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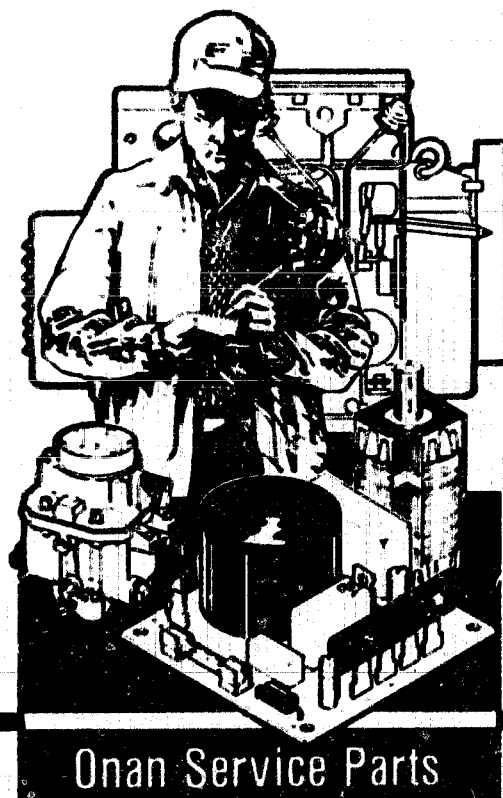
# Onan

## Parts Manual

RDJC

LRDJC

**GenSet**



Onan Service Parts

974-0221

RDJC (SPEC A-AD)

LRDJC (SPEC AA-AC)

1-84

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## INTRODUCTION

This catalog applies to RDJC and LRDJC Generator Sets as listed in the Generator Set Data Table. The RDJC model designation shown began during 1969. Previously, the model designations used a zero in place of the decimal in the kilowatt rating. (Example: 12.5 RDJC was formerly 12RDJC and 15.0RDJC was formerly 15RDJC.) 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, 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 RDJC Radiator Cooled Sets were designated by Parts Key Number 1 and City Water Cooled 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 for the cooling systems for Radiator Cooled Sets can be found in the Standard Parts Section and replacement parts for City Water Cooled Sets can be found in the Optional Parts Section.

## GENERATOR SET DATA TABLE

MODEL AND SPECIFICATION NUMBER	ELECTRICAL DATA				
	WATTS	VOLTS	HERTZ	WIRE	PHASE
12.5RDJC-53CR/*	12500	120/240	50	**	1
12.5RDJC-53R/*	12500	120/240	50	3	1
12.5RDJC-57R/*	12500	220/330	50	4	3
12.5RDJC-57XR/*	12500	240/416	50	4	3
12.5RDJC-58R/*	12500	127/220	50	4	3
12.5RDJC-518R/*	12500	*	50	12	3
15.0RDJC-3CR/*	15000	120/240	60	**	1
15.0RDJC-3R/*	15000	120/240	60	3	1
15.0RDJC-4R/*	15000	120/208	60	4	3
15.0RDJC-4XR/*	15000	277/480	60	4	3
15.0RDJC-5DR/*	15000	120/240	60	4	3
15.0RDJC-7R/*	15000	220/330	60	4	3
15.0RDJC-7XR/*	15000	240/416	60	4	3
15.0RDJC-8R/*	15000	127/220	60	4	3
15.0RDJC-9XR/*	15000	347/600	60	4	3
15.0RDJC-18R/*	15000	*	60	12	3
8.6LRDJC-57XR/*	8600	240/416	50	4	3
8.6LRDJC-518R/*	8500	*	50	12	3
11.3LRDJC-18R/*	11300	*	60	12	3

These LRDJC Generator Sets were manufactured beginning with Specification Letters AA. For replacement parts refer first to the Special Parts Section for LRDJC Generator Sets. Parts not in that section refer to the Standard or Optional Parts Section. When referring to those sections reference to Specification Letters or Voltage also applies to these sets.

### Models listed below are Pennsylvania Approved Sets

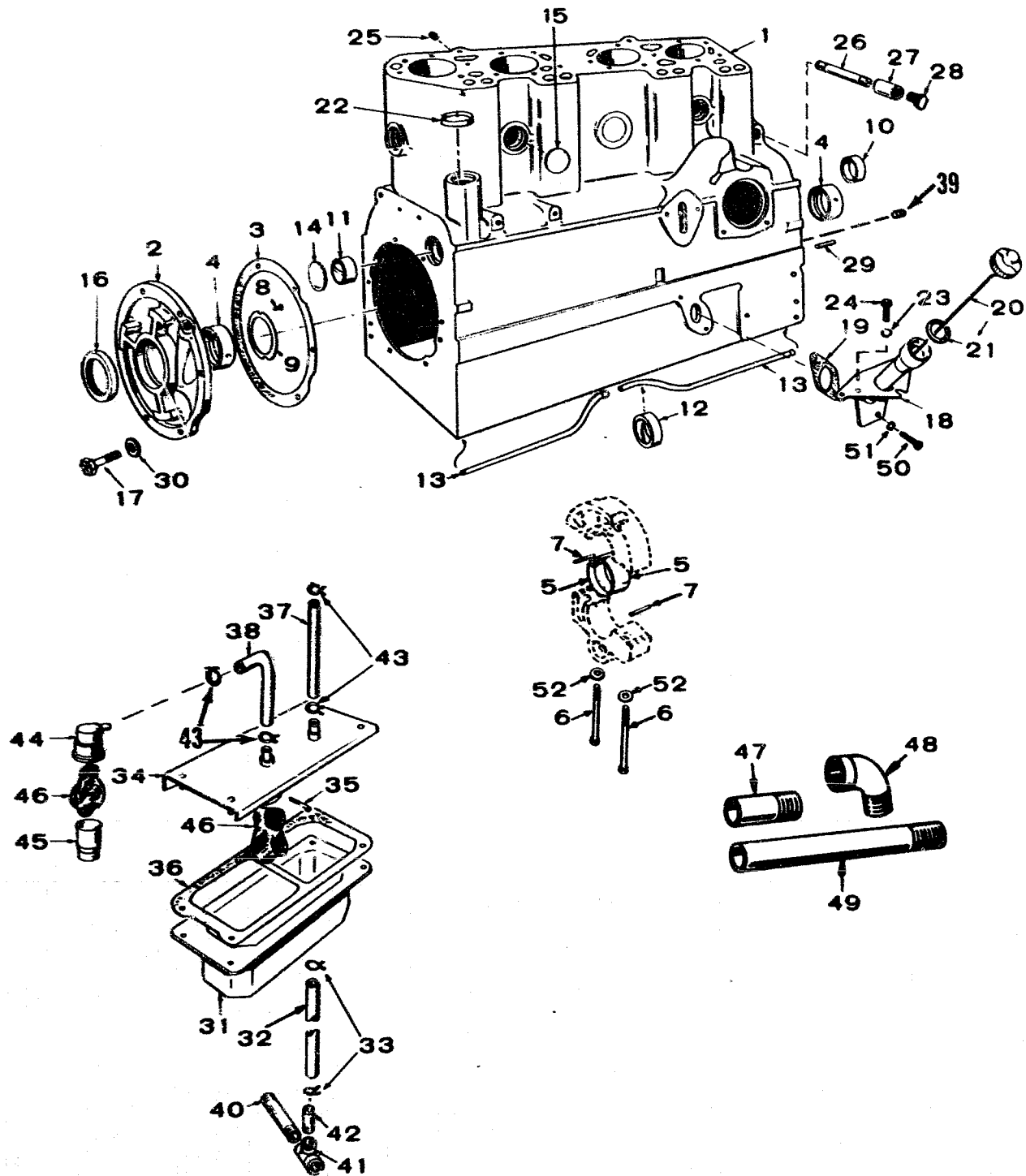
13.0RDJC-3R50/*	13000	120/240	60	3	1
13.0RDJC-4R50/*	13000	120/208	60	4	3
13.0RDJC-4XR50/*	13000	277/480	60	4	3
13.0RDJC-18R50/*	13000	*	60	12	3
15.0RDJC-3R50/*	15000	120/240	60	3	1
15.0RDJC-3CR50/*	15000	120/240	60	**	1
15.0RDJC-4R50/*	15000	120/208	60	4	3
15.0RDJC-4XR50/*	15000	277/480	60	4	3
15.0RDJC-5DR50/*	15000	120/240	60	4	3
15.0RDJC-18R50/*	15000	*	60	12	3

- \* - 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, etc.) model. The specification letter advances (A to B, B to C . . . Z to AA, AA to AB, etc.) 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. NOTE: Previously, the C designation (3CR, 53CR, etc.) was not used in the model.
- \* - Broad range reconnectable sets, refer to connection diagram inside outlet box cover.

## STANDARD PARTS SECTION

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

# CYLINDER BLOCK

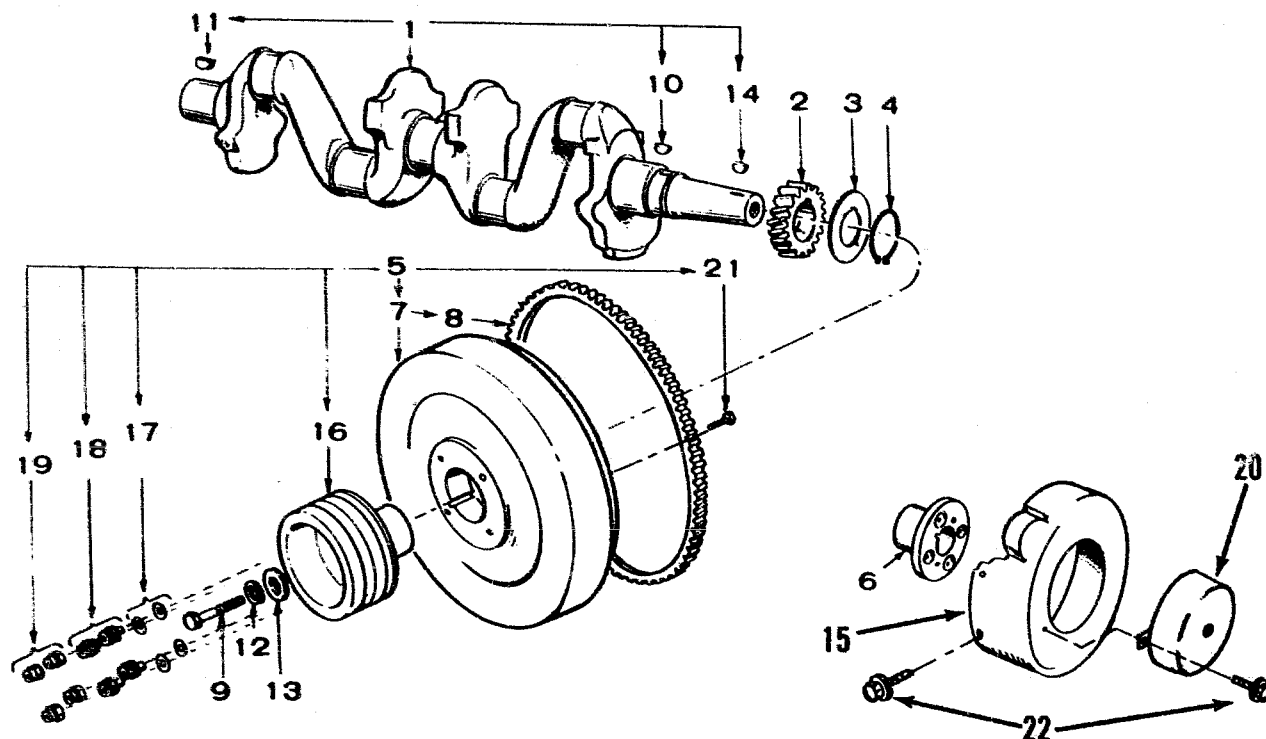


# CYLINDER BLOCK

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	BLOCK ASSEMBLY, CYLINDER (Includes Tappets)			26	505-0449	1	Nipple, Pipe (1/4"x 6") Water Drain
	110-1407	1	Radiator Cooled Sets (Includes Parts Marked *)	27	505-0027	1	Coupling, Pipe (1/4") Water Drain
	110-3216	1	City Water Cooled Sets (Includes Parts Marked #)	28	502-0153	1	Plug, Pipe (Brass) 1/4" Hex Head - Water Drain
2	101-0337	1	*#Plate, Rear Bearing	29	516-0141	2	*#Pin, Gearcase Locating
3	101-0386	1	*#Gasket and Shim Kit, Rear Bearing Plate - Includes Bearing Plate Mounting Washers	30	526-0245	6	*#Washer, Bearing Plate (Special)
4	BEARING, MAIN - FRONT AND REAR			31	123-1061	1	Damper, Breather Pulsation - Spec A
	101-0359	2	*#Standard	32	503-1194	1	Hose, Overflow - Spec S
	101-0359-02	2	.002" Undersize	33	503-0197	2	Clamp, Overflow Hose - Spec S
	101-0359-10	2	.010" Undersize	34	123-1045	1	Cover, Breather Pulsation Damper - Spec S
	101-0359-20	2	.020" Undersize	35	516-0177	1	Pin, Cotter - Spec S
	101-0359-30	2	.030" Undersize	36	123-1049	1	Gasket, Cover - Spec S
5	BEARING HALF, MAIN - CENTER			37	503-1274	1	Hose, Cover to Manifold - Spec S
	101-0361	2	*#Standard	38	503-0562	1	Hose, Cover to Breather Cap - Spec S
	101-0361-02	2	.002" Undersize	39	SCREW, SET - SOCKET HEAD (3/8-16 x 5/16")		
	101-0361-10	2	.010" Undersize		803-0067	4	City Water Cooled Sets Begin Spec AD
	101-0361-20	2	.020" Undersize		803-0067	1	#Sets Without Heat Exchanger
	101-0361-30	2	.030" Undersize		803-0067	1	Sets With Heat Exchanger
6	101-0342	2	*#Bolt, Center Bearing Housing	40	505-0690	1	Nipple, Close - Pipe (1/2") Spec S
7	516-0149	2	Pin, Center Bearing Housing	41	505-0682	1	Tee, Pipe (1/2") Spec S
8	516-0072	4	Screw, Drive - Crankshaft Thrust Washer	42	505-0674	1	Nipple, Half - Pipe (1/2" x 2-1/2") - Spec S
9	104-0420	2	*#Washer, Crankshaft Thrust	43	503-0170	4	Clamp, Hose - Spec S
10	101-0363	1	*#Bearing, Camshaft - Front	44	123-0787	1	Cap, Breather Tube - Spec A Through S
11	101-0365	1	*#Bearing, Camshaft - Rear	45	123-0645	1	*#Tube, Breather - Spec A Through S
12	101-0364	1	*#Bearing, Camshaft - Center	46	123-0865	2	Filter, Breather Tube and Pulsation Damper - Spec S (1 Used Spec A Through R)
13	*#TUBE, CRANKCASE OIL			47	505-0135	1	Nipple, Half - Pipe (3/8" x 1-1/2") Radiator Cooled Sets With Water Jacket Heater
	120-0586	1	Front	48	505-0039	1	Elbow, Pipe (3/8 - 90°) Radiator Cooled Sets With Water Jacket Heater
	120-0585	1	Rear	49	505-0273	1	Nipple, Half - Pipe (3/8" x 4") Radiator Cooled Sets With Water Jacket Heater
14	517-0053	1	*#Plug, Expansion - Rear Camshaft Opening	50	800-0026	2	Screw, Cap - Hex Head (5/16-18 x 3/4")
15	PLUG, EXPANSION - CYLINDER BLOCK			51	850-0045	2	Washer, Lock - Spring (5/16")
			1-7/16"	52	526-0035	2	*#Washer, Flat - (17/32" ID x 7/8" OD x 1/8" Thk)
	517-0059	3	* Radiator Cooled Sets				
	517-0059	4	* City Water Cooled Sets				
	517-0096	2	*#1-9/16"				
	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 Through R				
	123-1086	1	Begin Spec S				
19	123-0667	1	Gasket, Oil Fill				
20	CAP AND INDICATOR						
	123-0698	1	Spec A Through R				
	123-1056	1	Begin Spec S				
21	123-0191	1	Gasket, Cap				
22	517-0103	1	*#Plug, Core Hole - Begin Spec T				
23	850-0045	3	Washer, Lock - Spring (5/16")				
24	800-0026	3	Screw, Cap - Hex Head (5/16-18 x 3/4")				
25	505-0266	2	Plug, Pipe (3/8" - Square Countersunk) Radiator Cooled Sets Without Water Jacket Heater				

\* - Parts Included in 110-1407 Cylinder Block Assembly  
# - Parts Included in 110-3216 CYLINDER Block Assembly

# CRANKSHAFT AND FLYWHEEL



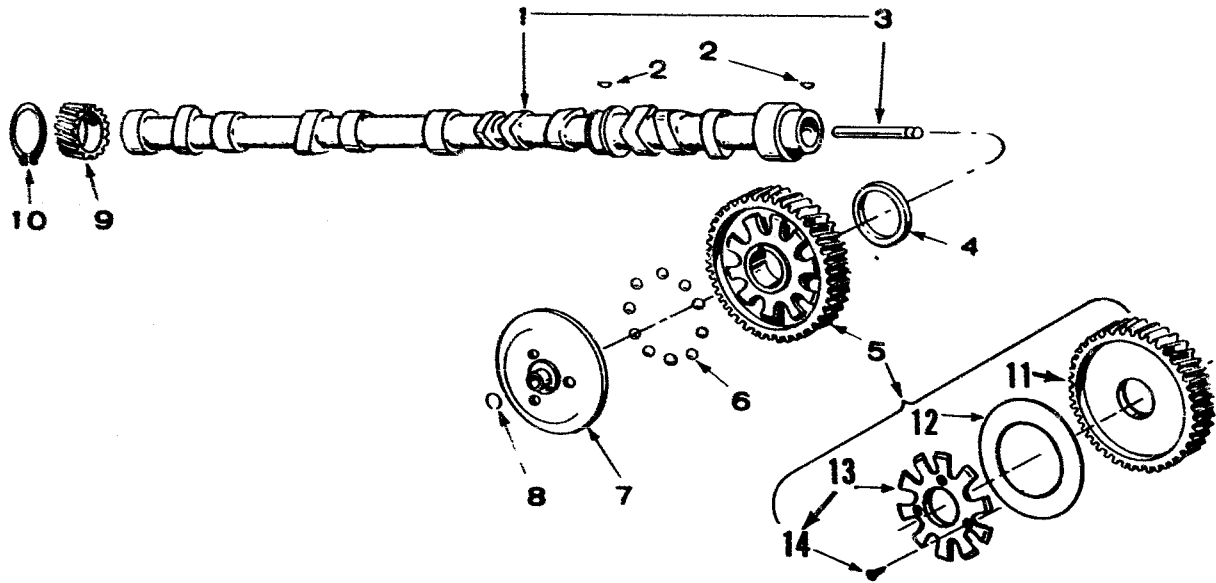
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REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	104-1361	1	Crankshaft Kit (Includes All Keys)	14	515-0153	1	Key - Flywheel to Crankshaft
2	104-0418	1	Gear, Crankshaft	15	104-0510	1	Guard, Flywheel - City Water Cooled Sets
3	104-0416	1	Washer, Retainer	16	HUB AND PULLEY, FLYWHEEL		
4	518-0188	1	Ring, Lock		104-0957	1	Radiator Cooled Sets
5	FLYWHEEL ASSEMBLY				104-1121	1	*Spec A Through AB
	104-0548	1	Radiator Cooled Sets		104-0957	1	+Begin Spec AC
			Spec A Through AB (Includes Parts Marked *)				*City Water Cooled Sets With Heat Exchanger
	104-1129	1	Begin Spec AC (Includes Parts Marked +)	17	WASHER, FLAT - Hub to Flywheel (Special)		
			City Water Cooled Sets		526-0187	4	#City Water Cooled Sets Without Heat Exchanger
	104-0555	1	Sets Without Heat Exchanger (Includes Parts Marked #)		526-0273	4	*+Radiator Cooled Sets and City Water Cooled Sets With Heat Exchanger
	104-0548	1	Sets With Heat Exchanger (Includes Parts Marked *)	18	104-0543	4	*+Spacer and Washer
6	134-1401	1	#Hub, Flywheel - City Water Cooled Sets Without Heat Exchanger	19	870-0352	4	*+Nut, Locking (Special)
7	104-0547	1	*+Flywheel (Includes Ring Gear)	20	104-0594	1	Cover, Flywheel Guard - City Water Cooled Sets Without Heat Exchanger
8	104-0423	1	*+Gear, Ring	21	801-0054	4	*+Screw, Cap - Hex Head (3/8-24 x 2")
9	800-0500	1	Screw, Flywheel Mounting (Special)	22	SCREW, LOCKING HEAD FLANGE (1/4-20 x 1/2")		
10	515-0001	1	Key - Crankshaft to Gear		821-0010	3	Cover Mounting
11	515-0006	1	Key - Fan to Crankshaft		821-0010	5	Guard Mounting
12	850-0055	1	Washer, Lock - Spring (7/16")				
13	526-0185	1	Washer, Flat (15/32" ID x 1-1/2" OD x 3/8" Thk)				

\* - Parts Included in 104-0548 Flywheel Assembly.  
+ - Parts Included in 104-1129 Flywheel Assembly.  
# - Parts Included in 104-0555 Flywheel Assembly.



# CAMSHAFT



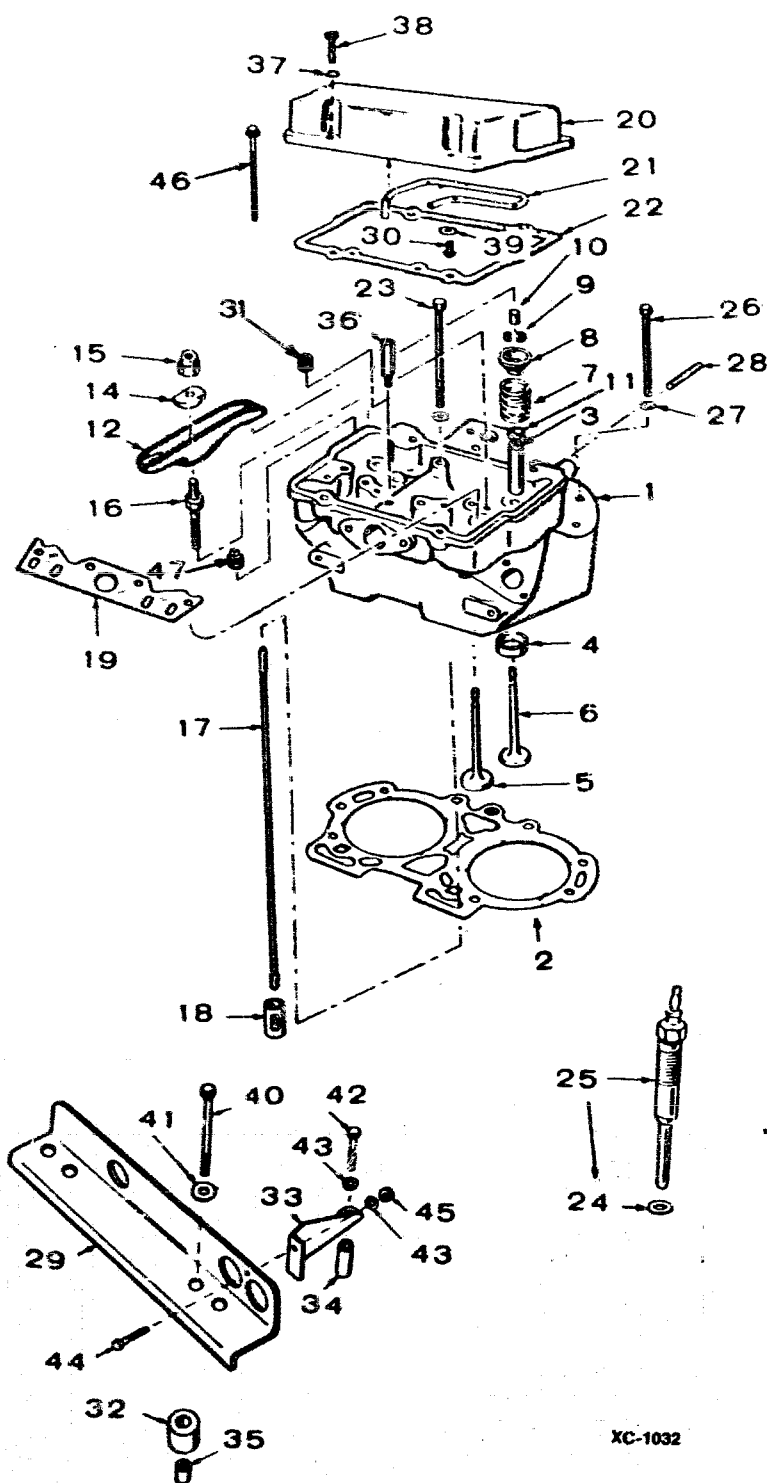
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REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	CAMSHAFT (Includes Center Pin)		
	105-0240	1	Spec A through N
	105-0274	1	Begin Spec P
2	515-0001	2	Key - Camshaft Gear and Injection Pump
3	150-0075	1	Pin, Camshaft Center
4	105-0205	1	Washer, Thrust
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
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.

