



Ingersoll

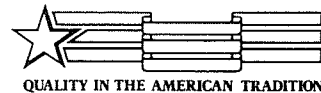
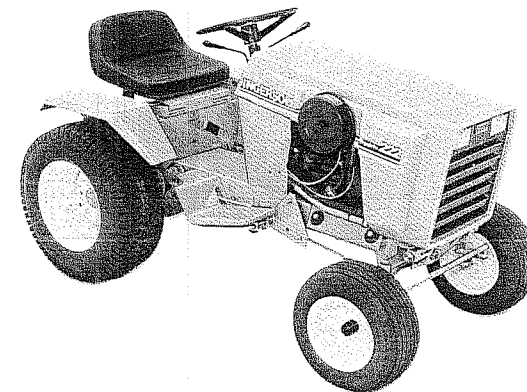
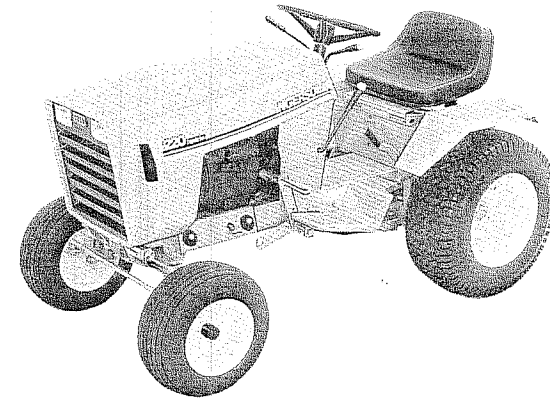
COMPACT TRACTOR

220 - S/N 14035005 and AFTER
222 - S/N 14036630 and AFTER
224 - S/N 14038300 and AFTER
444 - S/N 14039740 and AFTER
Parts Catalog 8-2742

COMPACT TRACTORS
220 - S/N 14035005 and AFTER
222 - S/N 14036630 and AFTER
224 - S/N 14038300 and AFTER
444 - S/N 14039740 and AFTER
Parts Catalog 8-2742

NOTE: This catalog replaces
Catalog 8-2741

2-92-RP-500-494



Ingersoll Equipment Co., Inc. Winneconne, Wisconsin 54986-9576

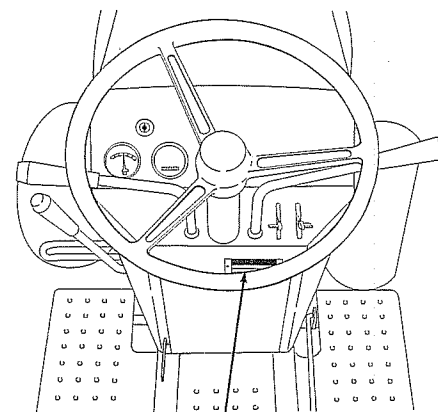
PAINT AND OIL

PAINT			
REF.	PART NO.	DESCRIPTION	REQ'D
1	C 28849	BLACK - semi - gloss, 12 oz spray (2 per carton)	1
2	C 28850	BLACK - semi - gloss, quart (2 per carton)	1
3	C 28851	BLACK - semi - gloss, heat resistant, 12 oz spray (2 per carton)	1
4	C 28484	POWER RED - gloss, 12 oz spray (2 per carton)	1
5	C 28485	POWER RED - gloss, quart (2 per carton)	1
6	C 30870	SILVER - gloss, 12 oz. spray (2 per carton)	1
7	C 31643	POWER RED - gloss, 1 oz touch up, (1 doz. per carton)	1
OIL			
1	C 32776	OIL - SAE 30, SF, quart (12 per case)	1
2	C 32777	OIL - SAE 5W20, SF, quart (12 per case)	1
3	C 32778	OIL - SAE 20W40, SF, quart (12 per case)	1

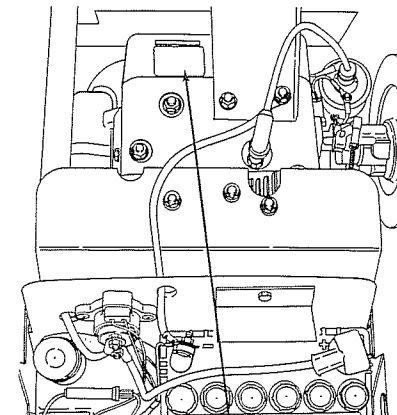
MODEL 220, 222, 224 AND 444 COMPACT TRACTORS

1

PRODUCT IDENTIFICATION NUMBERS



TRACTOR MODEL AND
SERIAL NUMBER



ENGINE MODEL, SERIAL AND
SPECIFICATION NUMBER

TRACTOR MODEL	ENGINE MODEL
220	C26982 K-241-AS SPEC. PF46837
222	C26983 K-301-AS SPEC. PF47803
224-444	C26984 K-321-AS SPEC. PF 60410

NOTE: This catalog contains references to serial numbers. Use these serial numbers as a guide to order the correct part.

INDEX

There is an index at the front and rear of this catalog.

The front index is an alphabetical index of the major groups or assemblies.

The rear index is a numerical index of the part numbers and pages on which these numbers are shown.

ILLUSTRATION

Each illustration in this catalog shows a group of parts or components. These parts and components are aligned approximately as the parts and components on your machine. Each part and component in an illustration has a reference number. These reference numbers are in a list on the page opposite of the illustration. Next to the reference number is the part number, description and required quantity of the part shown in the illustration.

UAR - "Use as required" indicates that the part quantity is variable.

NSS - "Not sold separately" indicates that the part is only available as a component of an assembly or the part must be purchased locally. If the part is an assembly component, the description will be indented under the assembly description in the parts list.

O/L - "Obtain locally"

** - "Footnotes" are added to a part number when more information is needed for identification. They only relate to the part numbers indicated.

INDENTED DESCRIPTIONS

An assembly can have many components. The components of an assembly are indicated by an indented description. The quantity for an indented part is the total needed for that complete assembly. See the example.

REF.	PART NO.	DESCRIPTION	REQ'D
	C 55169	CYLINDER ASSY - rear steering	1
28	C 56208	SOCKET ASSY - rear cylinder	1
29	C 55956	PLUG - adjusting, socket assy	1
30	C 55957	SEAT - socket ball	2
31	C 56210	SPRING - socket	1
32	C 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	C 55889	STUD - ball, socket & cylinder	2
36	13- 410	BOLT - 1/4" x 5/8" N.C., hex	4
37	92- 4	LOCK WASHER - 1/4" SAE	4

PARTS ORDERS

All orders must include the following information:

1. Correct part number.
2. Complete description of part or component.
3. Total quantity of each part or component.
4. Product model number.
5. All necessary product identification numbers.
6. Method for sending the parts.
7. Complete and correct address.

CATALOG REVISIONS

As the product changes, new pages will be available for your catalog. A notice will be issued.

IMPORTANT: Put all revisions into the catalog as soon as possible.

RIGHT HAND AND LEFT HAND IDENTIFICATION

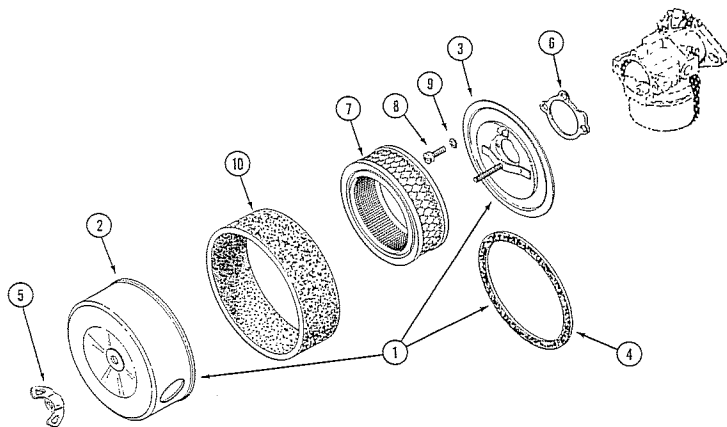
The words right hand (RH) and left hand (LH) as used in this catalog indicate the direction while you are in the operator's seat in the normal operating position.

ENGINE SECTION

Air Cleaner	5	Flywheel	17-21
Battery	69-75	Fuel Pump	27
Breaker Contacts	79	Fuel Strainer	27
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Camshaft	7-9	Gasket Kits	23
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Crankshaft	11-15	Shields	25
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Fan	35	Throttle Linkage	31
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BASIC TRACTOR SECTION

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Electrical System	69-79	Models J26 Three Point Hitch	93-95
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Frame	37-39	Model H13 Weight Box	99
Grille	37-39	Model H18 Counterweight Brackets	99
Hitch	49	Model J30 Hydraulic Lift	91
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Coupling, Pump Drive	57	Mounts, Heat Exchanger	25
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Motor, Hydraulic Drive	63	N19 Flow Control Valve Kit	107
Pump	57	PTO Clutch	33-35
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Linkage, Valve, Control	65	Seat, Operator's	41
Implement Lift Lever	49	Steering Wheel & Gear	45
Instruments	69-75	Tool Box	41
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		Wheels, Front & Rear	47

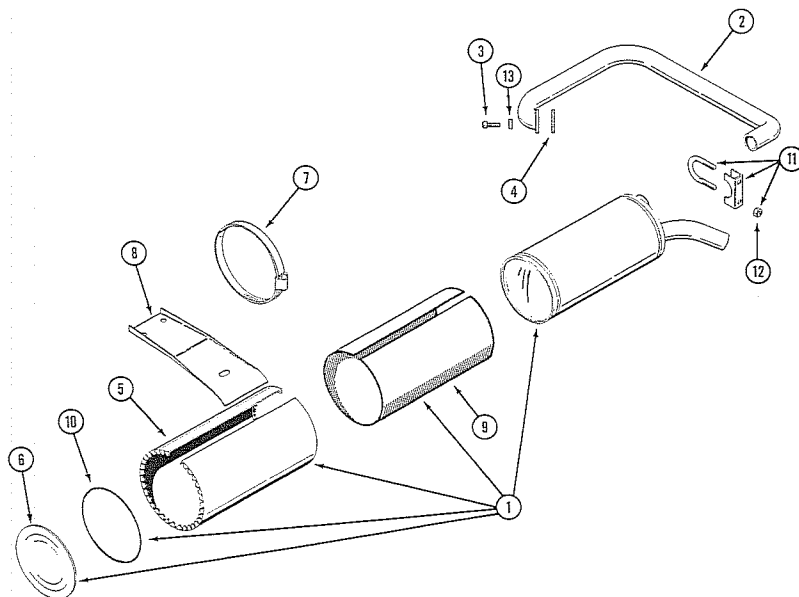


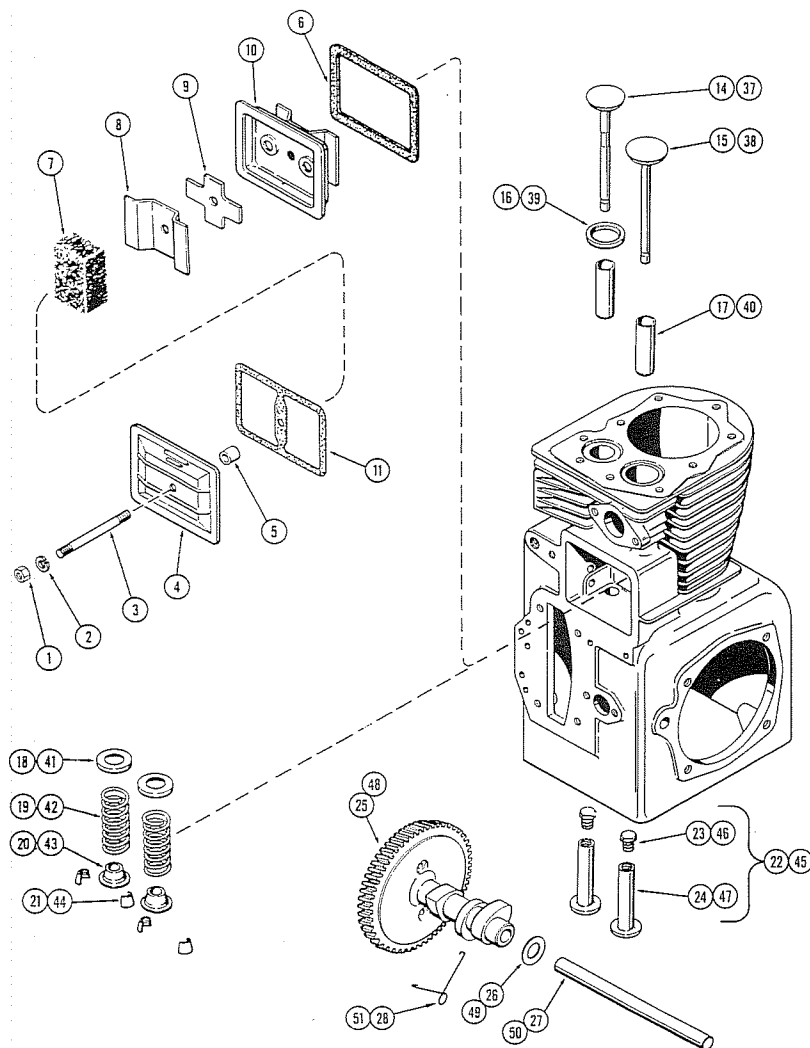
AIR CLEANER

REF.	PART NO.	DESCRIPTION	REQ'D
1	KO 237895	AIR CLEANER ASSEMBLY	1
2	NSS	COVER - air cleaner (order KO237895)	1
3	NSS	BASE - air cleaner (order KO237895)	1
4	KO 237423	GASKET - cover, air cleaner	1
5	C 26703	NUT - wing 1/4" N.C.	1
6	KO 275341	GASKET - air horn	1
7	C 28883	ELEMENT - air cleaner	1
8	177- 94	SCREW - fillister head 10-32 x 5/16"	3
9	193- 6	LOCKWASHER - ext. tooth # 10	3
10	KO 237421	PRE-CLEANER	1

EXHAUST SYSTEM

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 26063	MUFFLER ASSEMBLY - exhaust (includes items 9, 10, 13 and 14 banded together)	1
2	C 22747	PIPE - engine exhaust	1
3	61- 512	BOLT - 5/16" x 5/8" socket head	2
4	C 10372	GASKET - exhaust	1
5	C 26062	WRAPPER - muffler	1
6	C 22889	COVER - muffler end	1
7	214- 272	CLAMP - muffler and wrapper mounting	3
8	C 22819	BRACKET - muffler mounting	1
9	C 26058	INSULATION - muffler	1
10	C 29290	INSULATION - muffler end	1
11	C 28294	CLAMP - muffler	1
12	129- 102	NUT - 5/16" - 18 hex	2
13	192- 404	LOCK WASHER - 5/16"	2





220 AND 222 CRANKCASE BREATHER

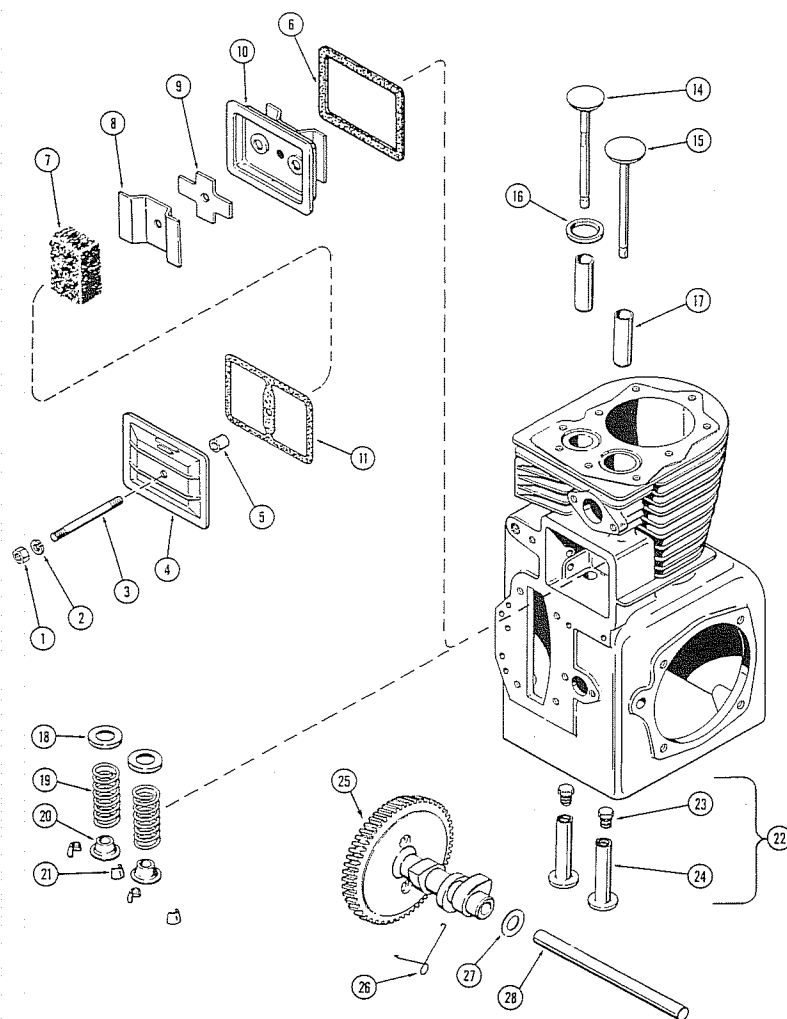
REF.	PART NO.	DESCRIPTION	REQ'D
1	129- 101	NUT - 1/4" N.C. hex	1
2	192- 19	LOCK WASHER - 1/4"	1
3	KO 275220	STUD - valve cover	1
4	KO 275143	COVER - valve	1
5	KO 231032	SEAL - breather	1
6	KO 235048	GASKET - breather plate	1
7	KO 235118	FILTER - breather	1
8	KO 235117	BAFFLE - breather	1
9	KO 235047	REED - breather	1
10	KO 235631	PLATE - breather	1
11	KO 275144	GASKET - valve cover	1

220 CAMSHAFT AND VALVES

14	KO 235826	VALVE - exhaust	1
15	KO 235008	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 235010	SPRING - valve	2
20	KO 230011	RETAINER - valve spring	2
21	C 24884	KIT - valve retainer (includes both halves)	2
22	KOD 235327	LIFTER ASSEMBLY	2
23	NSS	SCREW - tappet adjusting	1
24	NSS	LIFTER - valve	1
25	C 25043	CAMSHAFT ASSEMBLY	1
26	KO 275066	SPACER - camshaft, .005" (0.13 mm)	UAR
26	KO 275067	SPACER - camshaft, .010" (0.25 mm)	UAR
27	C 30487	PIN - camshaft	1
28	C 28680	SPRING - actuating	1

222 CAMSHAFT AND VALVES

REF.	PART NO.	DESCRIPTION	REQ'D
37	KO 235826	VALVE - exhaust	1
38	KO 235008	VALVE - intake	1
39	KO 230170	INSERT - exhaust valve seat	1
40	KO 235007 S	GUIDE - valve	2
41	KO 235011	SEAT - valve spring	2
42	KO 235010	SPRING - valve	2
43	KO 230011	RETAINER - valve spring	2
44	C 24884	KIT - valve retainer (includes both halves)	2
45	KOD 235327	LIFTER ASSEMBLY	2
46	NSS	SCREW - tappet adjusting	1
47	NSS	LIFTER - valve	1
48	C 25043	CAMSHAFT ASSEMBLY	1
49	KO 275066	SPACER - camshaft, .005" (0.13 mm)	UAR
49	KO 275067	SPACER - camshaft, .010" (0.25 mm)	UAR
50	C 30487	PIN - camshaft	1
51	C 28680	SPRING - actuating	1

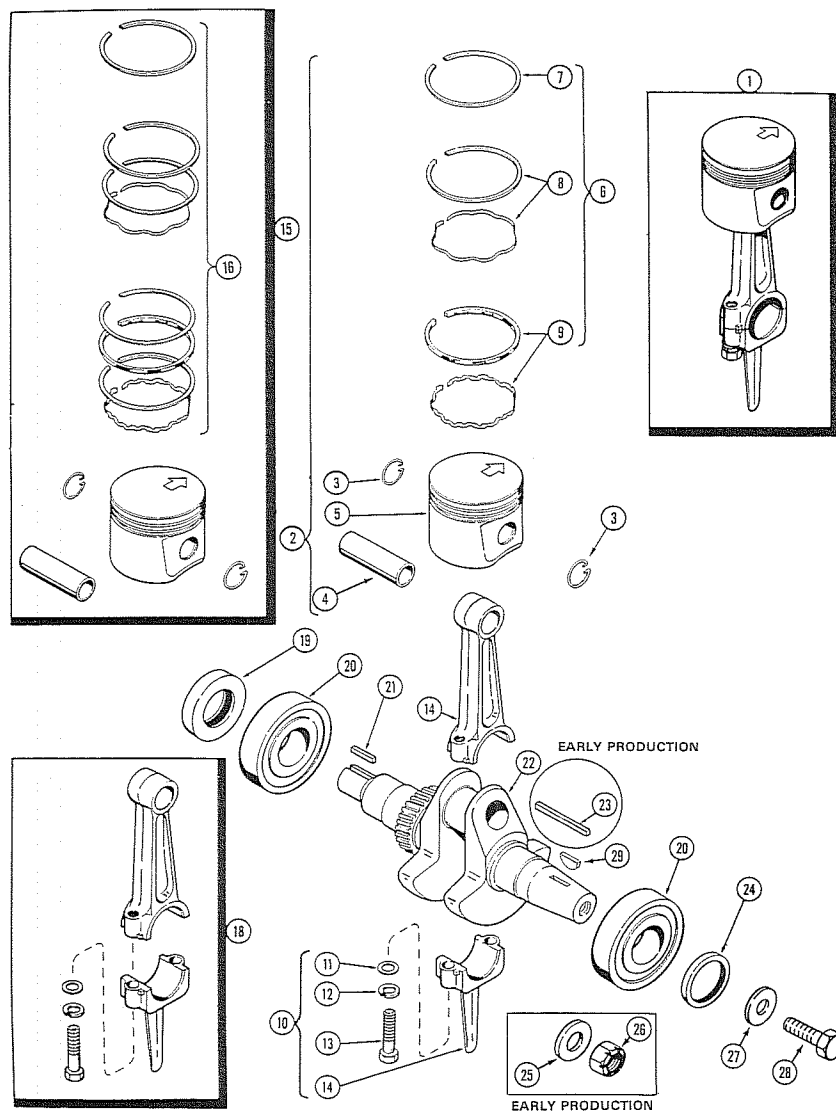


224 AND 444 CRANKCASE BREATHER

REF.	PART NO.	DESCRIPTION	REQ'D
1	129- 101	NUT - 1/4" N.C. hex	1
2	192- 19	LOCK WASHER - 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

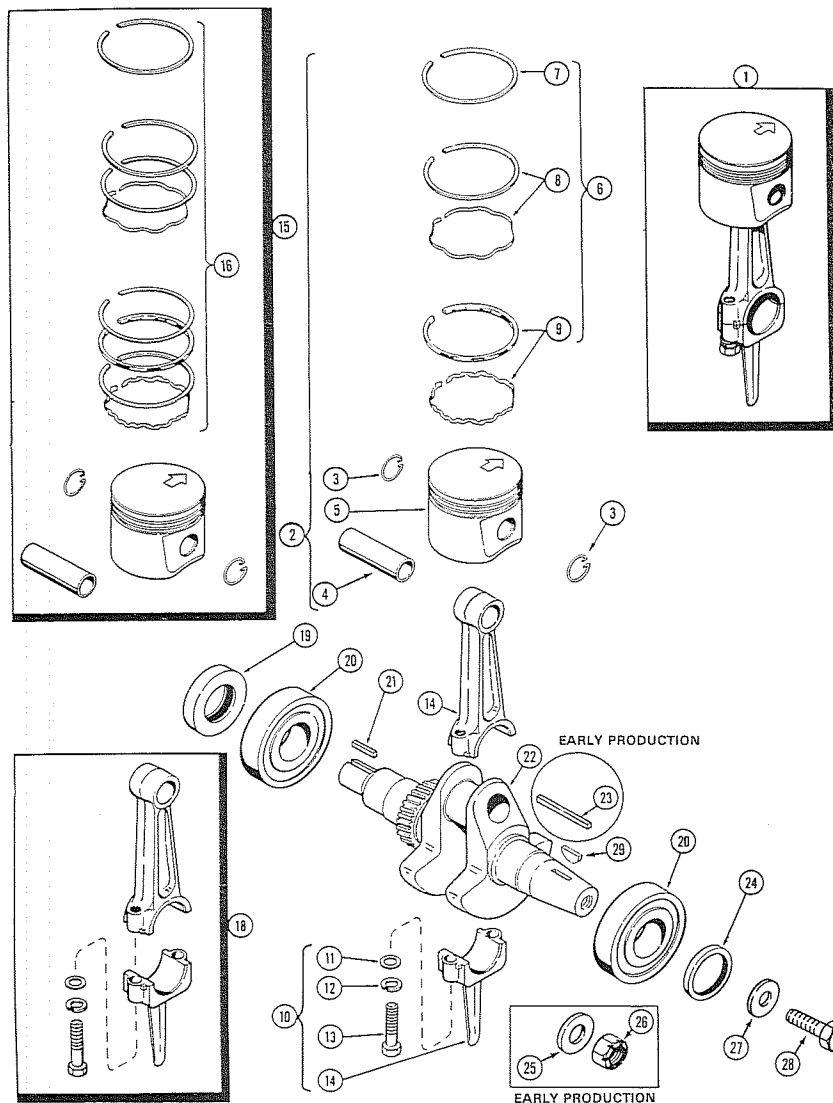
224 AND 444 CAMSHAFT AND VALVES

REF.	PART NO.	DESCRIPTION	REQ'D
14	KO 237672	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	C 24884	KIT - valve retainer (includes both halves)	2
22	KOD 235327	LIFTER ASSEMBLY	2
23	NSS	SCREW - tappet adjusting	1
24	NSS	LIFTER - valve	1
25	C 25043	CAMSHAFT ASSEMBLY	1
26	C 28680	SPRING - actuating	1
27	KO 275066	SPACER - camshaft, .005" (0.13 mm)	UAR
27	KO 275067	SPACER - camshaft, .010" (0.25 mm)	UAR
28	C 30487	PIN - camshaft	1



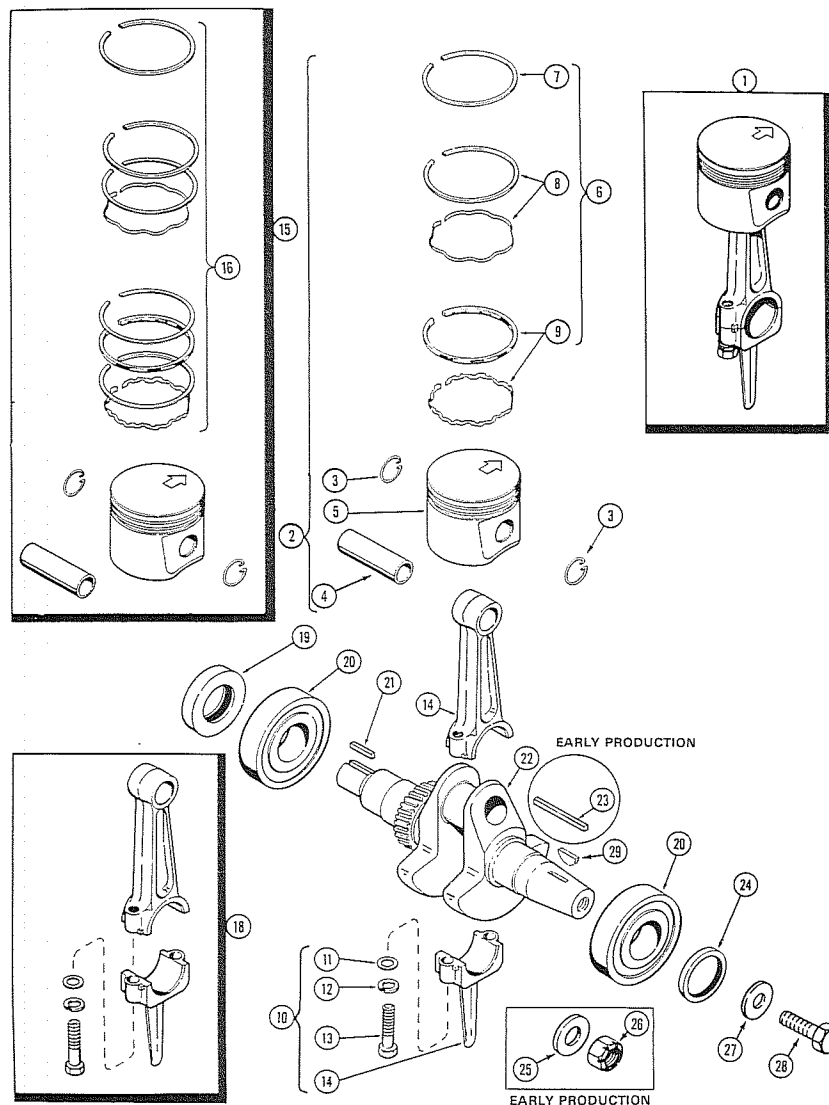
220 CRANKSHAFT, PISTON - CONNECTING ROD

REF.	PART NO.	DESCRIPTION	REQ'D
1	NSS	PISTON AND ROD ASSEMBLY (Std. size)	1
2	C 29516	PISTON ASSEMBLY (For oversize, see item 15)	1
3	KO 235004	RETAINER - piston pin	2
4	NSS	PIN - piston	1
5	NSS	PISTON	1
6	KO 235287	RING SET - piston (For oversize, see item 16)	1
7	NSS	RING - top compression	1
8	NSS	RING - 2nd compression (Includes expander)	1
9	NSS	RING - oil (Includes expander)	1
10	C 30484	CONNECTING ROD ASSEMBLY (For undersize, see item 18) ...	1
11	KO 235003	WASHER - special	2
12	192- 21	LOCK WASHER	2
13	NSS	SCREW - cap connecting rod	2
14	NSS	ROD - connecting	1
15	C 29518	PISTON ASSEMBLY - .010" (0.25 mm) oversize	1
15	C 29519	PISTON ASSEMBLY - .020" (0.51 mm) oversize	1
15	C 29520	PISTON ASSEMBLY - .030" (0.76 mm) oversize	1
15	C 29517	PISTON ASSEMBLY - .003" (0.08 mm) oversize (use std. ring set)	1
16	KO 235288	RING SET - piston .010" (0.25 mm) oversize	1
16	KO 235289	RING SET - piston .020" (0.51 mm) oversize	1
16	KO 235290	RING SET - piston .030" (0.76 mm) oversize	1
18	C 18101	CONNECTING ROD ASSEMBLY - .010" (0.25 mm) undersize ..	1
19	C 28678	OIL SEAL - crankshaft rear	1
20	C 28669	BEARING - ball, crankshaft	2
21	C 28321	KEY - 1/4" Sq. x 3/4" (Pump Coupling)	1
22	C 29025	KIT - crankshaft includes hardware, ref. 27, 28	1
23	C 28289	KEY - flat 3/16" x 3/16" x 3/4" (Flywheel)	1
24	C 32891	OIL SEAL - crankshaft, front	1
25	C 26421	WASHER - 5/8"	1
26	131- 580	NUT - special Marsden 5/8" N.F.	1
27	C 29812	WASHER - flat	1
28	28- 620	BOLT - 3/8" - 24 x 1-1/4"	1
29	NSS 22	KEY - 3/16" x 1" Woodruff, flywheel (obtain locally)	1



