

**PARTS CATALOG**

**INTERNATIONAL<sup>®</sup>**  
AND  
**HOUGH<sup>®</sup>**

**WAUKESHA**  
**FC ENGINES**  
used in  
**HA, HAH and HE**  
**PAYLOADERS**

**FORM WAU-1A-2**

**MARCH, 1968**

*(Supersedes FORM WAU-1A-1)*

INTERNATIONAL HARVESTER COMPANY  
401 NORTH MICHIGAN AVENUE  
CHICAGO, ILLINOIS 60611, U.S.A.

**CONSTRUCTION EQUIPMENT**

INDEX OF CONTENTS

MODEL FC-3-1/4" x 4"

NAME	PAGE
Crankshaft - Piston - Connecting Rod - Fan Pulley .....	3
Camshaft - Idler Gear - Valves - Valve Lifters .....	5
Cylinder Head .....	7
Crankcase .....	9
Oil Pump .....	11
Water Pump - Water Manifold .....	13
Governor Butterfly Valve .....	15-16
Manifold .....	17
Oil Pan .....	19
Gear Cover - Front Plate .....	21
Flywheel - Flywheel Housing .....	22-23
Carburetor .....	25
Starter (6 Volt Positive Ground) .....	27
Starter (12 Volt Negative Ground) .....	29-31
Generator - Regulator & Mounting Parts (6 Volt Positive Ground) .....	33-34
Generator (12 Volt Negative Ground) .....	37
Regulator (12 Volt Negative Ground) .....	35
Distributor - Drive Assembly - Coil .....	39-40
Numerical Index .....	41-42-43

The purpose of this manual is to include, for your ready reference, the Parts Lists and Illustrations for Waukesha FC - Engines used by HA, HE & HAH "PAYLOADER" units. Listed below you will find serial numbers of the "PAYLOADER" units using the type of Model FC Engines. These engine use the same Parts Catalog. When different parts are used they are noted by serial numbers for the "PAYLOADER".

Waukesha FC - Engines	"PAYLOADER" Model	Used on "PAYLOADER" Units of Serial Numbers
FC-157 or FC-236.....	HA .....	S/N 8003 thru 8446 - 20001 thru 23499 except 21151 thru 21247
FC-230 .....	HA-50 .....	S/N 23500 thru 26899
FC-281 .....	HA (Converter) .....	S/N 26900 thru 27400
FC-281 .....	HA-C (Breakout) .....	S/N 2A-27401 & Up
FC-233 .....	HE .....	S/N 55004 & Up
FC-233 .....	HAH .....	S/N 51400 thru 51928
FC-288 .....	HAH (Converter) .....	S/N 51929 thru 52100

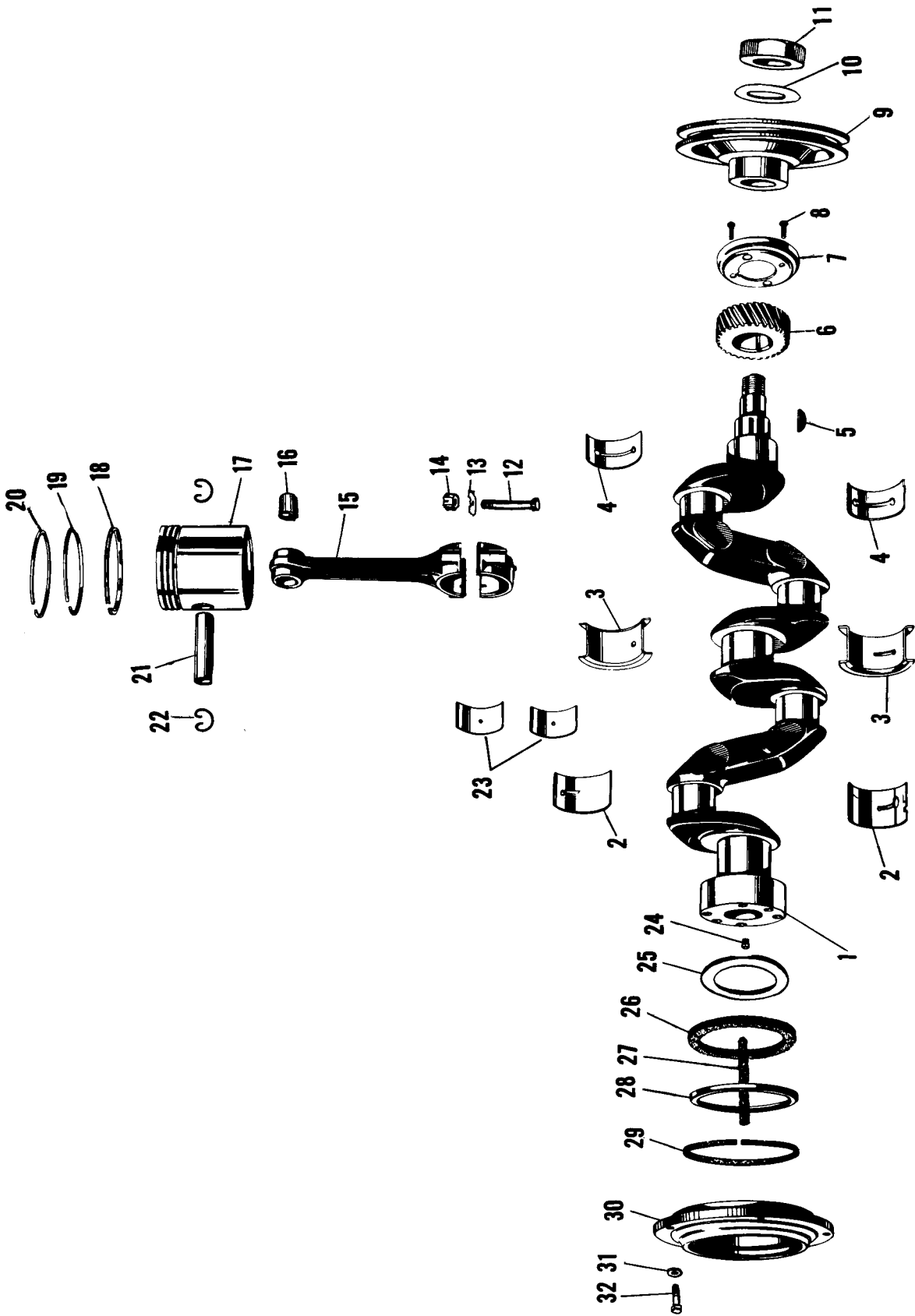


Fig. 1  
 CRANKSHAFT - PISTON - CONN. ROD - FAN PULLEY

CRANKSHAFT-PISTON-CONN. ROD-FAN PULLEY

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	BD-14-K	CRANKSHAFT .....	1		
2	68321	BEARING, Main (Rear) .....	2		
3	68318	BEARING, Main (Center) .....	2		
4	68422	BEARING, Main (Front) .....	2		
5	21007	KEY, #9 Woodruff - Crankshaft Gear & Fan Pulley ..	2		
6	68012-A	GEAR, Crankshaft .....	1		
7	B-733-A	THROWER, Oil (Front) .....	1		
8	21796	SCREW, Drive .....	2		
9	68095-B	PULLEY, Fan (Hough #105633H1) S/N 8003 thru 8446, 20001 thru 23499 except 21151 thru 21247, S/N 23500 thru 26899, S/N 55004 & Up, S/N 51400 thru 51928, S/N 26900 & Up .....	1		
9	68095B	PULLEY, Fan (3/4" Taper) .....	1		
9	68095-C	PULLEY, Fan (Hough #124630H1) S/N 51929 & Up (HAH) .....	1		
9	68095-D	PULLEY, Fan (Hough #186863H1) S/N 42510 & Up (1/2" Taper) .....	1		
10	BE-818	SHIM, Fan Pulley Locknut .....	3		
11	118442	NUT, Huglock, Fan Pulley (Hough #105632H1) .....	1		
12	B-4858A	BOLT, Connecting Rod .....	8		
13	B-10337-A	SHIM, Connecting Rod .....	8		
14	80107-B	NUT, Lock, Connecting Rod Bolt .....	8		
15	A-68007C	ROD, Connecting (Includes Items 12 thru 16 and Item 23) .....	4		
16	37008	BUSHING, Piston Pin .....	4		
17	68304A	PISTON (Aluminum) .....	4		
17	68204B	PISTON (Cast Iron) .....	4		
	68605	RING, Piston - Oil Control ..... ) Use with	4		
	68505B	RING, Piston - Scraper ..... ) 68204B	4		
	37205	RING, Piston - Comp. .... ) Piston	4		
18	164351	RAIL, Piston Ring, Oil Control ..... ) Use	8		
18	164352	SPACER, Piston Ring, Oil Control ... ) with	4		
19	68505-B	RING, Piston, Scraper ..... ) 68304A	8		
20	164299	RING, Piston, Compression ..... ) Piston	4		
21	68006	PIN, Piston .....	4		
22	37030	RETAINER, Piston Pin .....	8		
23	68310	BEARING, Connecting Rod .....	8		
24	BD-398	PLUG, Restriction .....	1		
25	BD-13	THROWER, Oil, Rear.....	1		
26	DB-366	SEAL, Oil (Part of Item 30) .....	1		
27	BD-365-A	WICK, Oil .....	1		
28	BD-367	CUP, Oil Seal (Part of Item 30) .....	1		
29	BD-368-A	GASKET, Closure Plate, Main Bearing .....	1		
30	C164651	PLATE, Closure, Main Bearing (Includes Items 26 and 28) .....	1		
31	B-10568	WASHER, Lock, Main Bearing Closure Plate .....	3		
32	21309	SCREW, 5/16" - 18 x 3/4" Closure Plate .....	3		
	B-1842A	PIN, Dowel, Closure Plate .....	2		

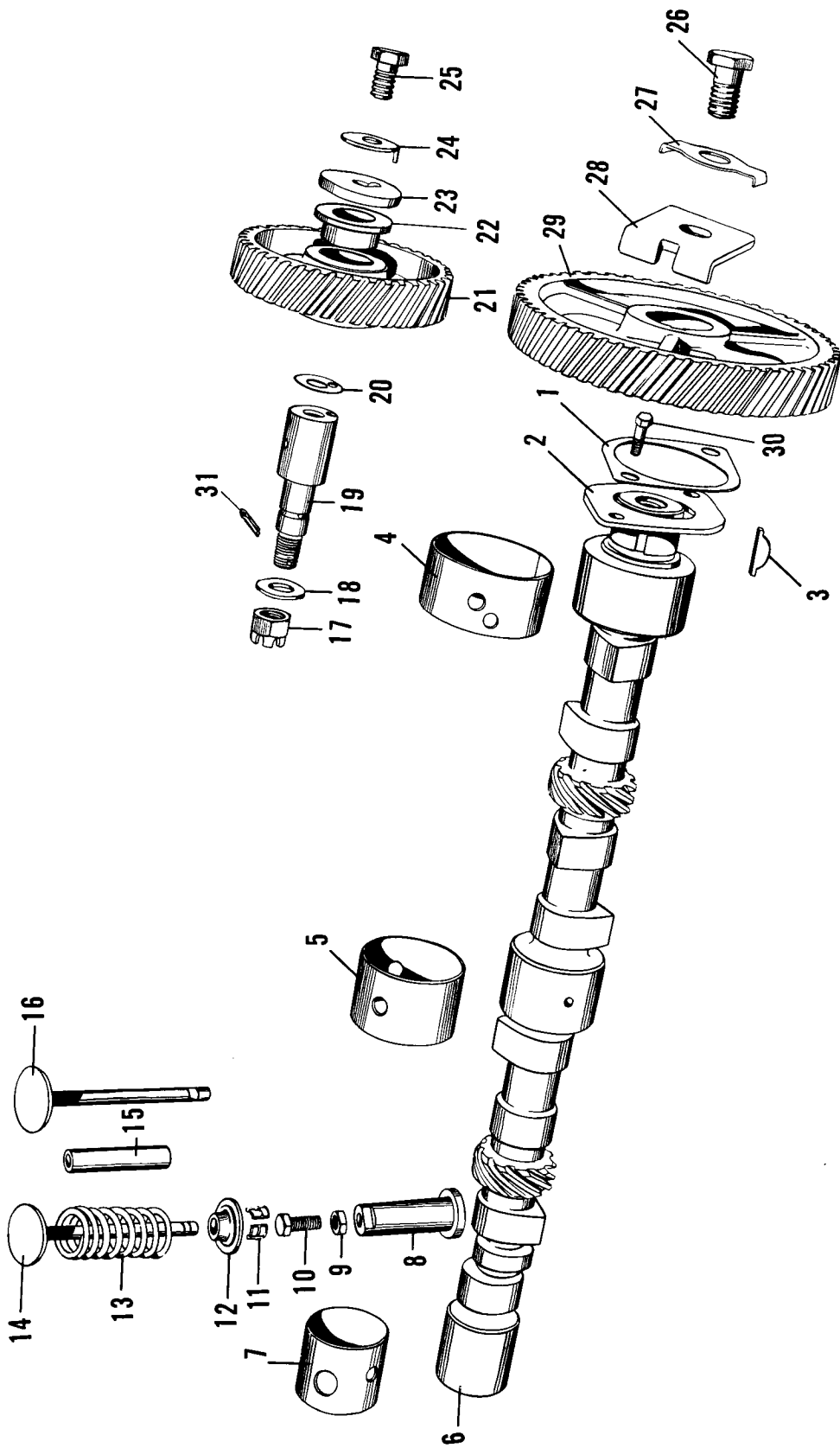


Fig. 2  
 CAMSHAFT - IDLER GEAR - VALVES - VALVE LIFTERS

CAMSHAFT-IDLER GEAR-VALVES-VALVE LIFTERS

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	BD-86	LOCK, Camshaft Thrust Plate .....	1		
2	BD-85	PLATE, Thrust, Camshaft .....	1		
3	21863	KEY, 606 Hi-Pro Camshaft Gear .....	1		
4	68027	BUSHING, Front, Camshaft .....	1		
5	68050	BUSHING, Center, Camshaft .....	1		
6	68123-B	CAMSHAFT.....	1		
7	68053	BUSHING, Rear, Camshaft .....	1		
8	A68037B	LIFTER, Valve, Includes Item 10 .....	8		
9	21187	NUT, 5/16" - 24 Half, Valve Lifter .....	8		
10	118625	SCREW, Adjusting, Valve Lifter .....	8		
11	B-9792	TAPER, Valve Spring .....	16		
12	B-9793	RETAINER, Valve Spring .....	8		
13	68035-C	SPRING, Valve .....	8		
14	68036	VALVE, Intake .....	4		
15	68009	GUIDE, Valve .....	8		
16	68136	VALVE, Exhaust .....	4		
17	21600	NUT, 1/2" - 20 Castle, Idler Gear .....	1		
18	B-363	WASHER, Idler Gear .....	1		
19	BD-72-A	STUD, Idler Gear .....	1		
20	B-926	SHIM, Idler Gear .....	8		
*21	XD-71-A	GEAR, Idler w/Bushing (See note at bottom of page) .....	1		
22	BD-76	BUSHING, Idler Gear .....	1		
23	B-740	WASHER, Idler Gear .....	1		
24	B-741	LOCK, Idler Gear Screw .....	1		
25	21340	SCREW, 3/8" - 16 x 5/8" Hex. Hd. Cap Idler Gear .....	1		
26	B-1231	SCREW, Lock, Camshaft .....	1		
27	B-780-A	LOCK, Camshaft Screw .....	1		
28	B-779-A	PLATE, Lock, Camshaft .....	1		
29	BD-80-A	GEAR, Camshaft .....	1		
30	21305	SCREW, 5/16" - 18 x 5/8" Hex Hd. Cap, Camshaft Thrust Plate .....	2		
	952750F	RING, Retainer .....	1		
31	21065	PIN, 1/8" x 1" Cotter, Idler Gear Stud .....	1		
	156537	PLUG, Idler Gear Stud Hole (Used on models which do not have Items 19 thru 25 above) .....	1		
		*Note: Servicing Item 21. On Engine HA-1005, prior to Engine S/N 954988 use Item 21 #XD-71A. From Engine S/N 954988 & up, use 1, 156537 Plug - 1, B-363 Washer - 1, 21600 Nut and 1, 21065 Cotter.			
		On Engine FC-230, Hough #110354, prior to Engine S/N 954908 use Item 21 #XD-71A. From Engine S/N 954908 & up, use Plug, Washer, Nut & Cotter as noted.			
		On Engine FC-281, Hough #123108 & 125449, prior to Engine S/N 954774, use Item 21 #XD-71A. From Eng. S/N 954774 & up, use Plug, Washer, Nut & Cotter as noted above.			
		On Engine FC-288, Hough #122837 and 125450, prior to Engine S/N 948019, use Item 21 #XD-71A. From Engine S/N 948019 & up, use Plug, Washer, Nut and Cotter as noted above.			
		On Engine FC-233, Hough #110599 & 125448, prior to Engine S/N 947988, use Item 21 #XD-71A. From Eng. S/N 947988 & up, use Plug, Washer, Nut and Cotter as noted above.			
		On Engine FC-253, Hough #114102, prior to Engine S/N 952412, use Item 21 #XD-71A. From S/N 952412 & up, use Plug, Washer, Nut and Cotter as noted above.			
		All Hough numbers should have an H1 suffix.			

