items 7 & 28 thru 30)	4		
7	158945H1	SCREW, Cap	4		
8	HA-1332	GASKET	6		
9	HA-1335	FITTING, Tube	6		
10	HA-1333	GASKET	6		
11	158941H1	BOLT, Fitting	6		
12	179532H1	BENT TUBE, Steel	2		
13	S-255-8	SCREW, Cap	8		
14	138628H1	WASHER, Lock	8		
15	158942H1	COVER, Adjusting Slot	4		
16	158925H1	SCREW, Adjusting, L.H.	2		
	158944H1	SCREW, Adjusting, R.H.	2		
17	158926H1	STAR WHEEL, Adjusting	4		
18	158927H1	LOCK SPRING, Adjusting	4		
19	158928H1	SCREW	4		
20	127112H1	SCREW, Bleeder	4		
21	158938H1	COVER, Wheel Cylinder, L.H.	2		
	159267H1	COVER, Wheel Cylinder, R.H.	2		
	179530H1	CYLINDER ASSY., Hydraulic (Incl. Items 22 thru 27)	4		
22	158937H1	LINK, Wheel Cylinder	8		
23	179536H1	BOOT	8		
24	179534H1	PISTON	8		
25	104696H1	CUP, Piston	8		
26	179535H1	SPRING & RETAINER ASSEMBLY	4		
27		CASTING, Cylinder	4		
28	158946H1	WASHER, Flat	4		
29	159266H1	NUT	4		
30	CP-36	PIN, Cotter	4		
	179533H1	KIT REPAIR, Wheel Cylinder (2 Kits per Brake), (Incl. Following 2 Items)	1		
	179536H1	BOOT	4		
	104696H1	CUP, Piston	4		





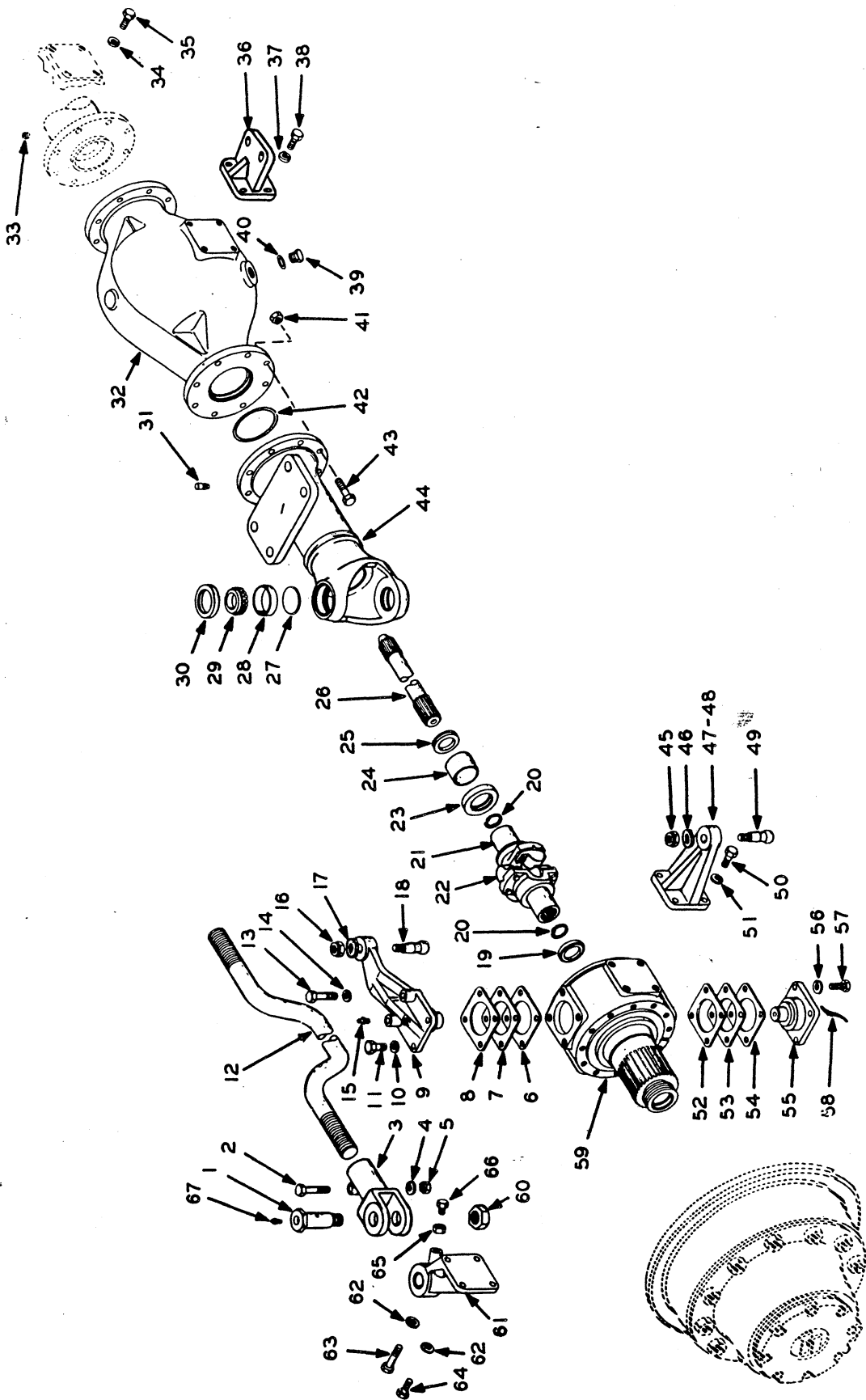
# SECTION 7

## STEERING AXLE



### Table Of Contents

<b>Group</b>	<b>Page</b>
BRAKE .....	7-11
DIFFERENTIAL .....	7-7
HOUSING .....	7-3
ROD, TIE .....	7-3
SHAFT & HUB .....	7-9
UNIVERSAL JOINT .....	7-3



STEERING AXLE - HOUSING

STEERING AXLE-HOUSING

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	173408H1	AXLE, Steering .....	1	28AH-1001	1150
	173408H2	AXLE, Steering .....	1	29AC-1003	1174
	188812H1	AXLE, Steering .....	1	28AH-1151	1212
	188812H2	AXLE, Steering .....	1	29AC-1175	1271
1	157093H1	PIN, Pivot .....	2	28AH-1213	& Up
2	S-1820	SCREW, Cap .....	2	29AC-1272	& Up
3	157092H1	CLEVIS, Tie Rod .....	2	28AH-1391	& Up
4	WL-18	WASHER, Lock .....	2	29AC-1651	& Up
5	H - 18	NUT .....	2		
6	157090H1	SHIM .005 .....	10		
7	157089H1	SHIM .007 .....	6		
8	157088H1	SHIM .020 .....	2		
9	157084H1	ARM, Steering .....	1		
10	WL-18	WASHER, Lock .....	2		
11	S-2811	SCREW, Cap .....	2		
12	173410H1	ROD, Tie .....	1		
13	S-2820	SCREW, Cap .....	2		
14	WL-18	WASHER, Lock .....	2		
15	119693H1	FITTING, Grease .....	4		
16	178200H1	NUT .....	1		
17	178199H1	WASHER .....	1		
18	157085H1	STUD, Ball .....	1		
19	157108H2	WASHER .....	2		
20	178365H1	RING, Retaining .....	4		
21	179868H1	YOKE .....	4		
22	179867H1	KIT, Joint, Center Service .....	2		
	178317H1	JOINT, Universal (Includes Items 21 & 22) .....	2	28AH-1001	1115
	178317H2	JOINT, Universal (Includes Items 21 & 22) .....	2	29AC-1003	1125
	187921H1	JOINT, Universal .....	2	28AH-1116	1150
				29AC-1126	1174 & 76
				28AH-1151	& Up
				29AC-1175,	77 & Up
23	157106H1	SEAL, Used with Joint Assemblies 178317H1 and 178317H2 .....	2		
23	187984H1	SEAL, Used with #187921H1 Joint Assembly .....	2		
24	157107H1	BUSHING .....	4		
25	157108H2	WASHER .....	2		
26	173416H1	SHAFT, Axle .....	2		
27	157102H1	RETAINER, Grease .....	4		
28	157101H1	CUP, Bearing .....	4		
29	157100H1	BEARING, Roller .....	4		
30	157103H1	SEAL, Oil .....	4		
31	152127H1	BREATHER .....	1		
32	173418H2	BOWL, Axle replaces 173418H1 .....	1		
33	P - 42	PLUG, Pipe .....	1		
34	WL-18	WASHER, Lock .....	4		
35	S-2811	SCREW, Cap .....	4		
36	173415H1	ANCHOR, Steering Cylinder .....	1		
37	WL-19	WASHER, Lock .....	4		
38	S-2912	SCREW, Cap .....	4		
39	190302H1	PLUG .....	1		
40	OR2-8	"O" RING .....	1		
41	E - 18	NUT .....	32		
42	OR3-18	"O" RING .....	2		
43	S-1818	SCREW, Cap .....	32		
44	178540H1	HOUSING, Axle .....	2	28AH-1001	1150
				29AC-1003	1174
44	187940H1	HOUSING, Axle .....	2	28AH-1151	& Up
				29AC-1175	& Up

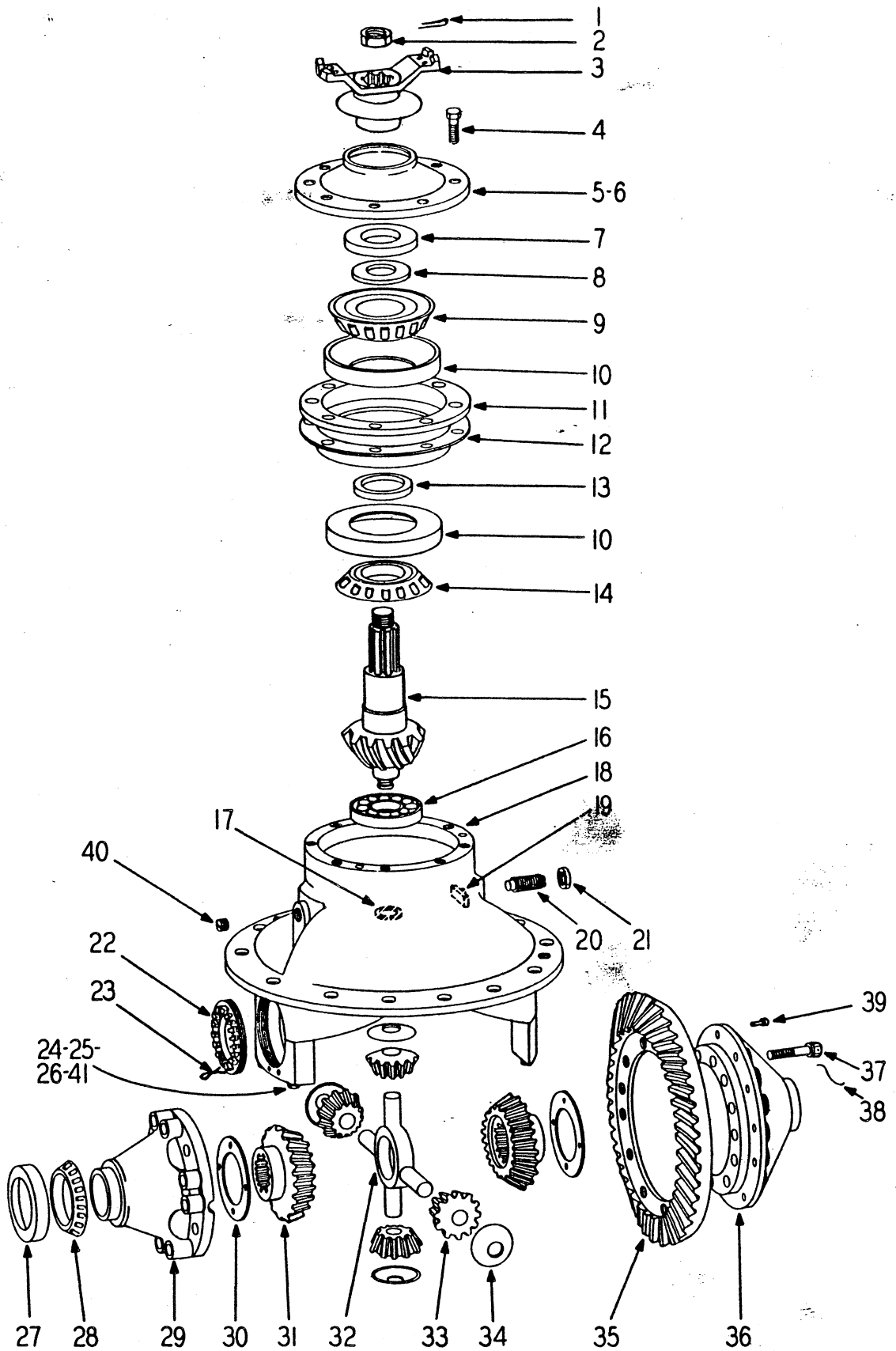
(Continued on following page)

STEERING AXLE-HOUSING (Continued)

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
45	178200H1	NUT .....	2		
46	178199H1	WASHER .....	2		
47	173412H1	ARM, Steering Cylinder (L. H.) .....	1		
48	173413H1	ARM, Steering Cylinder (R. H.) .....	1		
49	157085H1	STUD, Ball .....	2		
50	S-2811	SCREW, Cap .....	8		
51	WL-18	WASHER, Lock .....	8		
	116641H1	PIN, Dowel .....	1		
52	157088H1	SHIM .020 .....	2		
53	157089H1	SHIM .007 .....	6		
54	157090H1	SHIM .005 .....	10		
55	157082H1	CAP (Prior to Axle S/N FS-60-2-874) .....	3		
55	186097H1	CAP .....	1		
55	188781H1	CAP .....	2		
56	S-21011	SCREW, Cap .....	8		
57	WL-110	WASHER, Lock .....	8		
58	LW-1211	WIRE, Lock .....	4		
59	178541H1	KNUCKLE, Steering .....	2	28AH-1001	1150
				29AC-1003	1174
59	178541H2	KNUCKLE, Steering .....	2	28AH-1151	1212
				29AC-1175	1271
59	188786H1	KNUCKLE, Steering .....	2	28AH-1213	& Up
				29AC-1272	& Up
60	123298H1	NUT .....	2		
61	157087H2	ARM, Tie Rod, Assembly Includes 191083H1 Bushing .	2		
62	WL-18	WASHER, Lock .....	8		
63	S-2820	SCREW, Cap .....	4		
64	S-2811	SCREW, Cap .....	4		
65	H - 48	NUT .....	2		
66	S-2812	SCREW, Cap .....	2		
67	118491H1	FITTING, Grease .....	2		
<p>See Page 1-7 for Axle Attaching Hardware.</p> <p>For service on orders for 178541H2 Steering Knuckle, Item 59, #188786H1 Steering Knuckle will be supplied with 2 caps #188781H1, Item 55 and Shims #188783H1 and 188784H1 as required, also 4 S-21011D Capscrews and 4 LW-1211 Lockwire.</p>					

---

NOTES

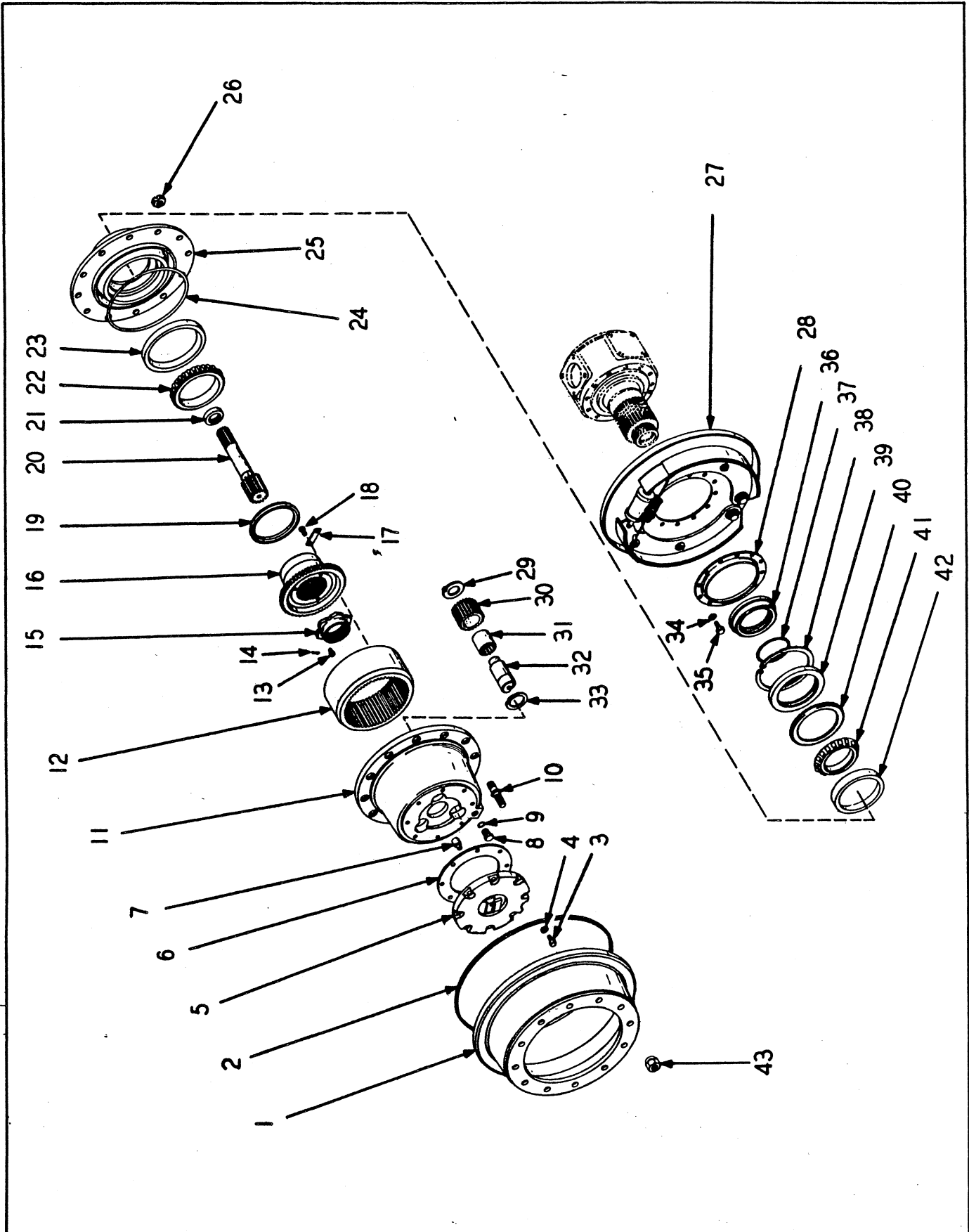


STEERING AXLE - DIFFERENTIAL

STEERING AXLE-DIFFERENTIAL

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	173419	DIFFERENTIAL CARRIER ASSY. (Incl. the following).	1		
	174816	DIFFERENTIAL CARRIER & CAP ASSY. (Incl. Items 18, 24, 25, 26, & 41)	1		
	174819	DIFFERENTIAL ASSY. (Incl. Items 29 thru 34, 36, & 38)	1		
	174828	GEAR & PINION SET (Incl. Items 15 & 35)	1		
	174829	BEARING CAGE ASSY., (Incl. Items 9, 10, 11, 13 & 14)	1		
1	CP-414	PIN, Cotter	1		
2	104078	NUT	1		
3	178180	YOKE & SLINGER ASSY.	1		
4	S-269	SCREW, Cap	8		
5	174842	COVER & SEAL ASSY., (Incl. Item 7)	1		
6	174841	GASKET	1		
7	174843	SEAL	1		
8	127079	WASHER	1		
9	179504	CONE, Top	1		
10	179502	CUP, Top	1		
10	179501	CUP, Bottom	1		
11	174830	CAGE & CUP ASSY. (Incl. Item 10)	1		
12	174814	SHIM - (.003)	AR		
	174815	SHIM - (.005)	AR		
13	174831	SPACER - (.172)	} Use two As Required		
	174832	SPACER - (.173)			
	174833	SPACER - (.174)			
	174834	SPACER - (.175)			
	174835	SPACER - (.176)			
	174836	SPACER - (.177)			
	174837	SPACER - (.183)			
	174838	SPACER - (.189)			
	174839	SPACER - (.195)			
	174840	SPACER - (.201)			
14	179503	CONE, Bottom	1		
15		PINION, (Order 174828)	1		
16	137130	BEARING	1		
17	137146	RING, Lock	1		
18		CARRIER, Differential (Order 174816)	1		
19	132804	BLOCK	1		
20	136785	SCREW	1		
21	136786	NUT	1		
22	174813	RING, Adjust	2		
23	137586	LOCK	2		
	132780	SCREW, Cap	4		
	LW-1618	WIRE, Lock	2		
24		BEARING CAP (Order 174816)	2		
25	132793	DOWEL	4		
26	174817	SCREW, Cap	4		
27	108931	CUP	2		
28	174826	BEARING	2		
29		CASE, Plain Half (Order 174819)	1		
30	174823	WASHER, Thrust	2		
31	174822	GEAR, Differential Side	2		
32	174824	SPIDER	1		
33	174820	PINION, Differential	4		
34	174821	WASHER	4		
35		GEAR, (Order 174828)	1		
36		CASE, Flange Half (Order 174819)	1		
37	174825	SCREW, Cap (Case)	8		
38	LW-1620	WIRE, Lock	2		
39	104553	RIVET, Drive Gear	12		
40	P-212	PLUG, Oil Filler & Level	1		
41	164846	WASHER	4		
	173420	GASKET	1		
	S-2712	SCREW, Cap	8		
	S-2714	SCREW, Cap	4		
	WL-17	WASHER, Lock	12		

Suffix H1 should be applied to all Hough six digit numbers unless advanced.

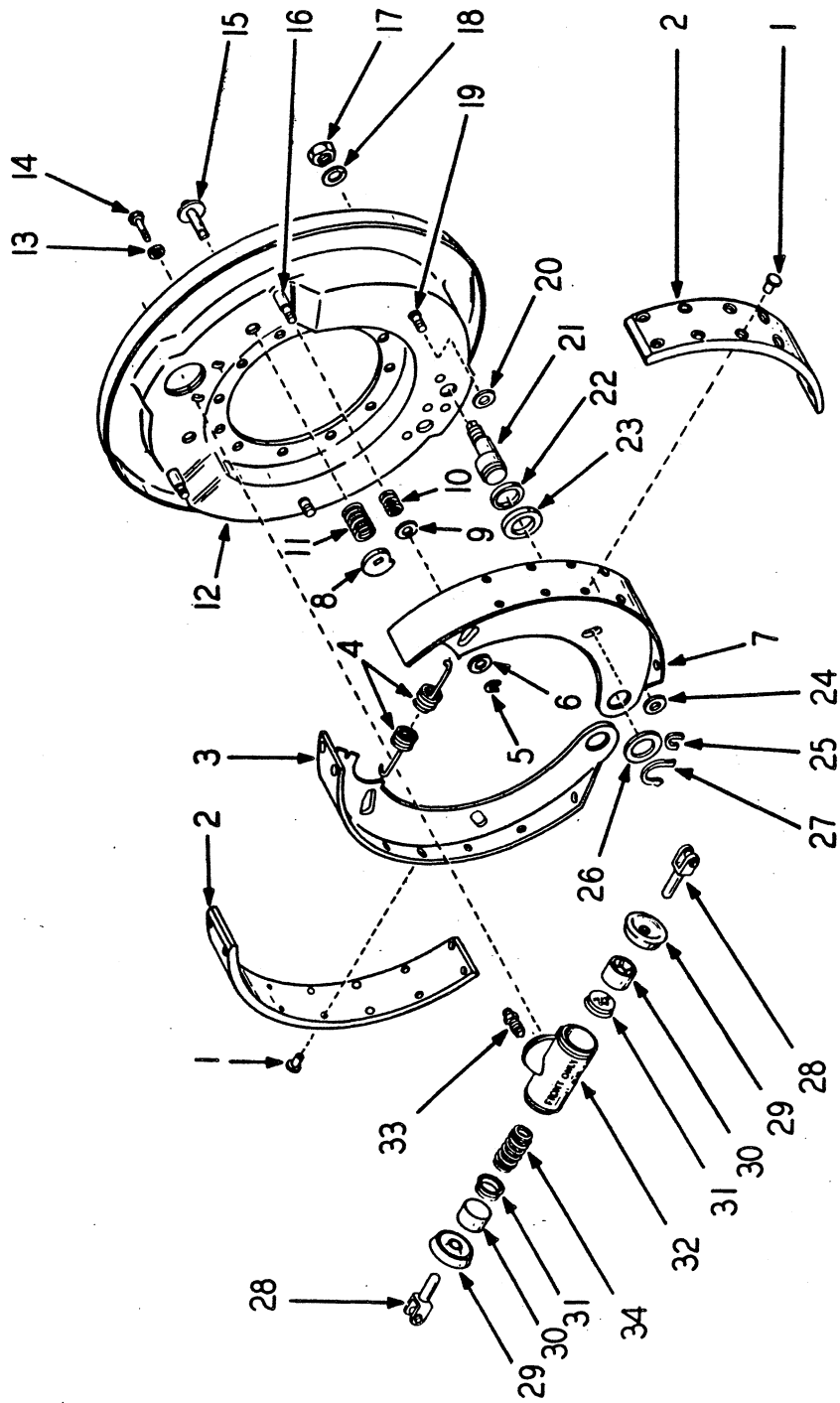


STEERING AXLE-SHAFT AND HUB



STEERING AXLE - SHAFT & HUB

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	157070H1	DRUM, Brake .....	2		
2	157072H1	SEAL, Brake .....	2		
3	S-268	SCREW, Cap .....	16		
4	125003H1	WASHER, Sealing .....	16		
5	157043H1	COVER, Planet Carrier .....	2		
6	157044H1	GASKET .....	2		
7	157045H1	BUTTON, Thrust .....	2		
8	190302H1	PLUG .....	2		
9	OR2-8	"O" RING .....	2		
10	157071H1	STUD .....	24		
11	157041H1	CARRIER, Planet .....	2		
12	157051H1	GEAR, Ring .....	2		
13	157061H1	SCREW, Cap (socket head) .....	2		
14	CP-25	PIN, Cotter .....	2		
15	157060H1	NUT .....	2		
16	157053H1	HUB, Planet Ring Gear .....	2		
17	157054H1	PLATE, Lock .....	8		
18	157055H1	SCREW, Cap .....	16		
19	157058H1	SPACER .....	2		
20	178268H1	SHAFT, Sun Gear .....	2		
21	157120H1	SEAL, Oil .....	2		
22	157056H1	BEARING, Roller .....	2		
23	157057H1	CUP .....	2		
24	OR3-52	"O" RING .....	2		
25	163019H1	HUB ASSEMBLY (Includes Item 23 & 42) .....	2		
	157068H1	HUB .....	2		
26	101735H1	NUT .....	24		
27	173409H1	BRAKE ASSEMBLY (Page 7-11) .....	2		
28	157075H1	SCAVENGER, Oil .....	2		
29	157421H1	WASHER, Thrust .....	6		
*	209689H1	PLANET CARRIER & GEAR (Includes Items 30 & 31) ...	2		
30 *	209690H1	PINION, Planet .....	6		
31 *	209691H1	BEARING ASSEMBLY .....	12		
*	209692H1	SPACER .....	6		
32 *	209693H1	SHAFT, Planet Pinion .....	6		
33 *	209694H1	WASHER, Thrust .....	6		
34	WL-16	WASHER, Lock .....	24		
35	S-267	SCREW, Cap .....	24		
36	157077H1	RETAINER, Seal .....	2		
37	OR3-19	"O" RING .....	2		
38	157080H1	RING, Retaining .....	2		
39	157078H1	SEAL, Ring .....	2		
40	157079H1	SPACER .....	2		
41	157065H1	BEARING, Roller .....	2		
42	157066H1	CUP .....	2		
43	209564H1	NUT .....	24		
	188782H1	SHIM, .005 .....	10		
	188783H1	SHIM, .007 .....	6		
	188784H1	SHIM, .020 .....	2		
	173951H1	WHEEL .....	2		
	138546H1	FLANGE .....	2		
	138547H1	RING, Lock .....	2		
	138548H1	"O" RING .....	2		
		TIRE - Tubeless, 14:00 x 24T - 12 Ply ] Buy From	2		
		VALVE - TR-623 ] Local Dealer	2		
		*Items marked with an asterisk replaced the following:			
	157046H2	PINION ASSEMBLY (Includes next 2 items) .....	6	28AH-1001 29AC-1003	1390 1650
		PINION, Planet .....	6		
		BUSHING .....	6		
	157050H1	SHAFT, Planet Pinion .....	6		
	157049H1	WASHER, Thrust .....	6		



STEERING AXLE - BRAKE

STEERING AXLE - BRAKE

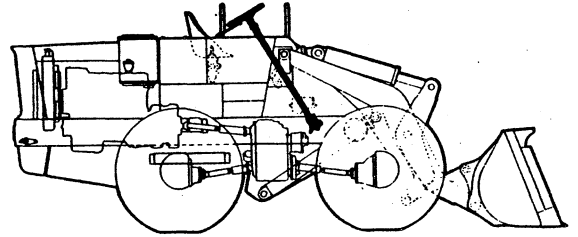
ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	104687	BRAKE SHOE ASSY., (Incls. (16) of Item 1 & (1) each of Items 2 & 3 .....	4		
	179597	KIT, Brake Lining, (Incls. Items 1 & 2).....	1		
1	112367	RIVET .....	64		
2	104686	LINING.....	4		
3		SHOE, Brake.....	4		
4	104656	SPRING .....	2		
5	104645	WASHER, "C".....	4		
6	HA-1463	WASHER, Flat .....	4		
7		SHOE, Brake.....	2		
8	104690	CAM, Adjusting .....	4		
9	HA-1463	WASHER, Flat .....	4		
10	158918	SPRING.....	4		
11	104655	SPRING.....	4		
12	158914	BACKING PLATE, (Incls. (2) Each of Items 8, 11, 15 thru 19 & 21).....	2		
13	WL-16	WASHER, Lock .....	4		
14	S-266	SCREW, Cap.....	4		
15	104657	PIN, Adjusting .....	4		
16	104672	PIN .....	4		
17	H-112	NUT .....	4		
18	WL-112	WASHER, Lock.....	4		
19	104693	PIN .....	4		
20	HA-1463	WASHER, Flat .....	4		
21	104681	PIN, Anchor .....	4		
22	104680	WASHER, Felt .....	4		
23	104679	RETAINER .....	4		
24	HA-1463	WASHER, Flat .....	4		
25	104645	WASHER, "C".....	4		
26	104678	WASHER, Flat .....	4		
27	104677	WASHER, Flat .....	4		
28	127185	LINK, Cylinder .....	4		
	127104	CYLINDER, Wheel (Incls. (2) each of Items 29 thru 31 & (1) of Items 32 & 34) .....	2		
29	112261	BOOT .....	4		
30	112260	PISTON .....	4		
31	111460	CUP .....	4		
32		BODY, Cylinder.....	2		
33	112259	SCREW, Bleeder .....	2		
34	111459	SPRING.....	2		
	107442	KIT, Wheel Cylinder (One Kit Per Brake) (Incls. (2) each of Items 29 & 31) .....	2		

Suffix H1 should be applied to all Hough six digit numbers unless advanced.



# SECTION 8

## STEERING GEAR



### Table Of Contents

<b>Group</b>	<b>Page</b>
GEAR, STEERING (ROSS) .....	8-3
GEAR, STEERING (SAGINAW) .....	8-7

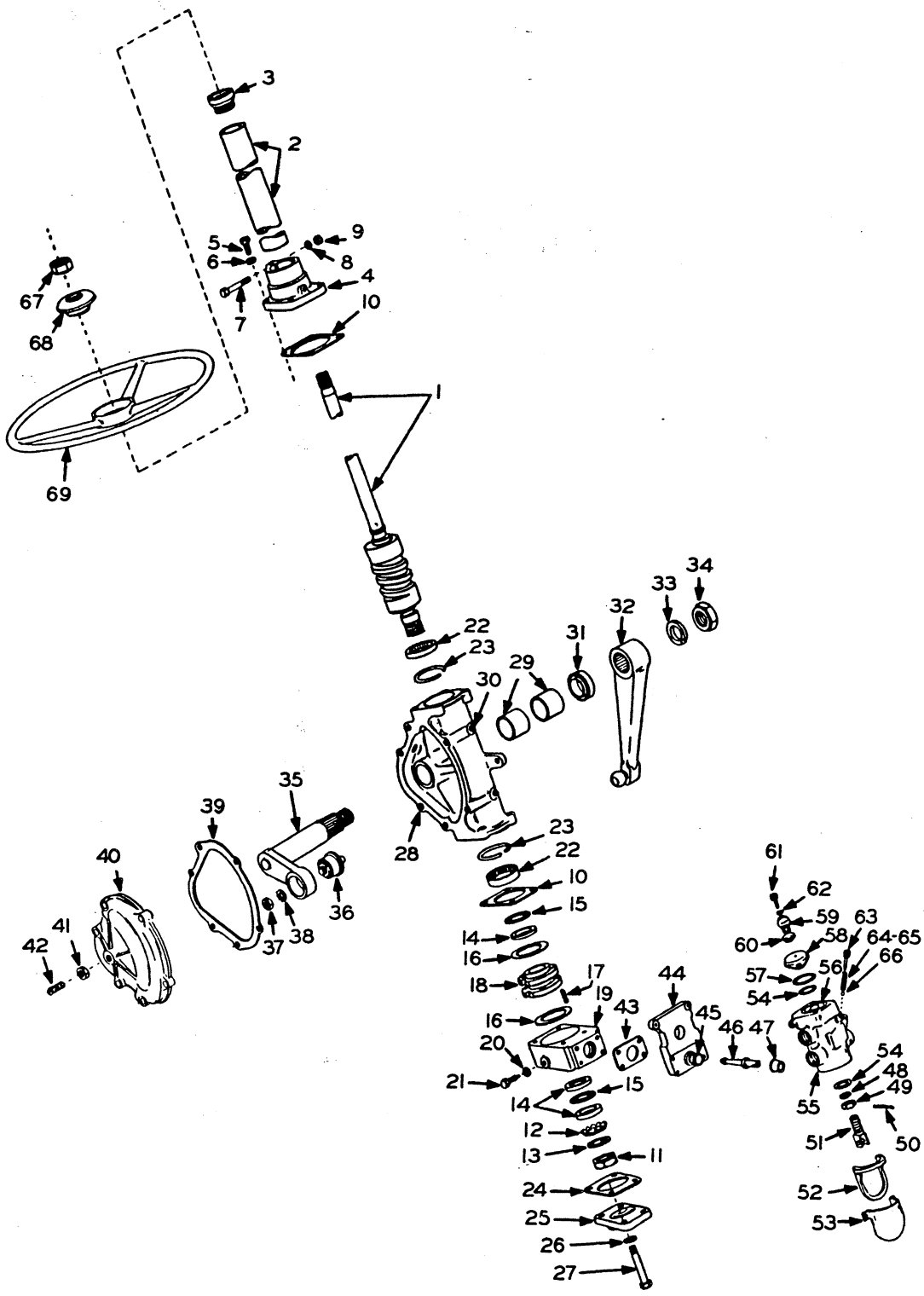


Illustration is of typical parts only  
 which may vary in detail or assembly

STEERING GEAR

(ROSS) STEERING GEAR

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
		Used on machines of S/N 28AH-1001 thru 28AH-1113 28AH-1208 & Up - 29AC-1003 thru 29AC-1117 thru 29AC-1244 & Up			
1	174010H1	STEERING GEAR CHUCK .....	1		
	177267H1	CAM SHAFT & TUBE ASSEMBLY .....	1		
	177270H1	JACKET TUBE ASSEMBLY (Includes Items 2 & 3) ....	1		
2		JACKET, Tube (Order 177270).....	1		
3	176399H2	BEARING, Jacket Tube .....	1		
4	146371H1	COVER, Upper .....	1		
5	S-266	SCREW, Cap .....	4		
6	177276H1	WASHER, Lock .....	4		
	P - 12	PLUG, Pipe (cover) .....	1		
7	142521H1	SCREW, Cap .....	1		
8	WL-16	WASHER, Lock .....	1		
9	H - 16	NUT .....	1		
10	150773H1	GASKET .....	3		
11	146383H1	NUT, Lock .....	1		
12	146382H1	WASHER, Lock .....	1		
13	162807H1	WASHER, Tongued .....	1		
14	146381H1	WASHER, Thrust .....	3		
15	138470H1	BEARING, Thrust .....	2		
16	177275H1	WASHER, Centering .....	2		
17	150782H1	SPRING .....	8		
18	146379H1	ACTUATOR .....	1		
19	158511H1	HOUSING, Actuator .....	1		
20	160457H1	WASHER .....	1		
21	146380H1	SCREW .....	1		
22	146365H1	BEARING, Cam .....	2		
23	146364H1	RING, Bearing Retainer .....	2		
24	146372H1	GASKET, Cover .....	1		
25	155485H1	COVER, End .....	1		
26	177276H1	WASHER, Flat .....	4		
27	S-2622	SCREW, Cap .....	4		
	177266H1	HOUSING ASSEMBLY, (Includes items 22, 23, 28, 29 & 31 HOUSING (Order 177266) .....	1		
28		BUSHING .....	1		
29	120088H1	BUSHING .....	2		
30	P - 14	PLUG, Pipe .....	AR		
31	120080H1	SEAL, Oil .....	1		
32	174107H1	ARM ASSEMBLY, Used on machines of S/N 28AH-1001 thru 1078 & 29AC-1003 thru 1117 .....	1		
32	181790H1	ARM ASSEMBLY, Used on machines of S/N 28AH-1079 & Up & 29AC-1078, 79, 81 & Up .....	1		
33	WL-214	WASHER, Lock .....	1		
34	120053H1	NUT .....	1		
	177268H1	LEVER SHAFT ASSEMBLY (Includes items 33, 34, 35 thru 38 & 42) .....	1		
35		LEVER SHAFT (Order 177268) .....	1		
36	146368H1	BEARING ASSEMBLY (Includes items 37 & 38) .....	1		
37	HS-858	NUT .....	1		
38	HS-859	WASHER, Pronged .....	1		
	120085H1	ROLLERS .....	26		
39	177278H1	GASKET, Side Cover .....	1		
40	177269H1	COVER, Side Assembly .....	1		
	S-269	SCREW, 3/8 - 16 x 1-1/8" .....	2		
	177276H1	WASHER, 25/64 x 11/16" .....	2		
	S-1724	SCREW, 7/16 - 20 x 3" .....	2		
	S-1742	SCREW, 7/16 - 20 x 5-1/4" .....	1		
	177277H1	WASHER, 29/64 x 25/32" .....	6		
	H - 57	NUT, 7/16 - 20 .....	3		
41	120069H1	NUT, Lock .....	1		
42		SCREW, Adjusting .....	1		
		RETAINER .....	1		
43	150771H1	GASKET .....	1		
44	188160H1	VALVE, Mtg. Bracket Assy. ....	1		
45		BUSHING .....	1		

(Continued on following page)

ROSS STEERING GEAR (Continued)

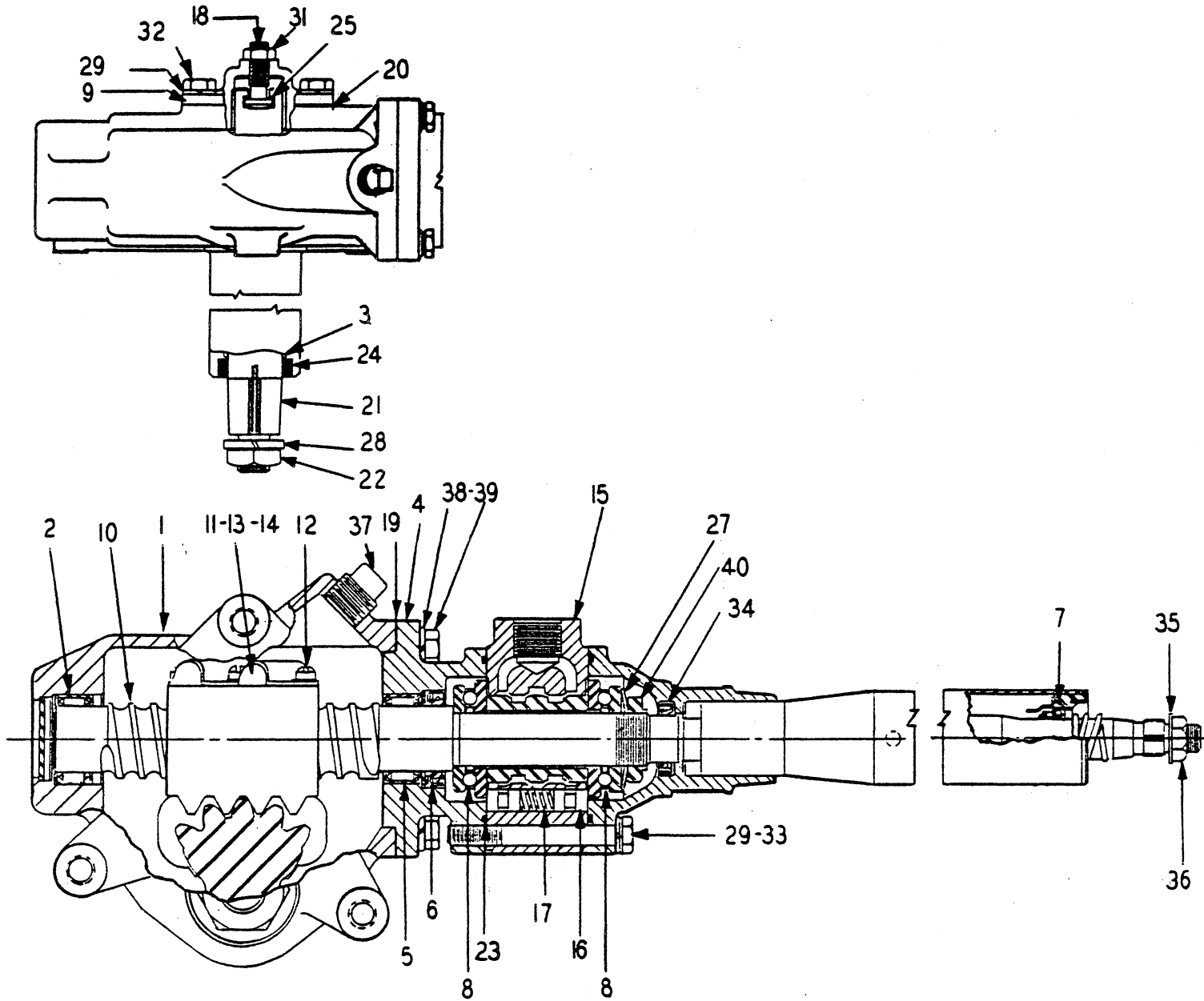
ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	150801H1	SCREW, 1/4-20 x 5/8" .....	2		
	150756H1	SCREW, 1/4-20 x 1" .....	2		
	166570H1	SCREW, 1/4-20 x 1-1/4" .....	2		
	140538H1	WASHER, Lock .....	6		
46	177274H1	LEVER, Actuating .....	1		
47	150769H1	SEAL, Lever .....	1		
48	127139H1	WASHER, Lock .....	1		
49	155487H1	NUT .....	1		
50	CP-28	PIN, Cotter .....	1		
51	150762H1	CLEVIS ASSEMBLY .....	1		
52	150788H1	SEAL, Lever Cover .....	1		
53	150787H1	COVER, Lever .....	1		
54	OR4-19	"O" RING .....	2		
	150758H1	VALVE ASSY., (Includes Items 48 thru 51 & 54 thru 66	1		
55		BODY, Valve (Order 150758H1) .....	1		
56		SPOOL, Valve (Order 150758H1) .....	1		
	150796H1	VALVE SPOOL COVER & SEAL ASSY. (Incl. Items 57			
		thru 60) .....	1		
57	OR4-24	"O" RING .....	1		
58		COVER (Order 150796H1) .....	1		
59	150790H1	RETAINER, Seal .....	1		
60	150789H1	SEAL, Rubber .....	1		
61	150801H1	SCREW .....	4		
62	140538H1	WASHER, Lock .....	4		
63	150774H1	PLUG .....	1		
64	164916H1	SPRING, Small .....	1		
65	130128H1	SPRING, Large .....	1		
66	130127H1	BALL .....	1		
67	120070H1	NUT, Wheel .....	1		
68	160480H1	CAP, Wheel .....	1		
69	120096H1	WHEEL, 18" .....	1		
	153492H1	BRACKET .....	1		
	S-1610	SCREW, Cap .....	2		
	WF-16	WASHER, Flat .....	4		
	WL-16	WASHER, Lock .....	2		
	H - 16	NUT .....	2		
	S-1816	SCREW, Cap .....	2		
	WL-18	WASHER, Lock .....	2		
	H - 18	NUT .....	2		
	144079H1	"U" BOLT .....	1		
	144068H1	BLOCK .....	1		
	E - 26	NUT .....	2		
	174013H1	ANGLE (Steering Gear Support) .....	1		
	S-11218	SCREW, Cap .....	4		
	WF-312	WASHER .....	4		
	E - 112	NUT .....	4		
	165295H1	SCREW, Wheel Cover .....	3		
	103496H1	ELBOW, 45° .....	1		
	176052H1	CAP, Pipe .....	1		
	139018H1	NIPPLE .....	1		
	S-1748	SCREW, Cap .....	1		
	WL-17	WASHER, Lock .....	1		
	H - 17	NUT .....	1		
	157085H1	STUD, Ball .....	1		
	178200H1	NUT, Lock .....	1		
	178199H1	WASHER .....	1		



---

NOTES

STEERING GEAR



SAGINAW STEERING GEAR

Check Nameplate & Serial Number of "PAYLOADER" before ordering parts used on machines of S/N 28AH-1114 thru 1207 & 29AC-1118 thru 1243.

NOTE: The following changes are also necessary when using the Saginaw Steering Gear.

Refer to the Steering Lines Group used on machines of S/N 28AH-1079 & Up & 29AC-1078 & Up (except 29AC-1080).

Delete (1) of Item 10 and add (1) 156436H1 Hose and (1) 291-10 Elbow.

Delete (1) of Item 13 and add (1) 131147H1 Hose, L.H. and (1) 291-8 Elbow.

