

GENERAL INFORMATION

Indexes

This parts Catalog is arranged for easy identification of Genuine CASE Service Parts. An alphabetical index is provided at the front of this Catalog to locate the major groups or assemblies. A numerical index at the rear of the Catalog gives the part numbers and the pages on which they are described.

Illustrations

All parts are illustrated in "Exploded Views" which show the individual parts in their normal relationship to each other. Reference numbers are used in the illustrations. These numbers correspond to those in the "Reference Number" column and are followed by the part number, description and quantity required.

Indented Description

Indented parts in the descriptive list are a part of the preceding assembly or sub-assembly.

The quantity shown in the "Number Required" column is the number of parts used on a machine except where parts are indented in descriptive list. In this case the quantity shown is the number required for the preceding assembly or sub-assembly.

Orders

Orders should plainly specify correct part number, full description, quantity required, machine model and engine model, machine and engine serial numbers, method of shipment and shipping address.

Changes

When changes to the machine make it necessary, revised pages for this book will be issued. The revised pages will be issued with the same page number as those they replace and the "issue" number and date will be advanced.

It is imperative that revised Parts Book pages be inserted into their respective Parts Books as soon as received. Failure to do so will lead to confusion and defeat the purpose of the book.

REF.	PART NO.	DESCRIPTION	REQ'D
	A 55159	CYLINDER ASSY - rear steering	1
28	A 56208	SOCKET ASSY - rear cylinder	1
29	A 55956	PLUG - adjusting, socket assy	1
30	A 55957	SEAT - socket ball	2
31	A 56210	SPRING - socket	1
32	A 56209	SEAT - socket spring	1
33	G 45175	CLAMP ASSY - socket assy	1
	16- 836	BOLT - 1/2" x 2-1/4" N.F. hex.	1
34	132- 104	PIN - cotter, 3/16" x 3"	1
35	A 55889	STUD - ball, socket & cylinder	2
36	13- 410	BOLT - 1/4" x 5/8" N.C., hex.	4
37	92- 4	LOCKWASHER - 1/4" SAE	4

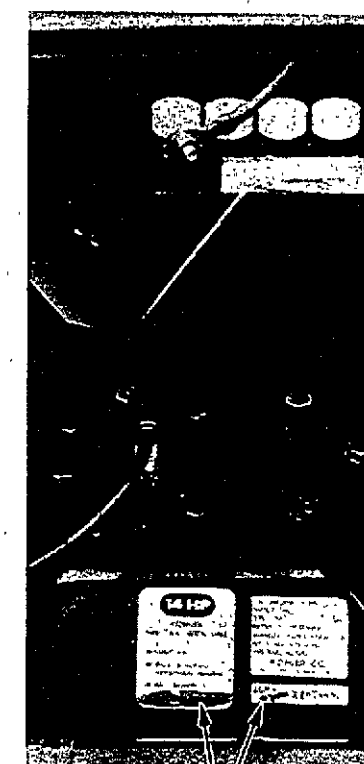
Terms "Right Hand" and "Left Hand"

"Right Hand" and "Left Hand" sides of this machine are determined by standing at the rear of the unit and facing in the direction of forward travel.

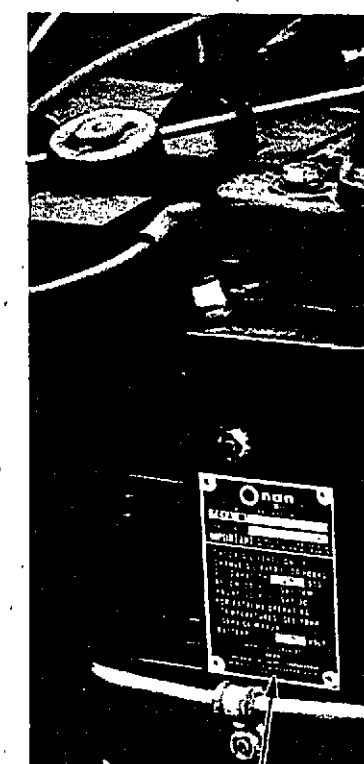
CASE MODEL 644 AND 646 COMPACT WHEEL LOADERS



TRACTOR MODEL AND SERIAL NUMBER



ENGINE MODEL, SERIAL AND SPECIFICATION NUMBER 644

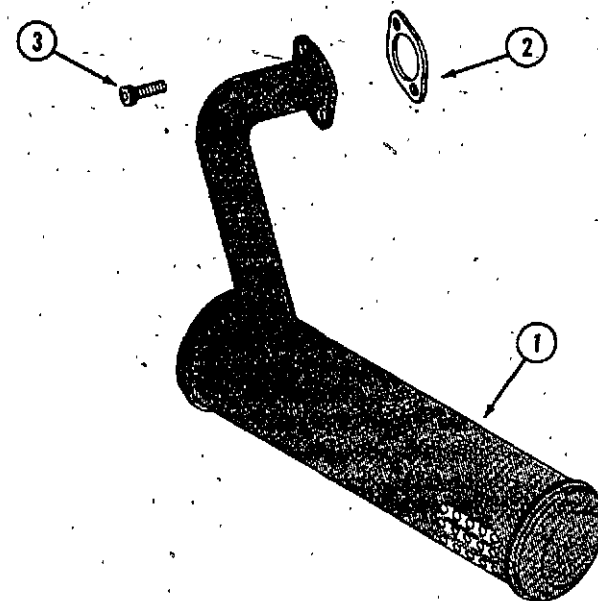


ENGINE MODEL, SERIAL AND SPECIFICATION NUMBER 646

TRACTOR MODEL DESIGNATIONS	ENGINE MODEL DESIGNATIONS
644 WHEEL LOADER	K-321-A C19028 Engine
646 WHEEL LOADER	CCKA-MS C17626 Engine

SERIAL NUMBERS

When using this catalog, notice the reference to serial numbers of various components noted here and listed in the "description" copy. By referring to correct serial numbers, proper parts identification will be assured.



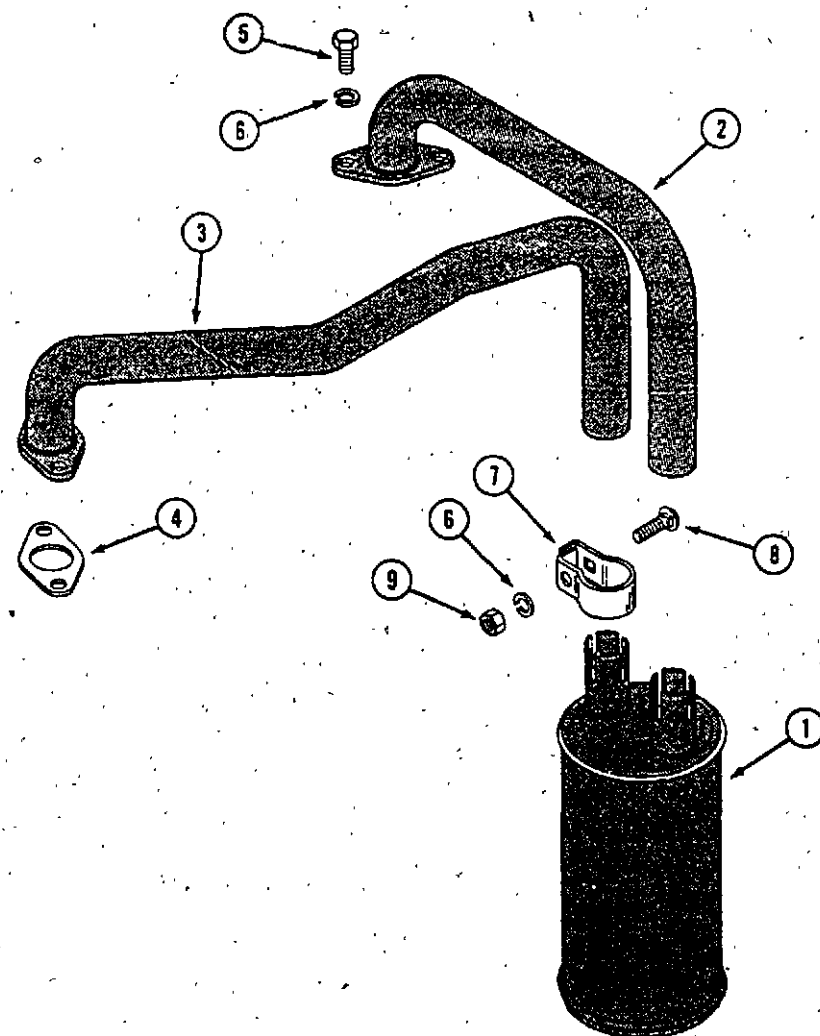
CASE MODEL 644 AND 646 COMPACT WHEEL LOADERS 5

EXHAUST SYSTEM-644

REF. PART NO.	DESCRIPTION	REQ'D
1 C 18246	MUFFLER - exhaust	1
2 C 10372	GASKET - exhaust	1
3 61- 510	SCREW - 5/16" x 5/8" NC socket head	2

EXHAUST SYSTEM-646

1 C 18121	MUFFLER - exhaust	1
2 C 18215	PIPE - exhaust, left	1
3 C 18214	PIPE - exhaust, right	1
4 C 18250	GASKET - exhaust	2
5 61- 512	BOLT - 5/16" x 3/4" NC hex	4
6 192- 45	LOCKWASHER - 5/16"	6
7 C 18216	CLAMP - muffler	2
8 111- 204	BOLT - 5/16" x 1-1/4" NC rd. hd. square neck	2
9 129- 518	NUT - 5/16" NC hex	2

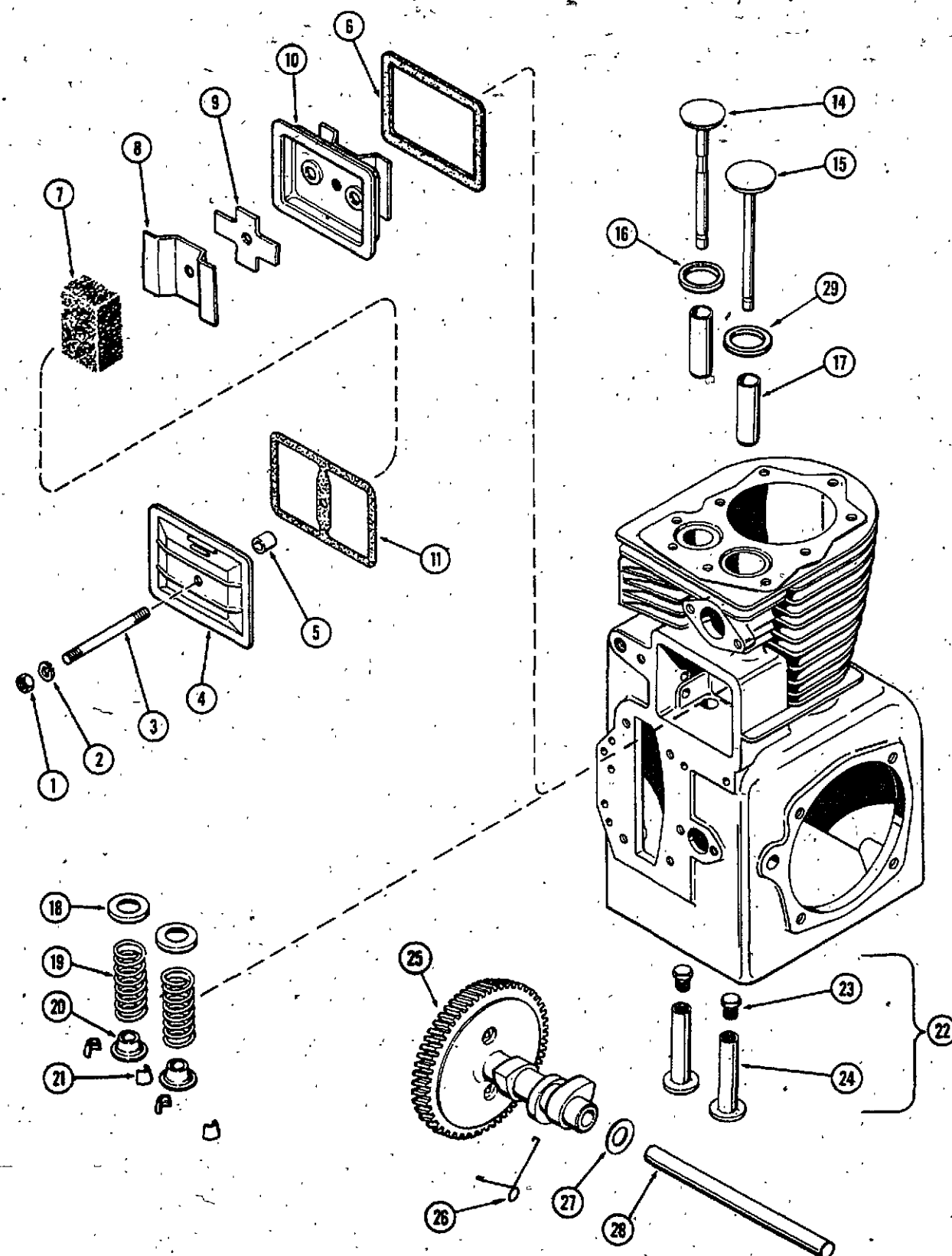


644 CRANKCASE BREATHER

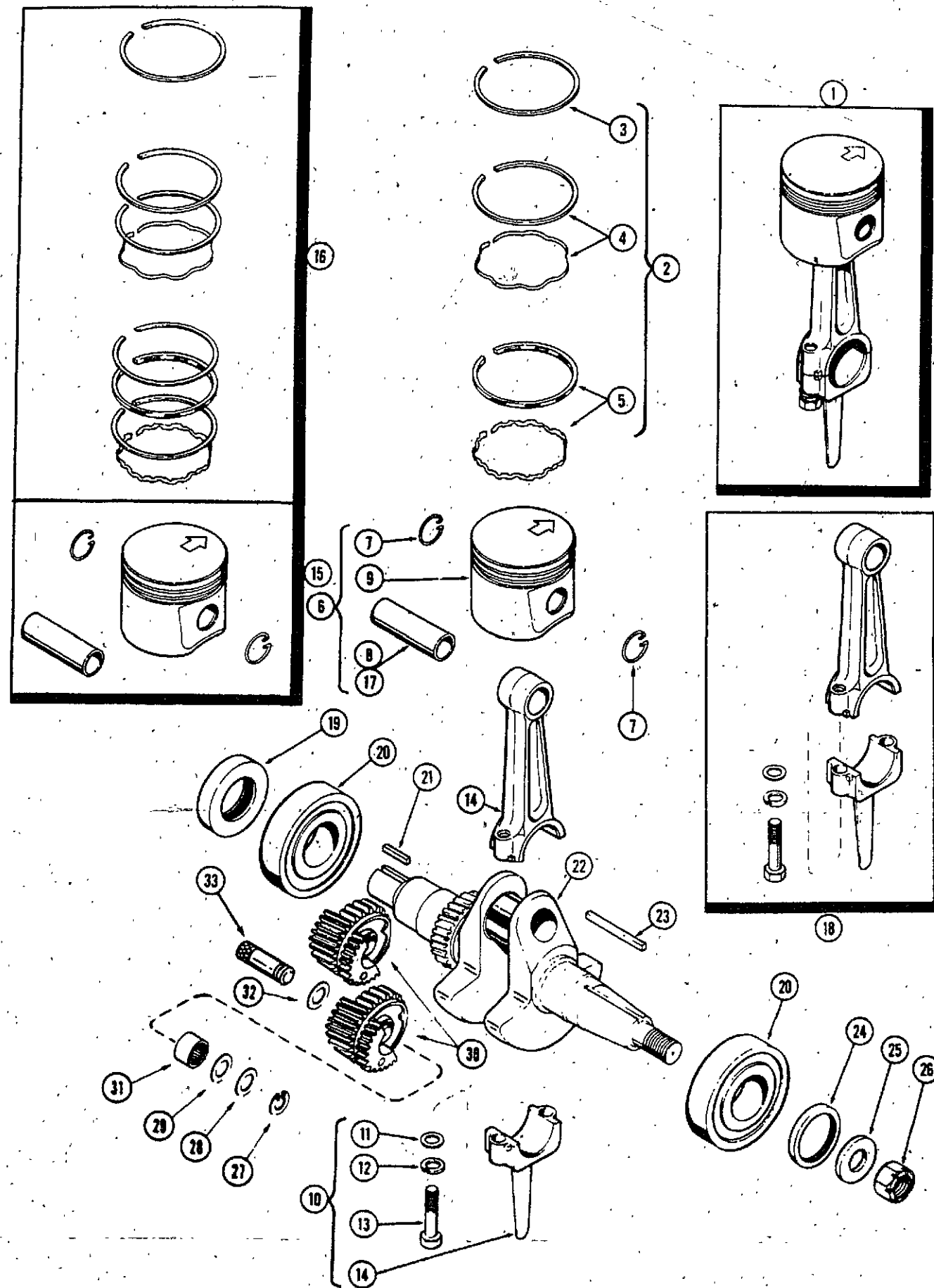
REF.	PART NO.	DESCRIPTION	REQ'D
1	25- 104	NUT - 1/4" NC hex	1
2	92- 4	LOCKWASHER - 1/4"	1
3	KO 275220	STUD - valve cover	1
4	KO 275143	COVER - valve	1
5	KO 231032	SEAL - breather	1
6	KO 235048	GASKET - breather plate	1
7	KO 235118	FILTER - breather	1
8	KO 235117	BAFFLE - breather	1
9	KO 235047	REED - breather	1
10	KO 235631	PLATE - breather	1
11	KO 275144	GASKET - valve cover	1

644 CAMSHAFT AND VALVES

14	KO 235838	VALVE - exhaust	1
15	KO 235582	VALVE - intake	1
16	KO 230170	INSERT - exhaust valve seat	1
17	KO 235007-S	GUIDE - valve	2
18	KO 235011	SEAT - valve spring	2
19	KO 235168	SPRING - valve	2
20	KO 230020	ROTATOR - valve (Furnished in pairs only)	2
21	KO 240013	LOCK - valve retainer	2
22	KOA235327	LIFTER ASSEMBLY	2
23	NSS	SCREW - tappet adjusting	1
24	NSS	LIFTER - valve	1
25	KOA235646	CAMSHAFT ASSEMBLY	1
26	KO 232770	SPRING - actuating	1
27	KO 275066	SPACER - camshaft, .005"	UAR
27	KO 275067	SPACER - camshaft, .010"	UAR
28	KO 235053	PIN - camshaft	1
29	KO 230265	INSERT - intake valve seat	1

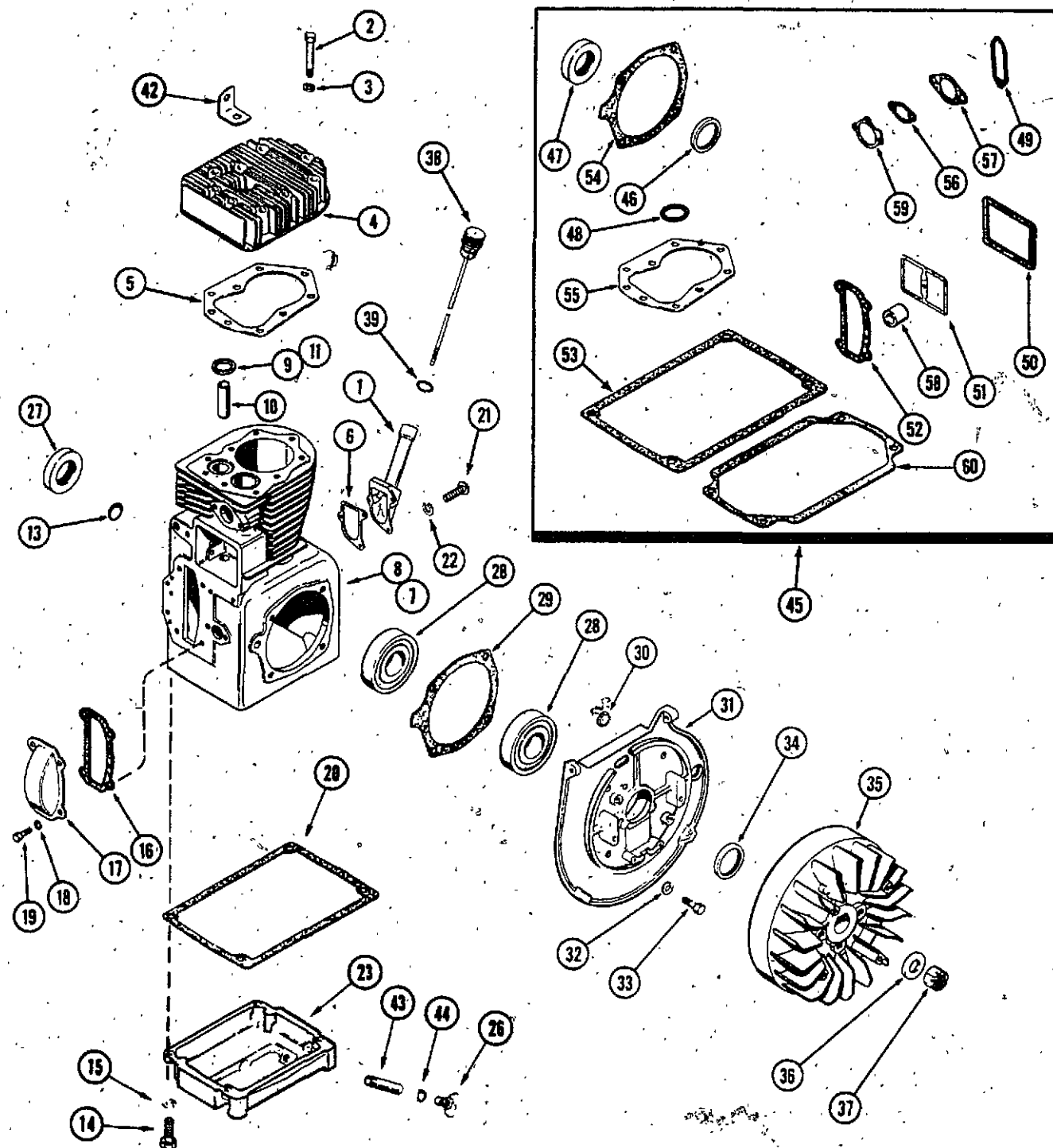


644 CRANKSHAFT, PISTON — CONNECTING ROD



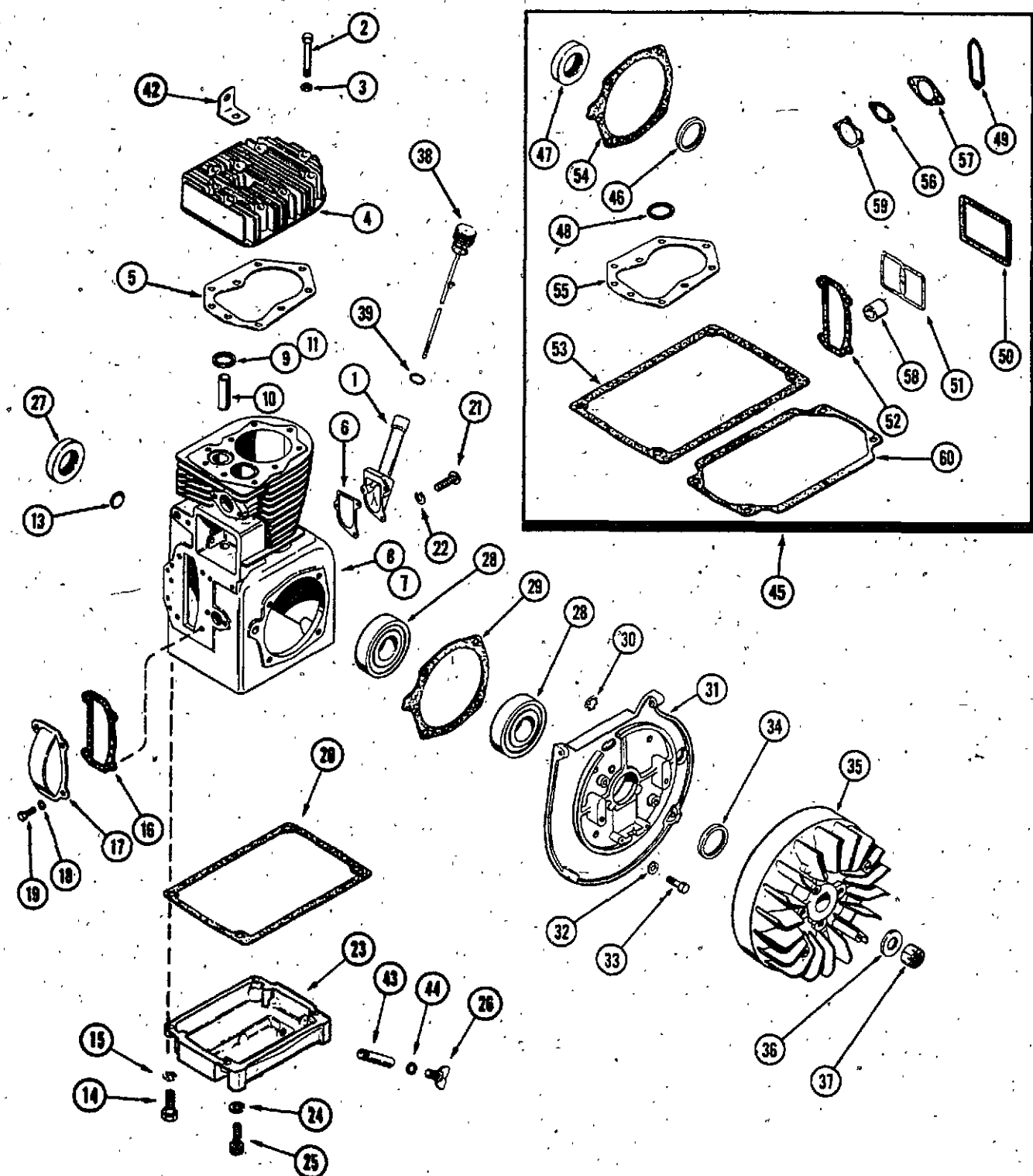
REF. PART NO.	DESCRIPTION	REQ'D
1 NSS	PISTON AND ROD ASSEMBLY (Std. size)	1
2 KO 236763	RING SET - piston (For oversize, see item 16)	1
3 NSS	RING - top compression	1
4 NSS	RING - 2nd compression (Includes expander)	1
5 NSS	RING - oil (Includes expander)	1
6 KOA237401	PISTON ASSEMBLY (For oversize, see item 15)	1
7 KO 235811	RETAINER - piston pin	2
8 KO 235803	PIN - piston	1
9 NSS	PISTON	1
10 KOA237344	CONNECTING ROD ASSEMBLY (For undersize, see item 18)	1
11 KO 235003	WASHER - special	2
12 92- 6	LOCKWASHER - 3/8"	2
13 KO 236611	SCREW - cap, connecting rod	2
14 NSS	ROD - connecting	1
15 KOA237403	PISTON ASSEMBLY - .010" oversize	1
15 KOA237404	PISTON ASSEMBLY - .020" oversize	1
15 KOA237405	PISTON ASSEMBLY - .030" oversize	1
16 KO 236764	RING SET - piston .010" oversize	1
16 KO 236765	RING SET - piston .020" oversize	1
16 KO 236766	RING SET - piston .030" oversize	1
17 KO 235868	PIN - piston .005" oversize	1
18 C 18102	CONNECTING ROD ASSEMBLY - .010" undersize	1
19 R 16287	OIL SEAL - crankshaft rear	1
20 40035	BEARING - crankshaft ball	2
21 W 5063-S	KEY - 1/4" Sq. x 3/4" (Pump Coupling)	1
22 KOB237034	CRANKSHAFT	1
23 A 27001	KEY - flat 3/16" x 3/16" x 1-3/8" (Flywheel)	1
24 C 18097	OIL SEAL - crankshaft front	1
25 C 18095	WASHER - 5/8"	1
26 131- 309	NUT - special Marsden 5/8" NF	1
27 C 15060	RETAINER - external 1/2" ID	2
28 KO 236504	SPACER .020"	2
29 KO 236509	SPACER - .005"	2
30 KOA236507	GEAR ASSEMBLY - counter balance	2
31 KO 236506	BEARING - gear assembly	2
32 KO 236510	SPACER - .010"	2
33 KO 236559	SHAFT - counterbalance stub	2

644 ENGINE BLOCK AND ATTACHING PARTS



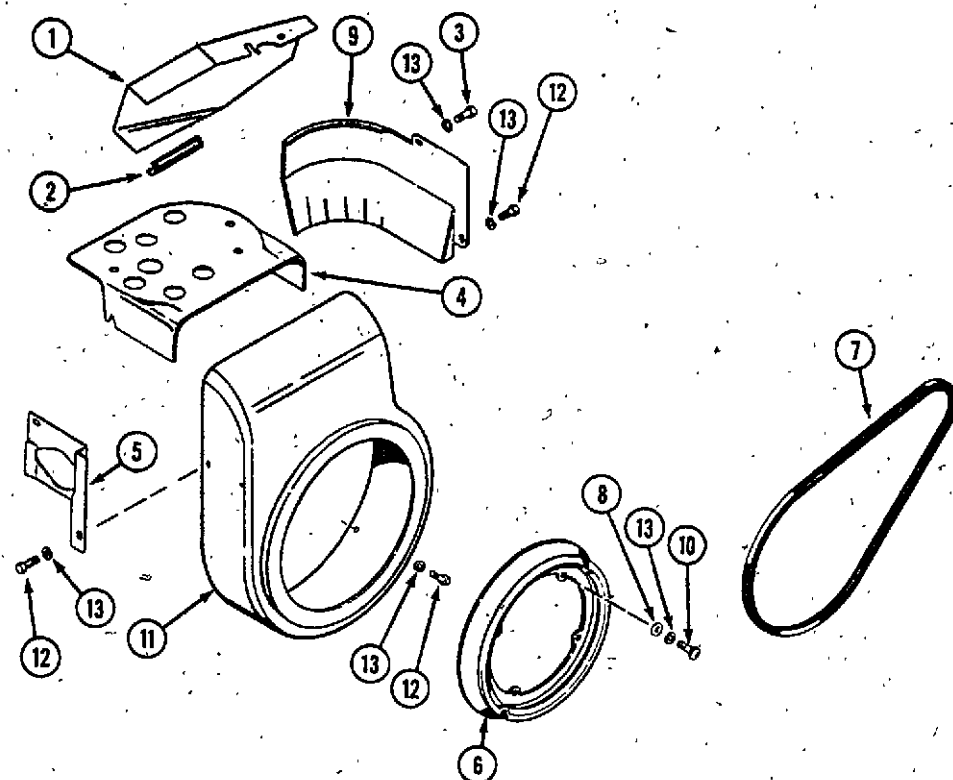
REF. PART NO.	DESCRIPTION	REQ'D
1 KOA236960	FILLER TUBE	1
2 KO 235175	BOLT - cylinder head special (Length 2-1/2")	9
3 KO 270889	WASHER - cylinder head bolt	10
4 KO 236792	HEAD - cylinder	1
5 KO 236705	GASKET - head	1
6 KO 237064	GASKET - filler tube	1
7 KOB237182	BLOCK ASSEMBLY - cylinder, short (Includes crankshaft, piston, rod assembly, camshaft, valves, bearings and plate)	1
8 KOA237033-A	BLOCK ASSEMBLY - cylinder, standard bore	1
9 KO 230170	INSERT - exhaust valve	1
10 KO 235007-S	GUIDE - valve	2
11 KO 230265	INSERT - intake valve	1
13 41- 18	PLUG - expansion	1
14 113- 207	BOLT - 3/8" x 1" NC hex plated	4
15 192- 21	LOCKWASHER - 3/8" plated	4
16 KO 235025	GASKET - camshaft cover	1
17 KO 235026	COVER - camshaft gear	1
18 192- 19	LOCKWASHER - 1/4" plated	4
19 113- 6	BOLT - 1/4" x 1/2" NC plated	4
20 KO 235353	GASKET - oil pan	1
21 173- 221	SCREW - #10 x 7/16" round head machine	3
22 193- 26	LOCKWASHER - #10 internal tooth	7
23 KO 235950	BASE - oil pan	1
26 C 14399	PLUG - oil drain	1
27 R 16287	OIL SEAL - crankshaft rear	1
28 40035	BEARING - crankshaft ball	2
29 KO 235757	GASKET - shim, bearing plate .312"	1
29 KO 235070	GASKET - shim, .010"	UAR
31 KO 235815	PLATE - bearing	1
32 192- 21	LOCKWASHER - 3/8" plated	4
33 113- 207	BOLT - 3/8" x 1" NC plated	4
34 C 18097	OIL SEAL - crankshaft front	1
35 KO 235818	FLYWHEEL	1
36 195- 545	WASHER - special, plated 21 32" ID x 1-3 8" OD x 1/4"	1
37 131- 309	NUT - special Marsden 5, 8"	1
38 C 14954	DIPSTICK ASSEMBLY	1
39 A 27365	"O" RING - dipstick	1
42 KO 235748	STRAP - lifting	1
43 C 14398	NIPPLE - oil drain extension	1
44 C 14906	GASKET - plug, oil drain	1

644 ENGINE BLOCK AND ATTACHING PARTS (CONTD.)



REF. PART NO.	DESCRIPTION	REQ'D
45 KO 237727	KIT - engine gasket and seal	1
46 C 18097	SEAL - crankshaft front oil	1
47 R 16287	SEAL - crankshaft rear oil	1
48 B 59393	GASKET - fuel strainer bowl	1
49 KO 220174	GASKET - breather cover	1
50 KO 235048	GASKET - breather	1
51 KO 275144	GASKET - valve cover	1
52 KO 235025	GASKET - camshaft gear cover	1
53 KO 235353	GASKET - oil pan	1
54 KO 235757	GASKET - shim, bearing plate, .010"	6
54 KO 235070	GASKET - shim, .010"	UAR
55 KO 237306	GASKET - cylinder head	1
56 A 72108	GASKET - fuel pump flange	1
57 A 72100	GASKET - carburetor flange	1
58 KO 231032	SEAL - breather	1
59 KO 275341	GASKET - carburetor air horn	1
60 KO 235057	GASKET - oil pan (Not used on this model)	1