# CYLINDER HEAD



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	HEAD, CYLINDER		
	110-2986	2	<b>With Valves</b> Spec A Through N (Includes Cylinder Head Connector and Parts Marked #)
	110-2985	2	Begin Spec P (Includes Cylinder Head Connector and Parts Marked +)
			<b>Without Valves (Includes Parts Marked *)</b>
	110-2984	2	#Spec A Through N
	110-1855	2	+Begin Spec P
	110-2944	2	Gasket, Head
2	GUIDE, VALVE		
	110-1501	8	*Standard
	110-1501-01	8	.001" Oversize
	110-1501-05	8	.005" Oversize
3	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
4	ARM, ROCKER		
	110-1871	4	#+Valve, Intake
	110-1278	4	#+Valve, Exhaust
	110-1221	8	#+Spring, Valve
	110-1220	8	#+Retainer, Valve Spring
	110-0858	16	#+Lock, Valve Spring Retainer
	110-0859	8	Cap, Valve Stem
	509-0132	4	#+Seal, Oil - Intake Valve
12	ARM, ROCKER		
	115-0128	4	Exhaust
	115-0129	4	Intake
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 ▷)
21	120-0628	2	▷Line, 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
25	333-0106	4	Plug, Glow - Includes Gasket
26	800-0501	12	Screw, Cylinder Head Mounting (Special)
27	526-0174	14	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	▷Screw, 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 T
37	850-0045	8	Washer, Lock - Spring (5/16")
38	800-0030	7	Screw, Cap - Hex Head (5/16-18 x 1-1/4")
39	526-0130	1	▷Washer, Flat (17/64" ID x 1" OD x 1/16" Thk)

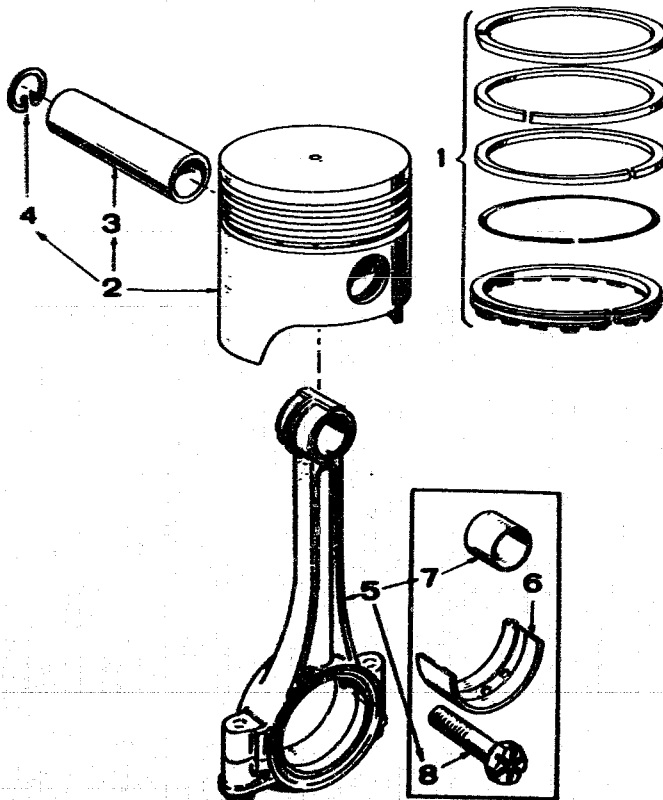
## CYLINDER HEAD

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
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 3/4")
43	850-0045	2	Washer, Lock - Spring (5/16")
44	800-0026	1	Screw, Cap - Hex Head (5/16-18 x 3/4")
45	862-0015	1	Nut, Hex (5/16-18)

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
46	110-1282	1	Bolt, Cylinder Head (Special) (Switch Mounting Sets With Low Engine Temperature Switch
47	505-0110	2	*Plug, Pipe - Square Head (3/8")

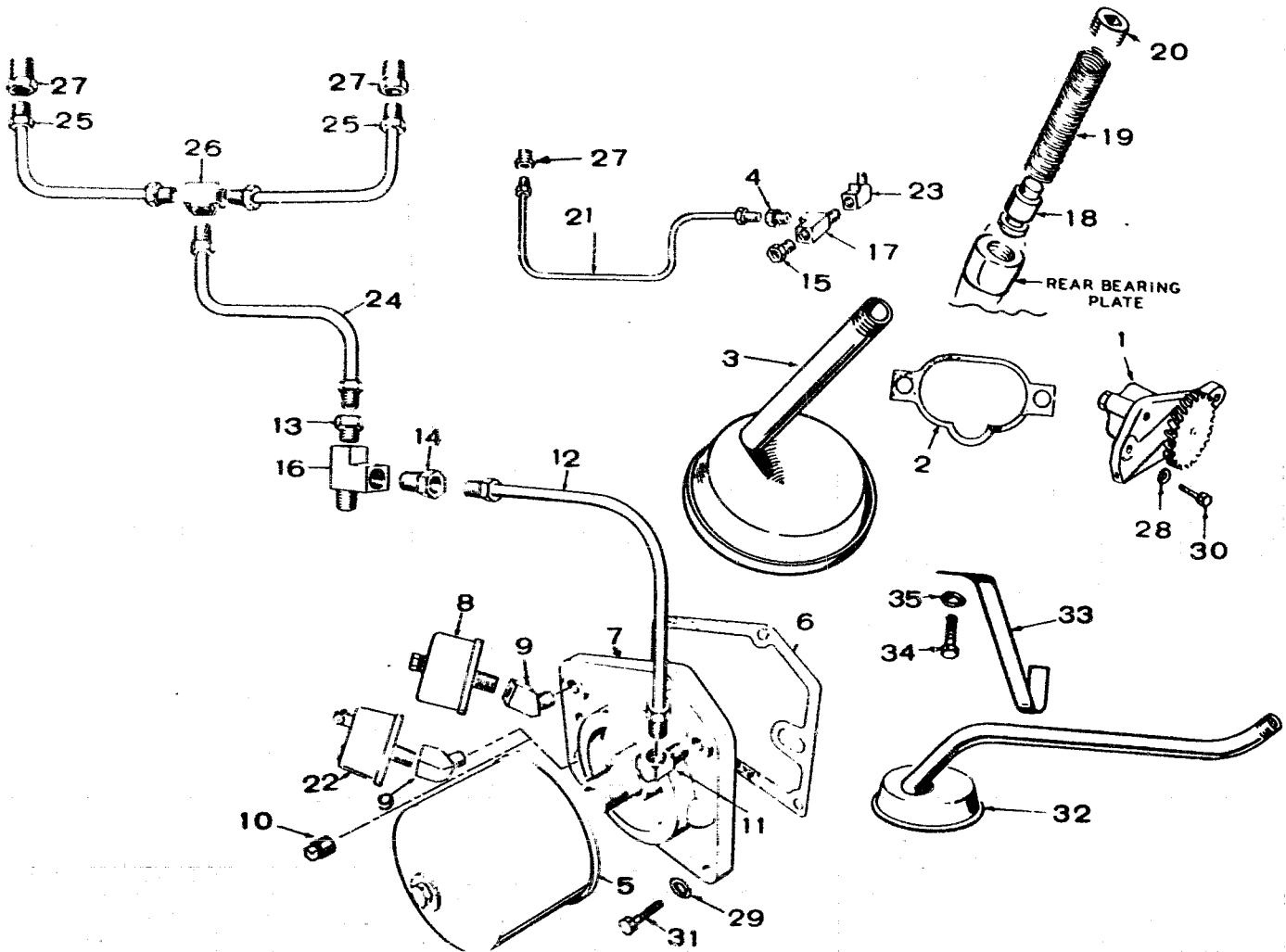
# - Parts Included in 110-2986 Cylinder Head.  
 + - Parts Included in 110-2985 Cylinder Head.  
 \* - Parts Included in 110-2984 and 110-1855 Cylinder Head.  
 ‡ - Included in Cylinder Block Assemblies.  
 ▷ - Parts Included in 115-0134 Rocker Cover Assembly.

## PISTON AND ROD



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	RING SET		
	113-0130	4	Standard
	113-0130-05	4	.005" Oversize
	113-0130-10	4	.010" Oversize
	113-0130-20	4	.020" Oversize
	113-0130-30	4	.030" Oversize
	113-0130-40	4	.040" Oversize
2	PISTON AND PIN (Includes Pin Retaining Rings)		
			Spec A Through N
	112-0173	4	Standard
	112-0173-05	4	.005" Oversize
	112-0173-10	4	.010" Oversize
	112-0173-20	4	.020" Oversize
	112-0173-30	4	.030" Oversize
	112-0173-40	4	.040" Oversize
			Begin Spec P
	112-0175	4	Standard
	112-0175-05	4	.005" Oversize
	112-0175-10	4	.010" Oversize
	112-0175-20	4	.020" Oversize
	112-0175-30	4	.030" Oversize
	112-0175-40	4	.040" Oversize
3	112-0083	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)

# OIL SYSTEM



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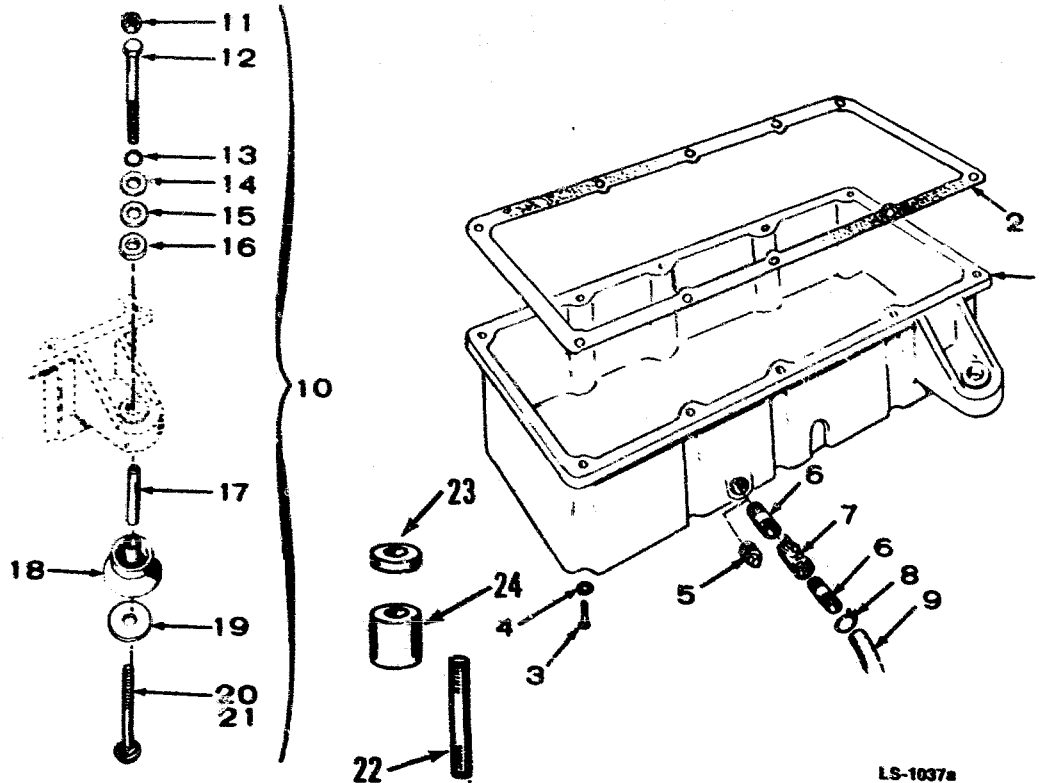
## OIL SYSTEM

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	120-0547	1	Pump, Oil
2	120-0580	1	Gasket Kit, Oil Pump
3		1	Cup, Oil Pump Intake (Used on Early Models) Sets With Straight Tube Order Oil Pump Intake Cup Kit 120-0756 (Includes Parts Marked *)
4	502-0097	1	Connector - Front Cylinder Head Tee to Rear Cylinder Head Line
5	FILTER, OIL		
	122-0185	1	4-3/8" Long
	122-0193	1	5-3/4" Long (Heavy Duty)
6	122-0188	1	Gasket, Oil Adapter
7	122-0182	1	Adapter, Oil Filter
8	SENDER, OIL PRESSURE		
	193-0108	1	Spec A through AA
	193-0244	1	Spec AB
	193-0271	1	Begin Spec AC
9	502-0053	2	Elbow, Street - 45° Brass (One Used on Pennsylvania Approved Sets)
10	505-0057	1	Plug, Pipe (1/8") Pennsylvania Approved Sets
11	ELBOW - OIL LINE TO ADAPTER		
	502-0019	1	Spec A through N
	502-0037	1	Begin Spec P
12	LINE - ADAPTER TO INJECTION PUMP TEE		
	120-0582	1	Spec A through N
	120-0636	1	Begin Spec P
13	CONNECTOR, INVERTED MALE - INJECTION PUMP LUBRICATION TEE		
	502-0030	1	Spec A through N
	502-0097	1	Begin Spec P
14	CONNECTOR, INVERTED MALE - INJECTION PUMP LUBRICATION TEE		
	502-0030	1	Spec A through N
	502-0274	1	Begin Spec P (Restricted)
15	CONNECTOR, INVERTED MALE - FRONT CYLINDER HEAD TEE		
	502-0030	1	Spec A through N
	502-0097	1	Spec P through S
16	502-0242	1	Tee, Restricted - Injection Pump Lubrication
17	502-0282	1	Tee, Restricted - Front Cylinder Head - Spec A through S

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
18	120-0539	1	Valve, Oil By-Pass
19	120-0555	1	Spring, By-Pass Valve
20	505-0274	1	Plug, Pipe - Countersunk - Oil By-Pass
21	LINE, OIL - REAR CYLINDER HEAD		
	120-0575	1	Spec A through N
	120-0635	1	Spec P through S
22	309-0169	1	Switch, Low Oil Pressure - Not Used on Pennsylvania Approved Sets
23	502-0053	1	Elbow (45°), Street - Cylinder Head Tee - Spec A through S
24	LINE, OIL - INJECTION PUMP TEE TO CYLINDER HEAD TEE		
	120-0583	1	Spec A through N
	120-0630	1	Spec P through S
	120-0697	1	Begin Spec T
25	120-0695	2	Line, Oil - Cylinder Head - Begin Spec T
26	502-0373	1	Tee, Inverted Flare - Begin Spec T
27	CONNECTOR, INVERTED MALE - CYLINDER HEAD		
	502-0097	1	Rear - Spec A through N
	502-0281	1	#Rear - Begin Spec P
	502-0281	1	#Front - Begin Spec T
28	WASHER, LOCK		
	850-0045	2	Oil Pump Mounting (5/16")
29	850-0045	3	Oil Filter Adapter Mounting (5/16")
	SCREW, HEX CAP		
30	800-0030	2	Oil Pump Mounting (5/16-18 x 1-1/4")
31	800-0028	3	Oil Filter Adapter Mounting (5/16-18 x 1")
32	120-0601	1	*Cup, Oil Pump Intake
33	120-0602	1	*Bracket, Oil Pump Intake Cup
34	800-0025	1	*Screw, Cap - Hex Head (5/16-18 x 5/8")
35	850-0045	1	*Washer, Lock - Spring (5/16")

\* - Parts Included in 120-0756 Oil Pump Intake Cup Kit.  
# - Included in Cylinder Head Assemblies.

# OIL BASE

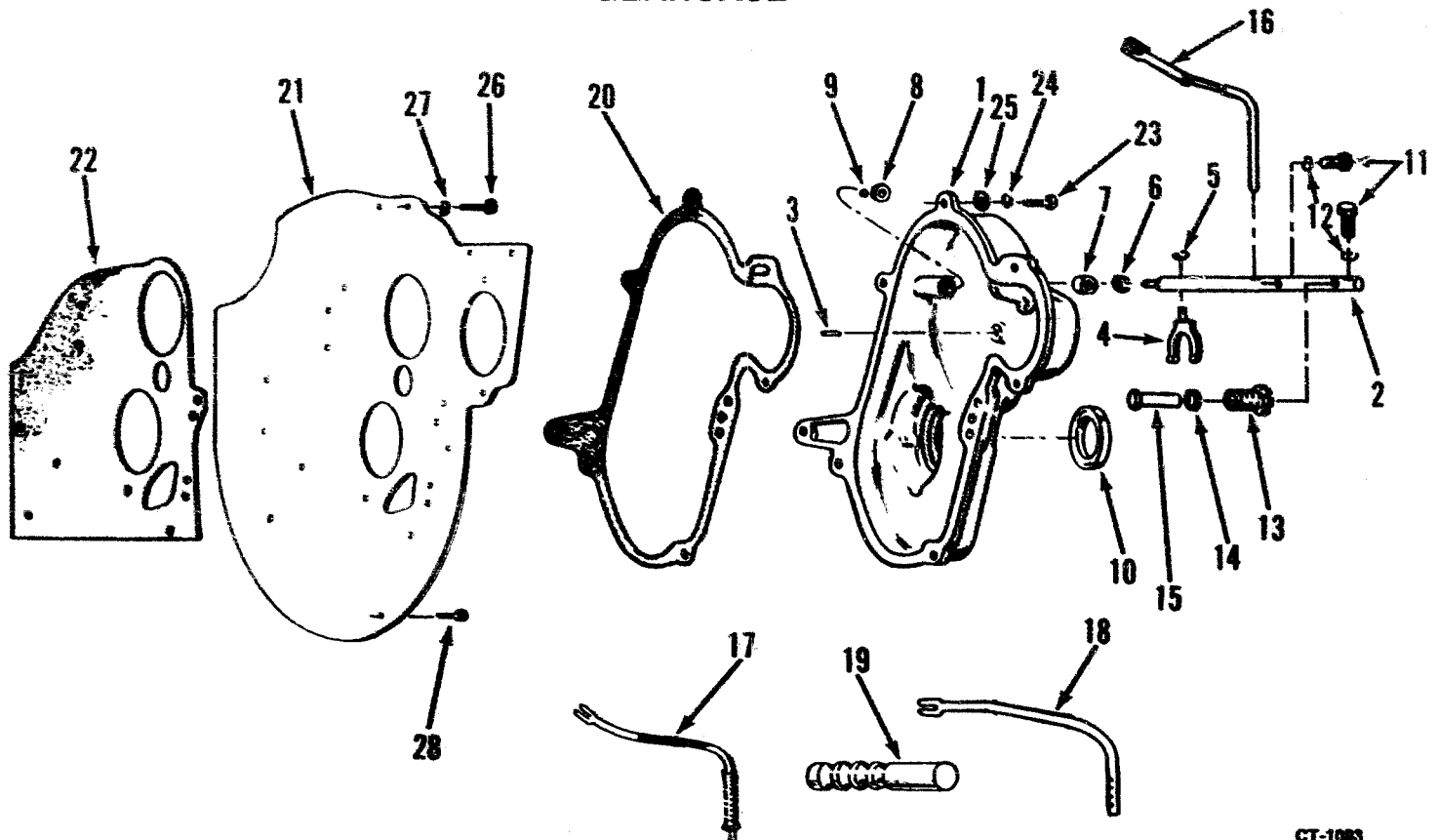


REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	BASE, OIL 102-0476	1	Spec A Begin Spec B
	102-0539	1	Sets Without Oil Base Heater
	102-0549	1	Sets With Oil Base Heater
2	102-0475	1	Gasket, Oil Base
3	800-0072	10	Screw, Cap - Hex Head (7/16-14 x 1-1/4")
4	850-0055	10	Washer, Lock - spring (7/16")
5	505-0056	1	Plug, Pipe (1/2") City Water Cooled Sets Spec A Through AC
6	NIPPLE, PIPE - CLOSE (1/2") 505-0100	2	Radiator Cooled Sets
	505-0100	2	City Water Cooled Sets Begin Spec AD
7	VALVE 504-0011	1	Radiator Cooled Sets
	504-0011	1	City Water Cooled Sets Begin Spec AD
8	CLAMP 503-0197	1	Radiator Cooled Sets
	503-0197	1	City Water Cooled Sets Begin Spec AD
9	HOSE 503-1194	1	Radiator Cooled Sets
	503-1194	1	City Water Cooled Sets Begin Spec AD
10	HARDWARE PACKAGE, MOUNTING 402-0356	4	Radiator Cooled Sets (Includes Parts Marked *) City Water Cooled Sets Sets Without Skid Base (Includes Parts Marked #) Sets With Skid Base (Includes Parts Marked ‡)
11	862-0004	4	‡Nut, Hex (7/16") City Water Cooled Sets
12	800-0081	4	*Screw, Cap - Hex Head (7/8-14 x 3-1/2") Radiator Cooled Sets Begin Spec B

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
13	850-0055	4	*‡Washer, Lock - Spring (7/16")
14	526-0014	4	*‡Washer, Flat (29/64" ID x 1-1/2" OD x 1/8" Thk) Used With Cone Shaped Cushions
15	526-0198	8	*‡Washer, Flat (5/8" ID x 1-1/2" OD x 1/16" Thk) (Use as Required)
16	402-0282	4	*‡Snubber - Shock Mounting - Begin Spec B
17	BUSHING, SPACER 402-0046	4	Spec A
	402-0290	4	*‡Begin Spec B
18	CUSHION, VIBRATION (Cone Shaped) 402-0285	2	Engine End - Begin Spec B Generator End Spec B Through Z Begin Spec AA
	402-0287	2	
	402-0286	2	
19	526-0198	4	*‡Washer, Flat (29/64" ID x 3" OD x 1/8" Thk) (Used with Cone Shaped Cushions) City Water Cooled Sets without Skid Base
20	816-0212	4	#Bolt, Carriage (7/16-14 x 5-1/2") City Water Cooled Sets
21	800-0082	4	‡Screw, Cap - Hex Head (7/16-14 x 3-3/4") City Water Cooled Sets With Skid Base
22	520-0650	4	Stud, Vibration Mount - Spec A
23	402-0036	4	Mount, Upper Vibration (Cylindrical Shaped) Spec A
24	MOUNT, LOWER VIBRATION (Cylindrical Shaped) Spec A 402-0038	2	Engine End
	402-0251	2	Generator End

\* - Parts Included in 402-0356 Mounting Hardware Package  
# - Parts Included in 402-0291 Mounting Hardware Package  
‡ - Parts Included in 402-0327 Mounting Hardware Package

# GEARCASE



CT-1083

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	GEARCASE ASSEMBLY		
			Radiator Cooled
	103-0278	1	Spec A Through Q (Includes Parts Marked #)
	103-0307	1	Begin Spec R (Includes Parts Marked *)
	103-0277	1	City Water Cooled (Includes Parts Marked ‡)
2	SHAFT, GOVERNOR		
	150-0901	1	#*Radiator Cooled
	150-0838	1	‡City Water Cooled
3	516-0111	1	#*‡Pin, Governor Cup Stop
4	150-0777	1	#*‡Yoke, Governor
5	519-0129	1	#*‡Ring, Yoke Retainer
6	509-0088	1	#*‡Seal, Governor Shaft
7	510-0048	1	#*‡Bearing, Shaft - 1/2"
8	510-0082	1	#*‡Bearing, Shaft - 1/4"
9	510-0043	1	#*‡Ball, Governor Shaft Thrust
10	509-0087	1	#*‡Seal
11	SCREW, MACHINE - HEX HEAD (#8-32 x 1/2")		
	815-0176	2	#*Radiator Cooled
	815-0176	1	‡City Water Cooled
12	WASHER, LOCK - SPRING (#8)		
	850-0025	2	#*Radiator Cooled
	850-0025	1	‡City Water Cooled
13	150-1160	1	*Hub, Governor Shaft - Radiator Cooled (Begin Spec R)
14	150-1155	1	*Washer, Spring - Governor Shaft - Radiator Cooled (Begin Spec R)
15	150-1154	1	*Pin, Governor Shaft Hub - Radiator Cooled (Begin Spec R)

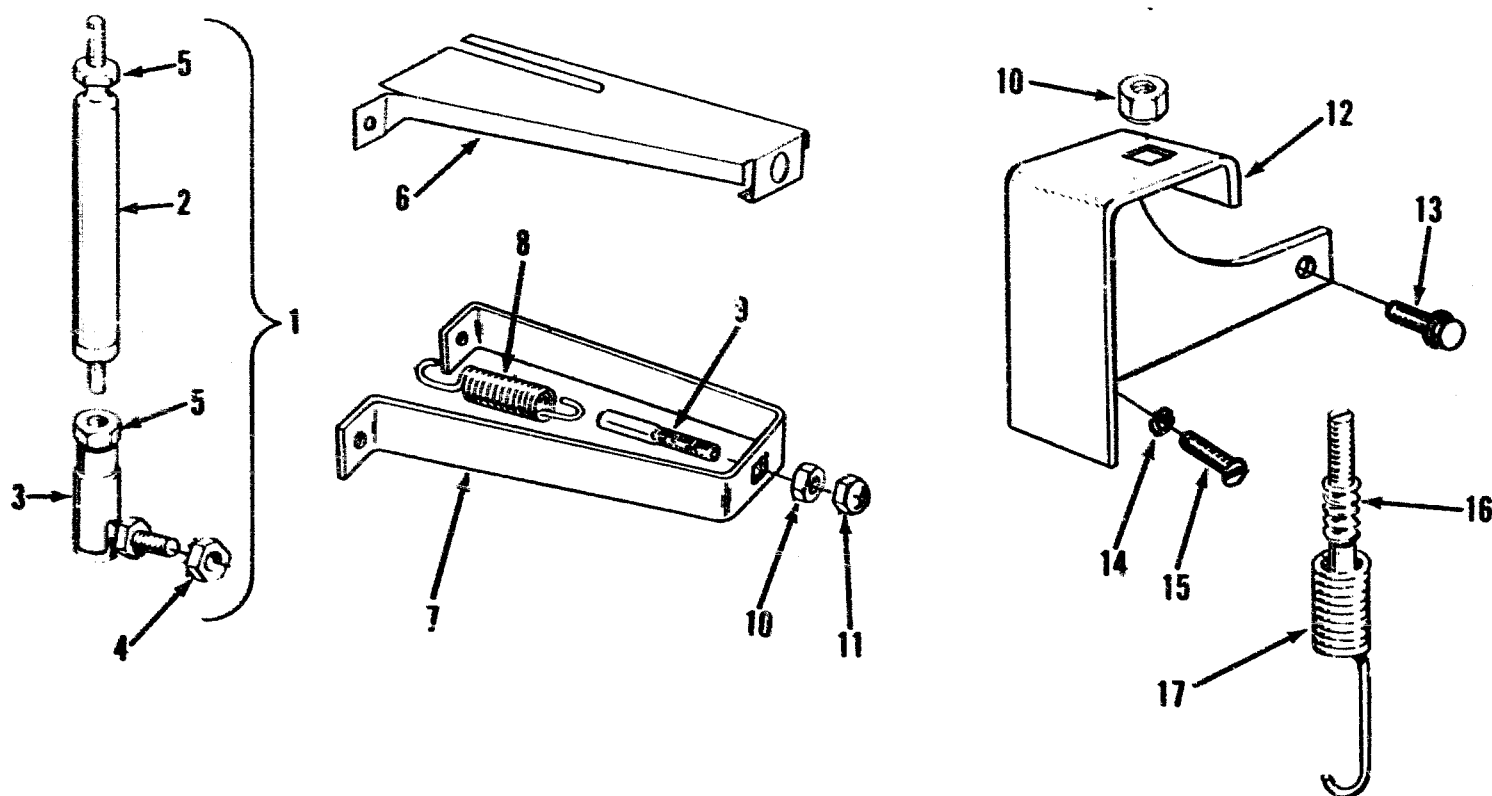
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
16	150-1228	1	Arm, Governor - Radiator Cooled (Begin Spec R)
17	150-1095	1	Arm, Governor (Includes Spring Hub and Washer) City Water Cooled (Begin Spec R)
18	150-0847	1	Arm, Governor (Spec A Through Q)
19	150-0900	1	#Arm, Governor Spring Control - Radiator Cooled (Spec A Through Q)
20	103-0251	1	Gasket, Gearcase
21	BACKPLATE, GEARCASE		
			Radiator Cooled
	103-0228	1	Spec A Through Z
	103-0521	1	Begin Spec AA
	103-0228	1	City Water Cooled
22	103-0218	1	Gasket, Gearcase
23	SCREW, CAP - HEX HEAD (Gearcase Mounting)		
	110-0879	4	Special
	800-0028	1	5/16-18 x 1"
24	850-0045	5	Washer, Lock - Spring (5/16")
25	526-0115	4	Washer, Flat (11/32" ID x 11/16" OD x 1/16" Thk)
26	800-0028	1	Screw, Cap - Hex Head (5/16-18 x 3/4")
27	850-0045	1	Washer, Lock - Spring (5/16")
28	815-0347	2	Screw, Machine - Flat Head Socket Drive (1/4-20 x 1/2")

# - Parts Included in 103-0278 Gearcase Assembly

\* - Parts Included in 103-0307 Gearcase Assembly

‡ - Parts Included in 103-0277 Gearcase Assembly

# GOVERNOR



FS-1588

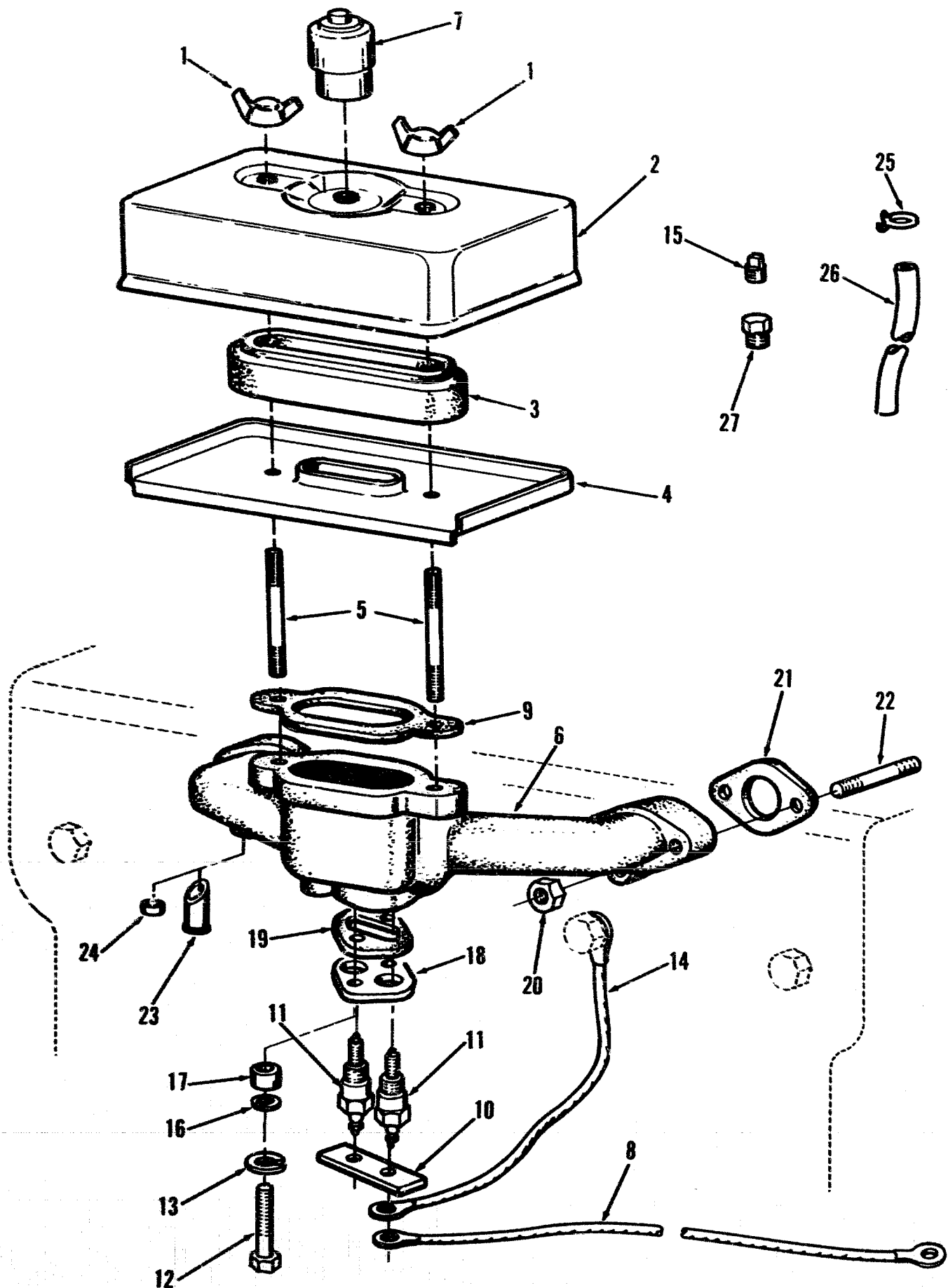
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	LINKAGE ASSEMBLY, GOVERNOR		
	150-0831	1	Spec A Through Q (Includes Parts Marked *)
	150-1132	1	Begin Spec R (Includes Governor Link and Parts Marked #)
2	150-0874	1	*Link, Governor - Spec A Through Q
3	JOINT, BALL		
	150-0874	2	*Spec A Through Q (1 Ball Joint Included in Governor Linkage Assembly)
	150-1358	1	#Governor Linkage
	150-0939	1	Injection Pump (Included With Injection Pump)
4	870-0131	2	*Nut, Hex - With ET (#10-32) (1 Nut Included With Injection Pump)
5	871-0010	2	*Nut, Hex - Brass (#10-32)
6	150-0823	1	Cover, Governor Bracket Spec A Through Z City Water Cooled Sets without Heat Exchanger
7	BRACKET, GOVERNOR - City Water Cooled Sets without Heat Exchanger		
	150-0810	1	Spec A Through Q
	150-1103	1	Begin Spec R
8	150-1084	1	Spring, Governor - Begin Spec R