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	184686H2	STEERING GEAR CHUCK (Includes Items 1 thru 40) (Replaces 184686) .....	1		
1	186474H1	HOUSING ASSEMBLY (Includes Items 2 & 3).....	1		
2	158296H1	BEARING .....	1		
3	186475H1	BUSHING .....	2		
4	186468H1	ADAPTER ASSEMBLY (Includes Items 5 & 6).....	1		
5	158296H1	BEARING .....	1		
6	186469H1	SEAL .....	1		
	193954H1	COVER & JACKET BEARING SEAL ASSEMBLY .....	1		
7	193155H1	BEARING ASSEMBLY, Upper .....	1		
8	158297H1	BEARING, Thrust .....	2		
9	186470H1	COVER ASSEMBLY .....	1		
10	186514H1	SHAFT ASSEMBLY (Includes Items 11 thru 14) .....	1		
11	HS-911	BALL .....	106		
12	107940H1	BOLT & WASHER .....	3		
13	107941H1	CLAMP, Guide.....	1		
14	107942H1	GUIDE .....	4		
15	158302H1	VALVE ASSEMBLY (Includes Items 16 & 17) .....	1		
16	158303H1	PLUNGER .....	8		
17	158304H1	SPRING .....	4		
18	HS-914	ADJUSTER, Lash .....	1		
19	186480H1	GASKET .....	1		
20	186481H1	GASKET .....	1		
21	186482H1	GEAR .....	1		
22	161810H1	NUT .....	1		
23	186483H1	SEAL .....	2		
24	186484H1	SEAL .....	1		
25	122511H1	KIT, Shim (Includes next four items) .....	1		
	HA-1440	SHIM, (.063).....	1		
	HA-1441	SHIM, (.065).....	1		
	HA-1445	SHIM, (.067).....	1		
	HA-1446	SHIM, (.069).....	1		
27	172352H1	SPRING .....	1		
28	WL-214	WASHER, Lock .....	1		
29	WL-16	WASHER, Lock .....	6		
31	H - 37	NUT .....	1		
32	S-266	SCREW, Cap .....	3		
33	S-2626	SCREW, Cap .....	3		
34	190829H1	SEAL, Valve Cover (replaces 186473) .....	1		
35	HA-1492	WASHER .....	1		
36	HA-1232	NUT .....	1		
37	P - 18	PLUG, Filler .....	1		
38	WL-17	WASHER, Lock .....	4		
39	HS-931	BOLT .....	4		
40	158336H1	NUT .....	1		
	HA-1231	WHEEL, Steering .....	1		
	150717H1	COVER, Wheel .....	1		
	184721H1	ARM, Pitman .....	1		
	153492H1	BRACKET .....	1		
	S-169	SCREW, Cap .....	2		
	WF-16	WASHER, Flat .....	2		
	WL-16	WASHER, Lock.....	2		
	H - 16	NUT .....	2		

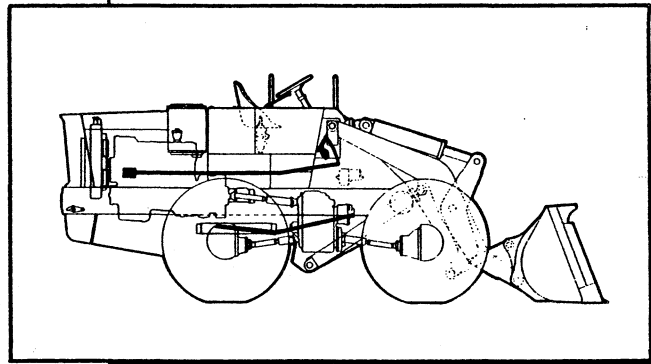
(Continued on following page)

SAGINAW STEERING GEAR (Continued)

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	144079H1	"U" BOLT .....	1		
	144068H1	BLOCK .....	1		
	WL-26	WASHER, Lock .....	2		
	H - 26	NUT .....	2		
	S-2812	SCREW, Cap .....	3		
	WL-18	WASHER, Lock .....	3		
	184975H1	SUPPORT, Steering Gear .....	1		
	S-11216	SCREW, Cap .....	4		
	WL-112	WASHER, Lock .....	4		
	H-112	NUT .....	4		
		Support to Frame			

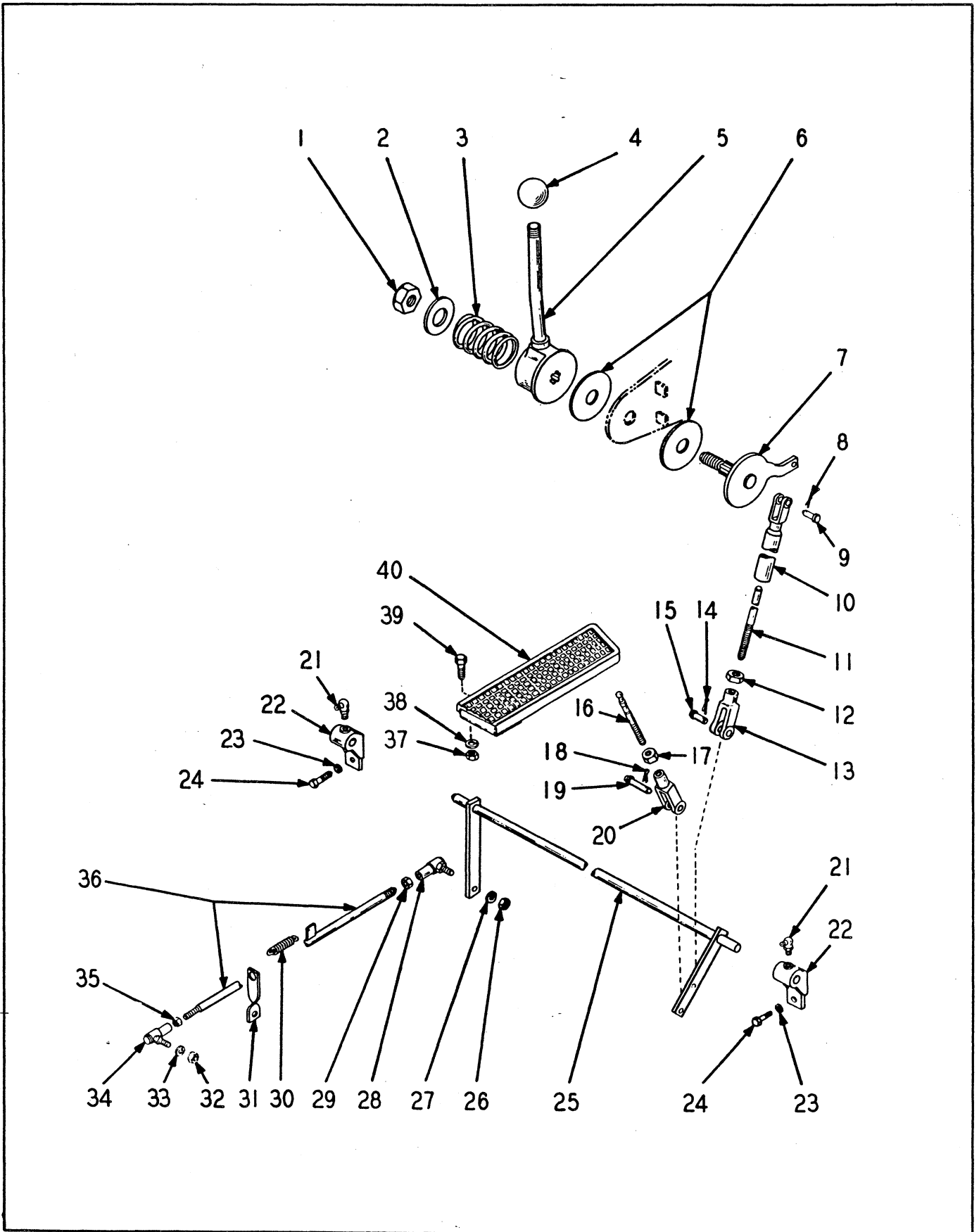
# SECTION 9

# LINKAGE



## Table Of Contents

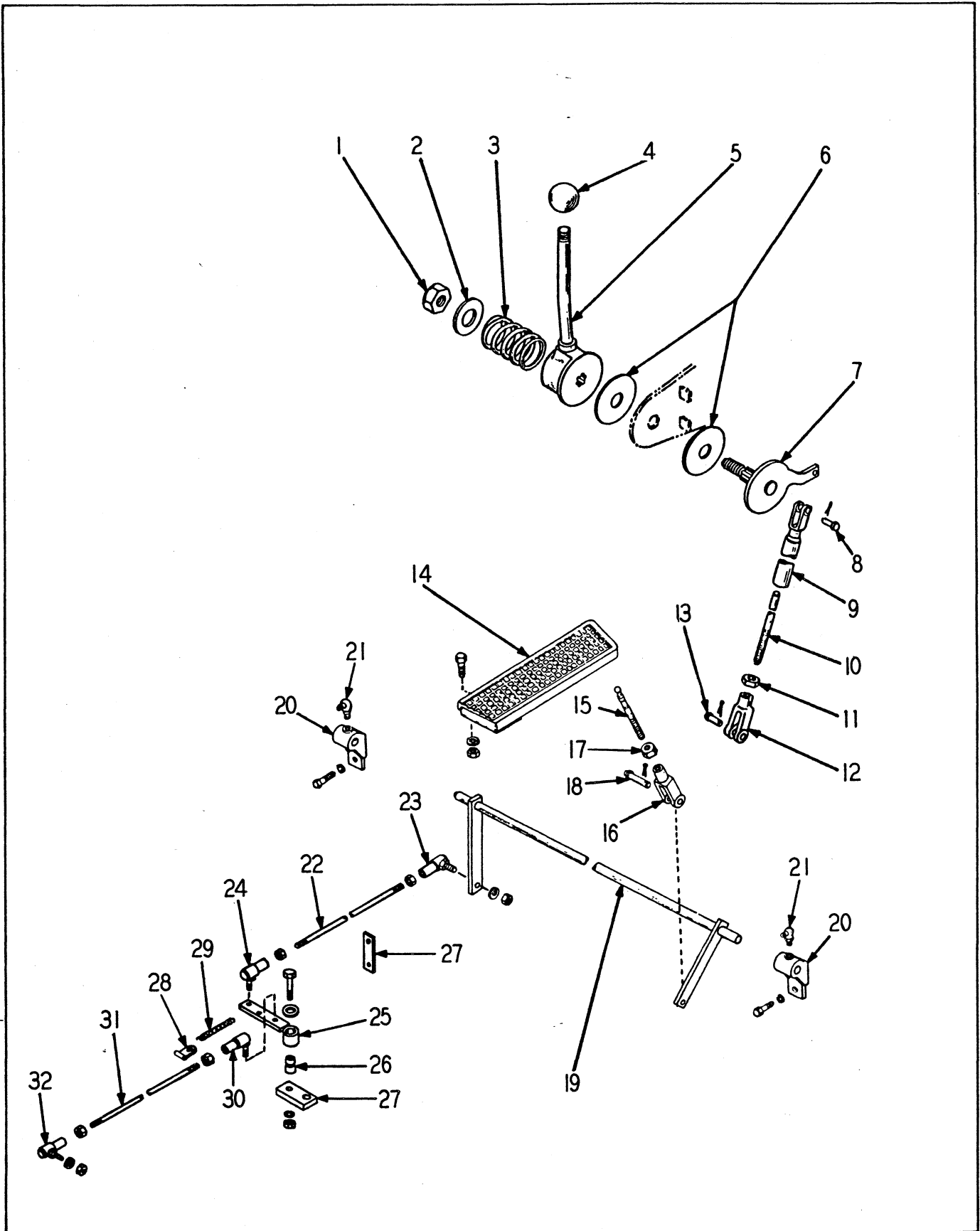
<b>Group</b>	<b>Page</b>
ACCELERATOR LINKAGE - GAS .....	9-3
ACCELERATOR LINKAGE - DIESEL .....	9-5
AXLE THROWOUT LINKAGE .....	9-6
BRAKE, PARKING LINKAGE .....	9-9
GEAR SHIFT LINKAGE .....	9-11 9-13
STEERING LINKAGE .....	9-15
VALVE CONTROL LINKAGE .....	9-7



ACCELERATOR LINKAGE

ACCELERATOR LINKAGE (U-372)

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	H - 18	NUT .....	1		
2	WF-18	WASHER, Flat .....	1		
3	108650H1	SPRING .....	1		
4	HL-3343	KNOB .....	1		
5	140960H1	LEVER .....	1		
6	108651H1	DISC .....	2		
7	125098H1	SHAFT, Throttle .....	1		
8		PIN, Cotter .....	1		
9	HA-845	PIN ASSEMBLY .....	1		
10	109046H1	TUBE .....	1		
11	157419H1	ROD .....	1		
12	H - 15	NUT .....	1		
13	HL-1263	CLEVIS .....	1		
14		PIN, Cotter .....	1		
15	HL-1264	PIN ASSEMBLY .....	1		
16	172213H1	PIN, Pedal .....	1		
17	H - 15	NUT .....	1		
18		PIN, Cotter .....	1		
19	HL-1264	PIN ASSEMBLY .....	1		
20	HL-1263	CLEVIS .....	1		
21	118494H1	FITTING, Grease .....	2		
22	HA-800	BEARING .....	2		
23	WL-14	WASHER, Lock .....	4		
24	S-148	SCREW, Cap .....	4		
	H - 14	NUT .....	4		
25	174789H1	SHAFT, Cross .....	1		
26	H - 15	NUT .....	1		
27	WL-15	WASHER, Lock .....	1		
28	158396H1	BALL JOINT .....	1		
29	H - 15	NUT .....	1		
30	107734H1	SPRING .....	1		
31	136271H1	SUPPORT .....	1		
32	H - 14	NUT .....	1		
33	WL-14	WASHER, Lock .....	1		
34	158395H1	BALL JOINT .....	1		
35	H - 14	NUT .....	1		
36	174793H1	ROD, Accelerator .....	1		
37	H - 14	NUT .....	2		
38	WL-14	WASHER, Lock .....	2		
39	S-148	SCREW, Cap .....	2		
40	143669H1	PEDAL .....	1		
	174794H1	CLIP, Spring on Gen. Brkt. ....	1		
	103882H1	CLIP, Spring on Throttle Arm .....	1		
	S-148	SCREW, Cap .....	1		
	WF-14	WASHER, Flat .....	1		
	WL-14	WASHER, Lock .....	1		
	H - 14	NUT .....	1		

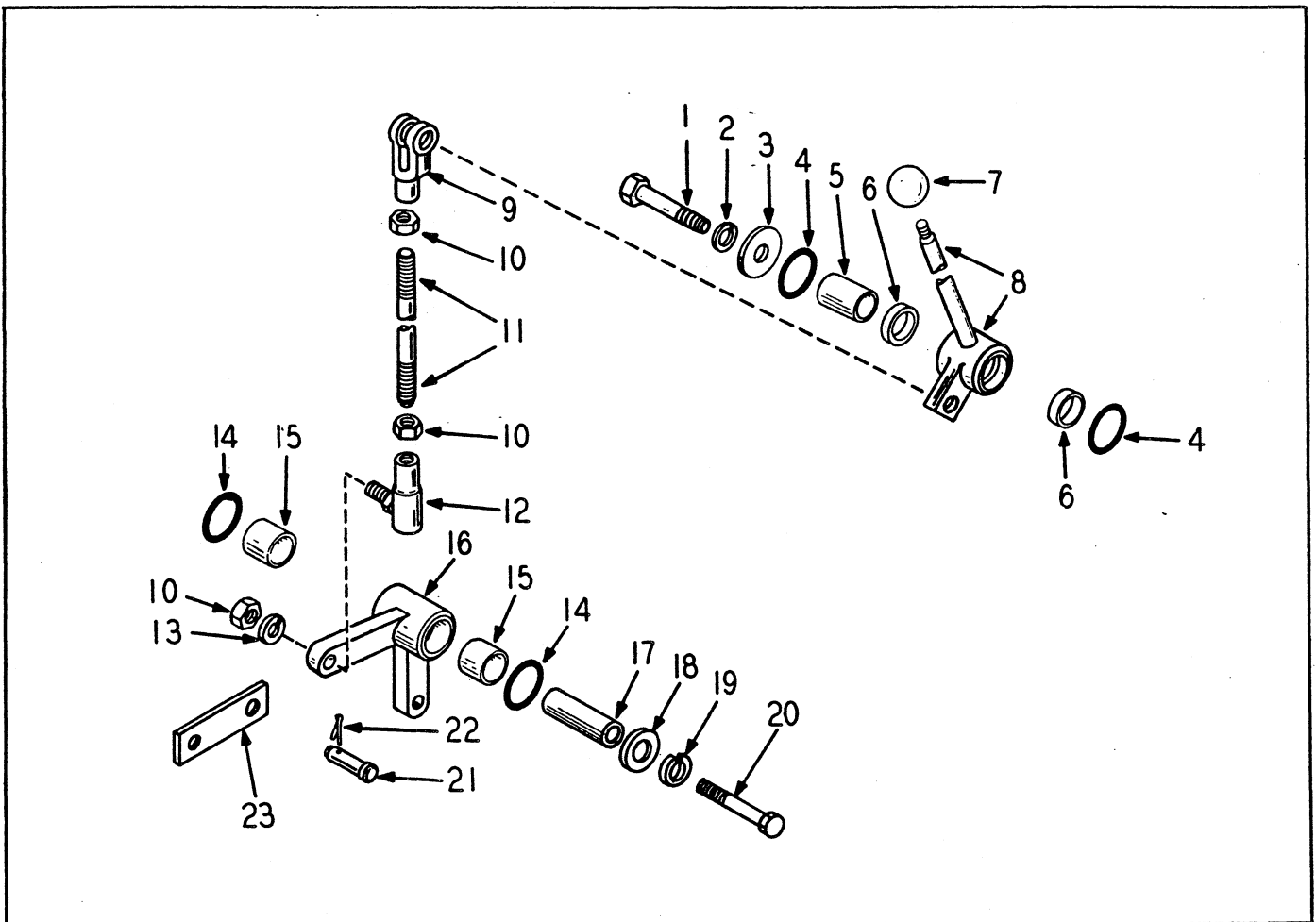


ACCELERATOR LINKAGE



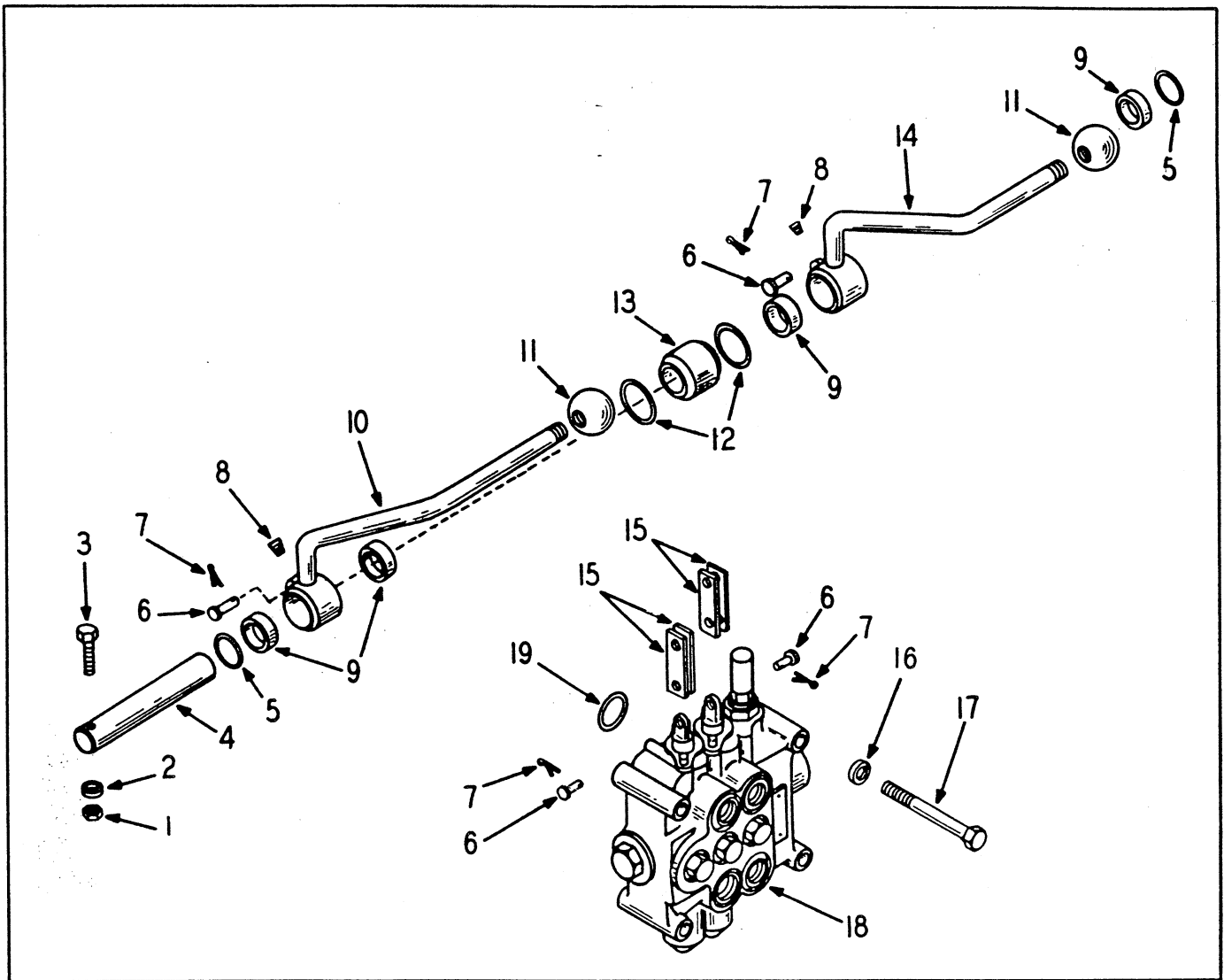
ACCELERATOR LINKAGE (JF-6-CI)

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	H - 18	NUT .....	1		
	WL-18	WASHER, Lock .....	1		
2	113694H1	WASHER, Flat .....	1		
3	108650H1	SPRING .....	1		
4	HL-3343	KNOB .....	1		
5	140960H1	LEVER .....	1		
6	108651H1	DISC .....	2		
7	125098H1	SHAFT, Throttle .....	1		
8	HA-845	PIN ASSEMBLY .....	1		
9	109046H1	TUBE .....	1		
10	157419H1	ROD .....	1		
11	H - 15	NUT .....	1		
12	HL-1263	CLEVIS .....	1		
13	HL-1264	PIN ASSEMBLY .....	1		
14	155596H1	PEDAL, Accelerator .....	1		
	S-146	SCREW, Cap .....	2		
	WL-14	WASHER, Lock .....	2		
	H - 14	NUT .....	2		
15	172213H1	PIN, Accelerator Pedal .....	1		
16	HL-1263	YOKE END, Adjustable .....	1		
17	H - 15	NUT .....	1		
18	HL-1264	PIN ASSEMBLY, Yoke .....	1		
19	172215H1	SHAFT, Cross .....	1		
20	HA-800	BEARING .....	2		
	S-148	SCREW, Cap .....	4		
	WL-14	WASHER, Lock .....	4		
	H - 14	NUT .....	4		
21	118494H1	FITTING, Grease .....	2		
22	174790H1	ROD, Accelerator .....	1		
23	158396H1	JOINT, Ball .....	1		
	WL-15	WASHER, Lock .....	1		
	H - 15	NUT .....	2		
24	158396H1	JOINT, Ball .....	1		
	WL-15	WASHER, Lock .....	2		
	H - 15	NUT .....	4		
25	186246H1	BELLCRANK .....	1		
	135120H1	FITTING, Grease .....	1		
26	186249H1	SPACER, Bellcrank .....	1		
27	103763H1	SUPPORT, Accelerator Rod .....	1		
	S-1620	SCREW, Cap .....	1		
	WL-16	WASHER, Lock .....	1		
	WF-16	WASHER, Flat .....	1		
	H - 16	NUT .....	1		
28	103763H1	CLIP, Spring.....	1		
29	117256H1	SPRING, Accelerator Rod Return .....	1		
30	158395H1	JOINT, Ball .....	1		
	H - 14	NUT .....	2		
	WL-14	WASHER, Lock .....	1		
31	189462H1	ROD, Accelerator Rear .....	1		
32	158397H1	JOINT, Ball .....	1		
	H - 16	NUT .....	2		
	WL-16	WASHER, Lock .....	1		
	S-148	SCREW, Cap .....	1		
	WL-14	WASHER, Lock .....	1		
	WF-14	WASHER, Flat .....	1		
	H - 14	NUT .....	1		



AXLE THROWOUT LINKAGE

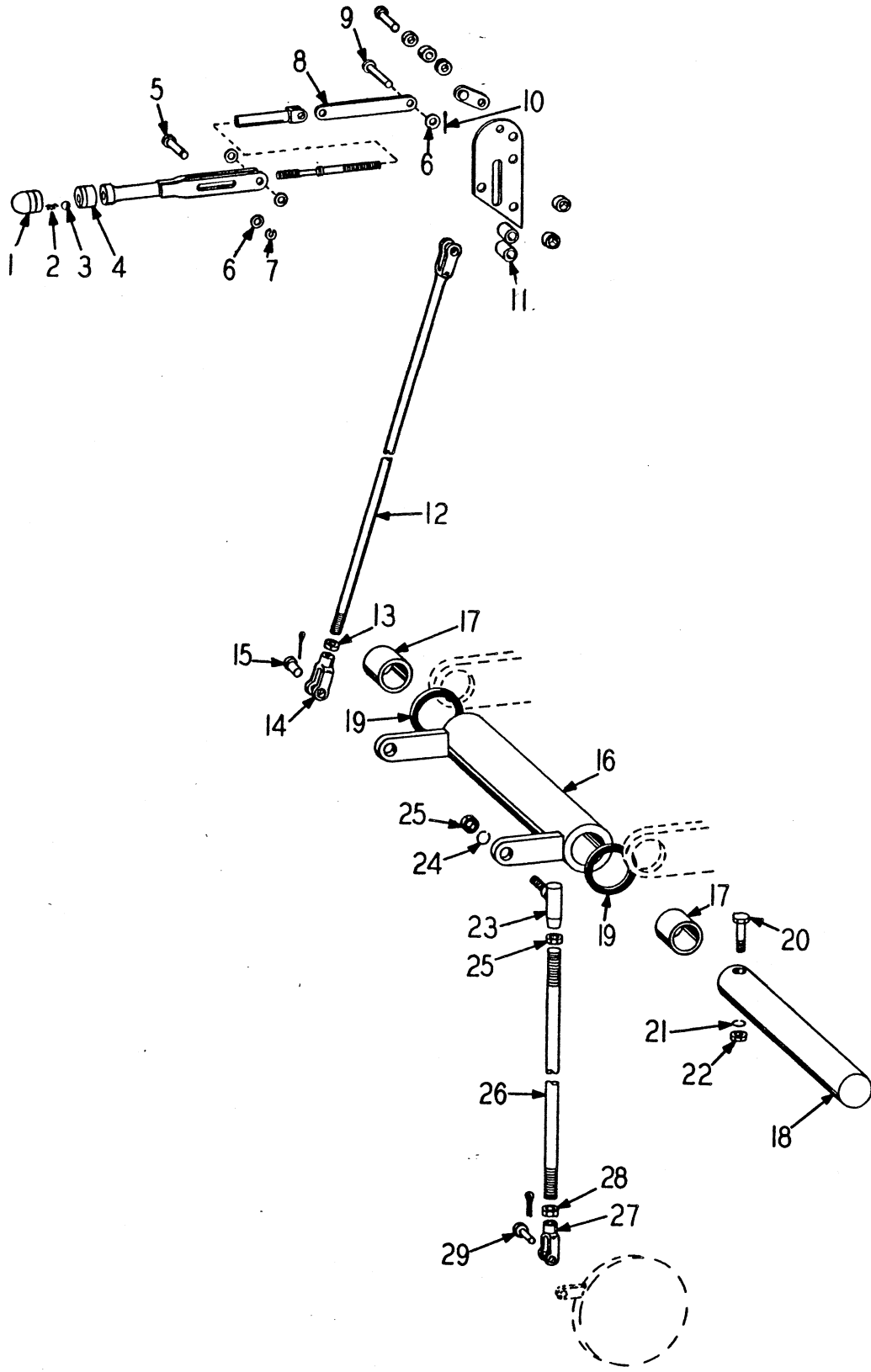
ITEM NO.	PART NO.	PART NAME	Qty	First Used On Serial Numbers	
				FROM	THRU
1	S-21020	SCREW, Cap.....	1		
2	WL-110	WASHER, Lock .....	1		
3	WF-110	WASHER, Flat .....	1		
4	OR4-28	"O" RING .....	2		
5	144301	TUBE .....	1		
6	144244	BUSHING .....	2		
7	HL-3343	KNOB .....	1		
8	176952	LEVER (Incls. Item 6) .....	1		
9	GH-211	CLEVIS .....	1		
	GH-212	PIN .....	1		
10	H-18	NUT .....	3		
11	179957	ROD .....	1		
12	149723	BALL JOINT .....	1		
13	WL-18	WASHER, Lock.....	1		
14	OR4-28	"O" RING.....	2		
15	144244	BUSHING.....	2		
16	176953	BELLCRANK.....	1		
17	176947	SLEEVE.....	1		
18	176948	WASHER, Flat .....	1		
19	WL-18	WASHER, Lock .....	1		
20	S-2826	SCREW, Cap .....	1		
21	GH-212	PIN .....	2		
22	CP-47	PIN, Cotter.....	2		
23	176949	LINK.....	2		
	118492	FITTING, Grease .....	2		



VALVE CONTROL LINKAGE

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	H-15	NUT.....	1		
2	WL-15	WASHER, Lock.....	1		
3	S-1518	SCREW, Cap.....	1		
4	174257	PIN .....	1		
5	OR2-20	"O" RING .....	2		
6	HL-3486	PIN ASSY. (Incl. Item 7) .....	4		
7		PIN, Cotter.....	4		
8	118491	FITTING, Grease.....	3		
9	144244	BUSHING .....	4		
10	175639	LEVER, Boom (Incl. 2 of item 9) .....	1		
11	HL-3343	KNOB .....	2		
12	OR4-25	"O" RING .....	2		
13	173786	SPACER .....	1		
14	175640	LEVER, Bucket (Incl. 2 of item 9) .....	1		
15	174258	LINK .....	4		
16	WL-18	WASHER, Lock .....	4		
17	S-1834	SCREW, Cap.....	4		
18		VALVE, Control(See Page 11-11).....	1		
19	OR4-21	"O" RING.....	1		

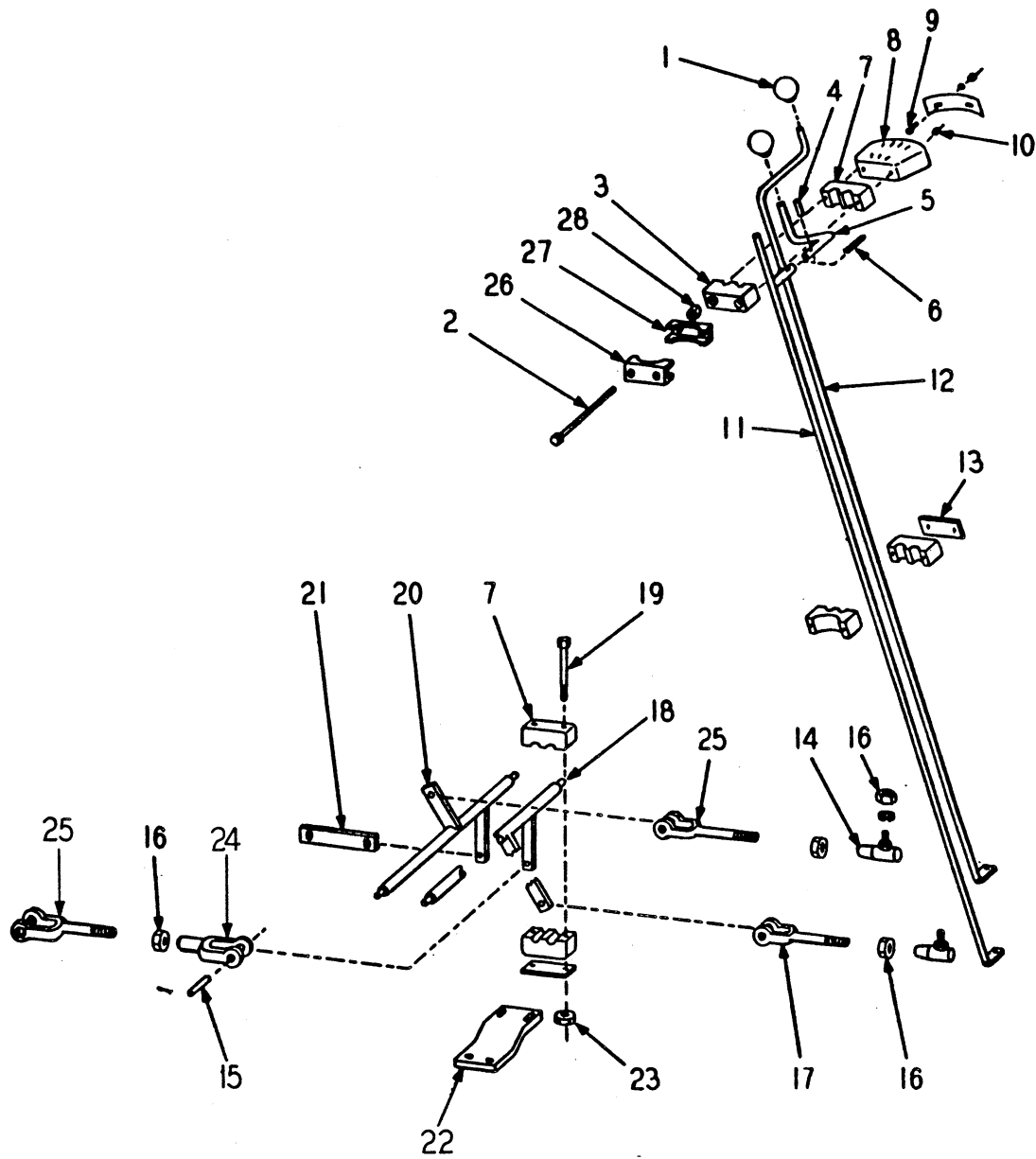
Suffix H1 should be applied to all Hough six digit numbers unless advanced.



PARKING BRAKE LINKAGE

PARKING BRAKE LINKAGE

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	115086H1	LEVER, Parking Brake Assy. (Incl. Items 1 thru 11) .	1		
2	160925H1	CAP, Adjusting Knob .....	1		
3	160932H1	SPRING .....	1		
4	131525H1	BALL, Chrome .....	1		
5	160926H1	BASE, Adjusting Knob .....	1		
6	150742H1	PIN, Foot .....	1		
7	WF-35	WASHER, Flat .....	2		
8	150744H1	RING, Retaining .....	1		
9	173775H1	LINK .....	1		
10	141455H1	PIN .....	1		
11	CP-36	PIN, Cotter .....	1		
	134704H1	SPACER .....	2		
	S-1620	SCREW, Cap .....	2		
	H - 16	NUT .....	2		
	WL-16	WASHER, Lock .....	2		
12	171661H1	ROD & CLEVIS .....	1		
13	H - 16	NUT .....	1		
14	HL-3485	CLEVIS .....	1		
15	HL-3486	PIN & COTTER .....	1		
16	174306H1	BELLCRANK (Includes Item 17)	1		
17	144243H1	BUSHING .....	2		
18	174308H1	SHAFT, Pivot .....	1		
19	OR4-28	"O" RING .....	2		
20	S-1518	SCREW, Cap .....	1		
21	WL-15	WASHER, Lock .....	1		
22	H - 15	NUT .....	1		
23	158397H1	BALL JOINT .....	1		
24	WL-16	WASHER, Lock .....	1		
25	H - 16	NUT .....	2		
26	101848H1	ROD .....	1		
27	HL-3485	CLEVIS .....	1		
28	H - 16	NUT .....	1		
29	HL-3486	PIN & COTTER .....	1		
	118492H1	FITTING, Grease .....	1		
		For units with cable operated parking brake used on machines of S/N 28AH-1189 & up & 29AC-1210 & 1217 & up Use below listed items in place of Items 12 thru 26 shown above.			
	HL-1263	CLEVIS .....	1		
	H - 15	NUT .....	1		
	187562H1	ANCHOR .....	1		
	186502H1	CABLE .....	1		
	190303H1	ANCHOR .....	1		
	137344H1	SPACER .....	2		
	S-2614	SCREW, Cap .....	2		

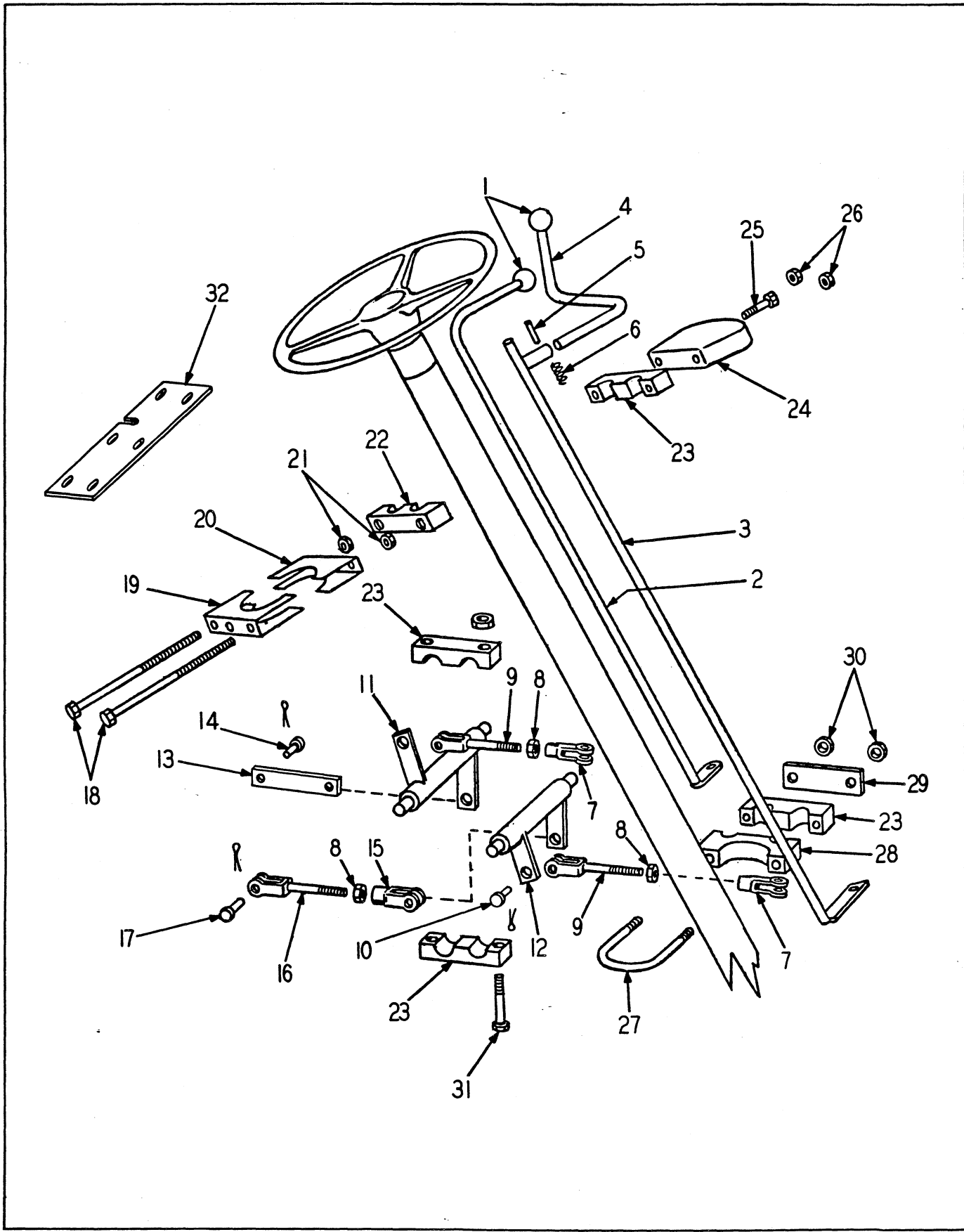


GEARSHIFT LINKAGE

GEARSHIFT LINKAGE

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
		For machines of S/N 28AH-1001 thru 28AH-1116 & 29AC-1003 thru 29AC-1126.			
1	HL-3343	KNOB .....	2		
2	181840	SCREW, Cap .....	2		
3	181837	BLOCK, Bearing .....	1		
4	153964	PIN, Roll .....	1		
5	153963	LEVER .....	1		
6	125548	SPRING .....	1		
7	144070	BLOCK, Bearing .....	7		
8	171670	QUADRANT .....	1		
9	153965	SCREW, Cap .....	1		
	WF-35	WASHER, Flat .....	1		
	WL-15	WASHER, Lock .....	1		
	H - 25	NUT .....	1		
10	E - 25	NUT .....	6		
11	174802	LEVER, Range .....	1		
12	174806	LEVER, Directional .....	1		
13	146989	PLATE .....	4		
14	158396	JOINT, Ball .....	2		
15	HL-1264	PIN & COTTER .....	6		
16	H - 15	NUT .....	5		
	WL-15	WASHER, Lock .....	2		
17	180921	YOKE END .....	1		
18	169914	BELLCRANK, Range .....	1		
19	S-1520	SCREW, Cap .....	4		
20	171675	BELLCRANK, Directional .....	1		
21	174808	LINK .....	2		
22	174805	BRACKET, Cross Rods .....	2		
	S-1816	SCREW, Cap .....	4		
	WL-18	WASHER, Lock .....	4		
	H - 18	NUT .....	4		
23	E - 15	NUT .....	4		
24	HL-1263	YOKE, Clevis .....	1		
25	180921	YOKE END Replaces 157315.....	2		
26	181836	CLAMP .....	1		
27	181835	CLAMP .....	1		
28	H - 35	NUT .....	2		

Suffix H1 should be applied to all Hough six digit numbers unless advanced.



GEARSHIFT LINKAGE

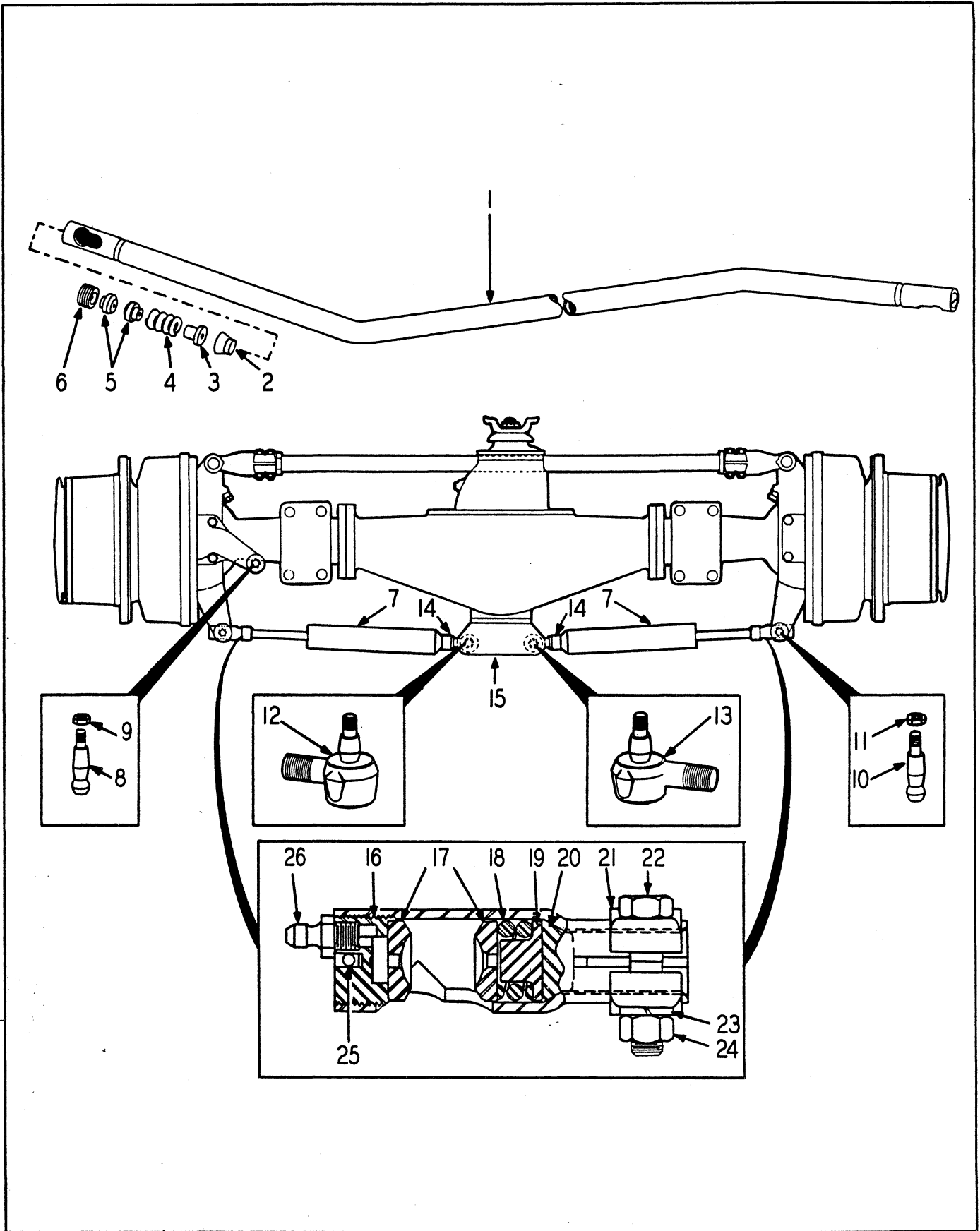


GEARSHIFT LINKAGE

For machines of S/N 28AH-1117 & Up & 29AC-1127 & Up

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	HL-3343	KNOB .....	2		
2	186628H1	LEVER, Directional .....	1		
3	174802H1	LEVER, Range .....	1		
4	153963H1	LEVER .....	1		
5	153964H1	PIN, Roll .....	1		
6	125548H1	SPRING .....	1		
7	158396H1	JOINT, Ball .....	2		
8	H - 15	NUT .....	2		
	WL-15	WASHER, Lock .....	2		
9	180921H1	YOKE END .....	1		
10	HL-1264	PIN, Clevis .....	1		
11	186794H1	BELLCRANK, Forward & Reverse .....	1		
12	186570H1	BELLCRANK, Range .....	1		
13	174808H1	LINK .....	2		
14	HL-1264	PIN, Clevis .....	2		
15	HL-1263	YOKE, Clevis .....	1		
16	180921H1	YOKE END .....	1		
17	HL-1264	PIN, Clevis .....	2		
	H - 15	NUT .....	1		
18	207253H2	SCREW, Cap .....	2		
19	181836H2	CLAMP, Saddle .....	1		
20	181835H1	CLAMP, Saddle .....	1		
21	H - 35	NUT, Jam .....	2		
22	181837H1	BLOCK, Bearing .....	1		
23	144070H1	BLOCK, Bearing .....	7		
24	171670H1	QUADRANT .....	1		
25	153965H1	SCREW, Cap, Range Stop .....	1		
	WF-35	WASHER, Flat .....	1		
	WL-15	WASHER, Lock .....	1		
	H - 25	NUT .....	1		
26	E - 15	NUT .....	2		
	WF-15	WASHER, Flat .....	2		
27	144405H1	"U" BOLT .....	2		
28	144069H1	BLOCK, Bearing .....	2		
29	146989H1	PLATE .....	3		
30	E - 25	NUT, "U" Bolt .....	4		
31	S-1520	SCREW, Cap .....	2		
	S-1510	SCREW, Cap .....	2		
	E - 15	NUT.....	6		
	WF-15	WASHER, Flat .....	6		
32	186568H1	BAR, Bearing Support .....	1		
	S-1518	SCREW, Cap .....	2		

]- Brg. Block Attaching



STEERING LINKAGE

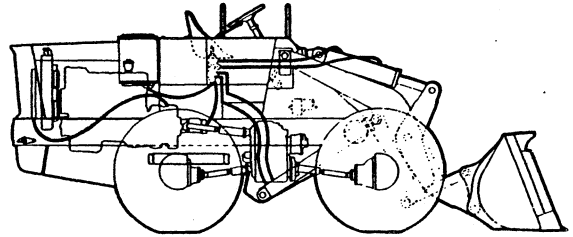
STEERING LINKAGE

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	174011H1	DRAG LINK (Includes Items 2 thru 6)	1		
2	145863H1	SEAT	2		
3	120655H1	GUIDE, Spring	2		
4	120654H1	SPRING	2		
5	110580H1	BEARING	4		
6	145862H1	PLUG, Adjusting	2		
	144287H1	SEAL, Grease	2		
	118491H1	FITTING, Grease	2		
	CP-414	PIN, Cotter	2		
7		CYLINDER, Steering (See Page 11-5)	2		
8	157085H1	STUD, Ball	1		
9	178200H1	NUT, Lock	1		
	178199H1	WASHER	1		
10	157085H1	STUD, Ball	2		
11	178200H1	NUT, Lock	2		
	178199H1	WASHER	2		
12	182970H1	BALLSOCKET, L. H. Cylinder Inbd. (Used with #158090H2 Strg. Cyl. shown on Page 11-5)	1		
12	188951H1	BALLSOCKET, Use with Cyl. #189070 see Page 11-5)	2		
13	182969H1	BALLSOCKET, R. H. Cyl. Inbd. (Used with #158090H2 Strg. Cyl. shown on Page 11-5)	1		
13	188951H1	BALLSOCKET, Use with Cyl. #189070 see Page 11-5)	2		
	E-110	NUT, Stop	4		
	138926H1	CLAMP ASSEMBLY	4		
	138925H1	CLAMP	4		
	H - 18	NUT	4		
	WL-18	WASHER, Lock	4		
	S-1818	SCREW, Cap	4		
	189074H1	WASHER, Hardened	4		
	P - 42	PLUG, Pipe	4		
	189073H1	SEAL, Grease	4		
	118492H1	FITTING, Grease	4		
14	138926H1	CLAMP ASSEMBLY	2		
	138925H1	CLAMP	2		
	H - 18	NUT	2		
	WL-18	WASHER, Lock	2		
	S-1818	SCREW, Cap	2		
15	173415H1	ANCHOR, Strg. Cyl. Mtg.	1		
	S-299	SCREW, Cap	4		
	WL-19	WASHER, Lock	4		
	144275H2	END, Drag Link replaced 144275 starting on machines of S/N 28AH - 1116 & 29Ac - 1120 Includes Items 16 thru 24 Used only with Steering Cylinder #158090H2 shown on Page 11-5) (Incl. Items 16 thru 24)	2		
16	145862H1	PLUG	2		
17	110580H1	BEARING	4		
18	120654H1	SPRING	2		
19	120655H1	GUIDE, Spring	2		
20	145863H1	SEAT	2		
	145883H1	CLAMP ASSEMBLY (Includes Items 21 thru 24)	2		
21	145864H1	CLAMP	2		
22	S-1716	SCREW, Cap	2		
23	WL-17	WASHER, Lock	2		
24	H - 17	NUT	2		
	144287H1	SEAL, Grease	2		
25	CP-414	PIN, Cotter	2		
26	118492H1	FITTING, Grease	2		



# SECTION 10

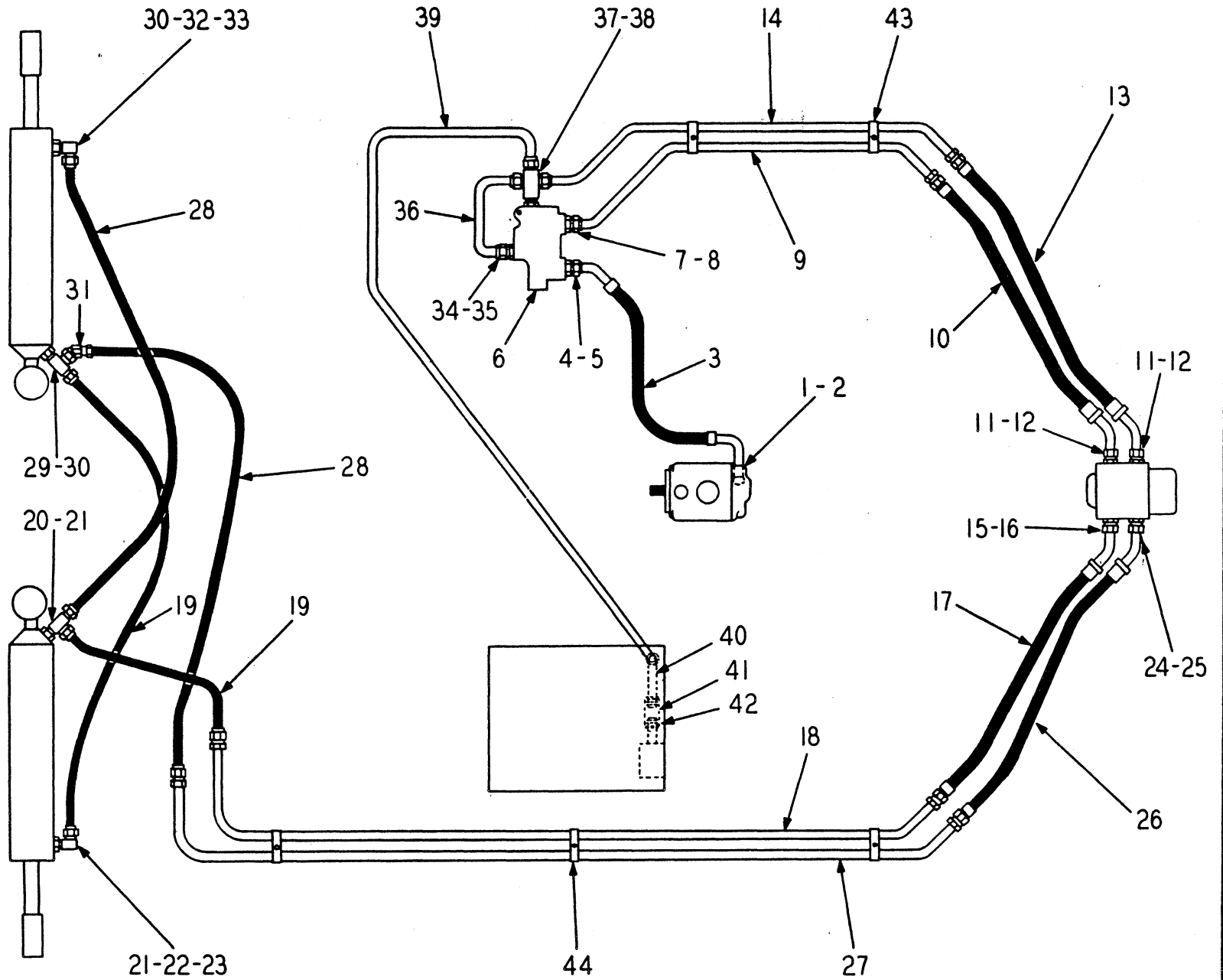
# HYDRAULIC SYSTEM



## Table Of Contents

<b>Group</b>	<b>Page</b>
BOOM & BUCKET LINES .....	10-9
CONVERTER LINES .....	10-13
COOLER LINES .....	10-13
STEERING LINES .....	10-3 & 10-5

STEERING LINES



**STEERING LINES**

Used on machines of S/N 28AH-1001 thru 28AH-1078 &  
29AC-1003 thru 29AC-1077.

