

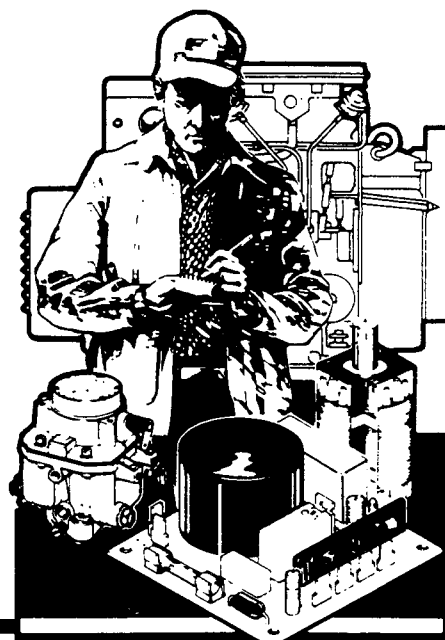
The following catalog
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order that Acrobat
assigns it.

Onan

Parts Manual

MDJF

GenSets



Onan Service Parts

968-0221
10-88 (SPEC A-AD)
Replaces
7-82 (Spec A-AB)
Printed in U.S.A.

SAFETY PRECAUTIONS

The following symbols are used in Onan manuals to alert users to the potentially dangerous conditions relating to maintenance of the equipment and replacement of parts. Please read and observe.

⚠ DANGER *This symbol warns of immediate hazards which will result in severe personal injury or death.*

⚠ WARNING *This symbol refers to a hazard or unsafe practice which can result in severe personal injury or death.*

⚠ CAUTION *This symbol refers to a hazard or unsafe practice which can result in personal injury or product or property damage.*

MODEL IDENTIFICATION

To avoid errors or delay in filling your parts order, always give the MODEL, SPEC NO., and SERIAL NO. from the Onan nameplate.

For handy reference, insert your nameplate information in the spaces below:

MODEL AND SPEC NO. _____

SERIAL NO. _____

PRODUCT SAFETY PRECAUTIONS

⚠ WARNING

Contact with USED ENGINE OILS has been identified by a United States federal agency and some USA state agencies as causing CANCER or REPRODUCTIVE TOXICITY. When checking or changing engine oils take all necessary precautions not to ingest, breathe the fumes or contact the used oil.

⚠ WARNING

Contact with ASBESTOS has been identified by a United States federal agency and some USA state agencies as causing CANCER or REPRODUCTIVE TOXICITY. When handling engine gaskets take all necessary precautions not to ingest, breathe or contact the dust from the gaskets! Use adequate ventilation and wear protective gloves, masks and clothing!

⚠ WARNING

Contact with BENZINE and LEAD, found in gasoline, fuel additives and solvents has been identified by a United States federal agency and some USA agencies as causing CANCER or REPRODUCTIVE TOXICITY. When checking, draining or adding gasoline and fuel additives, or using solvents take all necessary precautions not to ingest, breathe the fumes, or contact the liquids. Use adequate ventilation and wear protective gloves, masks and clothing!

General Information

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, always give the MODEL, SPEC NO. and SERIAL NO. from the Onan nameplate.

The diagram shows a rectangular nameplate with two circular mounting holes at the top. The Onan logo is at the top left. Below it is a large rectangular box labeled "MODEL AND SPEC NO.". Below that is a smaller rectangular box labeled "SERIAL NO.". The bottom right corner of the nameplate is folded over, revealing another identical nameplate underneath. The text "M-1149" is printed at the bottom right of the diagram.

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

▲WARNING

TAKE ALL NECESSARY PRECAUTIONS WHEN CHECKING OR CHANGING ENGINE OIL NOT TO INGEST, BREATHE THE FUMES OR CONTACT THE OIL. USED ENGINE OILS HAVE BEEN IDENTIFIED BY FEDERAL AND SOME STATE AGENCIIES AS CAUSING CANCER.

▲WARNING

TAKE ALL NECESSARY PRECAUTIONS WHEN HANDLING ENINGE GASKETS. DO NOT INGEST, BREATHE, OR CONTACT DUST FROM GASKETS. USE ADEQUATE VENTILATION AND WEAR PROTECTIVE GLOVES, MASK AND CLOTHING. ASBESTOS HAS BEEN IDENTIFIED BY FEDERAL AND SOME STATE AGENCIES AS CAUSING CANCER.

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INTRODUCTION

This catalog applies to the standard MDJF Generator Sets as listed in the Generator Set Data Table. Parts are arranged in groups of related items and each illustrated part is identified by a reference number corresponding to the same reference number in the parts list. Unless otherwise mentioned in the description or page heading, parts are interchangeable between models. Parts illustrations are typical. Using the model and specification number from your generator set nameplate, select parts that apply to your set. Right and left sides are determined by facing the engine end (front) of the set.

NOTE: In prior issues of this parts catalog 12 Volt DC sets were designated by Parts Key Number 1 and 32 Volt DC sets were designated by Parts Key Number 2 in the Generator Set Data Table. In this issue these Parts Key Numbers are no longer used. Instead, replacement parts that differ due to DC voltage are identified in the description as 12, 24 or 32 Volt DC and can be ordered accordingly.

GENERATOR SET DATA TABLE

MODEL AND SPECIFICATION NUMBER	ELECTRICAL DATA				
	WATTS	VOLTS	HERTZ	WIRE	PHASE
12.0 MDJF-53CR/*	12000	120/240	50	**	1
12.0 MDJF-53R/*	12000	120/240	50	3	1
12.0 MDJF-55DR/*	12000	120/240	50	4	3
12.0 MDJF-57R/*	12000	220/380	50	4	3
12.0 MDJF-58R/*	12000	127/220	50	4	3
12.0 MDJF-518R/*	12000	*	50	12	3
15.0 MDJF-3CR/*	15000	120/240	60	**	1
15.0 MDJF-3R/*	15000	120/240	60	3	1
15.0 MDJF-4R/*	15000	120/208	60	4	3
15.0 MDJF-5DR/*	15000	120/240	60	4	3
15.0 MDJF-18R/*	15000	*	60	12	3
18.5 MDJF-3CR/*	18500	120/240	60	**	1
12.0 MDJF-53R3/*†	12000	120/240	50	3	1
15.0 MDJF-3CR4/*†	15000	120/240	60	**	1
15.0 MDJF-3R3/*†	15000	120/240	60	3	1
15.0 MDJF-3R4/*†	15000	120/240	60	3	1
15.0 MDJF-4R4/*†	15000	120/208	60	4	3
15.0 MDJF-3CE/* (Formerly 15 MDJF-3E3836/*)	15000	120/240	60	**	1
15.0 MDJF-3CE/*	15000	120/240	60	3	1
15.0 MDJF-4E/*	15000	120/208	60	4	3

These are Workboat Models manufactured during specification letters A through Z. For replacement parts, refer first to the Special Parts Section for Workboat Models. Parts not in that section refer to the Standard Parts Section. When referring to the Standard Parts Section reference to Specification Letter or Voltage also applies to these sets.

* - The diagonal line (/) in the model and specification number separates generator set characteristics from the specification number and letter(s). The specification number denotes customer requested options or deviations from a standard (1A, 1B, ..., 1AA, 1AB) model. The specification letter advances (A to B, B to C, ..., Z to AA, AA to AB) with major manufacturing changes.

** - These generators have four load wires which are reconnectable for 120 volt, 2 wire service or 240 volt, 2 wire service or 120/240 volt, 3 wire service.

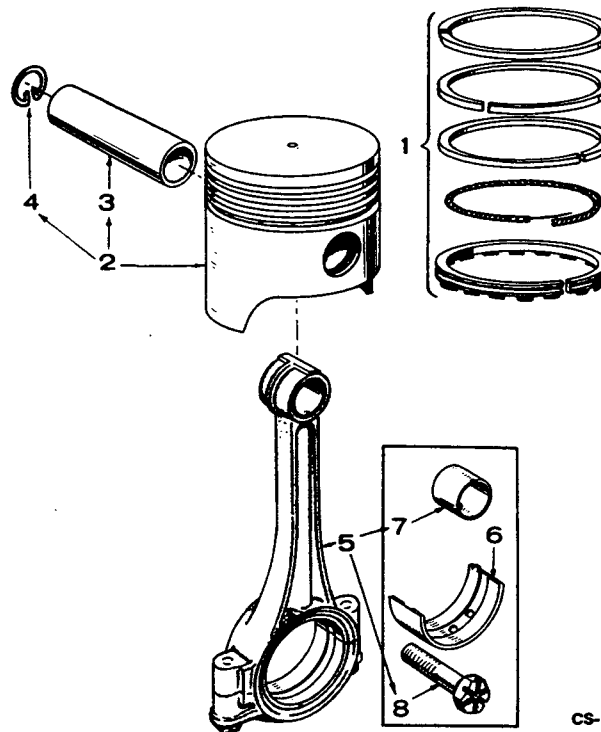
★ - Broad range reconnectable sets, refer to connection diagram inside outlet box cover.

† - These sets have an optional 24 or 32 Volt DC cranking system for engine requirements only (not auxiliary DC loads). These sets, manufactured during specification letters A through Z, are recognized by the number 3 (24 Volt DC) or 4 (32 Volt DC) appearing in the model just before the diagonal line (/) as shown in the Generator Set Data Table above. This number designation is not used after specification letter Z.

STANDARD PARTS SECTION

This section contains standard parts applicable to models listed in the generator set data table.

PISTON AND ROD

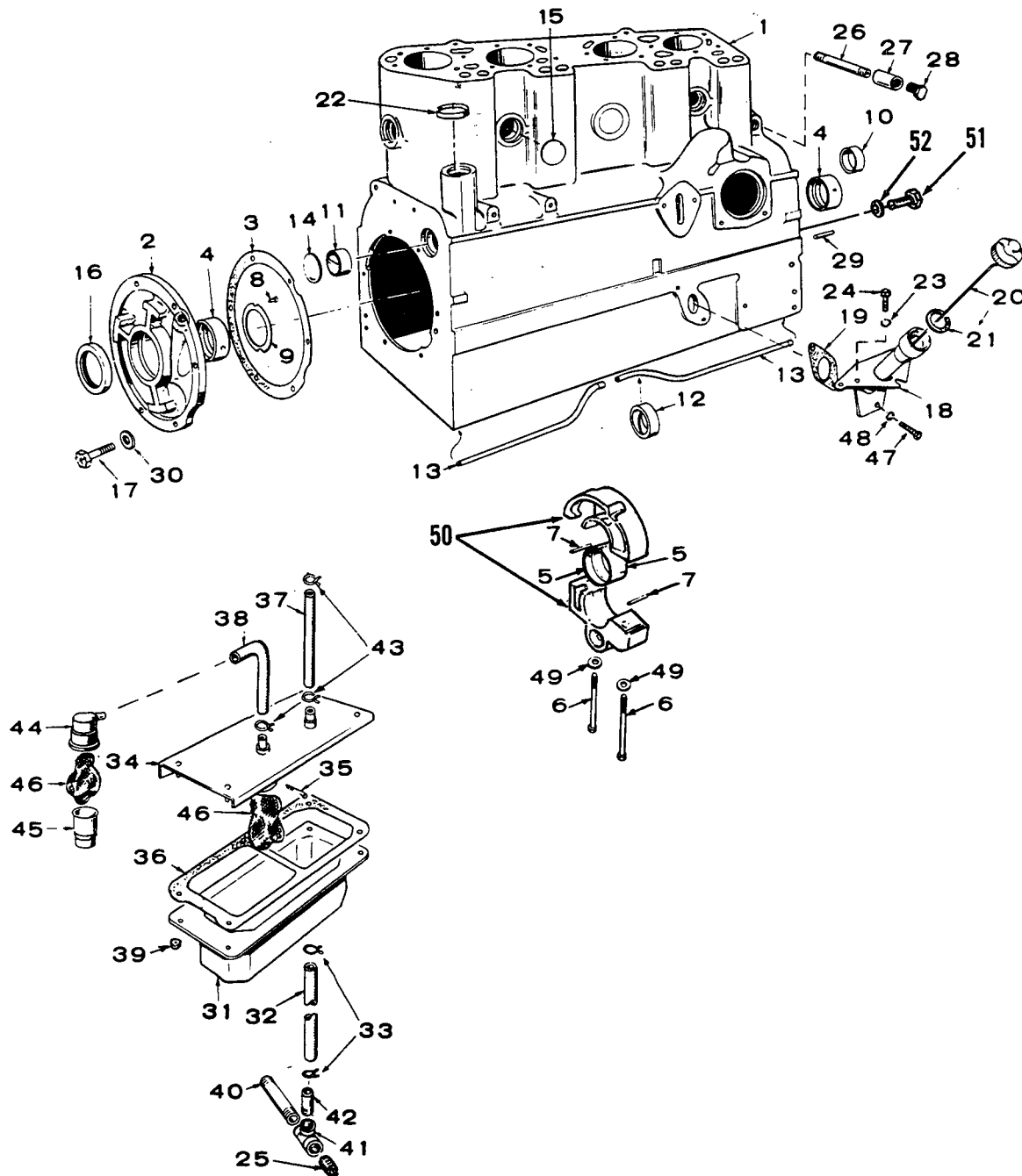


CS-1016

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	RING SET, PISTON		
	113-0137	4	Standard
	113-0137-05	4	.005" Oversize
	113-0137-10	4	.010" Oversize
	113-0137-20	4	.020" Oversize
	113-0137-30	4	.030" Oversize
	113-0137-40	4	.040" Oversize
2	PISTON AND PIN (Includes Pin Retaining Rings)		
	112-0176	4	Standard
	112-0176-05	4	.005" Oversize
	112-0176-10	4	.010" Oversize
	112-0176-20	4	.020" Oversize
	112-0176-30	4	.030" Oversize
	112-0176-40	4	.040" Oversize

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
3	112-0117	4	Pin, Piston
4	112-0085	8	Ring, Retaining
5	114-0168	4	Rod Assembly, Connecting
6	BEARING HALF, CONNECTING ROD		
	114-0164	8	Standard
	114-0164-02	8	.002" Undersize
	114-0164-10	8	.010" Undersize
	114-0164-20	8	.020" Undersize
	114-0164-30	8	.030" Undersize
7	114-0170	8	Bushing Half, Piston Pin - Connecting Rod
8	805-0012	8	Bolt, Place (Special)

CYLINDER BLOCK



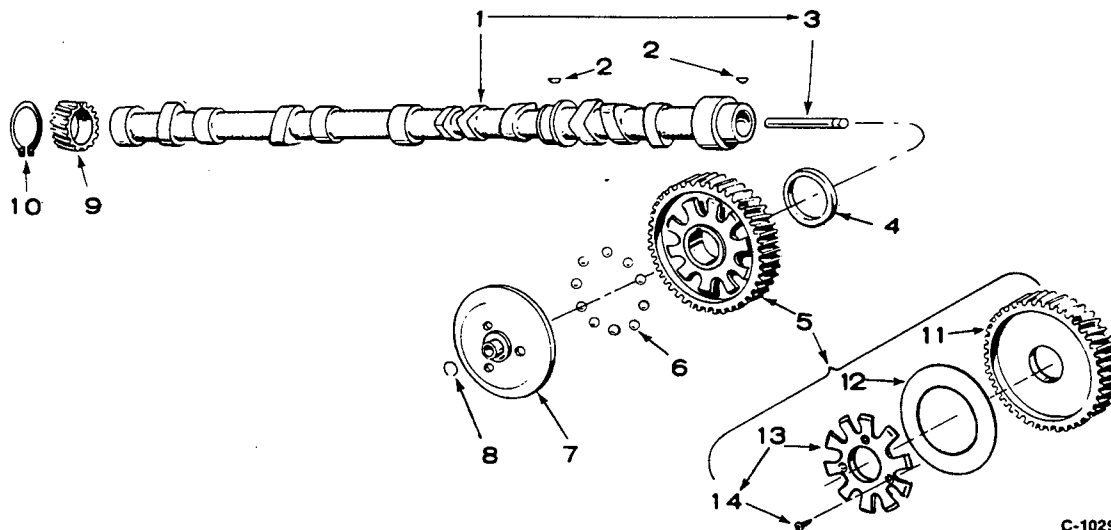
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CYLINDER BLOCK

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	110-2450	1	Block Assembly, Cylinder (Includes Tappets and Parts Marked *)	24	800-0026	3	Screw, Cap - Hex Head (5/16-18 x 3/4")
2	101-0337	1	*Plate, Rear Bearing	25	505-0056	1	Plug, Pipe - Square Head (1/2")
3	101-0386	1	*Gasket and Shim Kit, Rear Bearing Plate - Includes Bearing Plate Mounting Washers	26	505-0449	1	Nipple, Pipe (1/4" x 6") Water Drain
4	BEARING, MAIN - FRONT AND REAR			27	505-0027	1	Coupling, Pipe (1/4") Water Drain
	101-0359	2	*Standard	28	502-0153	1	Plug, Pipe (Brass) 1/4" Hex Head - Water Drain
	101-0359-02	2	.002" Undersize	29	516-0141	2	*Pin, Gearcase Locating
	101-0359-10	2	.010" Undersize	30	526-0245	6	*Washer, Bearing Plate (Special)
	101-0359-20	2	.020" Undersize	31	123-1061	1	Damper, Breather Pulsation - Spec A and B
	101-0359-30	2	.030" Undersize	32	503-0564	1	Hose, Overflow - Spec A and B
5	BEARING HALF, MAIN - CENTER			33	503-0197	2	Clamp, Overflow Hose - Spec A and B
	101-0361	2	*Standard	34	123-1045	1	Cover, Breather Pulsation Damper - Spec A and B
	101-0361-02	2	.002" Undersize	35	516-0177	1	Pin, Cotter - Spec A and B
	101-0361-10	2	.010" Undersize	36	123-1049	1	Gasket, Cover - Spec A and B
	101-0361-20	2	.020" Undersize	37	503-0563	1	Hose, Cover to Manifold - Spec A and B
	101-0361-30	2	.030" Undersize	38	503-0562	1	Hose, Cover to Breather Cap - Spec A and B
6	101-0342	2	*Bolt, Center Bearing Housing	39	870-0240	4	Nut, Self-Locking (Washer Base) #10-32 - Spec A and B
7	516-0149	2	Pin, Center Bearing Housing	40	505-0690	1	Nipple, Pipe (1/2" x Close) Spec A and B
8	516-0072	4	*Pin, Thrust Washer	41	505-0682	1	Tee, Pipe (1/2") Spec A and B
9	104-0420	2	*Washer, Camshaft Thrust	42	505-0674	1	Nipple, Half - Pipe (1/2" x 2-1/2") Spec A and B
10	101-0363	1	*Bearing, Camshaft - Front	43	503-0170	4	Clamp, Hose - Spec A and B
11	101-0365	1	*Bearing, Camshaft - Rear	44	123-0787	1	Cap, Breather Tube - Spec A and B
12	101-0364	1	*Bearing, Camshaft - Center	45	123-0645	1	*Tube, Breather - Spec A and B
13	*TUBE, CRANKCASE OIL			46	123-0865	2	Filter, Breather Tube - Spec A and B
	120-0586	1	Front	47	800-0026	2	Screw, Cap - Hex Head (5/16-18 x 3/4")
	120-0585	1	Rear	48	850-0045	2	Washer, Lock - Spring (5/16")
14	517-0053	1	*Plug, Expansion - Rear Camshaft Opening	49	526-0035	2	*Washer, Flat (17/32" ID x 7/8" OD x 1/8" Thk)
15	*PLUG, EXPANSION - CYLINDER BLOCK			50	101-0356	1	*Housing, Bearing - Center Main (Includes Pins)
	517-0059	4	1-7/16"	51	800-0047	2	#Screw, Cap - Hex Head (3/8-16 x 5/8") Begin Spec AC (Wet Hole)
	517-0096	2	1-9/16"	52	526-0066	2	#Washer, Flat - Copper (25/64" ID x 9/16" OD x 1/16" Thk) Begin Spec AC (Wet Hole)
	517-0097	1	1-3/4"				
16	509-0086	1	Seal, Crankshaft - Rear				
17	805-0019	6	*Bolt, Rear Bearing Plate (Special)				
18	TUBE, OIL FILL						
	123-0681	1	Spec A				
	123-1086	1	Begin Spec B				
19	123-0667	1	Gasket, Oil Fill				
20	CAP AND INDICATOR						
	123-0698	1	Spec A				
	123-1056	1	Begin Spec B				
21	123-0191	1	Gasket, Cap				
22	517-0103	1	*Plug, Core Hole - Begin Spec C				
23	850-0045	3	Washer, Lock - Spring (5/16")				

* - Parts Included in 110-2450 Cylinder Block Assembly
- See Optional Heat Exchanger Group Begin Spec D and Keel Cooling Group for Other Related Wet Hole Hardware.

CAMSHAFT

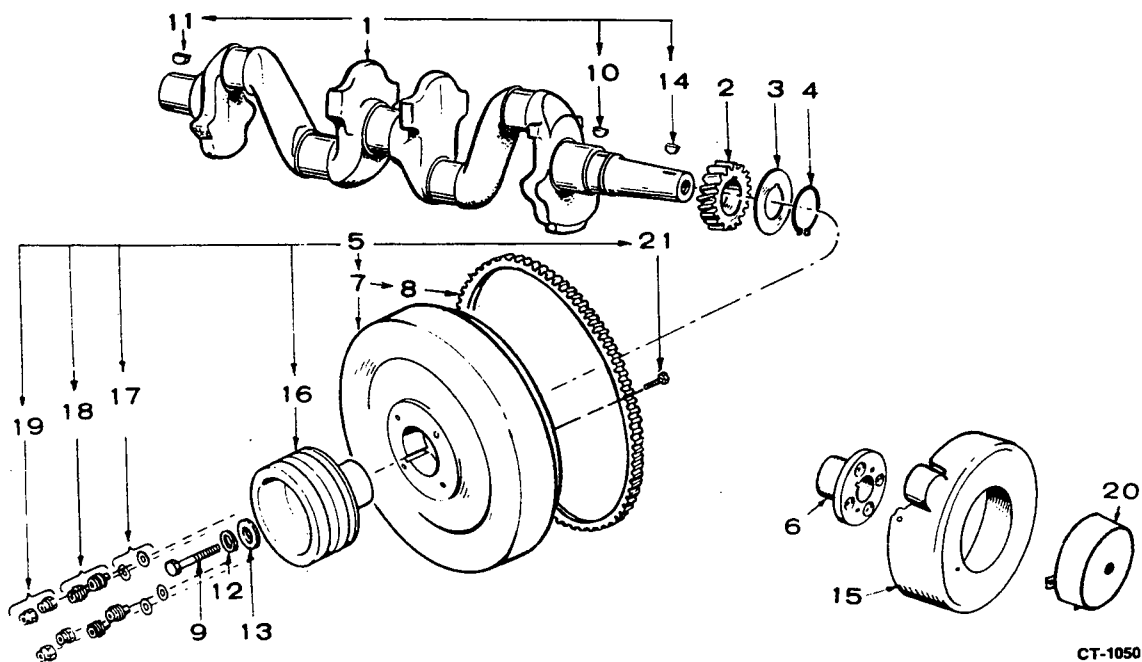


REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	105-0274	1	Camshaft (Includes Center Pin)
2	515-0001	2	Key - Camshaft Gear and Injection Pump
3	150-0075	1	Pin, Camshaft Center
4	105-0205	1	Washer, Thrust
5	105-0218	1	Gear Assembly, Camshaft (Includes Parts Marked *)
6	510-0046	10	Flyball, Governor
7	150-0775	1	Cup, Governor
8	150-0078	1	Ring, Center Pin
9	147-0142	1	Gear, Injection Pump Drive

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
10	518-0195	1	Ring, Injection Pump Drive Gear
11	105-0465	1	*#Gear, Camshaft
12	150-0773	1	*#Plate, Governor Flyball
13	150-1842	1	*#Spacer Kit, Governor Flyball (Includes Mounting Screws)
14	815-0506	3	*Screw, Spacer Mounting (Special)

* - Parts Included in 105-0218 Camshaft Gear Assembly.
 # - Camshaft Gear Assemblies With Rivets Order 105-0218 Camshaft Gear Assembly.