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
9	150-1082	1	Stud, Governor - Begin Spec R
10	NUT, ADJUSTING (Special)		
	104-0091	1	Spec A Through Q
	862-0003	1	Begin Spec R
11	NUT, LOCKING		
	870-0130	1	Spec A Through Q (3/8-24)
	870-0133	1	Spec R Through Z (3/8-16)
12	BRACKET, GOVERNOR - Radiator Cooled Sets		
	150-0902	1	Spec A Through Q
	150-1105	1	Begin Spec R
13	821-0018	1	Screw, Hex Locking Head (Flange) (1/4-20 x 5/8") Begin Spec AD
14	855-0011	1	Washer, Lock - ET Countersunk (1/4") Begin Spec AD
15	814-0151	1	Screw, Machine - Flat Head (1/4-20 x 3/4") Begin Spec AD
16	150-0822	1	Stud, Governor - Spec A Through Q
17	150-0821	1	Spring, Governor - Spec A Through Q

\* - Parts Included in 150-0831 Governor Linkage Assembly  
# - Parts Included in 150-1132 Governor Linkage Assembly



# AIR INTAKE SYSTEM

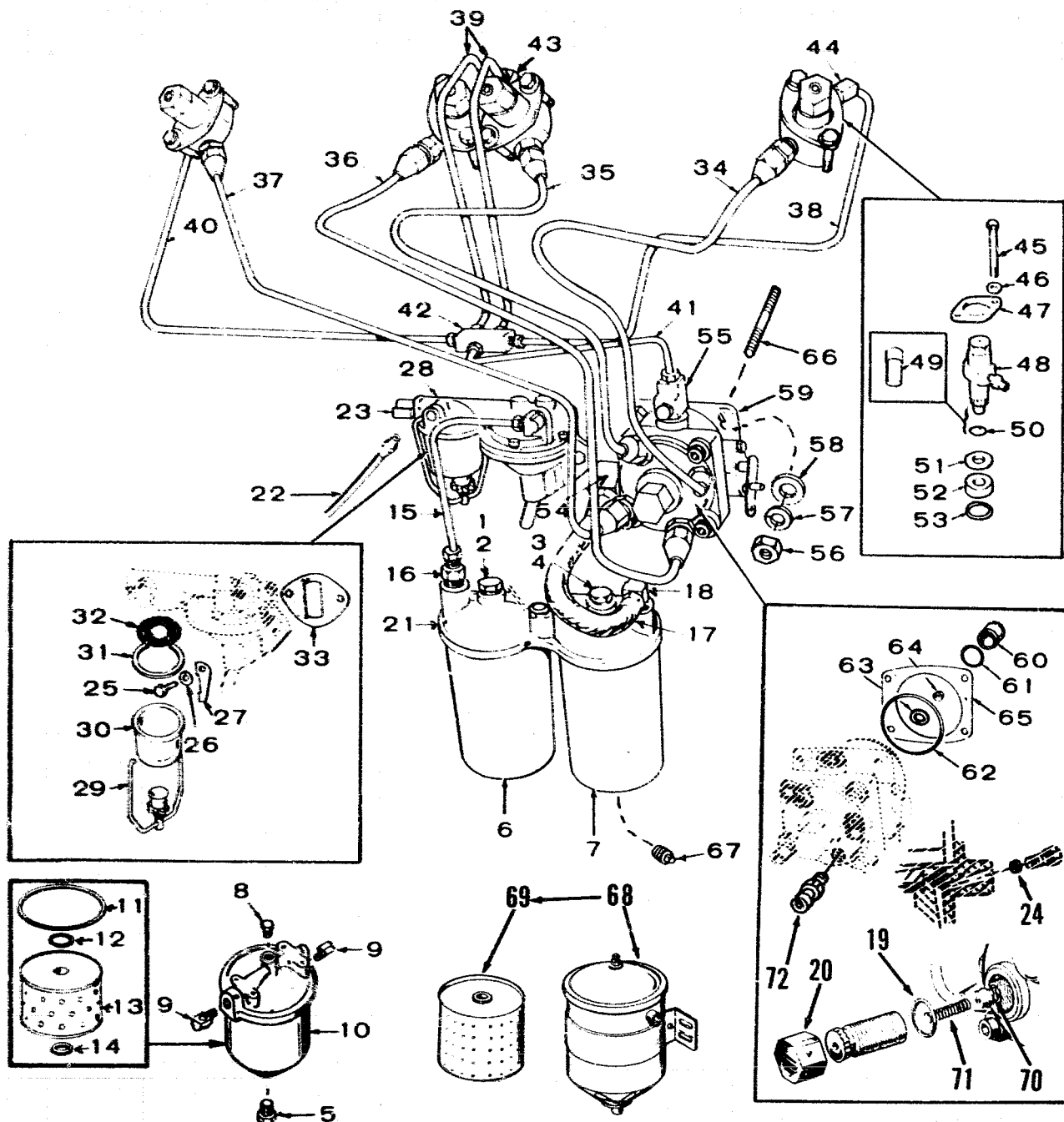


## AIR INTAKE SYSTEM

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	865-0020	2	Nut, Wing	15	505-0054	1	Plug, Pipe - Square Head (1/4") Intake
2	COVER, AIR CLEANER						Manifold (Early Models)
	140-0594	1	Sets Without Restriction Indicator	16	508-0102	2	Washer, Insulator
	140-1194	1	Sets With Restriction Indicator	17	508-0103	2	Bushing, Insulator
3	140-1907	1	Element and Retainer	18	140-0705	1	Plate, Heater
4	140-0595	1	Pan, Air Cleaner	19	140-0706	1	Gasket, Heater Plate
5	520-0621	2	Stud, Air Cleaner	20	870-0137	4	Nut, Hex - Self-locking (5/16-24)
6	154-1378	1	Manifold Kit, Intake (Includes Parts Marked *)	21	154-0733	2	Gasket, Intake Manifold
7	140-0961	1	Indicator, Restriction - Late Models	22	STUD, MANIFOLD MOUNTING		
8	336-1229	1	Lead - Manifold Heater to Control Solenoid		520-0011	2	5/16-24 x 5/16-18 x 1-7/16"
9	140-0584	1	Gasket, Air Cleaner		520-0338	2	5/16-18 x 5/16-24 x 2-7/8"
10	332-0829	1	Jumper, Manifold Heater	23	123-0732	1	*Tube, Breather - Spec A Through S
11	154-0712	2	Heater, Manifold - Includes Gasket	24	517-0104	1	*Plug, Core Hole - Begin Spec T
12	114-0023	2	Screw, Cap - Hex Head (Special)	25	503-0171	2	Clamp, Breather Hose - Spec A Through R
13	850-0040	2	Washer, Lock - Spring (1/4")	26	503-1274	1	Hose, Breather - Spec A Through R - <b>NOTE:</b> See Cylinder Block Group - Spec S
14	LEAD - Glow Plug to Manifold Heater			27	505-0180	1	Plug, Pipe (1/4" Countersunk) Intake Manifold (Early Models)
			<b>No. 1 Cylinder</b>				
	336-1314	1	Round Terminal (10-1/4")				
	336-1504	1	Blade Terminal (12-1/4")				
			<b>No. 2 and 3 Cylinder (5-1/4")</b>				
	336-1313	2	Round Terminal				
	336-1505	2	Blade Terminal				
			<b>No. 4 Cylinder</b>				
	334-0030	1	Round Terminal (18")				
	336-1504	1	Blade Terminal (12-1/4")				

\* - Parts Included in 154-1378 Intake Manifold Kit

# INJECTION SYSTEM



FS-1586

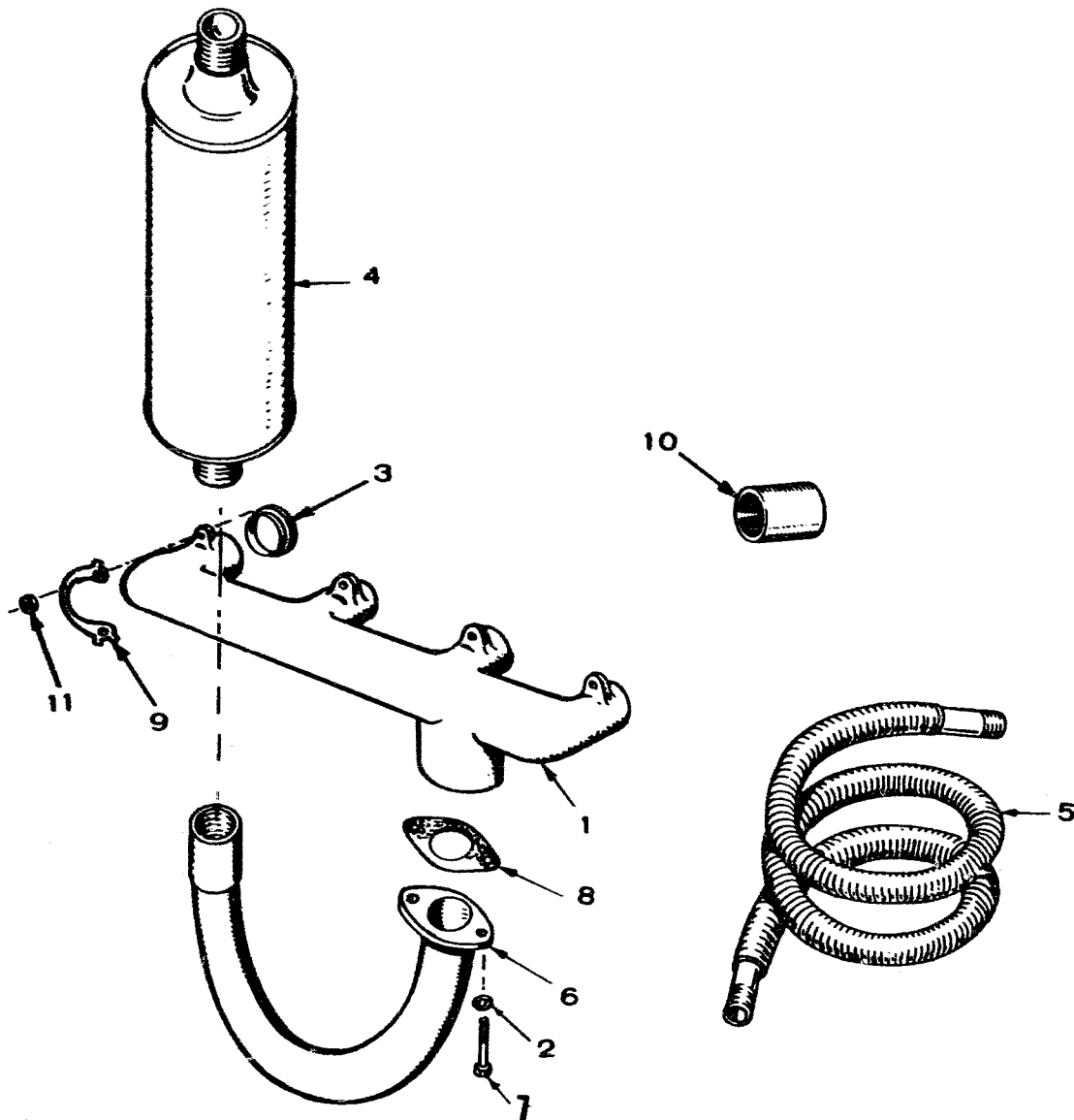
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	149-1046	1	Repair Kit, Fuel Pump (Includes Diaphragm and Gaskets)	8	149-0769	1	Plug, Air Bleed - Spec A Through R
1	801-0074	1	Screw, Cap - Hex Head (7/16-20 x 1-3/4") Begin Spec S	9	502-0041	2	Elbow, Fuel Filter Inlet and Outlet - Spec A Through R
2	526-0068	1	Washer, Flat - Copper (29/64" ID 3/4" OD x 1/16") Begin Spec S	10	149-0408	1	Filter, Fuel (Includes Cartridge) Spec A Through R
3	801-0053	1	Screw, Cap - Hex Head (3/8-24 x 1-3/4") Begin Spec S	11	149-0456	1	Gasket, Bowl to Cover - Spec A Through R
4	526-0066	1	Washer, Flat - Copper (25/64" ID x 9/16" OD x 11/16" Thk) Begin Spec S	12	149-0455	1	Gasket, Bowl to Cover - Spec A Through R
5	502-0028	1	Plug, Hex Head - Spec A Through R	13	149-0428	1	Cartridge, Fuel Filter - Spec A Through R
6	122-0325	1	Filter, Fuel - Primary Begin Spec S	14	149-0493	1	Gasket, Cartridge to Retainer - Spec A Through R
7	122-0326	1	Filter, Fuel - Secondary	15	LINE, FUEL - Pump to Primary Filter 149-0806 149-1189 502-0003	1 1 1	Spec A Through R Begin Spec S Connector, Pipe - Begin

# INJECTION SYSTEM

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
17	LINE, FUEL - Secondary Filter to Injection Pump			48	147-0136	4	Nozzle and Holder Assembly (Includes Parts Marked +)
	501-0091	1	Spec A Through R	49	147-0134	4	+Nozzle - Includes Nozzle Gasket
	501-0129	1	Begin Spec S	50	147-0243	4	+Gasket, Nozzle
18	502-0099	1	Elbow, Reducer - Begin Spec S	51	147-0043	4	Gasket, Nozzle Heat Shield (Asbestos)
19	147-0254	1	*‡Gasket, Delivery Valve Cap	52	147-0044	8	Shield, Nozzle Heat (Steel)
20	147-0253	1	Cap, Delivery Valve	53	110-0419	4	Gasket, Shield to Head (Copper)
21	149-1185	1	Adapter, Fuel Filter - Begin Spec S	54	ELBOW, PIPE - Injection Pump Inlet		
22	501-0007	2	Line, Fuel - Flexible (24") Fuel Pump Inlet and Fuel Return	502-0054	1	Spec A Through R	
23	502-0002	2	Elbow, Pipe - 90° (Inlet and Outlet)	502-0039	1	Begin Spec S	
24	147-0203	1	*‡Gasket, Copper - Timing Screw	55	147-0577	1	*‡Fitting, Fuel Overflow
25	800-0027	2	#Screw, Cap - Hex Head (5/16-18 x 7/8")	56	862-0015	4	Nut, Hex (5/16-18)
26	850-0045	2	Washer, Lock - Spring (5/16")	57	850-0045	4	Washer, Lock - Spring (5/16")
27	149-1307	2	#Stiffener, Fuel Pump Flange	58	526-0115	4	Washer, Flat - (11/32" ID x 11/16" OD x 1/16" Thk)
28	149-1704	1	Pump Kit, Fuel (Includes Parts Marked #)	59	PUMP KIT, INJECTION		
29	BAIL, FUEL PUMP BOWL (Measure for Correct Length)			147-0231	1	Spec A Through Q (Includes Governor Ball Joint, Nut and Parts Marked *)	
	149-1006	1	3-5/8" Long	147-0232	1	Begin Spec R (Includes Governor Ball Joint, Nut and Parts Marked ‡)	
	149-1169	1	#2-7/8" Long	60	147-0182	1	*‡Tappet, Injection Pump
30	BOWL, FUEL PUMP (Measure for Correct Length)			61	147-0196	1	*‡Gasket, "O" Ring - Injection Pump Tappet
	149-0116	1	2-3/8" Long	62	509-0094	1	*‡Seal, "O" Ring - Injection Pump Mounting
	149-1168	1	#1-5/8" Long	63	147-0259	1	*‡Ring, Retaining - Timing Button
31	149-0517	1	#Gasket, Fuel Pump Bowl	64	BUTTON, INJECTION PUMP PLUNGER		
32	149-0463	1	#Screen, Fuel Pump	147-0147	1	*‡.119 - Marked 1 or A	
33	149-0792	1	#Gasket, Fuel Pump Mounting	147-0148	1	*‡.116 - Marked 2 or B	
34	LINE, INJECTION - No. 1 Cylinder			147-0149	1	.113 - Marked 3 or C	
	149-0963	1	Spec A Through P	147-0150	1	.110 - Marked 4 or D	
	149-1150	1	*Begin Spec R	147-0151	1	.107 - Marked 5 or E	
35	LINE, INJECTION - No. 2 Cylinder			147-0161	1	.104 - Marked 1 or No Mark	
	149-0964	1	Spec A Through P	147-0152	1	.101 - Marked 6 or F	
	149-1151	1	*Begin Spec R	147-0153	1	.098 - Marked 7 or H	
36	LINE, INJECTION - No. 3 Cylinder			147-0154	1	.095 - Marked 8 or J	
	149-0919	1	Spec A	147-0155	1	.092 - Marked 9 or K	
	149-0965	1	Spec B Through P	147-0156	1	.089 - Marked 10 or L	
	149-1152	1	*Begin Spec R	147-0190	1	*‡.122 - Marked 12 or M	
37	LINE, INJECTION - No. 4 Cylinder			147-0189	1	*‡.125 - Marked 13 or N	
	149-0920	1	Spec A	147-0188	1	.128 - Marked 14 or P	
	149-0966	1	Spec B Through P	147-0187	1	.131 - marked 15 or R	
	149-1153	1	*Begin Spec R	147-0186	1	.134 - Marked 16 or S	
38	LINE, FUEL RETURN - No. 1 Cylinder			65	147-0145	1	Shim Kit - Injection Pump Mounting
	149-0909	1	Spec A Through N	66	520-0129	4	Stud, Injection Pump Mounting
	149-1060	1	Begin Spec P	67	502-0080	2	Plug, Square Head
39	LINE, FUEL RETURN - No. 2 and No. 3 Cylinders			68	149-1078	1	Filter, Fuel (Includes Cartridge) Fuel Tank to Fuel Pump - Spec A Through R
	149-0908	2	Spec A Through N	69	149-0846	1	Cartridge, Fuel Filter - Spec A Through R
	149-1059	2	Begin Spec P	70	147-0258	1	*‡Spacer, Valve
40	LINE, FUEL RETURN - No. 4 Cylinder			71	147-0256	1	*‡Spring, Delivery Valve
	149-0910	1	Spec A Through N	72	147-0287	4	*‡Fitting, Discharge
	149-1061	1	Begin Spec P				
41	LINE, FUEL RETURN - Adapter Tee to Injection Pump						
	149-0949	1	Spec A Through N				
	149-1062	1	Begin Spec P				
42	502-0245	1	Tee, Adapter - Fuel Return Lines				
43	502-0002	2	Elbow, Pipe (90°) No. 2 and No. 3 Nozzle Fuel Return Outlet				
44	502-0065	2	Elbow, Pipe (45°) No. 1 and No. 4 Nozzle Fuel Return Outlet				
45	114-0171	8	Screw, Cap - Hex Head (Special)				
46	526-0122	8	Washer, Flat (11/32" ID x 23/32" OD x 0.1345 Thk)				
47	147-0144	4	Flange, Injection Nozzle				

# - Parts Included in 149-1704 Fuel Pump Kit  
+ - Parts Included in 147-0136 Nozzle and Holder Assembly  
\* - Parts Included in 147-0231 Injection Pump Kit  
‡ - Parts Included in 147-0232 Injection Pump Kit

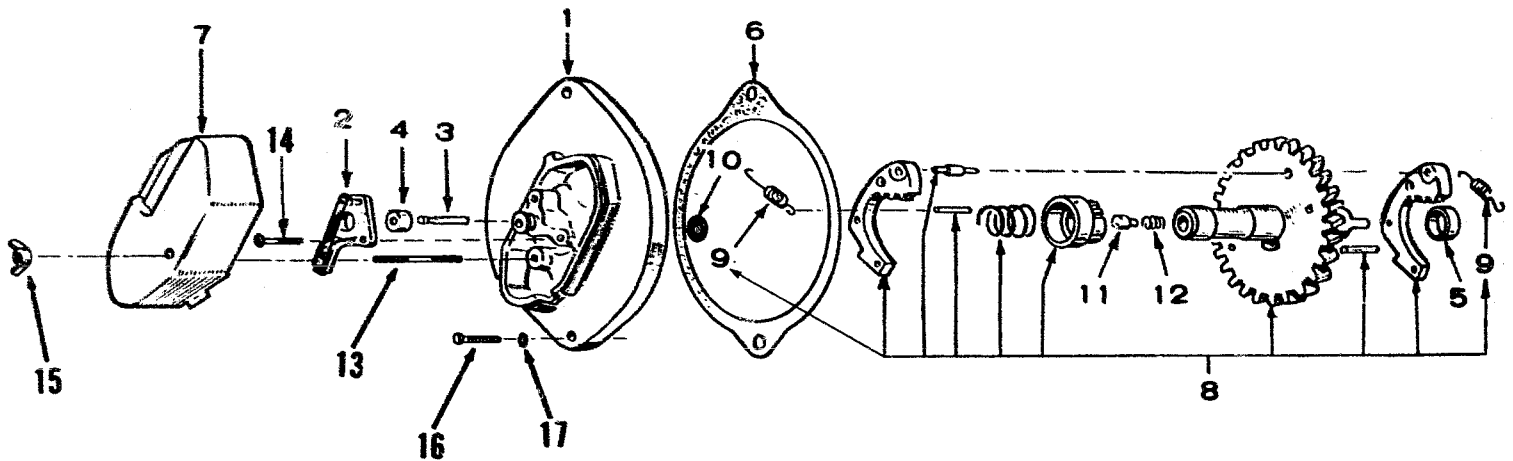
## EXHAUST SYSTEM



EXS-1117

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	154-0714	1	Manifold, Exhaust
2	850-0050	2	Washer, Lock - Spring (3/8")
3	154-1057	4	Gasket, Exhaust Manifold
4	155-0456	1	Muffler, Exhaust (15" Long)
5	155-0493	1	Tube, Exhaust - Flexible (36" Long)
6	155-0806	1	Tube, Exhaust Outlet
7	800-0052	2	Screw, Cap - Hex Head (3/8-16 x 1-1/2")
8	154-0738	1	Gasket, Exhaust Outlet
9	154-1665	4	Tab, Lock
10	505-0032	1	Coupling, Pipe (1-1/2") Unhoused Sets
11	110-0445	8	Nut, Hex (Special)

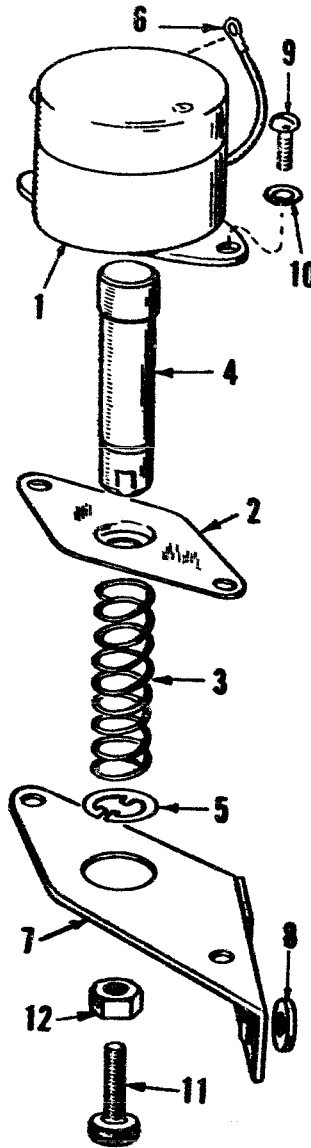
## START DISCONNECT



XM-1138

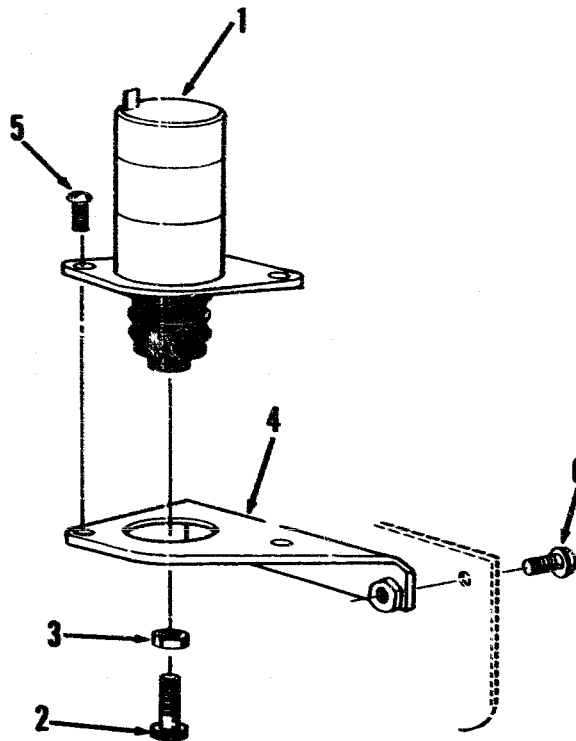
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	191-0496	1	Plate
2	309-0134	1	Switch Assembly (Includes Leads)
3	309-0152	1	Plunger, Switch
4	160-0382	1	Diaphragm, Switch Plunger
5	160-0720	1	Spacer, Switch Plate
6	160-0721	1	Gasket, Plate
7	191-0392	1	Cover, Switch Plate
8	191-0388	1	Control Assembly, Switch
9	160-0711	2	Spring, Weight (Included in Switch Control Assembly)
10	160-0806	1	Disc, Thrust Plunger
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 (#8-32 x 3/8")
15	865-0011	1	Nut, Wing (#10-32)
16	800-0051	2	Screw, Cap - Hex Head (3/8-16 x 1-1/4")
17	850-0050	2	Washer, Lock - Spring (3/8")

## STOP SOLENOID (SPEC A THROUGH AC)



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	307-0628	1	Solenoid, Stopping
2	306-0162	1	Retainer, Solenoid Plunger
3	306-0161	1	Spring, Solenoid Plunger
4	306-0159	1	Plunger, Solenoid
5	518-0203	1	Ring, Snap - Spring Retaining
6	336-0706	1	Lead, Solenoid Ground
7	306-0158	1	Bracket, Solenoid Mounting
8	526-0180	1	Spacer, Solenoid Bracket Mounting
9	812-0148	2	Screw, Round Head Machine (1/4-20 x 1/2'')
10	850-0040	2	Washer, Lock - Spring (1/4'')
11	306-0242	1	Screw, Brass - Solenoid Plunger
12	862-0001	1	Nut, Hex (1/4-20)