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
<b>LINE-PUMP TO FLOW DIVIDER</b>					
1	OR4-19	"O" RING .....	1		
2	115701	FLANGE, Split .....	2		
	S-269	SCREW, Cap .....	4		
	WL-16	WASHER, Lock .....	4		
3	175085	HOSE .....	1		
4	205-10	ADAPTER .....	1		
5	OR2-10	"O" RING .....	1		
6	180742	DIVIDER, Flow (See Page 11-12) .....	1		
<b>LINE-FLOW DIVIDER TO STEERING VALVE</b>					
7	OR2-10	"O" RING .....	2		
8	205-10	ADAPTER .....	2		
9	175086	TUBE ASSEMBLY .....	1		
10	154028	HOSE ASSEMBLY .....	1		
<b>LINE-STEERING VALVE RETURN TO FLOW DIVIDER</b>					
11	OR2-10	"O" RING .....	2		
12	205-10	ADAPTER .....	2		
13	154028	HOSE ASSEMBLY .....	1		
14	175087	TUBE ASSEMBLY .....	1		
<b>LINE-STEERING VALVE TO CYLINDER - R. H. TURN</b>					
15	OR2-8	"O" RING .....	1		
16	205-8	ADAPTER .....	1		
17	179666	HOSE ASSEMBLY .....	1		
18	172810	TUBE ASSEMBLY .....	1		
19	175089H3	HOSE .....	2		
20	216-6	TEE .....	1		
21	OR2-6	"O" RING .....	2		
22	178267	ADAPTER, 90° .....	1		
23	P - 12	PLUG .....	1		
<b>LINE-STEERING VALVE TO CYLINDER - L. H. TURN</b>					
24	OR2-8	"O" RING .....	1		
25	205-8	ADAPTER .....	1		
26	179666	HOSE ASSEMBLY .....	1		
27	172810	TUBE ASSEMBLY .....	1		
28	175089H3	HOSE .....	2		
29	216-6	TEE .....	1		
30	OR2-6	"O" RING .....	2		
31	290-6	ADAPTER, 90° .....	1		
32	178267	ADAPTER, 90° .....	1		
33	P - 12	PLUG .....	1		
<b>LINE-FLOW DIVIDER BY-PASS</b>					
34	OR2-10	"O" RING .....	1		
35	205-10	ADAPTER .....	1		
36	172813	TUBE ASSEMBLY .....	1		
<b>LINE-FLOW DIVIDER RELIEF</b>					
37	OR2-6	"O" RING .....	1		
38	172814	CROSS .....	1		
39	176469H2	TUBE ASSEMBLY .....	1		

(Continued on following page)

STEERING LINES (Continued)

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU

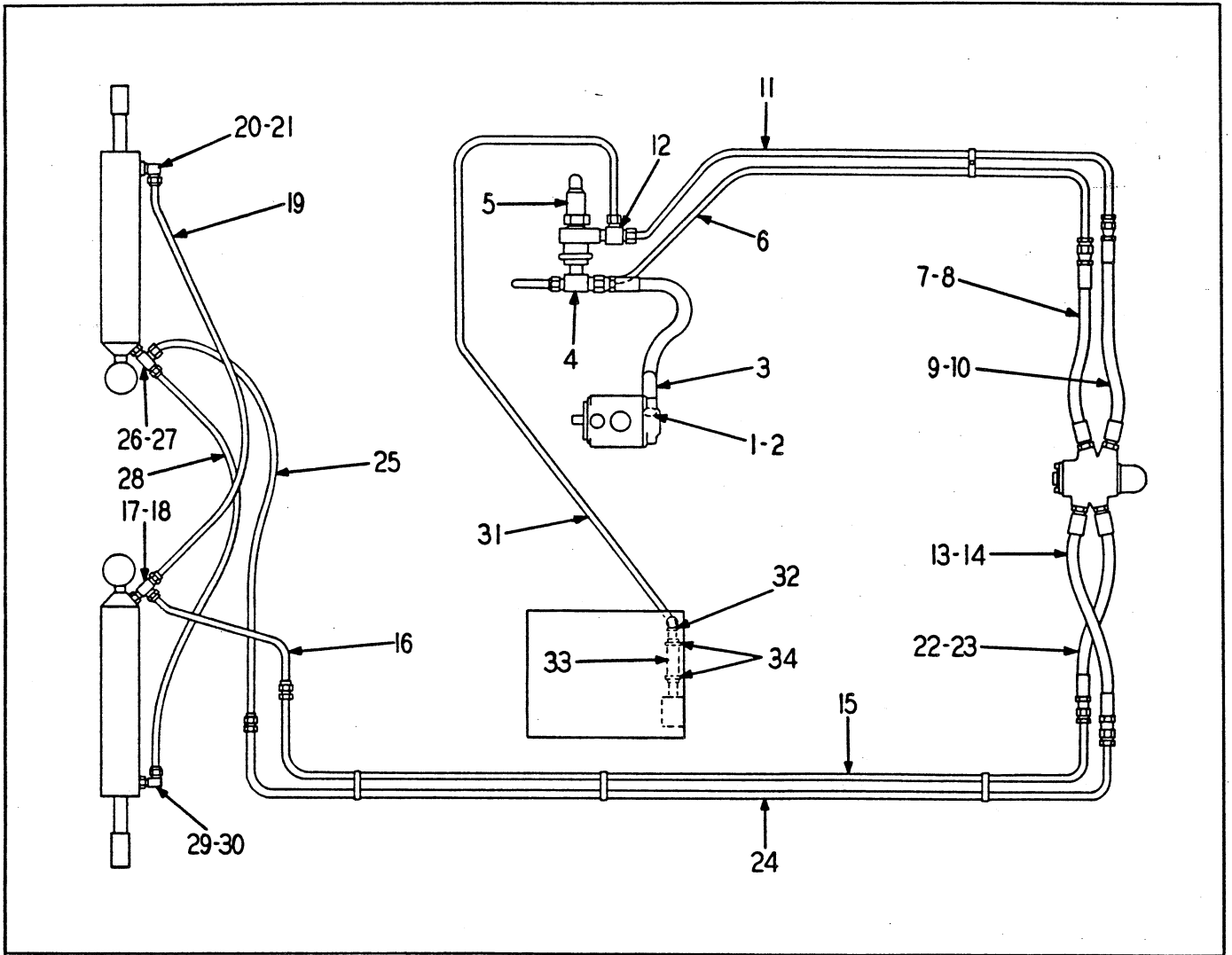
LINE-FLOW DIVIDER RELIEF (Continued)

40	168802	CLAMP .....	1		
41	176455	HOSE .....	1		
42	172818	CLAMP .....	2		

CLAMPS AND FASTENERS

43	154036	CLAMP, (Used with S-2412 Capscrew, WL-14 Lockwasher, & H-14 Nut .....	2		
44	136198	CLAMP, (Used with S-148 Capscrew, WL-14 Lockwasher, & H-14 Nut .....	3		





STEERING LINES - HYDRAULIC

Used on Machines of S/N 28AH-1079 & Up & 29AC-1078 & Up

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
LINE - PUMP TO RELIEF VALVE					
1	OR4-19	"O" RING .....	1		
2	115701H1	FLANGE, Split .....	2		
	S-269	SCREW, Cap .....	4		
	WL-16	WASHER, Lock .....	4		
3	175085H1	HOSE .....	1		
4	181340H1	TEE .....	1		
5		VALVE, Relief (See Page 10-6) .....	1		
	177020H1	"U" BOLT .....	1		
	E - 24	NUT .....	2		
LINE - RELIEF VALVE TO STEERING VALVE					
6	181773H1	TUBE ASSEMBLY .....	1		
7	181823H1	HOSE .....	1		
8	OR2-10	"O" RING .....	1		
(Continued on following page)					

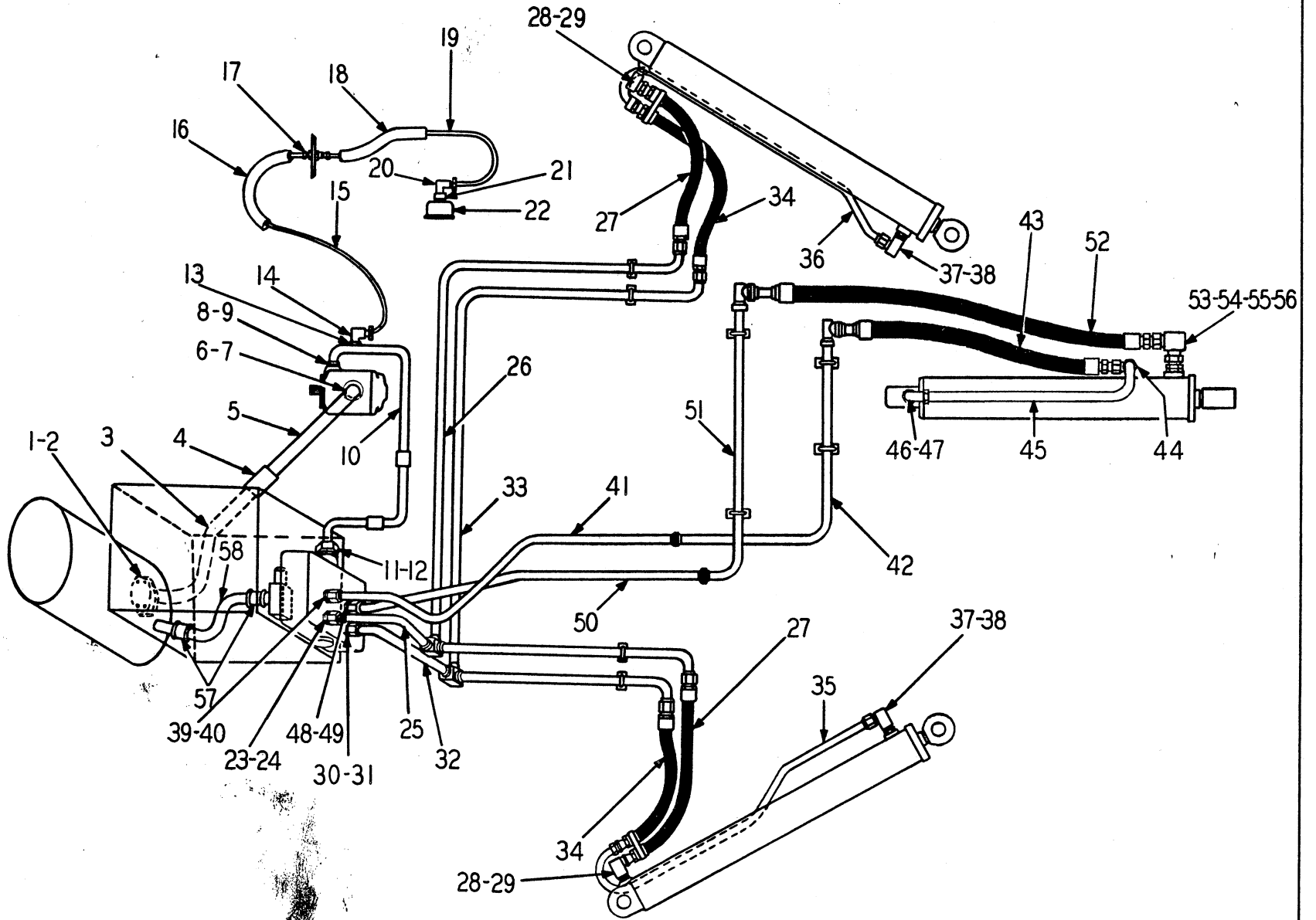
STEERING LINES - HYDRAULIC (Continued)

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
LINE - STEERING VALVE RETURN					
9	OR2-10	"O" RING .....	1		
10	181823H1	HOSE .....	1		
11	181774H1	TUBE ASSEMBLY .....	1		
12	181775H1	TEE, Fitting .....	1		
LINE - STEERING VALVE TO CYL. R. H. TURN					
13	OR2-8	"O" RING .....	1		
14	181884H1	HOSE .....	1		
15	181792H1	TUBE ASSEMBLY .....	1		
16	175089H3	HOSE .....	1		
17	216-6	TEE .....	1		
18	OR2-6	"O" RING .....	1		
19	175089H3	HOSE .....	1		
20	178267H1	ADAPTER, 90° .....	1		
21	OR2-6	"O" RING .....	1		
	P - 12	PLUG .....	1		
LINE - STEERING VALVE TO CYL. L. H. TURN					
22	OR2-8	"O" RING .....	1		
23	181884H1	HOSE .....	1		
24	181792H1	TUBE ASSEMBLY .....	1		
25	175089H3	HOSE .....	1		
	290-6	ADAPTER, 90° .....	1		
26	216-6	TEE .....	1		
27	OR2-6	"O" RING .....	1		
28	175089H3	HOSE .....	1		
29	178267H1	ADAPTER, 90° .....	1		
30	OR2-6	"O" RING .....	1		
	P - 12	PLUG .....	1		
LINE - RELIEF VALVE TO RESERVOIR					
31	181791H1	TUBE ASSEMBLY .....	1		
32	168802H1	CLAMP .....	1		
33	176455H1	HOSE .....	1		
34	172818H1	CLAMP, Hose .....	2		
	154036H1	CLAMP, Tube to L. H. Channel .....	1		
	S-1412	SCREW, Cap .....	1		
	WL-14	WASHER, Lock .....	1		
	H - 14	NUT .....	1		
	136198H1	CLAMP .....	3		
	S-148	SCREW, Cap .....	3		
	WL-14	WASHER, Lock .....	3		
	H - 14	NUT .....	3		

---

NOTES

BOOM & BUCKET LINES



BOOM & BUCKET LINES

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
<b>SUCTION LINE - RESERVOIR TO PUMP</b>					
1	OR3-10	"O" RING .....	1		
2	135006H1	FLANGE, Split .....	2		
	S-2812	SCREW, Cap .....	4		
	WL-18	WASHER, Lock .....	4		
3	174962H1	TUBE ASSEMBLY .....	1		
4	176104H2	COUPLING (Includes the next 3 Items)(replaces 176104)	1	28AH-1374 29AC-1598	& Up & Up
	180704H1	COUPLING .....	2		
	180705H2	SEAL ASSEMBLY (replaces 180705).....	2		
	180706H1	SLEEVE .....	1		
5	175972H1	ELBOW, 90° .....	1		
6	OR3-10	"O" RING .....	1		
7	135006H1	FLANGE, Split .....	2		
	S-2812	SCREW, Cap .....	4		
	WL-18	WASHER, Lock .....	4		
<b>HIGH PRESSURE LINE-PUMP TO VALVE</b>					
8	OR4-24	"O" RING .....	1		
9	115706H1	FLANGE, Split .....	2		
	S-2610	SCREW, Cap .....	4		
	WL-16	WASHER, Lock .....	4		
10	186546H2	TUBE ASSEMBLY (replaces 174964).....	1		
11	205-16	ADAPTER .....	1		
12	OR2-16	"O" RING .....	1		
<b>GAUGE LINE-MAIN PRESSURE</b>					
13	132667H1	BUSHING, Reducer .....	1		
14	172832H1	CONNECTOR .....	1		
15	178749H1	TUBE, Bulkhead to Tube .....	1		
16	186013H1	SLEEVE, Tube .....	1		
17	172825H1	UNION .....	1		
18	180331H1	SLEEVE, Tube .....	1		
19	186229H1	TUBE, Bulkhead to Tube .....	1		
20	172832H1	CONNECTOR .....	1		
21	203425H1	BUSHING, Reducer (replaces 176950).....	1		
22	205495H1	GAUGE (replaces 161609) .....	1		
	136139H1	CLIP, Sleeve to Flow Divider .....	1		
<b>LINE-VALVE TO BOOM CYLINDER-LOWER</b>					
23	OR2-16	"O" RING .....	1		
24	206-9	ADAPTER .....	1		
25	174965H1	TUBE ASSEMBLY .....	1		
26	174966H1	TUBE ASSEMBLY .....	1		
27	174967H1	HOSE .....	2		
28	291-12	ADAPTER, 90° .....	2		
29	OR2-12	"O" RING .....	2		
<b>LINE-VALVE TO BOOM CYLINDER-LOWER</b>					
30	OR2-16	"O" RING .....	1		
31	206-9	ADAPTER .....	1		
32	174968H1	TUBE ASSEMBLY .....	1		
33	174969H1	TUBE ASSEMBLY .....	1		
34	174967H1	HOSE .....	2		
35	174970H1	TUBE ASSEMBLY .....	1		
36	174971H1	TUBE ASSEMBLY .....	1		
37	291-12	ADAPTER, 90° .....	2		
38	OR2-12	"O" RING .....	2		

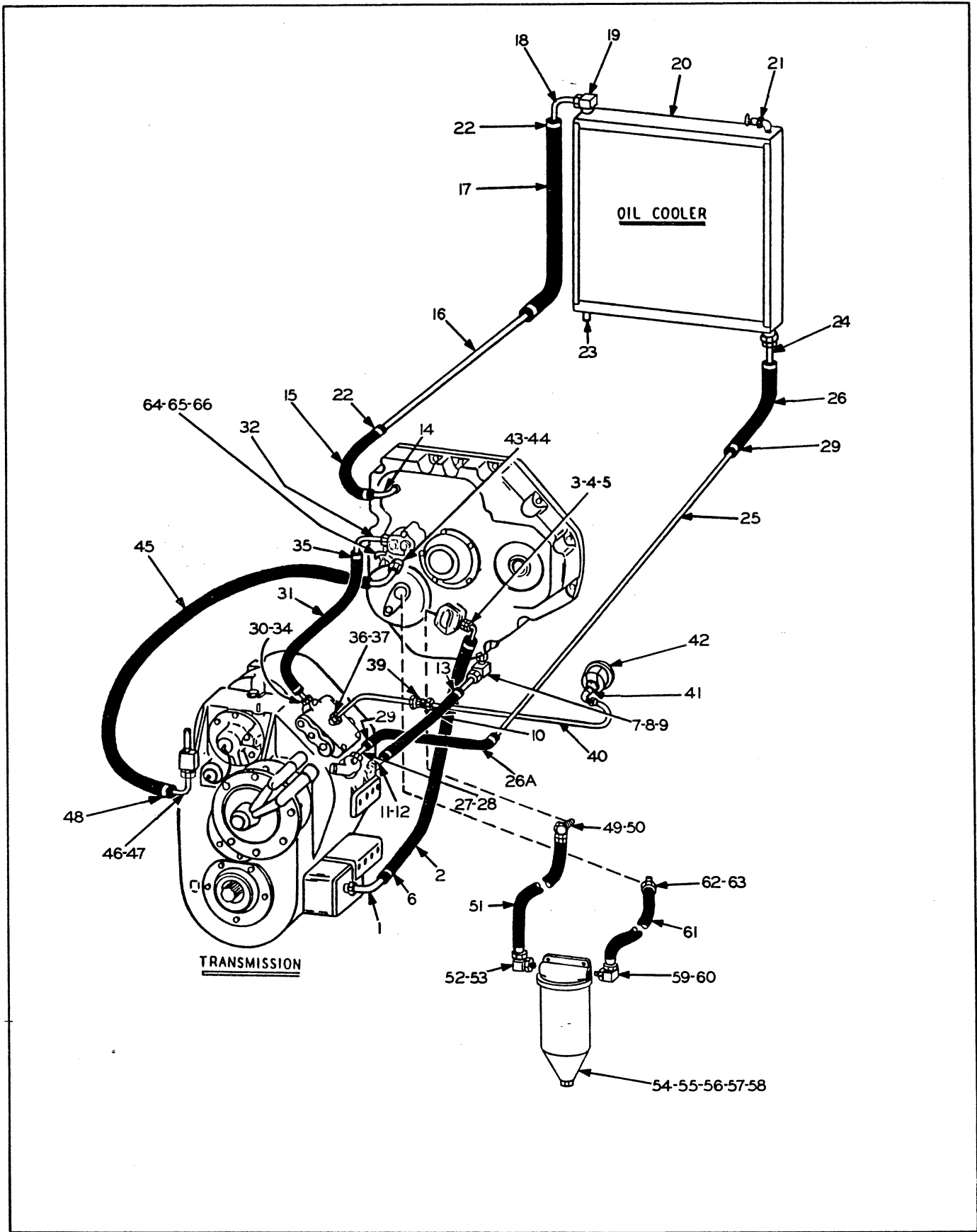
(Continued on following page)

BOOM & BUCKET LINES (Continued)

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
		LINE - VALVE TO BUCKET CYLINDER - CLOSE			
	OR2-16	"O" RING .....	1	28AH-1001 29AC-1003	1201 1236
	206-9	ADAPTER .....	1		
	174972H1	TUBE ASSEMBLY .....	1		
	174973H1	TUBE ASSEMBLY .....	1		
	174974H1	HOSE .....	1		
	174975H1	SWIVEL .....	1		
	174976H2	ELBOW .....	1		
	OR2-12	"O" RING .....	3		
		LINE - VALVE TO BUCKET CYLINDER - CLOSE			
39	OR2-16	"O" RING .....	1	28AH-1202 29AC-1237	Up Up
40	206-9	ADAPTER .....	1		
41	189598H2	TUBE ASSEMBLY .....	1		
42	174978H2	TUBE ASSEMBLY .....	1		
43	189582H2	HOSE .....	1		
44	189580H1	ELBOW .....	1		
45	189579H2	TUBE ASSEMBLY .....	1		
46	291-12	ADAPTER .....	1		
47	OR2-12	"O" RING .....	3		
		LINE - VALVE TO BUCKET CYLINDER DUMP			
48	OR2-16	"O" RING .....	1		
49	206-9	ADAPTER .....	1		
50	174977H2	TUBE ASSEMBLY .....	1		
51	174978H2	TUBE ASSEMBLY .....	1		
52	189582H2	HOSE .....	1		
53	290-12	ADAPTER .....	1		
54	OR2-12	"O" RING .....	1		
55	155770H1	UNION .....	1		
56	155771H1	NUT .....	1		
		LINE - VALVE TO RESERVOIR			
57	176105H3	COUPLING (Incl. the following 3 items) (replaces 176105)	2		
	180701H1	COUPLING .....	2		
	180702H2	SEAL ASSEMBLY (replaces 180702) .....	2		
	180703H1	SLEEVE .....	1		
58	174774H1	TUBE .....	1		
		TUBE ASSEMBLY CLAMPS - BOOM CYLINDER			
	172526H1	"U" BOLT .....	4		
	172527H1	SPACER .....	12		
	E - 25	NUT .....	8		
		CROSS PIPE CLAMPS - BUCKET CYLINDER			
	183834H1	CLAMP .....	4		
	183835H1	PLATE .....	2		
	E - 26	NUT .....	4		
		BOOM CYLINDER TUBES TO CYLINDER MTG.			
	172577H2	CLAMP .....	4		
	S-1610	SCREW, Cap .....	2		
	E - 16	NUT .....	2		

---

NOTES



TORQUE CONVERTER LINES



TORQUE CONVERTER LINES

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
TRANSMISSION STRAINER TO PUMP					
1	172695H1	INSERT .....	1	28AH-1391 29AC-1640	& Up 42 & Up
2	177354H1	HOSE (replaces 174934H1 Hose) .....	1		
3	172849H1	INSERT .....	1		
4	205-12	ADAPTER .....	1		
5	OR2-12	"O" RING .....	1		
6	172818H1	CLAMP .....	2		
ACCESSORY DRIVE OVERFLOW TO TRANS.					
7	291-12	ADAPTER .....	1		
8	OR2-12	"O" RING .....	1		
9	177294H1	INSERT .....	1		
10	186998H1	HOSE .....	1		
11	173015H1	INSERT .....	1		
12	OR2-12	"O" RING .....	1		
13	172818H1	CLAMP .....	2		
OIL LINE - ACCESSORY DRIVE TO OIL COOLER					
14	179561H1	INSERT .....	1	28AH-1001 29AC-1003	1314 1467
14	199973H1	INSERT .....	1	28AH-1315 29AC-1468	Up Up
15	174933H1	HOSE .....	1		
16	179560H1	TUBE .....	1		
17	173014H1	HOSE .....	1		
18	172849H1	INSERT .....	1		
19	298-10	ADAPTER .....	1		
20	147942H1	COOLER, Oil .....	1		
	175708H1	STRAP (Not needed with H2 radiator) .....	2		
	S-1611	SCREW, Cap, Cooler to Strap .....	4		
	WL-16	WASHER, Lock .....	4		
	S-169	SCREW, Cap, Strap to Radiator .....	4		
	WF-16	WASHER, Flat .....	4		
21	112002H1	PET COCK .....	1		
	103487H1	ELBOW, 90° .....	1		
	138793H1	CLAMP, Hose to Radiator .....	1		
22	172818H1	CLAMP .....	4		
23	P - 14	PLUG .....	1		
	120622H1	CLAMP .....	2		
	S-148	SCREW, Cap .....	2		
	WL-14	WASHER, Lock .....	2		
	H - 14	NUT .....	2		
OIL LINE - COOLER TO TRANS. MANIFOLD					
24	167971H1	INSERT .....	1		
25	179632H1	TUBE .....	1		
26	174008H1	HOSE .....	1		
26A	175239H1	HOSE, Transmission End .....	1		
27	179563H1	INSERT .....	1		
28	OR2-10	"O" RING .....	1		
29	172818H1	CLAMP .....	3		
	120622H1	CLAMP .....	3		
	S-148	SCREW, Cap .....	3		
	H - 14	NUT .....	3		
	WL-14	WASHER, Lock .....	3		
	WF-14	WASHER, Flat .....	6		
ACCESSORY DRIVE TO TRANS. CONTROL VALVE					
30	179077H1	INSERT .....	1		
31	173018H1	HOSE .....	1		
32	173019H1	INSERT .....	1		

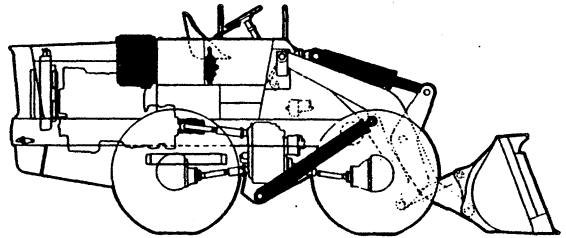
(Continued on following page)

TORQUE CONVERTER LINES (Continued)

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
ACCESSORY DRIVE TO TRANSMISSION CONTROL VALVE (Continued)					
34	OR2-8	"O" RING .....	1		
35	168814H1	CLAMP .....	2		
ACCESSORY DRIVE TO CLUTCH PRESS. GAUGE					
36	165369H1	CONNECTOR .....	1		
37	132667H1	BUSHING, Reducer .....	1		
38	172833H1	TUBE .....	1		
39	172825H1	UNION .....	1		
40	172834H1	TUBE .....	1		
41	181084H1	ELBOW .....	1		
42	188328H1	GAUGE (Replaces 140817H1) .....	1		
CONVERTER TO TRANSMISSION					
43	OR2-12	"O" RING .....	1		
44	173015H1	INSERT .....	1		
45	173014H1	HOSE .....	1		
46	172849H1	INSERT .....	1		
47	173023H1	ADAPTER .....	1		
48	172818H1	CLAMP .....	2		
CONNECTOR OIL FILTER LINES					
49	241-8	ADAPTER, 45° (replaces 205-12 Adapter)ter) .....	1	28AH-1391 29AC-1640	& Up 42 & Up
50	OR2-8	"O" RING (replaces OR2-12 "O" Ring) .....	1		
51	205775H1	HOSE (replaces 155696H1 Hose) .....	1		
52	205321H1	ADAPTER (replaces 291-12 Adapter) .....	1		
53	OR2-12	"O" RING .....	1		
54	173940H1	FILTER (Includes Items 55 thru 60) .....	1		
55	165714H1	PLUG .....	1		
56	131571H1	GASKET, Base .....	1		
	194914H1	BASE ASSEMBLY .....	1		
	194925H1	SHELL & STUD ASSEMBLY .....	1		
57	131574H1	GASKET, Shell .....	1		
58	131570H1	ELEMENT .....	1		
	S-1614	SCREW, Cap .....	4		
	H - 16	NUT .....	4		
	WL-16	WASHER, Lock .....	4		
59	291-12	ADAPTER .....	1		
60	OR2-12	"O" RING .....	1		
61	152504H1	HOSE (replaces 177928H1) .....	1		
62	291-12	ADAPTER, Straight (replaces 173015H1 Insert) .....	1		
63	OR2-12	"O" RING .....	1		
64	135081H1	BUSHING, Face .....	1		
65	103487H1	ELBOW .....	1		
66	P- 14	PLUG .....	1		

# SECTION 11

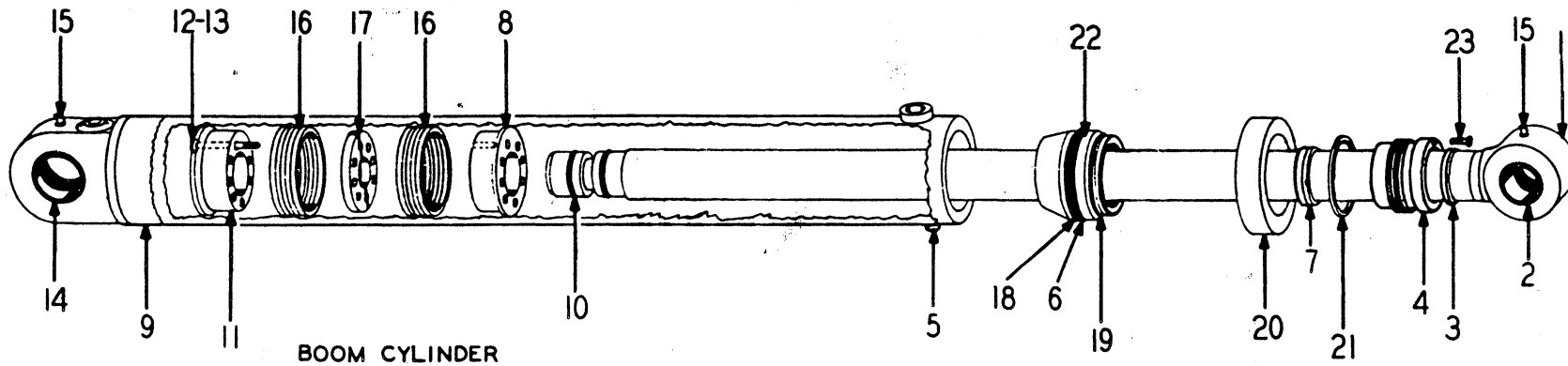
# HYDRAULIC COMPONENTS



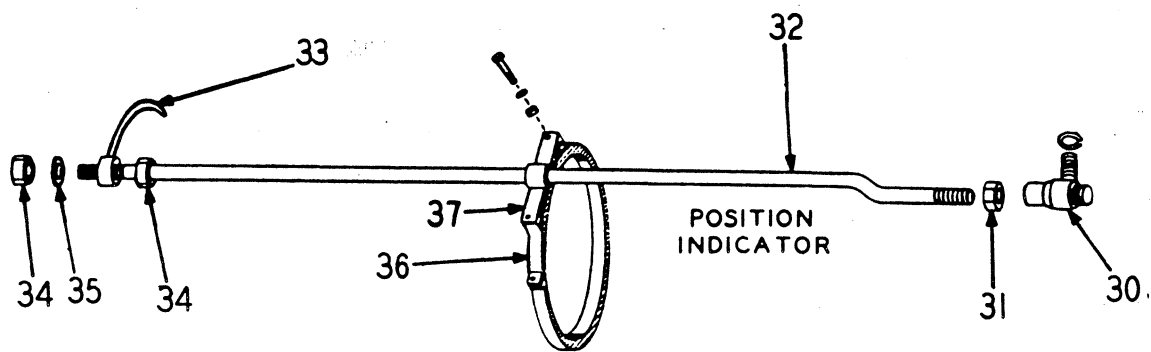
## Table Of Contents

<b>Group</b>	<b>Page</b>
CYLINDER, BOOM .....	11-3
CYLINDER, BUCKET .....	11-3
CYLINDER, STEERING .....	11-5
FLOW DIVIDER .....	11-12
PUMP, MAIN .....	11-7
RESERVOIR .....	11-9
VALVE, MAIN .....	11-11
VALVE, RELIEF .....	11-13

BOOM AND BUCKET CYLINDER

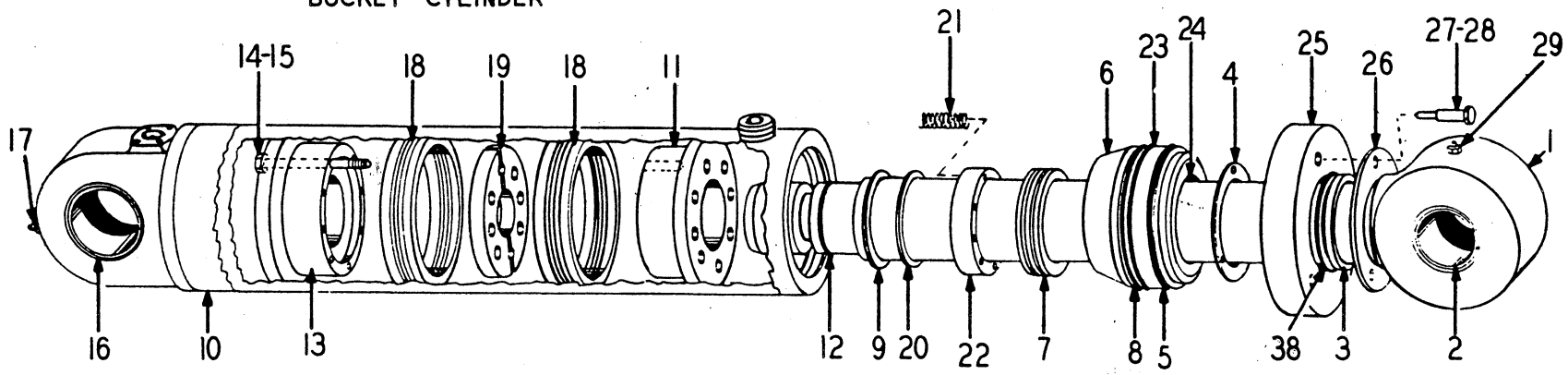


BOOM CYLINDER



POSITION INDICATOR

BUCKET CYLINDER



EXPOSED

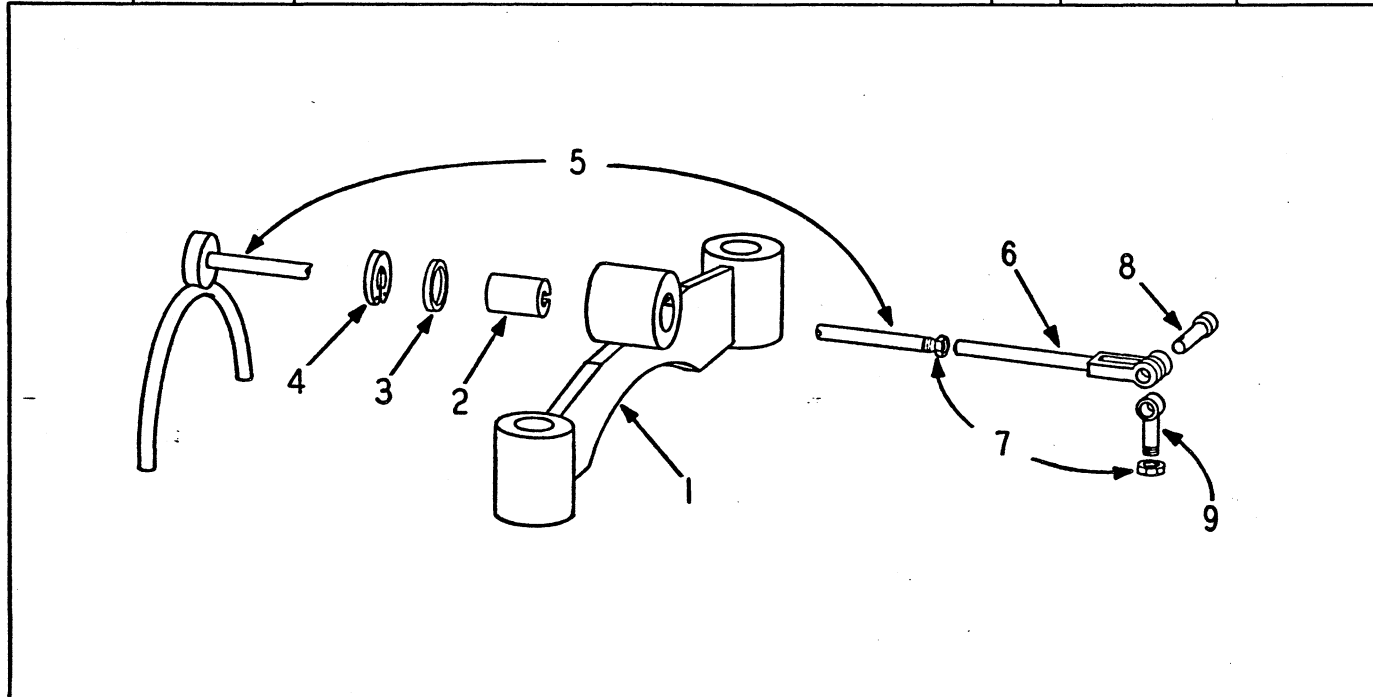
BOOM & BUCKET CYLINDER

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	174281H2	CYLINDER, Boom (Includes Items 1 thru 23) .....	2		
1	174295H1	ROD, Piston (Includes Item 2) .....	2		
2	171890H1	BUSHING .....	2		
3	174686H1	SEAL, Wiper .....	2		
4	192369H1	NUT, Packing (replaced 174302H2) .....	2		
5	152039H1	PLUG, Rubber .....	2		
6	174298H1	WASHER, Back-up .....	2		
7	155991H2	PACKING (replaced 155991H1) .....	2		
8	174287H1	PISTON HALF .....	2		
9	174282H1	CYLINDER (Includes Item 14) .....	2		
10	OR4-32	"O" RING .....	4		
11	174291H1	PISTON HALF .....	2		
12	S-2622-D	SCREW, Cap .....	16		
13	LW-1614	WIRE, Lock .....	2		
14	171871H1	BUSHING .....	2		
15	119692H1	FITTING, Grease .....	4		
16	176446H1	PACKING .....	4		
17	174290H1	RING, Lock .....	4		
18	OR4-49	"O" RING .....	2		
19	174299H1	RING, Lock .....	2		
20	174300H1	CAP .....	2		
21	174301H1	RING, Retaining .....	2		
22	174297H1	CAP, Cylinder .....	2		
23	174304H1	SCREW, Set-socket .....	6		
*	174238H1	CYLINDER, Bucket (Incl. Items 1 thru 29 & Item 38).	1	28AH-1001	1243
	189715H1	CYLINDER, Bucket (Incl. Items 1 thru 29 & Item 38 & Items marked * otherwise parts not indicated by an asterisk are common to both cylinders .....	1	29AC-1003	1334
				28AH-1244	1390
*	189715H2	CYLINDER, Bucket (Incl. Items 1 thru 29 & Item 38 & Items marked * otherwise parts not indicated by an asterisk are common to both cylinders .....	1	29AC-1335	1639 & 41
				28AH-1391	& Up
				29AC-1640	& 42 & Up
1	174242H1	ROD, Piston (Includes Item 2) .....	1	28AH-1001	1390
				29AC-1003	1639 & 41
1	174242H2	ROD, Piston (Includes Item 2) .....	1	28AH-1391	& Up
				29AC-1640 &	42 & Up.
2	171890H1	BUSHING .....	1		
3	174686H1	SEAL, Wiper .....	1		
4	174693H1	GASKET .....	1		
5	155989H1	RING, Lock .....	3		
6	171892H1	CAP, Cylinder (Includes Item 24).....	1		
7	155991H2	PACKING (Replaced 155991H1) .....	1		
8	OR4-88	"O" RING .....	1		
9	122144H1	RING, Retaining .....	1		
10	174239H1	CYLINDER (Includes Item 16).....	1		
* 10	189716H1	CYLINDER (Includes Item 16).....	1		
11	171886H1	PISTON HALF .....	1		
12	OR4-33	"O" RING .....	2		
13	171880H1	PISTON HALF .....	1		
14	S-2622-D	SCREW, Cap .....	8		
15	LW-1618	WIRE, Lock .....	1		
16	171871H1	BUSHING .....	1		
17	119691H1	FITTING, Grease .....	1		
18	176447H1	PACKING .....	2		
19	171885H1	RING, Lock .....	2		
20	171896H1	RING, Back-up .....	1		
21	147912H1	SPRING .....	8		
22	155993H1	RING, Gland .....	1		
23	155990H1	WASHER, Back-up .....	1		
24	171895H1	BUSHING .....	1		
25	171897H1	CAP .....	1		
26	171899H1	RETAINER, Wiper .....	1		
27	S-269	SCREW, Cap .....	3		
28	WL-16	WASHER, Lock .....	3		
29	118491H1	FITTING, Grease .....	1		
	181276H1	GASKET .....	1		

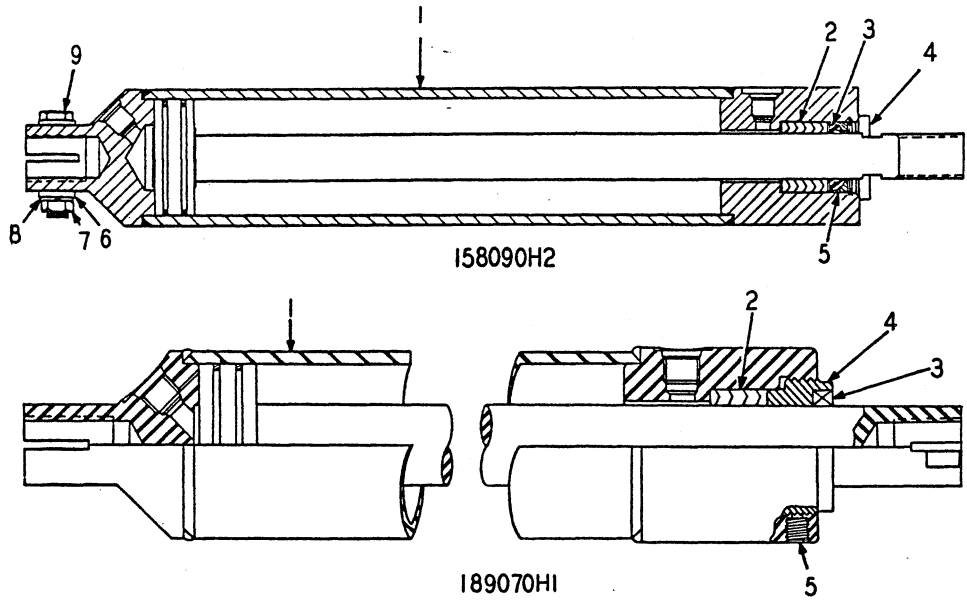
(Continued on following page)

**BUCKET CYLINDER POSITION INDICATOR**  
 For machines of S/N 28AH-1001 thru 1390 & 29AC-1003 thru 1639 & 1641

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
30	171914H1	JOINT, Ball .....	1		
31	H-110	NUT .....	1		
32	173912H1	ROD .....	1		
33	173917H1	INDICATOR .....	1		
34	H-110	NUT .....	2		
35	WL-110	WASHER, Lock .....	1		
36	144820H1	CLAMP .....	1		
37	173918H1	GUIDE, Includes next 3 items .....	1		
	171912H1	BUSHING .....	2		
	173862H1	WASHER .....	2		
	173863H1	RING, Retaining .....	1		
	S-156	SCREW, Cap .....	2		
	H - 15	NUT .....	2		
	WL-15	WASHER, Lock .....	2		
38	132616H1	STRAP, Bucket Indicator Clamp .....	1		
	181276H1	GASKET, Wiper .....	1		
<b>BUCKET CYLINDER POSITION INDICATOR</b> For machines of S/N 28AH-1391 & Up & 29AC-1640 & 1642 & Up					
1	206123H1	GUIDE, Indicator Rod (Includes next 3 items) .....	1		
2	171912H1	BUSHING .....	1		
3	173862H1	WASHER .....	2		
4	173863H1	RING, Retaining .....	2		
	205562H1	"U" BOLT .....	1		
	E - 18	NUT .....	2		
	WF-18	WASHER .....	2		
5	205606H1	INDICATOR .....	1		
6	102278H1	CLEVIS .....	1		
7	H-310	NUT, Jam .....	2		
8	102279H1	PIN .....	1		
9	213265H1	BOLT, Eye (Replaced 197484H1) .....	1		



**BUCKET CYLINDER POSITION INDICATOR**  
 S/N 28AH-1391 & Up & 29AC-1640 & 1642 & Up



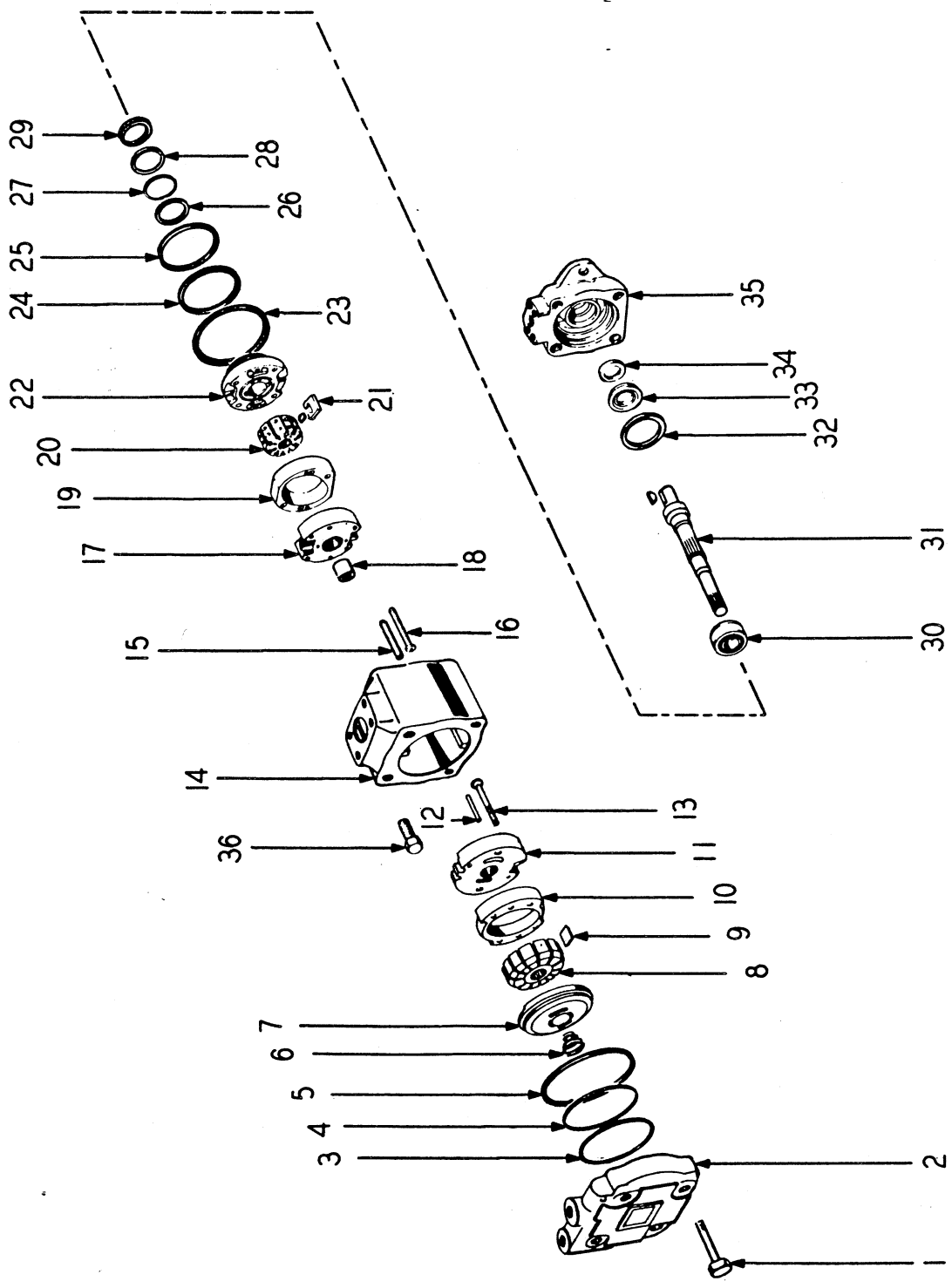
STEERING CYLINDER

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	158090H2	For machines of S/N 28AH-1001, 1216, 18, 20, 21, 22, 23 & 1225 - 29AC-1003, 1299 & 1305 CYLINDER, Steering (Incl. Items 2 thru 5).....	2		
2	159075H1	PACKING .....	2		
3	159077H1	SEAL, Wiper .....	2		
4	162949H1	NUT, Gland .....	2		
5	159074H1	RETAINER .....	2		
	138926H1	CLAMP ASSEMBLY (Includes Items 6 thru 9) .....	2		
6	138925H1	CLAMP .....	1		
7	H - 18	NUT .....	1		
8	WL-18	WASHER, Lock .....	1		
9	S-1818	SCREW, Cap .....	1		

IMPROVED TYPE STEERING CYLINDER & RELATED PARTS.