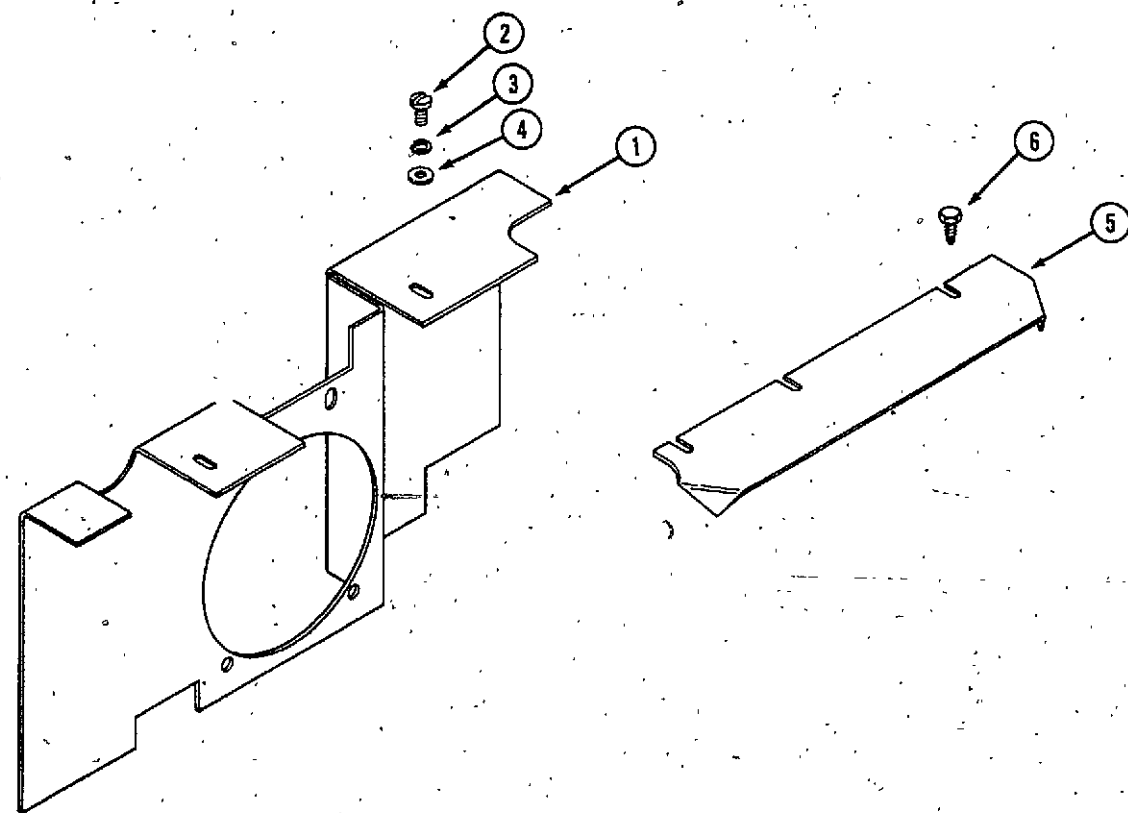
BAFFLES AND SHROUDS - 644



REF. PART NO.	DESCRIPTION	REQ'D
1 C 10492	DEFLECTOR - engine air	1
2 C 12603	CHANNEL - deflector	1
3 113- 6	BOLT - 1/4" x 1/2" NC hex	2
4 KO 235955	BAFFLE - cylinder head	1
5 KO 235368	BAFFLE - carburetor side air	1
6 KO 235207	PULLEY - engine starter	1
7 C 14345	BELT - engine, starter - generator	1
8 195- 515	WASHER - 1/4"	4
9 KO 235054	BAFFLE - cylinder	1
10 175- 436	SCREW - 1/4" x 5/8" NC truss hd. phillips	4
11 KO 235951	HOUSING - blower	1
13 192- 19	LOCKWASHER - 1/4"	10

BAFFLES AND SHROUDS - 646

1 C 18129	SHIELD - engine heat	1
2 182- 525	SCREW - #10 x 3/8" NF pan hd.	2
3 192- 18	LOCKWASHER #10	2
4 195- 513	WASHER - #10	2
5 C 18385	SHIELD - heat, engine top	1
6 187- 484	SCREW - #10 x 1/2" hex hed. self tap.	2

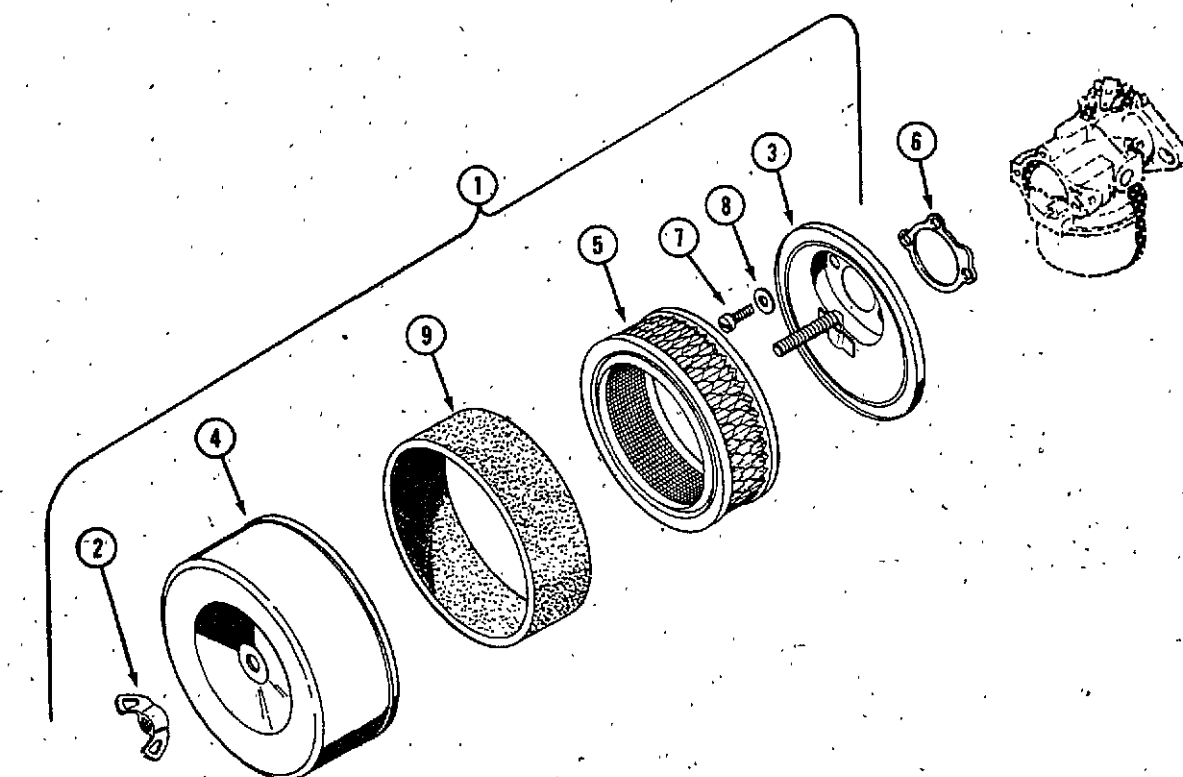


CHOKE, THROTTLE AND GOVERNOR

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 18311	CONTROL - throttle (644)	1
1	C 18213	CONTROL - throttle (646)	1
2	C 12224	HANDLE - throttle control, black	1
3	C 18312	CONTROL - choke (644)	1
3	C 18271	CONTROL - choke (646)	1
4	C 14506	HANDLE - choke control, white	1
5	111- 1	BOLT - 10-24 x 1/2" round head, square neck	2
6	192- 18	LOCKWASHER - #10 Std. plated	2
7	129- 17	NUT - #10-24 plated	2
8	KOA237653	LEVER - governor	1
9	15- 420	BOLT - 1/4" x 1-1/4" NC hex	2
10	195- 515	WASHER - 1/4" plated	2
11	25- 104	NUT - 1/4" hex	1
12	KO 235496	SPRING - governor	1
13	192- 19	LOCKWASHER - 1/4" plated	1
14	C 18098	WASHER - thrust	1
15	KO 275690	WASHER - wavy	1
16	KO 231052	CLAMP - swivel, wire	1
17	KO 235086	LEVER - speed control	1
18	KO 235085	SPACER - speed control bracket	1
19	KO 235084	BRACKET - high speed stop	1
20	129- 37	NUT - #10-32 hex	2
21	192- 18	LOCKWASHER - 3/16" plated	1
22	A 10326	JOINT - ball	1
23	KO 235277	ROD - throttle	1
24	KO 235278	RING - retaining, throttle rod	1
25	KO 235476	BUSHING - governor cross shaft	1
26	KOA235256-S	SHAFT ASSEMBLY - governor cross	1
27	C 18103	BEARING - needle governor shaft	1
28	KOA235743-S	GEAR ASSEMBLY - governor	1
29	KO 235125-S	SHAFT - governor stub	1
30	C 18099	WASHER - governor stop pin	1
31	KO 231355	PIN - governor stop	1
32	KO 235900	BRACKET - throttle cable	1
33	KO 235603	CLIP - bracket	2
34	KOA236919	BRACKET - choke cable	1
35	169- 95	SCREW - #10 x 3/8" NC fillister head	1

PTO CLUTCH AND LINKAGE

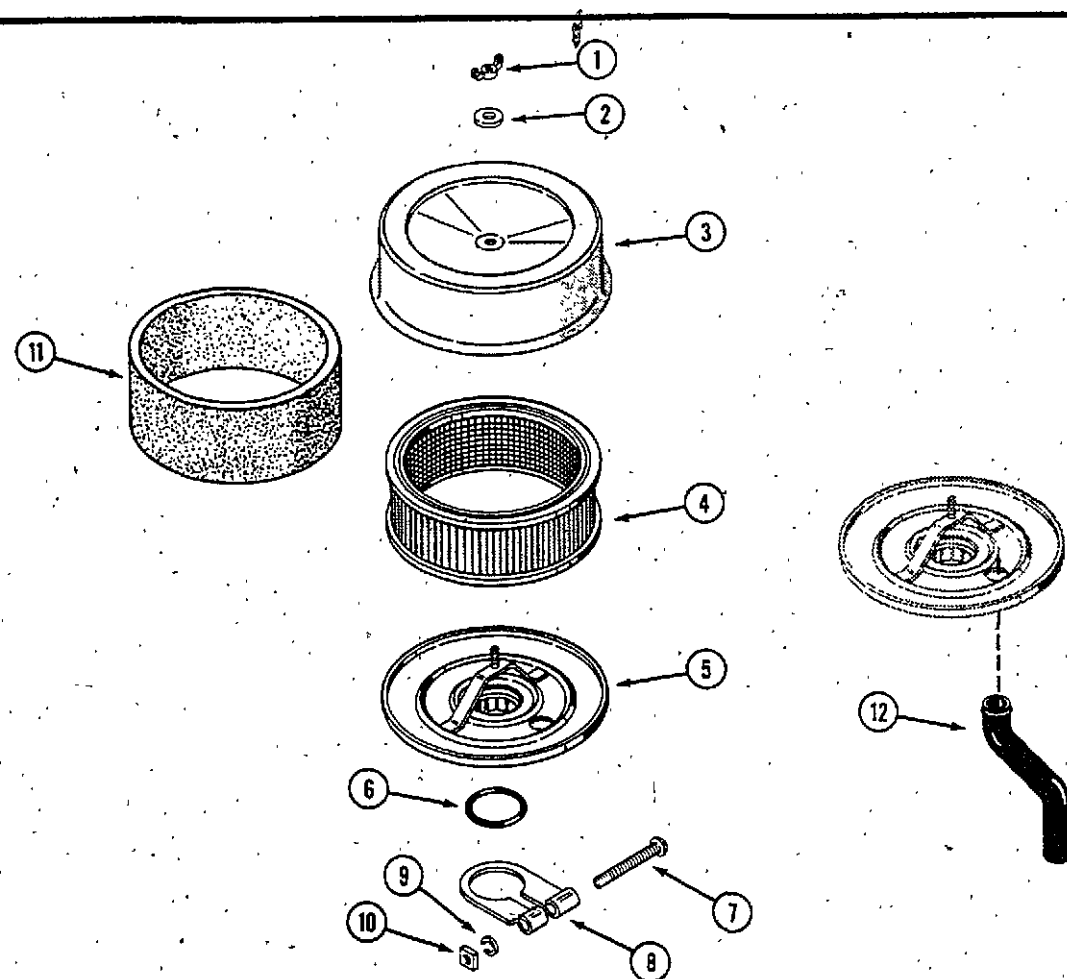
1	C 18254	CLUTCH ASSEMBLY - less screen, 644 (repairs page 25)	1
1	C 18255	CLUTCH ASSEMBLY - 646 (repairs page 25)	1
2	C 17679	HANDLE - clutch engaging	1
3	C 14728	GRIP - clutch handle	1
4	C 17681	ARM - clutch pivot	1
5	113- 113	BOLT - 5/16" x 7/8" NC hex	1
6	192- 20	LOCKWASHER - 5/16"	1
7	195- 521	WASHER - 5/16"	1
8	195- 525	WASHER - 3/8"	1
9	132- 48	PIN - cotter 1/8" x 1"	2
10	C 18279	ROD - clutch (644)	1
10	C 18280	ROD - clutch (646)	1
11	C 16682	GUIDE - clutch rod, 644	1
11	C 18825	GUIDE - clutch rod, 646	1
12	113- 207	BOLT - 3/8" x 1" N. C. hex	2
13	195- 525	WASHER - 3/8"	2
14	131- 178	NUT - lock 3/8" N.C. hex	2

**AIR CLEANER - 644**

REF. PART NO.	DESCRIPTION	REQ'D
1 KOA235100	AIR CLEANER ASSEMBLY	1
2 C 26703	NUT - wing 3/8" NC	1
3 NSS	BASE - air cleaner (order KOA235100)	1
4 NSS	COVER - air cleaner (order KOA235100)	1
5 A 70090	ELEMENT - air cleaner	1
6 KO 275341	GASKET - air horn	1
7 177- 94	SCREW - #10 x 5/16" NF fillister hd.	3
8 195- 512	WASHER - 3/16"	3
9 KO 237421	PRE-CLEANER (Optional)	1

AIR CLEANER - 646

1	129- 900	NUT - wing #10 NF	1
2	195- 512	WASHER - #10	1
3	C 18629	COVER - air cleaner	1
4	A 70090	ELEMENT - air cleaner	1
5	C 18628	BASE - air cleaner	1
6	A 28077	"O" RING - 1-7/16" ID	1
7	174- 222	SCREW - #10 x 2-1/4" NF rd. hd. mach.	1
8	C 19170	CLAMP - air cleaner	1
9	192- 17	LOCKWASHER - #10	1
10	129- 77	NUT - #10 NF square	1
11	KO 237421	PRE-CLEANER (Optional)	1
12	C 20261	HOSE - crankcase breather	1

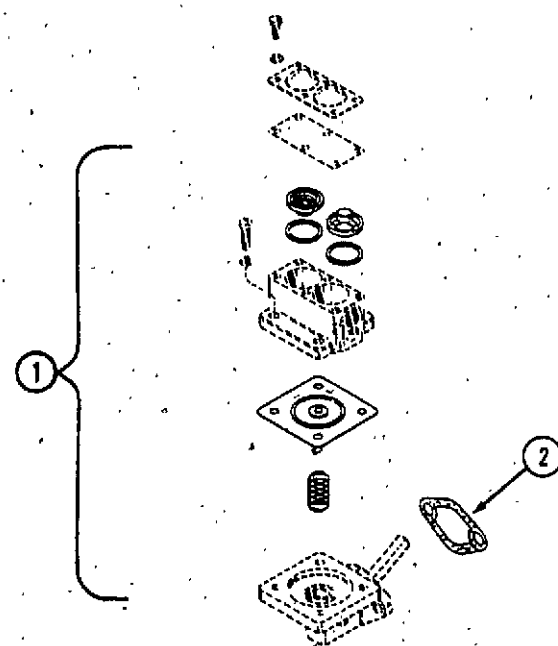
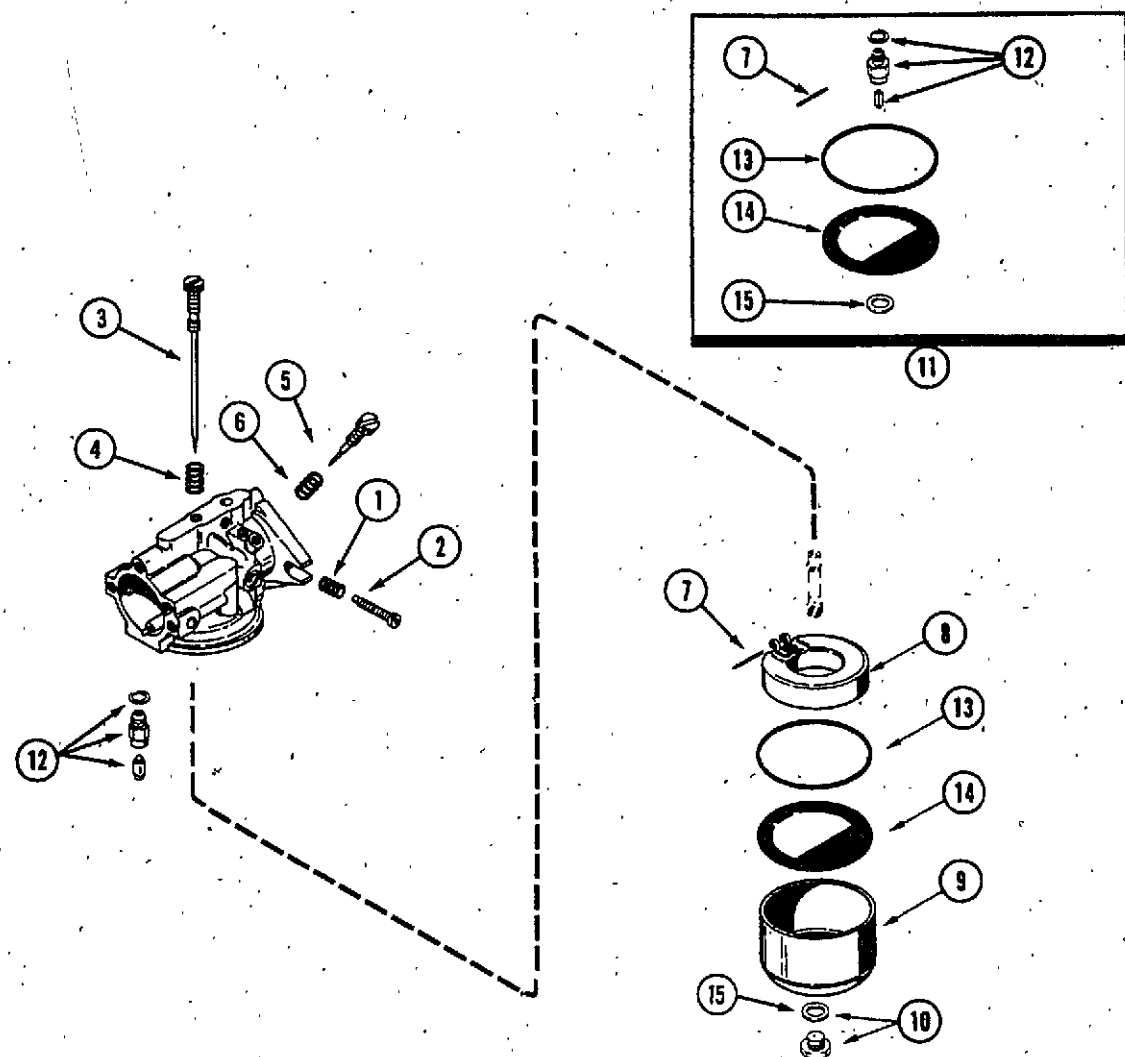


CARBURETOR - 644

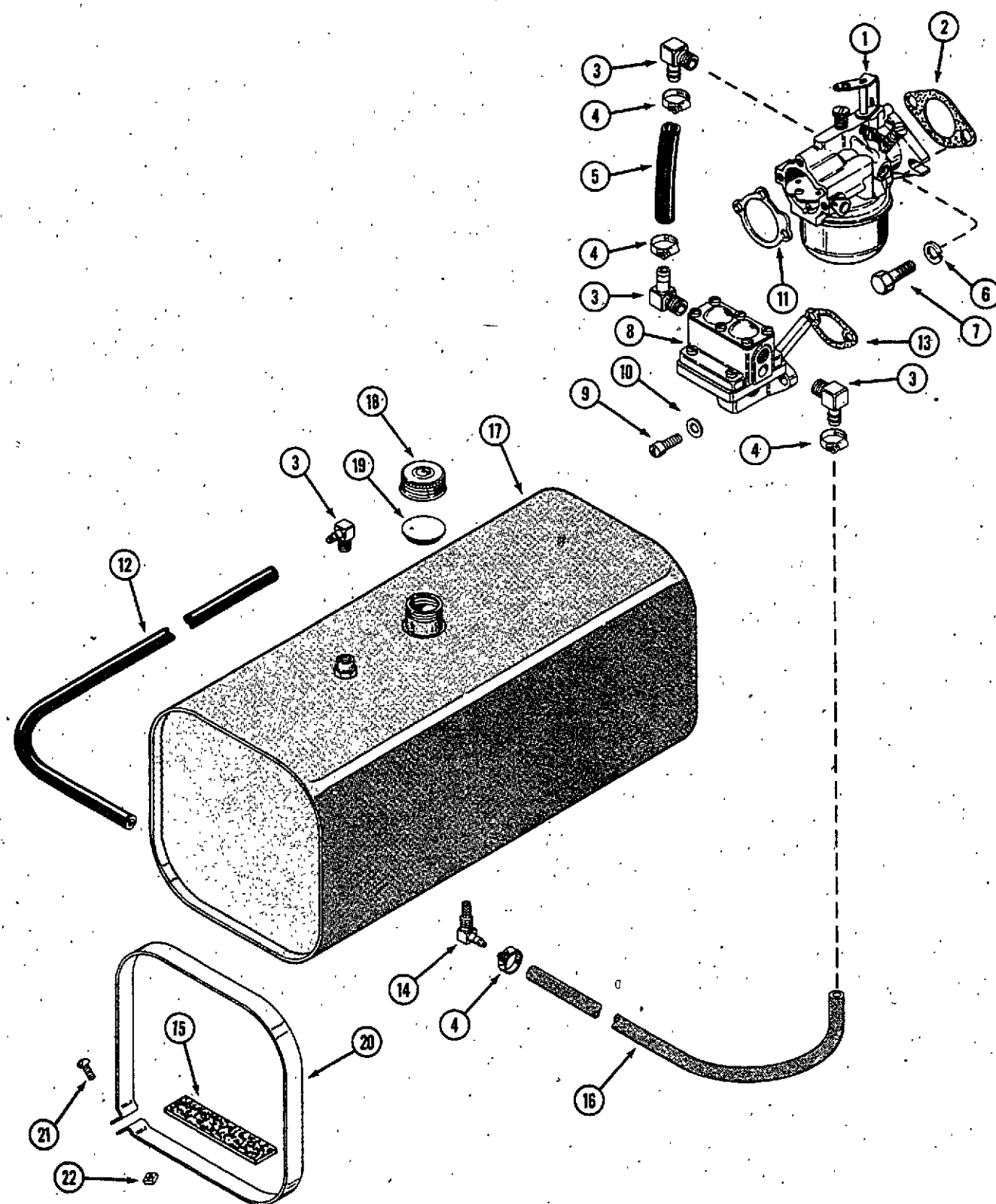
REF. PART NO.	DESCRIPTION	REQ'D
KOA237490	CARBURETOR ASSEMBLY - 644	1
1 KO 200380	SPRING - tension, idle adjust	1
2 A 72092	SCREW - idle adjust	1
3 KO 237489	NEEDLE - main fuel adjust	1
4 KO 200383	SPRING - fuel adjust	1
5 KO 275231	NEEDLE - idle adjust	1
6 KO 200380	SPRING - idle adjust	1
7 A 72079	PIN - float	1
8 A 72078	FLOAT - carburetor	1
9 A 72080	BOWL - carburetor	1
10 A 72084	SCREW AND GASKET ASSEM. - carburetor bowl	1
11 A 72103	KIT - carburetor repair	1
12 NSS	INLET NEEDLE AND SEAT ASSEMBLY	1
13 NSS	GASKET - bowl ring	1
14 NSS	GASKET - bowl baffle	1
15 A 72083	GASKET - bowl screw	1

FUEL PUMP - 644

1	KO 236387	KIT - fuel pump (for KOA236205)	1
	NSS	VALVE ASSEMBLY	2
	NSS	GASKET - valve	2
	NSS	DIAPHRAGM ASSEMBLY	1
	NSS	SPRING - diaphragm	1
	NSS	GASKET - valve	1
2	A 72108	GASKET - fuel pump mtg.	1

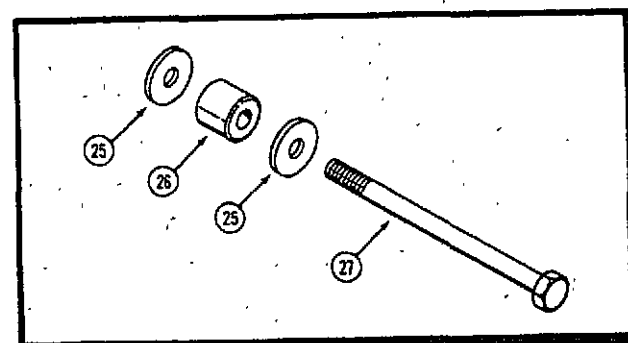
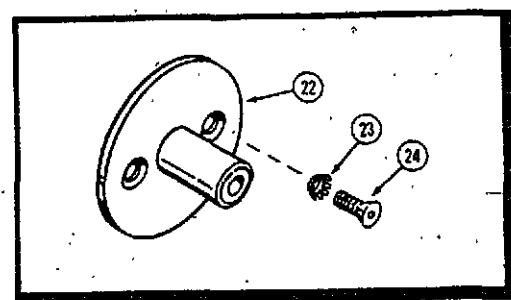
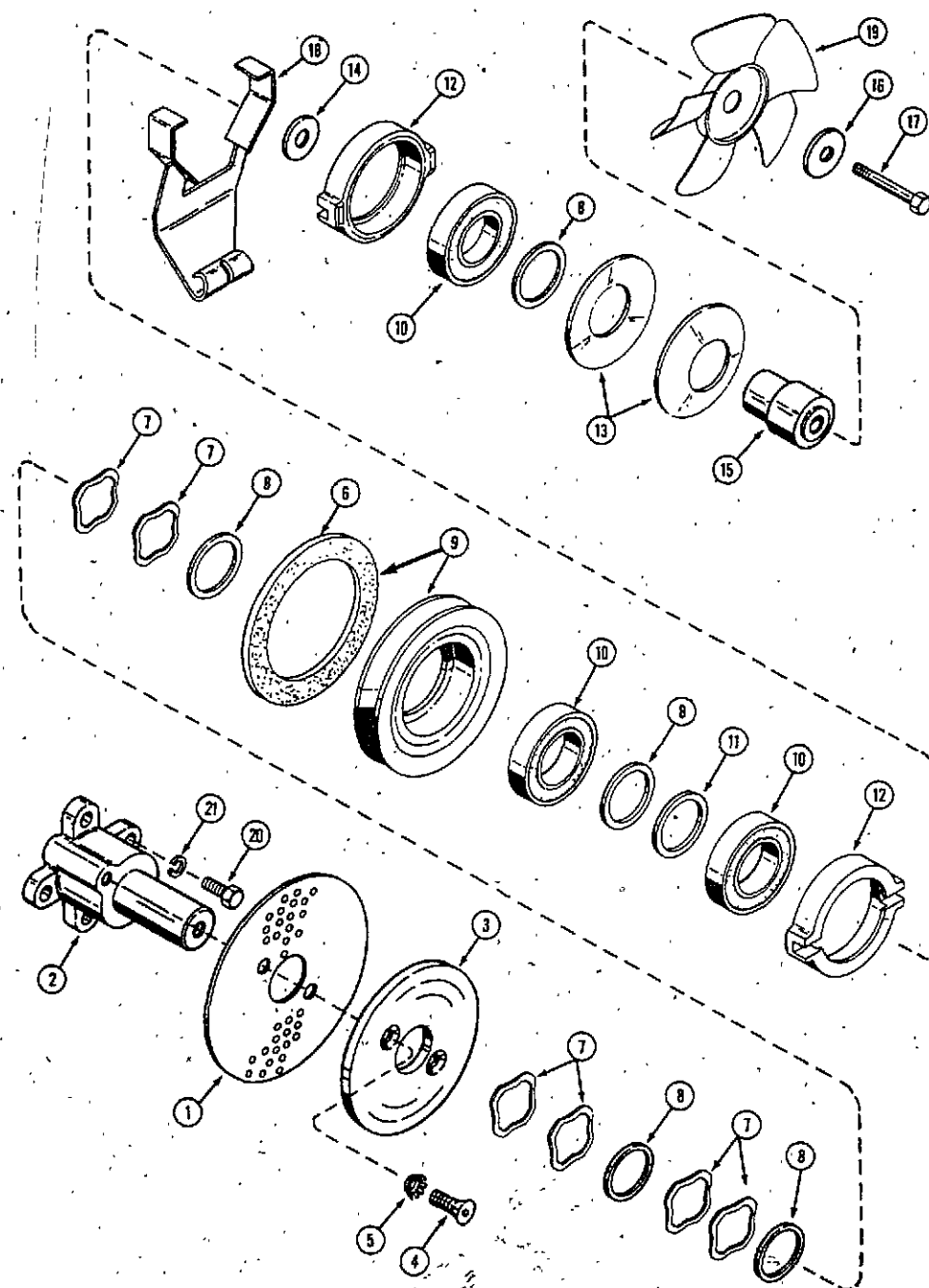


FUEL SYSTEM



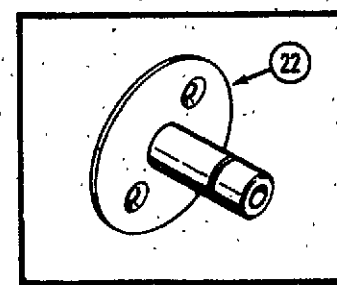
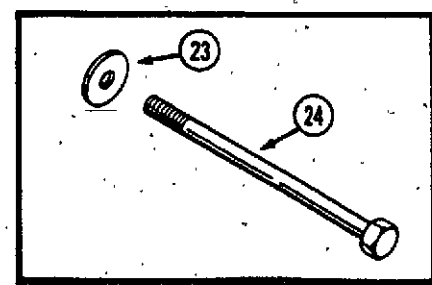
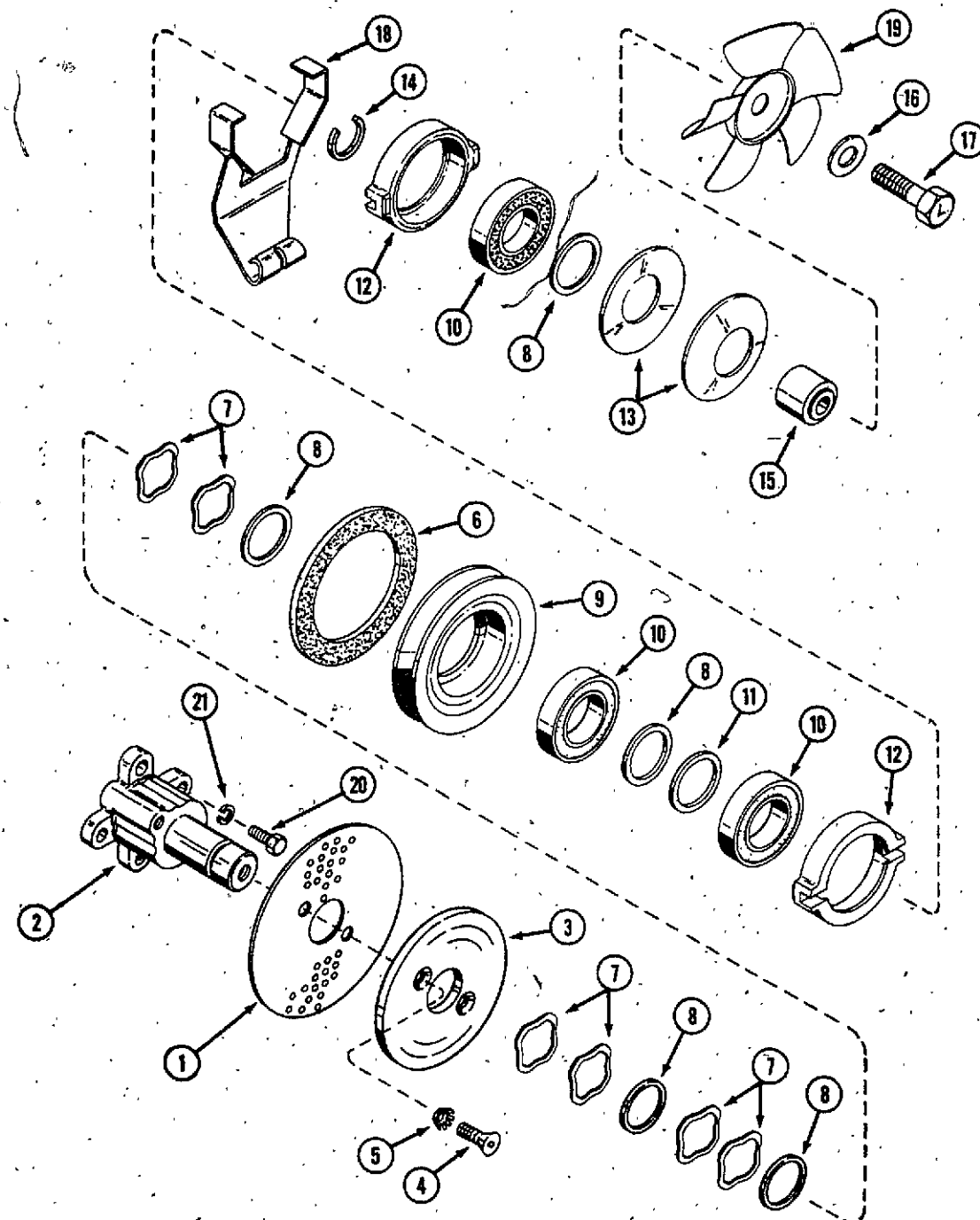
REF. PART NO.	DESCRIPTION	REQ'D
1 KOA237490	CARBURETOR ASSEMBLY (Repairs page 21)	1
2 A 72100	GASKET - carburetor flange	1
3 C 10678	ELBOW - fuel pump and carburetor	4
4 214- 251	CLAMP - hose	4
5 C 15007	HOSE - carburetor 5-1/4"	1
6 192- 20	LOCKWASHER 5/16"	2
7 113- 103	BOLT - 5/16" x 1" NC hex	2
8 KOA236205	PUMP - fuel, 644 (Repairs page 21)	1
9 71- 410	SCREW - 1/4" x 5/8" NC fillister head	2
10 193- 60	LOCKWASHER - 1/4"	2
11 KO 275341	GASKET - air horn	1
12 C 18274	HOSE - fuel line, return 77"	1
13 A 72108	GASKET - fuel pump mounting, all models	1
14 C 10657	ELBOW ASSEMBLY - fuel tank	1
15 C 14690	CUSHION - fuel tank	2
16 C 18275	HOSE - fuel line 52" (644)	1
16 C 18273	HOSE - fuel line 54" (646)	1
17 C 18133	TANK - fuel	1
18 C 11529	CAP - fuel tank (Includes insert)	1
19 C 11545	INSERT - fuel cap	1
20 C 18190	STRAP - fuel tank mounting	2
21 173- 215	SCREW - 1/4 x 1/2" NC round head, machine, zinc plated	2
22 129- 504	NUT - square 1/4" NC	2