## STOP SOLENOID (BEGIN SPEC AD)

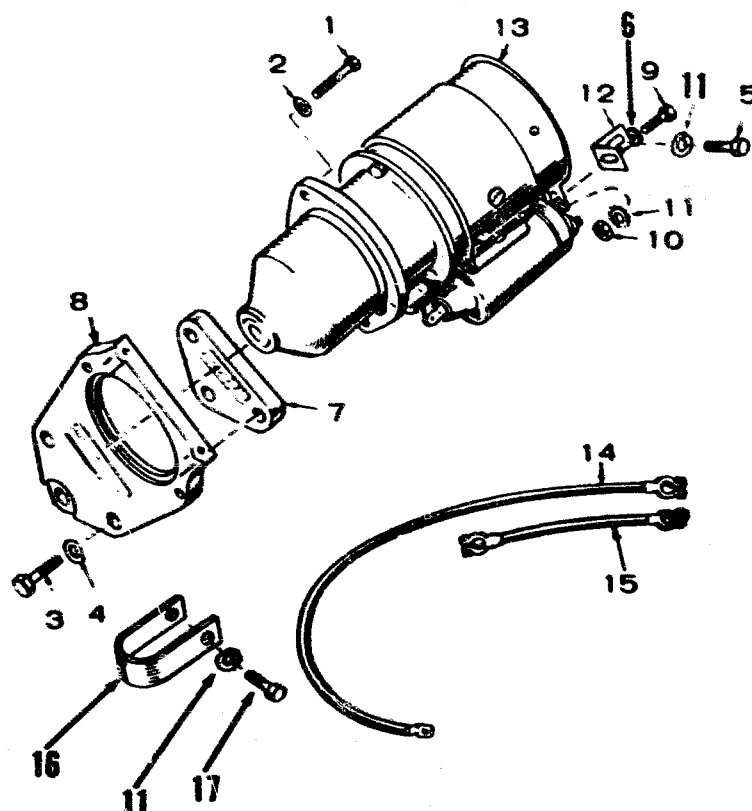


ES-1305

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	307-1904	1	Solenoid, Stop
2	306-2256	1	Screw, Solenoid Adjust
3	862-0001	1	Nut, Hex (1/4-20)
4	BRACKET, SOLENOID		
	306-2254	1	Radiator Cooled Sets
	306-2979	1	City Water Cooled Sets
5	821-0010	2	Screw, Hex Locking Head (Flange) (1/4-20 x 1/2")
6	SCREW, HEX LOCKING HEAD (FLANGE) (1/4-20 x 5/8")		
	821-0018	1	Radiator Cooled Sets
	821-0018	2	City Water Cooled Sets



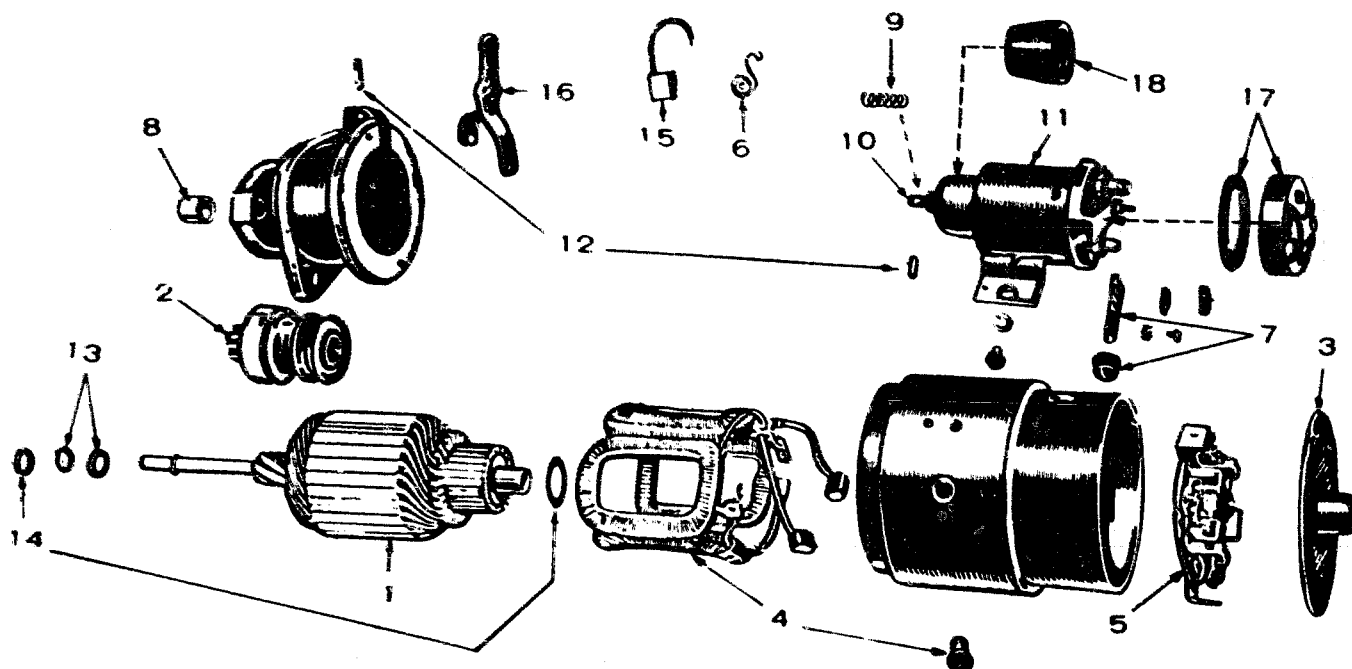
## STARTER (SPEC A THROUGH AC)



ES-1517

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	526-0026	1	Washer, Flat (13/32" ID x 3/4" OD x 1/16" Thk)
7	191-0311	1	Spacer, Starter
8	191-1190	1	Flange, Starter
9	800-0046	1	Screw, Cap - Hex Head (3/8-16 x 1/2")
10	864-0003	1	Nut, Hex (3/8-16)
11	856-0010	3	Washer, Lock - EIT (3/8")
12	191-0365	1	Bracket, Starter
13	191-0324	1	Starter (See Separate Group for Components)
14	CABLE, BATTERY		
	416-0021	2	Sets Without Skid Base (20-1/2")
	416-0037	2	Sets With Skid Base (48")
15	416-0133	1	Cable, Battery Jumper
16	416-0096	1	Clamp, Battery Cable
17	800-0047	1	Screw, Cap - Hex Head (3/8-16 x 5/8")

## STARTER PARTS (SPEC A THROUGH AC)

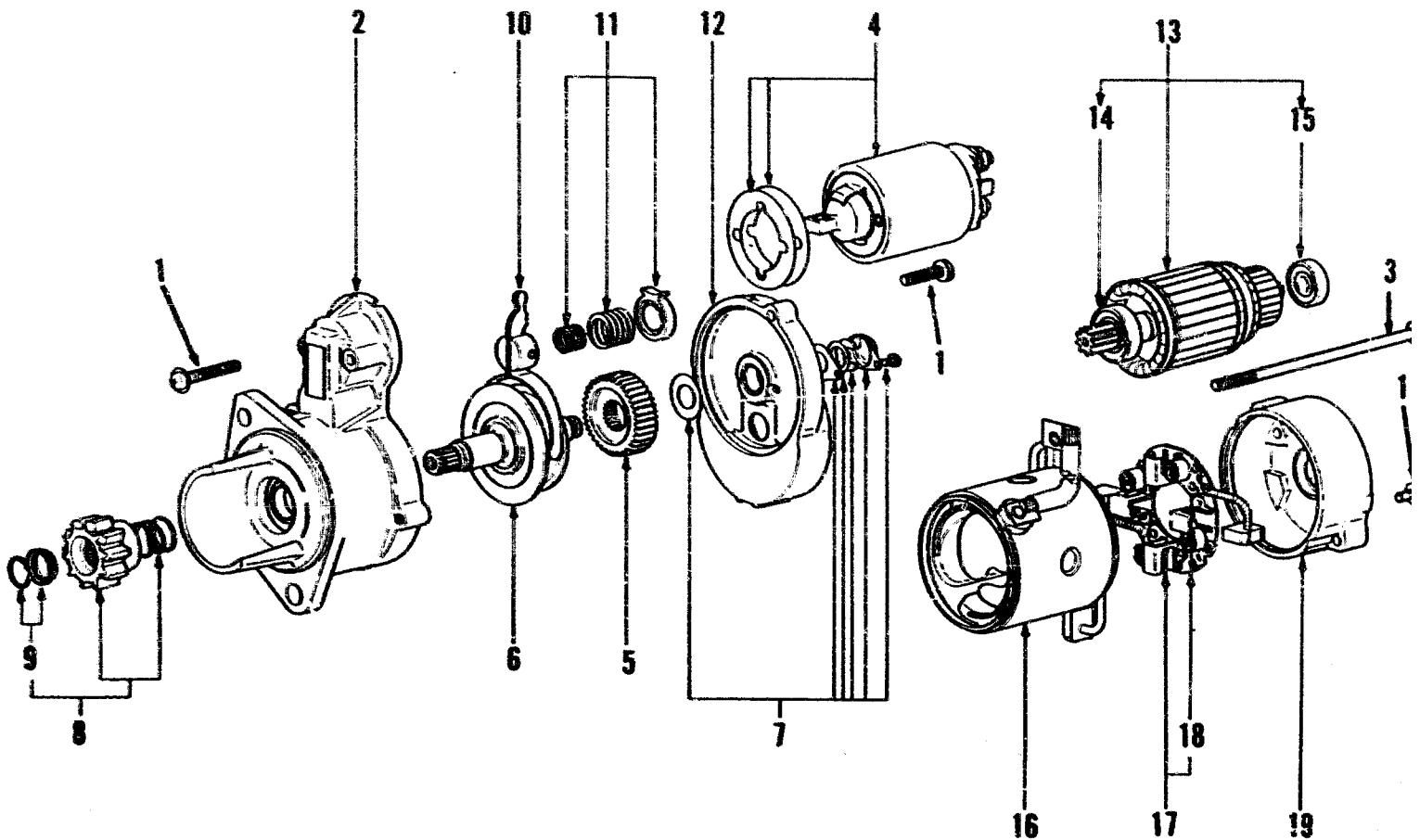


ES-1

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	191-0324	1	Starter
1	191-0712	1	Armature
2	191-0432	1	Clutch
3	191-1023	1	Head Assembly, Commutator End
4	191-1024	1	Coil Package, Field
5	191-1025	1	Plate Assembly, Brush
6	191-1020	1	Spring Set, Brush (Set of 4)
7	191-1263	1	Connector Package
8	191-0497	1	Bearing (Bronze), Drive End
9	191-1027	1	Spring, Plunger
10	191-1028	1	Core Assembly, Moving

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
11	191-0433	1	Switch, Solenoid
12	191-1029	1	Yoke Parts Package
13	191-1030	1	Stop and Lock Ring Package, Pinion
14	191-1031	1	Thrust Washer Package, Armature (Use as Required)
15	191-0434	1	Brush Set, Service
16	191-1032	1	Yoke
17	191-1569	1	Switch Cover and Stud Package
18	191-1134	1	Boot, Rubber - Part of Moving Core Assembly

# STARTER PARTS (BEGIN SPEC AD)



XES-13

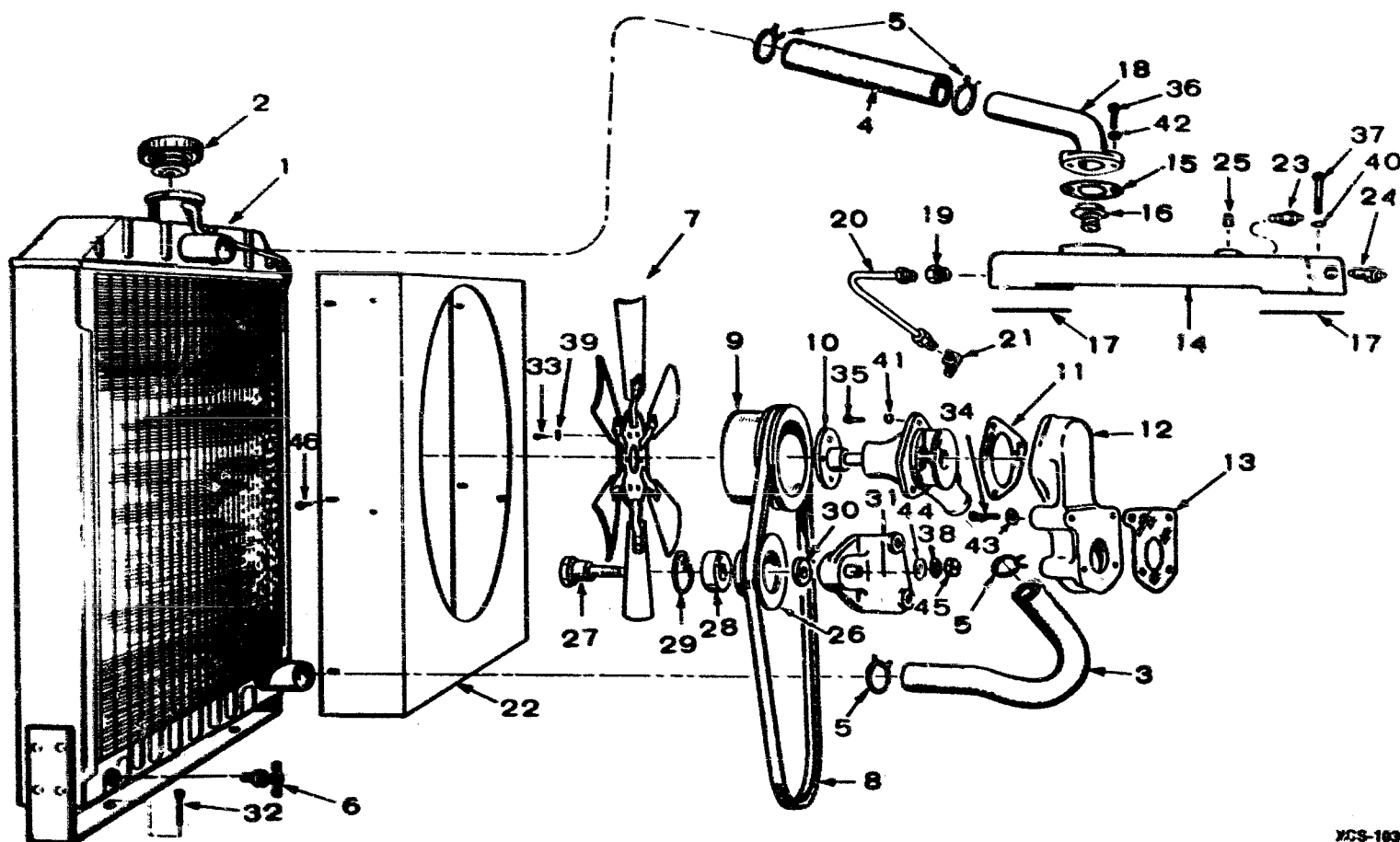
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	191-1399	1	Starter
1	191-1450	1	Screw Set
2	191-1479	1	Bracket, Front - Includes Bearing
3	191-1431	1	Bolt Set
4	191-1486	1	Switch
5	191-1446	1	Gear
6	191-1482	1	Clutch
7	191-1444	1	Cover Set
8	191-1483	1	Pinion Set (includes Parts Marked *)
9	191-1442	1	*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

# RADIATOR COOLING SYSTEM



YCS-1630

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	132-0082	1	Repair Kit, Water Pump - Spec A Through C (Includes Shaft, Bearing, Impeller, Fan Hub, Seal and Mounting Gasket)
1	RADIATOR		
	130-0569	1	Spec A through AB
	130-1551	1	Begin Spec AC
2	CAP, RADIATOR		
	130-0553	1	Spec A through AB
	130-1672	1	Begin Spec AC
3	HOSE, LOWER RADIATOR		
	503-0204	1	Spec A through AB
	503-1049	1	Begin Spec AC
4	503-0400	1	Hose, Upper Radiator
5	503-0129	4	Clamp, Radiator Hose
6	504-0003	1	Valve, Radiator Drain
7	FAN, RADIATOR		
	130-0343	1	Spec A through AB (4 Blades)
	130-1552	1	Begin Spec AC (6 Blades)
8	BELT, FAN		
	511-0086	1	Spec A through AB
	511-0101	1	Begin Spec AC
9	512-0039	1	Pulley, Water Pump
10	PUMP, WATER		
	132-0105	1	Spec A through C - Replacement Kit (Includes Parts Marked *)
	132-0133	1	*Begin Spec D
11	132-0072	1	*Gasket, Water Pump Mounting

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
12	HOUSING, WATER PUMP	1	Spec A through C (Order 132-0105 Water Pump Kit)
	131-0186	1	*Begin Spec D
13	131-0139	1	*Gasket, Water Pump Housing
14	131-0137	1	Housing, Water Outlet Cylinder Head
15	131-0140	1	Gasket, Water Outlet Elbow
16	309-0054	1	Thermostat
17	309-0145	2	Gasket, Water Outlet Housing
18	131-0138	1	Elbow, Water Outlet
19	502-0036	1	Connector, Inverted Male - By-Pass Line to Housing
20	130-0592	1	Line, Water By-Pass
21	502-0043	1	Elbow, Inverted Male - By-Pass Line to Pump
22	130-1673	1	Shroud, Fan - Begin Spec AC
23	309-0179	1	Switch, High Temperature Cut-Off (Not Used on Pennsylvania Approved Sets)
24	SENDER, WATER TEMPERATURE		
	193-0104	1	Spec A through AA
	193-0246	1	Begin Spec AB
25	PLUG, SQUARE HEAD - Water Outlet Housing		
	505-0110	1	3/8" (Pennsylvania Approved Sets Use 2)
	505-0054	1	1/4" Used on Early Models
26	130-0557	1	Pulley, Idle
27	130-0556	1	Shaft, Idler Pulley
28	510-0025	1	Bearing, Ball

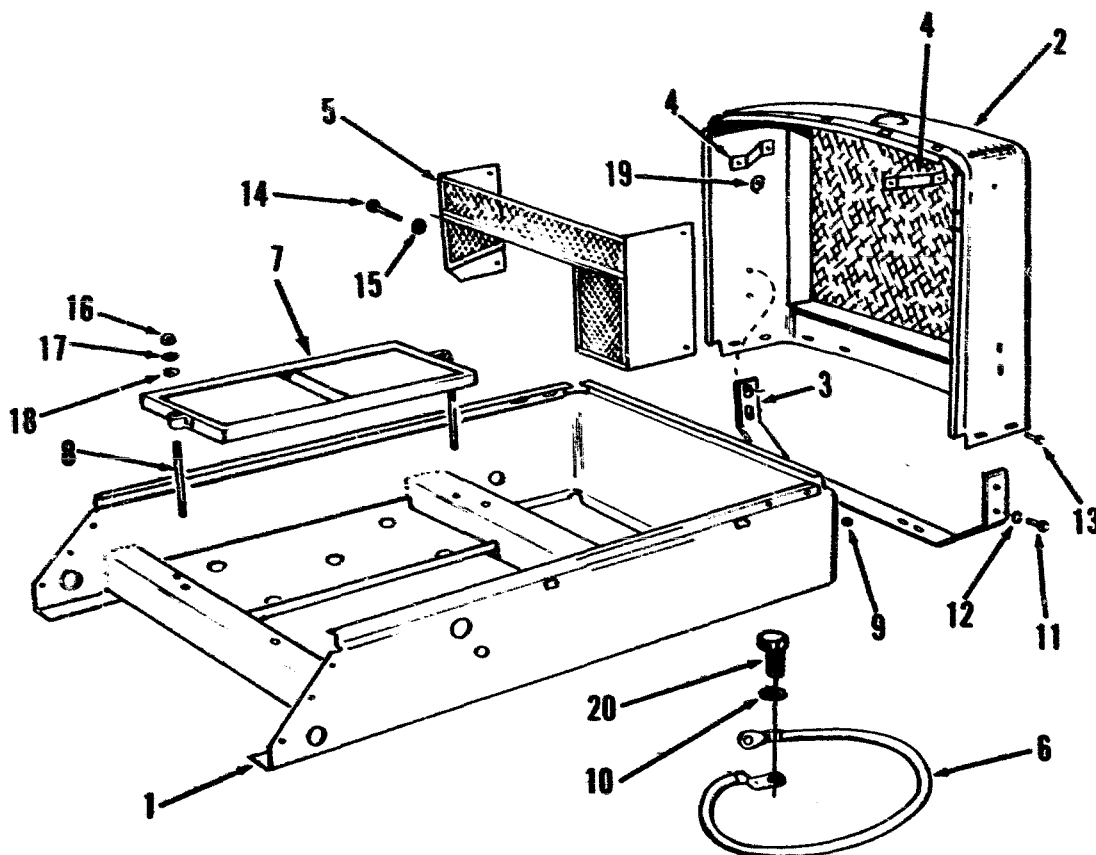
## RADIATOR COOLING SYSTEM

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
29	518-0210	1	Ring, Snap
30	130-0560	1	Spacer, Idler Pulley
31	BRACKET, IDLER PULLEY	1	Spec A through C (Order 132-0105 Water Pump Kit)
	130-0680	1	*Begin Spec D
32	816-0152	2	Bolt, Carriage (3/8-16 x 2") Radiator to Radiator Mounting Support
33	SCREW, CAP - HEX HEAD (Fan and Pulley Mounting)		
	800-0027	4	Spec A through C (5/16-18 x 7/8")
	800-0029	4	Begin Spec D (5/16-18 x 1-1/8")
34	SCREW, CAP - HEX HEAD (Water Pump Housing Mounting)		
	800-0064	2	*Begin Spec D (3/8-16 x 4-1/2")
	800-0057	2	Begin Spec D (3/8-16 x 2-3/4")
	800-0058	2	*Replacement Kit (3/8-16 x 3")
35	SCREW, CAP - HEX HEAD (Water Pump Mounting)		
	800-0027	2	5/16-18 x 7/8"
	800-0031	1	5/16-18 x 1-1/2"
36	800-0030	2	Screw, Cap - Hex Head (5/16-18 x 1-1/4") - Water Outlet Elbow Mounting

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
37	800-0034	4	Screw, Cap - Hex Head (5/16-18 x 2-1/4") - Water Outlet Housing Mounting
	WASHER, LOCK - SPRING		
38	850-0060	1	1/2" - Idler Pulley Mounting
39	850-0045	4	5/16" - Fan and Pulley Mounting
	WASHER, FLAT - COPPER (21/64" ID x 9/16" OD x 1/16" Thk)		
40	526-0065	4	Water Outlet Housing Mounting
41	526-0065	3	Water Pump Mounting
42	526-0065	2	Water Outlet Elbow Mounting
43	526-0066	4	*Washer, Flat - Copper 25/64" ID x 9/16" OD x 1/16" Thk) Water Pump Housing Mounting
44	526-0219	1	Washer, Flat - Steel (17/32" ID x 1" OD x 1/8" Thk) Idler Pulley Mounting
45	110-0707	1	Nut, Idler Pulley Mounting (Special)
46	815-0531	6	Screw, Hex Head Washer (#8-32 x 3/8") - Shroud to Radiator

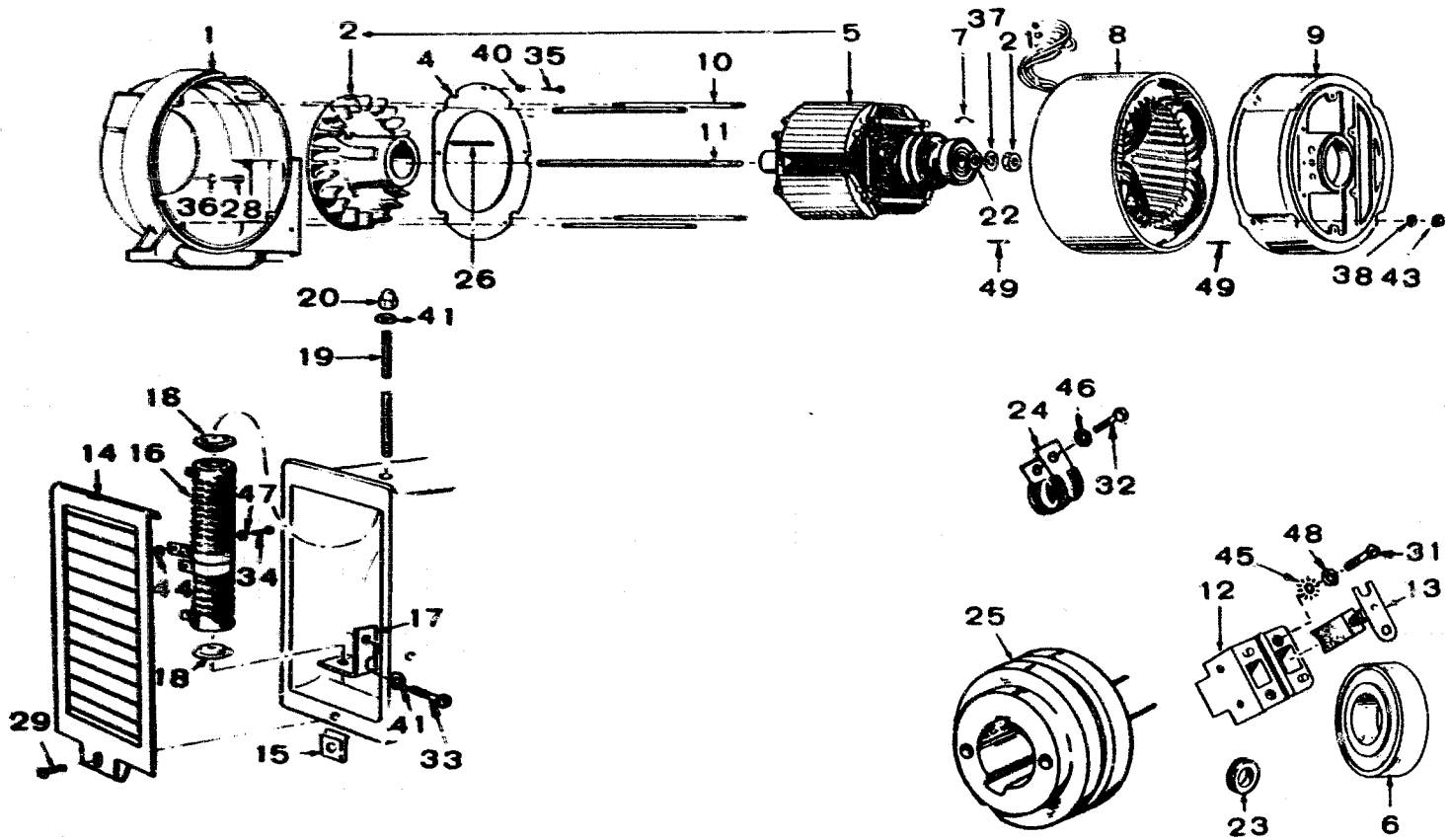
\* - Parts Included in 132-0105 Water Pump Replacement Kit.