For machines of S/N 28AH-1217, 19, 24, 26 & Up -  
29AC-1300, 01, 02, 03, 04, 06 & Up

1	189070H1	CYLINDER, Steering (Incl. Items 2 thru 5) .....	2		
2	189072H2	PACKING (replaces 189072) .....	2		
3	167055H1	SEAL, Wiper .....	2		
4	189071H1	NUT, Gland .....	2		
5	187290H1	SCREW, Set .....	2		
	138926H1	CLAMP ASSEMBLY (Includes Items marked *).....	4		
*	138925H1	CLAMP .....	1		
*	H - 18	NUT .....	1		
*	WL-18	WASHER, Lock .....	1		
*	S-1818	SCREW, Cap .....	1		
	188951H1	SOCKET ASSEMBLY .....	4		
	P - 42	PLUG, Pipe .....	4		
	189074H1	WASHER, Hardened .....	4		
	E - 110	NUT, Esna .....	4		
	189073H1	SEAL, Grease .....	4		
	118492H1	FITTING, Grease .....	4		
SERVICE NOTE: #189070H1 Steering Cylinder replaces #158090H2 Steering Cylinder: Check Cylinder before ordering parts. See Page 9-15 for linkage.					

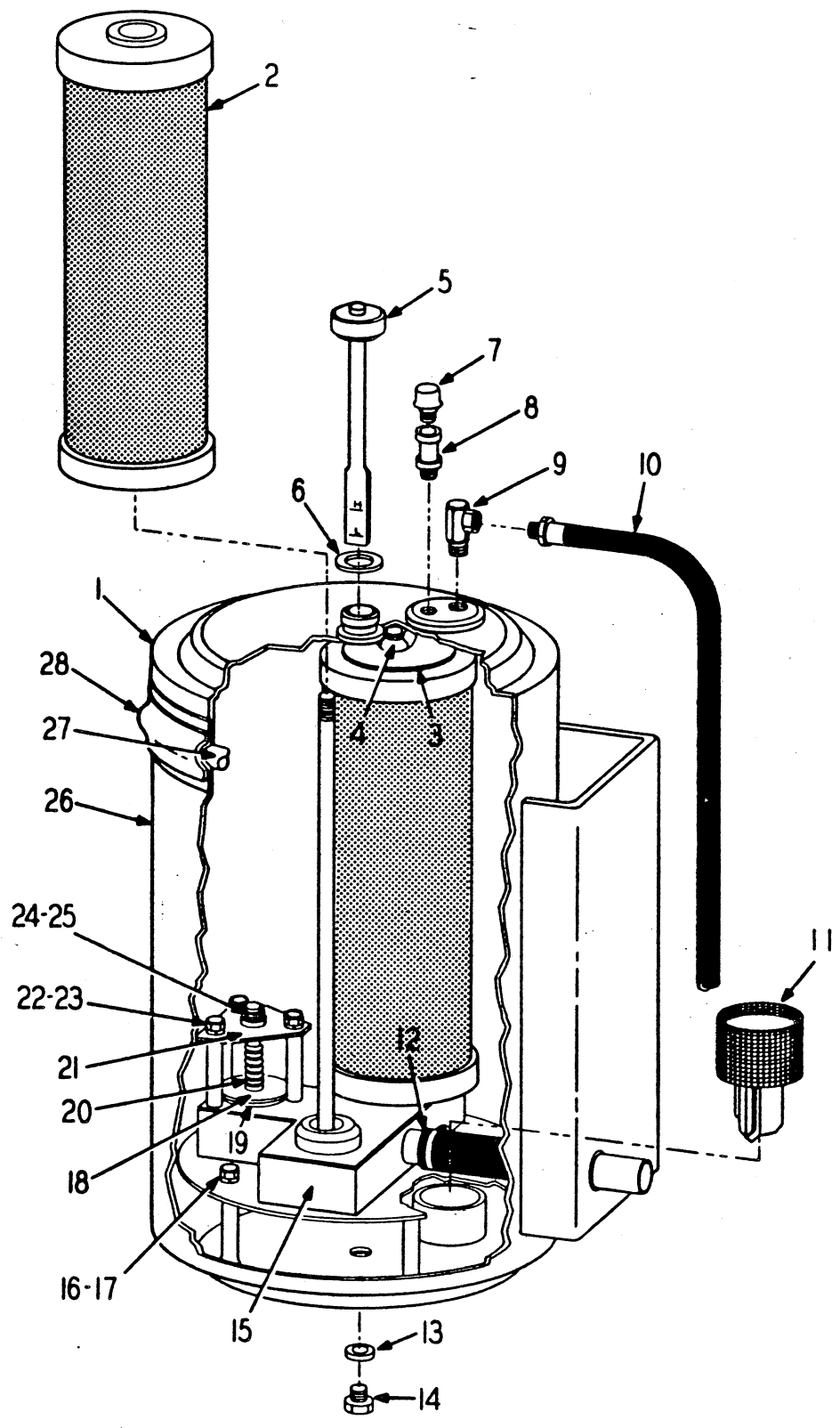


MAIN PUMP



MAIN PUMP

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	174406H2	PUMP, Main (Vickers 2521V21-A-9-25DC-10L) .....	1		
1	177600H1	SCREW .....	4		
2	177596H1	COVER .....	1		
3	*	"O" RING .....	1		
4	*	RING, Back-up .....	1		
5	*	"O" RING .....	1		
6	164363H1	SPRING .....	1		
7	#	PLATE, Pressure .....	1		
8	#	ROTOR .....	1		
9	#	VANE KIT .....	1		
10	#	RING .....	1		
11	#	PLATE, Wear .....	1		
12	#	PIN .....	2		
13	#	SCREW .....	1		
14	177608H1	BODY, Inlet .....	1		
15	@	PIN .....	2		
16	@	SCREW .....	2		
17	@	PLATE, Wear (Includes Item 18) .....	1		
18	@	BUSHING .....	1		
19	@	RING .....	1		
20	@	ROTOR .....	1		
21	@	VANE KIT .....	1		
22	@	PLATE, Pressure .....	1		
23	*	RING, Seal .....	1		
24	*	RING, Back-up .....	1		
25	*	"O" RING .....	1		
26	*	"O" RING .....	1		
27	*	RING, Back-up .....	1		
28	177607H1	RING, Retaining .....	1		
29	177605H1	RING, Retaining .....	1		
30	177603H1	BEARING .....	1		
31	177609H1	SHAFT .....	1		
32	177606H1	WASHER .....	1		
33	177610H1 *	SEAL .....	1		
34	*	WIPER .....	1		
35	177602H1	BODY, Outlet .....	1		
36	177604H1	SCREW .....	4		
	177591H1	CARTRIDGE KIT (Includes Items Marked #) .....	AR		
	177593H3	CARTRIDGE KIT (Includes Items Marked @) .....	AR		
	177594H2	GASKET KIT (Includes Items Marked *) (replaces 177594) .....	AR		
	174460H1	PLATE, Adapter .....	1		
	S-2810	SCREW, Cap .....	2		
	WL-18	WASHER, Lock .....	2		
	S-2810	SCREW, Cap .....	4		
	WL-18	WASHER, Lock .....	4		

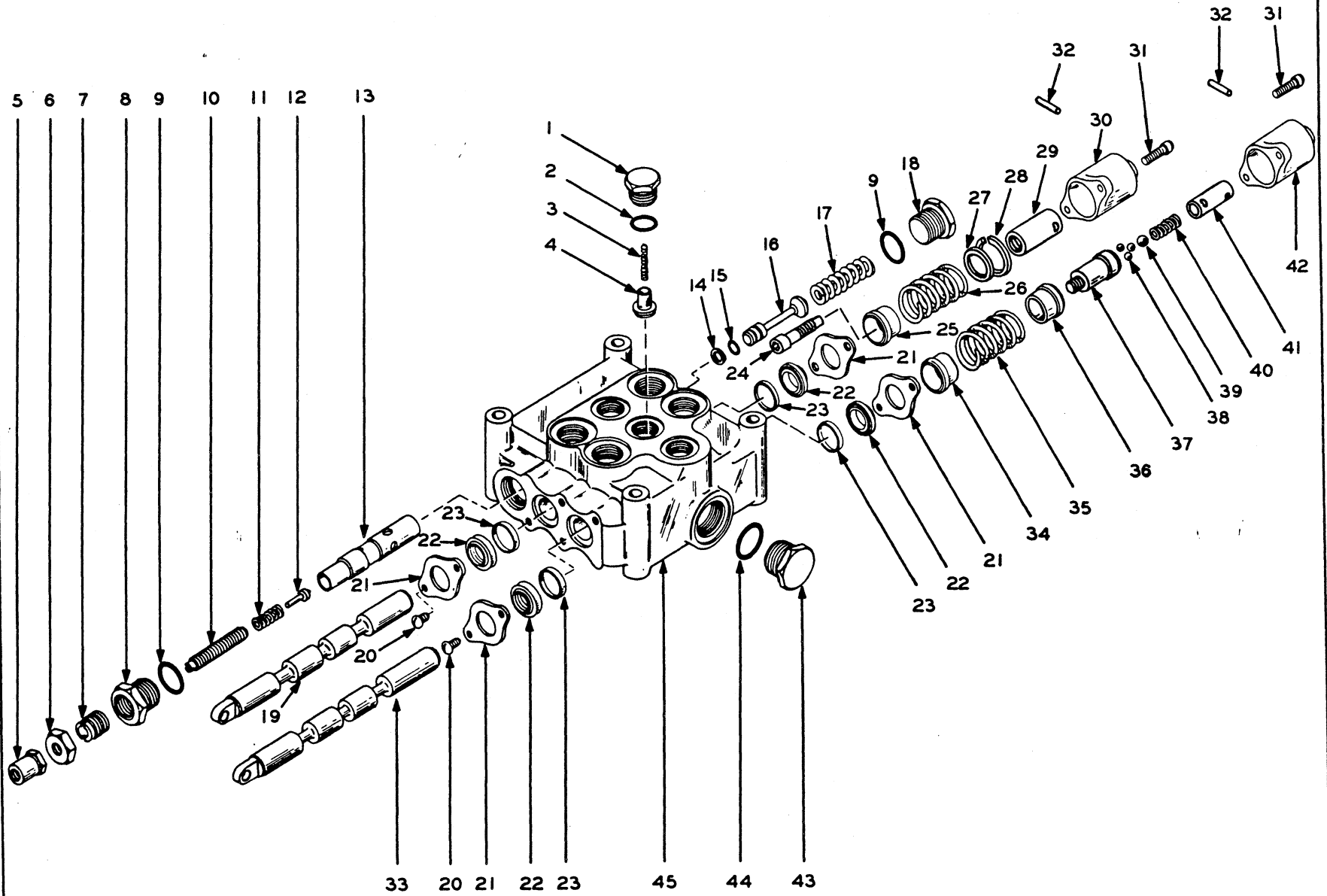


RESERVOIR

RESERVOIR

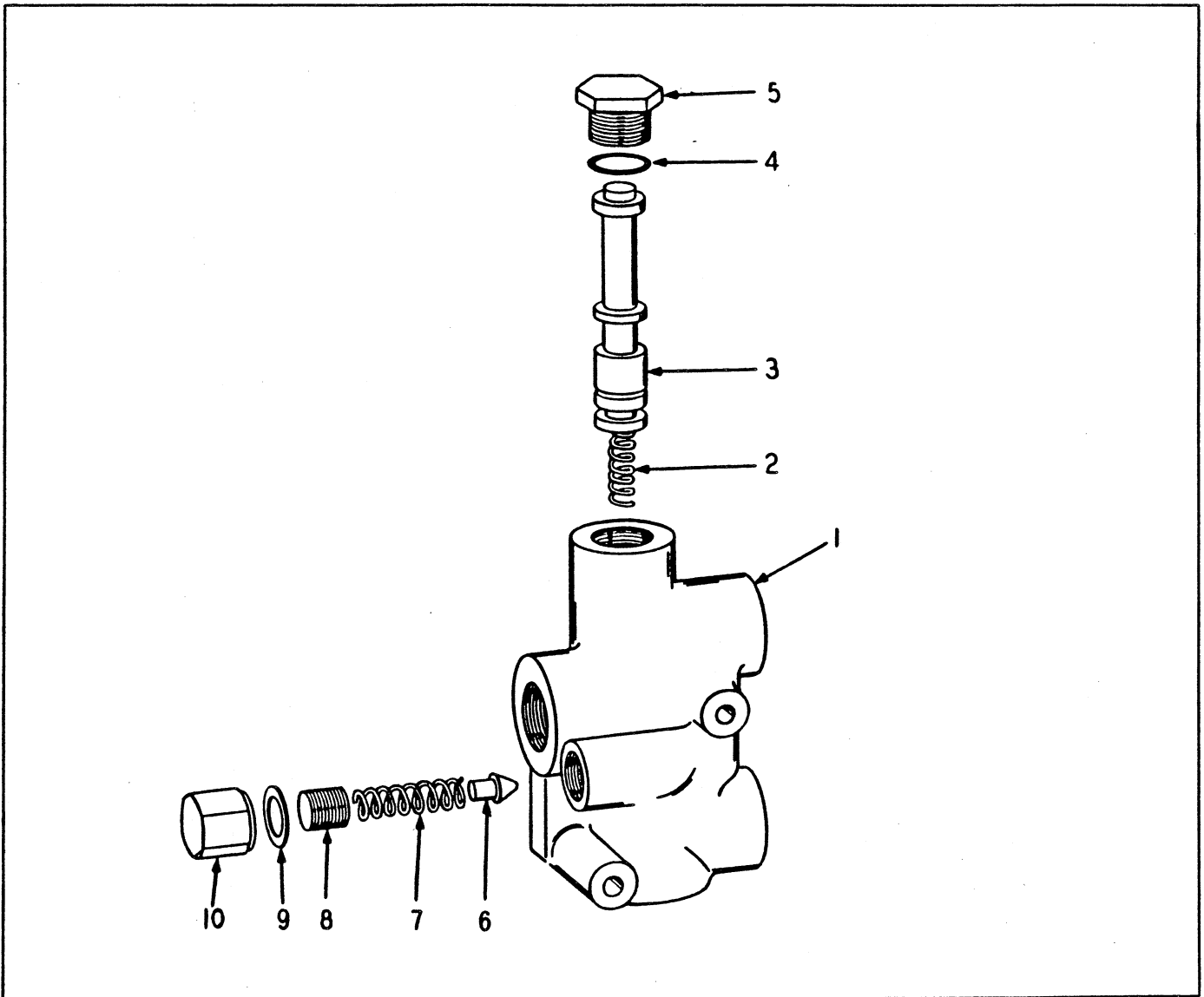
ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	176001H1	RESERVOIR ASSEMBLY, Incl. all the following items .	1		
	176002H1	TOP, Reservoir .....	1		
2	176028H2	FILTER, Replaced 176028 on machines of S/N 28AH-1151 & Up and 29AC-1175 & Up .....	2		
3	184842H1	PLATE .....	2		
4	E - 18	NUT .....	2		
5	172801H1	CAP & DIPSTICK .....	1		
6	134045H1	SEAL, Dipstick .....	2		
7	131154H1	FILTER ASSEMBLY, Breather .....	1		
8	150269H1	VACUUM BREAKER & CHECK .....	1	28AH-1001 29AC-1003	1260 1379
9	134049H1	VALVE, Check .....	1		
10	176030H1	HOSE, Relief Drain .....	1		
11	172800H1	SCREEN .....	1		
12	173747H1	HOSE, Baffle Inlet .....	1		
	168815H1	CLAMP, Hose .....	2		
13	OR2-16	"O" RING .....	1		
14	210-16	PLUG, Drain .....	1		
15	176011H1	BAFFLE .....	1		
16	S-166	SCREW .....	4		
17	WL-16	WASHER, Lock .....	4		
18	176023H1	PLUNGER, Check valve .....	1	28AH-1001 29AC-1003 28AH-1202 29AC-1237	1201 1236 Up Up
18	189460H1	PLUNGER, Check valve .....	1		
19	176027H1	GROMMET, Valve Seat .....	1		
20	176026H1	SPRING, Plunger .....	1		
21	176020H2	PLATE, Check valve .....	1	28AH-1001 29AC-1003 28AH-1202 29AC-1237	1201 1236 Up Up
21	189459H1	PLATE, Check valve .....	1		
22	S-166	SCREW .....	3		
23	WL-16	WASHER, Lock .....	3		
24	162223H1	RING, Retainer Plunger .....	1		
25	WF-36	WASHER .....	1		
26	176004H1	BOTTOM, Reservoir .....	1		
27	172803H1	"O" RING .....	1		
28	172804H2	COUPLING, Reservoir (replaces 172804) .....	1		
29	194400H1	VALVE, Vacuum & Pressure Relief .....	1	28AH-1261 29AC-1380	Up Up
30	P - 14	PLUG .....	1		
	S-1812	SCREW, Cap .....	4		
	WL-18	WASHER, Lock .....	4		
	H - 18	NUT .....	4		

MAIN VALVE



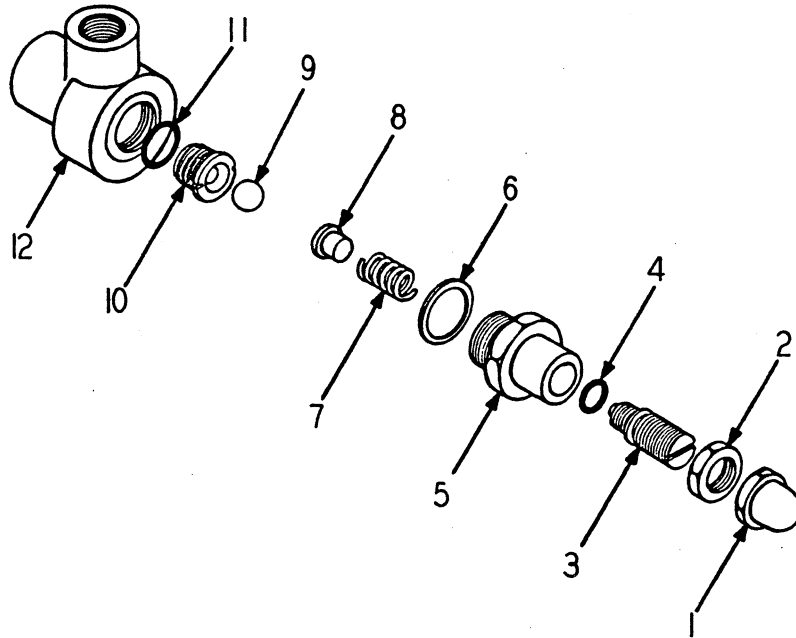
MAIN VALVE

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	176412H2	VALVE .....	1		
1	157914	PLUG .....	3		
2	OR4-19	"O" RING .....	3		
3	144604	SPRING .....	3		
4	157915	POPPET .....	3		
5	111392	NUT, Castle .....	1		
6	157904	NUT .....	1		
7	157903	SCREW, Adjusting .....	1		
8	157906	PLUG .....	1		
9	OR4-19	"O" RING .....	2		
10	157908	SCREW, Adjusting .....	1		
11	173647	SPRING .....	1		
12	144606	POPPET .....	1		
13		SLEEVE (NSS) .....	1		
14	157925	RING, Back Up .....	1		
15	OR4-9	"O" RING .....	1		
16	157902	POPPET .....	1		
17	157900	SPRING .....	1		
18	157907	PLUG .....	1		
19		PLUNGER (NSS) .....	1		
20	173652	SCREW .....	4		
21	157927	PLATE, Seal .....	4		
22	157905	SEAL, Wiper .....	4		
23	157926	RING, Seal .....	4		
24	157909	SCREW, Cap .....	1		
25	157916	SLEEVE .....	1		
26	157917	SPRING .....	1		
27	157911	WASHER .....	1		
28	157912	RING, Snap .....	1		
29	157910	PIN, Plunger .....	1		
30	157921	CAP .....	1		
31	157918	SCREW, Cap .....	4		
32	157913	PIN .....	2		
33		PLUNGER (NSS) .....	1		
34	176151	SEAT .....	1		
35	176148	SPRING .....	1		
36	176151	SEAT .....	1		
37	176149	SLEEVE .....	1		
38	176152	BALL .....	3		
39	174682	BALL .....	1		
40	157920	SPRING .....	1		
41	176150	PIN, Detent .....	1		
42	176147	CAP .....	1		
43	144589	PLUG .....	1		
44	OR2-20	"O" RING .....	1		
45		HOUSING (NSS) .....	1		
	OR4-21	"O" RING .....	1		
	OR4-17	"O" RING .....	1		
	149477	PLUG .....	1		
	178262	SHIELD, Oil .....	1		
	176090	HOSE, Oil Drain .....	1		
	168417	CLAMP, (Hose to Support Weldment) .....	2		
	168816	CLAMP .....	1		
		NSS - Not Serviced Separately.			
		Suffix H1 should be applied to all Hough six digit numbers unless advanced.			



FLOW DIVIDER

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	180742H1	DIVIDER, Flow .....	1	28AH-1001	1078
1		BODY .....	1	29AC-1003	1077 - 80
2	175757H1	SPRING .....	1		
3	180870H1	PISTON .....	1		
4	OR4-12	"O" RING .....	1		
5	146730H1	PLUG .....	1		
6	175759H1	VALVE .....	1		
7	146734H1	SPRING .....	1		
8	146736H1	SCREW .....	1		
9	175761H1	GASKET .....	1		
10	146735H1	CAP, Valve .....	1		
	S-1416	SCREW, Cap .....	2		
	WL-14	WASHER, Lock .....	2		
	H - 14	NUT .....	2		
		Flow Divider Mtg.			



RELIEF VALVE

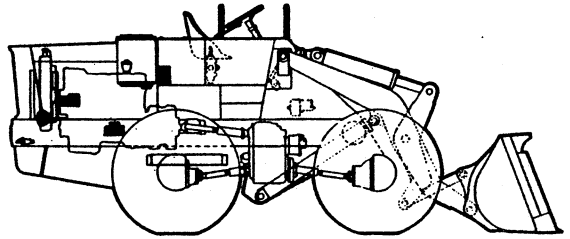
ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	130167H1	VALVE, Relief (Includes Items 1 thru 12) .....	1	28AH-1079 29AC-1078 79 - 81	Up  Up
1	132643H1	NUT, Acorn .....	1		
2	H-310-P	NUT .....	1		
3	132641H1	SCREW, Adjust .....	1		
4	OR4-9	"O" RING .....	1		
5	132639H1	BODY .....	1		
6	132638H1	GASKET .....	1		
7	132637H1	SPRING .....	1		
8	134461H1	SPACER, Spring .....	1		
9	162112H1	BALL .....	1		
10	166230H1	SEAT .....	1		
11	OR2-8	"O" RING .....	1		
12	NSS	HOUSING (Order 130167) .....	1		
	182468H1	KIT, Repair .....	1		





# SECTION 12

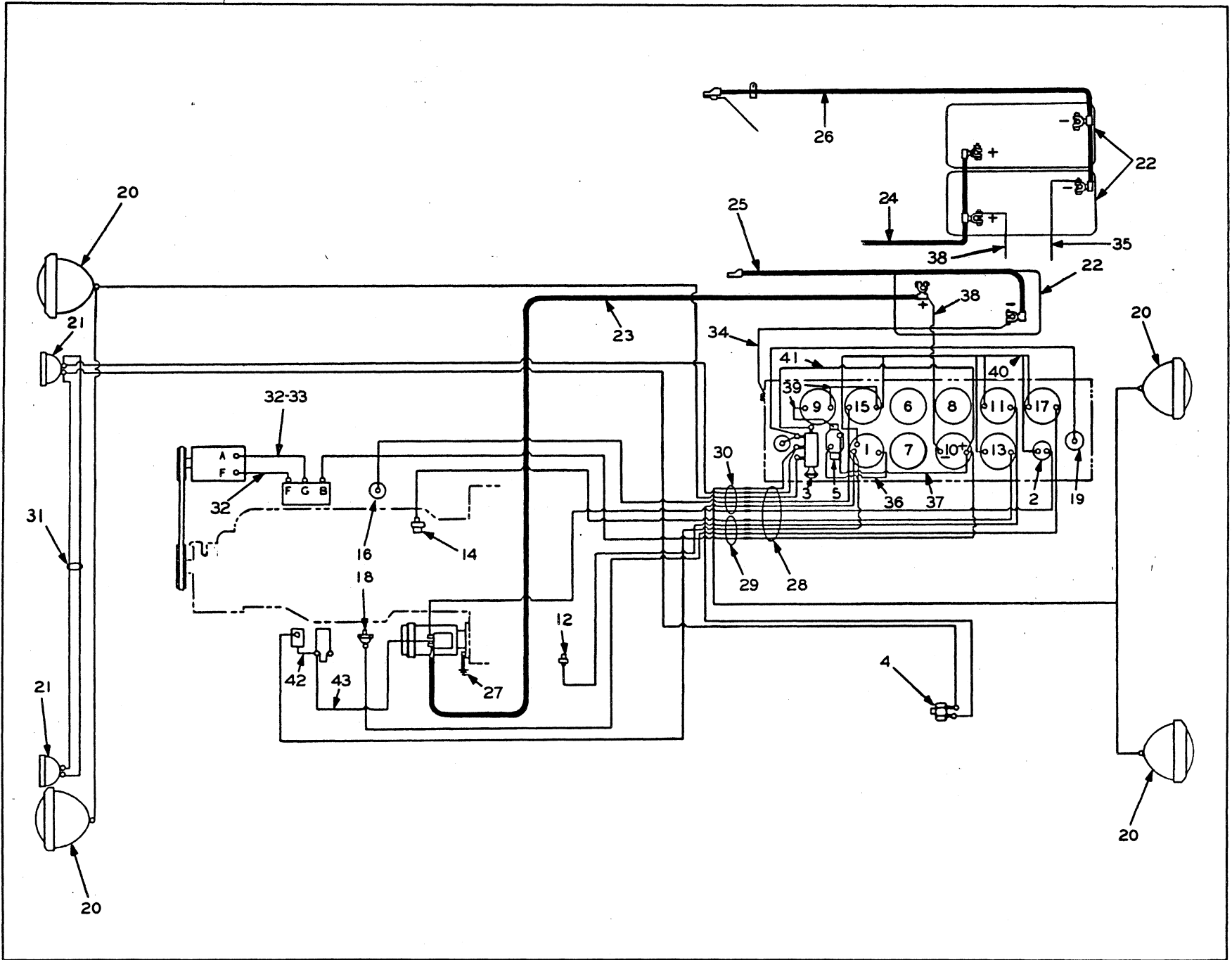
# ELECTRICAL SYSTEM



## Table Of Contents

Group	Page
WIRING, G-372 & U-372 .....	12-3
WIRING, JF-6-CI .....	12-7

WIRING, GAS - G-372 & U-372



WIRING, GAS - G-372 & U-372

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	126412H1	SWITCH, Ignition (Key Type) .....	1	28AH-1001	1155
1	190345H1	SWITCH, Ignition (Lever Type) .....	1	28AH-1156	Up
2	109214H1	SWITCH, Starter .....	1		
3	107749H1	SWITCH, Light .....	1		
4	112339H2	SWITCH, Stoplight .....	1		
5	128359H1	CIRCUIT BREAKER .....	1		
	168752H1	SCREW, Machine .....	2		
	104469H1	WASHER, Lock .....	2		
	104467H1	NUT .....	2		
6	205495H1	GAUGE, Hydraulic Pressure .....	1		
7	154893H1	GAUGE, Air Pressure .....	1		
8	140817H2	GAUGE, Trans. Oil Pressure (Order Gauge #188328 Plus Decal #188587) .....	1		
8	188328H1	GAUGE, Trans. Oil Pressure, Use with Decal #188587 .....	1		
9	167564H2	HOURMETER .....	1		
10	115605H1	AMMETER .....	1		
11	144195H1	GAUGE, T.C. Temperature .....	1	28AH-1001	1155
11	187314H1	GAUGE, T.C. Temperature .....	1	28AH-1156	Up
12	144200H2	SENDER, T.C. Temperature .....	1		
13	144196H1	GAUGE, Engine Temperature .....	1	28AH-1001	1155
13	187313H1	GAUGE, Engine Temperature .....	1	28AH-1156	Up
14	144200H2	SENDER, Engine Temperature .....	1		
15	158166H1	GAUGE, Fuel .....	1	28AH-1001	1155
15	187315H1	GAUGE, Fuel .....	1	28AH-1156	Up
16	171831H1	SENDER, Fuel .....	1		
	107755H1	GASKET .....	1		
	108498H1	WASHER, Lock .....	5		
	160975H1	SCREW .....	5		
17	158165H1	GAUGE, Engine Oil Pressure .....	1	28AH-1001	1155
17	187312H1	GAUGE, Engine Oil Pressure .....	1	28AH-1156	Up
18	123154H1	SENDER, Engine Oil Pressure .....	1		
	104468H1	WASHER, Lock .....	3		
	104466H1	NUT .....	3		
19	146568H1	LAMP, Dash (Bulb, Trade #89) .....	2		
20	176751H1	LAMP, Driving, Includes next 2 items .....	4		
	181355H1	SEALED BEAM UNIT .....	1		
	181356H1	RETAINER .....	1		
21	115602H3	LAMP, Tail & Stop (Bulb, Stop, Trade #1073 Bulb Tail, Trade #67) .....	2		
NOTE: Parts shown with an (*) asterisk indicate parts used with the 2 battery system.					
22		BATTERY, 12 Volt, Exide Ultra Start 2 SM .....	AR		
23	138020H1	CABLE, Battery to starter .....	1		
* 24	189605H1	CABLE, Battery to starter .....	1		
25	113158H1	CABLE, Battery to ground .....	1		
* 26	189606H1	CABLE, Battery to ground .....	1		
27	183039H1	CABLE, Starter to ground .....	1		
28	175047H2	LOOM, Instrument panel (incl. next item) .....	1		
	193848H1	WIRE, Instrument panel to ignition switch .....	1		
29	174510H3	HARNESS, Wiring .....	1		
30	174512H2	HARNESS, Wiring .....	1		
31	172227H2	LOOM, Rear Lights .....	1		
32	153972H1	WIRE, Generator to regulator .....	2		
* 33	148175H1	WIRE, Generator to regulator .....	2		
34	177235H1	WIRE, Ground instrument panel .....	1		
* 35	192357H1	WIRE, Ground instrument panel .....	1		
36	134319H1	WIRE, Ignition switch to circuit breaker .....	1		
37	109866H1	WIRE, Ammeter to circuit breaker .....	1		
38	177235H1	WIRE, Battery to ammeter .....	1		
39	187396H1	WIRE, Hourmeter, ground to jumper (replaced 187395) .....	2		
40	175353H1	WIRE, Instrument jumper .....	1		
41	109866H1	WIRE, Ammeter to light switch .....	1		
42	HA-1000	WIRE, Resistor to coil .....	1		

(Continued on following page)

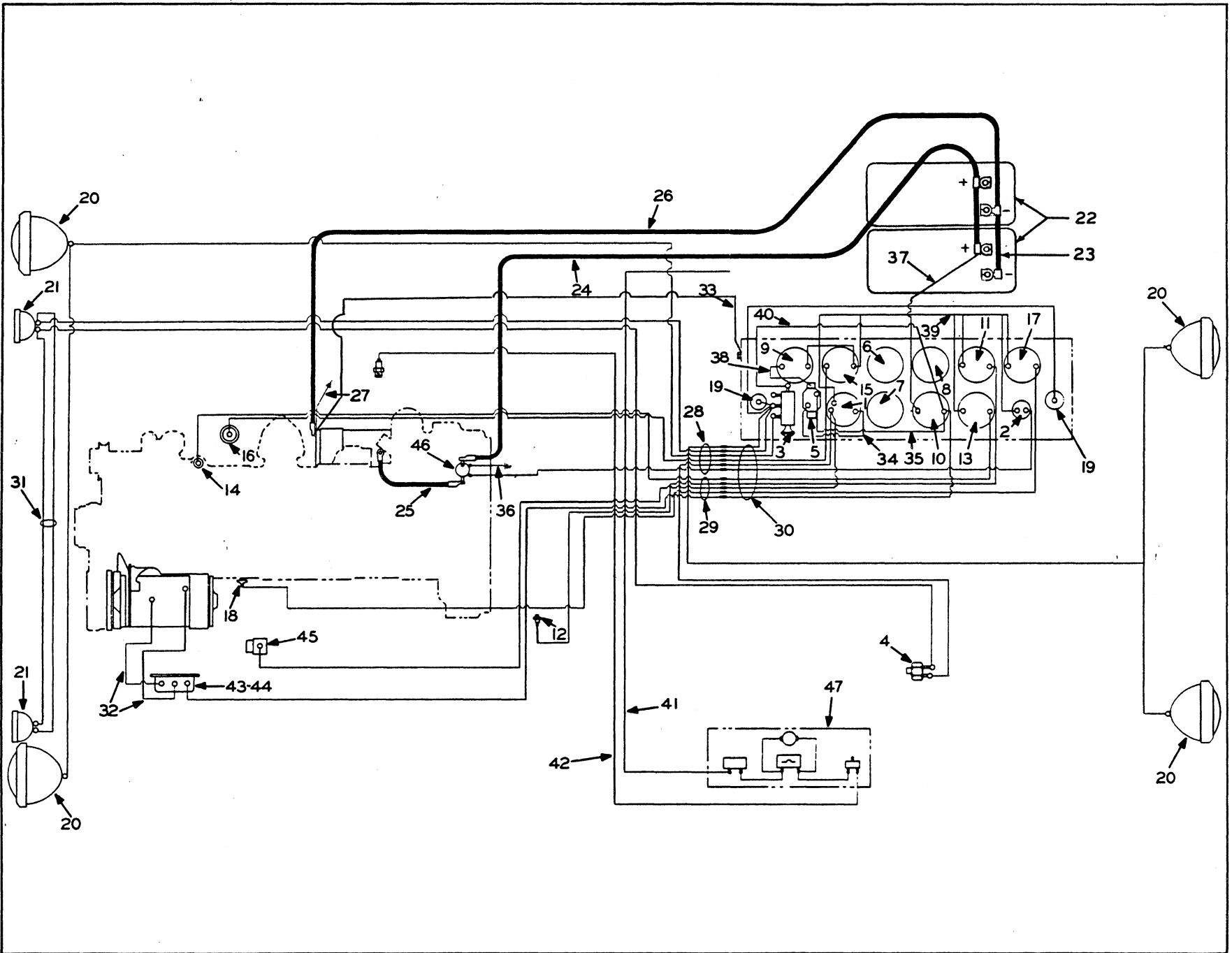
WIRING, GAS - G-372 & U-372 (Continued)

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
43	129305H1	WIRE, Coil to starter .....	1		
	161043H1	CLAMP, Driving Light Loom to Gearshift Linkage Bolt	1		
	S-148	SCREW, Cap .....	1		
	WL-14	WASHER, Lock .....	1		
	H - 14	NUT .....	1		
	161043H1	CLAMP, Harness to Flywheel Housing .....	1		
	161043H1	CLAMP, Harness to Engine & Parking Brake .....	2		
	161043H1	CLAMP, Tail & Back-up Light Wires .....	1		
	161043H1	CLAMP, Water Temperature Wire to Valve Cover ....	1		
	129668H1	CLAMP, Torque Converter Temperature Sender Wire to Torque Converter Housing Bolt .....	1		
	S-168	SCREW, Cap .....	1		
	WL-16	WASHER, Lock .....	1		
	H - 16	NUT .....	1		
	161043H1	CLAMP, Driving Light Loom to Channel .....	2		
	177360H1	SUPPORT, Light, Rear (replaces 173434) .....	2		
	176750H1	CLAMP .....	4		
	176749H1	WASHER .....	4		
	S-1814	SCREW, Cap .....	1		
	163839H1	WASHER .....	3		
	H - 18	NUT .....	1		
	WF-18	WASHER, Flat .....	1		
	176752H1	PLUG, Rubber .....	6		
	186928H1	PLUG, Rubber .....	2		
	E - 18	NUT .....	4		
	H-320	NUT .....	2		
	WL-120	WASHER, Lock .....	2		
	179095H1	BRACKET, Stoplight Mounting, R.H. ....	1		
	179096H1	BRACKET, Stoplight Mounting, L.H. ....	1		
	132226H1	SCREW .....	1		
	104468H1	WASHER, Lock .....	1		
	104466H1	NUT .....	1		
	174506H1	BOTTOM, False .....	1		
*	171826H1	BOTTOM, False .....	1		
	173352H1	BOLT .....	2		
	WF-14	WASHER, Flat .....	2		
	184768H1	CLIP .....	2		
	H - 24	NUT .....	2		
*	190175H1	RETAINER, Battery .....	1		
*	190178H1	BOLT, Battery Retainer .....	1		
*	174169H1	NUT, Wing .....	1		
	175369H1	COVER, Battery .....	1		
*	190184H1	COVER, Battery .....	1		
	158161H1	HOLD DOWN, Battery .....	1		
	168355H1	NUT, Wing .....	2		
	174898H1	PANEL, Instrument for key type ignition switch .....	1	28AH-1001	1212
	188810H1	PANEL, Instrument for lever type ignition switch ....	1	28AH-1213	Up
	127514H1	GROMMET .....	4		
	168751H1	SCREW .....	4		
	E - 34	NUT .....	4		
	154049H1	GROMMET .....	1		
	138793H1	CLAMP, Neg. cable to battery support leg .....	1		
	WF-34	WASHER, Flat .....	1		
	147137H1	NUT, Starter solenoid "R" term .....	1		
	151297H1	NUT, Starter solenoid "S" term .....	1		
	187631H1	NUT, Starter solenoid "Batt" term .....	1		
	H - 15	NUT .....	1		
	S-1510	SCREW .....	1		
	154773H1	WASHER, Lock .....	1		
	147137H1	NUT, Gauge Wires .....	3		
	CP-36	PIN, Cotter .....	1		

---

NOTES

WIRING, DIESEL - JF-6-C1



WIRING - DIESEL - JF-6-CI

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	126412H1	SWITCH, Ignition (key type) .....	1	29AC-1001	1275
1	190345H1	SWITCH, Ignition (lever type) .....	1	29AC-1276	& Up
2	109214H1	SWITCH, Starter .....	1		
3	107749H1	SWITCH, Light .....	1		
4	112339H2	SWITCH, Stop Light .....	1		
5	128359H1	CIRCUIT BREAKER .....	1		
	168752H1	SCREW, Rd. Hd. Mach. ....	2		
	104469H1	WASHER, Lock .....	2		
	104467H1	NUT .....	2		
		} Breaker Mounting			
6	205495H1	GAUGE, Hydraulic Pressure .....	1		
7	154893H1	GAUGE, Air Pressure .....	1		
8	140817H2	GAUGE, Transmission Oil Pressure .....	1	29AC-1001	1210
8	188328H1	GAUGE, Transmission Oil Pressure .....	1	29AC-1211-1215	& Up
9	167564H2	HOURMETER .....	1		
10	115605H1	AMMETER .....	1		
11	144195H1	GAUGE, Torque Converter Temperature .....	1	29AC-1001	1177
11	187314H1	GAUGE, Torque Converter Temperature .....	1	29AC-1178	& Up
12	144200H2	SENDER, Torque Converter .....	1		
13	144196H1	GAUGE, Water Temperature .....	1	29AC-1001	1177
13	187313H1	GAUGE, Water Temperature .....	1	29AC-1178	& Up
14	144200H2	SENDER, Water Temperature .....	1		
15	158166H1	GAUGE, Fuel .....	1	29AC-1001	1177
15	187315H1	GAUGE, Fuel .....	1	29AC-1178	& Up
16	171831H1	SENDER, Fuel .....	1		
	107755H1	GASKET, Fuel .....	1		
	160975H1	SCREW, Rd. Hd. Machine .....	5		
	108498H1	WASHER, Lock .....	5		
17	158165H1	GAUGE, Engine Oil Pressure .....	1	29AC-1001	1177
17	187312H1	GAUGE, Engine Oil Pressure .....	1	29AC-1178	& Up
18	123154H1	SENDER, Engine Oil Pressure .....	1		
19	146568H1	LAMP, Dash Assembly (Bulb, Trade #89) .....	2		
	104469H1	WASHER, Lock .....	4		
20	176751H1	LAMP, Driving (Includes next 2 items) .....	4		
	181355H1	SEALED BEAM UNIT .....	1		
	181356H1	RETAINER .....	1		
21	115602H3	LAMP, Tail & Stop (Bulb, Stop, Trade #1073 Bulb Tail, Trade #67) .....	2		
22		BATTERY, 12 Volt (Exide XF-25) .....	2	29AC-1003	1278
22		BATTERY, 12 Volt (Exide 4 D) .....	2	29AC-1279	& Up
23	116949H1	CABLE, Battery Jumper .....	1	29AC-1001	1177
24	107558H1	CABLE, Battery to Starter Solenoid .....	1	29AC-1001	1177
24	189603H1	CABLE, Battery to Starter Solenoid .....	1	29AC-1178	& Up
25	148167H1	CABLE, Starter Solenoid to Starter .....	1		
26	107558H1	CABLE, Battery to Ground .....	1	29AC-1001	1177
26	189604H1	CABLE, Battery to Ground .....	1	29AC-1178	& Up
27	183039H1	CABLE, Starting Motor to Ground .....	1		
28	174512H2	HARNESS, Wiring (replaces 174512) .....	1		
29	174510H3	HARNESS, Wiring (replaces 174510) .....	1		
30	175047H2	LOOM, Instrument Panel (replaces 175047) .....	1		
31	172227H2	LOOM, Jumper Stop Lights (replaces 172227) .....	1		
32	148175H1	WIRE, Generator to regulator .....	2		
33	192357H1	WIRE, Instrument panel ground .....	1		
34	134319H1	WIRE, Ignition switch to circuit breaker .....	1		
35	109866H1	WIRE, Ammeter to circuit breaker .....	1		
36	117240H1	WIRE, Starter Solenoid to Ground .....	1		
37	177235H1	WIRE, Battery to ammeter .....	1		
38	187396H1	WIRE, Hourmeter connections .....	2		
39	175353H1	WIRE, Instrument jumper .....	1		
40	109866H1	WIRE, Ammeter to Light switch .....	1		
41	208345H1	WIRE, Battery to cold weather start .....	1		
42	202133H1	WIRE, Cold weather start to glow plug .....	1		
	193848H1	WIRE, Instrument panel to ignition switch .....	1		

(Continued on following page)

WIRING - DIESEL - JF-6-CI (Continued)

