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Parts Manual DYD GenSets

PARTS CATALOG

This catalog applies to the standard DYD Generator Sets as listed below. Parts are arranged in groups of related items. Each illustrated part is identified by a reference number corresponding to the same reference number in the parts list for that group. Parts illustrations are typical. Using the *Model* and *Spec No.* from the nameplate, select the parts from this catalog that apply to your set. Unless otherwise mentioned in the description, parts are interchangeable between models. Right and left sides are determined by facing the engine end (front) of the set.

SET DATA TABLE

MODEL AND SPEC NO.	ELECTRICAL DATA				
	WATTS	VOLTS	HERTZ	WIRE	PHASE
80.0 DYD-515R/*	80,000	£	50	12	1 or 3
100.0 DYD-515R/*	100,000	£	50	12	1 or 3
100.0 DYD-9XR/*	100,000	347/600	60	4	3
100.0 DYD-15R/*	100,000	£	60	12	1 or 3
125.0 DYD-9XR/*	125,000	347/600	60	4	3
125.0 DYD-15R/*	125,000	£	60	12	1 or 3

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

£ - These sets are reconnectible; refer to Specifications (Generator Details) for Electrical Data.

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

REPLACEMENT ENGINE

100-1419

1

Engine, Replacement (Allis-Chalmers Model 11000 MK II)

General Description:

Includes—Complete Cylinder Block, Fuel Pump, Fuel Filter, Oil Filter, Air Cleaner, Governor, Fan Blades (pusher type), Flywheel, Water Pump, Oil Pan, Exhaust Manifold, Fan Belt and Fuel Shut-off Valve.

Excludes—Alternator, Alternator Mounting Brackets, Alternator Belt, Temperature Sender, Oil Pressure Sender, Starter and Radiator.

NOTE: Replacement engine is for standard Spec 1 generator sets. For all other Specs refer to factory.

ENGINE PARTS

Engine parts modified or added by Onan will be in this parts list and have Onan part numbers. These supersede similar parts listed in the Allis-Chalmers engine manual.

All Allis-Chalmers engine parts must be ordered from your nearest authorized Allis-Chalmers distributor. When ordering parts, refer to the engine nameplate giving the complete engine model, catalog and serial numbers.

 ALLIS-CHALMERS HARVEY, ILLINOIS • MADE IN U. S. A.	
 ENGINE MODEL	 ENG. CATALOG NO.
ENGINE SERIAL NO.	

NOTICE!

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

INSTRUCTIONS FOR ORDERING **Onan** REPAIR PARTS

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

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

Always refer to the nameplate on your unit:

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

Onan
ELECTRIC GEN SET

MODEL
SERIAL NO.

IMPORTANT - ALWAYS GIVE ABOVE NOS. WHEN ORDERING PARTS

CONTINUOUS RATING
HERTZ 1800
3 PHASE 1 PHASE

KW KVA KW KVA

VOLTS 120/208 125/220 139/240 120/240 240/416
AMPS

VOLTS 254/440 277/480 347/600 120/240
AMPS

BAT

MANUFACTURED BY
ONAN
DIVISION OF ONAN CORPORATION
MINNEAPOLIS, MINN. U.S.A.
FOR ELECTRIC GENERATION ONLY

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

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

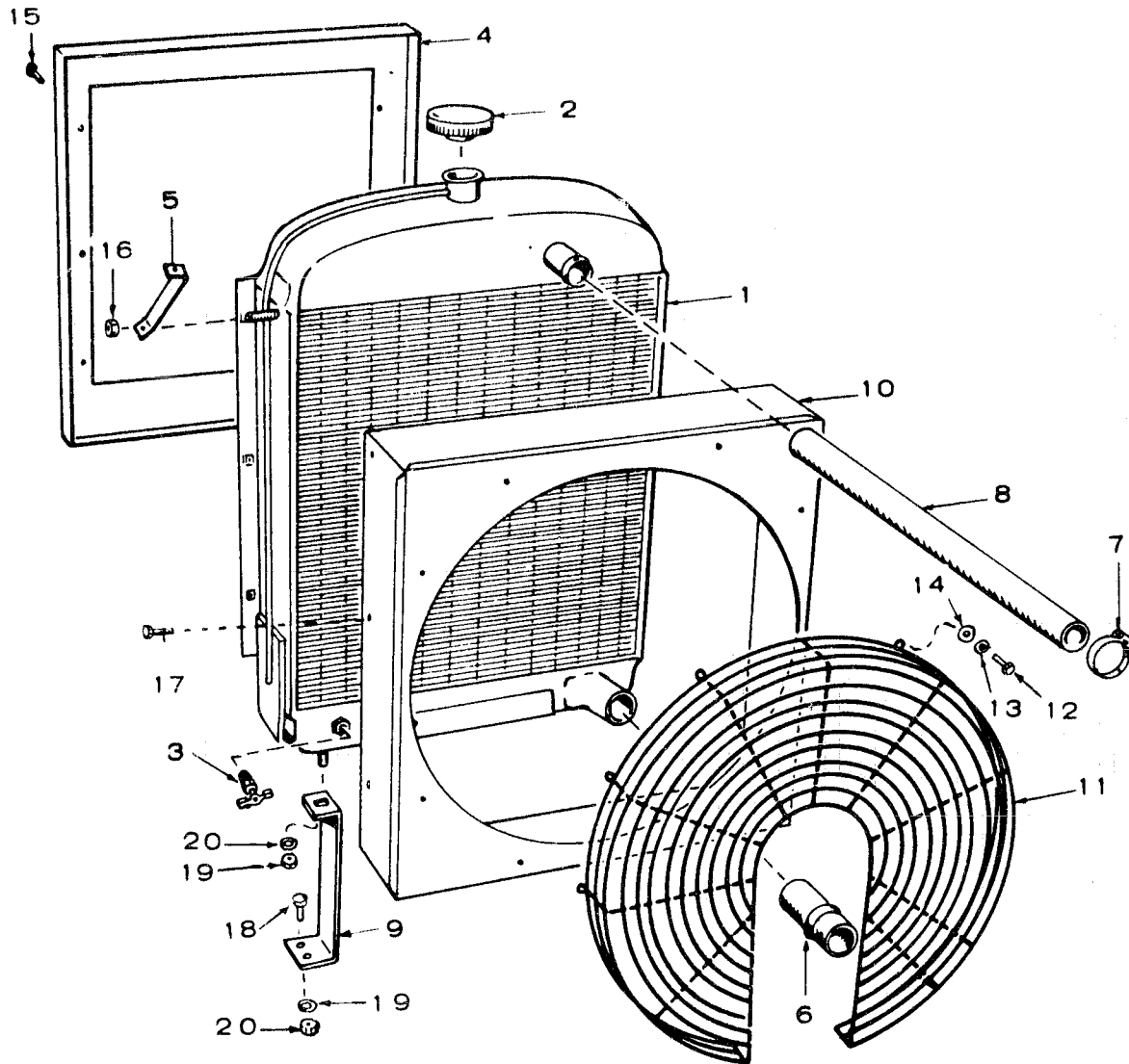
Prices are purposely omitted from this Parts Catalog due to the confusion resulting from fluctuating costs, import duties, sales taxes, exchange rates, etc.

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

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

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

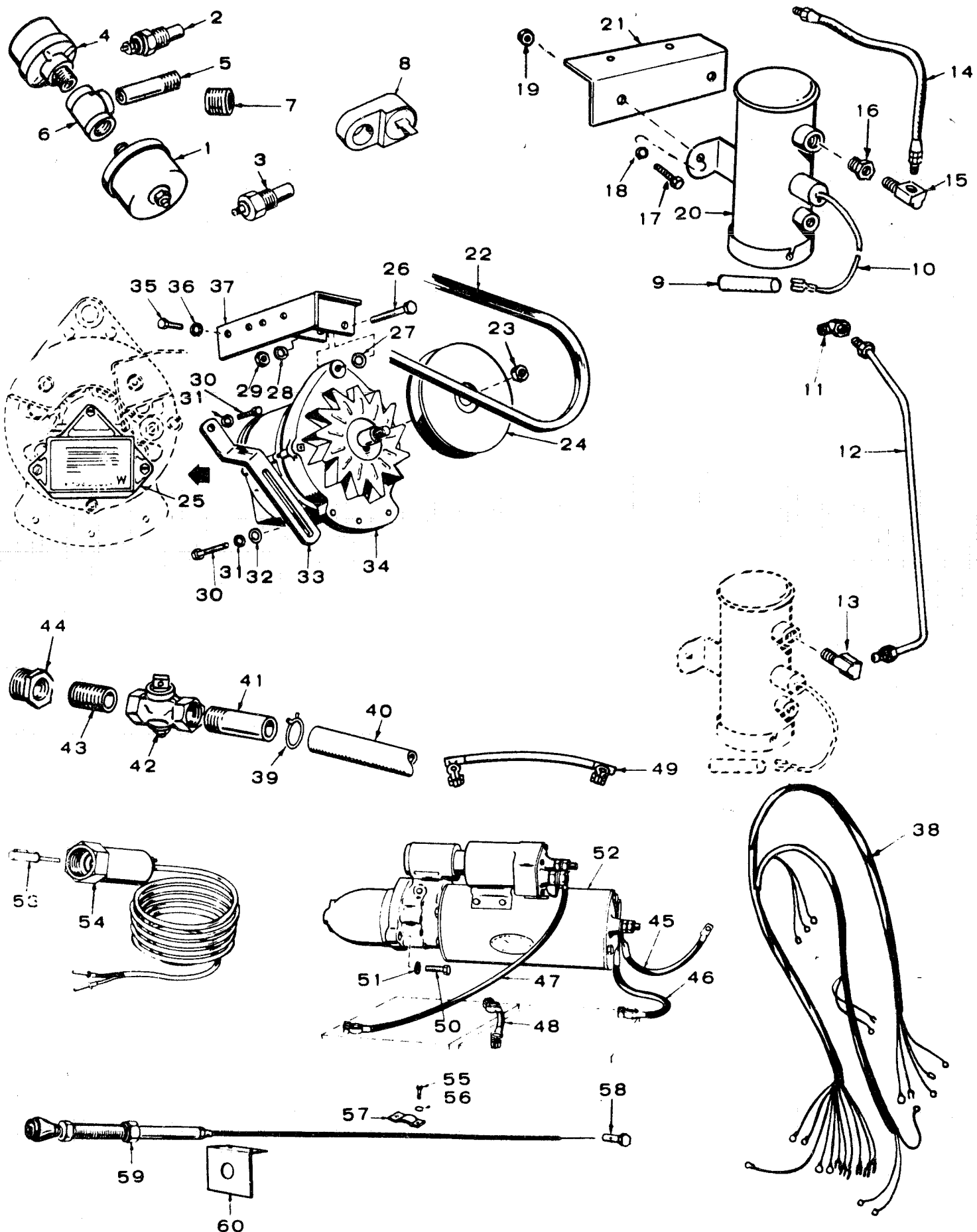
COOLING SYSTEM GROUP



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	130-0834	1	Radiator
2	130-0449	1	Cap, Radiator
3	504-0028	1	Valve, Radiator Drain
4	130-0845	1	Shroud, Radiator
5	130-0833	2	Brace, Radiator Support
6	503-0606	1	Hose, Radiator - Lower
7	503-0465	4	Clamp, Hose
8	503-0334	1	Hose, Radiator - Upper
9	130-0844	2	Bracket, Radiator Support
10	130-0829	1	Shroud, Fan
11	130-0832	1	Guard, Fan
12	800-0005	8	Screw, Cap - Hex Head (1/4-20 x 1/2")

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
13	850-0040	8	Washer, Lock - Spring (1/4")
14	526-0018	8	Washer, Flat (17/64" ID x 5/8" OD x 1/16" THK)
15	821-0010	6	Screw, Self Locking - Hex Head (1/4-20 x 1/2")
16	870-0257	2	Nut, Hex (3/4-10)
17	821-0014	6	Screw, Self Locking - Hex Head (5/16-18 x 1 1/2")
18	800-0092	4	Screw, Cap - Hex Head (1/2-13 x 1-1/2")
19	850-0060	6	Washer, Lock - Spring (1/2")
20	862-0016	6	Nut, Hex (1/2-13)

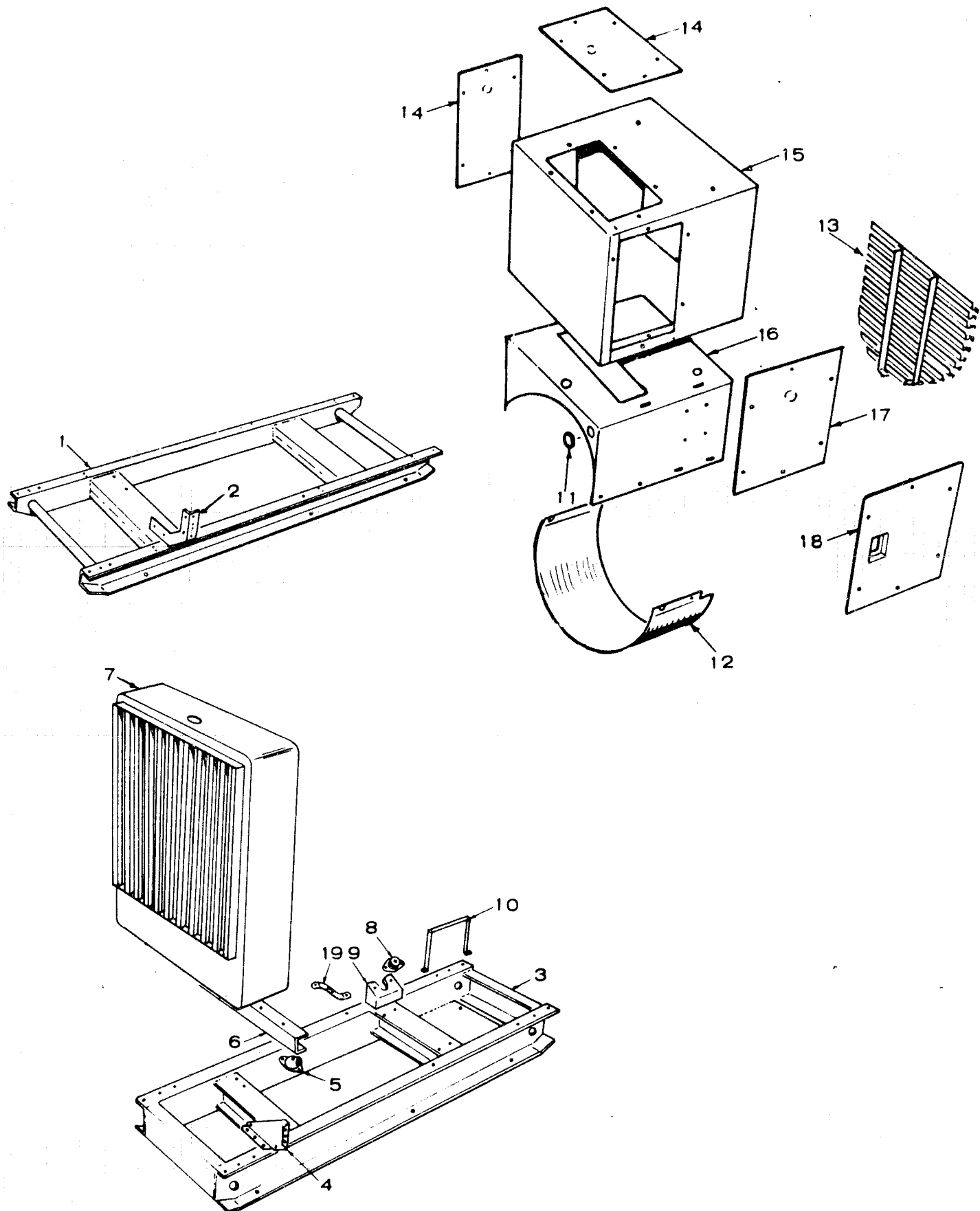
MISCELLANEOUS ENGINE PARTS GROUP (Includes Optionals)



MISCELLANEOUS ENGINE PARTS GROUP (Includes Optionals)

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	193-0108	1	Sender, Oil Pressure to Gauge	35	800-0091	2	Screw, Cap - Hex Head (1/2-13 x 1-1/4")
2	193-0109	1	Sender, Water Temperature to Gauge	36	850-0060	2	Washer, Lock - Spring (1/2")
3	309-0178	1	Switch, High Water Temperature	37	191-0850	1	Bracket, Mounting - Alternator
4	309-0169	1	Switch, Low Oil Pressure	38	338-0585	1	Harness, Wiring - Engine to Control
5	505-0098	1	Nipple, Pipe - Close	39	503-0197	1	Clamp, Hose
6	505-0059	1	Tee, Pipe (1/8")	40	503-0564	1	Hose, Rubber - Oil Drain
7	505-0117	1	Bushing, Reducer - Fuel Filter Inlet (1/4" x 3/8")	41	505-0185	1	Nipple, Pipe - Half
8	309-0269	1	Switch, Low Engine Temperature-Optional	42	504-0011	1	Valve - Oil Drain
9	332-0556	1	Connector, Quick Disconnect	43	505-0100	1	Nipple, Pipe - Close
10	332-0529	1	Terminal, Lug - Female, Spade	44	505-0022	1	Bushing, Reducer
11	502-0199	1	£Elbow, Pipe - 45°, Male Inverted - Spec A thru C	45	416-0632	1	Cable, Electrical - Starter
12	149-1281	1	£Line, Fuel - Spec A thru C	46	416-0445	1	Cable, Battery - Negative
13	502-0246	1	£Elbow, Pipe - 90°, Reducing - Spec A through C	47	416-0444	1	Cable, Battery - Positive
14	501-0195	1	£Line, Fuel - Flexible - Begin Spec D	48	416-0473	1	Cable, Battery - Jumper - Begin Spec E
15	502-0183	1	£Elbow, Pipe - 90° - Begin Spec D	49	416-0446	1	Cable, Battery - Jumper - Spec A through D
16	502-0143	1	£Adapter, Reducing (1/4" to 1/8") -Begin Spec D	50	800-0136	3	Screw, Cap - Hex Head (5/8-11 x 2-1/2")
17	800-0004	2	Screw, Cap - Hex Head (1/4-20 x 5/8")	51	850-0070	3	Washer, Lock - Spring (5/8")
18	850-0040	2	Washer, Lock - Spring (1/4")	52	191-0852	1	*Starter (Delco Remy #1113892)
19	862-0001	2	Nut, Hex (1/4-20)	53	302-0753	1	Tang, Drive - Optional (Tach Sender)
20	149-0890	1	†Pump, Fuel - 24 Volt	54	302-0750	1	Sender, Tach - Optional
21	149-1162	1	Bracket, Mounting - Fuel Pump	VERNIER THROTTLE ASSEMBLY - OPTIONAL (Includes Parts Marked +)			
22	511-0084	1	Belt, Drive	55	815-0104	2	+Screw, Machine - Fillister Head (#8-32 x 5/16")
23		1	Nut, Hex (5/8-18 UNF2A x 1/4" THK) Part of Alternator	56	526-0052	2	+Washer, Flat - Brass (17/64" ID x 9/16" OD x 1/32" THK)
24	191-0781	1	Pulley	57	152-0036	1	+Clamp, Cable
25	191-0733	1	Regulator, Voltage (Supplied with Alternator)	58	152-0158	1	+Swivel
26	800-0095	1	Screw, Cap - Hex Head (1/2-13 x 2-1/4")	59	152-0120	1	+Cable, Throttle
27	526-0100	1	Washer, Flat (9/16" ID x 1-3/8" OD x 1/2" THK)	60	151-0230	1	+Bracket, Angle - Throttle Mounting
28	850-0060	1	Washer, Lock - Spring (1/2")	+ - Included in Optional Vernier Throttle Assembly.			
29	862-0016	1	Nut, Hex (1/2-13)	£ - Flexible fuel line and attaching parts are recommended replacements for rigid fuel line used on Spec A thru C.			
30	800-0047	2	Screw, Cap - Hex Head (5/16-18 x 1-1/4")	† - See Separate Group for Components.			
31	850-0045	2	Washer, Lock - Spring (5/16)	* - For components, contact your nearest Delco Remy Dealer or Delco Remy Division of General Motors Corporation, Anderson, Indiana 46011.			
32	526-0045	1	Washer, Flat (21/64" ID x 5/8" OD x 1/8" THK)	★ - For components, contact your nearest Motorola Dealer or Motorola Automotive Products, Inc., 9401 W. Grand Ave., Franklin Park, Illinois 60131.			
33	191-0851	1	Bracket, Adjusting - Alternator				
34	191-0688	1	★Alternator - Includes Fan & Regulator (Motorola #70D44039B04)				

CHASSIS GROUP (Unhoused Sets)



CHASSIS GROUP (Unhoused Sets)

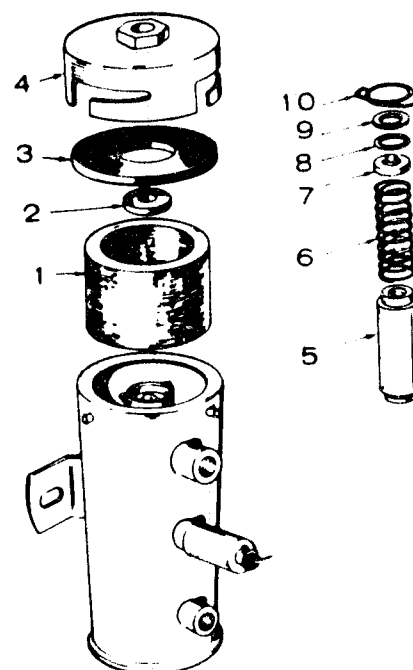
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	403-0957	1	£Base, Skid - Spec A through C
2	405-1854	2	£Bracket, Front Panel - Spec A through C
3	403-1132	1	£Base, Skid - Begin Spec D
4	405-2016	2	£Bracket, Front Panel - Begin Spec D
5	402-0371	2	£Mount, Vibration
6	403-0959	1	£Support, Engine
7	405-1865	1	£Panel, Housing - Front
8	402-0384	2	£Mount, Vibration
9	232-2208	2	£Support, Generator
10	416-0635	2	£Strap, Hold-down - Battery - Begin Spec D
11	508-0001	1	£Grommet, Rubber
12	234-0361	1	£Wrapper, End Bell
13	234-0370	1	£Grille, Inlet Air
14	301-3156	2	£Panel, Blank - Top and Left Sides
15	301-3155	1	£Housing, Control Box
16	301-3154	1	£Saddle, Control Box
17	301-3156	1	£Panel, Blank - Right Side
18	301-3192	1	Panel, Circuit Breaker - Right Side - Optional
19	337-0092	1	£Strap, Electrical - Grounding
£	ATTACHING HARDWARE - NOT ILLUSTRATED (Select as Applicable)		
	800-0003	As Req'd	Screw, Cap - Hex Head (1/4-20 x 1/2")
	800-0030	As Req'd	Screw, Cap - Hex Head (5/16-18 x 1-1/4")
	800-0035	As Req'd	Screw, Cap - Hex Head (5/16-18 x 2-1/2")
	800-0090	As Req'd	Screw, Cap - Hex Head (1/2-13 x 1")
	800-0092	As Req'd	Screw, Cap - Hex Head (1/2-13 x 1-1/2")
	800-0132	As Req'd	Screw, Cap - Hex Head (5/8-11 x 1-1/2")
	800-0135	As Req'd	Screw, Cap - Hex Head (5/8-11 x 2-1/4")

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	800-0153	As Req'd	Screw, Cap - Hex Head (3/4-10 x 1-1/2")
	800-0163	As Req'd	Screw, Cap - Hex Head (3/4-10 x 4")
	812-0146	As Req'd	Screw, Machine - Round Head (1/4-20 x 3/8")
	815-0026	As Req'd	Screw, Machine - Truss Head (#10-32 x 3/8") - Spec A through C
	815-0350	As Req'd	Screw, Tapping - Hex Washer Head (#10-32 x 3/8") - Begin Spec D
	821-0010	As Req'd	Screw, Self-locking - Hex Washer Head (1/4-20 x 1/2")
	821-0014	As Req'd	Screw, Self-locking - Hex Washer Head (5/16-18 x 1/2")
	821-0016	As Req'd	Screw, Self-locking - Hex Washer Head (5/16-18 x 3/4")
	850-0040	As Req'd	Washer, Lock - Spring (1/4")
	850-0045	As Req'd	Washer, Lock - Spring (5/16")
	850-0060	As Req'd	Washer, Lock - Spring (1/2")
	850-0070	As Req'd	Washer, Lock - Spring (5/8")
	850-0079	As Req'd	Washer, Lock - Spring (3/4")
	853-0008	As Req'd	Washer, Lock - External Tooth (#10) - Spec A thru C
	856-0013	As Req'd	Washer, Lock - External/Internal Tooth (1/2")
	526-0018	As Req'd	Washer, Flat (1/4")
	526-0238	As Req'd	Washer, Flat (3/4")
	862-0001	As Req'd	Nut, Hex (1/4-20)
	862-0007	As Req'd	Nut, Hex (5/8-11)
	862-0015	As Req'd	Nut, Hex (5/16-18)
	862-0016	As Req'd	Nut, Hex (1/2-13)
	862-0020	As Req'd	Nut, Hex (3/4-10)
	870-0257	As Req'd	Nut, Self-locking, Hex (5/16-18)
	818-0076	As Req'd	Rivet, Tubular (1/8" DIA)

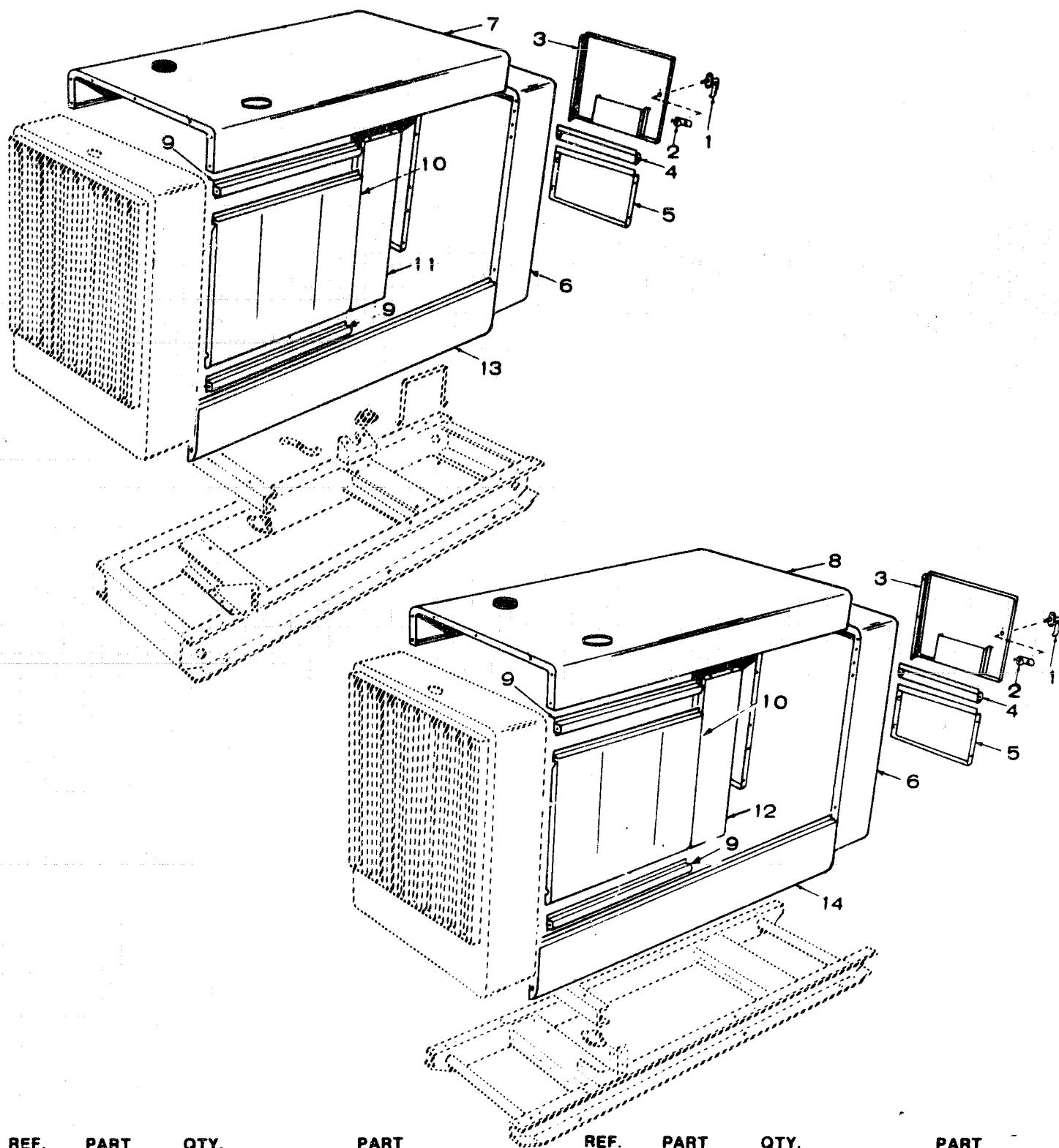
£ - Parts Included in Housed Sets.

ELECTRIC FUEL PUMP GROUP

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	149-0890	1	Pump, Fuel (24 Volt)
1	149-1445	1	Filter
2	149-1447	1	Magnet
3	149-1446	1	Gasket, Cover
4	149-1453	1	Cover
5	149-1452	1	Plunger
6	149-0683	1	Spring, Plunger Return
7	149-1451	1	Spring Cup & Valve
8	149-1450	1	Gasket, Spring Cup
9	149-1449	1	Washer, Cup Gasket
10	149-1448	1	Retainer, Cup & Plunger



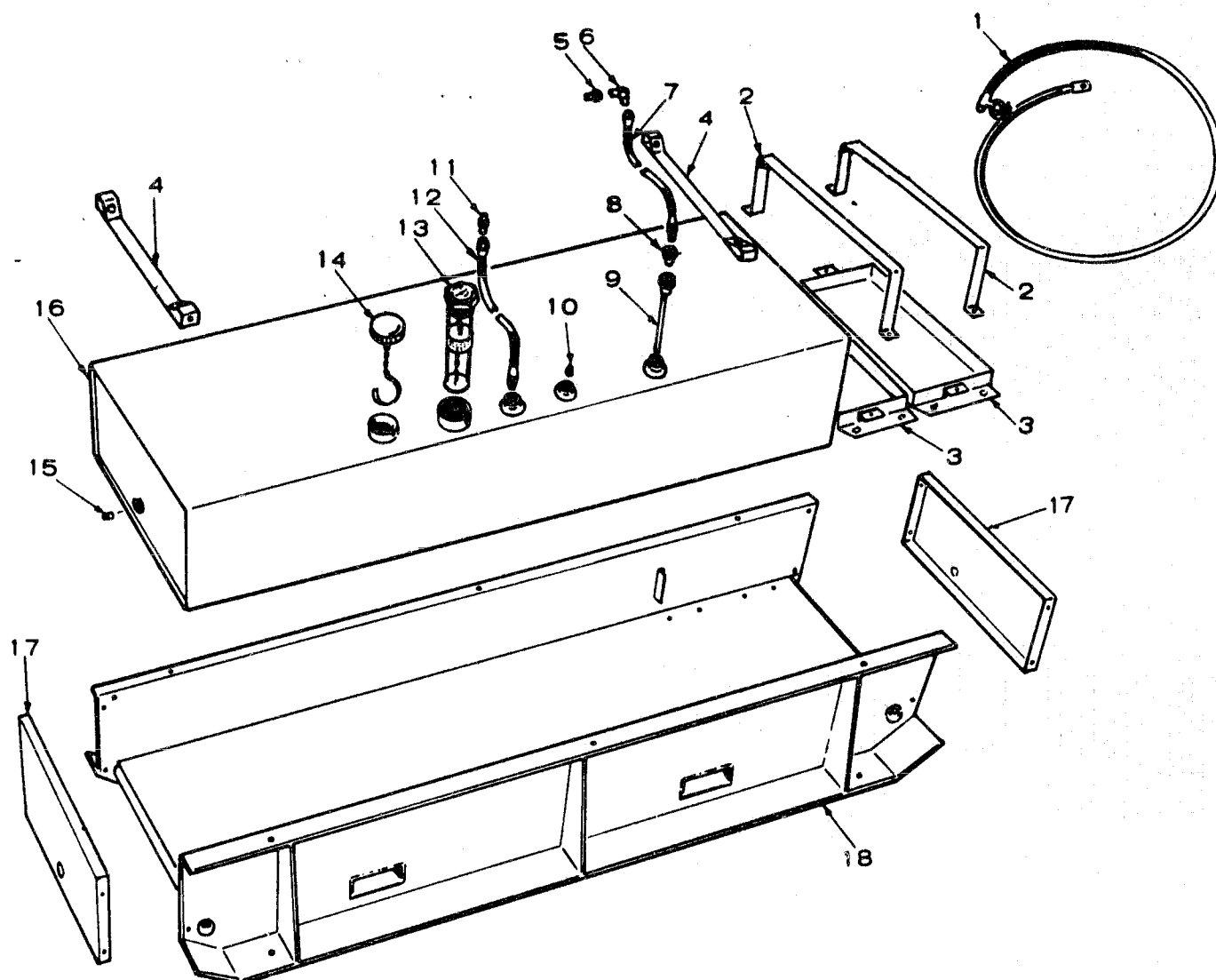
HOUSING GROUP (Housed Sets) - OPTIONAL EQUIPMENT



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
HOUSED SETS NOTE— (Includes following parts and items indicated in Chassis group)			
1	406-0157	1	Handle, Latch (With Keys)
2	406-0089	1	Catch, Latch
3	405-1871	1	Door, Rear
4	405-1858	1	Panel, Rear - Center
5	405-1856	1	Panel, Rear - Lower
6	405-1864	1	Housing, Rear
7	405-2164	1	Housing, Top - Begin Spec D
8	405-1863	1	Housing, Top - Spec A thru C
9	405-1859	8	Panel, Louver
10	405-1861	4	Door, Removable
11	405-2173	2	Panel, Center - Begin Spec D

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
12	405-1862	2	Panel, Center - Spec A through C
13	405-2162	2	Panel, Side, Base - Begin Spec D
14	405-1860	2	Panel, Side, Base - Spec A through C
£ ATTACHING HARDWARE - NOT ILLUSTRATED (Select as Applicable)			
	870-0212	As Req'd	Nut, Self-locking - Hex (1/4-20)
	870-0258	As Req'd	Nut, Plate, Weld (1/4-20)
£ - Additional attaching hardware listed in Unhoused Group.			

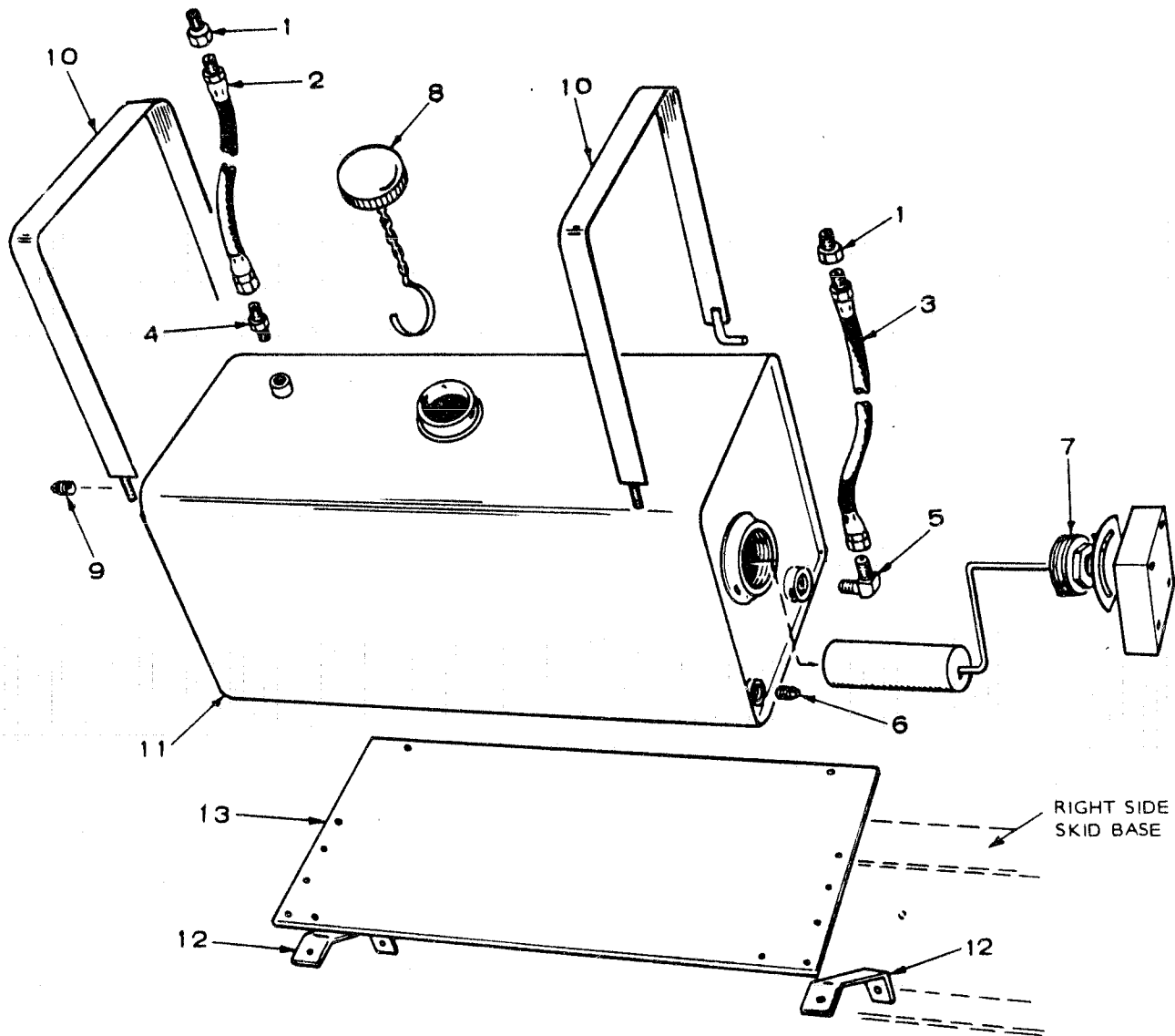
159-1004 FUEL TANK AND SUB BASE GROUP - OPTIONAL EQUIPMENT



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	416-0639	1	Cable, Battery - Spec A through C
2	416-0635	2	Strap, Hold-down - Spec A through C
3	416-0461	2	Rack, Battery - Spec A thru C
4	159-1002	2	Strap, Hold-down - Fuel Tank
5	502-0143	2	Adapter
6	502-0183	1	Elbow
7	501-0195	1	Line, Fuel - Flexible
8	505-0018	1	Bushing, Reducer
9	415-0317	1	Pipe, Suction
10	505-0334	1	Plug, Pipe
11	502-0189	1	Connector
12	501-0009	1	Line, Fuel - Flexible
13	193-0216	1	Gauge, Liquid Level
14	159-0020	1	Cap, Tank
15	505-0247	1	Plug, Pipe
16	159-1001	1	Tank, Fuel - 101 Gallon

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
17	403-1004	2	Plate, End - Sub Base
18	403-1005	1	Base, Sub - Fuel Tank
ATTACHING HARDWARE - NOT ILLUSTRATED (Select as Applicable)			
800-0050	As Req'd		Screw, Cap - Hex Head (3/8-16 x 1")
800-0051	As Req'd		Screw, Cap - Hex Head (3/8-16 x 1-1/4")
800-0156	As Req'd		Screw, Cap - Hex Head (3/4-10 x 2-1/4")
821-0016	As Req'd		Screw, Self-locking - Hex Washer Head (5/16-18 x 3/4")
850-0050	As Req'd		Washer, Lock - Spring (3/8")
850-0059	As Req'd		Washer, Lock - Spring (1/2")
526-0013	As Req'd		Washer, Flat (25/64" ID x 1" OD x 1/16" THK)
862-0003	As Req'd		Nut, Hex (3/8-16)
862-0020	As Req'd		Nut, Hex (3/4-10)

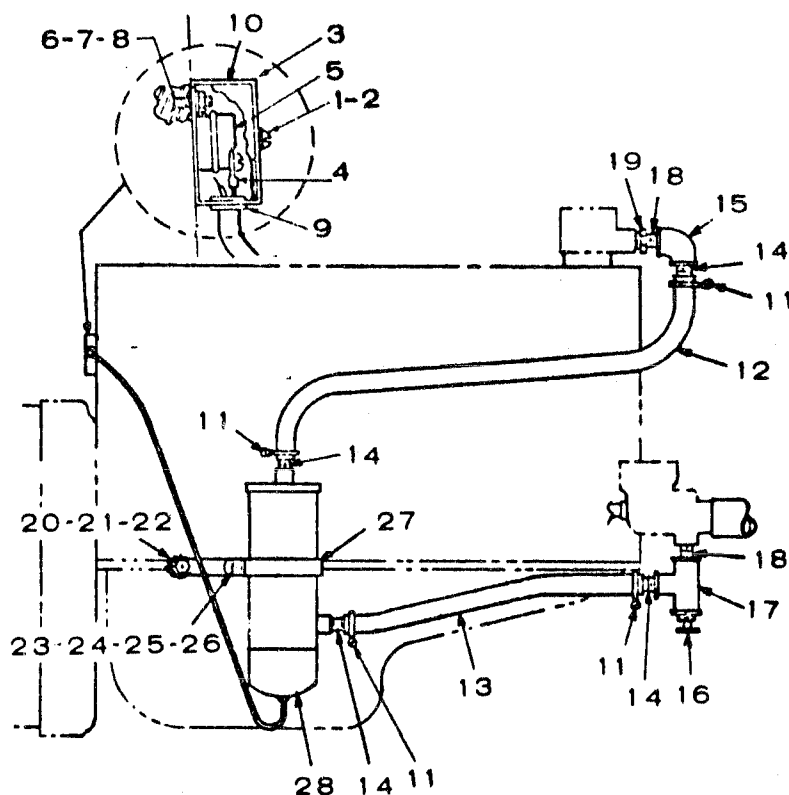
INSTALLATION DAY FUEL TANK — OPTIONAL EQUIPMENT



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	502-0143	2	Adapter, Reducer
2	501-0085	1	Line, Fuel - Flexible
3	501-0083	1	Line, Fuel - Flexible
4	502-0173	1	Connector, Pipe
5	502-0268	1	Elbow, Pipe - 90°
6	505-0110	1	Plug, Pipe (3/8" NPT)
7	415-0170	1	Switch, Fuel Level
8	159-0020	1	Cap, Fuel Tank
9	505-0056	1	Plug, Pipe (1/2" NPT)
10	415-0331	2	Strap, Hold-down
11	415-0322	1	Tank, Fuel - 8 Gal

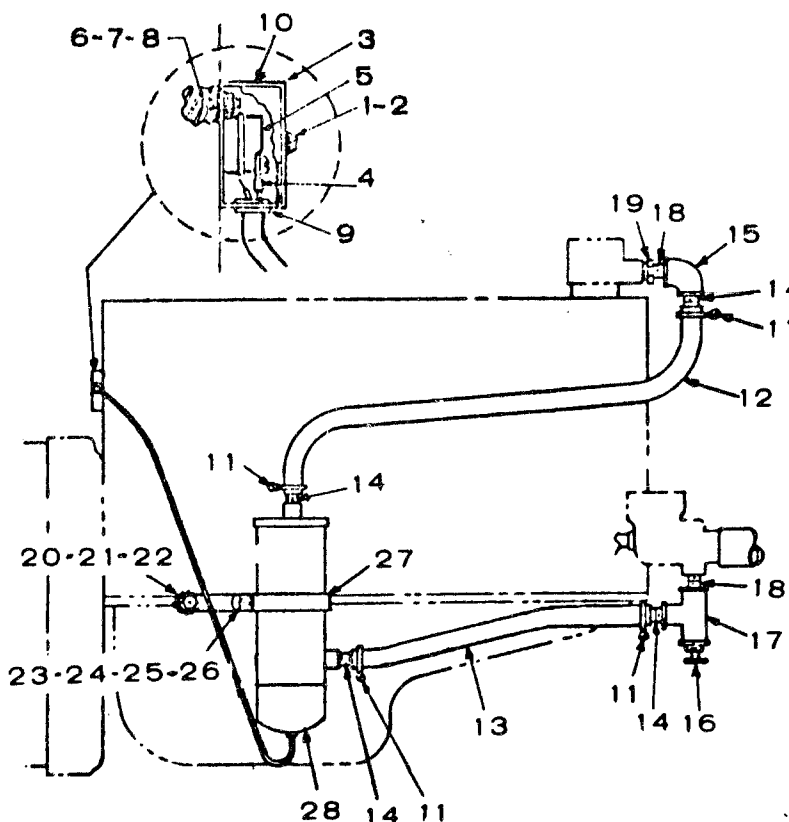
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
12	415-0329	2	Brace, Fuel Tank
13	415-0330	1	Plate, Fuel Tank
ATTACHING HARDWARE — NOT ILLUSTRATED (Select as Applicable)			
800-0005	As Req'd	Screw, Cap - Hex Head (1/4-20 x 3/4")	
800-0007	As Req'd	Screw, Cap - Hex Head (1/4-20 x 1")	
850-0040	As Req'd	Washer, Lock - Spring (1/4")	
862-0001	As Req'd	Nut, Hex (1/4-20)	

INSTALLATION 120 VOLT WATER JACKET HEATER — OPTIONAL EQUIPMENT



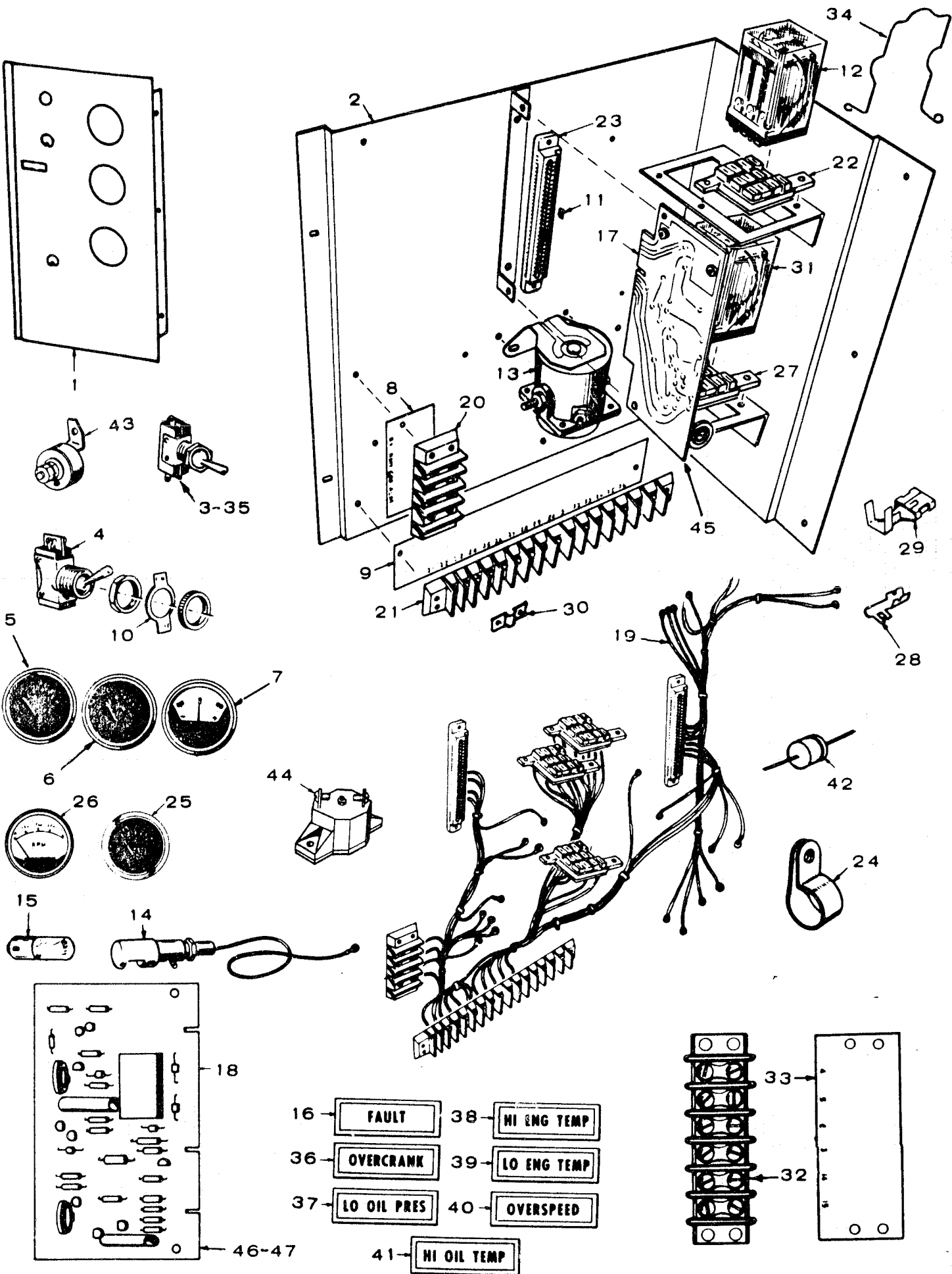
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	812-0076	2	Screw, Machine - Round Head (#8-32 x 5/16")
2	850-0025	2	Washer, Lock - Spring (#8)
3	333-0013	1	Cover, Box - Thermostat
4	332-0149	1	Terminal, Lug
5	309-0106	1	Thermostat
6	520-0446	2	Stud (#10-32 x 3/4")
7	850-0030	2	Washer, Lock - Spring (#10)
8	870-0053	2	Nut, Hex (#10-32)
9	508-0008	1	Grommet, Rubber
10	333-0012	1	Box, Thermostat
11	503-0183	4	Clamp, Hose
12	503-0386	As Reqd	Hose, Rubber (5/8" ID) 44" Required
13	503-0386	As Reqd	Hose, Rubber (5/8" ID) 19" Required
14	505-0135	4	Nipple, Pipe (3/8 NPT x 1-1/2")
15	505-0039	1	Elbow, Pipe - 90° (3/8 NPT)
16	504-0028	1	Cock, Drain (3/8 NPT)
17	505-0060	1	Tee, Pipe (3/8 NPT)
18	505-0101	2	Nipple, Pipe - Close (3/8 NPT x 1")
19	505-0455	1	Bushing, Reducer (1" NPT x 3/8 NPT)
20	800-0091	1	Screw, Cap - Hex Head (1/2-13 x 1-1/4")
21	850-0060	1	Washer, Lock - Spring (1/2")
22	856-0013	1	Washer, Lock - External/Internal Tooth (1/2")
23	800-0031	1	Screw, Cap - Hex Head (5/16-18 x 1-1/2")
24	526-0115	1	Washer, Flat (11/32" ID x 11/16" OD x 1/16" THK)
25	856-0008	1	Washer, Lock - External/Internal Tooth (5/16")
26	862-0015	1	Nut, Hex (5/16-18)
27	130-0755	1	Bracket, Support - Water Heater
28	333-0053	1	Heater, Water - Engine (120 Volt)

INSTALLATION 240 VOLT WATER JACKET HEATER — OPTIONAL EQUIPMENT



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	812-0076	2	Screw, Machine - Round Head (#8-32 x 5/16")
2	850-0025	2	Washer, Lock - Spring (#8)
3	333-0013	1	Cover, Box - Thermostat
4	332-0149	1	Terminal, Lug
5	309-0106	1	Thermostat
6	520-0446	2	Stud (#10-32 x 3/4")
7	850-0030	2	Washer, Lock - Spring (#10)
8	870-0053	2	Nut, Hex (#10-32)
9	508-0008	1	Grommet, Rubber
10	333-0012	1	Box, Thermostat
11	503-0183	4	Clamp, Hose
12	503-0386	As Reqd	Hose, Rubber (5/8" ID) 44" Required
13	503-0386	As Reqd	Hose, Rubber (5/8" ID) 19" Required
14	505-0135	4	Nipple, Pipe (3/8 NPT x 1-1/2")
15	505-0039	1	Elbow, Pipe - 90° (3/8 NPT)
16	504-0028	1	Cock, Drain (3/8 NPT)
17	505-0060	1	Tee, Pipe (3/8 NPT)
18	505-0101	2	Nipple, Pipe - Close (3/8 NPT x 1")
19	505-0455	1	Bushing, Reducer (1" NPT x 3/8 NPT)
20	800-0091	1	Screw, Cap - Hex Head (1/2-13 x 1-1/4")
21	850-0060	1	Washer, Lock - Spring (1/2")
22	856-0013	1	Washer, Lock - External/Internal Tooth (1/2")
23	800-0031	1	Screw, Cap - Hex Head (5/16-18 x 1-1/2")
24	526-0115	1	Washer, Flat (11/32" ID x 11/16" OD x 1/16" THK)
25	856-0008	1	Washer, Lock - External/Internal Tooth (5/16")
26	862-0015	1	Nut, Hex (5/16-18)
27	130-0755	1	Bracket, Support - Water Heater
28	333-0073	1	Heater, Water - Engine (240 Volt)

CONTROL. GROUP (Engine Section)



CONTROL GROUP (Engine Section)

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	£	1	Panel, Control (Engine Section)
2	301-3253	1	Bracket, Angle - Control Mounting
3	308-0138	1	Switch, Toggle (SPDT)
4	308-0002	1	Switch, Toggle (SPST)
5	193-0107	1	Gauge, Oil Pressure
6	193-0106	1	Gauge, Water Temperature
7	302-0061	1	Ammeter (30-0-30)
8	332-1239	1	Strip, Marker
9	332-1241	1	Strip, Marker
10	308-0003	1	Plate, Switch (On-Off)
11	332-1276	4	Plug, Key
12	307-1056	2	Relay, Armature
13	307-0061	1	Relay, Armature
14	322-0149	1	Light, Panel
15	322-0004	1	Lamp, Incandescent (12 Volt)
16	322-0129	1	Light, Indicator (Fault)
17	300-0751	1	*Control, Cycle Cranker - Standard
18	300-0680	1	*Control, Engine Monitor - 1 Light
19	£	1	Harness, Wiring (Includes Parts Marked †)
20	332-0537	1	†Board, Terminal (4 Place)
21	332-0795	1	†Board, Terminal (16 Place)
22	332-0765	2	†Socket, Relay
23	332-1271	2	†Housing, Connector (PC Boards)
24	332-0051	1	Clamp, Loop
25	193-0187	1	Gauge, Oil Temperature - Optional
26	302-0749	1	Tachometer, Electrical - Optional
27	323-0764	1	†Socket, Relay
28	332-1269	As Req'd	†Contact, Electrical - PC Board Connector
29	332-1280	As Req'd	†Terminal, Lug
30	332-1043	1	†Jumper
31	307-1061	1	Relay, Armature
32	332-0699	1	†Board, Terminal (6 Place)
33	332-1240	1	Strip, Marker
34	307-1157	3	Clip, Retaining - Relay
35	308-0327	1	Switch, Toggle - Optional (SPDT) Penn State
36	322-0119	1	Light, Indicator (Overcrank)
37	322-0120	1	Light, Indicator (Low Oil Pressure)
38	322-0121	1	Light, Indicator (Hi Engine Temp)

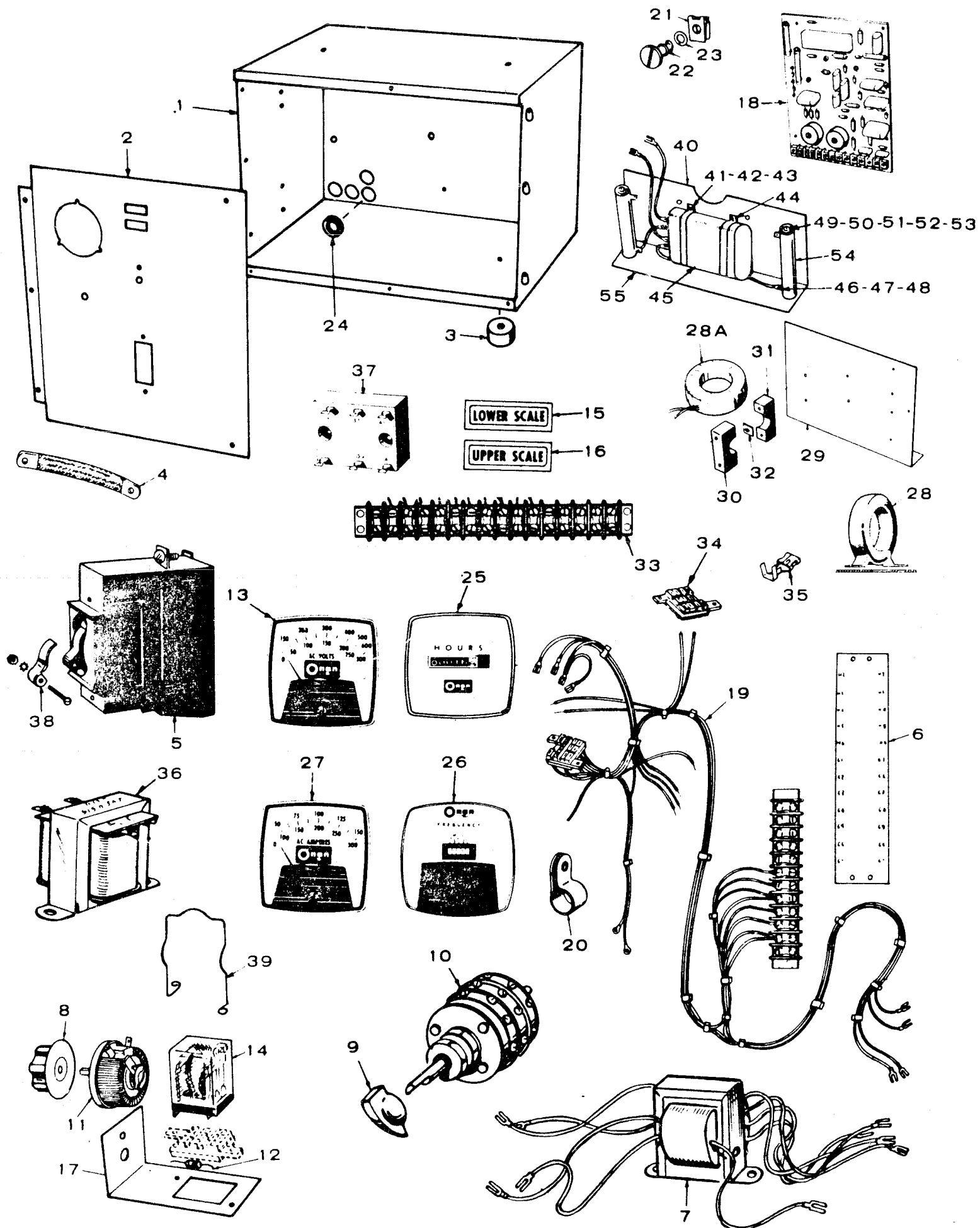
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
39	322-0122	1	Light, Indicator (Low Engine Temp)
40	322-0123	1	Light, Indicator (Overspeed)
41	322-0124	1	Light, Indicator (Hi Oil Temp)
42	357-0004	1	Diode, Rectifier
43	193-0189	2	Resistor - Gauges
44	320-0240	1	Breaker, Circuit - 12.5 Amp
45	300-0715	1	*Control, Cycle Cranker - Optional
46	300-0731	1	*Control, Engine Monitor - Penn State - Optional
47	300-0682	1	*Control, Engine Monitor - 5 Light - Optional
ATTACHING HARDWARE—NOT ILLUSTRATED (Select as Applicable)			
	812-0066	As Req'd	Screw, Machine - Round Head (#6-32 x 3/4")
	812-0077	As Req'd	Screw, Machine - Round Head (#8-32 x 3/8")
	815-0026	As Req'd	Screw, Machine - Truss Head (#10-32 x 3/8")
	813-0098	As Req'd	Screw, Machine - Round Head (#10-32 x 3/8")
	815-0203	As Req'd	Screw, Machine - Round Head, Brass with External Tooth Lockwasher (#10-32 x 7/8")
	853-0003	As Req'd	Washer, Lock - External Tooth (#6)
	850-0025	As Req'd	Washer, Lock - Spring (#8)
	526-0049	As Req'd	Washer, Flat - Brass (.200" ID x 7/16" OD x 1/32" THK)
	850-0030	As Req'd	Washer, Lock - Spring (#10)
	856-0003	As Req'd	Washer, Lock - External/Internal Tooth (#10)
	853-0008	As Req'd	Washer, Lock - External Tooth (#10)
	860-0006	As Req'd	Nut, Hex (#6-32)
	860-0008	As Req'd	Nut, Hex (#8-32)
	870-0053	As Req'd	Nut, Hex (#10-32)
	871-0010	As Req'd	Nut, Hex - Brass (#6-32)
	518-0295	As Req'd	Pin, Round Head, Non-Metallic (PC Board Fastener)

* - See Separate Group for Components.

† - Included in Wiring Harness.

£ - To order refer to Factory, giving Model, Spec and Serial Number. Additional data as to quantity of meters, etc., will assist identification.

CONTROL GROUP (AC Output Portion)



CONTROL GROUP (AC Output Section)

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	301-3158	1	Box, Control	40	232-2219	1	Filter, Voltage Regulator - Optional (Includes Parts Marked +)
2	£	1	Panel, Control (Generator Section)	41	812-0061	4	+Screw, Machine - Round Head (#6-32 x 3/8")
3	402-0078	4	Mount, Vibration	42	850-0020	5	+Washer, Lock - Spring (#6)
4	337-0049	1	Lead, Electrical - Ground	43	860-0006	4	+Nut, Hex (#6-32)
5	320-0431	1	Breaker, Circuit	44	312-0189	2	+Bracket, Hold-down - Capacitor
6	332-1242	1	Strip, Marker (16 Place)	45	312-0188	1	+Capacitor, Plastic Dielectric, Metal Case (15 MFD, 440 VAC)
7	315-0342	1	Transformer, Voltage	46	815-0001	4	+Screw, Machine - Binding Head, