



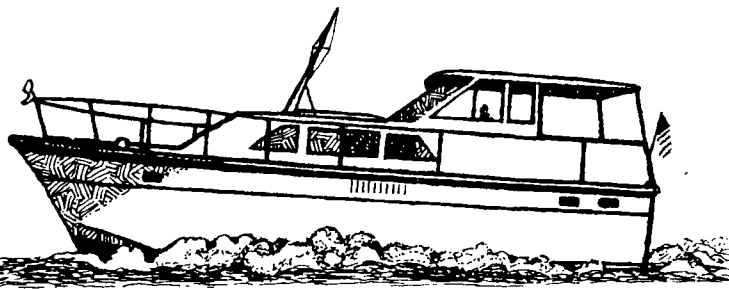
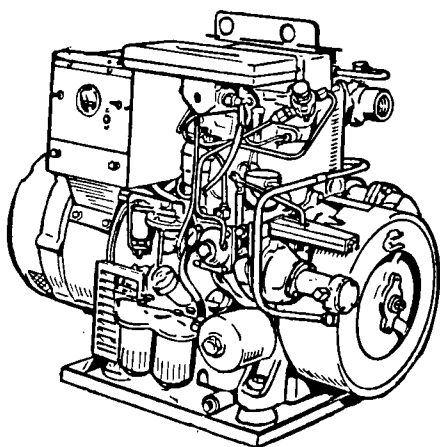
# parts catalog

for series

# MDJE

**marine electric  
generating sets**

SPEC A THROUGH AA



# GENERAL INFORMATION

## INSTRUCTIONS FOR ORDERING REPAIR PARTS

For parts or service, contact the dealer from whom you purchased this equipment or refer to your Nearest Authorized Onan Parts and Service Center.

To avoid errors or delay in filling your parts order, please furnish all information requested.

Always refer to the nameplate on your unit.

1. Always give the MODEL, SPEC NO. and SERIAL NO.

The diagram shows a rectangular nameplate with two circular holes at the top. At the top center, the text "McGraw-Edison" is printed in a bold, sans-serif font. Below this, the "Onan" logo is prominently displayed in a large, stylized font. Underneath the logo is a horizontal rectangular box. Below this box, the text "MODEL AND SPEC NO." is printed. Further down is another horizontal rectangular box. To the left of this second box, the text "SERIAL NO." is printed. The bottom right corner of the nameplate is cut off at an angle. The number "M-1149" is printed in the bottom right corner of the diagram.

For handy reference, insert "YOUR" nameplate information in the spaces above.

2. Do not order by reference number; always use part number and description.
3. Give the part number, description and quantity needed of each item. If an older part cannot be identified, return the part prepaid to your dealer or nearest Onan Parts and Service Center. Print your name and address plainly on the package. Write a letter to the same address stating the reason for returning the part.
4. State definite shipping instructions. Any claim for loss or damage to your unit in transit should be filed promptly against the transportation company making the delivery. Shipments are complete unless the packing list indicates items are back ordered.

Prices are purposely omitted from this Parts Manual due to the confusion resulting from fluctuating costs, import duties, sales taxes, exchange rates, etc.

For current parts prices, consult your Onan Dealer, Distributor or Parts and Service Center.

"En esta lista de partes los precios se omiten de proposito, ya que bastante confusion resulto de fluctuaciones de los precios, derechos aduanales, impuestos de venta, cambios extrajeros, etc."

Consiga los precios vigentes de su distribuidor de productos "ONAN."

# PARTS CATALOG

This catalog applies to the standard MDJE Generating Sets as listed below. Parts are arranged in groups of related items. Each illustrated part is identified by a reference number corresponding to the same reference number following the illustration. Parts illustrations are typical. Using the MODEL and SPEC. NO. from the set nameplate, select parts from this catalog that apply to your set. Unless otherwise mentioned in the description, parts are interchangeable between models. Right and left set sides are determined by FACING the engine end (front) of the set.

**SET DATA TABLE**

£ MODEL NO. AND SPECIFICATION	ELECTRICAL DATA				
	WATTS	VOLTS	HERTZ	WIRE	PHASE
6.0MDJE-53CR/*	6,000	120/240	50	**	1
6.0MDJE-54R/*	6,000	120/208	50	4	3
6.0MDJE-55DR/*	6,000	120/240	50	4	3
6.0MDJE-57R/*	6,000	220/380	50	4	3
6.0MDJE-518R/*	6,000	★	50	12	3
7.5MDJE-3CR/*	7,500	120/240	60	**	1
7.5MDJE-4R/*	7,500	120/208	60	4	3
7.5MDJE-5DR/*	7,500	120/240	60	4	3
7.5MDJE-18R/*	7,500	★	60	12	3

\* - The Specification Letter advances (A to B, B to C, etc.) with manufacturing changes.

\*\* - Set is reconnectable for 120 volt, 2 wire; 240 volt, 2 wire or 120/240 volt, 3 wire service.

**NOTE:** Previously the C designation was not used in the model.

£ - New model designations shown, begin during 1969. Previous designations did not use a decimal in the KW rating.

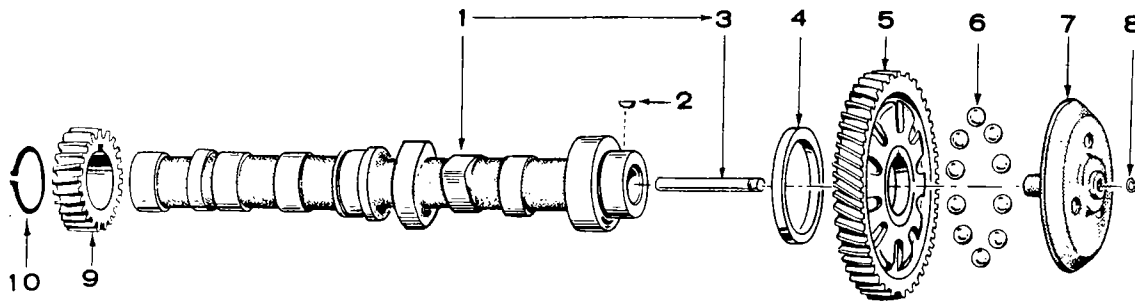
**EXAMPLE:** 6.0MDJE was formerly 6MDJE and 7.5MDJE was formerly 705MDJE. Also previously a V was used in the model to designate vacu-flo cooling.

★ - These sets are reconnectable; refer to the Specifications (Generator Details).

**NOTE:** Hertz is a unit of frequency equal to one cycle per second.

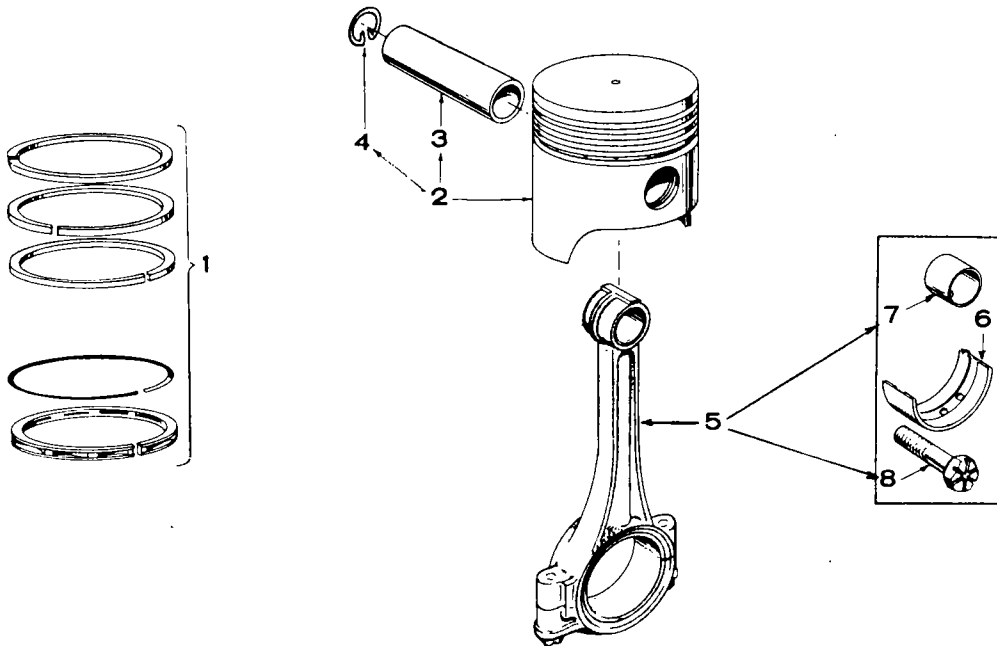
## NOTICE!

ITEMS REFERENCED AS **OPTIONAL** INDICATE PART IS FACTORY INSTALLED AND MAY NOT BE APPLICABLE TO ALL MODELS. FOR FIELD CONVERSIONS ADDITIONAL PARTS ARE USUALLY REQUIRED.



### CAMSHAFT GROUP

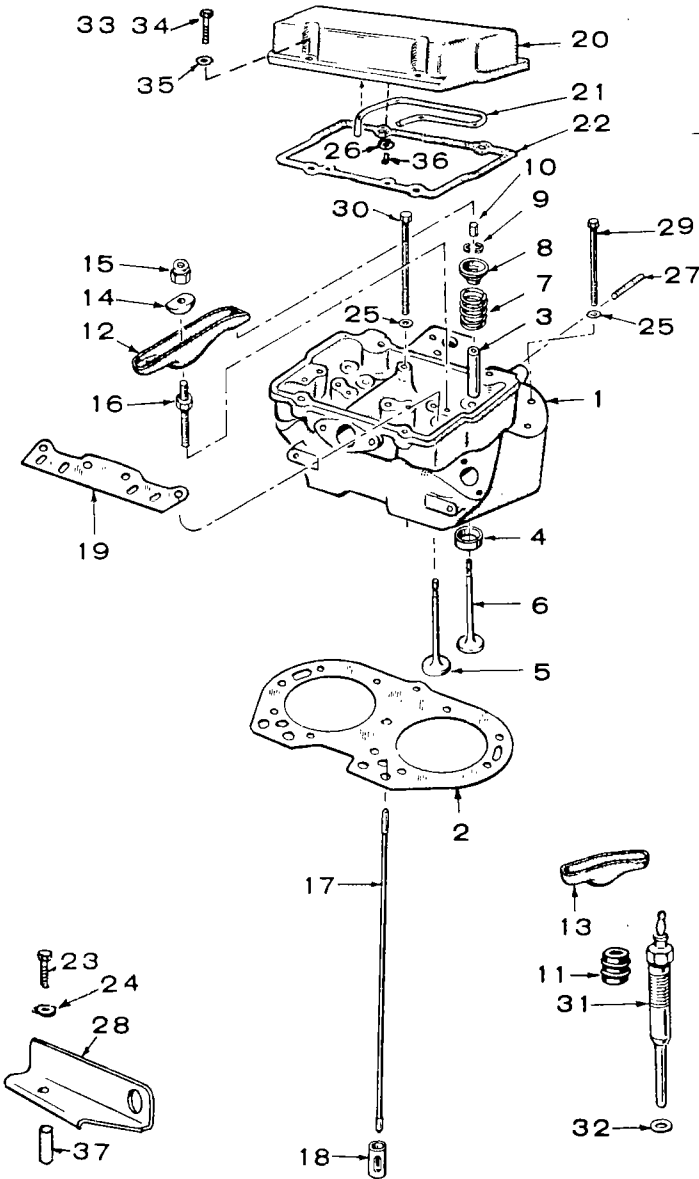
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	105-0271	1	Camshaft - Includes Center Pin	5	105-0218	1	Gear, Includes Flyball Spacer and Plate
2	515-0001	2	Key - Camshaft Gear or Injection Pump Drive Gear	6	510-0046	10	Ball, Fly - Governor
3	150-0075	1	Pin, Center	7	150-0775	1	Cup, Governor
4	105-0205	1	Washer, Thrust	8	150-0078	1	Ring, Snap - Center Pin
				9	147-0142	1	Gear, Injection Pump Drive
				10	518-0195	1	Ring, Retainer - Injection Pump Drive Gear



### PISTON AND CONNECTING ROD GROUP

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	RING SET			3	112-0117	2	Pin, Piston
	113-0137	2	Standard	4	112-0085	4	Ring, Retaining Ring
	113-0137-05	2	.005" Oversize	5	114-0168	2	Rod Assembly, Connecting (Forged) Less Bearing
	113-0137-10	2	.010" Oversize	6	BEARING HALF, CONNECTING ROD		
	113-0137-20	2	.020" Oversize		114-0164	4	Standard
	113-0137-30	2	.030" Oversize		114-0164-02	4	.002" Undersize
	113-0137-40	2	.040" Oversize		114-0164-10	4	.010" Undersize
2	PISTON AND PIN - INCLUDES PIN RETAINING RINGS				114-0164-20	4	.020" Undersize
	112-0118	2	Standard		114-0164-30	4	.030" Undersize
	112-0118-05	2	.005" Oversize	7	114-0170	4	Bushing, Piston Pin - Connecting Rod
	112-0118-10	2	.010" Oversize	8	805-0012	4	Bolt, Machine - Hex Head, Slotted (5/16-24 x 1-13/16")
	112-0118-20	2	.020" Oversize				
	112-0118-30	2	.030" Oversize				
	112-0118-40	2	.040" Oversize				

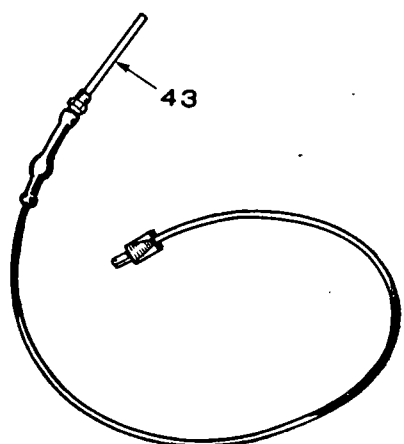
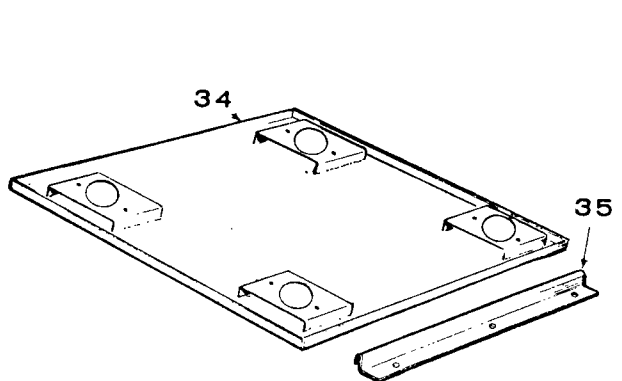
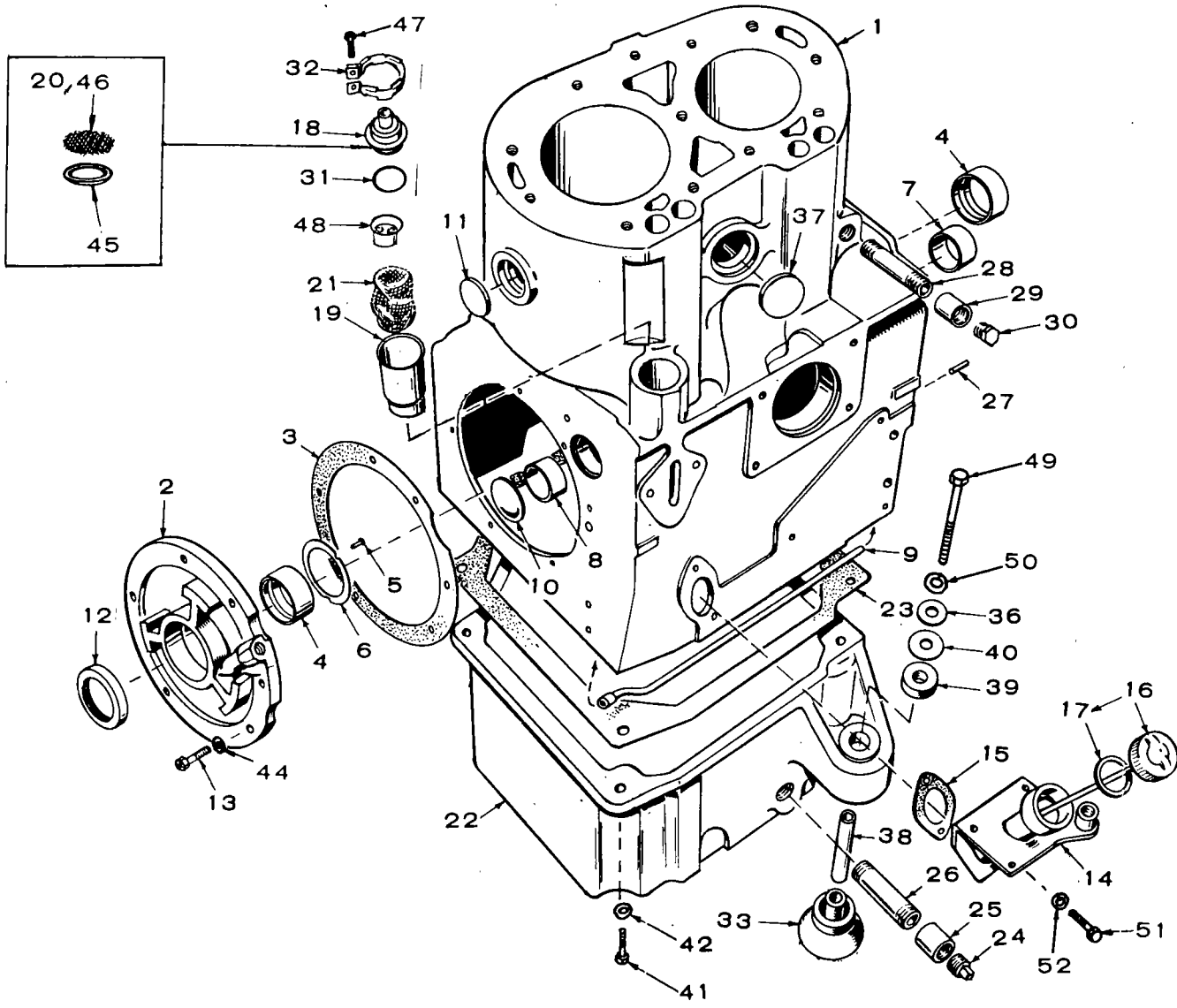
# CYLINDER HEAD, VALVE AND ROCKER BOX GROUP



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	HEAD, CYLINDER <b>110-1856</b>	1	Plants WITHOUT Heat Exchanger
	110-1856	1	Plants WITH Heat Exchanger
2	110-1852	1	Gasket, Cylinder Head
3	110-1501	4	Guide, Valve
4	INSERT, VALVE SEAT - INTAKE AND EXHAUST		
	110-1268	4	Standard
	110-1268-02	4	.002" Oversize
	110-1268-05	4	.005" Oversize
	110-1268-10	4	.010" Oversize
	110-1268-25	4	.025" Oversize
5	110-1320	2	Valve, Intake
6	110-1278	2	Valve, Exhaust - Stellite
7	110-1221	4	Spring, Valve
8	110-1220	4	Retainer, Valve Spring
9	110-0858	8	Lock, Valve Spring Retainer
10	110-0859	4	Cap, Valve Stem
11	509-0090	2	Seal Assembly, Oil - Intake Valve Includes Retainer Rings
12	115-0128	2	Arm, Rocker - Exhaust
13	115-0129	2	Arm, Rocker - Intake
14	115-0127	4	Ball, Rocker Arm
15	115-0150	4	Locknut, Hex - Rocker Arm
16	115-0152	4	Stud, Rocker Arm
17	115-0149	4	Rod, Valve Push - Steel
18	115-0185	4	Tappet, Valve
19	115-0196	1	Guide, Push Rod
20	115-0134	1	Cover Assembly, Rocker (Includes Parts Marked *)
21	120-0628	1	*Line, Oil - Rocker Cover
22	115-0130	1	Gasket, Rocker Cover
23	800-0091	1	£Screw, Cap - Hex Head (1/2-13 x 1-1/4")
24	850-0060	1	Washer, Lock - Spring (1/2)
25	526-0174	7	Washer, Flat (0.406" ID x 0.781" OD x 0.1345" THK)
26	526-0130	1	*Washer, Flat (17/64" ID x 1" OD x 1/16" THK)
27	520-0608	4	Stud - Exhaust Manifold
28	403-0707	1	Kit, Lifting (Includes Parts Marked £)
29	800-0501	6	Screw, Cap - Hex Head, Grade 8 (3/8-16 x 3-3/8")
30	110-1264	5	Screw, Cap - Hex Head, Special (3/8-16 x 4-1/4")
31	PLUG, GLOW (Includes Gasket)		
	333-0106	2	12 Volt Type
	333-0107	2	24 Volt Type
	333-0112	2	32 Volt Type
32	110-0546	2	Gasket, Glow Plug
33	800-0038	2	Screw, Cap - Hex Head (5/16-18 x 3-1/4")
34	800-0030	2	Screw, Cap - Hex Head (5/16-18 x 1-1/4")
35	850-0045	4	Washer, Lock - Spring (5/16)
36	809-0042	1	*Screw, Tapping - Round Head (#10 x 5/16")
37	403-0826	2	£Spacer - Lifting Bracket

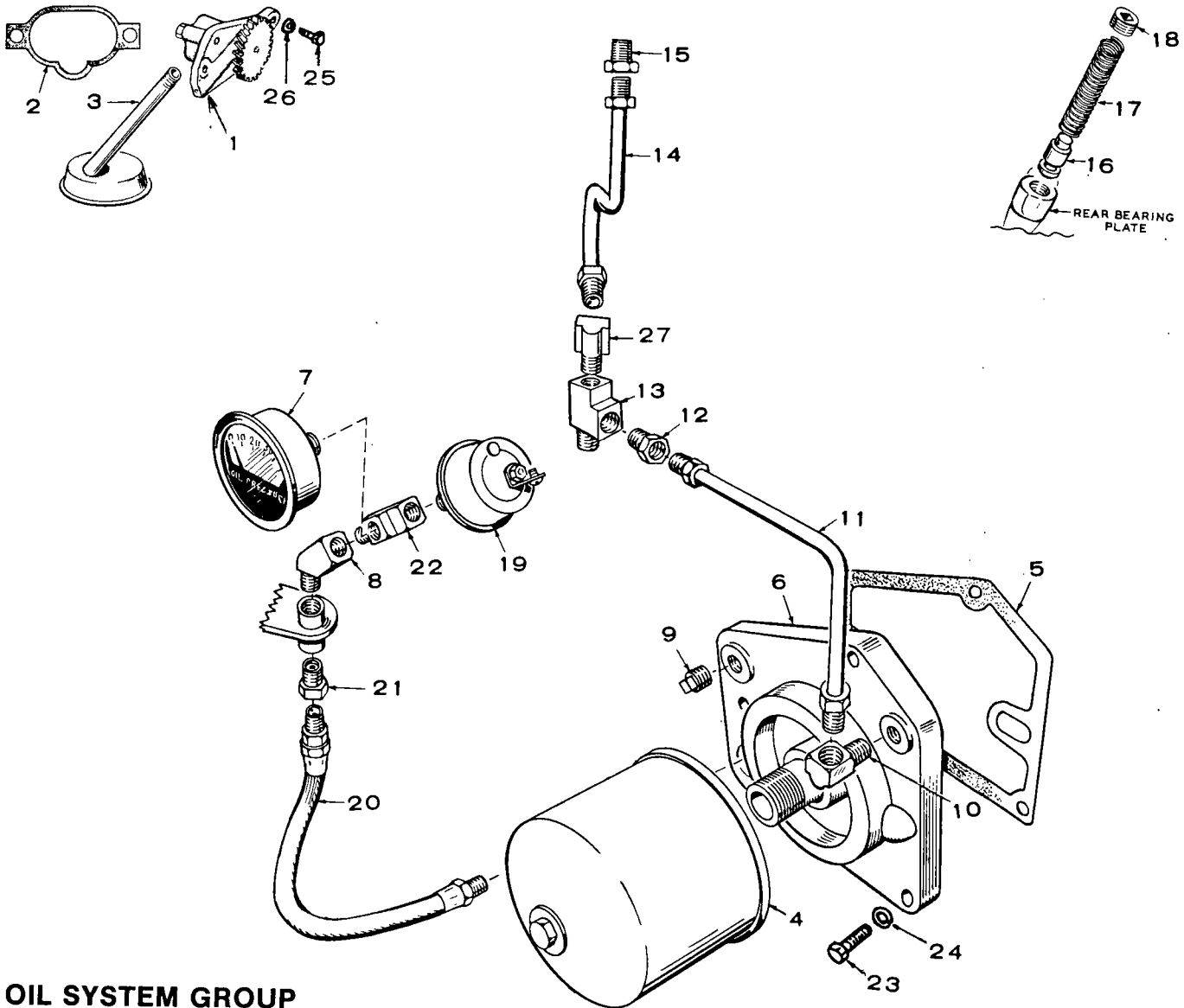
\* - Included in Rocker Cover 115-0134.  
 £ - Included in Lifting Kit 403-0707.

# CRANKCASE AND OIL BASE GROUP



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	110-1664	1	Block Assembly, Cylinder (Includes Parts Marked *)	28	505-0449	1	Nipple, 1/4 x 6"
2	101-0337	1	*Plate, Bearing - Less Bearing and Pin	29	505-0027	1	Coupling, 1/4"
3	101-0386	1	*Gasket and Shim Kit, Rear Bearing Plate	30	502-0153	1	Plug, 1/4" Hex Head
4	BEARING, PRECISION, MAIN - FRONT OR REAR			31	509-0117	1	Seal, "O" Ring - Breather Cap
	101-0359	2	Standard	32	123-0951	1	Clamp, Breather Cap
	101-0359-02	2	.002" Undersize	33	CUSHION, VIBRATION - CONE SHAPED		
	101-0359-10	2	.010" Undersize		402-0284	2	Engine End
	101-0359-20	2	.020" Undersize		402-0285	2	Generator End
	101-0359-30	2	.030" Undersize	34	405-1402	1	Pan, Drip
5	516-0072	4	*Pin, Lock - Thrust Washer	35	405-1265	2	Clamp, Drip Pan Hold-Down
6	104-0420	2	*Washer, Crankshaft Thrust	36	526-0014	4	•Washer, Mounting Rubber - Steel
7	101-0363	1	*Bearing, Precision Cam - Front - Standard Only	37	517-0096	1	*Plug, Expansion - Cylinder Block (1-9/16")
8	101-0365	1	*Bearing, Precision Cam - Rear - Standard Only	38	402-0290	4	•Bushing, Cushion Mounting Spacer
9	120-0553	1	*Tube, Crankcase Oil	39	402-0282	4	•Snubber, Shock Mounting
10	517-0053	1	*Plug, Expansion - Rear Camshaft Opening	40	526-0198	As Req.	•Washer, (29/64" I.D. x 1-1/2" O.D. x 1/16")
11	517-0059	3	*Plug, Expansion - Cylinder Block (1-7/16")	41	800-0072	4	Screw, Cap - Hex Head (7/16-14 x 1-1/4")
12	509-0086	1	Seal, Oil - Rear Bearing Plate	42	850-0055	4	Washer, Lock - Spring (7/16)
13	805-0019	6	*Bolt, Place - Rear Bearing Plate (3/8-16 x 1-1/4")	43	102-0558	1	Heater, Oil Base - Optional
14	TUBE, OIL FILL			44	526-0245	6	*Washer, Flat (0.391" ID x 0.625" OD x 0.598" THK)
	123-0681	1	Spec A Only	45	123-1201	1	Retainer - Breather Screen
	123-1085	1	Begin Spec B	46	123-1202	1	Screen - Breather Cap
15	123-0667	1	Gasket, Oil Fill Tube Mounting	47	809-0035	1	Screw, Tapping - Round Head (#8 x 3/4")
16	CAP AND INDICATOR, OIL FILL			48	123-1153	1	Baffle - Breather Tube
	123-0651	1	Spec A Only	49	800-0081	4	•Screw, Cap - Hex Head (7/16-14 x 3-1/2")
	123-1058	1	Begin Spec B	50	850-0055	4	•Washer, Lock - Spring (7/16)
17	123-0191	1	Gasket, Oil Fill Cap	51	800-0026	3	Screw, Cap - Hex Head (5/16-18 x 3/4")
18	123-1203	1	Cap and Valve, Breather Tube	52	850-0045	3	Washer, Lock - Spring (5/16)
19	123-0952	1	Tube, Breather				
20	123-0958	1	Screen, Breather - Used on some early Models				
21	123-0865	1	Baffle, Breather Tube				
22	102-0540	1	Base, Oil				
23	102-0451	1	Gasket, Oil Base				
24	505-0056	1	Plug, 1/2"				
25	505-0014	1	Coupling, 1/2"				
26	505-0002	1	Nipple, 1/2 x 3"				
27	516-0141	2	*Pin, Dowel - Gear Cover Locating				

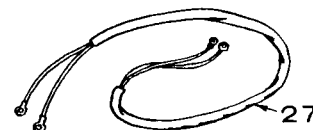
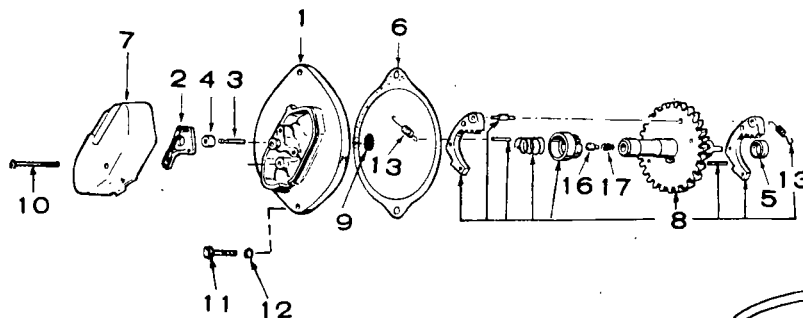
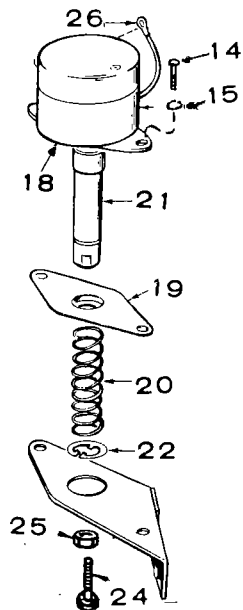
• - Included in 402-0360 Mounting Hardware Set.  
\* - Included in 110-1664 Cylinder Block Assembly.



## OIL SYSTEM GROUP

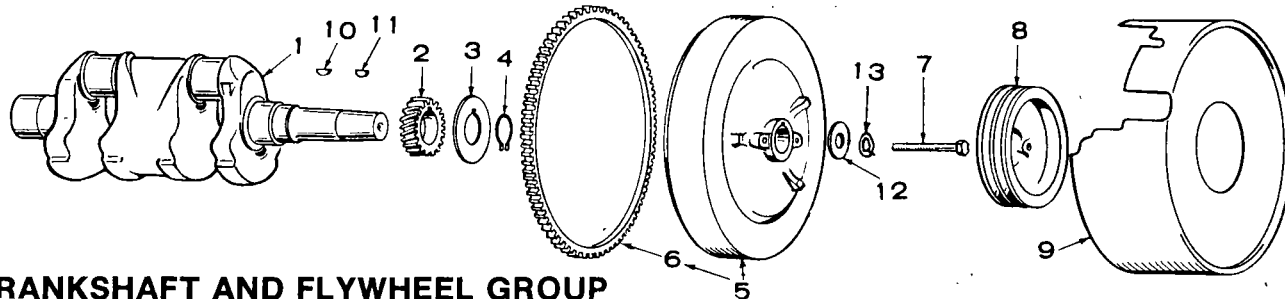
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	120-0547	1	Pump Assembly, Oil	15	502-0281	1	Connector, Restricted - Oil Line to Cylinder Head
2	120-0580	1	Gasket Kit, Oil Pump	16	120-0539	1	Valve, Oil By-Pass
3	120-0551	1	Cup Assembly, Oil Pump Intake	17	120-0555	1	Spring, By-Pass Valve
4	122-0185	1	Filter, Oil	18	505-0274	1	Plug, Oil By-Pass
5	122-0188	1	Gasket, Filter Adapter	19	309-0169	1	Switch, Low Oil Pressure Cut-Off
6	122-0182	1	Adapter Assembly, Filter	20	501-0003	1	Line, Oil - Begin Spec B
7	193-0006	1	Gauge, Oil Pressure	21	502-0003	1	Connector, Oil Fill Bracket to Oil Line - Begin Spec B
8	502-0053	1	Elbow, Street - 45°	22	502-0058	1	Tee, Oil Fill Bracket to Gauge and Switch - Begin Spec B
<p>(NOTE: Quantity of 2 Used Prior to Spec B)</p>				23	800-0028	3	Screw, Cap - Hex Head (5/16-18 x 1")
9	505-0057	1	Plug, 1/8" - Filter Adapter	24	850-0045	3	Washer, Lock - Spring (5/16)
10	502-0037	1	Elbow, Inverted Male - Oil Line to Oil Filter Adapter	25	800-0030	2	Screw, Cap - Hex Head (5/16-18 x 1-1/4")
11	120-0636	1	Line, Oil - Adapter to Tee	26	850-0045	2	Washer, Lock - Spring (5/16)
12	502-0274	1	Connector, Restricted - Injection Pump Tee	27	502-0037	1	Elbow, Injection Pump to Lubrication Tee
13	502-0242	1	Tee, Restricted - Injection Pump Lubrication				
14	120-0631	1	Line, Oil - Injection Pump Tee to Cylinder Head				





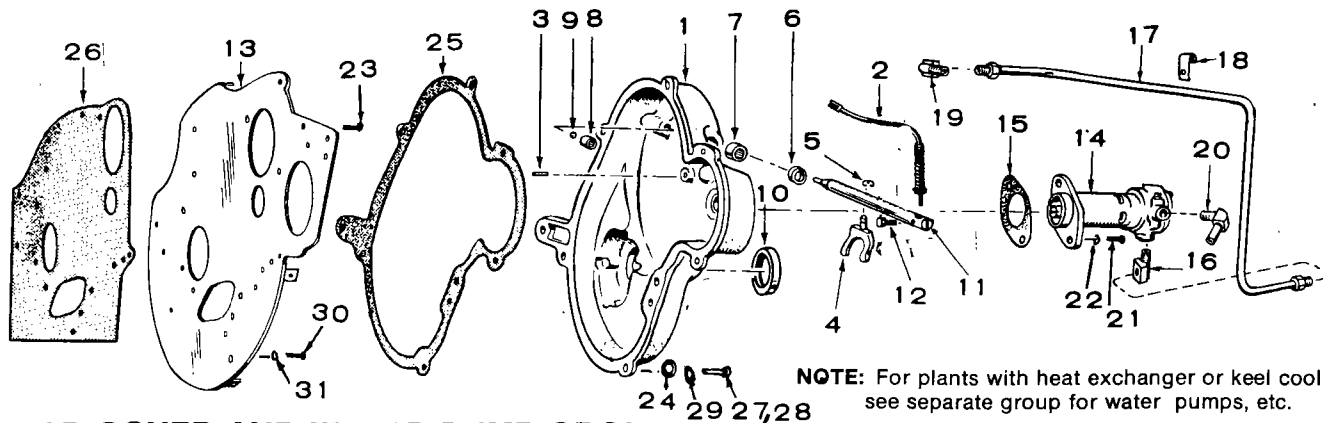
### START-DISCONNECT PLATE AND STOP SOLENOID GROUP

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	191-0496	1	Plate, Centrifugal Switch	15	850-0040	2	Washer, Lock - Spring (1/4)
2	309-0134	1	Switch Assembly, Centrifugal	16	160-0774	1	Plunger, Thrust
3	309-0152	1	Plunger, Switch	17	160-0773	1	Spring, Thrust Plunger
4	160-0263	1	Diaphragm, Switch Plunger	18	SOLENOID, STOPPING		
5	160-0720	1	Spacer, Switch Plate and/or Bearing Plate	307-0628		1	Units with 12 Volt DC
6	160-0721	1	Gasket, Switch Plate and/or Bearing Plate	307-0680		1	Units with 32 Volt DC
7	191-0392	1	Cover, Plate	19	306-0152	1	Retainer, Solenoid Plunger
8	191-0554	1	Control Assembly, Start-Disconnect Switch (Also Drive Water Pump) Includes Weight Springs	20	306-0161	1	Spring, Solenoid Plunger
				21	306-0159	1	Plunger, Solenoid
9	160-0806	1	Disc, Thrust Plunger	22	518-0203	1	Ring, Snap - Spring Retaining
10	813-0107	1	Screw, Machine - Round Head (#10-32 x 1-1/4")	23	306-0158	1	Bracket, Solenoid
	800-0052	2	Screw, Cap - Hex Head (3/8-16 x 1-1/2")	24	800-0007	1	Screw, Cap - Hex Head (1/4-20 x 1")
12	850-0050	2	Washer, Lock - Spring (3/8)	25	862-0001	1	Nut, Hex (1/4-20)
13	160-0711	2	Spring, Weight - Included in Control Assembly	26	336-0706	1	Lead, Electrical - Solenoid Ground
14	812-0150	2	Screw, Machine - Round Head (1/4-20 x 5/8")	27	338-0258	1	Harness, Wiring - Switch to Control



### CRANKSHAFT AND FLYWHEEL GROUP

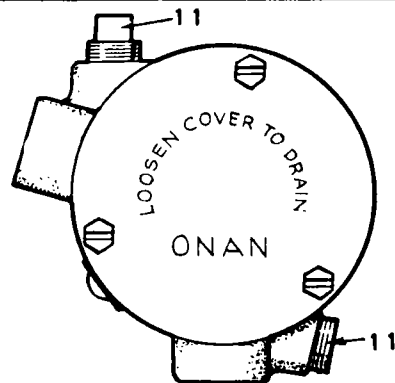
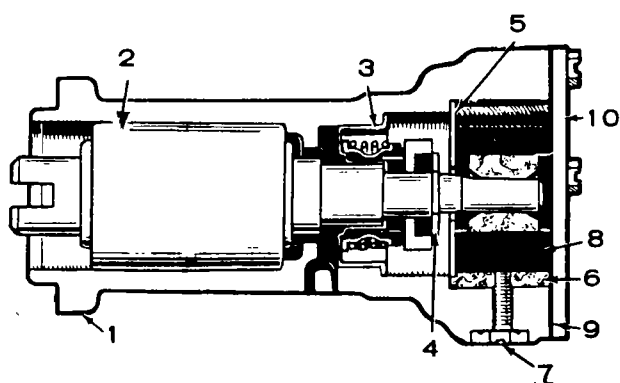
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	104-0451	1	Crankshaft	8	104-0550	1	Pulley, Flywheel - For Plants with Heat Exchanger or Keel Cooling
2	104-0418	1	Gear, Crankshaft	9	104-0444	1	Guard, Flywheel
3	104-0416	1	Washer, Retainer	10	515-0001	1	Key, Gear Mounting
4	518-0188	1	Ring, Lock	11	515-0153	1	Key, Flywheel to Crankshaft
5	104-0448	1	Flywheel - Includes Ring Gear	12	526-0185	1	Washer, Flat (15/32" ID x 1-1/2" OD x 3/8" THK)
6	104-0423	1	Gear, Flywheel Ring	13	850-0055	1	Washer, Lock - Spring (7/16)
7	800-0500	1	Screw, Cap - Hex Head, Grade 8 (7/16-14 x 5-1/2")				



### GEAR COVER AND WATER PUMP GROUP

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	103-0267	1	Cover Assembly, Gear - Complete - Includes Parts Marked *	16	502-0076	1	Elbow, Inverted Male - Water Pump Outlet
2	150-1095	1	Arm, Governor	17	130-0628	1	Line, Water - Pump to Block
3	516-0111	1	*Pin, Roll - Governor Cup Stop	18	130-0511	1	Clamp, Water Line
4	150-0777	1	*Yoke	19	502-0074	1	Elbow, Inverted Male - Water Line to Block
5	518-0129	1	*Ring, Yoke Retaining - "E" Shaped	20	502-0304	1	Elbow, Water Pump Inlet
6	509-0088	1	*Seal, Oil - Governor Shaft	21	800-0006	2	Screw, Cap - Hex Head (1/4-20 x 7/8")
7	510-0048	1	*Bearing, Needle - Governor Shaft - For 1/2" Shaft	22	850-0040	2	Washer, Lock - Spring (1/4)
8	510-0082	1	*Bearing, Needle - Governor Shaft - For 1/4" Shaft	23	815-0347	2	Screw, Machine - Flat Head, Socket Drive (1/4-20 x 1/2")
9	510-0043	1	*Ball, Bearing - Governor Shaft Thrust	24	526-0115	5	Washer, Flat (11/32" ID x 11/16" OD x 1/16" THK)
10	509-0087	1	*Seal, Oil - Gear Cover	25	103-0251	1	Gasket, Gear Cover
11	150-0838	1	*Shaft, Governor	26	103-0218	1	Gasket, Backplate
12	815-0176	1	*Screw, Machine - Hex Head, Grade 5 (#8-32 x 1/2")	27	110-0879	4	Screw, Cap - Hex Head, Special (5/16-18 x 1-1/4")
13	103-0228	1	Backplate, Gear Cover	28	800-0028	1	Screw, Cap - Hex Head (5/16-18 x 1")
14	131-0152	1	Pump, Water (For Component Parts Refer to Separate Group)	29	850-0045	5	Washer, Lock - Spring (5/16)
15	131-0127	1	Gasket, Water Pump Mounting	30	800-0026	1	Screw, Cap - Hex Head (5/16-18 x 3/4")
				31	800-0045	1	Washer, Lock - Spring (5/16)

\* - Included in Gearcover Assembly



### WATER PUMP PARTS GROUP (131-0152)

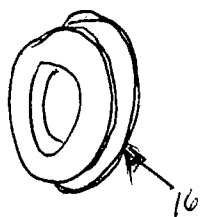
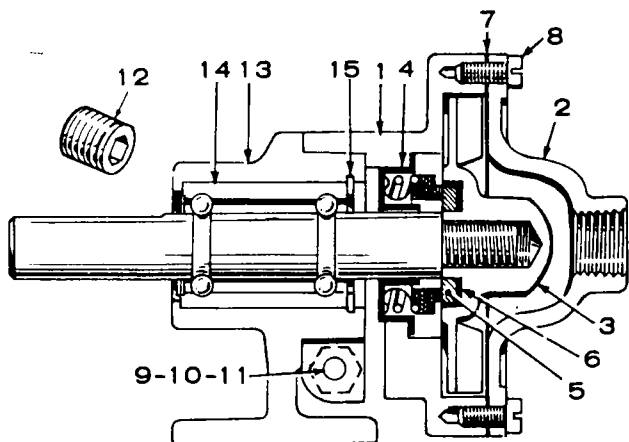
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	131-0179	1	Kit, Water Pump Repair - Includes Parts Marked *	7	815-0283	4	Screw, Machine - Hex Head, Slotted, Brass (#8-32 x 1/2")
1		1	Body, Water Pump (Not Sold Separately)	8	131-0160	1	*Impeller -
2	131-0154	1	Bearing and Shaft Assembly	9	131-0161	1	*Gasket, Cover
3	131-0157	1	*Seal Assembly	10	131-0162	1	*Cover, Pump
4	518-0221	1	*Retaining Ring	11	502-0080	2	Plug, Square Head (1/8")
5	131-0158	1	*Wear Plate, Rear				
6	131-0159	1	*Cam - Impeller				

\* - Contained in Repair Kit.

## WATER PUMP PARTS GROUP (132-0110)

NOTE: This pump used on plants with heat exchanger only.

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	132-0110	1	Pump, Water
	132-0111	1	Repair Kit (Includes Parts Marked *)
1	132-0136	1	Body, Pump
2	132-0137	1	Cover, Pump
3	132-0114	1	*Impeller
4	132-0101	1	*Seal
5	132-0091	1	*Face, Wear
6	132-0092	1	*Seat, Seal
7	132-0112	1	*Gasket, Cover
8	132-0113	6	*Screw, Cap - Hex Head, Slotted
9	132-0138	1	Screw, Cap - Hex Head
10	132-0139	1	Washer, Lock - Spring
11	132-0140	1	Nut, Hex
12	132-0141	1	Plug, Drain
13	132-0142	1	Pedestal
14	132-0089	1	*Shaft and Bearing Assembly
15	132-0132	1	Rjng, Snap
	16 132-0252	1	Pulley



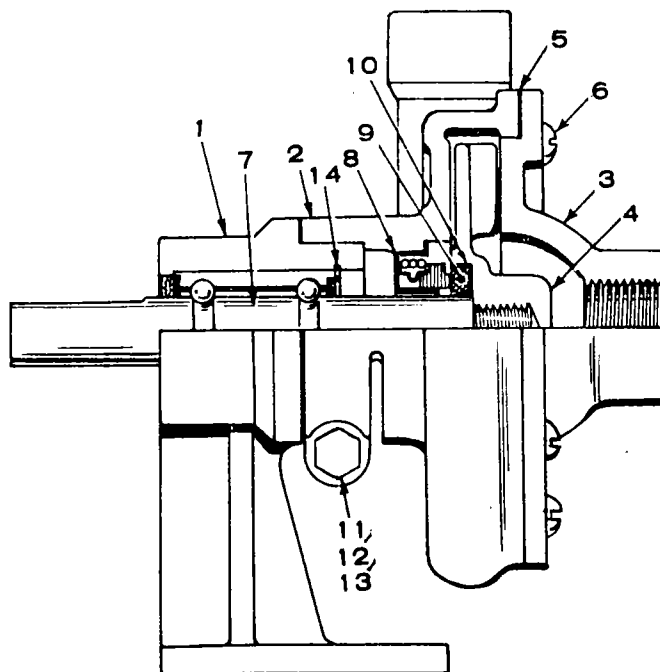
\* Parts included in the 132-0111 Repair Kit.

## WATER PUMP PARTS GROUP (132-0074)

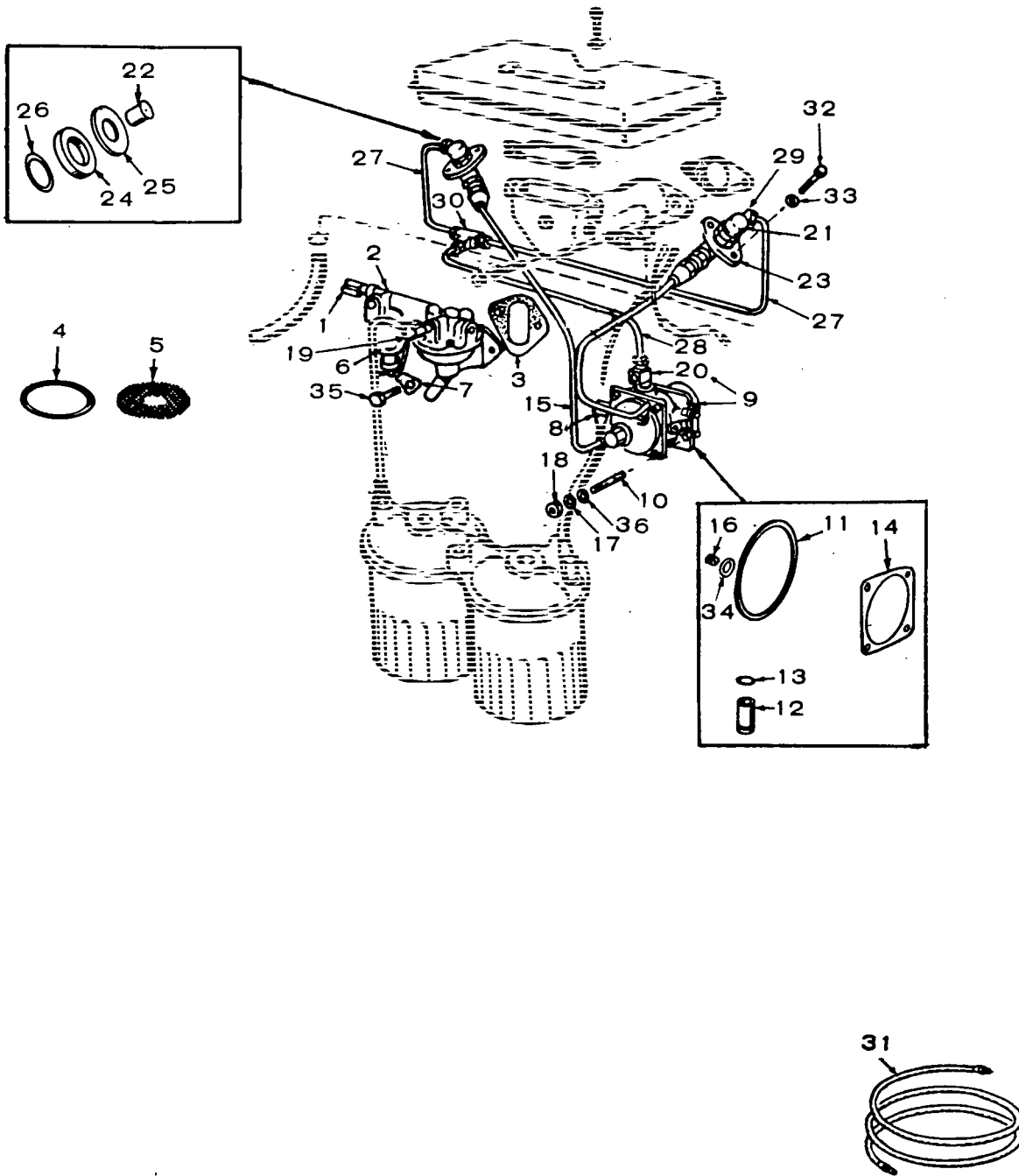
NOTE: This pump used on plants with keel cooling only.

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	132-0074	1	Pump, Water
	132-0093	1	Repair Kit (Includes Parts Marked *)
1	132-0143	1	Pedestal
2	132-0144	1	Body, Pump
3	132-0145	1	Cover, Pump
4	132-0087	1	Impeller
5	132-0088	1	*Gasket, Cover
6	810-0099	8	*Screw, Machine - Round Head, Brass (#10-32 x 7/16")
7	132-0089	1	*Shaft and Bearing Assembly
8	132-0101	1	*Seal, Mechanical
9	132-0091	1	*Ring, Seal Wear
10	132-0092	1	*Cap, Wear Ring
11	132-0138	1	Screw, Cap - Hex Head
12	132-0140	1	Nut, Hex
13	132-0139	1	Washer, Lock - Spring
14	132-0132	1	Ring, Snap

\* - Included in the 132-0093 Repair Kit.

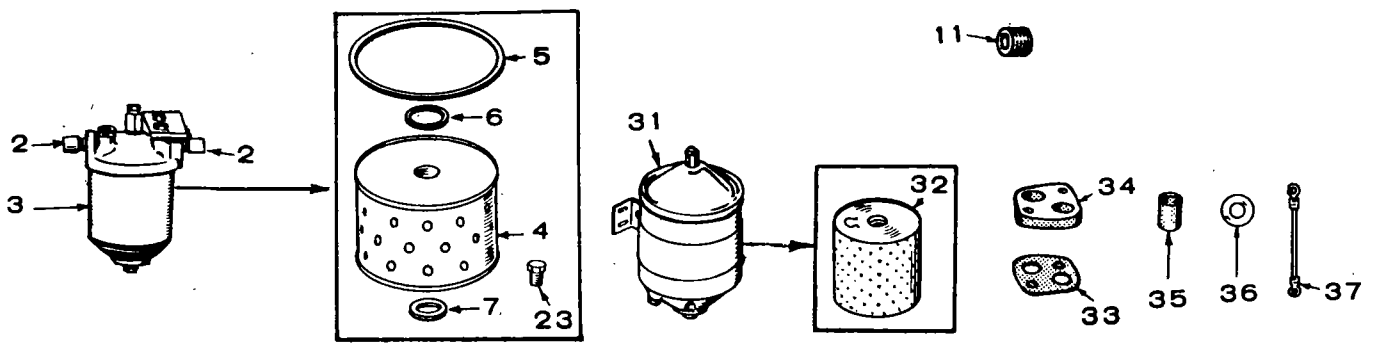
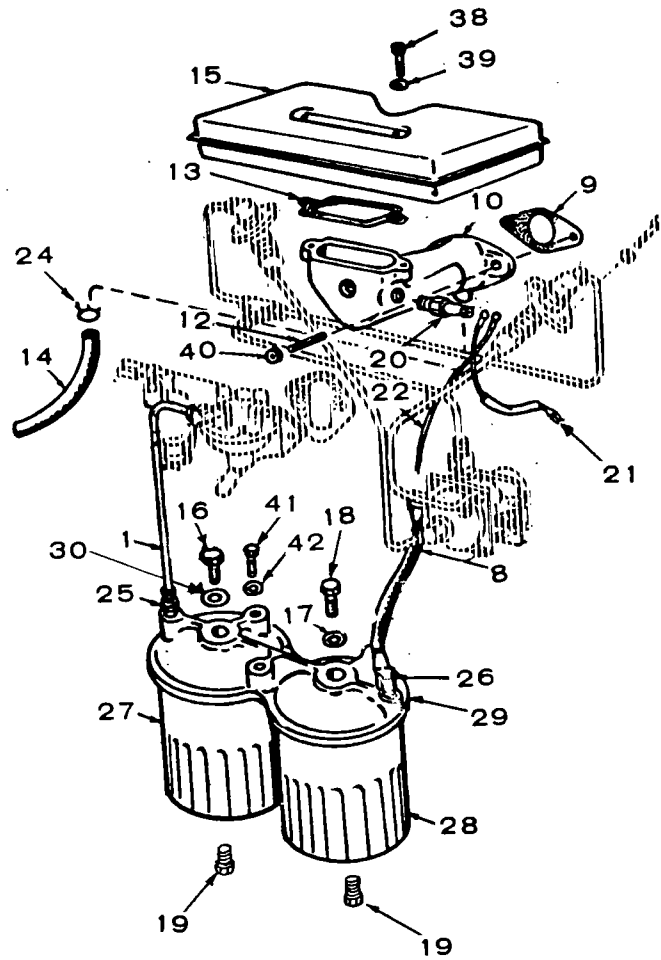


# FUEL TRANSFER PUMP AND INJECTION SYSTEM GROUP



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	149-1046	1	Repair Kit, Fuel Pump (Includes Diaphragm and Gaskets)	17	850-0045	4	Washer, Lock - Spring (5/16) Injection Pump Mounting
1	ELBOW, INVERTED MALE, FUEL PUMP INLET			18	862-0015	4	Nut, Hex (5/16-18), Injection Pump Mounting
	502-0065	1	45° - Spec A Only	19	ELBOW, INVERTED MALE - FUEL PUMP OUTLET		
	502-0002	1	90° - Begin Spec B		502-0002	1	90° - Spec A Only
2	149-1038	1	Pump, Fuel Transfer		502-0065	1	45° - Begin Spec B
3	149-0792	1	Gasket, Fuel Transfer Pump	20	147-0183	1	Valve, Bleeder, Injection Pump
4	149-0517	1	Gasket, Fuel Pump Bowl	21	147-0136	2	Nozzle and Holder Assembly
5	149-0463	1	Screen, Fuel Pump Filter	22	147-0134	2	Nozzle Only, Component of Nozzle & Holder Assembly
6	149-0662	1	Bowl, Fuel Pump (Metal)	23	147-0141	2	Flange, Injection Nozzle Hold-down
7	149-1307	2	Washer, Fuel Pump Mounting	24	147-0044	4	Shield, Nozzle Heat, Steel
8	ELBOW, INJECTION PUMP INLET			25	147-0043	2	Gasket, Nozzle Heat Shield (Asbestos)
	502-0054	1	Spec A Only	26	110-0419	2	Gasket, Shield to Head (Copper)
	502-0039	1	Begin Spec B	27	LINE, NOZZLE FUEL RETURN		
9	147-0219	1	Pump, Fuel Injection (Includes Buttons 2, 4, 12)		149-1056	1	#1 Cylinder
10	520-0129	4	Stud, Injection Pump Mounting		149-1057	1	#2 Cylinder
11	509-0094	1	Seal, O-Ring, Injection Pump to Crankcase	28	149-1058	1	Line, Injection Pump to Fuel Return Lines Tee
12	147-0182	1	Tappet, Injection Pump	29	502-0065	2	Elbow, Inverted (45°) Nozzle (Fuel Return Line)
13	147-0196	1	Gasket, O-Ring, Injection Pump Tappet	30	502-0102	1	Tee, Return Lines
14	147-0145	1	Shim Kit, Injection Pump Mounting	31	501-0007	1	Line, Flexible (24")
15	LINE, INJECTION PUMP TO NOZZLE			32	114-0022	4	Screw, Cap - Hex Head, Special (5/16-18 x 2-3/4")
	149-1101	1	No. 1 Cylinder	33	526-0122	4	Washer, Flat (11/32" ID x 23/32" OD x 0.1345" THK)
	149-1102	1	No. 2 Cylinder	34	147-0259	1	Ring, Retaining - Timing Button
16	BUTTON, INJECTION PUMP PLUNGER			35	800-0027	2	Screw, Cap - Hex Head (5/16-18 x 7/8")
	147-0147	1	.119 - Marked 1 or A	36	526-0022	4	Washer, Flat (21/64" ID x 9/16" OD x 1/16" THK)
	147-0148	1	.116 - Marked 2 or B				
	147-0149	1	.113 - Marked 3 or C				
	147-0150	1	.110 - Marked 4 or D				
	147-0151	1	.107 - Marked 5 or E				
	147-0161	1	.104 - Standard, 11 or No Mark				
	147-0152	1	.101 - Marked 6 or F				
	147-0153	1	.098 - Marked 7 or H				
	147-0154	1	.095 - Marked 8 or J				
	147-0155	1	.092 - Marked 9 or K				
	147-0156	1	.089 - Marked 10 or L				
	147-0190	1	.122 - Marked 12 or M				
	147-0189	1	.125 - Marked 13 or N				
	147-0188	1	.128 - Marked 14 or P				
	147-0187	1	.131 - Marked 15 or R				
	147-0186	1	.134 - Marked 16 or S				

# AIR CLEANER AND FUEL FILTERS GROUP

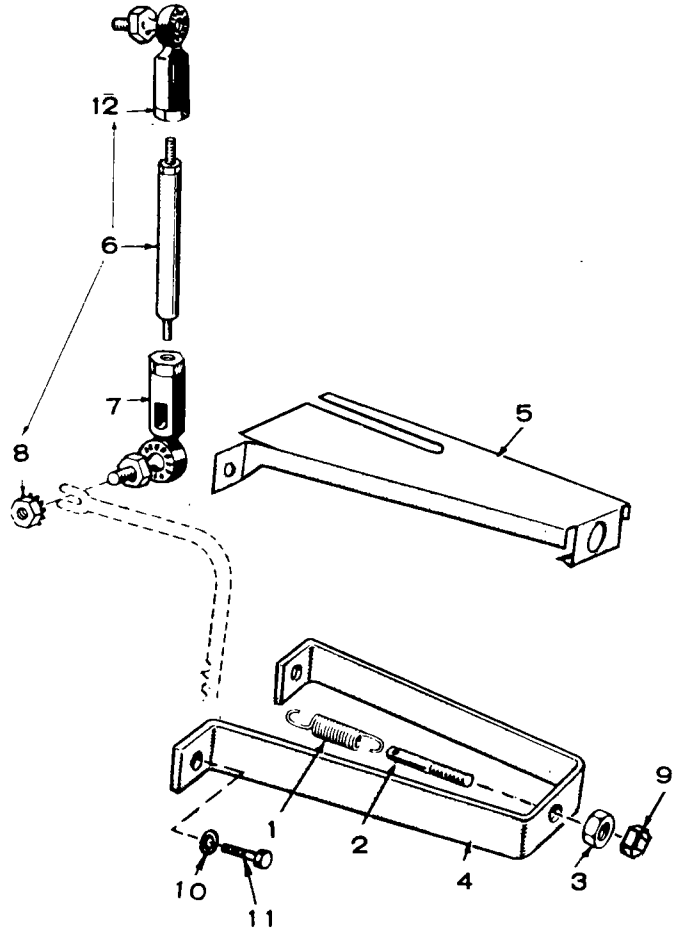


REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	LINE, FUEL PUMP TO FILTER		
	149-0806	1	Spec A Only
	149-1190	1	Begin Spec B
2	502-0041	2	Elbow, Inverted Male, Secondary Filter Inlet and Outlet - Spec A Only
3	149-0408	1	Filter, Secondary Fuel, Includes Cartridge (Bleed Plug 149-0769 is available separately) - Spec A Only
4	149-0428	1	Cartridge, Secondary Fuel Filter - Spec A Only
5	149-0456	1	Gasket, Secondary Filter, Bowl to Cover - Spec A Only
6	149-0455	1	Gasket, Secondary Filter Cartridge to Head - Spec A Only
7	149-0493	1	Gasket, Secondary Filter Cartridge to Retainer - Spec A Only
8	LINE, FUEL SECONDARY FILTER TO INJECTION PUMP		
	501-0091	1	Spec A Only
	501-0129	1	Begin Spec B
9	141-0281	1	Gasket, Air Cleaner Adapter to Cylinder Head
10	ADAPTER, RESONATOR		
	140-0804	1	Units with 12 Volt DC
	140-0816	1	Units with 32 Volt DC
	140-0817	1	Units with 24 Volt DC
11	505-0180	1	Plug, Pipe (1/4") Air Cleaner Adapter and Intake Manifold - Used on some early models
12	520-0011	2	Stud, Resonator Adapter Mounting
13	140-0584	1	Gasket, Resonator
14	503-0557	1	Hose, Breather
15	140-0803	1	Resonator
16	801-0074	1	Screw, Cap - Hex Head (7/16-20 x 1-3/4") Begin Spec B
17	526-0066	1	Washer, Flat (25/64" ID x 9/16" OD x 1/16" THK) Begin Spec B
18	801-0053	1	Screw, Cap - Hex Head (3/8-24 x 1-3/4") Begin Spec B
19	502-0080	2	Plug, Drain - Fuel Filters

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
20	HEATER, MANIFOLD - INCLUDES GASKET (12 Volt)		
	154-0712	1	12 Volt Units
	154-0712	3	32 Volt Units
	154-0712	2	24 Volt Units
21	LEAD, GLOW PLUG TO AIR HEATER		
	336-1504	1	#2 Cylinder (12-1/4")
	336-1505	1	#1 Cylinder (5-1/4")
22	336-1418	1	Lead, Air Heater to Solenoid in Control
23	149-0769	1	Plug, Air Bleed, Secondary Filter - Spec A Only
24	503-0170	2	Clamp, Breather Hose
25	502-0003	1	Connector, Primary Fuel Filter Inlet - Begin Spec B
26	502-0099	1	Elbow, Reducer - Secondary Fuel Filter Outlet - Begin Spec B
27	122-0325	1	Filter, Fuel - Primary - Begin Spec B
28	122-0326	1	Filter, Fuel - Secondary - Begin Spec B
29	149-1185	1	Adapter, Fuel Filter - Begin Spec B
30	526-0068	1	Washer, Flat (29/64" ID x 3/4" OD x 1/16" THK) Begin Spec B
31	149-1078	1	Filter, Fuel - Mounted between Fuel Tank and Transfer Pump - Spec A Only
32	149-0846	1	Cartridge, For 149-1078 Filter - Spec A Only
33	140-0706	1	Gasket, Heater Adapter - Units with 24 and 32 Volt DC
34	140-0705	1	Plate, Heater Adapter - Units with 24 and 32 Volt DC
35	508-0103	2	Bushing, Sleeve - Mica (24 & 32 Volt DC Units)
36	508-0102	2	Washer, Flat - Mica (24 & 32 Volt DC Units)
37	336-1051	1	Lead, Jumper - Air Heater - Units with 24 and 32 Volt DC
38	800-0011	2	Screw, Cap - Hex Head (1/4-20 x 2")
39	850-0040	2	Washer, Lock - Spring (1/4)
40	870-0137	2	Nut, Self-Locking (5/16 x 24)
41	800-0026	3	Screw, Cap - Hex Head (5/16-18 x 3/4")
42	850-0045	3	Washer, Lock - Spring (5/16)

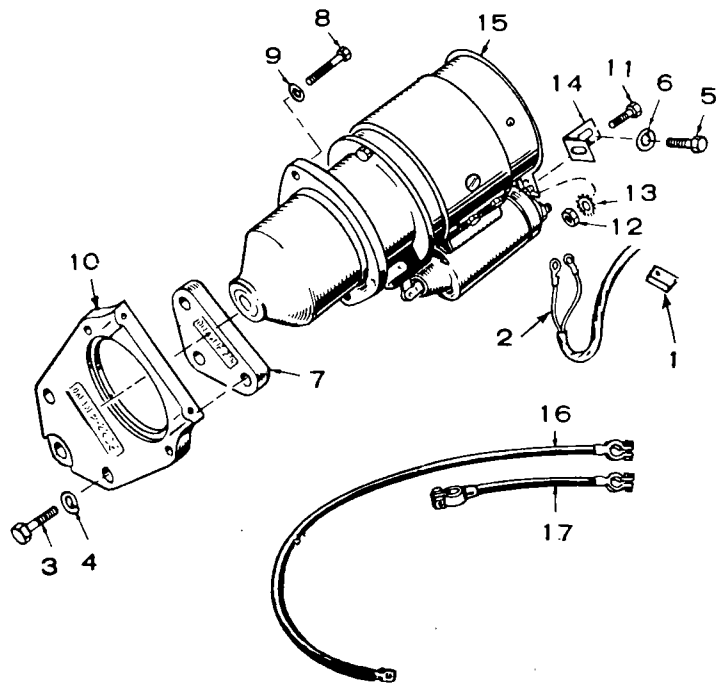
# GOVERNOR GROUP

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	150-1084	1	Spring, Governor
2	150-1082	1	Stud, Adjusting
3	862-0003	1	Nut, Hex (3/8-16)
4	150-1103	1	Bracket, Governor Spring
5	150-0823	1	Cover, Governor Spring
6	150-1132	1	Linkage Assembly, Governor
7	150-0939	1	Joint, Ball
8	870-0131	2	Nut, Hex - With External Tooth Lockwasher (#10-32)
9	870-0133	1	Nut, Self-Locking (3/8-16)
10	850-0040	2	Washer, Lock - Spring (1/4)
11	800-0005	2	Screw, Cap - Hex Head (1/4-20 x 3/4")
12	150-1358	1	Joint, Ball

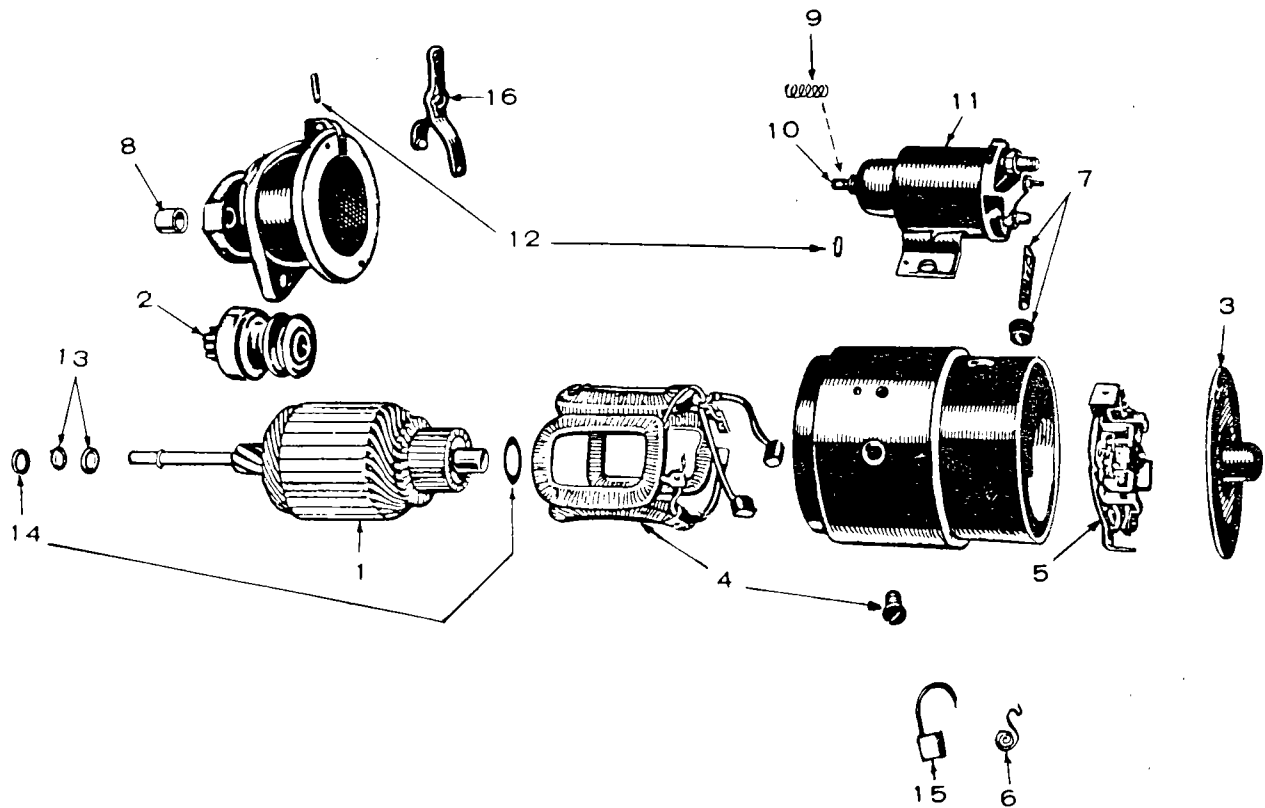


REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	416-0096	1	Clamp, Cable
2	338-0279	1	Harness, Wiring
3	800-0054	3	Screw, Hex Head (3/8-16 x 2")
4	850-0050	3	Washer, Lock - Spring (3/8)
5	800-0052	1	Screw, Hex Head (3/8-16 x 1-1/2")
6	850-0050	1	Washer, Lock - Spring (3/8)
7	191-0311	1	Spacer, Starter
8	800-0051	2	Screw, Hex Head (3/8-16 x 1-1/4")
9	850-0050	2	Washer, Lock - Spring (3/8)
10	191-0512	1	Flange, Starter
11	800-0046	1	Screw, Hex Head (3/8-16 x 1/2")
12	864-0003	1	Nut, Hex (3/8-16)
13	856-0010	1	Washer, Lock - External/Internal Tooth (3/8)
14	191-0365	1	Bracket, Starter
15	STARTER (See Separate Group For Components)		
	191-0324	1	12 Volt
	191-0443	1	24 Volt (Optional)
16	CABLE, BATTERY (Select by Length)		
	416-0021	2	20-1/2" Long
	416-0077	2	28-1/4" Long
17	416-0004	1	Cable, Battery Jumper

# STARTER GROUP

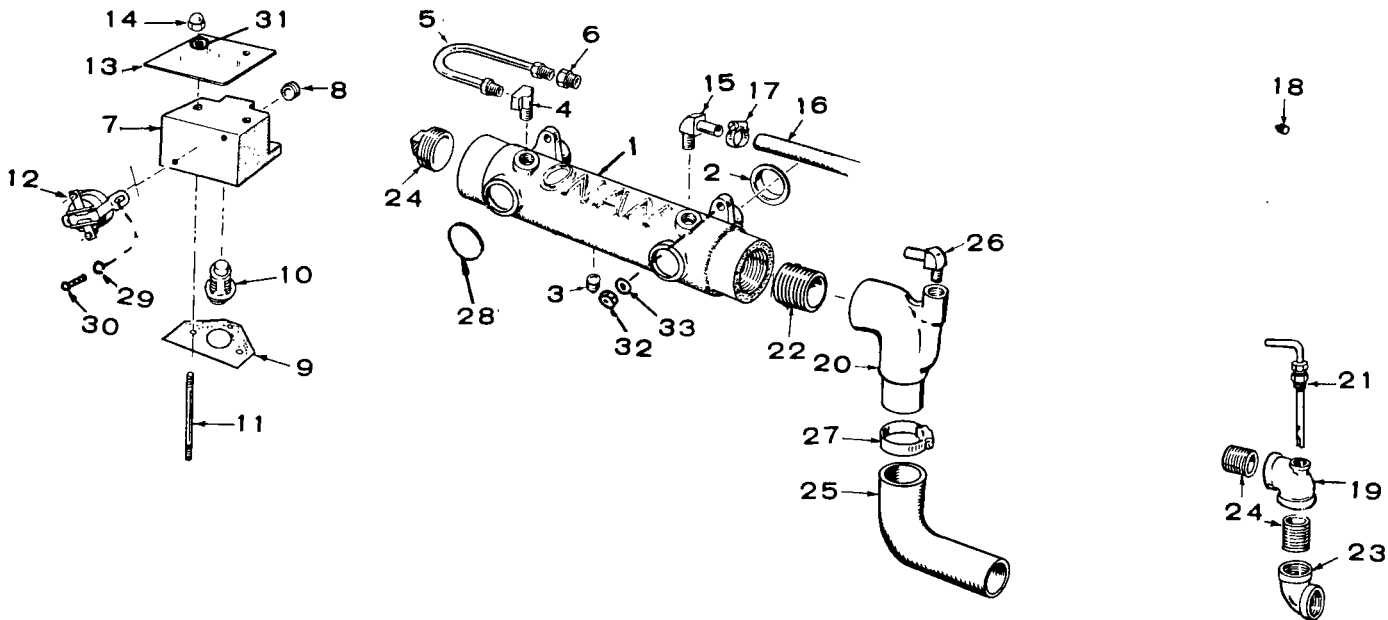






### STARTER PARTS GROUP

REF. NO	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	STARTER			7	191-1026	1	Connector Package
	191-0324	1	12 Volt	8	191-0497	1	Bearing (Bronze), Drive End
	191-0443	1	24 Volt	9	191-1027	1	Spring, Plunger
1	ARMATURE			10	191-1028	1	Core Assembly, Moving
	191-0712	1	12 Volt	11	SWITCH, SOLENOID		
	191-0713	1	24 Volt		191-0433	1	12 Volt
2	191-0432	1	Clutch		191-0715	1	24 Volt
3	191-1023	1	Head Assembly, Commutator End	12	191-1029	1	Yoke Parts Package
4	COIL PACKAGE, FIELD			13	191-1030	1	Stop and Lock Ring Package, Pinion
	191-1024	1	12 Volt	14	191-1031	1	Thrust Washer Package, Armature (Use as Required)
	191-1043	1	24 Volt	15	BRUSH SET, SERVICE		
5	PLATE ASSEMBLY, BRUSH				191-0434	1	12 Volt
	191-1025	1	12 Volt		191-0714	1	24 Volt
	191-1042	1	24 Volt	16	191-1032	1	Yoke
6	191-1020	1	Spring Set, Brush (Set of 4)				

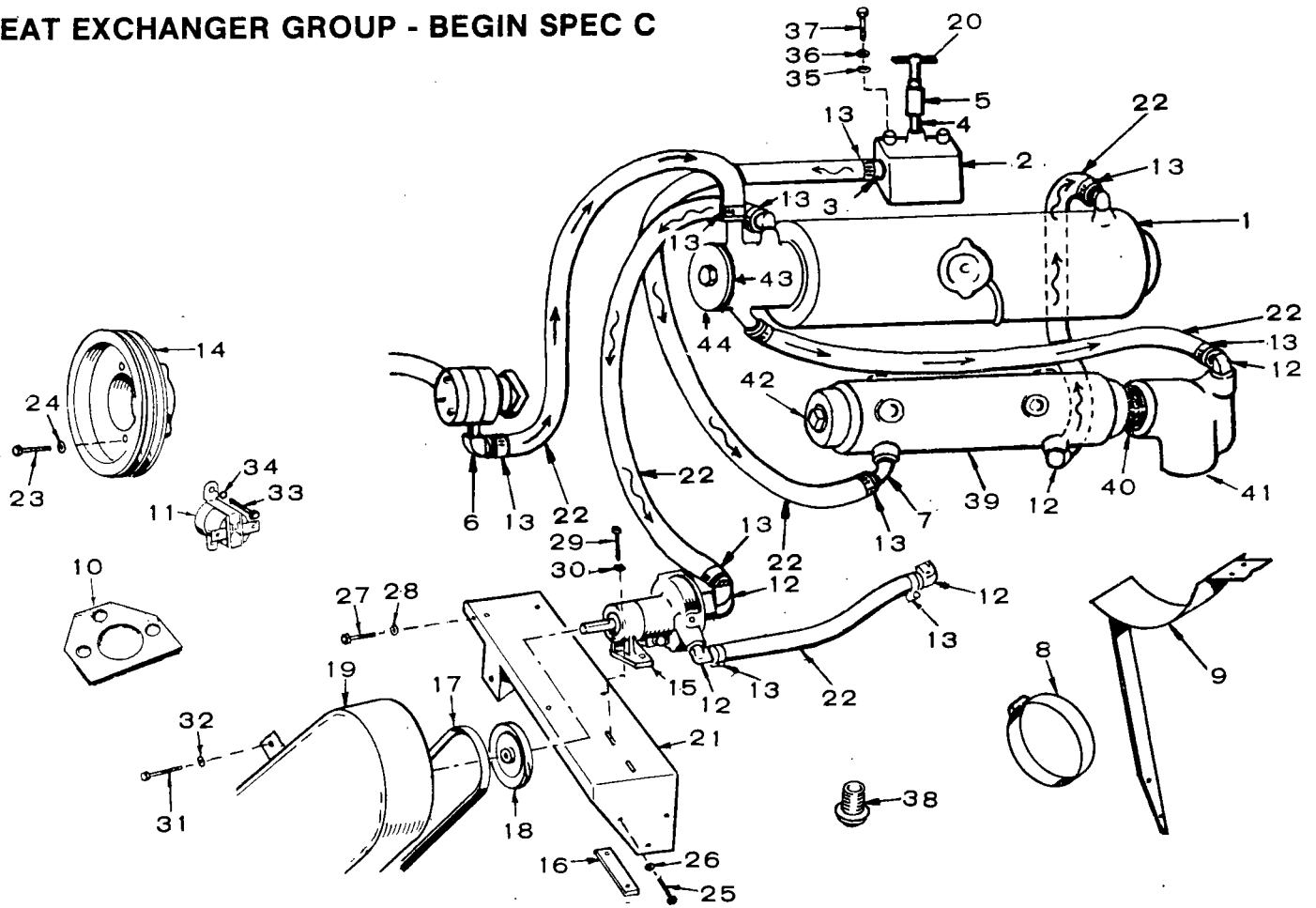


## MANIFOLD AND THERMOSTAT GROUP

**NOTE:** For plants with heat exchanger or keel cooling see also separate group.

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	MANIFOLD, EXHAUST - WATER COOLED 154-0708	1	All, except Heat Exchanger Cooled Units Begin Spec C	17	503-0446	4	Clamp, Water Hose
	154-1592	1	Heat Exchanger Cooled Models Begin Spec C	18	502-0080	1	Plug (1/8") - Manifold End Cap (Used on some early models)
2	154-1057	2	Gasket, Exhaust Manifold to Head	TEE, REDUCING - EXHAUST (With Provision for Water Line)			
3	505-0110	1	Plug, 3/8"	19	505-0485	1	Early Models
4	502-0074	1	Elbow, Inverted Male	20	155-1058	1	Late Models
5	130-0510	1	Line, Water	21	154-0894	1	Tube Assembly, Water Hose Adapter - Early Models
6	502-0103	1	Connector, Inverted Male - Thermostat Cover Outlet	22	505-0625	1	Nipple, Close (1-1/4") - Exhaust (Early Models Used Quantity of 2)
7	COVER, THERMOSTAT			23	505-0493	1	Elbow, Pipe (1-1/4" x 90°) - Exhaust - Early Models
	309-0144	1	Plants WITHOUT Keel Cooling	24	505-0359	1	Plug, Exhaust Manifold End
	309-0161	1	Plants WITH Keel Cooling	25	503-0575	1	Elbow, Exhaust Hose - Late Models
8	505-0274	1	Plug, 1/8" Thermostat Cover	26	502-0237	1	Elbow, Brass - Water Hose Adapter - Late Models
9	309-0145	1	Gasket, Thermostat Cover	27	503-0465	2	Clamp, Hose - Exhaust Elbow - Late Models
10	309-0130	1	Thermostat	28	517-0041	3	Plug, Expansion
11	520-0143	2	Stud, Thermostat Cover	29	850-0030	2	Washer, Lock - High Temperature Switch Mounting
12	309-0156	1	Switch, Hi-Temperature Cut-Off	30	813-0096	2	Screw, Machine - Round Head (#10-32 x 1/4")
13	309-0154	1	Cover, Thermostat Switch - For Plants with Switch Mounted on Cover	31	526-0022	2	Washer, Flat (21/64" ID x 9/16" OD x 1/16" THK)
14	869-0002	2	Nut, Acorn - 5/16-24 Thermostat Cover Stud	32	110-0445	4	Nut, Hex (5/16-18) - Hardened
15	<del>502-0237</del>	2	Elbow, Brass - Exhaust Manifold Water Outlet	33	526-0045	4	Washer, Flat (21/64" ID x 5/8" OD x 1/8" THK)
16	503-0159	2	Hose, Rubber (1/2 x 3/4) - Water Outlet and Inlet				

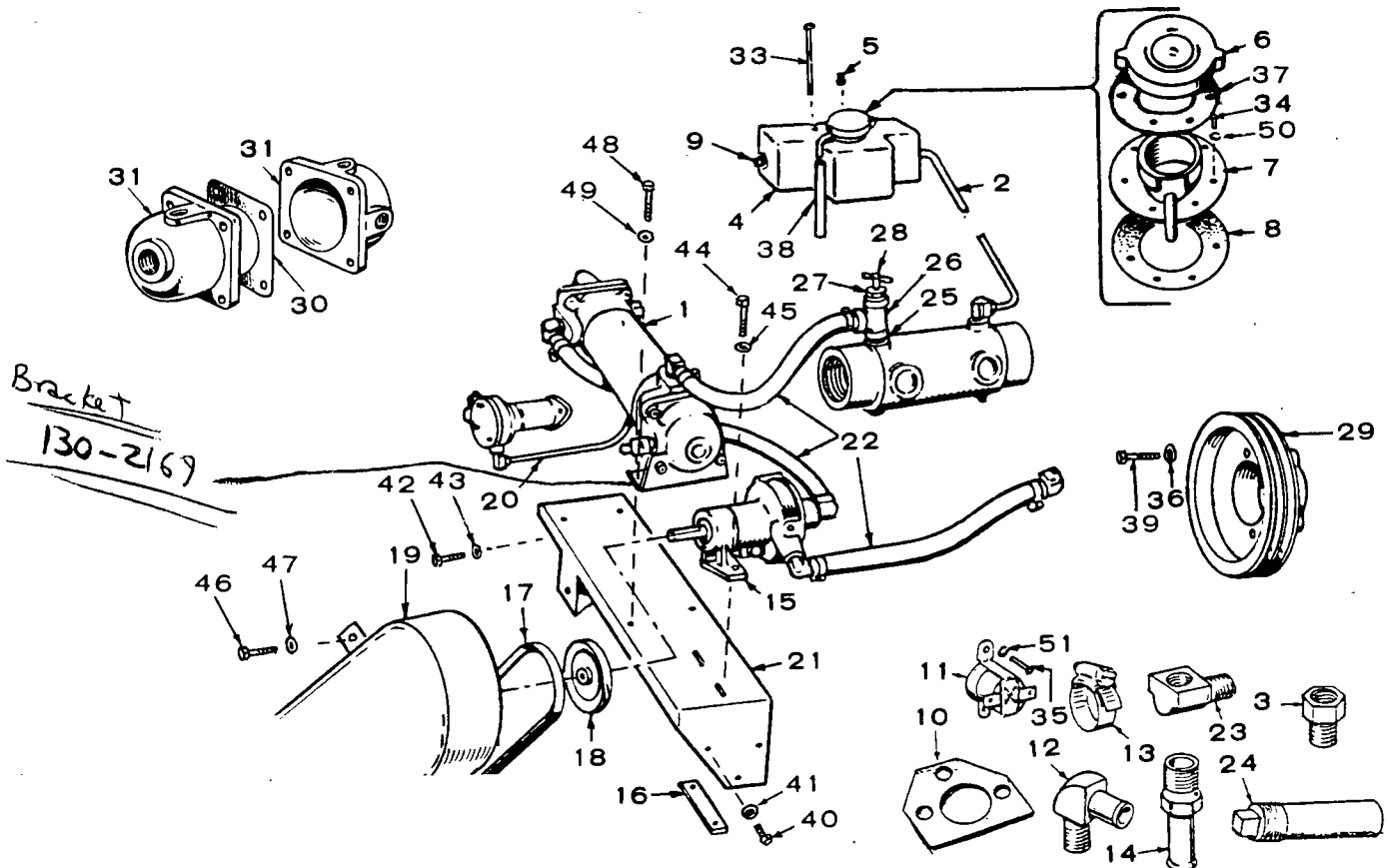
# HEAT EXCHANGER GROUP - BEGIN SPEC C



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	130-0904	1	Exchanger, Heat	24	850-0050	2	Washer, Lock - Spring (3/8)
2	309-0282	1	Cover, Thermostat	25	800-0026	2	Screw, Cap - Hex Head (5/16-18 x 3/4")
3	502-0238	1	Connector, Thermostat Cover Outlet	26	850-0045	2	Washer, Lock - Spring (5/16)
4	505-0098	1	Nipple, Pipe Thermostat Cover	27	800-0004	2	Screw, Cap - Hex Head (1/4-20 x 5/8")
5	505-0026	1	Coupling, Pipe - Thermostat Cover Valve	28	850-0040	2	Washer, Lock - Spring (1/4)
6	502-0304	1	Elbow, Raw Water Pump Outlet	29	800-0005	2	Screw, Cap - Hex Head (1/4-20 x 3/4")
7	502-0237	1	Elbow, Exhaust Manifold Inlet	30	850-0040	2	Washer, Lock - Spring (1/4)
8	503-0612	2	Clamp, Heat Exchanger Mounting	31	800-0003	4	Screw, Cap - Hex Head (1/4-20 x 1/2")
9	130-0903	1	Bracket, Heat Exchanger	32	850-0040	4	Washer, Lock - Spring (1/4)
10	309-0145	1	Gasket, Thermostat Chamfer (Also listed in Manifold and Thermostat Group)	33	813-0096	2	Screw, Machine - Round Head (#10-32 x 1/4")
11	309-0156	1	Switch, High Temperature Cut-Off	34	850-0030	2	Washer, Lock - Spring (#10)
12	502-0237	3	Elbow, Brass - Rubber Hose Connections	35	526-0113	2	Washer, Flat (11/32" ID x 1" OD x 3/32" THK)
13	503-0446	12	Clamp, Hose	36	526-0122	2	Washer, Flat (11/32" ID x 23/32" OD x 0.1345" THK)
14	104-0550	1	Pulley, Flywheel	37	800-0034	2	Screw, Cap - Hex Head (5/16-18 x 2-1/4")
15	132-0110	1	*Pump, Water (Less Pulley)	38	309-0130	1	Thermostat
16	131-0130	1	Nut Bar - Pump Hold-down	39	154-1592	1	Manifold Exhaust - Water Cooled
17	511-0067	1	Belt, Centrifugal Water Pump	40	505-0625	1	Nipple, Exhaust
18	512-0042	1	Pulley, Centrifugal Water Pump	41	155-1058	1	Tee, Reducing - Exhaust (With provision for Water Line)
19	130-0920	1	Guard, Belt	42	505-0359	1	Plug, Exhaust Manifold
20	504-0006	1	Valve, Air Bleed	43	130-0959	1	Gasket, Heat Exchanger
21	130-0692	1	Bracket, Water Pump and Governor Spring	44	130-1092	1	Cap, Cleanout - Heat Exchanger
22		As Req.	Hose (#503-0110 Bulk Hose - Order by length - 6 feet required for all hoses)				
23	800-0054	2	Screw, Cap - Hex Head (3/8-16 x 2")				

\* - See Separate Group for Component Parts.

# HEAT EXCHANGER GROUP - OPTIONAL EQUIPMENT - SPEC A AND B



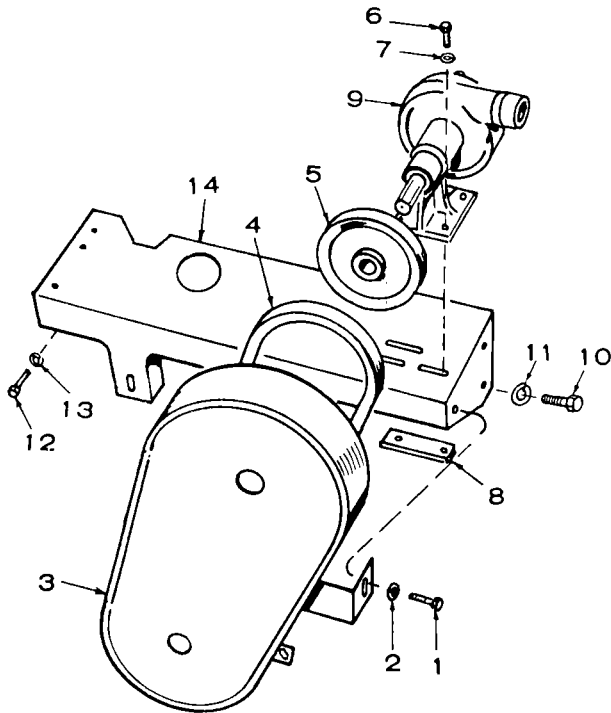
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	130-0908	1	Exchanger, Heat (Replaces early heat exchangers)	21	130-0692	1	Bracket, Heat Exchanger and Governor Spring Bracket
2	130-0568	1	Line, Water - Expansion Tank to Exhaust Manifold	22	503-0159	1	Hose, Rubber (1/2" I.D. x 3/4" Total Length Required for all Hoses)
3	502-0103	1	Connector, Inverted Male - Expansion Tank Outlet	23	502-0074	1	Elbow, Inverted Male - Manifold Line Inlet (Also Listed in Manifold and Thermostat Group)
4	130-0524	1	Tank, Expansion	24	130-0626	1	Pencil Assembly, Zinc
5	502-0080	1	Plug, 1/8" Expansion Tank Fill Vent	25	505-0101	1	Nipple, Close (3/8") - Manifold Outlet
6	130-0589	1	Cap, Pressure	26	505-0060	1	Tee, Pipe (3/8") - Manifold Outlet
7	130-0590	1	Neck and Adapter, Expansion Tank Cap	27	502-0049	1	Bushing, Pipe (1/8 x 3/8) - Manifold Outlet
8	130-0519	1	Gasket, Neck and Adapter	28	504-0006	1	Valve, Air Bleed - Manifold Outlet
9	502-0155	1	Plug, 3/8" - Expansion Tank	29	104-0550	1	Pulley, Flywheel
10	309-0145	1	Gasket, Thermostat Chamber (Also Listed in Manifold and Thermostat Group)	30	130-0726	2	Gasket, End Bonnet - Heat Exchanger
11	309-0156	1	Switch, Hi-Temperature Cut-Off	31	130-0727	2	Bonnet, Heat Exchanger
12	502-0237	5	Elbow, Brass - Rubber Hose Connections	33	800-0041	2	Screw, Cap - Hex Head (5/16-18 x 4")
13	503-0446	6	Clamp, Hose	34	821-0005	6	Screw, Self-Locking - Hex Washer Head (#10-32 x 1/2")
14	502-0238	1	Nipple Brass - Manifold Outlet Hose Connection	35	813-0096	2	Screw, Machine - Round Head (#10-32 x 1/4")
15	132-0110	1	*Pump, Less Pulley	36	850-0050	2	Washer, Lock - Spring (3/8)
16	131-0130	1	Nut Bar - Pump Hold-down	37	130-0892	1	Stiffener, Filler Neck
17	511-0067	1	Belt, Centrifugal Water Pump	38	503-0347	1	Hose, Rubber - Overflow
18	512-0042	1	Pulley, Centrifugal Water Pump				
19	130-0591	1	Guard, Belt				
20	130-0627	1	Line, Water - to Heat Exchanger				

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
39	800-0054	2	Screw, Cap - Hex Head (3/8-16 x 2")
40	800-0026	2	Screw, Cap - Hex Head (5/16-18 x 3/4")
41	850-0045	2	Washer, Lock - Spring (5/16)
42	800-0004	2	Screw, Cap - Hex Head (1/4-20 x 5/8")
43	850-0040	2	Washer, Lock - Spring (1/4)
44	800-0005	2	Screw, Cap - Hex Head (1/4-20 x 3/4")

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
45	850-0040	2	Washer, Lock - Spring (1/4)
46	800-0003	4	Screw, Cap - Hex Head (1/4-20 x 1/2")
47	850-0040	4	Washer, Lock - Spring (1/4)
48	800-0003	4	Screw, Cap - Hex Head (1/4-20 x 1/2")
49	850-0040	4	Washer, Lock - Spring (1/4)
50	850-0030	6	Washer, Lock - Spring (#10) (Early Models Only)
51	850-0030	2	Washer, Lock - Spring (#10)

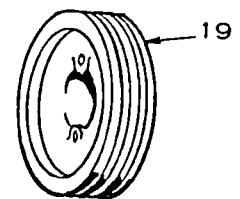
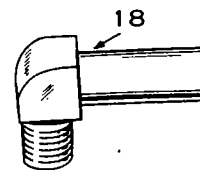
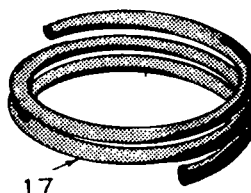
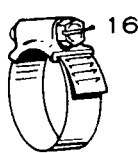
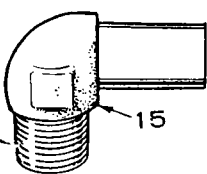
\* - For component parts, refer to separate group.

## SPECIAL PARTS FOR KEEL COOLING MODELS - OPTIONAL EQUIPMENT

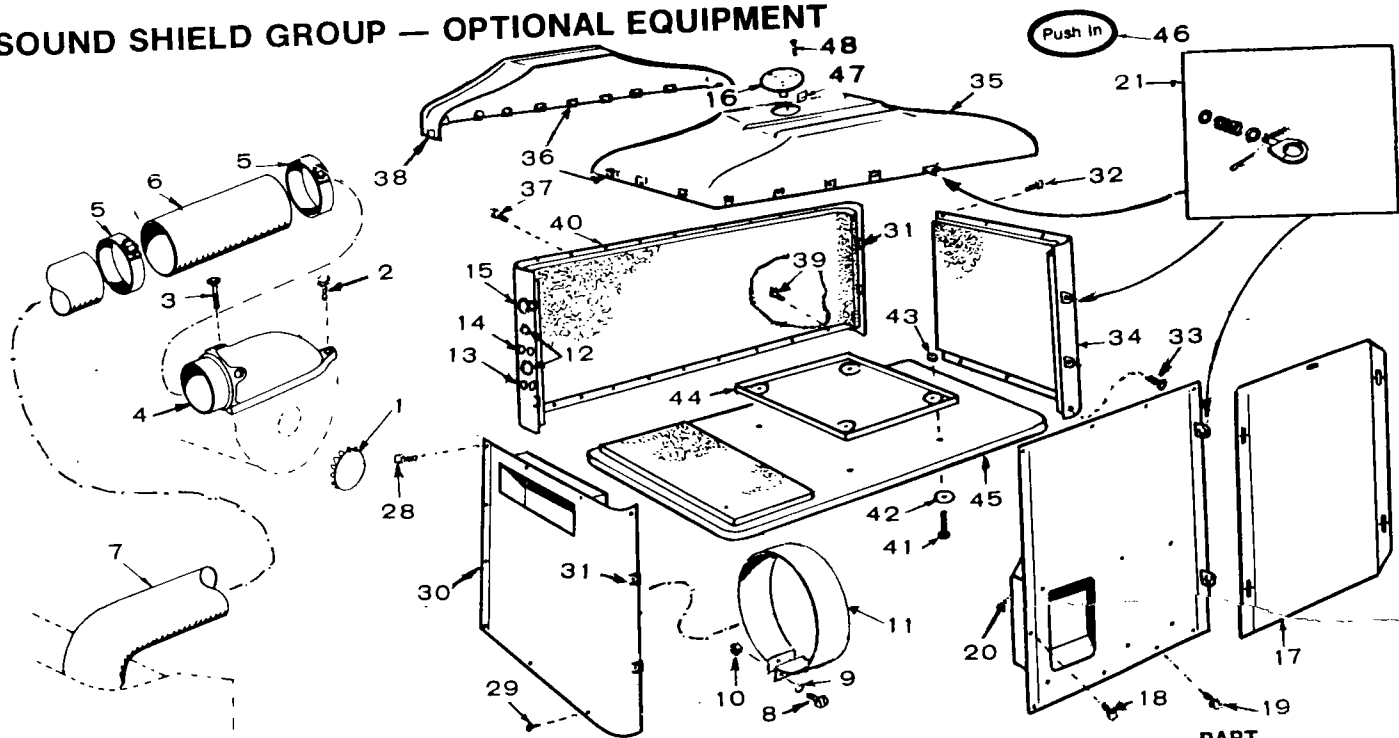


REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	800-0003	4	Screw, Cap - Hex Head (1/4-20 x 1/2")
2	850-0040	4	Washer, Lock - Spring (1/4)
3	130-0591	1	Guard, Belt
4	511-0068	1	Belt, V - Water Pump Drive
5	512-0042	1	Pulley - Water Pump
6	800-0005	2	Screw, Cap - Hex Head (1/4-20 x 3/4")
7	850-0040	2	Washer, Lock - Spring (1/4)
8	131-0144	1	Nut Bar - Pump Hold-down
9	132-0074	1	* Pump, Water (less Pulley)
10	800-0026	2	Screw, Cap - Hex Head (5/16-18 x 3/4")
11	850-0045	2	Nut, Hex (5/16-18)
12	800-0004	2	Screw, Cap - Hex Head (1/4-20 x 5/8")
13	850-0040	2	Washer, Lock - Spring (1/4)
14	130-0692	1	Bracket, Mounting - Water Pump
15	502-0278	1	Elbow, Pipe - Brass, Pump Inlet
16	503-0183	2	Clamp, Hose
17	503-0445	1	Hose, Rubber - Pump to Block
18	502-0250	1	Elbow, Pipe - Brass, Pump Outlet
19	104-0550	1	Pulley, Flywheel

\* - For Component Parts see Separate Group.

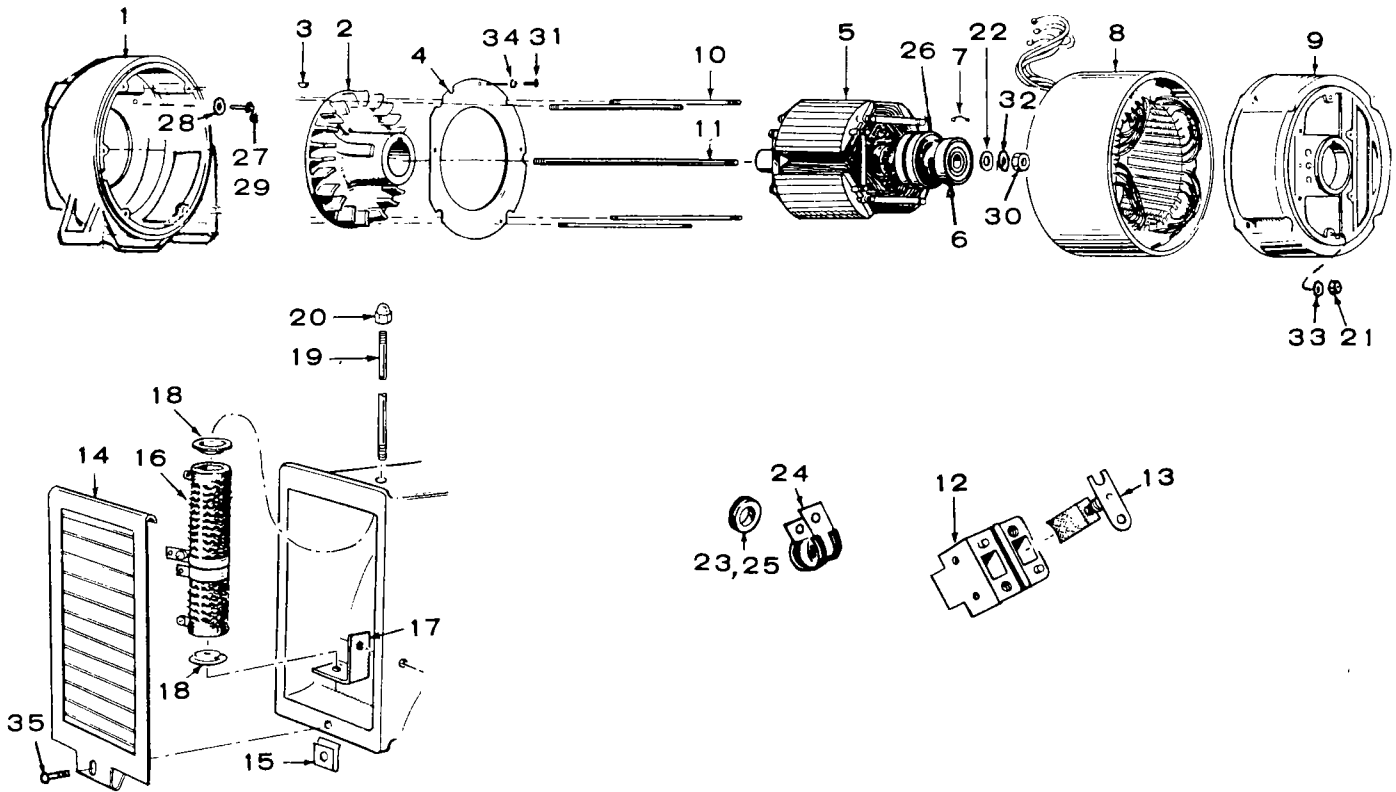


# SOUND SHIELD GROUP — OPTIONAL EQUIPMENT



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	405-1482	1	Kit, Installation - Sound Shield Group (Includes all Parts in this Group)	29	812-0150	3	Screw, Machine - Round Head (1/4-20 x 5/8")
1	517-0126	1	Plug, Button	30	405-1446	1	Panel, End - Air Inlet (Insulated) - Includes (2) J Type Spring Sheet Nuts
2	800-0006	1	Screw, Cap - Hex Head (1/4-20 x 7/8")	31	870-0107	6	Nut, Sheet Spring - J type (#14)
3	800-0015	1	Screw, Cap - Hex Head (1/4-20 x 3")	32	808-0053	6	Screw, Tapping - Round Head (#14 x 3/4")
4	140-0645	1	Adapter, Air Intake	33	812-0150	4	Screw, Machine - Round Head (1/4-20 x 5/8")
5	503-0269	2	Clamp, Hose	34	405-1454	1	Panel, End - Front (Insulated) - Includes (2) Latch Assemblies
6	503-0691	1	Hose, Rubber - Air Intake	35	405-1474	1	Panel, Top (Insulated) - Includes (1) Latch Assembly Marked £; and (11) J Type Spring Sheet Nuts
7	140-1266	1	Intake, Air	36	870-0097	20	Nut, Sheet Spring - J Type (#14)
8	813-0105	1	Screw, Machine - Round Head (#10-32 x 1")	37	808-0053	7	Screw, Tapping - Round Head (#14 x 3/4")
9	850-0030	1	Washer, Lock - Spring (#10)	38	405-1471	1	Molding, Corner-Top (Insulated) - Includes (9) J Type Spring Sheet Nuts Marked +
10	870-0053	1	Nut, Hex (#10-32)	39	812-0150	7	Screw, Machine - Round Head (1/4-20 x 5/8")
11	405-2209	1	Band, Air Duct	40	405-1468	1	Panel, Side (Insulated) - Includes (4) J Type Spring Sheet Nuts
12	508-0004	2	Grommet, Rubber - Water Lines	41	800-0084	4	Screw, Cap - Hex Head (7/16-14 x 4-1/2")
13	508-0008	2	Grommet, Rubber - Fuel Lines	42	526-0195	4	Washer, Flat (29/64" ID x 3-1/4" OD x 1/8" THK)
14	508-0071	2	Grommet, Rubber - Battery Cables	43	862-0004	4	Nut, Hex (7/16-14)
15	508-0115	1	Grommet, Rubber - Exhaust Line	44	405-1431	1	Pan, Drip - Oil
16	405-1478	1	Plate, Cover	45	405-1480	1	Base, Housing (Insulated)
17	405-1456	1	Panel, Access (Insulated)	46	98-2330	1	Decal, Fire Extinguisher Access Hole
18	808-0053	6	Screw, Tapping - Round Head (#14 x 3/4")	47	870-0261	3	Nut, Speed (#8-32)
19	812-0150	4	Screw, Machine - Round Head (1/4-20 x 5/8")	48	809-0030	3	Screw, Tapping - Round Head (#8 x 1/4")
20	405-1466	1	Panel, Side - Air Outlet (Insulated) - Includes (2) Latch Assemblies Marked £				
21	406-0343	5	Latch Assembly - Folding				
28	808-0053	5	Screw, Tapping - Round Head (#14 x 3/4")				

# GENERATOR GROUP - ALTERNATOR PORTION - SPEC A THROUGH Z



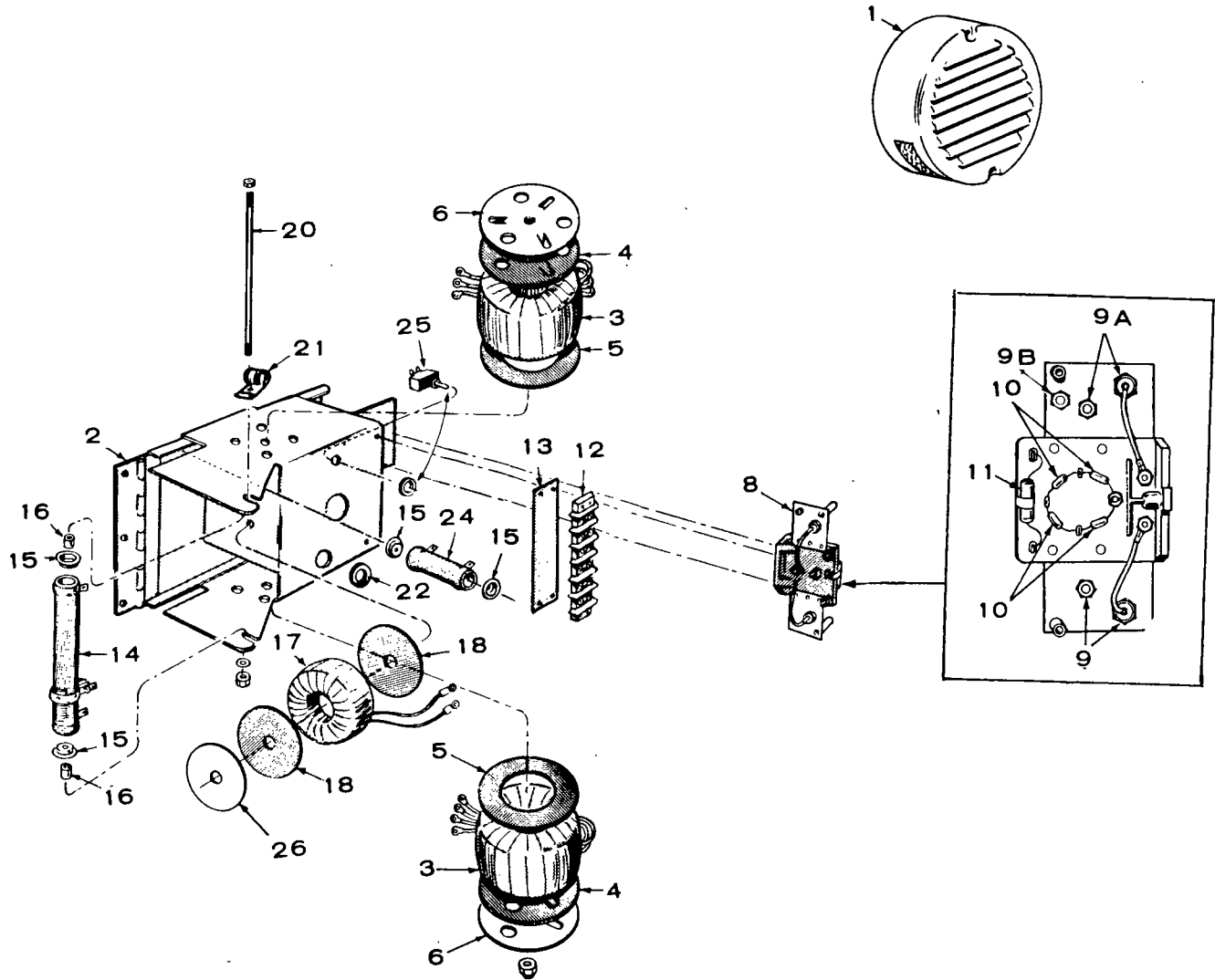
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	231-0112	1	Adapter, Generator to Engine
2	205-0064	1	Blower, Generator
3	515-0006	1	Key, Blower to Crankshaft
4	234-0162	1	Baffle, Generator Air
5	201-1120	1	Rotor, Wound - Includes Bearing and Blower
6	510-0047	1	Bearing, Ball - Rotor
7	232-0596	1	Clip, Bearing Stop
8		1	Stator Assembly, Wound
9	211-0146	1	Bell, End - Alternator to Exciter
10	520-0636	4	Stud, Generator Through
11	520-0612	1	Stud, Rotor Through
12	212-1064	2	Block, Guide - Collector Ring
13	214-0059	4	Brush, Collector Ring
14	234-0199	1	Cover, Air Outlet
15	870-0177	1	Clip, Fastening
16	RESISTOR, TAPPED ADJUSTING		
	304-0500	1	Units with 12 Volt DC
	304-0534	1	Units with 24 and 32 Volt DC
17	232-1565	1	Bracket, Resistor Mounting
18	304-0006	2	Washer, Resistor Centering
19	520-0620	1	Stud, Resistor Mounting

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
20	866-0001	1	Nut, Acorn - Resistor Mounting
21	862-0015	4	Nut, Hex (5/16-18)
22	232-0200	1	Washer, Thrust
23	508-0095	1	Grommet, Rubber - Air Baffle
24	332-0050	1	Clamp, Loop
25	508-0112	1	Grommet, Rubber - Generator Leads
26	204-0061	1	Collector Ring
27	800-0050	2	Screw, Cap - Hex Head (3/8-16 x 1")
28	850-0050	4	Washer, Lock - Spring (3/8)
29	800-0051	2	Screw, Cap - Hex Head (3/8-16 x 1-1/4")
30	870-0203	1	Nut, Hex (7/16-20) - Hardened
31	813-0098	5	Screw, Machine - Round Head (#10-32 x 3/8")
32	850-0055	1	Washer, Lock - Spring (7/16)
33	850-0045	4	Washer, Lock - Spring (5/16)
34	850-0030	5	Washer, Lock - Spring (#10)
35	809-0046	1	Screw, Tapping - Round Head (#10)

\* - Order by description giving Model, Spec and Serial Number.

# GENERATOR GROUP - EXCITER PORTION

SPEC. A THROUGH Z



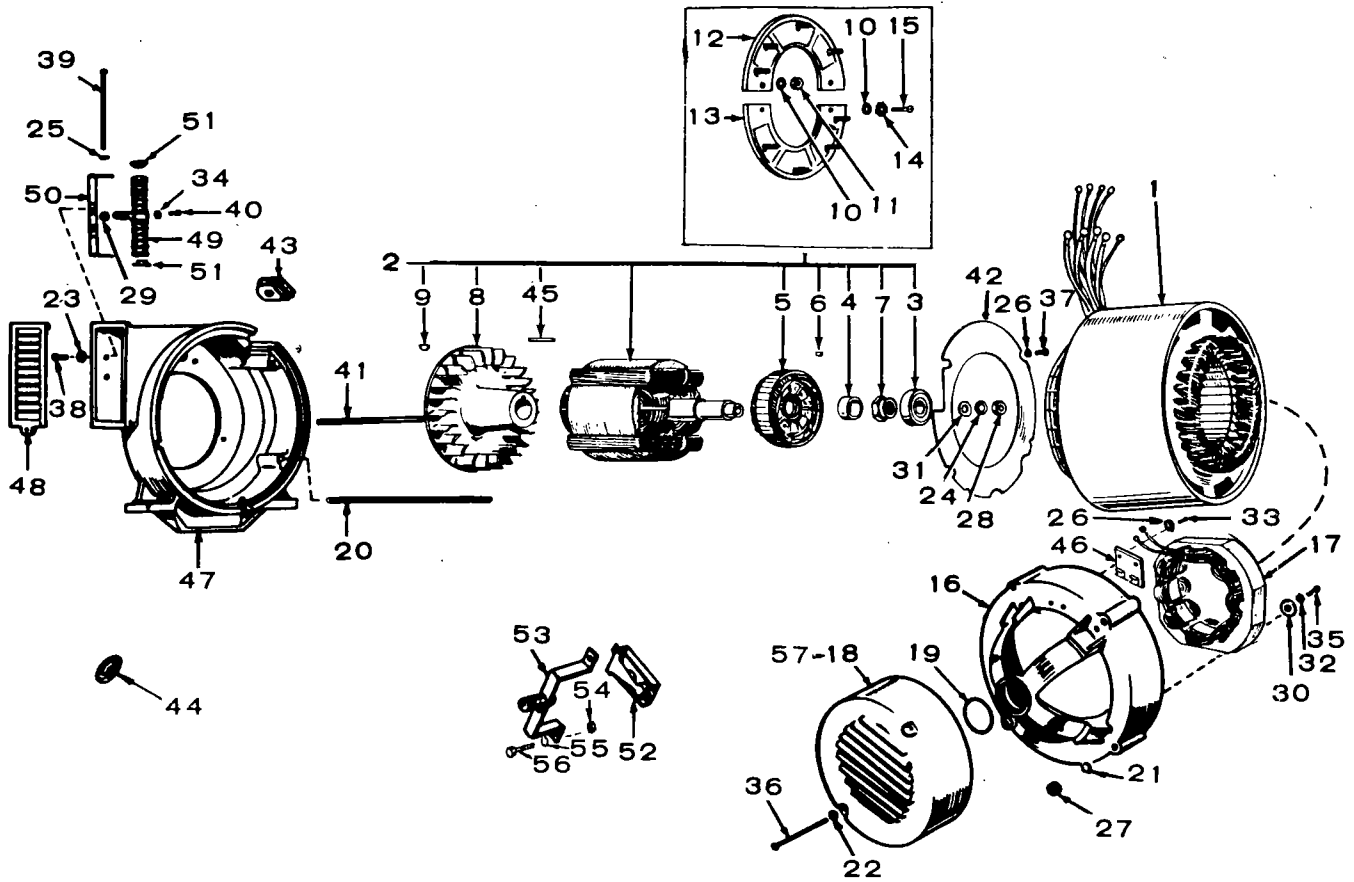


REF. NO.	QTY. USED	PART DESCRIPTION	PART NUMBER			
			04SX1N1B	04SX1N3B	06SX51N1B	06SX51N3B
	1	Exciter Complete (Less Cover)	209-0003	209-0005	209-0012	209-0013
1	1	Cover, Exciter	234-0185	234-0185	234-0185	234-0185
2	1	Panel Only, Exciter	234-0188	234-0188	234-0188	234-0188
3	2	Reactor, Gate	315-0099	315-0099	315-0104	315-0104
4	2	Gasket, Gate Reactor Mounting, Outer	232-1553	232-1553	232-1553	232-1553
5	2	Gasket, Gate Reactor Mounting, Inner	232-1551	232-1551	232-1551	232-1551
6	2	Retainer, Gate Reactor	232-1552	232-1552	232-1552	232-1552
7	1	Stud, Gate Reactor Mounting				
8	1	Rectifier Assembly, Resistor and Complete	305-0259	305-0387	305-0264	305-0388
9	2	Rectifier Only, Power Field, Negative	305-0238	★305-0238	305-0238	★305-0238
9A	2	Rectifier Only, Power Field, Positive	305-0239	305-0239	305-0239	305-0239
9B	1	Rectifier, Field Flash		305-0239		305-0239
10	4	Rectifier, Voltage Control	305-0240	305-0240	305-0240	305-0240
11	1	Resistor, Included in Rectifier Assembly (150-Ohm, 5 Watt)			304-0512	304-0512
11	1	Resistor, Included in Rectifier Assembly (500-Ohm, 5 Watt)	304-0476	304-0476		
12	1	Block, Terminal	332-0745	332-0745	332-0745	332-0745
13	1	Strip, Block Marker	332-0746	332-0925	332-0746	332-0925
14	1	Resistor, Fixed (200-Ohm, 50 Watt)				
14	1	Resistor, Tapped, 500-Ohm (425 Fixed, 75 Adj.)				
14	1	Resistor, Tapped, 500-Ohm (425 Fixed, 75 Adj.)	304-0527	304-0527	304-0527	304-0527
15	4	Washer, Resistor Centering (Two Only Used for 02SX1N1A)	304-0015	304-0015	304-0015	304-0015
16	2	Spacer, Resistor Mounting	232-1474	232-1474	232-1474	232-1474
17	1	Reactor, Voltage Control	315-0100	315-0100	315-0105	315-0105
18	2	Gasket, Voltage Control Reactor	232-1548	232-1548	232-1548	232-1548
19	1	Relay, Field Build-up				
20	1	Stud (or Screw), Tapped Resistor Mounting	520-0641	520-0641	520-0641	520-0641
21	1	Clip, Tinnerman	332-0051	332-0052	332-0051	332-0051
22	1	Grommet, Rubber, For 7/8" Hole	508-0008	508-0008	508-0008	508-0008
23	1	Cover, Relay				
24	1	Resistor, Fixed (250-Ohm, 25 Watt)	304-0510	304-0510	304-0510	304-0510
25	1	Switch, Residual Reset	308-0175		308-0175	
26	1	Washer, Retainer, Voltage Control Reactor	526-0173	526-0173	526-0173	526-0173

★ - Some Later Models use quantity of 3.

**NOTE:** All 6.0MDJE Sets use Exciter 06SX51N3B (Except 6.0MDJE-55DR which uses 06SX51N1B). The 7.5 MDJE Sets use Exciter 04SX1N3B (Except 7.5MDJE-5DR which uses 04SX1N1B).

# GENERATOR PARTS GROUP - BEGIN SPEC AA

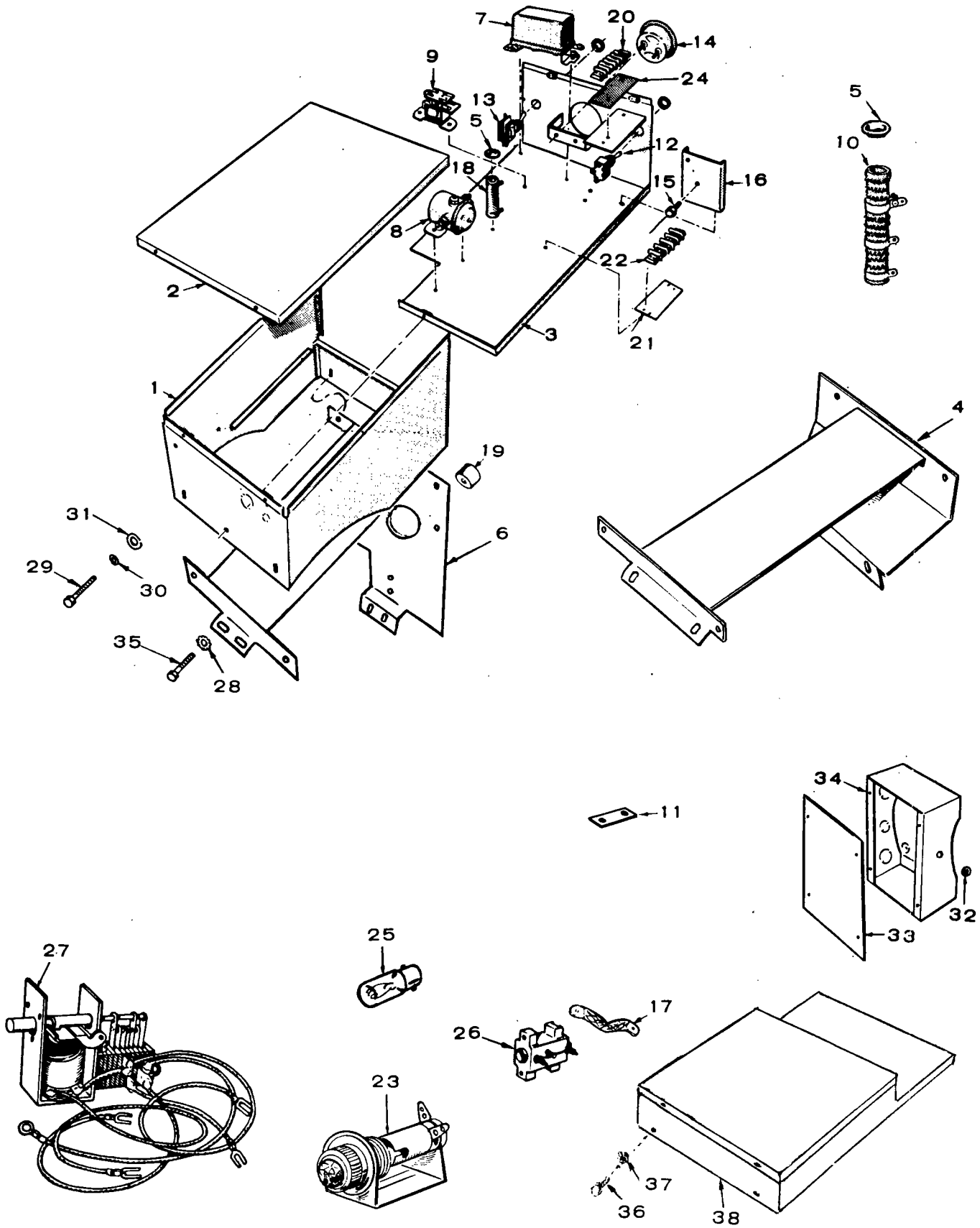


REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	STATOR, WOUND			15	813-0100	4	+Screw, Round Head (#10-32 x 1/2")
	220-2023	1	1 Phase, 50 Hertz (AC) - 12 Volt (DC)	16	211-0237	1	Bell, End
	220-2205	1	1 Phase, 50 Hertz (AC) - 24 Volt (DC)	17	220-2009	1	Stator, Wound - Exciter
	220-2230	1	1 Phase, 50 Hertz (AC) - 32 Volt (DC)	18	234-0185	1	Cover, End Bell
	220-2015	1	1 Phase, 60 Hertz (AC) - 12 Volt (DC)	19	509-0094	1	Seal, Bearing ("O" Ring)
	220-2197	1	1 Phase, 60 Hertz (AC) - 24 Volt (DC)	20	520-0795	4	Stud, Generator Through
	220-2222	1	1 Phase, 60 Hertz (AC) - 32 Volt (DC)	21	850-0050	4	Washer, Lock - Generator Through Stud (3/8")
	220-2048	1	3 Phase, 50 Hertz (AC) - 12 Volt (DC)	22	850-0040	2	Washer, Lock - End Bell Cover Mounting (1/4")
	220-2155	1	3 Phase, 50 Hertz (AC) - 24 Volt (DC)	23	850-0040	2	Washer, Lock - Resistor Bracket Mounting (1/4")
	220-2180	1	3 Phase, 50 Hertz (AC) - 32 Volt (DC)	24	850-0055	1	Washer, Lock - Rotor Through Stud (7/16")
	220-2040	1	3 Phase, 60 Hertz (AC) - 12 Volt (DC)	25	850-0040	1	Washer, Lock - Resistor Through Screw (1/4")
	220-2147	1	3 Phase, 60 Hertz (AC) - 24 Volt (DC)	26	850-0030	6	Washer, Lock (#10)
	220-2172	1	3 Phase, 60 Hertz (AC) - 32 Volt (DC)	27	862-0011	4	Nut, Hex - Generator Through Stud (3/8-16)
2	201-2155	1	Rotor Assembly, Wound - Includes Parts Marked +	28	870-0203	1	Nut, Hex - Rotor Through Stud (7/16-20)
3	510-0112	1	+Bearing, Rotor	29	871-0010	1	Nut, Hex - Resistor Tap (#10-32)
4	232-2398	1	+Spacer, Bearing				
5	201-2151	1	+Rotor, Wound - Exciter				
6	515-0094	1	+Key, Exciter Rotor				
7	870-0284	1	+Nut, Exciter Rotor Locking				
8	205-0105	1	+Fan, Generator				
9	515-0103	1	+Key, Fan				
10	526-0008	12	+Washer, Flat				
11	870-0131	8	+Nut, Hex (#10-32)				
12	358-0069	1	+Rectifier Assembly (Positive)				
13	358-0070	1	+Rectifier Assembly (Negative)				
14	853-0008	4	+Washer, Shakeproof (#10)				

+ - Included in the Rotor Assembly.

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
30	526-0260	2	Washer, Flat - Exciter Stator Mounting	42	234-0462	1	Baffle, Air
31	526-0034	1	Washer, Flat - Rotor Through Stud	43	508-0112	1	Grommet, Rubber - 2-3/4 x 1-7/8" (Lead Outlet)
32	853-0013	2	Washer, Shakeproof - Exciter Stator Mounting (1/4")	44	508-0095	1	Grommet, Rubber - 25/32 x 21/32"
33	815-0184	2	Screw, Tapping - Hex Head with External Tooth Lock Washer (#10-32 x 3/8")	45	515-0006	1	Key, Fan
34	856-0003	1	Washer, Shakeproof - Resistor Tap (#10)	46	232-2418	1	Board, Connection
35	800-0004	2	Screw, Hex Cap - Exciter Stator Mounting (1/4-20 x 5/8")	47	231-0161	1	Adapter, Generator
36	812-0165	2	Screw, Machine - Round Head (1/4-20 x 4-1/2")	48	234-0491	1	Cover, Air Outlet
37	813-0098	4	Screw, Round Head - Air Baffle Mounting (#10-32 x 3/8)	49	RESISTOR, TAPPED (Adjustable)		
38	812-0150	2	Screw, Round Head - Resistor Bracket Mounting (1/4-20 x 5/8")	304-0500		1	12 and 24 Volt DC
39	812-0169	1	Screw, Round Head - Resistor Through (1/4-20 x 5-1/2")	304-0534		1	32 Volt DC
40	811-0098	1	Screw, Round Head - Resistor Tap (#10-32 x 3/8")	50	232-2399	1	Bracket, Resistor Mounting
41	520-0787	1	Stud, Rotor Through	51	304-0006	2	Washer, Centering - Resistor Mounting
				52	SWITCH ASSEMBLY, OVERSPEED - OPTIONAL		
					150-0956	1	60 Hertz
					150-1661	1	50 Hertz
				53	150-1446	1	Bracket and Point Assembly, Overspeed - Optional
				54	868-0004	1	Nut, Hex Jam - Overspeed Switch Mounting
				55	850-0040	2	Washer, Lock - Overspeed Bracket and Point Assembly Mounting (1/4")
				56	800-0003	2	Screw, Hex Cap - Overspeed Bracket and Point Assembly Mounting (1/4-20 x 1/2")
				57	234-0498	1	Cover, End Bell - Sets with Overspeed Switch

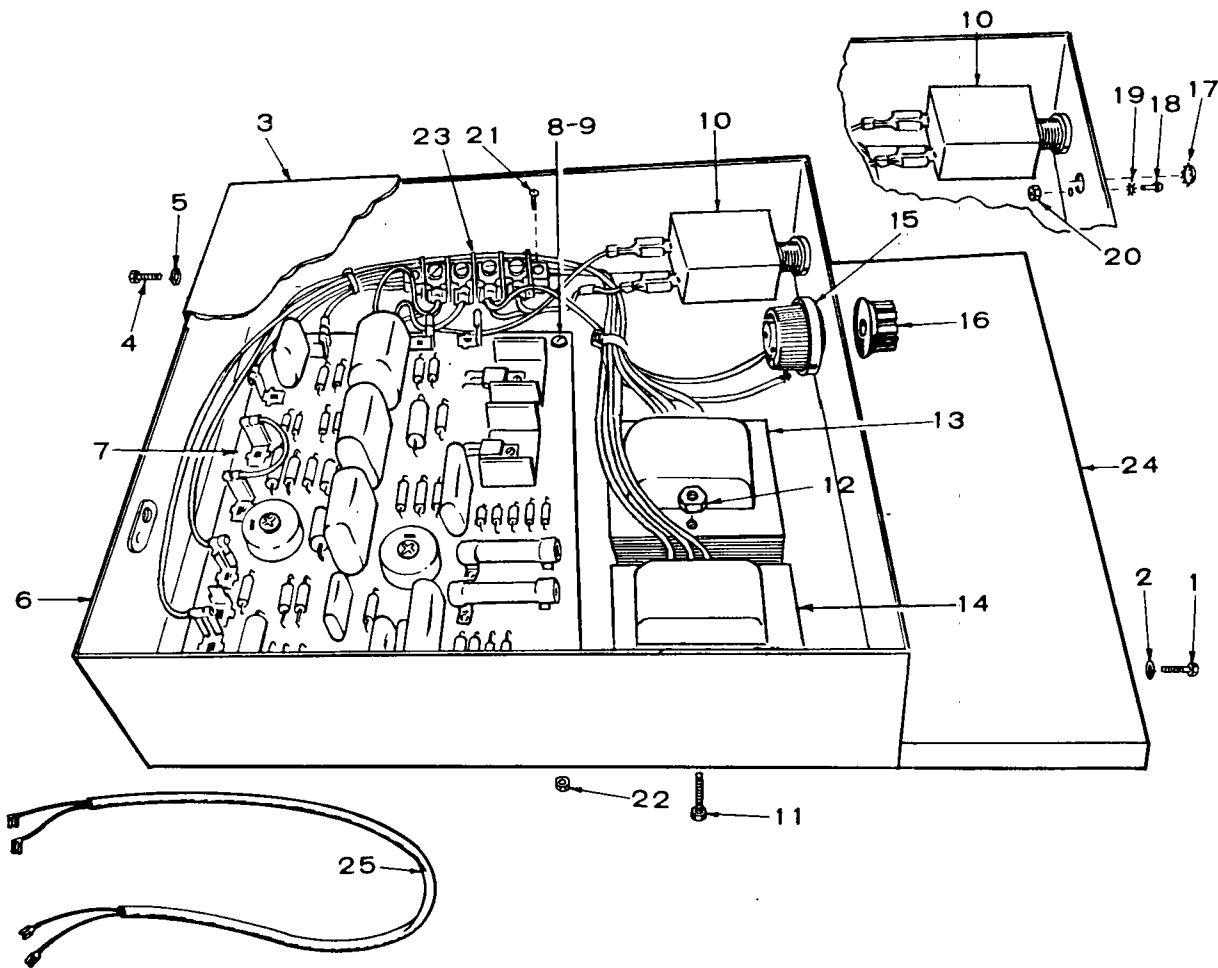
# CONTROL GROUP



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	301-1962	1	Box, Control
2	301-1963	1	Cover, Control Box - Spec A through Z
3	PANEL, CONTROL		
	301-1961	1	Standard Units
	301-2376	1	Units with Overspeed Cut-off Indicator Lamp - Optional
4	301-1968	1	Bracket, Control Box Mounting - Spec A thru Z
5	304-0006	As Req.	Washer, Resistor Centering
6	301-3683	1	Saddle, Control Box - Begin Spec AA
7	307-0597	1	Relay, Ignition Start - Spec A through Z
8	RELAY, SOLENOID		
	307-1046	2	Start and Manifold Heater (12 Volt DC) - Spec A through Z
	307-0061	2	Start and Manifold Heater (24 Volt and 32 Volt DC) - Spec A through Z
	307-1046	1	Manifold Heater (12 and 24 Volt DC) - Begin Spec AA
	307-0061	1	Manifold Heater (32 Volt DC) - Begin Spec AA
	307-0845	1	Start (12 and 24 Volt DC) - Begin Spec AA
	307-0875	1	Start (32 Volt DC) - Begin Spec AA
9	307-0623	1	Relay, Start Disconnect
10	RESISTOR, ADJUSTABLE		
	304-0005	1	32 Volt DC (150-ohm, 25 Watt)
	304-0247	1	32 Volt DC (100-ohm, 10 Watt)
	304-0194	1	24 Volt DC (50-ohm, 25 Watt)
	304-0268	1	24 Volt DC (5-ohm, 50 Watt)
11	332-0602	1	Jumper, Heater Solenoid to Start Solenoid
12	308-0154	1	Switch, Start Stop
13	308-0037	1	Switch, Manifold Heater
14	302-0446	1	Ammeter, Charge (5-0-5)
15	RECTIFIER		
	305-0235	1	For 12 and 24 Volt DC (10 Amp, 100 Volt)
	358-0015	1	For 32 Volt DC (12 Amp, 300 Volt)
16	305-0254	1	Bracket, Rectifier

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
17	STRAP, GROUND - CONTROL BOX		
	337-0052	1	Spec A through Z
	337-0036	1	Begin Spec AA
18	RESISTOR, FIXED		
	304-0032	1	12 Volt DC, 15-Ohm, 10 Watt
	304-0217	1	12 Volt DC - Units with Low Oil Pressure Switch - (1-Ohm, 10 Watt)
	304-0003	1	Units with Low Oil Pressure Switch (5-ohm, 50 Watt) (32 Volt DC)
	304-0276	1	24 Volt DC (75-ohm, 10 Watt)
19	402-0078	4	Mount, Rubber - Control Box
20	332-0604	1	Block, Terminal (5 Place)
21	332-0739	1	Strip, Marker (4, 5, 6, 7, 8, 9)
22	332-0706	1	Block, Terminal (8 Place) - Load
23	322-0069	2	Holder, Indicator Lamps - Optional - Begin Spec AA
24	332-0616	1	Strip, Block Marker (B+, 1, 2, 3, H)
25	322-0004	2	Lamp, Indicator (Low Oil Pressure and Overspeed) - Optional - Begin Spec AA
26	SWITCH, EMERGENCY - UNITS WITH LOW OIL PRESSURE SWITCH - OPTIONAL		
	320-0104	1	For Units Without Indicator Lamps
	320-0221	1	For Units With Indicator Lamps (Includes Micro Switch)
27	307-1129	1	Relay, Overspeed - Optional - Begin Spec AA
28	856-0008	4	Washer, Lock - Bracket to Generator Frame (5/16")
29	800-0024	4	Screw, Hex Cap - Control Box to Bracket (5/16-18 x 1/2")
30	850-0045	4	Washer, Lock - Control Box to Bracket (5/16")
31	526-0115	4	Washer, Flat - Control Box to Bracket (5/16")
32	GROMMET, RUBBER		
	508-0117	1	1-3/8" Hole
	508-0001	1	1-1/16" Hole - Spec A thru Z
	508-0183	1	1-3/4" Hole - Begin Spec AA
33	301-2466	1	Cover, Output Box - Begin Spec AA
34	301-2467	1	Box, Output - Begin Spec AA
35	815-0236	4	Screw, Bracket to Generator Frame (5/16-18 x 5/8")
36	815-0178	4	Screw, Machine - Hex Head (#10-32 x 5/8")
37	853-0008	4	Washer, Lock - External Tooth (#10)
38	VOLTAGE REGULATOR ASSEMBLY - BEGIN SPEC AA (See Separate Group for Components)		
	305-0532	1	Not Adjustable
	305-0533	1	Adjustable

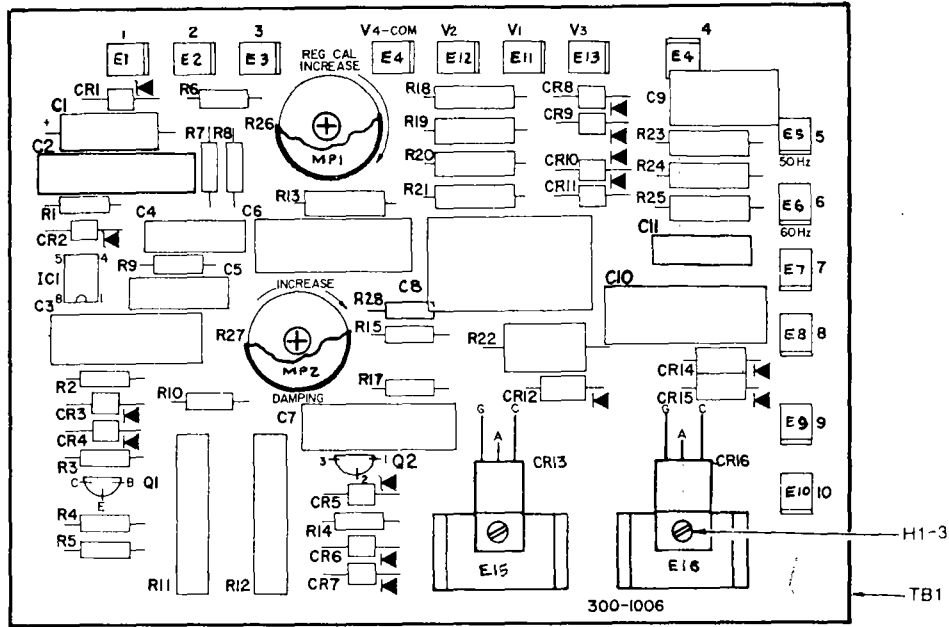
# VOLTAGE REGULATOR GROUP - BEGIN SPEC AA



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	815-0263	4	Screw, Machine- Hex Head, Slotted (#10-32 x 3/8")	14	315-0386	1	*†Transformer, Voltage (T21)
2	850-0030	4	Washer, Lock - Spring (#10)	15	303-0103	1	†Rheostat (R21)
3	301-3714	1	Cover, Voltage Regulator	16	303-0194	1	†Knob
4	815-0263	4	Screw, Machine - Hex Head, Slotted(#10-32 x 3/8")	17	517-0045	1	*Plug, Dot Button
5	850-0030	4	Washer, Lock - Spring (#10)	18	812-0027	1	*Screw, Machine - Round Head (#4-40 x 1/4")
6	VOLTAGE REGULATOR ASSEMBLY			19	853-0001	1	*Washer, Lock - External Tooth
	305-0532	1	Without Voltage Adjustment (Includes Parts Marked *)	20	860-0003	1	*Nut, Hex (#4-40)
	305-0533	1	With Voltage Adjustment (Includes Parts Marked †)	21	812-0063	2	*†Screw, Machine - Round Head (#6-32 x 1/2")
7	300-1006	1	*†Printed Circuit Board Assy. (VR21) (See Separate Group For Components)	22	870-0183	2	*†Nut, Hex with External Tooth Lockwasher (#6-32)
8	815-0190	4	*†Screw, Tapping - Round Head (#8 -32 x 3/8")	23	332-1647	1	*†Terminal Strip (TB21)
9	853-0005	4	*†Washer, Lock - External Tooth (#8)	24	301-3713	1	*†Panel, Mounting
10	320-0505	1	*†Circuit Breaker (CB21)	25	WIRING HARNESS - VOLTAGE REGULATOR TO EXCITER STATOR		
11	812-0070	4	*†Screw, Machine - Round Head (#6-32 x 1-1/4")	338-0744	1	Used on Unhoused Sets	
12	870-0183	4	*†Nut, Hex (#6-32)	338-0755	1	Used on Housed Sets	
13	315-0391	1	*†Reactor (CMR21)				

\* - Parts Included in Non-Adjustable Voltage Regulator Assembly.  
 † - Parts Included in Adjustable-Voltage Regulator Assembly.

# PRINTED CIRCUIT BOARD ASSEMBLY GROUP - BEGIN SPEC AA



REF. DES.	PART NO.	QTY. USED	PART DESCRIPTION	REF. DES.	PART NO.	QTY. USED	PART DESCRIPTION
	300-1006		Printed Circuit Board Assembly	R1	350-0423	1	Resistor (33,000-Ohm, 1/2 Watt, 5%)
C1	356-0039	1	Capacitor, Electrolytic (100 Mfd, 10 Volt)	R2	350-0443	1	Resistor (220,000-Ohm, 1/2 Watt, 5%)
C2	355-0006	1	Capacitor, Plastic (.47 Mfd, 200 Volt)	R3	350-0447	1	Resistor (330,000-Ohm, 1/2 Watt, 5%)
C3	355-0005	1	Capacitor, Plastic (.22 Mfd, 200 Volt)	R4	350-0398	1	Resistor (3,000-Ohm, 1/2 Watt, 5%)
C4	355-0015	1	Capacitor, Plastic (.1 Mfd, 200 Volt)	R5	350-0466	1	Resistor (2 Megohm, 1/2 Watt, 5%)
C5	355-0015	1	Capacitor, Plastic (.1 Mfd, 200 Volt)	R6	351-0202	1	Resistor (1,240-Ohm, 1/4 Watt, 1%)
C6	355-0006	1	Capacitor, Plastic (.47 Mfd, 200 Volt)	R7	350-0455	1	Resistor (270,000-Ohm, 1/2 Watt, 5%)
C7	355-0005	1	Capacitor, Plastic (.22 Mfd, 200 Volt)	R8	350-0435	1	Resistor (100,000-Ohm, 1/2 Watt, 5%)
C8	355-0016	1	Capacitor, Plastic (1 Mfd, 100 Volt)	R9	350-0459	1	Resistor (1 Megohm, 1/2 Watt, 5%)
C9	355-0031	1	Capacitor, Ceramic (.39 Mfd, 100 Volt)	R10	350-0435	1	Resistor (100,000-Ohm, 1/2 Watt, 5%)
C10	355-0017	1	Capacitor, Plastic (.47 Mfd, 400 Volt)	R11	353-0048	1	Resistor (4,000-Ohm, 5 Watt, 5%)
C11	355-0015	1	Capacitor, Plastic (.1 Mfd, 200 Volt)	R12	353-0048	1	Resistor (4,000-Ohm, 5 Watt, 5%)
CR1	359-0036	1	Diode	R13	351-0293	1	Resistor (11,000-Ohm, 1/4 Watt, 1%)
CR2	359-0025	1	Diode	R14	350-0363	1	Resistor (100-Ohm, 1/2 Watt, 5%)
CR3	357-0004	1	Rectifier	R15	350-0351	1	Resistor (33-Ohm, 1/2 Watt, 5%)
CR4	357-0004	1	Rectifier	R17	350-0351	1	Resistor (33-Ohm, 1/2 Watt, 5%)
CR5	359-0026	1	Diode	R18	351-0332	1	Resistor (28,000-Ohm, 1/4 Watt, 1%)
CR6-11	357-0004	6	Rectifier	R19	351-0240	1	Resistor (3,090-Ohm, 1/4 Watt, 1%)
CR12	357-0021	1	Rectifier	R20	351-0211	1	Resistor (1,530-Ohm, 1/4 Watt, 1%)
CR13	365-0002	1	Rectifier	R21	351-0234	1	Resistor (2,670-Ohm, 1/4 Watt, 1%)
CR14	357-0021	1	Rectifier	R22	350-0973	1	Resistor (270-Ohm, 2 Watt, 5%)
CR15	357-0021	1	Rectifier	R23	350-0512	1	Resistor (10-Ohm, 1/2 Watt, 10%)
CR16	365-0002	1	Rectifier	R24	351-0353	1	Resistor (46,400-Ohm, 1/4 Watt, 1%)
E1-14	332-1511	14	Terminal, Lug	R25	351-0349	1	Resistor (42,200-Ohm, 1/4 Watt, 1%)
E15-16	363-0069	2	Heatsink, Diode	R26	303-0168	1	Potentiometer (5,000-Ohm, 2 Watt, 20%)
H1	812-0029	2	Screw, Machine - Roundhead (#4-40 x 3/8")	R27	303-0164	1	Potentiometer (8,000-Ohm, 2 Watt, 20%)
H2	526-0257	2	Washer, Flat (1/8" ID x 5/16" OD x 1/32" THK)	R28	350-0355	1	Resistor (47-Ohm, 1/2 Watt, 5%)
H3	860-0003	2	Nut, Hex (#4-40)	TB1	332-1566	1	Printed Wiring Board
IC1	367-0005	1	Integrated Circuit				
MP1-2	517-0127	2	Cover, Potentiometer				
Q1	362-0017	1	Transistor				
Q2	361-0003	1	Transistor				

### SERVICE KITS AND MISCELLANEOUS

**NOTE:** For other kits, refer to the group for the part in question.

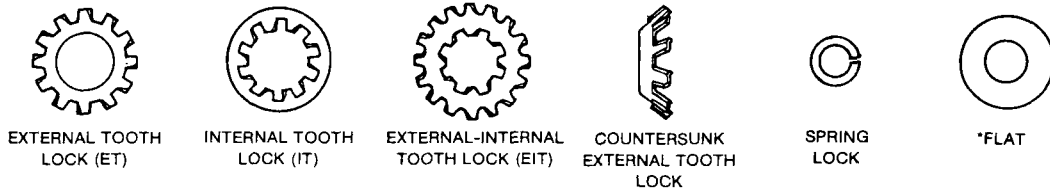
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	98-1807	1	Decal Kit
	168-0106	1	Gasket Kit, Plant
	155-1004	1	Muffler, Aqualift (Includes Hull Strainer)
	155-0955	1	Installation Package - Aqualift Muffler
OVERHAUL KIT, ENGINE			
	522-0241	1	Spec A Only
	522-0257	1	Begin Spec B
	525-0216	1	Paint, Touch-up (pressurized can) 16 ounce - Marine White Enamel



# HARDWARE IDENTIFICATION

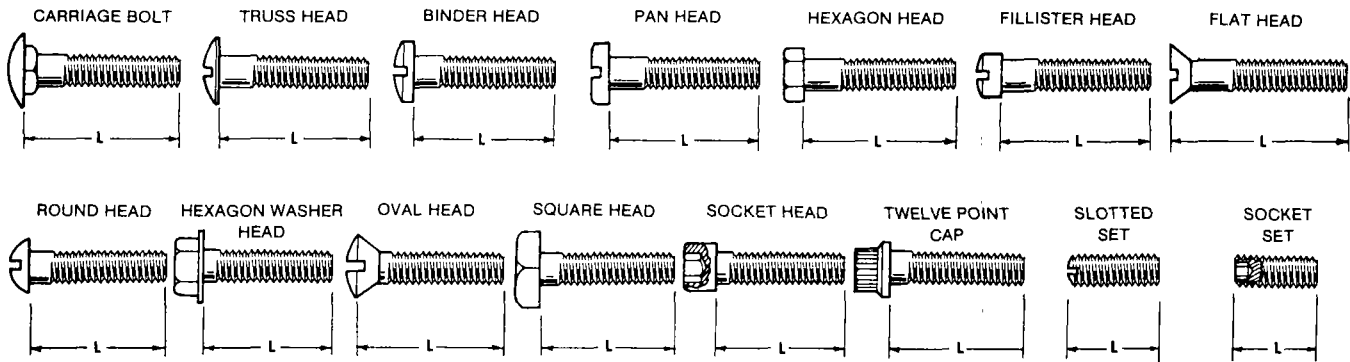
Illustrated hardware items are only for identification purposes. All hardware items listed throughout this parts catalog are steel SAE grade five (5) or lower (zinc plated with clear chromate dip) unless parts description indicates differently. All dimensions are in inches.

## WASHER TYPES




\* - Flat washer dimensions given are: Inside Diameter (ID), Outside Diameter (OD) and Thickness (Thk).

## BOLT AND SCREW TYPES




L - Measure length between these points.


### INTERNAL DRIVE TYPES




SLOTTED



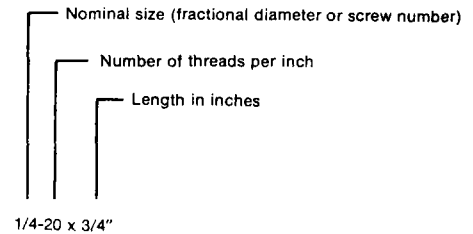
CROSS RECESSED (PHILLIPS)



SIX POINT SOCKET



TWELVE POINT SOCKET



## NUT TYPES