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
43		REGULATOR, Voltage .....	1		
44		SHOCK MOUNT, Regulator ....	1		
45		SOLENOID, Fuel Pump .....	1		
46		SOLENOID, Starter .....	1		
47		COLD WEATHER STARTING UNIT (See Engine Section)	1		
	129668H1	CLAMP, Loom to Flywheel Housing .....	1		
	S-286	SCREW, Cap .....	1		
	WL-18	WASHER, Lock .....	1		
	138793H1	STRAP, Outside Battery Box .....	1		
	179095H1	BRACKET, Stop Light Mounting R. H. ....	1		
	179096H1	BRACKET, Stop Light Mounting L. H. ....	1		
	154049H1	GROMMET, Battery Cables .....	1		
	148147H1	BRACKET, Solenoid Mounting .....	1		
	S-145	SCREW, Cap .....	4		
	WL-14	WASHER, Lock .....	4		
	H - 14	NUT .....	4		
	S-268	SCREW, Cap .....	2		
	WF-16	WASHER, Flat .....	2		
	WL-16	WASHER, Lock .....	2		
	176734H1	WASHER .....	2		
	S-1612	SCREW, Cap .....	1		
	WL-16	WASHER, Lock .....	1		
	H - 16	NUT .....	1		
	177360H1	SUPPORT, Rear Lights (replaces 173434) .....	2		
	176750H1	CLAMP, Driving .....	4		
	176752H1	PLUG, Rubber .....	6		
	E - 18	NUT .....	4		
	176749H1	WASHER .....	8		
	145703H1	WASHER .....	2		
	H-320	NUT .....	2		
	WL-120	WASHER, Lock .....	2		
	132226H1	SCREW .....	1		
	104468H1	WASHER, Lock .....	1		
	104466H1	NUT .....	1		
	138459H1	CLAMP, Tail Back-up Light Wires to L. H. Channel..	1		
	161043H1	CLAMP, Water Temp. Wire to Engine Valve Cover ..	1		
	129668H1	CLAMP, Driving Light Wire to Windshield Strip .....	4		
	S-148	SCREW, Cap .....	1		
	H - 14	NUT .....	1		
	WL-14	WASHER, Lock .....	1		
	161043H1	CLAMP, Harness to Parking Brake .....	1		
	138459H1	CLAMP, Wire to Cold Start Bracket .....	1		
	104469H1	WASHER, Lock .....	4		
	104468H1	WASHER, Lock .....	3		
	104466H1	NUT .....	3		
	S-158	SCREW, Cap .....	1		
	WL-15	WASHER, Lock .....	1		
	H - 15	NUT .....	1		
	129900H1	WASHER, Lock .....	2		
	136140H1	CLAMP, Loom to Flow Control Valve .....	1		
	139017H1	STRAP, Water Temp. Wire to Comp. Intake Hose ...	1		
	139016H1	STRAP, Battery Cable .....	2		
	136140H1	CLAMP, Head Light Wires to Floorboard Suppt. ....	2		
	136140H1	CLAMP, Volt. Reg. to Ammeter Wire .....	1		
	WL-14	WASHER, Lock .....	1		
	H - 14	NUT .....	1		

(Continued on following page)



WIRING - DIESEL - JF-6-CI (Continued)

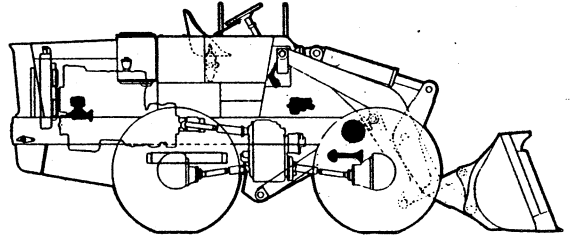
ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	171826H1	BOTTOM, False .....	1		
	171828H1	COVER, Battery .....	1		
	173352H1	BOLT, Use w/Exide XF-25 Batt. .	1		
	189590H1	BOLT, Use w/Exide 4D Batt. .	1		
	CP-36	PIN, Cotter .....	1		
	174169H1	NUT, Wing .....	1		
	WF-14	WASHER, Flat .....	2		
	171827H1	RETAINER .....	1		
	174898H1	PANEL, Instrument .....	1	29AC-1001	1275
	188810H1	PANEL, Instrument .....	1	29AC-1276	& Up
	127514H1	GROMMET .....	4		
	168751H1	SCREW .....	4		
	E - 34	NUT .....	4		
	129668H1	CLAMP, Top of Bulkhead Fitting .....	1		
	186928H1	PLUG, Rubber .....	2		

Inside Battery Box



# SECTION 13

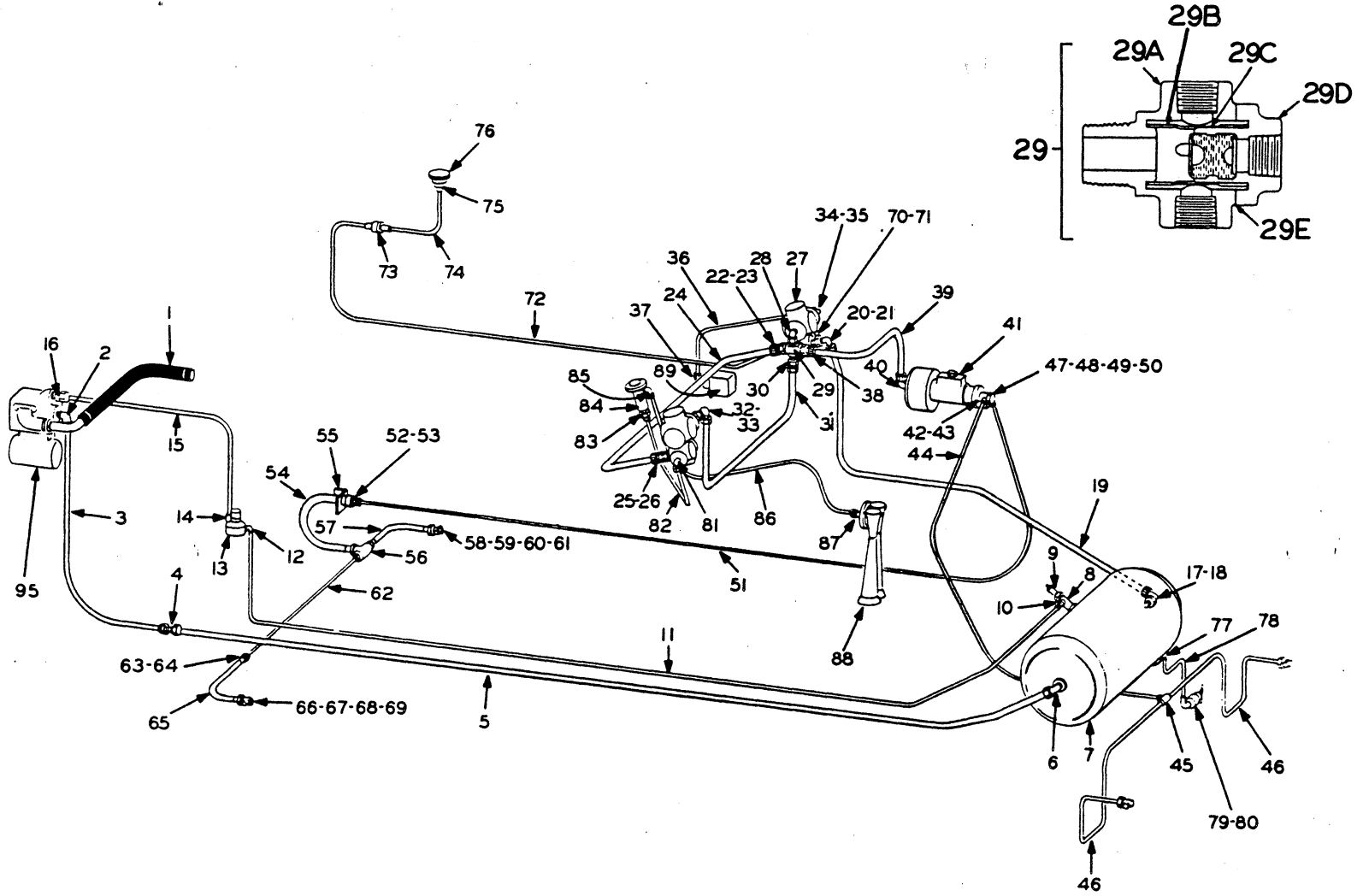
# BRAKE AIR SYSTEM



## Table Of Contents

<b>Group</b>	<b>Page</b>
COMPRESSOR, AIR (JF -6 -CI) SEE ENGINE MANUAL	
COMPRESSOR, AIR (G-372 & U-372) .....	13-15
CONNECTIONS, AIR HYDRAULIC .....	13-3 13-9
GOVERNOR, BRAKE .....	13-22
HORN, AIR .....	13-21
POWER CLUSTER .....	13-19
VALVE, AIR CONTROL .....	13-23
VALVE, SAFETY .....	13-13
VALVE, TREADLE .....	13-17

AIR-HYDRAULIC CONNECTIONS



AIR HYDRAULIC CONNECTIONS

ITEM NO.	PART NO.	PART NAME For machines of S/N 28AH-1001 thru 1156 & 29AC-1003 thru 1177	Qty.	First Used On Serial Numbers	
				FROM	THRU
LINE TO AIR COMPRESSOR					
1	120605H1 140357H1 187337H1 104468H1	HOSE (See Air Cleaner Groups) ..... ELBOW, Compressor Inlet ..... ADAPTER, Inlet ..... SCREW ..... WASHER, Lock ..... } Adapter Attaching	1 1 1 2 2		
LINE-COMPRESSOR TO RESERVIOR					
2	181296H1 127506H1	CONNECTOR, replaces 175823 Elbow ..... ELBOW .....	1 1		
3	175822H1	TUBE .....	1		
4	157919H1	CONNECTOR .....	1		
5	179092H1 102818H1	TUBE ..... CLAMP .....	1 3		
	S-148 WL-14 H - 14	SCREW, Cap ..... WASHER, Lock ..... NUT ..... } Tube to Frame	3 3 3		
6	153526H1	ELBOW .....	1		
7	153524H1 153525H1	RESERVOIR ..... "U" BOLT .....	1 2		
	E - 16	NUT ..... } Reservoir Mtg.	4		
8	175779H1	TEE .....	1		
9		VALVE, Safety (See Page 13-13) .....	1		
LINE-RESERVOIR TO GOVERNOR					
10	175774H1	CONNECTOR, Male .....	1		
11	179938H1	TUBE .....	1		
	134797H1	CLAMP, Tube to Frame .....	2		
12	175775H1	ELBOW .....	1		
13		GOVERNOR (See Page 13-22) .....	1		
	S-1526	SCREW, Cap .....	2		
	WL-15	WASHER, Lock .....	2		
	H - 15	NUT .....	2		
LINE-GOVERNOR TO COMPRESSOR					
14	175775H1	ELBOW .....	1		
15	175770H1	TUBE .....	1		
16	164839H1	ELBOW .....	1		
LINE-RESERVOIR TO BRAKE VALVES					
17	175778H1	BUSHING, Reducer .....	1		
18	175777H1	ELBOW .....	1		
19	179939H1	TUBE .....	1		
20	175777H1	ELBOW .....	1		
21	175778H1	BUSHING, Reducer .....	1		
22	175778H1	BUSHING, Reducer .....	1		
23	175772H1	CONNECTOR, Male .....	1		
24	175767H1	TUBE .....	1		
25	175772H1	CONNECTOR, Male .....	1		
26	175778H1	BUSHING, Reducer .....	1		
27		BRAKE VALVE (See Page 13-17) .....	2		
	P - 14	PLUG, Pipe .....	2		
	P - 18	PLUG (2 for L.H. & 4 for R.H. Valve) .....	6		
	S-158	SCREW, Cap .....	6		
	WL-15	WASHER, Lock .....	6		
	H - 15	NUT .....	6		

(Continued on following page)

AIR HYDRAULIC CONNECTIONS (Continued)

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
LINE - BRAKE VALVES TO DOUBLE CHECK VALVE					
28	175081H1	ELBOW .....	1		
29	174923H2	VALVE, Double Check (Includes Items 29A thru 29E)..	1		
29A	179053H2	BODY .....	1		
29B	179067H1	GUIDE, Shuttle .....	1		
29C	179068H1	SHUTTLE .....	1		
29D	179070H1	CAP .....	1		
29E	179069H1	GASKET.... } For Service, Supply 179070H2 Cap & 177625H1 "O" Ring	1		
30	175772H1	CONNECTOR, Male .....	1		
31	175766H1	TUBE .....	1		
32	175777H1	ELBOW .....	1		
33	175778H1	BUSHING, Reducer .....	1		
	P - 16	PLUG, Pipe (check valve) .....	1		
LINE - L. H. BRAKE VALVE TO TRANS. DISCONNECT					
34	151982H1	BUSHING, Reducer .....	1		
35	164839H1	ELBOW .....	1		
36	175763H1	TUBE .....	1		
37	175775H1	ELBOW .....	1		
LINE - CHECK VALVE TO HYDRAIR UNIT					
38	175772H1	CONNECTOR, Male .....	1		
39	180118H1	TUBE .....	1		
40	175777H1	ELBOW .....	1		
41		HYDRAIR, Power Cluster (See Page 13-19) .....	1		
	S-178	SCREW, Cap .....	3		
	WL-17	WASHER, Lock .....	3		
	HL-3552	PLUG .....	1		
	HL-3753	GASKET (Plug) .....	1		
LINE - HYDRAIR UNIT TO FRONT WHEELS					
42	HL-3553	CONNECTOR .....	1		
43	HL-3753	GASKET .....	1		
44	120613H1	TUBE .....	1		
45	146966H1	TEE .....	1		
	136271H1	CLIP .....	1		
	S-147	SCREW, Cap .....	1		
	WL-14	WASHER, Lock .....	1		
	H - 14	NUT .....	1		
46	121104H1	TUBE .....	2		
	159680H1	CLIP .....	2		
	134797H1	CLAMP (Tube to Clip) .....	2		
	S-245	SCREW, Cap .....	2		
	WL-14	WASHER, Lock .....	2		
	H - 24	NUT .....	2		
LINE - HYDRAIR UNIT TO REAR WHEELS					
47	HA-884	GASKET .....	1		
48	107689H1	CONNECTOR .....	1		
49	HA-883	GASKET .....	1		
50	HA-882	BOLT .....	1		
51	138274H1	TUBE .....	1		
	167195H1	CLAMP (tube to frame) .....	3		
52	169677H1	UNION, Reducer .....	1		
53	H-310	NUT .....	1		
54	174927H1	HOSE .....	1		
55	174919H1	BRACKET .....	1		
	S-158	SCREW, Cap .....	1		
	WL-15	WASHER, Lock .....	1		
	H - 15	NUT .....	1		
(Continued on following page)					

AIR HYDRAULIC CONNECTIONS (Continued)

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
LINE - HYDRAIR UNIT TO REAR WHEELS (Continued)					
56	174920H1	TEE .....	1		
	S-1618	SCREW, Cap.....	1		
	WL-16	WASHER, Lock .....	1		
	H - 16	NUT .....	1		
		} Tee to Axle Cradle			
57	174928H1	HOSE .....	1		
58	174921H1	CONNECTOR .....	1		
59	HA-882	BOLT .....	1		
60	HA-883	GASKET .....	1		
61	HA-884	GASKET .....	1		
62	121104H1	TUBE .....	1		
	S-148	SCREW, Cap .....	3		
	WL-14	WASHER, Lock .....	3		
	WF-14	WASHER, Flat .....	3		
	H - 14	NUT .....	3		
		} Clamp, Tube to Frame			
63	174919H1	BRACKET (Hose) .....	1		
	S-1510	SCREW, Cap .....	1		
	WL-15	WASHER, Lock .....	1		
	H - 15	NUT .....	1		
		} Bracket to Cradle			
64	H-310	NUT .....	1		
65	174927H1	HOSE .....	1		
66	174921H1	CONNECTOR .....	1		
67	HA-882	BOLT .....	1		
68	HA-883	GASKET .....	1		
69	HA-884	GASKET .....	1		
	156608H1	CLAMP .....	2		
	S-1510	SCREW, Cap .....	2		
	WL-15	WASHER, Lock .....	2		
	H - 15	NUT .....	2		
LINE - L. H. BRAKE VALVE TO GAUGE					
70	132667H1	BUSHING, Reducer .....	1		
71	172832H1	ELBOW .....	1		
72	178751H1	TUBE .....	1		
73	172825H1	BULKHEAD UNION .....	1		
74	172834H1	TUBE .....	1		
75	172835H1	CONNECTOR .....	1		
76	154893H1	GAUGE, Air Pressure .....	1		
LINE - RESERVOIR DRAIN					
77	164839H1	ELBOW .....	1		
78	175765H1	TUBE .....	1		
79	164839H1	ELBOW .....	1		
80	139439H1	DRAIN COCK .....	1		
LINE - R. H. VALVE TO AIR HORN					
81	164839H1	ELBOW .....	1		
82	175765H1	TUBE .....	1		
83	175774H1	CONNECTOR .....	1		
84		VALVE, Horn (See Page 13-21).....	1		
	S-146	SCREW, Cap .....	2		
	WL-14	WASHER, Lock .....	2		
	H - 14	NUT .....	2		
85	175775H1	ELBOW .....	1		
86	175764H1	TUBE .....	1		
87	175773H1	CONNECTOR .....	1		
88		HORN (See Page 13-21) .....	1		
	S-1510	SCREW, Cap .....	1		
	WL-15	WASHER, Lock .....	1		
	H - 15	NUT .....	1		
(Continued on following page)					

AIR HYDRAULIC CONNECTIONS (Continued)

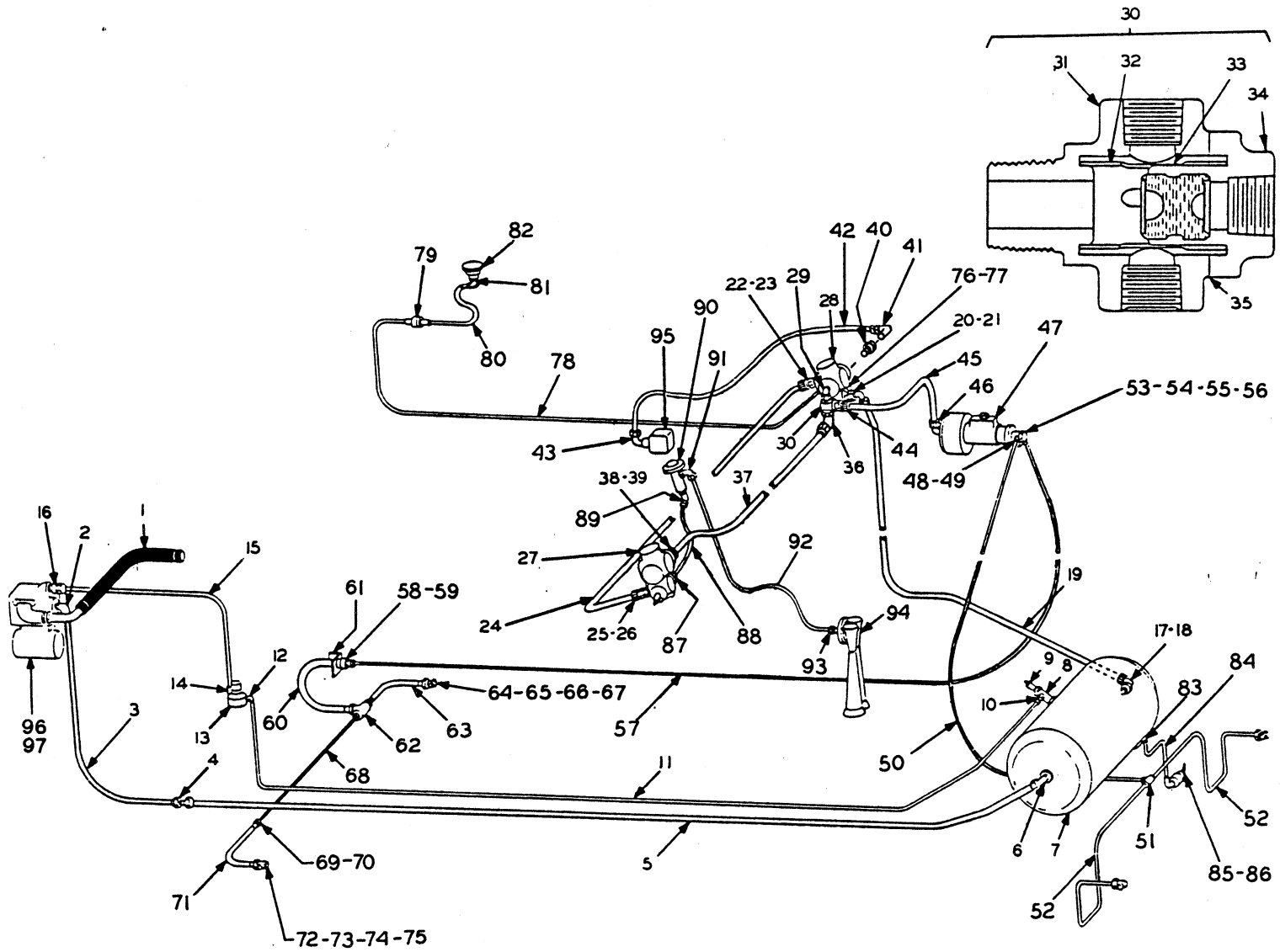
ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
89	179071H1 WF-14	CYLINDER, Air .....	1		
		SCREW, w/Lockwasher .....	2		
		WASHER, Flat .....	1		
90		AIR COMPRESSOR (Gas) (See Page 13-15) .....	1		
90		AIR COMPRESSOR (Diesel) (Refer to your engine manual) .....	1		



---

NOTES

AIR HYDRAULIC CONNECTIONS



AIR - HYDRAULIC CONNECTIONS  
Used on machines of S/N 28AH-1157 thru 1161 & 1166 & Up & 29AC-1178 & Up

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
LINE - AIR INTAKE MANIFOLD TO COMPRESSOR					
1		HOSE (See Air Cleaner Groups) .....	1		
	120605H1	ELBOW, Compressor Inlet .....	1		
	140357H1	ADAPTER, Inlet .....	1		
	187337H1	SCREW .....	2		
	104468H1	WASHER, Lock ..... } Adapter Attaching	2		
LINE - COMPRESSOR TO RESERVOIR					
2	181296H1	CONNECTOR .....	1		
	127506H1	ELBOW .....	1		
3	175822H1	TUBE .....	1		
4	157919H1	CONNECTOR .....	1		
2	181295H1	CONNECTOR .....	1		
3	181672H1	TUBE .....	1		
4	157919H1	CONNECTOR .....	1		
5	179092H1	TUBE .....	1		
	102818H1	CLAMP .....	3		
	S-148	SCREW, Cap .....	3		
	WL-14	WASHER, Lock .....	3		
	H - 14	NUT .....	3		
6	153526H1	ELBOW .....	1		
7	153524H1	RESERVOIR .....	1		
	153525H1	"U" BOLT .....	2		
	E - 16	NUT .....	4		
8	175779H1	TEE .....	1		
9		VALVE, Safety (See Page 13-13) .....	1		
LINE - RESERVOIR TO GOVERNOR					
10	175774H1	CONNECTOR, Male .....	1		
11	179938H1	TUBE .....	1		
	134797H1	CLAMP, Tube to Frame .....	2		
12	175775H1	ELBOW .....	1		
13		GOVERNOR (See Page 13-22) .....	1		
	S-1526	SCREW, Cap .....	2		
	WL-15	WASHER, Lock .....	2		
	H - 15	NUT .....	2		
LINE - GOVERNOR TO COMPRESSOR					
14	175773H1	CONNECTOR .....	1		
15	175844H1	TUBE .....	1		
16	164839H1	ELBOW .....	1		
LINE - RESERVOIR TO BRAKE VALVES					
17	175778H1	BUSHING, Reducer .....	1		
18	175777H1	ELBOW .....	1		
19	179939H1	TUBE .....	1		
20	175777H1	ELBOW .....	1		
21	175778H1	BUSHING, Reducer .....	1		
22	175778H1	BUSHING, Reducer .....	1		
23	175772H1	CONNECTOR, Male .....	1		
24	175767H1	TUBE .....	1		
25	175772H1	CONNECTOR, Male .....	1		
26	175778H1	BUSHING, Reducer .....	1		
27		VALVE, Brake R.H. (See Page 13-17) .....	1		
28		VALVE, Brake L.H. (See Page 13-17) .....	1		
	P - 14	PLUG, Pipe - L.H. Valve .....	2		
	P - 18	PLUG, Pipe (1) for L.H. & (5) for R.H. Valve .....	6		
	S-158	SCREW, Cap .....	6		
	WL-15	WASHER, Lock .....	6		
	H - 15	NUT .....	6		

(Continued on following page)

AIR - HYDRAULIC CONNECTIONS (Continued)  
Used on machines of S/N 28AH-1157 thru 1161 & 1166 & Up & 29AC-1178 & Up

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
LINE - RESERVOIR TO BRAKE VALVES (Continued)					
		Machine			
	186631H1	ROD ASSEMBLY, Equalizer .....	1		
	186632H1	END, Rod (with eye) .....	1		
	147604H1	END, Rod (plain) .....	1		
	158395H1	JOINT, Ball .....	2		
	H - 14	NUT .....	4		
	WL-14	WASHER, Lock .....	2		
	E - 34	NUT, Ball Joint to Rod End .....	1		
	E - 34	NUT, Ball Joint to Air Control Valve Lever .....	1		
LINE - BRAKE VALVES TO DOUBLE CHECK VALVE					
29	175081H1	ELBOW .....	1		
30	174923H2	VALVE, Double Check (Includes the following 5 items)	1		
31	179053H2	BODY .....	1		
32	179067H1	GUIDE, Shuttle .....	1		
33	179068H1	SHUTTLE .....	1		
34	179070H1	CAP .....	1		
35	179069H1	GASKET .....	1		
		For Service, Supply 179070H2 Cap & 177625H1 "O" Ring			
36	175772H1	CONNECTOR, Male .....	1		
37	175766H1	TUBE .....	1		
38	175777H1	ELBOW .....	1		
39	175778H1	BUSHING, Reducer .....	1		
	P - 16	PLUG, Pipe, Check Valve .....	1		
LINE-L. H. BRAKE VALVE TO TRANS. DISCONNECT VALVE					
40	151982H1	BUSHING, Reducer .....	1		
41	164839H1	ELBOW .....	1	28AH-1298	Up
42	175763H1	TUBE .....	1	29AC-1457	Up
43	164839H1	ELBOW .....	1		
LINE - DOUBLE CHECK VALVE TO HYDRAIR UNIT					
44	175772H1	CONNECTOR, Male .....	1		
45	180118H1	TUBE .....	1		
46	175777H1	ELBOW, 90° .....	1		
47		HYDRAIR POWER CLUSTER (See Page 13-19) .....	1		
LINE - HYDRAIR UNIT TO FRONT WHEELS					
48	HL-3553	CONNECTOR .....	1		
49	HL-3753	GASKET .....	1		
50	120613H1	TUBE & NUT ASSEMBLY .....	1		
51	146966H1	TEE .....	1		
	136271H1	CLIP, Tee Mounting .....	1		
	S-147	SCREW, Cap .....	1		
	H - 14	NUT .....	1		
	WL-14	WASHER, Lock .....	1		
52	121104H1	TUBE & NUT ASSEMBLY, R. H. & L. H. Brake Cyl. .	2		
	159680H1	CLIP .....	2		
	134797H1	CLAMP, Tube to Clip .....	2		
	S-245	SCREW, Cap .....	2		
	H - 24	NUT .....	2		
	WL-14	WASHER, Lock .....	2		
LINE - HYDRAIR UNIT TO REAR WHEELS					
53	HA-884	GASKET .....	1		
54	107689H1	CONNECTOR .....	1		
55	HA-883	GASKET .....	1		

(Continued on following page)

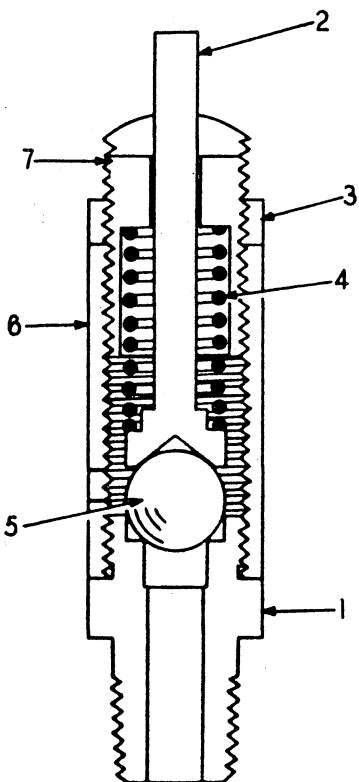
AIR - HYDRAULIC CONNECTIONS (Continued)  
Used on machines of S/N 28AH-1157 thru 1161 & 1166 & Up & 29AC-1178 & Up

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
LINE - HYDRAIR UNIT TO REAR WHEELS (Continued)					
56	HA-882	BOLT, Connector .....	1		
57	138274H1	TUBE & NUT ASSEMBLY .....	1		
	167195H1	CLAMP, Tube to Frame .....	2		
	S-148	SCREW, Cap .....	1		
58	169677H1	UNION, Reducer .....	1		
59	H-310	NUT .....	1		
	WL-14	WASHER, Lock .....	1		
60	174927H1	HOSE .....	1		
	H - 14	NUT .....	1		
61	174919H1	BRACKET, Hose .....	1		
	S-158	SCREW, Cap .....	1		
	H - 15	NUT .....	1		
	WL-15	WASHER, Lock .....	1		
62	174920H1	TEE .....	1		
	S-1616	SCREW, Cap .....	1		
	H - 16	NUT .....	1		
	WL-16	WASHER, Lock .....	1		
63	174928H1	HOSE .....	1		
64	174921H1	CONNECTOR .....	1		
65	HA-882	BOLT, Connector .....	1		
66	HA-883	GASKET .....	1		
67	HA-884	GASKET .....	1		
68	121104H1	TUBE & NUT ASSEMBLY .....	1		
69	174919H1	BRACKET, Hose .....	1		
	S-1510	SCREW, Cap .....	1		
	H - 15	NUT .....	1		
	WL-15	WASHER, Lock .....	1		
70	H-310	NUT .....	1		
71	174927H1	HOSE .....	1		
72	174921H1	CONNECTOR .....	1		
73	HA-882	BOLT, Connector .....	1		
74	HA-883	GASKET .....	1		
75	HA-884	GASKET .....	1		
	134797H1	CLAMP .....	1		
	WF-14	WASHER, Flat .....	2		
	S-1410	SCREW, Cap .....	2		
	H - 14	NUT .....	2		
	WL-14	WASHER, Lock .....	2		
LINE - L. H. BRAKE VALVE TO GAUGE					
76	132667H1	BUSHING, Reducer .....	1		
77	172832H1	ELBOW, L. H. Brake Valve .....	1		
78	178751H1	TUBE .....	1		
79	172825H1	UNION, Bulkhead .....	1		
80	172834H1	TUBING .....	1		
81	181084H1	ELBOW .....	1		
82	154893H1	GAUGE, Air Pressure .....	1		
LINE - RESERVOIR DRAIN					
83	164839H1	ELBOW .....	1		
84	182838H1	TUBING .....	1		
85	164839H1	ELBOW .....	1		
86	139439H1	COCK, Drain .....	1		
LINE - R. H. VALVE TO AIR HORN					
87	164839H1	ELBOW .....	1		
88	175765H1	TUBE .....	1		
89	175774H1	CONNECTOR .....	1		
90		VALVE, Horn (See Page 13-21) .....	1		
91	175775H1	ELBOW .....	1		

(Continued on following page)

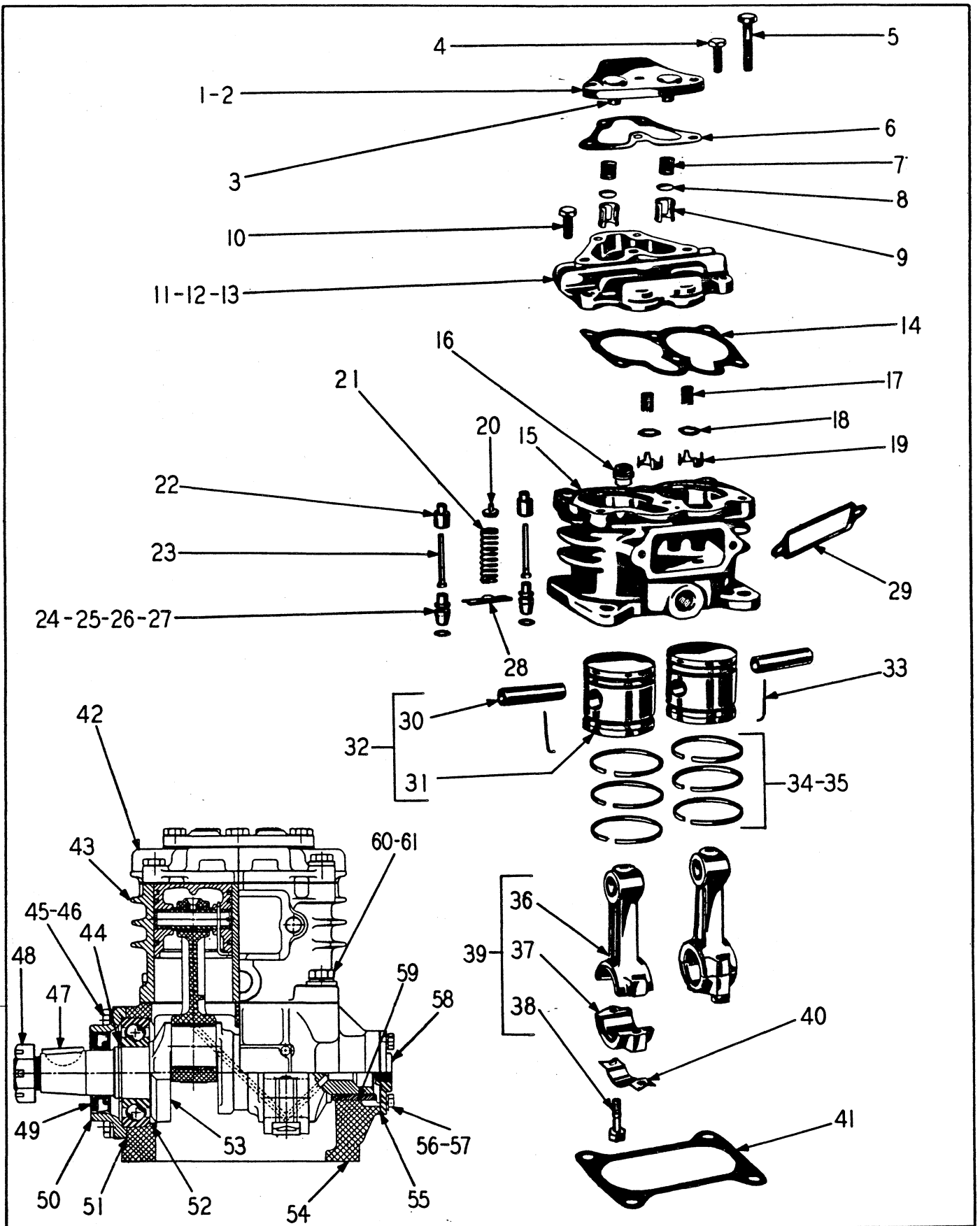
AIR - HYDRAULIC CONNECTIONS (Continued)  
Used on machines of S/N 28AH-1157 thru 1161 & 1166 & Up & 29AC-1178 & Up

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
LINE - R. H. VALVE TO AIR HORN (Cont.)					
92	175764H1	TUBE .....	1		
93	175773H1	CONNECTOR .....	1		
94		HORN (See Page 13-21) .....	1		
95		CYLINDER, Air (See Page 4-12) .....	1		
	179071H1	SCREW, w/ Lockwasher .....	2		
	WF-14	WASHER .....	1		
96		AIR COMPRESSOR (Gas) .....	] See Page 13-15		
97		AIR COMPRESSOR (Diesel) .....			
LINE - OPTIONAL R. H. BRAKE VALVE TO TRANS. DISCONNECT VALVE					
	164839H1	ELBOW .....	1		
	188459H1	TUBE, Brake Valve to Air Control Valve .....	1		
	164839H1	ELBOW .....	1	28AH-1157- 1161 & 1166	1297
		VALVE, Air Control (See Page 13-23) .....	1		
	175774H1	CONNECTOR .....	1	29AC-1178	1456
	175764H1	TUBE .....	1		
	175775H1	ELBOW .....	1		



SAFETY VALVE

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	139434H1	VALVE, Safety .....	1		
1	141244H1	BODY .....	1		
2	167871H1	PIN, Release .....	1		
3	140280H1	NUT, Lock .....	1		
4	140278H1	SPRING .....	1		
5	140275H1	BALL .....	1		
6	141245H1	CAGE, Spring .....	1		
7	140279H1	NUT, Adjusting .....	1		



AIR COMPRESSOR



AIR COMPRESSOR

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	175678	AIR COMPRESSOR ASSEMBLY .....	1		
		CYLINDER HEAD ASSEMBLY (Includes Items 1, 2, 3, 4-6, 7, 8, 9, 11, 12, 13) .....	1		
1	140350	COVER ASSEMBLY (Includes Items 2 and 3) .....	1		
2		COVER (Not Serviced) .....	1		
3		STOP, Discharge Valve (Not Serviced) .....	2		
4	140351	SCREW, Cap .....	4		
5	140352	SCREW, Cap .....	1		
6	140349	GASKET, Cylinder Head Cover .....	1		
7	140348	SPRING, Discharge Valve .....	2		
8	140347	VALVE, Discharge .....	2		
9	140346	GUIDE, Discharge Valve .....	2		
10	140353	SCREW, Cap .....	5		
11	140344	BODY (Includes Items 12 and 13) .....	1		
12		HEAD, Cylinder (Not Serviced) .....	1		
13	140345	SEAT, Discharge Valve .....	2		
14	140342	GASKET, Cylinder Head .....	1		
15	173470	BODY, (Includes 173471) .....	1		
16	173471	SEAT, Valve .....	2		
17	140341	SPRING, Inlet Valve .....	2		
18	140340	VALVE, Inlet .....	2		
19	140339	GUIDE, Inlet Valve .....	2		
20	140337	SEAT, Spring .....	1		
21	140338	SPRING, Unloader .....	1		
22	140335	GUIDE, Plunger .....	2		
23	140334	PLUNGER .....	2		
24	140330	PISTON UNLOADER ASSEMBLY (Incl. Items 25 thru 27) .....	2		
25	140331	PISTON, Unloader .....	1		
26	140332	RING, Backup .....	1		
27	140333	GROMMET .....	1		
28	173472	SADDLE, Spring .....	1		
29	173466	GASKET .....	1		
30		PIN, Wrist (Not Serviced) .....	1		
31		PISTON (Not Serviced) .....	1		
32	140326	PISTON & PIN ASSEMBLY (Includes Items 30 and 31)..	2		
33	140327	WIRE, Wrist Pin Lock .....	2		
34	140328	PISTON RING SET (Includes 6 of Item 35) .....	1		
35		RING, Piston (Not Serviced) .....	6		
36		ROD, Connecting (Not Serviced) .....	1		
37		CAP, Connecting Rod (Not Serviced) .....	1		
38	140324	BOLT, Connecting Rod .....	2		
39	140323	CONNECTING ROD ASSEMBLY (Includes Items 36 thru 38) replaces 180126 .....	2		
40	140325	STRAP, Locking .....	2		
41	140307	GASKET, Cylinder Block .....	1		
42		CYLINDER HEAD (Not Serviced) .....	1		
43		CYLINDER BLOCK (Not Serviced) .....	1		
44	140313	RING, Retaining .....	1		
45	140318	SCREW, Cap .....	4		
46	WL-14	WASHER, Lock .....	4		
47	140354	KEY .....	1		
48	140355	NUT .....	1		
49	140316	SEAL, Oil .....	1		
50	140315	COVER, Front .....	1		
51	140314	GASKET, Front Cover .....	1		
52	140312	BEARING, Ball .....	1		
53	140311	CRANKSHAFT .....	1		
54		CRANKCASE (Not Serviced) .....	1		
		GASKET CRANKCASE (Not Serviced) .....	1		
55	140319	GASKET, Cover .....	1		
56	140321	WASHER, Lock .....	4		
57	173460	SCREW, Machine .....	4		
58	180142	COVER, Rear .....	1		

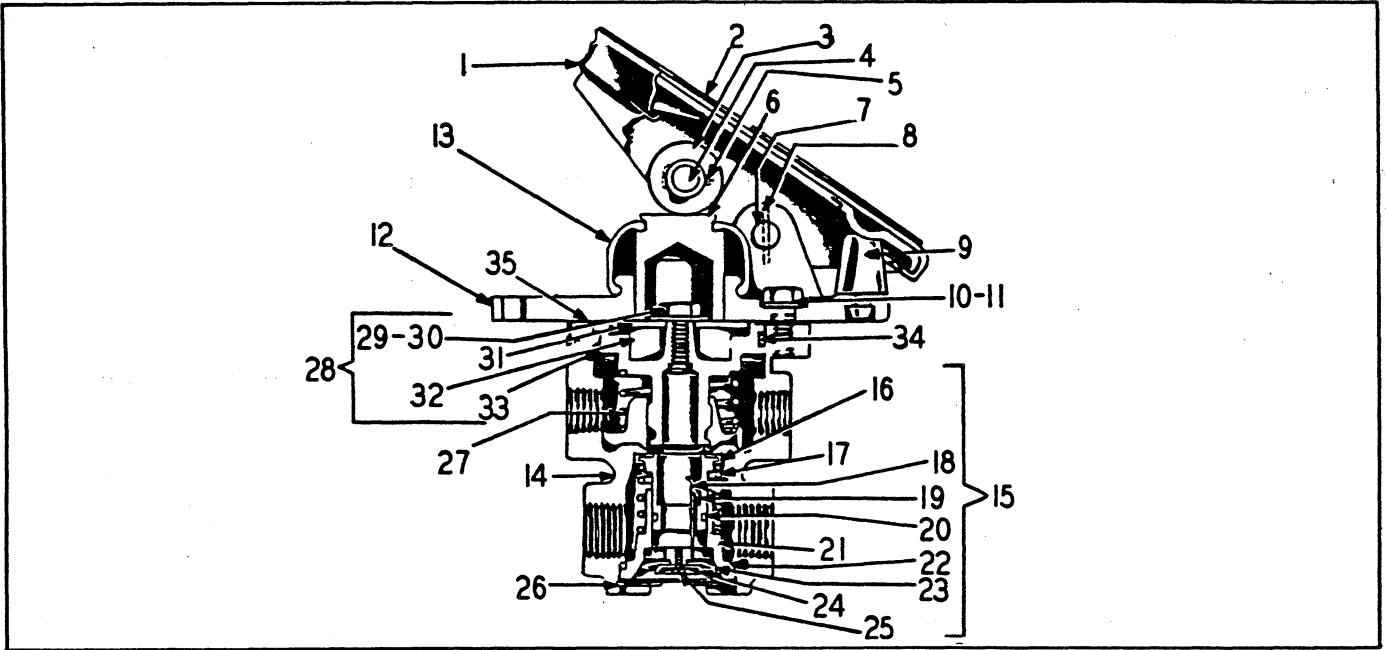
(Continued on following page)

Suffix H1 should be applied to all Hough six digit numbers unless advanced.

AIR COMPRESSOR (Continued)

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
59		BEARING, Crankcase (Not Serviced) .....	1		
60	WL-25	WASHER, Lock .....	4		
61	140310	SCREW, Cap .....	4		

Suffix H1 should be applied to all Hough six digit numbers unless advanced.



TREADLE VALVE

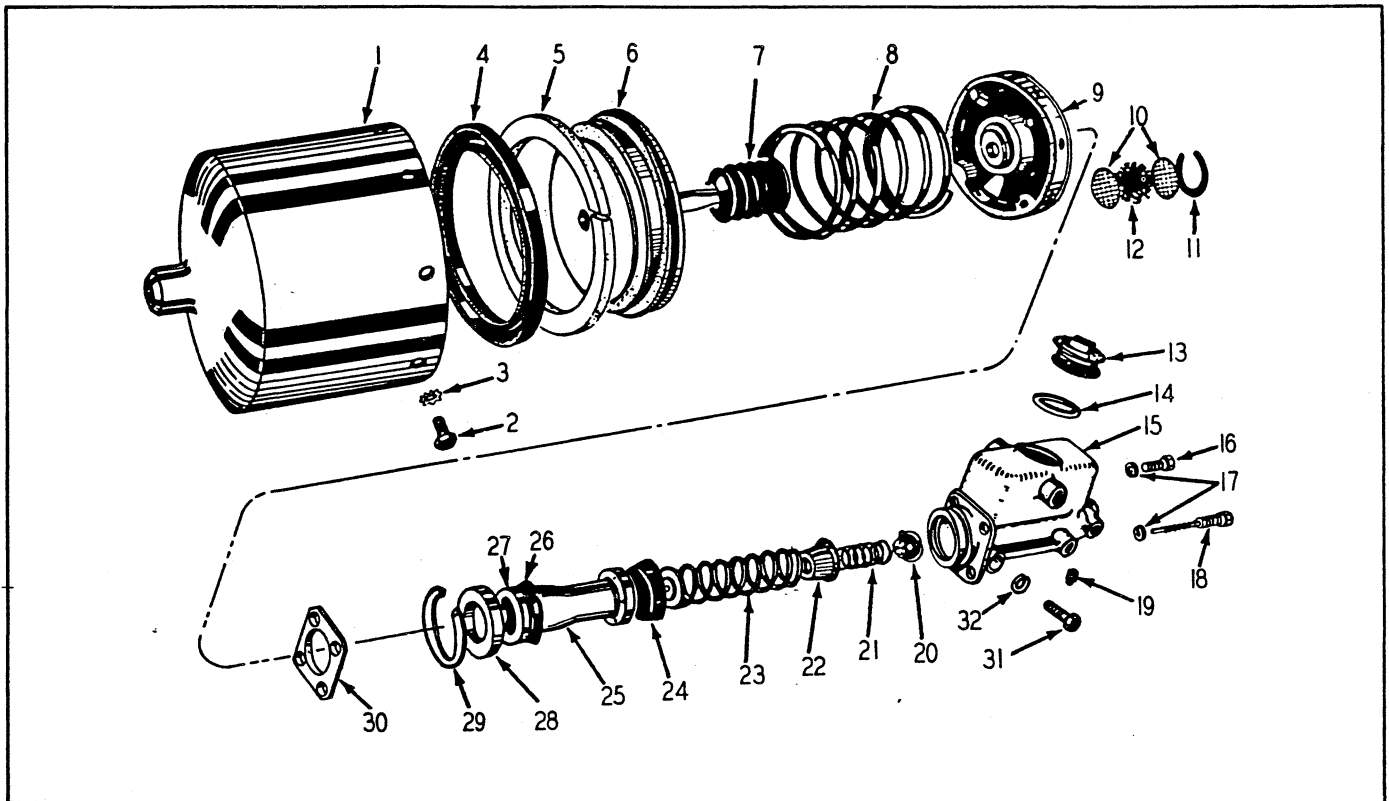
ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	187715	BRAKE VALVE ASSY., L. H. (Same as Brake Valve Assy. #162410 except with 5/16" Dia hole drilled at top center of pedal.)	1		
	162410	BRAKE VALVE ASSY., R. H. (Incl. 178964H2 & Items 1 thru 35)	1		
	178964H2	VALVE, Brake (Includes Items 14 thru 35)	1		
1	155378	TREADLE ASSEMBLY (Includes Items 2 thru 5)	1		
2	155379	TREADLE	1		
3	145973	ROLLER	1		
4	155380	PIN, Roller	1		
5	CP-35	PIN, Cotter	1		
6	155381	PLUNGER	1		
7	178171	PIN, Fulcrum	1		
8	178172	PIN, Roll	1		
9	155382	BUTTON, Stop	1		
10	S-256-P	SCREW, Cap	3		
11	WL-15	WASHER, Lock	3		
12	155376	PLATE, Mounting	1		
13	155377	BOOT	1		
14	172304	BODY	1		
15	172305	INLET & EXHAUST VALVE ASSEMBLY, (Includes Items 16 thru 25)	1		
16	179025	RETAINER, Valve	1		
17	172315	SPRING, Valve	1		
18	172307	SPRING, Inlet Valve Preload	1		
19	172312	VALVE, Inlet & Exhaust	1		
20	172314	GROMMET, Valve	1		
21	172306	SEAT, Exhaust Check Valve	1		
22	172311	GROMMET, Exhaust Check Valve	1		
23	172308	DIAPHRAGM	1		
24	172309	WASHER, Diaphragm	1		
25	172310	SCREW & LOCKWASHER	1		
26	172317	RING, Retaining	1		
27	172318	SPRING, Piston Return	1		

(Continued on following page)

TREADLE VALVE (Continued)

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
28	172319	PISTON ASSEMBLY, (Includes Items 29 thru 33) .....	1		
29	172324	SCREW, Cap .....	1		
30	172323	WASHER .....	1		
31	172322	SEAT, Spring .....	1		
32	172321H2	SPRING, Rubber .....	1		
33	172320	PISTON .....	1		
34	OR3-5	GROMMET, Piston .....	1		
35	172326	RETAINER .....	1		
	179026	WASHER, Identification .....	1		
		* 178170 Treadle Service Kit Includes Item 1 thru 5 and Item 7 & 8.			