## CHASSIS

**WL-1552**

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	CHASSIS 403-0658	1	Spec A	11	800-0024	4	Screw, Cap - Hex Head (5/16-18 x 1/2")
	403-0718	1	Begin Spec B				Radiator Bracket to Front End Panel
	403-1670	1	Sets Without Integral Fuel Tank	12	850-0045	4	Washer, Lock - Spring (5/16") Radiator Bracket to Front End Panel
2	PANEL, FRONT END (Radiator Grille)		Sets With Integral Fuel Tank	13	821-0014	8	Screw, Locking Head (5/16-18 x 1/2") Front Panel to Chassis
	405-1079	1	Spec A Through AB	14	800-0048	4	Screw, Cap - Hex Head (3/8-16 x 3/4") Fan Guard to Radiator
	405-2602	1	Begin Spec AC	15	850-0050	4	Washer, Lock - Spring (3/8") Fan Guard to Radiator
3	130-0396	1	Support, Radiator Mounting	16	862-0015	4	Nut, Hex (5/16-18) Battery Holddown
4	BRACKET, RADIATOR			17	526-0024	2	Washer, Flat (21/64" ID x 3/4" OD x 1/16" Thk) Battery Holddown
	130-0397	2	Spec A Through AB	18	850-0045	4	Washer, Lock - Spring (5/16") Battery Holddown
	130-1681	2	Begin Spec AC (Includes Washers)	19	526-0013	16	Washer, Flat (25/64" ID x 1" OD x 1/16" Thk) Radiator Bracket
5	GUARD, FAN			20	800-0047	1	Screw, Cap - Hex Head (3/8-16 x 5/8")
	130-0623	1	Spec A Through AB				
	130-1684	1	Begin Spec AC				
6	336-0476	1	Lead, Ground (12-1/4")				
7	416-0495	1	Frame, Battery Holddown				
8	520-0669	2	Stud, Battery Holddown Frame				
9	862-0003	2	Nut, Hex (3/8-16) Radiator to Chassis				
10	856-0010	1	Washer, Lock - EIT (3/8")				

# GENERATOR - SPEC A THROUGH Z



XG-1075

## GENERATOR - SPEC A THROUGH Z

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	ADAPTER, ENGINE TO GENERATOR		
	231-0096	1	Spec A Only
	231-0112	1	Spec B through Z
2	205-0064	1	Blower, Generator
4	234-0162	1	Baffle, Generator Air
5	201-1122	1	Rotor Assembly, Wound (Includes Bearing and Blower)
6	510-0047	1	Bearing, Rotor
7	232-0596	1	Clip, Bearing Stop
8	STATOR, WOUND		
			<b>50 Hertz</b>
	220-0797	1	120/240 Volt
	220-0871	1	220/380 Volt
			<b>60 Hertz</b>
			120/240 Volt
	220-0736	1	Single Phase Sets
	220-0766	1	Three Phase Sets
	220-0737	1	120/208 Volt
	220-0756	1	277/480 Volt
	220-0768	1	347/600 Volt
	220-0766	1	Broad Range Reconnectible Sets
9	BELL, END - ALTERNATOR TO EXCITER		
	211-0146	1	Sets Without Overspeed Switch
	211-0152	1	Sets With Overspeed Switch
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	234-0199	1	Cover, Air Outlet
15	870-0177	1	Clip, Air Outlet Cover
16	304-0500	1	Resistor, Tapped Adjustable
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 (1/4-20)
21	870-0203	1	Nut, Rotor Stud (7/16-20)
22	232-0200	1	Washer, Rotor Stud
23	GROMMET, RUBBER		
	508-0095	1	Air Baffle
	508-0112	1	Generator Adapter

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
24	332-0050	1	Clip, Brush Wires
25	204-0061	1	Ring, Collector
26	515-0103	1	Key, Blower to Rotor
28	SCREW, HEX CAP		
	800-0050	2	Adapter Mounting (3/8-16 x 1")
	800-0051	2	Adapter Mounting (3/8-16 x 1-1/4")
	SCREW, ROUND HEAD		
29	812-0102	1	Air Outlet Cover Mounting (10-24 x 5/8")
31	812-0085	4	Brush Block Mounting (8-32 x 1-1/8")
32	811-0098	1	Brush Wires Clip Mounting (10-32 x 3/8")
33	812-0150	1	Resistor Mounting Bracket (1/4-20 x 5/8")
34	811-0098	1	Tapped Adjustable Resistor Mounting (10-32 x 3/8")
35	813-0098	5	Generator Air Baffle Mounting (10-32 x 3/8")
	WASHER, LOCK		
36	850-0050	4	Adapter Mounting (3/8")
37	850-0055	1	Rotor Stud (7/16")
38	850-0045	4	Generator Through Stud (5/16")
40	850-0030	5	Generator Air Baffle Mounting (#10)
41	850-0040	2	Resistor Bracket and Resistor Mounting (1/4")
	NUT		
43	862-0015	4	Generator Through Stud (5/16-18)
44	871-0010	1	Tapped Adjustable Resistor Mounting (10-32)
	WASHER, LOCK - TOOTH		
45	856-0002	4	Brush Block Mounting (#8)
46	856-0003	1	Brush Wires Clip Mtg. (#10)
47	856-0003	1	Tapped Adjustable Resistor Mounting (#10)
48	526-0049	4	Washer, Flat - Brush Block Mounting
49	516-0138	2	Pin, Roll (3/16" x 9/16") Alignment





**G-1169**

**Check set nameplate for magneclter number and use correct column.**



# 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 (RHMS #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"					As	Required				
	813-0101	#10-32 x 9/16"					As	Required				
	811-0098	#10-32 x 3/8" (Brass)					As	Required				
	813-0098	#10-32 x 3/8"					As	Required				
	815-0190	#8-32 x 3/8"					As	Required				
	815-0198	#8-32 x 5/8"					As	Required				
	815-0001	Screw, Machine - Binder Head (Brass) (#6-32 x 1/4")					As	Required				

## GENERATOR EXCITER - SPEC A THROUGH Z

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**XG-1074**

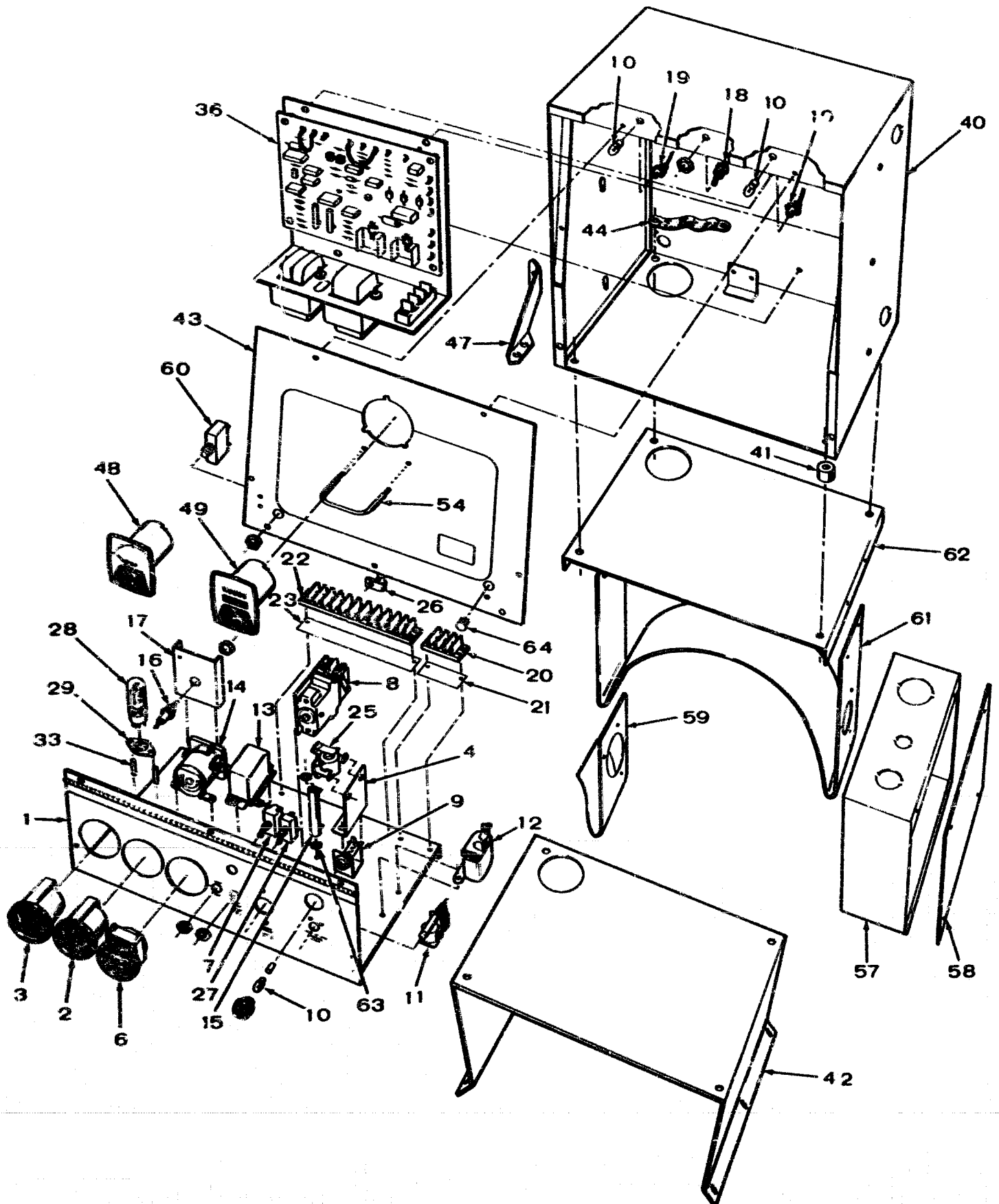
## GENERATOR - BEGIN SPEC AA

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	STATOR, GENERATOR			25	853-0013	1	Washer, Lock (1/4" ET) - Resistor Through Screw
	220-2026	1	12.5 RDJC Single Phase	26	809-0046	1	#Screw, Sheet Metal - Round Head (#10 x 3/4")
	220-2051	1	Three-Phase	27	862-0011	4	Nut, Hex (3/8-16) - Generator Through Stud
	220-2042	1	13.0 RDJC 120/208 Volt	28	870-0203	1	Nut, Hex (7/16-20) - Rotor Through Stud
	220-2017	1	120/240 Volt	29	871-0010	1	Nut, Hex - Brass (#10-32) Resistor Tap
	220-2043	1	277/480 Volt	30	526-0260	2	Washer, Flat (Special) - Exciter Stator
	220-2043	1	Broad Range Sets	31	232-0200	1	Washer - Cone Shaped (Special) Rotor Through Stud
	220-2018	1	15.0 RDJC Single Phase	32	853-0013	2	Washer, Lock (1/4" ET) - Exciter Stator
	220-2043	1	Three Phase All Except 347/600 Volt	33	856-0003	1	Washer, Lock (#10 EIT) - Resistor Tap
	220-2286	1	347/600 Volt	34	800-0004	2	Screw, Cap - Hex Head (1/4-20 x 5/8") - Exciter Stator Mounting
2	ROTOR ASSEMBLY, GENERATOR (Includes Parts Marked *)			35	SCREW, MACHINE - ROUND HEAD (End Bell Cover Mounting)		
	201-2158	1	All Except 13.0 RDJC 13.0 RDJC		812-0165	2	Sets Without Housing Sets Without Overspeed Switch (1/4-20 x 4-1/2")
	201-2157	1	120/208 and 120/240 Volt		812-0167	2	Sets With Overspeed Switch (1/4-20 x 6")
	201-2158	1	277/480 Volt and Broad Range Sets		812-0165	2	Sets Without Housing 1/4-20 x 4-1/2")
3	510-0112	1	*Bearing, Rotor	36	815-0194	6	Screw, Hex Head - Thread Cutting With ET (#10-32 x 3/8") Board (2) and Baffle (4) Mounting
4	232-2398	1	*Spacer Bearing	37	812-0169	1	Screw, Machine - Round Head (1/4-20 x 5-1/2") - Resistor Through
5	201-2151	1	*Rotor, Exciter	38	811-0098	1	Screw, Machine - Round Head (Brass) (#10-32 x 3/8") - Resistor Tap
6	515-0094	1	*Key, Exciter Rotor	39	800-0004	2	Screw, Cap - Hex Head (1/4-20 x 5/8") - Resistor Bracket
7	870-0284	1	*Nut, Exciter Rotor Locking	40	520-0790	1	Stud, Rotor Through
8	205-0105	1	*Fan, Generator	41	234-0462	1	Baffle, Air
9	508-0095	1	Grommet, Rubber - Air Baffle	42	508-0112	1	Grommet, Rubber - Generator Adapter
10	526-0008	12	*Washer, Flat (13/64" ID x 7/16" OD x 1/32" Thk)	43	211-0237	1	Bell, End
11	870-0131	8	*Nut, Hex (#10-32)	44	232-2418	1	Board, Connection
12	358-0069	1	*Rectifier Assembly - Positive	45	231-0171	1	Adapter, Generator
13	358-0070	1	*Rectifier Assembly - Negative	46	234-0494	1	Cover Assembly, Air Outlet (Includes Parts Marked #)
14	853-0008	4	*Washer, Shakeproof (#10)	47	304-0500	1	Resistor, Tapped - Adjustable (2 Ohm, 150 Watt)
15	813-0100	4	*Screw, Round Head (#10-32 x 1/2")	48	232-2399	1	Bracket, Resistor Mounting
16	515-0103	1	*Key - Fan to Rotor	49	304-0652	2	Washer, Centering - Resistor Mounting
17	220-2009	1	Stator, Exciter	50	870-0177	1	#Nut, Speed (#10)
18	COVER, END BELL			51	800-0050	4	Screw, Cap - Hex Head (3/8-16 x 1")
	234-0185	1	Sets Without Housing Sets Without Generator Space Heater or Overspeed Switch	52	850-0050	4	Washer, Lock - Spring (3/8")
	234-0498	1	Sets With Overspeed Switch				
	234-0542	1	Sets With Generator Space Heater				
	234-0543	1	Sets With Generator Space Heater and Overspeed Switch				
	234-0223	1	Sets With Housing Sets Without Generator Space Heater				
	234-0541	1	Sets With Generator Space Heater				
19	509-0094	1	Seal, Bearing ("O" Ring)				
20	520-0798	4	Stud, Generator Through				
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				

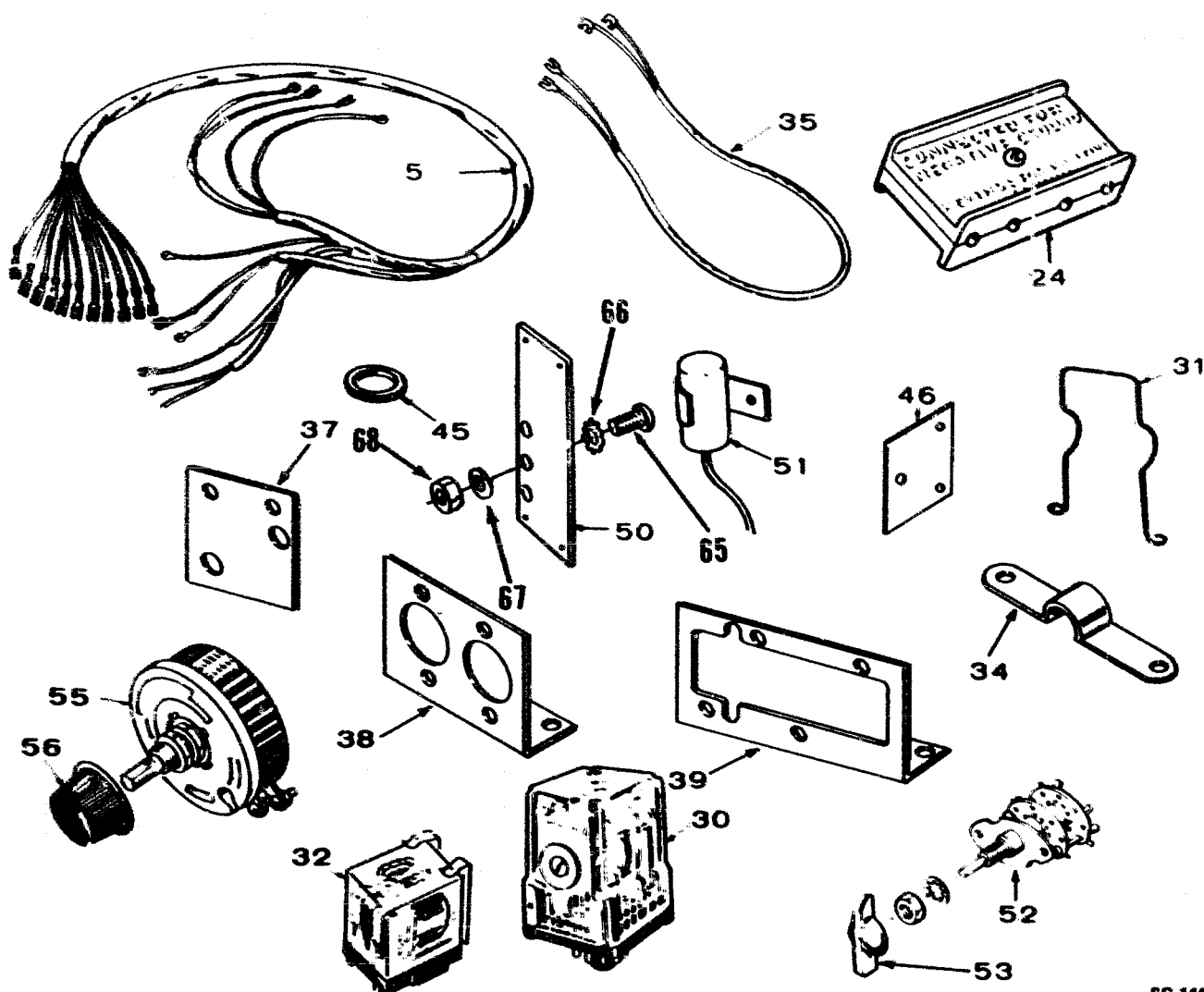
\* - Parts Included in Generator Rotor Assemblies.

# - Parts Included in 234-0494 Cover Assembly.

# CONTROL



## CONTROL



SC-1448

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	<b>PANEL, LOWER CONTROL</b>			9	322-0069	1	Receptacle, Signal Light (Not Used on Pennsylvania Approved Sets)
	301-2124	1	Sets With 1 Signal Light	10	322-0004	3	Bulb, Signal and Panel Light
	301-2125	1	Sets With 4 Signal Lights	11	307-0655	1	Relay, Emergency Latching (Not Used on Pennsylvania Approved Sets)
	301-2895	1	Pennsylvania Approved Sets Without Signal Lights	12	307-0052	1	Relay, Start-Disconnect
2	<b>GAUGE, WATER TEMPERATURE</b>			13	307-0597	1	Relay, Fuel Solenoid
	193-0106	1	Spec A through AA	14	307-0514	2	Relay - Starter Pilot and Manifold Heater
	193-0245	1	Begin Spec AB	15	304-0192	1	Resistor, Cranking Limiter (3 Ohm, 10 Watt)
3	<b>GAUGE, OIL PRESSURE</b>			16	305-0235	1	Rectifier, Charge (10 Amp, 100 Volt) - Includes Mounting Hardware
	193-0107	1	Spec A through AA	17	305-0254	1	Bracket, Rectifier Mounting
	193-0243	1	Spec AB	18	308-0002	1	Switch, Panel Light
	193-0272	1	Begin Spec AC	19	322-0072	2	Receptacle, Panel Light
4	301-1685	1	Bracket, Time Delay Relay Mounting (Sets With Low Oil Pressure Switch)	20	332-0611	1	Block, Terminal - 3 Place
5	338-0298	1	Harness, Wiring - Engine to Control	21	332-1C09	1	Strip, Marker - 3 Place
6	302-0446	1	Ammeter, Charge	22	<b>BLOCK, TERMINAL</b>		
7	<b>SWITCH, SELECTOR (Begin Spec U)</b>				332-0607	1	Sets With 1 Signal Light (12 Place)
	308-0220	1	All Except Pennsylvania Approved Sets (Run-Stop-Remote)		332-1005	1	Sets With 4 Signal Lights (20 Place)
	308-0068	1	Pennsylvania Approved Sets (Run-Remote)		332-0795	1	Pennsylvania Approved Sets Without Signal Lights (16 Place)
8	<b>LIMITER, CRANKING</b>						
	320-0104	1	Spec A through AA				
	320-0259	1	Begin Spec AB				

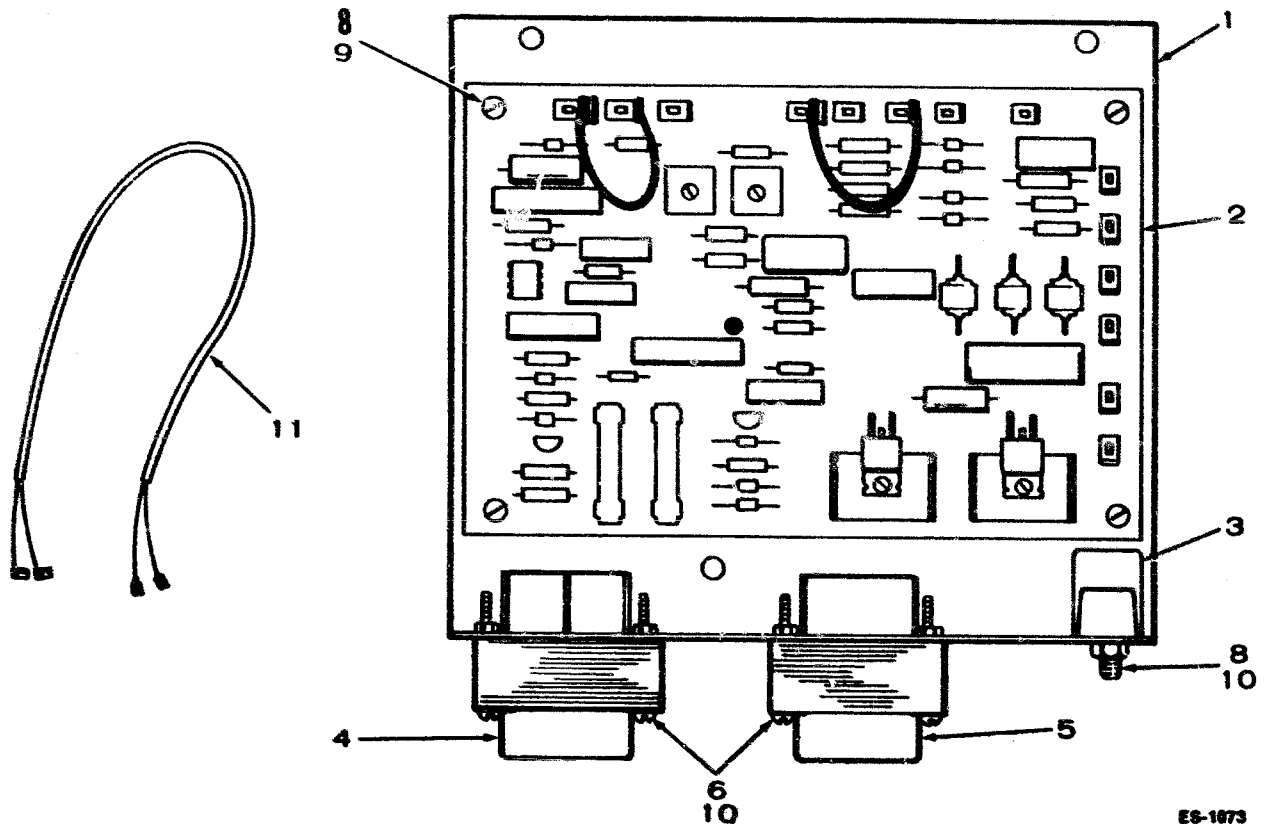


# CONTROL

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
23	STRIP, MARKER		Sets With 1 Signal Light (12 Place)
	332-0642	1	Spec A and B (Blank)
	332-0608	1	Begin Spec C
	332-1006	1	Sets With 4 Signal Lights (20 Place)
	332-0862	1	Pennsylvania Approved Sets Without Signal Lights (16 Place)
24	332-0750	1	Kit, Polarity Marker - Spec A through N
25	307-0388	1	Relay, Time Delay (Sets With Low Oil Pressure Switch)
26	CLIP, HARNESS SUPPORT		
	332-0051	1	7/16" ID
	332-0052	1	5/8" ID
27	308-0037	1	Switch, Manifold Heater
28	307-0645	1	Relay, Time Delay Preheat (20 Seconds) (Not Used on Sets With Continuous Glow Plug Control)
29	323-0321	1	Socket, Time Delay Preheat Relay
30	307-0819	1	Relay - Sets With Low Engine Temperature Switch
31	307-0778	1	Spring, Relay Holddown - Sets With Low Engine Temperature Switch
32	307-0860	1	Relay, Field Build-Up (Pennsylvania Approved Sets)
33	332-0943	2	Spacer, Relay Socket
34	332-1043	1	Jumper, Selector Switch - Sets Without Time Delay Preheat Relay
35	HARNESS, WIRING (Begin Spec AA)		
	338-0763	1	Voltage Regulator to Circuit Breaker
	338-0936	1	Voltage Regulator to Running Time Meter
36	305-0583	1	Regulator, Voltage - Begin Spec AA (See Separate Group for Components)
37	306-0195	1	Plate, Starter Relay Mounting - Key 2
	BRACKET, RELAY MOUNTING (Sets With Four Signal Lights)		
38	301-2393	1	Used for Low Oil Pressure and High Water Temperature Relays or 5 and 10 Second Cycle Cranker Relays
39	301-3252	1	Used for Generating and Low Engine Temperature Relays
40	301-2115	1	Box, Control
41	402-0078	4	Mount, Rubber
42	301-2106	1	Bracket, Mounting - Control Box (Unhoused Sets) - Spec A through Z
43	PANEL, UPPER CONTROL (Sets Without Optional Meter Panel)		
	301-1195	1	Spec A through Z All Except Pennsylvania Approved Sets
	301-2019	1	Pennsylvania Approved Sets Begin Spec AA
	301-2019	1	All Except Pennsylvania Approved Sets
	301-1788	1	Pennsylvania Approved Sets

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
44	STRAP, GROUND (Unhoused Sets)		
	337-0044	1	Spec A through Z
	337-0036	1	Begin Spec AA
45	GROMMET, RUBBER		
	508-0063	2	2-3/4" Hole - Unhoused Sets (Housed Sets Use 1)
	508-0183	1	1-3/4" Hole - Output Box
46	301-0648	1	Plate, Ground - Spec A through Z
47	301-1914	1	Bracket, Panel Stop
48	VOLTMETER, AC -		Pennsylvania Approved Sets
	302-0421	1	Single Phase Sets (Scale Reads 0-300)
	302-0422	1	Three Phase Sets (Scale Reads 0-600)
49	METER, RUNNING TIME - Begin Spec AA		
	302-0468	1	50 Hertz Sets
	302-0465	1	60 Hertz Sets
50	332-0513	1	Block, Terminal - 4 Place
51	312-0058	3	Condenser (.1 Mfd.) Spec A through Z
52	308-0012	1	Switch, Voltage Selector - Pennsylvania Approved 3 Phase Sets Begin Spec AA
53	303-0076	1	Knob, Voltage Selector Switch - Pennsylvania Approved 3 Phase Sets Begin Spec AA
54	301-2727	1	Handle, Upper Control Panel
55	303-0197	1	Rheostat (2500 Ohm, 25 Watt) Sets With Voltage Adjustment - Begin Spec AA
56	303-0032	1	Knob, Rheostat - Sets With Voltage Adjustment - Begin Spec AA
57	301-3682	1	Box, Output - Begin Spec AA
58	301-0856	1	Cover, Output Box - Begin Spec AA
59	301-3720	1	Bracket, Output Box (Housed Sets) Begin Spec AA
60	320-0505	1	Breaker, Circuit - Voltage Regulator - Begin Spec AA
61	301-3715	1	Saddle, Control Box Mounting (Unhoused Sets) Begin Spec AA
62	301-3716	1	Plate, Control Mounting (Unhoused Sets) Begin Spec AA
63	508-0017	2	Washer, Fiber - Resistor Mounting
64	517-0015	1	Plug, Dot Button
65	812-0185	3	Screw, Machine - Round Head (5/16-18 x 2-1/4")
66	854-0017	3	Washer, Lock - IT (5/16")
67	526-0054	3	Washer, Flat (21/64" ID x 3/4" OD x 1/16" Thk)
68	871-0025	3	Nut, Hex - Brass (5/16-18)

# VOLTAGE REGULATOR - BEGIN SPEC AA



ES-1073

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	305-0583	1	Regulator, Voltage (Includes Parts Marked *)
1	301-3719	1	*Panel, Voltage Regulator Mounting
2	300-1540	1	*Board, Voltage Regulator - Begin Spec AB (Replaces 300-1006 Board Used Prior to Serial Number F760142042 During Spec AA and 300-1404 Board Used Beginning Serial Number F760142042 During Spec AA)
3	332-1655	1	*Strip, Terminal
4	315-0386	1	*Transformer, Voltage
5	315-0391	1	*Reactor
6	812-0070	4	*Screw, Machine - Round Head (#6-32 x 1-1/4")
8	812-0063	6	*Screw, Machine - Round Head (#6-32 x 1/2")
9	853-0003	4	*Washer, Lock - ET (#6)
10	870-0183	6	*Nut, Hex - ET (#6-32)
11	HARNESS, WIRING (Voltage Regulator to Exciter Stator)		
	338-0762	1	Sets Without Overspeed Switch
	338-0768	1	Sets With Overspeed Switch

\* - Parts Included in 305-0583 Voltage Regulator.