CLUTCH ASSEMBLY (PTO)



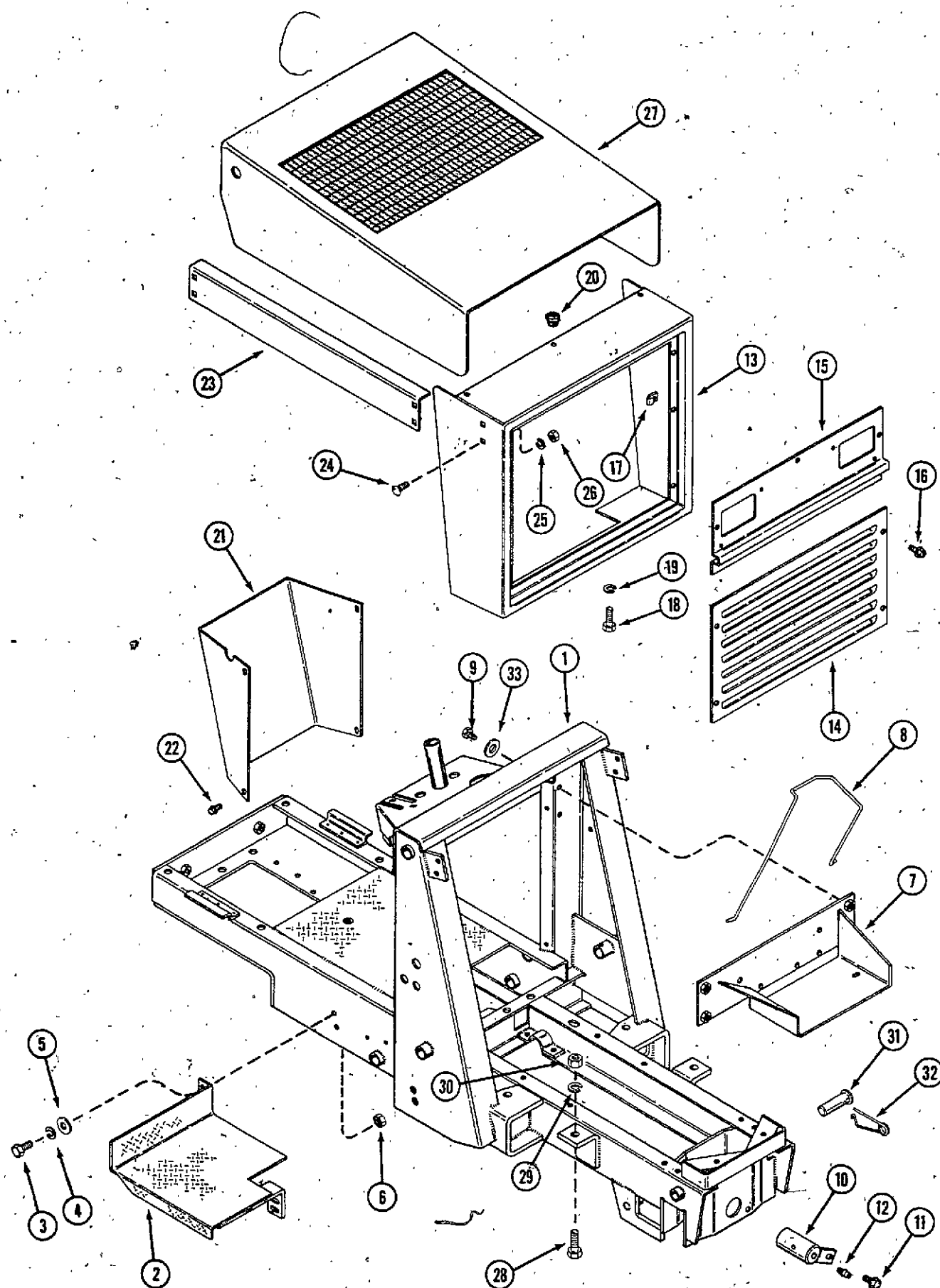
REF.	PART NO.	DESCRIPTION	REQ'D
	NSS	CLUTCH ASSEMBLY - less screen (644) (order C 19276)	1
	NSS	CLUTCH ASSEMBLY - (646) (order C 19197)	1
1	C 15721	SCREEN - grass (644)	1
2	C 18245	HUB - clutch (644)	1
3	C 15718	PLATE - clutch (644)	1
4	164- 40	SCREW - 5/16" x 3/4" NC flat head socket (644)	2
5	193- 76	LOCKWASHER - 5/16" counter sunk ext. tooth (644)	2
6	C 14291	DISC - friction	1
7	C 15515	WASHER - spring	6
8	C 15557	WASHER - spacer .050	UAR
9	C 22671	PULLEY AND DISC ASSEMBLY	1
10	C 23245	BEARING - cam and pulley	3
11	C 15556	WASHER - spacer .010	UAR
12	NSS	CAM - clutch (service with (2)C23033 cams and (1)C23512 arm)	2
13	C 16786	SPRING - clutch	2
14	C 18243	WASHER - spacer	1
15	C 18244	SPACER - hub	1
16	O 2815N	WASHER - 17/32" (644)	1
17	C 18242	BOLT - 1/2" x 3 - 1/8" NC hex, L.H. thread (644)	1
18	C 23512	ARM - engaging	1
19	C 16616	FAN - cooling (644)	1
20	113- 207	BOLT - 3/8" x 1" NC hex (644)	4
21	192- 21	LOCKWASHER - 3/8" (644)	4
22	C 19876	PLATE - clutch (646)	1
23	193- 56	LOCKWASHER - 3/8" counter sunk, ext. tooth (646)	2
24	164- 51	SCREW - 3/8" x 1" NC flat head socket (646)	2
25	C 18263	WASHER - spacer (646)	2
26	C 17618	SPACER - hub (646)	1
27	C 18291	BOLT - 7/16" x 7-1/8" NC hex (646)	1
	C 19472	KIT - stub shaft, 644	1
	C 19876	KIT - stub shaft, 646	1

CLUTCH ASSEMBLY (PTO)



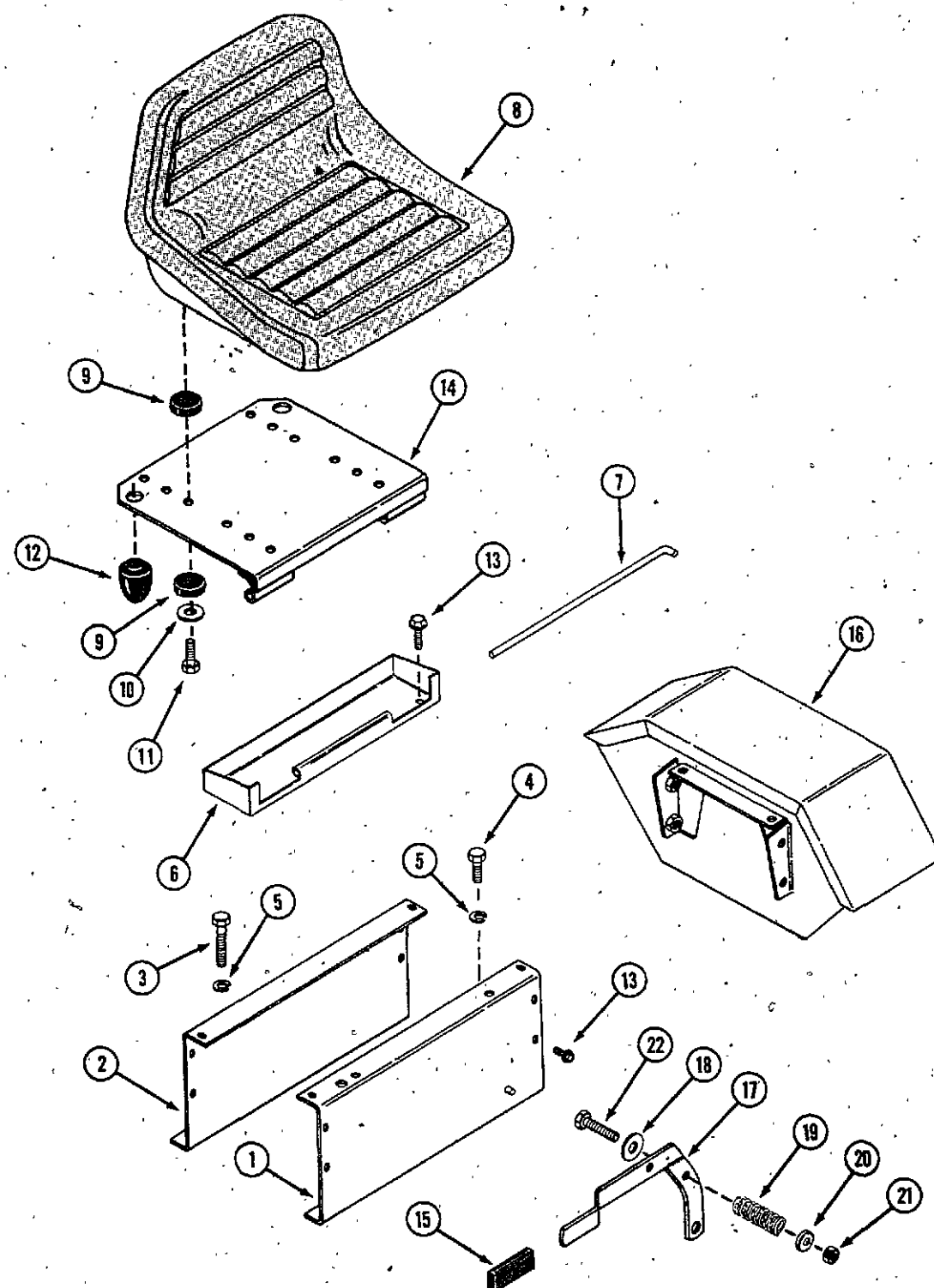
REF.	PART NO.	DESCRIPTION	REQ'D
	C 19276	CLUTCH ASSEMBLY - less screen (644)	1
	C 19197	CLUTCH ASSEMBLY - (646)	1
1	C 15721	SCREEN - grass (644)	1
2	C 18907	HUB - clutch (644)	1
3	C 15718	PLATE - clutch (644)	1
4	164- 40	SCREW - 5/16" x 3/4" NC flat head socket (644)	2
4	164- 50	SCREW - 3/8" x 3/4" NC flat head socket (646)	2
5	193- 76	LOCKWASHER - 5/16" counter sunk ext. tooth (644)	2
5	193- 56	LOCKWASHER - 3/8" counter sunk, ext. tooth (646)	2
6	C 14291	DISC - friction	1
7	C 15515	WASHER - spring	6
8	C 15557	WASHER - spacer .050	UAR
9	C 22671	PULLEY AND DISC ASSEMBLY - clutch	1
10	C 23245	BEARING - cam and pulley	3
11	C 21596	WASHER - shim .005"	UAR
11	C 15556	WASHER - spacer .010"	UAR
12	NSS	CAM - clutch (service with (2)C23033 cams and (1)C23512 arm)	2
13	C 16786	SPRING - clutch	2
14	F 59014	RING - retaining	1
15	C 18908	SPACER - hub (644)	1
16	O 2815N	WASHER - 17/32" (644)	1
17	C 18940	BOLT - 1/2" x 1-3/4" NC hex L.H. thread (644)	1
18	C 23512	ARM - engaging	1
19	C 16616	FAN - cooling (644)	1
20	113- 207	BOLT - 3/8" x 1" NC hex (644)	4
21	192- 21	LOCKWASHER - 3/8" (644)	4
22	C 19196	PLATE - clutch (646)	1
23	C 18263	WASHER - spacer (646)	2
24	C 18291	BOLT - 7/16" x 7-1/4" NC hex (646)	1

HOOD, FRAME AND GRILLE



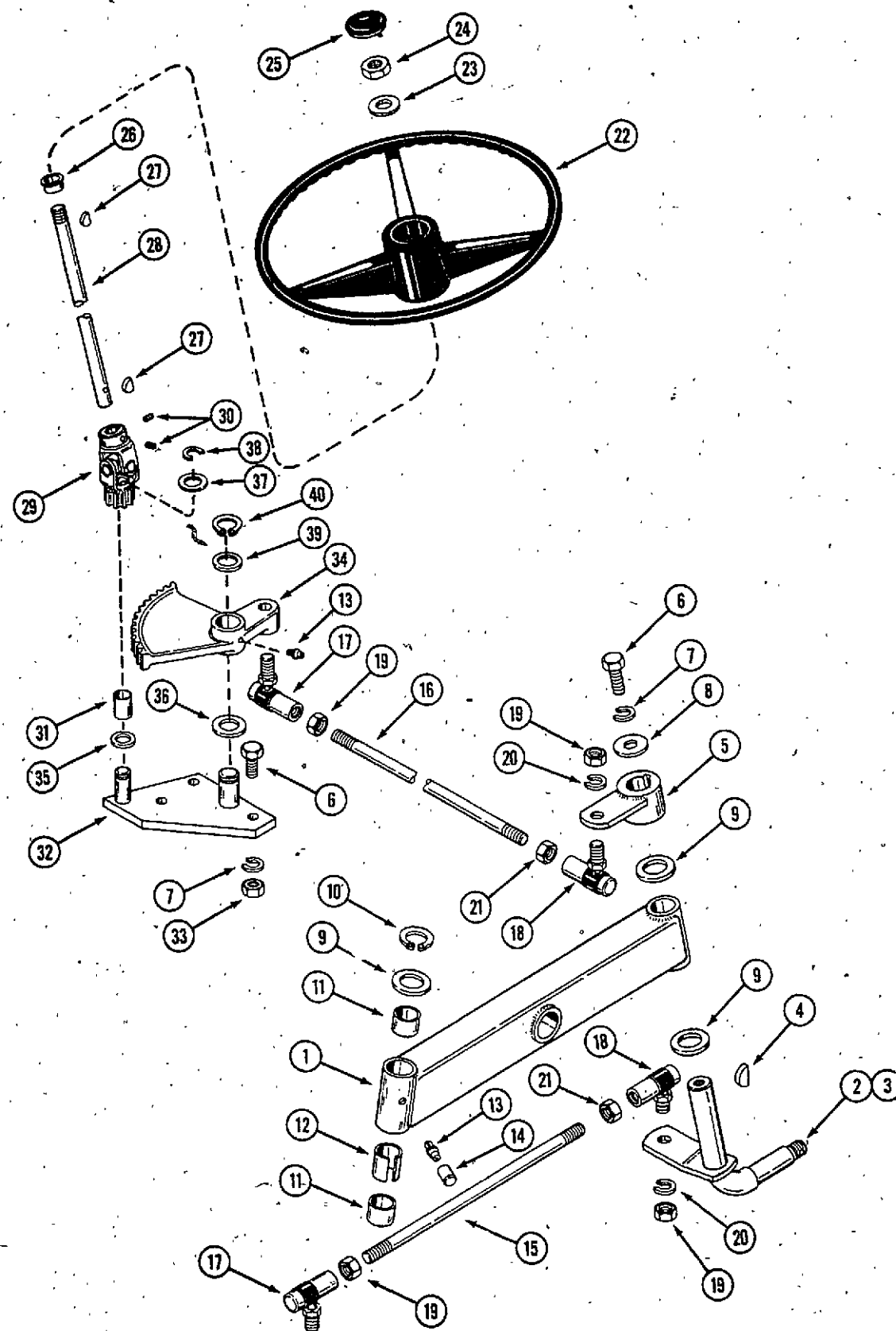
REF.	PART NO.	DESCRIPTION	REQ'D
1	C 17534	FRAME - main (644)	1
1	C 17533	FRAME - main (646)	1
2	C 17563	PAD - foot, L.H.	1
2	C 18024	PAD - foot, R.H.	1
3	113- 207	BOLT - 3/8" x 1" NC hex	8
4	192- 21	LOCKWASHER - 3/8"	8
5	195- 104	WASHER - 3/8"	4
6	129- 103	NUT - 3/8" NC hex	4
7	C 17598	TRAY - battery	1
8	C 16239	STRAP - battery hold down	1
9	113- 102	BOLT 5/16" x 3/4" NC hex	4
10	C 19018	PIN - axle pivot	1
11	187- 1046	BOLT - 3/8" NC indented hex head	1
12	219- 17	FITTING - lube	1
13	C 17657	GRILLE - frame	1
14	C 18201	GRILLE - insert	1
15	C 17656	PANEL - head light	1
16	187- 1080	BOLT - 1/4" x 1/2" NC hex slotted, black	7
17	C 17653	NUT - 1/4" tinnerman	7
18	113- 206	BOLT - 3/8" x 3/4" NC hex	2
19	192- 21	LOCKWASHER - 3/8"	2
20	C 18193	BUMPER - rubber, HOOD	3
21	C 17647	PANEL - dash	1
22	187- 1036	BOLT - 1/4" x 1/2" NC hex self tap.	4
23	C 17662	SUPPORT - grille	2
24	111- 340	BOLT - 3/8" x 3/4" NC round head, square neck	8
25	192- 21	LOCKWASHER - 3/8"	8
26	129- 103	NUT - 3/8" NC hex	8
27	C 18003	HOOD - 644	1
27	C 18586	HOOD - (646)	1
28	113- 412	BOLT - 1/2" x 1-3/4" NC hex (engine mounting)	3
28	113- 410	BOLT - 1/2" x 1-1/2" NC hex (left front engine mounting)	1
29	192- 23	LOCKWASHER - 1/2"	3
30	129- 105	NUT - 1/2" NC hex	3
30	131- 165	NUT - lock 1/2" NC hex jam (left front engine mount)	1
31	C 18055	PIN - latch	2
32	C 10898	PIN - safety	2
33	195- 521	WASHER - 5/16"	4

SEAT, FENDERS AND TOOL TRAY



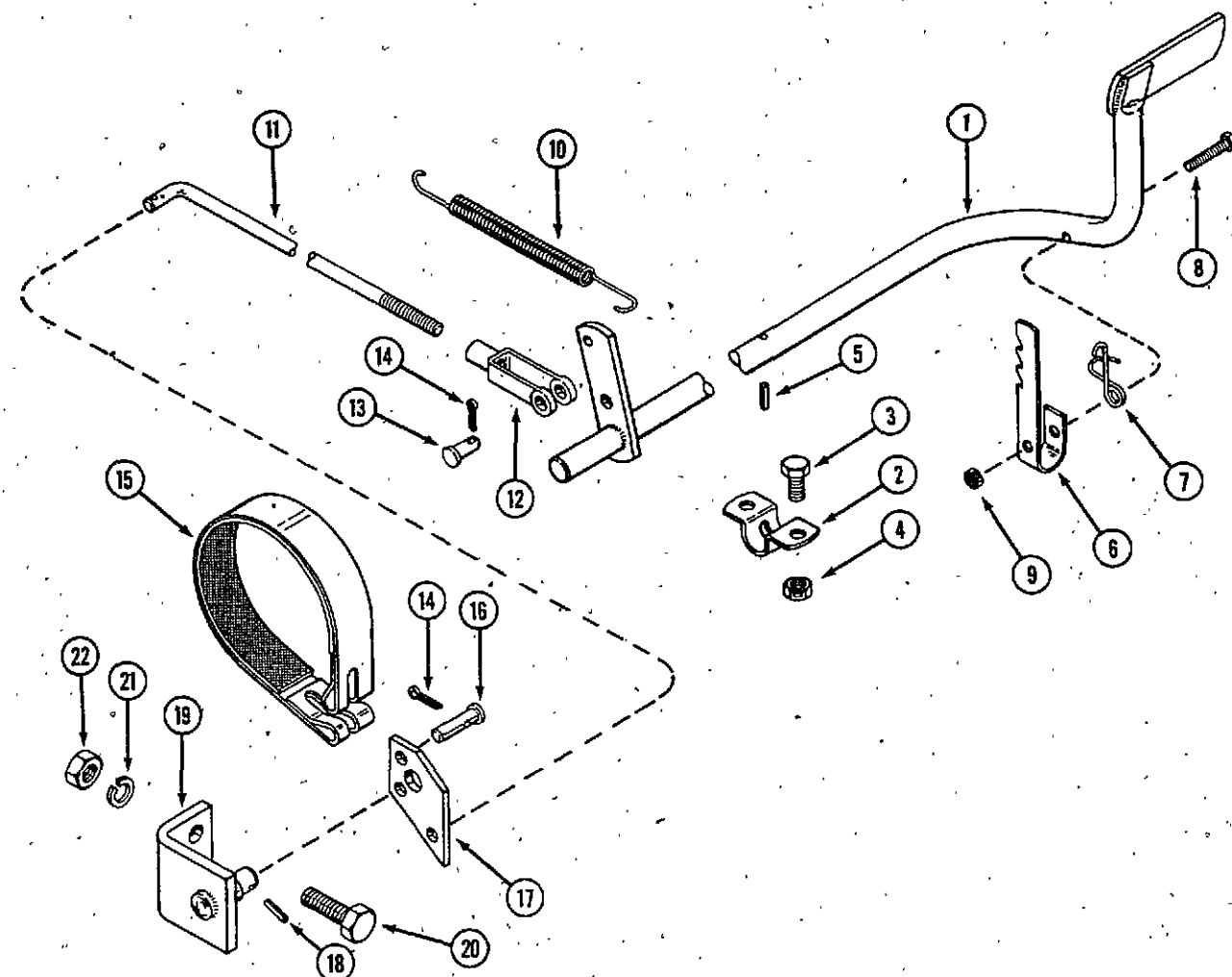
REF.	PART NO.	DESCRIPTION	REQ'D
1	C 17488	SUPPORT - seat, front	1
2	C 17485	SUPPORT - seat, rear	1
3	113- 424	BOLT - 1/2" x 1" NC hex	2
4	113- 433	BOLT - 1/2" x 3/4" NC hex	2
5	192- 23	LOCKWASHER - 1/2"	4
6	C 16430	TRAY - tool	1
7	C 16429	PIN - seat hinge	1
8	C 18217	SEAT	1
9	C 15410	CUSHION - rubber	8
10	195- 2021	WASHER - 5/16" x 1-1/4" O.D.	4
11	26- 524	BOLT - 5/16" x 1-1/2" NC hex	4
12	C 14534	BUMPER - seat	2
13	121- 106	BOLT - 5/16" x 1/2" NC hex flange	14
14	C 17152	HINGE - seat	1
15	C 14728	GRIP - shift lever	1
16	C 17456	FENDER - L.H.	1
16	C 17457	FENDER - R.H.	1
17	C 17491	LEVER - shift	1
18	195- 2029	WASHER - 7/16" x 1-1/4"	1
19	C 17216	SPRING - shift lever	1
20	C 17066	WASHER - cupped	1
21	131- 178	NUT - lock 3/8" NC hex	1
22	113- 257	BOLT - 3/8" x 2-1/2" NC hex	1

FRONT AXLE AND STEERING GEAR



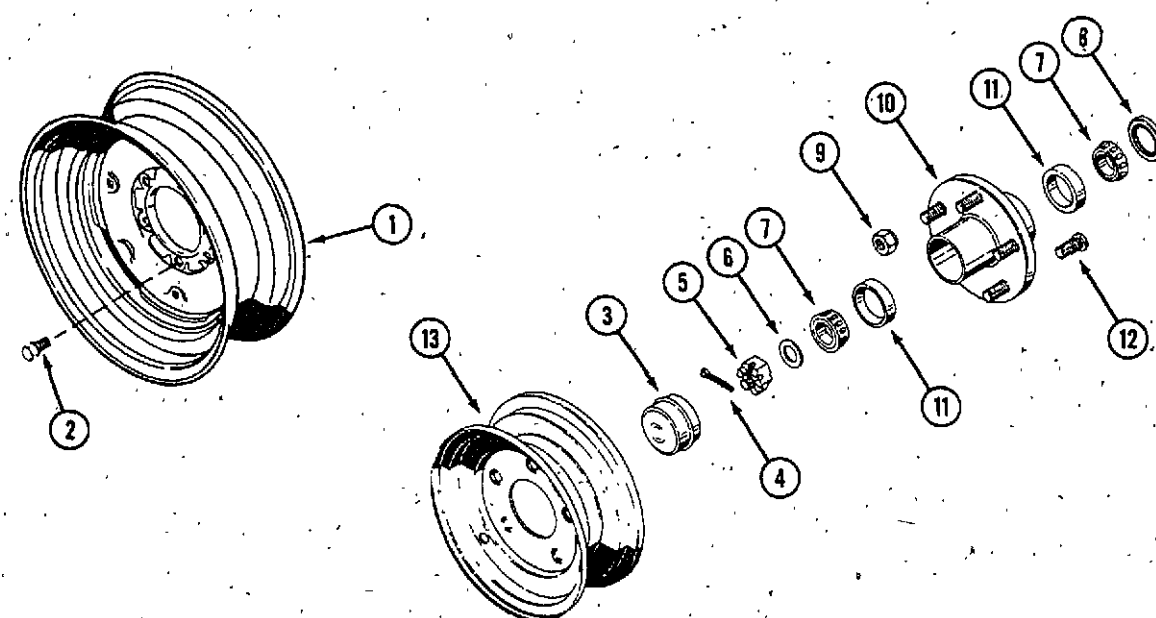
REF.	PART NO.	DESCRIPTION	REQ'D
1	C 17296	AXLE - front	1
2	C 17399	SPINDLE - L.H.	1
3	C 17398	SPINDLE - R.H.	1
4	126- 32	KEY - 1/4" x 1-1/4" woodruff	1
5	C 17407	ARM - upper spindle	1
6	113- 417	BOLT - 1/2" x 1-3/4" NC hex	4
7	192- 23	LOCKWASHER - 1/2"	4
8	195- 536	WASHER - 9/16"	1
9	C 17684	WASHER - thrust	4
10	A 59939	RING - retaining	1
11	C 12888	BUSHING - spindle	4
12	C 18248	SPACER - bearing	2
13	219- 17	FITTING - lube	4
14	C 13106	COVER - lube fitting	4
15	C 17401	TIE ROD	1
16	C 17402	ROD - drag link	1
17	C 17404	BALL JOINT - R.H. thread	2
18	C 11501	BALL JOINT - L.H. thread	2
19	129- 127	NUT - 5/8" NF hex	6
20	192- 25	LOCKWASHER - 5/8"	4
21	129- 327	NUT - 5/8" NF hex L.H. thread	2
22	C 18014	WHEEL - steering	1
23	C 12975	WASHER - 5/8"	1
24	131- 356	NUT - lock 5/8" NC hex	1
25	C 18016	CAP - steering wheel	1
26	C 15096	BUSHING - flanged nylon	1
27	126- 16	KEY - woodruff #9	2
28	C 17572	SHAFT - steering	1
29	C 17703	JOINT - universal	1
30	178- 860	SETSCREW - 1/4" x 3/8"	2
31	C 17255	BEARING - oilite	1
32	C 17570	PLATE - steering	1
33	129- 105	NUT - 1/2" NC hex	3
34	C 17252	GEAR - steering	1
35	C 17256	BEARING - thrust, universal	1
36	C 17257	BEARING - thrust	1
37	C 17550	WASHER - 3/4", universal	1
38	O 5904-AB	RING - retaining, universal	1
39	195- 2115	WASHER - 1/2"	1
40	A 34428	RING - retaining	1

BRAKE ASSEMBLY



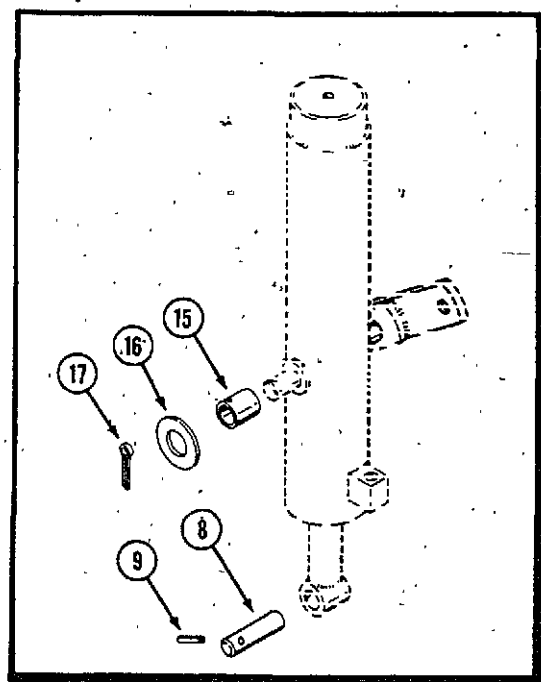
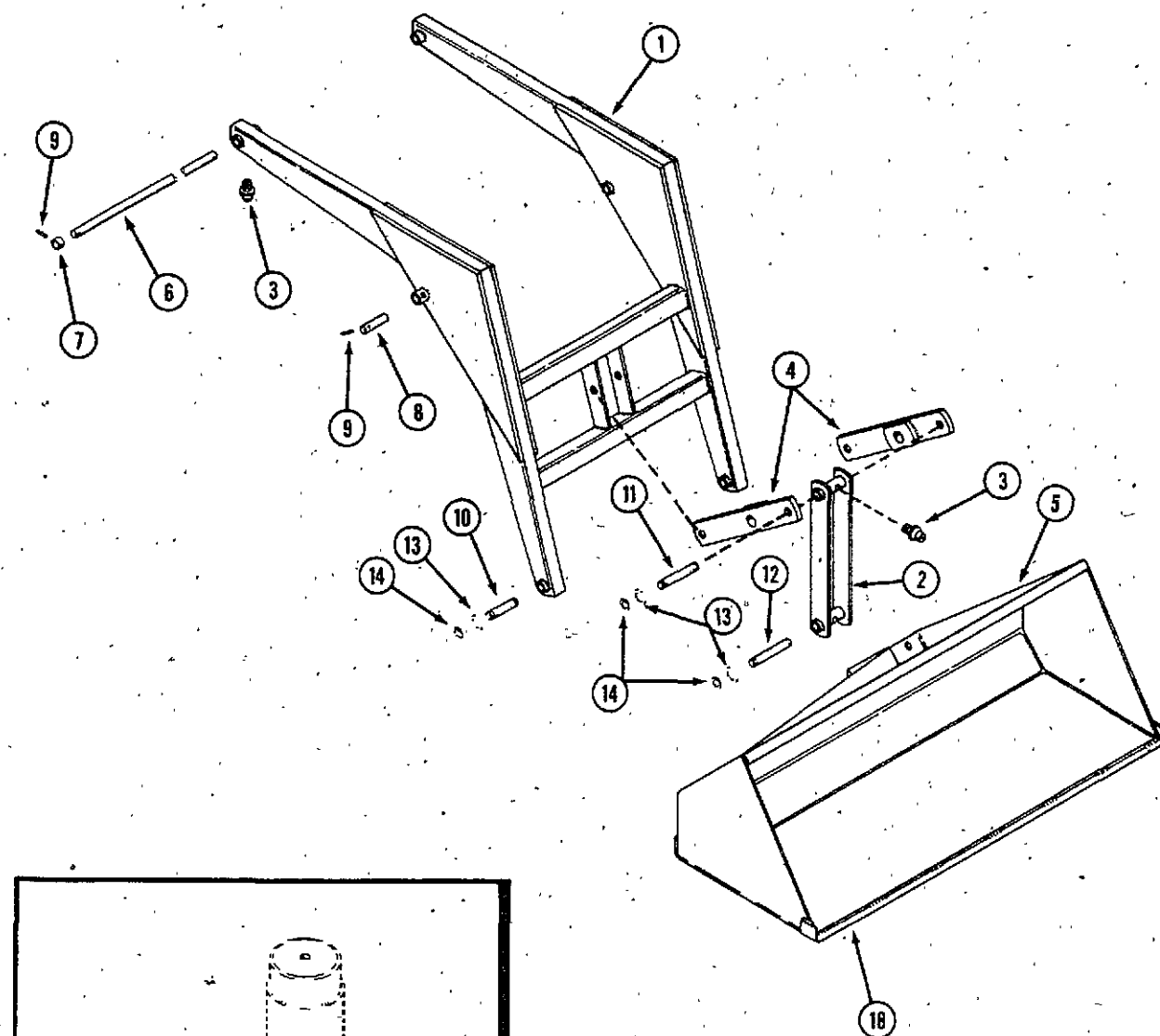
REF. PART NO.	DESCRIPTION	REQ'D
1 C 18026	PEDAL - brake	1
2 C 18029	BRACKET - saddle	2
3 113- 206	BOLT - 3/8" x 3/4" NC hex	4
4 131- 178	NUT - lock 3/8" NC hex	4
5 138- 92	PIN - roll 3/16" x 3/4"	1
6 C 18105	LOCK - brake	1
7 C 17541	SPRING - brake lock	1
8 113- 5	BOLT - 1/4" x 1-1/2" NC hex	1
9 131- 1102	NUT - 1/4" NC hex	1
10 C 18278	SPRING - brake return	1
11 C 14946	ROD - brake	1
12 213- 4	CLEVIS	1
13 141- 4	PIN - clevis	1
14 132- 310	PIN - cotter 1/8" x 1"	3
15 C 14187	BAND - brake	1
16 C 13526	PIN - clevis	2
17 C 18305	ARM - actuator	1
18 138- 77	PIN - roll 5/32" x 1"	1
19 C 18306	BRACKET - pivot	1
20 113- 412	BOLT - 1/2" x 1-3/4" NC hex	2
21 192- 23	LOCKWASHER - 1/2"	2
22 129- 105	NUT - 1/2" NC hex	2