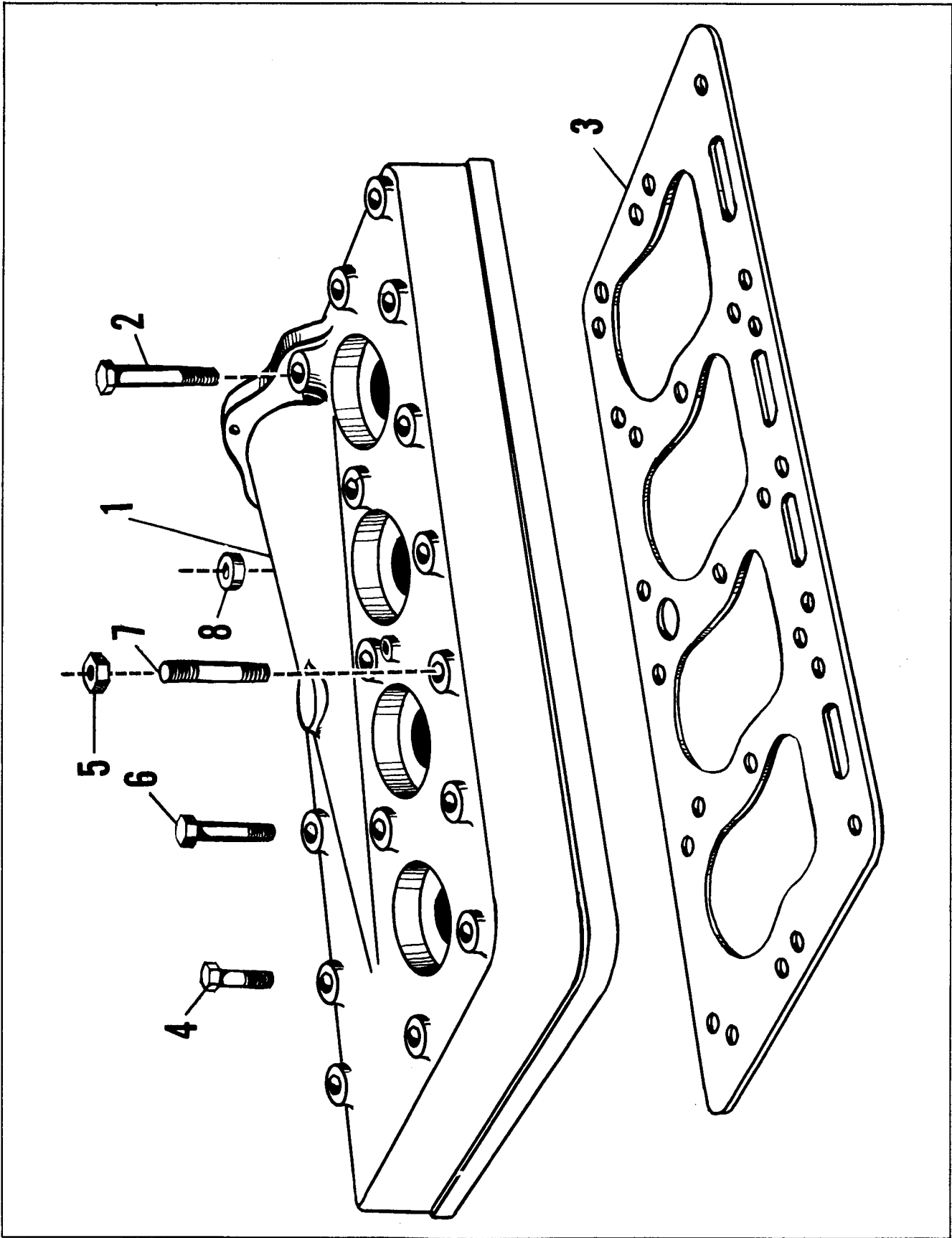
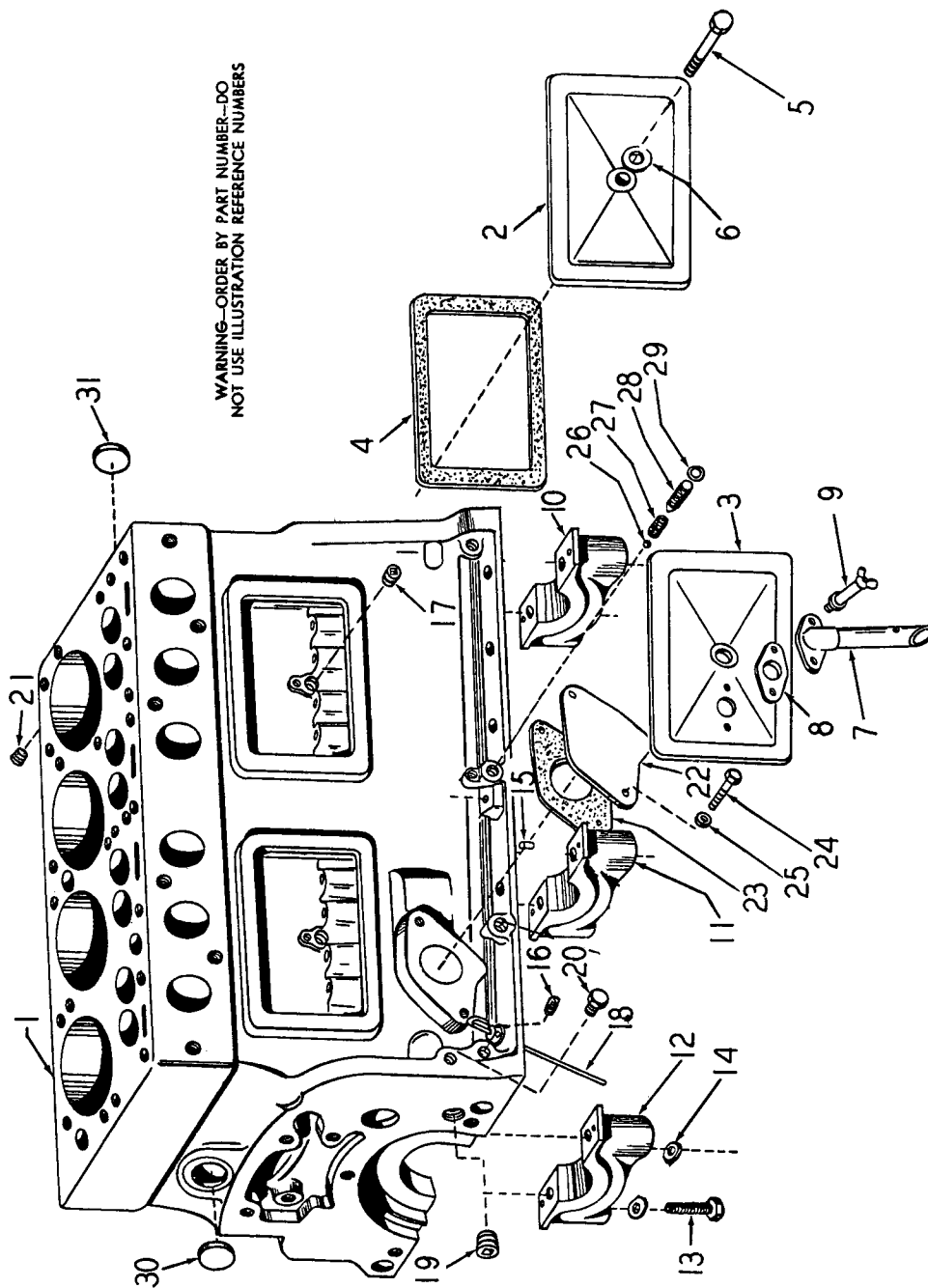


Fig. 3  
CYLINDER HEAD

CYLINDER HEAD

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	68402-B	HEAD, Cylinder .....	1		
2	B-10190	SCREW, Cylinder Head - 7/16" NC by 3-21/32" ...	1		
3	68000-E	GASKET, Cylinder Head .....	1		
4	B-10188	SCREW, Cylinder Head - 7/16" NC by 2-7/16" ....	12		
5	28118	NUT, Case Hardened, Cylinder Head Stud .....	2		
6	B-10189	SCREW, Cylinder Head - 7/16" NC by 2-13/16" ...	4		
7	BD-10	STUD, Cylinder Head .....	2		
8	B-10708	SPACER .....	AR		
	152262	SCREW, Cylinder Head - 7/16" NC by 3-1/16" ....	3		
	152263	LIFTING EYE .....	1		





WARNING—ORDER BY PART NUMBER—DO NOT USE ILLUSTRATION REFERENCE NUMBERS

CRANKCASE

CRANKCASE

CRANKCASE

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
		SHORT BLOCK ASSEMBLY, Hough #114102H1 consists of: Crankcase, Pistons, Conn. Rods, Crankshaft, Idler Gear, Oil Pump, Camshaft, Comb. Manifold, Gear Cover & Front Plate, Water Manifold & Fly-wheel housing attaching parts	1		
1		CRANKCASE (Order Short Block Assembly, Hough #114102H1 shown above)	1		
2	BD-195	DOOR, Valve, Front	1		
3	AA-68024	DOOR, Valve, Rear (Assembled w/Breather Tube)	1		
3	A68024	DOOR, Valve (W/O Breather Tube)	1		
4	BD-196B	GASKET, Valve Door	2		
5	26738	SCREW, Cap, Valve Door	2		
6	BD-190	GASKET, Valve Door Screw	2		
7	OC-63251	TUBE, Breather	1		
	-B				
8	B-2694-A	GASKET, Breather Tube	1		
9	A-155268	THUMB, Screw	2		
10	68046-A	CAP, Main Bearing (Front)	1		
11	68049-B	CAP, Main Bearing (Center)	1		
12	68047-A	CAP, Main Bearing (Rear)	1		
13	28200	SCREW, Main Bearing Cap, 1/2" N.C. x 2-1/4"	6		
14	B-355	WASHER, Main Bearing Capscrew	6		
15	B-1842	DOWEL, Bearing Cap	2		
16	78280-A	PLUG, Pipe, 1/8" Slotted	3		
17	78283A	PLUG, Pipe, 1/2" Countersunk	2		
18	063039	GAUGE, Oil Level - S/N 8003 thru 23499 except 21151 thru 21247 (on Magneto Side)	1		
18	0120300	GAUGE, Oil Level - S/N 23500 thru 26899 and S/N 26900 & Up (On Carburetor Side)	1		
	B-6925	WASHER, Felt, Oil Level Gauge	1		
	B-2666	BUSHING, Oil Gauge	1		
	B-9984	BUSHING, Distributor Shaft	1		
19	78283G	PLUG, Pipe, 1/4" Countersunk Headless	3		
20	26743	PLUG, Pipe, 1/8" Hex Head	3		
21	Y-18802-A	PLUG, Pipe, 1/8" Allen, Headless	3		
22	B-3527	COVER, Fuel Pump Pad	1		
23	B-3605	GASKET, Fuel Pump Cover	1		
24	21307	SCREW, 5/16" - 18 x 5/8", Cover	2		
25	21051	WASHER, Lock, 5/16"	2		
26	B-811	BALL, Relief Valve	1		
27	119288	SPRING, Relief Valve	1		
28	155006A	SCREW, Adj. Relief Valve	1		
29	B-2469	WASHER, Copper	1		
30	B-6417	PLUG, Expansion, 1-3/4"	1		
31	B-4171	PLUG, Expansion, 1"	6		

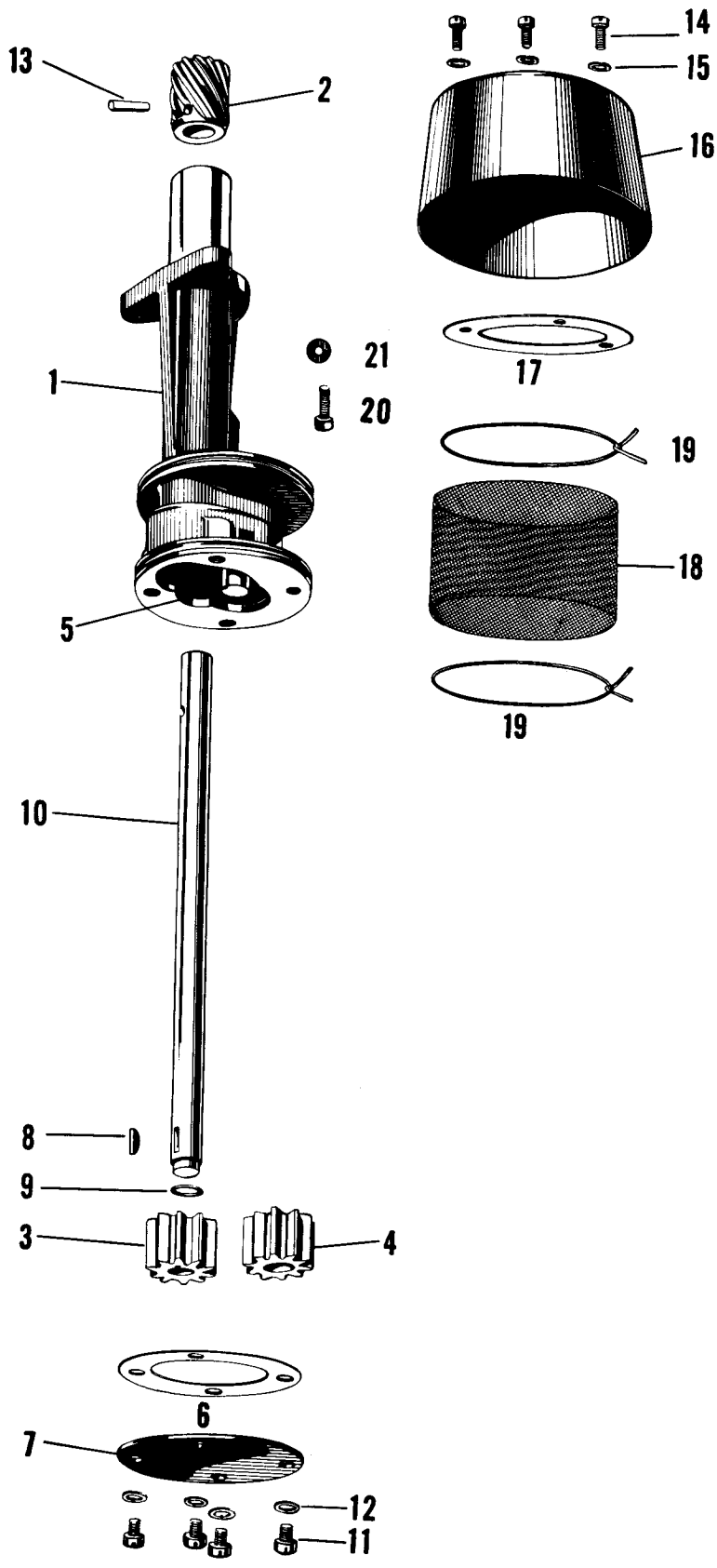


Fig. 5  
OIL PUMP

OIL PUMP

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	A68180B	PUMP, Oil, Assembled with Screen .....	1		
	68180B	BODY, Oil Pump .....	1		
2	98051	GEAR, Oil Pump Drive .....	1		
3	37085	GEAR, Driven, Oil Pump .....	1		
4	37081-A	GEAR, Driven, Oil Pump .....	1		
5	37083	SHAFT, Idler, Oil Pump .....	1		
6	BD-359	GASKET, Oil Pump Cover .....	1		
7	BD-358	COVER, Oil Pump .....	1		
8	21001	KEY, No. 2 Woodruff, Oil Pump Gear .....	1		
9	B-9420	RING, Snap, Oil Pump Shaft .....	1		
10	68084	SHAFT, Drive, Oil Pump .....	1		
11	21701	SCREW, 1/4" - 20 x 1/2" Fillister Head, Oil Pump Cover .....	4		
12	21050	WASHER, 1/4" Lock, Oil Pump Cover .....	4		
13	26529	PIN, Oil Pump Drive Gear .....	1		
14	21127	SCREW, #10 - 32 x 3/8" Fillister Head, Oil Screen Baffle .....	3		
15	21049	WASHER, #10 Lock, Oil Screen Baffle .....	3		
16	BD-360	BAFFLE, Oil Screen .....	1		
17	BD-361	GASKET, Oil Screen Baffle .....	1		
18	168289	SCREEN, Oil Pump .....	1		
19	116057A	WIRE, Oil Screen .....	2		
20	21309	SCREW, 5/16 - 18 x 3/4" Hex. Hd. Cap, Oil Pump to Crankcase .....	2		
21	21051	WASHER, 5/16" Lock, Oil Pump to Crankcase ....	2		
	B997	ROLL PIN .....	1		
	Y18813G	WASHER .....	4		