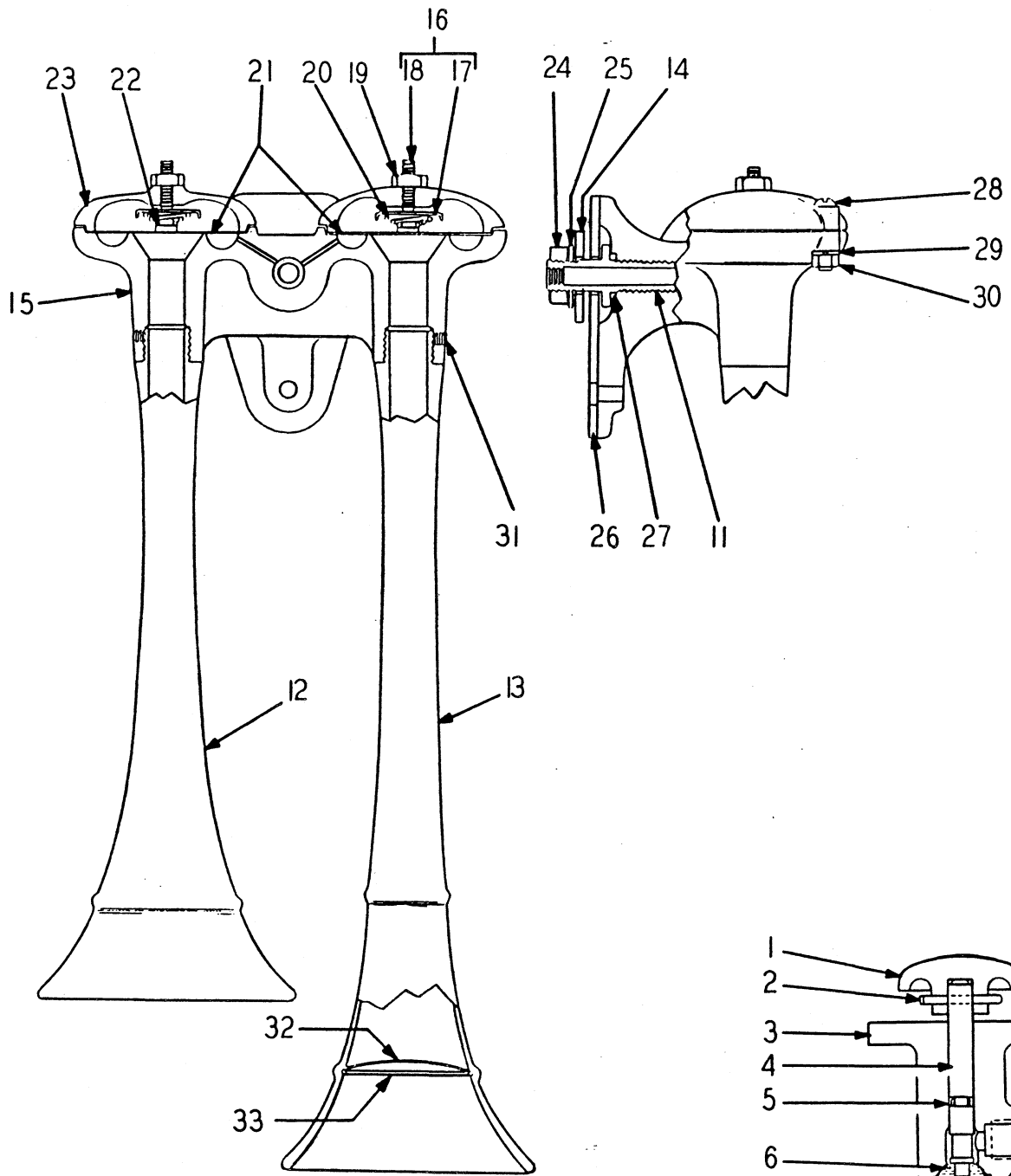
Suffix H1 should be applied to all Hough six digit numbers unless advanced.



POWER CLUSTER

POWER CLUSTER

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	164057	.POWER CLUSTER ASSEMBLY (Includes Items 1 thru 30)			
	165785	CYLINDER ASSEMBLY, Air (Includes 1 thru 12) .....	1		
1	165715	SHELL, Air Cylinder .....	1		
2	S-255	SCREW, Cap .....	8		
3	138628	WASHER, Lock .....	8		
4	165716	CUP, Piston Air Cylinder .....	1		
5	165718	WIPER, Air Cylinder .....	1		
6	165717	PISTON & ROD, Air Cylinder .....	1		
7	165719	BOOT, Piston Rod, Air Cylinder .....	1		
8	165720	SPRING, Piston Return, Air Cylinder .....	1		
9	165721	HEAD, Air Cylinder .....	1		
10	165722	SCREEN, Head Filter, Air Cylinder .....	2		
11	165724	RING, Head Filter, Air Cylinder .....	1		
12	165723	HAIR, Head Filter, Air Cylinder .....	1		
	165727	CYLINDER ASSEMBLY, Hydraulic (Incl. Items 13 thru 29) .....	1		
13	*165734	PLUG, Tank Filler .....	1		
14	107639	GASKET, Tank Filler .....	1		
15	165733	CASTING, Cyl. & Tank .....	1		
16	S-2612	SCREW, Cap Hydraulic Cylinder Mtg. ....	3		
17	WL-16	WASHER, Lock Hydraulic Cylinder Mtg. ....	4		
18	165726	INDICATOR, Piston Stroke Power Cluster .....	1		
19	P - 12	PLUG, Drain .....	1		
20	165732	VALVE & SEAT, Check .....	1		
21	165788	SPRING, Check Valve Retainer .....	1		
22	165787	RETAINER, Check Valve .....	1		
23	153856	SPRING, Piston Return .....	1		
24	145943	CUP, Piston Primary .....	1		
25	165786	PISTON ASSEMBLY .....	1		
26	165731	CUP, Piston Secondary .....	1		
27	169034	BOOT, Piston Secondary Cup.....	1		
28	165729	PLATE, Piston Stop .....	1		
29	145946	WIRE, Stop Plate Lock .....	1		
30	165725	SPACER, Mtg. Power Cluster .....	1		
31	S-178	SCREW, Cap .....	3		
32	WL-17	WASHER, Lock .....	3		
	HL-3552	PLUG .....	1		
	HL-3553	GASKET, Plug .....	1		
	165735	KIT, Power Cluster Repair (Includes Items 4, 5, 7, 12, 20 24 & 25) .....	1		
<p>Suffix H1 should be applied to all Hough six digit numbers unless advanced.</p> <p>* Suffix H2 should be applied to these Hough numbers.</p>					

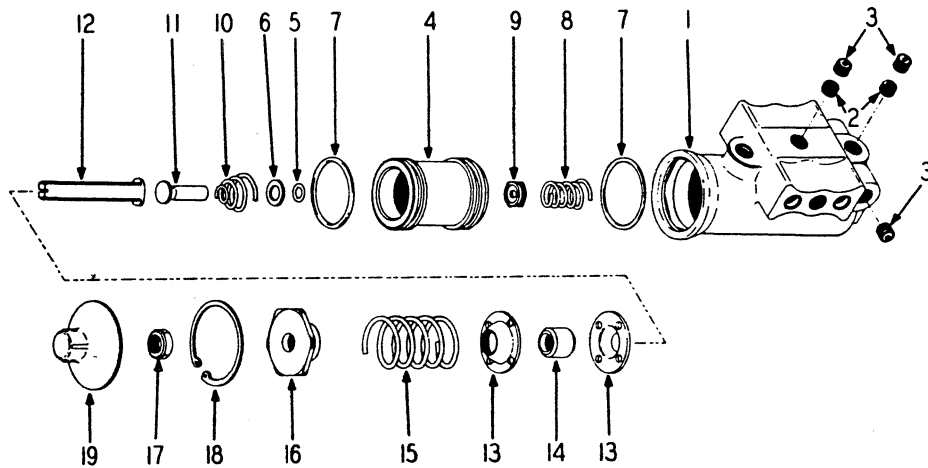


AIR HORN

AIR HORN

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	157140	BUTTON ASSEMBLY, Horn .....	1		
1	158016	BUTTON .....	1		
2	CP-36	PIN, Cotter .....	1		
3		BODY .....	1		
4	158012	STEM .....	1		
5	OR4-1	"O" RING, Stem .....	1		
6	158013	VALVE, Inlet .....	1		
7	158014	SEAT, Spring .....	1		
8	158015	SPRING .....	1		
9	145986	PLATE, Strainer .....	1		
10		CAP .....	1		
	S-148	SCREW, Cap .....	2		
	H - 14	NUT .....	2		
	WL-14	WASHER, Lock .....	2		
	145775	HORN ASSEMBLY .....	1		
11	145988	COUPLING, Mounting .....	1		
12	145989	BELL, Short .....	1		
13	145990	BELL, Long .....	1		
14	145991	WASHER, Special .....	1		
15	145992	BODY .....	1		
16	145993	SEAT ASSEMBLY, Spring .....	1		
17		SEAT, Spring .....	2		
18		SCREW, Set .....	2		
19	H - 45	NUT, Lock .....	2		
20	145995	SPRING .....	2		
21	145996	DIAPHRAM .....	2		
22	145997	CONTACT, Spring .....	2		
23	145998	COVER .....	2		
24	H-310-P	NUT, Thin .....	1		
25		WASHER, Lock .....	1		
26	145999	GASKET .....	1		
27	OR4-11	GROMMET .....	1		
28		SCREW .....	8		
29	WL-14	WASHER, Lock .....	8		
30	H-24-P	NUT .....	8		
31		SCREW .....	2		
32	146001	SCREEN .....	2		
33	146002	RETAINER, Screen .....	2		
	S-1510	SCREW, Cap .....	1		
	H - 15	NUT .....	1		
	WL-15	WASHER, Lock .....	1		

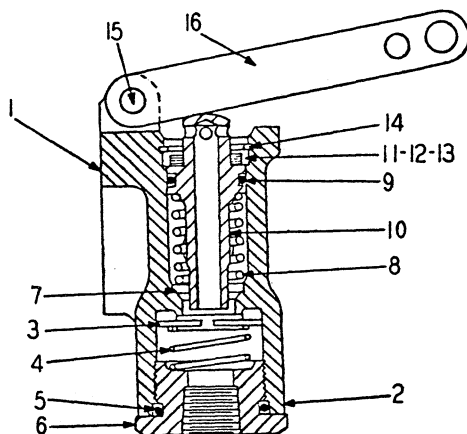
Suffix H1 should be applied to all Hough six digit numbers unless advanced.



GOVERNOR

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	160446H2	GOVERNOR ASSY. (Includes the following) .....	1		
	177601H1	BODY ASSEMBLY (Includes 1 & 2) .....	1		
1	177618H1	BODY .....	1		
2	177619H1	FILTER .....	2		
3	151425H1	PLUG, Pipe .....	4		
	177620H1	PISTON ASSEMBLY (Includes Items 4, 5 & 6) .....	1		
4	177621H1	PISTON .....	1		
5	OR4-4	"O" RING .....	1		
6	177622H1	WASHER .....	1		
7	177625H1	GROMMET, Piston .....	2		
8	177624H1	SPRING, Valve .....	1		
9	177623H1	VALVE (w/insert) .....	1		
10	177626H1	SPRING, Exhaust Stem .....	1		
11	177627H1	STEM, Exhaust .....	1		
	177628H1	ADJUSTING SCREW & SPRING ASSEMBLY (Includes Items 12 thru 17) .....	1		
12	177629H1	SCREW, Adjusting .....	1		
13	177630H1	SEAT, Spring (lower) .....	2		
14	177631H1	GUIDE, Spring .....	1		
15	177632H1	SPRING .....	1		
16	177633H1	SEAT, Spring (upper) .....	1		
17	H - 24	NUT .....	1		
18	178365H1	RING, Retaining .....	1		
19	177635H1	COVER .....	1		





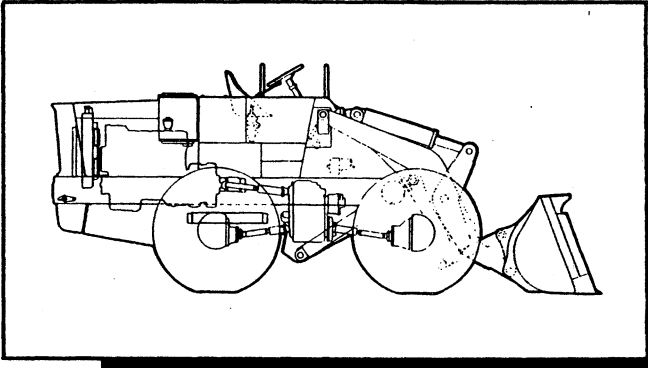
VALVE - AIR CONTROL

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	186634H1	VALVE, Air control, includes items 1 thru 16 .....	1	28AH-1001 29AC-1003	1456 1297
1	188562H1	VALVE, Includes Items 2 thru 15 .....	1		
2	188563H1	BODY .....	1		
3	188564H1	VALVE .....	1		
4	188565H1	SPRING, Valve .....	1		
5	188567H1	RING .....	1		
6	188568H1	NUT, Cap .....	1		
7	188569H1	WASHER, Plunger guide .....	1		
8	188570H1	SPRING, Plunger return .....	1		
9	OR4-11	"O" RING .....	1		
10	188571H1	PLUNGER .....	1		
11	188572H1	SEAL, Plunger Complete .....	1		
12	188573H1	BODY, Plunger Seal .....	1		
13	188574H1	WASHER, Felt .....	1		
14	188575H1	RING, Retaining .....	1		
15	188576H1	PIN .....	1		
16	188577H1	LEVER .....	1		
	186731H1	BRACKET, Air control valve mounting .....	1		
	S-148	SCREW, Cap .....	4		
	WL-14	WASHER, Lock .....	4		
	H - 14	NUT .....	4		



**SECTION 14**

**ACCESSORIES  
&  
ATTACHMENTS**



**Table Of Contents**

<b>Group</b>	<b>Page</b>
DECAL .....	14-2
TOOL .....	14-2

To obtain the latest Accessories and Attachments available for your "PAYLOADER," we urge you to use the extensive facilities offered by The Frank G. Hough Co. "PAYLOADER" dealers. Dealers are kept informed on the latest improvements and are equipped to provide prompt service in the field or in an up-to-date service shop.

DECAL - TOOL

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	127607H2	PLATE, Serial Number .....	1		
	127515H4	DECAL, Patent Number .....	1		
	200613H1	DECAL, Hough .....	2		
	174799H2	DECAL, Model Symbol .....	2		
	112364H2	DECAL, Water .....	1		
	172177H1	DECAL, Starting Aid (diesel) .....	1		
	145270H2	DECAL, Air Reservoir .....	1		
	177855H1	DECAL, Converter Oil Temperature .....	1		
	154157H2	DECAL, Four Wheel Drive .....	1		
	153222H1	PLATE, Valve Adjusting Caution .....	1		
	153223H1	PLATE, Valve Adjusting Instructions .....	1		
	171559H2	DECAL, "PAYLOADER" .....	1		
	155569H2	DECAL, "PAYLOADER" .....	2		
	120948H2	DECAL, Diesel Fuel .....	1		
	112365H2	DECAL, Gas .....	1		
	131850H2	DECAL, Safety Instructions .....	1		
	161177H2	DECAL, Warning .....	1		
	168897H2	DECAL, Oil Filter .....	1		
	180936H1	DECAL, Hydraulic Reservoir .....	1		
	180937H1	DECAL, Transmission Fluid "A" Type .....	1		
	188039H1	DECAL, Oil Drain .....	1		
	188587H1	DECAL, Clutch Operating Pressure .....	1		
	154838H2	DECAL, Engine Shutdown (Detroit Diesel) .....	1		
	154839H2	DECAL, Engine Shutdown (Detroit Diesel) .....	1		
	180533H1	PLATE, Engine Emergency Shutdown (Detroit Diesel) .	1		
	193110H1	PLATE, Lube Inst. (G-372) .....	1		
	193109H1	PLATE, Lube Inst. (JF-6-CI) .....	1		
	193111H1	PLATE, Lube Inst. (GM-371) .....	1		
		TOOL			
	143950H1	GUN, Grease .....	1		
	143951H1	NOZZLE, Flexible .....	1		
	143952H1	CLAMP, Grease Gun .....	1		
	154260H1	WRENCH, Valve Adjusting .....	1		
	161849H1	WRENCH, Wheel Bearing Nut .....	1		

NUMERICAL INDEX

PART NO.	PAGE	PART NO.	PAGE	PART NO.	PAGE	PART NO.	PAGE
CP-25	6-7	HL-3485	9-7	OR2-20	11-11	P-14	10-3
	7-9	HL-3486	9-7				10-13
CP-28	8-4	HL-3552	13-4				10-14
CP-35	13-17		13-19	OR3-5	13-18		13-3
CP-36	6-9	HL-3553	13-4	OR3-6	3-3		13-9
	9-7		13-10		4-4		
	12-4		13-19	OR3-10	10-9		
	12-8	HL-3753	13-4	OR3-18	6-3	P-16	3-4
	13-21		13-10		7-3		13-4
				OR3-19	6-7		13-10
CP-47	9-6				7-9		2-5
CP-414	6-5	HS-858	8-3	OR3-26	3-3	P-18	2-11
	7-7	HS-859	8-3		3-4		2-12
	9-13	HS-911	8-7				2-13
CP-816	1-8	HS-914	8-7	OR3-33	3-4		2-14
		HS-931	8-7	OR3-52	6-7		8-7
		HS-972	2-13		7-9		13-3
			2-14				13-9
HA-800	9-3						
	9-5						
HA-845	9-3	LW-165	2-5	OR4-4	13-22	P-42	6-3
	9-5	LW-187	4-3	OR4-5	3-3		7-3
HA-882	13-4		4-4	OR4-6	4-12		9-13
	13-5		4-5	OR4-7	4-5		11-5
	13-11	LW-188	2-9	OR4-9	4-4	P-46	2-7
HA-883	13-4	LW-216	4-4		4-12	P-212	6-5
	13-5	LW-1211	7-4		10-6		7-7
	13-11	LW-1614	11-3		11-11		
		LW-1618	6-5		4-3		
			7-7		4-5		
HA-884	13-4		11-3			205-8	10-3
	13-5					205-10	10-3
	13-10			OR4-9	13-21	205-12	10-3
	13-11	LW-1620	3-4		13-23		10-13
HA-932	9-3		6-5	OR4-11	3-4	205-16	10-9
HA-1000	12-3		7-7		11-13	206-9	10-9
HA-1231	8-7			OR4-12	11-11		10-10
HA-1232	8-6				11-12	208-7	10-13
HA-1274	2-15			OR4-14	3-4	210-8	2-10
	2-16	OR2-6	10-3	OR4-16	4-3		4-12
			10-6	OR4-17	11-11		
		OR2-8	2-10	OR4-19	4-12		
HA-1279	2-13		4-12		8-4	210-16	11-9
	2-14		6-3		10-3	216-6	10-3
HA-1332	6-9		6-7		10-5	241-8	10-14
HA-1333	6-9		7-3			290-6	10-3
HA-1335	6-9		7-9				10-6
HA-1440	8-7		10-3	OR4-20	3-4	290-12	10-10
HA-1441	8-7			OR4-21	11-11	291-12	10-9
HA-1445	8-7			OR4-24	8-4		10-10
HA-1446	8-7	OR2-8	10-6		10-9		10-13
HA-1463	7-11		10-13	OR4-27	4-4		10-14
HA-1492	8-6		11-13	OR4-28	9-7	298-10	10-13
		OR2-10	10-3	OR4-32	11-3		
			10-5	OR4-33	11-3		
			10-6	OR4-49	11-3		
HL-1263	9-3		10-13	OR4-88	11-3	101735H1	6-7
	9-5	OR2-12	4-12				7-9
	9-7		10-9			101848H1	9-7
	9-9		10-10				
	9-11		10-13	P-12	2-7		
HL-1264	9-5				8-3		
	9-9				10-3	102278H1	11-4
	9-11	OR2-12	10-14		10-6	102279H1	11-4
HL-3343	9-3	OR2-16	10-9		13-9	102818H1	2-13
	9-5	OR2-16	10-10	P-14	3-4		2-14
	9-9		11-9		8-3		13-3
							13-9

NUMERICAL INDEX

PART NO.	PAGE	PART NO.	PAGE	PART NO.	PAGE	PART NO.	PAGE
102430H1	7-9	104693H1	7-11	112002H1	2-15	117240H1	12-7
		104696H1	6-9		2-16	117258H1	2-15
		104705H1	4-3		10-13	117378H1	2-6
		104706H1	4-9	112259H1	7-11		
103047H1	2-11			112260H1	7-11		
103487H1	3-4			112261H1	7-11		
	10-13			112339H1	12-3	118046H1	4-3
	10-14	106475H1	2-7		12-7	118060H1	4-5
103488H1	2-10			112354H2	14-2	118086H1	4-10
	2-14			112365H2	14-2	118491H1	1-3
103489H1	2-11			112367H1	7-11		5-2
	2-12	107442H1	7-11	112681H1	2-6		5-3
103495H1	3-3	107558H1	12-7				7-4
103496H1	2-11	107578H1	6-9				9-13
	8-4	107639H1	13-19				11-3
		107689H1	13-4	113081H1	4-4		
			13-10	113158H1	12-3		
103497H1	2-10	107734H1	9-3	113228H1	2-12	118492H1	1-7
103507H1	3-3	107749H1	12-3	113694H1	9-3		9-7
103508H1	2-11						9-13
103763H1	9-3	107755H1	12-3				11-15
	9-5		12-7				
103882H1	9-3	107863H1	2-11	114362H1	4-9	118493H1	5-2
				114654H1	2-5		5-3
				114851H1	3-4		5-4
		107940H1	8-7		4-3	118494H1	9-3
104078H1	6-5	107941H1	8-7		4-5		9-5
	7-7	107942H1	8-7			118515H1	3-3
104408H1	2-11					118524H1	3-3
104466H1	12-3						
	12-4			115086H1	9-7		
	12-8	108498H1	2-2	115451H1	4-5	119059H1	9-5
104467H1	1-9		12-3	115602H3	12-3	119183H1	4-12
	2-9		12-7		12-7	119211H1	3-3
	12-3	108650H1	9-3	115605H1	12-3	119225H1	3-3
	12-7		9-5		12-7	119352H1	3-3
		108651H1	9-3	115701H1	10-3	119353H1	3-3
			9-5		10-5	119365H1	3-3
104468H1	12-3	108931H1	6-5	115706H1	10-9	119691H1	11-3
	12-4		7-7			119692H1	11-3
	12-7					119693H1	7-3
	12-8						
	13-3			116593H1	4-5		
	13-9	109046H1	9-3	116594H1	4-5		
104469H1	1-9		9-5	116595H1	4-5	120053H1	8-3
	2-9	109181H1	2-10	116596H1	4-5	120069H1	8-3
	12-3	109214H1	2-10	116598H1	4-3	120070H1	8-4
			12-3		4-8	120080H1	8-3
			12-7	116599H1	4-9	120085H1	8-3
104469H1	12-8	109758H1	2-15	116608H1	4-3	120088H1	8-3
104553H1	6-5	109820H1	3-3	116609H1	4-3	120096H1	8-4
	7-7	109866H1	12-3	116610H1	4-3	120243H1	4-6
104645H1	7-11		12-7			120248H1	4-6
104655H1	7-11			116611H1	4-3	120260H1	4-5
104656H1	7-11			116623H1	4-3	120261H1	4-4
104657H1	7-11			116640H1	4-5		
104672H1	7-11	110580H1	9-13	116641H1	3-3	120267H1	4-5
104677H1	7-11				4-3	120268H1	4-5
104678H1	7-11				7-4	120275H1	4-5
		111392H1	11-11	116716H1	4-3	120584H1	2-16
		111459H1	7-11	116719H1	4-8	120605H1	13-3
104679H1	7-11	111460H1	7-11	116983H1	2-13		13-9
104680H1	7-11				2-14	120613H1	13-4
104681H1	7-11						13-10
104686H1	7-11						
104687H1	7-11						

NUMERICAL INDEX

PART NO.	PAGE	PART NO.	PAGE	PART NO.	PAGE	PART NO.	PAGE
120622H1	10-13	125524H1	4-3	129301H1	3-3	130005H1	3-3
120654H1	9-13	125536H2	4-9	129305H1	12-3		3-4
120655H1	9-13	125541H2	4-9	129370H1	3-3	130006H1	3-3
120948H2	14-2	125545H1	4-9		3-4	130009H1	3-3
		125548H1	4-9	129502H2	4-7	130010H1	3-3
			7-11	129503H1	4-7	130013H1	3-4
121104H1	13-4			129504H1	4-7	130014H1	3-4
	13-5	125548H1	9-9	129505H1	4-7	130015H1	3-4
	13-10		9-11	129506H1	4-7	130016H1	3-4
	13-11	125549H1	4-9	129508H2	4-4	130018H1	3-4
121508H1	3-4	125551H1	4-8				
	4-5		4-9	129509H1	4-3	130021H1	3-4
		125552H1	4-9		4-4	130029H1	3-3
		125553H1	4-7		4-5	130030H1	3-3
			4-8	129510H1	4-4	130031H1	3-3
122144H1	11-3		4-9	129513H1	4-4	130033H1	3-3
122511H1	8-7	125560H1	4-4	129523H2	4-8	130051H1	3-4
122761H1	2-10			129523H3	4-8	130052H2	3-4
122763H1	2-10			129528H2	4-8	130127H1	8-4
		125563H1	4-3	129529H1	4-8		
		125564H1	4-3		4-9		
123154H1	12-3	125566H1	4-3			130167H1	11-13
	12-7		4-5			130534H1	4-5
123246H1	3-3	125567H1	4-3	129530H1	4-8	130537H1	4-5
123250H1	3-3	125570H2	4-7	129531H1	4-8	130539H1	4-11
	4-5	125573H1	4-7	129532H1	4-8	130801H1	9-5
123298H1	3-3	125747H1	2-13	129533H1	4-8	130823H1	2-5
	3-4	125751H1	2-12	129535H2	4-8		2-9
	4-3		2-13	129536H1	4-8		
	4-5		2-14	129537H1	4-8		
	4-10			129538H1	4-8		
	7-4			129539H1	2-9	131154H1	11-9
		126412H1	12-3		4-8	131193H1	3-3
			12-7				3-4
124161H1	3-4	126559H1	2-14	129540H1	2-11	131197H1	3-3
124516H1	4-12	126563H1	4-5	129547H1	2-10	131525H1	9-7
124519H2	4-12				4-5	131570H1	10-14
				129548H1	4-4	131571H1	10-14
				129549H1	4-4	131574H1	10-14
		127079H1	6-5	129551H1	4-6	131850H2	14-2
			7-7	129553H1	4-3		
125003H1	4-4	127104H1	7-11		4-6		
	4-5	127112H1	6-9	129554H1	3-4	132226H1	12-4
	6-7	127139H1	8-4		4-6		12-8
	7-9	127185H1	7-11			132231H1	2-10
125098H1	9-3	127302H1	4-4	129557H1	3-4	132258H1	3-5
	9-5	127487H1	2-7		4-5	132259H1	3-4
125504H1	4-7		2-9		4-5		3-5
	4-8			129559H1	4-5	132616H1	11-4
	4-9			129560H1	4-5	132637H1	11-13
125505H1	4-7	127506H1	13-3	129568H1	4-4	132638H1	11-13
			13-9		12-7		
125505H1	4-8	127514H1	12-4	129569H1	4-4	132639H1	11-13
	4-9		12-8	129570H1	4-4	132641H1	11-13
125506H1	4-7	127515H4	14-2	129646H1	4-12	132643H1	11-13
125509H1	4-5	127525H1	2-6	129668H1	12-4	132666H1	2-6
125511H1	4-5	127537H1	2-10			132667H1	10-5
125512H1	4-5		2-11				10-9
125513H1	4-5	127538H1	2-6	129668H1	12-7		10-14
125514H1	4-5		2-10		12-8		13-5
125515H1	4-5	127539H1	2-10	129900H1	2-5		13-11
125516H1	4-5	127607H2	14-2		12-8	132793H1	6-5
				129988H1	2-9		7-7
125517H1	4-5						
125518H1	4-5	128359H1	12-3				
125522H1	4-3		12-7				
125523H1	4-4						

NUMERICAL INDEX

PART NO.	PAGE	PART NO.	PAGE	PART NO.	PAGE	PART NO.	PAGE
132780H1	6-5	137663H1	4-5	140315H1	13-15	142899H1	4-3
	7-7	137974H1	4-5	140316H1	13-15	142901H2	3-3
132804H1	6-5			140318H1	13-15		3-4
	7-7			140319H1	13-15		
		138020H1	12-3	140321H1	13-15		
		138274H1	13-4	140323H1	13-15	143049H1	4-6
133514H1	3-4		13-11	140324H1	13-15	143051H1	4-6
133600H1	4-7	138459H1	12-8	140325H1	13-15	143052H1	4-3
	4-8	138470H1	8-3	140330H1	13-15	143053H1	4-3
133601H1	4-7	138546H1	6-3	140331H1	13-15	143149H1	3-3
	4-8		7-9	140332H1	13-15	143231H1	1-9
		138547H1	6-3			143273H1	3-3
			7-9	140333H1	13-15	143274H1	2-3
		138548H1	6-3	140334H1	13-15	143275H1	2-5
134045H1	11-9			140335H1	13-15	143276H1	3-3
134049H1	11-9			140337H1	13-15	143277H1	2-5
134319H1	2-9	138548H1	7-9	140338H1	13-15		
	12-3	138628H1	6-9	140339H1	13-15		
	12-7		13-19	140340H1	13-15		
134461H1	11-13	138793H1	10-13	140341H1	13-15	143280H3	3-3
134466H1	4-8		12-4	140342H1	13-15	143294H1	3-3
134704H1	9-7		12-8	140344H1	13-15	143669H1	9-3
134797H1	13-3	138459H1	12-8			143855H1	2-2
	13-4	138925H1	9-5				2-3
			9-13	140345H1	13-15	143950H1	14-2
			11-5	140346H1	13-15	143951H1	14-2
134797H1	13-5	138926H1	9-5	140347H1	13-15	143952H1	14-2
	13-9		9-13	140348H1	13-15		
	13-10		11-5	140349H1	13-15		
	13-11			140350H1	13-15		
134830H1	3-5			140351H1	13-15	144068H1	8-4
134831H1	3-5	139017H1	2-10	140352H1	13-15		8-8
			2-11	140353H1	13-15	144069H1	9-11
			12-8	140354H1	13-15	144070H1	9-9
			8-4				9-11
135006H1	10-9	139018H1	8-4	140355H1	13-15	144079H1	8-4
135081H1	3-4	139035H1	4-11	140357H1	13-3		8-8
	10-14	139037H1	4-11		13-9	144195H1	12-3
135120H1	9-3	139038H1	4-11	140538H1	8-4		12-7
135310H1	3-3	139039H1	4-11	140570H1	2-6	144196H1	12-3
		139040H1	4-11	140734H1	4-4		12-7
		139342H1	4-11	140746H1	2-9		
				140817H2	12-3	144200H2	12-3
136139H1	10-9				12-7		12-7
136140H1	12-8	139343H1	4-11	140960H1	9-3	144243H1	9-7
136198H1	10-4	139434H1	13-3		9-5	144275H2	9-13
	10-6		13-9			144279H1	2-7
136271H1	13-4		13-13				2-10
	13-10	139436H1	2-12			144287H1	2-11
136363H1	4-12	139439H1	13-5	141095H1	3-3		9-13
136366H1	4-12		13-11		3-4	144405H1	9-11
136785H1	6-5	139502H1	2-6		3-5		
	7-7	139509H1	4-4	141183H1	4-11		
136786H1	6-5		4-6	141244H1	13-13	144589H1	11-11
	7-7			141245H1	13-13	144604H1	11-11
				141455H1	9-7	144606H1	11-11
		140275H1	13-13			144633H1	4-12
137130H1	6-5	140278H1	13-13			144634H1	4-12
	7-7	140279H1	13-13	142521H1	8-3	144635H1	4-12
137146H1	6-5	140280H1	13-13	142562H1	3-3	144820H1	11-4
	7-7	140307H1	13-15		3-4		
137344H1	9-7	140310H1	13-16		2-16		
137491H1	2-9	140311H1	13-15	142647H1	2-16		
137572H1	4-4	140312H1	13-15	142895H1	4-3	145270H2	14-2
137586H1	6-5	140313H1	13-15	142896H1	3-3	145325H1	2-14
	7-7	140314H1	13-15		3-4	145703H1	12-8
137660H1	4-6			142898H1	3-3	145775H1	13-5
					3-4		13-21



NUMERICAL INDEX

PART NO.	PAGE	PART NO.	PAGE	PART NO.	PAGE	PART NO.	PAGE
145862H1	9-13	147982H1	2-5	150769H1	8-4	153005H1	4-3
145863H1	9-13	147996H1	2-6	150771H1	8-4	153009H1	3-4
145864H1	9-13			150773H1	8-3	153222H1	14-2
145883H1	9-13					153223H1	14-2
145943H1	13-19	147985H3	2-6			153229H2	14-2
145946H1	13-19	147988H1	2-6	150774H1	8-4	153230H1	2-9
145973H1	13-17	147990H1	2-5	150782H1	8-3	153436H1	1-8
		147991H1	2-5	150787H1	8-4	153492H1	8-4
		147992H1	2-5	150788H1	8-4		8-7
145986H1	13-21	147993H1	2-5	150789H1	8-4	153524H1	13-3
145988H1	13-21	147998H1	2-5	150790H1	8-4		13-9
145989H1	13-21	147999H1	2-5	150796H1	8-4		
145990H1	13-21			150801H1	8-4		
145991H1	13-21					153525H1	13-3
145992H1	13-21						13-9
145993H1	13-21	148001H1	2-5			153526H1	13-3
145995H1	13-21	148002H1	2-5	151168H1	2-6		13-9
145996H1	13-21	148003H1	2-5	151297H1	12-4	153618H1	1-9
		148005H1	2-5	151425H1	13-22	153619H1	1-9
		148007H1	2-5	151519H1	2-17	153640H1	1-9
145997H1	13-21	148008H1	2-6	151520H1	2-17	153676H1	2-11
145998H1	13-21	148009H1	2-6	151521H1	2-17	153678H1	2-15
145999H1	13-21	148014H1	2-6	151522H1	2-17	153805H1	1-8
		148015H1	2-6	151523H1	2-17		
		148017H1	2-6	151524H1	2-17		
		148019H1	2-5	151525H1	2-17	153856H1	13-19
146001H1	13-21					153916H1	5-4
146002H1	13-21					153963H1	9-9
146364H1	8-3	148020H1	2-6	151527H1	2-17		9-11
146365H1	8-3	148023H1	2-5	151529H1	2-17		9-13
146368H1	8-3	148147H1	12-7	151532H1	2-17	153964H1	9-9
146371H1	8-3	148167H1	12-7	151665H1	2-5		9-11
146372H1	8-3	148175H1	12-3	151666H1	2-5	153965H1	9-9
146379H1	8-3			151756H1	2-15		9-11
146380H1	8-3	148440H2	3-3	151797H1	3-3	153972H1	12-3
146381H1	8-3	148454H3	3-3		3-4		
		148459H1	3-3	151799H1	5-4		
		148460H2	3-3	151802H1	4-10		
146382H1	8-3	148461H1	3-3			154028H1	10-3
146383H1	8-3	148510H1	3-3			154036H1	10-4
146458H1	3-3	148670H1	2-2	151803H1	5-2		10-6
	3-4				5-3	154049H1	12-4
146730H1	11-11	149348H1	3-4	151804H1	4-11		12-8
	11-12	149477H1	11-11	151834H1	3-5	154073H1	5-2
146734H1	11-11	149723H1	9-6	151835H1	3-5		5-3
	11-12	149972H1	10-10	151836H1	3-5	154074H1	5-2
146735H1	11-11	149973H1	10-10	151982H1	13-4		5-3
	11-12	149974H1	10-10				
		149975H1	10-10			154075H1	5-2
							5-3
146736H1	11-12	150227H1	2-3	152039H1	11-3	154076H1	5-2
146898H1	4-5	150269H1	11-9	152125H1	4-3		5-3
146937H1	2-16	150270H1	2-12	152127H1	3-3	154077H1	5-2
146966H1	13-4	150346H1	2-9		4-4		5-3
	13-10	150427H1	4-7		6-3	154078H1	5-2
146989H1	9-9	150429H1	4-3	152504H1	10-14		5-2
	9-11	150430H1	4-9	152719H1	6-3	154080H1	5-3
		150431H1	4-8	152720H1	6-3	154081H1	5-4
		150432H1	4-7	152730H1	2-2	154082H1	5-4
		150433H1	4-9		2-3		
		150434H1	4-8				
147137H1	12-4			152835H1	2-2	154083H1	5-4
147173H1	4-10	150717H1	8-7	152887H1	2-6	154085H1	5-4
147550H1	2-15	150742H1	9-7	152981H1	3-3	154086H1	5-4
147604H1	13-10	150744H1	9-7	152982H1	3-4	154157H2	14-2
147912H1	11-3	150751H1	2-2	152983H1	3-3	154260H1	14-2
147942H1	10-13	150756H1	8-4		3-4	154773H1	12-4
147945H1	3-3	150758H1	8-4			154813H2	1-7
147975H1	2-6	150762H1	8-4			154814H2	1-7
147978H1	2-6						
147981H1	2-6						

NUMERICAL INDEX

PART NO.	PAGE	PART NO.	PAGE	PART NO.	PAGE	PART NO.	PAGE
154839H2	14-2	157044H1	6-7	157092H1	7-3	158014H1	13-21
			7-9	157093H1	7-3	158015H1	13-21
154893H1	12-3	157045H1	6-7	157100H1	7-3	158016H1	13-21
	12-7		7-9	157101H1	7-3	158031H1	5-2
	13-5	157046H2	6-7	157102H1	7-3	158090H2	11-5
	13-11		7-9	157103H1	7-3	158161H1	12-4
154987H1	2-2			157106H1	7-3	158165H1	12-3
	2-3	157049H1	6-7	157107H1	7-3		12-7
			7-9	157108H2	7-3		
		157050H1	6-7	157120H1	7-9		
			7-9			158166H1	12-3
155208H1	2-3	157051H1	6-7	157123H1	6-7		12-7
155366H1	2-14		7-9	157124H1	6-7	158296H1	8-7
155376H1	13-17	157053H1	6-7	157140H1	13-5	158297H1	8-7
155377H1	13-17		7-9		13-21	158302H1	8-7
155378H1	13-17	157054H1	6-7	157178H1	4-9	158303H1	8-7
155379H1	13-17		7-9	157180H1	4-9	158304H1	8-7
155380H1	13-17			157185H2	4-7	158336H1	8-7
155381H1	13-17			157187H1	4-8	158395H1	9-3
155382H1	13-17	157055H1	6-7	157186H2	4-3		9-5
155338H2	3-4		7-9				13-10
		157056H1	6-7				
			7-9	157197H1	4-4		
155485H1	8-3	157057H1	6-7	157201H1	4-10	158396H1	9-3
155487H1	8-4		7-9	157209H1	4-4		9-9
155522H1	4-3	157058H1	6-7	157419H1	9-3		9-11
155569H2	14-2		7-9		9-5	158397H1	9-3
155573H2	2-6	157060H1	6-7	157421H1	6-7		9-7
155596H1	10-14		7-9		7-9	158511H1	8-3
155770H1	10-10			157604H1	6-3	158658H1	2-6
155771H1	10-10			157703H1	6-7	158659H1	2-6
155932H1	2-12	157061H1	6-7			158773H1	1-7
			7-9			158914H1	7-11
		157065H1	6-7	157900H1	11-11	158918H1	7-11
			7-9	157902H1	11-11		
155932H1	2-13	157066H1	6-7	157903H1	11-11	158925H1	6-9
	2-14		7-9	157904H1	11-11	158926H1	6-9
155989H1	11-3	157068H1	6-7	157905H1	11-11	158927H1	6-9
155990H1	11-3		7-9	157906H1	11-11	158928H1	6-9
155991H2	11-3	157070H1	7-9	157907H1	11-11		
155993H1	11-3	157071H1	6-7	157908H1	11-11		
				157909H1	11-11	158929H1	6-9
		157071H1	7-9	157910H1	11-11	158932H1	6-9
156299H1	2-5	157072H1	7-9			158937H1	6-9
156302H1	2-5	157075H1	7-9	157911H1	11-11	158938H1	6-9
156384H1	2-5	157077H1	7-9	157912H1	11-11	158941H1	6-9
156385H1	2-3	157078H1	6-7	157913H1	11-11	158942H1	6-9
156438H1	2-9		7-9	157914H1	11-11	158944H1	6-9
156815H1	2-9	157079H1	6-7	157915H1	11-11	158945H1	6-9
156939H3	4-4		7-9	157916H1	11-11	158946H1	6-9
156949H1	4-4	157080H1	6-7	157917H1	11-11		
156960H1	4-5		7-9	157918H1	11-11		
		157082H1	7-4	157919H1	2-10	159044H1	4-8
						159045H1	4-5
156963H1	4-5			157919H1	2-11	159074H1	11-5
156964H1	4-10	157084H1	7-3		13-3	159075H1	11-5
156968H1	4-5	157085H1	7-3		13-9	159077H1	11-5
156969H1	4-10		8-4	157920H1	11-11	159210H1	4-5
156970H1	4-8		9-13	157921H1	11-11	159266H1	6-9
	4-9	157087H2	7-4	157925H1	11-11	159267H1	6-9
156971H2	4-4	157088H1	7-3	157926H1	11-11		
156972H2	4-3		7-4	157927H1	11-11		
		157089H1	7-3			159653H1	4-3
			7-4			159655H2	4-9
157041H1	6-7	157090H1	7-3			159655H3	4-9
	7-9		7-4	158012H1	13-21	159658H1	4-3
157043H1	6-7			158013H1	13-21	159659H2	4-8
	7-9					159659H3	4-8

NUMERICAL INDEX

PART NO.	PAGE	PART NO.	PAGE	PART NO.	PAGE	PART NO.	PAGE
159680H1	13-4	163019H1	6-7	165787H1	13-19	171733H1	2-10
	13-10		7-9	165788H1	13-19		2-11
159751H1	4-12	163402H2	4-4			171739H1	2-12
			4-7				2-13
		163402H3	4-7				2-14
160000H1	4-5	163403H2	4-3	166230H1	11-13	171740H1	2-12
160253H1	1-5		4-9	166570H1	8-4	171743H1	2-13
160457H1	8-3	163501H1	2-7			171745H1	2-13
160446H2	13-3	163636H1	2-5				2-14
	13-9	163839H1	12-4	167055H1	11-5	171826H1	12-8
	13-22	163872H2	3-3	167195H1	13-4	171827H1	12-4
160480H1	8-4	163967H1	2-5		13-11		12-8
160625H1	9-7			167564H2	12-3		
160626H1	9-7				12-7	171828H1	12-8
		164057H1	13-4	167725H1	2-16	171831H1	12-3
			13-19	167871H1	13-13		12-7
160932H1	9-7	164363H1	11-7	167971H1	2-10	171871H1	11-3
160975H2	12-3	164607H1	8-6		10-13	171880H1	11-3
	12-7	164839H1	2-6			171885H1	11-3
			2-7			171886H1	11-3
			13-3			171890H1	1-3
			13-4	168355H1	12-4		11-3
161043H1	12-3		13-5	168456H1	2-9	171892H1	11-3
	12-4		13-9	168417H1	11-11		
	12-8			168751H1	12-4		
161177H2	14-2				12-8	171895H1	11-3
161178H1	2-3	164839H1	13-10	168752H1	12-3	171896H1	11-3
161643H1	4-11		13-11		12-7	171897H1	11-3
161810H1	8-7		13-12	168753H1	1-9	171899H1	11-3
161847H1	9-5	164846H1	6-5	168802H1	10-4	171900H1	1-7
161849H1	14-2		7-7		10-6	171912H1	11-4
161915H1	2-9	164916H1	8-4			171912H2	11-4
161919H2	6-7			168813H1	2-5	171914H1	11-4
161943H3	6-3				15-1		
		165295H1	8-4	168814H1	2-2		
		165338H1	1-5		10-13	172043H1	1-7
162112H1	11-13		1-7	168815H1	11-9	172081H1	1-3
162138H1	2-2		1-9	168816H1	2-6	172090H1	1-3
	2-3		2-15		11-11	172142H1	1-7
	2-15		2-16	168885H1	2-3	172143H1	1-3
162139H1	2-2	165369H1	10-14	168894H2	2-3		1-7
	2-3	165714H1	10-14	168895H1	2-5	172177H1	14-2
162140H1	2-2	165715H1	13-19	168896H1	2-5	172195H1	1-3
	2-3			168897H2	14-2	172213H1	9-3
162141H1	2-2						9-5
	2-3	165716H1	13-19				
		165717H1	13-19	169034H1	4-5	172227H2	12-3
162142H1	2-2	165718H1	13-19	169677H1	13-4		12-7
	2-3	165719H1	13-19		13-11	172304H1	13-17
162143H1	2-2	165720H1	13-19			172305H1	13-17
	2-3	165721H1	13-19	169748H1	2-5	172306H1	13-17
162144H1	2-2	165722H1	13-19	169914H1	9-9	172307H1	13-17
	2-3	165723H1	13-19	169968H1	2-5	172308H1	13-17
162145H1	2-2	165724H1	13-19			172309H1	13-17
	2-3	165725H1	13-19				
162223H1	11-9			171559H2	14-2		
162251H1	1-3	165726H1	13-19	171626H2	1-7	172310H1	13-17
		165727H1	13-19	171649H1	4-5	172311H1	13-17
		165729H1	13-19	171650H1	4-5	172312H1	13-17
162410H1	13-3	165731H1	13-19	171661H1	9-7	172314H1	13-17
	13-9	165732H1	13-19	171670H1	9-9	172315H1	13-17
	13-17	165733H1	13-19		9-11	172317H1	13-17
162807H1	8-3	165734H2	13-19	171675H1	9-9	172318H1	13-17
162949H1	11-5	165735H1	13-19	171732H1	2-10	172319H1	13-18
		165785H1	13-19		2-11	172320H1	13-18
		165786H1	13-19			172321H2	13-18