FRONT AND REAR WHEELS



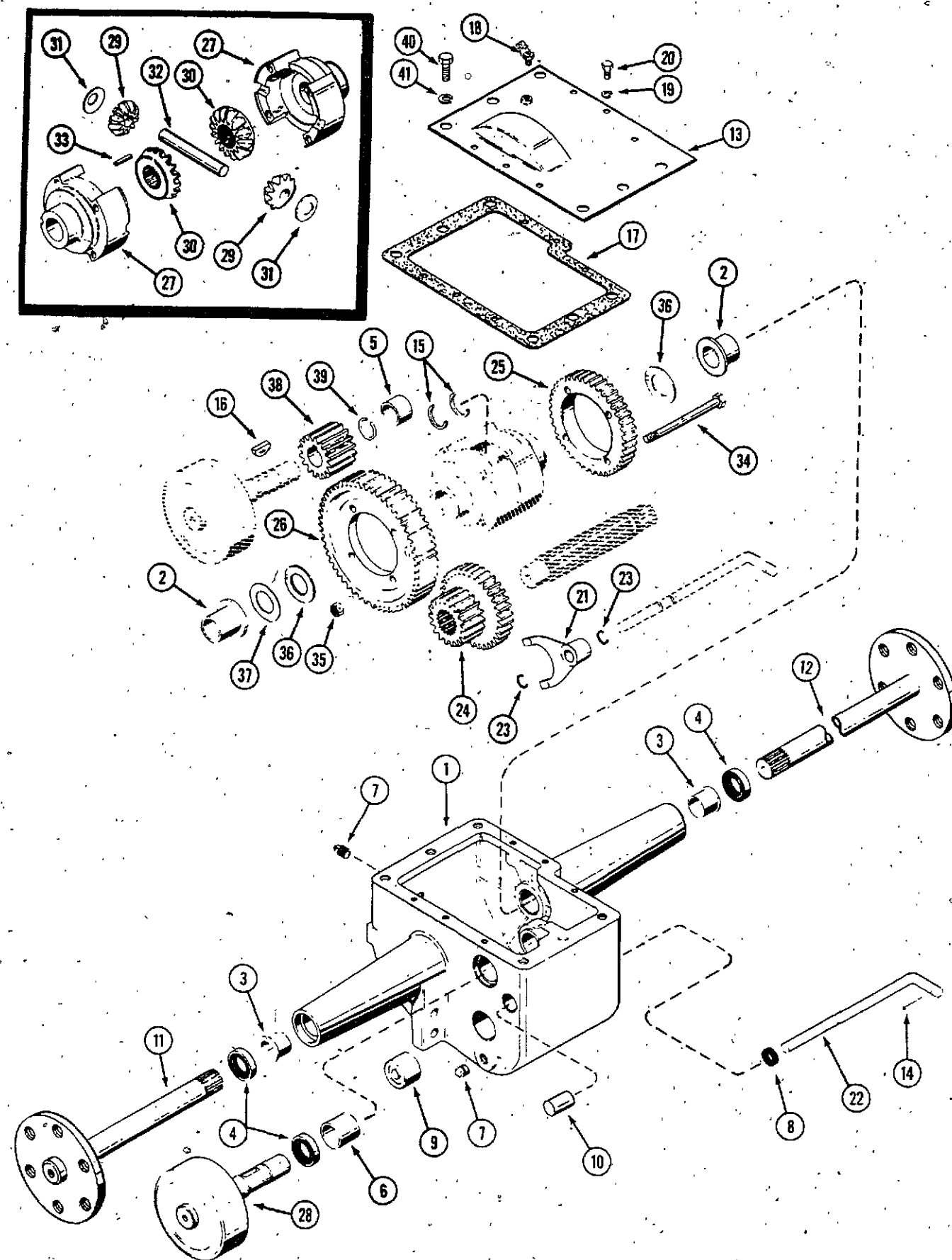
1 C 10316	WHEEL - rear	2
2 A 30064	BOLT - rear wheel	12
3 C 18299	CAP - dust	2
4 132- 49	PIN - cotter 1/8" x 1-1/8"	2
5 25- 1312	NUT - castle 3/4" NC hex	2
6 C 10822	WASHER - retaining	2
7 D 29266	CONE - bearing	4
8 T 27809	SEAL - bearing	2
9 C 18301	NUT - stud, wheel front	10
10 C 19163	HUB Assembly, includes cup and studs	2
11 D 29267	CUP - bearing	2
12 C 18300	STUD - wheel	5
13 C 13168	WHEEL - front	2

BUCKET AND ARM ASSEMBLY



REF. PART NO.	DESCRIPTION	REQ'D
1 C 17311	ARM ASSEMBLY - bucket lift	1
2 C 17322	ARM - bucket	1
3 219- 20	FITTING - lube	4
4 C 18249	LINK - bucket cylinder	2
5 C 17328	BUCKET ASSEMBLY - loader	1
6 C 17337	ROD - arm assembly mounting	1
7 C 17987	COLLAR	2
8 C 17338	PIN - cylinder mounting	2
9 138- 2005	PIN - spiral 1/4" x 1"	5
10 C 17334	PIN - bucket mounting, 3-5/16" L.	2
11 C 17335	PIN - 4-15/16"	2
12 C 17336	PIN - 4-3/4"	1
13 195- 549	WASHER - 13/16"	10
14 A 33531	RING - retaining	10
15 C 18145	BUSHING - oilite	2
16 195- 533	WASHER - 1-1/16"	2
17 132- 71	PIN - cotter 5/32" x 1-3/8"	2
18 C 12824	EDGE - cutting	1

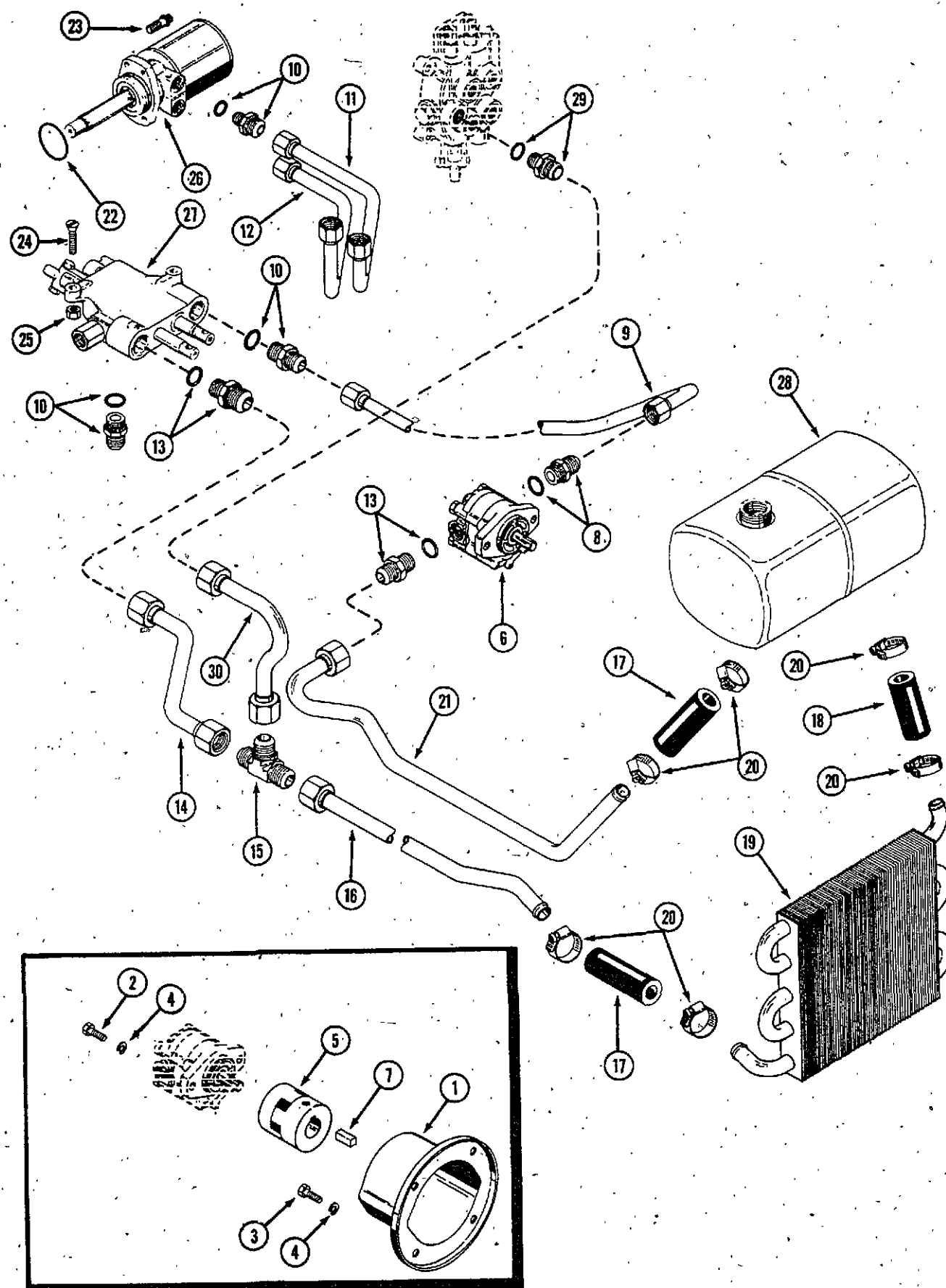
TRANSMISSION AND FINAL DRIVE



REF. PART NO.	DESCRIPTION	REQ'D
1 C 13770	CASE - transmission	1
2 C 12713	BEARING - flanged	2
3 C 16744	BEARING - flanged	2
4 D 31945	SEAL - axle	3
5 C 13241	BEARING - sleeve	1
6 C 13385	BEARING - sleeve	1
7 221- 4	PLUG - filler and drain 1/2"	2
8 C 13266	SEAL - shift rod	1
9 C 13211	BEARING - roller	1
10 C 12723	CAP - shift rod	1
11 C 12722	SHAFT - axle, short R.H.	1
12 C 12721	SHAFT - axle, long L.H.	1
13 C 13197	COVER - transmission	1
14 138- 319	PIN - roll 3/16" x 1-1/2"	1
15 B 52144	RING - retainer, axle	2
16 126- 128	KEY - woodruff, brake idler	1
17 C 13196	GASKET - transmission cover	1
18 A 50096	BREATHER - transmission	1
19 192- 19	LOCKWASHER - 1/4"	6
20 113- 3	BOLT - 1/4" x 3/4" NC hex	6
21 C 12725	FORK - shift	1
22 C 16339	ROD - gear shift	1
23 C 14168	RING - retaining	2
24 C 14644	GEAR - cluster input	1
25 C 12551	GEAR - high 41 tooth	1
26 C 12552	GEAR - low 55 tooth	1
27 C 16295	KIT - diff. case (Includes Ref. 34 & 35)	1
28 C 13261	BRAKE DRUM	1
29*	GEAR - differential pinion (order two of each, items 29 and 30)	2
30*	GEAR - differential (order two of each, items 29 and 30)	2
31 C 12559	WASHER - pinion thrust	2
32 C 12560	PIN - differential cross	1
33 R 17820	PIN - differential cross lock	1
34 C 12561	SCREW - 3/8" x 4-3/4" NC hex cap	4
35 131- 366	NUT - lock 3/8" NC hex	4
36 C 12718	WASHER - differential	2
37 C 14223	WASHER - spacer	UAR
38 C 12965	GEAR - brake idler	1
39 C 14222	RING - retainer, brake idler	1
40 113- 424	BOLT - 1/2" x 1" NC hex (transaxle mounting)	6
41 192- 23	LOCKWASHER - 1/2"	6

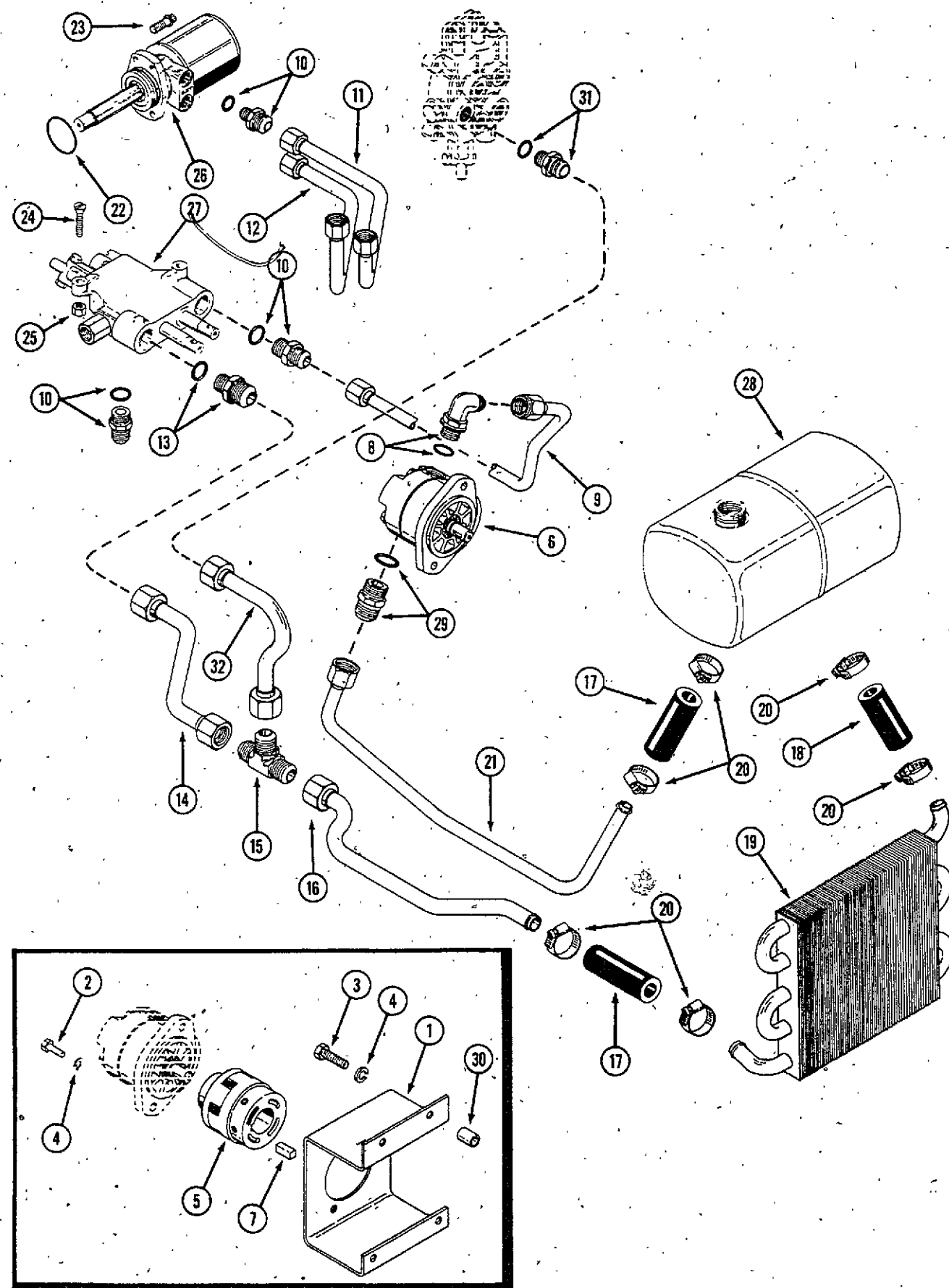
* Must be serviced in sets of four using two C12558 Pinion Gears and two C12557 Differential Gears.

HYDRAULIC SYSTEM 644



REF. PART NO.	DESCRIPTION	REQ'D
1 C 15335	SUPPORT - pump	1
2 114- 200	BOLT - 3/8" x 1" NF hex	2
3 113- 207	BOLT - 3/8" x 1" NC hex	4
4 192- 21	LOCKWASHER - 3/8"	6
5 C 17298	COUPLING - pump	1
6 C 15481	PUMP - hydraulic (repairs page 53)	1
7 C 17354	KEY - square	1
8 218- 5066	FITTING - pump out (includes 218-5006 "O"- ring)	1
9 C 18167	TUBE - pump to valve	1
10 C 18321	FITTING - hydraulic (includes 218-5007 "O" - ring)	5
11 C 18159	TUBE - valve to motor, upper	1
12 C 18160	TUBE - valve to motor, lower	1
13 218- 5065	FITTING - hydraulic (includes 218-5007 "O" - ring)	2
14 C 18162	TUBE - valve to tee	1
15 218- 596	TEE - 1-1/16"	1
16 C 18163	TUBE - heat exchanger to tee	1
17 C 14619	HOSE - 4"	2
18 C 14245	HOSE - 3"	
19 C 14195	EXCHANGER - heat	1
20 214- 8	CLAMP - hose	6
21 C 18289	TUBE - pump suction	1
22 A 30095	SEAL - hydraulic motor to case	1
23 166- 86	SCREW - 1/2" x 1-1/4" NC flanged 12 pt.	4
24 171- 247	SCREW - 5/16" x 1-1/4" NC, flat head machine	2
25 131- 351	NUT - lock 5/16" NC hex	2
26 C 14655	MOTOR - hydraulic drive (repairs page 55)	1
27 NSS	VALVE - hydraulic control (repairs page 49) order C 21557 kit	1
28 C 18117	RESERVOIR - oil	1
29 218- 5353	FITTING - valve, bucket (includes 218-5006 "O" - rings)	1
30 C 18161	TUBE - bucket to tee	1

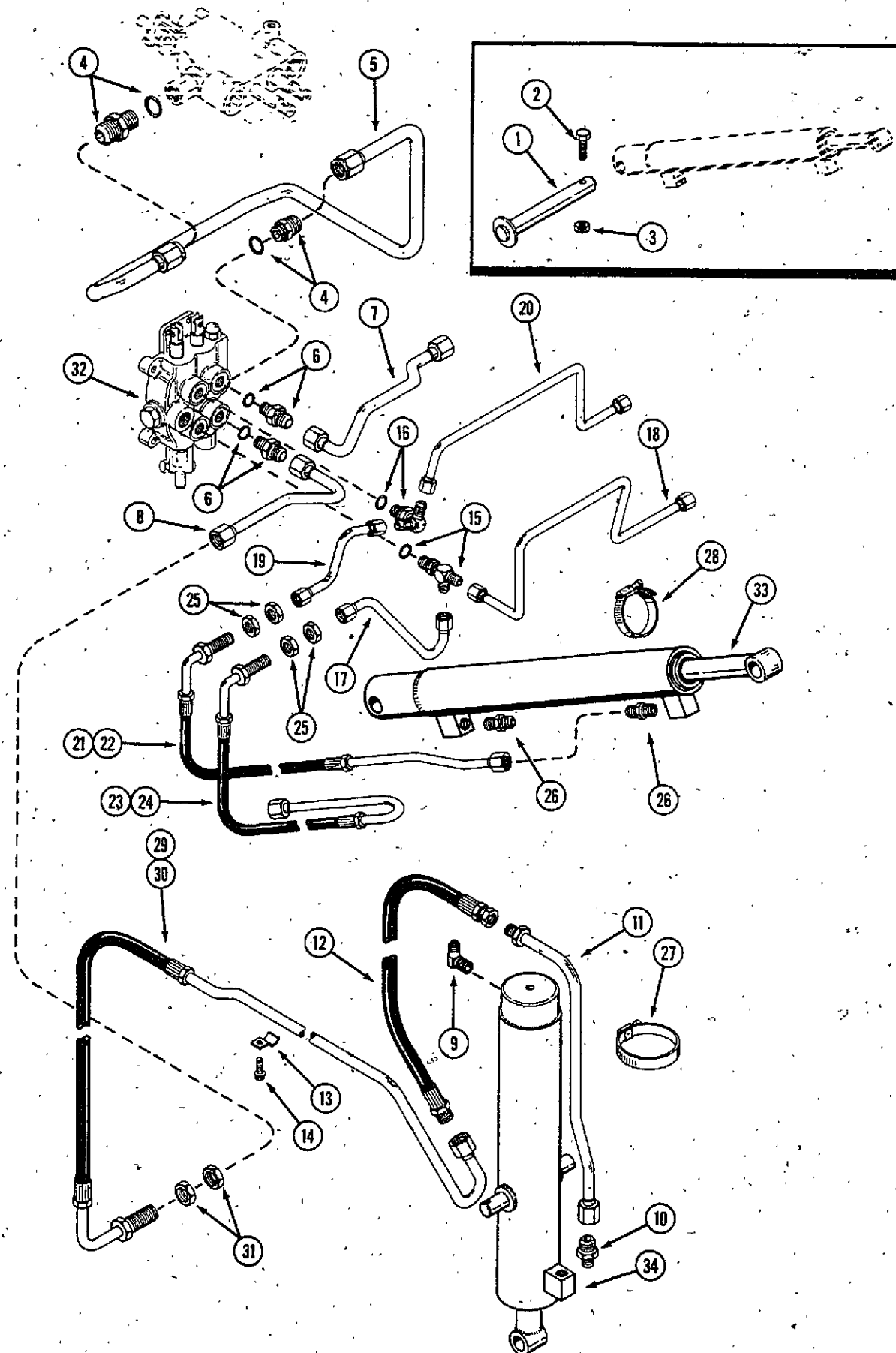
HYDRAULIC SYSTEM 646



REF. PART NO.	DESCRIPTION	REQ'D
1 C 18064	SUPPORT - pump	1
2 114- 200	BOLT - 3/8" x 1" NF hex	2
3 113- 209	BOLT - 3/8" x 1-1/2" NC hex	4
4 192- 21	LOCKWASHER - 3/8"	6
5 C 18235	COUPLING - pump (repairs page 53)	1
6 NSS	PUMP - hydraulic (repairs page 53) order C 20025 pump*	1
7 T 27067	KEY - square	1
8 218- 5107	FITTING - 90° pump out (includes 218-5007 "O" - ring)	1
9 C 18284	TUBE - pump to valve	1
10 C 18321	FITTING - hydraulic (includes 218-5007 "O" - ring)	5
11 C 18159	TUBE - valve to motor, upper	1
12 C 18160	TUBE - valve to motor, lower	1
13 218- 5065	FITTING - hydraulic (includes 218-5007 "O" - ring)	1
14 C 18162	TUBE - valve to tee	1
15 218- 596	TEE - 1-1/16"	1
16 C 18177	TUBE - heat exchanger to tee	1
17 C 14619	HOSE - 4"	2
18 C 14245	HOSE - 3"	1
19 C 14195	EXCHANGER - heat	1
20 214- 8	CLAMP - hose	6
21 C 18180	TUBE - pump suction	1
22 A 30095	SEAL - hydraulic motor to case	1
23 166- 86	SCREW - 1/2" x 1-1/4" NC flanged 12 pt.	4
24 171- 247	SCREW - 5/16" x 1-1/4" NC, flat head machine	2
25 131- 351	NUT - lock 5/16" NC hex	2
26 C 14655	MOTOR - hydraulic drive (repairs page 55)	1
27 NSS	VALVE - hydraulic control (repairs page 49) order C 21557 kit	1
28 C 18117	RESERVOIR - oil	1
29 218- 5064	FITTING - pump suction (includes 218- 5008 "O" ring)	1
30 C 17622	SPACER - pump support	4
31 218- 5353	FITTING - valve, bucket (includes 218-5006 "O" - ring)	1
32 C 18161	TUBE - bucket valve to tee	1
C 21557	KIT - valve, hydraulic, includes:	1
C 21497	VALVE - hydraulic (repairs page 49A)	1
C 19220	ROD - valve, direction control	1
C 19384	ROD - valve, lift control	1
C 19025	BALL JOINT	2
195- 102	WASHER - 1/4"	2
132- 320	PIN - cotter - 3/32 x 3/4"	2
129- 122	NUT - 5/16" NF hex	2
192- 20	LOCKWASHER - 5/16"	2

* requires 1" hose from pump to tank also requires bushing at 3/4" tank inlet

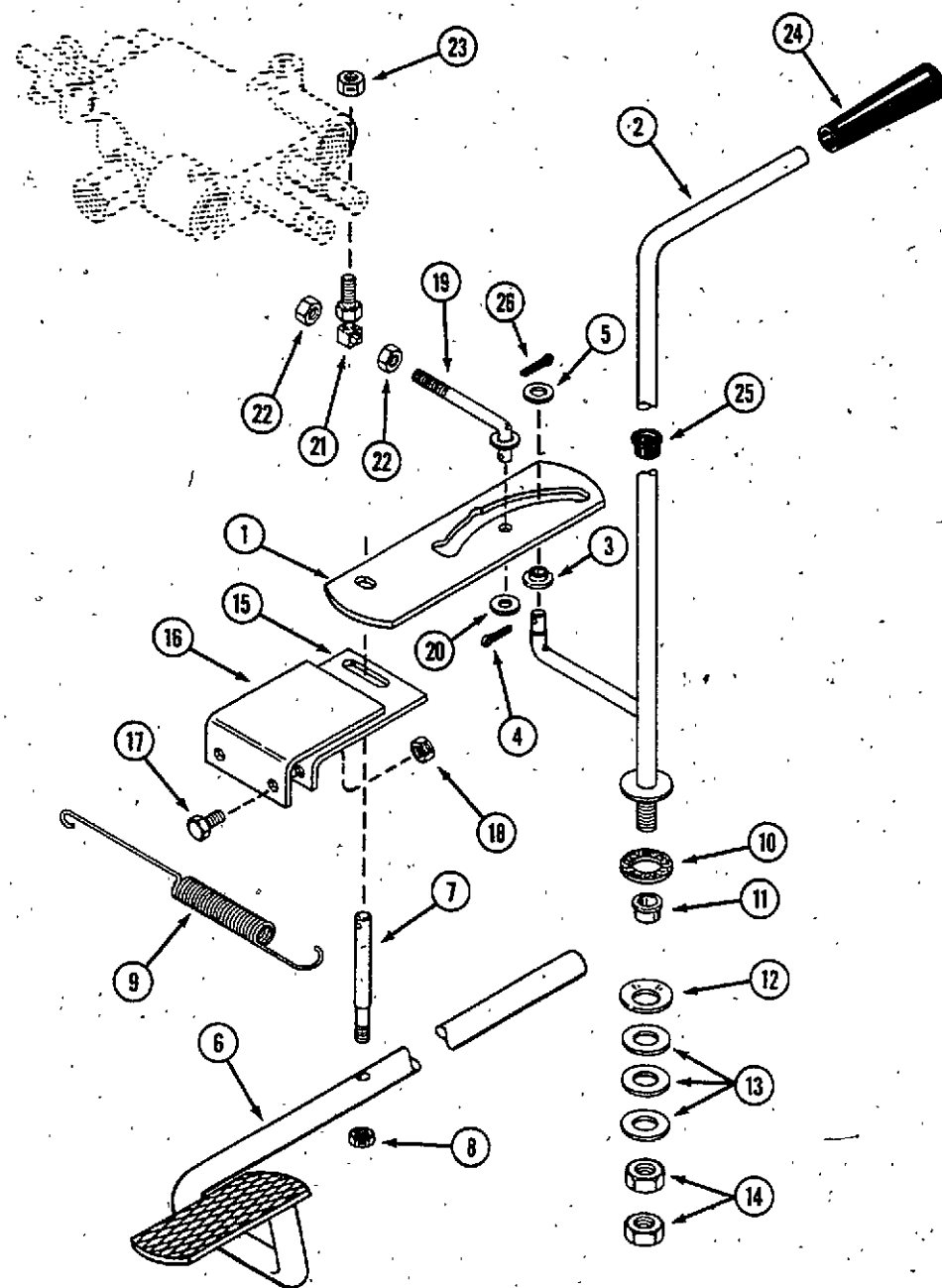
HYDRAULIC SYSTEM-BUCKET CONTROL



REF. PART NO.	DESCRIPTION	REQ'D
1 C 17714	PIN - cylinder mounting	2
2 113- 122	BOLT - 5/16" x 1-1/2" NC hex	2
3 131- 173	NUT - lock 5/16"	2
4 218- 5066	FITTING - hydraulic (includes 218-5006 "O" - ring)	2
5 C 18175	TUBE - valve to bucket valve	1
6 218- 5351	FITTING - hydraulic, bucket valve (includes 218-5005 "O" - ring)	2
7 C 18170	TUBE - bucket valve to left bulkhead	1
8 C 18171	TUBE - bucket valve to right bulkhead	1
9 218- 533	FITTING - 45°, bucket cylinder	1
10 218- 455	FITTING - straight, bucket cylinder	1
11 C 18164	TUBE - bucket cylinder	1
12 C 18156	HOSE - bucket, cylinder	2
13 C 18304	CLIP - hose tube mounting	4
14 187- 1036	SCREW - clip mounting	4
15 218- 5243	TEE - bucket valve, (includes 218-5005 "O" - ring)	1
16 C 18295	FITTING - special 45° (includes 218-5005 "O" - ring)	1
17 C 18169	TUBE - bucket valve to right front bulkhead	1
18 C 18176	TUBE - bucket valve to left front bulkhead	1
19 C 18168	TUBE - bucket valve to right rear bulkhead	1
20 C 18174	TUBE - bucket valve to left front bulkhead	1
21 C 18166*	HOSE TUBE - left rear to lift arm cylinder, rod end	1
22 C 18157*	HOSE TUBE - right rear to lift arm cylinder, rod end	1
23 C 18165*	HOSE TUBE - right front to lift arm cylinder, foot end	1
24 C 18158*	HOSE TUBE - left front to lift arm cylinder, foot end	1
25 218- 1254	NUT - jam 9/16"	8
26 218- 443	FITTING - lift arm cylinder	4
27 214- 262	CLAMP - hose, large	1
28 214- 260	CLAMP - hose, small	2
29 C 18172*	HOSE TUBE - bucket cylinder, top left	1
30 C 18173*	HOSE TUBE - bucket cylinder, top right	1
31 218- 1255	NUT - jam 3/4"	4
32 C 18179	VALVE - bucket control (repairs page 51)	1
33 C 11527	CYLINDER - lift arm (repairs page 57)	2
34 C 11528	CYLINDER - bucket (repairs page 57)	1

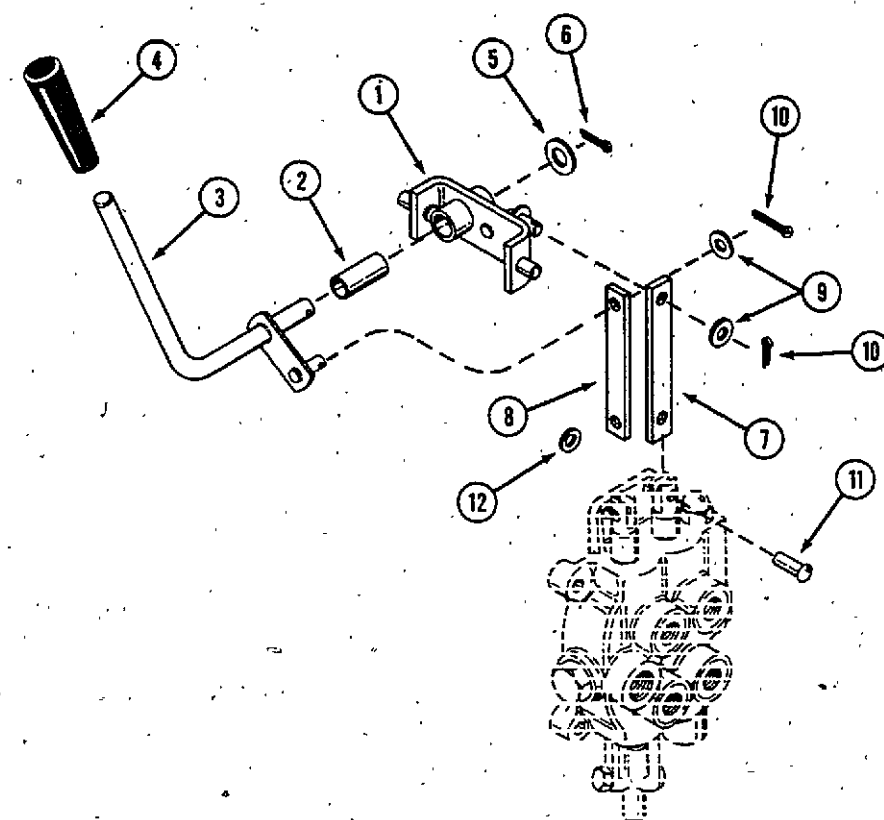
* will no longer be furnished after depletion of stock