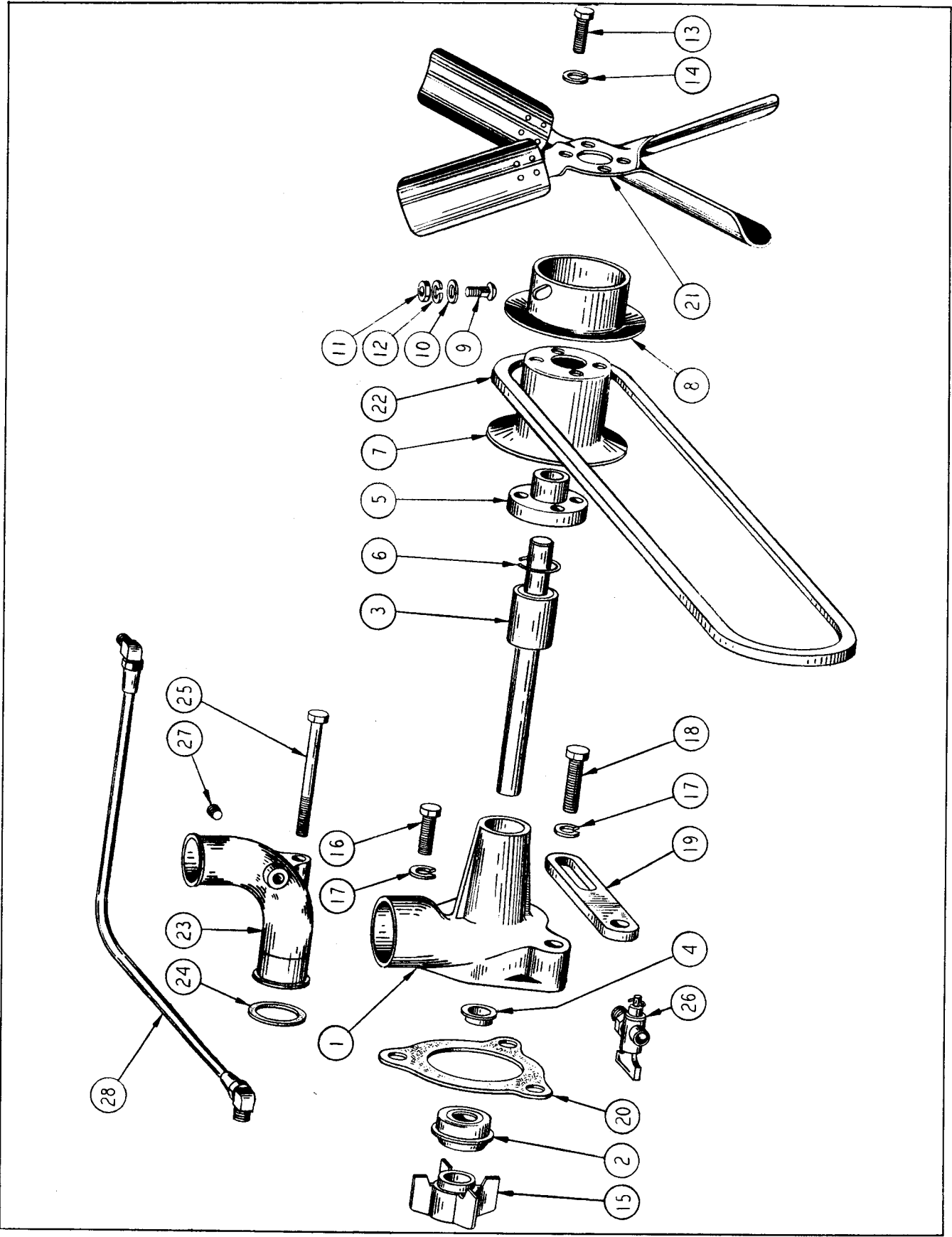
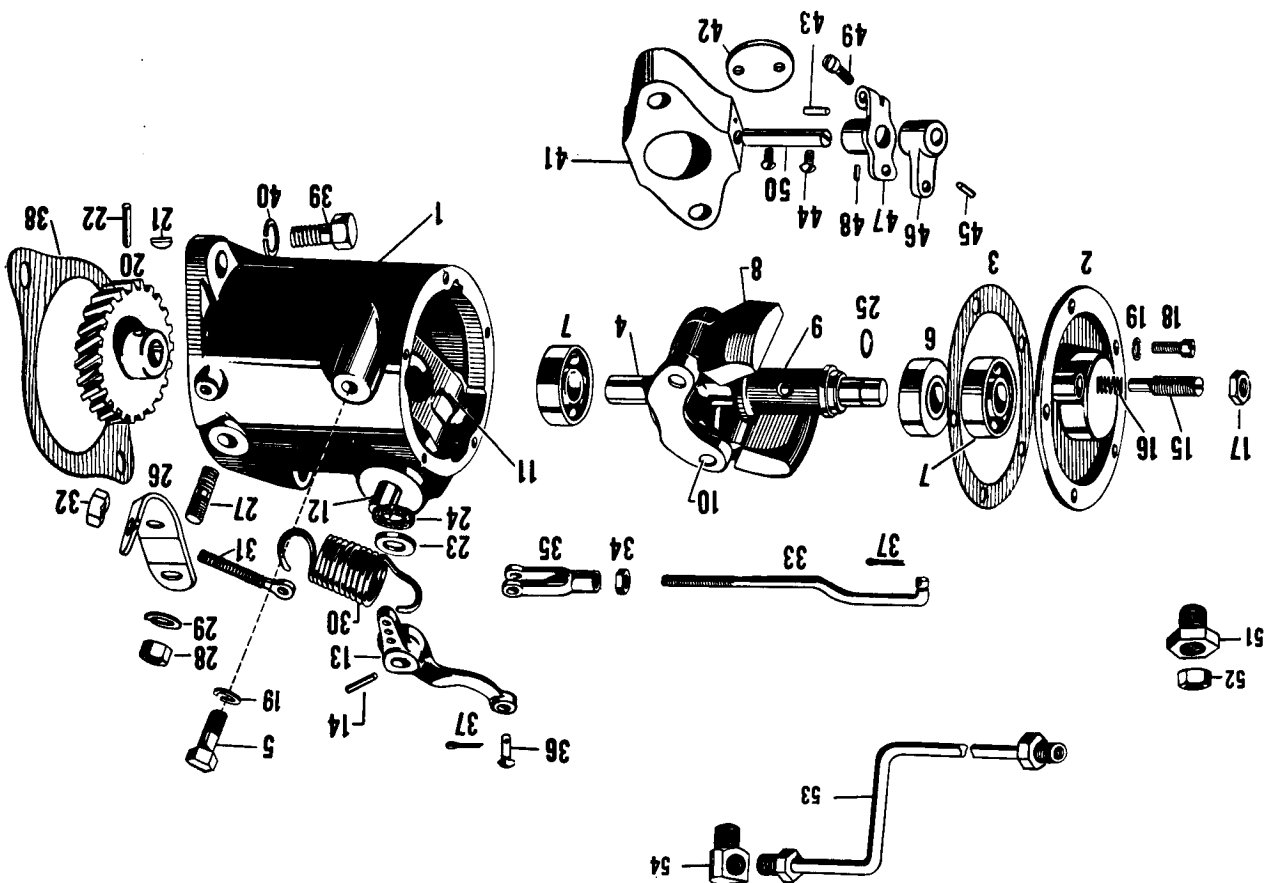


Fig. 6  
 WATER PUMP - WATER MANIFOLD

WATER PUMP-WATER MANIFOLD

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	AW68460	WATER PUMP ASSEMBLY (Model HA & HA-50 - See Page 1) .....	1		
	AV68460	WATER PUMP ASSEMBLY (Other Models Than Above) .....	1		
	EZ-68460	WATER PUMP ASSEMBLY (replaced AV68460 Water Pump) .....	1		
1	68460	BODY, Water Pump .....	1		
2	120320	SEAL, Water Pump .....	1		
3	0160356-A	SHAFT & BEARING ASSEMBLY, Includes Item 4 ....	1		
4	78645	SLINGER .....	1		
5	B-5488-E	FAN HUB .....	1		
6	76999	SNAP WIRE .....	1		
	OB-5487-A	PULLEY & COLLAR ASSEMBLY ) Used on earlier (Incls. Items 7 thru 12) ) units, later	1		
7		PULLEY, Fan Hub ) NSS Order ) units use one	1		
8		COLLAR, Adj. Fan Hub ) OB-5487A ) piece pulley	1		
9	B-5496	LOCKSCREW, Fan Pulley ) shown following	2		
10	B-5495	WASHER, Lockscrew ) Item 12	2		
11	21173	ADJUSTING BOLT NUT, 1/4-20 )	2		
12	21050	LOCKWASHER )	2		
	163990	PULLEY (replaced Items 7 thru 12 shown above).....	1		
13	21307	CAPSCREW, Hex Head .....	4		
14	21051	LOCKWASHER .....	4		
15	68363A	IMPELLER, Water Pump .....	1		
	161647A	SEAT, Seal .....	1		
16	21360	CAPSCREW .....	1		
17	21052	LOCKWASHER .....	3		
18	21362	CAPSCREW .....	2		
19	B-9803	BRACE, Generator (Model HA & HA-50 - See Page 1)	1		
19	B-9803B	BRACE, Generator (Other Models Than Above) .....	1		
19	157720A	BRACE, Generator (For use with Generator 69573 shown on Page 37).....	1		
20	B-6404	GASKET, Water Pump .....	1		
21	37133-B	FAN .....	1		
22	68003	FAN BELT (Hough #HA-1504) Used on machines using Items 7 thru 12 above .....	1		
	154462	FAN BELT, Used with Pulley #163990 (Shown below Item 12) .....	1		
23	YE-807-C	ELBOW, Water Inlet (Hough #HA-1004) .....	1		
	B-1764	ELBOW.....	1		
24	BD-197-A	GASKET, Water Inlet Elbow .....	1		
25	28144	SCREW, Water Inlet Elbow .....	1		
26	76400	DRAIN COCK .....	1		
27	78282-A	PIPE PLUG .....	1		
28	0152778	BYPASS LINE .....	1		
	155372A	WASHER, Inlet Elbow Screw .....	1		
	78282D	PLUG, Pipe - 3/8" Square Head .....	1		
	78282C	PLUG, Pipe .....	1		
	960-155	REPAIR KIT, Water Pump - Includes Items 2, 3, 5, 6, 9 thru 17 and Item 20 .....	AR		

GOVERNOR - BUTTERFLY VALVE



GOVERNOR-BUTTERFLY VALVE

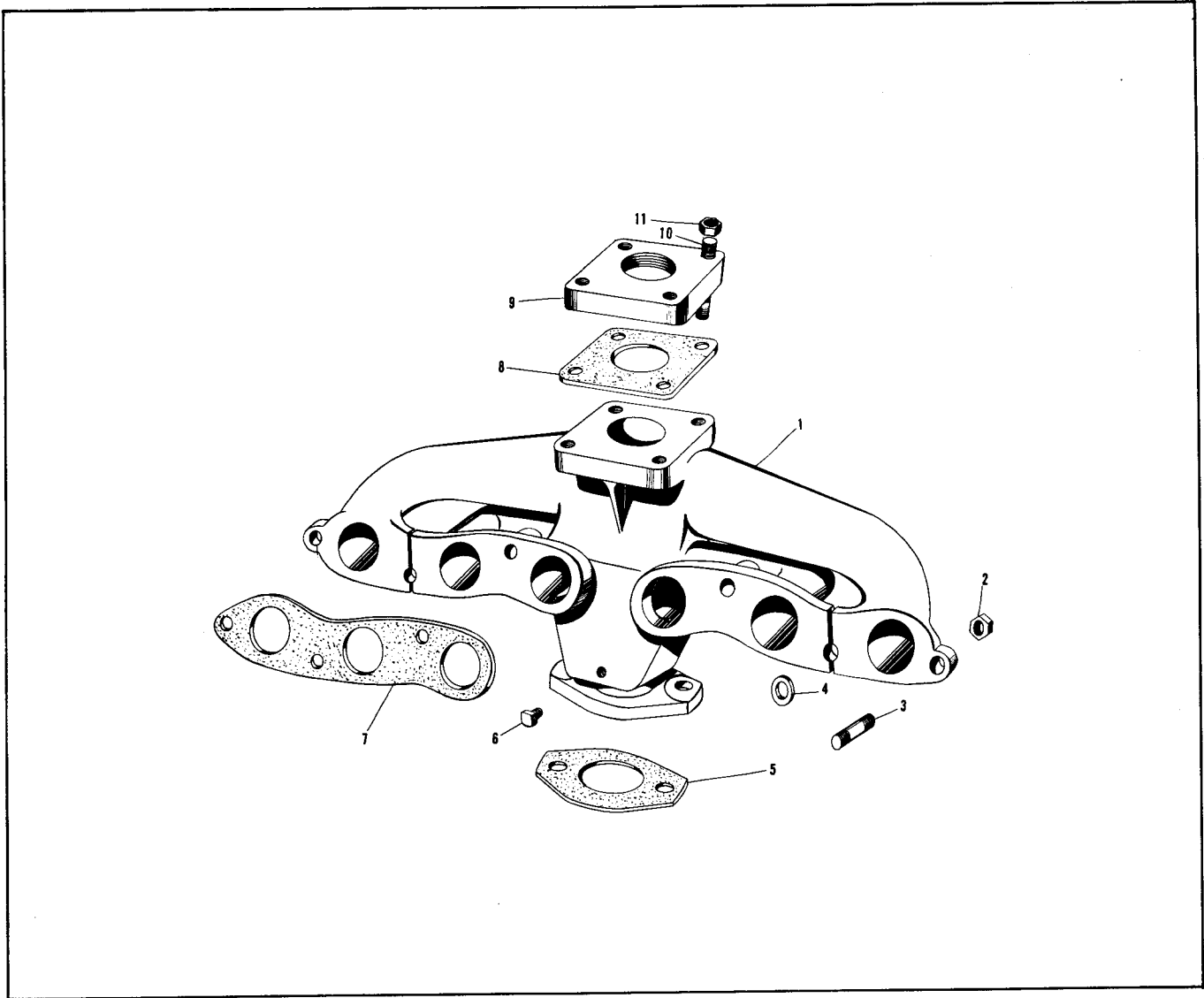
ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	NB-6114-N	GOVERNOR ASSEMBLY, S/N 8003 thru 23499 except 21151 thru 21247	1		
	MB-6114-K	GOVERNOR ASSEMBLY, S/N 23500 thru 26899, S/N 55004 & Up, S/N 26900 & Up, and S/N 51929 & Up..	1		
1	B-6114-K	HOUSING, Governor	1		
2	OB-6115-C	COVER, Governor Housing	1		
3	B-6117	GASKET, Governor Housing Cover	1		
4	OB-6145	SHAFT, Governor, Assembled with Carrier	1		
5	21305	SCREW, #10 - 32 x 1/2" Fill. Hd. Gov. Hsg. Cover ..	1		
6	B-6090	BEARING, Thrust	1		
7	B-6146	BEARING, Ball	2		
8	B-6101-F	WEIGHT, Governor	2		
9	B-6255	SHIFTER, Governor Weight	1		
10	B-6122	SHAFT, Governor Weight	2		
	26941	PIN, Roll, Governor Weight	2		
11	B-6124	LEVER, Governor Weight Shifter	1		
12	B-6126-D	SHAFT, Governor Lever	1		
13	B-6123-B	LEVER, Governor, S/N 8003 thru 23499 except 21151 thru 21247	1		
13	119471	LEVER, Governor, S/N 23500 thru 26899, S/N 55004 & Up, S/N 26900 & Up and S/N 51929 & Up	1		
14	26552	PIN, Roll, Governor Lever	2		
	26531	PIN, Roll, Govern. Lever (Not Illustrated)	1		
15	B-7355	SCREW, Bumper	1		
16	B-7356	SPRING, Bumper	1		
17	21187	NUT, 5/16" - 24 Half, Bumper Screw	1		
18	21127	SCREW, #10 - 32 x 3/8" Fill. Hd. Gov. Hsg. Cover ..	5		
19	21049	WASHER, #10 Lock, Gov. Hsg. Cover	5		
20	B-6125	GEAR, Governor	1		
21	21002	KEY, #3 Woodruff, Governor Gear	1		
22	26533	PIN, Roll - Governor Gear	1		
23	B-2837	WASHER, Oil Seal	1		
24	85641	SEAL, Oil	1		
25	B-6274	SNAP RING, Governor Shaft	1		
	B-295	PLUG, 1/2" Expansion (Not Illustrated)	1		
26	B-6162	BRACKET, Governor Spring - S/N 8003 thru 23499 except 21151 thru 21247	1		
26	119472	BRACKET, Governor Spring - S/N 23500 thru 26899, S/N 55004 & Up, S/N 26900 & Up, and S/N 51929 and Up	1		
27	B-391	STUD, Governor Spring Bracket	1		
28	21185	NUT, 5/16" - 24 - Governor Spring Bracket	1		
29	21051	WASHER, 5/8" Lock - Governor Spring Bracket	2		
30	B-6298	SPRING, Gov. - S/N 8003 thru 23499 except 21151 thru 21247	1		
30	B-8181-A	SPRING, Governor - S/N 23500 thru 26899, S/N 55004 & Up, S/N 26900 & Up, S/N 51929 & Up	1		
31	B-6163	SCREW, Adjusting - Governor Spring	1		
32	B-6164	NUT, Adjusting Screw - Governor Spring	1		
	73596-C	BEARING, Roller - Governor Lever Shaft (Not Ill.)	2		
33	B-6118	ROD, Governor	1		
34	21263	NUT, #10 - 32 Hex. - Governor Rod	1		
35	B-6121	END, Governor Rod	1		
36	B-6119	PIN, Governor Rod End	1		
37	21057	PIN, 1/16" x 1/2" Cotter, Governor Rod	2		
38	118226D	"O" RING, Governor Housing	1		
39	21348	SCREW, 3/8" - 16 x 1", Governor to Crankcase	2		
40	21052	WASHER, 3/8" Lock, Governor to Crankcase	2		
41	74415-B	HOUSING, Butterfly Valve - Used with D-74415-B Assembly	1		