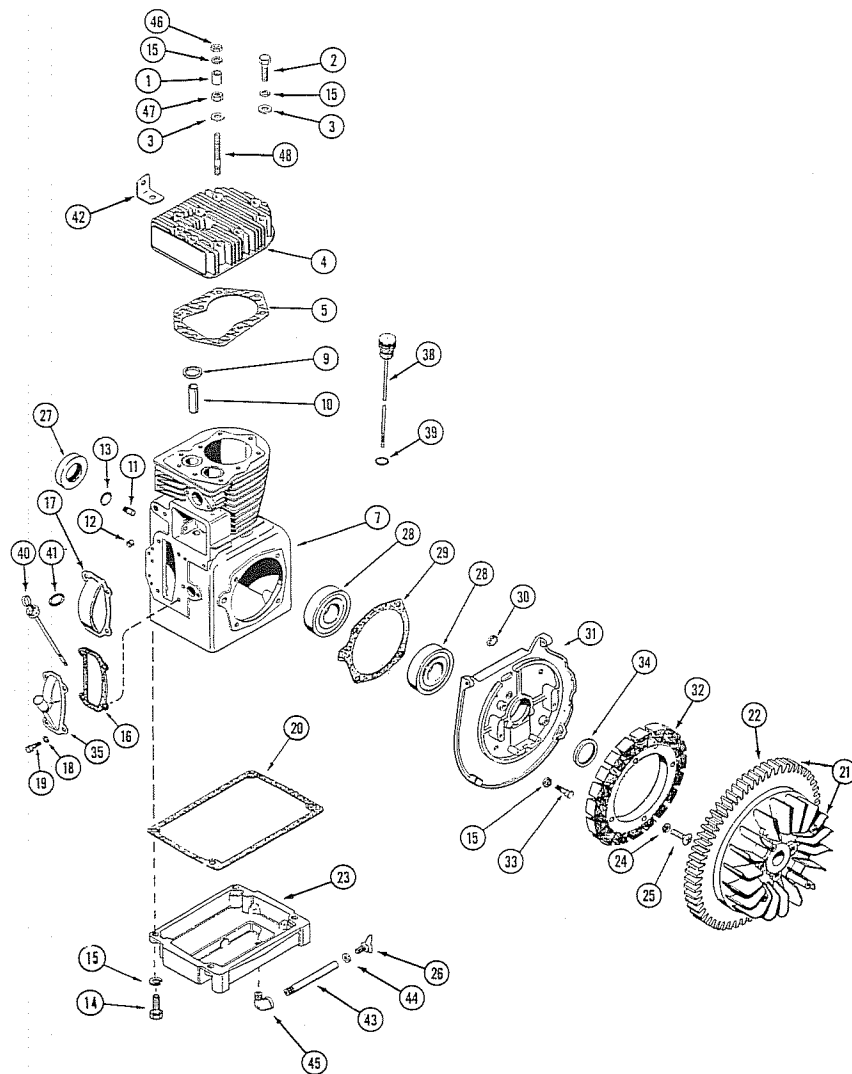
222 CRANKSHAFT, PISTON — CONNECTING ROD

REF.	PART NO.	DESCRIPTION	REQ'D
1	NSS	PISTON AND ROD ASSEMBLY (Std. size)	1
2	C 29521	PISTON ASSEMBLY (For oversize, see item 15)	1
3	KO 235004	RETAINER - piston pin	2
4	NSS	PIN - piston	1
5	NSS	PISTON	1
6	KO 235889	RING SET - piston (For oversize, see item 16)	1
7	NSS	RING - top compression	1
8	NSS	RING - 2nd compression (Includes expander)	1
9	NSS	RING - oil (Includes expander)	1
10	C 30483	CONNECTING ROD ASSEMBLY (For undersize, see item 18) ...	1
11	KO 235003	WASHER - special	2
12	192- 21	LOCK WASHER	2
13	NSS	SCREW - cap, connecting rod	2
14	NSS	ROD - connecting	1
15	C 29523	PISTON ASSEMBLY - .010" (0.25 mm) oversize	1
15	C 29524	PISTON ASSEMBLY - .020" (0.51 mm) oversize	1
15	C 29525	PISTON ASSEMBLY - .030" (0.76 mm) oversize	1
15	C 29522	PISTON ASSEMBLY - .003" (0.08 mm) oversize (use std. ring set)	1
16	KO 235890	RING SET - piston .010" (0.25 mm) oversize	1
16	KO 235891	RING SET - piston .020" (0.51 mm) oversize	1
16	KO 235892	RING SET - piston .030" (0.76 mm) oversize	1
18	C 23135	CONNECTING ROD ASSEMBLY - .010" (0.25 mm) undersize ...	1
19	C 28678	OIL SEAL - crankshaft rear	1
20	C 28669	BEARING - ball, crankshaft	2
21	C 28321	KEY - 1/4" Sq. x 3/4" (Pump Coupling)	1
22	KOB 235949	KIT - crankshaft (includes hardware, ref 27,28)	1
23	C 28289	KEY - flat 3/16" x 3/16" x 3/4" (Flywheel)	1
24	C 32891	OIL SEAL - crankshaft, front	1
25	C 26421	WASHER - 5/8"	1
26	131- 580	NUT - special Marsden 5/8" N.F.	1
27	C 29812	WASHER - flat	1
28	28- 620	BOLT - 3/8" - 24 x 1-1/4"	1
29	NSS	KEY - 3/16" x 1" Woodruff (Flywheel) (obtain locally)	1



224 AND 444 CRANKSHAFT, PISTON — CONNECTING ROD

REF.	PART NO.	DESCRIPTION	REQ'D
1	NSS	PISTON AND ROD ASSEMBLY (Std. size)	1
2	C 29526	PISTON ASSEMBLY (For oversize, see item 15)	1
3	KO 235004	RETAINER - piston pin	2
4	NSS	PIN - piston	1
5	NSS	PISTON	1
6	KO 236763	RING SET - piston (For oversize, see item 16)	1
7	NSS	RING - top compression	1
8	NSS	RING - 2nd compression (Includes expander)	1
9	NSS	RING - oil (Includes expander)	1
10	C 30483	CONNECTING ROD ASSEMBLY (For undersize, see item 18)	1
11	KO 235003	WASHER - special	2
12	192- 21	LOCK WASHER - 3/8"	2
13	NSS	SCREW - cap, connecting rod	2
14	NSS	ROD - connecting	1
15	C 29528	PISTON ASSEMBLY - .010" (0.25 mm) oversize	1
15	C 29529	PISTON ASSEMBLY - .020" (0.51 mm) oversize	1
15	C 29530	PISTON ASSEMBLY - .030" (0.76 mm) oversize	1
15	C 29527	PISTON ASSEMBLY - .003" (0.08 mm) oversize (use std. ring set)	1
16	KO 236764	RING SET - piston .010" (0.25 mm) oversize	1
16	KO 236765	RING SET - piston .020" (0.51 mm) oversize	1
16	KO 236766	RING SET - piston .030" (0.76 mm) oversize	1
18	C 23135	CONNECTING ROD ASSEMBLY - .010" (0.25 mm) undersize	1
19	C 28678	OIL SEAL - crankshaft, rear	1
20	C 28669	BEARING - ball, crankshaft	2
21	C 28321	KEY - 1/4" Sq. x 3/4" (Pump Coupling)	1
22	C 30504	KIT - crankshaft (includes hardware, ref. 27,28)	1
23	C 28289	KEY - flat 3/16" x 3/16" x 3/4" (Flywheel)	1
24	C 32891	OIL SEAL - crankshaft, front	1
25	C 26421	WASHER - 5/8"	1
26	131- 580	NUT - special Marsden 5/8" N.F.	1
27	C 29812	WASHER - flat	1
28	28- 620	BOLT - 3/8" - 24 x 1-1/4"	1
29	NSS	KEY - 3/16" x 1" woodruff (flywheel) obtain locally	1



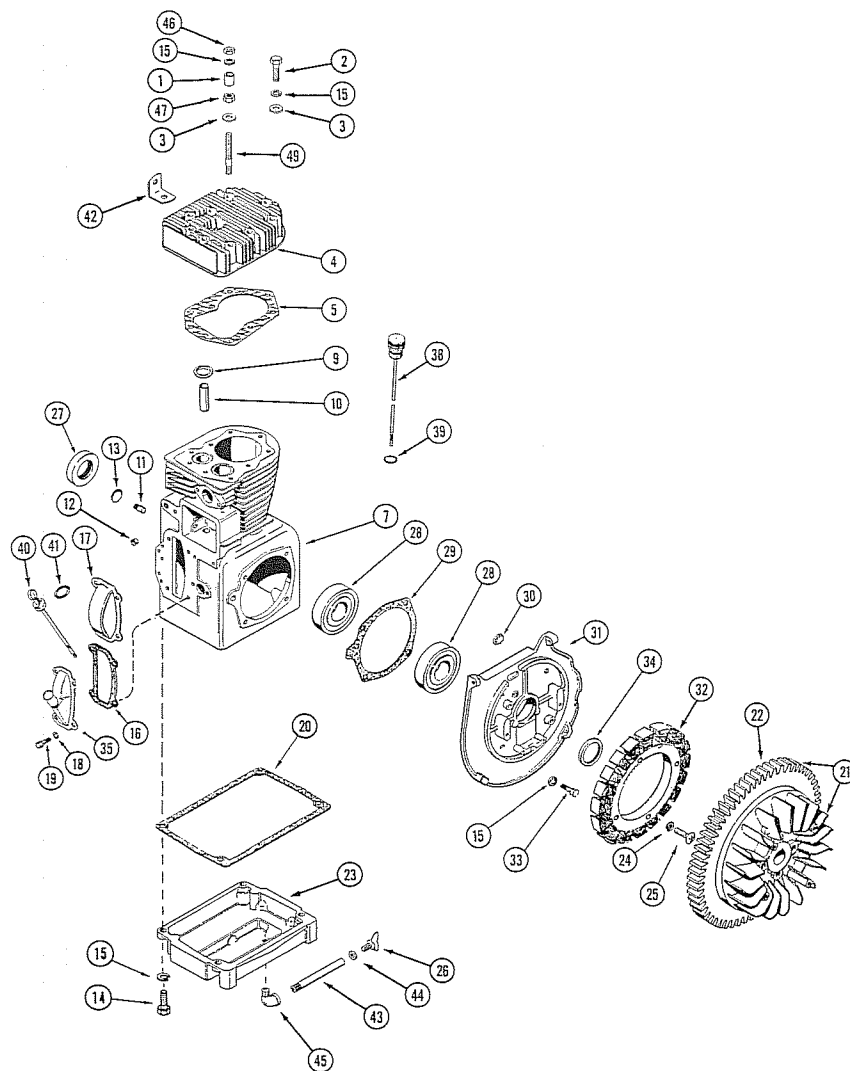
220 ENGINE BLOCK AND ATTACHING PARTS

NOTE: To order complete engine see page 1.

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 21814	SPACER - cylinder head	6
2	KO 270158	BOLT - cylinder head	2
3	KO 270889	WASHER - cylinder head	9
4	KO 236675	HEAD - cylinder	1
5	C 30482	GASKET - head	1
7	C 27283	BLOCK ASSEMBLY - cylinder, short (Includes crankshaft, piston assembly, ring set, crankshaft seals, rod assembly, camshaft assembly, valves, bearings, plate and plate gasket, governor gear assembly and cross shaft) (also includes gaskets) and hardware for mtg. flywheel	1
9	KO 230170	INSERT - exhaust valve	1
10	KO 235007 S	GUIDE - valve	2
11	KO 235125 S	SHAFT - stub, governor	1
12	C 28691	BEARING - needle, governor shaft	1
13	41- 18	PLUG - expansion	1
14	113- 209	BOLT - 3/8" x 1-1/2" N.C. hex plated	4
15	192- 21	LOCK WASHER - 3/8" plated	17
16	KO 235025	GASKET - camshaft cover	1
17	KO 235026	COVER - camshaft gear	1
18	192- 19	LOCK WASHER - 1/4" plated	4
19	113- 1	BOLT - 1/4" x 1/2" N.C. plated	4
20	KO 235353	GASKET - oil pan	1
21	C 27279	FLYWHEEL ASSEMBLY	1
22	NSS	RING GEAR	1
23	C 22699	BASE - oil pan	1
24	192- 18	LOCK WASHER - internal tooth	4
25	C 32947	SCREW - stator #10 - 24 x 3/4"	4
26	C 14399	PLUG - oil drain	1
27	C 28678	OIL SEAL - crankshaft rear	1
28	C 28669	BEARING - ball, crankshaft	2
29	KO 235757	GASKET - bearing plate	1
29	KO 235070	GASKET - shim, .010 (0.25 mm)	1
30	NSS	PLUG - button, timing hole (obtain locally)	1
31	C 24290	PLATE - bearing	1
32	C 28692	STATOR - 15 amp	1
	C 25338	CONNECTOR - stator	1
33	113- 207	BOLT - 3/8" x 1" N.C. plated	4
34	C 32891	OIL SEAL - crankshaft front	1
35	C 24490	FILLER TUBE - crankcase	1
38	NSS	DIPSTICK ASSEMBLY (use C30868 kit, includes plug)	1
39	C 28217	"O" RING - dipstick	1
40	C 24491	DIPSTICK - oil	1
41	C 28217	"O" RING - dipstick	1
42	KO 235748	STRAP - lifting	1
43	C 18814	NIPPLE - oil drain extension	1
44	C 14906	GASKET - plug, oil drain	1
45	221- 1412	ELBOW - street	1
46	129- 143	NUT - 3/8" N.C. hex, jam	6
47	129- 103	NUT - 3/8" N.C. hex	6
48	KO 237277	STUD - cylinder head	7
	41- 1015	PLUG - welch 15/16" x 1/2" (use to plug dipstick hole)	1

222 ENGINE BLOCK AND ATTACHING PARTS

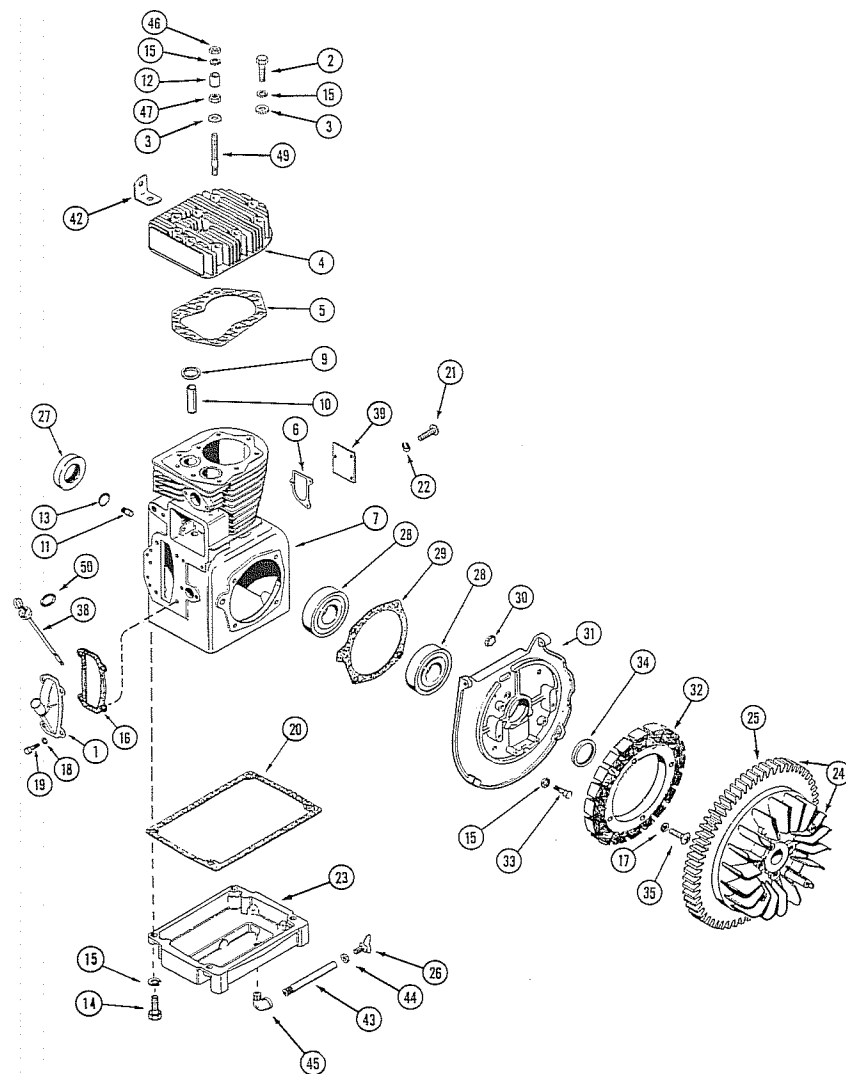
NOTE: To order complete engine see page 1.



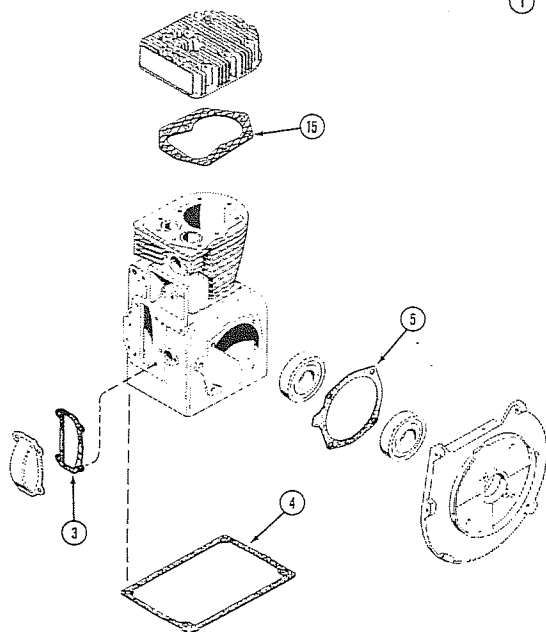
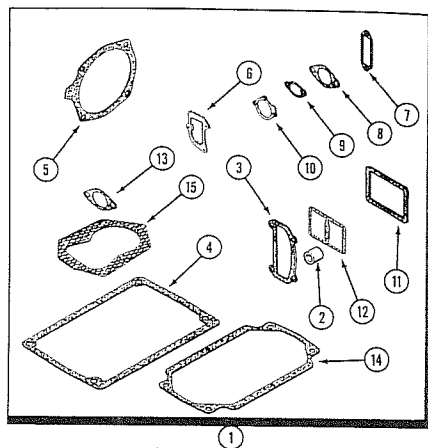
REF.	PART NO.	DESCRIPTION	REQ'D
1	C 21814	SPACER - cylinder head	6
2	KO 270158	BOLT - cylinder head 3/8" x 1-1/2" N.C. hex	2
3	KO 270889	WASHER - cylinder head	9
4	KO 237670	HEAD - cylinder	1
5	C 30482	GASKET - head	1
7	C 30505	BLOCK ASSEMBLY - cylinder, short (includes crankshaft, piston assembly, ring set, crankshaft seals, rod assembly, camshaft assembly, valves, bearings, plate and plate gasket, governor gear assembly and cross shaft) (also includes gasket set) and hardware for mtg. flywheel	1
9	KO 230170	INSERT - exhaust valve	1
10	KO 235007 S	GUIDE - valve	2
11	KO 235125 S	SHAFT - stub, governor	1
12	C 28691	BEARING - needle, governor shaft	1
13	41- 18	PLUG - expansion	1
14	113- 209	BOLT - 3/8" x 1-1/2" N.C. hex plated	4
15	192- 21	LOCK WASHER - 3/8" plated	17
16	KO 235025	GASKET - camshaft cover	1
17	KO 235026	COVER - camshaft gear	1
18	192- 19	LOCK WASHER - 1/4" plated	4
19	113- 1	BOLT - 1/4" x 1/2" N.C. plated	4
20	KO 235353	GASKET - oil pan	1
21	C 27279	FLYWHEEL ASSEMBLY	1
22	NSS	RING GEAR	1
23	C 22699	BASE - oil pan	1
24	192- 18	LOCK WASHER - internal tooth	4
25	C 32947	SCREW - stator	4
26	C 14399	PLUG - oil drain	1
27	C 28678	OIL SEAL - crankshaft rear	1
28	C 28669	BEARING - ball, crankshaft	2
29	KO 235757	GASKET - bearing plate	6
29	KO 235070	GASKET - shim, .010" (0.25 mm)	UAR
30	NSS	PLUG - button, timing hole (obtain locally)	1
31	C 24290	PLATE - bearing	1
32	C 28692	STATOR	1
32	C 25338	CONNECTOR - stator	1
33	113- 207	BOLT - 3/8" x 1" N.C. plated	4
34	C 32891	OIL SEAL - crankshaft, front	1
35	C 24490	FILLER TUBE - crankcase	1
38	NSS	DIPSTICK ASSEMBLY (use C30868 kit - includes welsh plug)	1
39	C 28217	"O" RING - dipstick	1
40	C 24491	DIPSTICK - oil	1
41	C 28217	"O" RING - dipstick	1
42	KO 235748	STRAP - lifting	1
43	C 18814	NIPPLE - oil drain extension	1
44	C 14906	GASKET - plug, oil drain	1
45	221- 1412	ELBOW - street	1
46	129- 143	NUT - 3/8" N.C. hex, jam	6
47	129- 103	NUT - 3/8" N.C. hex	6
49	KO 237277	STUD - cylinder head	7

224 AND 444 ENGINE BLOCK AND ATTACHING PARTS

NOTE: To order complete engine see page 1.

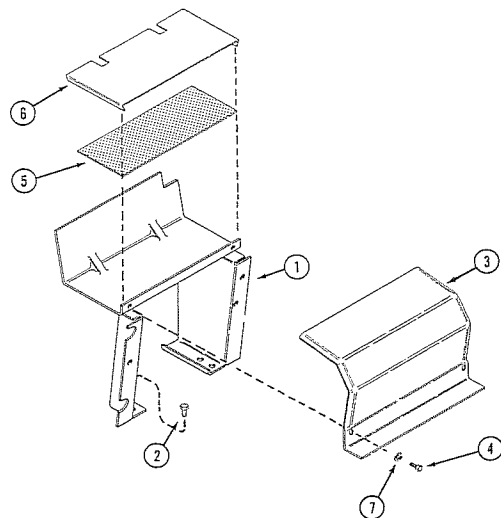
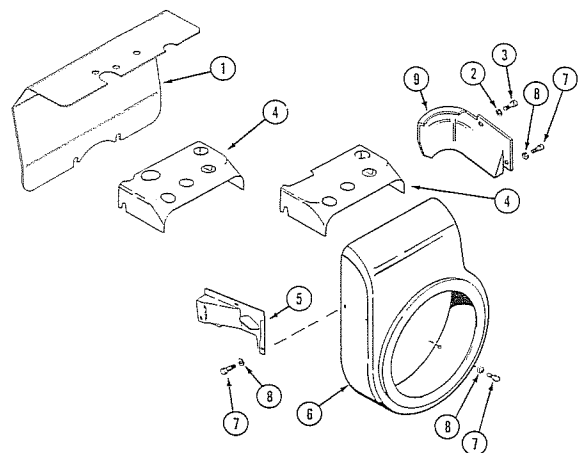


REF.	PART NO.	DESCRIPTION	REQ'D
1	C 24490	FILLER TUBE	1
2	KO 270158	BOLT - cylinder head special 3/8" x 1-1/2" N.C. hex	2
3	KO 270889	WASHER - cylinder head bolt	9
4	KO 237670	HEAD - cylinder	1
5	C 30482	GASKET - head	1
6	KO 237064	GASKET - filler tube	1
7	C 30506	BLOCK ASSEMBLY - cylinder, short (Includes crankshaft and seals, ring set, piston assembly, rod assembly, camshaft assembly, valves, bearing, plate and plate gasket, governor gear assembly and cross shaft) (also includes gasket set)	1
		and hardware for mtg. flywheel	1
9	KO 230170	INSERT - exhaust valve	1
10	KO 235007 S	GUIDE - valve	2
11	KO 235125 S	SHAFT - stub, governor	1
12	C 21814	SPACER - cylinder head	1
13	41- 18	PLUG - expansion	1
14	113- 209	BOLT - 3/8" x 1-1/2" N.C. hex plated	4
15	192- 21	LOCK WASHER - 3/8" plated	4
16	KO 235025	GASKET - camshaft cover, oil fill tube	1
17	192- 18	LOCK WASHER	4
18	192- 19	LOCK WASHER - 1/4" plated	4
19	113- 1	BOLT - 1/4" x 1/2" N.C. plated	4
20	KO 235353	GASKET - oil pan	1
21	173- 96	SCREW - #10 x 7/16" round head machine	3
22	192- 18	LOCK WASHER - #10 internal tooth	7
23	C 22699	BASE - oil pan	1
24	C 27279	FLYWHEEL ASSEMBLY	1
25	NSS	RING GEAR	1
26	C 14399	PLUG - oil drain	1
27	C 28678	OIL SEAL - crankshaft, rear	1
28	C 28669	BEARING - ball, crankshaft	2
29	KO 235757	GASKET - bearing plate	1
29	KO 235070	GASKET - shim, .010" (0.25 mm)	UAR
30	NSS	PLUG - button, timing hole (obtain locally)	1
31	C 24290	PLATE - bearing	1
32	C 28692	STATOR	1
33	113- 207	BOLT - 3/8" x 1" N.C. plated	4
34	C 32891	OIL SEAL - crankshaft, front	1
35	C 32947	SCREW - stator	4
38	C 24491	DIPSTICK ASSEMBLY	1
39	NSS	COVER - use C27275	1
42	KO 235748	STRAP - lifting	1
43	C 18814	NIPPLE - oil drain extension	1
44	C 14906	GASKET - plug, oil drain	1
45	221- 1412	ELBOW - street	1
46	129- 143	NUT - 3/8" N.C. hex, jam	6
47	129- 103	NUT - 3/8" N.C. hex	6
49	KO 237277	STUD - cylinder head	7
50	C 28217	O-RING - dipstick	1



ENGINE GASKET AND SEAL KIT

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 29737	KIT - engine gasket	1
2	KO 231032	SEAL - breather	1
3	KO 235025	GASKET - camshaft cover	1
4	KO 235363	GASKET - oil pan	1
5	KO 235757	GASKET - bearing plate	6
5	KO 235070	GASKET - shim .010" (0.25 mm)	UAR
6	KO 237064	GASKET - oil fill tube	1
7	C 26518	GASKET - breaker cover	1
8	C 23860	GASKET - carburetor flange	1
9	C 24887	GASKET - fuel pump flange	1
10	KO 275341	GASKET - carburetor air horn	1
11	KO 235048	GASKET - breather plate	1
12	KO 275144	GASKET - valve cover	1
13	C 10372	GASKET - exhaust	1
14	KO 235057	GASKET - pan (not used)	1
15	C 30482	GASKET - cylinder head	1



BAFFLES AND SHROUDS

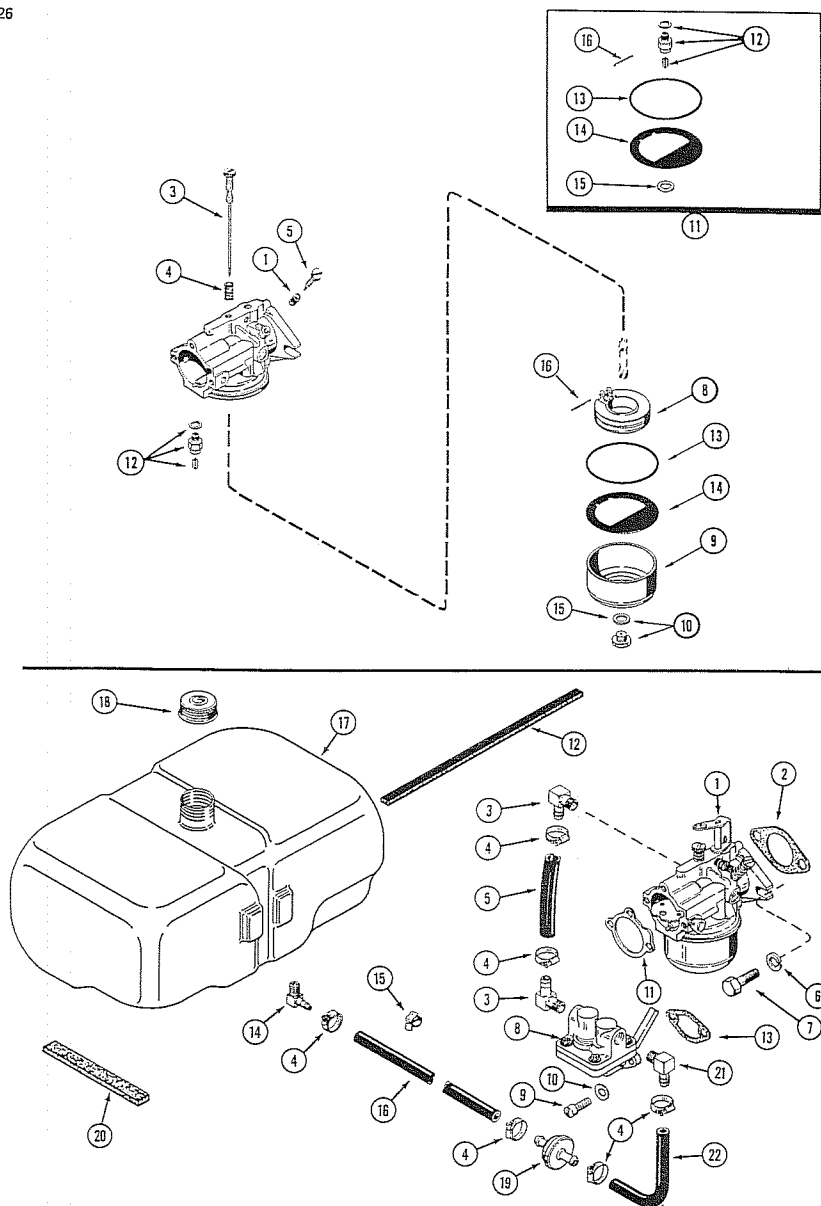
REF.	PART NO.	DESCRIPTION	REQ'D
1	C 26985	DEFLECTOR - engine air	1
2	192- 19	LOCK WASHER - 1/4" zinc plated	2
3	113- 1	BOLT - 1/4" x 1/2" N.C. hex, zinc plated	2
4	KO 237520	BAFFLE - cylinder head (10 hp engine)	1
4	KO 237677	BAFFLE - cylinder head (12-14 hp engine)	1
5	C 27280	BAFFLE - carburetor side air	1
6	C 24879	HOUSING - blower	1
7	113- 2	BOLT - 1/4" x 3/4" N.C. hex, zinc plated	4
8	192- 19	LOCK WASHER - 1/4" zinc plated	4
9	C 27281	BAFFLE - cylinder	1