DIRECTION CONTROL



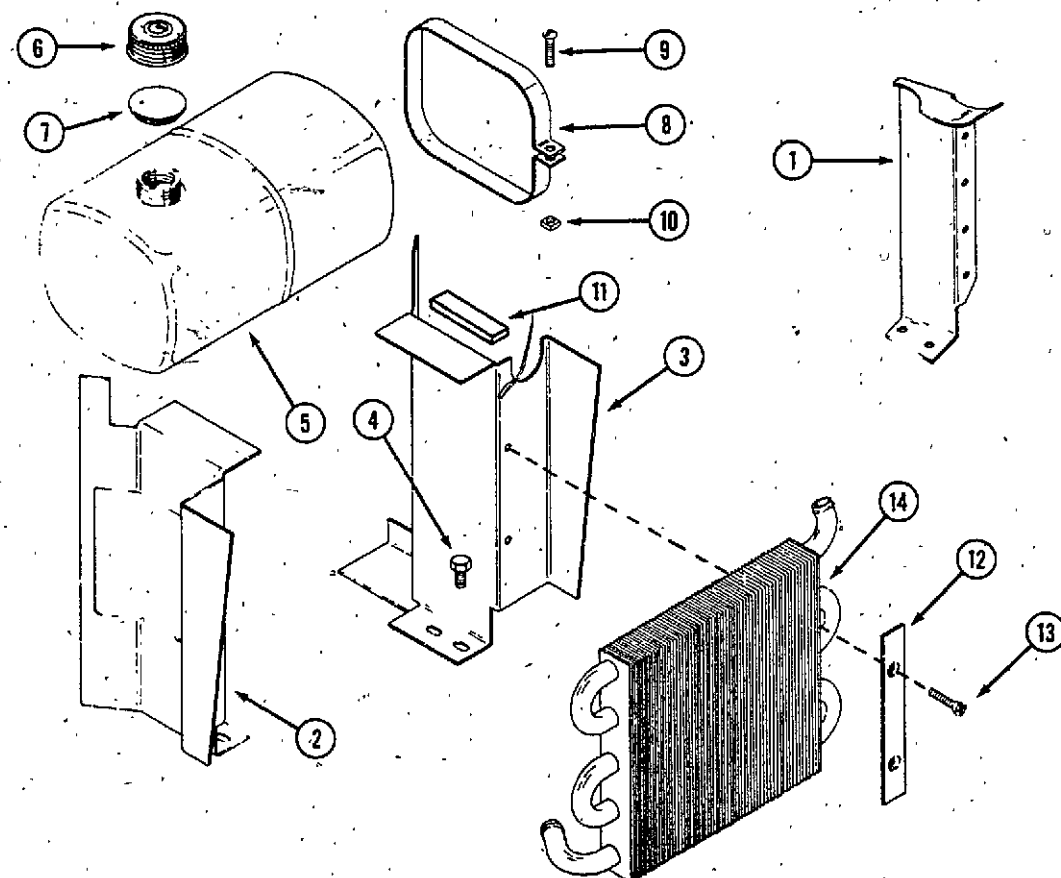
REF. PART NO.	DESCRIPTION	REQ'D
1 C 21512	ARM - control	1
2 C 17569	LEVER - direction control	1
3 C 16898	FOLLOWER - cam	1
4 132- 320	PIN - cotter 3/32" x 3/4"	1
5 195- 520	WASHER - 5/16"	1
6 C 19900	PEDAL - motion control	1
7 C 17553	ROD - pedal control	1
8 129- 102	NUT - lock 5/16" NC hex	1
9 C 18277	SPRING - pedal return	1
10 C 17551	DISC - friction	1
11 C 12127	BUSHING - nylon	1
12 C 18391	WASHER - spring	1
13 195- 541	WASHER - 5/8"	3
14 129- 145	NUT - 1/2" NC hex	2
15 C 19902	BRACKET - valve control	1
16 C 18012	BRACKET - guide	1
17 113- 103	BOLT - 5/16" x 1" NC hex	2
18 131- 176	NUT - 5/16" NC hex	2
19 C 17557	ROD - valve control	1
20 195- 102	WASHER	1
21 C 16683	BALL JOINT	1
22 129- 102	NUT - 5/16" NC hex	2
23 131- 176	NUT - lock 5/16" NC hex	1
24 A 37247	KNOB - control lever	1
25 C 12093	BUSHING - flip lok	1
26 132- 46	PIN - cotter 1/8" x 3/4"	1

BUCKET CONTROLS



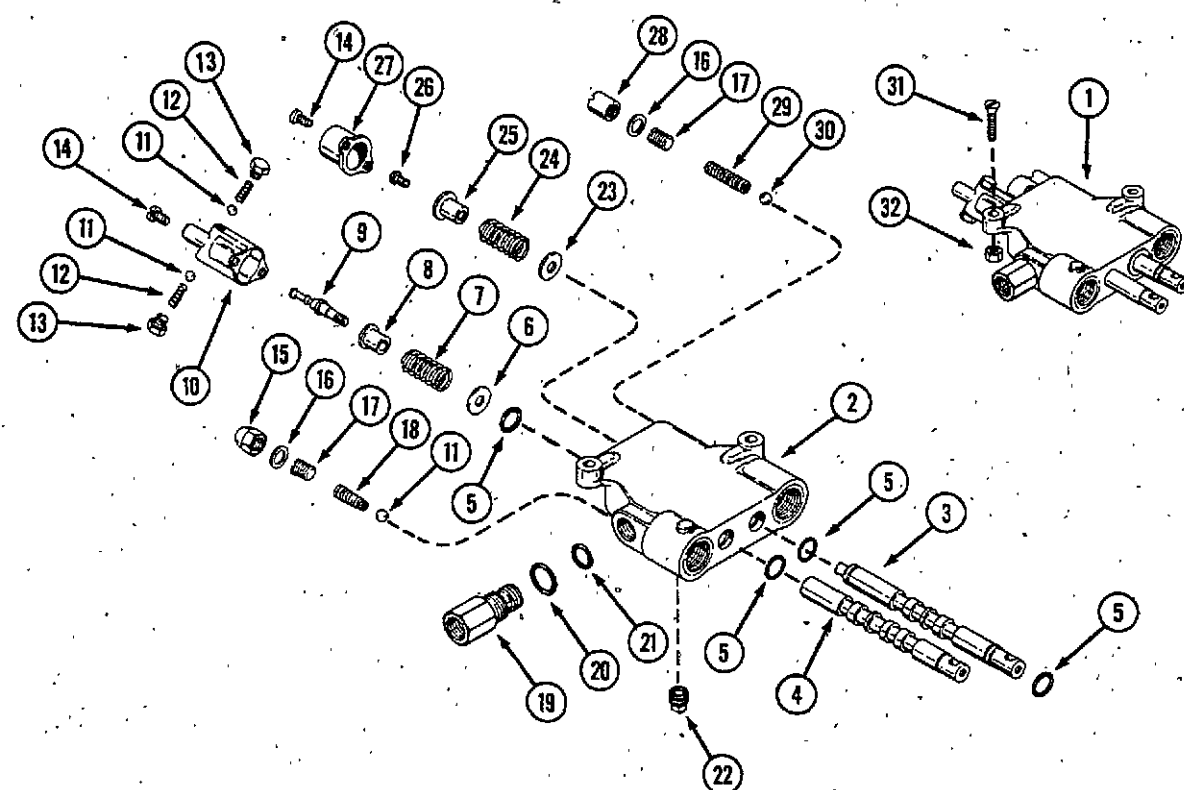
REF.	PART NO.	DESCRIPTION	REQ'D
1	C 17594	BRACKET - pivot	1
2	C 16714	BUSHING - pivot bracket	1
3	C 17596	LEVER - bucket control	1
4	A 37247	KNOB - lever, bucket control	1
5	195- 533	WASHER - 1/2"	1
6	132- 321	PIN - cotter 1/8" x 1"	1
7	C 17587	LINK - valve 4"	1
8	C 17588	LINK - valve 3-3/4"	1
9	195- 521	WASHER - 5/16"	2
10	132- 320	PIN - cotter 3/32" x 3/4"	2
11	C 12932	PIN	2
12	C 18845	RETAINER	2

HYDRAULIC RESERVOIR MOUNTING



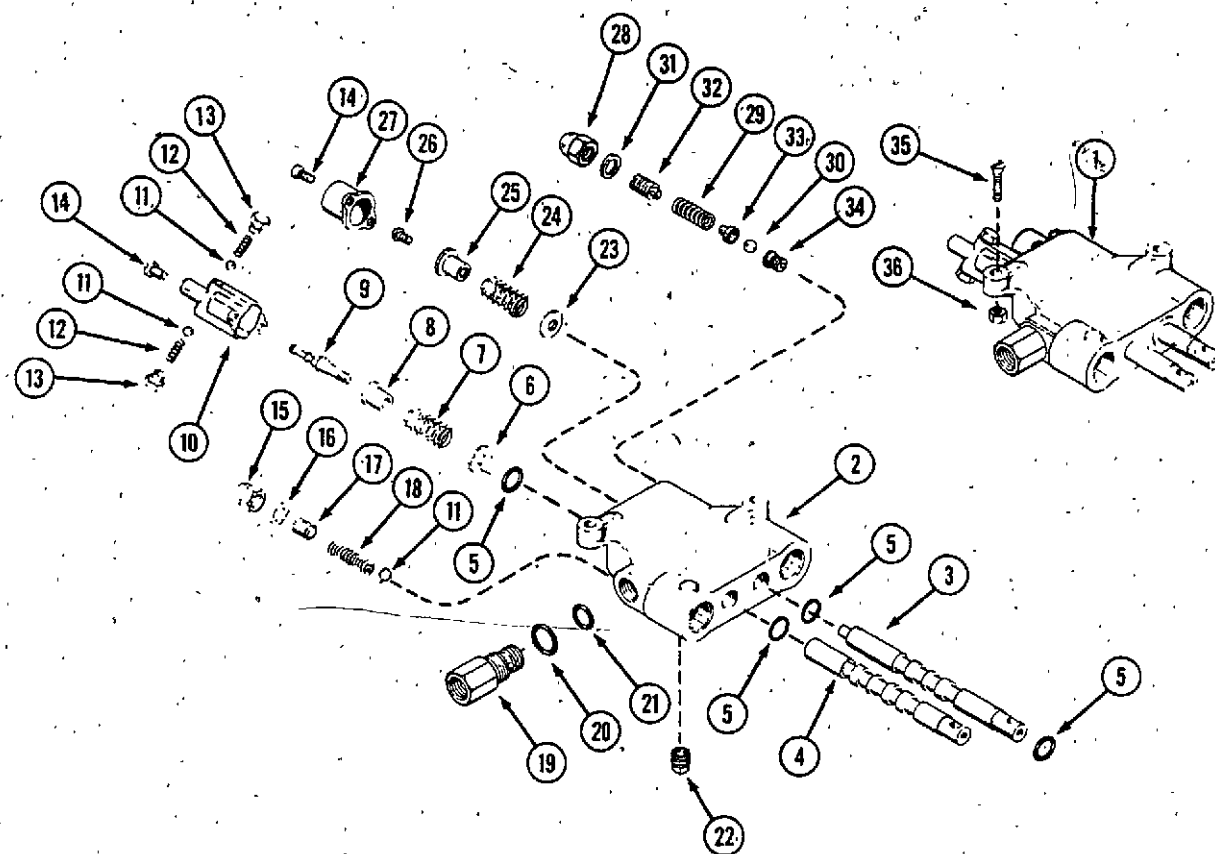
1	C 18000	SUPPORT - reservoir R.H. (644)	1
1	C 18001	SUPPORT - reservoir L.H. (644)	1
2	C 18125	SUPPORT - reservoir R.H. (646)	1
3	C 18126	SUPPORT - reservoir L.H. (646)	1
4	113- 118	BOLT - 5/16" x 5/8" NC hex	4
5	C 18117	RESERVOIR - hydraulic oil	1
6	C 11529	CAP - reservoir with insert	1
7	C 11545	INSERT - reservoir cap	1
8	A 70100	STRAP - reservoir mounting	2
9	173- 215	SCREW - 1/4" x 1-1/4" round head machine	2
10	129- 504	NUT - 1/4" NC hex	2
11	C 14690	CUSHION - reservoir	2
12	C 14246	BRACKET - heat exchanger mounting	2
13	187- 1251	SCREW - 1/4" x 1-1/4" NC flat head phillips	4
14	C 14195	EXCHANGER - heat	1

HYDRAULIC CONTROL VALVE - TRACTOR



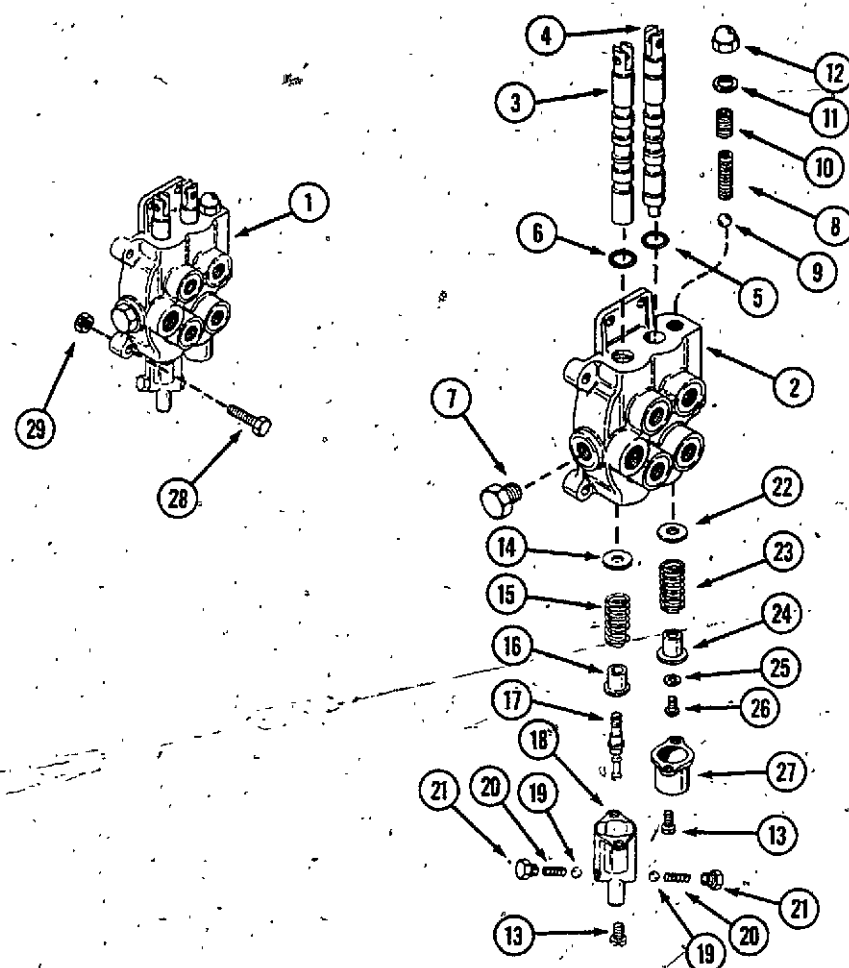
REF. PART NO.	DESCRIPTION	REQ'D
1	NSS VALVE - tractor control (order C 21557 kit page 41)	1
2	NSS BODY - valve	1
3	NSS SPOOL - valve	1
4	NSS SPOOL - valve	1
5	A 7982 SEAL - "O" ring, spool	4
6	C 17440 WASHER -	1
7	D 59376 SPRING - detent	1
8	C 13200 SPACER	1
9	C 17439 DETENT - spool	1
10	C 17438 COVER - detent	1
11	211- 7 BALL - steel 1/4"	3
12	C 17444 SPRING - detent	2
13	C 17443 SCREW - detent, cap	2
14	169- 114 SCREW - cover	4
15	129- 531 CAP - relief adjust	1
16	C 17435 GASKET - relief adjust cap	2
17	C 17433 SCREW - relief adjust	2
18	C 17445 SPRING - relief	1
19	C 18852 BUSHING - power beyond	1
20	218- 5007 SEAL - "O" ring, bushing	1
21	A 30097 SEAL - "O" ring	1
22	221- 841 PLUG - pipe 1/4"	1
23	195- 521 WASHER - return	1
24	C 18850 SPRING - return	1
25	C 18853 SPACER	1
26	193- 524 SCREW - with lockwasher	1
27	C 18847 COVER - return	1
28	C 18854 CAP - relief adjust	1
29	C 17432 SPRING - relief	1
30	211- 9 BALL - steel 5/16"	1
31	171- 247 SCREW - valve mounting 5/16" x 1-1/4" flat head machine	2
32	131- 351 NUT - 5/16" NC hex	2

HYDRAULIC CONTROL VALVE - TRACTOR C 21497



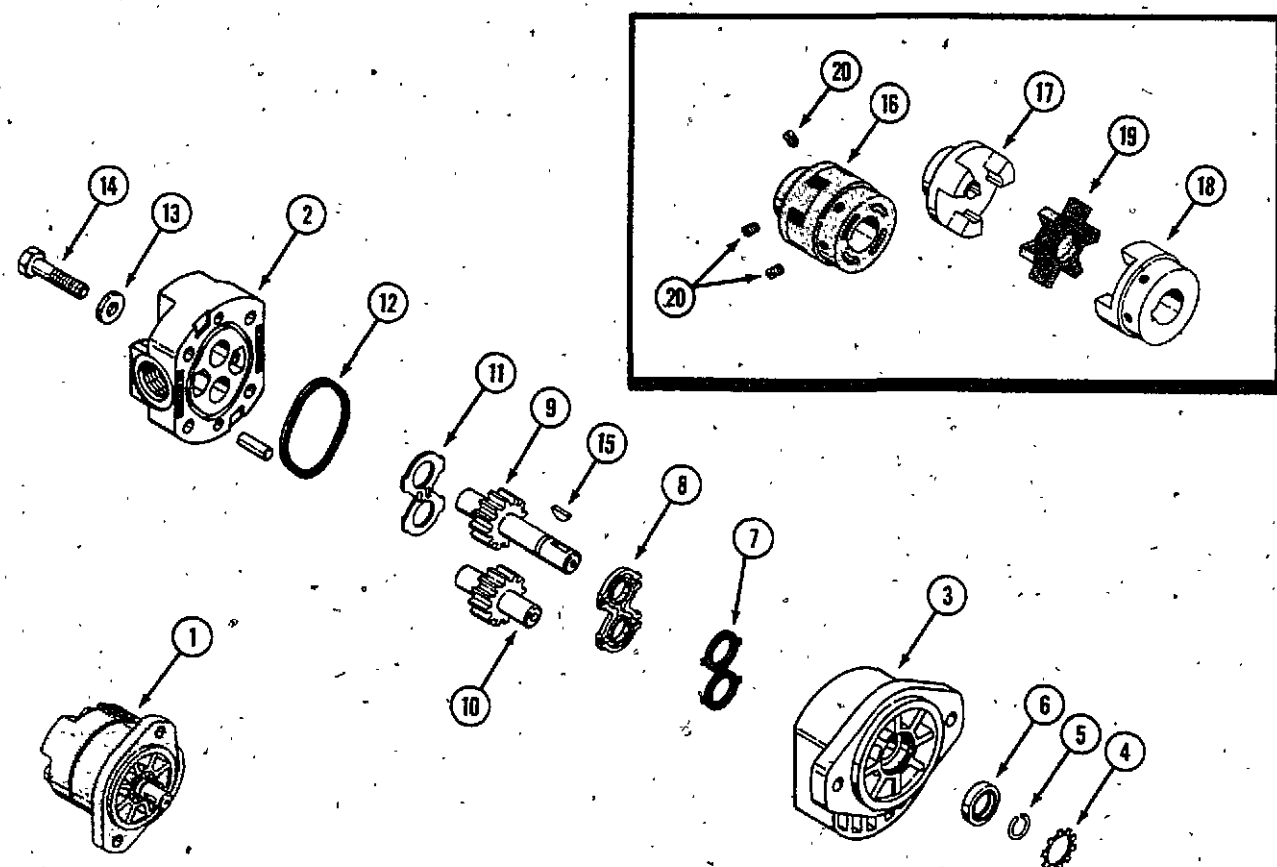
REF.	PART NO.	DESCRIPTION	REQ'D
1	C 21497	VALVE - tractor control	1
2	NSS	BODY - valve (order C 21497)	1
3	NSS	SPOOL - valve (order C 21497)	1
4	NSS	SPOOL - valve (order C 21497)	1
5	A 7982	SEAL - "O" ring, spool	4
6	C 17440	WASHER	1
7	D 59376	SPRING - detent	1
8	C 17442	SPACER	1
9	C 17439	DETENT - spool	1
10	C 17438	COVER - detent	1
11	211- 7	BALL - steel 1/4"	3
12	C 17444	SPRING - detent	2
13	C 17443	SCREW - detent, cap	2
14	169- 114	SCREW, cover	4
15	129- 531	CAP - relief adjust	1
16	C 17435	GASKET - relief adjust cap	1
17	C 17433	SCREW - relief adjust	1
18	C 21505	SPRING - relief	1
19	C 18852	BUSHING - power beyond	1
20	218- 5007	SEAL - "O" ring, bushing	1
21	A 30097	SEAL - "O" ring	1
22	221- 841	PLUG - pipe 1/4"	1
23	195- 521	WASHER - return	1
24	C 18850	SPRING - return	1
25	C 18853	SPACER	1
26	193- 524	SCREW - with lockwasher	1
27	C 18847	COVER - return	1
28	C 21510	CAP - relief adjust	1
29	C 21507	SPRING - relief	1
30	211- 9	BALL - steel 5/16"	1
31	C 21508	GASKET - relief adjust cap	1
32	C 21509	SCREW - relief adjust	1
33	C 21506	RETAINER - ball, relief	1
34	21522	SEAT - ball, relief	1
35	171- 247	SCREW - valve mounting 5/16" x 1-1/4" flat head machine	2
36	131- 351	NUT - 5/16" NC hex	2
37	C 18851	KIT - detent (includes 6, 7, 8, 9, 10, 11, 12, 13 & 14)	1
38	C 21511	KIT - relief (includes items 11, 15, 16, 17 & 18)	1
39	C 21521	KIT - relief (includes items 28, 29, 30, 31, 32, 33 & 34)	1

HYDRAULIC CONTROL VALVE - BUCKET



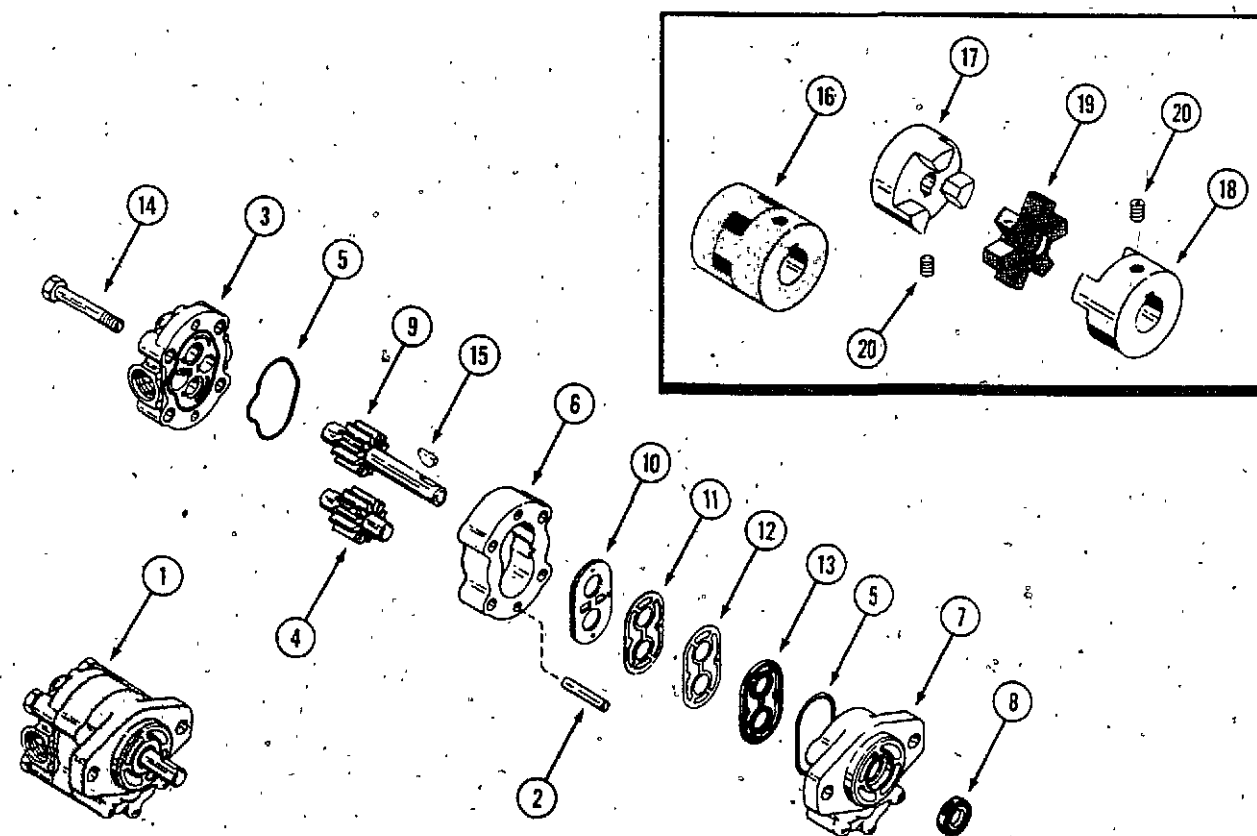
REF. PART NO.	DESCRIPTION	REQ'D
1 C 18179	VALVE - bucket control	1
2 NSS	BODY - valve (order C18179 valve)	1
3 NSS	SPOOL - valve (order C18179 valve)	1
4 NSS	SPOOL - valve (order C18179 valve)	1
5 A 7982	SEAL - "O" ring, spool	2
6 D 40816	SEAL - "O" ring, spool	2
7 221- 843	PLUG - 3/8"	1
8 C 17432	SPRING - relief (early production)	1
9 211- 9	BALL - steel 5/16" (early production)	1
10 C 17433	SCREW - relief adjust (early production)	1
11 C 17435	GASKET - adjust screw (early production)	1
12 129- 531	CAP - adjust screw (early production)	1
13 169- 114	SCREW - cover	4
14 C 17440	WASHER	1
15 C 17441	SPRING - return	1
16 C 13200	SPACER - detent	1
17 C 17439	DETENT - spool	1
18 C 17438	COVER - detent	1
19 211- 7	BALL - steel 1/4"	2
20 C 17444	SPRING - detent	2
21 C 17443	SCREW - detent	2
22 195- 521	WASHER	1
23 C 18850	SPRING - return	1
24 C 13200	SPACER	1
25 195- 510	WASHER	1
26 193- 524	SCREW	1
27 C 18847	COVER - centering	1
28 113- 17	BOLT - valve mounting 1/4" x 1-1/4" NC hex	3
29 131- 1102	NUT - lock 1/4" NC hex	3

HYDRAULIC PUMP AND COUPLING-646



REF. PART NO.	DESCRIPTION	REQ'D
1	NSS	
2	C 18759	
3	C 18760	
4	C 18767	
5	C 18768	
6	C 18766	
7	C 18764	
8	C 18763	
9	C 18761	
10	C 18762	
11	C 18765	
12	C 18769	
13	A 7200	
14	113- 274	
15	126- 112	
16	C 18235	
17	NSS	
18	NSS	
19	C 18258	
20	178- 858	
	PUMP - hydraulic (order C 20025 pump, page 53A)	1
	BODY - pump	1
	COVER - pump	1
	RING - retaining, external tooth	1
	RING - snap	1
	SEAL - oil	1
	SEAL - pressure load	1
	PLATE - wear	1
	GEAR - drive	1
	GEAR - driven	1
	PLATE - thrust	1
	SEAL - gasket	1
	WASHER -	4
	BOLT	4
	KEY - woodruff	2
	COUPLING - pump, (646)	2
	HUB - (order C18235)	1
	HUB - (order C18235)	1
	SPIDER - coupling	1
	SCREW - set 5/16" x 5/16"	4

HYDRAULIC PUMP AND COUPLING-644

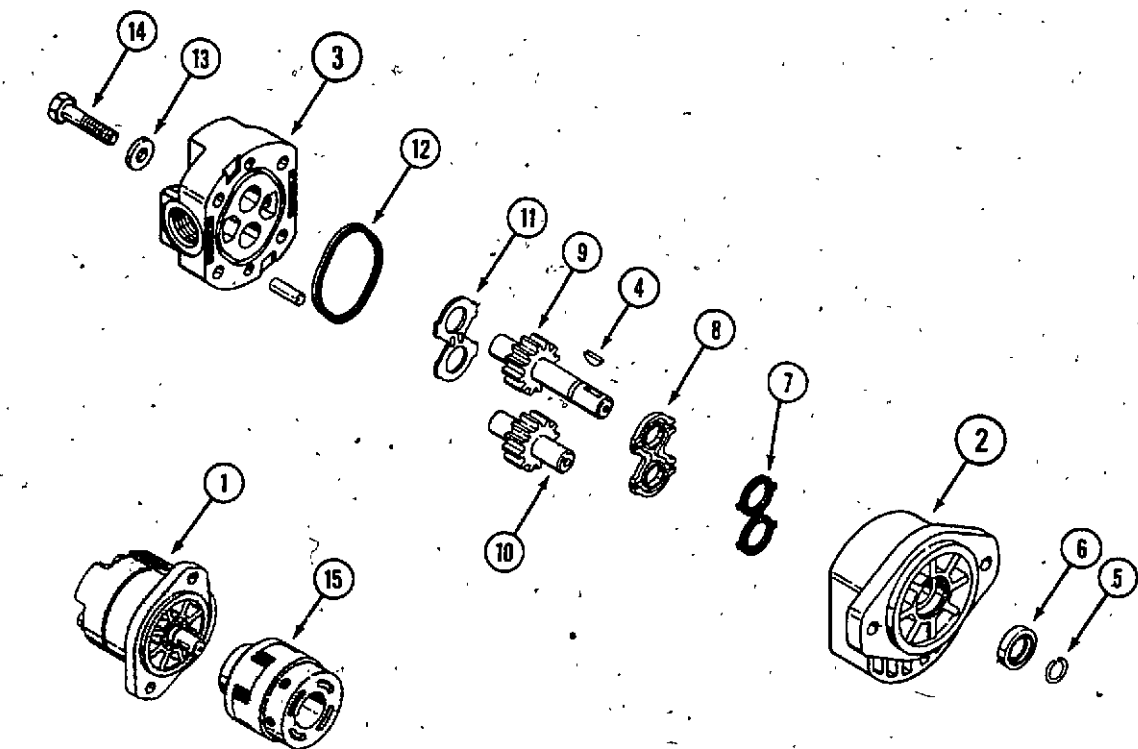


1	C 15481	PUMP - hydraulic	1
2	C 15729	PIN - dowel	2
3	C 15730	COVER - rear	1
4	C 15731	GEAR ASSEMBLY - driven	1
5	C 15732	"O" RING	2
6	C 15733	BODY - pump	1
7	C 15734	COVER - front	1
8	C 15735	SEAL - rotary	1
9	C 15736	GEAR ASSEMBLY - drive	1
10	C 15737	PLATE - wear	1
11	C 15738	SHIELD - heat	1
12	C 15739	GASKET	1
13	C 15740	SEAL	1
14	13- 540	BOLT	4
15	126- 111	KEY - 1/8" x 5/8" woodruff	1
16	C 17298	COUPLING - pump (644)	1
17	NSS	HUB - (order item 16)	1
18	NSS	HUB - (order item 16)	1
19	C 15036	SPIDER - (for C17298 coupling)	1
20	83- 55	SCREW - set 5/16" x 5/16" NC socket head	2

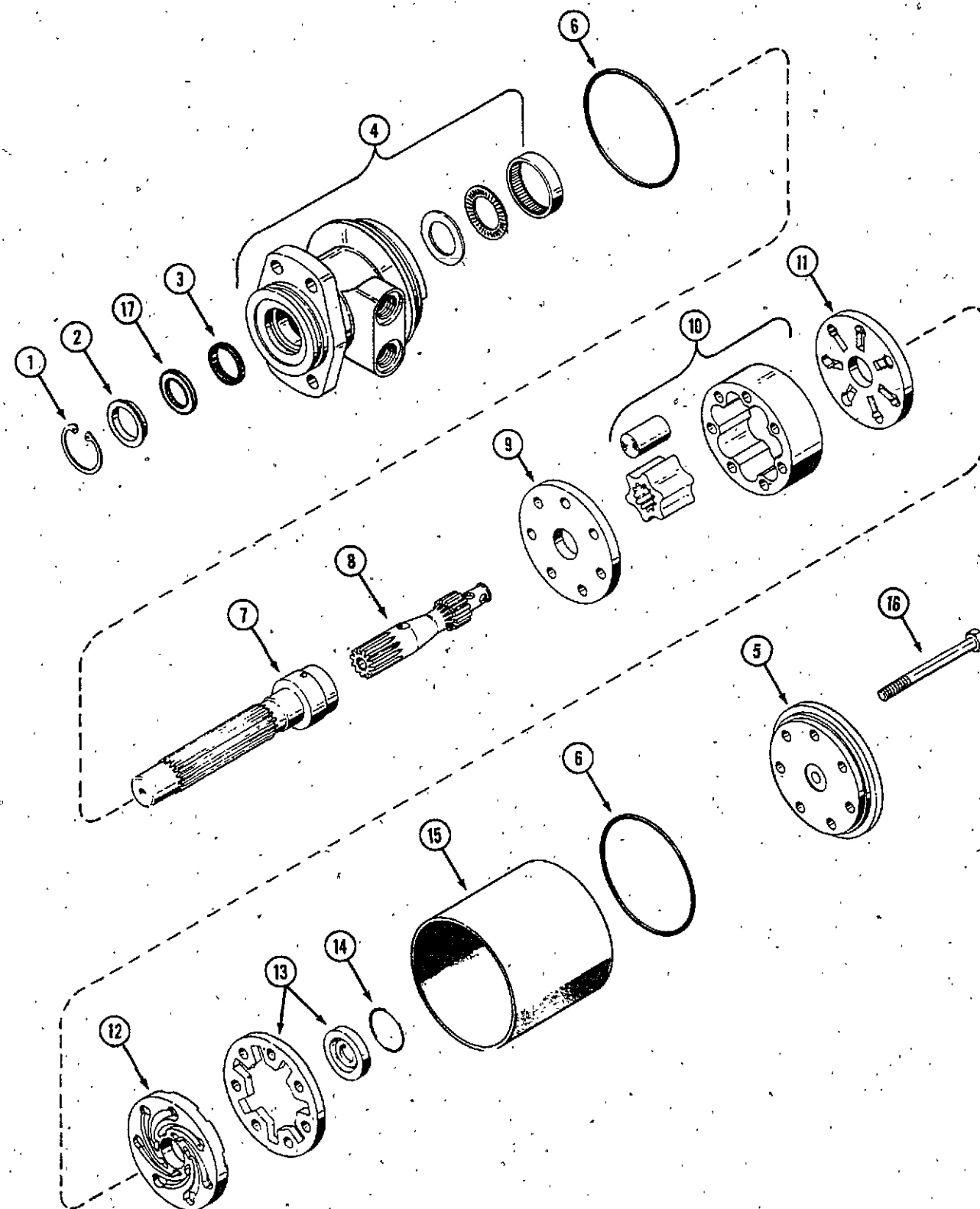
HYDRAULIC PUMP - 646

C 20025

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 20025	PUMP - hydraulic	1
2	C 19277	BODY ASSEMBLY - pump (includes bushings)	1
3	C 20197	COVER ASSEMBLY - pump (includes bushings and dowell pins)	1
4	126- 12	KEY-woodruff	1
5	C 18768	RING - retaining	1
6	C 19281	SEAL - shaft	1
7	C 18764	SEAL - pressure load	1
8	C 19279	PLATE - wear	1
9	C 18761	GEAR - drive	1
10	C 18762	GEAR - driven	1
11	C 19280	PLATE - thrust	1
12	C 18769	SEAL - gasket	1
13	A 7200	WASHER	4
14	113- 274	BOLT - cover mtg.	4
15	C 18235	COUPLING - pump (repairs on page 53)	1