(Continued on following page)



GOVERNOR - BUTTERFLY VALVE (Continued)

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
41	D-74415-B	HOUSING ASSEMBLY, Butterfly Valve .....	1		
	151748	SEAL .....	1		
	26457	EXPANSION PLUG .....	1		
42	74459	VALVE, Butterfly .....	1		
43	B-4028	PIN, Butterfly Valve Housing .....	1		
44	74461	SCREW, Machine, Butterfly Valve .....	2		
45	B-4027	PIN, Butterfly Valve Lever .....	1		
46	7775-G	LEVER, Butterfly Valve .....	1		
47	74462	LEVER, Stop, Butterfly Valve .....	1		
48	B-4481	PIN, Butterfly Valve Shaft .....	1		
49	21319	SCREW, Cap .....	1		
	21181	NUT .....	1		
50	74460-C	SHAFT, Butterfly Valve (Used on D-74415-B) .....	1		
51	B-8677	BUSHING (Reducing) Oil Line .....	1		
52	151904A	FITTING, Restriction - Oil Line .....	1		
53	A117648-C	LINE, Oil - Governor .....	1		
54	73018-A	ELBOW, Oil Line .....	1		



MANIFOLD

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	BD-115-A	MANIFOLD, Combination .....	1		
2	21193	NUT, 3/8" - 24 Hex., Manifold Stud .....	6		
3	BD-120	STUD, Manifold .....	6		
4	B-221	WASHER, Manifold Stud .....	2		
5	B-365	GASKET, Butterfly Valve Housing .....	1		
6	78282-A	PLUG, 1/8" Square Head Pipe .....	1		
7	BD-127-A	GASKET, Manifold .....	2		
8	BE-801	GASKET, Manifold Flange .....	1		
9	BE-800-D	FLANGE, Manifold (Hough #112420H1) .....	1		
10	B-3023	STUD, Manifold Flange .....	4		
11	21193	NUT, Manifold Flange Stud .....	4		

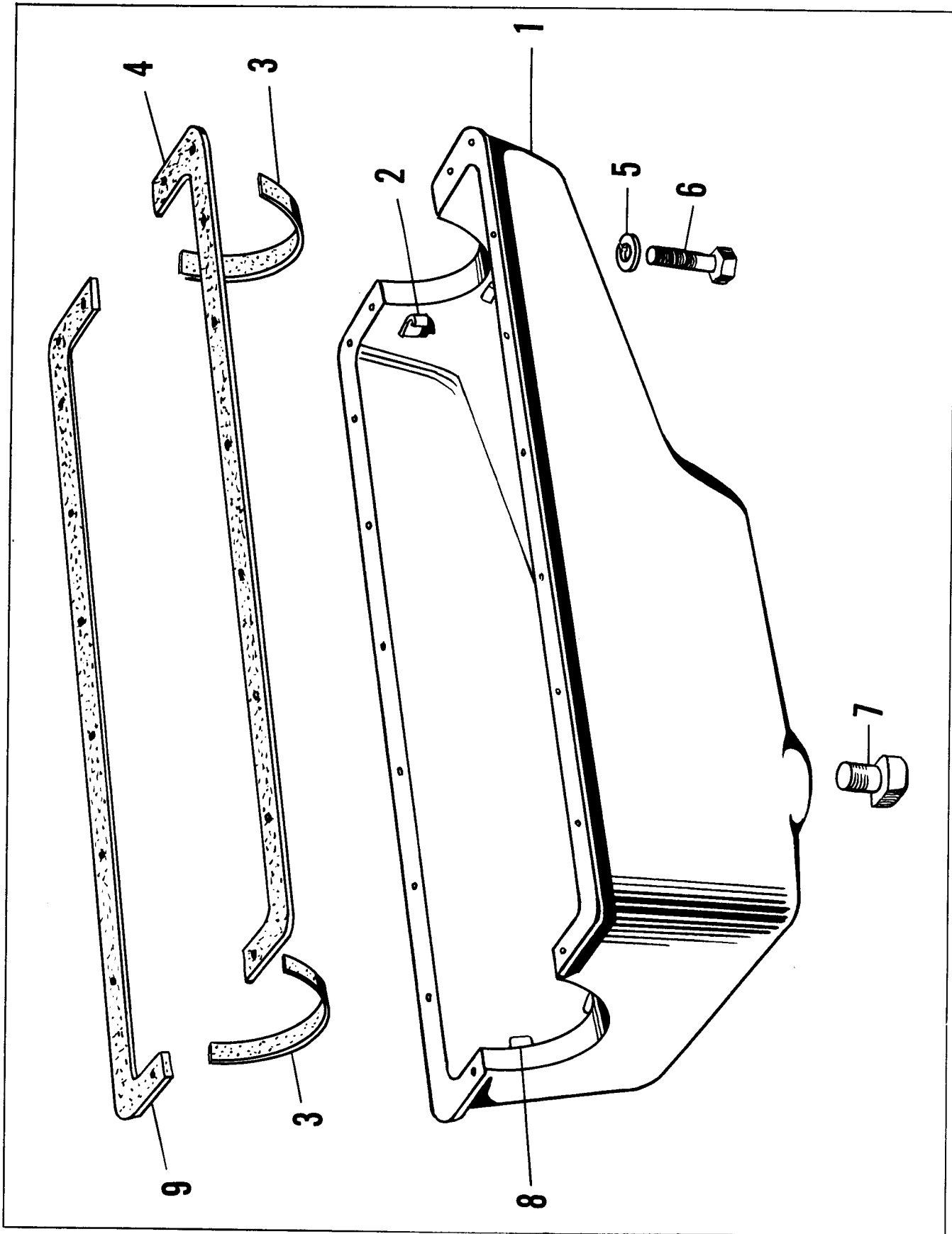


Fig. 9  
OIL PAN

OIL PAN

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	YD-357F	PAN, Oil .....	1		
2	BD-583	CLIP, Oil Pan .....	5		
3	BD-193-D	GASKET, Oil, Pan End .....	2		
4	BD-192	GASKET, Oil, Pan - Left .....	1		
5	21051	WASHER, 5/16" Lock, Oil Pan .....	16		
6	21307	SCREW, 5/16" - 18 x 5/8" Hex. Hd. Cap, Oil Pan .	18		
7	76909	PLUG, Oil Pan Drain .....	1		
8	BD-584	CLIP, Rear, Oil Pan .....	1		
9	BD-191	GASKET, Oil Pan, Right .....	1		
	B-2135	WASHER, Copper - Rear .....	2		
	B-175	GASKET, Drain Plug .....	1		

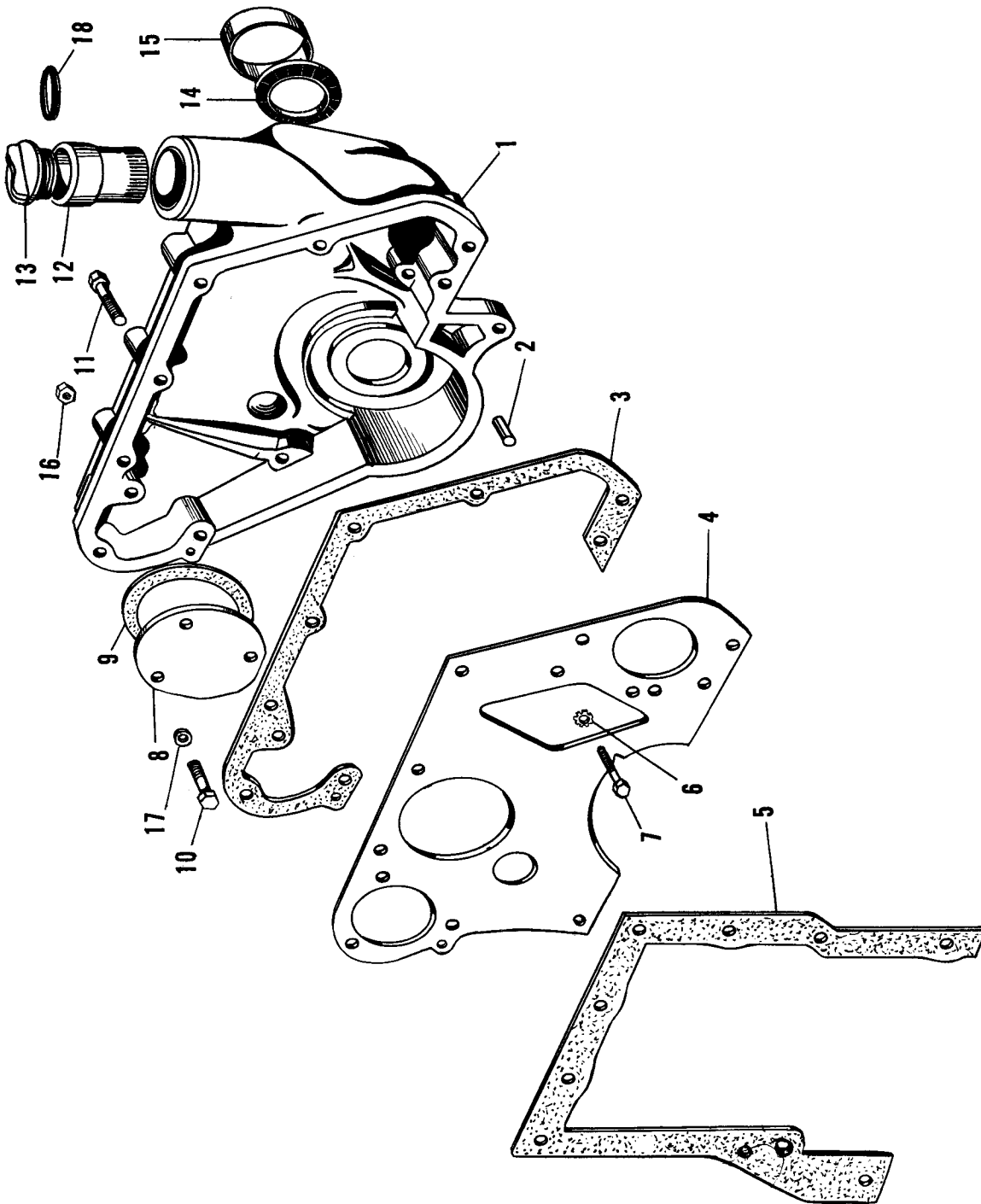


Fig. 10  
GEAR COVER - FRONT PLATE

GEAR COVER - FRONT PLATE

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
1	BE-805-Y	GEAR, Cover .....	1		
	B-7402	GROOVE PIN .....	1		
2	B-565	PIN, Dowel .....	1		
3	BE-806	GASKET, Gear Cover .....	1		
4	YE-803B	PLATE, Front .....	1		
5	BD-78-A	GASKET, Front Plate .....	1		
6	21632	WASHER, 3/8" Shakeproof .....	3		
7	21340	SCREW, 3/8" - 16 x 5/8" .....	3		
8	63005	COVER, Magneto Drive Shaft .....	1		
9	BD-89-A	GASKET, Magneto Drive Shaft Cover .....	1		
10	21364	SCREW, Cover .....	3		
	21052	WASHER, Lock .....	3		
11	21362	SCREW, 3/8" - 16 x 2" Gear Cover .....	5		
12	063586-A	ADAPTER, Oil Filler Cap .....	1		
13	B-4296	CAP, Oil Filler .....	1		
14	74166	SEAL, Gear Cover .....	1		
15	74086	SLEEVE, Oil Retainer .....	1		
16	21189	NUT, 3/8" - 16 - Magneto Drive Shaft Cover .....	3		
17	21052	WASHER, 3/8" Lock - Magneto Drive Shaft Cover and Gear Cover .....	5		
18	63347	GASKET, Oil Filler Cap .....	1		
	26589	ROLL PIN .....	2		

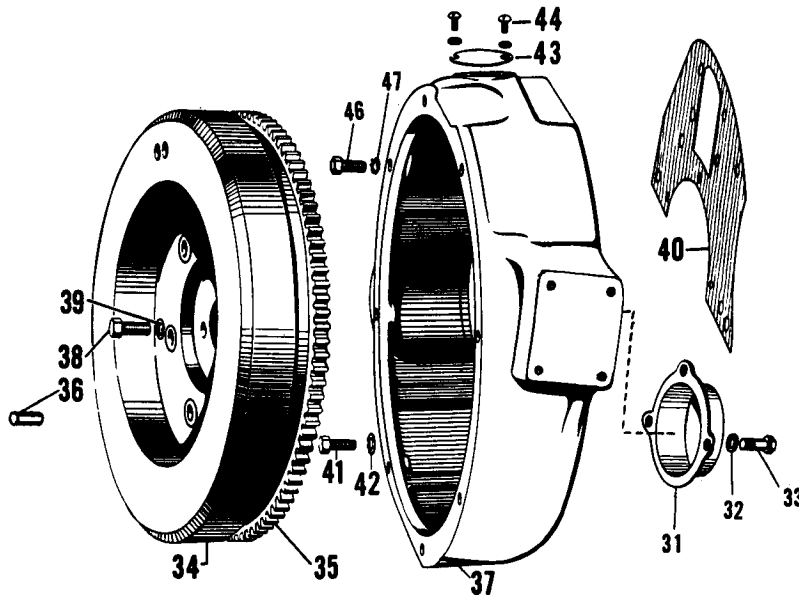


Figure 11  
 FLYWHEEL-FLYWHEEL HOUSING  
 For Machines of S/N 8003 thru 8446, 20001 thru 23499 except 21151 thru 21247  
 S/N 23500 thru 26899, S/N 55004 & Up and S/N 51400 thru 51928

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
31	9019	COVER, Starter Hole	1		
32	21052	WASHER, 3/8" Lock - Starter Hole Cover	3		
33	21343	SCREW, 3/8" - 16 x 3/4" Starter Hole Cover	3		
34	A100532-S	FLYWHEEL & RING GEAR, S/N 8003 thru 23499 except 21151 thru 21247	1		
34	0101758	FLYWHEEL & RING GEAR, S/N 23500 thru 26899, S/N 55004 & Up, S/N 51400 thru 51928	1		
35	9240	RING GEAR, Flywheel, S/N 8003 thru 23499 except 21151 thru 21247	1		
35	9340	RING GEAR, Flywheel, S/N 23500 thru 26899, S/N 55004 & up, S/N 51400 thru 51928	1		
36	B-9824	PIN, Dowel, Flywheel	2		
37	68457	HOUSING, Flywheel S/N 8003 thru 23499 except 21151 thru 21247	1		
37	70357	HOUSING, Flywheel S/N 23500 thru 26899, S/N 55004 & up, S/N 51400 thru 51928	1		
38	118947	SCREW, Flywheel	4		
39	39151	WASHER, Shakeproof	4		
40	B-10358	GASKET, Flywheel Housing	1		
41	21428	SCREW, Flywheel Housing	5		
42	21612	WASHER, 1/2" Shakeproof - Flywheel Housing	5		
43	B-7042	COVER, Timing Hole	1		
44	21117	SCREW, 1/4" - 20 x 1/2" Rd. Hd. Timing Hole Cover	2		
	21050	WASHER, 1/4" Lock, Timing Hole Cover	2		
46	B-9511	SCREW, Flywheel Housing	3		
47	21612	WASHER, 1/2" Shakeproof, Flywheel Housing	3		
	B-3222	PIN, Dowel, Flywheel Housing	2		
	161633-E	STRIP, Timing, Flywheel (Used with A100532S Flywheel & Ring Gear)	1		
	161633-D	STRIP, Timing, Flywheel (Used with 0101758 Flywheel & Ring Gear)	1		

(Continued on following page)

FLYWHEEL-FLYWHEEL HOUSING (Continued)  
For Machines of S/N 26900 & Up, & S/N 51929 & Up