HEAT EXCHANGER MOUNTS AND MUFFLER SHIELDS

1	C 27602	SUPPORT - heat exchanger	1
2	113- 118	BOLT - 5/16" x 5/8"	4
3	C 26098	SHIELD - heat, muffler	1
4	113- 1	BOLT - 1/4" x 1/2" hex z.p.	2
4	187- 1036	BOLT - 1/4"-20 x 1/2" self - tap	2
5	C 22903	PAD - insulation	1
6	C 22874	RETAINER - insulation	1
7	192- 19	LOCK WASHER - 1/4"	2

KOHLER CARBURETOR

With adjustable main fuel jet



REF.	PART NO.	DESCRIPTION	REQ'D
1	NSS	CARBURETOR ASSEMBLY - 220, 222 (use C33213)	1
1	NSS	CARBURETOR ASSEMBLY - 224 & 444 (use C33214)	1
3	A 72098	SPRING - tension, idle adjust.	1
3	C 28879	NEEDLE - main fuel adjust, 220, 222	1
3	C 24652	NEEDLE - main fuel adjust, 224 & 444	1
4	KO 200383	SPRING - main fuel adjust	1
5	C 28880	NEEDLE - idle adjust (220, 222)	1
5	KO 275231	NEEDLE - idle adjust (224 & 444)	1
8	C 27276	FLOAT - carburetor	1
9	KO 235448	BOWL - carburetor	1
10	C 26422	SCREW AND GASKET ASSEMBLY - carburetor bowl	1
11	C 27278	KIT - carburetor repair	1
12	NSS	INLET NEEDLE AND SEAT ASSEMBLY	1
13	NSS	GASKET - bowl ring	1
14	C 27277	GASKET - bowl baffle	1
15	NSS	GASKET - bowl screw	1
16	C 28676	PIN - float	1

FUEL SYSTEM

REF.	PART NO.	DESCRIPTION	REQ'D
1	NSS	CARBURETOR - 224 & 444 (use C33214)	1
1	NSS	CARBURETOR - 220 & 222 (use C33213)	1
2	C 23860	GASKET - carburetor flange	1
3	C 10678	ELBOW - fuel pump and carburetor	2
4	214- 103	CLAMP - hose 1/2"	4
5	NSS	HOSE - carburetor 5-1/4" (use C28937 cut to length)	1
6	192- 20	LOCK WASHER 5/16"	2
7	113- 103	BOLT - 5/16" x 1" N.C. hex	2
8	C 24851	PUMP - fuel, all models (includes gasket & washers)	1
9	71- 412	SCREW - 1/4" x 3/4" N.C. fillister head	2
10	NSS	LOCKWASHER - 1/4" (obtain locally)	2
11	KO 275341	GASKET - air horn	1
12	C 23527	LINER - fuel tank	1
13	C 24887	GASKET - fuel pump mounting, all models	1
14	C 10657*	ELBOW ASSEMBLY - fuel tank, filter	1
14	C 10678**	ELBOW - hose 90° (shown)	1
15	C 28962	CLIP - fuel line	2
16	NSS	HOSE - fuel line 31-1/2" (use C28937 cut to length)	1
17	NSS*	TANK - fuel (use C28940, C31978 and (2) 214-103)	1
17	C 28940**	TANK - fuel	1
18	C 11529	CAP - fuel tank (includes insert)	1
19	C 29296**	FILTER - fuel	1
20	C 14690	CUSHION - fuel tank	2
21	217- 292	ELBOW - hose 90°	1
22	NSS	HOSE - fuel line 7" (use C28937 cut to length)	1

*Use before S/N

**Use S/N and after

220 - 14068705

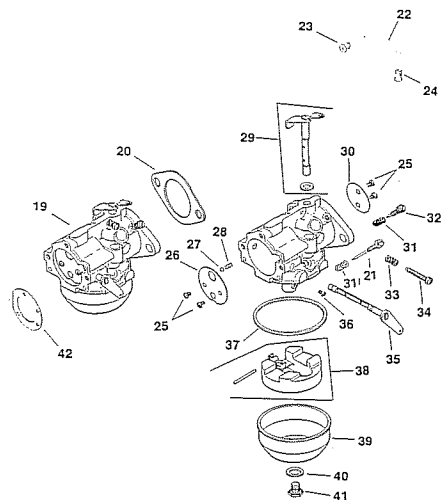
222 - 14069642

224 - 14070741

444 - 14072850

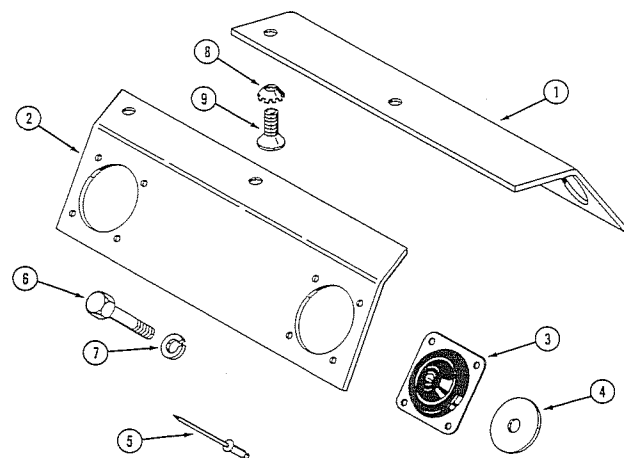
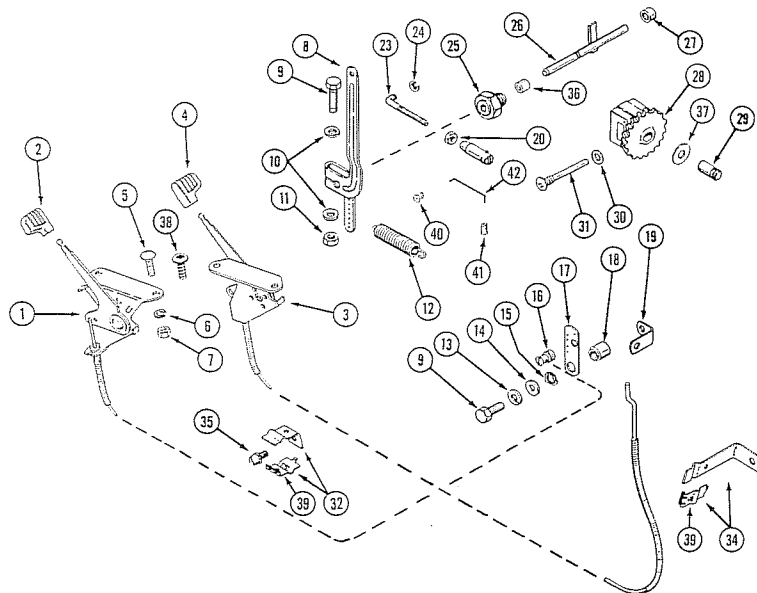
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February 1992



WALBRO CARBURETOR
With Fixed and Adjustable Main Fuel Jet

REF.	PART NO.	DESCRIPTION	REQ'D
19	NSS	CARBURETOR ASSEMBLY - 220, 222 (Use C33213)	1
19	NSS	CARBURETOR ASSEMBLY - 224, 444 (Use C33214)	1
20	C 23860	GASKET - carburetor mounting	1
21	C 33310	NEEDLE - main fuel adjust	1
22	C 33130	LINKAGE - carburetor	1
23	C 32860	BUSHING - retaining (natural)	1
24	C 32861	BUSHING - retaining (yellow)	1
25	C 32862	SCREW - throttle and choke plate	4
26	C 32863	PLATE - choke (220, 222)	1
26	C 32864	PLATE - choke (224, 444)	1
27	C 32865	BALL - choke friction	1
28	C 32866	SPRING - choke friction	1
29	C 32867	SHAFT - throttle (includes lever and seal) 220, 222	1
29	C 32868	SHAFT - throttle (includes lever and seal) 224, 444	1
30	C 32869	PLATE - 220, 222	1
30	C 32870	PLATE - throttle 224, 444	1
31	C 32871	SPRING - idle fuel	1
32	C 32872	NEEDLE - idle fuel adjust	1
33	C 32873	SPRING - idle speed	1
34	C 32874	SCREW - idle speed adjust	1
35	C 32875	LEVER - choke	1
36	C 32876	JET - main fuel, fixed 220, 222	1
36	C 32877	JET - main fuel, fixed 224, 444	1
37	C 32878	GASKET - bowl	1
38	C 32879	KIT - float	1
39	C 32880	BOWL - fuel	1
40	C 32881	GASKET - bowl retaining screw	1
41	C 32882	SCREW - bowl retaining	1
42	C 32799	GASKET - air cleaner	1
	C 34416	KIT - carburetor repair	1



CHOKE, THROTTLE AND GOVERNOR

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 33411	CONTROL - throttle	1
1	C 33412	CONTROL - throttle	1
2	NSS	HANDLE - throttle control, orange (use C35291)	1
3	C 25605*	CONTROL - choke	1
3	C 30076**	CONTROL - choke	1
4	C 30074	HANDLE - choke control, black	1
5	111- 5	BOLT - No. 10 - 24 x 5/8" carriage	2
6	192- 18	LOCK WASHER - No. 10	2
7	129- 17	NUT - No. 10 - 24	2
8	C 27282	LEVER - governor	1
9	113- 17	BOLT - 1/4" x 1-1/4" N.C. hex	2
10	195- 518	WASHER - 1/4" plated	2
11	129- 101	NUT - 1/4" hex	1
12	KO 235496	SPRING - governor	1
13	192- 19	LOCK WASHER - 1/4" plated	1
14	C 18098	WASHER - thrust	1
15	KO 275690	WASHER - wavy	1
16	NSS	CLAMP - swivel, wire (use C32935)	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 - No. 10 - 32 hex	1
22	C 25020	JOINT - ball	1
23	KO 235277	ROD - throttle	1
24	C 28670	RING - retaining, throttle rod	1
25	KO 235476	BUSHING - governor cross shaft	1
26	C 23126	SHAFT - governor cross	1
27	C 28691	BEARING - needle, governor shaft	1
28	C 27274	GEAR ASSEMBLY - governor	1
29	KO 235125S	SHAFT - governor stub	1
30	C 18099	WASHER - governor stop pin	1
31	C 28690	PIN - governor stop	1
32	KOA 237559	BRACKET - throttle cable	1
34	KOA 236919	BRACKET - choke cable	1
35	182- 516	SCREW - No. 10 x 3/8" N.C. fillister head	1
36	C 28878	SPACER - shaft (used engine S/N 3173783 and after)	1
37	KO 237022	WASHER - spacer	1
38	182- 559	BOLT - No. 10 - 24 x 3/4" phillips, black	2
39	KO 235603	CLIP - cable	1
40	C 32860	BUSHING - retaining (natural)	1
41	C 32861	BUSHING - retaining (yellow)	1
42	C 32926	LINKAGE - governor	1

*Use before S/N

**Use S/N and after:

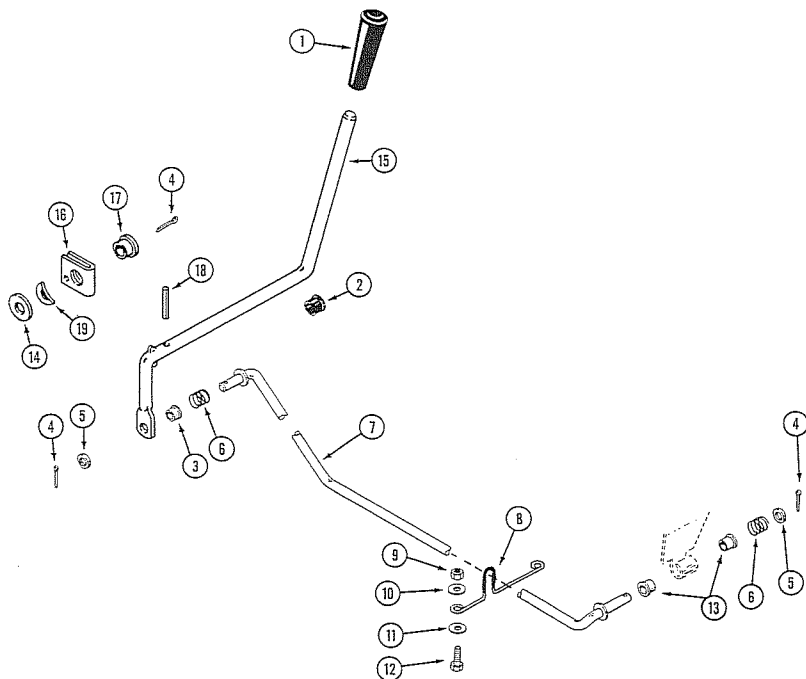
220 - 14091130 222 - 14092090

224 - 14093065 444 - 14094825

ENGINE MOUNT PLATES

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 17717	PLATE - engine mount L.H.	1
2	C 17718	PLATE - engine mount R.H.	1
3	C 29731	MOUNT - engine	4
4	C 25556	WASHER - snubbing	4
5	151- 539	RIVET - 3/16"	16
6	113- 219	BOLT - 3/8" x 2" N.C. hex	4
7	192- 21	LOCK WASHER - 3/8"	4
8	193- 56	LOCK WASHER - 3/8" countersunk external tooth	4
9	164- 50	BOLT - flat head hex socket	4

PTO CLUTCH LINKAGE



REF.	PART NO.	DESCRIPTION	REQ'D
1	C 29046	KNOB - lever, PTO	1
2	353- 462	BUSHING - lever, dash tower	1
3	C 20093	BUSHING - fliplock	1
4	132- 310	PIN - cotter 1/8" x 1"	2
4	132- 320	PIN - cotter 3/32" x 3/4"	2
5	C 14906	WASHER - nylon 3/8" (early production)	2
6	C 19867	SPRING - clutch rod (early production)	2
7	C 27734*	ROD - clutch	1
8	C 30488	GUIDE - clutch rod	1
9	131- 1181	NUT - lock 3/8" N.C. hex	2
10	195- 104	WASHER - 3/8"	2
11	195- 137	WASHER - spacer (used on models without hyd. lift)	2
12	113- 207	BOLT - 3/8" x 1" N.C. hex	2
13	C 20053	BUSHING - nylon	2
14	195- 533	WASHER - 1/2"	1
15	C 29409	LEVER - PTO engaging	1
16	C 26264	BRACKET - support, PTO lever	1
17	C 26266	BUSHING - flange, nylon	1
18	138- 63	PIN - roll 1/8" x 1-1/4"	1
19	C 28288	WASHER - spring	1

* when replacing early style clutch rod:

1. discard nylon washers and springs
2. also requires (2) 132-320 cotter pins

CLUTCH ASSEMBLY (PTO)

REF.	PART NO.	DESCRIPTION	REQ'D
	C 31024	CLUTCH FAN ASSEMBLY	1
1	C 16616	FAN - cooling	1
2	C 23677	HUB - clutch	1
3	C 29766**	PLATE - clutch	1
3	C 15718*	PLATE - clutch	1
4	164- 40*	SCREW - 5/16" - 18 x 3/4"	2
5	193- 76*	LOCK WASHER - 5/16" countersunk external tooth	2
6	C 15515	WASHER - spring	6
7	C 31045	KIT - pulley and disc assembly (includes item 21)	1
8	C 23740	KIT - friction disc	1
9	C 29735	BEARING - ball	3
10	C 15557	WASHER - spacer .050	3
11	C 32169	CAM - clutch	2
12	C 16786	SPRING - clutch load	2
13	C 23630	SPACER - hub	1
14	C 23625	NUT - adjust	1
15	C 28677	WASHER - fan 17/32"	1
16	C 24743	BOLT - 1/2" - 20 x 5-1/2" N.F.	1
17	129- 125	NUT - 1/2" - 20 N.F. lock	1
18	C 23627	GUIDE - adjusting nut	1
19	C 23624	WASHER - spacer	1
20	C 26166	ARM - engaging	1
21	C 29811	SPACER - washer .100"	2
22	C 31018	CLEVIS - PTO brake	1
23	113- 3	BOLT - 1/4" - 20 x 3/4"	2
24	131- 934	NUT - 1/4" - 20 flange lock	2
25	C 32168	CAM - clutch	1
26	192- 19	LOCK WASHER - 1/4"	4
27	195- 518	WASHER - 1/4"	4
28	C 29772	WRENCH - clutch adjust	1
29	164- 541**	SCREW - socket hd. 5/16" - 18 x 3/4"	2
30	193- 95**	LOCK WASHER - external tooth	2
31	113- 207	BOLT - 3/8" - 16 x 1" N.C.	4
32	192- 21	LOCK WASHER - 3/8"	4
33	C 26758	SCREEN - grass	2
34	113- 2	BOLT - 1/4" - 5/8"	4

*Use before S/N:

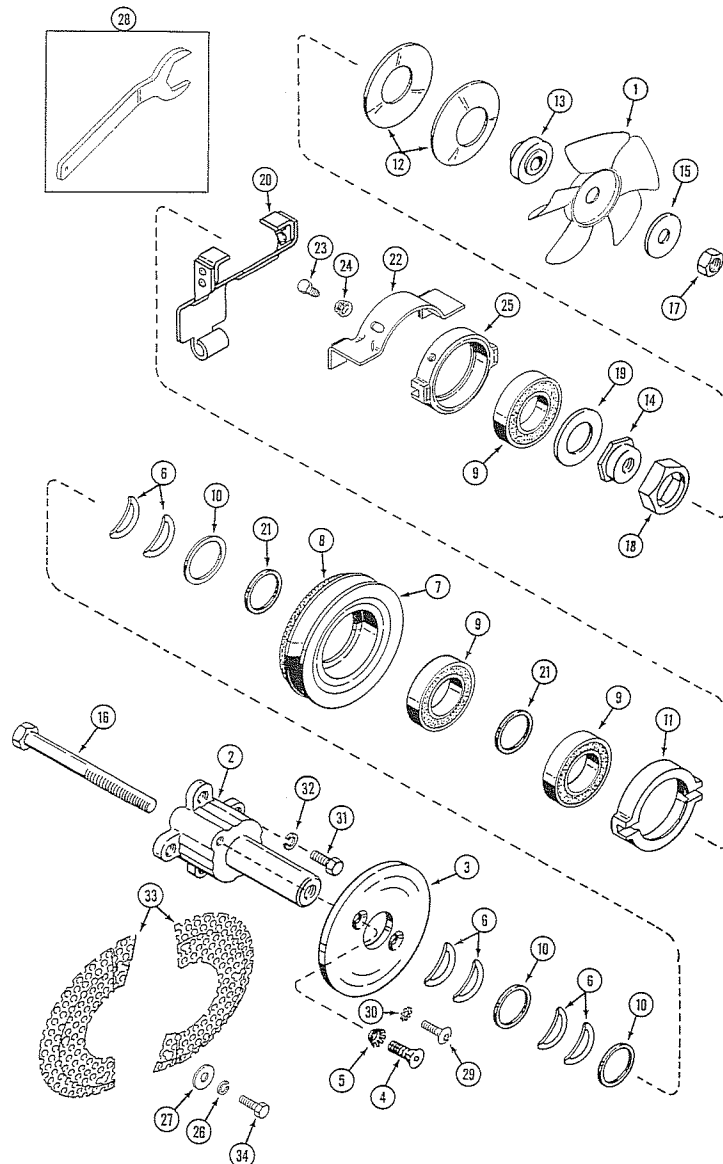
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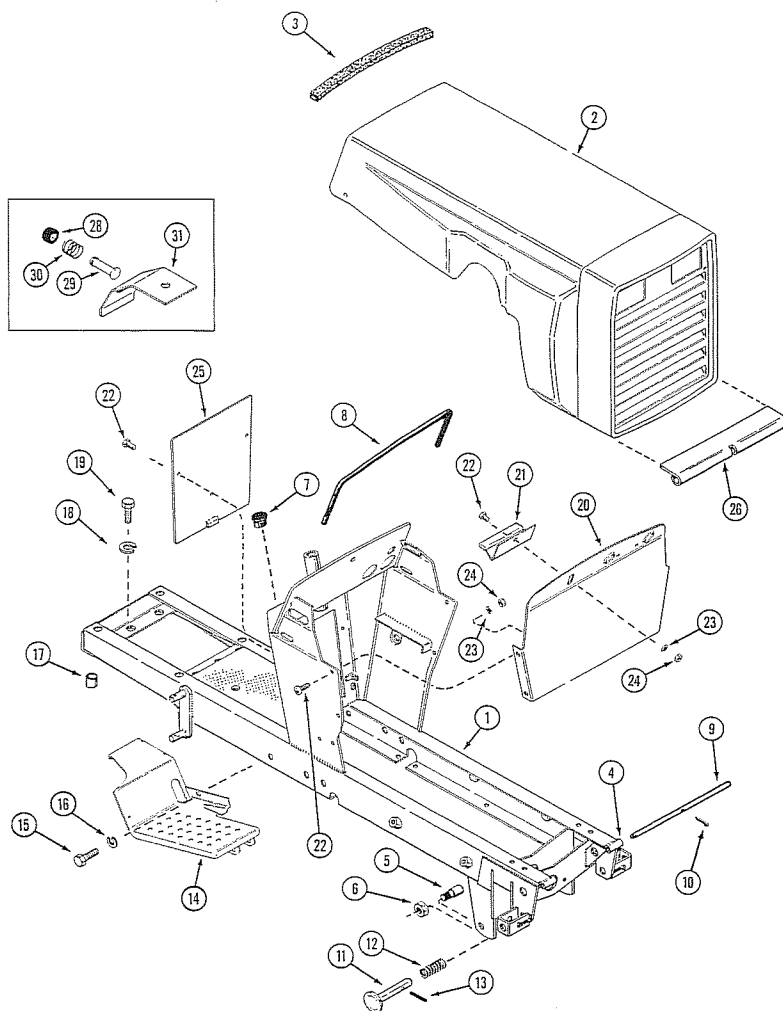
220 - 14091116

222 - 14092063

224 - 14093038

444 - 14094812





HOOD, FRAME AND GRILLE

Use before S/N:
 220 - 14091130 222 - 14092090
 224 - 14093065 444 - 14094825

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 26938*	FRAME - main (220, 222 and 224)	1
1	C 26940*	FRAME - main (444)	1
1	C 29717**	FRAME - main (220, 222, and 224) shown	1
1	C 29718**	FRAME - main (444)	1
2	C 26815*	HOOD AND GRILLE ASSEMBLY (includes item 26)	1
2	C 30115**	HOOD AND GRILLE ASSEMBLY - (includes item 26)	1
3	C 23527	LINER - hood	1
4	C 22023	HINGE - frame	2
5	C 27508	PIN - attachment	2
6	131- 1318	NUT - lock 1/2" N.F.	2
7	353- 406	PLUG - hole (models without hydraulic lift)	1
8	C 18153	CHANNEL - instrument panel	1
9	C 16362	ROD - hood hinge	1
10	132- 334	PIN - cotter 1/8" x 3/4"	1
11	C 16373	PIN - latch	2
12	C 24137	SPRING - latch	2
13	138- 2073	PIN - roll 3/16" x 1-1/4"	2
14	C 25317	PAD - foot rest, L.H.	1
14	C 25318	PAD - foot rest, R.H.	1
15	13- 514	BOLT - 5/16" x 7/8" N.C. hex	4
16	192- 20	LOCK WASHER - 5/16"	4
17	C 14729	SPACER - frame, rear (444)	2
17	C 14730	SPACER - frame, rear (220, 222 and 224)	2
18	192- 23	LOCK WASHER - 1/2"	4
19	113- 424	BOLT - 1/2" x 1" N.C. hex	4
20	C 24821*	SHIELD - heat	1
20	C 30143**	SHIELD - heat (shown)	1
21	C 24820*	CLIP - battery hold down	1
21	C 29308**	CLIP - battery hold down	1
22	182- 547	SCREW - 1/4" 20 x 1/2" pan hd.	9
23	192- 19	LOCK WASHER - 1/4"	7
24	129- 101	NUT - 1/4" - 20	5
25	C 26506	COVER - access	1
26	C 16361	HINGE - hood	1
27	187- 1036	SCREW - 1/4" - 20 x 1/2"	2
28	C 29314**	BUTTON - push, hood release	1
29	C 29315**	ROD - push, hood release	1
30	C 30004**	SPRING - release	1
31	C 33467**	LATCH - hood	1

*Use before S/N:

**Use S/N and after:

220 - 14068672

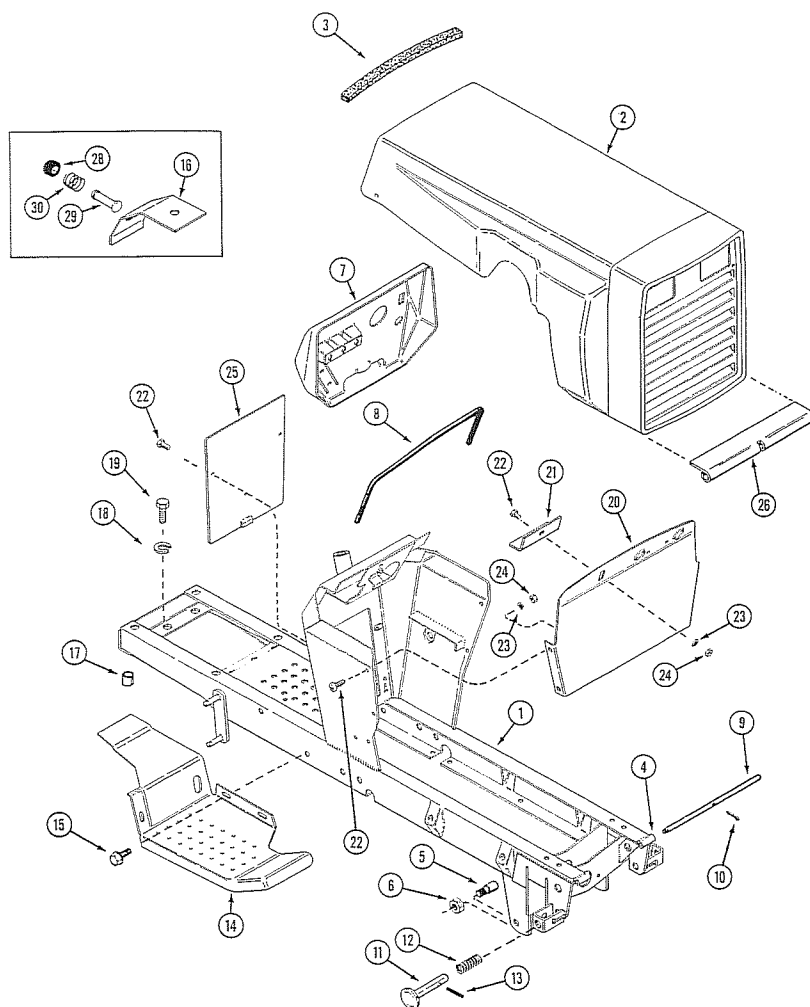
222 - 14069604

224 - 14070707

444 - 14072835

HOOD, FRAME AND GRILLE

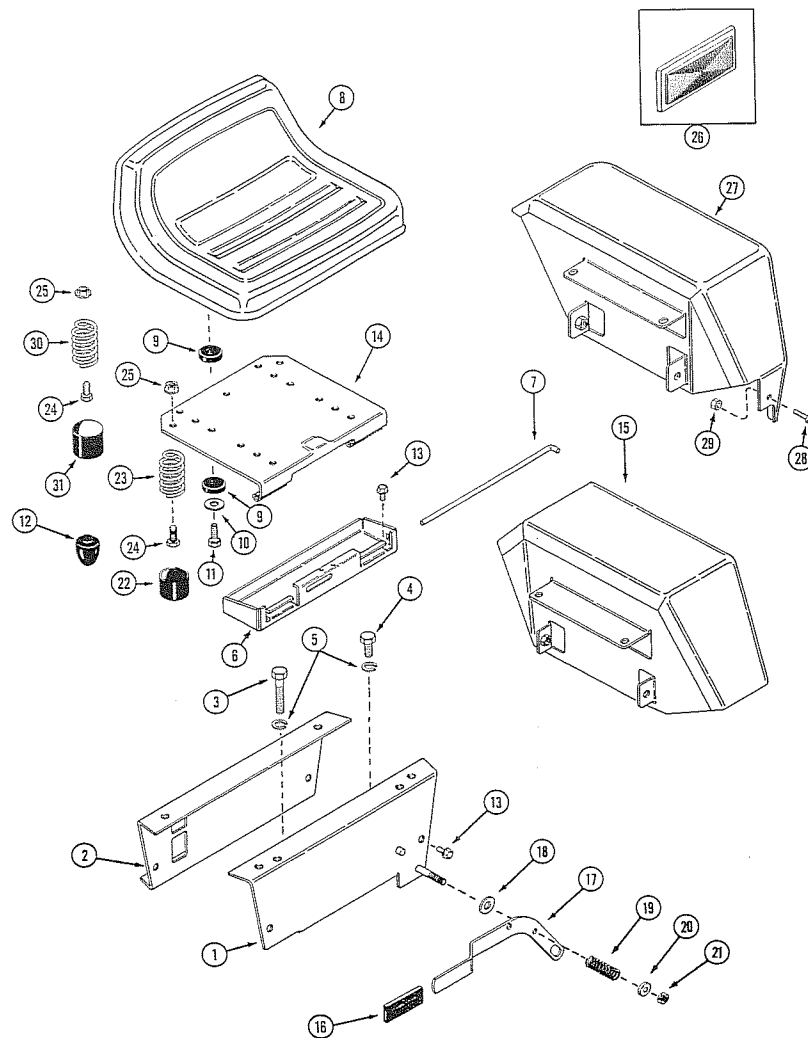
Use S/N and after:

 220 - 14091130 222 - 14092090
 224 - 14093065 444 - 14094825


REF.	PART NO.	DESCRIPTION	REQ'D
1	C 30524*	FRAME - main (220, 222, and 224) shown	1
1	C 30525*	FRAME - main (444)	1
2	C 30115	HOOD AND GRILLE ASSEMBLY (includes item 26)	1
3	C 23527	LINER - hood	1
4	C 22023	HINGE - frame	2
5	C 27508	PIN - attachment	2
6	131- 1318	NUT - lock 1/2" N.F.	2
7	C 30134	CAP - instrument panel	1
9	C 16362	ROD - hood hinge	1
10	132- 334	PIN - cotter 1/8" x 3/4"	1
11	C 16373	PIN - latch	2
12	C 24137	SPRING - latch	2
13	138- 2073	PIN - roll 3/16" x 1-1/4"	2
14	C 30458	PAD - foot rest, L.H. (220, 222, 224)	1
14	C 30460	PAD - foot rest, R.H. (220, 222, 224) shown	1
14	C 30462	PAD - foot rest, L.H. (444)	1
14	C 30464	PAD - foot rest, R.H. (444)	1
15	121- 106	BOLT - 5/16" x 1/2" N.C. hex.	4
16	C 33467	LATCH - hood	1
17	C 14729	SPACER - frame, rear (444)	2
17	C 14730	SPACER - frame, rear (220, 222 and 224)	2
18	192- 23	LOCK WASHER - 1/2"	4
19	113- 424	BOLT - 1/2" x 1" N.C. hex.	4
20	C 30143	SHIELD - heat	1
21	C 30142	CLIP - battery hold down	1
22	182- 547	SCREW - 1/4" 20 x 1/2" pan hd.	9
23	192- 19	LOCK WASHER - 1/4"	7
24	129- 101	NUT - 1/4" - 20	5
25	C 26506	COVER - access	1
26	C 16361	HINGE - hood	1
27	187- 1036	SCREW - 1/4" - 20 x 1/2"	2
28	C 29314	BUTTON - push, hood release	1
29	C 30126	ROD - push, hood release	1
30	C 30004	SPRING - release	1