## SERVICE KITS AND MISCELLANEOUS

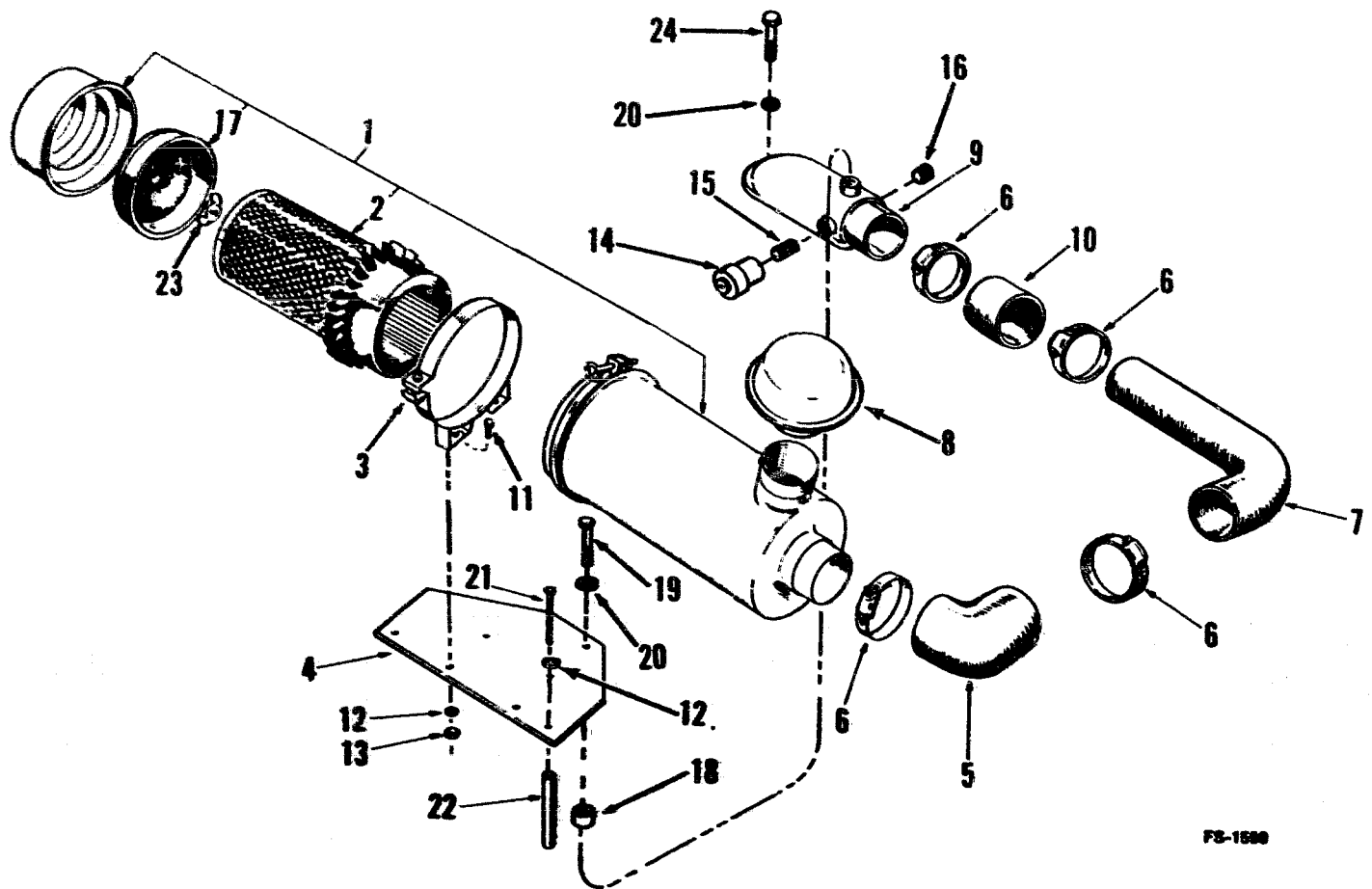
**NOTE:** For other kits refer to the related group.

<b>PART NO.</b>	<b>QTY. USED</b>	<b>PART DESCRIPTION</b>
<b>LABEL KIT</b>		
98-1100	1	General Service
98-2290	1	Diesel
168-0100	1	Gasket Kit, Engine
<b>OVERHAUL KIT, GENERATOR SET</b>		
522-0212	1	Spec A Through R
522-0264	1	Begin Spec S
<b>TOUCH-UP PAINT (13 oz. Pressurized Can)</b>		
525-0137		Metallic Green
525-0305		Non-metallic Green
525-0454		Greige - Enamel

# SPECIAL PARTS SECTION

## LRDJC GENERATOR SETS (RADIATOR COOLED)

### AIR INTAKE SYSTEM

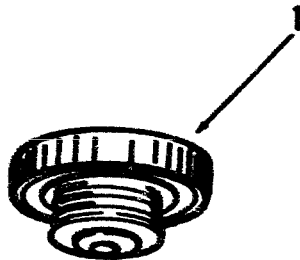


REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	140-0721	1	Cleaner, Air (Includes Element and Baffle)	14	140-0961	1	Indicator, Service
2	140-0765	1	Element, Air Cleaner	15	140-1260	1	Fitting, Service Indicator
3	140-0722	2	Band, Air Cleaner Mounting	16	505-0008	1	Plug, Slotted (1/8")
4	140-1557	1	Support, Air Cleaner	17	140-1267	1	Baffle, Air Cleaner
5	503-0419	1	Elbow, Rubber	18	191-0791	1	Spacer, Air Cleaner Support (3/8" Long)
6	503-0365	4	Clamp, Hose	19	800-0017	1	Screw, Cap - Hex Head (1/4-20 x 3-1/2")
7	140-1556	1	Tube, Air Inlet	20	850-0040	2	Washer, Lock - Spring (1/4")
8	140-1559	1	Hood, Air Inlet	21	800-0042	2	Screw, Cap - Hex Head (5/16-18 x 4-1/2")
9	140-1212	1	Adapter, Air Cleaner	22	403-1378	2	Spacer, Air Cleaner Support (3-5/16" Long)
10	503-0330	1	Hose, Connector	23	885-0020	1	Nut, Wing (1/4-20)
11	821-0014	4	Screw, Locking Head - Flange (5/16-18 x 1/2")	24	800-0007	1	Screw, Cap - Hex Head (1/4-20 x 1")
12	850-0045	6	Washer, Lock - Spring (5/16")				
13	870-0257	4	Nut, Self locking - Flange (5/16")				

# SPECIAL PARTS SECTION

## LRDJC GENERATOR SETS (RADIATOR COOLED)

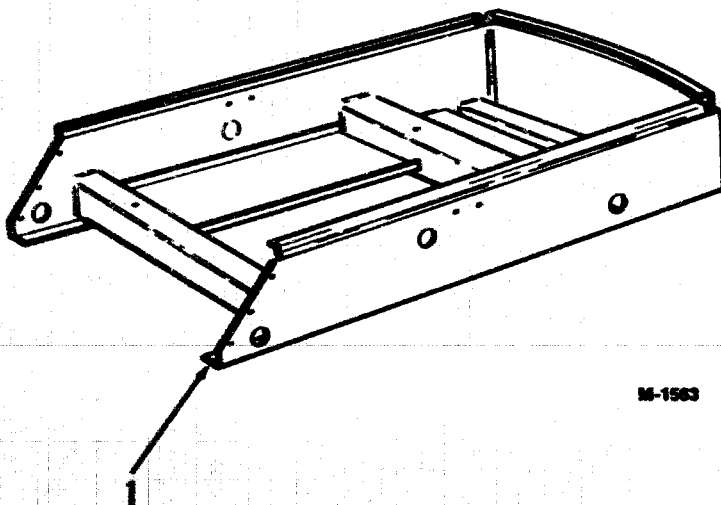
### RADIATOR COOLING SYSTEM



XCS-1638a

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	CAP, RADIATOR		
	130-0553	1	Spec AA
	130-0449	1	Spec AB
	130-1672	1	Spec AC

### CHASSIS



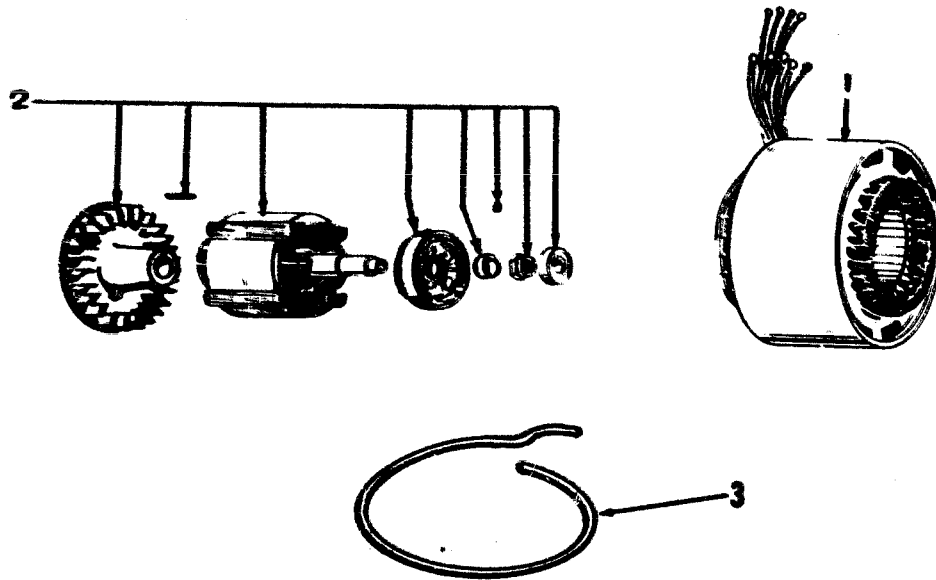
M-1583

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	CHASSIS, MOUNTING (Front Section)		
	403-0718	1	Spec AA
	403-1670	1	Begin Spec AB

# SPECIAL PARTS SECTION

## LRDJC GENERATOR SETS (RADIATOR COOLED)

### GENERATOR



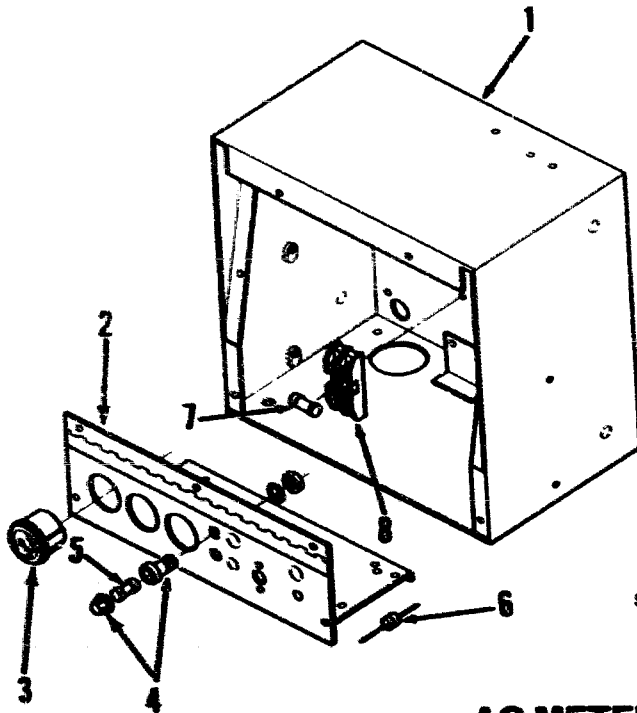
G-1170

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	STATOR, GENERATOR		
	220-2051	1	8.6 LRDJC Three Phase
	220-2043	1	11.3 LRDJC Three Phase
2	201-2158	1	Rotor Assembly, Generator - For Parts Included See Standard Section (Generator - Begin Spec AA)
3	508-0217	1	Edging, End Bell Cover -Begin Spec AB

# SPECIAL PARTS SECTION

## LRDJC GENERATOR SETS (RADIATOR COOLED)

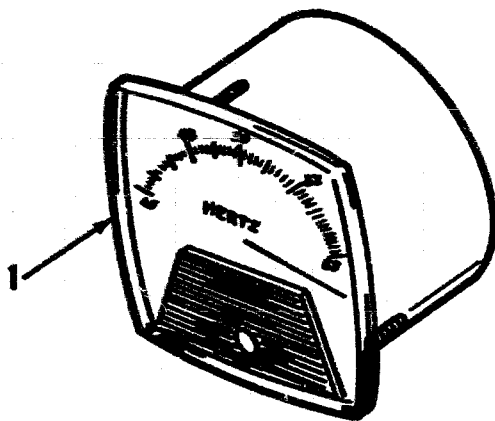
### CONTROL



SC-1451

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	301-4633	1	Box, Control
2	301-4632	1	Panel, Lower Control
3	GAUGE, OIL PRESSURE		
	193-0107	1	Spec AA
	193-0272	1	Begin Spec AB
4	321-0217	1	Holder, Fuse - Charge Ammeter
5	321-0181	1	Fuse - Charge Ammeter (5 Amp, 32 Volt)
6	357-0004	2	Rectifier - Oil Pressure Relay (1) and Start Disconnect Relay (1) - Begin Spec AB
7	321-0223	2	Fuse (15 Amp, 300 Volt)
8	321-0176	1	Holder, Fuse

### AC METER PANEL - OPTIONAL



SC-1450

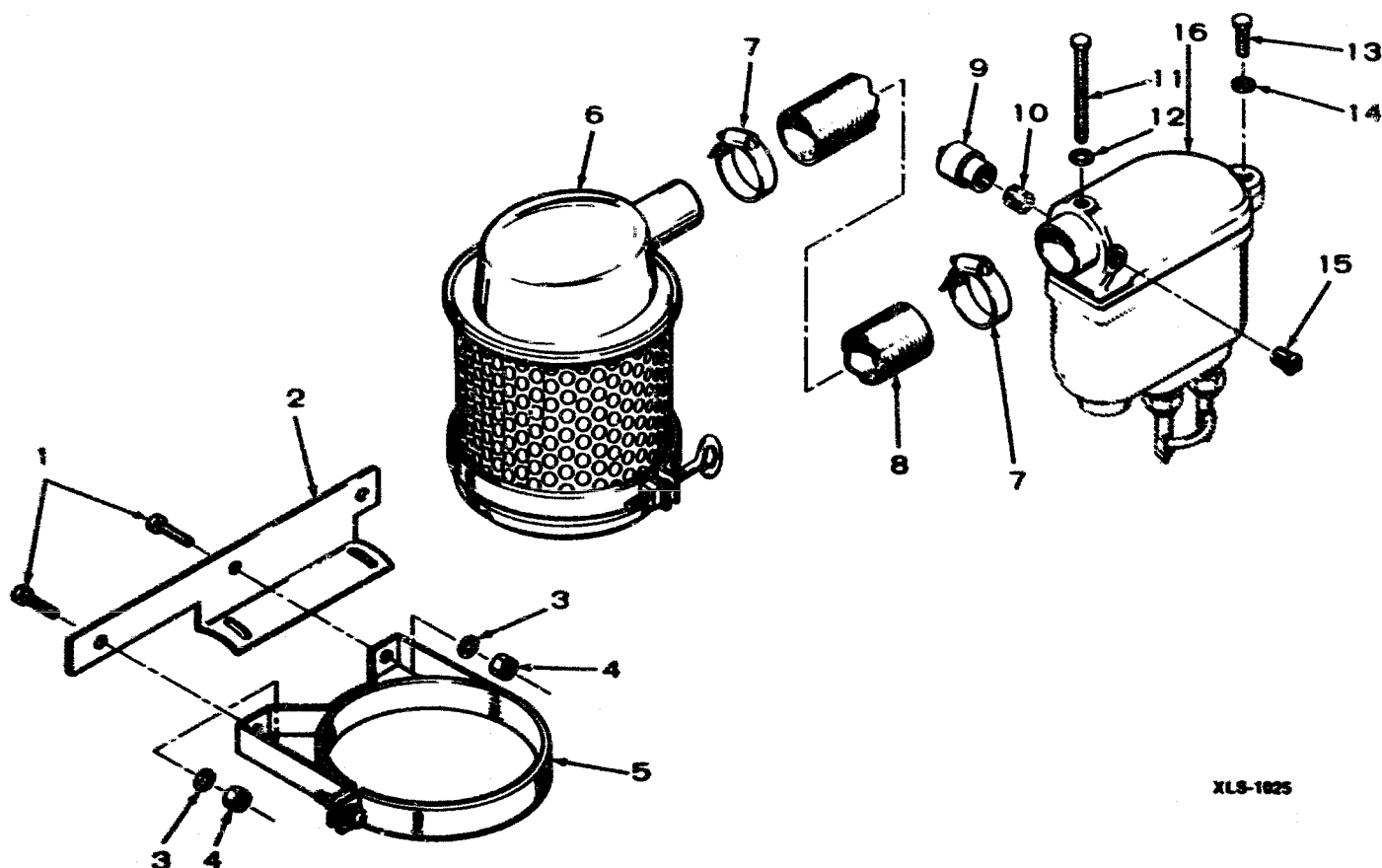
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	302-0894	1	Meter, Frequency (50 Hertz, 240/416 Volt)

## OPTIONAL PARTS SECTION

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



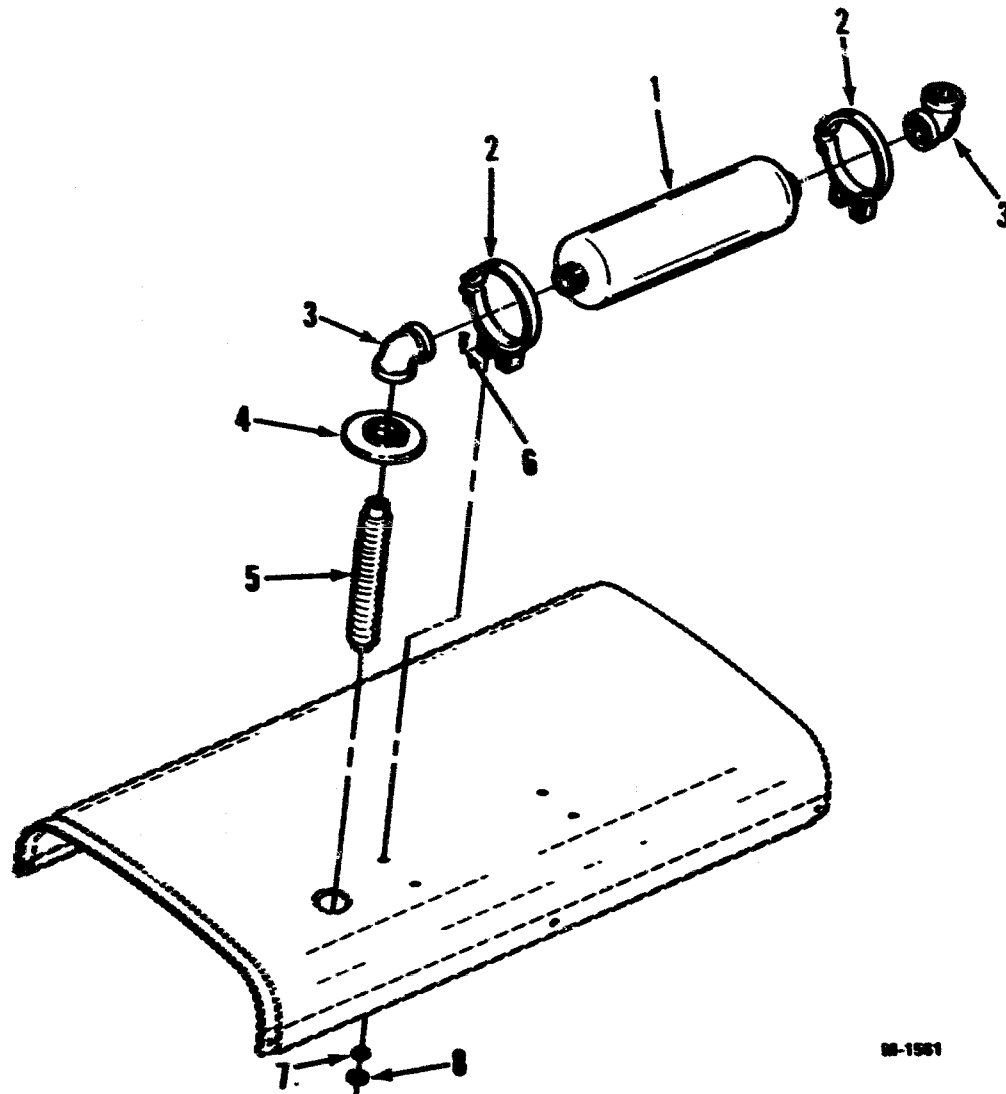
## OIL BATH AIR CLEANER - OPTIONAL



XLS-1925

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	800-0003	2	Screw, Cap - Hex Head (1/4-20 x 1/2")
2	140-0880	1	Bracket, Cleaner Mounting - Housed Sets
3	850-0040	2	Washer, Lock - Spring (1/4")
4	862-0001	2	Nut, Hex (1/4-20)
5	140-0519	1	Band, Air Cleaner Mounting
6	140-0500	1	Cleaner, Oil Bath Air
7	503-0274	2	Clamp, Hose
8	503-0444	1	Hose, Rubber (30")
9	140-0961	1	Indicator, Restriction - Late Models
10	140-1260	1	Fitting, Restriction Indicator - Late Models
11	800-0015	1	Screw, Cap - Hex Head (1/4-20 x 3")
12	526-0108	1	Washer, Flat (17/64" ID x 7/16" OD x 1/32" Thk)
13	800-0007	1	Screw, Cap - Hex Head (1/4-20 x 1")
14	850-0040	1	Washer, Lock - Spring (1/4")
15	505-0008	1	Plug, Pipe (1/4" Slotted) - Sets With Restriction Indicator
16	ADAPTER, AIR CLEANER HOSE		
	140-0645	1	Sets Without Restriction Indicator
	140-1212	1	Sets With Restriction Indicator

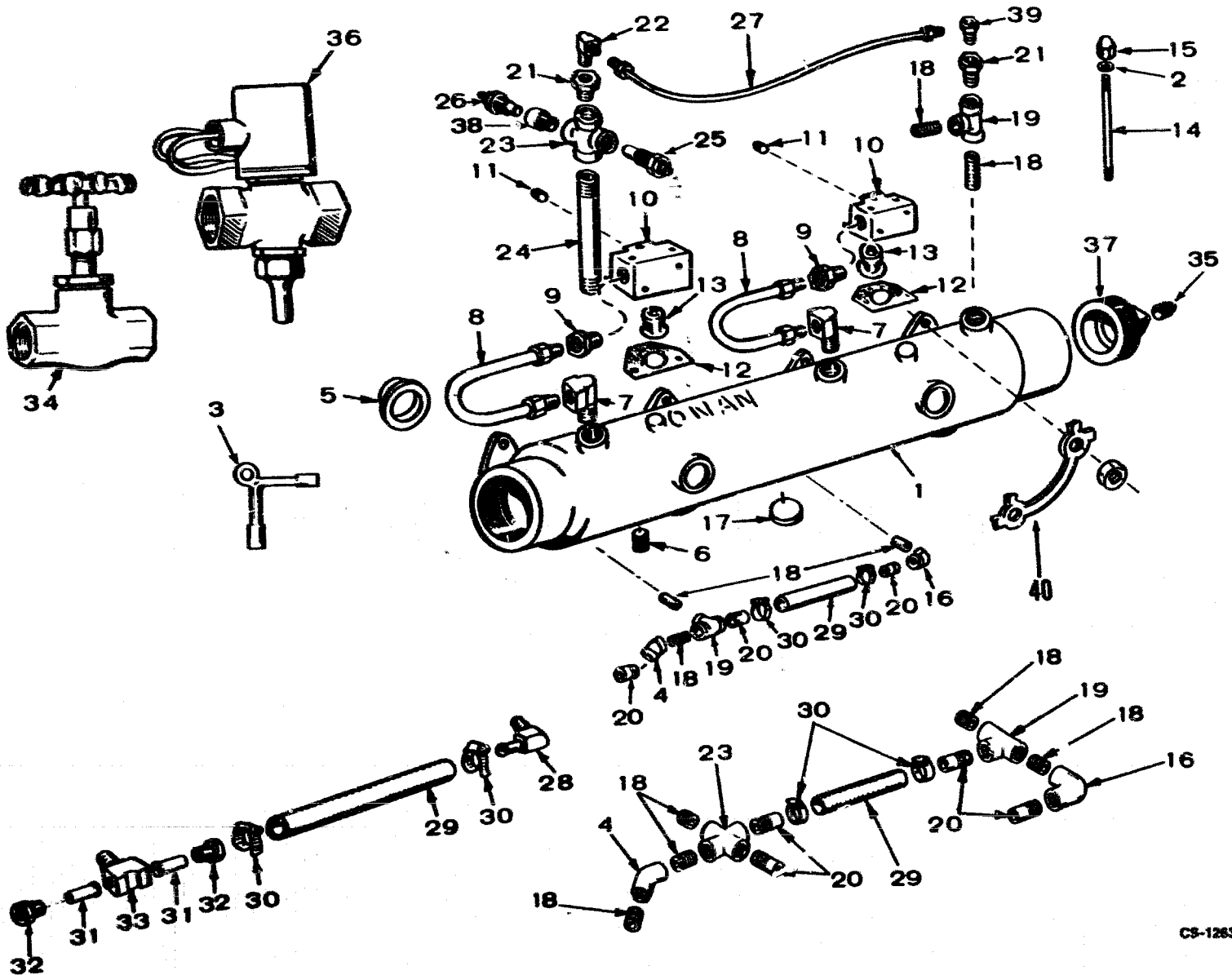
## CRITICAL MUFFLER (HOUSED SETS) - OPTIONAL



98-1561

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	155-0360	1	Muffler, Critical
2	140-0078	2	Band, Muffler Mounting
3	505-0043	2	Elbow, Pipe (1-1/2" x 90°)
4	405-1889	1	Shield, Rain
5	155-0927	1	Tube, Exhaust - Flexible (13-1/2")
6	800-0025	4	Screw, Cap - Hex Head (5/16-18 x 5/8")
7	850-0045	4	Washer, Lock - Spring (5/16")
8	862-0015	4	Nut, Hex (5/16-18)