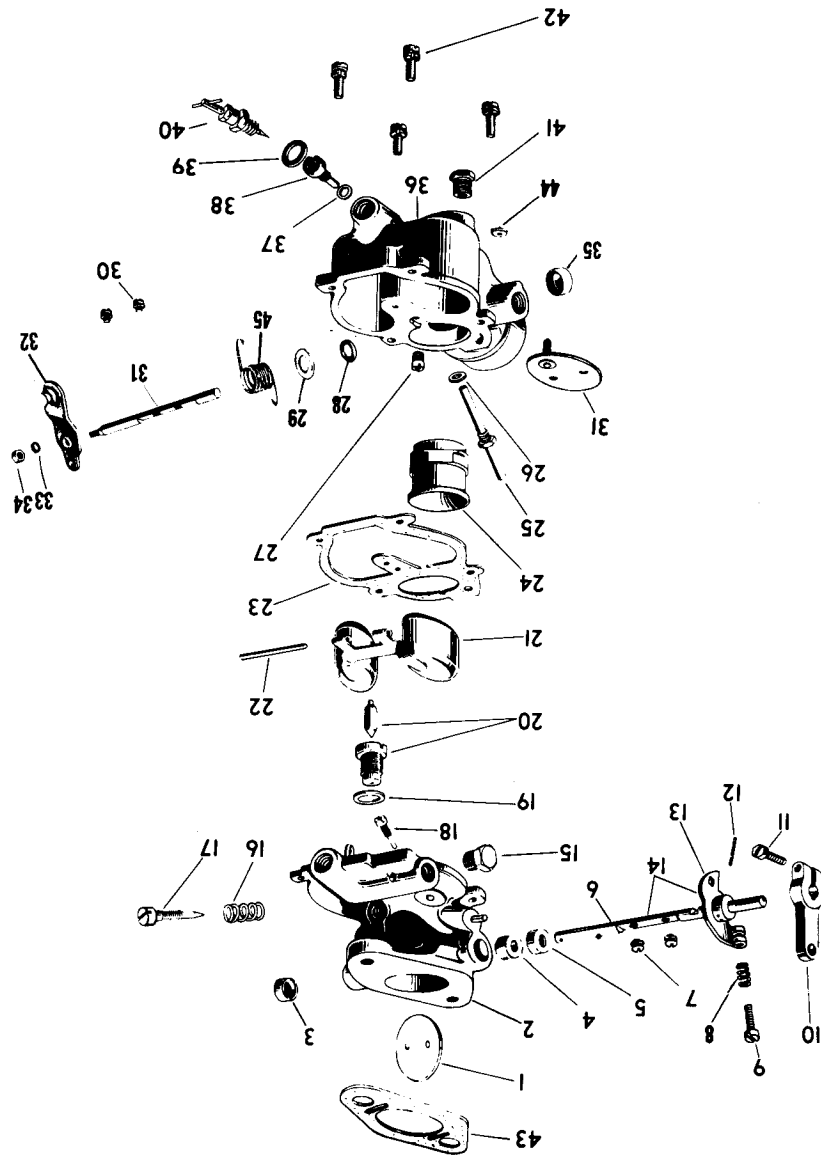
ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
34	0101933-A	FLYWHEEL & RING GEAR ASSEMBLY, S/N 26900 & Up	1		
34	0101946	FLYWHEEL & RING GEAR ASSEMBLY, S/N 51929 & Up	1		
35	9340	RING GEAR	1		
36	B-9824	DOWEL PIN	2		
37	70357-B	FLYWHEEL HOUSING #3	1		
38	118947E	CAPSCREW, Flywheel, Use with 0101933-A Assembly.	4		
38	B-9837-F	CAPSCREW, Flywheel, Use with 0101946 Assembly	4		
39	39151	WASHER, Shakeproof	4		
40	B-10358	GASKET, Flywheel Housing	1		
41	21428	CAPSCREW, Flywheel Housing	5		
42	21612	LOCKWASHER, Flywheel Housing Capscrew	5		
43	B-7042	COVER, Timing Hole	1		
44	21117	SCREW, Round Head Machine	2		
	21050	LOCKWASHER	2		
46	B-9511	CAPSCREW, Flywheel Housing	3		
47	21612	LOCKWASHER	3		
	78283-H	PIPE PLUG	1		
	21333	CAPSCREW, Flywheel Strap Attach., For 0101933A Flywheel & Ring Gear Assembly	8		
	21647	LOCKWASHER, Flywheel Strap Attach.	8		
	150088	NUTS	8		
	163686	STRAP, Flywheel	8		
	163687	SPACER, Flywheel Strap	4		
	B-3222	PIN, Dowel, Flywheel Housing	2		
	161632A	STRIP, Timing, Flywheel	1		
	163444	CHART, Timing	1		
	167483	PLATE, Name	1		
	B-557-A	PIN	4		

} Common  
Parts



CARBURETOR

2035-E



CARBURETOR

ITEM NO.	Waukesha PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	51095	CARBURETOR (Hough #166436H1) (Zenith 11570) . . . . .	1		
	B-365	GASKET, Carburetor . . . . .	2		
	120231	STUD . . . . . )	2		
	21185	NUT . . . . . ) Carburetor Attaching	2		
	21051	WASHER, Lock . . . . . )	2		
		NOTE: The part numbers listed below are Zenith part numbers. Repair parts for this carburetor should be obtained from a Zenith Dealer. The Hough Division can only fill orders for complete carburetors, not component parts. Check part number on unit before ordering service parts.			
	Zenith Part No.				
1	C21-176	PLATE . . . . .	1		
2	B12-11570	BODY, Throttle (Includes Items 1 and 3 thru 17) . . . . .	1		
3	CR37-1X1	PLUG, Shaft Hole . . . . .	1		
4	T-48-9	SEAL, Felt . . . . .	1		
5	T-52-57	RETAINER, Seal . . . . .	1		
6	C-23-59	SHAFT . . . . .	1		
7	T315S5-4	SCREW & LOCKWASHER . . . . .	2		
8		Not Used On This Unit			
9	T8S8-10	SCREW, #8-36 . . . . .	1		
10	C24-11FF X2	LEVER, Clamp Assembly . . . . .	1		
11	T8S10-9	SCREW, #10-32 . . . . .	1		
12	T63-9	PIN, Retaining . . . . .	1		
13	CR28-1	LEVER ASSEMBLY, Stop . . . . .	1		
14	C29-1094	THROTTLE STOP & SHAFT ASSEMBLY . . . . .	1		
15	T91-3	PLUG, 1/8" Pipe . . . . .	1		
16	C111-9	SPRING . . . . .	1		
17	C46-25	NEEDLE, Idle Adj. . . . .	1		
18	C55-6-12	JET, Idle . . . . .	1		
19	T56-20	WASHER . . . . .	1		
20	C81-17-30	VALVE & SEAT ASSEMBLY, Fuel . . . . .	1		
21	C85-28	FLOAT ASSEMBLY . . . . .	1		
22	C-120-4	AXLE, Float . . . . .	1		
23	C-142-16	GASKET, Body . . . . .	1		
24	C38-51-19	VENTURI . . . . .	1		
25	C66-50-60	JET, Main Discharge Assembly . . . . .	1		
26	T56-52	WASHER . . . . .	1		
27	C77-18-20	VENT, Well . . . . .	1		
28	T48-9	SEAL, Rubber . . . . .	1		
29	T52-53	RETAINER, Seal . . . . .	1		
30	T315S5-4	SCREW & LOCKWASHER . . . . .	2		
31	C101-17	PLATE ASSEMBLY . . . . .	1		
32	CR106-169D	LEVER . . . . .	1		
33	T41-10	WASHER, Lock . . . . .	1		
34	T22S8	NUT, #8-36 . . . . .	1		
35	CR37-1X1	PLUG, Cup . . . . .	1		
36	B3-85K-17	BOWL ASSEMBLY, Fuel . . . . .	1		
37	T56-24	WASHER . . . . .	1		
38	C52-6-25	JET, Main . . . . .	1		
39	T56-23	WASHER . . . . .	1		
40	C71-21	JET ASSEMBLY . . . . .	1		
41	T91-3	PLUG, 1/8" Pipe . . . . .	1		
42	T301S10-10	SCREW & LOCKWASHER, #10-32 . . . . .	4		
43	C141-4-5	GASKET, Flange . . . . .	1		
44	C135-29	DISC, Drain . . . . .	1		
*	218287H1	KIT, Repair (Zenith #K-2073) . . . . .	AR		
		* Hough Division Part Number.			

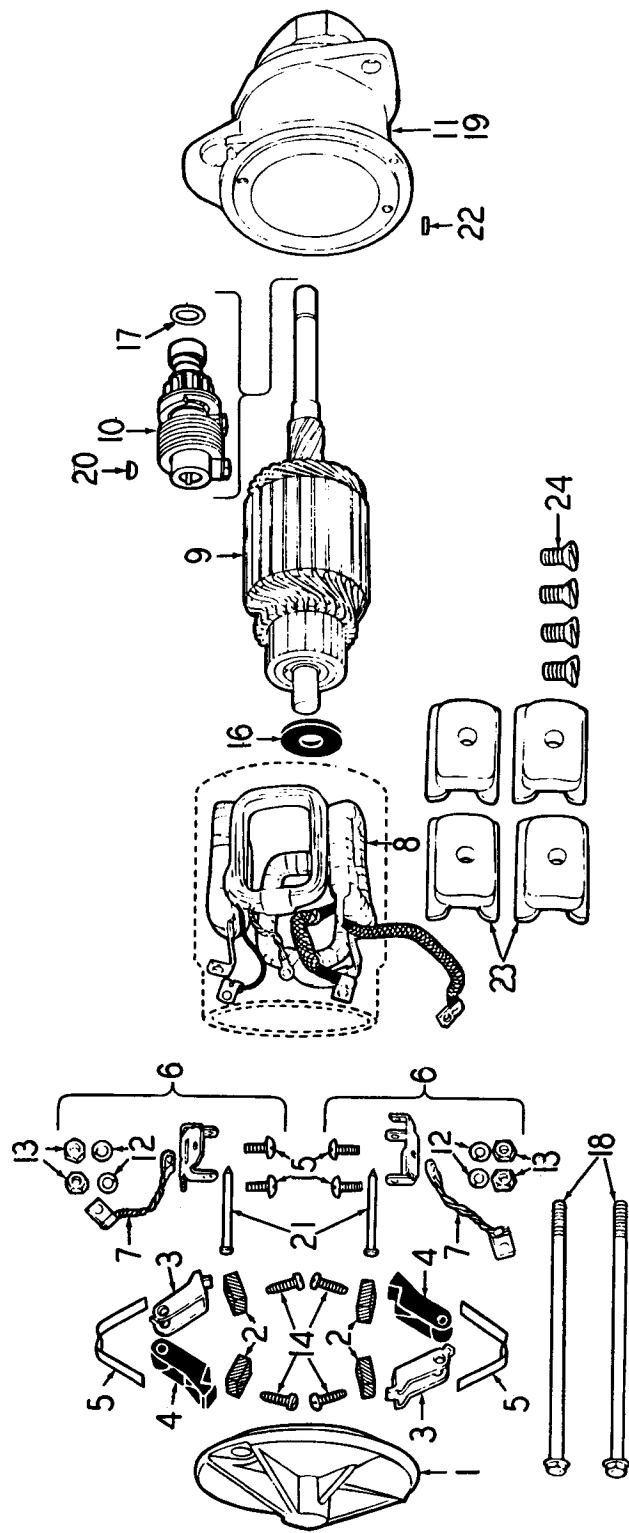


PLATE 5063

Fig. 13  
STARTER

STARTER  
(6 Volt - Positive Ground)

ITEM NO.	Waukesha PART NO.	Used on machines below S/N 33133 less 33070 PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	50126A	STARTER (Delco-Remy #739-B) Order Starter - Hough #122039H1, Waukesha #60280 .....	1		
	60280	STARTER (Hough #122039H1) (Delco-Remy #1108090) Illustrated breakdown shown below .....	1		
	B-9840	SPACER, Starter 1/4" Thk. .... )	1		
	B-9840A	SPACER, Starter 1/2" Thk. .... ) Order as needed	1		
	73248A	SPACER, Starter 1-1/16" Thk. .. )	1		
	21354	SCREW, Cap 3/8" NC x 1-3/8" use w/Spacer B-9840A	3		
	21338	SCREW, Cap 3/8" NC x 1/2" use w/Spacer B-9840B ..	2		
	21362	SCREW, Cap 3/8" NC x 2" use w/Spacer 73248A .....	3		
	21052	WASHER, Lock .....	3		
		NOTE: Obtain service parts shown below from a Delco Remy Dealer.			
	Delco-Remy				
1	1928966	FRAME, C.E. ....	1		
2	1906945	BRUSH .....	4		
3	1940477	HOLDER, Ground .....	2		
4	1938587	HOLDER, Insul. ....	2		
5	1926622	SPRING, Brush .....	2		
6	1928015	PACKAGE, Support (See illustration) .....	2		
7	1926605	LEAD, Ground .....	2		
8	1959303	COIL ASSEMBLY .....	1		
9	818002	ARMATURE .....	1		
10	1850844	DRIVE ASSEMBLY, Includes items below marked * ...	1		
*	1853012	GEAR & SHAFT ASSEMBLY .....	1		
*	1849782	SLEEVE, Service .....	1		
*	1848530	DRIVE HEAD .....	1		
*	1850812	SPRING, Drive .....	1		
*	1850811	BOLT or SCREW .....	1		
*	1850810	SCREW, Shaft Spring .....	1		
*	805057	WASHER, Lock .....	1		
11	1959334	HOUSING, D.E., Includes Bushing #810620 .....	1		
12	453296	WASHER, Lock, Brush Holder .....	4		
	9421424	WASHER, Lock, Terminal Stud .....	AR		
13	120361	NUT, Brush Holder .....	4		
	134566	NUT, Terminal Stud .....	AR		
14	1926648	SCREW, Brush Attaching .....	4		
15	274738	SCREW, Holder Support Attaching .....	4		
	1961387	WASHER, Insul. Term. Stud (9/16" O.D.) .....	AR		
	805613	WASHER, Insul. Term. Stud (3/4" O.D.) .....	AR		
	1914592	WASHER, Plain, Terminal Stud .....	AR		
	1914842	WASHER, Space, C.E. ....	AR		
16	1849774	WASHER, Space, D.E. (3/32 x .626 x 1.062) .....	1		
16	809815	WASHER, Space, D.E. (.062 x .626 x 1.062) .....	1		
17	1914842	WASHER, Thrust, D.E. ....	1		
18	1939970	BOLT, Thru .....	2		
19	810620	BUSHING, D.E. ....	1		
	1956247	INSULATOR, Terminal Stud .....	AR		
20	124546	KEY, Woodruff .....	1		
21	1926600	PIN, Brush Holder .....	2		
22	809593	PIN, Dowel, D.E. ....	1		
	1956246	STUD, Field Terminal .....	1		
23	810601	SHOE, Pole .....	2		
24	1881869	SCREW, Pole .....	4		