*Also requires C30530
 before S/N:
 220-14106917
 222-14108020
 224-14109118
 444-14111235

SEAT, FENDERS AND TOOL TRAY



REF.	PART NO.	DESCRIPTION	REQ'D
1	C 31021	SUPPORT - seat, front (444)	1
1	C 31020	SUPPORT - seat, front (220, 222, 224)	1
2	C 27224	SUPPORT - seat, rear (444)	1
2	C 26827	SUPPORT - seat, rear (220, 222, 224)	1
3	113- 441	BOLT - 1/2" x 2-1/4" N.C. hex (444)	2
3	113- 427	BOLT - 1/2" x 3-1/4" N.C. hex (220, 222 and 224)	2
4	113- 424	BOLT - 1/2" x 1" N.C. hex	2
4	113- 118	BOLT - 5/16" x 5/8"	1
5	192- 20	LOCK WASHER - 5/16"	1
5	192- 23	LOCK WASHER - 1/2"	4
6	C 31004	TRAY - tool	1
7	C 16429	PIN - seat hinge	1
8	C 30071	SEAT - (220, 222 and 224) shown (black)	1
8	C 30066	SEAT - (444) (black)	1
9	C 15410	CUSHION - rubber	8
10	195- 2175	WASHER - 5/16" x 1-1/4" OD, zinc plated	4
11	113- 122	BOLT - 5/16" x 1-1/2"	4
12	C 14534*	BUMPER - seat	2
13	121- 106	BOLT - 5/16" x 1/2" flange whizlock	10
14	NSS*	HINGE ASSEMBLY - seat (use C31005 and 2 each of C29305, C29306, 113-102, 131-911)	1
14	C 31005**	HINGE ASSEMBLY - seat hinge (shown)	1
15	C 26835†	FENDER - L.H. (444)	1
15	C 26833†	FENDER - R.H. (444)	1
15	C 26831†	FENDER - L.H. (220, 222, 224) shown	1
15	C 26829†	FENDER - R.H. (220, 222, 224)	1
16	C 14728	GRIP - shift lever	1
17	C 27594	LEVER - shift	1
18	195- 525	WASHER - 7/16" x 1-1/4" OD	1
19	C 17216	SPRING - shift lever	1
20	C 30489	WASHER - cupped	1
21	131- 1181	NUT - lock 3/8" N.C. hex	1
22	C 29305**	CAP - spring	2
23	C 29306**	SPRING - seat	2
24	113- 102	BOLT - 5/16"-18 x 3/4"	3
25	131- 911	NUT - 5/16"-18 flange lock	3
26	NSS	REFLECTOR - red. rear fender (use C30942)	2
27	C 30467††	FENDER R.H. (220, 222, 224)	1
27	C 30466††	FENDER - L.H. (220, 222, 224) shown	1
27	C 30471††	FENDER - R.H. (444)	1
27	C 30470††	FENDER - L.H. (444)	1
28	182- 547	SCREW - 1/4" - 20 x 1/2"	2
29	131- 934	NUT - 1/4"	2
30	C 31006	SPRING - seat switch	1
31	C 26526	CAP - spring	1

*Use before S/N:

**Use S/N and after:

220 - 14068672

222 - 14069604

224 - 14070707

444 - 14072835

†Use before S/N:

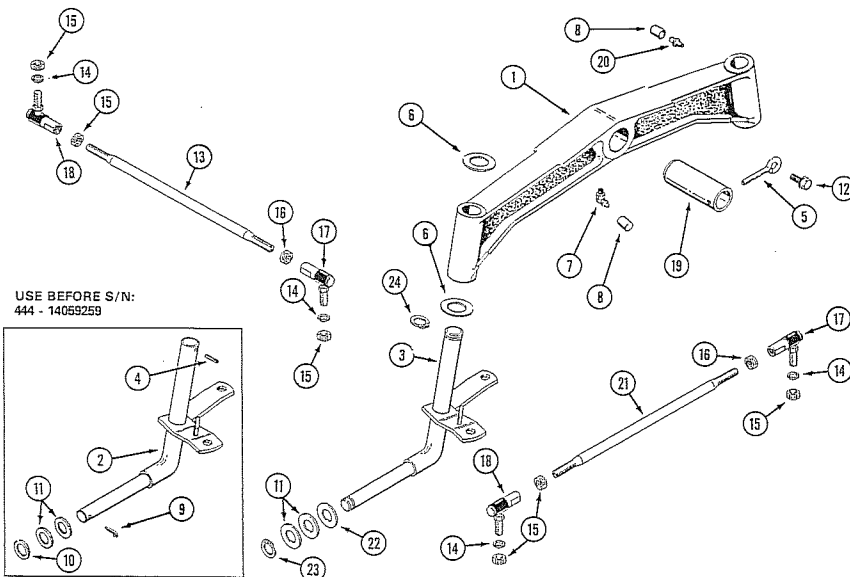
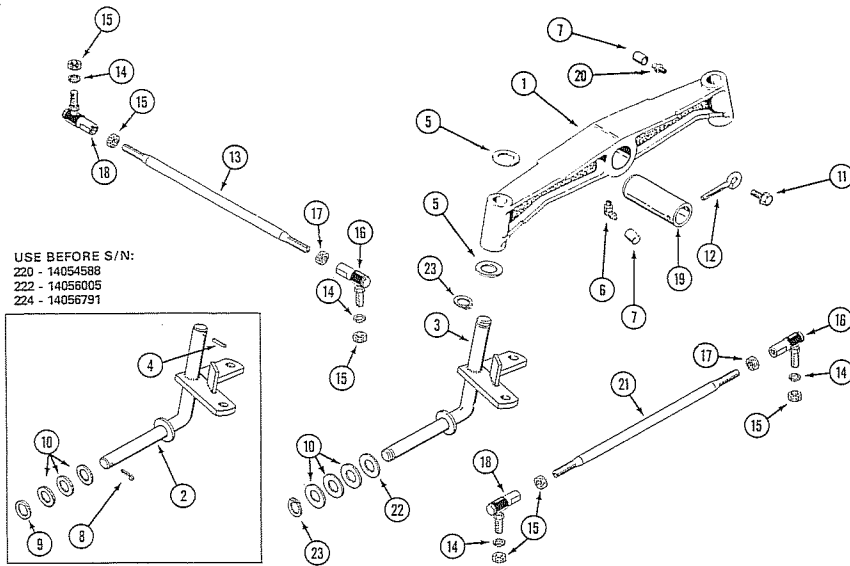
††Use S/N and after:

220 - 14091130

222 - 14092090

224 - 14093065

444 - 14094825



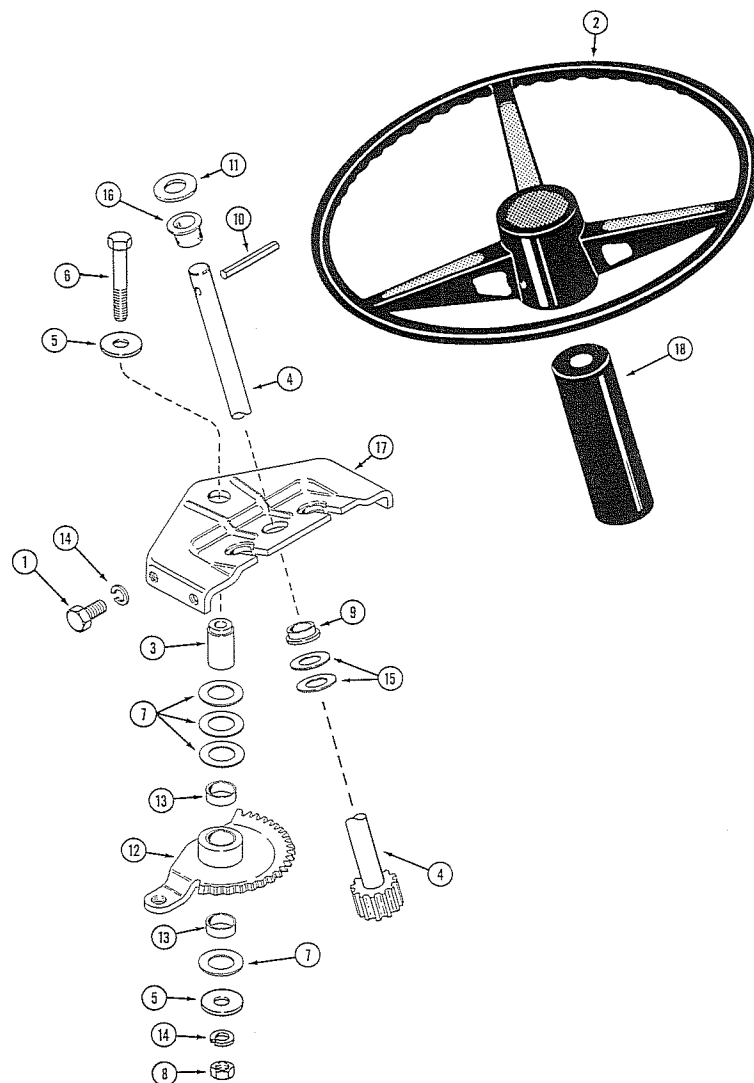
220, 222 AND 224 FRONT AXLE

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 18812	AXLE - front	1
2	NSS	SPINDLE - L.H. (use C31337, C28232)	1
2	NSS	SPINDLE - R.H. shown (use C31338, C28232)	1
3	NSS	SPINDLE - R.H. shown (use C31338, 132-311)	1
3	NSS	SPINDLE - L.H. (use C31337, 132-311)	1
4	138-	PIN - roll	2
5	C 11906	WASHER - thrust	4
6	219-	FITTING - lube	1
7	C 13106	COVER - lube fitting	3
8	132-	PIN - cotter 5/32 x 1-1/4"	2
9	C 12975	WASHER - wheel spindle	2
10	C 28226	WASHER - wheel spacer	6
11	187-	BOLT - 3/8" N.C. indented hex head	1
12	C 22278	PIN - retaining, axle pivot	1
13	C 25857	ROD - drag link	1
14	192-	LOCK WASHER - 1/2" zinc plated	3
15	129-	NUT - jam 1/2" N.F. hex R.H. thread	6
16	C 13605	BALL JOINT - 1/2" L.H. thread	2
17	129-	NUT - jam 1/2" N.F. hex L.H. thread	2
18	C 12102	BALL JOINT - R.H. thread	2
19	C 22568	TUBE - axle pivot	1
20	219-	FITTING - lube	2
21	C 25856	TIE ROD	1
22	C 27597	WASHER	2
23	C 28232	RING - retaining	4

444 FRONT AXLE

1	C 18813	AXLE - front	1
2	NSS	SPINDLE - R.H. shown (use C31341, C27902)	1
2	NSS	SPINDLE - L.H. (use C31340, C27902)	1
3	NSS	SPINDLE - R.H. shown (use C31341, 132-311)	1
3	NSS	SPINDLE - L.H. (use C31340, 132-311)	1
4	138-	PIN - roll	2
5	C 22278	PIN - retaining, axle pivot	1
6	C 13716	WASHER - thrust	4
7	219-	FITTING - lube	1
8	C 13106	COVER - lube fitting	3
9	132-	PIN - cotter 5/32" x 1-1/4"	2
10	C 12975	WASHER - wheel spindle	2
11	C 28226	WASHER - wheel spacer	4
12	187-	BOLT - 3/8" N.C. indented hex head	1
13	C 25857	ROD - drag link	1
14	192-	LOCK WASHER - 1/2" zinc plated	3
15	129-	NUT - jam 1/2" N.F. hex R.H. thread	6
16	129-	NUT - jam 1/2" N.F. hex L.H. thread	2
17	C 13605	BALL JOINT - L.H. thread	2
18	C 12102	BALL JOINT - R.H. thread	2
19	C 22568	TUBE - axle pivot	1
20	219-	FITTING - lube	2
21	C 25855	TIE ROD	1
22	C 27597	WASHER	2
23	C 28232	RING - retaining	2
24	C 27902	RING - retaining	2

STEERING GEAR



REF.	PART NO.	DESCRIPTION	REQ'D
1	113- 206	BOLT - 3/8" x 3/4" N.C. hex	4
2	C 26325	WHEEL - steering	1
3	NSS*	PIN - pivot (use C29044)	1
3	C 29044**	PIN - pivot	1
4	C 26326	SHAFT - steering	1
5	C 29812	WASHER - 3/8" x 1.4"	2
6	113- 241*	BOLT - 3/8" - 16 x 3" hex	1
6	113- 248**	BOLT - 3/8" - 16 x 2-3/4"	1
7	C 14201	WASHER - shim	4
8	129- 103	NUT - 3/8" - 16 hex	1
9	C 27501**	BUSHING	1
10	138- 143	PIN - roll 1/4" x 2-1/4"	1
11	195- 541	WASHER - 5/8"	1
12	C 33309	GEAR - steering	1
13	C 33308	BUSHING - sleeve	2
14	192- 21	LOCK WASHER - 3/8"	5
15	195- 2069	WASHER - 5/8" zinc plated	2
16	C 15096	BUSHING - flanged nylon	1
17	C 30019**	SUPPORT - steering gear (includes bushing)	1
17	NSS*	SUPPORT - steering (use C29812, C30019 and C29044)	1
18	C 24098†	TUBE - steering	1
18	C 30127††	TUBE - steering	1

*Use before S/N:

**Use S/N and after:

220 - 14068708

222 - 14069648

224 - 14070747

444 - 14072850

†Use before S/N:

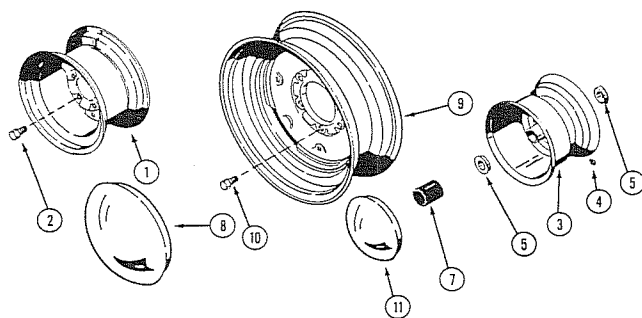
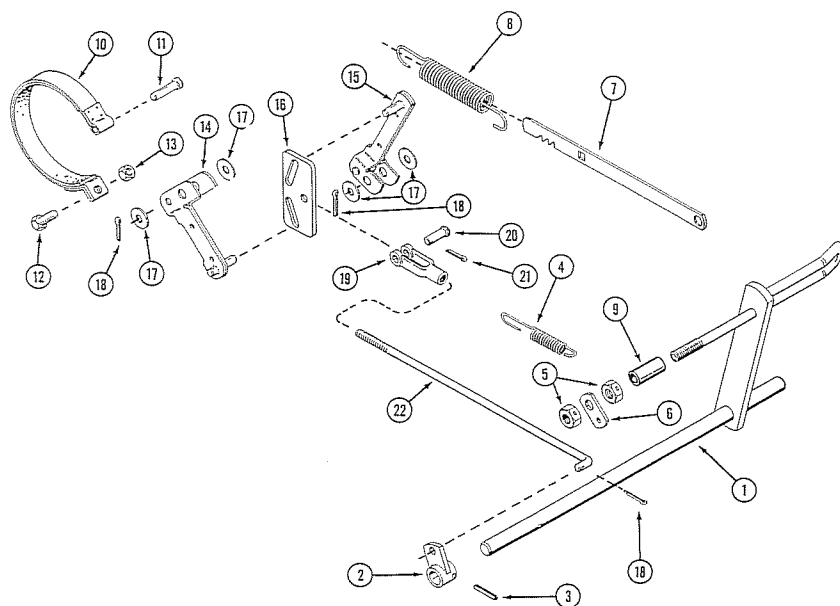
††Use S/N and after:

220 - 14091130

222 - 14092090

224 - 14093065

444 - 14094825

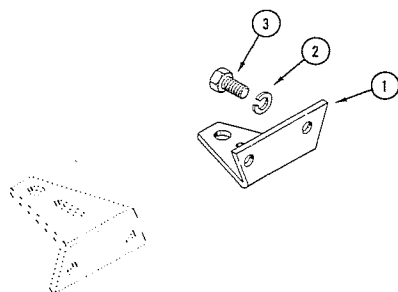
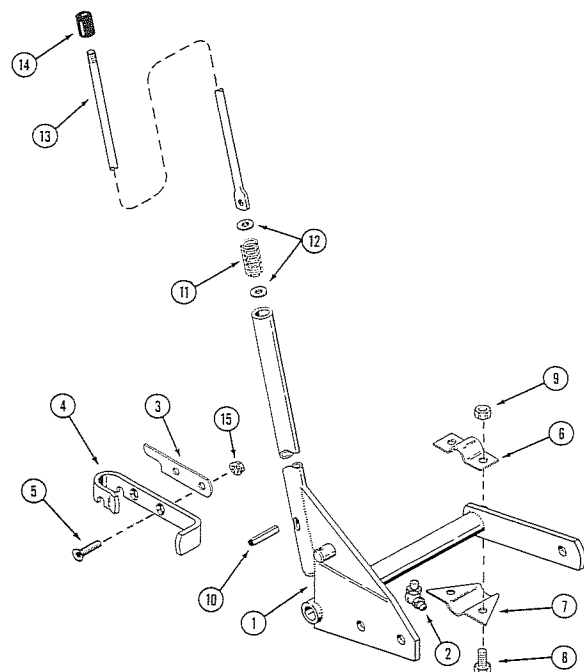


BRAKE ASSEMBLY

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 21872	PEDAL - brake actuating	1
2	C 26381	ARM - brake pedal	1
3	138- 2073	PIN - spirol 3/16" x 1-1/4"	1
4	C 25022	SPRING - return	1
5	131- 1308	NUT - centerlock, jam	2
6	C 16164	TAB - lift	1
7	C 18147	LEVER - brake lock	1
8	C 27755	SPRING - brake lock	1
9	C 21857	SPACER - brake pedal	1
10	C 33427	BAND - brake	1
11	C 23910	PIN - clevis	1
12	113- 2262	BOLT - 3/8" - 16 x 1-1/2" hex	1
13	129- 143	NUT - 3/8" - 16 jam	1
14	C 23899	ARM - brake	1
15	C 24761	ARM - brake (includes adjustment nut)	1
16	C 31994	GUIDE - brake actuation	1
17	195- 533	WASHER - .531" I.D.	4
18	132- 310	PIN - cotter 1/8" x 1"	3
19	C 28978	CLEVIS	1
20	141- 4	PIN - clevis	1
21	132- 321	PIN - cotter 3/32" x 1"	1
22	C 31992	ROD - brake (220, 222, 224)	1
22	C 31993	ROD - brake (444)	1

FRONT AND REAR WHEELS

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 30913	WHEEL - rear, 5 bolt (220, 222, 224) for 23 x 8.50 - 12 tire	2
1	C 30922	WHEEL - rear, 5 bolt (220, 222, 224) for 23 x 10.50 - 12 tire	2
2	C 10314	BOLT - rear wheel (220, 222, 224)	10
3	C 30912	WHEEL - front (white) (includes items 5)	2
4	219- 403	FITTING - lube	2
5	C 12110	BEARING - wheel	4
7	C 26021	CAP - plastic, front	2
8	C 28970	CAP - hub, rear (optional) (220, 222, 224)	2
9	C 30917	WHEEL - rear, 6 bolt (444)	2
10	C 27763	BOLT - rear wheel (444)	12
11	C 28965	CAP - hub front wheel (optional)	2
	C 13106	COVER - lube fitting	2
	C 28236	STEM - valve	4



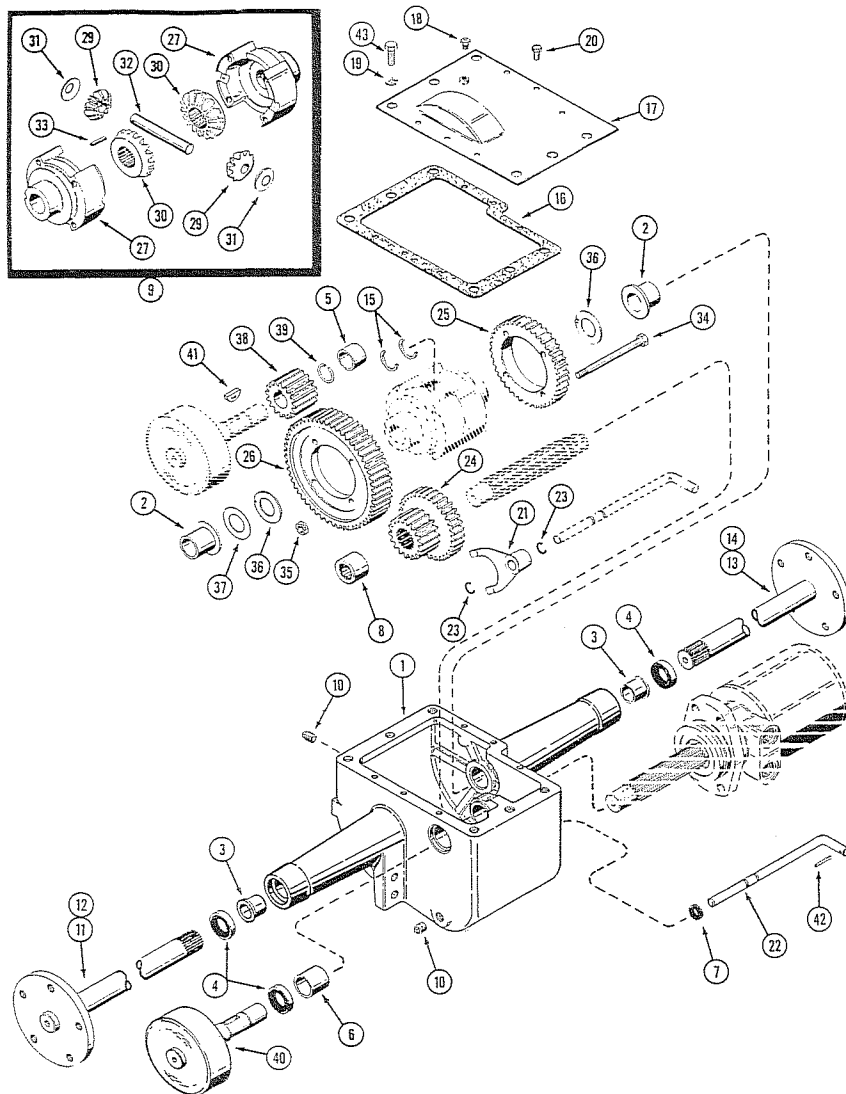
MOUNTING POSITION FOR 220, 222 AND 224 TRACTORS.

IMPLEMENT LIFT

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 18809	LEVER ASSEMBLY - implement lift	1
2	219- 404	FITTING - lube 45°	1
3	C 17281	SPACER - latch	5
4	C 18811	LATCH - lever	1
5	164- 42	SCREW - 5/16" x 1-1/4" flat head socket	2
6	C 17249	BRACKET - mounting top	1
7	C 17250	BRACKET - mounting bottom	1
8	113- 207	BOLT - 3/8" x 1" N.C.	4
9	131- 1181	NUT - lock 3/8"	4
10	138- 2054	PIN - spirol 5/16" x 1-3/4"	1
11	C 15564	SPRING - lift lever	1
12	195- 521	WASHER - 3/8" x 11/16" OD	2
13	C 17067	ROD - lift lever push	1
14	C 14525	BUTTON - release	1
15	131- 911	NUT - lock 5/16" - 18 flanged	2
	C 13106	COVER - lube fitting	1

DRAWBAR AND TOW HITCH

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 13360	DRAWBAR	1
2	192- 23	LOCK WASHER - 1/2" zinc plated	2
3	113- 424	BOLT - 1/2" x 1" N.C. hex zinc plated	2



TRANSMISSION AND FINAL DRIVE

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 24843	CASE ASSEMBLY - transmission	1
2	NSS	CASE - transmission	1
3	C 12713	BEARING - flange	2
4	C 24804	BEARING - flange	2
5	C 24803	SEAL - shaft	3
6	C 13241	BEARING - sleeve	1
7	C 13385	BEARING - sleeve	1
8	C 13266	SEAL - shift rod	1
9	C 28281	BEARING - roller	1
10	C 30027	DIFFERENTIAL ASSEMBLY	1
11	221-	3 PLUG - 3/8" filler and drain	3
12	C 16699	SHAFT - axle, short R.H. (220, 222 and 224)	1
13	C 22638	SHAFT - axle, short R.H. (444)	1
14	C 16700	SHAFT - axle, long L.H. (220, 222 and 224)	1
15	C 22637	SHAFT - axle, long L.H. (444)	1
16	C 26342	RING - retainer, axle	2
17	C 13196	GASKET - transmission cover	1
18	C 13197	COVER - transmission	1
19	C 28241	BREATHER - transmission	1
20	192-	23 LOCK WASHER - 1/2"	4
21	121-	21 BOLT - 1/4" x 1/2" N.C. lock	6
22	C 12725	FORK - shift	1
23	C 32486	ROD - gear shift	1
24	C 14168	RING - retaining	2
25	C 14644	GEAR - cluster input	1
26	NSS*	GEAR - high 41 tooth (shown) use C30030 and C30031	1
27	C 30030**	GEAR - high 41 tooth	1
28	C 12552	GEAR - low 55 tooth	1
29	NSS	KIT - diff. case (includes Ref. 34 and 35)	1
30	NSS	GEAR - differential pinion	2
31	NSS	GEAR - differential	2
32	NSS	WASHER - pinion thrust	2
33	NSS	PIN - differential cross	1
34	NSS	PIN - differential cross lock	1
35	28-	680* SCREW - 3/8" x 5" N.F. hex cap (shown)	4
36	C 30031**	KIT - screw (set of four)	1
37	131-	1133 NUT - lock 3/8" N.F. hex	4
38	C 12718	WASHER - differential	2
39	C 14223	WASHER - spacer	2
40	C 33417	GEAR - brake idler	1
41	C 14222	RING - retainer, brake idler	1
42	C 25258	BRAKE DRUM	1
43	126-	128 KEY - Woodruff, brake idler 1/4" x 1-1/8"	1
	138-	2073 PIN - roll 3/16" x 1-1/4"	1
	113-	424 BOLT - 1/2" - 13 x 1" hex	4

*Use Before S/N:

**Use S/N and after:

220 - 14091014

222 - 14091935

224 - 14092962

444 - 14094720

HYDRAULIC SYSTEM

USE BEFORE S/N:

220 - 14090930 224 - 14070796

222 - 14069687 444 - 14094620

Use for all model 220 and 222 tractors with manual lift

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 15335	SUPPORT - pump mounting	1
2	113- 206	BOLT - 3/8" x 3/4" N.C. hex. support mounting	4
3	62- 616	BOLT - 3/8" x 1" N.F. hex soc. hd., pump mounting	2
4	192- 21	LOCK WASHER - 3/8" zinc plated	6
5	C 28321	KEY - square 1/4" x 3/4" (engine shaft)	1
6	C 15726	COUPLING - pump, 1/2" shaft (220, 222) repairs page 57	1
6	C 17298	COUPLING - pump, 1/2" shaft (224, 444) repairs page 57	1
7	C 26278	PUMP - hydraulic, 1/2" shaft (repairs page 57)	1
8	218- 5065	FITTING - hyd. 3/4" x 7/8" "O" Ring	1
9	218- 5007	"O" RING - 5/8"	1
10	C 16794	TUBE - valve to lower motor port (220, 222 and 224)	1
11	C 16793	TUBE - valve to upper motor port (220, 222, and 224)	1
12	C 25784	EXCHANGER - heat	1
13	214- 254	CLAMP - hose	4
14	NSS	HOSE - tank to heat exchanger (use C29697 cut to length)	1
15	NSS*	RESERVOIR - hydraulic oil (use C33167 kit)	1
15	NSS**	RESERVOIR - hydraulic oil (shown) (use C33177 kit)	1
16	C 25237	CAP - reservoir (includes insert)	1
18	C 22947	TIE - hose clamp	2
19	C 23326	CLAMP - hose	2
20	C 33423*	HOSE - suction	1
20	C 29309**	HOSE - suction	1
21	C 18797	HOSE - hydraulic, pump to valve	1
22	218- 5006	"O" RING - 1/2" (for C18797)	1
23	C 26182	TUBE - valve to heat exchanger	1
24	C 25333	TUBE - valve to lower motor port (444)	1
25	C 25334	TUBE - valve to upper motor port (444)	1
26	218- 5107	FITTING - motor port, 90° elbow, "O" Ring	2
27	218- 5007	"O" RING - 5/8" (for 218-5107 fitting)	2
28	NSS	VALVE - hydraulic control single spool (220, 222) (repairs page 59)	1
29	C 27217	VALVE - hydraulic control, two spool (all models with hydraulic lift) (repairs page 59)	1
30	182- 246	SCREW - 5/16" x 1-1/4" N.C.	2
31	131- 351	NUT - lock 5/16" N.C. hex.	2
32	218- 5062	FITTING - hydraulic valve 5/8" x 7/8" "O" Ring	3
33	218- 5007	"O" RING - 5/8"	3
34	C 28949	SEAL - motor to transmission	1
35	C 16697	MOTOR - hydraulic (220, 222 and 224) (repairs page 63)	1
35	C 33233	MOTOR - hydraulic (444) (repairs page 63)	1
36	166- 86	SCREW - 1/2" x 1-1/4" N.C. flanged 12 pt.	4
37	NSS	HOSE - rubber (use C29697) cut to length 7"	1
38	C 25556	WASHER - heat exchanger bracket	3
39	187- 1252	SCREW - 1/4" x 1-1/2" N.C. flat hd. Phillips	3

*Use before S/N:

**Use S/N and after

220 - 14068672

222 - 14069604

224 - 14070707

444 - 14072835

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February 1992

HYDRAULIC SYSTEM

Use S/N and after:

220 - 14090930, 222 - 14069687,

224 - 14070796, 444 - 14094620

See page 49 for model 220 and 222 manual lift tractors

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 15335	SUPPORT - pump mounting	1
2	113- 206	BOLT - 3/8" x 3/4" N.C. hex. support mounting	4
3	62- 616	BOLT - 3/8" x 1" N.F. hex soc. hd., pump mounting	2
4	192- 21	LOCK WASHER - 3/8" zinc plated	6
5	C 28321	KEY - square 1/4" x 3/4" (engine shaft)	1
6	C 15726	COUPLING - pump, 1/2" shaft (220,222) repairs page 57	1
6	C 17298	COUPLING - pump, 1/2" shaft (224,444) repairs page 57	1
7	C 26278	PUMP - hydraulic, 1/2" shaft (repairs page 57)	1
8	218- 5065	FITTING - hyd. 3/4" x 7/8" "O" Ring	1
9	218- 5007	"O" RING - 5/8"	1
10	C 29656	TUBE - valve to lower motor port (220, 222 and 224)	1
11	C 29655	TUBE - valve to upper motor port (220, 222, and 224)	1
12	C 25784	EXCHANGER - heat	1
13	214- 254	CLAMP - hose	4
14	NSS	HOSE - rubber, tank to heat exchanger (use C29697 cut to length)	1
15	NSS	RESERVOIR - hydraulic oil (shown) (use C33177 kit)	1
16	C 25237	CAP - reservoir (includes insert)	1
17	C 25556	WASHER - heat exchanger bracket	3
18	C 22947	TIE - hose clamp	2
19	214- 14	CLAMP - hose	2
20	C 29309	HOSE - suction	1
21	C 18797	HOSE - hydraulic, pump to valve	1
22	218- 5006	"O" RING - 1/2" (for C18797)	1
23	C 26182	TUBE - valve to heat exchanger	1
24	C 29658	TUBE - valve to lower motor port (444)	1
25	C 29657	TUBE - valve to upper motor port (444)	1
26	218- 5107	FITTING - motor port, 90° elbow, "O" Ring	2
27	218- 5007	"O" RING - 5/8" (for 218-5107 fitting)	2
28	187- 1252	SCREW - 1/4" x 1-1/2" N.C. flat hd. Phillips	3
29	NSS	VALVE - hydraulic control, two spool (models with hydraulic lift) (repairs page 61 - use C33473 and 218-5154)	1
30	182- 246	SCREW - 5/16" x 1-1/4" N.C.	2
31	131- 351	NUT - lock 5/16" N.C. hex	2
32	218- 5062	FITTING - hydraulic valve 5/8" x 7/8" "O" Ring	3
33	218- 5007	"O" RING - 5/8"	3
34	C 28949	SEAL - motor to transmission	1
35	C 30939	MOTOR - hydraulic (220, 222 and 224) (repairs page 63)	1
35	C 33234	MOTOR - hydraulic (444) (repairs page 63)	1
36	166- 86*	SCREW - 1/2" x 1-1/4" N.C. flanged 12 pt.	4
36	166- 85**	SCREW - 1/2" x 1" flanged 12 pt.	4
37	NSS	HOSE - rubber, (use C29699) cut to length 7"	1

*use before S/N:

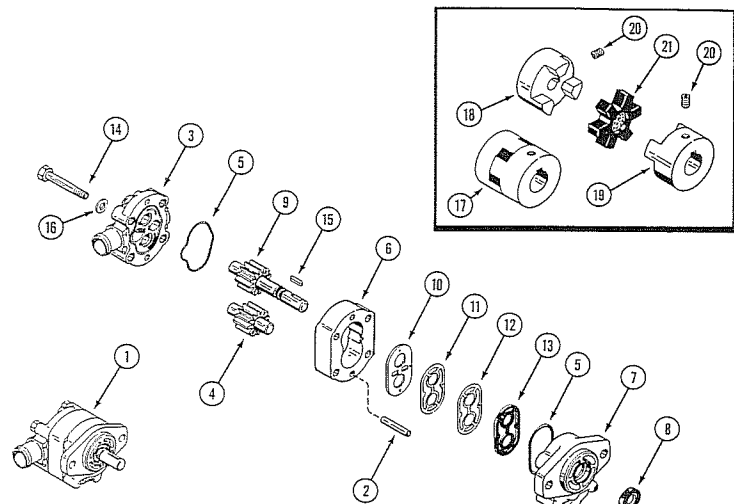
**use S/N and after:

220 - 14107095

222 - 14108205

224 - 14109285

444 - 14111340

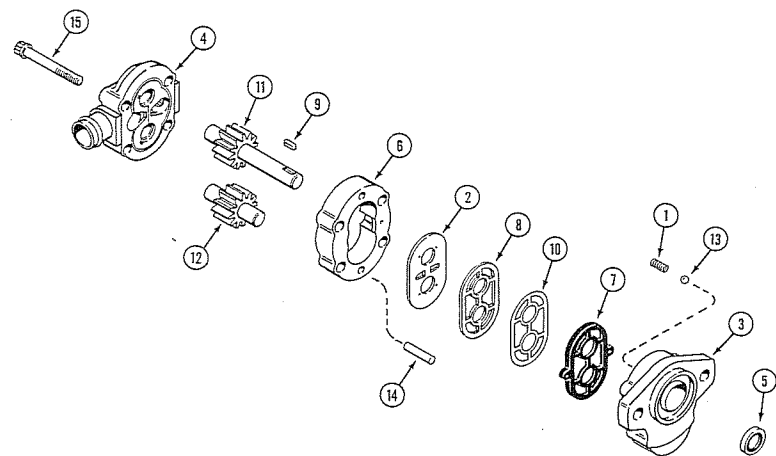


HYDRAULIC PUMP AND COUPLING (PARKER-HANNIFIN)

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 26278	PUMP - hydraulic 1/2" shaft	1
2	F 53109	PIN - dowel	2
3	C 24861	COVER - rear	1
4	C 15731	GEAR ASSEMBLY - driven	1
5	C 15732	"O" RING - cover	2
6	C 15733	BODY - pump	1
7	C 15734	COVER - front	1
8	C 15735	SEAL - shaft	1
9	NSS	GEAR ASSEMBLY - drive (1/2" shaft) (use C26278)	1
10	C 15737	PLATE - wear	1
11	C 15738	SHIELD - heat	1
12	C 15739	GASKET	1
13	C 15740	SEAL	1
14	113- 111	BOLT	4
15	C 19207	KEY - 1/8" square x 3/4" long	1
16	NSS	WASHER - obtain locally	4
17	C 17298	COUPLING - pump (224, 444)	1
17	C 15726	COUPLING - pump (220, 222)	1
18	NSS	HUB - (order item 17)	1
19	NSS	HUB - (order item 17)	1
20	C 32199	SCREW - set 5/16" x 5/16" NC socket head	2
21	C 15036	SPIDER - (224, 444)	1
21	C 28966	SPIDER - (220, 222)	1

HYDRAULIC PUMP (CESSNA)

REF.	PART NO.	DESCRIPTION	REQ'D
	NSS	PUMP - hyd. 1/2" shaft (use C26278)	1
1	C 28709	SPRING	2
2	C 28718	DIAPHRAGM - wear plate	1
3	NSS	COVER - front (use C26278)	1
4	NSS	COVER - rear (use C26278)	1
5	C 28711	SEAL - shaft	1
6	NSS	BODY - pump (use C26278)	1
7	C 28712	SEAL - diaphragm	1
8	C 28714	GASKET - back up	1
9	C 19207	KEY - 1/8" square x 3/4" long	1
10	C 28713	GASKET - protector	1
11	NSS	GEAR ASSEMBLY - drive (use C26278)	1
12	NSS	GEAR ASSEMBLY - driven (use C26278)	1
13	211- 306	BALL - steel 7/32"	2
14	C 28715	PIN - dowel 1/4" x 1-1/4"	2
15	NSS	BOLT - 5/16" - 18 x 2-1/2" 12 point flange (obtain locally)	4

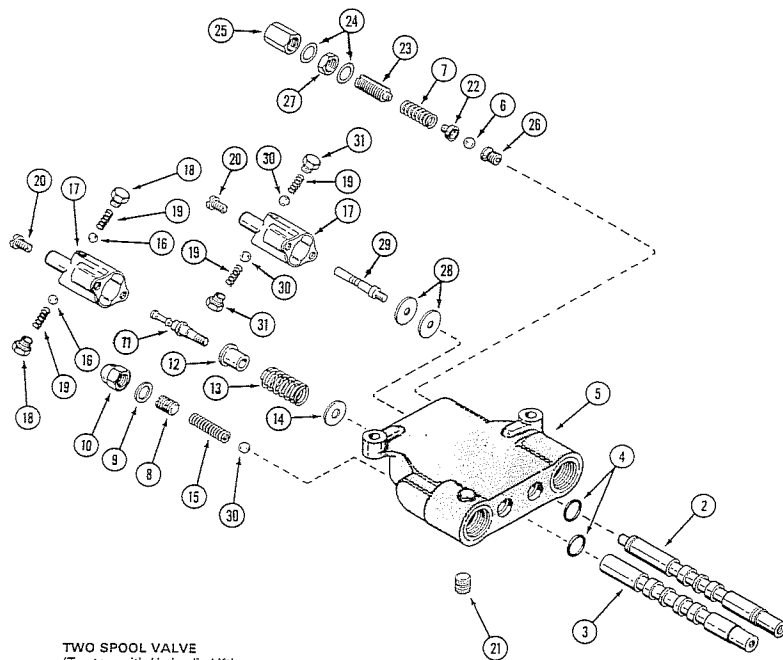


HYDRAULIC CONTROL VALVE

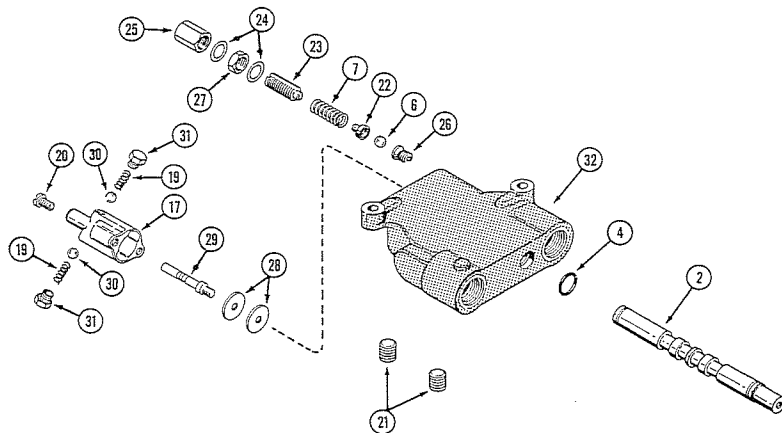
Use before S/N:
 220 - 14090930, 222 - 14069687
 224 - 14070796, 444 - 14094620

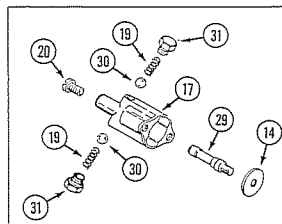
And All Single Spool Valves

REF.	PART NO.	DESCRIPTION	REQ'D
	C 27217	VALVE - control, two spool	1
1	C 28699	RING - retaining	2
2	NSS	SPOOL - motor (order C27217)	1
3	NSS	SPOOL - lift (order C27217)	1
4	C 28856	SEAL - spool	4
5	NSS	BODY - valve (order C27217)	1
6	211- 208	BALL - steel 5/16" (7.94 mm)	1
7	C 21507	SPRING - relief	2
8	C 17433	SCREW - relief adjust	1
9	C 17435	GASKET - relief adjust cap	1
10	129- 531	CAP - adjust screw	2
11	C 26668	DETENT - spool	1
12	C 28707	SPACER - detent	1
13	C 28706	SPRING - detent return	1
14	C 28705	WASHER - return	1
15	NSS	SPRING - relief (use C21511 relief kit)	1
16	211- 5	BALL - steel 3/16" (4.76 mm)	3
17	C 17438	COVER - detent	1
18	C 28708	SCREW - detent	2
19	C 17444	SPRING - detent	2
20	169- 114	SCREW - cover	4
21	221- 841	PLUG - pipe	1
22	C 21506	RETAINER - ball seat	1
23	C 26665	SCREW - adjust, relief	1
24	C 26664	GASKET - adjust cap	1
25	C 26666	CAP - adjust screw	1
26	C 26663	SEAT - relief ball	1
27	C 34555	NUT - lock	1
28	195- 521	WASHER	2
29	C 27219	DETENT - spool	1
30	211- 7	BALL - steel 1/4" (6.35 mm)	2
31	C 17443	SCREW - detent	2
32	NSS	VALVE - control, single spool (use 27217 and (2) 218-5154)	1

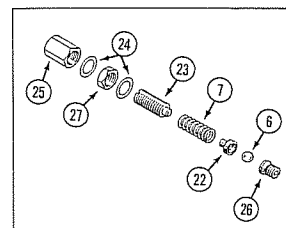


SINGLE SPOOL VALVE
 (Tractors with Manual Lift)

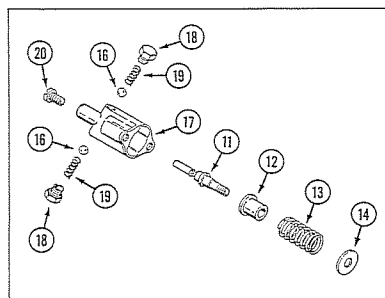




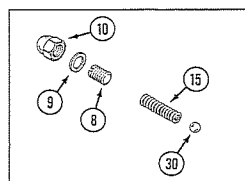
TRAVEL SECTION DETENT GROUP



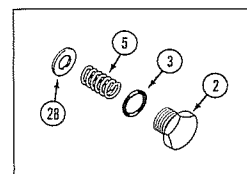
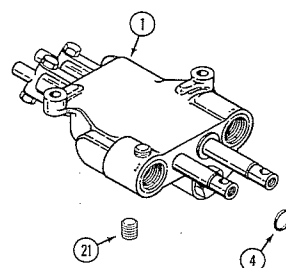
TRAVEL SECTION RELIEF GROUP



LIFT SECTION DETENT GROUP



LIFT SECTION RELIEF GROUP



HOLDING SECTION GROUP

HYDRAULIC CONTROL VALVE

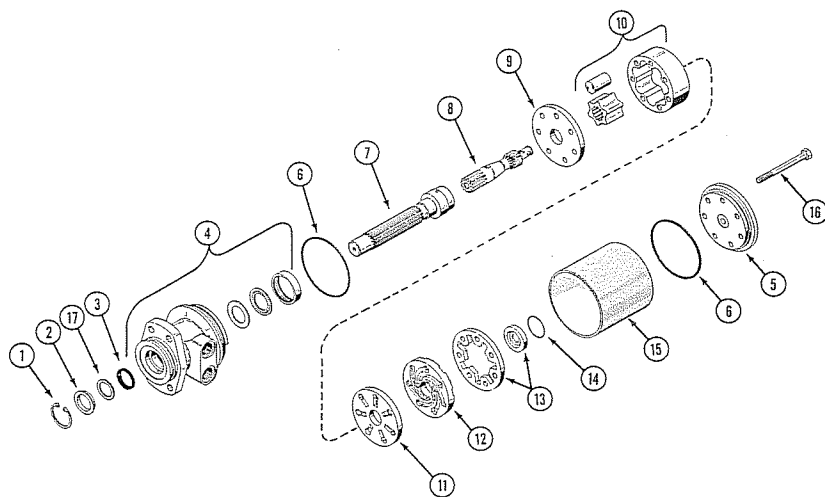
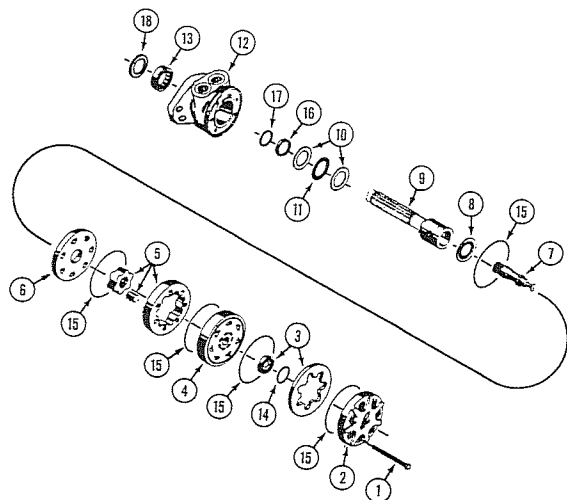
Use S/N and after:

220 - 14090930, 222 - 14069687

224 - 14070796, 444 - 14094620

Single spool valve repair Page 55

REF.	PART NO.	DESCRIPTION	REQ'D
1	NSS	VALVE - control, two spool (use C33473 and 218-5154)	1
2	C 29956	CAP - end	2
3	C 28217	"O" RING - end cap	1
4	C 28856	SEAL - spool	4
5	C 29951	SPRING - centering	2
6	211- 208	BALL - steel 5/16" (7.94 mm)	1
7	C 21507	SPRING - relief	2
8	C 17433	SCREW - relief adjust	1
9	C 17435	GASKET - relief adjust cap	1
10	129- 531	CAP - adjust screw	2
11	C 26668	DETENT - spool	1
12	C 28707	SPACER - detent	1
13	C 28706	SPRING - detent return	1
14	C 28705	WASHER - return	2
15	NSS	SPRING - relief (use C21511 relief kit)	1
16	211- 5	BALL - steel 3/16" (4.76 mm)	2
17	C 17438	COVER - detent	1
18	C 28708	SCREW - detent	2
19	C 17444	SPRING - detent	4
20	169- 114	SCREW - cover	4
21	221- 841	PLUG - pipe	1
22	C 21506	RETAINER - ball seat	1
23	C 26865	SCREW - adjust, relief	1
24	C 26664	GASKET - adjust cap	1
25	C 26666	CAP - adjust screw	1
26	C 26663	SEAT - relief ball	1
27	C 34555	NUT - lock	1
28	C 29950	WASHER - spring retaining	2
29	C 29958	DETENT - spool	1
30	211- 7	BALL - steel 1/4" (6.35 mm)	3
31	C 17443	SCREW - detent	2
	C 30002	KIT - seal	1
	C 30481	PLUG - holding spool (use to replace rear plug only)	1



HYDRAULIC DRIVE MOTOR

Use S/N and after:

220 - 14107095

222 - 14108205

224 - 14109285

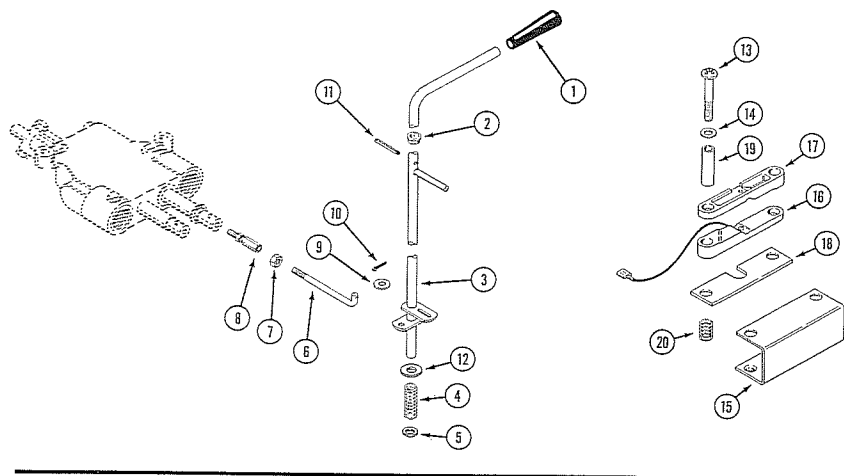
444 - 14111340

REF.	PART NO.	DESCRIPTION	REQ'D
	C 33234	MOTOR - hydraulic (444)	1
	C 30939	MOTOR - hydraulic (220, 222, 224)	1
1	28- 668	BOLT - 3/8" - 24 x 4-1/4" (220, 222, 224)	7
1	C 31327	BOLT - 3/8" - 24 x 4-5/8" (444)	7
2	C 31309	COVER - end	1
3	C 31310	COMMUTATOR AND RING SET	1
4	C 31311	MANIFOLD	1
5	C 31312	ROTOR ASSEMBLY (220, 222, 224)	1
5	C 31313	ROTOR ASSEMBLY (444)	1
6	C 31314	PLATE - wear	1
7	C 31315	LINK - drive (220, 222, 224)	1
7	C 31316	LINK - drive (444)	1
8	C 31317	BEARING - thrust	1
9	C 31318	SHAFT - coupling	1
10	C 31319	WASHER - thrust	2
11	C 31320	BEARING - thrust	1
12	C 31321	HOUSING - drive end	1
13	C 31322	BEARING - outer	1
	C 31323	KIT - seal	1
14	NSS	SEAL - commutator ring	1
15	NSS	SEAL - ring	5
16	NSS	SEAL - ring	1
17	NSS	WASHER - backup	1
18	NSS	SEAL - dirt (not used)	1

HYDRAULIC DRIVE MOTOR

Use Before S/N: 220 - 14107095 224 - 14109285
222 - 14108205 444 - 14111340

	NSS	MOTOR - hydraulic 220, 222, and 224 (use C30939 and 8-56770)	1
	C 33233	MOTOR - hydraulic 444	1
1	C 16516	RING - retaining	1
2	C 19040	SPACER - (see kit below)	1
3	C 25048	SEAL - oil (see kit below)	1
4	C 14827	HOUSING ASSEMBLY	1
5	C 14837	END CAP	1
6	C 18382	SEAL - (see kit below)	2
7	C 14828	SHAFT - coupling	1
8	C 28704	DRIVE LINK - 220, 222, 224	1
8	C 14829	DRIVE LINK - 444	1
9	C 14830	PLATE - wear	1
10	C 18110	ROTOR ASSEMBLY - 220, 222 and 224	1
10	C 14831	ROTOR ASSEMBLY - 444	1
11	C 28703	PLATE - manifold	1
12	C 28874	MANIFOLD	1
13	C 28701	COMMUTATOR AND RING SET	1
14	C 19041	RING - sealing (see kit below)	1
15	C 18092	SLEEVE - 220, 222 and 224	1
15	C 14836	SLEEVE - 444	1
16	NSS	BOLT - 3/8" x 3-7/8" N.F. hex, 220, 222 and 224 (obtain locally)	7
16	C 14838	BOLT - 3/8" x 4-3/8" N.F. hex, 444	7
17	C 19212	WASHER - back up .010" (0.25mm) (see kit below)	1
	C 29732	KIT - "O" ring and seal	1



SPEED CONTROL

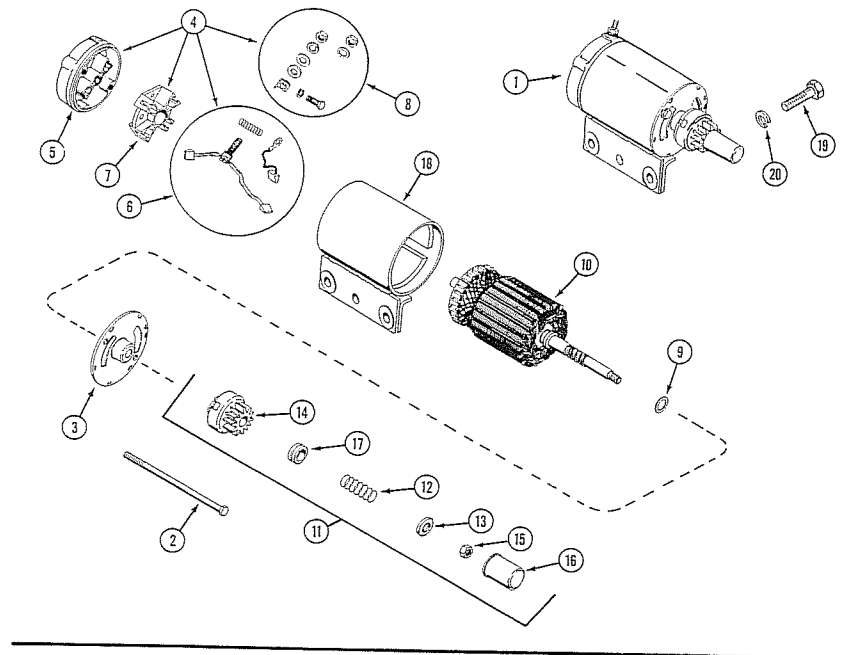
REF.	PART NO.	DESCRIPTION	REQ'D
1	C 29047	KNOB - speed control	1
2	NSS	BUSHING - lever (use C27593)	1
3	C 29407*	LEVER - speed control (shown)	1
3	C 30128**	LEVER - speed control	1
4	C 29645	SPRING - compression	1
5	C 21518	WASHER - nylon	1
6	C 18742	ROD - control	1
7	129- 122	NUT - 5/16" N.F. hex, zinc plated	1
8	C 19025	JOINT - ball	1
9	195- 521	WASHER - 5/16"	1
10	132- 320	PIN - cotter 3/32" x 3/4"	1
11	138- 2072	PIN - roll 1/8" x 1-3/4"	1
12	195- 533	WASHER	1
	C 29646*	LOCATOR ASSEMBLY - neutral start	1
	C 30130**	LOCATOR ASSEMBLY - neutral start	1
13	C 29647	SCREW - 1/4" - 20 black	2
14	C 29648	WASHER - nylon	2
15	C 29649*	CARRIER - locator	1
15	C 30133**	CARRIER - locator	1
16	C 29650	SWITCH - neutral start	1
17	C 29651*	LOCATOR - half	1
17	C 30450**	LOCATOR - light switch	1
18	C 29652	SUPPORT - locator	1
19	C 29653	SPACER - tube	2
20	C 30827	SPRING - locator	2

*Use before S/N:

**Use S/N and after:

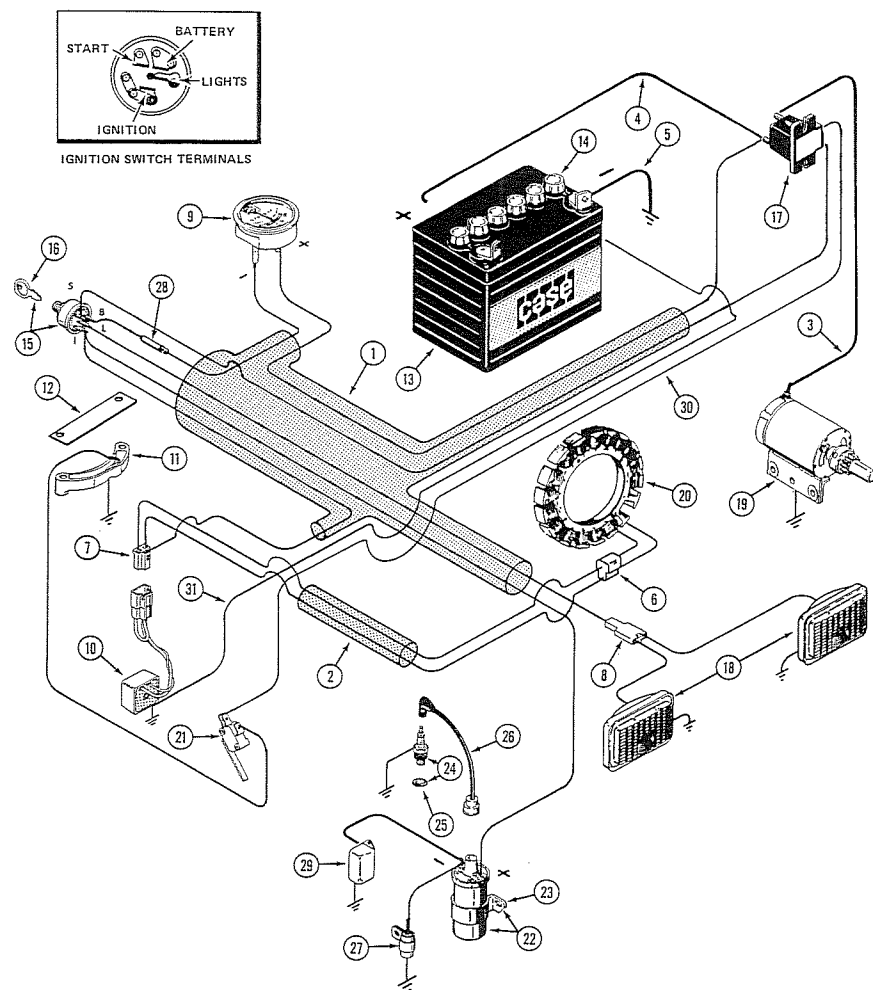
220 - 14091130 224 - 14093065

222 - 14092090 444 - 14094825



STARTER

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 24889	STARTER ASSEMBLY	1
2	C 28681	BOLT - thru	2
3	C 28689	CAP - end	1
4	C 28684	KIT - commutator cap	1
5	NSS	CAP - commutator	1
6	C 28683	KIT - brush and spring	1
7	NSS	KIT - brush holder	1
8	NSS	KIT - hardware	1
9	C 28682	WASHER - armature thrust	1
10	C 24890	ARMATURE	1
11	C 24891	KIT - drive	1
12	C 28685	SPRING - anti-drift	1
13	NSS	SPACER - gear stop	1
14	NSS	GEAR - drive	1
15	NSS	NUT - gear stop	1
16	C 24892	COVER - dust	1
17	NSS	SPACER - dust cover	1
18	NSS	BODY - starter	1
19	C 24886	BOLT - shoulder 3/8" - 20 x 1-5/16"	2
20	192- 21	LOCK WASHER - 3/8"	2
	C 24880	DECAL - "DO NOT STRIKE"	1

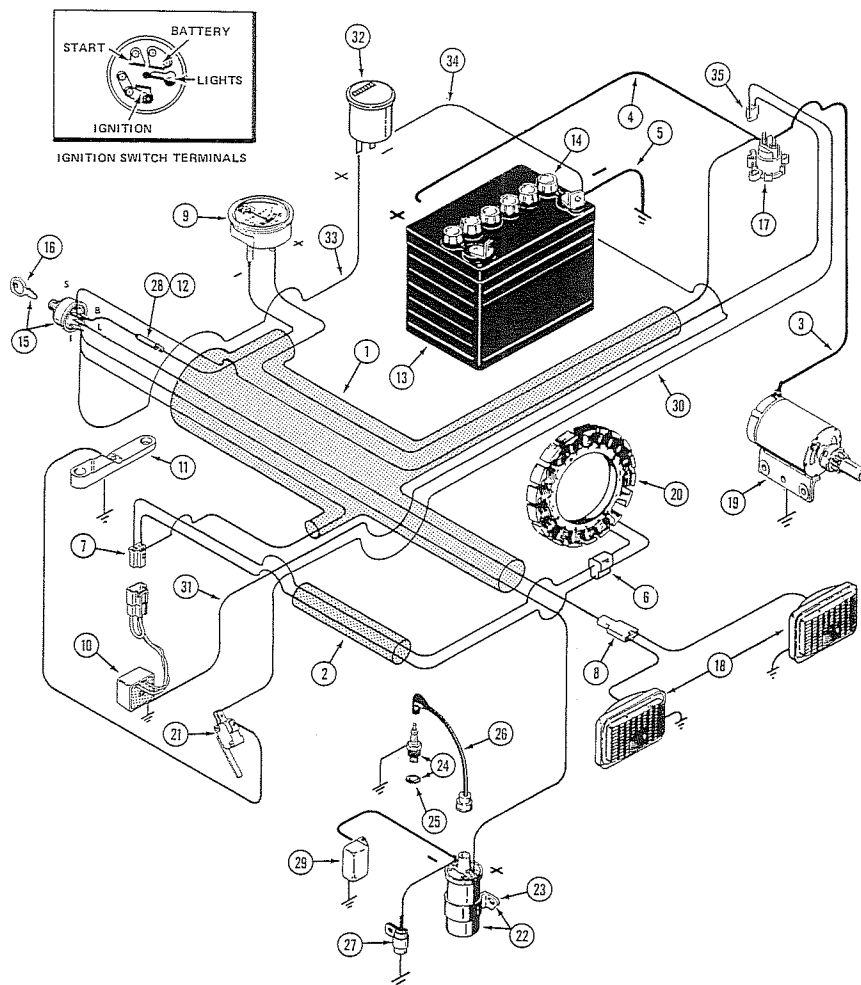


ELECTRICAL SYSTEM

USE BEFORE S/N:

220 - 14054346 222 - 14055580
224 - 14056610 444 - 14059000

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 25564	HARNESS - wire	1
2	C 24815	HARNESS - wire	1
3	C 24816	CABLE - solenoid to starter (black)	1
4	C 14565	CABLE - solenoid to battery positive (red)	1
5	C 24814	CABLE - battery negative to ground (black)	1
6	C 24813	CONNECTOR - wire harness	1
6	C 25338	CONNECTOR - stator	1
7	C 25486	CONNECTOR - rectifier	1
8	C 14537	CONNECTOR - lights	1
9	C 29413	AMMETER - 30 amperes, 12v	1
10	C 31249	RECTIFIER - voltage, 12v	1
11	C 28003	SWITCH - neutral start (includes wire)	1
12	C 21989	INSULATOR - locator	1
13	NSS	BATTERY - 12v (use C31213)	1
14	C 18113	CAP - battery	6
15	C 30268	SWITCH ASSEMBLY - ignition (includes key and lock washer)	1
16	C 32407	KEY - ignition	1
17	C 26525	SOLENOID - start, 12v	1
18	C 32178	HEADLAMP ASSEMBLY - 12v (repairs page 77)	2
19	C 24889	STARTER - bendix drive (repairs page 67)	1
20	C 28692	STATOR	1
21	C 26108	SWITCH - neutral start, PTO	1
22	KO 231281	COIL - ignition, 12v (includes bracket)	1
23	C 28694	BRACKET - coil mounting	1
24	C 29738	SPARK PLUG - (includes gasket)	1
25	C 28673	GASKET - spark plug	1
26	C 28693	KIT - high tension cable	1
27	KO 230722	CONDENSER	1
28	223- 30	FUSE - 30 amperes (included in harness)	1
28	NSS	HOLDER - fuse, 30 amp (use C31947)	1
29	NSS	BREAKER CONTACT ASSEMBLY - ignition (repairs page 79)	1
30	C 25563	WIRE - solenoid to neutral start	1
31	C 26670	WIRE - ground, rectifier to battery negative	1



ELECTRICAL SYSTEM

USE S/N:

(220) 14054264 to 14091130
(222) 14055580 to 14092090(224) 14056610 to 14093065
(444) 14059000 to 14094825

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 27527	HARNESS - wire	1
2	C 24815	HARNESS - wire	1
3	C 31944	CABLE - solenoid to starter (black)	1
4	C 14565	CABLE - solenoid to battery positive (red)	1
5	C 24814	CABLE - battery negative to ground (black)	1
6	C 24813	CONNECTOR - wire harness	1
6	C 25338	CONNECTOR - stator	1
7	C 25486	CONNECTOR - rectifier	1
8	C 14537	CONNECTOR - lights	1
9	C 29413	AMMETER - 30 amperes, 12v	1
10	C 31249	RECTIFIER - voltage, 12v	1
11	C 28003†	SWITCH - neutral start (includes wire)	1
11	C 29646††	LOCATOR ASSEMBLY - neutral start (see page 65)	1
12	NSS	HOLDER - fuse 30 amp (use C31947)	1
13	NSS	BATTERY - 12v (use C31213)	1
14	C 18113	CAP - battery (screw type)	6
14	C 29074	CAP - battery (push type)	6
15	C 30268	SWITCH - ignition (includes key, mounting hardware)	1
16	C 32407	KEY - ignition	1
17	C 27523	SOLENOID - start, 12v	1
18	C 22571	HEADLAMP ASSEMBLY - 12v (repairs page 77)	2
19	C 32178	STARTER - bendix drive (repairs page 67)	1
20	C 28692	STATOR	1
21	C 26108	SWITCH - neutral start, PTO	1
22	KO 231281	COIL - ignition, 12v (includes bracket)	1
23	C 28694	BRACKET - coil mounting	1
24	C 29738	SPARK PLUG - (includes gasket)	1
25	C 28673	GASKET - spark plug	1
26	C 28693	KIT - high tension cable	1
27	KO 230722	CONDENSER	1
28	223- 30	FUSE - 30 amperes (included in harness)	1
29	NSS	BREAKER CONTACT ASSEMBLY - ignition (repairs page 79)	1
30	C 27530	WIRE - solenoid to neutral start	1
31	C 26670	WIRE - ground, rectifier to battery negative	1
32	C 28304*	HOURMETER	1
32	C 33415**	HOURMETER - (shown)	1
33	C 29411	WIRE - hourmeter to ignition switch	1
34	C 29412	WIRE - hourmeter to battery negative (-)	1
35	C 27549	CONNECTOR - solenoid	1

*Use before S/N:

**Use S/N and after:

220 - 14068672

222 - 14069604

224 - 14070707

444 - 14072835

†Use before S/N:

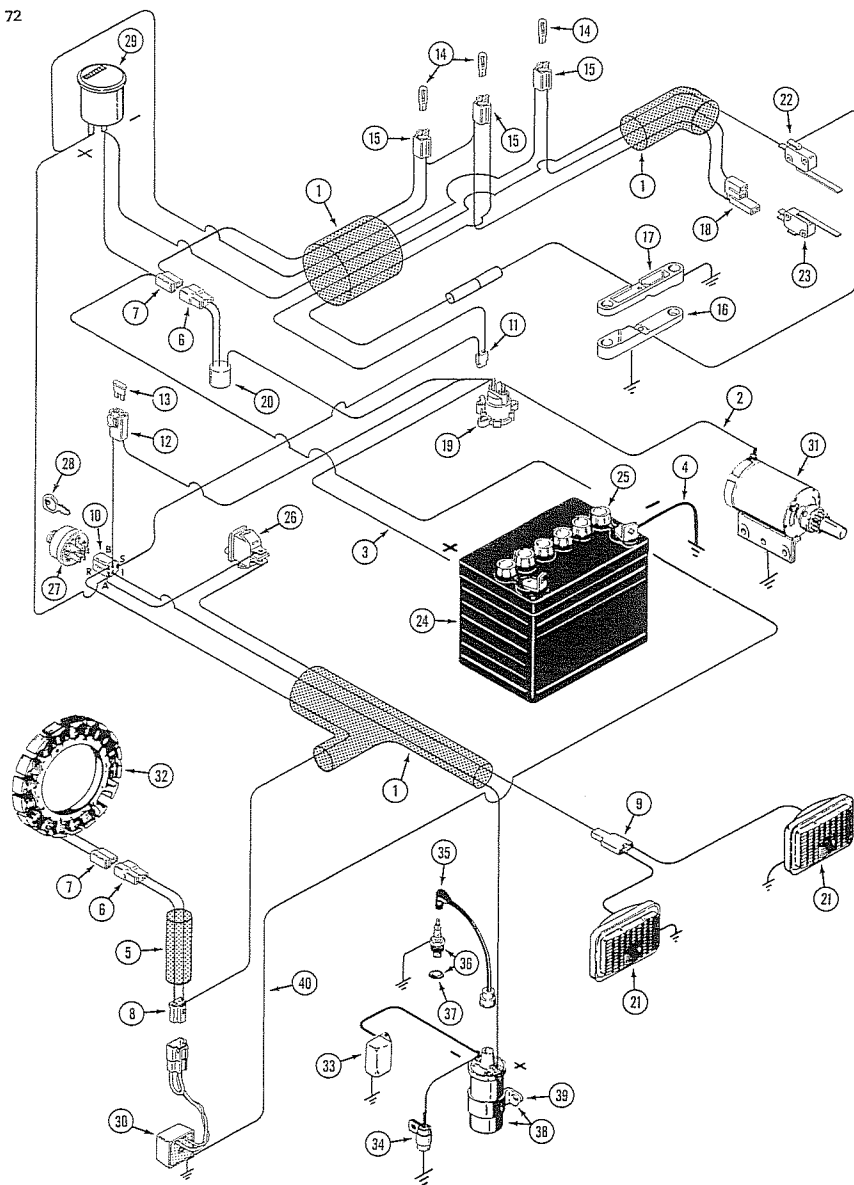
††Use S/N and after:

220 - 14068705

222 - 14069635

224 - 14070733

444 - 14072850



ELECTRICAL SYSTEM

Use S/N:

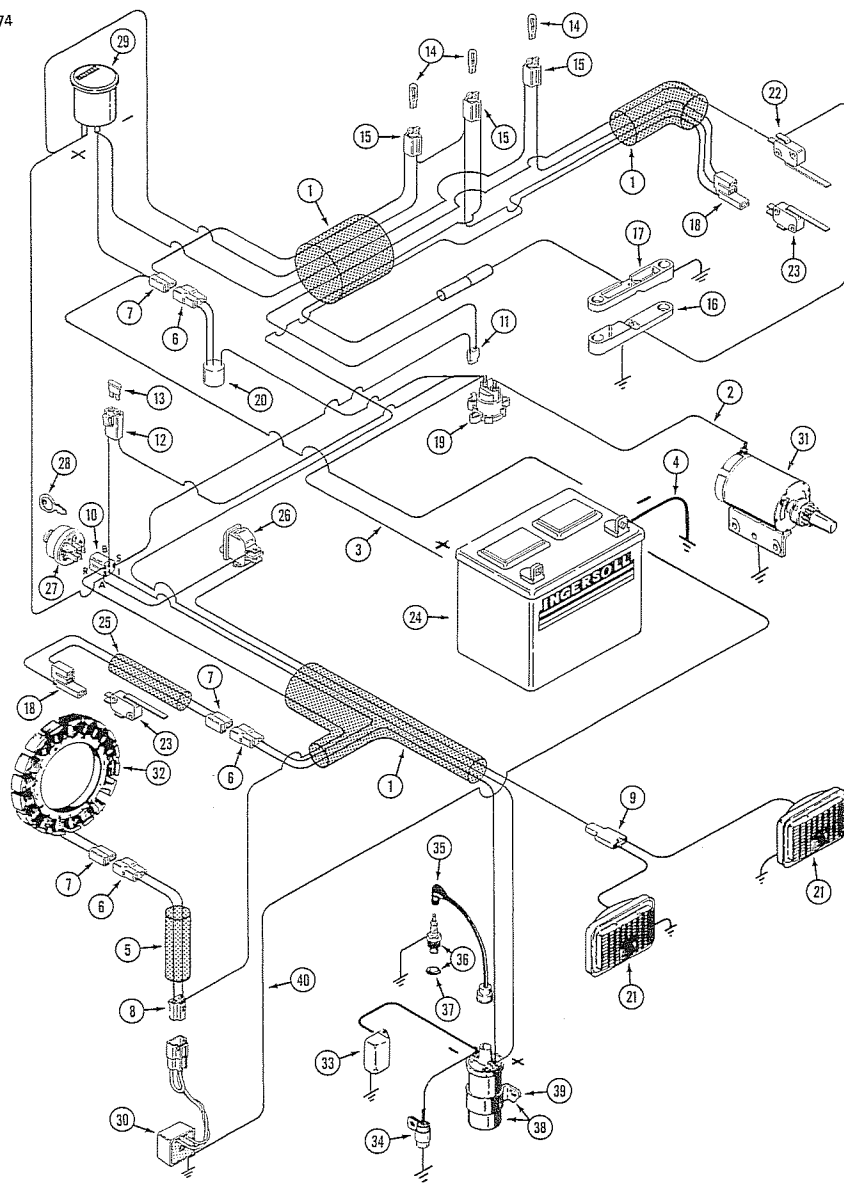
220 - 14091130 to 14107095
 222 - 14092090 to 14108205
 224 - 14093065 to 14109285
 444 - 14094825 to 14111340

REF:	PART NO.	DESCRIPTION	REQ'D
1	C 30264	HARNES - wire	1
2	C 31944	CABLE - solenoid to starter	1
3	C 14565	CABLE - solenoid to battery positive	1
4	C 24814	CABLE - battery negative to ground	1
5	C 24815	HARNES - wire	1
6	C 24813	CONNECTOR - wire	2
7	C 25338	CONNECTOR - wire	2
8	C 25486	CONNECTOR - rectifier	1
9	C 14537	CONNECTOR - lights	1
10	C 24460	CONNECTOR - switch	1
11	C 27549	CONNECTOR - solenoid	1
12	C 31947	HOLDER - fuse	1
13	C 30260	FUSE - 30 AMP	1
14	C 30262	BULB - light	3
15	C 30263	SOCKET - bulb	3
16	C 29650	LOCATOR HALF - neutral start (see page 65)	1
17	C 30450	SWITCH - neutral light (see page 65)	1
18	C 30279	CONNECTOR - switch	1
19	C 27523	SOLENOID - start, 12v	1
20	C 30265	SENSOR - voltage	1
21	C 32178	HEADLAMP ASSEMBLY - 12v (repairs page 77)	2
22	C 26108	SWITCH - neutral start	1
23	C 30275	SWITCH - PTO light	1
24	NSS	BATTERY - 12v (use C31213)	1
25	C 29074	CAP - battery	6
26	C 29322	SWITCH - head lamp	1
27	C 30480*	SWITCH ASSEMBLY - ignition (includes key and mounting hardware)	1
27	C 30530**	SWITCH ASSEMBLY - ignition (includes key and mounting hardware)	1
28	C 32407	Key - ignition	1
29	C 33415	HOURLMETER	1
30	C 31249	RECTIFIER - voltage 12v	1
31	C 24889	STARTER - bendix drive (repairs page 67)	1
32	C 28692	STATOR	1
33	NSS	BREAKER CONTACT ASSEMBLY - ignition (repairs page 79)	1
34	KO 230722	CONDENSER	1
35	C 28693	KIT - high tension cable	1
36	C 29738	SPARK PLUG - includes gasket	1
37	C 28673	GASKET - spark plug	1
38	KO 231281	COIL - ignition, 12v (includes bracket)	1
39	C 28694	BRACKET - coil mounting	1
40	C 26670	WIRE - solenoid lower mounting bolt to battery (-)	1

*Use before S/N:

**Use S/N and after:

220 - 14106917
 222 - 14108020
 224 - 14109118
 444 - 14111235



ELECTRICAL SYSTEM

Use S/N and after:

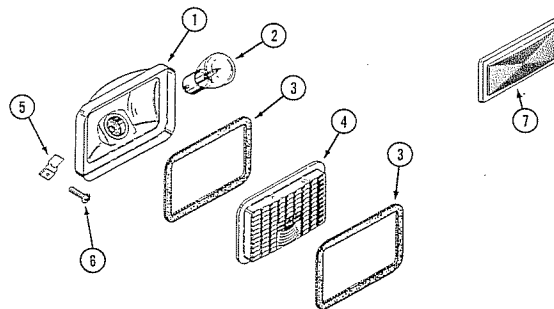
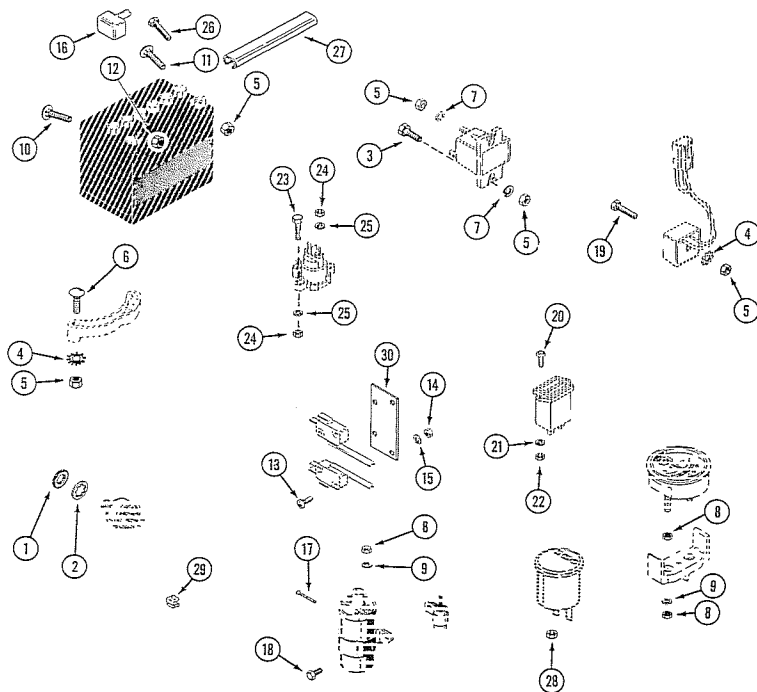
220 - 14107095

222 - 14108205

224 - 14109285

444 - 14111340

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 31029	HARNESS - wire	1
2	C 31944	CABLE - solenoid to starter	1
3	C 14565	CABLE - solenoid to battery positive	1
4	C 24814	CABLE - battery negative to ground	1
5	C 24815	HARNESS - wire	1
6	C 24813	CONNECTOR - wire	2
7	C 25338	CONNECTOR - wire	2
8	C 25486	CONNECTOR - rectifier	1
9	C 14537	CONNECTOR - lights	1
10	C 24460	CONNECTOR - switch	1
11	C 27549	CONNECTOR - solenoid	1
12	C 31947	HOLDER - fuse	1
13	C 30260	FUSE - 30 AMP	1
14	C 30262	BULB - light	3
15	C 30263	SOCKET - bulb	3
16	C 29650	LOCATOR HALF - neutral start (see page 65)	1
17	C 30450	SWITCH - neutral light (see page 65)	1
18	C 30279	CONNECTOR - switch	1
19	C 27523	SOLENOID - start, 12v	1
20	C 30265	SENSOR - voltage	1
21	C 32178	HEADLAMP ASSEMBLY - 12v (repairs page 77)	2
22	C 26108	SWITCH - neutral start	1
23	C 30275	SWITCH - interloc	1
24	C 31213	BATTERY - 12v	1
25	C 31044	HARNESS - seat interlock switch	1
26	C 29322	SWITCH - head lamp	1
27	C 30530	SWITCH ASSEMBLY - ignition (includes key and mounting hardware)	1
28	C 32407	KEY - ignition	1
29	C 33415	HOURLY METER	1
30	C 31249	RECTIFIER - voltage 12v	1
31	C 24889	STARTER - bendix drive (repairs page 67)	1
32	C 28692	STATOR	1
33	NSS	BREAKER CONTACT ASSEMBLY - ignition (repairs page 79)	1
34	KO 230722	CONDENSER	1
35	C 28693	KIT - high tension cable	1
36	C 29738	SPARK PLUG - includes gasket	1
37	C 28673	GASKET - spark plug	1
38	KO 231281	COIL - ignition, 12v (includes bracket)	1
39	C 28694	BRACKET - coil mounting	1
40	C 26670	WIRE - solenoid lower mounting bolt to battery (-)	1



ELECTRICAL SYSTEM HARDWARE

REF.	PART NO.	DESCRIPTION	REQ'D
1	NSS	NUT - switch mounting 5/8" (use C32396, C32397)	1
1	C 23330	NUT - switch mounting 9/16"	1
2	C 23012	LOCK WASHER - internal tooth	1
3	113- 3	BOLT - 1/4" - 20 x 3/4" hex	2
4	193- 57	LOCK WASHER - 1/4" external tooth	3
5	129- 101	NUT - 1/4" - 20 hex	UAR 3
6	111- 139	BOLT - 1/4" - 20 x 1" rd. head sq. neck	2
7	192- 19	LOCK WASHER - 1/4"	4
8	129- 27	NUT - #10 N.F. hex	2
9	192- 18	LOCK WASHER - #10	2
10	111- 202	BOLT - 5/16" x 3/4" N.C. rd. head sq. neck	1
11	111- 108	BOLT - 1/4" x 3/4" N.C. rd. head sq. neck	1
12	129- 102	NUT - 5/16" N.C. hex	1
13	182- 10	SCREW - #4 - 40 x 7/8" N.C. pan head	UAR
14	129- 13	NUT - #4 - 40 hex	UAR
15	192- 13	LOCK WASHER - #4	UAR
16	C 24069	COVER - terminal	1
17	NSS	SCREW - #10 x 1-1/2" N.F. self tap (obtain locally)	1
18	NSS	BOLT - 5/16" x 1/2" N.C. hex, self tap (obtain locally)	2
19	113- 17	BOLT - 1/4" - 20 x 1-1/4" hex	1
20	182- 571	SCREW - #6 - 32 x 1/2" pan head, black	2
21	192- 15	LOCKWASHER - #6	2
22	129- 15	NUT - #6 - 32 hex	2
23	182- 147	BOLT - #10 - 32 x 3/4"	2
24	129- 37	NUT - #10 - 32 hex	4
25	192- 18	LOCKWASHER - #10	4
26	113- 3	BOLT - 1/4" - 20 x 3/4" hex head	2
27	NSS	COVER - battery vent (no longer available)	1
28	129- 36	NUT - #8-36	2
29	C 19521	CLIP - headlight wire	1
30	C 30276*	PLATE - switch mounting	1
	KO 275182	CLIP - breaker contact wire	1

*Use S/N:

220 - 14091130 to 14091218

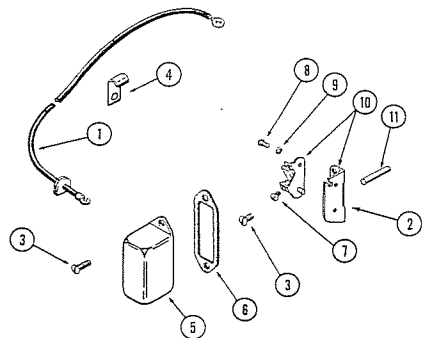
222 - 14092090 to 14092185

224 - 14093065 to 14093127

444 - 14094825 to 14097742

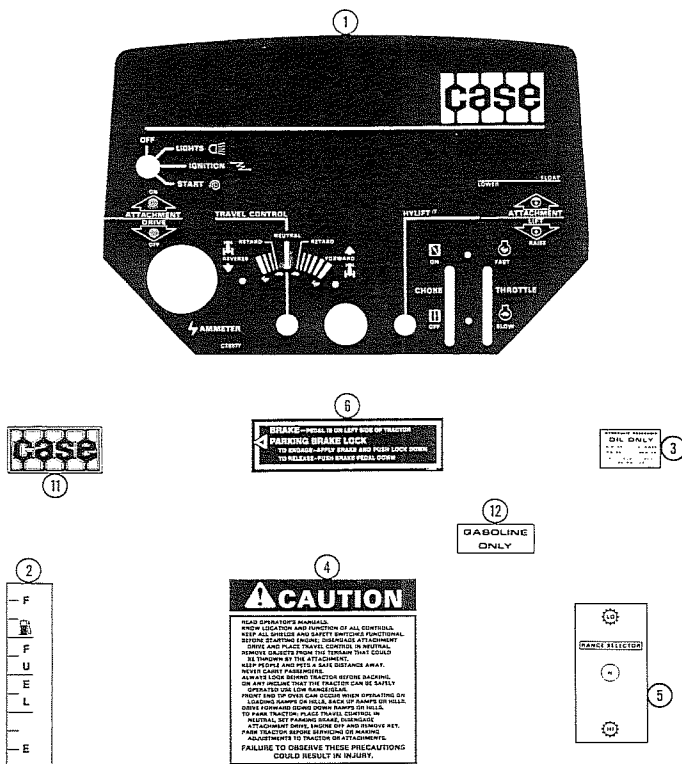
HEADLAMP ASSEMBLY AND REAR REFLECTORS

REF.	PART NO.	DESCRIPTION	REQ'D
	C 32178	HEADLAMP ASSEMBLY	2
1	NSS	RECEPTACLE - headlamp (order C22571)	1
2	C 28932	BULB - headlamp	1
3	C 14304	GASKET - headlamp	2
4	C 22573	LENS - headlamp	1
5	131- 629	NUT - speed type "U"	4
6	187- 1334	SCREW - No. 8 x 1/2" self-tapping, round hd. Phillips	4
7	NSS	REFLECTOR - red (use C30942)	2



BREAKER CONTACTS

REF.	PART NO.	DESCRIPTION	REQ'D
1	NSS	LEAD - breaker contact (order from local supplier)	1
2	NSS	BRACKET - breaker contacts	1
3	182- 516	SCREW - #10 x 3/8" round head, zinc plated	4
4	KO 275182	RETAINER - wire	1
5	C 28695	COVER - breaker contact	1
6	C 26518	GASKET - cover	1
7	NSS	SCREW - #6 x 3/8" self-tapping (obtain locally)	1
8	NSS	SCREW - #8 x 1/4" N.C. round head (obtain locally)	1
9	193- 91	LOCK WASHER - #8 internal tooth	1
10	C 27439	POINT SET - breaker contact assembly	1
11	C 27440	ROD - breaker contact push	1



220 Inhydriv⁷

222 Inhydriv⁸

224 Inhydriv⁹

444 Inhydriv¹⁰

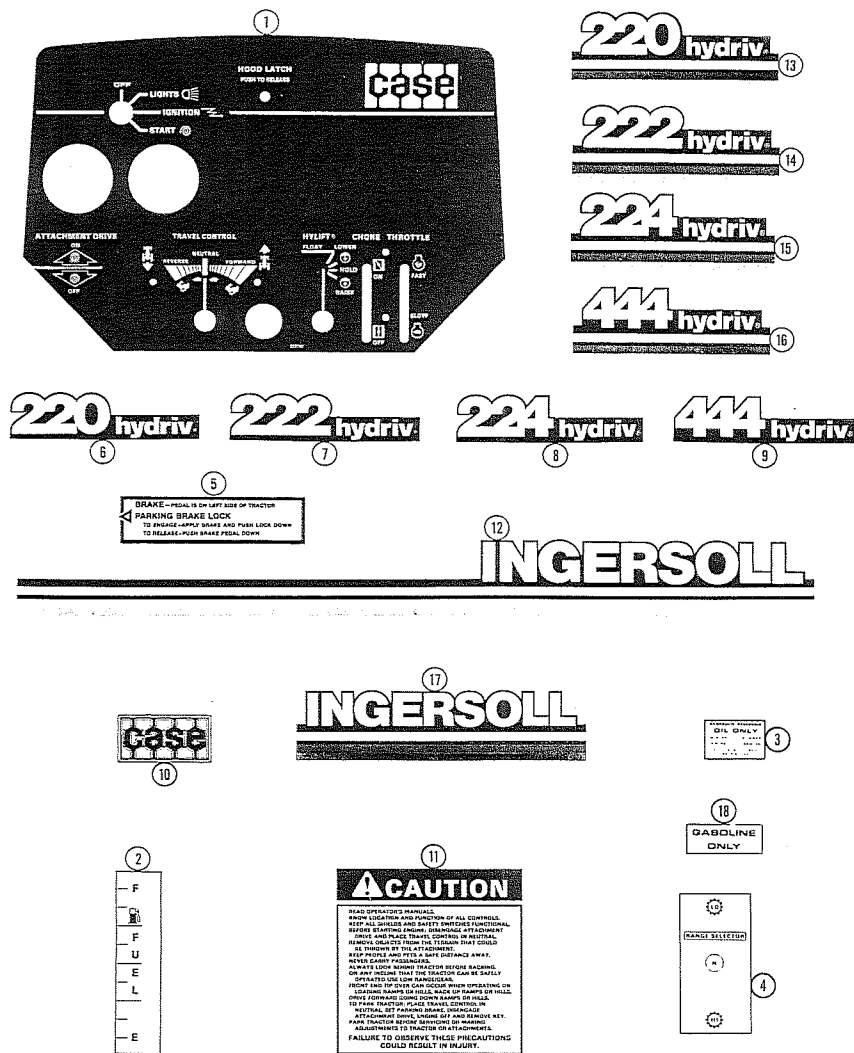
DECALS

USE BEFORE S/N:

220 - 14054525 222 - 14055920
 224 - 14056730 444 - 14059200

(English)

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 26877	DECAL - instrument panel	1
2	C 26699	DECAL - fuel tank gauge	1
3	321- 4767	DECAL - hydraulic reservoir	1
4	321- 6659	DECAL - "caution"	1
5	321- 1788	DECAL - shift range	1
6	C 27481	DECAL - brake	1
7	C 27173	DECAL - hood, L.H. (220)	1
7	C 27184	DECAL - hood, R.H. (220) shown	1
8	C 27174	DECAL - hood, L.H. (222)	1
8	C 27185	DECAL - hood, R.H. (222) shown	1
9	C 27175	DECAL - hood, L.H. (224)	1
9	C 27186	DECAL - hood, R.H. (224) shown	1
10	C 27177	DECAL - hood, L.H. (444)	1
10	C 27187	DECAL - hood, R.H. (444) shown	1
11	NSS	MEDALLION - "CASE" (no longer available)	1



DECALS

USE S/N:

(220) 14054525 to 14091130 (224) 14056730 to 14093065
 (222) 14055920 to 14092090 (444) 14059200 to 14094825

(ENGLISH)

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 29740**	DECAL - instrument	1
1	C 27944*	DECAL - instrument panel	1
2	C 26699	DECAL - fuel tank gauge	1
3	321- 4767	DECAL - hydraulic reservoir	1
4	321- 1788	DECAL - shift range	1
5	C 27871	DECAL - brake	1
6	C 27914	DECAL - hood "220 hydriv" L.H. (shown)	1
6	C 27925	DECAL - hood "220 hydriv" R.H.	1
7	C 27915	DECAL - hood "222 hydriv" L.H. (shown)	1
7	C 27926	DECAL - hood "222 hydriv" R.H.	1
8	C 27916	DECAL - hood "224 hydriv" L.H. (shown)	1
8	C 27927	DECAL - hood "224 hydriv" R.H.	1
9	C 27918	DECAL - hood "444 hydriv" L.H. (shown)	1
9	C 27928	DECAL - hood "444 hydriv" R.H.	1
10	NSS	MEDALLION - "CASE" (no longer available)	1
11	321- 6659	DECAL - "Caution"	1
12	C 27962	DECAL - "Ingersoll" stripe L.H. (shown)	1
12	C 27964	DECAL - "Ingersoll" stripe R.H.	1
13	C 27953*	DECAL - seat back "220 hydriv"	1
14	C 27954*	DECAL - seat back "222 hydriv"	1
15	C 27955*	DECAL - seat back "224 hydriv"	1
16	C 27957*	DECAL - seat back "444 hydriv"	1
17	C 29202**	DECAL - "INGERSOLL" seat back	1

*Use before S/N:

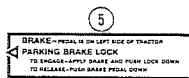
**Use S/N and after:

220 - 14068672

222 - 14069604

224 - 14070707

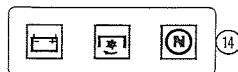
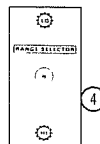
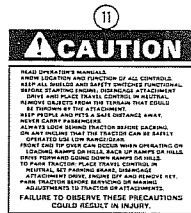
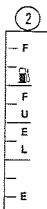
444 - 14072835



INGERSOLL



INGERSOLL 1



DECALS

Use S/N to S/N:

220 - 14091130 to 14107095

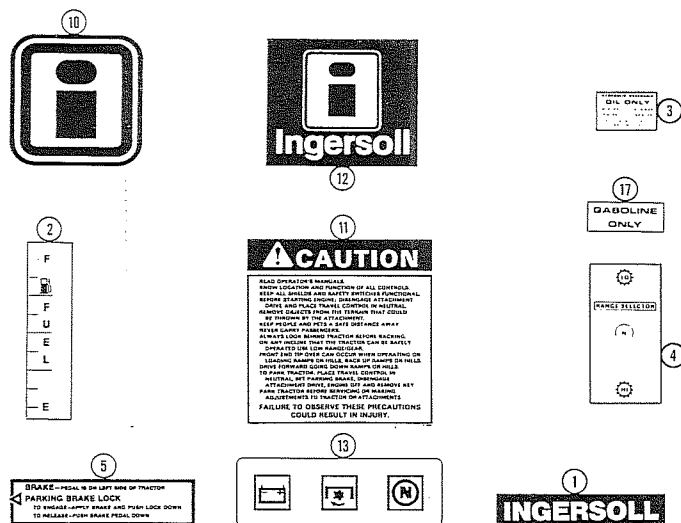
222 - 14092090 to 14108205

224 - 14093065 to 14109285

444 - 14094825 to 14111340

(ENGLISH)

REF.	PART NO.	DESCRIPTION	REQ'D
1	NSS	DECAL - "Ingersoll" (use C31050)	1
2	C 26699	DECAL - fuel tank gauge	1
3	321- 4767	DECAL - hydraulic reservoir	1
4	321- 1788	DECAL - shift range	1
5	C 27871	DECAL - brake	1
6	C 27914	DECAL - hood "220 hydriv" L.H. (shown)	1
6	C 27925	DECAL - hood "220 hydriv" R.H.	1
7	C 27915	DECAL - hood "222 hydriv" L.H. (shown)	1
7	C 27926	DECAL - hood "222 hydriv" R.H.	1
8	C 27916	DECAL - hood "224 hydriv" L.H. (shown)	1
8	C 27927	DECAL - hood "224 hydriv" R.H.	1
9	C 27918	DECAL - hood "444 hydriv" L.H. (shown)	1
9	C 27928	DECAL - hood "444 hydriv" R.H.	1
10	NSS	MEDALLION - "CASE" (no longer available)	1
11	321- 6659	DECAL - "Caution"	1
12	C 27962	DECAL - "Ingersoll" stripe L.H. (shown)	1
12	C 27964	DECAL - "Ingersoll" stripe R.H.	1
13	C 32093	DECAL - "INGERSOLL" seat back	1
14	C 30274	LENS - display	1

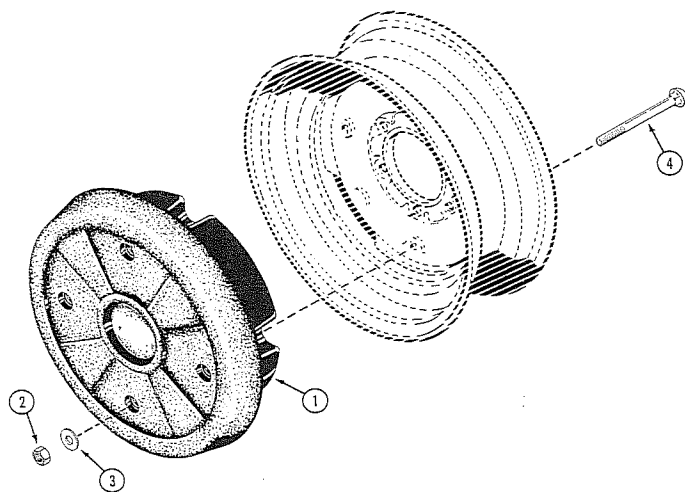
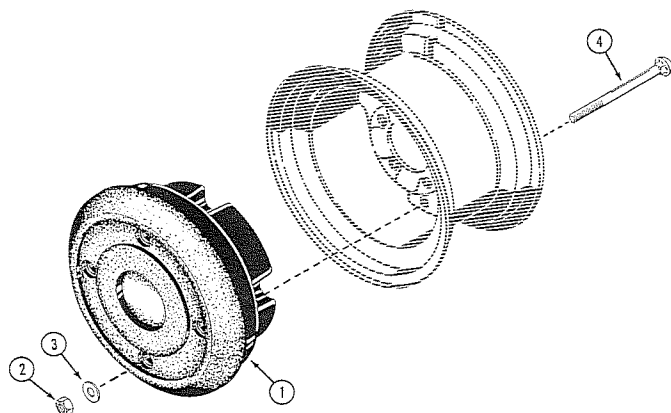


DECALS

Use S/N and after:
 220 - 14107095
 222 - 14108205
 224 - 14109285
 444 - 14111340

(ENGLISH)

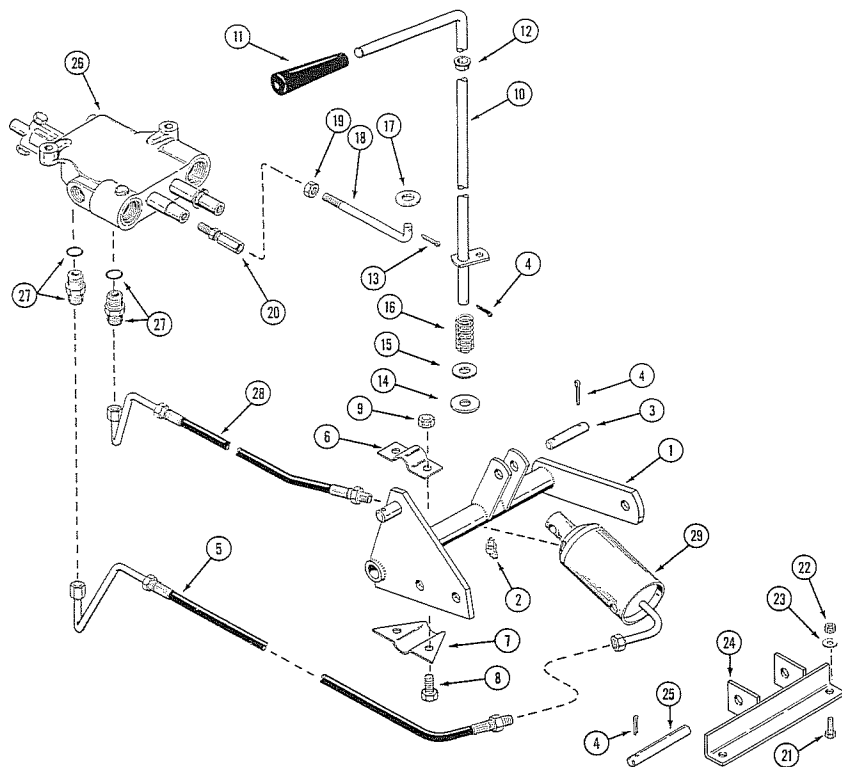
REF.	PART NO.	DESCRIPTION	REQ'D
1	C 31050	DECAL - "Ingersoll"	1
2	C 26699	DECAL - fuel tank gauge	1
3	321- 4767	DECAL - hydraulic reservoir	1
4	321- 1788	DECAL - shift range	1
5	C 27871	DECAL - brake	1
6	C 30954	DECAL - hood "220 hydriv" L.H. (shown)	1
6	C 30955	DECAL - hood "220 hydriv" R.H.	1
7	C 30956	DECAL - hood "222 hydriv" L.H. (shown)	1
7	C 30957	DECAL - hood "222 hydriv" R.H.	1
8	C 30958	DECAL - hood "224 hydriv" L.H. (shown)	1
8	C 30959	DECAL - hood "224 hydriv" R.H.	1
9	C 30962	DECAL - hood "444 hydriv" L.H. (shown)	1
9	C 30963	DECAL - hood "444 hydriv" R.H.	1
10	C 30539	MEDALLION - logo	1
11	321- 6659	DECAL - "Caution"	1
12	C 32093	DECAL - "INGERSOLL" seat back	1
13	C 30274	LENS - display	1

**K8 WHEEL WEIGHTS — MODEL 220, 222, AND 224**

REF.	PART NO.	DESCRIPTION	REQ'D
1	NSS	WEIGHT - wheel 55 lb. (Order as Machinery Item)	2
2	131- 1182	NUT - 1/2" N.C. hex lock	8
3	195- 533	WASHER - 1/2"	8
4	111- 521	BOLT - 1/2" x 7" carriage	8
4	C 30545	BOLT - 1/2" - 13 x 8-1/2" carriage	8

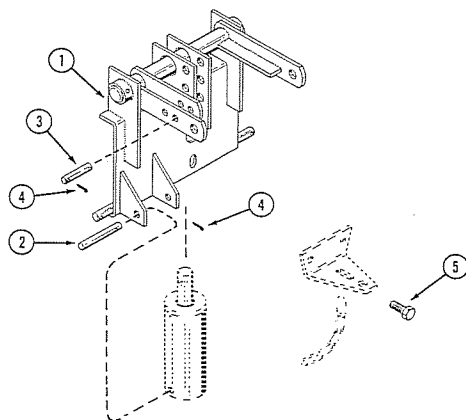
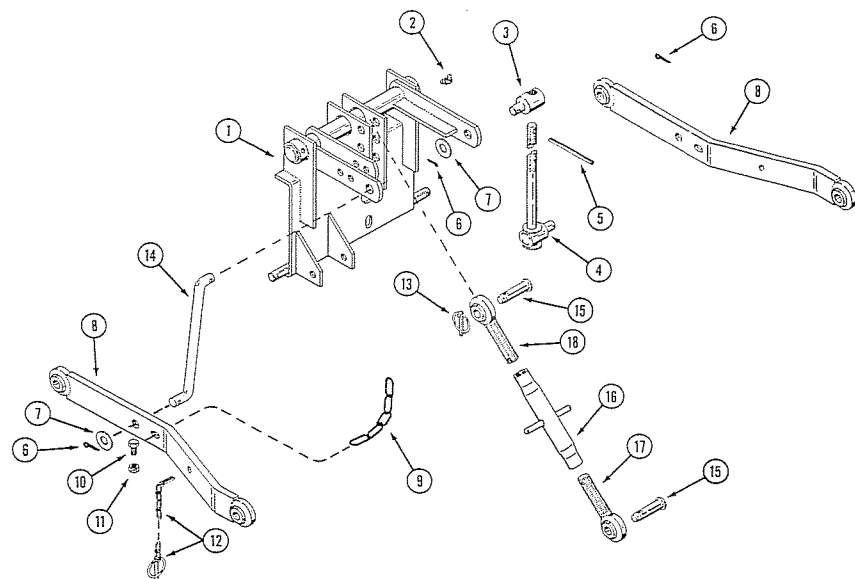
K10 WHEEL WEIGHTS — MODEL 444

REF.	PART NO.	DESCRIPTION	REQ'D
1	NSS	WEIGHT - wheel 75 lb. (Order as Machinery Item)	2
2	131- 1182	NUT - 1/2" N.C. hex lock	8
3	195- 533	WASHER - 1/2"	8
4	111- 525	BOLT - 1/2" x 6" Rd. head Sq. neck	8



MODEL J30 HYDRAULIC LIFT

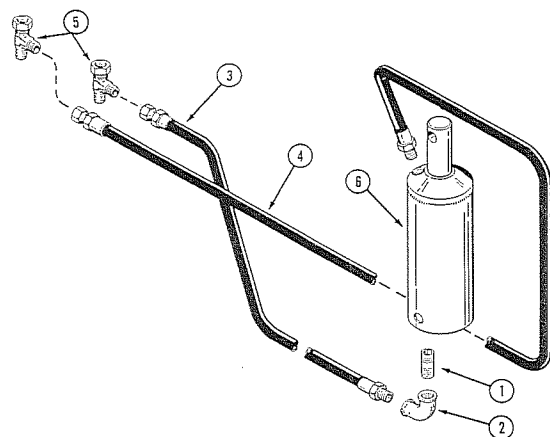
REF.	PART NO.	DESCRIPTION	REQ'D
1	C 19661	ROCKSHAFT ASSEMBLY - (444)	1
1	C 18808	ROCKSHAFT ASSEMBLY - (220, 222 and 224) shown	1
2	219- 404	FITTING - lube	1
3	C 18251	PIN - cylinder to lever	1
4	132- 310	PIN - cotter 1/8" x 1"	4
5	C 17734	HOSE - long	1
6	C 17249	BRACKET - mounting, top	2
7	C 17250	BRACKET - mounting, bottom	2
8	113- 207	BOLT - 3/8" x 1" N.C. hex	4
9	131- 1181	NUT - 3/8" N.C. hex	4
10	C 29408	LEVER - lift control	1
11	C 29045	KNOB - control lever	1
12	C 27593	BUSHING - lift lever	1
13	132- 320	PIN - cotter 3/32" x 3/4"	1
14	195- 533	WASHER - 1/2"	1
15	C 21518	WASHER - nylon	1
16	C 27822	SPRING - control lever	1
17	195- 521	WASHER - 5/16"	1
18	C 18742	ROD - control	1
19	129- 122	NUT - 5/16" N.F. hex	1
20	C 19025	BALL JOINT	1
21	113- 207	BOLT - 3/8" x 1" N.C. hex	2
22	131- 1181	LOCK NUT - 3/8" N.C. hex	2
23	195- 104	WASHER - 3/8" x 1-1/8" OD	2
24	C 33138	BRACKET - cylinder	1
25	C 25188	PIN - cylinder foot	1
26	C 27217	VALVE - hydraulic, 2 spool	1
27	218- 5056	FITTING - valve (includes 218-5004 "O" ring)	2
28	NSS	HOSE - short (use C31682, 218-1093)	1
29	NSS	CYLINDER - lift (order C27590, C30049)	1
	C 30054	KIT - seal	1
	C 13106	COVER - lube fitting	1

**J26 THREE POINT HITCH FRAME, LIFT RODS AND ARMS**

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 19740	HITCH PLATE ASSEMBLY	1
2	219- 405	FITTING - lube	2
	C 24447	ROD ASSEMBLY - lift R.H.	1
3	C 14722	NUT - lift rod	1
4	C 14724	ROD ASSEMBLY - R.H. lift	1
5	138- 308	PIN - roll 1/4" x 3"	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" hex, zinc plated	2
11	131- 176	NUT - lock 5/16" N.C. hex	2
12	C 28985	PIN - klik	2
13	C 28222	PIN - klik	3
14	C 14725	ROD - lift L.H.	1
15	C 14717	PIN - clevis	2
	C 14712	LINK ASSEMBLY	1
16	C 14703	CENTER TUBE ASSEMBLY	1
17	C 14709	BALL END ASSEMBLY - R.H. thread	1
18	C 32427	BALL END ASSEMBLY - L.H. thread	1

J26 THREE POINT HITCH CYLINDER AND DRAWBAR MOUNTING

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 19740	HITCH PLATE ASSEMBLY	1
2	C 26188	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" N.C. hex, zinc plated	2

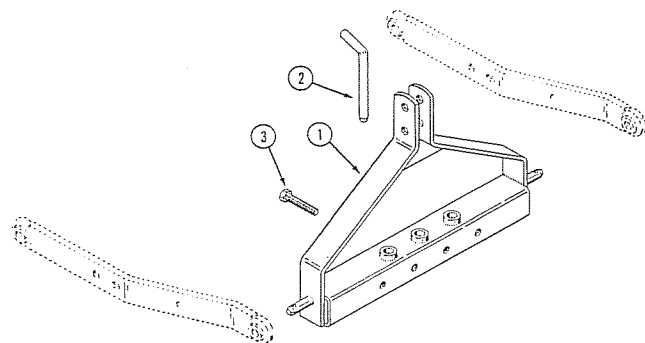


J26 THREE POINT HITCH AND HYDRAULIC CONNECTIONS AND COMPONENTS

REF.	PART NO.	DESCRIPTION	REQ'D
1	221- 1139	NIPPLE - 1/4" x 3"	1
2	221- 1375	ELBOW - 90°	1
3	C 25369	HOSE - hydraulic short	1
4	C 25368	HOSE - hydraulic long	1
5	218- 5479	FITTING - tee, swivel	2
6	NSS	CYLINDER ASSEMBLY - (order C26494 and C30049)	1
	C 30054	KIT - seal, cylinder	1

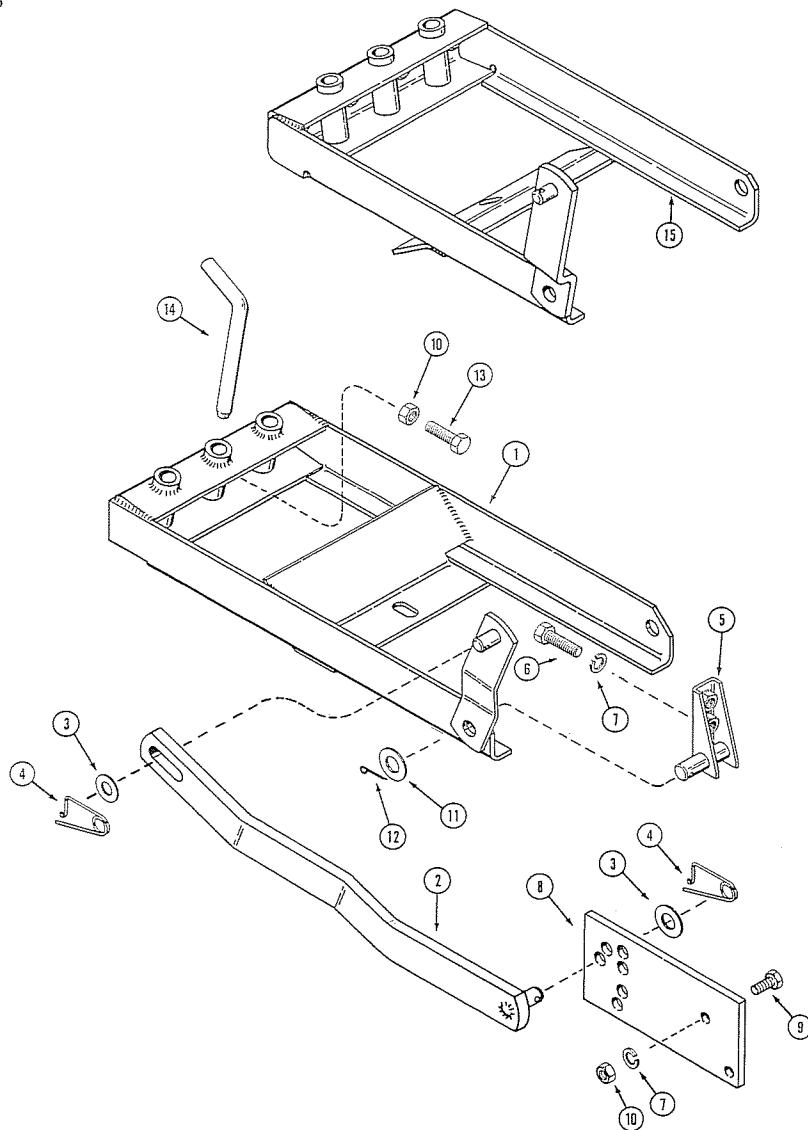
MODEL F-27 HITCH ADAPTER

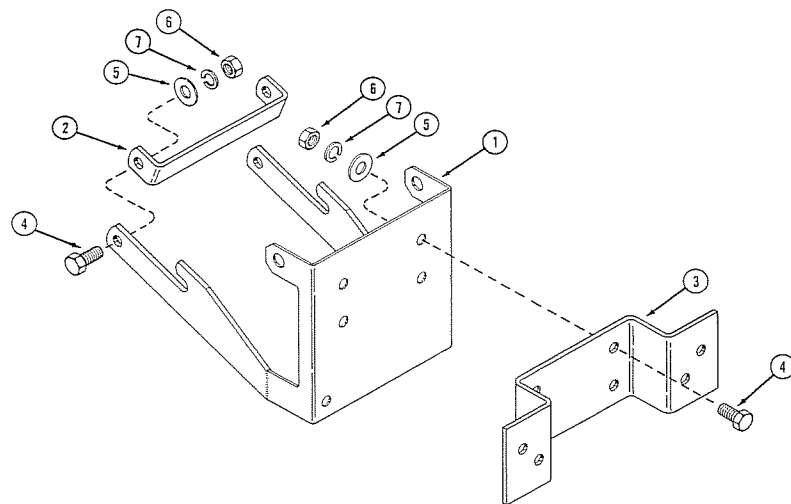
REF.	PART NO.	DESCRIPTION	REQ'D
1	NSS	BRACKET - hitch adapter (order as machinery item)	1
2	C 14568	PIN - drawbar	1
3	113- 476	BOLT - 1/2" x 2-3/4" N.C. hex, zinc plated	2
4	129- 105	NUT - 1/2" - 13	2



MODEL K22 AND K24 SLEEVE HITCH

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 22218	HITCH FRAME ASSEMBLY - (444) (K24)	1
2	C 25371	ARM - lift	1
3	195- 541	WASHER - plain 21/32"	2
4	C 10898	PIN - safety	2
5	C 14459	BRACKET - hitch mounting R.H. shown	1
5	C 25789	BRACKET - hitch mounting L.H.	1
6	113- 2400	BOLT - 1/2" x 1-3/8" N.C. hex, zinc plated	4
7	192- 23	LOCK WASHER - 1/2" zinc plated	6
8	C 25382	PLATE - lift lever	1
9	113- 417	BOLT - 1/2" x 1-1/4" N.C. hex, zinc plated	2
10	129- 105	NUT - 1/2" N.C. hex, zinc plated	4
11	195- 545	WASHER - plain 3/4" zinc plated	2
12	132- 306	PIN - cotter 3/16" x 1-3/4"	2
13	113- 476	BOLT - 1/2" x 2-3/4" N.C. hex, zinc plated	2
14	C 14568	PIN - drawbar	1
15	C 23707	HITCH FRAME ASSEMBLY - (220, 222, and 224) (K22)	1



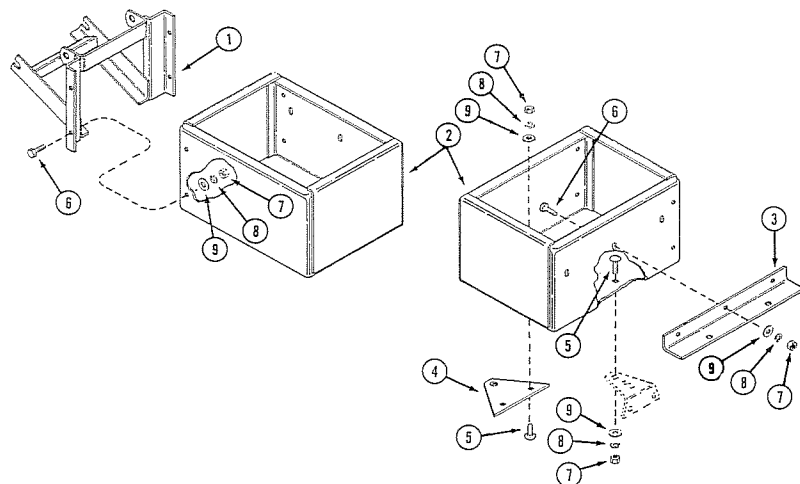


MODEL H18 FRONT END WEIGHT BRACKETS

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 16581	BRACKET - mounting	1
2	C 17161	BRACE - rear	1
3	C 17162	BRACKET - weight mounting	1
4	113- 417	BOLT - 1/2" x 1-1/4" N.C. hex, zinc plated	6
5	195- 533	WASHER - 1/2" zinc plated	8
6	129- 105	NUT - 1/2" N.C. hex, zinc plated	8
7	192- 23	LOCK WASHER - 1/2"	8

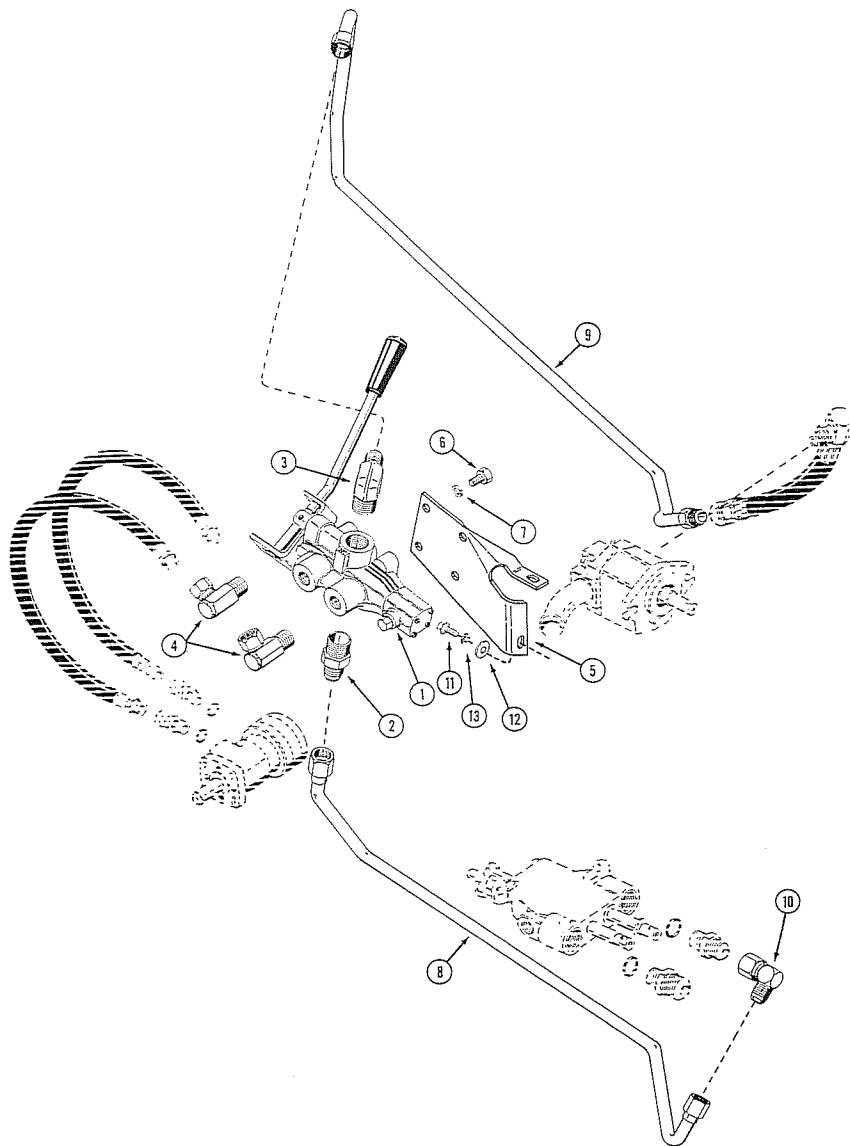
MODEL H13 WEIGHT BOX

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 17859	FRAME - weight box	1
2	C 17863	BOX - weight	1
3	C 17860	SUPPORT - weight box	1
4	C 17636	PLATE - hitch	1
5	111- 371	BOLT - 3/8" x 1" round head, square neck	3
6	113- 207	BOLT - 3/8" x 1" N.C. hex	4
7	129- 103	NUT - 3/8" N.C. hex	7
8	192- 21	LOCK WASHER - 3/8"	7
9	195- 525	WASHER - 3/8"	7



J17 AND L17 HYDRAULIC PTO KIT

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 30044	VALVE - PTO control	1
2	218- 457	FITTING - straight 3/4" NPT x 5/8" tube	1
3	218- 494	FITTING - elbow 90° 3/4" NPT x 5/8" tube	1
4	218- 927	FITTING - elbow 90° 1/2" NPT x 1/2" female NPSM swivel	2
5	C 23337	BRACKET - valve mounting	1
6	113- 206	BOLT - 3/8" x 3/4" hex N.C.	4
7	192- 21	LOCK WASHER - 3/8"	4
8	C 23888	TUBE - PTO valve to travel control valve (J17) 220, 222, 224	1
8	C 25343	TUBE - PTO valve to travel control valve (L17) 444	1
9	C 25344	TUBE - pump to PTO valve (L17) 444	1
9	C 23962	TUBE - pump to PTO valve (J17) 220, 222, 224	1
10	218- 5232	FITTING - 90° swivel elbow 37° x 37° flare 3/4" NPT x 5/8" tube	1
11	113- 103	BOLT - 5/16" x 1" N.C. hex	3
12	195- 521	WASHER - 5/16"	3
13	192- 20	LOCK WASHER - 5/16"	3

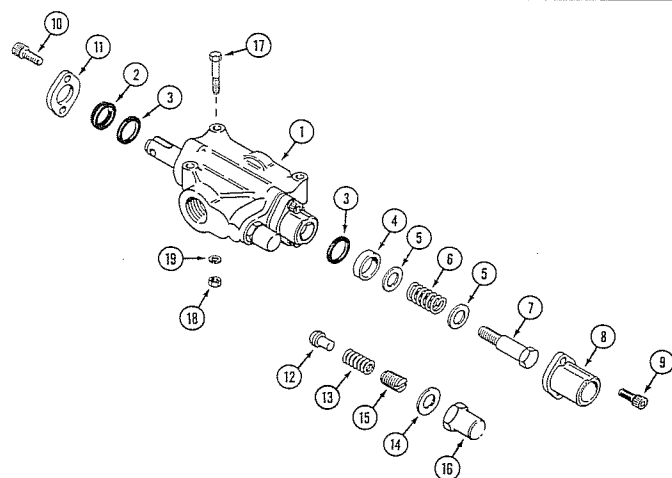
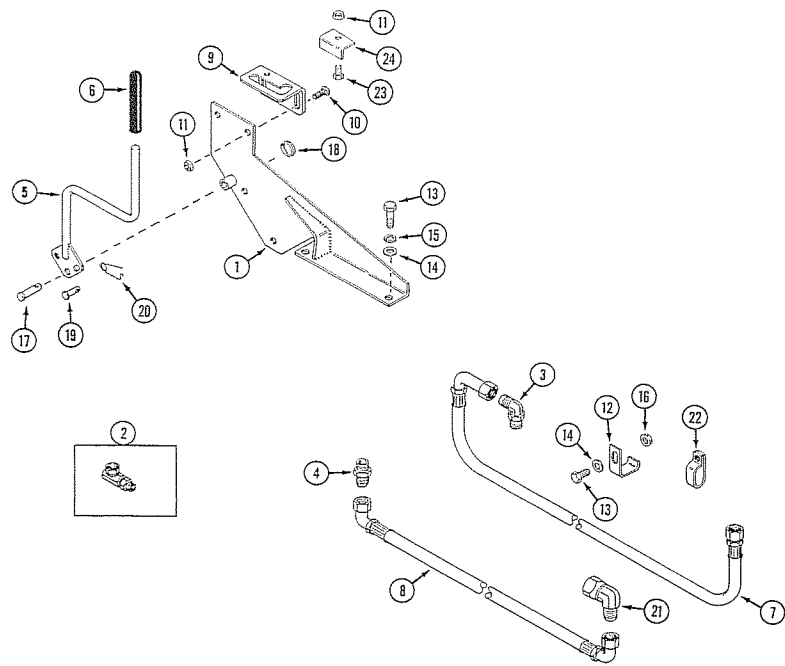