NUMERICAL INDEX

PART NO.	PAGE	PART NO.	PAGE	PART NO.	PAGE	PART NO.	PAGE
172322H1	13-18	173419H1	7-7	174258H1	9-5	174802H1	9-11
172323H1	13-18	173420H1	6-5			174805H1	9-9
172324H1	13-18		7-7				
172326H1	13-18			174261H1	1-3		
172352H1	8-7			174262H1	1-3	174806H1	9-9
172526H1	10-10	173422H1	6-3	174263H1	1-3	174808H1	9-9
172527H1	10-10	173422H2	6-3	174281H2	11-3	174813H1	6-5
172547H1	1-7	173422H3	6-3	174282H1	11-3		7-7
172577H2	10-10	173423H2	6-7	174287H1	11-3	174814H1	6-5
172670H1	2-5	173426H2	6-3	174290H1	11-3	174815H1	6-5
		173443H1	1-8	174291H1	11-3		7-7
		173460H1	13-15	174295H1	11-3	174816H1	6-5
				174297H1	11-3		7-7
172692H1	10-14						
172695H1	10-13						
172800H1	11-9	173466H1	2-2				
172801H1	11-9		13-15	174298H1	11-3	174817H1	6-5
172803H1	11-9	173470H1	13-15	174299H1	11-3		7-7
172804H2	11-9	173471H1	13-15	174300H1	11-3	174819H1	6-5
172810H1	10-3	173472H1	13-15	174301H1	11-3		7-7
172813H1	10-3	173530H2	3-3	174302H2	11-3	174821H1	6-5
172814H1	10-3	173531H3	3-3	174304H1	11-3		7-7
172818H1	2-2	173536H1	3-3	174306H1	9-9	174822H1	6-5
		173647H1	11-11	174308H1	9-7		7-7
		173652H1	11-11	174406H2	11-7	174823H1	6-5
				174506H1	12-4		7-7
172818H1	10-4						
	10-6						
	10-13	173747H1	11-9				
	10-14	173775H1	9-7	174507H3	1-9	174824H1	6-5
172825H1	10-9	173786H1	9-5	174508H1	2-6		7-7
	10-14	173822H2	4-3	174510H2	12-7	174825H1	6-5
	13-5	173824H2	4-8	174510H3	12-3		7-7
	13-11	173862H1	11-4	174512H2	12-3	174826H1	6-5
172832H1	10-9	173863H1	11-4		12-7		7-7
		173912H1	11-4	174518H1	3-3	174828H1	6-5
		173917H1	11-4	174617H1	1-5		7-7
172832H1	13-5	173918H1	11-4	174619H1	1-5	174829H1	6-5
	13-11			174620H1	1-5		7-7
172833H1	10-14						
172834H1	10-14	173924H1	3-4				
	13-5	173925H1	3-4	174647H1	1-3	174830H1	6-5
	13-11	173940H1	10-14	174647H2	1-3		7-7
172842H1	2-7	173943H1	1-7	174647H3	1-3	174831H1	6-5
172849H1	10-13	173947H1	1-7	174660H1	3-7		7-7
	10-14	173949H1	1-7	174662H1	3-7	174832H1	6-5
		173951H1	6-3	174663H1	3-4		7-7
			7-9	174665H1	1-3	174833H1	6-5
		173983H1	1-3	174682H1	11-11		7-7
				174686H1	11-3	174834H1	6-5
173014H1	10-13			174693H1	11-3		7-7
	10-14					174835H1	6-5
173015H1	10-13						7-7
	10-14	174002H1	2-6				
173018H1	10-13		12-8	174760H1	1-9		
173019H1	10-13	174008H1	10-13		3-4		
173021H1	10-13	174010H1	8-3	174761H2	1-9	174836H1	6-5
173023H1	10-14	174011H1	9-13	174762H1	1-9		7-7
173352H1	12-4	174013H1	8-4	174763H2	1-9	174837H1	6-5
	12-8	174024H1	1-3	174764H1	1-9		7-7
173408H1	7-8	174025H1	1-3	174765H1	1-9	174838H1	6-5
		174037H1	1-3	174766H1	1-9		7-7
				174774H1	1-9	174839H1	6-5
					10-10		7-7
173408H2	7-3			174783H1	1-9	174840H1	6-5
173409H1	7-9	174107H1	8-3				7-7
173410H1	7-3	174169H1	12-4				
173412H1	7-3		12-8				
173413H1	7-3	174171H2	1-7	174789H1	9-3		
173415H1	7-3	174238H1	11-3	174789H2	9-5	174841H1	6-5
	9-13	174239H1	11-3	174790H1	9-5		7-7
173416H1	7-3	174242H1	11-3	174793H1	9-3	174842H1	6-5
173418H1	7-3	174242H2	11-3	174799H2	14-2		7-7
173419H1	6-5	174257H1	9-5	174802H1	9-9	174843H1	6-5

NUMERICAL INDEX

PART NO.	PAGE	PART NO.	PAGE	PART NO.	PAGE	PART NO.	PAGE
174843H1	7-7	175381H1	2-10	175844H1	13-9	176734H1	2-6
174850H1	2-15	175408H1	2-17	175934H1	2-9		2-7
	2-16	175639H1	9-7	175938H1	2-9		12-8
174898H1	12-4			175972H1	10-9	176735H1	2-7
	12-8					176736H1	2-7
174919H1	13-4	175640H1	9-7			176738H1	2-7
	13-5	175674H1	2-6			176739H1	2-7
	13-11	175678H1	2-6	176001H1	11-9		
			13-15	176002H1	11-9		
		175679H1	2-6	176004H1	11-9	176749H1	12-4
174920H1	13-4	175708H1	10-13	176011H1	11-9		12-8
	13-11	175757H1	11-11	176020H2	11-9	176750H1	12-4
174923H2	13-4		11-12	176023H1	11-9		12-8
	13-10	175759H1	11-11	176026H1	11-9	176751H1	12-3
174927H1	13-4		11-12	176027H1	11-9		12-7
	13-5	175760H1	11-11	176028H2	11-9	176752H1	12-4
	13-11	175761H1	11-11	176030H1	11-9		12-8
174928H1	13-5		11-12			176783H1	1-9
	13-11	175763H1	13-4			176947H1	9-6
			13-10	176032H1	2-3		
		175764H1	13-5	176052H1	8-4		
174933H1	10-13	175765H1	13-11	176057H1	2-6	176948H1	9-6
	10-14			176090H1	11-11	176949H1	9-6
174934H1	10-13			176104H2	10-9	176952H1	9-6
	10-14	175764H1	13-12	176105H2	1-9	176953H1	9-6
174937H1	2-10	175766H1	13-4		10-10		
174960H1	4-12		13-10	176142H1	4-12		
174962H1	10-9	175770H1	13-3	176143H1	4-12		
174963H1	10-9	175772H1	13-3	176144H1	4-12	177020H1	10-5
174965H1	10-9		13-4	176145H1	4-12	177188H1	2-7
			13-9			177235H1	12-3
			13-10				12-7
174966H1	10-9	175773H1	13-5	176147H1	11-11	177266H1	8-3
174967H1	10-9	175773H1	13-9	176148H1	11-11	177267H1	8-3
174968H1	10-9		13-12	176149H1	11-11	177268H1	8-3
174969H1	10-9	175774H1	13-3	176150H1	11-11	177269H1	8-3
174970H1	10-9		13-9	176151H1	11-11	177270H1	8-3
174971H1	10-9		13-11	176152H1	11-11	177272H1	2-13
174976H2	10-10		13-12	176217H2	2-7		
174977H2	10-10	175775H1	2-9		2-9		
174978H1	10-10		2-10	176218H1	2-7	177274H1	8-4
			2-11		2-9	177275H1	8-3
			13-3			177276H1	8-3
						177277H1	8-3
175047H2	12-3			176327H1	9-5	177278H1	8-3
	12-7	175775H1	13-4	176369H1	2-15	177294H1	10-13
175081H1	13-4		13-5	176369H3	2-16	177298H1	1-5
	13-10		13-9	176381H1	5-3	177299H1	1-5
			13-12	176382H1	5-4	177300H1	1-5
		175777H1	13-3	176399H1	8-3	177301H1	1-5
175085H1	10-3		13-4	176412H2	11-11		
	10-5		13-9	176417H1	4-7		
175086H1	10-3		13-10	176418H1	2-9	177302H1	1-5
175087H1	10-3	175778H1	13-3		4-12	177303H1	1-5
175089H3	10-3					177360H1	12-4
	10-6						12-8
175217H1	4-8	175778H1	13-4	176424H1	2-7	177406H1	2-12
	4-9		13-9	176433H1	2-7	177582H1	5-2
175239H1	10-13		13-10	176434H1	2-2	177591H1	11-7
175279H1	2-5	175779H1	13-3	176436H1	2-9	177593H3	11-7
			13-9	176438H1	2-3	177594H2	11-7
		175791H1	2-2	176445H1	1-5	177600H1	11-7
175284H1	2-9	175801H1	2-2	176446H1	11-3		
175285H2	2-9	175817H1	2-6	176447H1	11-3		
175286H1	2-5		2-9	176455H1	10-4	177601H1	13-22
175353H1	12-3	175821H1	2-6	176455H1	10-6	177602H1	11-7
	12-8					177603H1	11-7
175357H1	2-10					177604H1	11-7
175369H1	12-4	175822H1	13-3	176469H2	10-3	177605H1	11-7
175381H1	2-9		13-9	176731H1	2-6	177606H1	11-7

NUMERICAL INDEX

PART NO.	PAGE	PART NO.	PAGE	PART NO.	PAGE	PART NO.	PAGE
177607H1	11-7	178540H1	7-3	179632H1	10-13	181340H1	10-5
177608H1	11-7	178541H1	7-4	179666H1	10-3	181355H1	12-3
177609H1	11-7	178541H2	7-4				12-7
177610H1	11-7	178749H1	10-9			181356H1	12-3
177618H1	13-22	178751H1	13-5	179676H1	1-3		12-7
177619H1	13-22		13-11	179678H1	1-7	181365H1	2-7
177620H1	13-22	178828H1	4-6	179783H1	2-9		10-13
177621H1	13-22	178964H2	13-17	179867H1	7-3	181614H1	1-3
				179868H1	7-3		
				179938H1	13-3		
177622H1	13-22				13-9	181615H1	1-7
177623H1	13-22	179025H1	13-17	179939H1	13-9	181618H1	2-3
177624H1	13-22	179026H1	13-18	179957H1	9-6	181672H1	2-10
177625H1	13-22	179053H2	13-4				2-11
177626H1	13-22		13-10			181773H1	10-5
177627H1	13-22	179067H1	13-4			181774H1	10-6
177628H1	13-22		13-10	180080H1	2-9	181775H1	10-6
177629H1	13-22	179068H1	13-4	180107H1	1-9	181789H2	1-7
177630H1	13-22		13-10	180118H1	13-4	181790H1	8-3
177631H1	13-22	179069H1	13-4		13-10		
			13-10	180142H1	13-15		
				180327H1	1-8	181791H1	10-6
177632H1	13-22			180331H1	10-9	181792H1	10-6
177633H1	13-22	179070H1	13-6	180533H1	14-2	181823H1	10-5
177635H1	13-22		13-10	180631H1	2-6		10-6
177647H1	2-7	179071H1	13-6	180701H1	1-9	181835H1	9-9
177707H1	2-17		13-12		10-10		9-11
177708H1	2-17	179077H1	10-13			181836H1	9-9
177709H1	2-17	179092H1	13-3				9-11
177710H2	2-17		13-9	180702H1	1-9	181837H1	9-11
177711H1	2-17	179094H1	6-5		10-10	181840H1	9-11
177712H1	2-17		7-7	180703H1	1-9	181845H1	2-5
		179095H1	12-4		10-10		
			12-8	180704H1	10-9		
				180705H2	10-9	181837H1	9-9
177713H1	2-17			180706H1	10-9		9-11
177715H1	2-17	179096H1	12-4	180742H1	10-3	181840H1	9-9
177716H1	2-17		12-8		11-12	181884H1	10-6
177939H1	13-3	179305H1	2-9				
177976H1	1-8	179369H1	2-5				
177855H1	14-2	179501H1	6-5	180742H1	11-11		
177904H1	10-13		7-7	180870H1	11-11	182467H1	8-6
		179502H1	6-5		11-12	182594H1	2-9
			7-7	180871H1	4-3	182656H1	2-9
		179503H1	6-5	180921H1	9-9	182838H1	13-5
			7-7		9-11	182866H1	2-9
178154H1	1-9	179504H1	6-5	180936H1	14-2	182969H1	9-13
178155H1	1-9		7-7	180937H1	14-2	182970H1	9-13
178156H1	1-9			180940H1	4-12		
178157H1	1-9			180994H1	1-5		
178171H1	13-17			180995H1	1-9		
178172H1	13-17	179513H1	1-7	180997H1	1-7	183039H1	12-3
178180H1	6-5	179521H1	1-3				12-7
	7-7	179527H1	6-9			183126H1	2-14
178199H1	7-3	179528H1	6-9			183132H1	2-14
	8-4	179529H1	6-9			183134H1	2-14
	9-13	179530H1	6-9	181084H1	10-14	183140H1	2-9
		179532H1	6-9		13-5	183164H1	2-14
		179533H1	6-9		13-11	183237H1	2-14
178200H1	7-3	179534H1	6-9	181098H1	2-15	183491H1	2-10
	8-4	179535H1	6-9	181183H1	2-7	183635H1	2-14
	9-13			181192H1	2-6		
178262H1	11-11			181193H1	2-11		
178267H1	10-3	179536H1	6-9	181276H1	11-4		
	10-6	179560H1	10-13	181295H1	2-10	183636H1	2-14
178268H1	7-9	179561H1	10-13		2-11	183638H1	2-10
178317H1	7-3	179563H1	10-13	181296H1	2-6	183834H1	10-10
178317H2	7-3	179610H1	1-3			183835H1	10-10
178365H1	7-3	179597H1	7-11				
	13-22	179598H1	6-9	181296H1	13-3		
		179631H1	10-13		13-9		

NUMERICAL INDEX

PART NO.	PAGE	PART NO.	PAGE	PART NO.	PAGE	PART NO.	PAGE
184371H1	1-7	187315H1	12-3	189072H2	11-5	193424H1	2-3
184605H1	2-10		12-7	189073H1	9-13		
184686H2	8-7	187337H1	13-3		11-15		
184721H1	8-7		13-9	189074H1	9-13	193481H1	2-14
184768H1	12-4				11-15	193783H1	6-9
184842H1	11-9			189161H1	9-3	193784H1	6-9
184975H1	8-8	187396H1	12-3	189248H1	1-5	193848H1	12-3
			12-7	189329H1	4-4		12-7
		187452H1	4-3		4-7	193954H1	8-7
		187562H1	9-7				
185200H1	6-7	187567H1	1-5	189459H1	11-9		
185396H1	3-7	187569H1	1-5	189460H1	11-9	194400H1	11-9
185397H1	3-7	187631H1	12-4	189462H1	9-3		
185398H1	3-7			189528H1	2-10		
		187715H1	13-9	189533H1	2-6	195715H1	1-8
			13-17	189579H1	10-10		
186013H1	10-9	187716H1	11-3	189580H1	10-10		
186031H1	1-5	187921H1	7-3	189582H2	10-10		
186036H1	1-5	187940H1	7-3	189590H1	12-8		
186037H1	2-7	187984H1	7-3			196501H1	1-8
186061H1	1-5						
186193H1	2-6			189597H1	10-10		
186219H1	3-7			189598H1	10-10		
186229H1	10-5	188039H1	14-2	189603H1	12-7	197643H1	6-7
186242H1	4-12	188160H1	8-3	189604H1	12-7	197938H1	3-4
186244H1	9-5	188328H1	10-14	189605H1	12-3	197941H1	3-4
			12-3	189606H1	12-3	197942H1	3-4
			12-7	189715H1	11-3	197943H1	3-4
186246H1	9-3	188459H1	13-12	189715H2	11-3		
186249H1	9-3	188562H1	13-23	189738H1	2-6		
186469H1	8-7	188563H1	13-23	189926H1	4-4		
186470H1	8-7	188564H1	13-23	189929H1	4-4	199157H1	4-5
186474H1	8-7	188565H1	13-23				
186475H1	8-7						
186480H1	8-7						
186481H1	8-7	188567H1	13-23	190175H1	12-4	200369H1	1-9
186482H1	8-7	188568H1	13-23	190178H1	12-4	200370H1	1-9
186483H1	8-7	188569H1	13-23	190184H2	12-4	200613H1	14-2
		188570H1	13-23	190302H1	6-3	200688H1	1-5
		188571H1	13-23		6-7	200689H1	1-5
186484H1	8-7	188572H1	13-23	190303H1	15-1	200690H1	1-5
186502H1	9-7	188573H1	13-23	190345H1	12-3		
186514H1	8-7	188574H1	13-23		12-7		
186546H2	10-9	188575H1	13-23	190829H1	8-7		
186568H1	9-11	188576H1	13-23	190919H1	4-3	202076H1	2-10
186570H1	9-11					202133H1	12-7
186628H1	9-3					202965H1	4-10
	9-11	188577H1	13-23	190963H1	2-10		
186631H1	13-10	188587H1	14-2	190994H1	4-3		
186632H1	13-10	188645H1	4-6	191418H1	1-3		
		188781H1	7-4	191621H1	2-17	203425H1	10-9
		188782H1	7-9	191692H1	2-6		
186634H1	13-10	188783H1	7-9				
	13-23	188784H1	7-9				
186731H1	13-23	188791H1	3-3			205256H1	3-7
186794H1	9-11		3-4	192357H1	12-3	205495H1	10-9
186898H1	2-14	188810H1	12-4		12-7		12-3
186928H1	12-4		12-8				12-7
	12-8					205498H1	3-3
		188812H1	7-3	193109H1	14-2	205562H1	11-4
		188812H2	7-3	193110H1	14-2	205606H1	11-4
187290H1	11-5	188951H1	11-5	193111H1	14-2		
187312H1	12-3		9-13	193155H1	8-7		
	12-7			193249H1	6-9	206123H1	11-4
187313H1	12-3			193250H1	6-9		
	12-7			193423H1	2-2		
187314H1	12-3	189070H1	11-5		2-3		
	12-7	189071H1	11-5	193424H1	2-2	207253H2	9-11

NUMERICAL INDEX

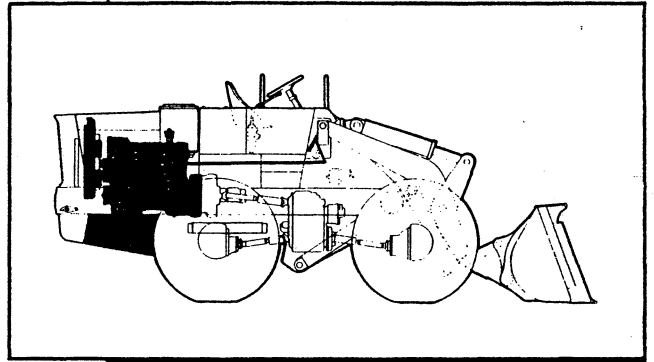
PART NO.	PAGE	PART NO.	PAGE	PART NO.	PAGE	PART NO.	PAGE
207713H1	3-3						
208345H1	12-7						
209238H1	1-9 2-2 2-3						
209249H1	1-9						
209564H1	6-7 7-9						
209689H1	6-7 6-9						
209690H1	6-7 6-9						
209691H1	6-7 6-9						
209692H1	6-7 6-9						
209693H1	6-7 6-9						
209694H1	6-7 6-9						
211655H1	1-3						
212527H1	3-7						
212528H1	3-7						
212529H1	3-7						
213265H1	11-4						



# SECTION 16

## G-372 ENGINE MODIFICATION

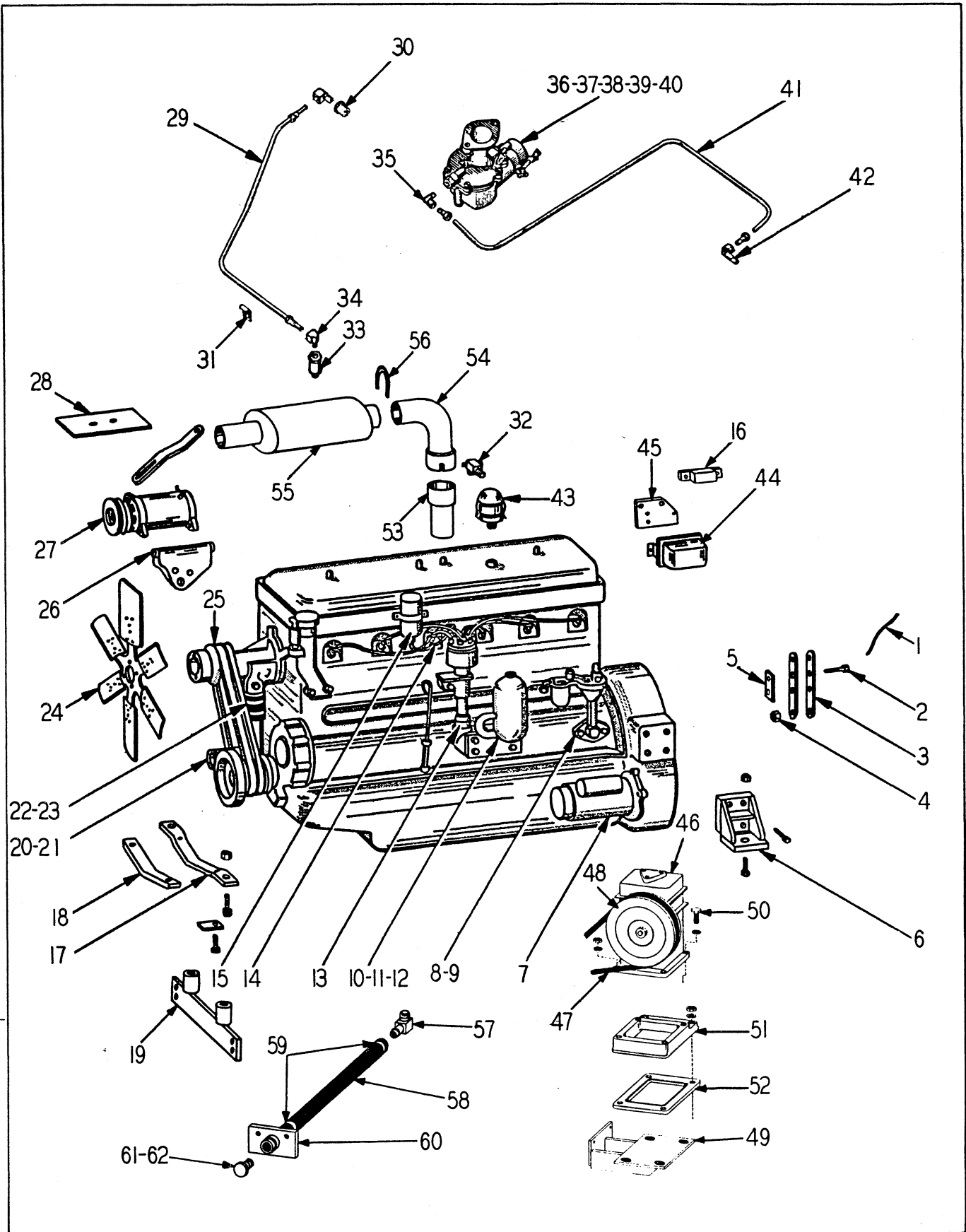
FOR  
MODEL H-60 "PAYLOADER"  
SERIAL NUMBER  
28AH - 1214 & Up



This section contains parts used on Model H-60 "PAYLOADER" units equipped with an I. H. C. G-372 Gasoline Engine. All other parts are standard for Gasoline application in the preceding portion of this Parts Manual. Please check the serial number of your machine to determine which engine it is equipped with.

### Table Of Contents

Group	Page
ACCELERATOR LINKAGE .....	16-7
AIR CLEANER .....	16-9
ENGINE & MOUNTING .....	16-3
FUEL TANK .....	16-8



ENGINE - G-372

ENGINE - G-372

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	189359H1	ENGINE, Stripped - G-372 .....	1	28AH-1214	Up
	155097H1	PLUG, Cap - bellhousing .....	1		
1	LW-165	WIRE, Lock .....	4		
2	143275H1	SCREW, Cap .....	8		
3	143277H1	STRAP .....	8		
4	130823H1	NUT .....	8		
5	129988H1	SPACER .....	4		
6	175286H1	BRACKET, Engine .....	2		
	156815H1	SCREW, Cap, Socket .....	1		
	163636H1	SCREW, Cap, Socket .....	3		
	S-2810	SCREW, Cap .....	4		
	WL-18	WASHER, Lock .....	8		
	S-11020	SCREW, Cap .....	4		
	WF-110	WASHER, Flat .....	4		
	E-110	NUT .....	4		
7	148023H1	STARTER .....	1		
	187631H1	NUT, Starter Solenoid Battery Terminal .....	1		
	151297H1	NUT, Starter Solenoid .....	2		
	S-2610	SCREW, Cap .....	3		
	WL-16	WASHER, Lock .....	3		
8	169748H1	PUMP, Fuel .....	1		
9	147982H1	GASKET, Pump .....	1		
	S-2610	SCREW, Cap .....	2		
	WL-16	WASHER, Lock .....	2		
10	168894H2	FILTER, Oil (See G-372 Engine Manual) .....	1		
	148007H1	GASKET, Cover .....	1		
	172670H1	ELEMENT, Filter .....	1		
	S-2812	SCREW, Cap .....	2		
	WL-18	WASHER, Lock .....	4		
	H - 18	NUT .....	2		
11	168895H1	PIPE ASSEMBLY .....	1		
12	168896H1	GASKET, Pipe .....	2		
	S-256	SCREW, Cap .....	4		
	122360H1	WASHER .....	1		
	WL-15	WASHER, Lock .....	3		
13	186504H1	DISTRIBUTOR (See G-372 Engine Manual) .....	1		
14	151666H1	CABLE SET .....	1		
	147998H1	CABLE, #1 & #6 Plug .....	2		
	147999H1	CABLE, #2 & #5 Plug .....	2		
	148001H1	CABLE, #3 & #4 Plug .....	2		
	148002H1	CABLE, Secondary .....	1		
	148005H1	CABLE, Primary .....	1		
	148003H1	RING, Cable, #4, 5 & 6 .....	2		
15	155845H1	COIL .....	1		
	S-255	SCREW, Cap .....	2		
	WF-15	WASHER, Flat .....	1		
	WL-15	WASHER, Lock .....	2		
16	179369H1	RESISTOR .....	1		
	156302H1	CABLE, Resistor to Coil .....	1		
	172255H1	WIRE, Coil to Starter .....	1		
17	147990H1	SUPPORT, Fan End .....	1		
18	147991H1	PAD, Engine Suppt. Fan End .....	1		
	147992H1	SCREW, Cap .....	2		
	147993H1	LOCKPLATE .....	2		
19	175279H1	MOUNT, Engine .....	1		
	S-11014	SCREW, Cap .....	2		
	WL-110	WASHER, Lock .....	2		
	S-11020	SCREW, Cap .....	4		
	E-110	NUT .....	4		
20	156299H1	ELBOW .....	1		
21	148019H1	GASKET .....	1		
	P - 18	PLUG .....	1		
	147987H1	SCREW, Cap .....	2		
	WL-16	WASHER, Lock .....	2		
22	114654H1	HOSE .....	1		
23	168813H1	CLAMP .....	2		

(Continued on following page)

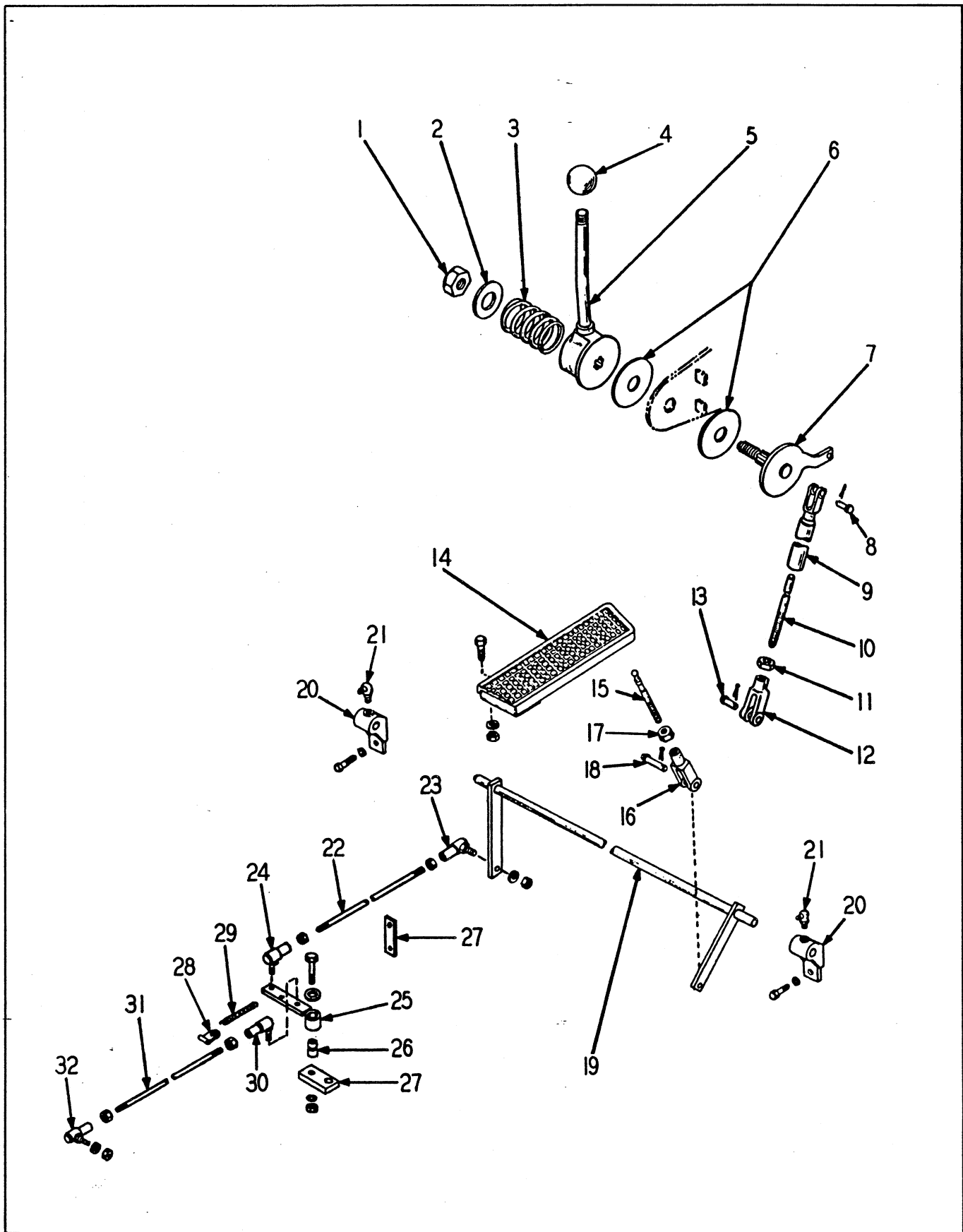
ENGINE - G-372 (Continued)

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
24	147988H1	FAN, Blower .....	1		
24	191692H1	FAN, Suction .....	1		
	S-258	SCREW, Cap.....	4		
	WL-15	WASHER, Lock .....	4		
	189526H1	PULLEY, Compressor Drive .....	1		
25	147985H3	BELT, Fan (Matched Pair) .....	1		
26	148017H1	BRACKET, Generator .....	1		
	S-2510	SCREW, Cap .....	2		
	WL-15	WASHER, Lock .....	2		
	H - 25	NUT .....	2		
	S-267	SCREW, Cap .....	3		
	WL-16	WASHER, Lock .....	3		
27	148014H1	GENERATOR .....	1		
	148015H1	PULLEY .....	1		
	112681H1	FAN .....	1		
	158658H1	BRACE, Generator .....	1		
	S-257	SCREW, Cap .....	1		
	WF-35	WASHER, Flat .....	1		
	WL-15	WASHER, Lock .....	1		
	S-2628	SCREW, Cap .....	1		
	WL-16	WASHER, Lock .....	1		
28	148020H1	SHIELD .....	1		
	WF-36	WASHER .....	2		
	H - 26	NUT .....	2		
29	158659H1	PIPE, Vent .....	1		
30	127537H1	BUSHING .....	1		
31	148012H1	CLIP .....	1		
32	127525H1	VALVE, Drain .....	1		
33	148008H1	VALVE, Metering .....	1		
34	148011H1	ELBOW, 90° .....	2		
35	140570H1	ELBOW .....	1		
36	189139H2	CARBURETOR (replaced 189139).....	1		
	191859H1	STUD .....	2		
	WL-16	WASHER, Lock .....	2		
	H - 36	NUT .....	2		
37	147978H1	GASKET, Carburetor .....	2		
38	147977H1	INSULATOR .....	1		
39	189145H1	GOVERNOR ASSEMBLY, See G-372 Engine Manual for breakdown .....	1		
40	189161H1	GASKET, Governor .....	2		
	HS-394	HOSE ASSEMBLY, Governor Lube .....	1		
	104150H1	SLEEVE .....	1		
	122506H1	FITTING .....	1		
	HS-898	ELBOW .....	1		
	155831H1	STUD, Governor Drive Housing Mounting .....	2		
	H - 16	NUT .....	2		
	S-2610	SCREW .....	1		
	WL-16	WASHER, Lock .....	3		
41	205512H1	PIPE, Fuel .....	1		
	147983H1	CLIP .....	1		
	S-164	SCREW, Cap .....	1		
	WL-16	WASHER, Lock .....	1		
	H - 16	NUT .....	1		
42	140570H1	ELBOW .....	2		
43	148009H1	BREATHER .....	1		
44		REGULATOR, Voltage (See IH Engine Manual) .....	1		
45	174508H2	PLATE, Mounting .....	1		
	S-147	SCREW, Cap .....	3		
	WL-14	WASHER, Lock .....	3		
	H - 14	NUT .....	3		
46	175678H1	COMPRESSOR, Air (See Page 13-15) .....	1		
47	189527H1	BELT, Drive .....	1		
48	189517H1	PULLEY .....	1		
49	189512H1	BRACKET, Mounting .....	1		
	S-1622	SCREW, Cap.....	2		
	176734H1	WASHER .....	2		

(Continued on following page)

ENGINE - G-372 (Continued)

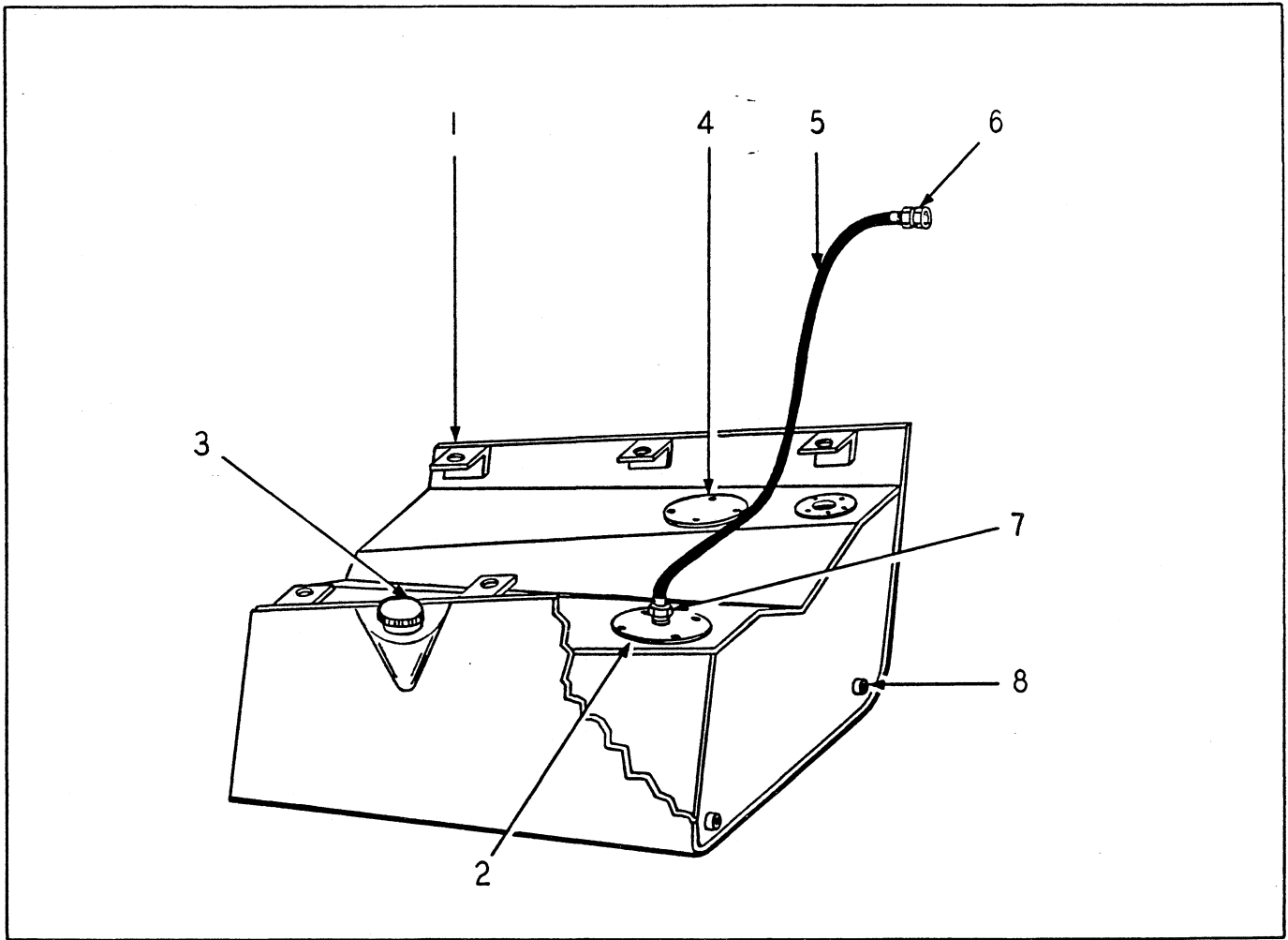
ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers		
				FROM	THRU	
50	WL-16	WASHER, Lock .....	2			
	H - 16	NUT .....				
	S-2610	SCREW, Cap .....	4			
	WL-16	WASHER, Lock .....				
	S-264	SCREW, Cap .....	2			
	WL-16	WASHER, Lock .....				
	S-1616	SCREW, Cap .....	2			
	110683H1	SPACER .....				
	WL-16	WASHER, Lock .....	2			
	H - 16	NUT .....				
	P - 46	PLUG, Pipe .....	1			
	51	176739H1	ADAPTER, Plate .....			1
	52	176733H1	GASKET .....			1
		189156H1	HOSE, Engine to Compressor Pressure .....			1
	113169H1	TEE .....	1			
	189534H1	HOSE, Compressor to Engine Return .....	1			
	189738H1	ELBOW, 90° .....	1			
	127538H1	BUSHING, Reducer .....	1			
53	176424H1	STACK, Exhaust .....	1			
54	176218H1	ELBOW, Exhaust .....	1			
55	176217H2	MUFFLER .....	1			
56	127487H1	CLAMP .....	3			
	186037H2	CABLE, Choke .....	1			
57	184695H1	ELBOW .....	1			
	176984H1	GASKET .....	1			
	184697H1	NUT, Special .....	1			
58	186998H1	HOSE .....	1			
59	172818H1	CLAMP .....	2			
60	184698H1	DRAIN, Oil .....	1			
	S-168	SCREW, Cap .....	2			
	WL-16	WASHER, Lock .....				
	H - 16	NUT .....	2			
	210-8	PLUG .....				
61	OR2-8	"O" RING .....	1			
	181296H1	CONNECTOR .....	1			
	127506H1	ELBOW .....				
	161169H1	TUBE .....				
	157919H1	CONNECTOR .....				
	179146H1	TUBE .....	1			
	164839H1	ELBOW .....				
	144279H1	CLAMP .....				



ACCELERATOR LINKAGE

ACCELERATOR LINKAGE

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	H - 18	NUT .....	1		
	WL-18	WASHER, Lock .....	1		
2	113694H1	WASHER, Flat .....	1		
3	108650H1	SPRING .....	1		
4	HL-3343	KNOB .....	1		
5	140960H1	LEVER .....	1		
6	108651H1	DISC .....	2		
7	125098H1	SHAFT, Throttle .....	1		
8	HA-845	PIN ASSEMBLY .....	1		
9	109046H1	TUBE .....	1		
10	157419H1	ROD .....	1		
11	H - 15	NUT .....	1		
12	HL-1263	CLEVIS .....	1		
13	HL-1264	PIN ASSEMBLY .....	1		
14	155596H1	PEDAL, Accelerator .....	1		
	S-148	SCREW, Cap .....	2		
	WL-14	WASHER, Lock .....	2		
	H - 14	NUT .....	2		
15	141689H1	PIN, Accelerator Pedal .....	1		
16	HL-1263	YOKE END, Adjustable .....	1		
17	H - 15	NUT .....	1		
18	HL-1264	PIN ASSEMBLY, Yoke .....	1		
19	172215H1	SHAFT, Cross .....	1		
20	HA-800	BEARING .....	2		
	S-148	SCREW, Cap .....	4		
	WL-14	WASHER, Lock .....	4		
	H - 14	NUT .....	4		
21	188494H1	FITTING, Grease .....	2		
22	189463H1	ROD, Accelerator Front .....	1		
23	158396H1	JOINT, Ball .....	1		
	WL-15	WASHER, Lock .....	1		
	H - 15	NUT .....	2		
24	158395H1	JOINT, Ball .....	1		
	WL-14	WASHER, Lock .....	1		
	H - 14	NUT .....	2		
25	186246H1	BELLCRANK .....	1		
	135120H1	FITTING, Grease .....	1		
26	186249H1	SPACER, Bellcrank .....	1		
27	189461H1	SUPPORT, Bellcrank .....	1		
	S-1620	SCREW, Cap .....	1		
	WL-16	WASHER, Lock .....	1		
	WF-16	WASHER, Flat .....	1		
	H - 16	NUT .....	1		
28	103763H1	CLIP, Spring .....	1		
29	119059H1	SPRING, Accelerator Rod Return .....	1		
30	158395H1	JOINT, Ball .....	1		
	H - 14	NUT .....	2		
	WL-14	WASHER, Lock .....	1		
31	189462H1	ROD, Accelerator Rear .....	1		
32	158397H1	JOINT, Ball .....	1		
	H - 16	NUT .....	2		
	WL-16	WASHER, Lock .....	1		



FUEL TANK - G-372

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	183635H1	TANK, Fuel .....	1	28AH-1213	Up
	S-11016	SCREW, Cap .....	6		
	WL-110	WASHER, Lock .....	6		
	H - 110	NUT .....	6		
		] Tank Mounting			
2	189602H1	TUBE, Outlet .....	1		
	S-168	SCREW, Cap .....	4		
	WL-16	WASHER, Lock .....	4		
	155932H1	GASKET .....	1		
		] Tube Mounting			
3	193481H1	CAP .....	1		
4	125751H1	COVER, Handhole .....	1		
	S-168	SCREW, Cap .....	4		
	WL-16	WASHER, Lock .....	4		
	155932H1	GASKET .....	1		
		] Cover Mounting			
5	113228H1	TUBE, Tank to Fuel Pump .....	1		
6	139436H1	CONNECTOR .....	1		
7	150270H1	COUPLING .....	1		
8	P - 18	PLUG, Pipe .....	2		



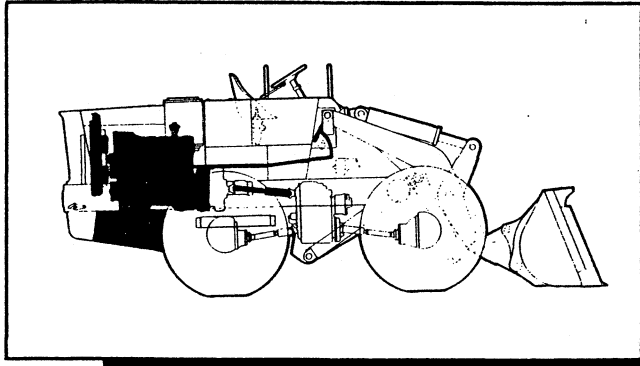
**GM-371  
ENGINE  
MODIFICATION**

FOR

THE MODEL H-60 "PAYLOADER"

SERIAL NUMBER

29AG-1001 and Up



This section contains parts used on Model H-60 "PAYLOADER" units equipped with a G.M. 371 Diesel Engine. All other parts are standard for diesel application in the preceding portion of this Parts Manual. Please check the serial number of your machine to determine which engine it is equipped with.

**Table Of Contents**

<b>Group</b>	<b>Page</b>
ADD & DELETE MODIFICATION .....	16-1
ACCELERATOR LINKAGE .....	16-11
AIR CLEANER .....	16-15
DRIVE SHAFT (UPPER REAR) .....	16-6
ENGINE & MOUNTING .....	16-3
EXHAUST .....	16-3
FUEL TANK & LINES .....	16-8
RADIATOR .....	16-7
STARTING AID .....	16-5
WIRING .....	16-13



---

ADD & DELETE MODIFICATION

MANUAL  
PM-H-60  
PAGE NO.

DESCRIPTION

SHEET COWLING

1-9 Delete Item 1 - 176782H2 Rear Hood and replace with 181665 Rear Hood.

BOOM AND BUCKET LINES

10-9 Delete Item 3 and replace with 180983 Tube Assembly.  
Delete Item 5 and replace with 180982 Tube Assembly.

TORQUE CONVERTER LINES

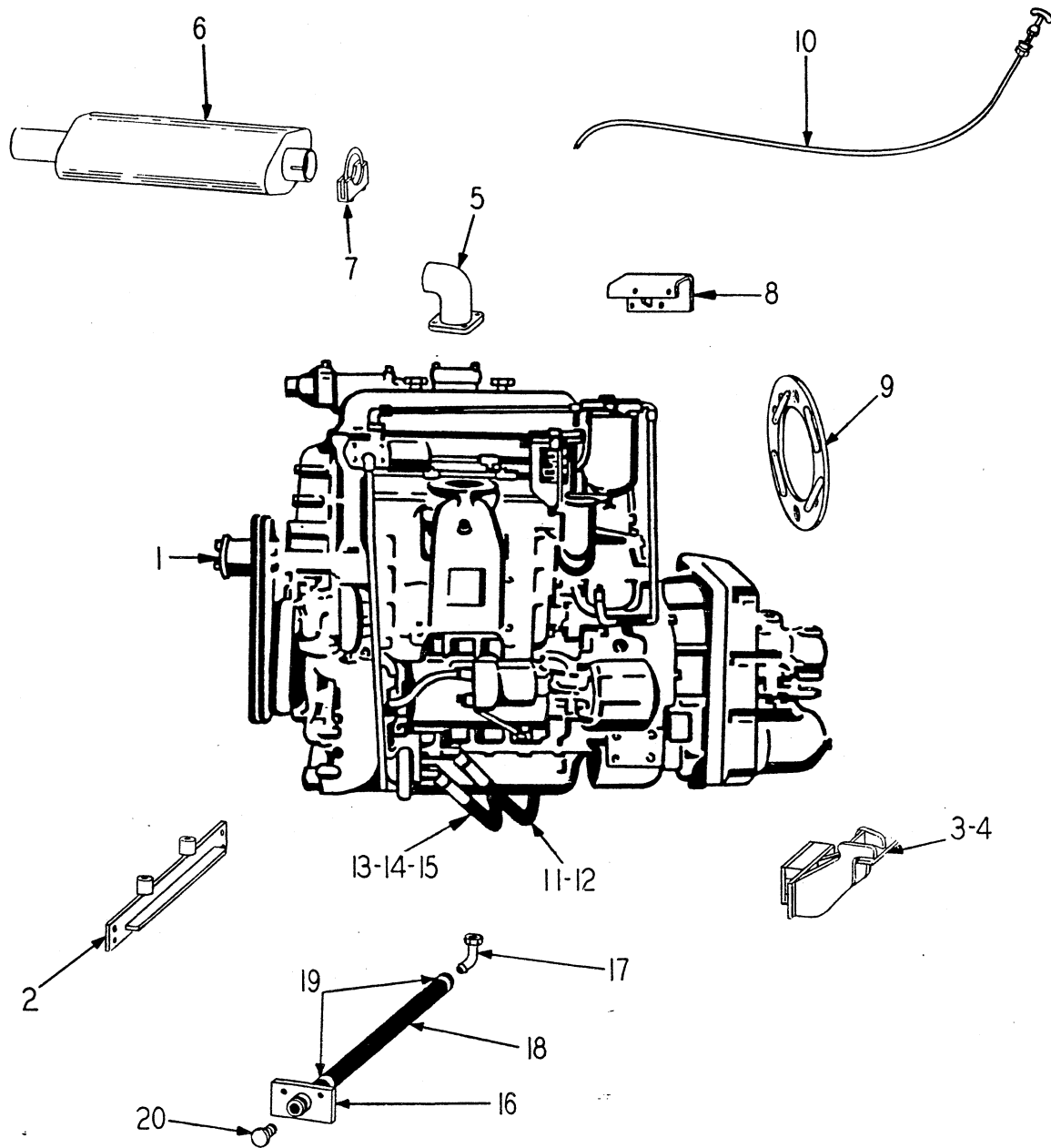
10-13 Delete Item 2 and replace with 173022H1 Hose.  
Delete Item 10 and replace with 174008H1 Hose.  
Delete Item 16 and replace with 179631H1 Tube.  
Delete Item 31 and replace with 173021H1 Hose.  
10-14 Delete Item 45 and replace with 173022H1 Hose.  
Delete Item 51 and replace with 205776H1 Hose.  
Delete Item 61 and replace with 189775H1 Hose.