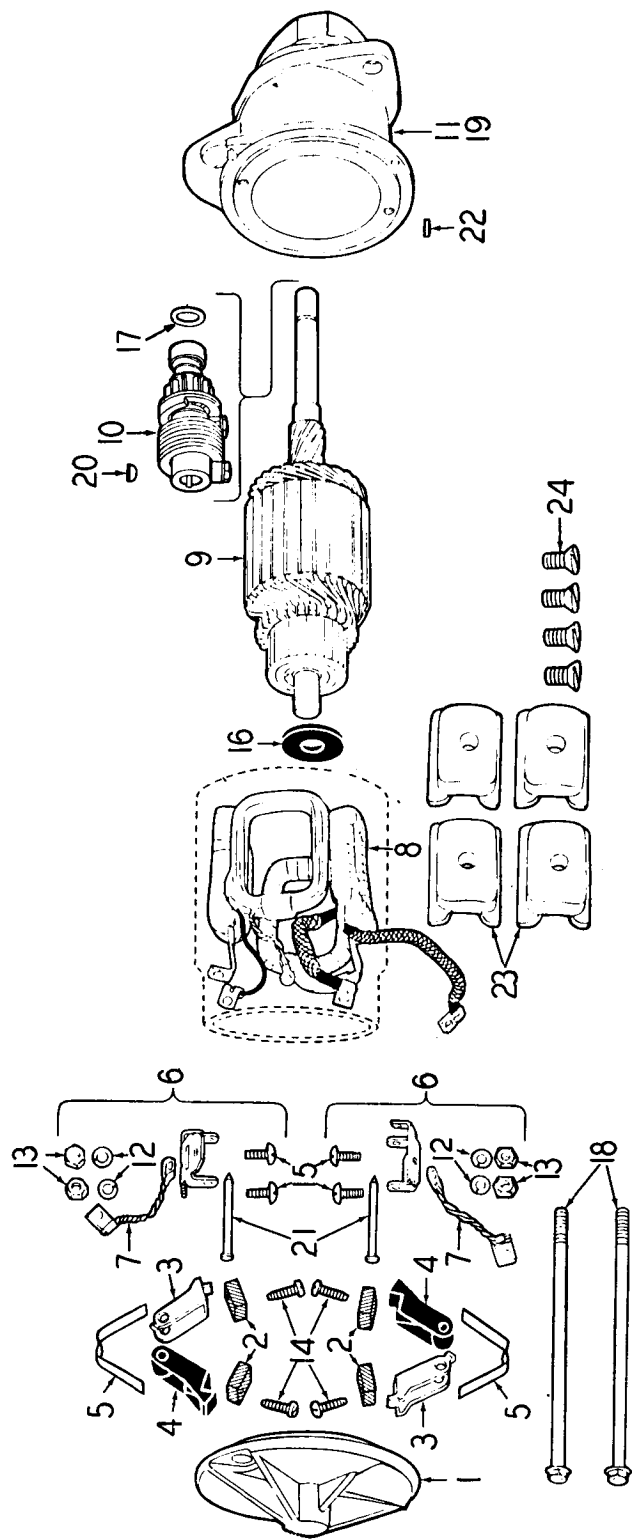
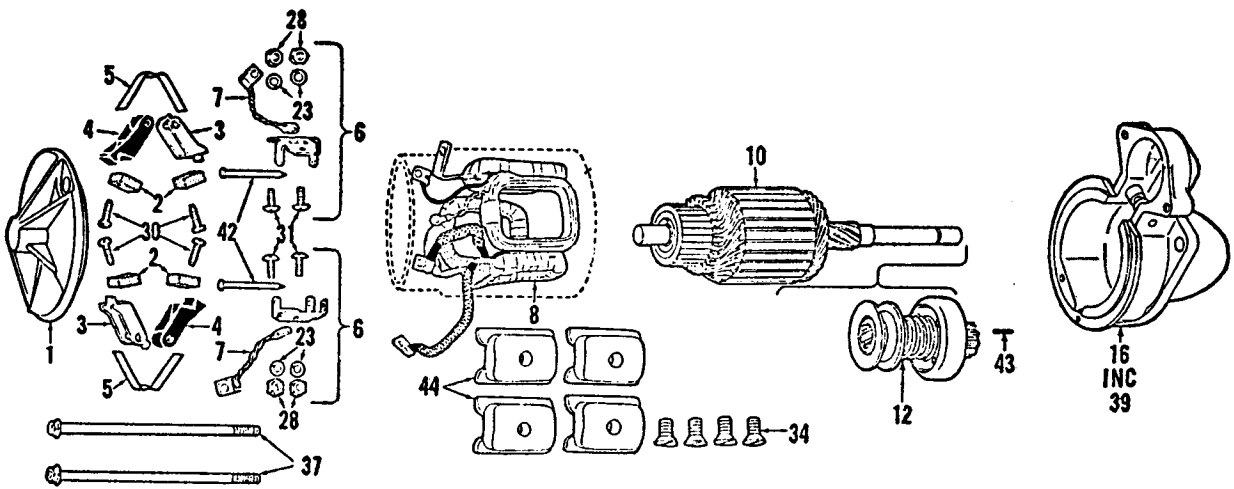


PLATE 5063

STARTER  
(12 Volt - Negative Ground)

STARTER  
(12 Volt - Negative Ground)

ITEM NO.	Delco-Remy PART NO.	Used on machines of S/N 33070 & 33133 & Up (Replaced by Starter shown on Page 31.) PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
		NOTE: The parts listed below are Delco-Remy part numbers and repair parts for this unit should be obtained from a Delco-Remy Dealer. The Hough Division can supply only the complete unit, not serviceable components. Always check part number on unit before ordering service parts.			
1	1107257	STARTER (Hough #166427H1) 12 Volt - Negative Ground	1		
2	1928966	FRAME, C. E. ....	1		
3	1906945	BRUSH ....	4		
4	1940477	HOLDER, Ground ....	2		
5	1938587	HOLDER, Insul. ....	2		
6	1926622	SPRING, Brush ....	2		
7	1928015	PACKAGE, Suppt. (See illustration) ....	2		
8	1926605	LEAD, Ground ....	2		
	1932743	COIL ASSEMBLY ....	1		
	1932696	COIL, Shunt ....	1		
9	1935588	ARMATURE ....	1		
10	1850844	DRIVE ASSEMBLY (Includes Items Marked *) ....	1		
*	1853012	GEAR & SHAFT ASSEMBLY ....	1		
*	1849782	SLEEVE, Service ....	1		
*	1848530	HEAD, Drive ....	1		
*	1850812	SPRING, Drive ....	1		
*	1850811	BOLT or SCREW ....	1		
*	1850810	SCREW, Shaft Spring ....	1		
	805057	WASHER, Lock ....	1		
11	1959352	HOUSING, Drive (Includes Bushing #826462) ....	1		
12	120217	WASHER, Lock - Brush Holder ....	4		
13	120361	NUT, Brush Holder ....	4		
14	1926648	SCREW, Brush Attaching ....	4		
15	274738	SCREW, Brush Holder Suppt. ....	4		
	820149	PLATE, Center Bearing ....	1		
	820148	BUSHING, Center Bearing ....	1		
	132900	SCREW, Center Bearing Attaching ....	1		
	1962276	WASHER, Lock, Center Bearing Attaching Screw ....	1		
16	1914842	WASHER, Space - C. E. ....	1		
17	809815	WASHER, Space - D. E. ....	AR		
17	1849744	WASHER, Space - D. E. ....	AR		
17	1914842	WASHER, Space - D. E. ....	AR		
	1916439	WICK, D. E. ....	1		
	453465	PLUG, Pipe - D. E. ....	1		
18	1939970	BOLT, Thru ....	2		
19	826462	BUSHING, D. E. ....	1		
20	124546	KEY, Woodruff ....	1		
21	1938058	PIN, Brush Holder ....	2		
22	809593	PIN, Dowel - D. E. ....	1		
23	1931129	SHOE, Pole ....	4		
	1927853	INSULATOR, Field Coil ....	1		
24	1913960	SCREW, Pole Shoe ....	4		
	453468	SCREW, Field Lead Attaching ....	1		
	453435	WASHER, Lock - Lead Attaching ....	1		
	1956246	STUD, Terminal ....	1		
	1961387	WASHER, Insul. - Term. - Stud - Outside ....	1		
	1939447	WASHER, Insul. - Term. - Stud - Inside ....	1		
	1956247	WASHER, Insul. - Term. - Stud - Square Hole ....	1		
	1945424	WASHER, Plain - Terminal Stud ....	1		
	1903092	WASHER, Plain - Terminal Stud ....	1		
	805613	WASHER, Insul. - Terminal Stud ....	1		
	9421424	WASHER, Lock ....	1		
	134556	NUT - Terminal Stud ....	1		
	21362	SCREW, Cap ....	3		
	21052	WASHER, Lock ....	3		
	73248A	SPACER, Starter ....	1		

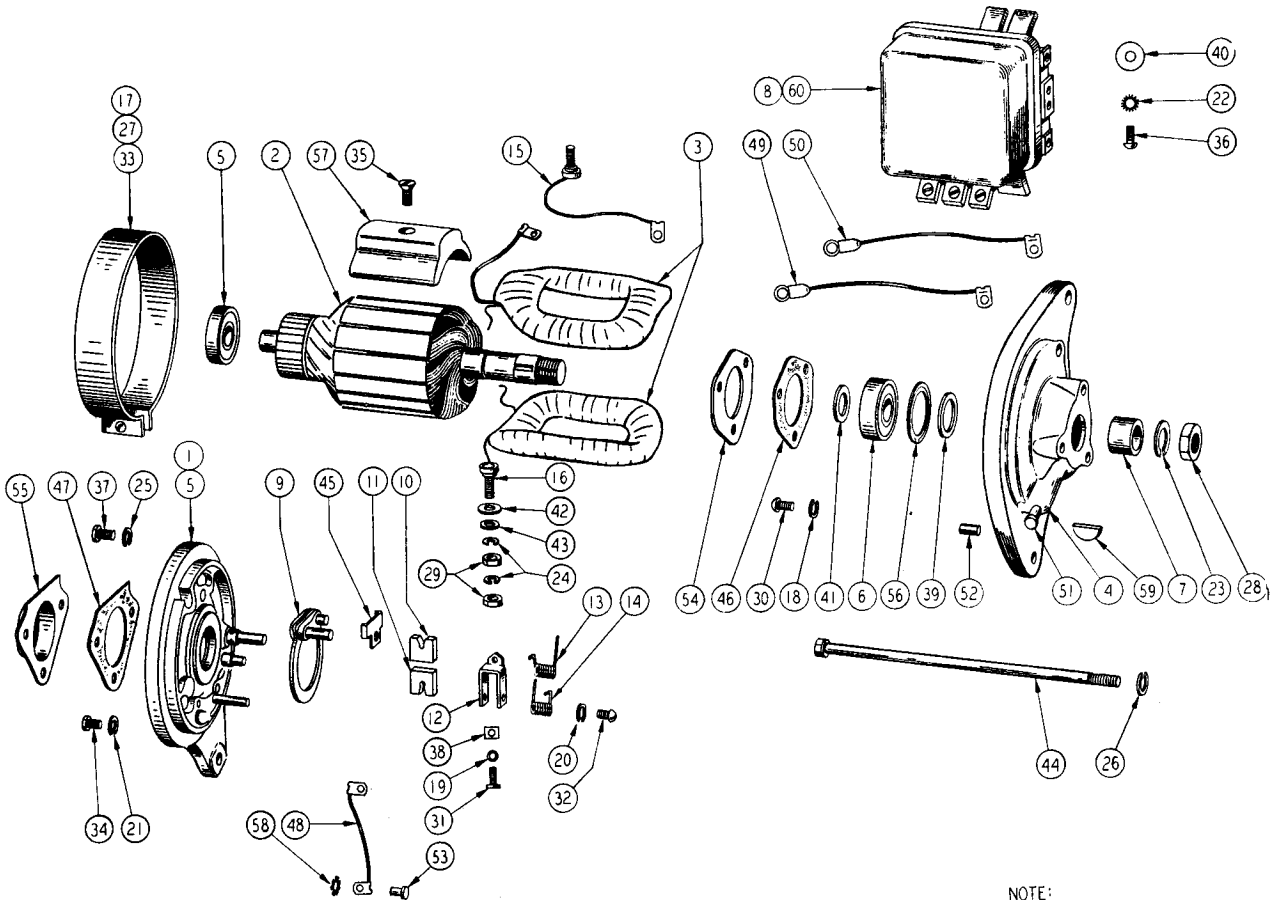


STARTER  
 (12 Volt - Negative Ground)

STARTER  
(12 Volt - Negative Ground)

ITEM NO.	Delco-Remy PART NO.	(Replaced Starter 1107257 shown on Page 29.) PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
		NOTE: The parts listed below are Delco-Remy part numbers and repair parts for this unit should be obtained from a Delco-Remy Dealer. The Hough Division can supply only the complete unit, not service parts. Always check part number of unit before ordering service parts.			
	1108342	STARTER (I. H. #878270C91) .....	1		
1	1928966	FRAME, C.E. ....	1		
2	1906945	BRUSH .....	4		
3	1940477	HOLDER, Ground .....	2		
4	1926618	HOLDER, Insul. ....	2		
5	1926622	SPRING, Brush .....	2		
6	1928015	SUPPORT, Package .....	2		
7	1926605	LEAD, Ground .....	2		
8	1949572	FIELD COIL ASSEMBLY .....	1		
10	1963638	ARMATURE .....	1		
12	1963642	DRIVE ASSEMBLY (Service by complete assembly only) .....	1		
16	1968876	HOUSING, Drive .....	1		
23	453435	WASHER, Lock - Brush Holder Support Screw .....	4		
	453435	WASHER, Lock, Field Lead Attach. to Terminal .....	1		
	9421424	WASHER, Lock - Terminal Stud .....	1		
28	120361	NUT, Brush Holder Support Screw .....	4		
	134556	NUT, Terminal Stud .....	1		
30	1967747	SCREW, Brush Attaching .....	4		
31	274738	SCREW, Support Attaching .....	4		
	453468	SCREW, Field Lead Attach. to Terminal .....	1		
34	1913960	SCREW, Pole Shoe .....	4		
	1914592	WASHER, Field Attach. to Terminal .....	1		
	1961386	WASHER, Insul. Term. Stud (Inside Frame) .....	1		
	1881867	WASHER, Insul. Term. Stud (Outside Frame) .....	1		
	1945424	WASHER, Plain, Term. Stud (7/16") .....	1		
	1914842	WASHER, Thrust, C.E. ....	1		
	1853917	WASHER, Thrust, D.E. ....	1		
37	1939970	BOLT, Thru .....	2		
39	810620	BUSHING, D.E. ....	1		
	1961387	INSULATOR, Terminal Stud .....	1		
42	1938058	PIN, Brush Holder .....	2		
	1963637	PIN, Motor Drive Attaching .....	1		
44	1931129	SHOE, Pole .....	4		
	1956246	STUD, Terminal .....	1		
	21362	SCREW, Cap.....	3		
	21052	WASHER, Lock.....	3		
	73248A	SPACER, Starter .....	1		





NOTE:  
 ILLUSTRATION IS OF TYPICAL PARTS ONLY  
 WHICH MAY VARY IN DETAIL

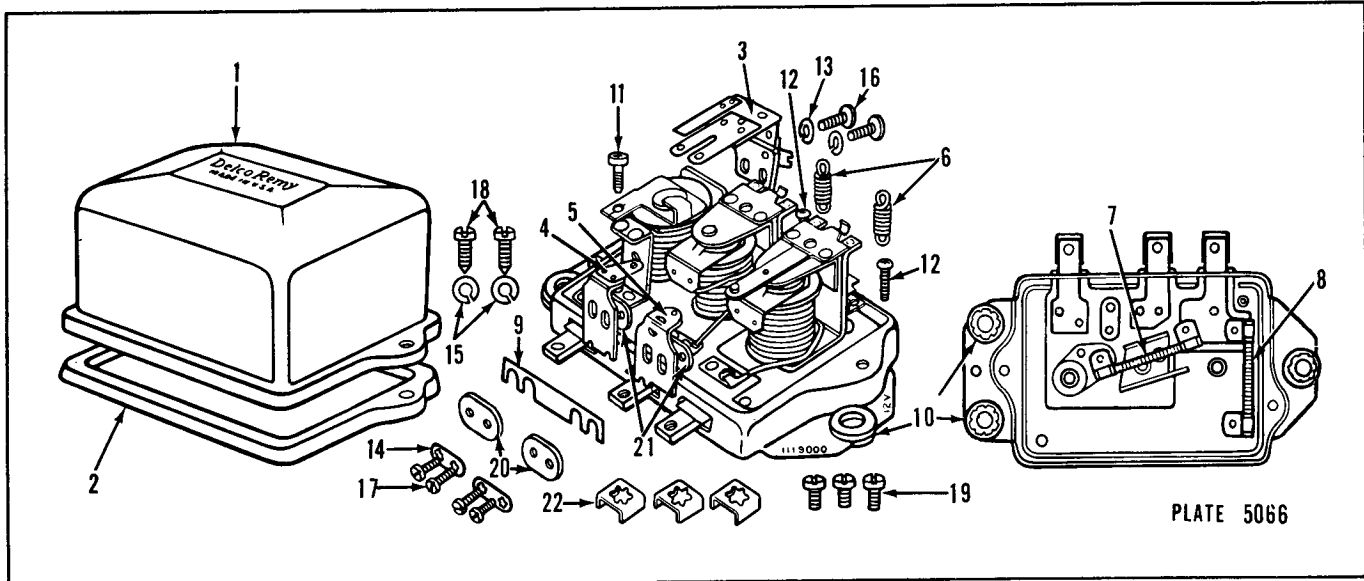
**GENERATOR - REGULATOR & MOUNTING PARTS**

GENERATOR-REGULATOR & MOUNTING PARTS  
(6 Volt - Positive Ground)

ITEM NO.	WAUKESHA PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
GENERATOR MOUNTING PARTS & PULLEY					
	60124A	PULLEY, Generator (6 Volt) .....	1		
	B-9802-G	BRACKET, Generator Support .....	1		
	21348	SCREW, 3/8" - 16 x 1" Generator Support Bracket ...	2		
	21052	WASHER, 3/8" Lock - Generator Support Bracket ....	2		
	21307	SCREW, 5/16" - 18 x 5/8" - Generator .....	1		
	21051	WASHER, 5/16" Lock - Generator .....	1		
	B-277	WASHER, Generator .....	1		
	21315	SCREW, 5/16" - 18 x 1-1/4" - Generator .....	2		
	21181	NUT, 5/16" - 18 - Generator .....	2		
	21051	WASHER, 5/16" Lock - Generator .....	2		
		Used on machines prior to S/N 33133 less 33070 GENERATOR			
	60139	GENERATOR, Delco-Remy 1101419 (Hough #133760H1) includes #5851 Regulator (Hough #166424H1) Item 60	1		
		NOTE: Parts listed below are Delco-Remy part numbers, and repair parts for this generator should be obtained from a Delco-Remy Dealer. The Hough Division can only fill orders for a complete generator not component parts.			
	DELCO-REMY				
1	817216	FRAME, C. E., Includes Item 6 .....	AR*		
2	1841027	ARMATURE .....			
3	1917994	FIELD COIL SET, 2 Coils .....			
4	817223	FRAME, D. E., Includes Item 51 .....			
5	812823	BUSHING or BALL BEARING .....			
6	954378	BALL BEARING, D. E. ....			
7	817224	COLLAR, Outside, D. E. ....			
8		REGULATOR (See Regulator Parts List) Item 60 .....			
9	809698	BRUSH PLATE, 3rd .....			
10	1836664	BRUSH, Main .....			
11	1906939	BRUSH, 3rd .....			
12	809642	HOLDER, Brush .....			
13	809658	SPRING, R. H. Main .....			
14	809644	SPRING, 3rd & L. H. Main .....			
15	1858754	TERMINAL STUD and LEAD .....			
16	1858751	TERMINAL STUD, Only .....			
17	1872638	BAND, Cover .....			
18	1880781	LOCKWASHER, Retainer Plate Screw .....			
19	131044	LOCKWASHER, Brush Attach. Screw .....			
20	1904377	LOCKWASHER, Brush Lead Screw .....			
21	121841	LOCKWASHER, End Cover Plate Screw .....			
22	138479	LOCKWASHER, Regulator Attach. Screw .....			
23	804000	LOCKWASHER, Shaft Nut, D. E. ....			
24	1904661	LOCKWASHER, Terminal Stud Nut .....			
25	120217	LOCKWASHER, 3rd Brush Plate Clamp Screw .....			
26	120638	LOCKWASHER, Thru Bolt .....			
27	120614	NUT, Cover Band Screw .....			
28	806915	NUT, Shaft, D. E. ....			
29	121743	NUT, Terminal Stud .....			
30	1904370	SCREW, Retainer Plate, D. E. ....			
31	451608	SCREW, Brush Attach. ....			
32	141540	SCREW, Brush Lead Attach. ....			
33	132930	SCREW, Cover Band .....			
34	1886496	SCREW, End Cover Plate, C. E. ....			
35	1843646	SCREW, Pole Shoe .....			
36	132900	SCREW, Regulator Attaching .....			
37	141543	SCREW, 3rd Brush Plate Clamp .....			
38	809551	WASHER, Plain - Brush Attach. Screw .....			
39	809961	WASHER, Felt D. E. ....			
		* Delco-Remy parts to be ordered as required. (Continued on following page)			

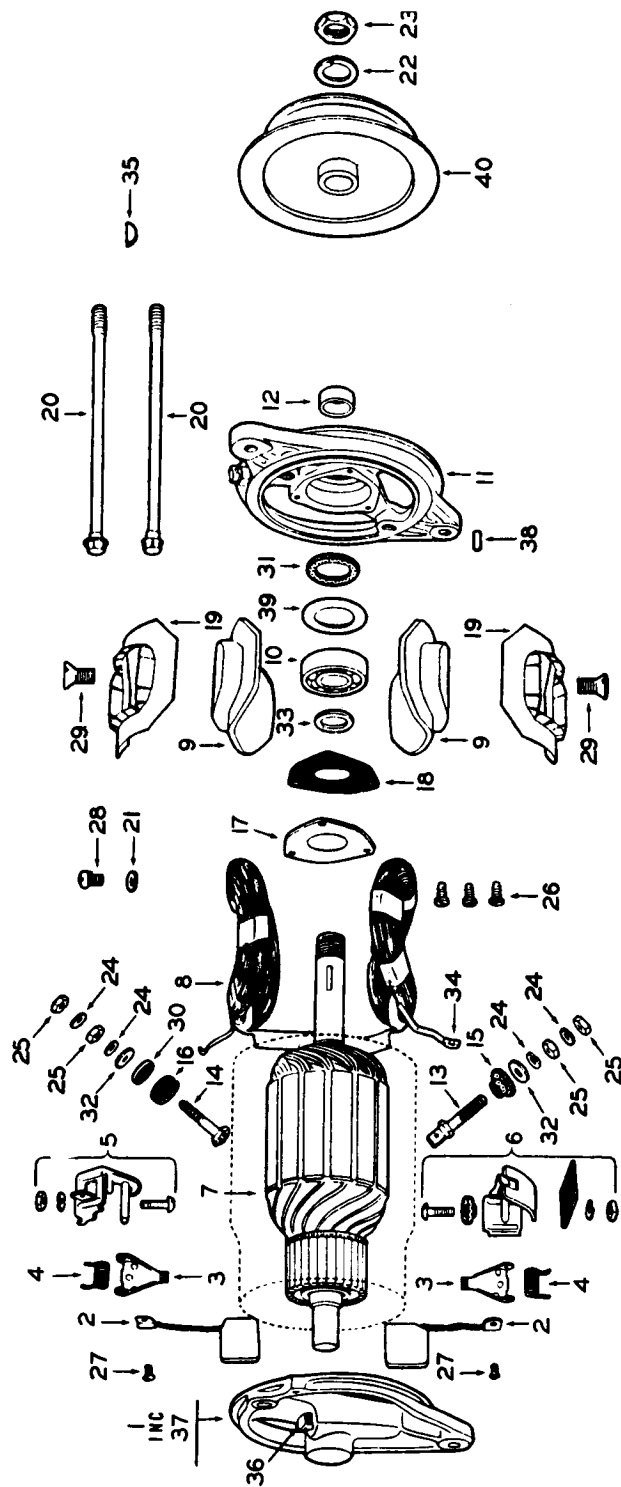
GENERATOR-REGULATOR & MOUNTING PARTS (Continued)  
(6 Volt - Positive Ground)

ITEM NO.	Delco-Remy PART NO.	Used on machines prior to S/N 33133 less 33070 PART NAME	Qty.	First Used On Serial Numbers		
				FROM	THRU	
40	1856056	WASHER, Regulator Attach. ....	AR*			
41	809945	WASHER, Space - Inside D.E. ....				
42	1858753	WASHER, Insul. Terminal Stud ....				
43	1881409	WASHER, Plain - Terminal Stud ....				
44	815018	BOLT, Thru ....				
	1885090	BUSHING, Insul. Terminal Stud ....				
45	817532	CLAMP, 3rd Brush Plate ....				
	200182	CLIP, Terminal, To Brush ....				
46	1912008	GASKET, Retainer Plate, D.E. ....				
47	817220	GASKET, Cover Plate, C.E. ....				
	1914491	INSULATOR, Field Coil ....				
48	809688	LEAD, Brush Ground ....				
49	1911485	LEAD, "A" Terminal to Regulator ....				
50	1914192	LEAD, "F" Terminal to Regulator ....				
51	1880635	OILER, C.E. & D.E. ....				
	817313	PIN, Brush Holder Hinge ....				
	817314	PIN, Brush Holder Stop ....				
	812016	PIN (& Insulation) Brush Holder Hinge ....				
	812015	PIN (& Insulation) Brush Holder Stop ....				
	809062	PIN, Dowel C.E. ....				
52	809593	PIN, Dowel D.E. ....				
53	809614	PIN, 3rd Brush Plate Tension Spring ....				
54	1911263	PLATE, Ball Bearing Retainer D.E. ....				
55	820524	PLATE, End Cover, C.E. ....				
56	819104	PLATE, Felt Retainer D.E. ....				
	1911097	PLUG, Oil Hole, C.E. ....				
57	1914618	SHOE, Pole ....				
58	809824	SPRING, 3rd Brush Plate Tension ....				
	804076	WICK, Oil C.E. ....				
59	124545	WOODRUFF KEY, D.E. #5 ....				
60	5851	REGULATOR (Included with #60139 Generator) Hough #166424H1 ....				
	1872563	RELAY, Armature ....				
	1860809	ARMATURE, Regulator ....				
	1855733	SPRING, Armature ....				
	1859206	RHEOSTAT or RESISTOR ....				
	1865603	COVER ....				
	1865614	SCREW or STUD, Cover ....				
MINOR PARTS SECTION, REGULATOR						
	1900793	LOCKWASHER, Relay Armature Attach. Screw ....				
	178156	LOCKWASHER, Armature Attach. ....				
	106495	LOCKWASHER, Resistance Screw ....				
	802729	LOCKWASHER, Terminal Screw ....				
	140630	NUT, Armature Attach. ....				
	1904818	SCREW, Relay Armature Attach. ....				
	1853901	SCREW, Regulator Armature Attach. ....				
	1902147	SCREW, Resistance Attach. ....				
	1864099	SCREW, Terminal ....				
	1865616	WASHER, Cover Screw, Insulating ....				
	813157	WASHER, Relay Armature Attach. Screw ....				
	1850354	WASHER, Relay Armature Attach. Screw ....				
	814203	WASHER, Reg. Armature Screw, Plain ....				
	1871636	GASKET, Cover, Rubber ....				
* Delco-Remy parts to be ordered as required.						



REGULATOR  
(12 Volt - Negative Ground)

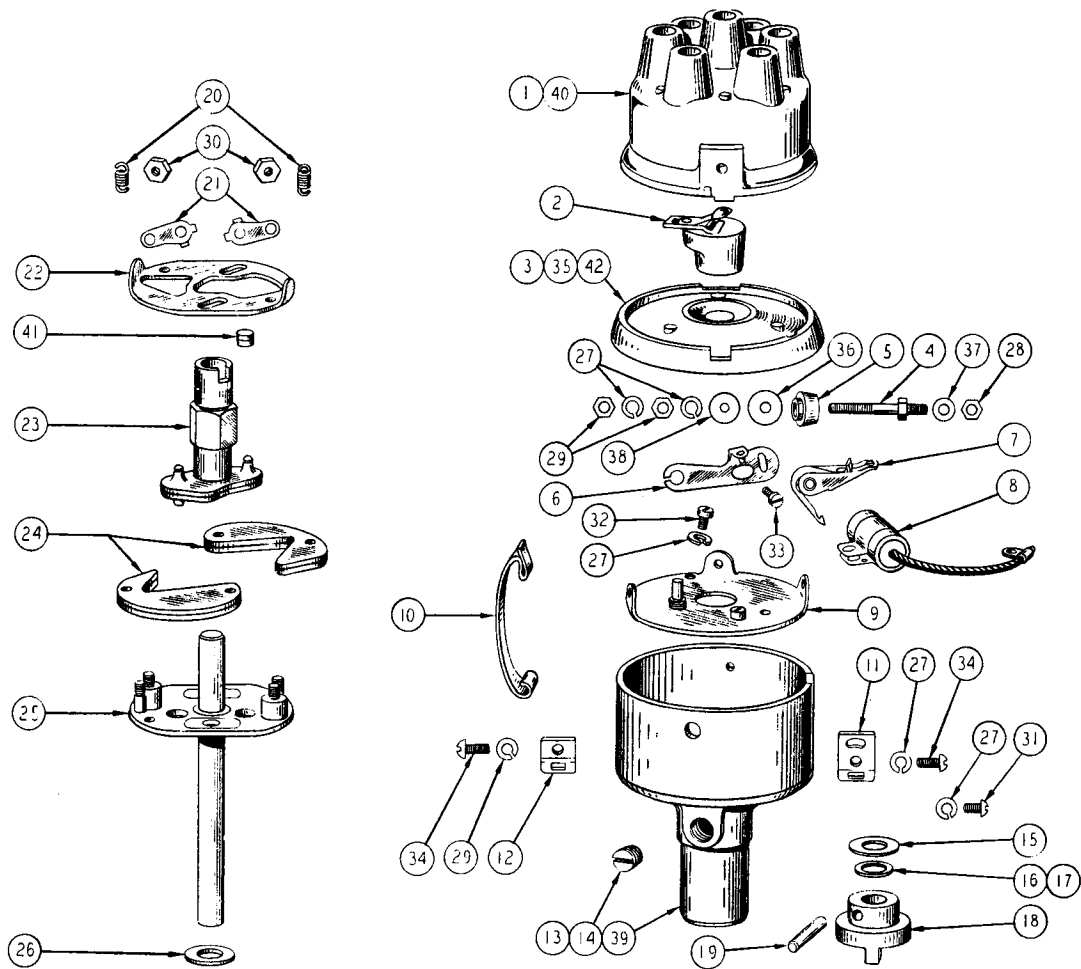
ITEM NO.	Delco-Remy PART NO.	Used on machines of S/N's 33070 & 33133 & Up PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
		NOTE: The parts listed below are Delco-Remy part numbers and repair parts for this unit should be obtained from a Delco-Remy Dealer. The Hough Division can supply only the complete unit, not service parts. Always check number on unit before ordering service parts.			
	1119165*	REGULATOR - 12 Volt - Negative Ground .....	1		
1	1931886	COVER .....	1		
2	1931887	GASKET, Cover .....	1		
3	1878467	ARMATURE, Relay .....	1		
4	1878517	CONTACT, Current Regulator .....	1		
5	1933239	CONTACT, Voltage Regulator .....	1		
6	1912176	SPRING, Current Regulator .....	1		
6	1949142	SPRING, Voltage Regulator .....	1		
7	1910174	RESISTOR .....	1		
8	1885300	RESISTOR .....	1		
9	1878504	CONNECTOR .....	1		
10	1879663	GROMMET .....	3		
11	1912159	SCREW, Adj. ....	1		
12	1944590	SCREW, Adj. ....	1		
13	1904377	WASHER, Lock - Armature - Screw - Relay .....	2		
14	1878505	WASHER, Lock - Contact Attach. Screw .....	2		
15	1938522	WASHER, Cupped - Cover Screw .....	2		
16	1924764	SCREW, Armature Attach. - Relay .....	2		
17	1878516	SCREW, Contact Attach. ....	4		
18	1943386	SCREW, Cover .....	2		
19	1914800	SCREW, Terminal .....	3		
20	1922599	WASHER, Insul. (W/Bushings) .....	2		
21	1878507	WASHER, Insul. ....	2		
22	1878503	CLAMP, Terminal .....	3		
	119727	BRACKET, Regulator .....	1		
	21280	SCREW, Cap. ....	2		
	21173	NUT .....	2		
	21050	WASHER, Lock .....	2		
	162407	PLATE, Caution .....	1		
		* (Waukesha #69574 - Hough #214571H1)			



GENERATOR  
(12 Volt - Negative Ground)

GENERATOR  
(12 Volt - Negative Ground)

ITEM NO.	Delco-Remy PART NO.	Used on machines with S/N's 33070 & 33133 & Up PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
		NOTE: The service parts listed below have Delco-Remy part numbers and should be obtained from a Delco-Remy Dealer. The Hough Division can supply the complete unit only. Always check part number of unit before ordering service parts.			
	1102340*	GENERATOR (Hough #220645H1) 12 Volt, Negative Grd.	1		
1	1943662	FRAME, C.E. ....	1		
2	1932506	BRUSH .....	2		
3	1878183	ARM, Brush .....	2		
4	1908829	SPRING, Brush .....	2		
5	1922289	PACKAGE, Holder - Ground Brush .....	1		
6	1922288	PACKAGE, Holder - Insul. Brush .....	1		
7	1940161	ARMATURE .....	1		
8	1936388	COIL ASSEMBLY, Field .....	1		
9	1912725	SHOE, Pole .....	2		
10	907503	BEARING, Ball - D.E. ....	1		
11	1951261	FRAME, D.E. ....	1		
12	817224	COLLAR, Space, D.E. ....	1		
13	1921369	STUD, "A" Terminal .....	1		
14	1921860	STUD, "F" Terminal .....	1		
15	1885090	BUSHING, Insul. - "A" Terminal .....	1		
16	1921362	BUSHING, Insul. - "F" Terminal .....	1		
17	191163	PLATE, Retainer, D.E. ....	1		
18	1912008	GASKET, Bearing Retainer .....	1		
19	1912073	INSULATOR, Field Coil .....	2		
20	809763	BOLT, Thru .....	2		
21	9421423	WASHER, Lock - Top of Field Frame .....	1		
22	1941978	WASHER, Lock - Shaft Nut - D.E. ....	1		
23	1915172	NUT, Shaft - D.E. ....	1		
24	1914579	WASHER, Lock - Terminal Stud .....	4		
25	121743	NUT, Terminal .....	4		
26	1914580	SCREW, Retainer Plate Attaching .....	1		
27	453460	SCREW, Brush Lead Attaching .....	2		
28	225577	SCREW, Field Frame .....	1		
29	1913960	SCREW, Pole Shoe .....	2		
30	1858753	WASHER, Insul. Field Terminal Stud .....	1		
31	809961	WASHER, Felt - D.E. ....	1		
32	1881409	WASHER, Plain - Terminal Stud .....	2		
33	809945	WASHER, Space - Inside - D.E. ....	1		
	904751	BEARING, Ball - C.E. ....	1		
34	200382	CLIP, Terminal to Brush .....	1		
35	124545	KEY, Woodruff - D.E. ....	1		
36	125609	OILER, C.E. ....	1		
37	809062	PIN, Dowel - C.E. (Part of Item 1) .....	1		
38	809593	PIN, Dowel - D.E. ....	1		
39	819104	PLATE, Felt Retainer - D.E. ....	1		
	1948326	PLUG, Expansion - C.E. ....	1		
	1929959	RING, Bearing - C.E. ....	1		
40	197098A	PULLEY .....	Ref.		
		Generator Mounting Parts			
	B9802G	BRACKET .....	1		
	21348	SCREW, Cap .....	2		
	21052	WASHER, Lock .....	2		
	21352	SCREW, Cap.. )	2		
	21189	NUT .....	2		
	21052	WASHER, Lock )	2		
	21307	SCREW, Cap .....	1		
	21051	WASHER, Lock .....	1		
	B-277	WASHER .....	1		
	0163250	WIRE ASSEMBLY .....	1		
	0118192	WIRE ASSEMBLY .....	1		
		*(Waukesha #69573)			



**DISTRIBUTOR**

DISTRIBUTOR

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
	50167	DISTRIBUTOR (Delco-Remy #625-F) (Hough #166426H1) S/N 8003 thru 8446 - 20001 thru 21503 except 21151 thru 21247 .....	1		
	060175	DISTRIBUTOR (Auto-Lite #1GW-4301) Includes #98051 Gear and B-5134 Pin. Used on Machines of S/N 21504 thru 23499, S/N 23500 thru 26899, S/N 55004 thru 55966, S/N 51954, S/N 27001 thru 27004 and S/Numbers 27007, 27008, 27011, 27017 and 27018..	1		
	⊗1GW-3028S 60489	POINT SET, Use with Distributor 060175 above ..... DISTRIBUTOR (Delco-Remy #1111712) (Hough Number 166434H1) (Illustrated) For machines of S/N 27000, 27005, 27006, 27009, 27010, 27012 thru 27016, and 27019 & Up. S/N 51953 & 51955 & Up, and S/N 55967 & Up. (See Item under Item 40 for Point Set .	AR 1		
	Delco-Remy	NOTE: The part numbers shown in this list are Delco-Remy numbers and repair parts for this distributor should be obtained from a Delco-Remy Dealer. The HOUGH DIVISION can only fill orders for a complete Distributor, not component parts.			
1	811735	CAP, Distributor, Includes Item 40 .....	*AR	* Delco-Remy part no's	to be ordered as required.
2	1905590	ROTOR .....			
3	1900119	COVER, Housing, Includes Items 35 & 42 .....			
4	1847647	SCREW or STUD, Terminal .....			
5	1878405	BUSHING, Ins. ....			
6	1848038	CONTACT POINT & SUPPORT .....			
7	1905344	BREAKER LEVER .....			
8	1869704	CONDENSER .....			
9	1847643	PLATE, Breaker .....			
10	1889967	SPRING, Cap .....			
11	1889999	SUPPORT, Cap, Spring & Cover Locator .....			
12	1847289	SUPPORT, Cap Spring .....			
13	1909662	HOUSING, Includes Items 14 & 39 .....			
14	125947	PIPE PLUG .....			
15	811912	WASHER, Space .....			
16	810074	WASHER, Shim .005 Thick .....			
17	810078	WASHER, Shim .010 Thick .....			
18	809673	COLLAR COUPLING .....			
19	829421	PIN .....			
20	1884929	SPRING, Weight .....			
21	1885558	LOCKWASHER ...			
22	1885557	WEIGHT HOLDDOWN - Cap or Plate .....			
23	1909476	CAM ASSEMBLY .....			
24	1880902	WEIGHT .....			
25	1910227	MAIN SHAFT .....			
26	811912	WASHER, Space - Under Weight Plate .....			
27	121841	LOCKWASHER .....			
28	817363	NUT, Terminal Stud - Inside .....			
29	120622	NUT, Terminal Stud - Outside .....			
30	120614	NUT, Weight Hold down .....			
31	121749	SCREW, Breaker Plate Support .....			
32	131949	SCREW, Condenser Attaching .....			
33	816784	SCREW, Contact Attaching .....			
34	121832	SCREW, Distributor Cap Spring Support .....			
35	1914309	WASHER PACKAGE, Felt Hsg. Cover Seal (Not shown)			
36	1882247	WASHER, Insulation - Terminal Stud - Outside .....			
37	810794	WASHER, Plain - Terminal Stud - Inside .....			
38	24754	WASHER, Plain - Terminal Stud - Outside .....			
39	1909003	BUSHING, Distributor Housing (Not shown) .....			
40	821604	BUTTON, Carbon - In Cap (Not shown) .....			
	1911119	POINT SET (Used w/Distributor 60489) .....			
		⊗ Auto Lite Part Number			

(Continued on following page)



DISTRIBUTOR (Continued)

ITEM NO.	PART NO.	PART NAME	Qty.	First Used On Serial Numbers	
				FROM	THRU
41	816803	FELT WICK, In Cam .....	AR*		
42	1889966	GASKET, Distributor Housing Cover .....	1		
		DISTRIBUTOR DRIVE ASSEMBLY (Waukesha)			
	OB-10181-A	DISTRIBUTOR DRIVE ASSEMBLY (For 50167 Dist.) ..	1		
	0151734	DISTRIBUTOR DRIVE ASSEMBLY, Includes Items #98051 Gear, B-5134 Pin (Used with 60489 Distributor) .....	1		
	98051	GEAR, Distributor .....	1		
	26529	PIN, Distributor Gear .....	1		
	B7747	COLLAR .....	1		
	B5635	COUPLING .....	1		
	26745	PIN .....	1		
	080941	CABLE SET, Distributor, S/N 8003 thru 23499 except 21151 thru 21247 .....	1		
	044595	CABLE SET, Distributor, Used with 060175 Distributor	1		
	A154391	CABLE SET, Distributor, Used with 60489 Distributor	1		
	50124	COIL (Delco-Remy #528-C) S/N 8003 thru 23499 except 21151 thru 21247 .....	1		
	50192	COIL .....	1		
	44418-B	BRACKET, Coil .....	1		
	21329	SCREW, 5/16" - 24 x 1/2" Coil Bracket (Used with 060175 Distributor) .....	2		
	21271	SCREW, 1/4" N. C. x 1/2" Coil Bracket (Used with 60489 Distributor) Screw same as Hough #108011 ...	2		
	21185	NUT, 5/16" - 24 Coil Bracket (Used with 060175 Distributor) .....	2		
	21173	NUT, 1/4" - 20 Coil Bracket (Used with 60489 Distributor) .....	2		
	21051	WASHER, 5/16" Lock - Coil Bracket (Used with 060175 Distributor) .....	2		
	21050	LOCKWASHER, (Hough #104663H1) 1/4" Coil Bracket, Used with 60489 Distributor .....	2		
	048831-A	CABLE, Coil to Distributor, S/N 8003 thru 23499 except 21151 thru 21247 .....	1		
	0116635	WIRE, Coil to Distributor, Used with 060175 and 60489 Distributor .....	1		
	0154390	CABLE, Coil to Distributor, Used with 60489 Distributor .....	1		
	50432	SPARK PLUG .....	4		
	44416	SUPPORT, Distributor Drive, Used with 060175 Distributor .....	1		
	B-9985	GASKET, Dist. Drive Suppt. or Dist. Drive Housing .	1		
	63043	OIL SEAL, Dist. Housing .....	1		
	21310	SCREW, Distributor Drive Support .....	2		
	21631	WASHER, (Shakeproof) Distributor Drive Support ....	2		
	50735	ARM, Distributor Clamp .....	1		
	50736	DIAL, Distributor Clamp .....	1		
	21273	SCREW, Cap .....	1		
	21050	WASHER, Lock .....	1		
	Y18813G	WASHER .....	1		
	DB10038A	BRACKET ASSEMBLY, Cable Support .....	1		
	21134	SCREW, Cap .....	1		
	21700	NUT, Square .....	1		
	21050	WASHER, Lock .....	1		
	B-7610	RING, Rubber .....	1		

\*Delco-Remy part numbers are to be ordered as required.

NUMERICAL INDEX

PART NUMBER	PAGE	PART NUMBER	PAGE	PART NUMBER	PAGE	PART NUMBER	PAGE	
<b>No.</b>		21 315	33	68 050	5	152 262	7	
		21 319	16	68 053	5	152 263	7	
		21 329	40	68 084	11	154 462	13	
		21 333	23	68 136	5	156 537	5	
		21 338	27	68 310	3	162 407	35	
	5 851	34	21 340	5	68 318	3	163 444	23
	9 019	22	21 340	21	68 321	3	163 686	23
	9 240	22	21 343	22	68 422	3	163 687	23
	9 340	22	21 348	15	68 457	22	163 990	13
	9 340	23	21 348	33	68 460	13	164 299	3
	21 001	11	21 348	37	68 605	3	164 351	3
	21 002	15	21 352	37	70 357	22	164 352	3
	21 007	3	21 354	27	74 086	21	168 289	11
	21 049	11	21 360	13	74 166	21	178 156	34
	21 049	15	21 362	13	74 459	16	191 163	37
	21 050	11	21 362	21	74 461	16	200 182	34
	21 050	13	21 362	27	74 462	16	200 382	37
	21 050	22	21 362	29	76 400	13	225 577	37
	21 050	23	21 362	31	76 909	19	274 738	27
	21 050	35	21 364	21	76 999	13	274 738	29
21 050	40	21 428	22	78 645	13	274 738	31	
21 051	9	21 428	23	85 641	15	451 608	33	
21 051	11	21 600	5	98 051	11	453 296	27	
21 051	13	21 612	22	98 051	40	453 435	29	
21 051	15	21 612	23	44 595	40	453 435	31	
21 051	19	21 631	40	60 175	39	453 460	37	
21 051	25	21 632	21	63 039	9	453 465	29	
21 051	33	21 647	23	80 941	40	453 468	29	
21 051	37	21 700	40	106 495	34	453 468	31	
21 051	40	21 701	11	118 442	3	802 729	34	
21 052	13	21 796	3	118 625	5	804 000	33	
21 052	15	21 863	5	118 947	22	804 076	34	
21 052	21	24 754	39	119 288	9	805 057	27	
21 052	22	26 457	16	119 471	15	805 057	29	
21 052	27	26 529	11	119 472	15	805 613	27	
21 052	29	26 529	40	119 727	35	805 613	29	
21 052	31	26 531	15	120 217	29	806 915	33	
21 052	33	26 533	15	120 217	33	809 062	34	
21 052	37	26 552	15	120 231	25	809 062	37	
21 057	15	26 589	21	120 320	13	809 551	33	
21 065	5	26 738	9	120 361	27	809 593	27	
21 117	22	26 743	9	120 361	29	809 593	29	
21 117	23	26 745	40	120 361	31	809 593	34	
21 127	11	26 941	15	120 614	33	809 593	37	
21 127	15	28 118	7	120 614	39	809 614	34	
21 134	40	28 144	13	120 622	39	809 614	34	
21 173	13	28 200	9	120 638	33	809 642	33	
21 173	35	37 008	3	121 743	33	809 644	33	
21 173	40	37 030	3	121 743	37	809 658	33	
21 181	16	37 083	11	121 749	39	809 673	39	
21 181	33	37 085	11	121 832	39	809 688	34	
21 185	15	37 205	3	121 841	39	809 698	33	
21 185	25	39 151	22	121 841	33	809 763	37	
21 185	40	39 151	23	124 545	39	809 815	27	
21 187	5	44 416	40	124 545	34	809 815	29	
21 187	15	50 124	40	124 546	37	809 824	34	
21 189	21	50 167	40	124 546	27	809 945	34	
21 189	37	50 192	39	125 609	29	809 945	37	
21 193	17	50 432	40	125 947	37	809 961	33	
21 263	15	50 735	40	131 044	39	809 961	37	
21 271	40	50 736	40	131 949	33	810 074	39	
21 273	40	51 095	25	132 900	39	810 078	39	
21 280	35	60 139	33	132 900	29	810 088	27	
21 305	5	60 280	27	132 930	33	810 601	27	
21 305	15	60 489	39	134 556	33	810 620	31	
21 307	9	63 005	21	134 556	29	810 620	39	
21 307	13	63 043	40	134 556	31	810 794	39	
21 307	19	63 347	21	134 566	27	811 735	39	
21 307	33	68 003	13	138 479	33	811 912	39	
21 307	37	68 006	3	140 630	34	812 015	34	
21 309	3	68 009	5	141 540	33	812 016	34	
21 309	11	68 027	5	141 543	33	812 823	33	
21 310	40	68 036	5	150 088	23	813 157	34	
				151 748	16	814 203	34	
						815 018	34	



NUMERICAL INDEX

PART NUMBER	PAGE	PART NUMBER	PAGE	PART NUMBER	PAGE	PART NUMBER	PAGE
B 365	17	B 9 793	5				
B 365	25	B 9 802 G	33				
B 391	15	B 9 802 G	37				
B 557 A	23	B 9 803	13				
B 565	21	B 9 803 B	13				
B 733 A	3	B 9 824	22				
B 740	5	B 9 824	23				
B 741	5	B 9 837 F	23				
B 779 A	5	B 9 840	27				
B 780 A	5	B 9 840 A	27				
B 811	9	B 9 984	9				
B 926	5	B 9 985	40				
B 997	11	B 10 188	7				
B 1 231	5	B 10 189	7				
B 1 764	13	B 10 190	7				
B 1 842	9	B 10 337 A	3				
B 1 842 A	3	B 10 358	22				
B 2 135	19	B 10 358	23				
B 2 469	9	B 10 568	3				
B 2 666	9	B 10 708	7				
B 2 694 A	9	BD 10	7				
B 2 837	15	BD 13	3				
B 3 023	17	BD 14 K	3				
B 3 222	22	BD 72 A	5				
B 3 222	23	BD 76	5				
B 3 527	9	BD 78 A	21				
B 3 605	9	BD 80 A	5				
B 4 027	16	BD 85	5				
B 4 028	16	BD 86	5				
B 4 171	9	BD 89 A	21				
B 4 296	21	BD 115 A	17				
B 4 481	16	BD 120	17				
B 4 858 A	3	BD 127 A	17				
B 5 488 E	13	BD 190	9				
B 5 495	13	BD 191	19				
B 5 496	13	BD 192	19				
B 5 635	40	BD 193 D	19				
B 6 090	15	BD 195	9				
B 6 101 F	15	BD 196 B	9				
B 6 114 K	15	BD 197 A	13				
B 6 117	15	BD 358	11				
B 6 118	15	BD 359	11				
B 6 119	15	BD 360	11				
B 6 121	15	BD 361	11				
B 6 122	15	BD 365 A	3				
B 6 123 B	15	BD 367	3				
B 6 124	15	BD 368 A	3				
B 6 125	15	BD 398	3				
B 6 126 D	15	BD 583	19				
B 6 146	15	BD 584	19				
B 6 162	15	BE 800 D	17				
B 6 163	15	BE 801	17				
B 6 164	15	BE 805 Y	21				
B 6 255	15	BE 806	21				
B 6 274	15	BE 818	3				
B 6 298	15	B3 85 K17	25				
B 6 404	13	B12 11 570	25				
B 6 417	9	37 133 B	13				
B 6 925	9	44 418 B	40				
B 7 042	22	68 049 B	9				
B 7 042	23	68 095 B	3				
B 7 355	15	68 123 B	5				
B 7 356	15	68 180 B	11				
B 7 402	21	68 204 B	3				
B 7 610	40	68 402 B	7				
B 7 747	40	68 505 B	3				
B 8 181 A	15	70 357 B	23				
B 8 677	16	74 415 B	15				
B 9 420	11	80 107 B	3				
B 9 511	22						
B 9 511	23						
B 9 792	5						
				<b>C</b>		<b>H</b>	
				C21 176	25	78 283 H	23
				C 23 59	25	218 287 H1	25
				C24 11 FFX	25		
				C29 1 094	25		
				C38 51 19	25		
				C52 6 25	25		
				C55 6 12	25	<b>M</b>	
				C66 50 60	25	MB 6 114 K	15
				C71 21	25		
				C77 18 20	25		
				C81 17 30	25		
				C85 28	25	<b>N</b>	
				C 111 9	25	NB 6 114 N	15
				C 120 4	25		
				C 46 25	25		
				C 101 17	25		
				C 135 29	25		
				C 141 45	25	<b>O</b>	
				C 142 16	25	OB 5 487 A	13
				C 164 651	3	OB 6 115 C	15
				CR 28 1	25	OB 6 145	15
				CR 37 1X1	25	OB 10 181 A	40
				CR 106 169	25	OC 63 251 B	9
				68 035 C	5		
				68 095 C	3		
				73 596 C	15		
				74 460 C	16		
				78 282 C	13	<b>T</b>	
						T8S 10 9	25
						T8S 8 10	25
						T 22 58	25
						T41 10	25
						T48 9	25
						T52 53	25
						T56 20	25
						T56 23	25
						T56 24	25
						T56 52	25
						T91 3	25
						T 301 S10	25
						T 315 S54	25
						T 48 9	25
						T 63 9	25
						T 52 57	25
				<b>D</b>		<b>X</b>	
				D 74 415 B	16	XD 71 A	5
				DB 366	3		
				DB 10 038 A	40		
				68 095 D	3		
				78 282 D	13		
				118 226 D	15		
				161 633 D	22		
						<b>Y</b>	
				<b>E</b>		Y 18 802 A	9
				EZ 68 460	13	Y 18 813 G	11
				68 000 E	7	Y 18 813 G	40
				118 947 E	23	YD 357 F	19
				161 633 E	22	YE 803 B	21
						YE 807 C	13
						YGW 3 028 S	39
				<b>F</b>			
				952 750 F	5		
				<b>G</b>			
				7 775 G	16		
				78 283 G	9		