CRANKSHAFT AND FLYWHEEL



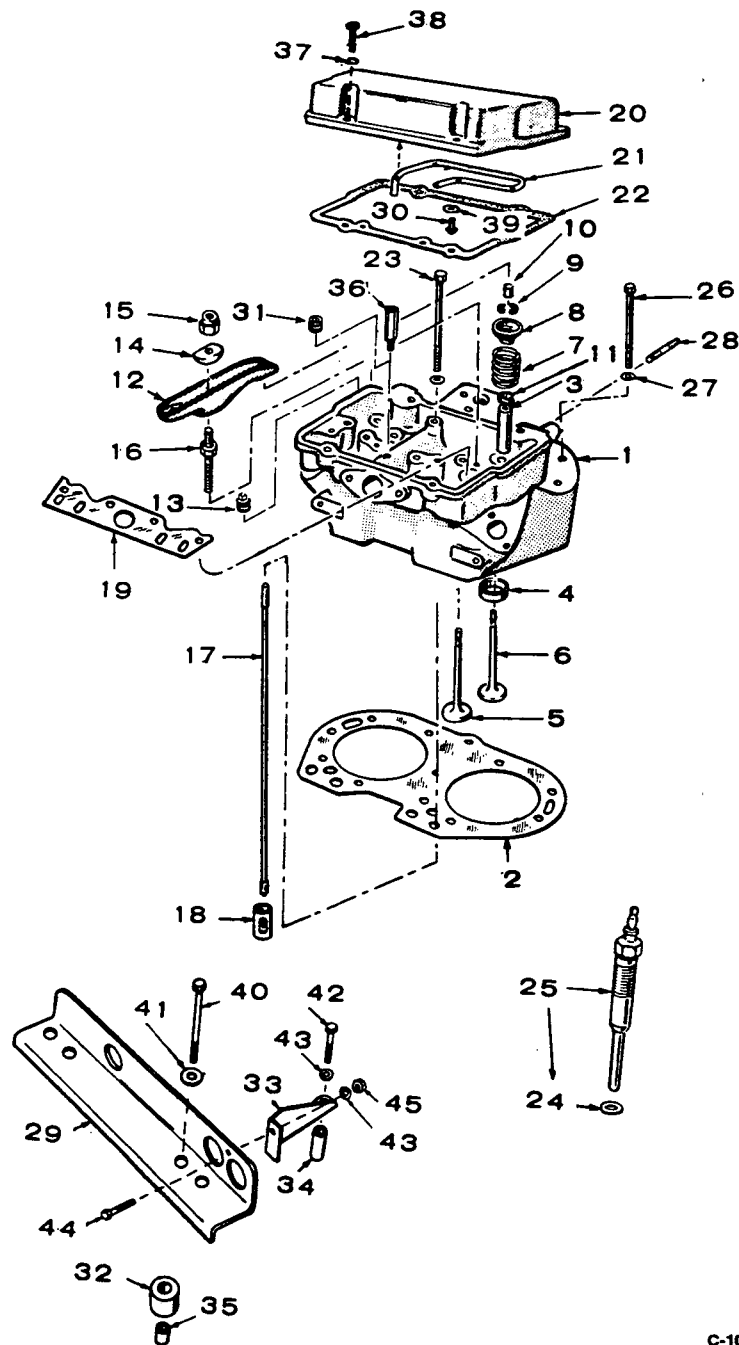
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	134-3960	1	Hardware Kit, Hub Mounting (Includes Parts Marked †)	11	515-0006	1	Key, Crankshaft to Generator Fan
1	104-1361	1	Crankshaft Kit (Includes All Keys)	12	850-0055	1	Washer, Lock - Spring (7/16")
2	104-0418	1	Gear, Crankshaft	13	526-0185	1	Washer, Flat (15/32" ID x 1-1/2" OD x 3/8" Thk)
3	104-0416	1	Washer, Retainer	14	515-0153	1	Key, Crankshaft to Flywheel
4	518-0188	1	Ring, Lock	15	104-0444	1	Guard, Flywheel
5	FLYWHEEL ASSEMBLY 104-0555	1	Sets Without Heat Exchanger or Keel Cooling (Includes Parts Marked *)	16	104-0957	1	#Hub and Pulley, Flywheel - Sets With Heat Exchanger or Keel Cooling
	104-0548	1	Sets With Heat Exchanger or Keel Cooling (Includes Parts Marked #)	17	526-0187	4	†#Washer, Flat (Special)
6	134-1401	1	*Hub, Flywheel - Sets Without Heat Exchanger or Keel Cooling	18	104-0543	4	†#Spacer and Washer
7	104-0547	1	*#Flywheel and Ring Gear	19	870-0352	4	†#Nut, Locking (Special)
8	104-0423	1	*#Gear, Ring	20	104-0594	1	Cover, Flywheel Guard - Sets Without Heat Exchanger or Keel Cooling
9	800-0500	1	Screw, Flywheel Mounting (Special)	21	801-0054	4	†#Screw, Cap - Hex Head (3/8-24 x 2") Flywheel Hub Mounting
10	515-0001	1	Key, Crankshaft to Gear				

† - Parts Included in 134-3960 Hardware Kit

* - Parts Included in 104-0555 Flywheel Assembly

- Parts Included in 104-0548 Flywheel Assembly

CYLINDER HEAD



C-1041

CYLINDER HEAD

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	HEAD, CYLINDER		
	110-2986	2	With Valves (Includes Cylinder Head Connector and Parts Marked *)
	110-2984	2	*Without Valves (Includes Parts Marked #)
2	110-2464	2	Gasket, Head
3	GUIDE, VALVE		
	110-1501	8	#Standard
	110-1501-01	8	.001" Oversize
	110-1501-05	8	.005" Oversize
4	INSERT, VALVE SEAT		
	110-1268	8	#Standard
	110-1268-02	8	.002" Oversize
	110-1268-05	8	.005" Oversize
	110-1268-10	8	.010" Oversize
	110-1268-25	8	.025" Oversize
5	110-1871	4	*Valve, Intake
6	110-1278	4	*Valve, Exhaust
7	110-1221	8	*Spring, Valve
8	110-1220	8	*Retainer, Valve Spring
9	110-0858	16	*Lock, Valve Spring Retainer
10	110-0859	8	Cap, Valve Stem
11	509-0132	4	*Seal, Oil - Intake Valve
12	ARM, ROCKER		
	115-0128	4	Exhaust
	115-0129	4	Intake
13	505-0110	2	#Plug, Pipe - Square Head (3/8")
14	115-0127	8	Ball, Rocker Arm
15	115-0150	8	Locknut, Rocker Arm
16	115-0152	8	*Stud, Rocker Arm
17	115-0149	8	Rod, Valve Push
18	115-0195	8	‡Tappet, Valve
19	115-0196	2	#Guide, Push Rod
20	115-0134	2	Cover Assembly, Rocker (Includes Parts Marked Δ)
21	120-0628	2	ΔLine, Oil - Rocker Cover
22	115-0130	2	Gasket, Rocker Cover
23	110-1264	10	Screw, Cylinder Head Mounting (Special)
24	110-0546	4	Gasket, Glow Plug

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
25	PLUG KIT, GLOW - Includes Gasket		
	333-0106	4	12 Volt DC Sets
	333-0107	4	24 Volt DC Sets
	333-0112	4	32 Volt DC Sets
26	800-0501	12	Screw, Cylinder Head Mounting (Special)
27	526-0174	12	Washer, Flat (13/32" ID x 25/32" OD x 0.1345" Thk)
28	520-0608	8	*Stud, Exhaust Manifold
29	403-0690	1	Bracket, Lifting
30	815-0562	2	ΔScrew, Machine - Cross Recessed Pan Head (#10 x 5/16")
31	505-0274	2	#Plug, Pipe - Countersunk Hex Head (1/8") (Sets Without Standpipe)
32	402-0361	2	Cushion, Vibration
33	403-0890	1	Brace, Lifting Bracket
34	403-0826	1	Spacer, Lifting Bracket
35	402-0362	2	Bushing, Spacer
36	123-1140	2	#Standpipe - Begin Spec C
37	850-0045	8	Washer, Lock - Spring (5/16")
38	800-0030	8	Screw, Cap - Hex Head (5/16-18 x 1-1/4")
39	526-0130	1	ΔWasher, Flat (17/64" ID x 1" OD x 1/16" Thk)
40	800-0094	2	Screw, Cap - Hex Head (1/2-13 x 2")
41	526-0100	2	Washer, Flat - Unplated (9/16" ID x 1-3/8" OD x 7/64" Thk)
42	800-0038	1	Screw, Cap - Hex Head (5/16-18 x 3-1/4")
43	850-0045	2	Washer, Lock - Spring (5/16")
44	800-0025	1	Screw, Cap - Hex Head (5/16-18 x 3/8")
45	862-0015	1	Nut, Hex (5/16-18)

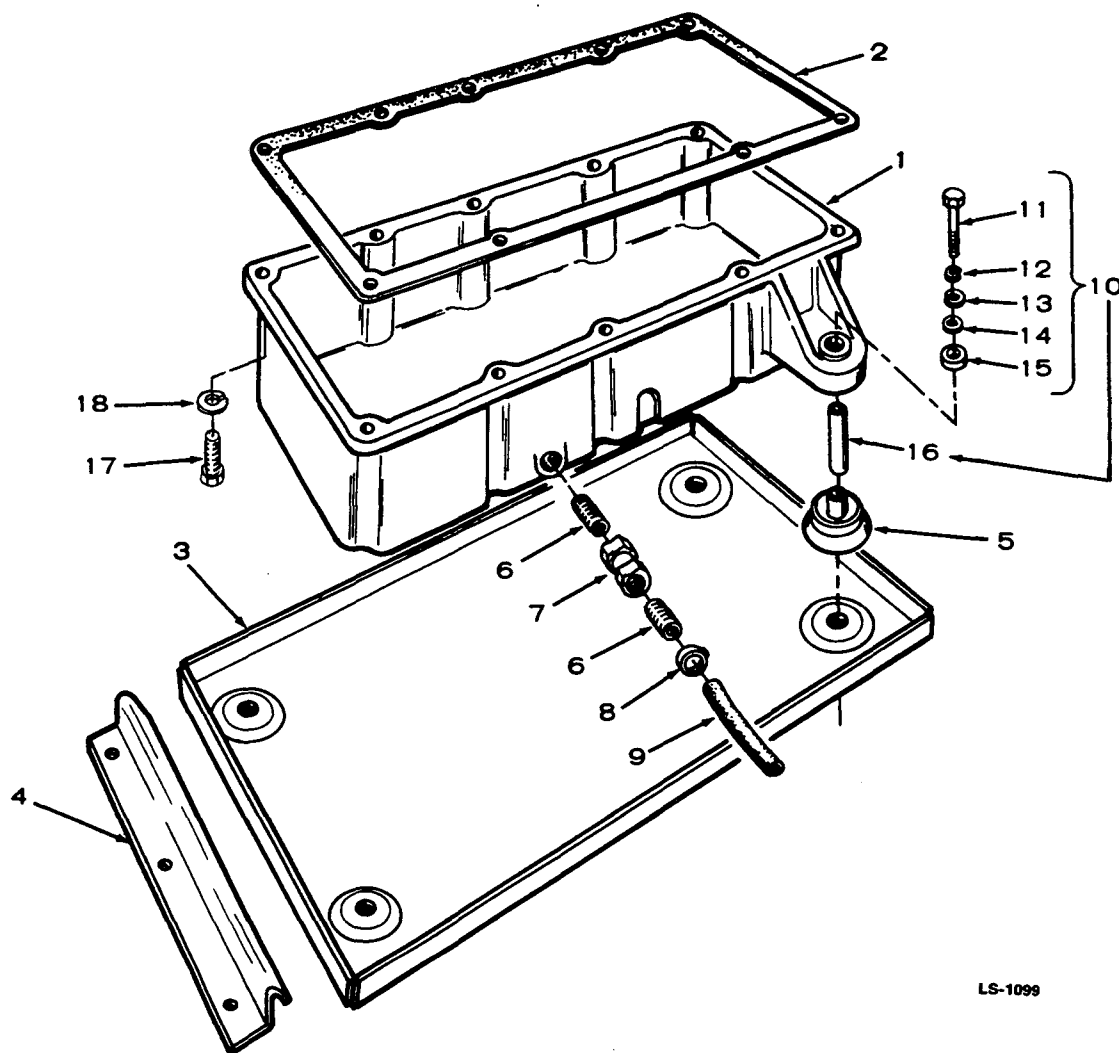
* - Parts Included in 110-2986 Cylinder Head.

- Parts Included in 110-2984 Cylinder Head.

‡ - Included in 110-2450 Cylinder Block Assembly.

Δ - Parts Included in 115-0134 Rocker Cover Assembly

OIL BASE



LS-1099

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	102-0539	1	Base, Oil
2	102-0475	1	Gasket, Oil Base
3	405-1403	1	Pan, Drip
4	405-1265	2	Clamp, Drip Pan
5	CUSHION, VIBRATION		
	402-0285	2	Engine End Generator End
	402-0287	2	Spec A through Z
	402-0286	2	Begin Spec AA
6	505-0100	2	Nipple, Pipe (1/2" x Close)
7	504-0011	1	Valve, Oil Drain
8	503-0197	1	Clamp, Hose
9	503-0316	1	Hose, Oil Drain
10	402-0360	4	Hardware Package, Mounting (Includes Parts Marked *)

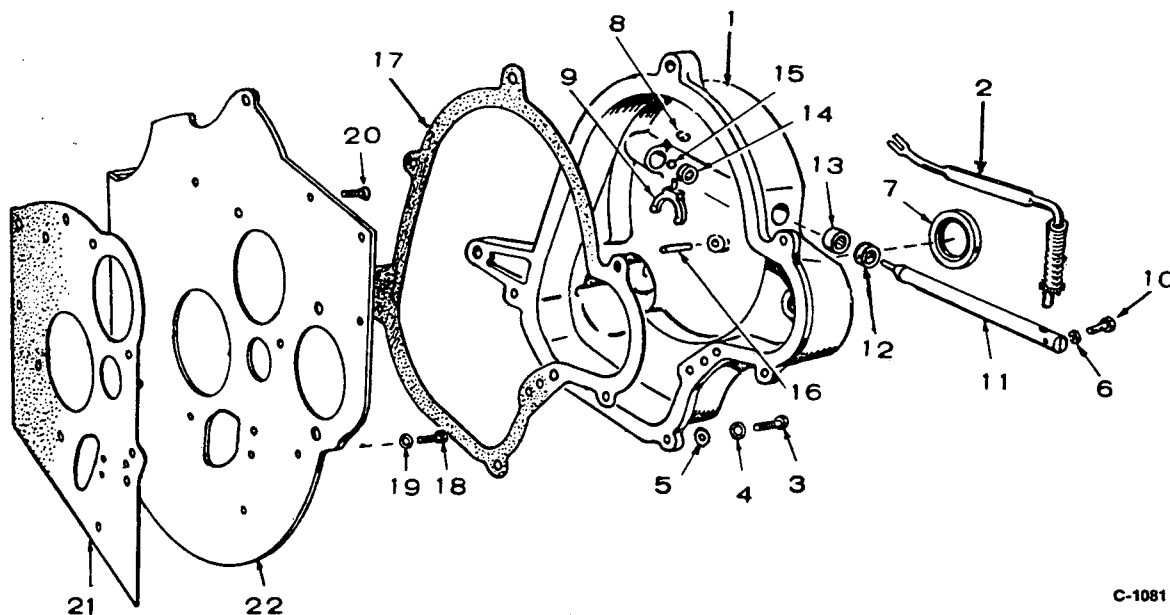
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
11	800-0081	4	*Screw, Cap - Hex Head (7/16-14 x 3-1/2")
12	850-0055	4	*Washer, Lock - Spring (7/16")
13	526-0128	4	*Washer, Flat (15/32" ID x 1-1/2" OD x 1/16" Thk)
14	526-0198	8	*Washer, Flat (5/8" ID x 1-12" OD x 1/16" Thk) (Use as Required)
15	402-0282	4	*Snubber, Cushion Mounting
16	402-0290	4	*Bushing, Spacer
17	800-0072	10	Screw, Cap - Hex Head (7/16-14 x 1-1/4")
18	850-0055	10	Washer, Lock - Spring (7/16")

* - Parts Included in 402-0360 Mounting Hardware Package.

[illegible]

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	120-0547	1	Pump, Oil	20	505-0274	1	Plug, Pipe - Countersunk (1/8")
2	120-0580	1	Gasket Kit, Oil Pump				Oil By-Pass
3	120-0601	1	Cup, Oil Pump Intake	21	120-0635	1	Line, Oil - Rear Cylinder Head -
4	120-0602	1	Bracket, Oil Pump Intake Cup				Spec A and B
5	122-0185	1	Filter, Oil (4-3/8" Long)	22	309-0169	1	Switch, Low Oil Pressure
6	122-0188	1	Gasket, Adapter	23	502-0053	1	Elbow, Street (45°) Front
7	122-0182	1	Adapter, Oil Filter				Cylinder Head Tee -
8	193-0006	1	Gauge, Oil Pressure				Spec A and B
9	502-0053	2	Elbow, Street 45° (1) Oil Gauge	24	LINE, OIL - INJECTION PUMP TEE TO CYLINDER		
			(1) Low Oil Pressure Switch		HEAD TEE		
11	502-0037	1	Elbow, Inverted Male - Oil		120-0630	1	Spec A and B
			Line to Adapter		120-0697	1	Begin Spec C
12	120-0636	1	Line, Adapter to Injection	25	120-0695	2	Line, Oil - Cylinder Head -
			Pump Tee				Begin Spec C
13	502-0097	1	Connector, Inverted Male -	26	502-0373	1	Tee, Inverted Flare -
			Injection Pump Lubrication				Begin Spec C
			Tee	27	CONNECTOR, INVERTED MALE - CYLINDER HEAD		
14	CONNECTOR, INVERTED MALE - INJECTION PUMP						Rear
	LUBRICATION TEE				502-0274	1	Spec A
	502-0097	1	Spec A		502-0281	1	*Begin Spec B
	502-0274	1	Begin Spec B (Restricted)		502-0281	1	*Front - Begin Spec C
15	502-0097	2	Connector, Inverted Male -	28	850-0045	5	Washer, Lock - Spring (5/16")
			Front Cylinder Head Tee -	29	800-0026	3	Screw, Cap - Hex Head
			Spec A and B				(5/16-18 x 3/4")
16	502-0242	1	Tee, Restricted	30	800-0030	2	Screw, Cap - Hex Head
17	502-0282	1	Tee, Restricted - Front Cylinder				(5/16-18 x 1-1/4")
			Head - Spec A and B	* - Part Included in 110-2986 Cylinder Head Assembly.			
18	120-0539	1	Valve, Oil By-Pass				
19	120-0555	1	Spring, By-Pass Valve				

GEARCASE



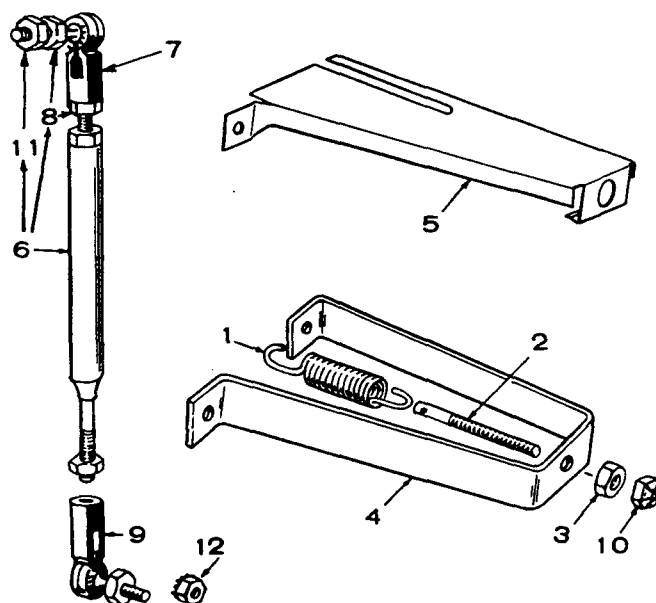
C-1081

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	103-0267	1	Gearcase Assembly (Includes Parts Marked *)
2	150-1095	1	Arm, Governor
3	SCREW, CAP - HEX HEAD		
	800-0028	1	5/16-18 x 1"
	110-0879	4	Special
4	850-0045	5	Washer, Lock - Spring (5/16")
5	526-0115	5	Washer, Flat (11/32" ID x 11/16" OD x 1/16" Thk)
6	850-0025	1	*Washer, Lock - Spring (#8)
7	509-0087	1	*Seal, Oil - Crankshaft
8	518-0129	1	*Ring, Retaining - Yoke
9	150-0777	1	*Yoke, Governor
10	815-0176	1	*Screw, Machine - Hex Head (#8-32 x 1/2")

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
11	150-0838	1	*Shaft, Governor
12	509-0088	1	*Seal, Oil - Governor Shaft
13	510-0048	1	*Bearing, Needle - 1/2" Shaft
14	510-0082	1	*Bearing, Needle - 1/4" Shaft
15	510-0043	1	*Ball, Bearing
16	516-0117	1	*Pin, Roll
17	103-0251	1	Gasket, Gearcase
18	800-0026	1	Screw, Cap - Hex Head (5/16-18 x 3/4")
19	850-0045	1	Washer, Lock - Spring (5/16")
20	815-0347	2	Screw, Machine - Flat Head - Socket Driven (1/4-20 x 1/2")
21	103-0218	1	Gasket, Backplate
22	103-0228	1	Backplate

* - Parts Included in 103-0267 Gearcase Assembly.

GOVERNOR

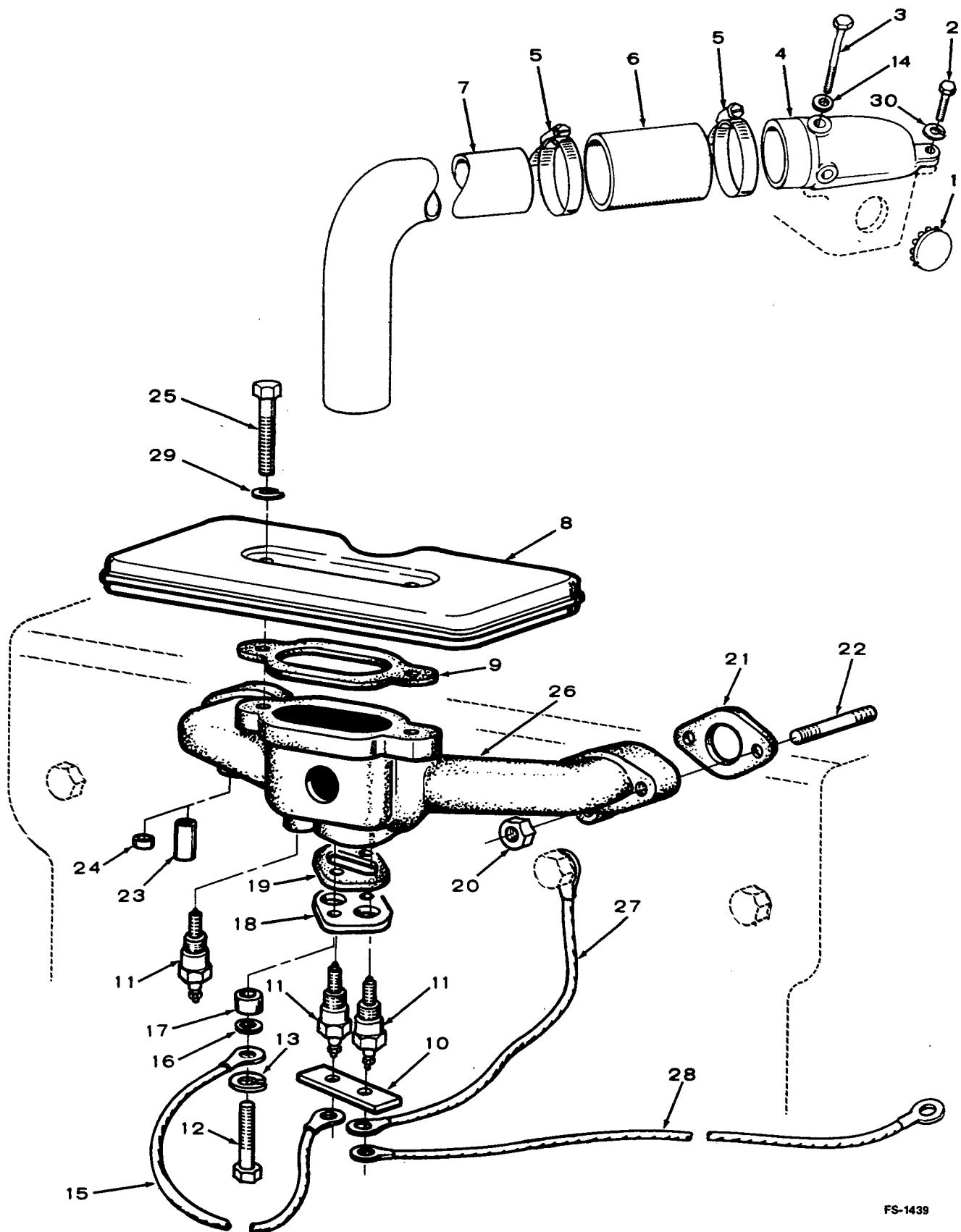


FS-1435

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	150-1084	1	Spring, Governor
2	150-1082	1	Stud, Governor 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 (Includes Parts Marked *)
7	150-1358	1	*Joint, Ball - Governor
8	871-0010	2	*Nut, Hex - Brass (#10-32)
9	150-0939	1	#Joint, Ball - Injection Pump
10	870-0133	1	Nut, Self Locking (3/8-16)
11	870-0131	1	*Nut, Hex - ET (#10-32)
12	870-0131	1	#Nut, Hex - ET (#10-32)

* - Parts Included in 150-1132 Governor Linkage Assembly.
- Parts Included With Replacement Injection Pump.

AIR INTAKE SYSTEM



FS-1439

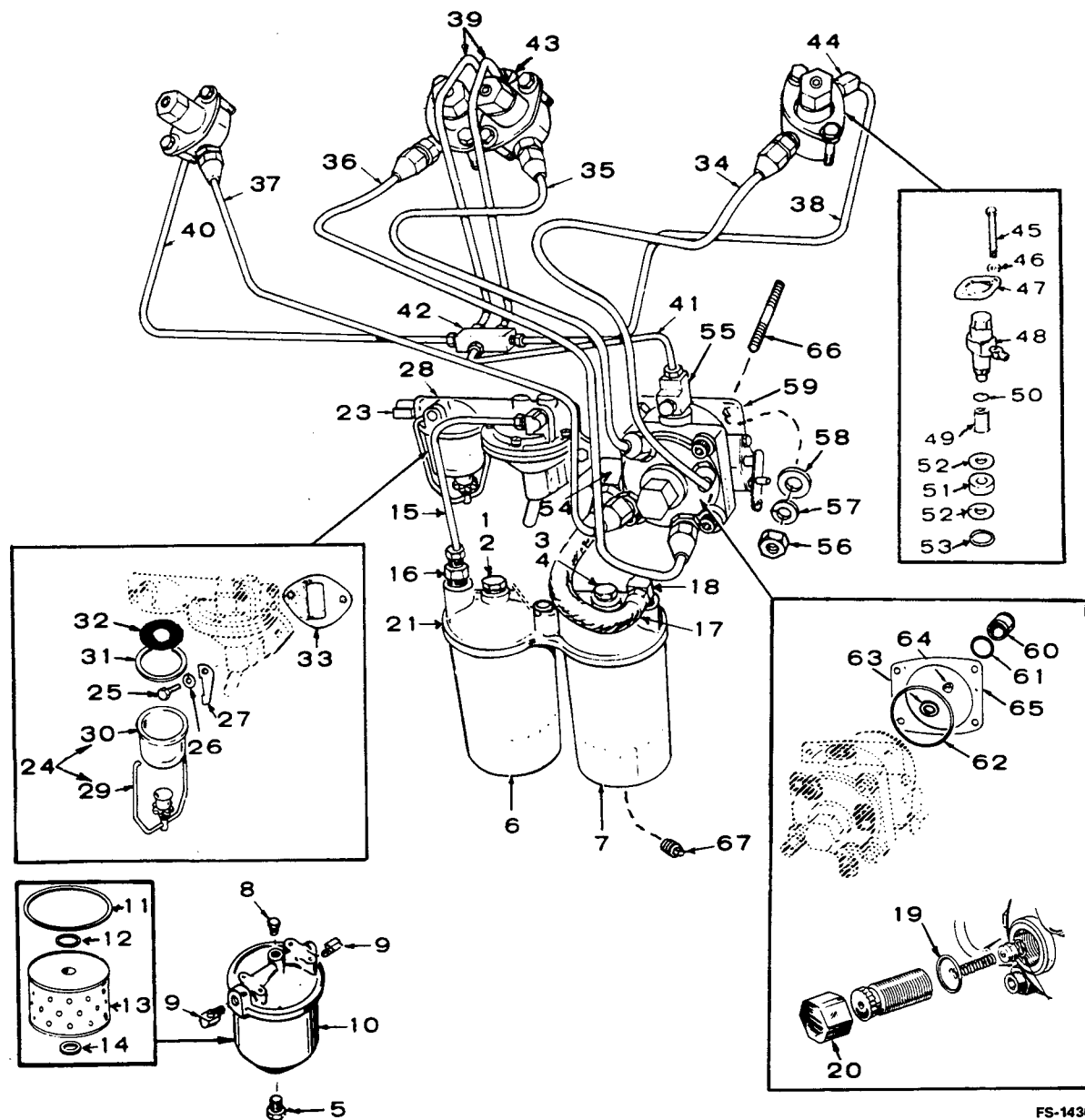
AIR INTAKE SYSTEM

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	517-0186	1	Plug, Dot Button - Sets With Sound Shield Housing
2	800-0006	1	Screw, Cap - Hex Head (1/4-20 x 7/8") Sets With Sound Shield Housing
3	800-0015	1	Screw, Cap - Hex Head (1/4-20 x 3") Sets With Sound Shield Housing
4	140-0645	1	Adapter, Air Intake - Sets With Sound Shield Housing
5	503-0365	2	Clamp, Hose - Sets With Sound Shield Housing
6	503-0691	1	Hose, Rubber - Sets With Sound Shield Housing
7	140-1278	1	Tube, Intake - Sets With Sound Shield Housing
8	140-0803	1	Resonator
9	140-0584	1	Gasket, Resonator
10	332-0829	1	Jumper, Air Heater
11	HEATER, MANIFOLD		
	154-0712	2	12 and 24 Volt DC Sets
	154-0712	3	32 Volt DC Sets
12	114-0023	2	Screw, Cap - Hex Head (Special)
13	WASHER		
	850-0040	2	Lock - Spring (1/4") Flat (9/32" ID x 9/16" OD x 1/16" Thk)
	526-0015	1	24 Volt DC Sets
	526-0015	2	32 Volt DC Sets
14	526-0108	1	Washer, Flat (17/64" ID x 7/16" OD x 1/32" Thk) Sets With Sound Shield Housing

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
15	LEAD		
	336-1408	1	24 Volt DC Sets
	336-1051	1	32 Volt DC Sets
16	508-0102	2	Washer, Insulator - 24 and 32 Volt DC Sets
17	508-0103	2	Bushing, Insulator
18	140-0705	1	Plate, Heater
19	140-0706	1	Gasket, Heater Plate
20	870-0137	4	Nut, Hex - Self-Locking (5/16-24)
21	154-0733	2	Gasket, Intake Manifold
22	STUD, MANIFOLD MOUNTING		
	520-0011	2	5/16-24 x 5/16-18 x 1-7/16"
	520-0338	2	5/16-18 x 5/16-24 x 2-7/8"
23	123-1116	1	*Tube, Breather - Spec A and B
24	517-0104	1	*Plug, Core Hole - Begin Spec C
25	800-0012	2	Screw, Cap - Hex Head (1/4-20 x 2-1/4")
26	MANIFOLD KIT, INTAKE (Includes Parts Marked *)		
	154-1376	1	12 and 24 Volt DC Sets
	154-1379	1	32 Volt DC Sets
27	LEAD - Glow Plug to Air Heater		
	336-1504	2	No. 1 and No. 4 Cylinder (12-1/4")
	336-1505	2	No. 2 and No. 3 Cylinder (5-1/4")
28	336-1331	1	Lead - Air Heater to Control Solenoid
29	850-0040	2	Washer, Lock - Spring (1/4")
30	850-0040	1	Washer, Lock - Spring (1/4") Sets With Sound Shield Housing

* - Parts Included in Intake Manifold Kits.

INJECTION SYSTEM



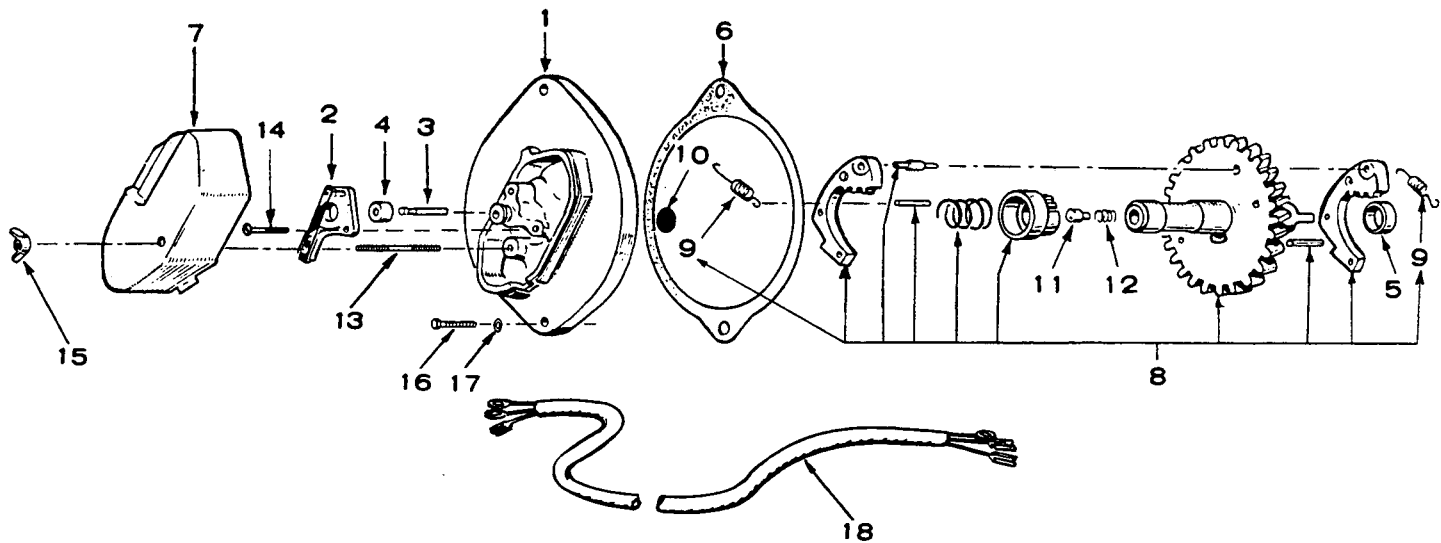
FS-1436

INJECTION SYSTEM

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)	41	149-1062	1	Line, Fuel Return - Adapter Tee to Injection Pump
1	801-0074	1	Screw Cap - Hex Head (7/16-20 x 1-3/4") Begin Spec B	42	502-0245	1	Tee, Adapter - Fuel Return Lines
2	526-0068	1	Washer, Flat - Copper (29/64" ID x 3/4" OD x 1/16" Thk) Begin Spec B	43	502-0002	2	Elbow, Pipe (90°) No. 2 and No. 3 Nozzle Fuel Return Outlet
3	801-0053	1	Screw, Cap - Hex Head (3/8-24 x 1-3/4") Begin Spec B	44	502-0065	2	Elbow, Pipe (45°) No. 1 and No. 4 Nozzle Fuel Return Outlet
4	526-0066	1	Washer, Flat - Copper (25/64" ID x 9/16" OD x 11/16" Thk) Begin Spec B	45	114-0171	8	Screw, Cap - Hex Head (Special)
5	502-0028	1	Plug, Hex Head - Spec A	46	526-0122	8	Washer, Flat (11/32" ID x 23/32" OD x 0.1345 Thk)
6	122-0325	1	Filter, Fuel - Primary - Begin Spec B	47	147-0141	4	Flange, Injection Nozzle Hold-down
7	122-0326	1	Filter, Fuel - Secondary - Begin Spec B	48	147-0136	4	Nozzle and Holder Assembly (Includes Parts Marked +)
8	149-0769	1	Plug, Air Bleed - Spec A	49	147-0134	4	+Nozzle - Includes Nozzle Gasket
9	502-0041	2	Elbow, Fuel Filter Inlet and Outlet - Spec A	50	147-0243	4	+Gasket, Nozzle
10	149-0408	1	Filter, Fuel (Includes Cartridge) Spec A	51	147-0043	4	Gasket, Nozzle Heat Shield (Asbestos)
11	149-0456	1	Gasket, Bowl to Cover - Spec A	52	147-0044	8	Shield, Nozzle Heat (Steel)
12	149-0455	1	Gasket, Bowl to Cover - Spec A	53	110-0419	4	Gasket, Shield to Head (Copper)
13	149-0428	1	Cartridge, Fuel Filter - Spec A	54	ELBOW, PIPE - Injection Pump Inlet		
14	149-0493	1	Gasket, Cartridge to Retainer - Spec A	502-0054	1	Spec A	
15	LINE, FUEL - Pump to Primary Filter			502-0039	1	Begin Spec B	
	149-0806	1	Spec A	55	147-0183	1	‡Valve, Check - Injection Pump
	149-1189	1	Begin Spec B	56	862-0015	4	Nut, Hex (5/16-18)
16	502-0003	1	Connector, Pipe - Begin Spec B	57	850-0045	4	Washer, Lock - Spring (5/16")
17	LINE, FUEL - Secondary Filter to Injection Pump			58	526-0022	4	Washer, Flat (21/64" ID x 9/16" OD x 1/16" Thk)
	501-0091	1	Spec A	59	147-0232	1	Pump Kit, Injection (Includes Governor Ball Joint, Nut and Parts Marked ‡)
	501-0129	1	Begin Spec B	60	147-0182	1	‡Tappet, Injection Pump
18	502-0099	1	Elbow, Reducer - Begin Spec B	61	147-0196	1	‡Gasket, "O" Ring - Injection Pump Tappet
19	147-0254	1	Gasket, Delivery Valve Cap	62	509-0094	1	‡Seal, "O" Ring - Injection Pump Mounting
20	147-0253	1	Cap, Delivery Valve	63	147-0259	1	‡Ring, Retaining - Timing Button
21	149-1185	1	Adapter, Fuel Filter	64	BUTTON, INJECTION PUMP PLUNGER		
23	502-0002	2	Elbow, Pipe - 90° (Inlet and Outlet)	147-0147	1	‡.119 - Marked 1 or A	
24	149-1964	1	Replacement Kit, Bowl and Bail (Includes Parts Marked *)	147-0148	1	‡.116 - Marked 2 or B	
25	800-0027	2	#Screw, Cap - Hex Head (5/16-18 x 7/8")	147-0149	1	‡.113 - Marked 3 or C	
26	850-0045	2	Washer, Lock - Spring (5/16")	147-0150	1	‡.110 - Marked 4 or D	
27	149-1307	2	#Stiffener, Fuel Pump Flange	147-0151	1	‡.107 - Marked 5 or E	
28	149-1703	1	Pump Kit, Fuel (Includes Parts Marked #)	147-0161	1	‡.104 - Marked 11 or No Mark	
29	149-1169	1	*Bail, Fuel Pump	147-0152	1	‡.101 - Marked 6 or F	
30	149-1620	1	*Bowl, Fuel Pump	147-0153	1	‡.098 - Marked 7 or H	
31	149-0517	1	#Gasket, Fuel Pump Bowl	147-0154	1	‡.095 - Marked 8 or J	
32	149-0463	1	#Screen, Fuel Pump	147-0155	1	‡.092 - Marked 9 or K	
33	149-0792	1	#Gasket, Fuel Pump Mounting	147-0156	1	‡.089 - Marked 10 or L	
34	149-1150	1	Line, Injection - No. 1 Cylinder	147-0190	1	‡.122 - Marked 12 or M	
35	149-1151	1	Line, Injection - No. 2 Cylinder	147-0189	1	‡.125 - Marked 13 or N	
36	149-1152	1	Line, Injection - No. 3 Cylinder	147-0188	1	‡.128 - Marked 14 or P	
37	149-1153	1	Line, Injection - No. 4 Cylinder	147-0187	1	‡.131 - Marked 15 or R	
38	149-1060	1	Line, Fuel Return - No. 1 Cylinder	147-0186	1	‡.134 - Marked 16 or S	
39	149-1059	2	Line, Fuel Return - No. 2 and No. 3 Cylinder	65	147-0145	1	Shim Kit, Injection Pump Mounting
40	149-1061	1	Line, Fuel Return - No. 4 Cylinder	66	520-0129	4	Stud, Injection Pump Mounting
				67	502-0080	2	Plug, Square Head - Begin Spec B

* - Parts Included in 149-1964 Bowl and Bail Replacement Kit
 # - Parts Included in 149-1703 Fuel Pump Kit
 + - Parts Included in 147-0136 Nozzle and Holder Assembly
 ‡ - Parts Included in 147-0232 Injection Pump Kit

START DISCONNECT

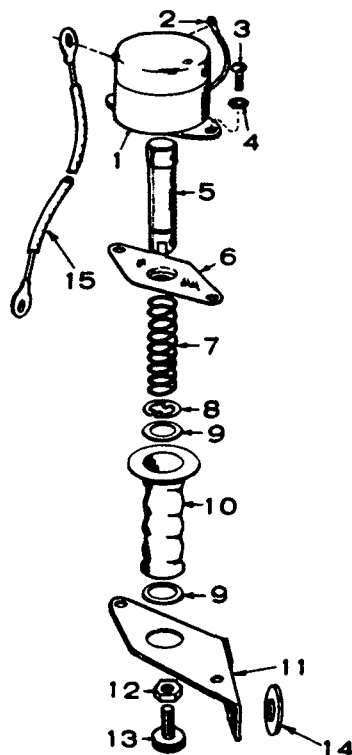


ES-1327

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	191-0496	1	Plate
2	309-0134	1	Switch Assembly (Includes Leads)
3	309-0152	1	Plunger, Switch
4	160-0382	1	Diaphragm, Switch Plunger
5	160-0720	1	Spacer, Switch Plate
6	160-0721	1	Gasket, Plate
7	191-0392	1	Cover, Switch Plate
8	191-0554	1	Control Assembly, Switch
9	160-0711	2	Spring, Weight (Included in Switch Control Assembly)
10	160-0806	1	Disc, Thrust Plunger

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
11	160-0774	1	Plunger, Thrust
12	160-0773	1	Spring, Thrust Plunger
13	520-0347	1	Stud, Plate Cover (Special)
14	815-0201	2	Screw, Machine - Brass - Round Head with ET (#8-32x3/8")
15	865-0011	1	Nut, Wing (#10-32)
16	800-0052	2	Screw, Cap - Hex Head (3/8-16 x 1-1/2")
17	850-0050	2	Washer, Lock - Spring (3/8")
18	338-0263	1	Harness, Wiring - Switch Plate to Control

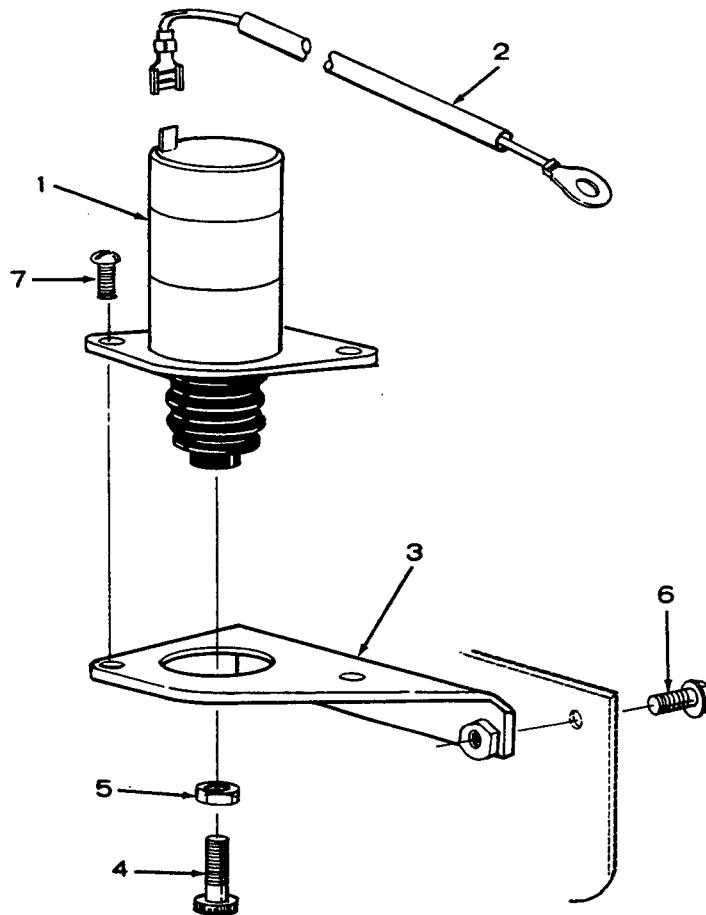
**STOP SOLENOID
(PRIOR TO SERIAL NUMBER E810558209 DURING SPEC AB)**



ES-1328

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	SOLENOID KIT, STOP (Complete Replacement)			8	518-0203	1	Ring, Snap - Spring Retaining
	307-2026	1	12 Volt DC Sets	9	518-0218	2	Ring, Retaining
	307-2027	1	24 Volt DC Sets	10	306-0193	1	Cover, Solenoid Plunger
	307-2394	1	32 Volt DC Sets	11	306-0158	1	Bracket, Solenoid
2	334-0028	1	Lead, Ground	12	862-0001	1	Nut, Hex (1/4-20)
3	812-0148	2	Screw, Machine - Round Head (1/4-20 x 1/2")	13	306-0242	1	Screw, Solenoid Adjusting
4	850-0040	2	Washer, Lock - Spring (1/4")	14	526-0180	1	Spacer, Solenoid Bracket Mounting
5	306-0159	1	Plunger, Solenoid	15	336-1742	1	Lead, Stop Solenoid to High Water Temperature Switch
6	306-0162	1	Retainer, Solenoid Plunger				
7	306-0161	1	Spring, Solenoid Plunger				

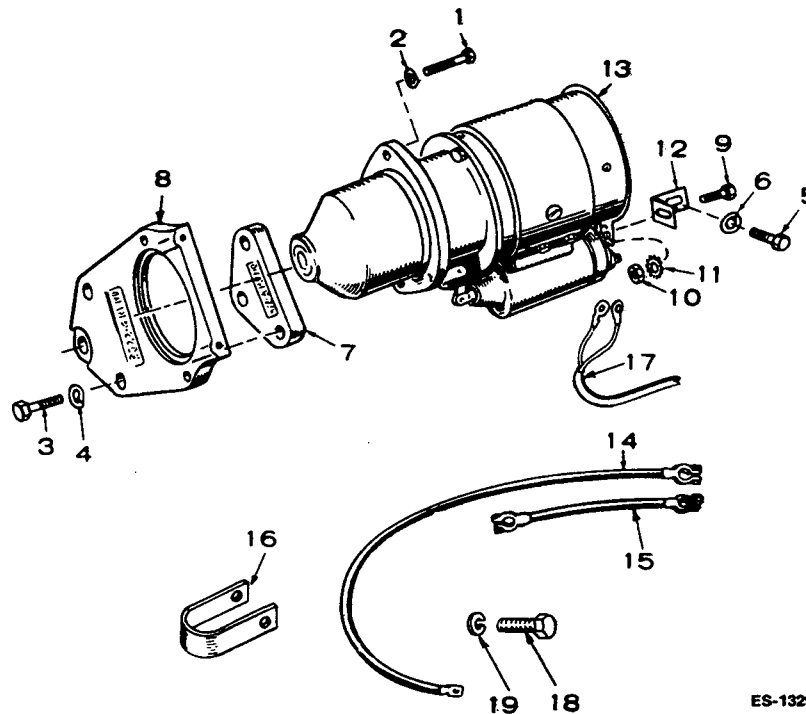
STOP SOLENOID
(BEGIN SERIAL NUMBER E810558209 DURING SPEC AB)



FS-1240

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	SOLENOID, STOP		
	307-1904	1	12 Volt DC Sets
	307-1930	1	24 Volt DC Sets
	307-2393	1	32 Volt DC Sets
2	336-7290	1	Lead - Solenoid to High Temperature Switch
3	306-2254	1	Bracket, Solenoid Mounting
4	306-2256	1	Screw, Solenoid Adjusting
5	862-0001	1	Nut, Hex (1/4-20)
6	821-0010	2	Screw, Hex Locking Head (Flange) (1/4-20 x 1/2")
7	812-0148	2	Screw, Machine - Round Head (1/4-20 x 1/2")

STARTER (PRESTOLITE)

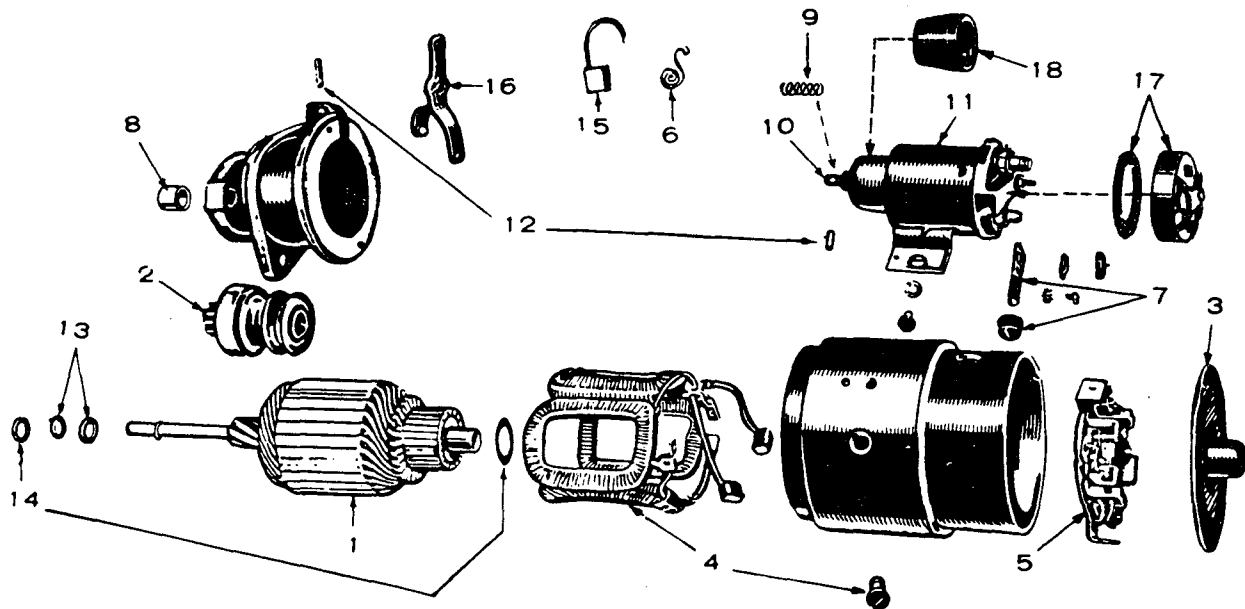


ES-1329

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	800-0051	2	Screw, Cap - Hex Head (3/8-16 x 1-1/4")
2	850-0050	2	Washer, Lock - Spring (3/8")
3	SCREW, CAP - HEX HEAD		
	800-0053	1	3/8-16 x 1-3/4"
	800-0054	2	3/8-16 x 2"
4	850-0050	3	Washer, Lock - Spring (3/8")
5	800-0052	1	Screw, Cap - 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	FLANGE, STARTER MOUNTING		
	191-0512	1	Sets Without Heat Exchanger or Keel Cooling
	191-1190	1	Sets With Heat Exchanger or Keel Cooling
9	800-0046	1	Screw, Cap - Hex Head (3/8-16 x 1/2")

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
10	864-0003	1	Nut, Hex (3/8-16)
11	856-0010	1	Washer, Lock - EIT (3/8")
12	191-0365	1	Bracket, Starter
13	STARTER (See Separate Group for Components)		
			Spec A through AB
	191-0324	1	12 Volt DC Sets
	191-0443	1	24 and 32 Volt DC Sets
	191-0443	1	Begin Spec AC - 24 and 32 Volt DC Sets
14	CABLE, BATTERY (Select by Length)		
	416-0021	2	21"
	416-0077	2	28"
15	416-0133	1	Cable, Battery Jumper
16	416-0096	1	Clamp, Battery Cable
17	338-0279	1	Harness, Wiring
18	800-0047	1	Screw, Cap - Hex Head (3/8-16 x 5/8") Battery Ground
19	850-1050	1	Washer, Lock - Spring (3/8") Battery Ground

STARTER PARTS (PRESTOLITE)

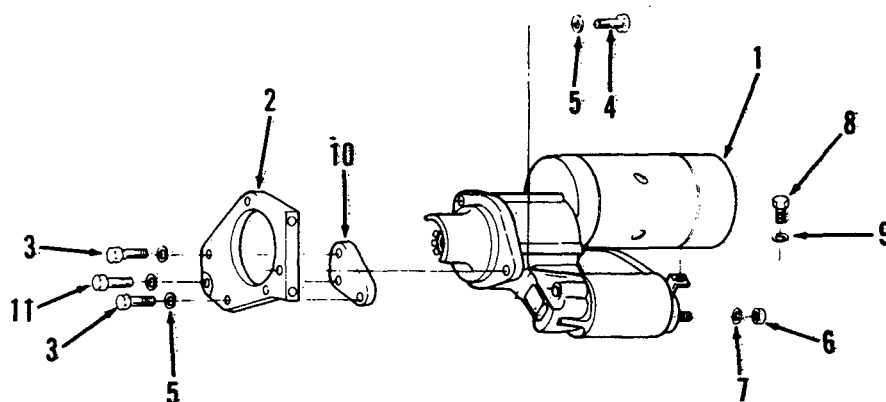


ES-1098

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	STARTER		
	191-0324	1	12 Volt DC Sets
	191-0443	1	24 and 32 Volt DC Sets
1	ARMATURE		
	191-0712	1	12 Volt DC Sets
	191-0713	1	24 and 32 Volt DC Sets
2	191-0432	1	Clutch
3	191-1023	1	Head Assembly, Commutator End
4	COIL PACKAGE, FIELD		
	191-1024	1	12 Volt DC Sets
	191-1043	1	24 and 32 Volt DC Sets
5	PLATE ASSEMBLY, BRUSH		
	191-1025	1	12 Volt DC Sets
	191-1042	1	24 and 32 Volt DC Sets
6	191-1020	1	Spring Set, Brush (Set of 4)
7	191-1263	1	Connector Package
8	191-0497	1	Bearing (Bronze), Drive End

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
9	191-1027	1	Spring, Plunger
10	191-1028	1	Core Assembly, Moving
11	SWITCH, SOLENOID		
	191-0433	1	12 Volt DC Sets
	191-0715	1	24 and 32 Volt DC Sets
12	191-1029	1	Parts Package, Yoke
13	191-1030	1	Stop and Lock Ring Package, Pinion
14	191-1031	1	Thrust Washer Package, Armature (Use as Required)
15	BRUSH SET, SERVICE		
	191-0434	1	12 Volt DC Sets
	191-0714	1	24 and 32 Volt DC Sets
16	191-1032	1	Yoke
17	191-0468	1	Cover, Solenoid
18	191-1134	1	Boot, Rubber - Part of Moving Core Assembly

STARTER (MITSUBISHI)

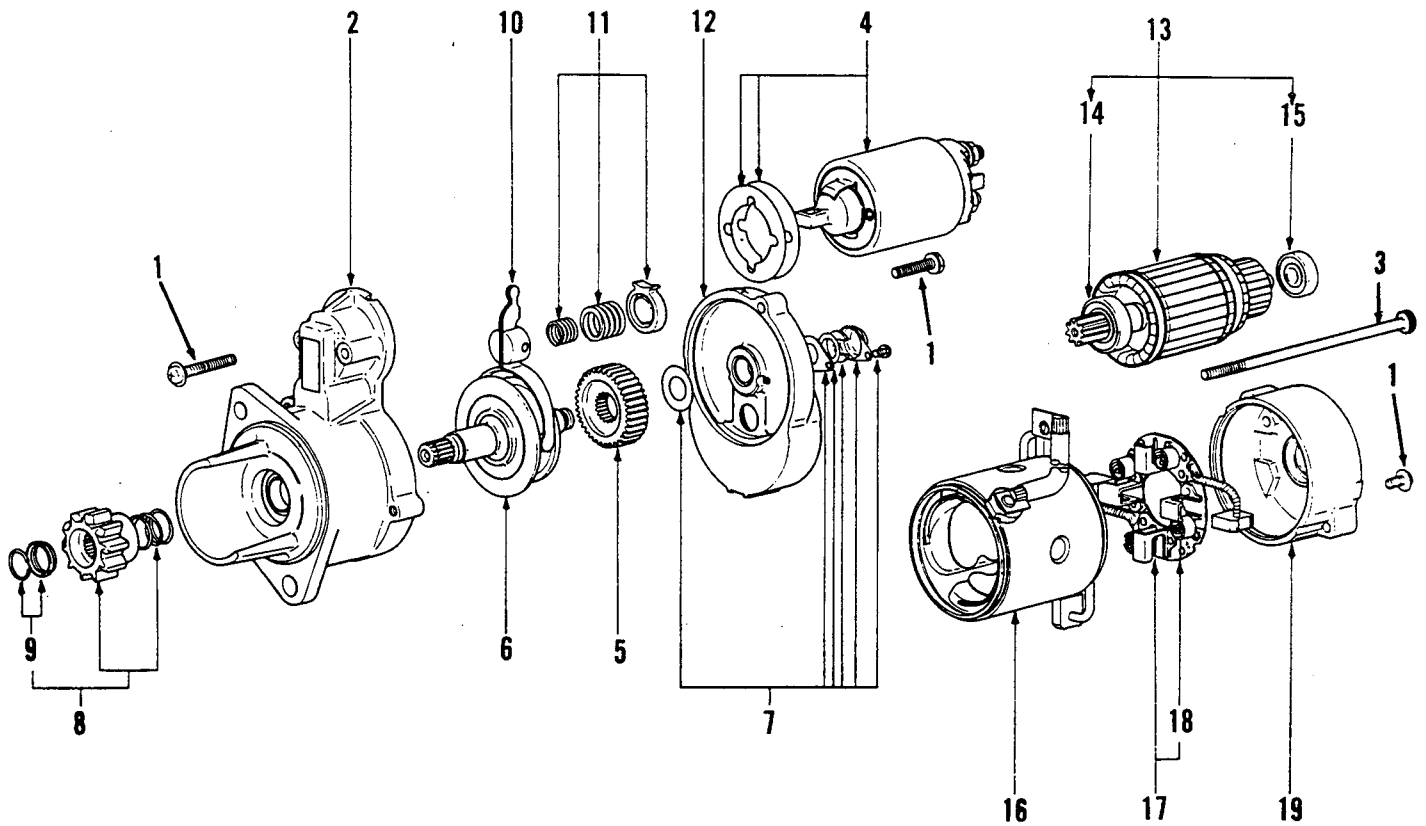


ES-1518

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	191-1399	1	Starter - Begin Spec AC - 12 Volt DC Sets (See Separate Group for Components) (Includes Parts Marked *)
2	191-1400	1	Flange, Starter Mounting
3	800-0054	2	Screw, Cap - Hex Head (3/8-16 x 2")
4	800-0051	2	Screw, Cap - Hex Head (3/8-16 x 1-1/4")
5	850-0050	5	Washer, Lock - Spring (3/8")
6	860-2008	1	*Nut, Hex (M8) B + Terminal
7	850-2008	1	*Washer, Lock - Spring (M8) B + Terminal
8	800-2000	1	*Screw, Cap - Hex Head (M5 x 8 MM) Solenoid Terminal
9	850-2005	1	*Washer, Lock - Spring (M5) Solenoid Terminal
10	191-0311	1	Spacer, Flange
11	800-0053	1	Screw, Cap - Hex Head (3/8-16 x 1-3/4")

* - Part Included With 191-1399 Starter

STARTER PARTS (MITSUBISHI)



XES-1361

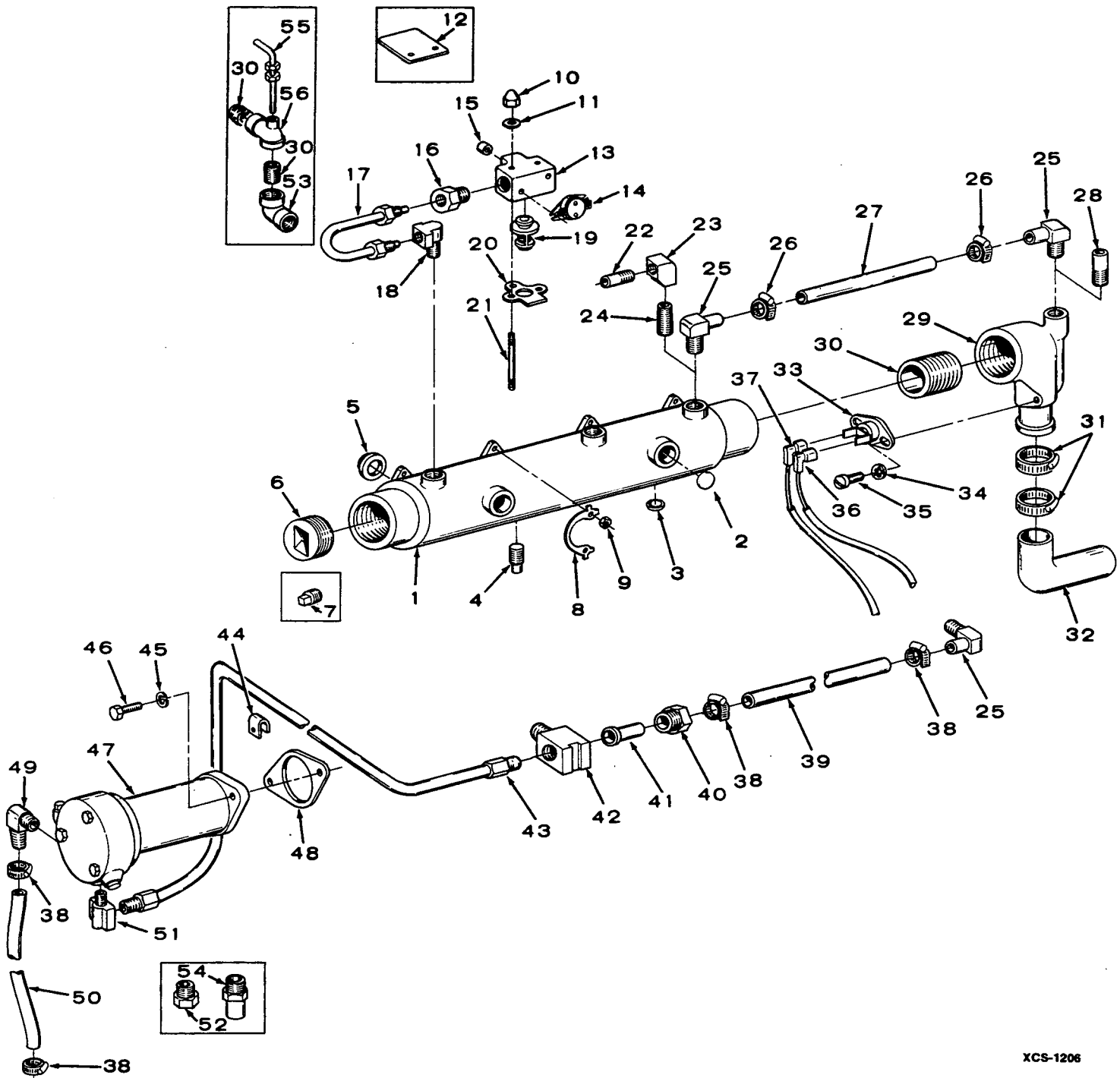
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	191-1399	1	Starter
1	191-1450	1	Screw Set
2	191-1479	1	Bracket, Front - Includes Bearing
3	191-1431	1	Bolt Set
4	191-1486	1	Switch
5	191-1446	1	Gear
6	191-1482	1	Clutch
7	191-1444	1	Cover Set
8	191-1483	1	Pinion Set (Includes Parts Marked *)
9	191-1442	1	*Stopper Set
10	191-1484	1	Lever
11	191-1440	1	Spring Set
12	191-1439	1	Bracket, Center
13	191-1438	1	Armature Assembly (Includes Parts Marked #)
14	191-1437	1	#Bearing, Center
15	191-1436	1	#Bearing, Rear
16	191-1485	1	Yoke - Includes Pole Shoes, Field Coil and Positive Brushes
17	191-1434	1	Holder Assembly, Brush (Includes Negative Brushes and Parts Marked ‡)
18	191-1433	4	‡Spring, Brush
19	191-1432	1	Bracket, Rear

* - Parts Included in 191-1483 Pinion Set

- Parts Included in 191-1438 Armature Assembly

‡ - Parts Included in 191-1434 Brush Holder Assembly

COOLING SYSTEM



XCS-1206

COOLING SYSTEM

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	
1	154-2124	1	Manifold Assembly, Exhaust (Includes Parts Marked *)	37	336-7572	1	Lead - Exhaust Switch to Control (25") Use Began During Spec AB	
2	517-0041	4	*Plug, Welch (1-1/8" OD)	38	503-0183	4	Clamp, Hose	
3	517-0059	1	*Plug, Welch (1-7/16" OD)	39	503-0394	1	Hose, Water (1/2" x 9-5/8")	
4	PLUG, EXHAUST MANIFOLD (3/8")			40	502-0239	1	Nut, Inverted	
	505-0110	1	Pipe - Sets Without Heat Exchanger	41	130-0533	1	Adapter, Hose	
			Sets With Heat Exchanger	42	502-0247	1	Tee, Male	
	505-0266	1	*Pipe - Spec A through C	43	130-0628	1	Line, Water - Pump to Block	
	502-0155	1	Brass - Begin Spec D	44	130-0511	1	Clamp, Water Line	
5	154-1057	4	Gasket, Exhaust Manifold	45	WASHER, LOCK - SPRING (1/4")			
6	505-0950	1	Plug, Exhaust Manifold - Countersunk (1-1/2")	850-0040	2	#Sets Without Heat Exchanger		
7	502-0080	1	Plug, Square Head (Brass) (1/8") Used on some Early Models	850-0038	2	+Sets With Heat Exchanger		
8	154-1665	4	Tab, Lock	46	SCREW (1/4-20 x 7/8")			
9	110-0445	8	Nut, Hex (Special)	800-0006	2	#Hex Head - Sets Without Heat Exchanger		
10	869-0002	4	Nut, Acorn (5/16-24)	802-0035	2	+Socket Head - Sets With Heat Exchanger		
11	526-0022	4	Washer, Flat (21/64" ID x 9/16" OD x 1/16" Thk)	47	PUMP KIT, WATER (SEA WATER)			
12	309-0154	1	Cover, Switch - Sets With Switch Mounted on Cover	131-0267	1	Sets Without Heat Exchanger (Includes 131-0152 Pump and Parts Marked # - See Separate Group for Components)		
13	COVER, THERMOSTAT							
	309-0160	2	Sets Without Keel Cooling	132-0251	1	Sets With Heat Exchanger (Includes 132-0147 Pump and Parts Marked +) This Kit Replaces 132-0115 Pump Used on Sets With Heat Exchanger Until Use of 132-0147 Pump Begin Serial Number 0675975283 During Spec AA. The 132-0115 is Identified by a Bushing Cavity in the End Cover; 132-0147 has a Flat End Cover - See Separate Groups for Components for these Water Pumps.		
	309-0161	2	Sets With Keel Cooling					
14	SWITCH, HIGH TEMPERATURE							
	309-0156	1	Normally Closed - Sets Without High Temperature Indicator Lamp					
	309-0483	1	Normally, Open - Sets With High Temperature Indicator Lamp					
15	505-0274	2	Plug, Pipe (1/8")	48	131-0127	1	#+Gasket, Water Pump	
16	502-0103	2	Connector, Inverted Male	49	ELBOW - Water Pump Inlet			
17	130-0510	2	Line, Water	502-0304	1	Sets Without Heat Exchanger (Hose Elbow - 90°)		
18	502-0074	2	Elbow, Inverted Male	502-0278	1	Sets With Heat Exchanger - Spec A (Street - 90°)		
19	309-0130	2	Thermostat	50	503-0586	1	Hose, Intake - Sea Water Pump (1/2" x 36")	
20	309-0145	2	Gasket, Cover	51	ELBOW - Water Pump Outlet			
21	520-0143	2	Stud, Thermostat Cover	502-0076	1	Sets Without Heat Exchanger (Inverted Male)		
22	502-0258	1	Nipple, Half (3/8") Sets With Keel Cooling			Sets With Heat Exchanger Spec A (Street - 90°)		
23	502-0263	1	Elbow, Brass - 90° (3/8") Sets With Keel Cooling	502-0278	1	Begin Spec B through Portion of Spec AB (Hose Elbow)		
24	502-0085	1	Nipple, Close - 3/8" (Brass) Sets With Keel Cooling	502-0237	1	Use Begin During Spe AB (Hose Elbow - 90°)		
25	502-0237	3	Elbow, Hose - 90° (Brass)	502-0300	1			
26	503-0547	2	Clamp, Hose - Sets Without Heat Exchanger or Keel Cooling	52	BUSHING, REDUCER - Water Pump Outlet (Sets With Heat Exchanger)			
27	503-0084	1	Hose, Water (1/2" x 6") Sets Without Heat Exchanger or Keel Cooling	502-0372	1	Begin Spec B through Portion of Spec AB (3/4" to 3/8")		
28	502-0803	1	Nipple, Half (3/8" x 1-1/2") Sets With Heat Exchanger - Use Began During Spec AB	502-0798	1	Use Began During Spec AB (3/4" to 1/2")		
29	155-1059	1	Elbow, Exhaust	53	505-0494	1	Elbow, Pipe, (1-1/2" x 90°) Early Models	
30	NIPPLE, CLOSE (1-1/2")			54	502-0370	1	Adapter, Hose - Water Pump Inlet (Sets With Heat Exchanger Begin Spec B)	
	505-0194	2	Early Models	55	154-0894	1	Tube Assembly, Water Injection - Early Models	
	505-0194	1	Late Models	56	505-0486	1	Tee, Exhaust - Early Models	
31	503-0465	2	Clamp, Hose					
32	503-0576	1	Elbow, Exhaust Hose					
33	SWITCH, HIGH EXHAUST TEMPERATURE (Use Began During Spec AB)							
	309-0420	1	Normally Closed - Sets Without High Temperature Indicator Lamp					
	309-0484	1	Normally Open - Sets With High Temperature Indicator Lamp					
34	854-0008	2	Washer, Lock - IT (#6) Use Began During Spec AB					
35	815-0410	2	Screw, Machine - Binding Head (#6-32 x 1/4") Use Began During Spec AB					
36	336-7571	1	Lead - Exhaust Switch to Cylinder Head Switch (13-1/2") Use Began During Spec AB					

* - Parts Included in 154-2124 Exhaust Manifold Assembly

- Parts Included in 131-0267 Water Pump Kit

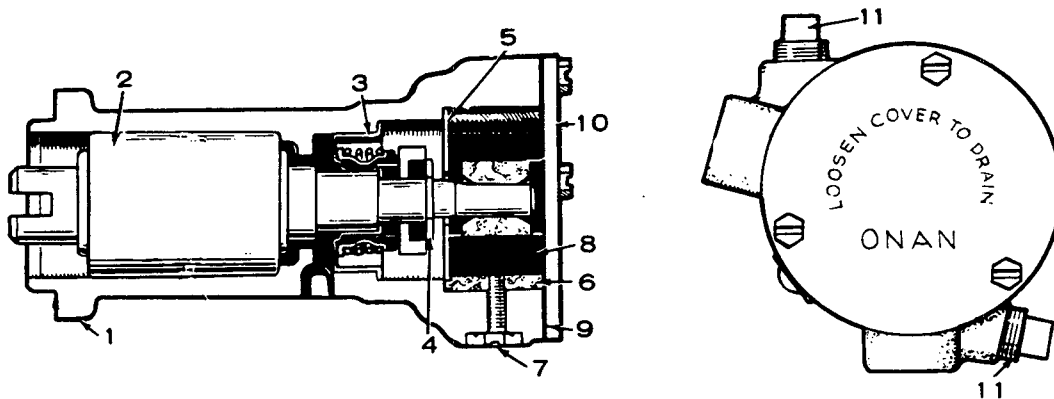
+ - Parts Included in 132-0251 Water Pump Kit

* - Parts Included in 154-2124 Exhaust Manifold Assembly

- Parts Included in 131-0267 Water Pump Kit

+ - Parts Included in 132-0251 Water Pump Kit

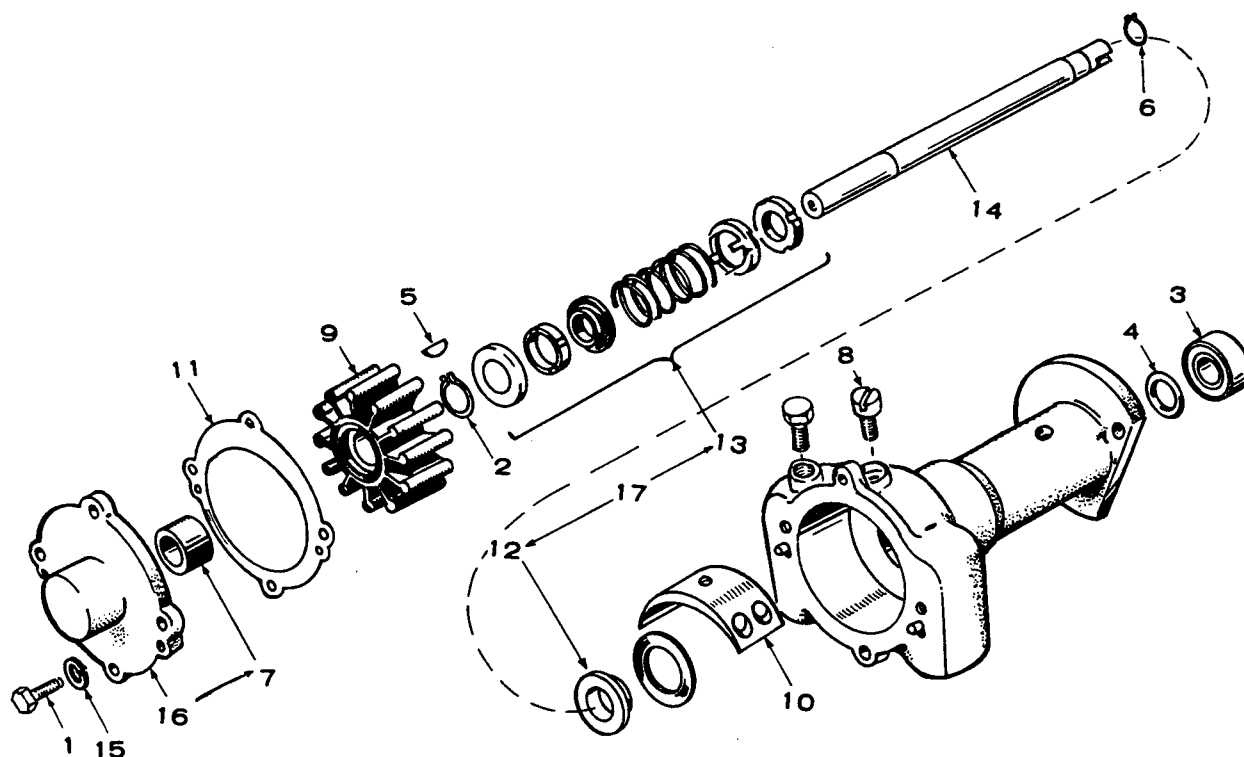
WATER PUMP PARTS (131-0152)



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	131-0152	1	Pump, Water (Sea Water)
	131-0179	1	Repair Kit, Water Pump (Includes Parts Marked *)
1		1	Body - Not Sold Separately
2	131-0268	1	Bearing and Shaft Assembly
3	131-0157	1	*Seal Assembly
4	518-0221	1	*Ring, Retaining
5	131-0158	1	*Wearplate - Rear
6	131-0159	1	*Cam
7	815-0283	4	*Screw, Machine - Slotted Hex Head (Brass) (#8-32 x 1/2") One Screw Included in Repair Kit
8	131-0160	1	*Impeller
9	131-0161	1	*Gasket, Cover
10	131-0162	1	*Cover
11	502-0080	2	Plug, Square Head (1/8")

* - Parts Included in 131-0179 Repair Kit

WATER PUMP PARTS (132-0115)



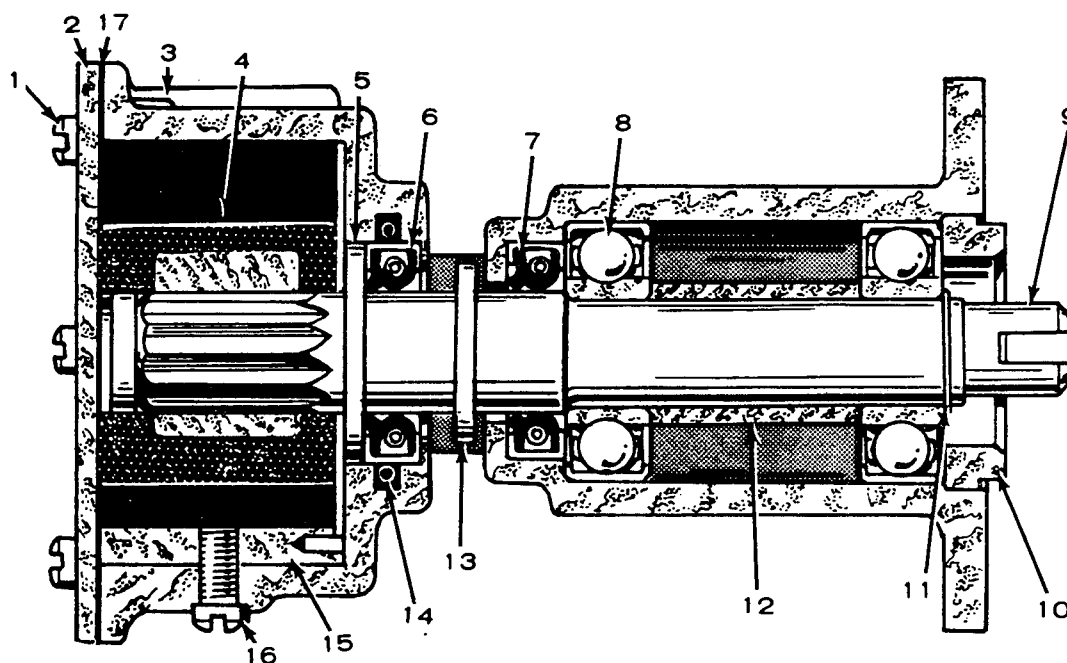
NOTE: This pump used on sets with optional Heat Exchanger prior to Serial Number 0675975283 during Spec AA (identified by bushing cavity in the end cover).

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	132-0115	1	Pump, Water (Sea Water)
	132-0116	1	Repair Package, Water Pump (Includes Parts Marked *)
1	800-1003	4	Screw, Cap - Hex Head (1/4-20 x 1/2")
2	132-0119	1	Ring, Retainer - Seat and Seal
3	132-0120	1	*Bearing, Ball
4	132-0121	1	Slinger
5	515-0248	1	*Key
6	132-0122	1	Ring, Retainer - Drive End
7	132-0123	1	*Bushing

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
8	132-0124	1	Screw, Cam
9	132-0117	1	*Impeller
10	132-0125	1	*Cam
11	132-0118	1	*Gasket, Cover
12	132-0126	1	*Seat
13	132-0127	1	*Seal
14	132-0128	1	Shaft
15	850-0040	4	Washer, Lock - Spring (1/4")
16	132-0129	1	Cover, End (Includes Bushing)
17	132-0130	1	Seat and Seal Package

* - Parts Included in 132-0116 Repair Package

WATER PUMP PARTS (132-0147)



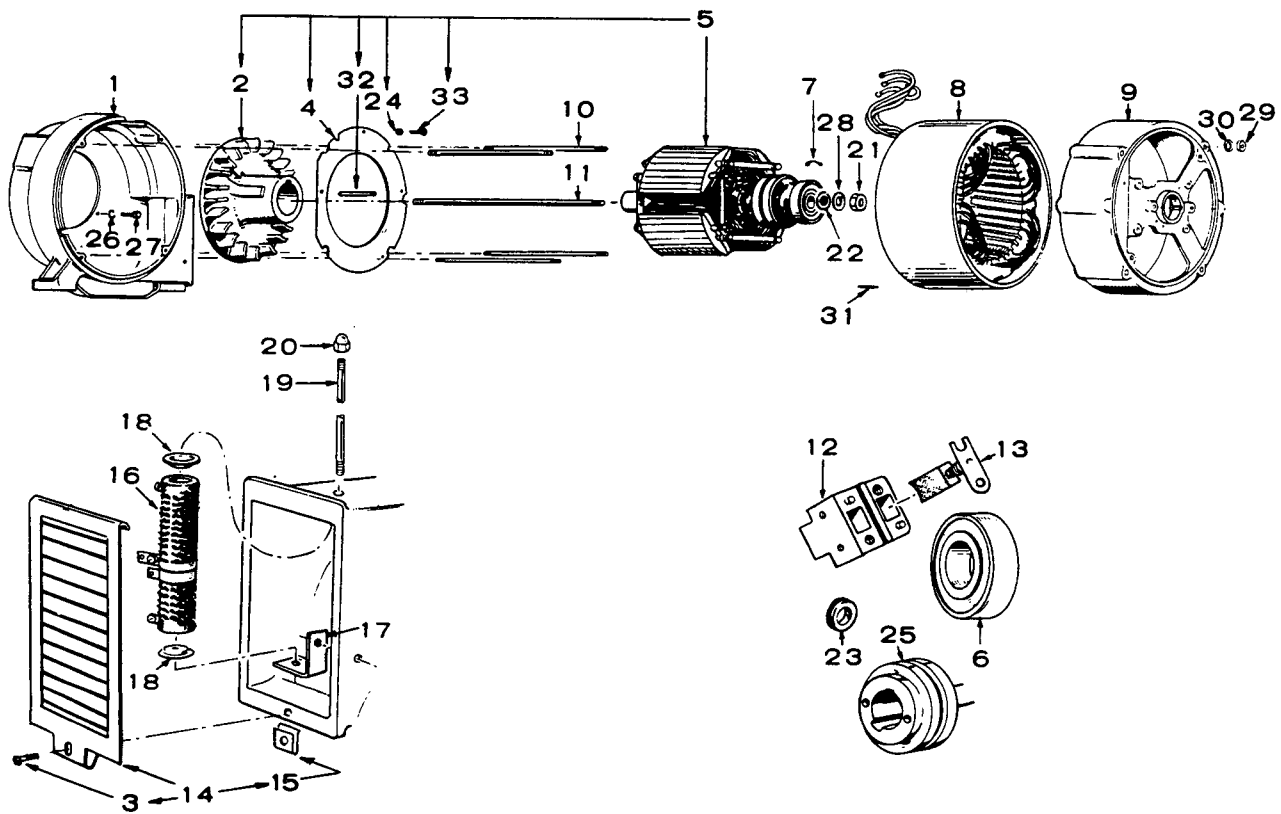
NOTE: This pump used on sets with optional Heat Exchanger begin Serial Number 0675975283 during Spec AA (identified by the flat end cover).

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	132-0147	1	Pump, Water (Sea Water)	8	132-0158	2	Bearing, Ball
	132-0148	1	Repair Package, Water Pump (Includes Parts Marked *)	9	132-0157	1	Shaft
	132-0259	1	Repair Kit, Cam and Wearplate (Includes Parts Marked #)	10	132-0156	1	Ring, Adapter
1	132-0165	6	Screw, Fillister Head	11	132-0155	1	Ring, Retaining - External
2	132-0164	1	Cover, End	12	132-0154	1	Spacer, Bearing
3	132-0163	1	Body	13	132-0153	1	Slinger
4	132-0162	1	*Impeller (Includes Spline Seal)	14	132-0152	1	*Ring, "O"
5	132-0161	1	Spacer, Seal	15	132-0258	1	#Cam and Wearplate Assembly
6	132-0160	1	*Seal	16	132-0257	1	#Screw, Fillister Head
7	132-0159	1	Seal	17	132-0256	1	*#Gasket

* - Parts Included in 132-0148 Repair Package

- Parts Included in 132-0259 Cam and Wearplate Repair Kit

GENERATOR - SPEC A THROUGH Z



G-1145

GENERATOR - SPEC A THROUGH Z

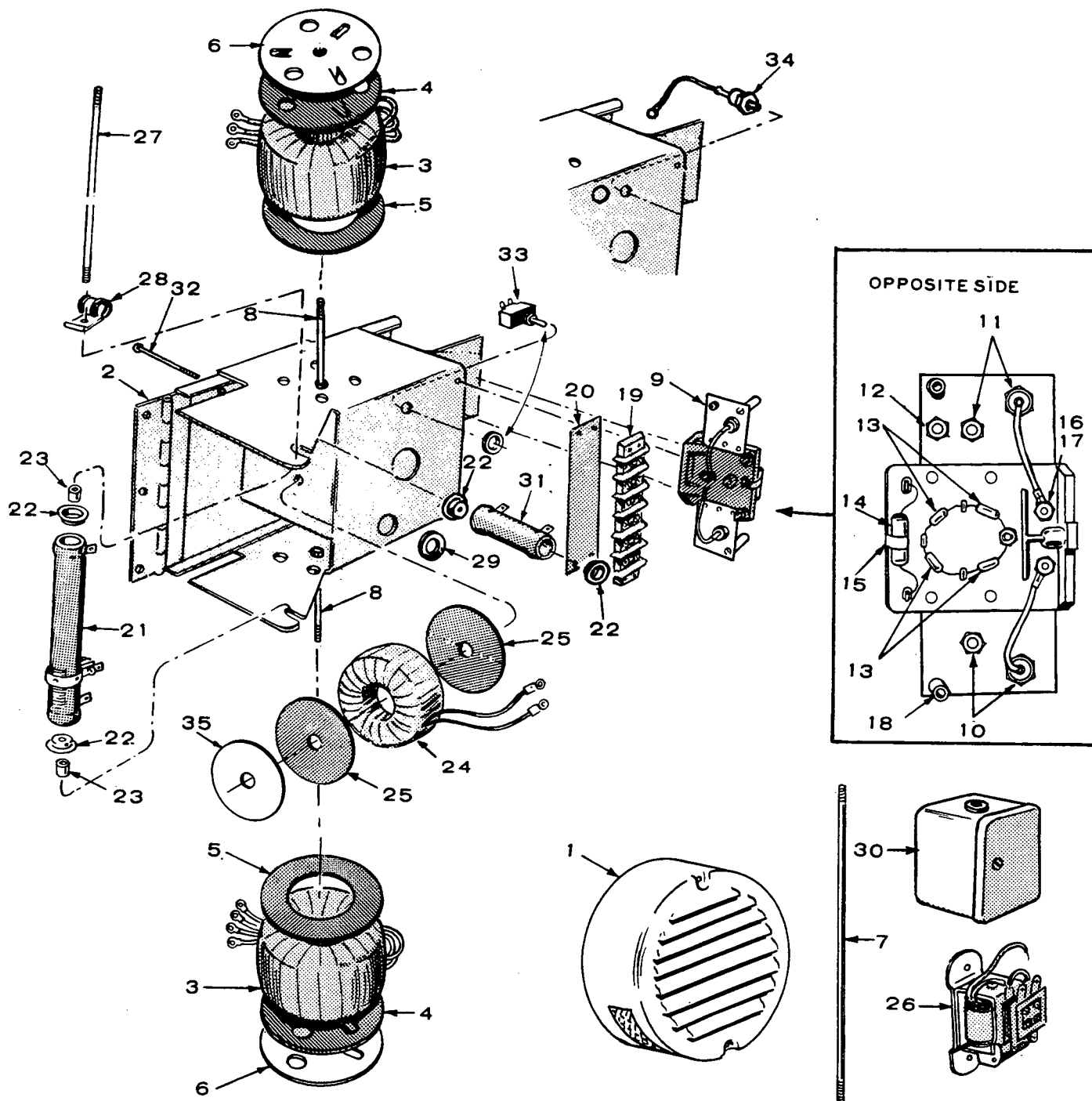
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	212-0280	1	Rig Assembly, Brush (Includes Leads, Collector Ring Brushes (4) and Blocks (2) and Hardware)
1	231-0112	1	Adapter, Generator
2	205-0064	1	*Blower, Generator
3	809-0046	1	#Screw, Sheet Metal - Round Head (#10 x 3/4")
4	234-0162	1	*Baffle, Air
5	201-1122	1	Rotor Assembly, Generator (Includes Parts Marked *)
6	510-0047	1	*Bearing, Rotor
7	232-0596	1	Clip, Bearing Stop
8	STATOR, GENERATOR		
			50 Hertz
			120/240 Volt
			Single Phase
	220-0667	1	12 Volt DC Sets
	220-1262	1	24 Volt DC Sets
	220-1532	1	32 Volt DC Sets
			Three Phase
	220-0712	1	12 Volt DC Sets
			127/220 Volt
			Three Phase
	220-1711	1	12 Volt DC Sets
			220/380 Volt
			Three Phase
	220-0668	1	12 Volt DC Sets
			60 Hertz
			120/208 Volt
			Three Phase
	220-0595	1	12 Volt DC Sets
	220-1293	1	32 Volt DC Sets
			120/240 Volt
			Single Phase
	220-0601	1	12 Volt DC Sets
	220-1066	1	24 Volt DC Sets
	220-1067	1	32 Volt DC Sets
			Three Phase
	220-0632	1	12 Volt DC Sets
9	BELL, END		
	211-0146	1	Sets Without Overspeed Switch
	211-0152	1	Sets With Overspeed Switch

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
10	520-0640	4	Stud, Generator Through
11	520-0615	1	Stud, Rotor Through
12	212-1064	2	Block, Collector Ring Brush
13	214-0059	4	Brush, Collector Ring
14	234-0163	1	Cover Assembly, Air Outlet (Includes Parts Marked #)
15	870-0177	1	#Nut, Speed (#10)
16	RESISTOR, TAPPED - Adjustable		
	304-0500	1	12 Volt DC Sets
	304-0521	1	24 Volt DC Sets
	304-0534	1	32 Volt DC Sets
17	232-1565	1	Bracket, Resistor Mounting
18	304-0006	2	Washer, Resistor Centering
19	520-0620	1	Stud, Resistor Mounting
20	866-0001	1	Nut, Resistor Mounting
21	870-0203	1	Nut, Rotor through Stud
22	232-0200	1	Washer, Tapered - Rotor through Stud
23	GROMMET, RUBBER		
	508-0095	1	Air Baffle
	508-0112	1	Lead Outlet
24	850-0030	5	*Washer, Lock-Spring (#10)
25	204-0061	1	*Ring, Collector
26	850-0040	4	Washer, Lock - Generator Adapter Mounting
27	SCREW, HEX CAP - GENERATOR ADAPTER MOUNTING		
	800-0051	2	3/8-16 x 1-1/4"
	800-0050	2	3/8-16 x 1"
28	850-0055	1	Washer, Lock (7/16")
29	862-0015	4	Nut, Hex (5/16-18) - Generator through Stud
30	850-0045	4	Washer, Lock (5/16")
31	516-0138	2	Pin, Roll (3/16" x 5/8") Alignment
32	515-0103	1	*Key, Blower to Rotor
33	813-0098	5	*Screw (10-32 x 3/8") - Baffle Mounting

* - Parts Included in 201-1122 Generator Rotor Assembly

- Parts Included in 234-0163 Cover Assembly

GENERATOR EXCITER - SPEC A THROUGH Z



NOTE: 06SX1N1B used on 60 Hertz 120/240 Volt, 3 Phase sets.
 06SX1N3B used on all 60 Hertz sets except 120/240 Volt, 3 Phase.
 06SX51N1B used on 50 Hertz 120/240 Volt, 3 Phase sets.
 06SX51N3B used on all 50 Hertz sets except 120/240 Volt, 3 Phase.

Check your set nameplate for the correct MagneCiter number. Select the correct Part Number column that applies to your set.

GENERATOR EXCITER - SPEC A THROUGH Z

REF NO.	PART NUMBER	PART DESCRIPTION	QUANTITY USED									
			A	B	C	D	E	F	G	H	J	K
		02SX1N1A Use Column A	X									
		04SX1N1A Use Column B		X								
		04SX1N1B Use Column C			X							
		04SX1N3B Use Column D				X						
		06SX1N1A Use Column E					X					
		06SX1N1B Use Column F						X				
		06SX1N3B Use Column G							X			
		06SX51N1A Use Column H								X		
		06SX51N1B Use Column J									X	
		06SX51N3B Use Column K										X
	209-0001	Exciter, Complete (Less Cover)	1									
	209-0002	Exciter, Complete (Less Cover)		1								
	209-0003	Exciter, Complete (Less Cover)			1							
	209-0005	Exciter, Complete (Less Cover)				1						
	209-0007	Exciter, Complete (Less Cover)					1					
	209-0008	Exciter, Complete (Less Cover)						1				
	209-0010	Exciter, Complete (Less Cover)							1			
	209-0011	Exciter, Complete (Less Cover)								1		
	209-0012	Exciter, Complete (Less Cover)									1	
	209-0013	Exciter, Complete (Less Cover)										1
1	234-0154	• Cover, Exciter	1	1			1			1		
1	234-0185	• Cover, Exciter			1	1		1	1		1	1
2	234-0153	Panel Only, Exciter	1	1			1			1		
2	234-0188	Panel Only, Exciter			1	1		1	1		1	1
3	315-0084	Reactor, Gate	2									
3	315-0099	Reactor, Gate		2	2	2						
3	315-0102	Reactor, Gate					2	2	2			
3	315-0104	Reactor, Gate								2	2	2
4	232-1553	Gasket, Gate Reactor Mounting - Outer	2	2	2	2		2	2		2	2
4	232-1608	Gasket, Gate Reactor Mounting - Outer					2			2		
5	232-1551	Gasket, Gate Reactor Mounting - Inner	2	2	2	2	2	2	2	2	2	2
6	232-1552	Retainer, Gate Reactor	2	2	2	2		2	2		2	2
6	234-0191	Retainer, Gate Reactor					2			2		
7	520-0211	Stud, Gate Reactor Mounting	1	1			1			1		
8	800-0013	Screw, Cap - Hex Head (1/4-20 x 2-1/2")			2	2						
8	800-0015	Screw, Cap - Hex Head (1/4-20 x 3")						2	2		2	2
9	305-0259	Rectifier Assembly (Includes Parts Marked †)	1	1	1							
9	305-0387	Rectifier Assembly (Includes Parts Marked Δ)				1						
9	305-0264	Rectifier Assembly (Includes Parts Marked *)					1	1		1	1	
9	305-0388	Rectifier Assembly (Includes Parts Marked £)							1			1
10	305-0238	†Δ£ Rectifier Only, Power Field (Negative)	2	2	2	2	2	2	2	2	2	2
11	305-0239	†Δ£ Rectifier Only, Power Field (Positive)	2	2	2	2	2	2	2	2	2	2
12	305-0239	Δ£ Rectifier Only, Field Flash				1			1			1
13	305-0240	†Δ£ Rectifier, Voltage Control	4	4	4	4	4	4	4	4	4	4

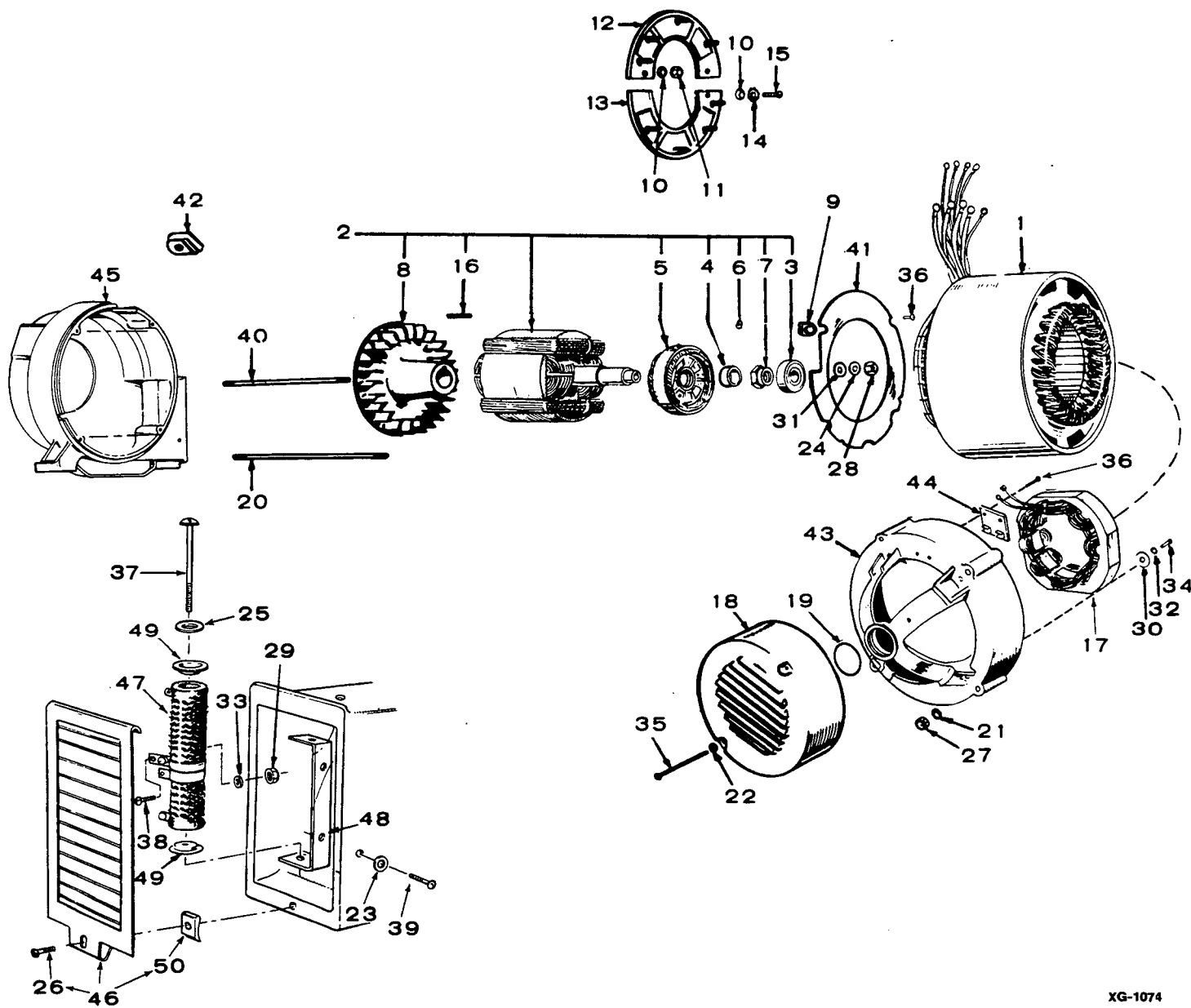
GENERATOR EXCITER - SPEC A THROUGH Z

REF NO.	PART NUMBER	PART DESCRIPTION	QUANTITY USED									
			A	B	C	D	E	F	G	H	J	K
14	304-0476	†ΔResistor (500-Ohm, 5 Watt)	1	1	1	1						
14	304-0512	*£Resistor (150-Ohm, 50 Watt)					1	1	1	1	1	1
15	304-0498	†Δ*£Clip, Resistor Mounting	1	1	1	1	1	1	1	1	1	1
16	332-0697	†Δ*£Stud, Terminal (Flat Head)	2	2	2	2	2	2	2	2	2	2
17	332-0698	†Δ*£Stud, Terminal (Extended Slotted Head)	1	1	1	1	1	1	1	1	1	1
18	870-0196	†Δ*£Fastener (Compression Type)	2	2	2	2	2	2	2	2	2	2
19	332-0699	Block, Terminal	1	1			1			1		
19	332-0745	Block, Terminal			1	1		1	1		1	1
20	332-0700	Strip, Block Marker	1									
20	332-0738	Strip, Block Marker		1			1			1		
20	332-0746	Strip, Block Marker			1			1			1	
20	332-0925	Strip, Block Marker				1			1			1
21	304-0489	Resistor, Fixed (200-Ohm, 50 Watt)	1									
21	304-0511	Resistor, Tapped - 500-Ohm (425 Fixed, 75 Adj.)		1			1			1		
21	304-0527	Resistor, Tapped - 500-Ohm (425 Fixed, 75 Adj.)			1	1		1	1		1	1
22	304-0015	Washer, Centering - Resistor	2	4	4	4	4	4	4	4	4	4
23	232-1473	Spacer, Resistor Mounting	2									
23	232-1550	Spacer, Resistor Mounting		2			2			2		
23	232-1474	Spacer, Resistor Mounting			2	2		2	2		2	2
24	315-0085	Reactor, Voltage Control	1									
24	315-0100	Reactor, Voltage Control		1	1	1	1	1	1			
24	315-0105	Reactor, Voltage Control								1	1	1
25	232-1548	Gasket, Voltage Control Reactor	2	2	2	2	2	2	2	2	2	2
26	307-0584	Relay, Field Build-Up	1									
27	520-0641	Stud, Tapped Resistor Mounting	1		1	1		1	1		1	1
27	812-0116	Screw, Tapped Resistor Mounting (RHMS #10-24 x 4-1/2")		1			1			1		
28	332-0050	Clip, Loop	1	1			1			1		
28	332-0052	Clip, Loop			1	1		1	1		1	1
29	508-0008	Grommet, Rubber (For 7/8" Hole)	1	1	1	1	1	1	1	1	1	1
30	307-0643	Cover, Field Relay	1									
31	304-0510	Resistor, Fixed (250-Ohm, 25 Watt)		1	1	1	1	1	1	1	1	1
32	813-0112	Screw, Fixed Resistor Mounting (RHSMS #10-32 x 2-1/2")		1	1	1	1	1	1	1	1	1
33	308-0175	Switch, Residual Reset			1			1			1	
34	305-0238	Rectifier, Power Field - Negative				1			1			1
35	526-0173	Washer, Retainer - Voltage Control Reactor	1	1	1	1	1	1	1	1	1	1
ASSOCIATED HARDWARE (NOT ILLUSTRATED)												
		SCREW, MACHINE - ROUND HEAD										
	812-0156	1/4-20 x 1-1/2"										
	813-0101	#10-32 x 9/16"										
	811-0098	#10-32 x 3/8" (Brass)										
	813-0098	#10-32 x 3/8"										
	815-0190	#8-32 x 3/8"										
	815-0198	#8-32 x 5/8"										
	815-0001	Screw, Machine - Binder Head (Brass) (#6-32 x 1/4")										

GENERATOR EXCITER - SPEC A THROUGH Z

REF NO.	PART NUMBER	PART DESCRIPTION	QUANTITY USED										
			A	B	C	D	E	F	G	H	J	K	
		WASHER, FLAT											
	526-0003	11/64" ID x 3/8" OD x 1/32" Thk					As Required						
	526-0048	.172" ID x 3/8" OD x 1/32" Thk					As Required						
	526-0049	.200" ID x 7/16" OD x 1/32" Thk					As Required						
	526-0179	7/32" ID x 5/8" OD x 1/16" Thk					As Required						
		WASHER, LOCK - SPRING											
	850-0030	#10					As Required						
	850-0040	1/4"					As Required						
	853-0005	Washer, Lock - ET					As Required						
		WASHER, LOCK - IT											
	854-0007	#8					As Required						
	854-0010	#10					As Required						
	854-0014	1/4"					As Required						
		NUT, HEX											
	860-0008	#8-32					As Required						
	860-0011	#10-24					As Required						
	862-0001	1/4-20					As Required						
	870-0053	#10-32					As Required						
	871-0005	#6-32 (Brass)					As Required						
	871-0007	#8-32 (Brass)					As Required						
	871-0010	#10-32 (Brass)					As Required						
		• - Use 234-0223 cover for housed sets.											
		† - Parts included in 305-0259 Rectifier Assembly.											
		Δ - Parts included in 305-0387 Rectifier Assembly.											
		* - Parts included in 305-0264 Rectifier Assembly.											
		£ - Parts included in 305-0388 Rectifier Assembly.											

GENERATOR - BEGIN SPEC AA



XG-1074

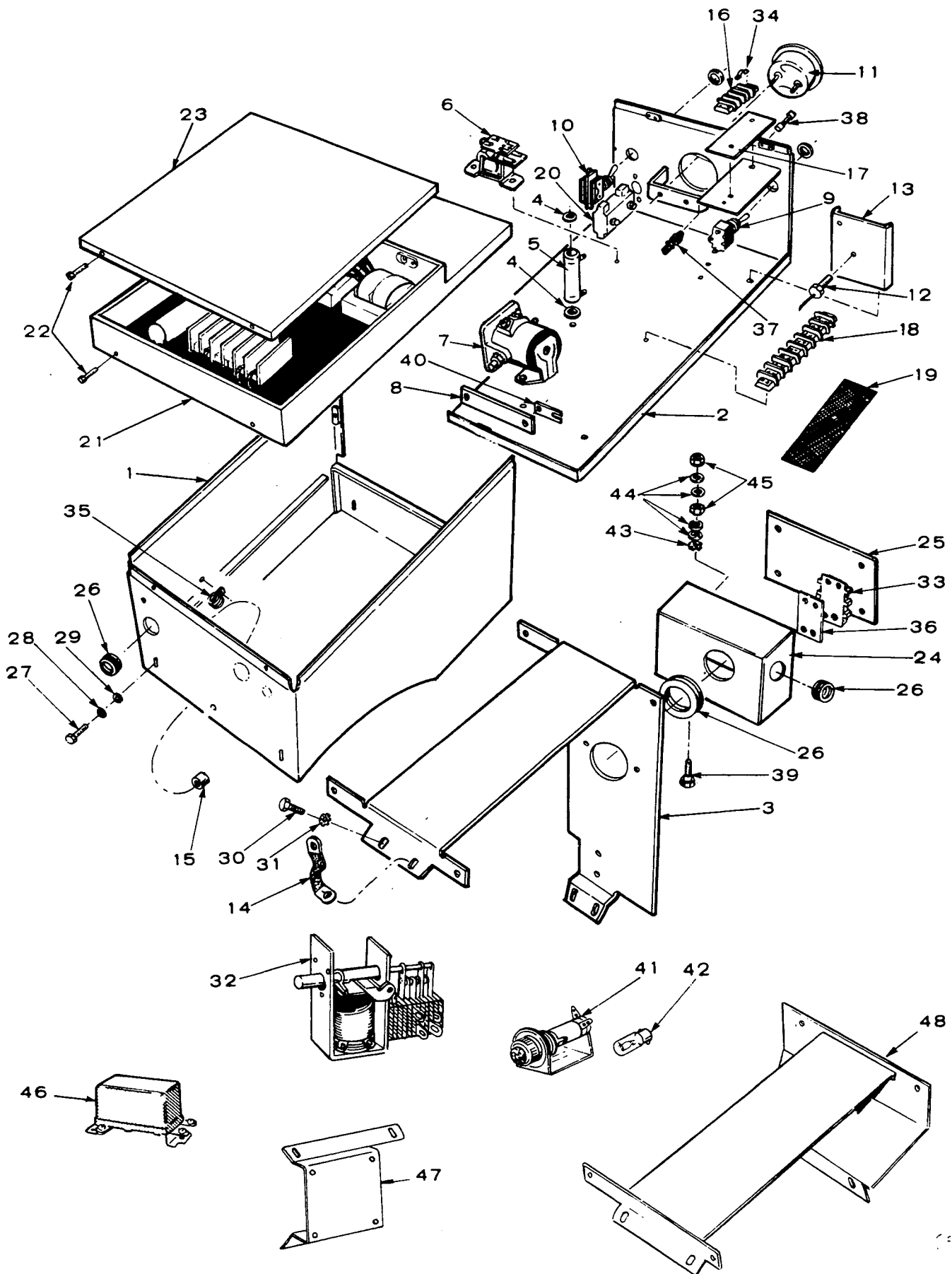
GENERATOR - BEGIN SPEC AA

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	STATOR, GENERATOR			27	862-0011	4	Nut, Hex (3/8-16) Generator Through Stud
			12.0 MDJF	28	870-0203	1	Nut, Hex (Special) Rotor through Stud
	220-2026	1	12 Volt DC Sets	29	871-0010	1	Nut, Hex - Brass (#10-32) Resistor Tap
	220-2233	1	32 Volt DC Sets	30	526-0260	2	Washer, Flat (Special) Exciter Stator
			Broad Range Sets	31	232-0200	1	Washer - Cone Shaped (Special) Rotor Through Stud
	220-2051	1	12 Volt DC Sets	32	853-0013	2	Washer, Lock (1/4" ET) Exciter Stator
	220-2158	1	24 Volt DC Sets	33	856-0003	1	Washer, Lock (#10 EIT) Resistor Tap
			15.0 MDJF	34	800-0004	2	Screw, Cap - Hex Head (1/4-20 x 5/8") Exciter Stator Mounting
			120/240 Volt	35	SCREW, MACHINE - ROUND HEAD (End Bell Cover Mounting)		
	220-2018	1	12 Volt DC Sets	812-0165	2	Sets Without Overspeed Switch (1/4-20 x 4-1/2")	
	220-2200	1	24 Volt DC Sets	812-0167	2	Sets With Overspeed Switch (1/4-20 x 6")	
	220-2225	1	32 Volt DC Sets	36	815-0194	6	Screw, Hex Head - Thread Cutting with ET (#10-32 x 3/8") Board (2) and Baffle (4) Mounting
			Broad Range Sets	37	812-0169	1	Screw, Machine - Round Head (1/4-20 x 5-1/2") Resistor Through
	220-2043	1	12 Volt DC Sets	38	811-0098	1	Screw, Machine - Round Head (Brass) (#10-32 x 3/8") Resistor Tap
	220-2175	1	32 Volt DC Sets	39	800-0004	2	Screw, Cap - Hex Head (1/4-20 x 5/8") Resistor Bracket
			18.5 MDJF	40	STUD, ROTOR THROUGH		
			120/240 Volt	520-0790	1	All Except 18.5 MDJF	
	220-2019	1	12 Volt DC Sets	520-0791	1	18.5 MDJF	
2	ROTOR ASSEMBLY, GENERATOR (Includes Parts Marked *)			41	234-0462	1	Baffle, Air
	201-2158	1	All Except 18.5 MDJF	42	508-0112	1	Grommet, Rubber - Generator Adapter
	201-2159	1	18.5 MDJF	43	211-0237	1	Bell, End
3	510-0112	1	*Bearing, Rotor	44	232-2418	1	Board, Connection
4	232-2398	1	*Spacer, Bearing	45	231-0171	1	Adapter, Generator
5	201-2151	1	*Rotor, Exciter	46	234-0494	1	Cover Assembly, Air Outlet (Includes Parts Marked #)
6	515-0094	1	*Key, Exciter Rotor	47	RESISTOR, TAPPED - Adjustable		
7	870-0284	1	*Nut, Exciter Rotor Locking	304-0500	1	12 Volt DC Sets	
8	205-0105	1	*Fan, Generator	304-0521	1	24 Volt DC Sets	
9	508-0095	1	Grommet, Rubber - Air Baffle	304-0534	1	32 Volt DC Sets	
10	526-0008	12	*Washer, Flat (13/64" ID x 7/16" OD x 1/32" Thk)	48	232-2399	1	Bracket, Resistor Mounting
11	870-0131	8	*Nut, Hex (#10-32)	49	304-0006	2	Washer, Centering - Resistor Mounting
12	358-0069	1	*Rectifier Assembly - Positive	50	870-0177	1	#Nut, Speed (#10)
13	358-0070	1	*Rectifier Assembly - Negative				
14	853-0008	4	*Washer, Shakeproof (#10)				
15	813-0100	4	*Screw, Round Head (#10-32 x 1/2")				
16	515-0103	1	*Key, Fan to Rotor				
17	220-2009	1	Stator, Exciter				
18	COVER, END BELL						
	234-0185	1	Sets Without Overspeed Switch				
	234-0498	1	Sets With Overspeed Switch				
19	509-0094	1	Seal, Bearing ("O" Ring)				
20	STUD, GENERATOR THROUGH						
	520-0798	4	All Except 18.5 MDJF				
	520-0799	4	18.5 MDJF				
21	850-0050	4	Washer, Lock - Spring (3/8") Generator Through Stud				
22	850-0040	2	Washer, Lock - Spring (1/4") End Bell Cover				
23	850-0040	2	Washer, Lock - Spring (1/4") Resistor Bracket				
24	850-0055	1	Washer, Lock - Spring (7/16") Rotor Through Stud				
25	853-0013	1	Washer, Lock (1/4" ET) Resistor Through Screw				
26	809-0046	1	#Screw, Sheet Metal - Round Head (#10 x 3/4")				

* - Parts Included in Generator Rotor Assemblies.

- Parts Included in 234-0494 Cover Assembly.

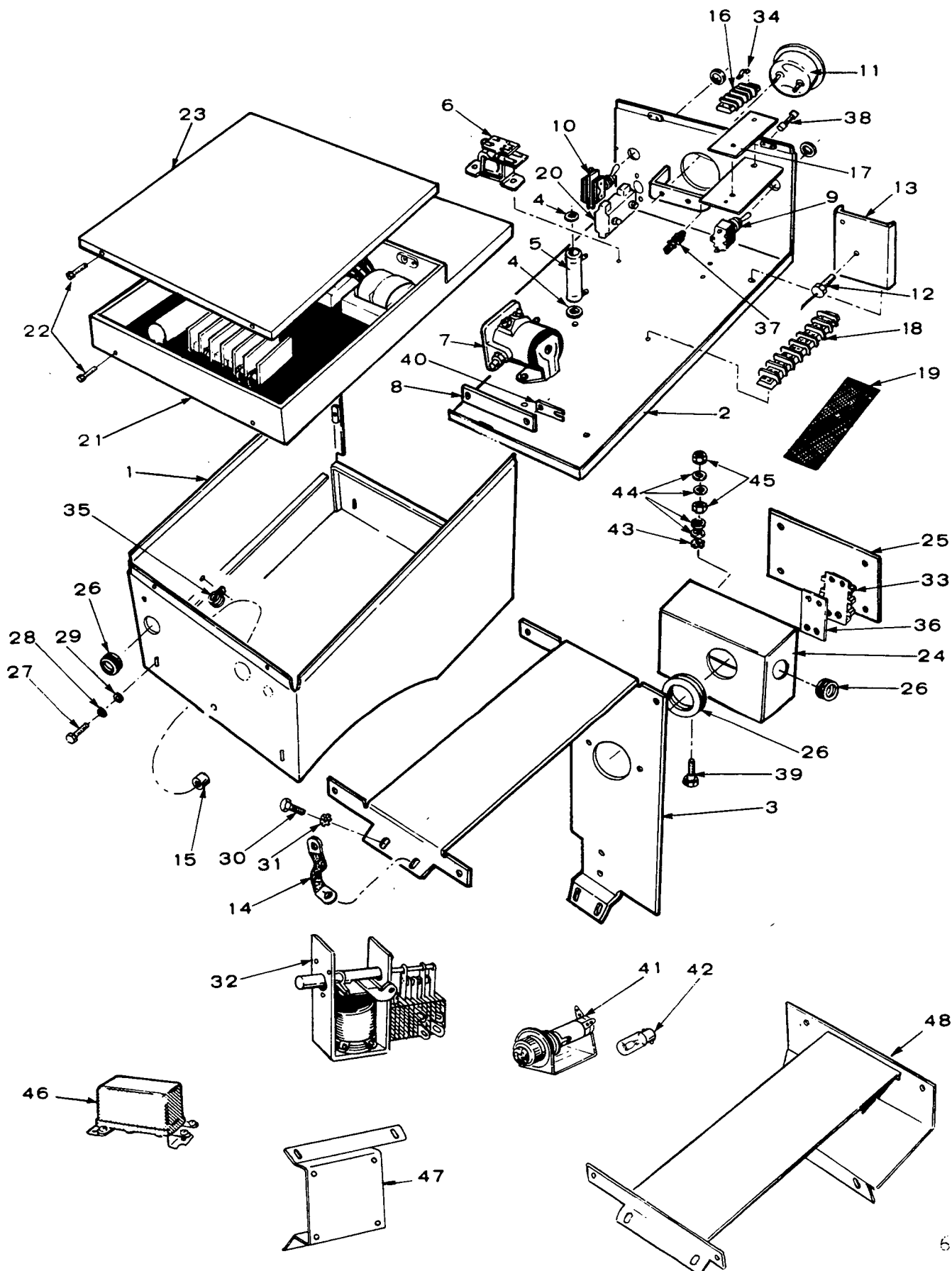
CONTROL



CONTROL

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	301-1962	1	Box, Control	17	332-0616	1	Strip, Marker (5 Place)
2	PANEL, CONTROL			18	332-0706	1	Block, Terminal (8 Place)
	301-1961	1	Sets Without Indicator Lamps	19	332-0739	1	Strip, Marker (8 Place)
	301-2376	1	Sets With 1 or 2 Indicator Lamps	20	320-0104	1	Limiter, Cranking - Low Oil Pressure
	301-3567	1	Sets With 3 Indicator Lamps	21	REGULATOR, VOLTAGE (See Separate Group for Components)		
3	301-3683	1	Saddle, Control Box - Begin Spec AA		305-0589	1	Spec AA through AC
4	508-0015	4	Washer, Fiber		305-0689	1	*Begin Spec AD
5	RESISTOR			22	815-0350	8	Screw, Hex Washer Head - Tapping (#10-32 x 3/8")
			Start Disconnect and Fuel Solenoid Relay	23	COVER		
	304-0032	1	12 Volt DC Sets (15 Ohm, 10 Watt) Fixed		301-1963	1	Control Box - Spec A through Z
	304-0194	1	24 Volt DC Sets (50 Ohm, 25 Watt) Adjustable		301-3714	1	Voltage Regulator - Begin Spec AA
			32 Volt DC Sets	24	BOX, OUTPUT		
	304-0005	1	Spec A through Z (150 Ohm, 25 Watt) Adjustable		301-2467	1	Spec A Through Portion of Spec AB (Measures 6" x 3" x 4")
	304-0247	1	Begin Spec AA (100 Ohm, 10 Watt) Adjustable				Use Began During Spec AB
			Low Oil Pressure		301-5990	1	Measure 8-7/8" x 2-7/8" x 4-1/8"
	304-0217	1	12 Volt DC Sets (1 Ohm, 10 Watt) Fixed		301-7535	1	Measures 11-3/4" x 2-13/16" x 5-1/4"
	304-0268	1	24 Volt DC Sets (5 Ohm, 50 Watt) Adjustable		301-7535	1	Begin Spec AC
	304-0003	1	32 Volt DC Sets (5 Ohm, 50 Watt) Fixed	25	COVER, OUTPUT BOX		
	353-0007	1	Start Solenoid - 24 and 32 Volt DC Sets Spec A through Z (5.5 Ohm, 50 Watt) Fixed		301-2466	1	Spec A Through Portion of Spec AB (Measures 6" x 4")
			Start Disconnect and Fuel Solenoid Relay to Start Relay - 24 Volt DC Sets Spec A through Z (75 Ohm, 10 Watt) Fixed				Use Began During Spec AB
	304-0276	1			301-5992	1	Measures 8-7/8" x 4-1/4"
					301-7533	1	Measures 11-3/4" x 5-1/4"
					301-7533	1	Begin Spec AC
6	307-0623	1	Relay, Start Disconnect	26	GROMMET, RUBBER		
7	RELAY, SOLENOID				508-0001	1	Control Box (1-1/16" Hole) Output Box
			Start		508-0117	1	Side (1-3/8" Hole)
			12 Volt DC Sets		508-0183	1	Rear (1-3/4" Hole)
	307-1046	1	Spec A through Z	27	800-0024	4	Screw, Cap - Hex Head (5/16-18 x 1/2")
	307-0845	1	Begin Spec AA	28	850-0045	4	Washer, Lock - Spring (5/16")
			24 and 32 Volt DC Sets	29	526-0115	4	Washer, Flat (11/32" ID x 11/16" OD x 1/16" Thk)
	307-0061	1	Spec A through Z	30	815-0236	4	Screw, Self Tapping - Hex Head (5/16-18 x 5/8")
	307-0875	1	Begin Spec AA	31	856-0008	4	Washer, Lock - EIT (5/16")
			Manifold Heater	32	307-0655	1	Relay, Latching - Sets With Overspeed Switch
	307-1046	1	12 Volt DC Sets	33	332-0747	1	Block, Terminal (2 Place) Use Began During Spec AB (Not Used on 3 Phase Sets)
	307-0061	1	24 and 32 Volt DC Sets	34	332-1043	1	Jumper, Terminal Block (Not Used When Pre-Heat Circuit in Automatic or Load Transfer is Used)
8	332-0602	1	Jumper - Heater Solenoid to Start Solenoid	35	332-0052	1	Clip, Wire - Begin Spec AA
9	308-0154	1	Switch, Start/Stop	36	332-0748	1	Strip, Marker (2 Place) Use Began During Spec AB (Not Used on 3 Phase Sets)
10	308-0037	1	Switch, Manifold Heater	37	321-0175	1	Holder, Fuse - Use Began During Spec AA
11	302-1366	1	Ammeter Kit, Charge - Includes Mounting Hardware (5-0-5)	38	321-0146	1	Fuse (10 Amps) - Use Began During Spec AA
12	RECTIFIER KIT						
	305-0673	1	12 Volt DC Sets				
			24 and 32 Volt DC Sets				
	305-0238	1	Spec A through Z				
	358-0096	1	Begin Spec AA				
13	305-0254	1	Bracket, Rectifier Mounting				
14	337-0036	1	Strap, Ground - Control Box				
15	402-0078	4	Mount, Rubber - Control Box				
16	332-0604	1	Block, Terminal (5 Place)				

CONTROL



659A

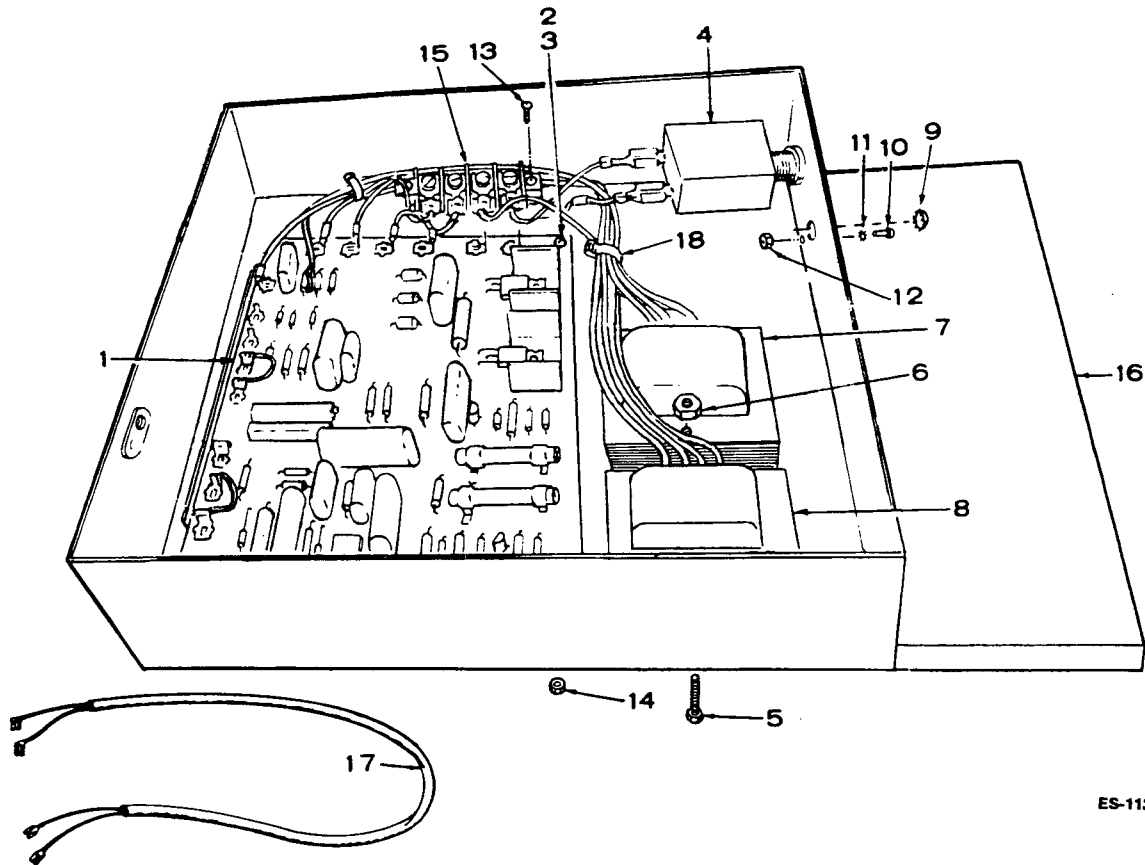
CONTROL

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
39	800-0703	1	Stud, Grounding (Special) Use Began During Spec AB
40	337-0089	1	Jumper - Manifold Heater Solenoid Relay (24 and 32 Volt DC Sets)
41	322-0069	As Req	Holder, Indicator Lamp - Sets With Indicator Lamp
42	322-0004	As Req	Lamp, Indicator - Sets With Indicator Lamp
43	856-0006	1	Washer, Lock - EIT (1/4") Use Began During Spec AB
44	526-0018	4	Washer, Flat (17/64" ID x 5/8" OD x 1/16" Thk) Use Began During Spec AB
45	862-0013	2	Nut, Hex (1/4-20) Use Began During Spec AB
46	307-0597	1	Relay, Start - Spec A through Z
47	301-2468	1	Bracket, Output Box Mounting - Spec A through Z
48	301-1968	1	Bracket, Control Box Mounting - Spec A through Z

* - Listed below are the models and serial numbers of specific generator sets in Spec AD which were manufactured using the 305-0589 (Non-Adjustable) Voltage Regulator Assembly. This assembly uses the 300-1540 printed Voltage Regulator board. For the remaining component parts refer to the voltage regulator group for Spec AA through AC.

12.0MDJF-53CR/2268AD	H820630589
12.0MDJF-53CR/2268AD	H820630591
12.0MDJF-53CR/2268AD	H820630592
12.0MDJF-53CR/2268AD	H820630593
12.0MDJF-53CR/2268AD	H820630594
12.0MDJF-53CR/2268AD	I820632355
12.0MDJF-53CR/2268AD	I820633892
12.0MDJF-53CR/2268AD	I820633894
12.0MDJF-53CR/2268AD	I820633895
12.0MDJF-53CR/2268AD	I820633896
12.0MDJF-53CR/2268AD	I820633897
15.0MDJF-3CR/2268AD	I820633904
15.0MDJF-3CR/2268AD	I820633906
15.0MDJF-3CR/2268AD	I820633908
15.0MDJF-3CR/2268AD	I820633914
15.0MDJF-3CR/2268AD	I820633918
15.0MDJF-3CR/2268AD	J820635735
18.5MDJF-3CR/2268AD	I820632363

VOLTAGE REGULATOR - SPEC AA THROUGH AC



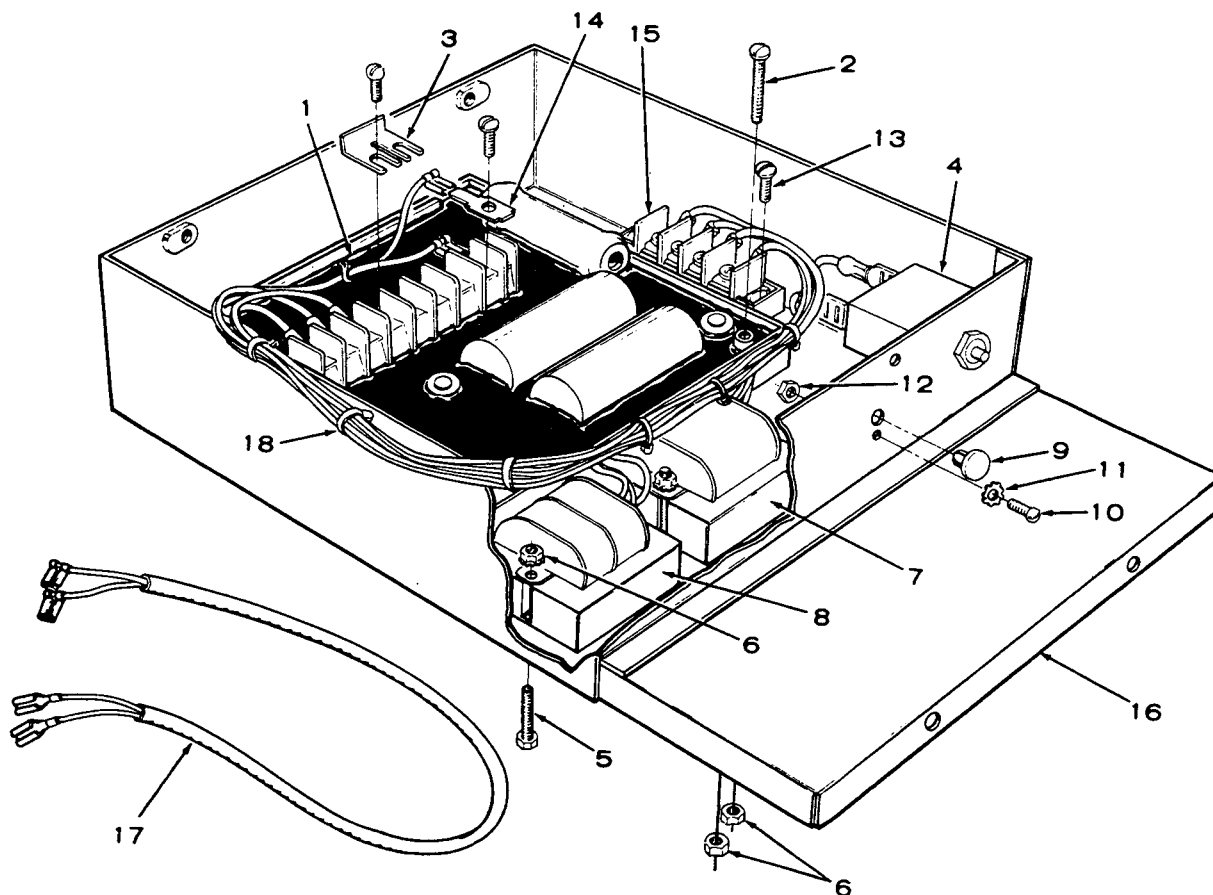
ES-1131

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	305-0589	1	Regulator, Voltage (Includes Parts Marked *)
1	300-1540	1	*Board, Voltage Regulator - Begin Spec AB (Replaces 300-1006 Board Used Begin Spec AA through Serial Number F760142041 During Spec AA and 300-1404 Board Begin Serial Number F760142042 During Spec AA Until Spec AB)
2	815-0190	4	*Screw, Tapping - Round Head (#8-32 x 3/8")
3	853-0005	4	*Washer, Lock - ET (#8)
4	320-0505	1	*Breaker, Circuit
5	812-0070	4	*Screw, Machine - Round Head (#6-32 x 1-1/4")
6	870-0183	4	*Nut, Hex - With ET (#6-32)

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
7	315-0391	1	*Reactor
8	315-0386	1	*Transformer, Voltage
9	517-0045	1	*Plug, Dot Button
10	812-0027	1	*Screw, Machine - Round Head (#4-40 x 1/4")
11	853-0001	1	*Washer, Lock - ET (#4)
12	860-0003	1	*Nut, Hex (#4-40)
13	812-0063	2	*Screw, Machine - Round Head (#6-32 x 1/2")
14	870-0183	2	*Nut, Hex - With ET (#6-32)
15	332-1647	1	*Block, Terminal
16	301-3713	1	*Panel, Mounting
17	HARNESS, WIRING		- Voltage Regulator to Exciter Stator
	338-0744	1	Sets Without Overspeed Switch
	338-0917	1	Sets With Overspeed Switch
18	332-0942	8	*Tie, Cable

* - Parts Included in 305-0589 Voltage Regulator

VOLTAGE REGULATOR - BEGIN SPEC AD



XSC-1342

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	305-0689	1	Regulator Assembly Voltage (Includes Parts Marked *)
1	305-0688	1	*Regulator, Voltage
2	812-0071	4	*Screw, Machine - Round Head (#6-32 x 1-1/2")
3	JUMPER, TERMINAL		
	332-2605	2	*50 Hertz
	332-2605	1	60 Hertz
4	320-1121	1	*Breaker, Circuit
5	812-0070	4	*Screw, Machine - Round Head (#6-32 x 1-1/4")
6	870-0183	10	*Nut, Hex - ET (#6-32)
7	315-0391	1	*Reactor
8	315-0386	1	*Transformer, Voltage
9	517-0045	1	*Plug, Dot Button
10	812-0027	1	*Screw, Machine - Round Head (#4-40 x 1/4")

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
11	853-0001	1	*Washer, Lock - ET (#4)
12	860-0003	1	*Nut, Hex (#4-40)
13	812-0063	2	*Screw, Machine - Round Head (#6-32 x 1/2")
14	332-2617	2	*Terminal, Tab
15	332-1647	1	*Block, Terminal
16	301-3713	1	*Panel, Mounting
17	HARNESS, WIRING - Voltage Regulator to Exciter Stator		
	338-0744	1	Sets Without Overspeed Switch
	338-0917	1	Sets With Overspeed Switch
18	332-0942	10	*Tie, Cable

* - Parts Included in 305-0689 Voltage Regulator Assembly

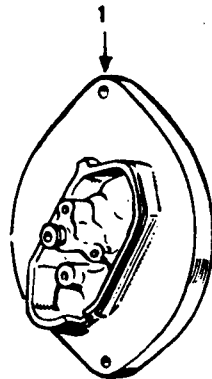
SERVICE KITS AND MISCELLANEOUS

98-1807	1	Label Kit
168-0107	1	Gasket Kit, Engine
OVERHAUL KIT, ENGINE		
Spec A		
522-0242	1	Sets Without Heat Exchanger
522-0243	1	Sets With Heat Exchanger
Begin Spec B		
522-0253	1	Sets Without Heat Exchanger
522-0252	1	Sets With Heat Exchanger
525-0216	—	Paint, Touch-Up — White Enamel (13 oz. Pressurized Can)

NOTE: For other kits refer to the related group

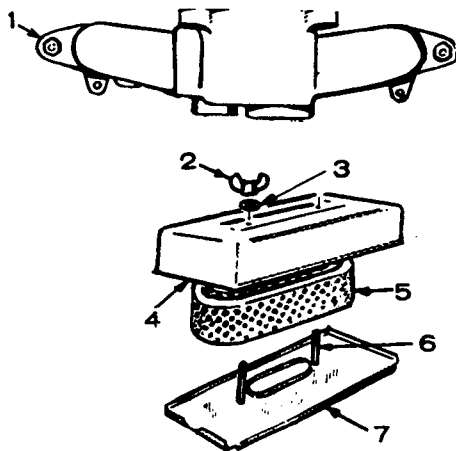
SPECIAL PARTS SECTION WORKBOAT MODELS — SPEC A THROUGH Z

START DISCONNECT



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	131-0142	1	Plate

AIR INTAKE SYSTEM



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	154-1378	1	Manifold, Intake
2	865-0020	2	Nut, Wing (1/4-20)
3	140-0602	2	Washer, Air Cleaner
4	140-1194	1	Cover, Air Cleaner
5	140-0606	1	Element, Air Cleaner
6	520-0621	2	Stud (1/4-20 x 3")
7	140-0607	1	Pan, Air Cleaner

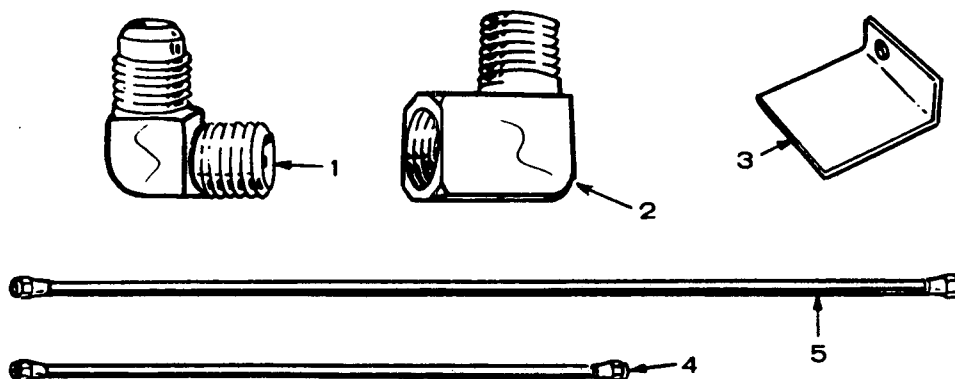
HEAT EXCHANGER



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	309-0191	1	Switch, High Temperature

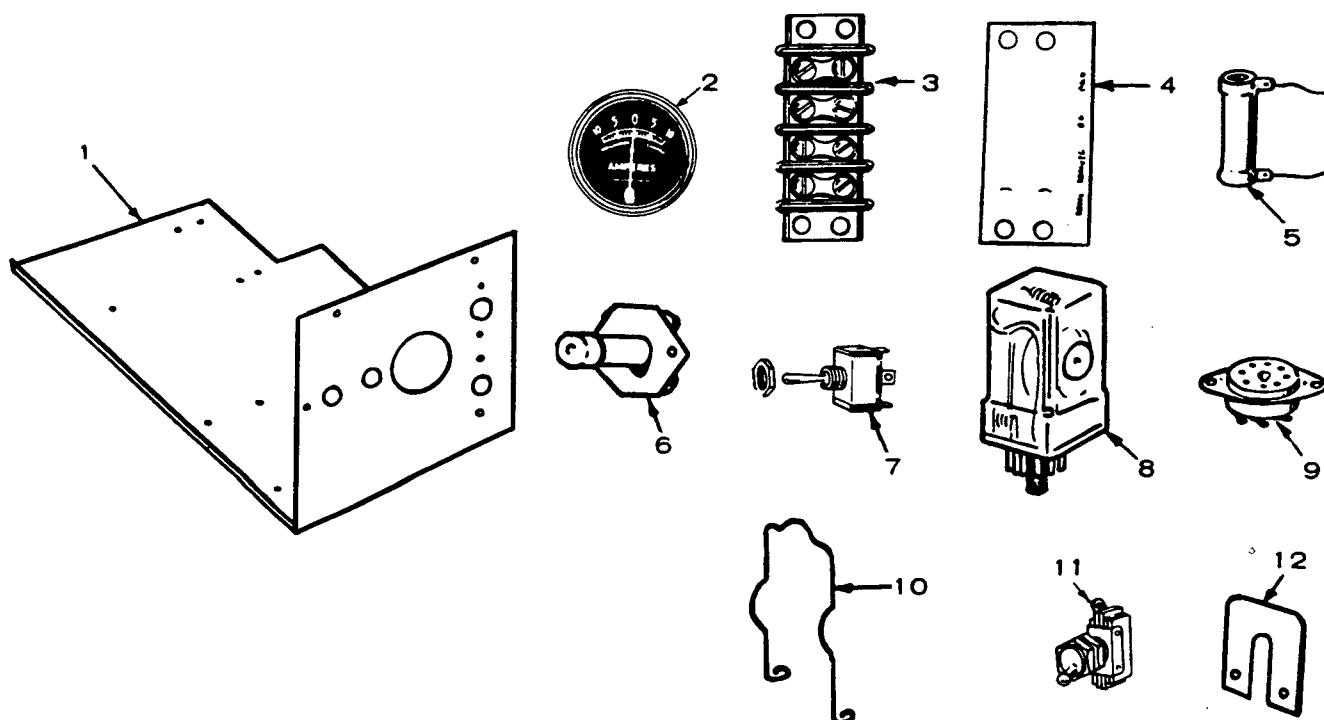
SPECIAL PARTS SECTION WORKBOAT MODELS — SPEC A THROUGH Z

INJECTION SYSTEM



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	ELBOW, MALE - Spec A			3	147-0202	1	Lever, Stop - Injection Pump
	502-0138	1	Fuel Pump Outlet	4	501-0097	1	Line, Flexible - Secondary Filter to Injection Pump (Spec A)
	502-0148	2	Secondary Filter Inlet and Outlet				
2	502-0020	1	Elbow, Street - Fuel Pump Outlet (Spec A)	5	501-0098	1	Line, Flexible - Fuel Pump to Secondary Filter (Spec A)

CONTROL

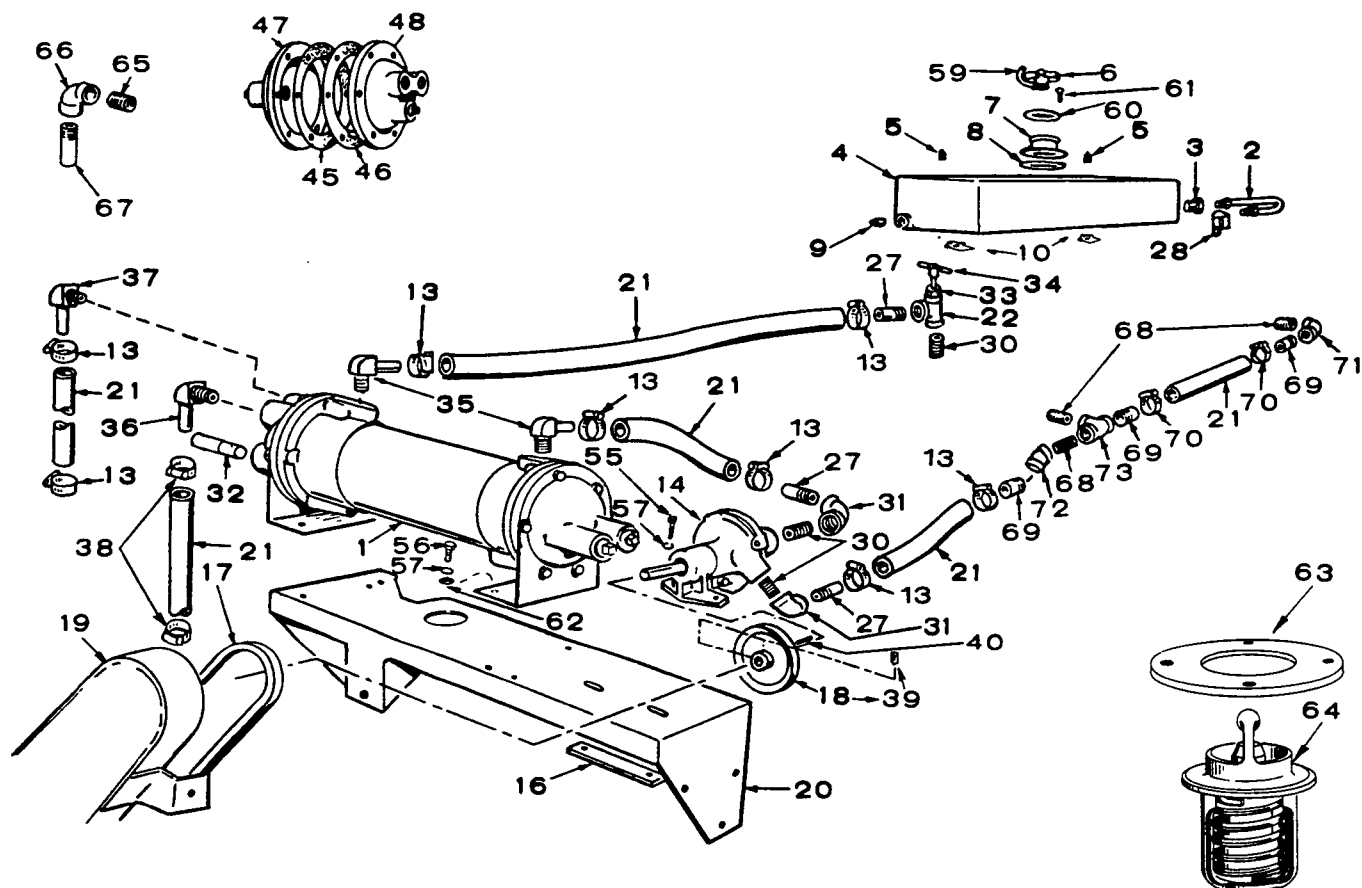


REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	301-2409	1	Panel, Control Box	7	308-0155	1	Switch - Alarm Test
2	302-1360	1	Ammeter, Charge (10-0-10)	8	307-0777	1	Relay, Alarm
3	332-0254	1	Block, Terminal (4 Place)	9	323-0052	1	Socket, Alarm Relay
4	332-0868	1	Strip, Marker (4 Place)	10	307-0778	1	Spring, Alarm Relay Holddown
5	304-0330	1	Resistor (20 Ohm, 10 Watt)	11	308-0069	1	Switch, Hi-Lo Charge
6	308-0028	2	Switch - Start (1) Heater (1)	12	332-0439	1	Jumper, Terminal Block

OPTIONAL PARTS SECTION

This section contains illustrated parts listing of factory installed options. Options may not be applicable to all models; for field conversions additional parts are usually required.

HEAT EXCHANGER (SPEC A THROUGH C) — OPTIONAL

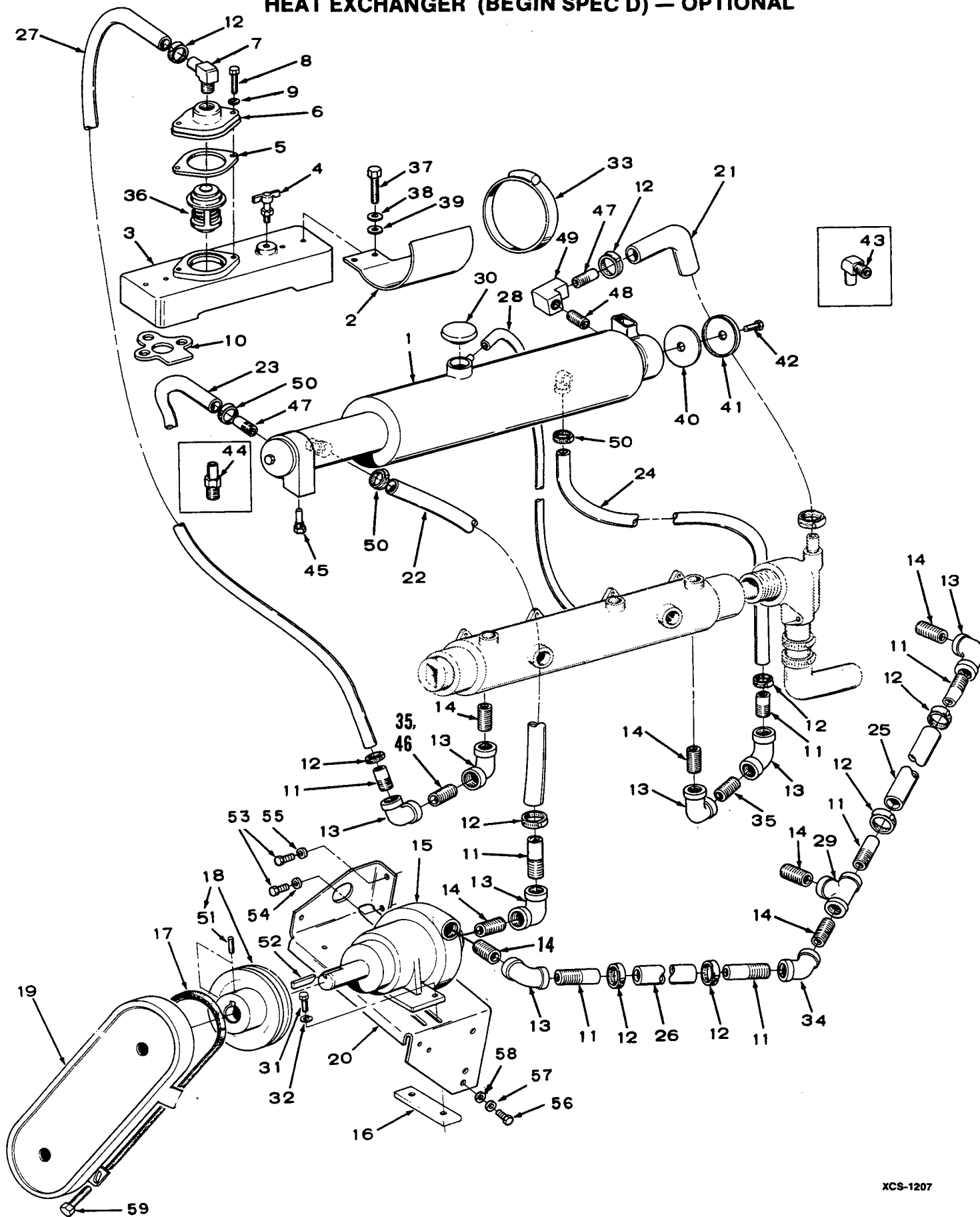


HEAT EXCHANGER (SPEC A THROUGH C) — OPTIONAL

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	130-0624	1	Exchanger, Heat	37	502-0237	1	Elbow, Brass - Heat Exchanger Sea Water Outlet Hose (Spec B, C)
2	130-0575	1	Line, Water - Expansion Tank to Exhaust Manifold	38	503-0446	2	Clamp, Hose - Sea Water Pump to Heat Exchanger
3	502-0103	1	Connector, Inverted Male-Expansion Tank Outlet	39	SCREW, SET 803-0062	1	Sets With Flat Area on Water Pump Shaft
4	130-0746	1	Tank, Expansion		803-0062	2	*Sets With Keyed Area on Water Pump Shaft
5	502-0080	2	Plug, Expansion Tank Fill Vent	40	515-0249	1	*Key - Pulley to Water Pump
6	130-0589	1	Cap, Pressure	45	130-0729	1	Gasket - Heat Exchanger Captive Water End
7	130-0590	1	Neck and Adapter, Expansion Tank Cap	46	130-0730	1	Gasket - Heat Exchanger Sea Water End
8	130-0519	1	Gasket, Neck and Adapter	47	130-0731	1	Bonnet - Heat Exchanger Captive Water End
9	502-0155	1	Plug (3/8")	48	130-0732	1	Bonnet - Heat Exchanger Sea Water End
10	309-0145	2	Gasket, Thermostat Chamber		SCREW, CAP - HEX HEAD		
13	503-0183	8	Clamp, Hose	55	800-0005	2	Water Pump Mounting (1/4-20 x 3/4")
14	PUMP, WATER (Captive Water) See Separate Group for Components			56	800-0004	4	Heat Exchanger Mounting (1/4-20 x 5/8")
	132-0262	1	Sets With Flat Area on Water Pump Shaft (Replacement Kit) (Includes 132-0110 Pump and Parts Marked *)	57	WASHER, LOCK - SPRING (1/4")		
	132-0110	1	Sets With Keyed Area on Water Pump Shaft		850-0040	2	Water Pump Mounting
16	131-0130	1	Bar, Pump Holddown		850-0040	4	Heat Exchanger Mounting
17	511-0067	1	Belt, Water Pump	59	503-0679	1	Hose, Overflow
18	PULLEY KIT, WATER PUMP (Includes Set Screws)			60	130-0892	1	Stiffener, Filler Neck
	512-0134	1	Sets With Flat Area on Water Pump Shaft	61	821-0005	6	Screw, Locking Head (#10-32 x 1/2")
	132-0252	1	*Sets With Keyed Area on Water Pump Shaft	62	526-0158	4	Washer, Flat (17/64" ID x 1" OD x 1/8" Thk)
19	130-0591	1	Guard, Belt	63	130-0747	1	Plate, Thermostat Retainer
20	130-0692	1	Bracket, Heat Exchanger and Governor Spring	64	309-0238	1	Thermostat, Expansion Tank
21	HOSE, RUBBER			65	505-0101	2	Nipple, Close - Pipe (1/2") Inlet and Outlet on Heat Exchanger - Spec A
	503-0463	1	3/4" ID x 54" - Total Length Required for All Hoses Except Sea Water Pump	66	505-0039	2	Elbow, Pipe (3/8" - 90°) Inlet and Outlet on Heat Exchanger - Spec A
	503-0461	1	Sea Water Pump to Heat Exchanger	67	505-0135	2	Nipple, Half - Pipe (3/8" x 1-1/2") Inlet and Outlet on Heat Exchanger - Spec A
	503-0285	1	Spec A (3/4" ID x 13-1/4")	68	505-0101	3	Nipple, Close - Pipe (3/8") Block Water Inlet
22	505-0060	1	Spec B, C (1/2" ID x 14")	69	505-0135	3	Nipple, Half - Pipe (3/8" x 1-1/2") Block Water Inlet
27	505-0135	3	Tee, Pipe (3/8")	70	503-0183	2	Clamp, Hose
28	502-0074	1	Nipple, Half - Pipe (3/8" x 1-1/2")	71	505-0039	1	Elbow, Pipe (3/8" - 90°) Block Water Inlet
30	505-0101	3	Elbow, Inverted Male (Brass) Manifold Water Line Inlet	72	505-0376	1	Elbow, Pipe (3/8" - 45°) Block Water Inlet
31	505-0039	2	Nipple, Close - Pipe (1/2")	73	505-0060	1	Tee, Pipe
32	130-1340	2	Nipple, Close - Pipe (3/8" - 90°)				
33	502-0049	1	Pencil, Zinc (Included in Heat Exchanger)				
34	504-0006	1	Bushing, Reducer - Brass (3/8" x 1/8")				
35	502-0300	2	Valve, Air Bleed - Manifold Outlet				
36	502-0302	1	Elbow, Brass - Heat Exchanger Captive Water Hoses				
			Elbow, Brass - Heat Exchanger Sea Water Inlet Hose (Spec B, C)				

* - Parts Included in 132-0262 Water Pump Replacement Kit

HEAT EXCHANGER (BEGIN SPEC D) — OPTIONAL



XCS-1207

HEAT EXCHANGER (BEGIN SPEC D) - OPTIONAL

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	EXCHANGER, HEAT 130-1337	1	Spec D through Serial Number L770286361 During Spec AA (Replacement Kit) (Includes Hose Connectors, Clamps, Hoses and Part Marked *)	28	503-0492	1	Hose, Overflow (26")
	130-1189	1	*Begin Serial Number L770286362 During Spec AA (Includes Parts Marked #)	29	505-0060	1	Tee, Pipe (3/8")
2	130-0910	2	Bracket, Heat Exchanger	30	130-0589	1	#Cap, Pressure
3	131-0196	1	Manifold, Water	31	800-0006	2	Screw, Cap - Hex Head (1/4-20 x 7/8")
4	504-0006	1	Valve, Drain	32	850-0040	2	Washer, Lock - Spring (1/4")
5	131-0140	1	Gasket, Water Manifold Outlet	33	503-1180	2	Clamp, Heat Exchanger Mounting
6	131-0197	1	Housing, Thermostat	34	505-0376	1	Elbow, Pipe (45° x 3/8")
7	502-0300	1	Elbow, Hose	35	NIPPLE, PIPE (3/8" x 1-1/2")	2	Spec D through Portion of Spec AB
8	800-0030	2	Screw, Cap - Hex Head (5/16-18 x 1-1/4")		505-0277	1	Use Began During Spec AB
9	526-0065	2	Washer, Flat - Copper (21/64" ID x 9/16" OD x 1/16" Thk)	36	309-0054	1	Thermostat
10	309-0145	2	Gasket, Water Manifold	37	800-0035	4	Screw, Cap - Hex Head (5/16-18 x 2-1/2")
11	505-0135	7	Nipple, Half (3/8" x 1-1/2")	38	526-0122	4	Washer, Flat (11/32" ID x 23/32" OD x 1/8" Thk)
12	CLAMP, HOSE 503-0183	12	Spec D through Portion of Spec AB	39	526-0113	4	Washer, Flat (11/32" ID x 1" OD x 3/32" Thk)
	503-0183	9	Use Began During Spec AB	40	130-0959	2	#Gasket, End Cover
13	505-0039	7	Elbow, Pipe (3/8" x 90°)	41	130-1031	2	#Cover, End
14	505-0101	7	Nipple, Pipe - Close (3/8")	42	815-0300	2	#Screw, Cap - Hex Head (Brass) (5/16-18 x 1/2")
15	PUMP, WATER (CAPTIVE WATER) 132-0262	1	Sets With Flat Area on Water Pump Shaft (Replacement Kit - Includes 132-0110 Water Pump and Parts Marked +) See Separate Group for Components	43	502-0302	1	Elbow, Hose (90°) Sea Water Outlet on Heat Exchanger - Spec D through Portion of Spec AB (3/8" x 1/2" Hose)
	132-0110	1	Sets With Keyed Area on Water Pump Shaft - See Separate Group for Components	44	502-0238	1	Adapter, Hose - Sea Water Inlet on Heat Exchanger - Spec D through Portion of Spec AB
16	131-0130	1	Bar, Water Pump Holddown	45	130-1340	1	#Pencil, Zinc
17	511-0067	1	Belt, Water Pump	46	505-0139	1	Nipple, Pipe (3/8" x 2") Use Began During Spec AB
18	PULLEY KIT, WATER PUMP (Includes Set Screws) 512-0134	1	Sets With Flat Area on Water Pump Shaft	47	502-0803	2	Nipple, Half - Sea Water Inlet and Outlet on Heat Exchanger - Use Began During Spec AB
	132-0252	1	+Sets With Keyed Area on Water Pump Shaft	48	502-0085	1	Nipple, Close - Sea Water Outlet on Heat Exchanger - Use Began During Spec AB
19	130-0920	1	Guard, Belt	49	502-0263	1	Elbow (90°) Sea Water Outlet on Heat Exchanger - Use Began During Spec AB
20	BRACKET, WATER PUMP 131-0199	1	Spec D Through Spec AB	50	503-0382	3	Clamp Hose - Use Began During Spec AB
	131-0362	1	Begin Spec AC	51	SCREW, SET 803-0062	1	Sets With Flat Area on Water Pump Shaft
21	ELBOW, HOSE (90°) Sea Water Outlet on Heat Exchanger to Exhaust Elbow 503-0987	1	Spec D through Portion of Spec AB (1/2" ID)		803-0062	2	+Sets With Keyed Area on Water Pump Shaft
	503-1080	1	Use Began During Spec AB (5/8" ID)	52	515-0249	1	+Key, Pulley to Water Pump
22	503-0711	1	Hose, Water - Heat Exchanger to Captive Water Pump Inlet (3/4" ID x 6-1/2")	53	800-0050	2	£ Screw, Cap - Hex Head (3/8-16 x 1") One Used in Cylinder Block Wet Hole
23	HOSE, WATER - Sea Water Pump to Heat Exchanger 503-0712	1	Spec D through Portion of Spec AB (5/8" ID x 28")	54	526-0066	1	£ Washer, Flat - Copper (3/8") Wet Hole
	503-1079	1	Use Began During Spec AB (3/4" ID x 28")	55	850-0050	1	Washer, Lock-Spring (3/8")
24	503-0438	1	Hose, Water - Exhaust Manifold to Heat Exchanger (3/4" ID x 5-1/4")	56	800-0026	2	Screw, Cap - Hex Head (5/16-18 x 3/4")
25	503-0478	1	Hose, Water - No. 1 and 2 Cylinders to No. 3 and 4 Cylinders (3/4" ID x 9")	57	850-0045	2	Washer, Lock-Spring (5/16")
26	503-0472	1	Hose, Water - Water Pump Outlet to Block (3/4" ID x 6")	58	526-0113	2	Washer, Flat (11/32" ID x 1" OD x 3/32" Thk)
27	503-0699	1	Hose, Water - Water Manifold to Exhaust Manifold (3/4" ID x 16")	59	821-0010	3	Screw, Locking Head Flange (1/4-20 x 1/2")

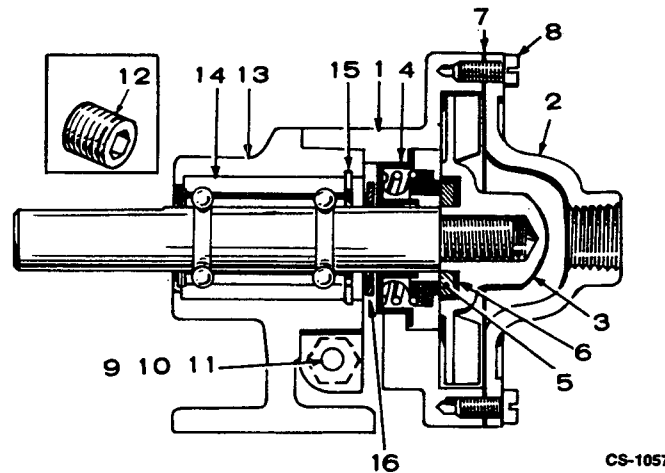
* - Parts Included in 130-1337 Heat Exchanger Kit

- Parts Included in 130-1189 Heat Exchanger

+ - Parts Included in 132-0262 Water Pump Replacement Kit

£ - See Cylinder Block Group for other Related Wet Hole Hardware

WATER PUMP PARTS (132-0110) — OPTIONAL



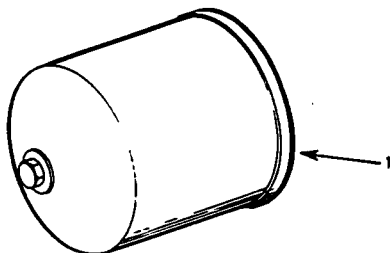
CS-1057

NOTE: This pump used on sets with optional heat exchanger.

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	132-0110	1	Pump, Water (Captive Water)	10	132-0139	1	Lockwasher - Used on Early Style Pumps
	REPAIR KIT, WATER PUMP			11	132-0140	1	Nut, Hex - Used on Early Style Pumps
	132-0241	1	Pumps With Flat Area on Shaft (Includes Water Pump Pulley, Set Screws, Key and Parts Marked *)	12	132-0141	1	Plug, Drain - Used on Early Style Pumps
	132-0240	1	Pumps With Keyed Area on Shaft (Includes Parts Marked #)	13	132-0142	1	Pedestal
1		1	Body, Pump (Not Sold Separately)	14	SHAFT AND BEARING ASSEMBLY		
2	132-0137	1	Cover, Pump	132-0239	1	Pumps With Flat Area on Shaft (Repair Kit - Also Includes Water Pump Pulley, Set Screws and Key)	
3	132-0114	1	*#Impeller		132-0225	1	*#Pumps With Keyed Area on Shaft
4	132-0101	1	*#Seal	15	132-0132	1	Ring, Snap
5	132-0091	1	*#Face, Wear	16	132-0224	1	Slinger, Fiber
6	132-0092	1	*#Seat, Seal				
7	132-0112	1	*#Gasket, Cover				
8	132-0113	6	*#Screw, Cover				
9	132-0138	1	Screw, Cap - Used on Early Style Pumps				

* - Parts Included in 132-0241 Repair Kit.
- Parts Included in 132-0240 Repair Kit.

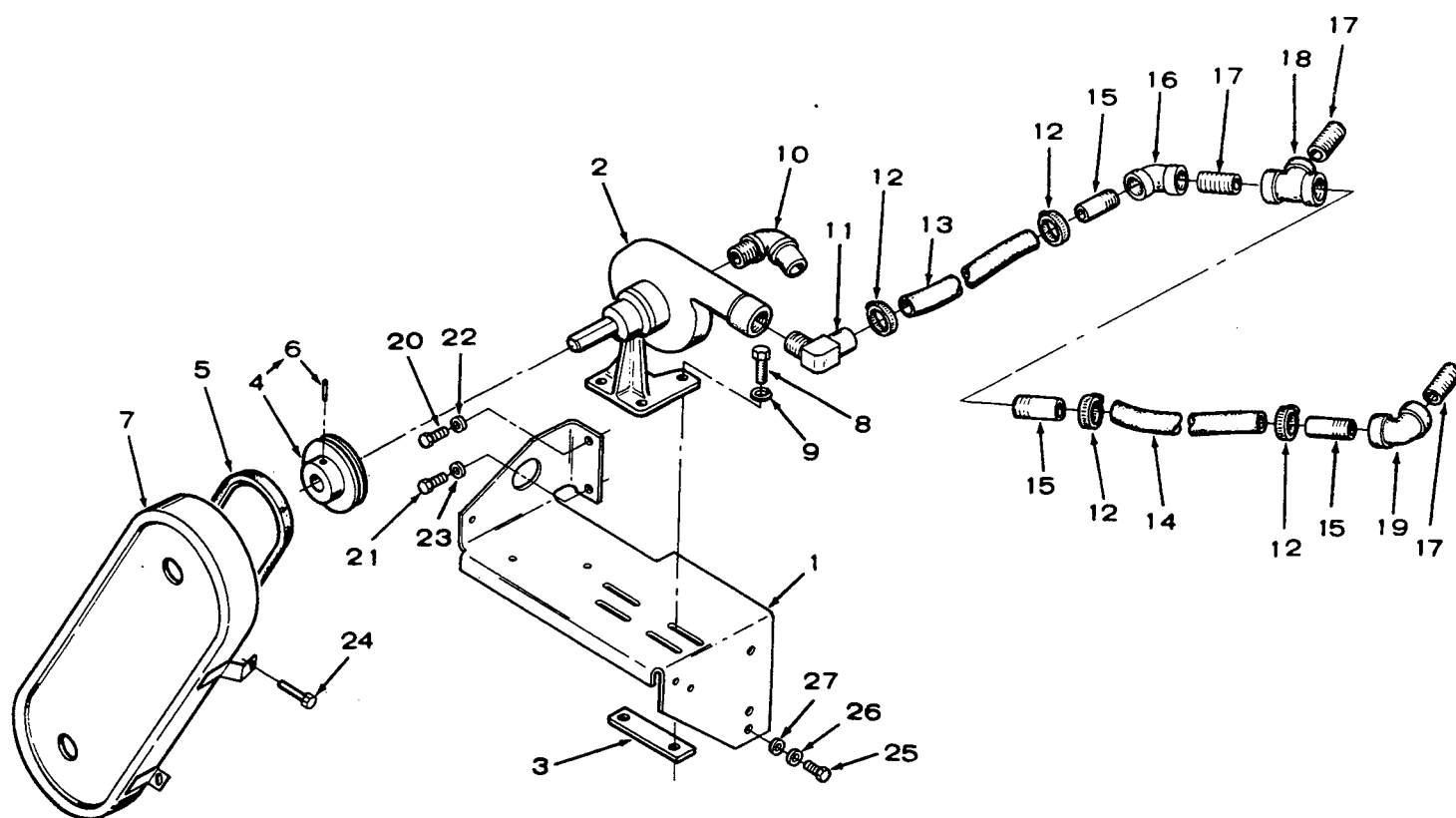
OIL FILTER (HEAVY DUTY) — OPTIONAL



LS-1048

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	122-0193	1	Filter, Oil - Heavy Duty (5-3/4")

KEEL COOLING - OPTIONAL

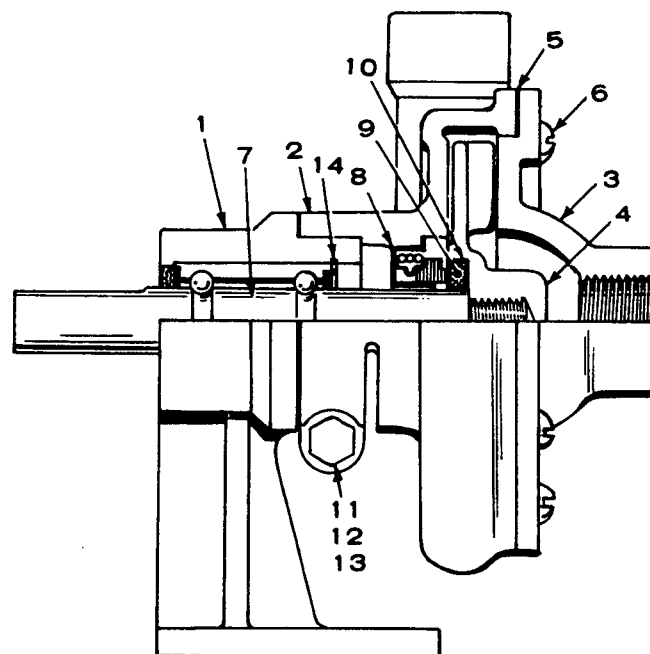


NOTE: Early models used brass for the water inlet fittings, late models use pipe fittings.

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	BRACKET, MOUNTING			17	NIPPLE, CLOSE (3/8")		
	130-0692	1	Spec A through AB		502-0085	3	Brass
	131-0362	1	Begin Spec AC		505-0101	3	Pipe
2	132-0074	1	Pump, Water (Captive Water) See Separate Group for Components	18	TEE - 3/8"		
3	131-0144	1	Bar, Pump Holddown		502-0257	1	Brass
4	512-0134	1	Pulley Kit, Water Pump (Includes Set Screw)		505-0060	1	Pipe
5	511-0068	1	Belt, Water Pump	19	ELBOW (3/8" - 90°)		
6	803-0062	1	Screw, Set		502-0263	1	Brass
7	GUARD, BELT				505-0039	1	Pipe
	130-0591	1	Spec A through C	20	800-0050	1	Screw, Cap - Hex Head (3/8-16 x 1") Begin Spec AC
	130-0920	1	Begin Spec D	21	800-0047	1	*Screw, Cap - Hex Head (3/8-16 x 5/8") Begin Spec AC
8	800-0005	2	Screw, Cap - Hex Head (1/4-20 x 3/4")	22	850-0050	1	Washer, Lock - Spring (3/8") Begin Spec AC
9	850-0040	2	Washer, Lock - Spring (1/4")	23	526-0066	1	*Washer, Flat - Copper (25/64" ID x 9/16" OD x 1/16" Thk) Begin Spec AC
10	502-0278	1	Elbow, Brass (90°) Pump Inlet	24	SCREW, LOCKING HEAD (FLANGE)		
11	502-0300	1	Elbow, Brass (90°) Pump Outlet		821-0018	4	Spec A through C (1/4-20 x 5/8")
12	503-0183	4	Clamp, Hose		821-0010	3	Begin Spec D (1/4-20 x 1/2")
13	503-1194	1	Hose, Water (3/4" x 9")	25	SCREW, CAP - HEX HEAD		
14	503-1194	1	Hose, Water Inlet (3/4" x 9")		800-0512	2	Spec A through AB (5/16-18 x 1")
15	NIPPLE, HALF				800-0026	2	Begin Spec AC (5/16-18 x 3/4")
	502-0258	3	Brass (3/8" x 2")	26	850-0045	2	Washer, Lock-Spring (5/16")
	505-0135	3	Pipe (3/8" x 1-1/2")	27	526-0113	2	Washer, Flat (11/32" ID x 1" OD x 3/32" Thk)
16	ELBOW (3/8" - 45°)						
	502-0298	1	Brass				
	505-0376	1	Pipe				

* - See Cylinder Block Group for other Related Wet Hole Hardware

WATER PUMP PARTS (132-0074) — OPTIONAL

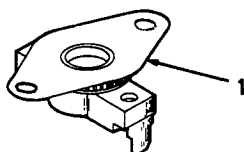


NOTE: This pump used on sets with optional keel cooling.

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	132-0074	1	Pump, Water (Captive Water)	7	132-0089	1	*Shaft and Bearing Assembly
	132-0093	1	Repair Kit (Includes Parts Marked *)	8	132-0101	1	*Seal, Mechanical
1	132-0143	1	Pedestal	9	132-0091	1	*Ring, Seal Wear
2		1	Body, Pump (Not sold separately)	10	132-0092	1	*Cap, Wear Ring
3	132-0145	1	Cover, Pump	11	132-0138	1	Screw, Cap - Hex Head
4	132-0087	1	Impeller	12	132-0140	1	Nut, Hex
5	132-0088	1	*Gasket, Cover	13	132-0139	1	Washer, Lock - Spring
6	810-0099	8	*Screw, Machine - Round Head Brass (#10-24 x 7/16")	14	132-0132	1	Ring, Snap

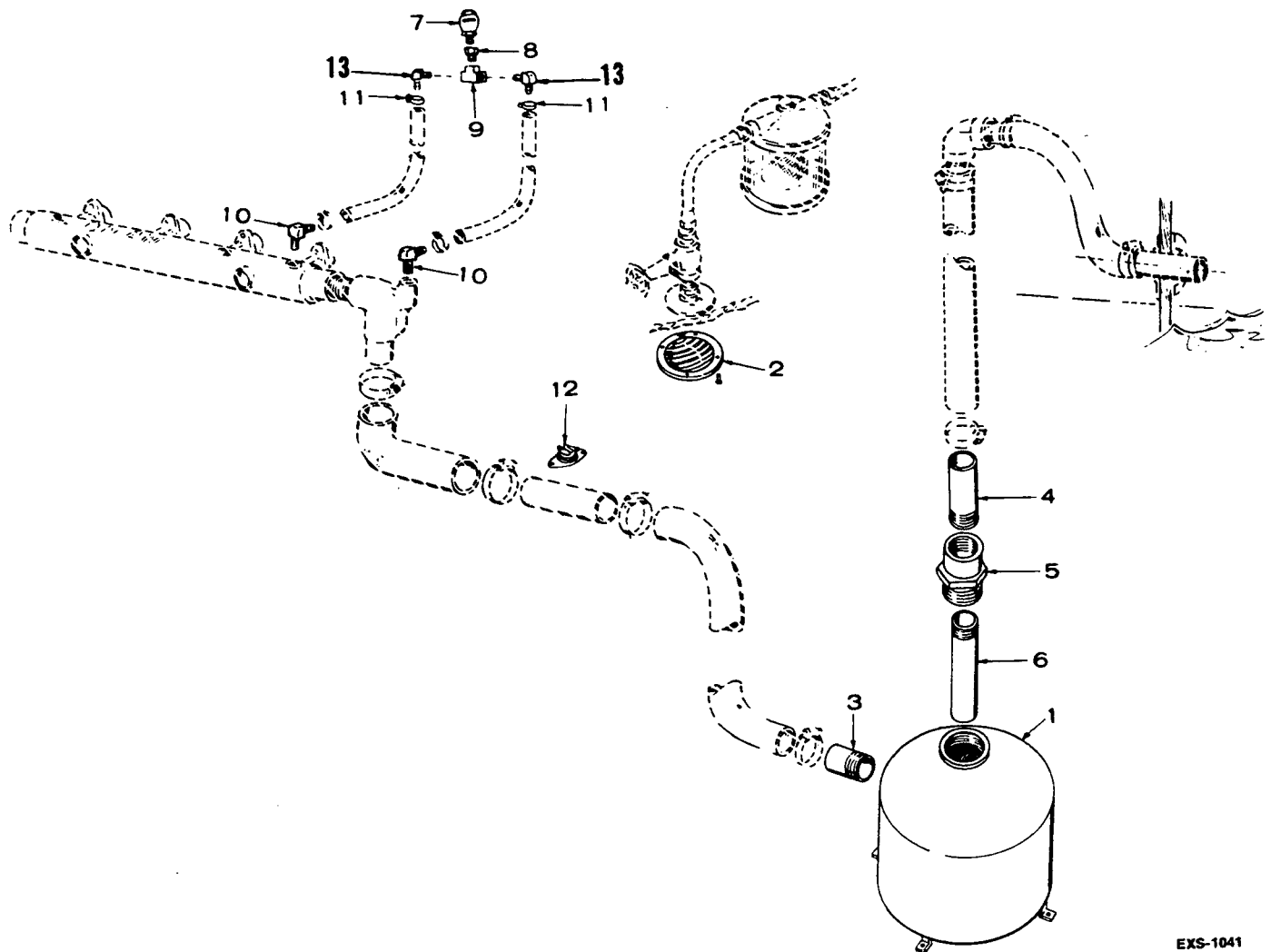
* - Parts Included in 132-0093 Repair Kit

LOW ENGINE TEMPERATURE THERMOSTAT — OPTIONAL



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	309-0270	1	Thermostat, Low Engine Temperature

AQUALIFT EXHAUST SYSTEM— OPTIONAL



EXS-1041

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	155-0954	1	Fitting Package, Muffler Hookup - Includes Parts Marked *
	155-0950	1	Relief Valve Kit, Siphon Break - Includes Parts Marked #
1	155-1004	1	Muffler Kit, Aqualift - Includes Parts Marked +
2	155-1002	1	+Strainer, Hull
3	155-1122	1	*Inlet, Muffler
4	505-0723	1	*Nipple, Half - Pipe - Galvanized (1-1/2" x 3")
5	505-0634	1	*Bushing, Double Tapped (2" x 1-1/2")
6	505-0631	1	*Nipple, Half - Plastic (1-1/2" x 9-1/4")

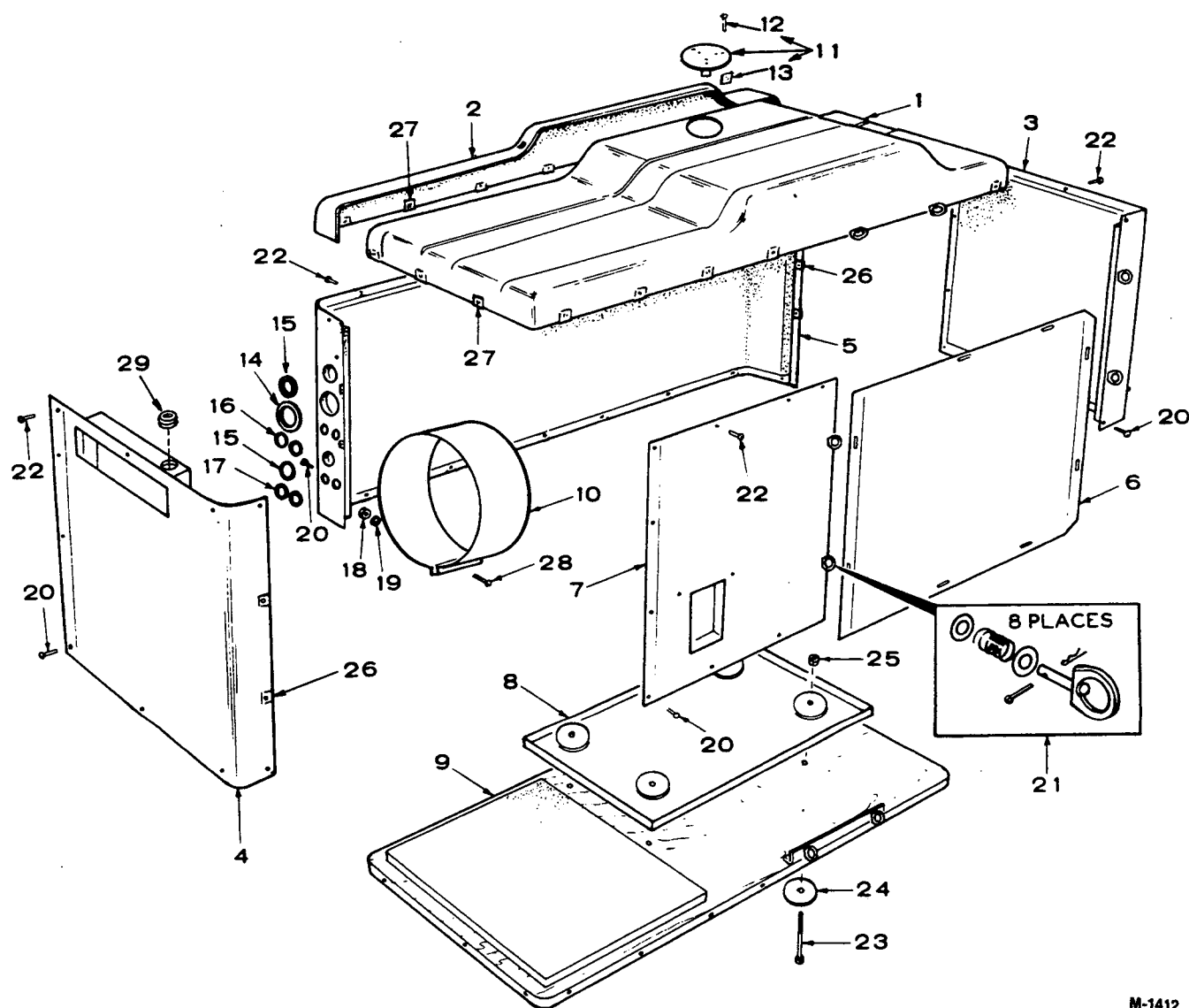
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
7	504-0062	1	#Valve, Vacuum Relief
8	502-0270	1	#Adapter, Pipe - Brass (1/2" x 3/8")
9	502-0090	1	#Tee, Pipe - Brass (3/8")
10	502-0237	2	#Connector, Hose - Brass (90°)
11	503-0446	2	Clamp, Hose
12	309-0162	1	Switch, Temperature (Opens at 240° - Closes at 195°)
13	505-1346	2	#Elbow, Hose - 90°

* - Parts Included in 155-0954 Muffler Fitting Package

- Parts Included in 155-0950 Siphon Break Kit

+ - Part Included in Muffler Kit

SOUND SHIELD HOUSING — OPTIONAL



M-1412

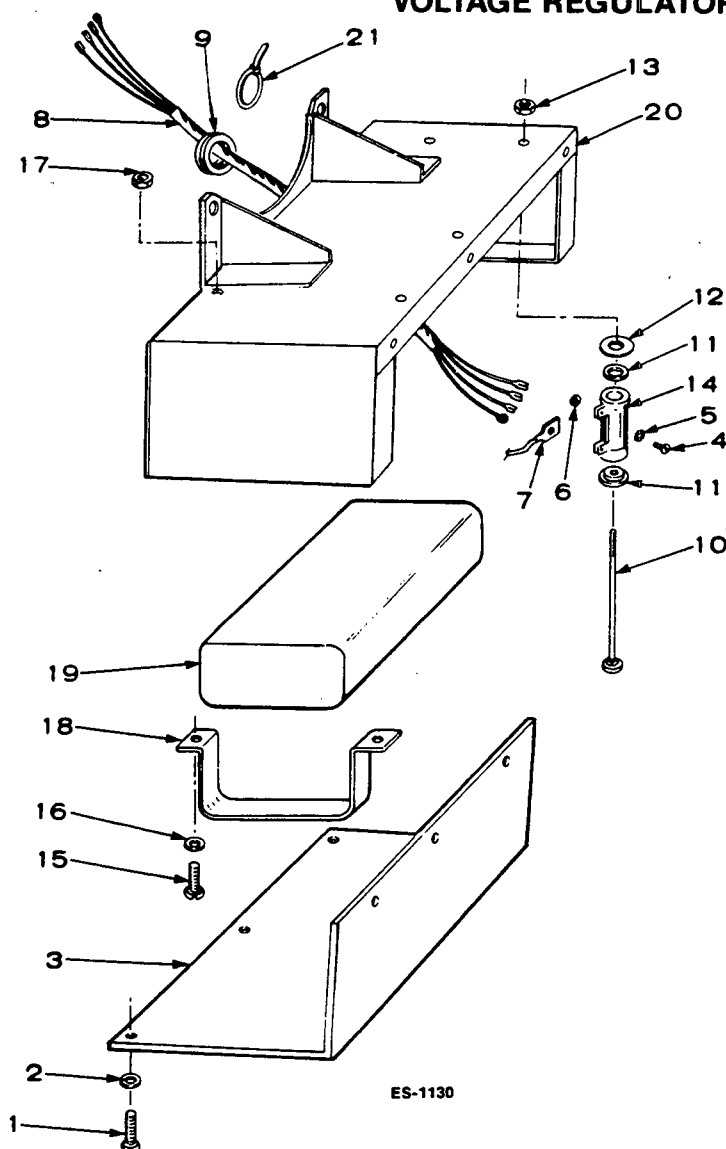
SOUND SHIELD HOUSING — OPTIONAL

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	405-1524	1	Housing Kit, Sound Shield - Includes All Parts Listed Below Plus Related Air Intake System Parts
1	405-1523	1	Panel Assembly, Top (Insulated) Includes (2) Folding Handles and (11) Speed Nuts
2	405-1520	1	Molding Assembly, Corner (Insulated) Includes (10) Speed Nuts
3	405-1515	1	Panel Assembly, Engine End (Insulated) Includes (2) Folding Handles
4	405-1500	1	Panel Assembly, Generator End (Insulated) Includes (2) Speed Nuts and Grommet
5	405-1504	1	Panel Assembly, Back (Insulated) Includes (4) Speed Nuts
6	405-1517	1	Panel Assembly, Access (Insulated)
7	405-1513	1	Panel Assembly, Door (Insulated) Includes (2) Folding Handles
8	405-1494	1	Pan, Drip
9	405-1502	1	Base, Mounting (Insulated)
10	405-1536	1	Band, Air Duct Adapter
11	405-1478	1	Cover Assembly, Access (Includes Parts Marked *)

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
12	815-0562	3	*Screw, Pan Head - Cross Recessed (#10 x 5/16")
13	870-0261	3	*Nut, Speed (#8-32)
14	508-0116	1	Grommet, Rubber (2-3/4" Hole) Exhaust Line
15	508-0117	2	Grommet, Rubber (1-3/8" Holes) Lead Wires and Water Inlet
16	508-0071	2	Grommet, Rubber (7/8" Hole) Battery Cables
17	508-0008	2	Grommet, Rubber (13/16" Hole) Fuel Inlet and Return Lines
18	870-0053	1	Nut, Hex (#10-32)
19	850-0030	1	Washer, Lock - Spring (#10)
20	812-0150	20	Screw, Machine - Round Head (1/4-20 x 5/8") Panels to Base
21	406-0343	8	Handle, Folding
22	808-0053	27	Screw, Round Head - Sheet Metal (#14 x 3/4")
23	800-0084	4	Screw, Cap - Hex Head (7/16-14 x 4-1/2")
24	526-0195	4	Washer, Flat (29/64" ID x 3-1/4" OD x 1/8" Thk)
25	862-0004	4	Nut, Hex (7/16-14)
26	870-0107	6	Nut, Speed - Type J
27	870-0197	21	Nut, Speed - Type J
28	813-0105	1	Screw, Machine - Round Head (#10-32 x 1")
29	508-0115	1	Grommet, Rubber (2-1/2" Hole) Intake Tube

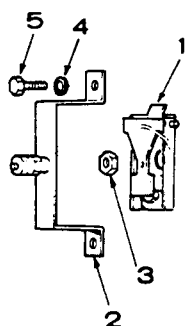
* - Parts Included in 405-1478 Access Cover Assembly

VOLTAGE REGULATOR FILTER - OPTIONAL



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	813-0098	6	Screw, Machine - Round Head (#10-32 x 3/8")
2	850-0030	6	Washer, Lock - Spring (#10)
3	232-2463	1	Cover, Housing
4	815-0001	4	Screw, Machine - Binding Head Brass (#6-32 x 1/4")
5	853-0003	4	Washer, Lock - ET (#6)
6	860-0006	4	Nut, Hex (#6-32)
7	332-1279	4	Terminal, Lug
8	338-1165	1	Harness, Wiring
9	508-0071	1	Grommet, Rubber
10	813-0112	2	Screw, Machine - Round Head (#10-32 x 2-1/2")
11	304-0015	4	Washer, Centering
12	304-0292	2	Insulator, Resistor
13	870-0053	2	Nut, Hex (#10-32)
14	304-0120	2	Resistor, Fixed (2 Ohm, 25 Watt)
15	812-0079	4	Screw, Machine - Round Head (#8-32 x 1/2")
16	850-0025	4	Washer, Lock - Spring (#8)
17	860-0008	4	Nut, Hex (#8-32)
18	312-0198	2	Bracket, Mounting - Capacitor
19	312-0197	1	Capacitor
20	232-2462	1	Housing, Filter
21	332-0942	2	Tie, Cable
	625-1304	—	Diagram, Wiring

OVERSPEED SWITCH — OPTIONAL



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	SWITCH, OVERSPEED		
	150-0956	1	60 Hertz Sets
	150-1661	1	50 Hertz Sets
2	BRACKET AND POINT ASSEMBLY		
	150-0958	1	Spec A through Z
	150-1446	1	Begin Spec AA
3	868-0004	1	Nut, Jam - Hex Head (7/16-20)
4	WASHER, LOCK - SPRING		
	850-0030	2	#10 - Spec A through Z
	850-0040	2	1/4" - Begin Spec AA
5	SCREW		
	813-0100	2	Machine - Round Head (#10-32 x 1/2")
			Spec A through Z
	800-0003	2	Cap - Hex Head (1/4-20 x 1/2")
			Begin Spec AA