AIR HYDRAULIC CONNECTIONS

13-9 Refer to items in this group only.

DECAL

14-2 Delete 172177 Decal, Starting Aid (Diesel)  
Add: 154839H2 Decal, Engine Shutdown  
180533 Plate, Engine Emergency Shutdown  
154838H2 Decal Emergency Engine Shutdown  
193111H1 Plate, Lubrication Instructions (Diesel)



ENGINE & MOUNTING (GM-371)

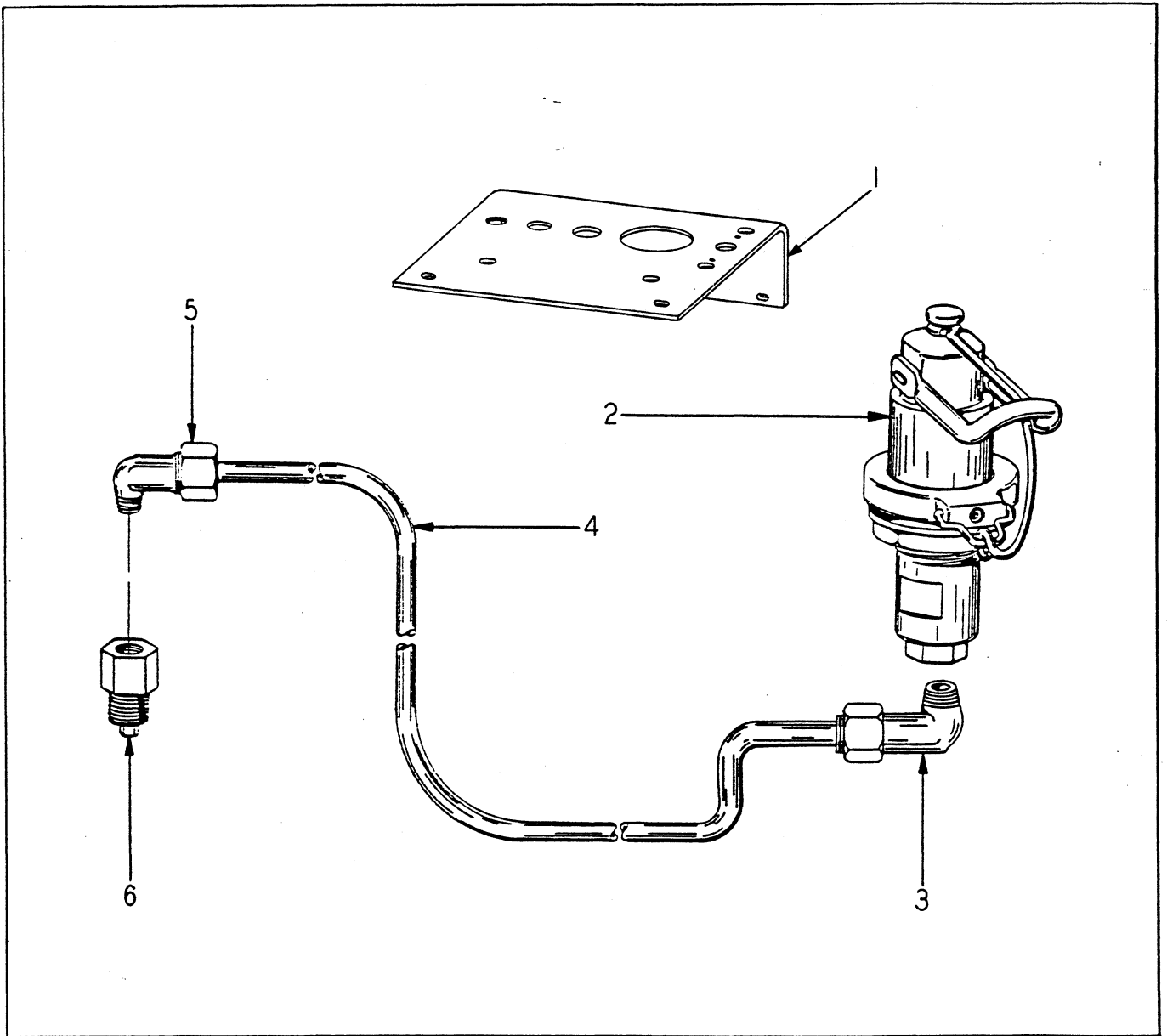
ENGINE - GM-371

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	180402H1	ENGINE, GM-3055 (See Engine Manual) .....	1		
2	181039H1	MOUNT, Engine Fan End .....	1		
	S-11014	SCREW, Cap .....	2		
	WL-110	WASHER, Lock .....	2		
	S-11020	SCREW, Cap .....	4		
	E-110	NUT .....	4		
3	181033H1	BRACKET, Engine Mount R.H. ....	1		
4	181034H1	BRACKET, Engine Mount L.H. ....	1		
	S-2818	SCREW, Cap .....	8		
	WL-18	WASHER, Lock .....	8		
	S-11018	SCREW, Cap .....	4		
	E-110	NUT .....	4		
5	180906H2	ELBOW, Exhaust .....	1		
	176734H1	SPACER .....	4		
6	176217H2	MUFFLER .....	1		
7	127487H1	CLAMP .....	2		
8	154071H1	BRACKET, Mounting Lube Oil Filter .....	1		
	S-269	SCREW, Cap .....	2		
	WL-16	WASHER, Lock .....	2		
	WF-16	WASHER, Flat .....	2		
	S-169	SCREW, Cap .....	4		
	WL-16	WASHER, Lock .....	4		
	H - 16	NUT .....	4		
	152113H1	PLATE, Voltage .....	1		
9	150388H1	DRIVE RING & STRAP ASSEMBLY (Service Assembly Only) .....	1		
	S-266	SCREW, Cap .....	8		
	WL-16	WASHER, Lock .....	8		
	130823H1	NUT, Converter to Drive Ring .....	8		
10	161915H1	CABLE, Flexible .....	2		
	S-146	SCREW, Cap .....	1		
	H - 14	NUT .....	1		
	WL-14	WASHER, Lock .....	1		
	WF-14	WASHER, Flat .....	1		
	182868H1	BRACKET, Clamp to Exhaust Manifold .....	1		
	117384H1	CLAMP .....	1		
	163501H1	CLAMP .....	2		
	WF-35	WASHER, Flat .....	1		
	189789H1	PIN .....	1		
	CP-24	PIN, Cotter .....	1		
	189840H1	SCREW .....	1		
		Supply: 187598H1 Connector (1) 192868H1 Bushing (1)			
		LINE - GOVERNOR TO COMPRESSOR			
	182838H1	TUBE .....	1		
	175775H1	ELBOW .....	1		
	164839H1	CONNECTOR .....	1		
		LINE - COMPRESSOR OUTLET			
	164987H1	FLANGE .....	1		
	153606H1	GASKET .....	1		
	153526H1	ELBOW .....	1		
	S-258	SCREW, Cap .....	2		
	WL-15	WASHER, Lock .....	2		
		LINE - ENGINE TO OIL FILTER			
11	HA-991	HOSE .....	1		
12	103732H1	ELBOW, 90° .....	1		
		LINE - OIL FILTER TO ENGINE			
13	103490H1	ELBOW, Street, 90° .....	1		
14	103380H1	ADAPTER, 45° .....	1		
15	HA-991	HOSE, Return Line .....	1		

(Continued on following page)

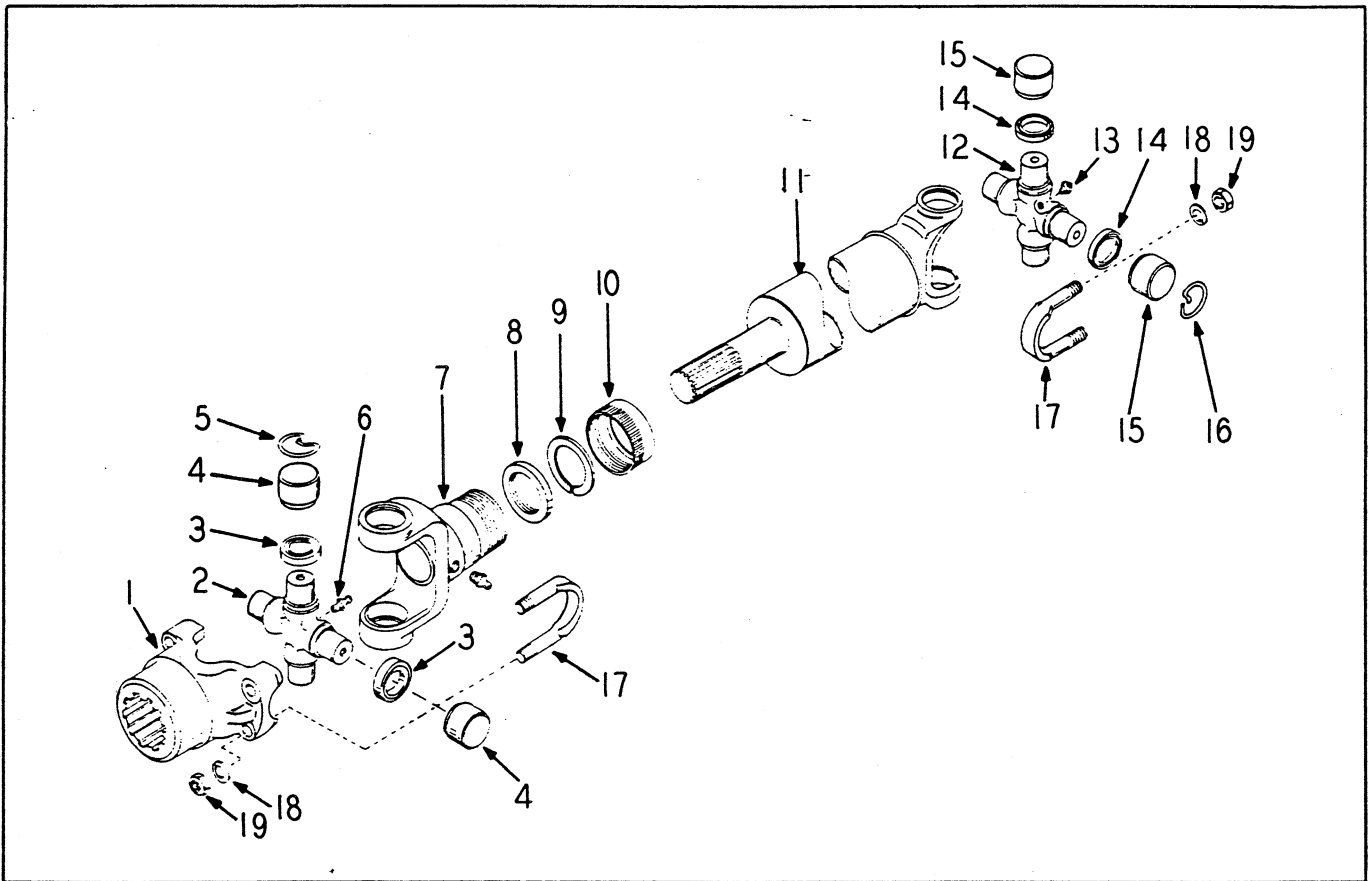
ENGINE - GM-371 (Continued)

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
ENGINE OIL PAN DRAIN					
16	184698H1	DRAIN, Oil .....	1		
	S-168	SCREW, Cap .....	2		
	WL-16	WASHER, Lock .....	2		
	H - 16	NUT .....	2		
		} Oil Drain Attaching			
LINE - OIL PAN DRAIN					
17	187477H1	INSERT, Hose, 90° .....	1		
18	173014H1	HOSE .....	1		
19	172818H1	CLAMP .....	2		
20	210-8	PLUG .....	1		
	OR2-8	"O" RING .....	1		



ETHER STARTING

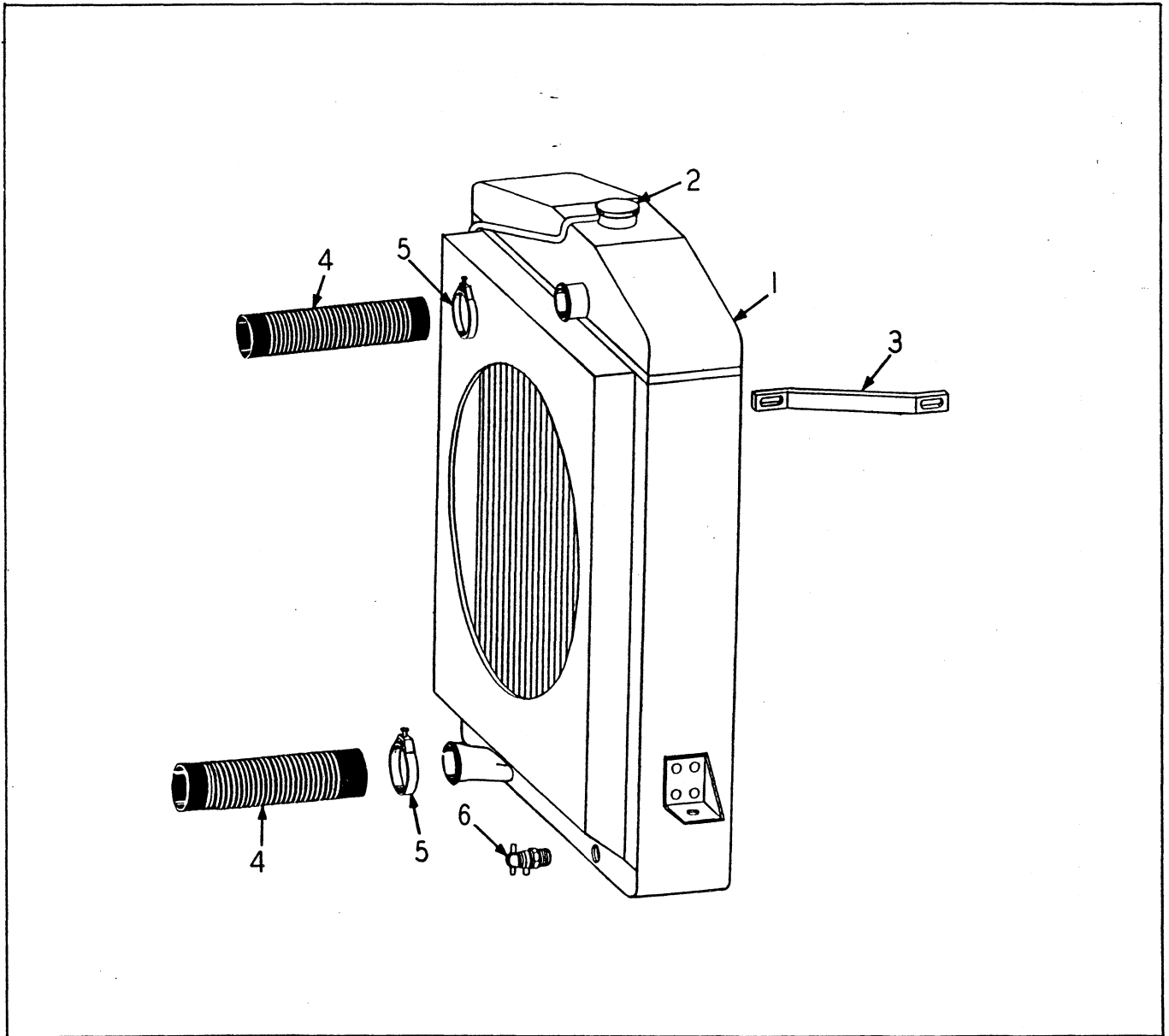
ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	175381H1	BRACKET .....	1		
	S-166	SCREW, Cap .....	4		
	WF-16	WASHER, Flat .....	4		
	WL-16	WASHER, Lock .....	4		
	H - 16	NUT .....	4		
2	121816H1	PRIMER, Pressure Discharger .....	1		
	WF-318	WASHER, Flat-Primer Mtg .....	2		
3	175775H1	ELBOW, Discharger .....	1		
4	179938H1	TUBING, Primer to Intake Manifold .....	1		
5	175775H1	ELBOW, Nozzle Intake Manifold .....	1		
6	122811H1	NOZZLE ASSEMBLY, Manifold .....	1		
	129668H1	CLAMP .....	1		



DRIVE SHAFT (UPPER REAR)

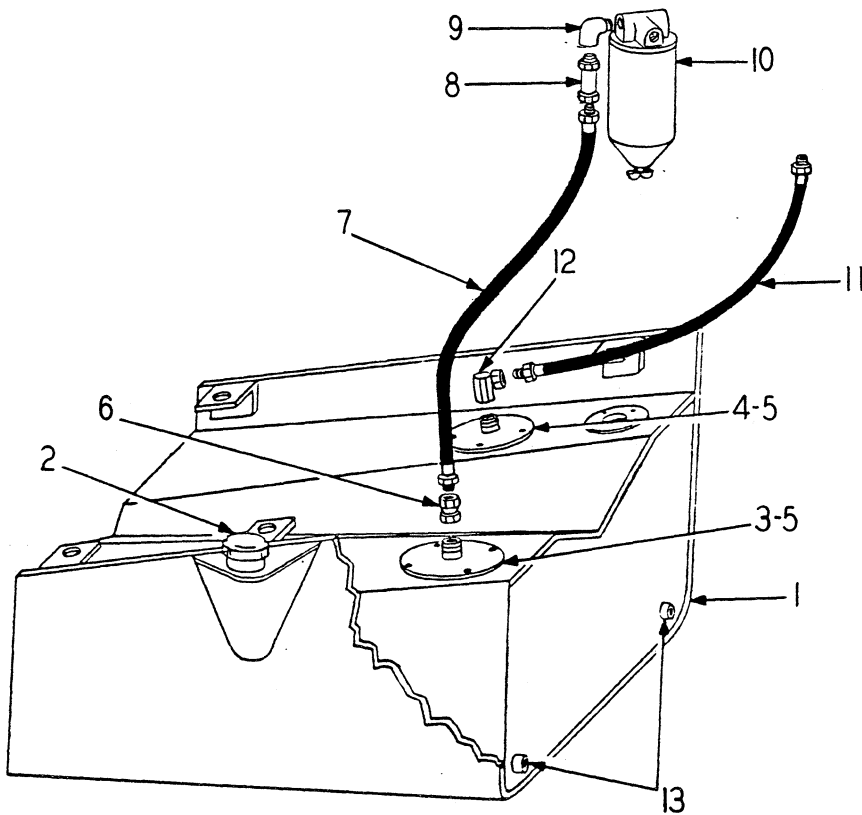
ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	154080H1	YOKE .....	1		
	154081H1	JOURNAL & BEARING ASSEMBLY (Includes items 2 thru 6) .....	1		
2		JOURNAL CROSS ASSEMBLY .....	1		
3	154083H1	GASKET .....	4		
4		BEARING ASSEMBLY .....	4		
5	154082H1	RING, Retainer .....	4		
6	118493H1	FITTING, Grease .....	1		
	185089H1	SLEEVE YOKE & SHAFT ASSEMBLY (Includes items 7 thru 12) .....	1		
7		SLEEVE, Yoke Assembly .....	1		
	118491H1	FITTING, Grease .....	1		
8	154086H1	WASHER, Cork .....	1		
9	154085H1	WASHER, Steel .....	1		
10	154084H1	CAP, Dust .....	1		
11		SHAFT ASSEMBLY .....	1		
	154081H1	JOURNAL & BEARING ASSEMBLY (Includes items 12 thru 16) .....	1		
12		JOURNAL CROSS ASSEMBLY .....	1		
13	118493H1	FITTING, Grease .....	1		
14	154083H1	GASKET .....	4		
15		BEARING ASSEMBLY .....	4		
16	154082H1	RING, Retainer .....	4		
17	151799H1	"U" BOLT .....	4		
18	WL-16	WASHER, Lock .....	8		
19	H - 16	NUT .....	8		





RADIATOR - GM-371

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	176368H2	RADIATOR .....	1		
2	HA-1274	CAP, Radiator .....	1		
	S-1814	SCREW, Cap .....	2		
	WF-18	WASHER, Flat .....	2		
	E-18	NUT .....	2		
3	174850H1	STRAP, Radiator Support - Replaces 180897 .....	2		
	S-168	SCREW, Cap .....	4		
	WF-16	WASHER, Flat .....	4		
	WL-16	WASHER, Lock .....	2		
	E-16	NUT .....	2		
	165338H1	NUT, Weld .....	2		
4	160629H1	HOSE .....	2		
5	C-40	CLAMP .....	2		
6	112002H1	COCK, Drain .....	1		

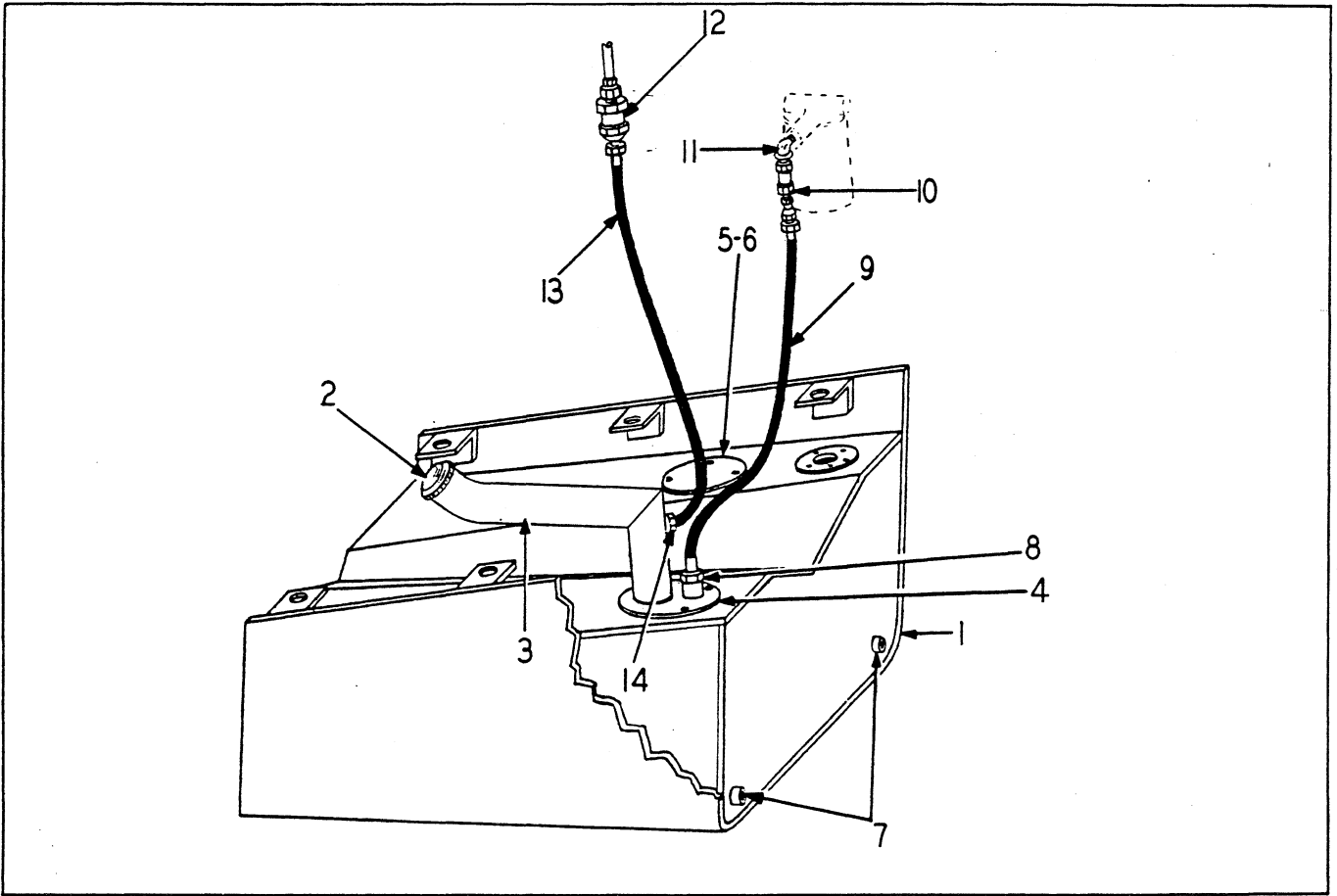


FUEL TANK - GM-371

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
		Used on machines of S/N 29 AG - 1138 & Up			
1	183635H1	TANK, Fuel .....	1		
2	193481H1	CAP (w/Chain).....	1		
	S-11016	SCREW, Cap .....	6		
	WL-110	WASHER, Lock .....	6		
	H-110	NUT .....	6		
3	189602H1	TUBE, Outlet .....	1		
	S-168	SCREW, Cap .....	4		
	WL-16	WASHER, Lock .....	4		
4	189602H1	TUBE, Inlet .....	1		
	S-168	SCREW, Cap .....	4		
	WL-16	WASHER, Lock .....	4		
5	155932H1	GASKET .....	2		
6	107861H1	UNION, Adapter .....	1		
7	138257H1	HOSE ASSEMBLY .....	1		
8		VALVE, Check (See GM-371 Engine Manual) .....	1		
9	117383 H1	ELBOW .....	1		
10		STRAINER, Fuel (See GM-371 Engine Manual) .....	1		

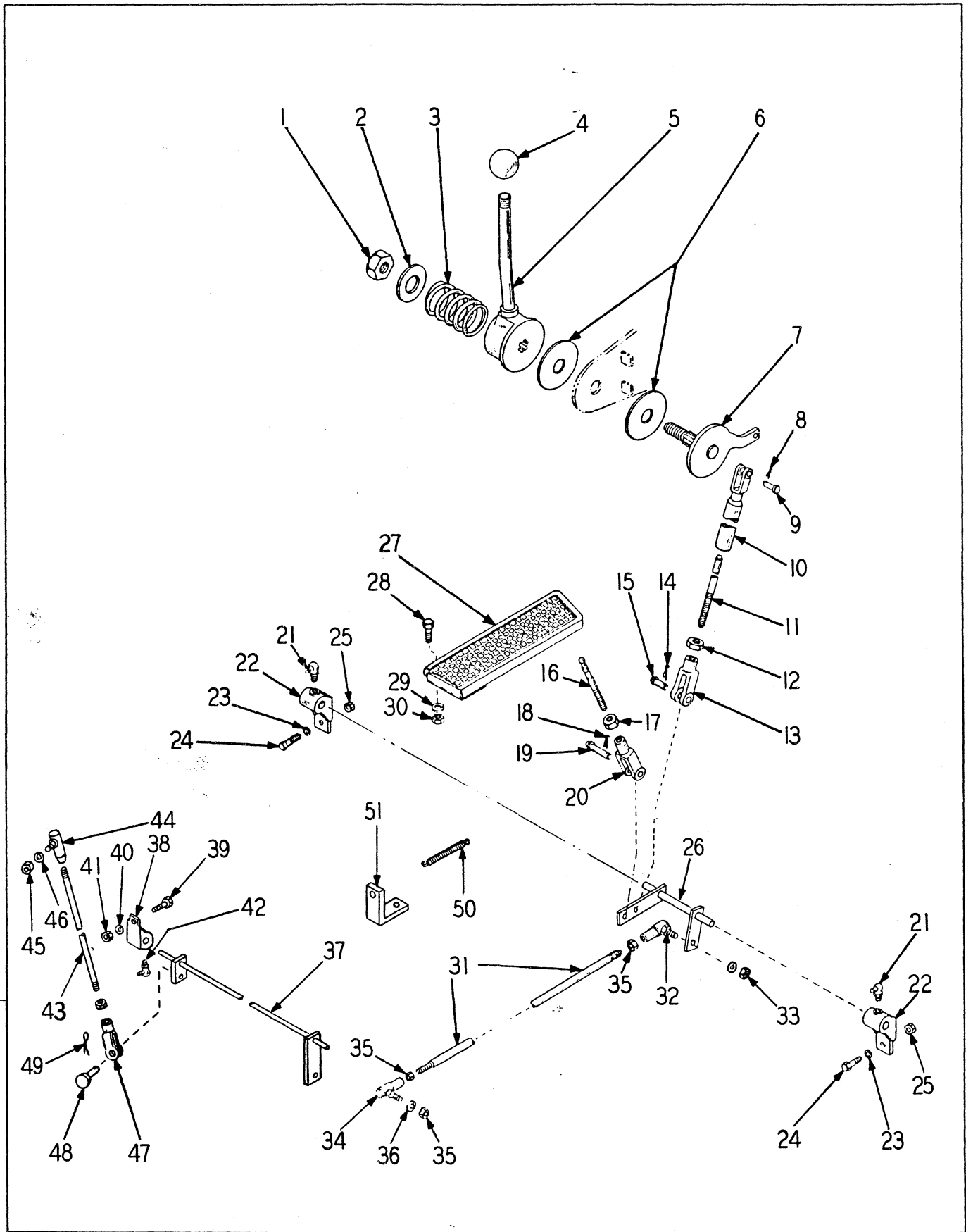
RETURN LINE - ENGINE TO FUEL TANK

11	184831H1	HOSE ASSEMBLY .....	1		
12	115700H1	UNION, Adapter 90° .....	1		
13	P - 18	PLUG, Pipe .....	2		



FUEL TANK (GM-371)

ITEM NO.	PART NO.	Used on machines of S/N 29AG-1001 thru 29AG-1137 PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	171739H1	TANK .....	1		
	S-11016	SCREW, Cap .....	6		
	WL-110	WASHER, Lock .....	6		
2	HA-1279	CAP .....	1		
3	182443H1	TUBE, Filler .....	1		
4	155932H1	GASKET .....	1		
	S-165	SCREW, Cap .....	4		
	WL-16	WASHER, Lock .....	4		
5	125751H1	COVER .....	1		
6	155932H1	GASKET .....	1		
	S-165	SCREW, Cap .....	4		
	WL-16	WASHER, Lock .....	4		
7	P-18	PLUG, Pipe Drain Ports .....	2		
FUEL LINE-TANK TO PRIMARY FILTER					
8	143882H1	COUPLING, Reducer .....	1		
9	179912H1	HOSE .....	1		
10	107863H1	ADAPTER, Straight .....	1		
11	103487H1	ELBOW, Street .....	1		
FUEL LINE-INJECTOR RETURN TO TANK					
12	150269H1	VALVE CHECK .....	1		
13	179913H1	HOSE .....	1		
14	103497H1	ELBOW, Street 45° .....	1		

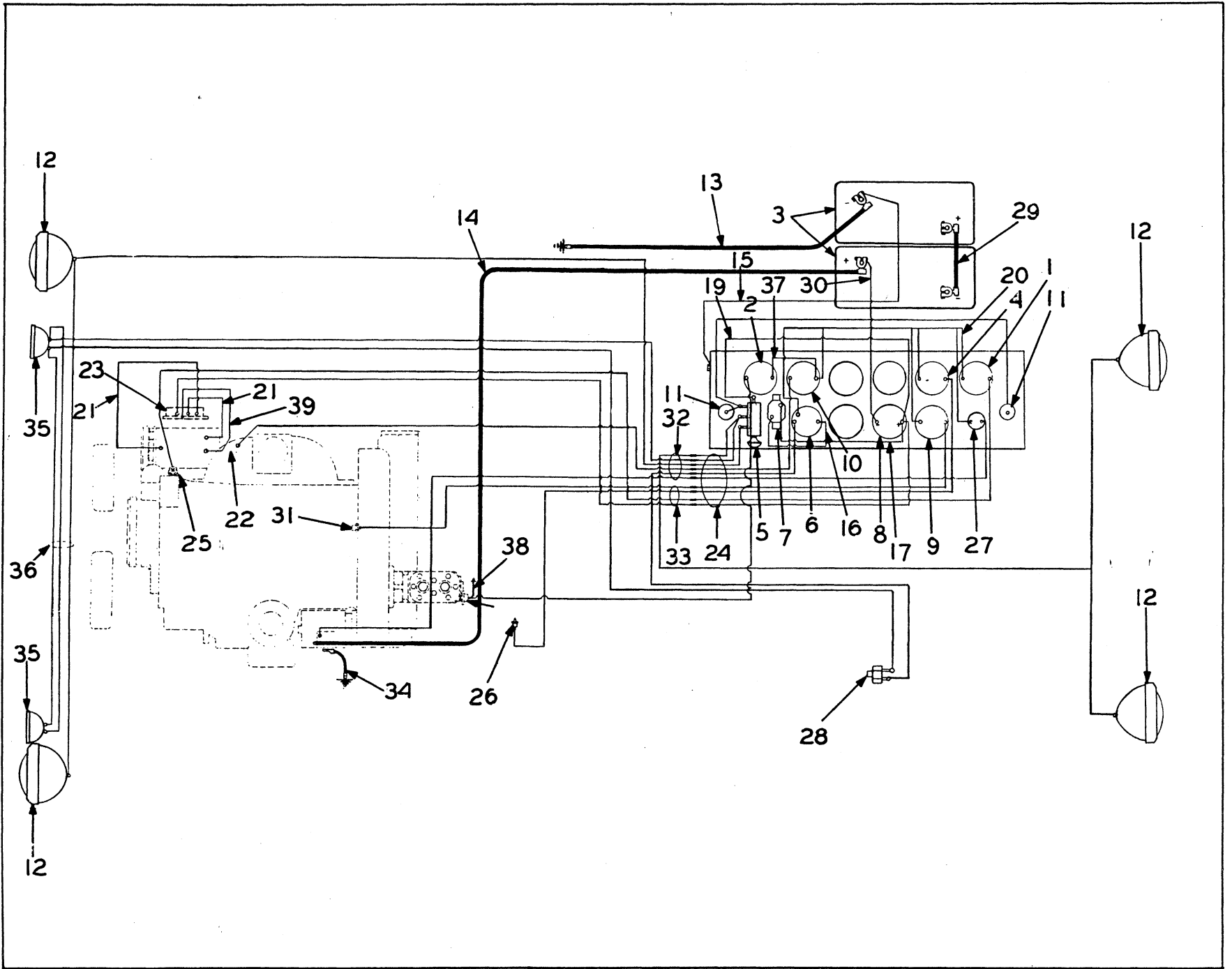


ACCELERATOR LINKAGE (GM-371)

ACCELERATOR LINKAGE (GM-371)

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	H - 18	NUT .....	1		
	WL-18	WASHER, Lock .....	1		
2	113694H1	WASHER, Flat .....	1		
3	108650H1	SPRING .....	1		
4	HL-3343	KNOB .....	1		
5	140960H1	LEVER .....	1		
6	108651H1	DISC .....	2		
7	125098H1	SHAFT, Throttle .....	1		
8		PIN, Cotter .....	1		
9	HA-845	PIN ASSEMBLY .....	1		
10	109046H1	TUBE ASSEMBLY .....	1		
11	157419H1	ROD .....	1		
12	H - 15	NUT .....	1		
13	HL-1263	CLEVIS .....	1		
14		PIN, Cotter .....	1		
15	HL-1264	PIN ASSEMBLY .....	1		
16	172213H1	PIN, Pedal .....	1		
17	H - 15	NUT .....	1		
18		PIN, Cotter .....	1		
19	HL-1264	PIN ASSEMBLY .....	1		
20	HL-1263	CLEVIS, Rod End .....	1		
21	118494H1	FITTING, Grease .....	2		
22	HA-800	BEARING .....	2		
23	WL-14	WASHER, Lock .....	4		
24	S-148	SCREW, Cap .....	4		
25	H - 14	NUT .....	4		
26	172215H1	SHAFT, Cross .....	1		
27	155596H1	PEDAL, Accelerator .....	1		
28	S-146	SCREW, Cap .....	2		
29	WL-14	WASHER, Lock .....	2		
30	H - 14	NUT .....	2		
31	180963H1	ROD, Pedal End, Accelerator .....	1		
32	158396H1	JOINT, Ball .....	1		
	WL-15	WASHER, Lock .....	1		
33	H - 15	NUT .....	2		
34	158396H1	JOINT, Ball .....	1		
35	H - 15	NUT .....	2		
36	WL-15	WASHER, Lock .....	1		
37	180961H1	SHAFT, Cross .....	1		
38	HA-800	BEARING .....	1		
39	S-148	SCREW, Cap .....	4		
40	WL-14	WASHER, Lock .....	4		
41	H - 14	NUT .....	4		
42	118494H1	FITTING, Grease .....	2		
43	180962H1	ROD, Engine End, Accelerator .....	1		
44	158396H1	JOINT, Ball .....	1		
45	H - 15	NUT .....	3		
46	WL-15	WASHER, Lock .....	1		
47	HL-1263	CLEVIS .....	1		
48	HL-1264	PIN ASSEMBLY .....	1		
49		PIN, Cotter .....	1		
50	157756H1	SPRING, Accelerator Return .....	1		
51	165151H2	CLIP, Accelerator Return .....	1		

WIRING



WIRING

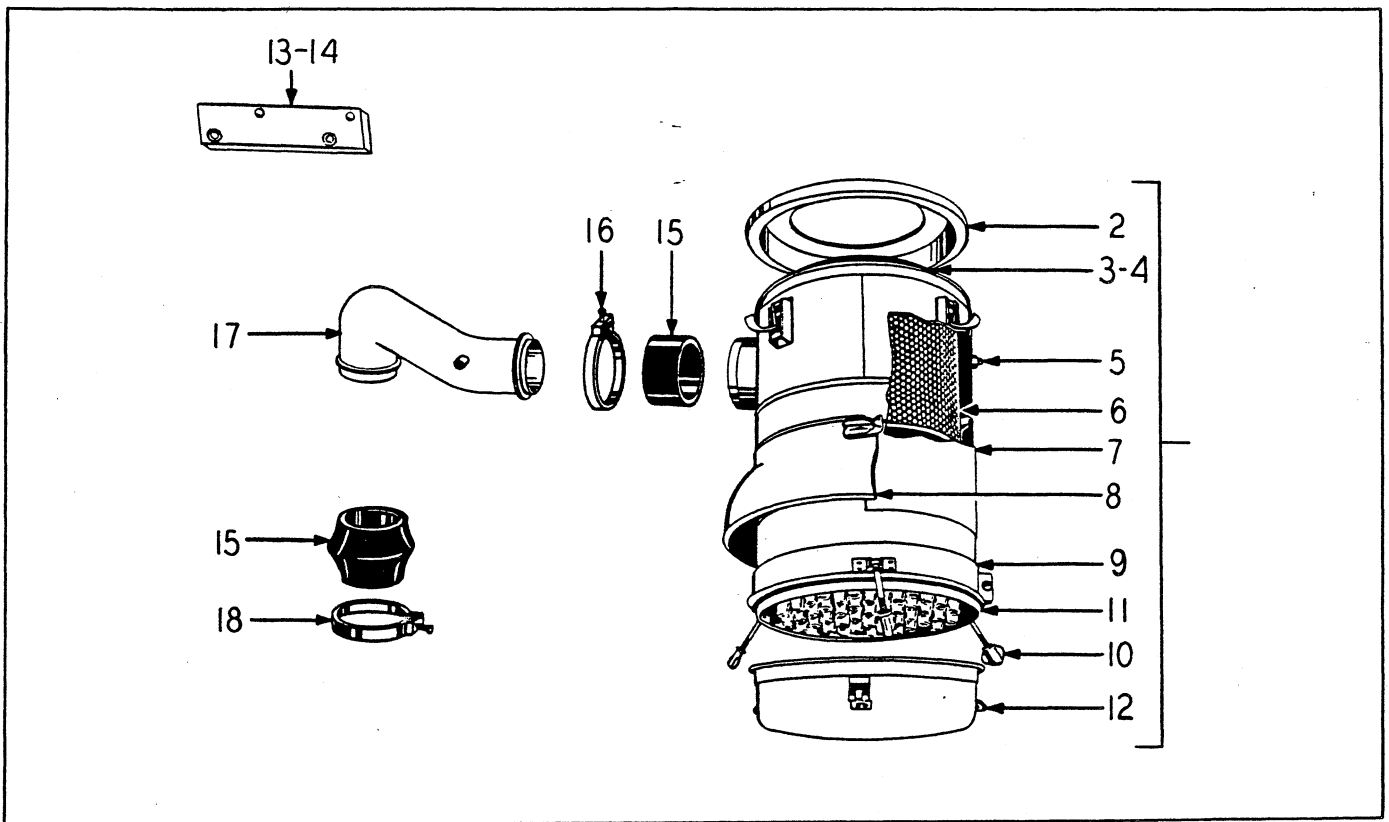
ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	187312H1	GAUGE, Engine Oil Pressure.....	1		
2	167564H1	HOURMETER .....	1		
3		BATTERY (Exide XF-25) .....	2		
4	187314H1	GAUGE, Torque Converter Temperature .....	1		
5	107749H1	SWITCH, Light .....	1		
6	125185H1	SWITCH, Ignition .....	1		
	125186H1	LEVER ASSY., Ignition Sw. ] For Service	1		
7	128359H1	CIRCUIT BREAKER .....	1		
	168752H1	SCREW, Rd. Hd. Mach. ....	2		
	104467H1	NUT .....	2		
	104469H1	WASHER, Lock .....	2		
8	155671H1	AMMETER .....	1		
9	187313H1	GAUGE, Water Temperature .....	1		
10	187315H1	GAUGE, Fuel .....	1		
11	146568H1	LAMP, Dash Assembly .....	2		
		BULB, Trade #89 .....			
	104469H1	WASHER, Lock .....	4		
12	176751H1	LAMP DRIVING (Includes 181355H1 Sealed Beam and 181356H1 Retainer).....	4		
13	107558H1	CABLE, Battery to Ground .....	1		
14	182692H1	CABLE, Battery to Starter Solenoid .....	1		
15	177235H1	WIRE, Instrument Panel Ground .....	1		
16	134319H1	WIRE, Ignition Switch to Circuit Breaker .....	1		
17	109866H1	WIRE, Ammeter to Circuit Breaker .....	1		
18	126287H1	SWITCH, Pressure .....	1		
19	109866H1	WIRE, Ammeter to Light Switch .....	1		
20	175353H1	WIRE, Instrument Jumper .....	1		
21	117240H1	WIRE, Generator to Regulator .....	2		
22	171831H1	SENDER, Fuel .....	1		
	104468H1	WASHER, Lock .....	1		
	107755H1	GASKET, Fuel .....	1		
	104466H1	NUT .....	1		
	160975H1	SCREW .....	5		
	108498H1	WASHER, Lock .....	5		
23	181285H1	REGULATOR (Delco-Remy #1119156).....	1		
24	175047H2	LOOM, Instrument .....	1		
25	123154H1	SENDER, Oil Pressure .....	1		
26	144200H1	SENDER, Torque Converter .....	1		
27	109214H1	SWITCH, Starter Push .....	1		
28	112339H2	SWITCH, Stop Light .....	1		
29	116949H1	CABLE, Battery Jumper .....	1		
30	177235H1	WIRE, Battery to Ammeter .....	1		
31	144200H1	SENDER, Engine Temperature .....	1		
32	174512H2	HARNESS, Wiring .....	1		
33	174510H3	HARNESS, Wiring .....	1		
34	148167H1	CABLE, Starter to Ground (replaces 109201) .....	1		
35	115602H3	LAMP, Tail & Stop Assembly.....	2		
		BULB, Trade #67 .....	2		
		BULB, Trade #1073 .....	2		
36	172227H2	LOOM, Jumper, Stop Lights .....	1		
37	187396H1	WIRE, Hourmeter to Ground.....	1		
38	143863H1	WIRE, Pressure Switch to Ground .....	1		
39	182963H1	WIRE, Generator to Regulator .....	2		
	129668H1	CLIP, Attach to Engine .....	1		
	S-286	SCREW, Cap .....	1		
	WL-18	WASHER, Lock .....	1		
	104469H1	WASHER, Lock, Wire to Tail Light .....	2		
	152113H1	PLATE.....	1		
	S-1410	SCREW, Cap .....	4		
	WL-14	WASHER, Lock .....	4		
	H - 14	NUT .....	4		
	WL-16	WASHER, Lock .....	2		
	179095H1	BRACKET, Stop Light Mtg. R. H. ....	1		
	179096H1	BRACKET, Stop Light Mtg. L. H. ....	1		
	154049H1	GROMMET, Battery Cables .....	1		

(Continued on following page)

WIRING (Continued)

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	S-1810	SCREW, Cap .....	1		
	163839H1	WASHER, Star .....	2		
	H - 18	NUT .....	1		
	177362H1	SUPPORT, Front Lights .....	2		
	177360H1	SUPPORT, Rear Lights .....	2		
	176750H1	CLAMP, Driving Lamp .....	4		
	176752H1	PLUG, Rubber .....	8		
	E - 18	NUT .....	4		
	176749H1	WASHER .....	4		
	H - 320	NUT .....	2		
	WL-120	WASHER, Lock .....	2		
	180964H1	WASHER .....	2		
	173443H1	SETSCREW .....	4		
	132226H1	SCREW .....	1		
	104468H1	WASHER, Lock .....	1		
	104466H1	NUT .....	1		
	S-1610	SCREW, Cap .....	1		
	H - 16	NUT .....	1		
	145703H1	WASHER .....	2		
	116983H1	CLAMP, Battery Cable to Flywheel & Blower .....	2		
	138459H1	CLAMP, Harness to Engine Block R.H. Side .....	1		
	161043H1	CLAMP, Harness to Solenoid Bracket .....	1		
	138459H1	CLAMP, Tail Back-up Light Wires to L.H. Channel ..	1		
	161043H1	CLAMP, Water Temp. Wire to Eng. Valve Cover .....	1		
	129668H1	CLAMP, Driving Light Wire to Windshield Strip .....	4		
	S-168	SCREW, Cap .....	6		
	H - 16	NUT .....	6		
	WL-16	WASHER, Lock .....	6		
	161043H1	CLAMP, Harness to Parking Brake .....	1		
	138459H1	CLAMP, Driving Light Wire to Gearshift Lever Clamp	1		
	129668H1	CLAMP, Loom to Flywheel Hsg. Loom to Oper. Compartment, Loom to Right Frt. Batty. Box Support	3		
	139016H1	STRAP, Battery Cables .....	3		
	136140H1	CLAMP, Regulator to Ammeter Wire, Loom to Flow Control Valve, and Head Light Wires to Floorboard Support .....	4		
	103495H1	ELBOW, St. 45° Eng. Oil Pressure Sw. to block .....	1		
		ELBOW, Tee to Compressor Tube .....	1		
		TEE, Compressor to Hourmeter Press. Switch .....	1		
	171826H1	BOTTOM, False .....	1		
	173352H1	BOLT .....	1		
	CP-36	PIN, Cotter .....	1		
	174169H1	NUT .....	1		
	WF-14	WASHER, Flat .....	2		
	171827H1	RETAINER .....	1		
	177218H1	COVER, Battery .....	1		
	188810H1	PANEL, Instrument .....	1		
	127514H1	GROMMET .....	4		
	168751H1	SCREW .....	4		
	E - 34	NUT .....	4		





AIR CLEANER - GM-371

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	152776H1	CLEANER, Air (Includes items 2 thru 12)	1		
	145720H1	BAND, Mounting	2		
	S-116	SCREW, Cap	4		
	WL-16	WASHER, Lock	4		
2	155206H1	COVER ASSEMBLY, Includes Item 3	1		
3	155207H1	GASKET	1		
4	155208H1	BOLT & GASKET ASSEMBLY	1		
5	P - 12	PLUG, Pipe	1		
6	155209H2	ELEMENT (replaces 155209H1)	1		
7	155210H1	BODY ASSEMBLY	1		
8	155211H1	SHROUD & SHIELD ASSEMBLY	1		
9	155212H1	BAND ASSEMBLY	1		
10	155214H1	BOLT ASSEMBLY	3		
11	155215H1	GASKET	1		
12	155213H1	CUP ASSEMBLY	1		
13	180923H1	BRACKET, Air cleaner upper	1		
14	183292H1	BRACKET, Air cleaner lower	1		
	S-1510	SCREW, Cap	4		
	WF-15	WASHER, Flat	8		
	WL-15	WASHER, Lock	4		
	H - 15	NUT	4		
15	150320H1	HOSE, 3" Straight	1		
15	176034H1	HOSE, Hump, 5-1/8" Long	1		
16	152730H1	CLAMP	2		
17	180925H1	TUBE, Air cleaner	1		
18	152730H1	CLAMP	2		
	139299H1	HOSE, Tube to air compressor	1		
	C - 22	CLAMP, Hose to tube & air compressor	2		
	153609H1	ELBOW, Air intake at compressor	2		
	153610H1	GASKET	1		
	S-256	SCREW, Cap	2		
	WL-15	WASHER, Lock	2		