HYDRAULIC DRIVE MOTOR



REF. PART NO.	DESCRIPTION	REQ'D
C 14655	MOTOR - hydraulic	1
1 NSS	RING - retaining (See kit below)	1
2 NSS	SPACER - (See kit below)	1
3 NSS	SEAL - oil (See kit below)	1
4 C 14827	HOUSING ASSEMBLY	1
5 C 14837	END CAP	1
6 NSS	SEAL - (See kit below)	2
7 C 14828	SHAFT - coupling	1
8 C 14829	DRIVE LINK	1
9 C 14830	PLATE - wear	1
10 C 14831	ROTOR ASSEMBLY	1
11 C 14832	PLATE - manifold	1
12 C 14833	MANIFOLD	1
13 C 14834	COMMUTATOR AND RING SET	1
14 NSS	RING - sealing (See kit below)	1
15 C 14836	SLEEVE	1
16 C 14838	BOLT - 3/8" x 4-3/8" NF ^h hex	7
C 19037	KIT - "O" ring and seal, (Includes items 1, 2, 3, 6 and 14)	1
17 C 19212	SHIM	1

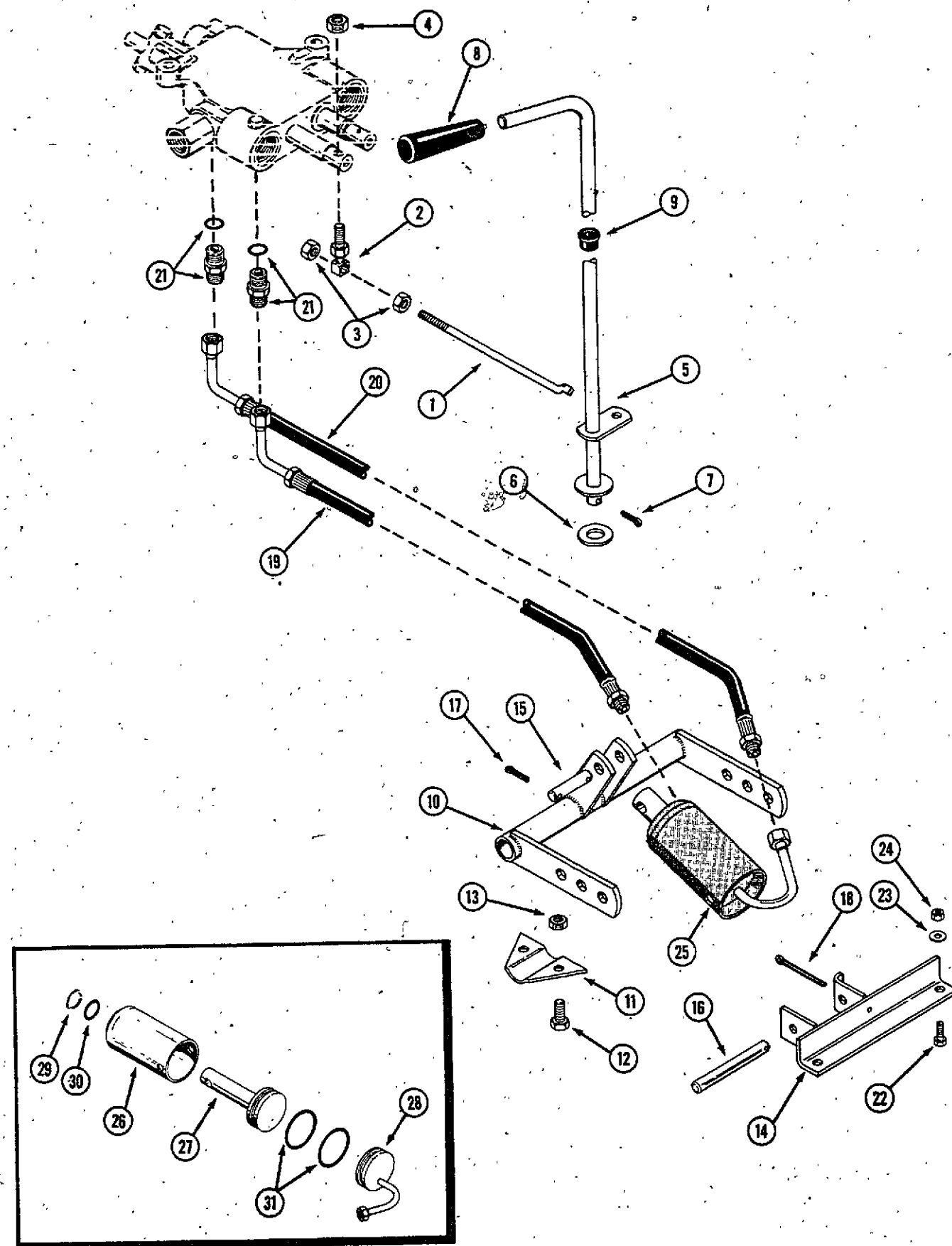
CYLINDER - LIFT ARM

REF. PART NO.	DESCRIPTION	REQ'D
C 11527	CYLINDER - lift arm	2
1 T 24080	RING - retaining	1
2 T 24081	SPACER	1
3 NSS	RING - retaining (order T41499 kit)	1
4 C 18575	ROD - cylinder	1
5 NSS	SEAL - "O"- ring, rod (order T41499 kit)	1
6 NSS	WIPER - rod (order T41499 kit)	2
7 NSS	SEAL - "O" - ring, rod (order T41499 kit)	1
8 T 42253	HEAD - cylinder	1
9 NSS	SEAL - head	1
10 T 42254	BUSHING - head	1
11 T 24084	PISTON - cylinder	1
12 NSS	WASHER - backup, piston (order T41499 kit)	2
13 NSS	SEAL - "O" - ring, piston (order T41499 kit)	1
14 25- 159	NUT - jam	1
15 C 18576	BODY - cylinder	1
16 T 41499	KIT - seal	1

CYLINDER - BUCKET

1	C 18573	BODY - cylinder	1
2	131- 667	NUT - jam	1
3	NSS	WASHER - backup, piston (order C18574 kit)	2
4	NSS	SEAL - "O" - ring, piston (order C18574 kit)	1
5	D 54909	PISTON - cylinder	1
6	C 18486	HEAD ASSEMBLY	1
7	NSS	BUSHING - head	1
8	NSS	HEAD - cylinder	1
9	NSS	SEAL - "O" ring, rod (order C18574 kit)	1
10	NSS	WASHER - backup (order C18574 kit)	2
11	NSS	SEAL (order C18574 kit)	1
12	C 18572	ROD - cylinder	1
13	NSS	RING - retaining (order C18574 kit)	1
14	D 54915	SPACER	1
15	D 54917	RING - retaining	1
16	NSS	SEAL - "O" ring, head (order C18574 kit)	1
17	C 18574	KIT - seal	1

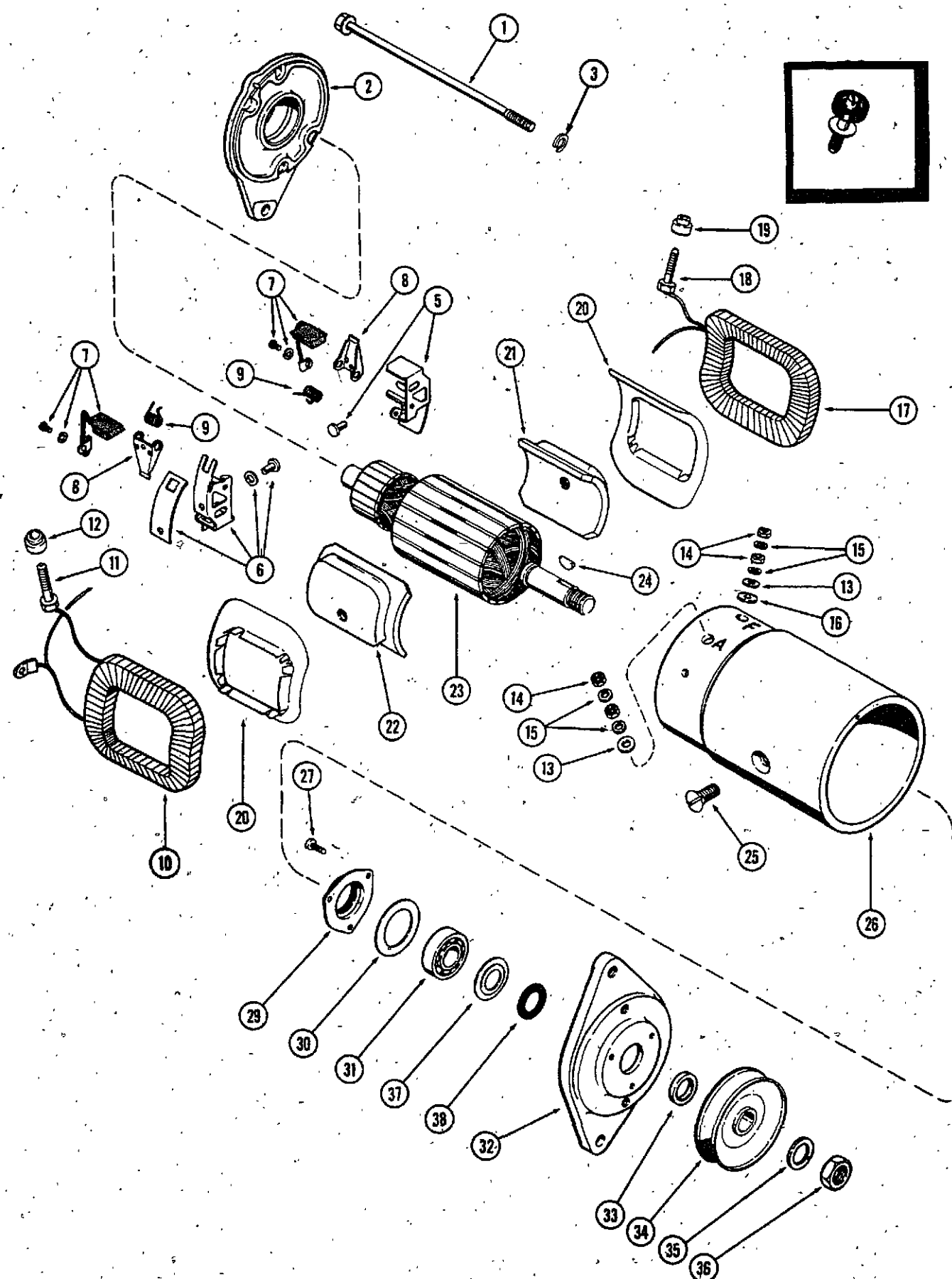
HYDRAULIC LIFT



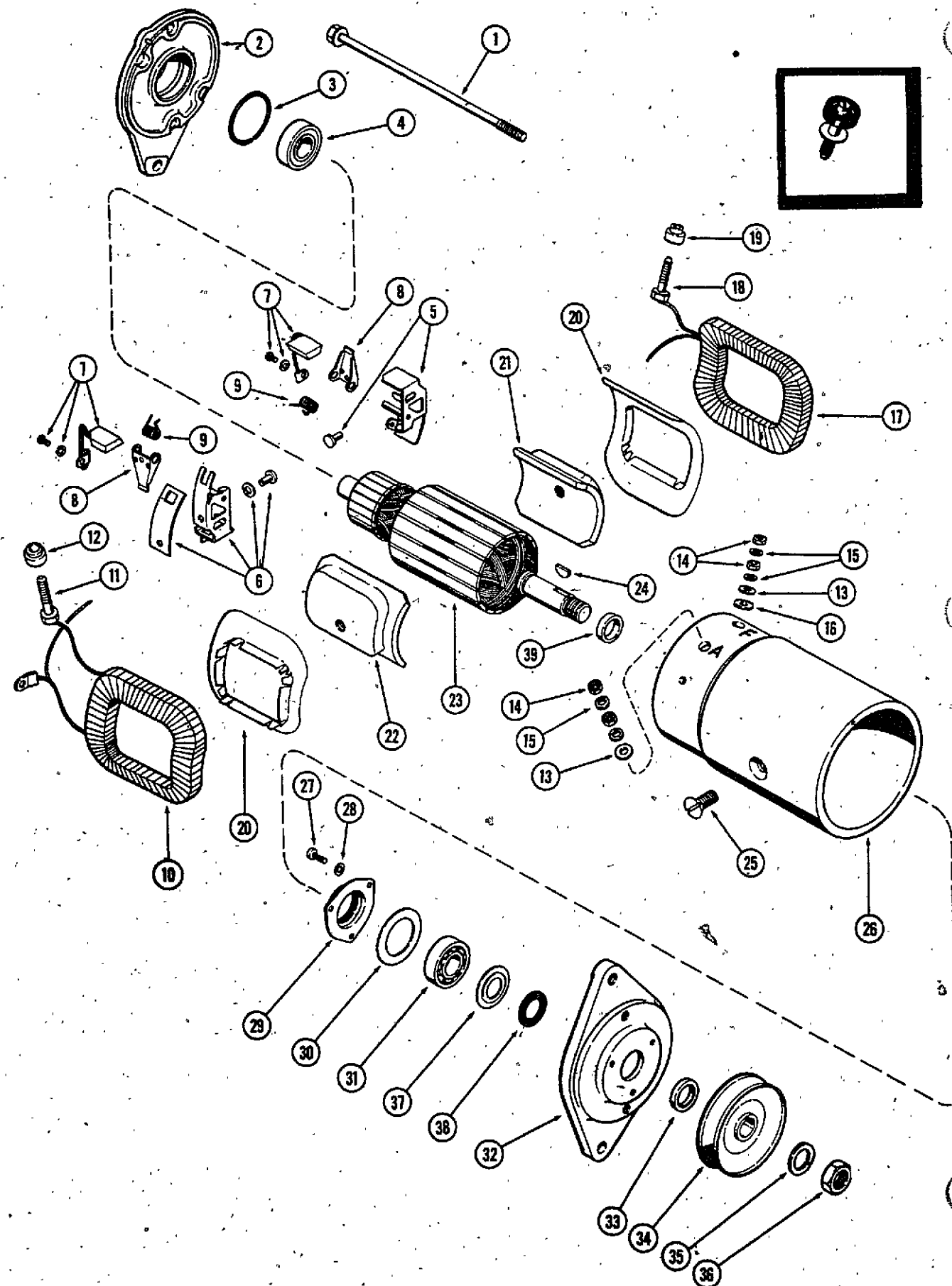
REF. PART NO.	DESCRIPTION	REQ'D
1 C 17571	ROD - lift control	1
2 C 16683	BALL JOINT	1
3 129- 102	NUT - 5/16" NC hex	4
4 131- 176	NUT - lock 5/16" NC hex	1
5 C 17566	LEVER - lift control	1
6 195- 541	WASHER - 5/8"	4
7 132- 48	PIN - cotter 1/8" x 1"	1
8 A 37247	KNOB - lift lever	1
9 C 12093	BUSHING - flip lock	1
10 C 17585	CROSS SHAFT ASSEMBLY	1
11 C 17250	BRACKET - clamp	2
12 113- 221	BOLT - 3/8" x 7/8" NC hex	4
13 131- 178	NUT - lock 3/8" NC hex	4
14 C 17579	BRACKET - cylinder mounting	1
15 C 18251	PIN - cylinder mounting, rod end	1
16 C 17536	PIN - cylinder mounting, foot end	1
17 132- 310	PIN - cotter 1/8" x 1"	2
19 132- 338	PIN - cotter 1/8" x 2-1/2"	1
19 C 18154	HOSE - valve to cylinder, short	1
20 C 18155	HOSE - valve to cylinder, long	1
21 218- 5056	FITTING - valve (includes 218-5004 "O" - ring)	2
22 113- 207	BOLT - 3/8" x 1" NC hex	2
23 195- 525	WASHER - 3/8"	2
24 131- 178	NUT - lock 3/8" NC hex	2
25 C 18318	CYLINDER - hydraulic lift	1
26 C 16133	BODY - cylinder	1
27 C 19104	ROD AND PISTON ASSEMBLY	1
28 C 17732	FOOT - cylinder	1
29 NSS	SEAL	1
30 NSS	"O" - RING	1
31 NSS	"O" - RING	2
C 17268	KIT - SEAL, cylinder (consists of items 29, 30 and 31)	1

C 16852 STARTER-GENERATOR

(DELCO NUMBER 1101875)



REF. PART NO.	DESCRIPTION	REQ'D
1 R 15106	BOLT - through	2
2 A 43494	FRAME ASSEMBLY - commutator end	1
3 192- 20	LOCKWASHER - 5/16"	2
4 A 40702	KIT - stud - (Includes items 16, 18 and 19)	1
5 A 72039	HOLDER KIT - ground brush	1
6 A 72040	HOLDER KIT - insulated brush	1
7 A 72038	BRUSH ASSEMBLY	2
8 R 15090	ARM - brush pressure	2
9 R 16161	SPRING - brush arm	2
10 A 72042	COIL ASSEMBLY - field R.H.	1
11 A 72048	STUD - armature terminal	1
12 R 16147	BUSHING - insulated, armature stud	1
13 A 41927	WASHER - armature stud	2
14 129- 18	NUT - terminal stud 12-24 hex	4
15 192- 17	LOCKWASHER - terminal stud #12	4
16 R 16148	WASHER - insulated, field stud (Order A40702)	1
17 A 72043	COIL ASSEMBLY - field L.H.	1
18 NSS	STUD - field terminal (Order A40702)	1
19 R 15077	BUSHING - insulated, field stud (Order A40702)	1
20 A 25447	INSULATOR - field coil	2
21 A 40736	SHOE - pole	1
22 A 40736	SHOE - pole	1
23 A 43495	ARMATURE	1
24 126- 111	KEY - Woodruff, armature	1
25 A 42127	SCREW - pole	2
26 NSS	BODY - starter, generator (Order C16852)	1
27 A 41959	SCREW - 10-32 x 1/2" round head	3
29 A 72050	RETAINER ASSEMBLY - bearing (Includes Refs. 37 and 38)	1
30 R 16170	GASKET - bearing retainer	1
31 A 43356	BEARING - ball, drive end	1
32 A 72046	FRAME ASSEMBLY - drive end	1
33 A 72047	SPACER - pulley	1
34 C 14344	PULLEY - starter, generator drive	1
35 192- 116	LOCKWASHER - 11/16" plated	1
36 A 25546	NUT - armature shaft, drive end	1
37 NSS	RETAINER - grease (Order A72050)	1
38 NSS	SEAL - felt (Order A72050)	1



A70202 STARTER-GENERATOR (DELCO NUMBER 1101970)

REF.	PART NO.	DESCRIPTION	REQ'D
1	R 15106	BOLT - through (Includes washer)	2
2	A 72104	FRAME ASSEMBLY - commutator end	1
3	R 15087	RING - bearing retainer	1
4	A 25461	BEARING - commutator end ball	1
5	A 72039	HOLDER KIT - ground brush	1
6	A 72040	HOLDER KIT - insulated brush	1
7	A 72038	BRUSH ASSEMBLY	2
8	R 15090	ARM - brush pressure	2
9	A 25423	SPRING - brush arm	2
10	A 72042	COIL ASSEMBLY - field R.H.	1
11	A 72048	STUD - armature terminal	1
12	R 16147	BUSHING - insulated, armature stud	1
13	R 15079	WASHER - armature stud	2
14	129- 18	NUT - terminal stud 12-24 hex	4
15	192- 17	LOCKWASHER - terminal stud #12	4
16	R 16148	WASHER - insulated, field stud	1
17	A 72043	COIL ASSEMBLY - field L.H.	1
18	NSS	STUD - field terminal (See Ref. 40)	1
19	R 15077	BUSHING - insulated, field stud (Order A40702)	1
20	A 25447	INSULATOR - field coil	2
21	A 40736	SHOE - pole, plain	1
22	A 40736	SHOE - pole, notched	1
23	A 72041	ARMATURE	1
24	126- 111	KEY - Woodruff, armature	1
25	74- 610	SCREW - pole	2
26	NSS	BODY - starter, generator (Order A70202)	1
27	173- 237	SCREW - 10-32 x 1/2" Rd. Hd.	3
28	192- 18	LOCKWASHER - 3/16" plated	3
29	A 72050	RETAINER ASSEMBLY - bearing (Includes Ref. 37 and 38)	1
30	R 16170	GASKET - bearing retainer	1
31	A 25441	BEARING - ball, drive end	1
32	A 72046	FRAME ASSEMBLY - drive end	1
33	A 72047	SPACER - pulley	1
34	C 14344	PULLEY - starter, generator drive	1
35	192- 26	LOCKWASHER - 11/16" plated	1
36	A 25546	NUT - armature shaft, drive end	1
37	NSS	RETAINER - grease (Order A72050)	1
38	NSS	SEAL - felt (Order A72050)	1
39	NSS	SPACER - armature shaft, inner	1
40	A 40702	KIT - stud (Includes items 16, 18 and 19)	1

This diagram illustrates the electrical system components and their interconnections:

- Battery (12):** The main power source, labeled "E-Cell".
- Generator (6) / Alternator (7):** Connected to the battery via a heavy-duty cable (1).
- Voltage Regulator (8):** Controls the output of the generator.
- Headlights (9, 10):** Two units shown, connected through a headlight switch (11) and relay (13).
- Horn (14):** Connected to the battery through a fuse (15) and a relay (16).
- Ignition System (17, 18):** Includes a distributor (17) and a coil (18), connected to the battery through a fuse (19).
- Wiring Harness (20):** A central bundle of wires connecting all major components.
- Other Components:** A fuse box (21), a terminal block (22), and a ground connection point (23).

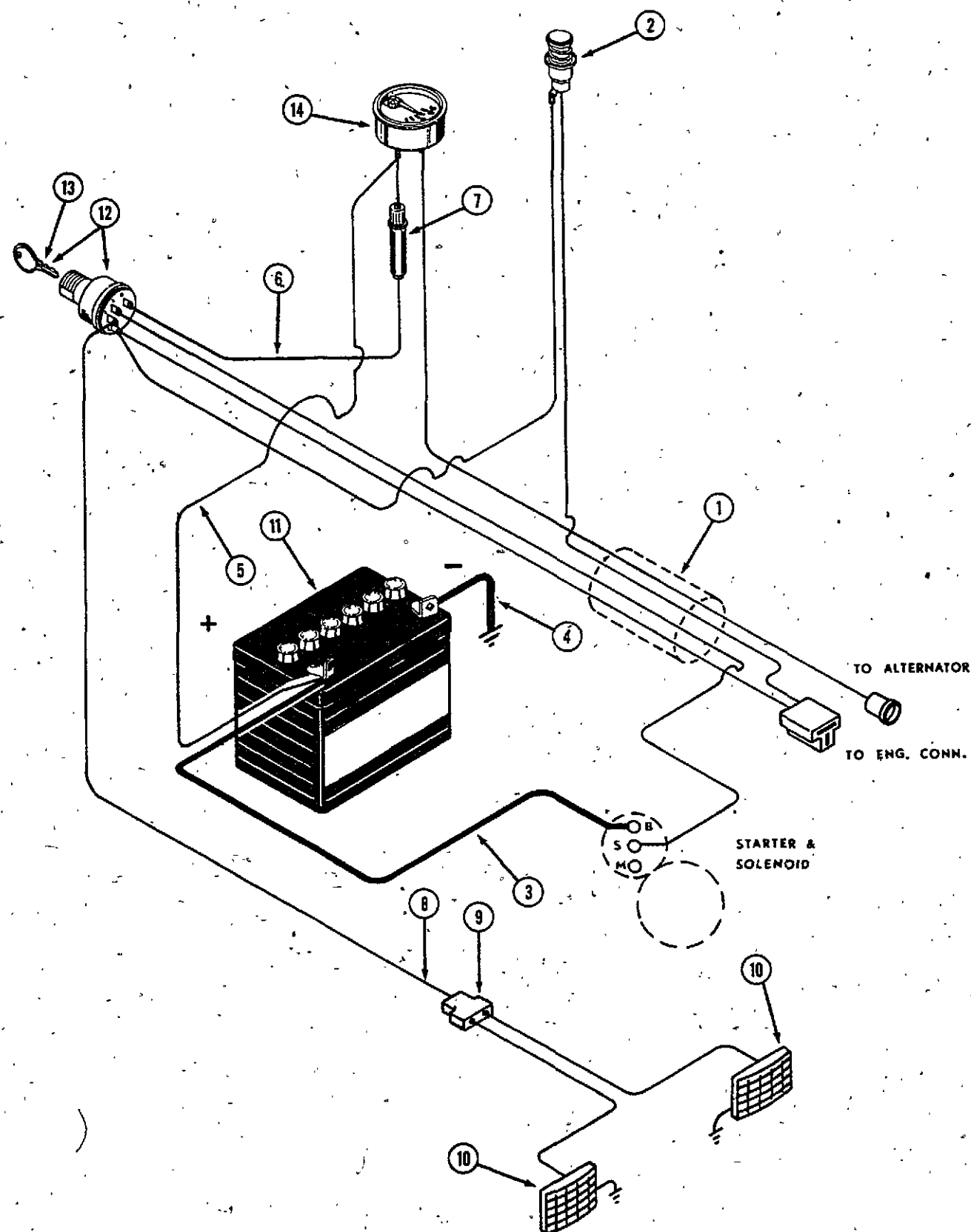
REF.	PART NO.	DESCRIPTION	REQ'D
1	C 18260	HARNESS - wire	1
2	C 17187	WIRE - ignition switch to solenoid (yellow 8")	1
3	C 14565	CABLE - battery positive (red 10-1/2")	1
4	C 18267	CABLE - battery ground (black 16")	1
5	223- 20	FUSE - 20 amp.	1
6	C, 14553	SOLENOID - start	1
7	A 70221	REGULATOR - voltage	1
8	C 16852	STARTER - generator 12 volt, DELCO No.1101875 (Repairs page 61)	1
8	A 70202	STARTER - generator 12 volt, DELCO No. 1101970 (Repairs page 63)	1
9	C 14537	CONNECTOR - headlamp	1
10	C 18389	GAUGE - ammeter	1
11	C 14302	HEADLAMP ASSEMBLY - 12 volt (Repairs page 69)	2
12	C 18197	BATTERY - 12 volt	1
13	KO 231281	COIL - ignition 12 volt	1
14	KO 232535	COVER - breaker contacts	1
15	C 17275	WIRE - regulator ground to solenoid (white 7")	1
16	M 20007	SPARK PLUG - (Includes gasket)	1
17	A 27251	GASKET - spark plug	1
18	KO 238057	CABLE - high tension	1
19	KO 230722	CONDENSER	1
20	C 18261	WIRE - amp. gauge to solenoid (orange 6")	1
21	C 18262	WIRE - solenoid to ground (black 3")	1
22	C 17976	SWITCH - ignition (Includes key)	1
23	C 17763	KEY - ignition	1
	353- 407	PLUG - hole, dash	1

This exploded view diagram illustrates the components of a bicycle bell assembly. The parts are numbered as follows:

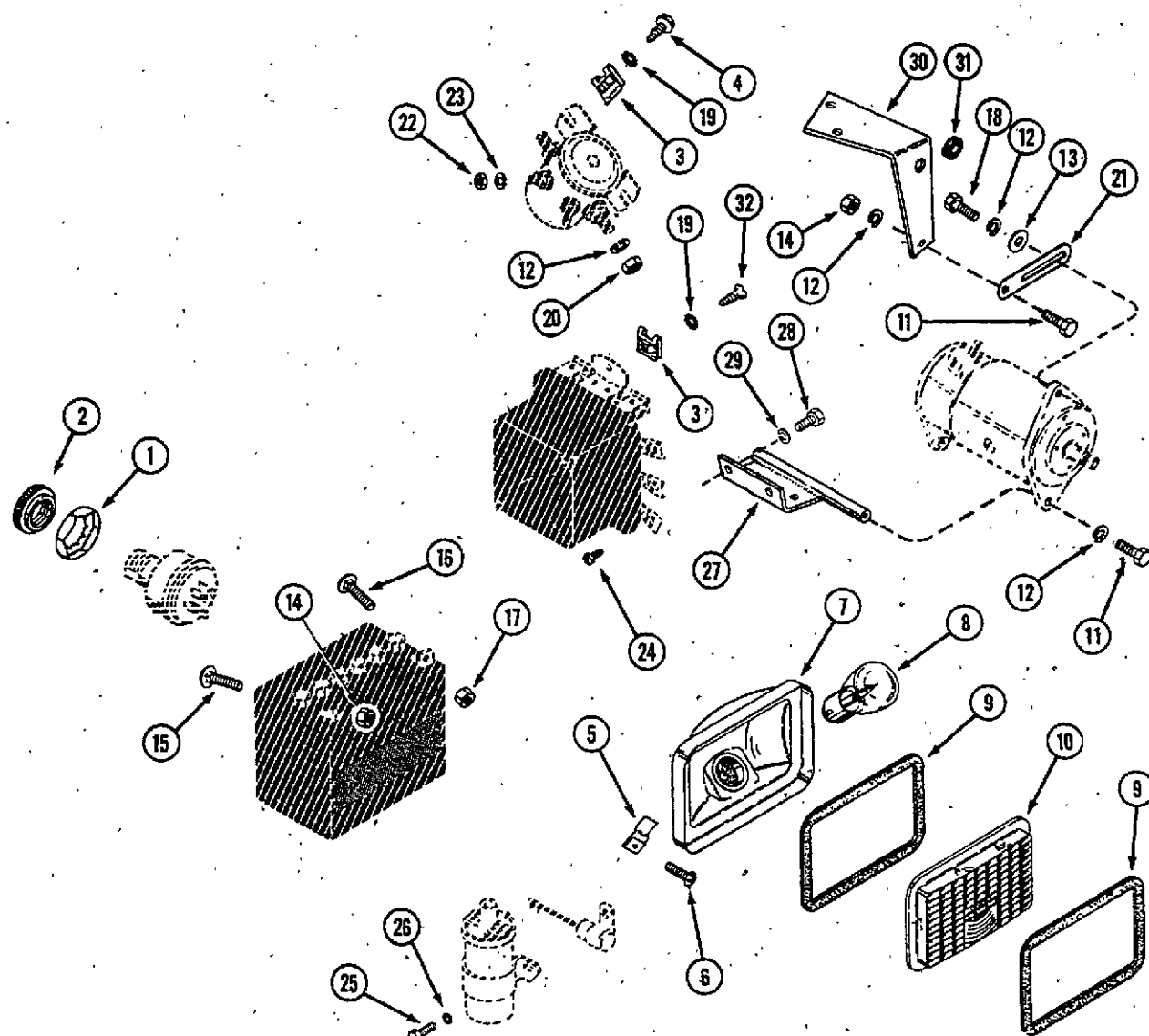
- 1**: The main bell housing.
- 2**: A ring or gasket that fits around the bell housing.
- 3**: A small pin or screw used to secure the ring.
- 4**: The bell's mounting bracket or base.
- 5**: A small component, possibly a spring or contact point.
- 6**: A coiled bell wire.
- 7**: A small screw or pin.
- 8**: A small component, possibly a spring or contact point.
- 9**: A small component, possibly a spring or contact point.
- 10**: A small component, possibly a spring or contact point.
- 11**: A small component, possibly a spring or contact point.
- 12**: A small component, possibly a spring or contact point.
- 13**: The bell's mounting bracket or base.
- 14**: A small component, possibly a spring or contact point.
- 15**: A small component, possibly a spring or contact point.
- 16**: A small component, possibly a spring or contact point.
- 17**: A small component, possibly a spring or contact point.
- 18**: A screw used to secure the bell housing.
- 19**: A small component, possibly a spring or contact point.
- 20**: A small component, possibly a spring or contact point.
- 21**: A small component, possibly a spring or contact point.

1	A	20965	LAMP ASSEMBLY - flood and tail	1
2	B	50255	MOLDING - lamp retaining	1
3		10934	SCREW - molding	1
4	A	40855	LAMP - sealed unit	1
5	B	50223	BULB - red 15 C.P. 12 volt	1
6	B	50273	WIRE - switch	2
7	173-	73	SCREW - wire	2
8	193-	4	WASHER - 1/4" lock	2
9	B	50275	SWITCH	1
10	B	50310	KNOB - switch	1
11	B	50224	NUT - switch	1
12		10927	SPRING - terminal	1
13	NSS		BODY	1
14	B	50293	TERMINAL - wire	1
15	129-	105	NUT - 1/2" NC hex	1
16	192-	23	WASHER - 1/2" lock	1
17		10923	WASHER - bearing	1
18	113-	209	BOLT - 3/8" x 1-1/2" NC hex, zinc plated	1
19	192-	21	LOCKWASHER - 3/8" zinc plated	1
20	129-	103	NUT - 3/8" NC hex, zinc plated	1
21	A	34046	BRACKET - mounting, tail lamp	1

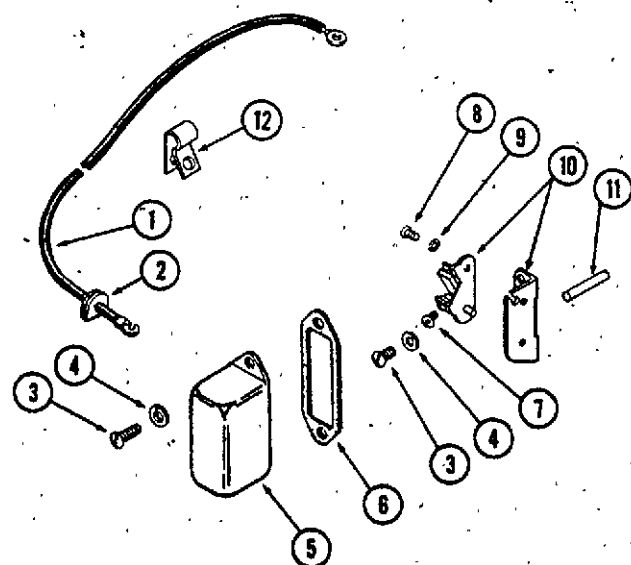
ELECTRICAL SYSTEM - 646



REF.	PART NO.	DESCRIPTION	REQ'D
1	C 18265	HARNESS - wire	1
2	C 18283	LAMP ASSEMBLY - oil indicator	1
	B 50213	BULB - oil indicator 12 volt, (red)	1
3	C 18266	CABLE - battery positive (red 27")	1
4	C 14566	CABLE - battery ground (black 12")	1
5	C 18268	WIRE - battery positive to amp. gauge (white 14-1/2")	1
6	C 18401	WIRE ASSEMBLY - fused (yellow 10-3/4")	1
7	223- 20	FUSE - 20 amp.	1
8	C 18270	WIRE - ignition switch to lights (pink 44")	1
9	C 14537	CONNECTOR - headlamp	1
10	C 14302	HEADLAMP - 12 volt	2
11	C 18197	BATTERY - 12 volt	1
12	C 17976	SWITCH - ignition (Includes key)	1
13	C 17763	KEY - ignition	1
14	C 18389	GAUGE - ammeter	1
	C 23744	KIT - neutral start switches	1

ELECTRICAL SYSTEM HARDWARE

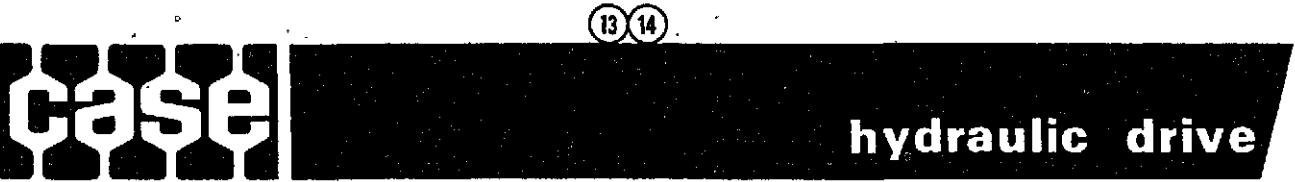
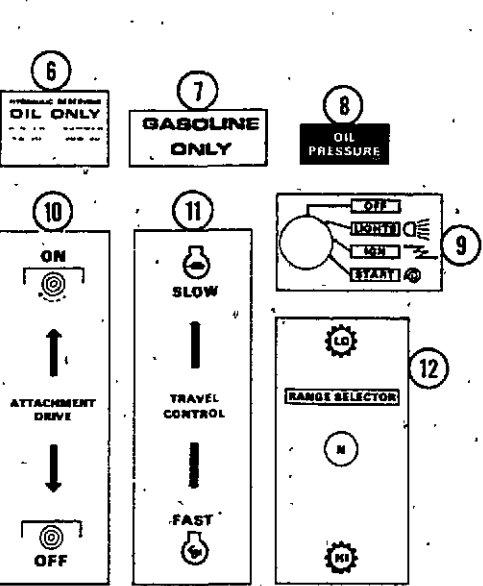
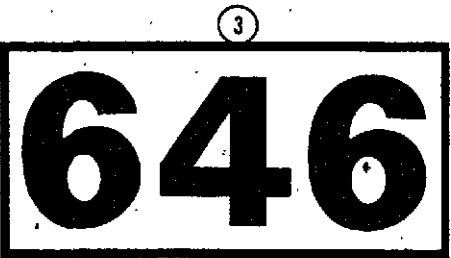
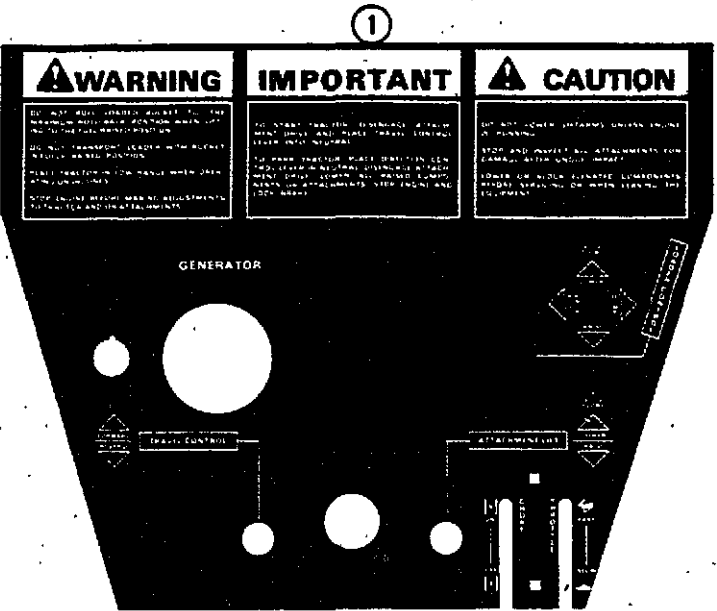
REF. PART NO.	DESCRIPTION	REQ'D
1 C 14060	NUT - back up 3/4"	1
2 C 17921	NUT - escutcheon 3/4"	1
3 C 10836	NUT - speed type "U"	4
4 187- 485	SCREW - #10 x 5/8" self-tapping hex	2
5 131- 629	NUT - speed type "U"	4
6 187- 1047	SCREW - #8 x 1/2" self-tapping round head, Phillips	4
C 14302	HEADLAMP ASSEMBLY	2
7 NSS	RECEPTACLE - headlamp (Order C14302)	1
8 C 14305	BULB - headlamp	1
9 C 14304	GASKET - headlamp	2
10 C 14303	LENS - headlamp	1
11 113- 103	BOLT - 5/16" x 1" NC hex, zinc plated	2
12 192- 20	LOCKWASHER - 5/16" zinc plated	5
13 195- 520	WASHER - 5/16" plain, zinc plated	2
14 129- 102	NUT - 5/16" NC hex, zinc plated	2
15 111- 202	BOLT - 5/16" x 3/4" NC, round head, square neck	1
16 111- 108	BOLT - 1/4" x 3/4" NC, round head, square neck	1
17 129- 101	NUT - 1/4" NC hex	1
18 113- 102	BOLT - 5/16" x 3/4" NC, zinc plated	1
19 193- 70	LOCKWASHER - #10 external tooth	2
20 129- 122	NUT - 5/16" NF hex	2
21 C 14599	BRACKET - starter generator adjust	1
22 129- 27	NUT - #10 NF hex	2
23 192- 18	LOCKWASHER - #10	2
24 169- 131	SCREW - #8 x 5/16" NC fillister head	3
25 113- 1	BOLT - 1/4" x 1/2" NC hex, zinc plated	2
26 192- 19	LOCKWASHER - 1/4" zinc plated	2
27 C 14204	SUPPORT - starter generator	1
28 13- 612	BOLT - 3/8" x 3/4" NC hex	2
29 192- 21	LOCKWASHER - 3/8"	2
30 C 14229	SUPPORT - starter generator adjust	1
31 C 17546	GROMMET - wire	1
32 187- 130	SCREW - #10 x 5/8" self tapping	2

BREAKER CONTACTS - 644

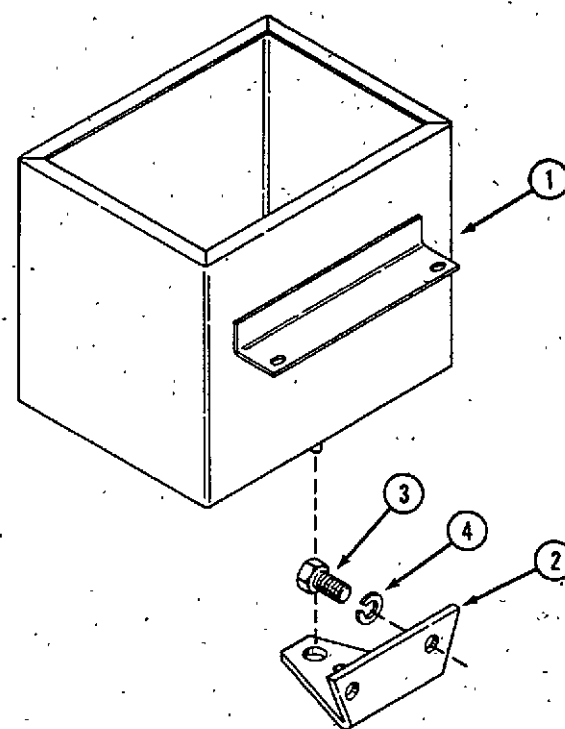
1 KOA231533	LEAD - breaker contact (Includes grommet)	1
2 KO 220297	GROMMET - contact lead	1
3 173- 210	SCREW - #10 x 3/8" round head, zinc plated	4
4 192- 18	LOCKWASHER - 3/16" zinc plated	4
5 KO 232535	COVER - breaker contact	1
6 KO 220174	GASKET - cover	1
7 187- 408	SCREW - #6 x 3/8" Self-Tapping	1
8 173- 224	SCREW - #8 x 1/4" NC round head	1
9 193- 5	LOCKWASHER - #8 internal tooth	1
10 KOA220474	POINT SET - breaker contact	1
11 C 18100	ROD - breaker contact push	1
12 KO 275182	CLIP - wire	1

DECALS

REF. PART NO.	DESCRIPTION	REQ'D
1 321- 2144	DECAL - instrument panel	1
2 321- 2141	DECAL - (644)	2
3 321- 2140	DECAL - (646)	2
4 321- 1571	DECAL - "CASE"	1
5 321- 2139	DECAL - "CASE", brushed aluminum	1
6 C 14539	DECAL - oil, hydraulic reservoir	1
7 C 14066	DECAL - gasoline	1
8 321- 2171	DECAL - oil pressure	1
9 321- 2147	DECAL - ignition switch	1
10 321- 2111	DECAL - attachment drive	1
11 321- 2338	DECAL - travel control	1
12 321- 1788	DECAL - range selector	1
13 321- 2142	DECAL - hood, R.H.	1
14 321- 2143	DECAL - hood, L.H.	1



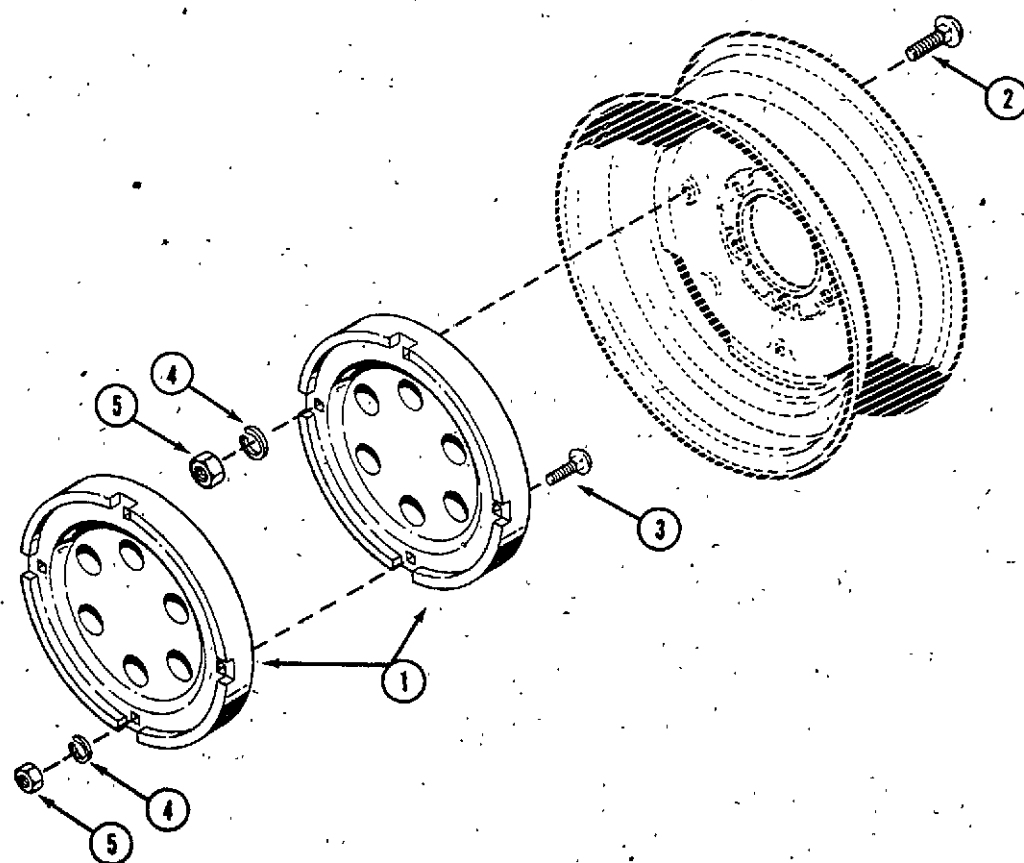
WEIGHT BOX AND DRAWBAR



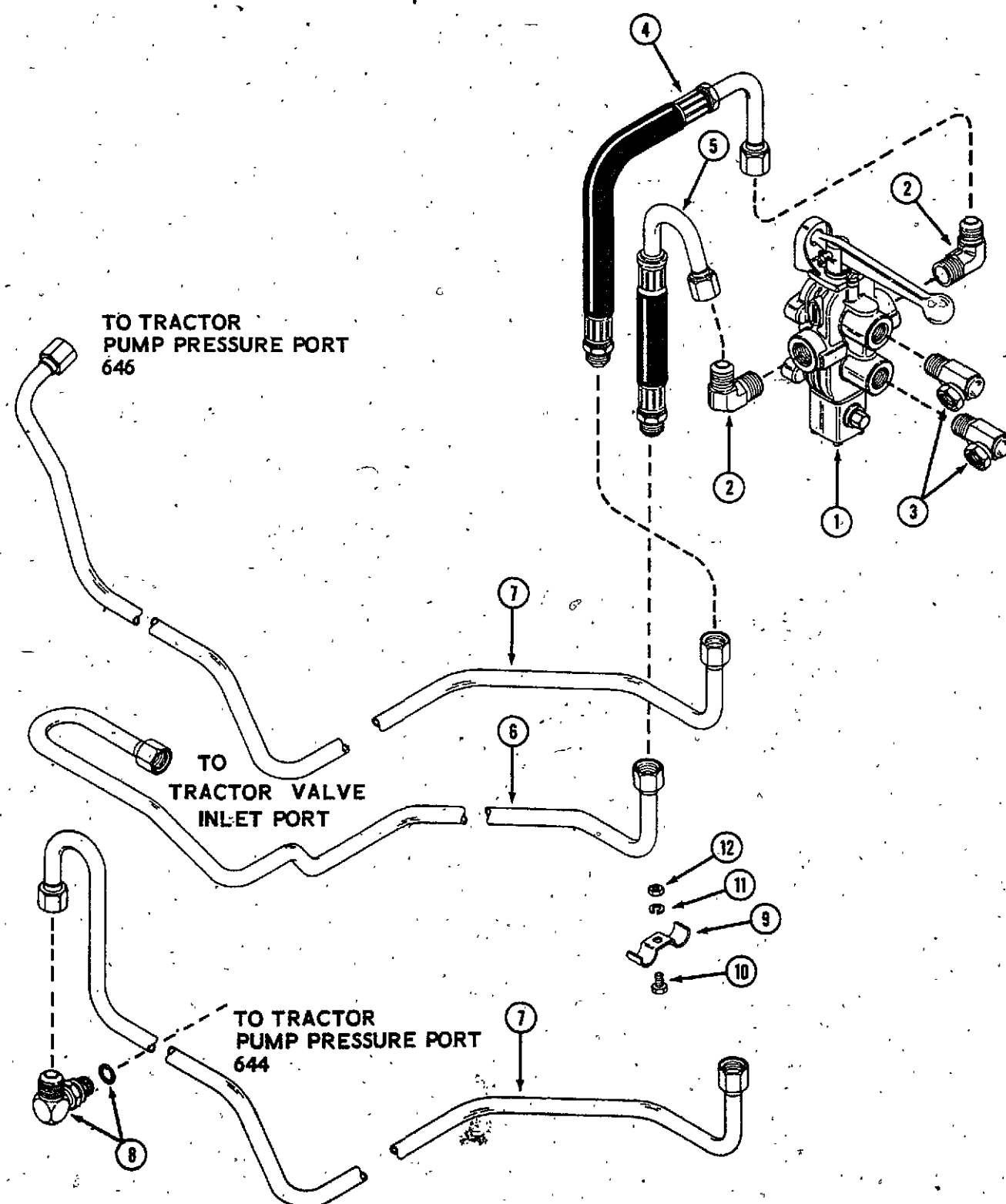
REF. PART NO.	DESCRIPTION	REQ'D
1 C 17641	WEIGHT BOX	1
2 C 13360	DRAWBAR	1
3 113- 424	BOLT - 1/2" x 1" NC hex	2
4 192- 23	LOCKWASHER - 1/2"	2

D10 WHEEL WEIGHTS

1 NSS	WEIGHT - wheel (Order as machinery item)	4
2 111- 530	BOLT - 1/2" x 2-1/2" NC round head, square neck ZP	4
3 111- 531	BOLT - 1/2" x 2-3/4" NC round head, square neck ZP	4
4 92- 8	LOCKWASHER - 1/2"	8
5 129- 105	NUT - 1/2" NC hex	8

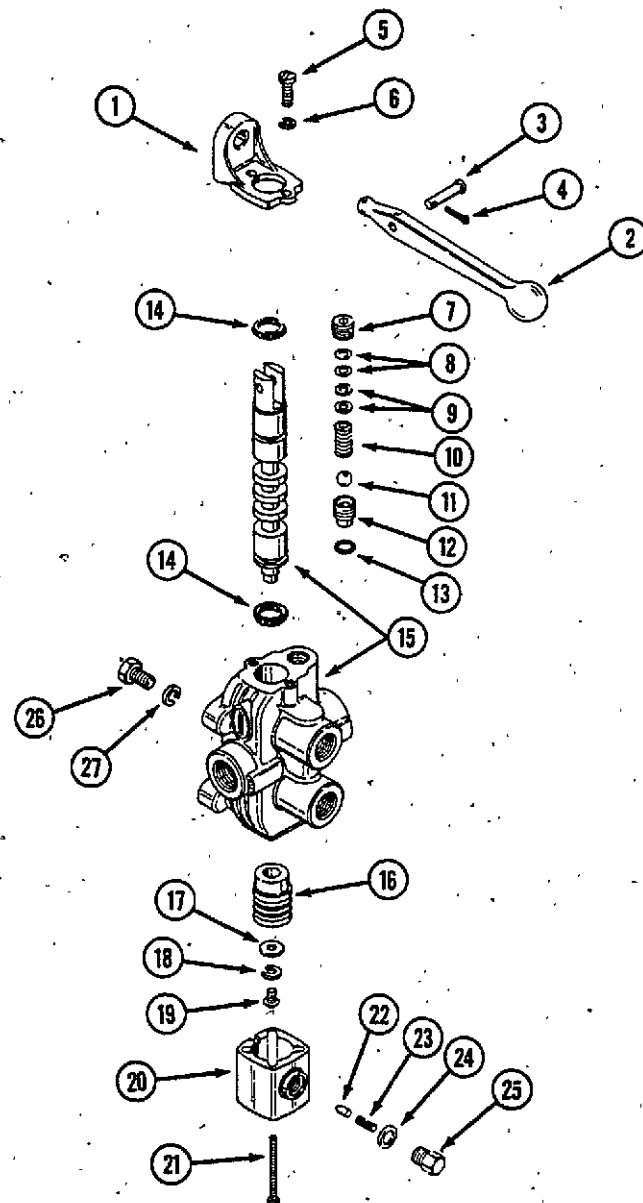


MODEL LT-16 AND LT-17 HYDRAULIC PTO KIT

ILLUSTRATED AS VIEWED FROM
LEFT REAR OF TRACTOR

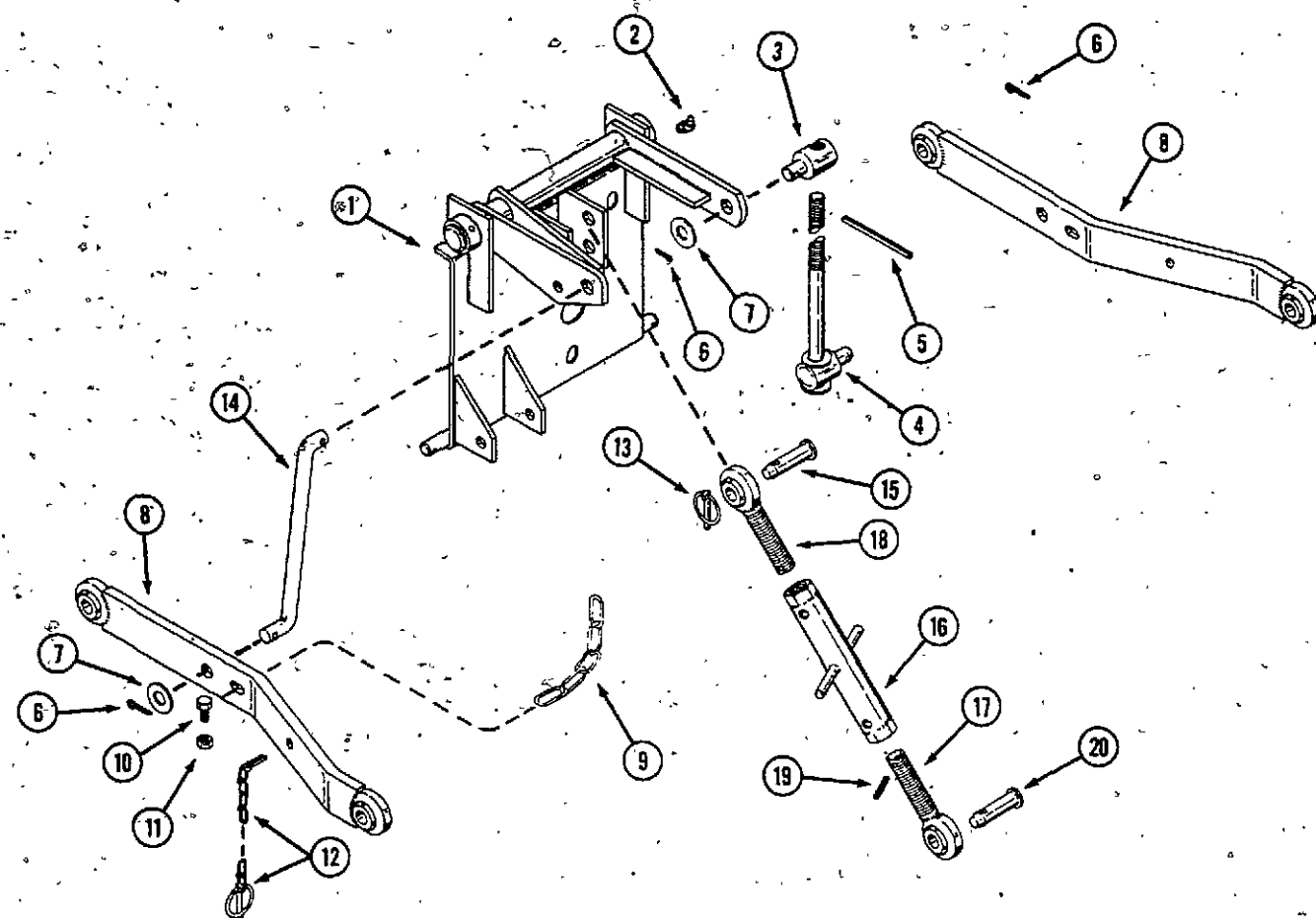
REF.	PART NO.	DESCRIPTION	REQ'D
1	C 18281	VALVE - hydraulic, PTO (Repairs see page 77)	1
2	218- 494	FITTING - elbow, 90°	2
3	218- 927	FITTING - swivel, 90°	2
4	C 18287	HOSE - valve inlet	1
5	C 18288	HOSE - valve outlet	1
6	C 18285	TUBE - PTO valve to tractor valve	1
7	C 18286	TUBE - pump to PTO valve (646)	1
7	C 18317	TUBE - pump to PTO valve (644)	1
8	218- 5117	FITTING - pump 90° (includes 218-5007 "O" - ring) 644	1
9	C 15389	CLAMP - tube support	1
10	113- 3	BOLT - 1/4" x 3/4" NC hex	1
11	192- 19	LOCKWASHER - 1/4"	1
12	129- 101	NUT - 1/4" NC hex	1

LT-16 AND LT-17 HYDRAULIC PTO VALVE



REF. PART NO.	DESCRIPTION	REQ'D
C 18281	VALVE - hydraulic PTO	1
1 C 11888	BRACKET - handle	1
2 C 11889	HANDLE - valve	1
3 36627	PIN - clevis	1
4 132- 5	PIN - cotter 1/16 x 1/2"	1
5 75- 410	SCREW	2
6 92- 4	LOCKWASHER - 1/4"	2
7 221- 842	PLUG - relief 3/8" NPT	1
8 D 39712	WASHER - relief, thin .010	2
9 A 55894	WASHER - relief, thick .020	2
10 T 40189	SPRING - relief	1
11 211- 11	BALL - relief 3/8"	1
12 C 11896	SEAT - relief	1
13 A 27891	SEAL - "O" - ring, relief seat	1
14 C 11891	SEAL - "U" cup	2
15 NSS	BODY AND SPOOL ASSEMBLY (Order C18314 valve)	1
16 C 11895	ADAPTER - spool	1
17 95- 4	WASHER - detent 1/4"	1
18 92- 4	LOCKWASHER - 1/4"	1
19 75- 48	SCREW - 1/4" x 1/2" rd. hd. machine	1
20 C 11893	BONNET - detent	1
21 169- 108	SCREW - bonnet #8" x 2-1/2" fillister hd.	4
22 C 11901	PIN - detent	1
23 C 11892	SPRING - detent	1
24 C 11886	WASHER - detent cap	1
25 C 11887	CAP - detent	1
26 113- 206	BOLT - 3/8" x 3/4" NC hex	4
27 192- 21	LOCKWASHER - 3/8"	4

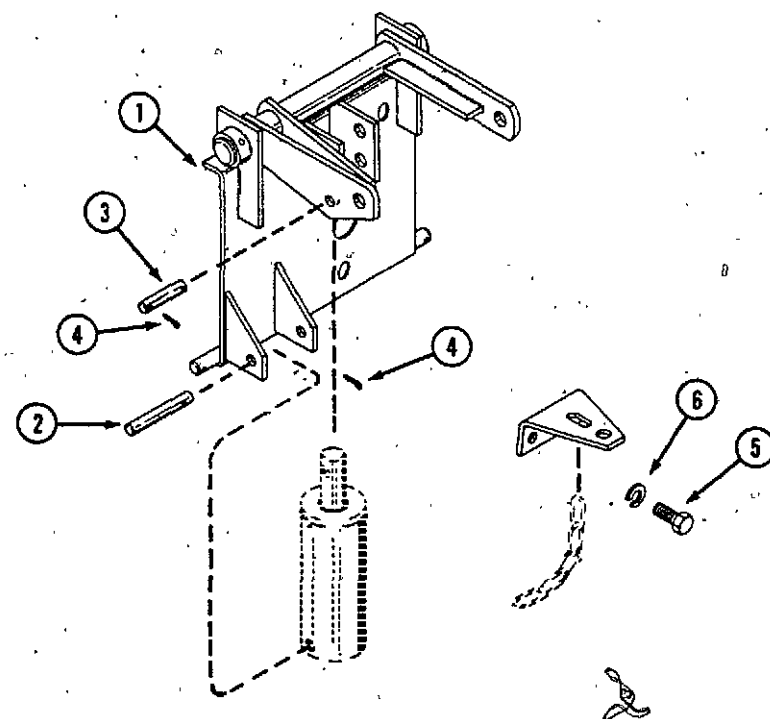
LT26 THREE POINT HITCH 644 AND 646 FRAME, LIFT RODS AND ARMS



REF. PART NO.	DESCRIPTION	REQ'D
1 C 20117	HITCH PLATE ASSEMBLY	1
2 219- 405	FITTING - lube	2
3 C 14722	NUT - lift rod	1
4 C 14724	ROD ASSEMBLY - R.H. lift	1
5 138- 309	PIN - roll 1/4 x 4"	1
6 132- 91	PIN - cotter 3/16 x 1"	6
7 195- 541	WASHER - plain 5/8"	4
8 C 14715	ARM - lift	2
9 C 14991	CHAIN - stay 19 links	1
10 113- 118	BOLT - 5/16" x 5/8" NC hex, zinc plated	2
11 131- 176	NUT - lock 5/16" NC hex	2
12 B 52118	PIN - klik	2
13 A 30338	PIN - klik	3
14 C 14725	ROD - lift L.H.	1
15 C 14717	PIN - clevis	1
16 C 14712	LINK ASSEMBLY	1
17 C 14703	CENTER TUBE ASSEMBLY	1
18 C 14709	BALL END ASSEMBLY R.H. THREAD	1
19 C 14710	BALL END ASSEMBLY L.H. THREAD	1
20 138- 59	PIN - roll 1/8" x 7/8"	2
21 C 16128	PIN - clevis 5/8" x 3"	1

CYLINDER AND DRAWBAR MOUNTING

1 C 20117	HITCH PLATE ASSEMBLY	1
2 C 14975	PIN - lower cylinder mounting	1
3 C 14976	PIN - upper cylinder mounting	1
4 132- 310	PIN - cotter 1/8" x 1"	3
5 113- 417	BOLT - 1/2" x 1-1/4" NC hex, zinc plated	4
6 192- 23	LOCKWASHER - 1/2"	4

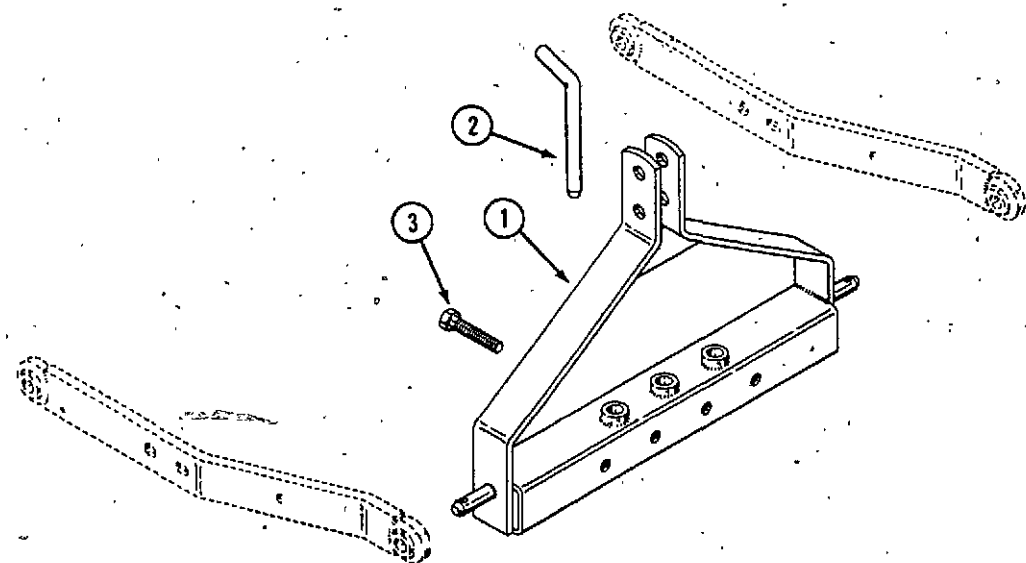
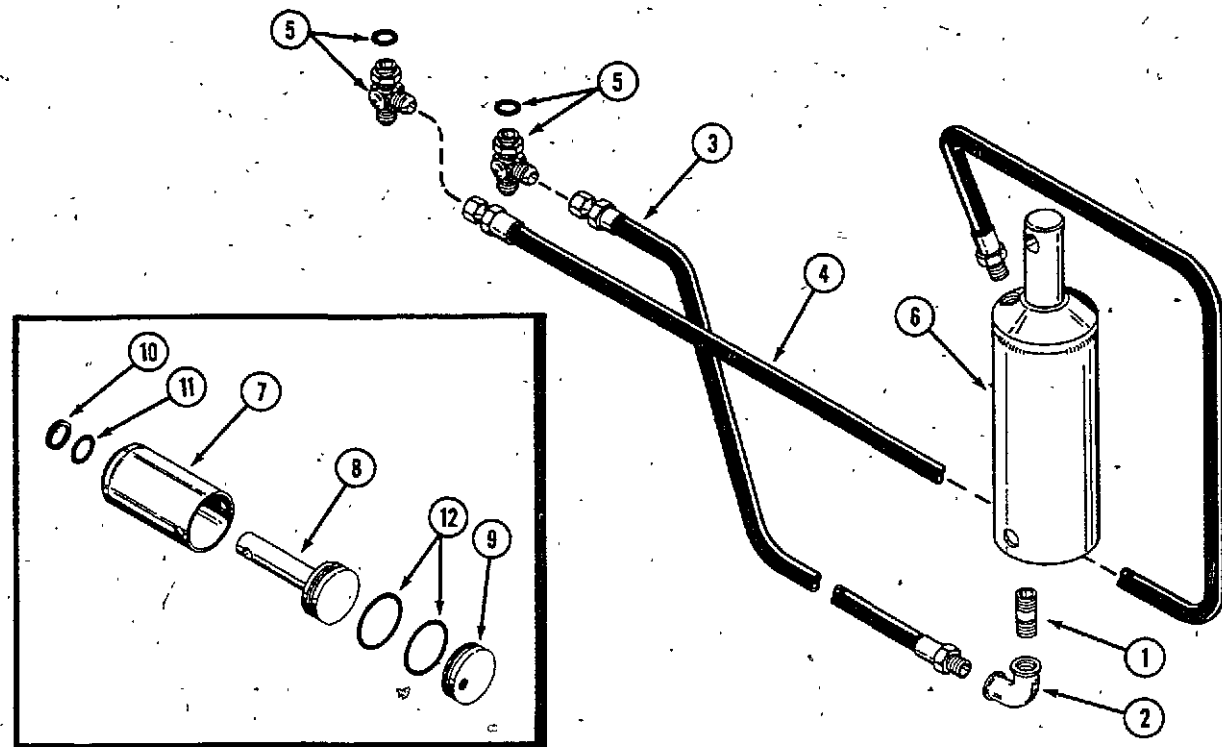


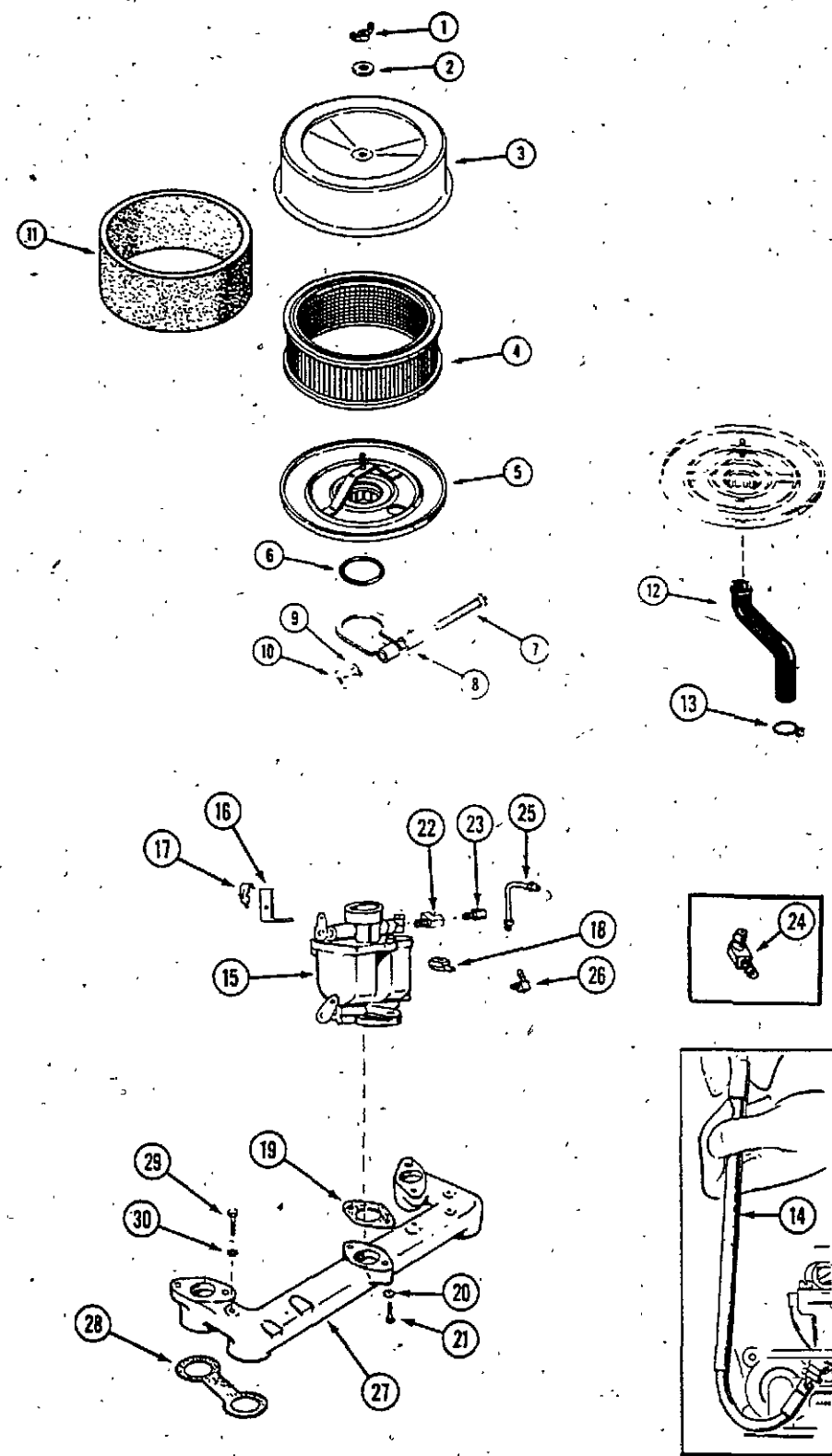
CASE MODEL 644 AND 646 COMPACT WHEEL LOADER 81
MODEL LT26 THREE POINT HITCH AND MODEL
F27 HITCH ADAPTER
HYDRAULIC CONNECTIONS AND COMPONENTS

REF. PART NO.	DESCRIPTION	REQ'D
1 221- 1139	NIPPLE - 1/4" x 3"	1
2 221- 1375	ELBOW - 90°	1
3 C 17188	HOSE - hydraulic short	1
4 C 17189	HOSE - hydraulic long	1
5 218- 5291	FITTING - tee (Includes 218-5004 "O" ring)	2
6 C 15771	CYLINDER ASSEMBLY	1
7 C 15768	BODY - cylinder	1
8 C 15769	ROD AND PISTON ASSEMBLY	1
9 C 14692	FOOT - cylinder	1
10 NSS	SEAL - wiper	1
11 NSS	"O" RING	1
12 NSS	"O" RING	2
13 C 17268	KIT - seal (Consists of items 10, 11 and 12)	1

MODEL F27 HITCH ADAPTER

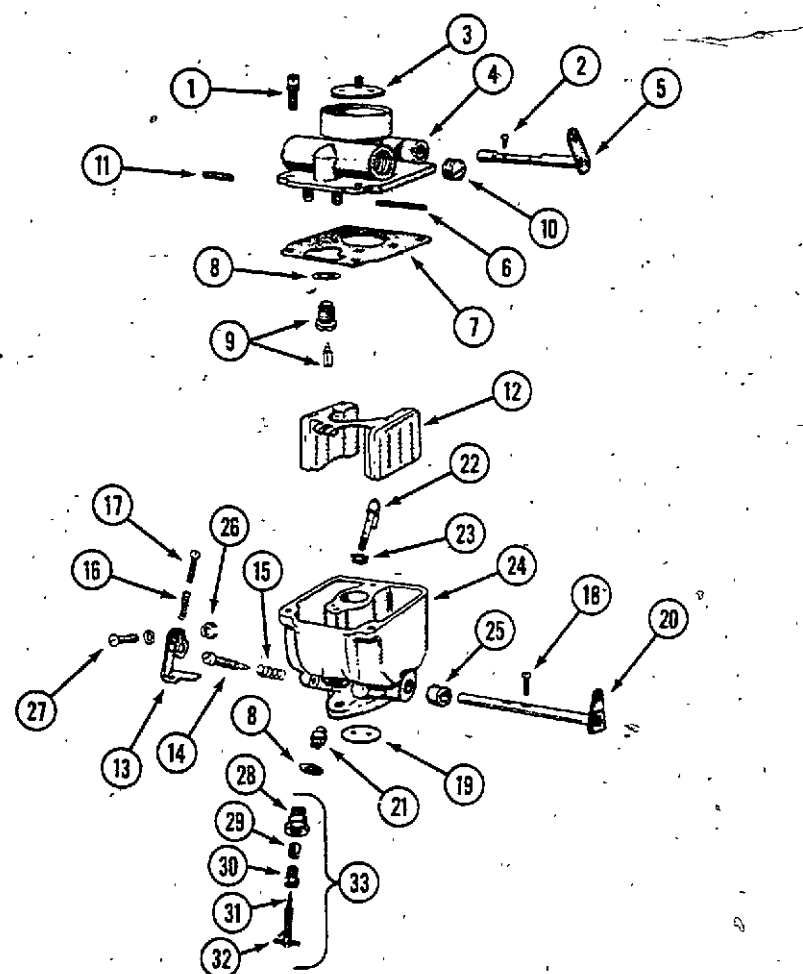
1 C 14872	BRACKET - hitch adapter	1
2 C 14568	PIN - drawbar	1
3 113- 425	BOLT - 1/2" x 3" NC hex, zinc plated	4





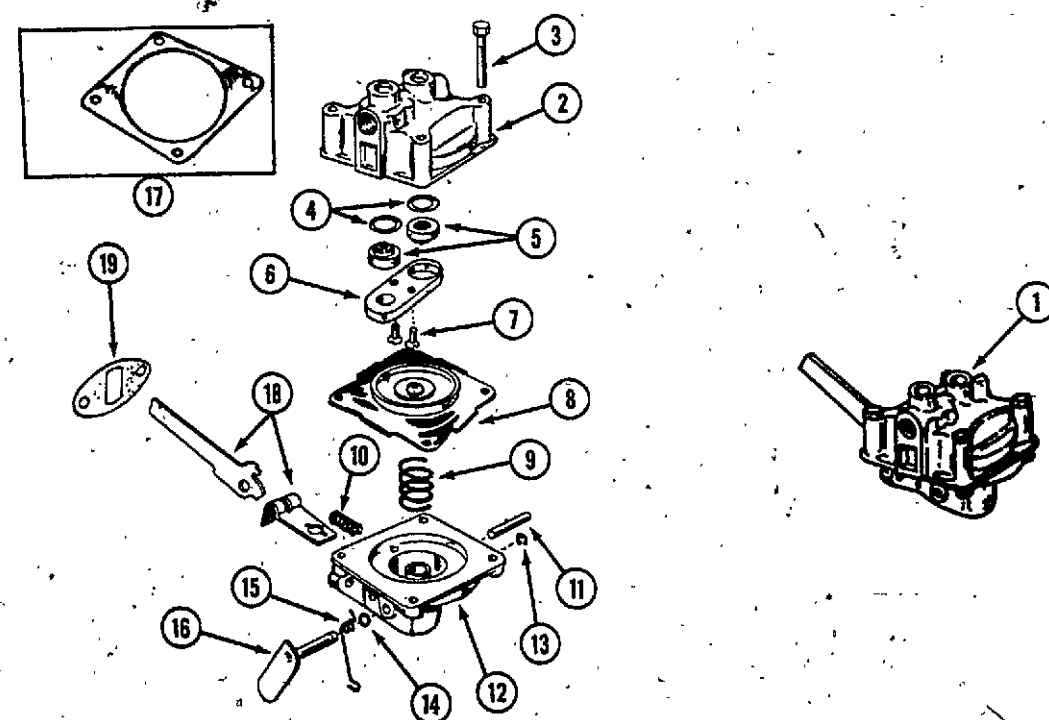
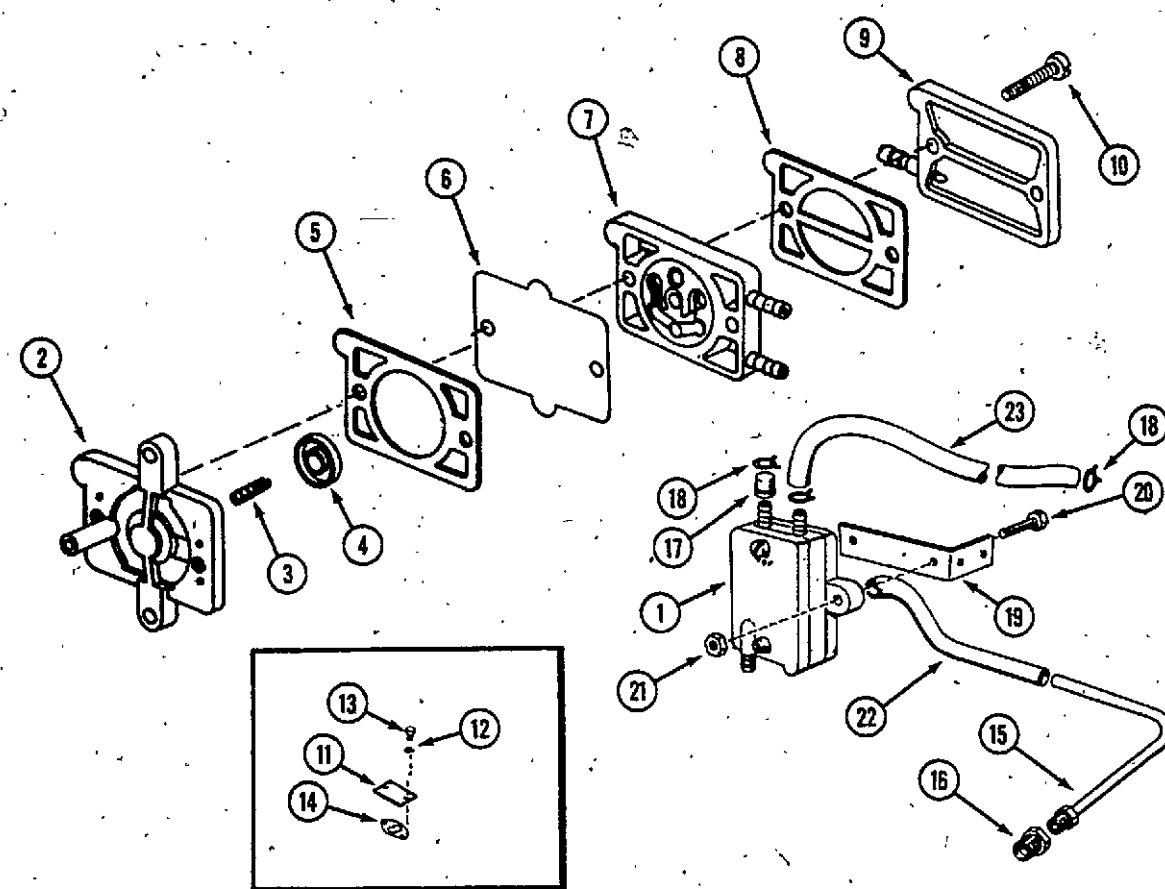
CARBURETOR, AIR FILTER AND MANIFOLD

Ref. No.	Part No.	Description	Req'd
	C 18627	AIR CLEANER ASSEMBLY.....	1
1	129-900	NUT - wing #10 NF.....	1
2	195-512	WASHER - #10.....	1
3	C 18629	COVER - air cleaner.....	1
4	A 70090	ELEMENT - air cleaner.....	1
5	C 18628	BASE - air cleaner.....	1
6	A 28077	"O"-RING - 1-7/16" I.D.....	1
7	174-222	SCREW - #10 x 2-1/4" NF rd. hd. machine.....	1
8	C 19170	CLAMP - air cleaner.....	1
9	192- 17	LOCKWASHER - #10.....	1
10	129- 77	NUT - #10 NF square.....	1
11	KO237421	PRE-CLEANER - air cleaner (optional).....	1
12	C 19169	TUBE - breather.....	1
13	214-251	CLAMP - hose.....	1
14	C 20634	WRENCH - carburetor adjusting.....	1
15	C 20660	CARBURETOR - engine (repairs, page 85).....	1
16	C 20630	BRACKET - choke.....	1
17	C 20374	CLIP - throttle cable.....	1
18	C 20636	ELBOW - fuel pump inlet (used with mech. fuel pump).....	1
19	C 20564	GASKET - carburetor mtg.....	1
20	13- 424	BOLT - carburetor mtg.....	2
21	92- 4	LOCKWASHER - carburetor mtg.....	2
22	C 21600	TEE - carburetor inlet (used on some models prior to S/N 9663306).....	1
23	C 20658	ELBOW - carburetor inlet (used with mech. fuel pump).....	1
24	C 20636	ELBOW - carburetor inlet (used with vacuum fuel pump).....	1
25	C 20656	LINE - fuel pump to carb. (used with vacuum fuel pump).....	1
25	C 20657	LINE - fuel pump to carb. (used with mech. fuel pump).....	1
26	C 20661	ELBOW - fuel pump outlet (used with mech. fuel pump).....	1
27	C 20631	MANIFOLD - intake, engine.....	1
28	C 20632	GASKET - manifold, intake.....	1
29	13- 632	BOLT - manifold mtg.....	2
30	92- 6	LOCKWASHER - manifold mtg.....	2



C 20688 CARBURETOR

Ref. No.	Part No.	Description	Req'd
1	169- 97	SCREW - bowl cover	3
2	NSS	SCREW - choke fly #4 x 3/16" (order C 20689 Kit)	2
3	C 20691	FLY - choke	1
4	NSS	COVER ASSEMBLY - carburetor (order C 20688 carburetor)	1
5	C 20693	SHAFT ASSEMBLY - choke	1
6	C 20694	PIN - float	1
7	NSS	GASKET - body to bowl (order C 20689 kit)	1
8	NSS	GASKET - float, valve seat (order C-20689 kit)	1
8	NSS	GASKET - needle, main adjusting (order C 20689 kit)	1
9	NSS	NEEDLE AND SEAT ASSEM. (order C 20689 kit)	1
10	C 20708	PLUG - gas inlet	1
11	C 20712	PIN - stop, choke	1
12	C 20700	FLOAT ASSEMBLY - carburetor	1
13	C 20701	LEVER - idler stop	1
14	NSS	NEEDLE - idler adjust (order C 20689 kit)	1
15	C 20439	SPRING - idle adjust	1
16	C 20704	SPRING - throttle stop adj.	1
17	169- 61	SCREW - throttle stop #6 x 1/2"	1
18	NSS	SCREW - throttle fly #4 x 1/4" (order C 20689 kit)	2
19	C 20705	FLY - throttle	1
20	NSS	SHAFT ASSEMBLY - throttle (order C 20689 kit)	1
21	C 20707	NOZZLE - nut and jet	1
22	C 20699	NOZZLE ASSEMBLY	1
23	NSS	GASKET - nozzle (order C 20689 kit)	1
24	NSS	BODY ASSEMBLY - carburetor (order 20688 carburetor)	1
25	C 20709	BUSHING - throttle shaft	2
26	C 20550	NUT - throttle stop	1
27	C 20711	SCREW - throttle stop mtg. clamp	1
28	C 20713	NUT - main adjust needle retainer	1
29	NSS	PACKING - main adjust needle (order C 20689 kit)	1
30	C 20715	RETAINER - main adjust needle	1
31	C 20716	PIN - main adjust needle	1
32	NSS	NEEDLE - main adjust (order C 20689 kit)	1
33	C 20718	NEEDLE ASSEMBLY	1
	C 20689	KIT - repair, carburetor (includes items 2, 4, 7, 8, 9, 14, 18, 20, 23, 29, 30 & 32)	1

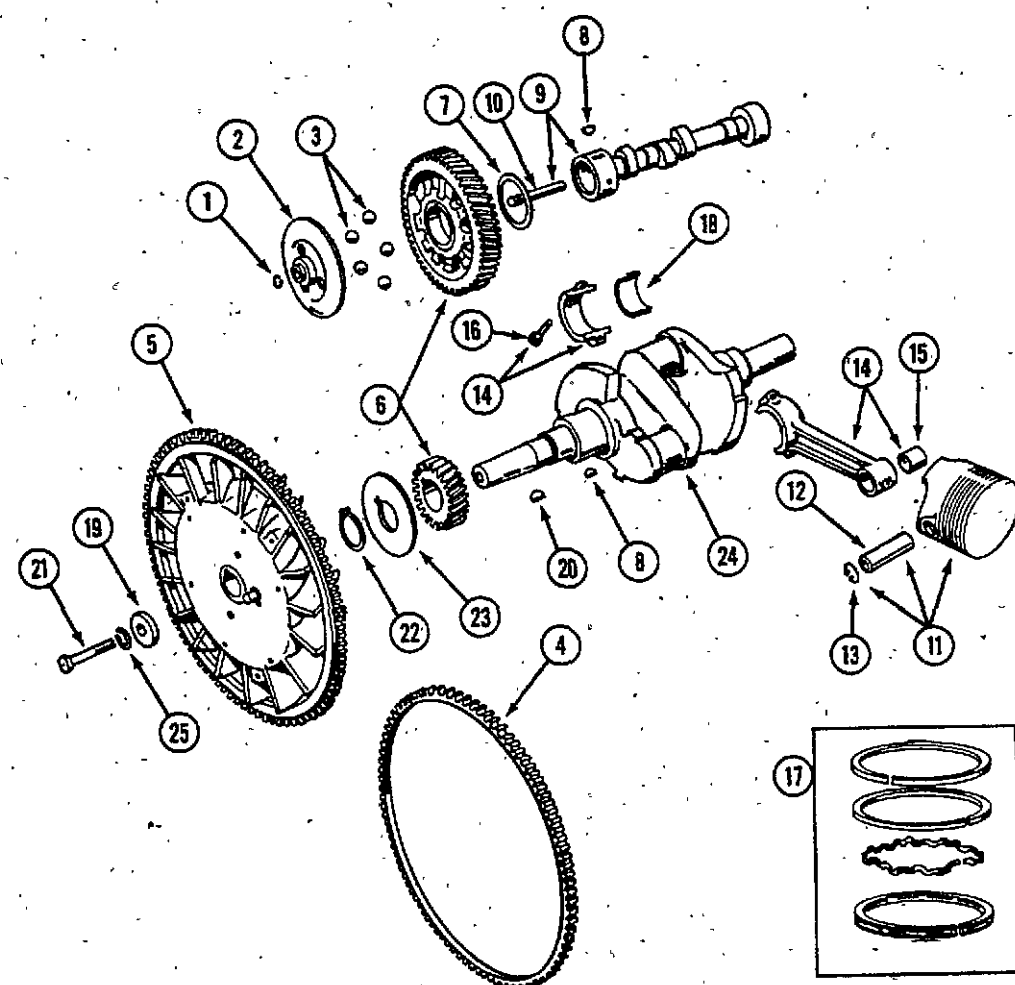


FUEL PUMP ASSEMBLY

Ref. No.	Part No.	Description	Req'd
1	C 20653	PUMP - fuel, vacuum (used S/N 9663306 and after)	1
2	C 20740	BASE - fuel pump	1
3	C 20440	SPRING - diaphragm	1
4	C 20448	PLATE - spring	1
5	C 20434	GASKET - base, fuel pump	1
6	C 20437	DIAPHRAGM - fuel pump	1
7	C 20428	VALVE PLATE ASSEMBLY	1
8	C 20738	GASKET - cover, fuel pump	1
9	C 20739	COVER - fuel pump	1
10	C 20433	SCREW - cover, fuel pump	2
11	C 20645	PLATE - mechanical fuel pump hole cover	1
12	192- 19	LOCKWASHER - 1/4"	2
13	113- 1	BOLT - 1/4 x 1/2" n.c. hex	2
14	C 20735	GASKET - plate, fuel pump hole cover	1
15	C 20647	TUBE - vacuum line	1
16	C 20648	FITTING - inverted male	1
17	C 20411	CAP - fuel pump	1
18	214- 251	CLAMP - hose	3
19	C 20650	BRACKET - fuel pump mtg.	1
20	C 20651	SCREW - #10 x 5/8"	2
21	129- 27	NUT - #10 n.f. hex	2
22	C 16202	HOSE - vacuum, fuel pump	1
23	C 15526	HOSE - fuel pump to carburetor	1

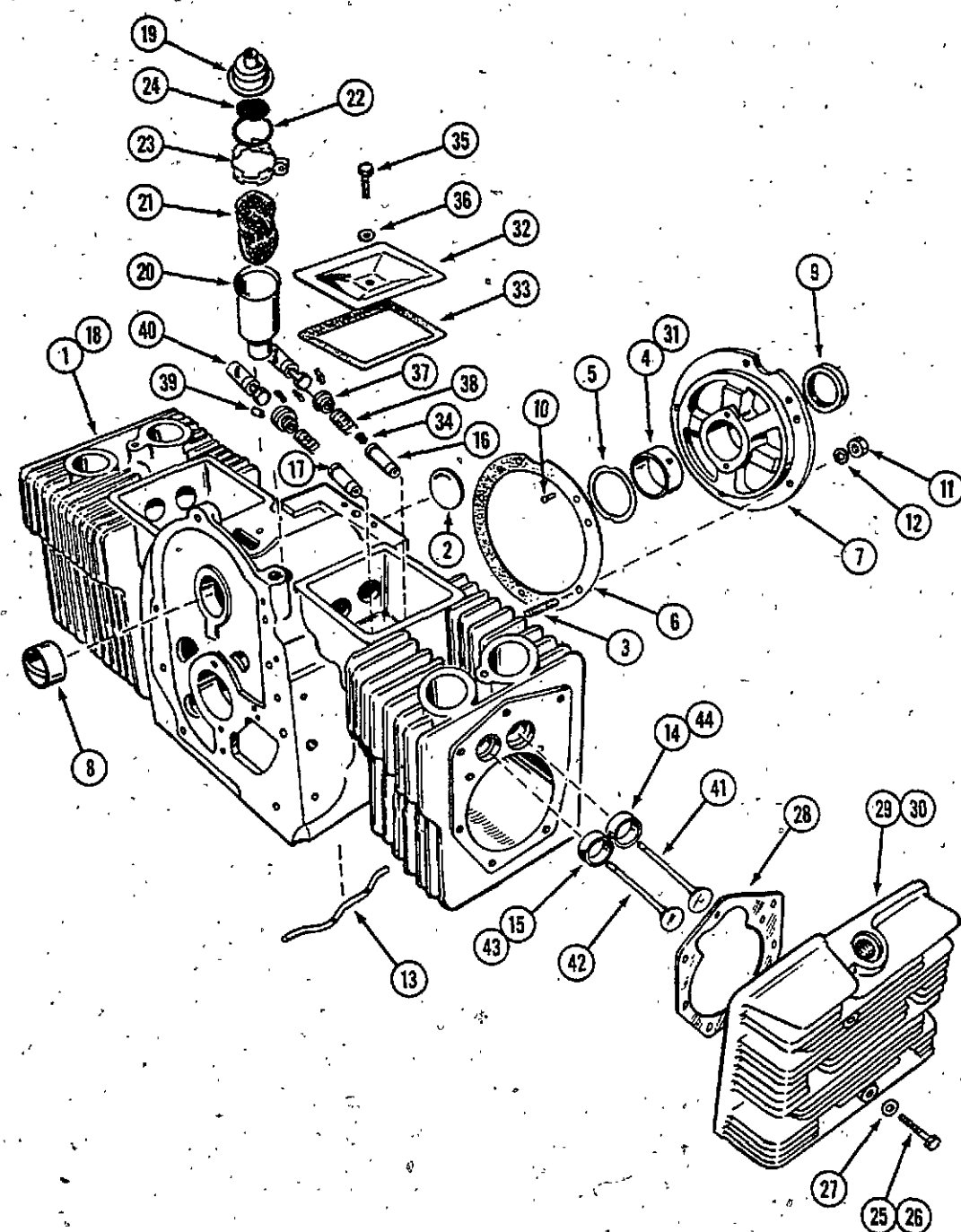
FUEL PUMP - MECHANICAL

1	C 20652	PUMP - fuel, mechanical (used prior to S/N 9663306)	1
2	NSS	BODY - fuel pump (order C 20719 pump)	1
3	C 20721	SCREW - #8 x 7/8" machine	4
4	NSS	GASKET - valve (order C 20720 kit)	2
5	NSS	VALVE AND CAGE (order C 20720 kit)	2
6	C 20727	RETAINER - valve cage	1
7	C 20722	SCREW - #6 - 32 x 7/8" flat hd. Phillips, self tapping	2
8	NSS	DIAPHRAGM ASSEMBLY (order C 20720 kit)	1
9	NSS	SPRING - diaphragm (order C 20720 kit)	1
10	NSS	SPRING - arm (order C 20720 kit)	1
11	C 20729	PIN - rocker arm	1
12	NSS	BODY - fuel pump, lower (order C 20719 pump)	1
13	C 20547	RETAINER - primer lever	1
14	C 20733	SEAL - o-ring	2
15	C 20734	SPRING - primer lever	1
16	C 20732	LEVER - primer	1
17	NSS	GASKET - diaphragm (order C 20720 kit)	1
18	C 20730	ARM ASSEMBLY - rocker, includes link	1
19	C 20735	GASKET - fuel pump mtg.	1
	C 20720	KIT - fuel pump (includes items 4, 5, 8, 9, 10, 17 & 19)	1



PISTON, CRANKSHAFT, FLYWHEEL AND CAMSHAFT

Ref. No.	Part No.	Description	Req'd
1	C 20233	RING - center pin, camshaft	1
2	C 20224	CUP - governor	1
3	211- 14	BALL - fly, governor	5
4	C 20308	GEAR - ring, flywheel	1
5	C 20317	FLYWHEEL - engine (includes ring gear)	1
6	C 20228	GEAR SET - timing (includes cam and crankshaft gears)	1
7	C 20229	WASHER - thrust, cam gear	1
8	126- 9	KEY - woodruff, cam and crankshaft gear mtg.	2
9	C 20327	CAMSHAFT - engine (includes C 20233 Pin)	1
10	C 20233	PIN - camshaft-center	1
11	C 20342	PISTON AND PIN ASSEMBLY - standard	2
11	C 20351	PISTON AND PIN ASSEMBLY - .005"	2
11	C 20352	PISTON AND PIN ASSEMBLY - .010"	2
11	C 20357	PISTON AND PIN ASSEMBLY - .020"	2
11	C 20358	PISTON AND PIN ASSEMBLY - .030"	2
11	C 20373	PISTON AND PIN ASSEMBLY - .040"	2
12	C 20379	PIN - piston	2
13	C 20380	RETAINER - piston pin	4
14	C 20381	CONNECTING ROD ASSEMBLY	2
15	C 20481	BUSHING - piston pin	2
16	C 20402	BOLT - connecting rod	4
17	C 20382	RING SET - piston (standard)	2
17	C 20383	RING SET - piston (.005" oversize)	2
17	C 20384	RING SET - piston (.010" oversize)	2
17	C 20386	RING SET - piston (.020" oversize)	2
17	C 20394	RING SET - piston (.030" oversize)	2
17	C 20400	RING SET - piston (.040" oversize)	2
18	C 20403	BEARING - connecting rod (standard)	4
18	C 20408	BEARING - connecting rod (.002" undersize)	4
18	C 20409	BEARING - connecting rod (.010" undersize)	4
18	C 20410	BEARING - connecting rod (.020" undersize)	4
18	C 20480	BEARING - connecting rod (.030" undersize)	4
19	C 20482	WASHER - flywheel mtg.	1
20	126- 13	KEY - flywheel mtg.	1
21	C 20483	BOLT - flywheel mtg., special	1
22	C 20218	RETAINER - crankshaft gear	1
23	C 20219	WASHER - retaining, crankshaft gear	1
24	C 20487	CRANKSHAFT - engine	1
25	92- 7	LOCKWASHER - 7/16" flywheel mtg.	1



ENGINE BLOCK AND ATTACHING PARTS

Ref. No.	Part No.	Description	Req'd
1	C 20489	BLOCK ASSEM. - cylinder, standard bore	1
2	C 20252	PLUG - camshaft expansion	1
3	C 20497	STUD - bearing plate, rear	5
4	C 20262	BEARING - crankshaft, standard (undersize see below)	2
5	C 20267	WASHER - thrust, crankshaft bearing	2
6	C 20511	KIT - gasket, bearing plate	1
7	C 20512	PLATE - bearing (excludes bearing)	1
8	C 20513	BEARING - camshaft, front or rear	2
9	C 20271	SEAL - bearing plate	1
10	C 20272	PIN - main bearing stop	4
11	129-513	NUT - stud, bearing plate	5
12	C 20519	LOCKWASHER - rear bearing plate	5
13	C 20520	TUBE - oil, crankcase	1
14	C 20528	INSERT - valve seat, intake (oversize see page 93)	2
15	C 20573	INSERT - valve seat, exhaust (oversize see page 93)	2
16	C 20534	GUIDE - valve, intake	2
17	C 20533	GUIDE - valve, exhaust	2
18	C 21569	BLOCK ASSEM. - short (includes: cylinder and crankcase, all bearings, crankshaft, camshaft, timing gear, governor gear case, rods, pistons, rings, valves, oil pump and breather tube)	1
19	C 20490	CAP - breather tube	1
20	C 20491	TUBE - breather	1
21	C 20492	BAFFLE - breather tube	1
22	C 20493	SEAL - o-ring, breather tube	1
23	C 20536	CLAMP - breather cap	1
24	C 20504	SCREEN - breather	1
25	C 20540	BOLT - 5/16 x 1-1/4" n.c. hex	8
26	C 20541	BOLT - 5/16 x 1-3/4" n.c. hex	10
27	C 20248	WASHER - 5/16"	18
28	C 20499	GASKET - cylinder head	2
29	C 20500	HEAD - cylinder L.H. (used prior to eng. no. 292517)	1
29	C 20501	HEAD - cylinder L.H. (used eng. no. 292517 and after)	1
30	C 20502	HEAD - cylinder R.H. (used prior to eng. no. 292517)	1
30	C 20503	HEAD - cylinder R.H. (used eng. no. 292517 and after)	1
31	C 20263	BEARING - crankshaft, rear (.002 undersize)	2
31	C 20264	BEARING - crankshaft, rear (.010 undersize)	2