# CITY WATER COOLING SYSTEM - OPTIONAL



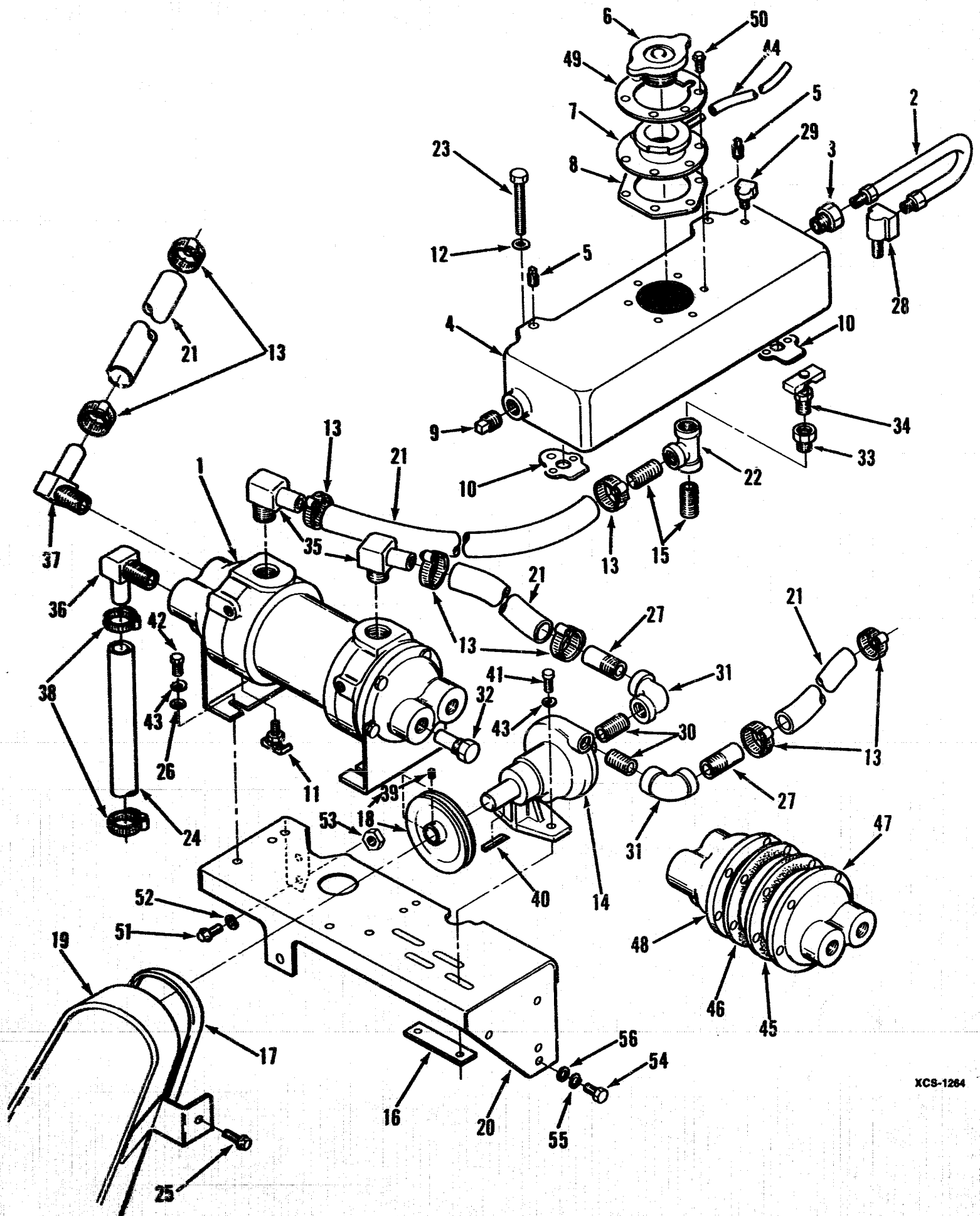
## CITY WATER COOLING SYSTEM — OPTIONAL

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	154-2124	1	Manifold Assembly, Exhaust - Water Cooled (Includes Parts Marked *)
2	526-0122	4	Washer, Flat (11/32" ID x 23/32" OD x 10 Gauge Thk)
3	504-0020	1	Key, Valve (Used on Early Style Valve)
4	505-0376	1	Elbow, Pipe (45°)
5	154-1057	4	Gasket, Exhaust Manifold
6	PLUG, PIPE (3/8") - Exhaust Manifold		
	505-0110	1	Square Head (Bottom Mounted)
	505-0266	1	*Countersunk Head (Top Mounted) - Sets With Heat Exchanger
7	502-0074	2	Elbow, Inverted Male - Manifold Water Line Inlet (1 Used With Heat Exchanger)
8	130-0510	2	Line, Water - Thermostat Cover to Manifold
9	502-0103	2	Connector, Inverted Male - Thermostat Cover Outlet
10	309-0160	2	Cover, Thermostat
11	505-0274	2	Plug, Pipe (1/8") Countersunk - Thermostat Cover
12	309-0145	2	Gasket, Thermostat Cover
13	309-0130	2	Thermostat
14	520-0143	4	Stud, Thermostat Cover Mounting
15	869-0002	4	Nut, Acorn (5/16-24) Thermostat Cover
16	505-0039	1	Elbow, Pipe (3/8" x 90°) Water Inlet
17	*PLUG, EXHAUST MANIFOLD		
	517-0041	4	Expansion (1-1/8" OD)
	517-0059	1	Welch (1-7/16" OD)
18	NIPPLE, CLOSE - PIPE (3/8" x 1")		
	505-0101	5	Sets Without Water Jacket Heater
	505-0101	7	Sets With Water Jacket Heater
19	505-0060	2	Tee, Pipe (3/8") - Water Inlet and Exhaust Manifold
20	NIPPLE, HALF - PIPE (3/8" x 1-1/2") - Water inlet		
	505-0135	3	Sets Without Water Jacket Heater
	505-0135	4	Sets With Water Jacket Heater

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
21	BUSHING, REDUCER - PIPE - By-Pass Line		
	505-0016	2	Sets Without Heat Exchanger
	505-0016	1	Sets With Heat Exchanger
22	502-0037	1	Elbow, Brass - By-Pass Line
23	CROSS, PIPE (3/8")		
	505-0475	1	Sets Without Water Jacket Heater (Water By-Pass Line)
	505-0475	2	Sets With Water Jacket Heater (Water By-Pass Line and Water Inlet)
24	505-0224	1	Nipple, Pipe (3/8" x 4-1/2")
25	309-0178	1	Switch, High Water Temperature (Not Used on Pennsylvania Approved Sets)
26	SENDER, WATER TEMPERATURE		
	193-0104	1	Spec A through AA
	193-0246	1	Begin Spec AB
27	LINE, WATER BY-PASS		
	130-0633	1	Sets Without Heat Exchanger
	130-0813	1	Sets With Heat Exchanger
28	502-0237	1	Elbow, Brass - Water Inlet (Used on Early Models)
29	HOSE, WATER INLET		
	503-1198	1	Used with Brass Fittings (1/2" x 9-5/8")
	503-1194	1	Used with Pipe Fittings (3/4" x 9")
30	503-0183	2	Clamp, Water Inlet Hose
31	130-0533	2	Adapter, Water Inlet Hose (Used on Early Models)
32	502-0239	2	Nut, Inverted (Brass) Water Inlet (Used on Early Models)
33	502-0247	1	Tee, Male Branch (Brass) Water Inlet (Used on Early Models)
34	504-0019	1	Valve, Globe
35	502-0080	1	Plug, Square Head (Brass) - 1/8" - Spec A
36	307-0833	1	Valve, Solenoid
37	505-0402	1	Plug, Pipe - Square Head (1-1/2") - Begin Spec B
38	309-0081	1	Extension, Pipe
39	502-0097	1	Connector, Brass - By-Pass Line
40	154-1665	4	Tab, Lock
41	110-0445	8	Nut, Hex (Special)

\* - Parts Included in 154-2124 Exhaust Manifold Assembly.

# HEAT EXCHANGER - OPTIONAL

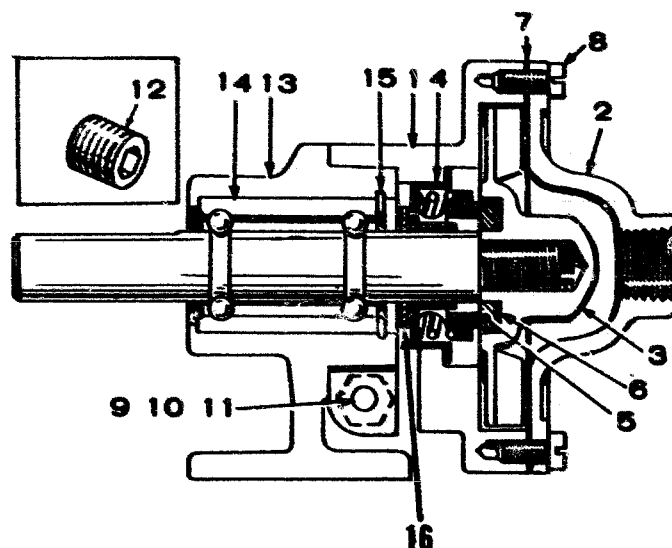


## HEAT EXCHANGER - OPTIONAL

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	130-0624	1	Exchanger, Heat	29	502-0037	1	Elbow, Inverted Male (Brass)
2	130-0575	1	Line, Water - Expansion Tank to Exhaust Manifold	30	502-0085	2	Nipple, Close - Brass (3/8")
3	502-0103	1	Connector, Inverted Male - Expansion Tank Outlet	31	502-0263	2	Elbow, Brass (3/8" - 90°)
4	130-0646	1	Tank, Expansion	32	130-1340	2	Pencil, Zinc (Included in Heat Exchanger)
5	502-0080	2	Plug, Expansion Tank Fill Vent	33	502-0049	1	Bushing (3/8 x 1/8"), Reducer (Brass)
6	130-0589	1	Cap, Pressure	34	504-0006	1	Valve - Air Bleed Manifold Outlet
7	130-0590	1	Neck and Adapter, Expansion Tank Cap	35	502-0300	2	Elbow, Brass - Heat Exchanger Fresh Water Hoses
8	130-0519	1	Gasket, Neck and Adapter	36	502-0302	1	Elbow, Brass - Heat Exchanger Raw Water Inlet Hose
9	502-0155	1	Plug (3/8")	37	502-0237	1	Elbow, Brass - Heat Exchanger Raw Water Outlet Hose
10	309-0145	2	Gasket, Thermostat Chamber	38	503-0446	2	Clamp, Hose
11	504-0003	1	Valve, Drain	39	SCREW, SET 803-0062	1	Water Pump with Flat Area on Shaft
12	526-0065	4	Washer, Flat - Copper (21/64" ID x 9/16" OD x 1/16" Thk) Tank Mounting		803-0062	2	*Water Pump with Keyed Area on Shaft
13	503-0183	8	Clamp, Hose	40	515-0249	1	*Key - Pulley to Water Pump
14	PUMP, WATER (See Separate Group for Components) 132-0262	1	Pumps With Flat Area on Shaft (Replacement Kit - Includes 132-0110 Water Pump and Parts Marked *)		SCREW, CAP - HEX HEAD 800-0005	2	Water Pump Mounting (1/4-20 x 3/4")
	132-0110	1	Pumps With Keyed Area on Shaft	41	800-0005	2	Water Pump Mounting (1/4-20 x 3/4")
15	505-0101	2	Nipple, Pipe - Close (3/8")	42	800-0004	4	Heat Exchanger Mounting (1/4-20 x 5/8")
16	131-0130	1	Bar, Pump Holddown	43	WASHER, LOCK - SPRING 850-0040	2	Water Pump Mounting
17	511-0067	1	Belt, Centrifugal Water Pump		850-0040	4	Heat Exchanger Mounting
18	PULLEY KIT, WATER PUMP (Includes Set Screws) 512-0134	1	Water Pumps With Flat Area on Shaft	44	503-1261	1	Hose, Overflow (13")
	132-0252	1	*Water Pumps With Keyed Area on Shaft	45	130-0729	1	Gasket - Heat Exchanger Fresh Water End
19	GUARD, BELT 130-0591	1	Spec A Through Z	46	130-0730	1	Gasket - Heat Exchanger Raw Water End
	130-0920	1	Spec AA and AB	47	130-0731	1	Bonnet (Includes Gasket) Heat Exchanger Fresh Water End
	130-0591	1	Begin Spec AC	48	130-0732	1	Bonnet (Includes Gasket) Heat Exchanger Raw Water End
20	BRACKET, HEAT EXCHANGER AND GOVERNOR SPRING 130-2171	1	Spec A Through Q	49	130-0892	1	Stiffener, Filler Neck
	130-2167	1	Begin Spec R	50	821-0005	6	Screw, Locking Head Flange (10-32 x 1/2")
21	503-1196	1	Hose (3/4" ID x 54") Rubber - Total Length Required for All Hoses Except Raw Water Pump	51	821-0018	1	Screw, Locking Head - Flange (1/4-20 x 5/8")
22	505-0060	1	Tee, Pipe (3/8")	52	850-0040	1	Washer, Lock - Spring (1/4")
23	800-0041	4	Screw, Cap - Hex Head (5/16-18 x 4") Tank Mounting	53	862-0001	1	Nut, Hex (1/4-20)
24	503-0890	1	Hose (1/2" ID x 14") Rubber - Raw Water Pump to Heat Exchanger	54	800-0026	2	Screw, Cap - Hex Head (5/16-18 x 3/4")
25	821-0010	3	Screw, Locking Head - Flange (1/4-20 x 1/2")	55	850-0045	2	Washer, Lock - Spring (5/16")
26	526-0158	4	Washer, Flat (1/4")	56	526-0113	2	Washer, Flat (11/32" ID x 1" OD x 3/32" Thk)
27	502-0258	2	Nipple Half - Brass (3/8" x 2")				
28	502-0074	1	Elbow, Inverted Male - Manifold Water Line Inlet (Brass)				

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

## WATER PUMP PARTS - OPTIONAL



CS-1285

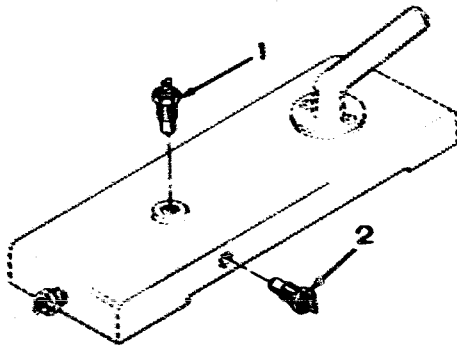
**NOTE:** This pump used on sets with optional heat exchanger.

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	132-0110	1	Pump, Water
	<b>REPAIR KIT, WATER PUMP</b>		
	132-0241	1	Pumps With Flat Area on Shaft (Includes Water Pump Pulley, Set Screws, Key and Parts Marked *)
	132-0240	1	Pumps With Keyed Area on Shaft (Includes Parts Marked #)
1		1	Body, Pump (Not Sold Separately)
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, Cover
9	132-0138	1	Screw, Cap - Used on Early Style Pumps
10	132-0139	1	Lockwasher - Used on Early Style Pumps
11	132-0140	1	Nut, Hex - Used on Early Style Pumps
12	132-0141	1	Plug, Drain - Used on Early Style Pumps
13	132-0142	1	Pedestal
14	<b>SHAFT AND BEARING ASSEMBLY</b>		
	132-0239	1	Pumps With Flat Area on Shaft (Repair Kit - Also Includes Water Pump Pulley, Set Screws and Key)
	132-0225	1	*#Pumps With Keyed Area on Shaft
15	132-0132	1	Ring, Snap
16	132-0224	1	Slinger, Fiber

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

# - Parts Included in 132-0240 Repair Kit.

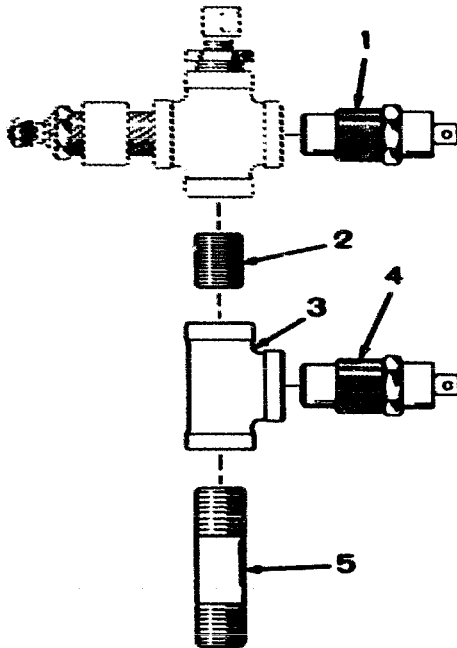
### DUAL HIGH WATER TEMPERATURE SWITCH - OPTIONAL (RADIATOR COOLED)



SC-1117

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	309-0178	1	Switch, High Water Temperature (Opens at 180° - Closes at 205°)
2	309-0179	1	Switch, High Water Temperature (Opens at 190° - Closes at 215°)

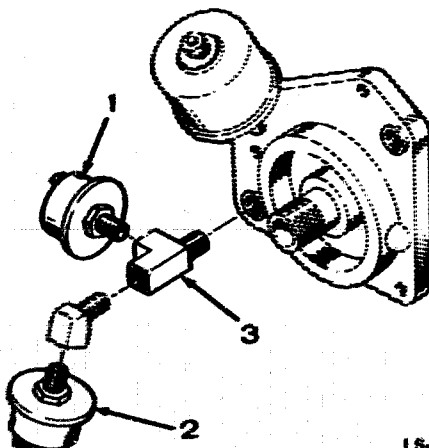
### DUAL HIGH WATER TEMPERATURE SWITCH — OPTIONAL (CITY WATER COOLED)



IS-1133

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	309-0178	1	Switch, High Water Temperature (Opens at 180° - Closes at 205°)
2	505-0101	1	Nipple, Pipe - Close (3/8" x 1-1/8")
3	505-0060	1	Tee, Pipe (3/8")
4	309-0179	1	Switch, High Water Temperature (Opens at 190° - Closes at 215°)
5	505-0075	1	Nipple, Pipe (3/8" x 2-1/2")

### DUAL LOW OIL PRESSURE SWITCH - OPTIONAL

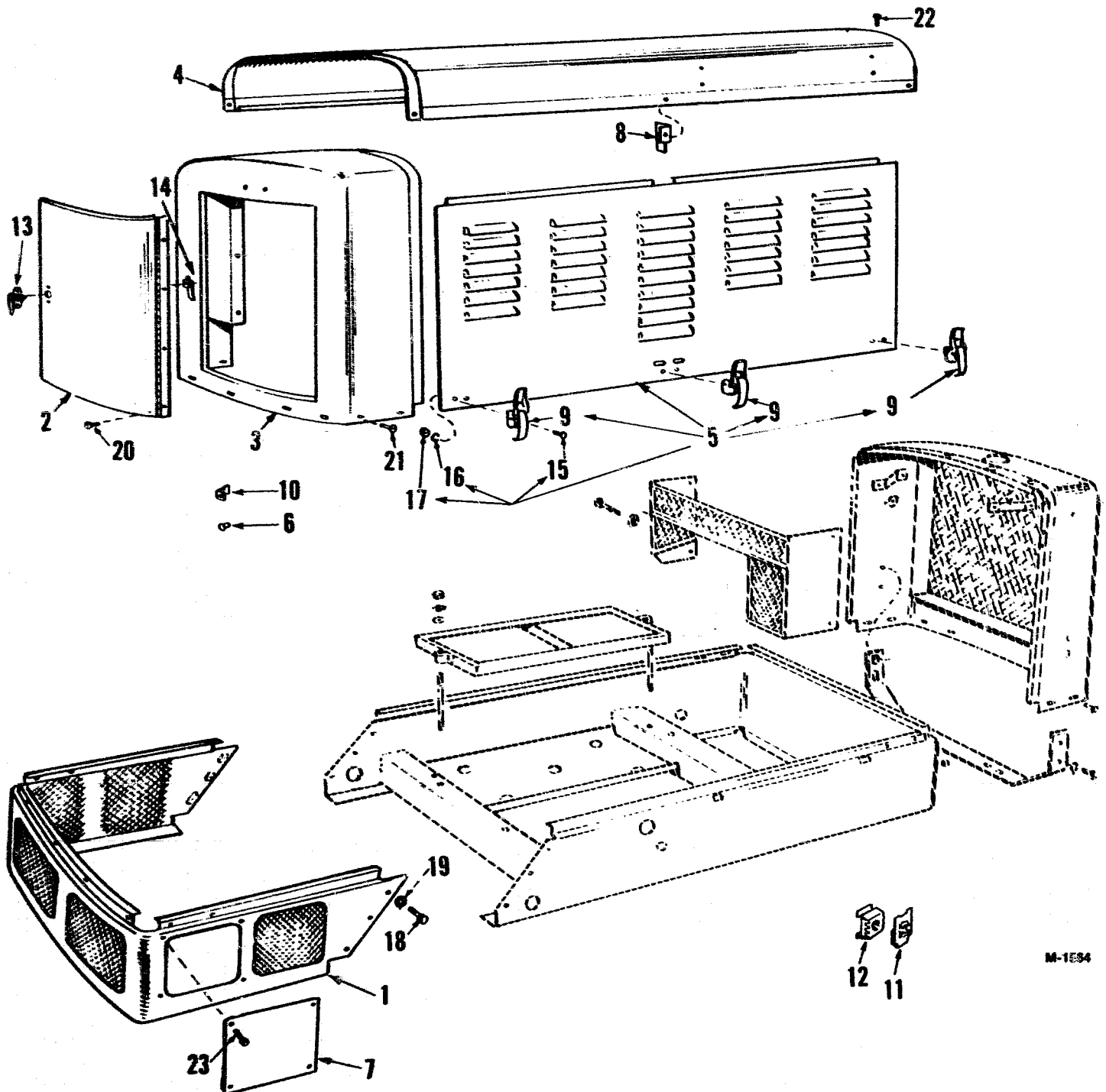


LS-1024

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	309-0064	1	Switch, Low Oil Pressure (Closes at 9 lbs. Descending)
2	309-0169	1	Switch, Low Oil Pressure (Closes at 14 lbs. Descending)
3	502-0058	1	Tee, Street Pipe



# HOUSING - OPTIONAL



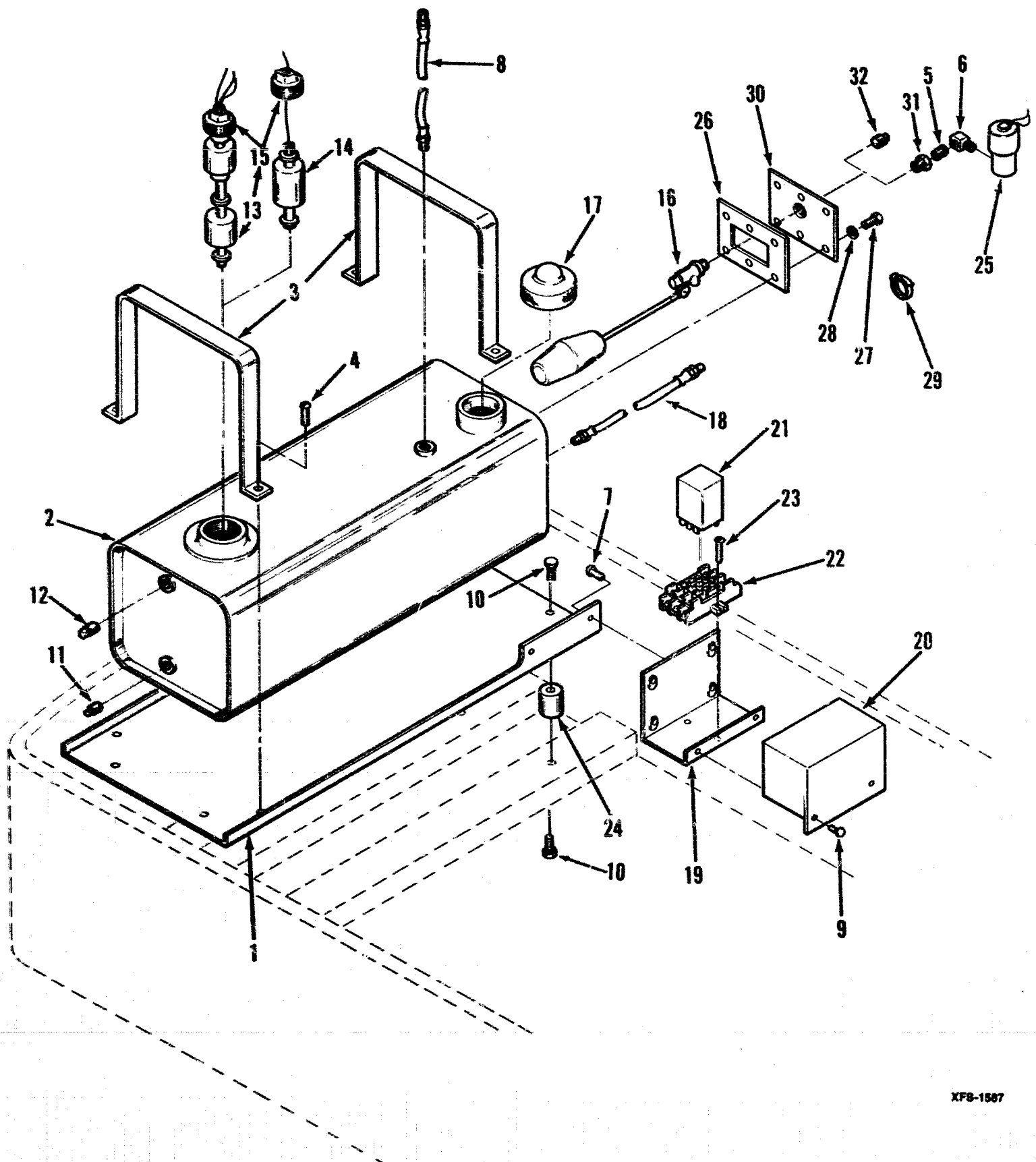
M-1534

## HOUSING - OPTIONAL

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	403-0477	1	Chassis Rear Section
2	405-1080	1	Panel, Rear Door NOTE: Early models sets using Rear Door Panel Knob also order 406-0157 Door Handle and 406-0089 Door Handle Catch
3	405-1081	1	Panel, Rear End
4	405-1319	1	Panel, Top
5	405-1084	2	Panel Assembly, Side (Includes Parts Marked #)
6	406-0002	1	Knob, Rear Door Panel - Used on Early Models
7	403-0373	1	Panel, Chassis
8	405-1181	2	Stop, Door - Side Panel Assembly
9	406-0105	6	#Fastener, Side Panel
10	406-0088	1	Catch, Rear Door Panel - Used on Early Models
11	870-0106	4	Nut, Speed - Rear Door Panel Mounting
12	870-0113	12	Nut, Speed Grip - Top Panel Mounting
13	406-0157	1	Handle, Door - Includes Mounting Hardware and Keys
14	406-0089	1	Catch, Door Handle
15	813-0098	12	#Screw, Machine - Round Head (#10-32 x 3/8") Fastener Mounting
16	850-0030	12	#Washer, Lock - Spring (#10) Fastener Mounting
17	#NUT (#10-32)		
	870-0053	8	Hex - End Fastener Mounting
	870-0298	4	Self Locking - Middle Fastener Mounting
18	800-0047	6	Screw, Cap - Hex Head (3/8-16 x 5/8") Rear Chassis to Front Chassis
19	850-0050	6	Washer, Lock - Spring (3/8") Rear Chassis to Front Chassis
20	809-0059	4	Screw, Pan Head (1/4" x 1/2") Rear Door Panel to Rear End Panel
21	821-0014	8	Screw, Locking Head (5/16-18 x 1/2") Rear Panel to Chassis)
22	821-0014	12	Screw, Locking Head (5/16-18 x 1/2") Top Panel Mounting
23	800-0024	4	Screw, Cap - Hex Head (5/16-18 x 1/2") Chassis Panel

# - Parts Included in 405-1084 Side Panel Assembly.

# **INTEGRAL FUEL TANK - OPTIONAL** **(OVERHEAD/UNDERGROUND SUPPLY APPLICATIONS)**



# **INTEGRAL FUEL TANK - OPTIONAL (OVERHEAD/UNDERGROUND SUPPLY APPLICATIONS)**

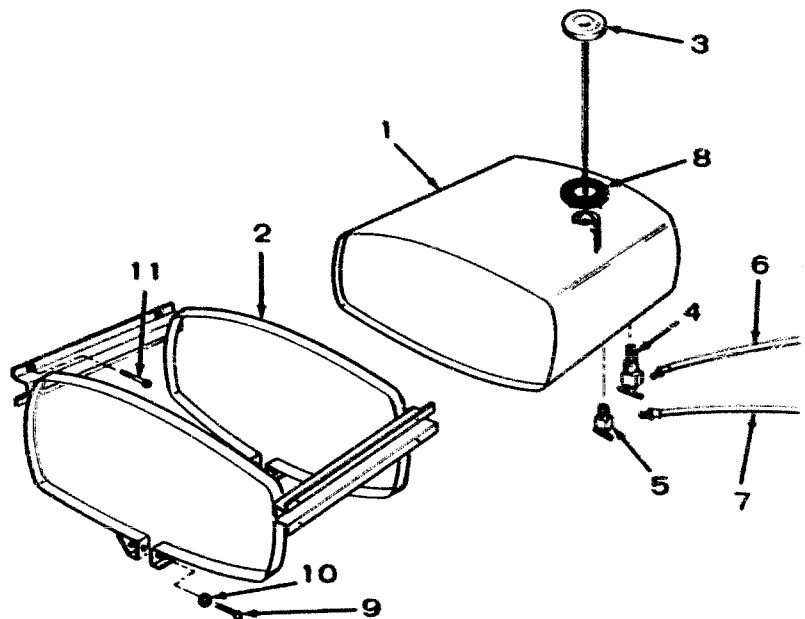
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	415-0494	1	Plate, Mounting
2	415-0489	1	Tank, Fuel - 3-1/2 Gallons (Includes Parts Marked *)
3	415-0490	2	Strap, Tank Mounting
4	812-0151	4	Screw, Machine - Round Head (1/4-20 x 3/4")
5	505-0098	1	Nipple, Close (1/8") (Overhead Applications)
6	505-0049	1	Elbow, Street (90°) (Overhead Applications)
7	812-0148	2	Screw, Machine - Round Head (1/4-20 x 1/2")
8	501-0007	1	Line, Fuel - Return - Engine to Tank (24")
9	821-0004	2	Screw, Locking Head - Flange (#10-32 x 5/16")
10	821-0014	8	Screw, Locking Head - Flange (5/16-18 x 1/2")
11	505-0057	1	Plug, Square Head (1/8")
12	505-0110	1	Plug, Square Head (3/8")
13	415-0491	1	Switch, Float (Includes Mounting Plug) (Underground Applications)
14	415-0466	1	Switch, Float (Overhead Applications)
15	505-1050	1	Plug, Switch Mounting
16	309-0410	1	Valve, Float (Overhead Applications)

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
17	159-0007	1	*Cap, Fuel Tank
18	501-0009	1	Line, Fuel - Supply - Tank to Engine (36")
19	415-0463	1	Box, Control
20	COVER, CONTROL BOX		
	415-0464	1	Underground Applications
	415-0528	1	Overhead Applications
21	307-1058	1	Relay
22	323-0804	1	Socket, Relay
23	812-0084	2	Screw, Machine - Round Head (#8-32 x 1")
24	402-0078	4	Mount, Rubber
25	307-0565	1	Valve, Solenoid (Overhead Applications)
26	415-0488	1	Gasket, Access Plate
27	800-0002	6	*Screw, Cap - Hex Head (1/4-20 x 3/8")
28	526-0063	6	*Washer, Flat - Copper (17/64" ID x 7/16" OD x 1/32" Thk)
29	332-0942	3	Tie, Cable
30	415-0514	1	*Plate, Access
31	505-0016	1	Bushing, Reducer (3/8" x 1/8") (Overhead Applications)
32	505-0110	1	Plug, Square Head (3/8") (Underground Applications)

\* - Parts Included in 415-0489 Fuel Tank

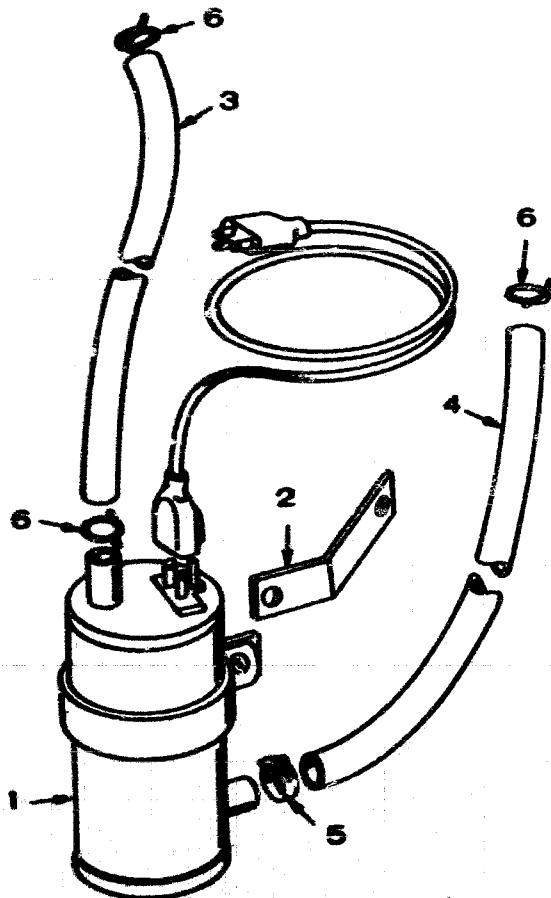
## FUEL TANK (HOUSED SETS) - OPTIONAL

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	159-0639	1	Tank, Fuel (15 Gallons)
2	159-0640	1	Band, Fuel Tank Holddown
3	159-0642	1	Cap and Indicator Assembly
4	504-0013	1	Valve and Screen Assembly
5	504-0007	1	Fuel Shut-Off - Tank Outlet
6	501-0005	1	Valve, Fuel Shut-Off - Tank Inlet (Return Line)
7	501-0066	1	Line, Flex Fuel (18-1/2") Tank to Pump
8	159-0751	1	Line, Flex Fuel (31") - Fuel Return
9	812-0168	2	Gasket - Tank Filler Neck to Housing Top Panel
10	850-0040	2	Screw (1/4-20 x 3-1/2"), Round Head
11	821-0010	8	Washer (1/4"), Lock Screw (1/4-20 x 1/2"), Self Locking



M-1135

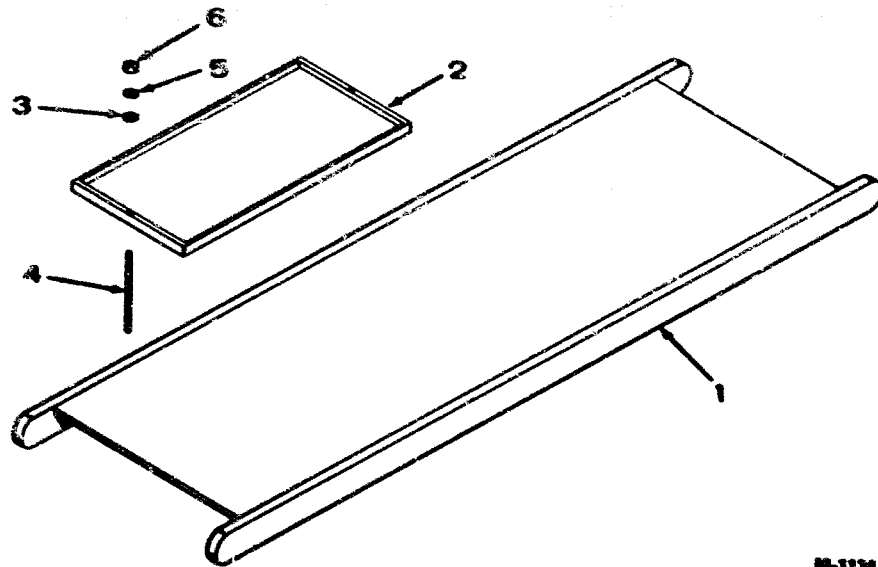
## WATER JACKET HEATER - OPTIONAL



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	333-0054	1	Heater, Water Jacket
2	130-0755	1	Bracket, Mounting
3	503-0833	1	Hose, Rubber (5/8" x 18")
4	503-0833	1	Hose, Rubber (5/8" x 20")
5	503-0183	1	Clamp, Hose
6	503-0197	3	Clamp, Hose

M-1136

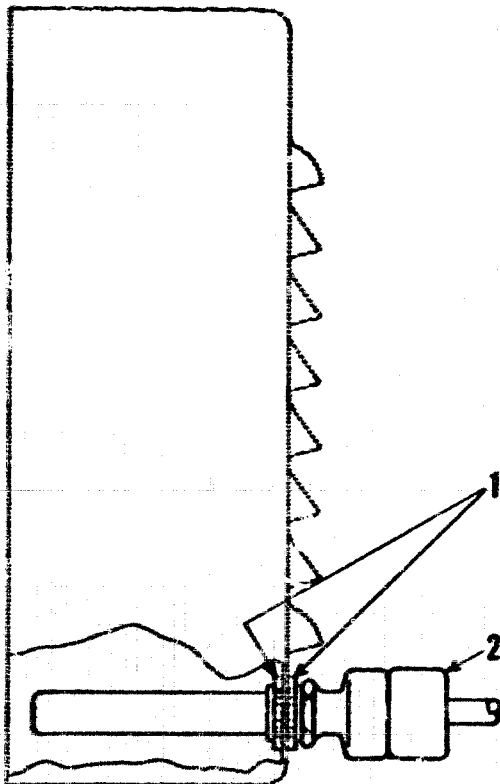
## SKID AND BATTERY RACK - OPTIONAL



88-1134

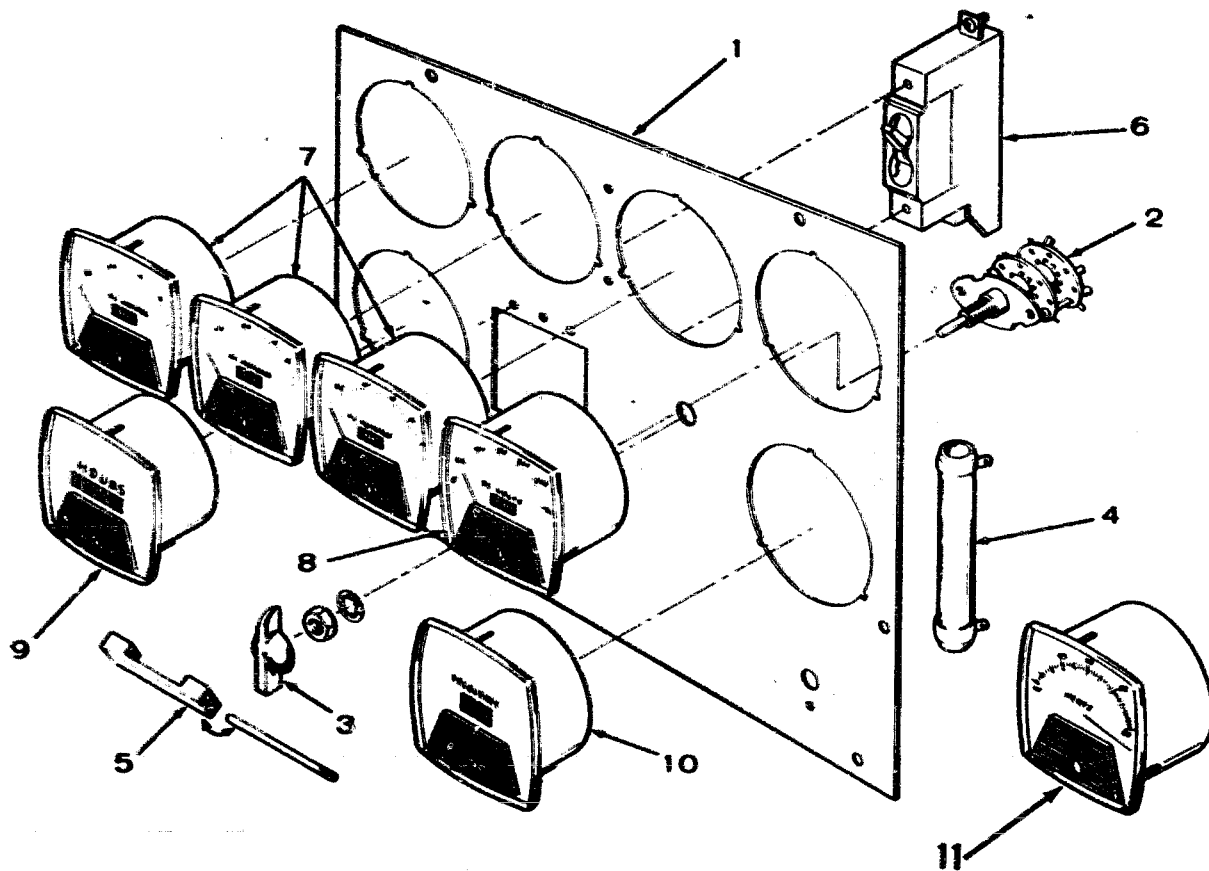
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	403-0661	1	Skid
2	416-0502	1	Frame, Battery
3	526-0115	2	Washer, Flat (11/32" ID x 11/16" OD x 1/16" Thk)
4	520-0490	2	Stud, Battery Frame
5	850-0045	2	Washer, Lock - Spring (5/16")
6	862-0015	6	Nut, Hex (5/16-18)

## GENERATOR SPACE HEATER - OPTIONAL



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	331-0041	2	Nut, Lock (1/2") - Begin Spec AA
2	333-0184	1	Heater, Generator Space - Begin Spec AA

## AC METER PANEL - OPTIONAL



9C-1449

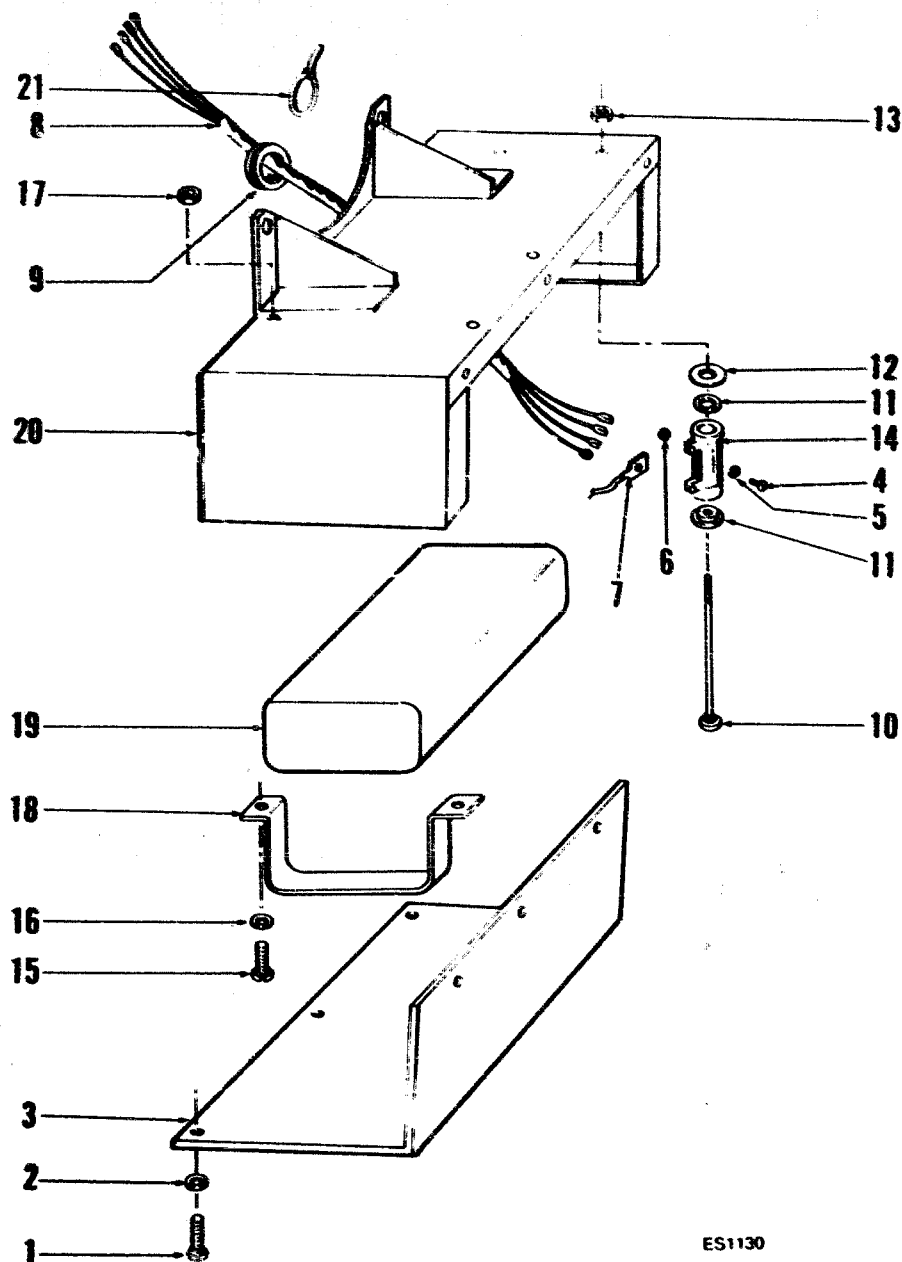
## AC METER PANEL - OPTIONAL

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	PANEL, METER		
			120/208 Volts
			Spec A through Z
	301-2138	1	Sets Without Frequency Meter
	301-2204	1	Sets With Frequency Meter
	301-2204	1	Begin Spec AA
			120/240 Volts
			Spec A through Z
			Single Phase Sets
	301-1551	1	Sets Without Frequency Meter
	301-2288	1	Sets With Frequency Meter
			Three Phase Sets
	301-2138	1	Sets Without Frequency Meter
	301-2204	1	Sets With Frequency Meter
			Begin Spec AA
	301-2288	1	Single Phase Sets
	301-2204	1	Three Phase Sets
	301-2204	1	127/220 Volts
	301-2308	1	220/300 Volts
	301-2308	1	240/416 Volts
			277/480 Volts
			Spec A through Z
	301-2330	1	Sets Without Frequency Meter
	301-2308	1	Sets With Frequency Meter
	301-2308	1	Begin Spec AA
			347/600 Volts
			Spec A through Z
	301-2372	1	Sets Without Frequency Meter
	301-2397	1	Sets With Frequency Meter
	301-3736	1	Begin Spec AA
			Broad Range Sets
	301-3732	1	Begin Spec AA
2	308-0012	1	Switch, Voltage Selector - Three Phase Sets
3	303-0076	1	Knob, Voltage Selector Switch - Three Phase Sets
4	304-0536	1	Resistor, Fixed (9,000 Ohm, 50 Watt) Running Time Meter - 600 Volt Sets
5	BAR, CIRCUIT BREAKER TIE		
	320-0187	1	Sets With 3 Circuit Breakers
	320-0202	1	Sets With 2 Circuit Breakers
6	BREAKER, CIRCUIT (Select According to Existing Breaker)		
			Single Pole
	320-0017	As Req.	10 Amp, 120/240 Volt
	320-0153	As Req.	40 Amp, 120/240 Volt
	320-0198	As Req.	45 Amp, 120/240 Volt
	320-0052	As Req.	50 Amp, 120/240 Volt
	320-0195	As Req.	55 Amp, 120/240 Volt
	320-0148	As Req.	70 Amp, 120/240 Volt
			Three Pole Companion
	320-0486	As Req.	20 Amp, 480 Volt
	320-0487	As Req.	25 Amp, 480 Volt
	320-0488	As Req.	30 Amp, 480 Volt
	320-0514	As Req.	15 Amp, 600 Volt
	320-0459	As Req.	20 Amp, 600 Volt

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
7	AMMETER, AC (Select According to Scale)		
	302-0460	As Req.	Scale Reads 0-20
	302-0418	As Req.	Scale Reads 0-30
	302-0444	As Req.	Scale Reads 0-35
	302-0419	As Req.	Scale Reads 0-50
	302-0458	As Req.	Scale Reads 0-80
8	VOLTMETER, AC (Select According to Scale)		
	302-0421	1	Scale Reads 0-300
	302-0612	1	Scale Reads 0-500
	302-0422	1	Scale Reads 0-600
	302-0423	1	Scale Reads 0-750
9	METER, RUNNING TIME (Check Existing Meter for Part Number)		
			50 Hertz
	302-0463	1	120 Volt
	302-0469	1	240 Volt
			60 Hertz
	302-0465	1	120 Volt
	302-0466	1	240 Volt
	302-0467	1	480 Volt
10	METER, FREQUENCY (Select According to Hertz and Volts)		
			50 Hertz
	302-0234	1	100-150 Volt
	302-0256	1	200-250 Volt
	302-0825	1	480 Volt
	302-0768	1	600 Volt
			60 Hertz
	302-0213	1	100-150 Volt
	302-0221	1	200-250 Volt
	302-0716	1	480 Volt
	302-0717	1	600 Volt
11	METER, FREQUENCY - OPTIONAL "Pointer Type" (Select According to Hertz and Volts)		
			50 Hertz
	302-0894	1	120/208 Volt
			120/240 Volt
	302-0893	1	Single Phase
	302-0895	1	Three Phase
	302-0893	1	277/480 Volt
			60 Hertz
	302-0810	1	120/208 Volt
			120/240 Volt
	302-0809	1	Single Phase
	302-0811	1	Three Phase
	302-0809	1	277/480 Volt



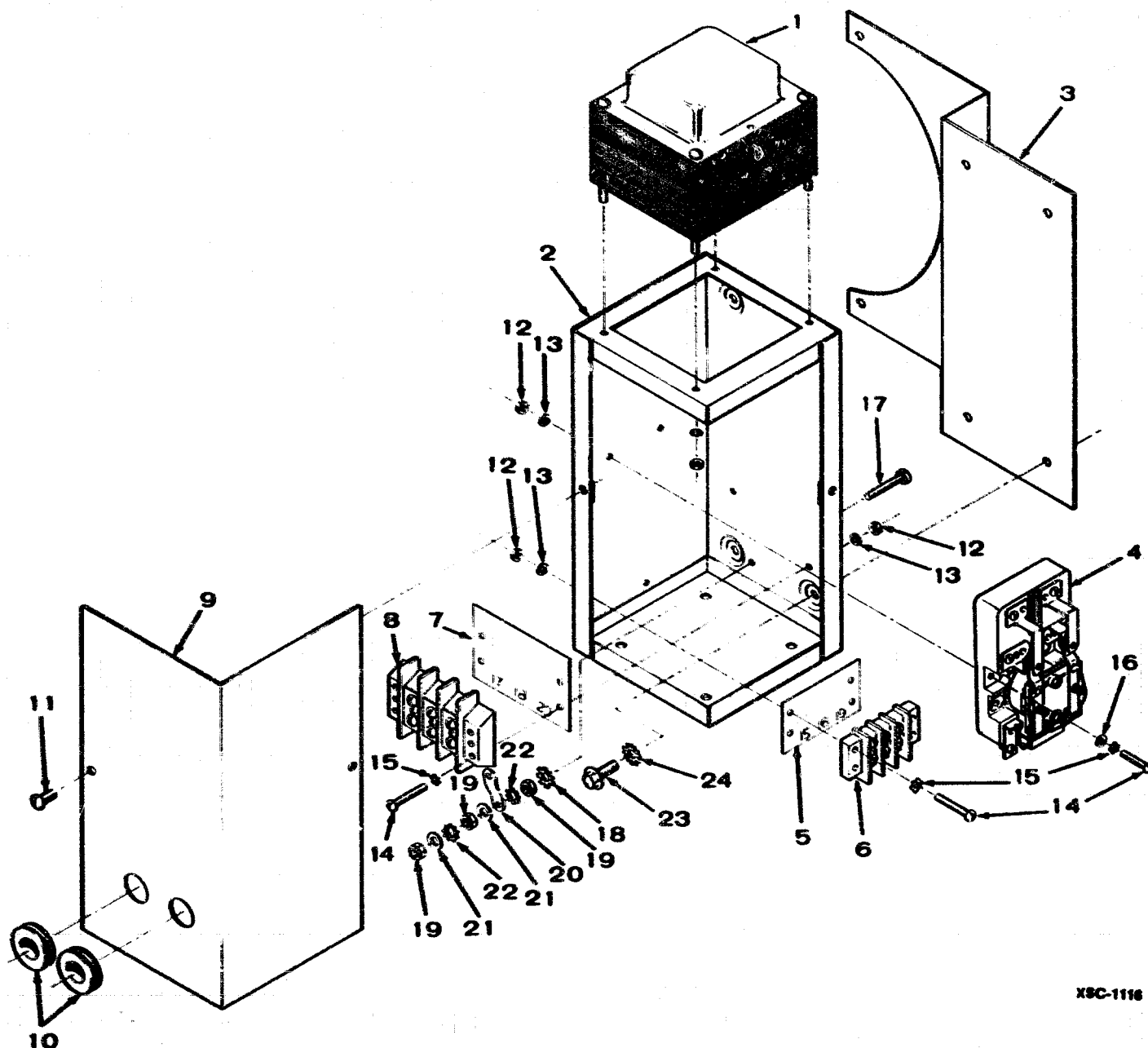
# **VOLTAGE REGULATOR FILTER (BEGIN SPEC AA) - OPTIONAL**



ES1130

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

# **CONTINUOUS GLOW PLUG CONTROL (BEGIN SPEC AB) - OPTIONAL**



XSC-1116

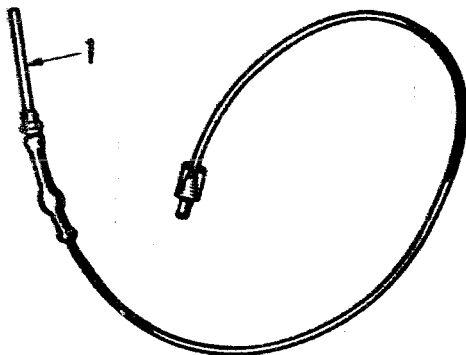
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	315-0433	1	Transformer (Includes Mounting Hardware)	14	812-0082	6	Screw, Machine - Round Head Steel (#8-32 x 3/4")
2	301-4428	1	Box, Control	15	853-0005	6	Washer, Lock - ET (#8)
3	301-4821	1	Bracket, Mounting	16	526-0048	2	Washer, Flat - Brass (.172 ID x 3/8" OD x 1/32" Thk)
4	307-1274	1	Relay	17	815-0203	1	Screw, Machine - Round Head Brass With ET (#10-32 x 7/8")
5	332-2566	1	Strip, Marker (Marked 19, 16, 15)	18	856-0003	1	Washer, Lock - EIT (#10)
6	332-0406	1	Block, Terminal (2-21/32" lg)	19	871-0010	3	Nut, Hex - Brass (#10-32)
7	332-2567	1	Strip, Marker (Marked 17, 18, 20)	20	332-0592	3	Jumper, Ground
8	332-0236	1	Block, Terminal (3-3/16" lg)	21	526-0049	2	Washer, Flat - Brass (.200 ID x 7/16" OD x 1/32" Thk)
9	301-4429	1	Cover, Control Box	22	853-0008	2	Washer, Lock - ET (#10)
10	508-0001	2	Grommet	23	821-0014	4	Screw, Cap - Hex Locking Washer Head (5/16-18 x 1/2")
11	815-0026	2	Screw, Machine - Truss Head (#10-32 x 3/8")	24	856-0008	4	Washer, Lock - EIT (5/16")
12	860-0008	6	Nut, Hex (#8-32)				
13	850-0025	6	Washer, Lock - Spring (#8)				

## LOW ENGINE TEMPERATURE SWITCH - OPTIONAL



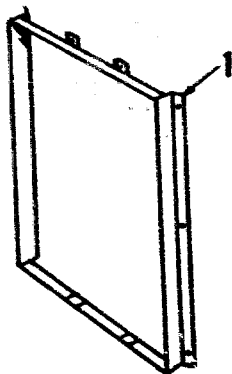
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	309-0269	1	Switch, Low Engine Temperature

## OIL BASE HEATER - OPTIONAL



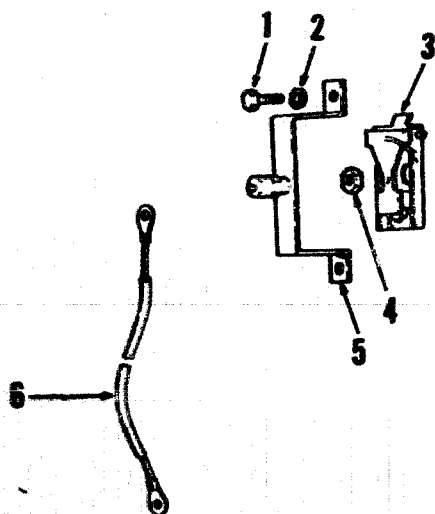
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	102-0558	1	Heater, Oil Base

## AIR DUCT ADAPTER FLANGE - OPTIONAL



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	405-1157	1	Flange, Air Duct Adapter - Radiator Cooled Sets

## OVERSPEED SWITCH - OPTIONAL



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	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
2	WASHER, LOCK - SPRING 850-0030	2	#10 - Spec A Through Z
	850-0040	2	1/4" - Begin Spec AA
3	SWITCH, OVERSPEED 150-0956	1	60 Hertz Sets
	150-1661	1	50 Hertz Sets
4	868-0004	1	Nut, Jam - Hex Head (7/16-20)
5	BRACKET AND POINT ASSEMBLY 150-0958	1	Spec A Through Z
	150-1446	1	Begin Spec AA
6	336-9477	1	Lead - Overspeed Switch (Begin Spec AA)