J17 AND L17 HYDRAULIC PTO VALVE

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 30044	VALVE - control	1
2	C 11891	SEAL - U-cup	2
3	132- 329	PIN - cotter 1/16" x 3/4"	1
4	C 28875	PIN - handle	1
5	C 19422	BRACKET - handle	1
6	NSS	SCREW - 1/4" x 5/8" N.C. fillister head (use 165-143)	2
7	192- 19	LOCK WASHER - 1/4"	3
8	NSS	BODY AND SPOOL ASSEMBLY - (use C30044 valve)	1
9	C 11895	ADAPTER - spool	1
10	195- 102	WASHER - plain 1/4"	1
11	75- 48	SCREW - 1/4" x 1/2" rd. hd. machine	1
12	C 11893	BONNET - detent	1
13	C 11901	PIN - detent	1
14	C 11892	SPRING - detent	1
15	C 11886	WASHER - detent spring	1
16	C 11887	CAP - detent	1
17	169- 88	SCREW - bonnet #8 - 32 x 2-1/4" fillister head	4
18	C 19423	LEVER - valve	1
19	221- 1842	PLUG - relief 3/8" NPT	1
20	C 28700	SHIM - .010" (0.25 mm) thick	UAR
21	C 28716	SPRING - relief	1
22	C 28698	SHIM - .020" (0.51 mm) thick	UAR
23	211- 11	BALL - relief 3/8"	1
24	C 18417	SEAT - relief	1
25	C 28696	"O" RING - relief seat	1
26	C 29045	KNOB - hand throttle	1
27	C 26266	BUSHING - nylon	1

L11 WEIGHT KIT

1	C 25572	BRACKET - mounting, front	1
2	C 30845	WEIGHT - 40 lb. (18 kg)	4
3	C 25791	BRACKET - mounting, rear, upper	1
4	C 25792	BRACKET - mounting, rear, lower	1
5	113- 417	BOLT - 1/2" - 13 x 1-1/4" hex	2



**M17 HYDRAULIC PTO (220, 222, 224)
N17 HYDRAULIC PTO (444)
PTO HOSES AND MOUNTING BRACKET**

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 32200	BRACKET - valve mounting	1
2	218- 5201	FITTING - workport, 90° elbow 7/8" - 14 x 1/2" NPSM swivel	2
3	218- 5107	FITTING - inlet port, 7/8" - 14 x 7/8" - 14 flare, 90° adjustable elbow	1
4	218- 5062	FITTING - outlet port, 7/8" - 14 x 7/8" - 14 flare, straight	1
5	C 32403	HANDLE - valve	1
6	C 26020	GRIP - handle	1
7	C 32423	HOSE - pump to PTO 56" (M17) 220, 222, 224	1
8	C 32424	HOSE - pump to PTO 54" (N17) 444	1
9	C 32209	HOSE - PTO to travel valve 32" (M17) 220, 222, 224	1
10	C 32210	HOSE - PTO to travel valve 34" (N17) 444	1
11	C 32211	BRACKET - handle guide	1
12	111- 101	BOLT - 1/4" - 20 x 5/8" carriage	1
13	131- 934	NUT - 1/4" - 20 flange lock	2
14	C 32332	CLAMP - tube (M17) 220, 222, 224	1
15	113- 103	BOLT - 5/16" - 18 x 1"	3
16	195- 521	WASHER - 5/16"	3
17	192- 20	LOCKWASHER - 5/16"	2
18	131- 911	NUT - 5/16" - 18 flange lock	1
19	C 32214	PIN - clevis 3/8" x 1-1/2"	1
20	C 28105	RING - retaining	1
21	C 28964	PIN - clevis 3/16" x 1"	1
22	C 10883	PIN - safety	1
23	218- 5232	FITTING - hydraulic 90° swivel (travel valve inlet)	1
24	C 32213	CLAMP - tube	1
	113- 3	BOLT - 1/4" - 20 x 3/4"	1
	C 32327	BRACKET - handle stop	1
	C 22947	TIE - nylon	1

PTO VALVE

1	C 30046	VALVE - hydraulic	1
2	C 26706	WIPER - spool	1
3	C 26707	RING - quad	2
4	C 26722	SPACER - end cap	1
5	195- 526	WASHER	2
6	C 26724	SPRING - centering	1
7	C 26725	BOLT - shoulder	1
8	C 26726	BONNET - end cap	1
9	165- 143	SCREW - 1/4" - 20 x 3/4" socket head	2
10	NSS	SCREW - 1/4" - 20 x 5/8" socket head (use 165-143)	2
11	C 26727	RETAINER - seal	1
12	C 26708	POPPET - relief	1
13	C 26709	SPRING - relief	1
14	C 26710	WASHER - aluminum, seal	1
15	C 26711	SCREW - adjustment, relief	1
16	C 26712	NUT - cap, relief	1
17	113- 5	BOLT - 1/4" x 1-1/2"	3
18	129- 101	NUT - 1/4"	3
19	192- 19	LOCKWASHER - 1/4"	3

M19*, N19** FLOW CONTROL VALVE KIT

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 23618	VALVE - flow control	1
	C 28217	"O" RING - shaft 3/4" x 15/16"	2
	C 28710	RING - retaining - shaft .867" I.D.	2
2	C 18720	LEVER - valve	1
3	C 28251	KNOB - lever	1
4	113- 12	BOLT - 1/4" - 20 x 2-1/2"	2
5	131- 1180	NUT - lock 1/4" N.C. hex	4
6	218- 485	FITTING - elbow 90°	1
7	218- 445	FITTING - straight 1/2" NPT x 5/8" tube	1
8	C 25390	TUBE - flow control valve to tube (M19) (shown)	1
8	C 33008	TUBE - flow valve to PTO, front half (N19)	1
9	C 23407	TUBE - bypass to return line	1
10	C 23600	TUBE - valve to tractor valve (M19)	1
10	C 33007	TUBE - flow valve to tractor valve (N19)	1
11	C 26181	TUBE - heat exchanger	1
12	C 36849	HOSE - return	1
13	214- 254	CLAMP - hose	2
14	C 25392	TUBE - PTO valve to tube 444 (M19) (shown)	1
14	C 23879	TUBE - PTO valve to tube 220, 222, 224 (M19) (shown)	1
15	C 33010	HOSE - flow valve to PTO, rear 220, 222, 224 (N19)	1
15	C 33011	HOSE - flow valve to PTO, rear 444 (N19)	1
16	C 25391	BRACKET - mounting	1
17	113- 2	BOLT - 1/4" - 20 x 5/8" N.C. hex	2
18	218- 545	FITTING - 45° elbow 5/8" tube x 3/4" NPTF (replace outlet in PTO)	1
	C 18719	DECAL - valve, "slow - fast" (English)	1
	218- 5229	FITTING - 90° swivel 5/16" x 1/2" - 20 (N19) for hose clearance at tee fittings	2

*use before S/N:

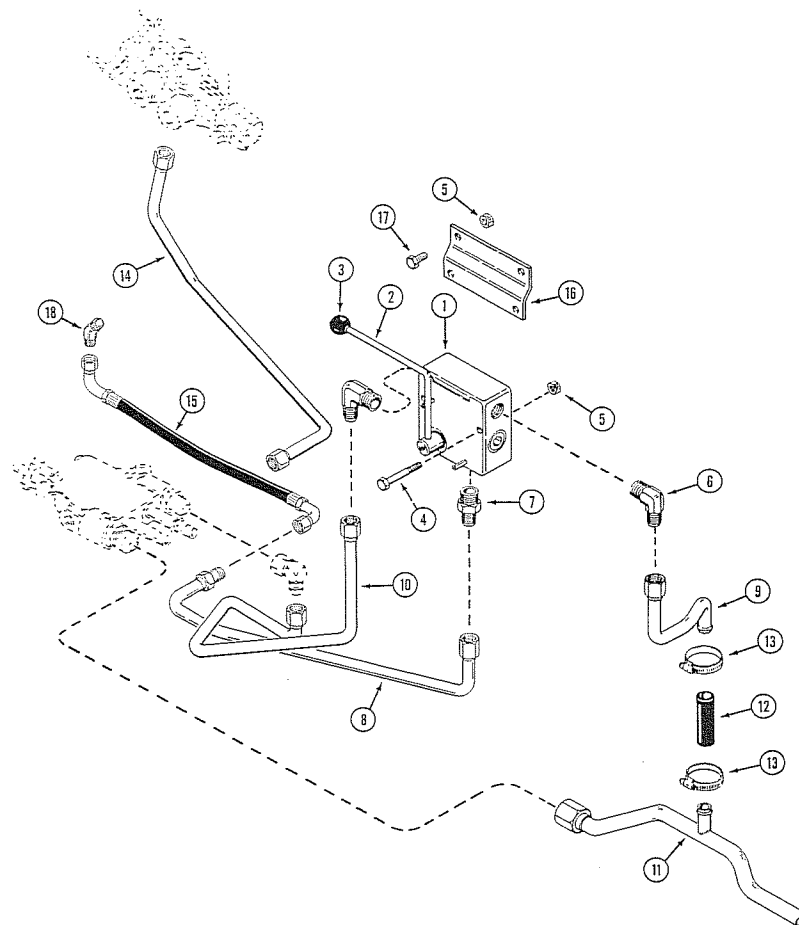
**use S/N and after:

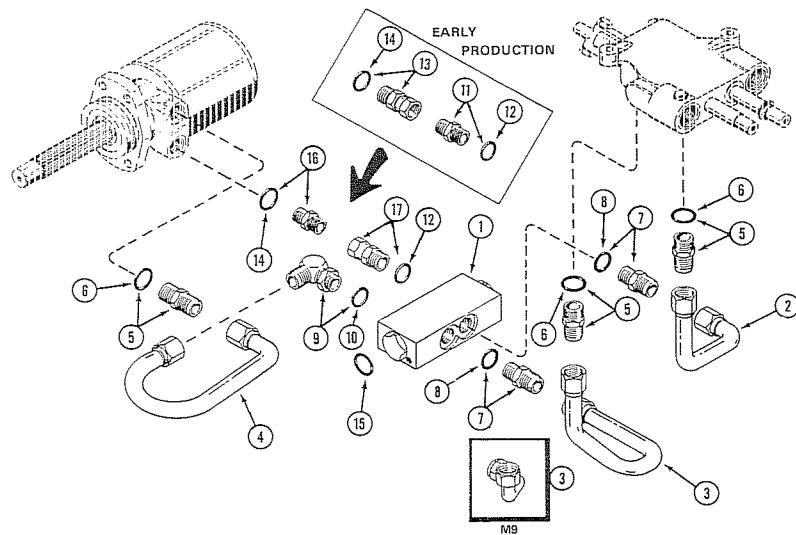
220 - 14090930

222 - 14069687

224 - 14070796

444 - 14094620



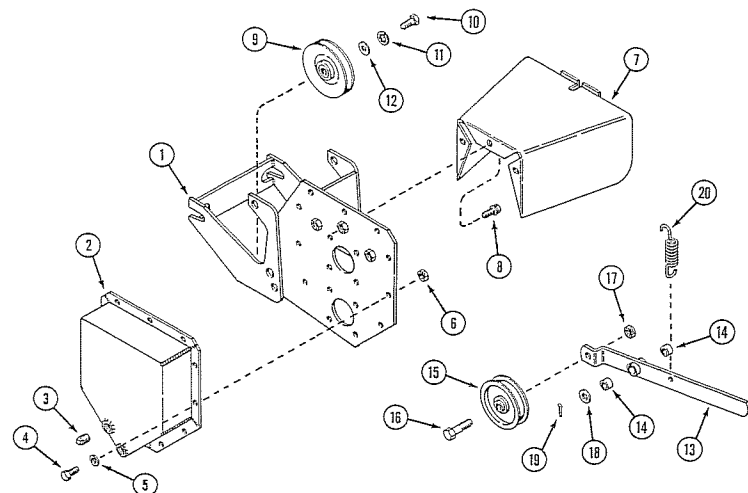


L7 HOLDING VALVE (220, 222 AND 224) M9 HOLDING VALVE (444)

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 24995	VALVE - holding (includes "O" ring)	1
2	C 24990	TUBE - valve to valve (L-7)	1
3	C 25341	TUBE - valve to valve (M9)	1
4	C 24994	TUBE - valve to valve (M9) (use C27806, 218-5107, 218-5117)	1
5	218- 5062	CONNECTOR - straight, male	3
6	218- 5007	"O" RING	1
7	218- 5066	CONNECTOR - straight, male	2
8	218- 5006	"O" RING	1
9	218- 5117	ELBOW - adjustable	1
10	218- 5006	"O" RING	1
11	NSS	CONNECTOR - straight, male (use 218-5406 & 218-5254)	1
12	218- 5006	"O" RING	1
13	218- 5251	CONNECTOR - straight, male/female swivel	1
14	218- 5007	"O" RING	1
15	C 28487	"O" RING - end caps	2
16	218- 5406	CONNECTOR - straight male	1
17	218- 5254	CONNECTOR - straight, male/female swivel	1

N9 HOLDING VALVE (444)

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 24995	VALVE - holding (includes item 15)	1
2	C 25341	TUBE - valve to valve	1
3	C 27806	TUBE - valve to valve	1
4	C 24994	TUBE - valve to motor	1
5	218- 5062	CONNECTOR - straight, male	2
6	218- 5007	"O" RING	1
7	218- 5066	CONNECTOR - straight, male	1
8	218- 5006	"O" RING	1
9	218- 5117	ELBOW - adjustable	2
10	218- 5006	"O" RING	1
11	218- 5254	CONNECTOR - straight, male/female, swivel	1
12	218- 5006	"O" RING	1
13	218- 5406	CONNECTOR - straight, male	1
14	218- 5007	"O" RING	1
15	C 28487	"O" RING - end caps	2
16	218- 5107	ELBOW - adjustable	1
17	218- 5007	"O" RING	1

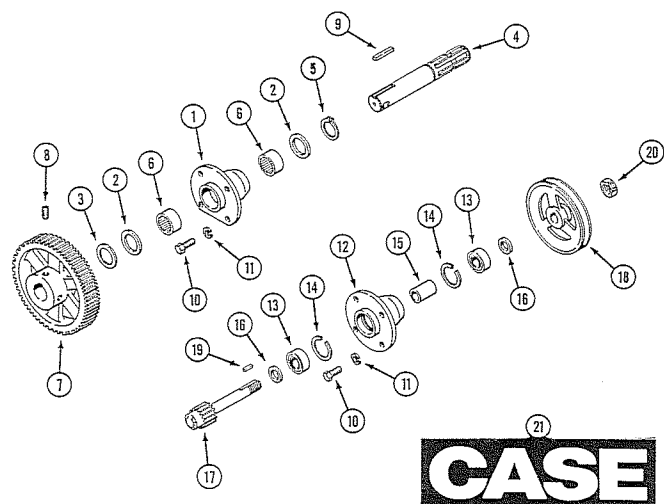


L29 PTO MOUNTING FRAME, SHIELD, IDLERS AND GEAR COVER

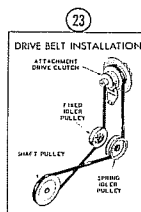
REF.	PART NO.	DESCRIPTION	REQ'D
1	C 25800	FRAME - mounting	1
2	C 25815	COVER - gear	1
3	221- 4	PLUG - oil 1/2"	1
3	221- 3	PLUG - oil 3/8"	2
4	113- 3	BOLT - 1/4" - 20 x 3/4" hex	9
5	195- 521	WASHER - 5/16"	9
6	131- 1180	NUT - 1/4" - 20 hex	9
7	C 25817	SHIELD - PTO	1
8	121- 106	BOLT - 5/16" - 18 x 1/2", special	3
9	C 25370	PULLEY - "V" groove	1
10	113- 206	BOLT - 3/8" - 16 x 3/4"	1
11	193- 68	LOCK WASHER - special	1
12	195- 103	WASHER - 3/8"	1
13	C 25822	ARM - idler	1
14	C 28308	BUSHING - sleeve	2
15	C 26090	PULLEY - flat idler	1
16	113- 412	BOLT - 1/2" - 13 x 1-3/4" hex	1
17	131- 165	NUT - 1/2" lock, hex	1
18	195- 541	WASHER - 5/8"	1
19	132- 318	PIN - cotter 5/32" x 1"	1
20	C 16870	SPRING - tension	1

L29 SPINDLES, DECALS AND BELT

REF.	PART NO.	DESCRIPTION	REQ'D
1	C 25806	HOUSING - PTO shaft	1
2	C 25807	WASHER - thrust	2
3	195- 2131	WASHER - spacer	1
4	C 25808	SHAFT - spline	1
5	C 28258	RING - retainer	1
6	C 25828	BEARING - roller	2
7	C 25814	GEAR - driven	1
8	83- 68	SET SCREW - 3/8"	2
9	C 28260	KEY - 5/16" x 2"	1
10	113- 206	BOLT - 3/8" - 16 x 3/4" hex	8
11	192- 21	LOCK WASHER - 3/8"	8
12	C 17666	HOUSING - spindle	1
13	C 28971	BEARING	2
14	C 16516	RING - retaining	2
15	C 10810	SPACER - bearing	1
16	C 25541	WASHER - spacer	2
17	C 25810	SPINDLE - input	1
18	C 25813	PULLEY - spindle	1
19	C 28289	KEY - 3/16" square x 7/8"	1
20	131- 1331	NUT - 3/4" - 16 lock, hex	1
21	321- 6379	DECAL - "Case"	1
22	C 28354	DECAL - "Warning"	1
23	C 17462	DECAL - drive belt	1
	C 23539	BELT - drive (444)	1
	C 23538	BELT - drive (220, 222, 224)	1



WARNING
 ROTATING MACHINE PARTS
 STAY CLEAR, KEEP
 SHIELDS INSTALLED TO HELP
 PROTECT FROM CLOTHING
 ENTANGLEMENT AND INJURY.



PART NO.	PAGE NO.	REF. NO.	PART NO.	PAGE NO.	REF. NO.	PART NO.	PAGE NO.	REF. NO.
A72098	27	1	C14717	93	15	C17249	91	6
C10314	47	2	C14722	93	3	C17250	49	7
C10372	5	4	C14724	93	4	C17250	91	7
C10372	23	13	C14725	93	14	C17281	49	3
C10657	27	14	C14728	41	16	C17298	53	6
C10678	27	3	C14729	39	17	C17298	55	6
C10678	27	14	C14730	37	17	C17298	57	17
C10810	111	15	C14730	39	17	C17433	59	8
C10882	105	20	C14827	63	4	C17433	61	8
C10898	97	4	C14828	63	7	C17435	59	9
C11529	27	18	C14829	63	8	C17435	61	9
C11886	103	15	C14830	63	9	C17438	59	17
C11887	103	16	C14831	63	10	C17438	61	17
C11891	103	2	C14836	63	15	C17443	59	31
C11892	103	14	C14837	63	5	C17443	61	31
C11893	103	12	C14838	63	16	C17444	59	19
C11895	103	9	C14906	17	44	C17444	61	19
C11901	103	13	C14906	19	44	C17462	111	23
C11906	43	5	C14906	21	44	C17636	99	4
C12102	43	18	C14906	33	5	C17666	111	12
C12102	43	18	C14976	93	3	C17717	31	1
C12110	47	5	C14991	93	9	C17718	31	2
C12552	51	26	C15036	57	21	C17734	91	5
C12713	51	2	C15096	45	16	C17859	99	1
C12713	51	36	C15335	53	1	C17860	99	3
C12722	51	21	C15335	55	1	C17863	99	2
C12975	43	9	C15310	41	9	C18092	63	15
C13106	43	10	C15315	35	10	C18099	31	14
C13106	43	7	C15377	35	10	C18099	31	30
C13106	43	8	C15564	49	11	C18101	11	18
C13106	47		C15718	35	3	C18110	63	10
C13106	49		C15726	53	6	C18113	69	14
C13106	91		C15726	55	6	C18113	71	14
C13196	51	16	C15726	57	17	C18147	47	7
C13241	51	5	C15731	57	4	C18153	37	8
C13266	51	7	C15732	57	5	C18251	91	3
C13360	49	1	C15733	57	6	C18382	63	6
C13385	51	6	C15734	57	7	C18417	103	24
C13605	43	16	C15735	57	8	C18719	107	
C13605	43	17	C15737	57	10	C18720	107	2
C13716	43	6	C15738	57	11	C18742	65	6
C14168	51	23	C15739	57	12	C18742	91	21
C14201	45	7	C15740	57	13	C18797	53	21
C14222	51	39	C16164	47	6	C18797	55	21
C14223	51	37	C16197	51	17	C18808	91	1
C14304	77	3	C16361	37	26	C18809	49	1
C14399	17	26	C16361	39	26	C18811	49	4
C14399	19	26	C16362	37	9	C18812	43	1
C14399	21	26	C16362	39	9	C18813	43	1
C14459	97	5	C16373	37	11	C18814	17	43
C14525	49	14	C16373	39	11	C18814	19	43
C14534	41	12	C16429	41	7	C18814	21	43
C14537	69	8	C16516	63	1	C19025	65	8
C14537	71	8	C16516	111	14	C19025	91	20
C14537	73	9	C16581	99	1	C19040	63	2
C14537	75	9	C16616	35	1	C19041	63	14
C14565	69	4	C16697	53	35	C19207	57	15
C14565	71	4	C16699	51	11	C19207	57	9
C14565	73	3	C16700	51	13	C19212	63	17
C14565	75	3	C16786	35	12	C19422	103	5
C14568	95	2	C16793	53	11	C19423	103	18
C14568	97	14	C16794	53	10	C19521	47	29
C14644	51	24	C16870	111	20	C19661	91	1
C14690	27	20	C17067	49	13	C19740	93	1
C14703	93	16	C17161	99	2	C19740	93	1
C14709	93	17	C17162	99	3	C19867	33	6
C14712	93		C17216	41	19	C20053	33	13
C14715	93	8	C17249	49	6	C20093	33	3

PART NO.	PAGE NO.	REF. NO.	PART NO.	PAGE NO.	REF. NO.	PART NO.	PAGE NO.	REF. NO.
C21506	59	22	C24290	19	31	C25334	53	25
C21506	61	22	C24290	21	31	C25338	17	32
C21507	59	7	C24447	93		C25338	19	
C21507	61	7	C24460	73	10	C25338	69	6
C21518	65	5	C24460	75	10	C25338	71	6
C21814	91	15	C24490	19	35	C25338	73	7
C21814	19	1	C24490	21	35	C25338	75	7
C21814	21	12	C24491	17	40	C25341	109	2
C21857	47	9	C24491	19	40	C25341	109	2
C21872	47	1	C24491	21	38	C25343	101	8
C21989	69	12	C24491	21	38	C25344	101	9
C22023	37	4	C24652	27	3	C25368	95	4
C22023	39	4	C24743	35	16	C25369	95	3
C22218	97	1	C24761	47	15	C25370	111	9
C22278	43	12	C24803	51	4	C25371	97	2
C22278	43	5	C24804	51	3	C25382	97	8
C22568	43	19	C24813	69	6	C25390	107	8
C22568	43	19	C24813	71	6	C25391	107	16
C22573	77	4	C24813	73	6	C25392	107	14
C22637	51	14	C24813	75	6	C25486	69	7
C22638	51	12	C24814	69	5	C25486	71	7
C22699	17	23	C24814	71	5	C25486	73	8
C22699	19	23	C24814	73	4	C25486	75	8
C22699	21	23	C24815	69	2	C25486	111	26
C22747	5	2	C24815	71	2	C25556	31	4
C22819	5	8	C24815	73	5	C25556	53	38
C22874	25	6	C24815	75	5	C25556	55	17
C22889	5	6	C24816	69	3	C25563	69	30
C22903	25	5	C24820	37	21	C25564	69	1
C22947	53	18	C24821	37	20	C25572	103	1
C22947	55	18	C24843	51		C25605	31	3
C22947	105		C24851	27	8	C25784	53	12
C23012	77	2	C24861	27	3	C25784	55	12
C23126	31	26	C24879	25	6	C25789	97	5
C23135	13	18	C24880	67		C25791	103	3
C23135	15	18	C24884	7	21	C25792	103	4
C23326	53	19	C24884	7	44	C25800	111	1
C23330	77	1	C24884	9	21	C25806	111	1
C23337	101	5	C24886	67	19	C25807	111	2
C23407	107	9	C24887	23	9	C25808	111	4
C23527	27	12	C24887	27	13	C25810	111	17
C23527	37	3	C24889	67	1	C25813	111	18
C23527	39	3	C24889	69	19	C25814	111	7
C23538	111		C24889	71	19	C25815	111	2
C23539	111		C24889	73	31	C25817	111	7
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C23630	35	13	C24901	109	3	C25857	43	13
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C23910	47	11	C25048	63	3	C26108	73	22
C23962	101	9	C25237	53	16	C26108	75	22
C24069	77	16	C25237	55	16	C26166	35	20
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C24137	39	12	C25318	37	14	C26182	55	23
C24290	17	31	C25333	53	24	C26188	91	25
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PART NO.	PAGE NO.	REF. NO.	PART NO.	PAGE NO.	REF. NO.	PART NO.	PAGE NO.	REF. NO.
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C26326	45	4	C27274	31	28	C28217	17	41
C26342	51	15	C27276	27	8	C28217	19	39
C26381	47	2	C27277	27	14	C28217	19	41
C26421	11	25	C27278	27	11	C28217	21	50
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C26506	37	25	C27280	25	5	C28226	43	10
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C26526	41	31	C27440	79	11	C28241	51	18
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C26727	105	11	C27916	83	8	C28673	75	37
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C26835	41	15	C27926	83	7	C28678	17	27
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C26940	37	1	C27928	85	8	C28680	7	28
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C28692	73	32	C29306	41	23	C29958	61	29
C28692	75	32	C29308	37	21	C30002	61	
C28693	69	26	C29309	53	20	C30004	37	30
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C28694	69	23	C29315	37	29	C30030	51	25
C28694	71	23	C29322	73	26	C30031	51	34
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C28966	57	21	C29732	63		C30458	39	14
C28970	47	8	C29735	35	9	C30460	39	14
C28971	111	13	C29737	23	1	C30462	39	14
C28978	47	19	C29738	69	24	C30464	39	14
C28985	93	12	C29738	73	24	C30466	41	27
C29022	13	2	C29738	75	36	C30467	41	27
C29025	11	2	C29738	75	36	C30470	41	27
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C30483	13	10	C31947	73	12	C33007	107	10
C30483	15	10	C31947	75	12	C33008	107	8
C30484	11	10	C31992	47	22	C33010	107	15
C30487	7	27	C31993	47	22	C33011	107	22
C30487	9	50	C31994	47	16	C33130	29	24
C30487	9	28	C32093	85	13	C33138	91	24
C30488	33	8	C32093	87	12	C33233	53	35
C30489	41	20	C32093	87	12	C33233	63	35
C30504	15	22	C32168	57	25	C33234	55	35
C30505	19	7	C32169	35	11	C33234	63	35
C30506	21	7	C32178	69	18	C33308	45	13
C30524	39	1	C32178	71	18	C33309	45	12
C30525	39	1	C32178	73	21	C33310	29	21
C30530	73	27	C32178	75	21	C33411	31	1
C30530	75	27	C32178	77	21	C33412	31	1
C30539	87	10	C32200	105	1	C33415	71	32
C30545	89	4	C32209	105	8	C33415	73	29
C30827	65	20	C32210	105	8	C33415	75	29
C30845	103	2	C32211	105	9	C33417	51	38
C30912	47	3	C32213	105	22	C33423	53	20
C30912	47	1	C32214	105	17	C33427	47	10
C30917	47	9	C32217	105	24	C33467	37	31
C30922	47	1	C32332	105	12	C33467	39	16
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C30959	87	8	C32486	51	22	K0D235327	7	22
C30962	87	9	C32707	73	28	K0D235327	7	22
C30963	87	9	C32799	29	42	K0D235327	7	22
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C31006	41	30	C32861	31	41	K0230011	7	43
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C31021	41	1	C32864	29	26	K0230170	7	39
C31024	35	1	C32865	29	27	K0230170	9	16
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C31045	35	7	C32868	29	29	K0230170	21	9
C31050	87	1	C32869	29	30	K0230722	69	27
C31213	75	24	C32870	29	30	K0230722	71	27
C31249	69	10	C32871	29	31	K0230722	73	34
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C31316	63	7	C32882	29	41	K0235003	15	11
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C31318	63	9	C32891	11	24	K0235004	13	3
C31319	63	10	C32891	13	24	K0235004	15	3
C31320	63	11	C32891	15	24	K0235007S	7	17
C31321	63	12	C32891	17	34	K0235007S	7	40
C31322	63	13	C32891	19	34	K0235007S	9	17
C31323	63	13	C32891	21	34	K0235007S	17	10

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K0235008	7	38	K0237022	21	27	113-	1	25
K0235010	7	19	K0237064	21	27	113-	1	25
K0235011	7	42	K0237064	23	6	113-	2	25
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K0235025	17	16	K0237421	5	10	113-	3	77
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K0235025	21	16	K0237520	25	4	113-	3	105
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K0235047	7	9	K0237677	25	4	113-	17	31
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K0235085	31	18	K0275067	9	27	113-	122	41
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K0235757	17	29	062- 616	53	3	113-	424	49
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K0235890	13	16	111- 139	77	11	113-	2400	97
K0235891	13	16	111- 202	77	6	121-	21	51
K0235892	13	16	111- 371	77	10	121-	106	39
K0236675	17	4	111- 521	99	5	121-	106	41
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129- 15	77	22	132- 310	91	4	192- 19	17	18
129- 17	31	7	132- 310	93	4	192- 19	19	18
129- 27	77	8	132- 311	43	8	192- 19	21	18
129- 36	77	28	132- 311	43	9	192- 19	25	2
129- 37	31	20	132- 318	111	19	192- 19	25	8
129- 37	77	24	132- 320	33	4	192- 19	25	7
129- 101	7	1	132- 320	65	10	192- 19	31	13
129- 101	9	1	132- 320	91	13	192- 19	35	26
129- 101	31	11	132- 321	47	21	192- 19	37	23
129- 101	37	24	132- 329	103	3	192- 19	39	23
129- 101	39	24	132- 334	37	10	192- 19	77	7
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129- 102	105	18	138- 63	33	18	192- 19	105	19
129- 102	5	12	138- 99	43	4	192- 20	27	6
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129- 103	17	47	138- 143	45	10	192- 20	41	5
129- 103	19	47	138- 308	93	5	192- 20	101	13
129- 103	21	47	138-2054	49	10	192- 20	105	15
129- 103	45	8	138-2072	65	11	192- 21	11	12
129- 103	99	7	138-2073	37	13	192- 21	13	12
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129- 531	59	10	169- 114	59	20	192- 23	39	18
129- 531	61	10	169- 114	61	20	192- 23	41	5
131- 165	111	17	173- 96	21	21	192- 23	43	14
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131- 580	13	26	182- 246	55	30	192- 23	99	7
131- 580	15	26	182- 516	31	35	192- 404	5	13
131- 629	77	5	182- 516	79	3	193- 6	5	9
131- 911	41	25	182- 547	37	22	193- 56	31	8
131- 911	49	15	182- 547	39	22	193- 57	77	4
131- 911	105	16	182- 547	41	28	193- 68	111	11
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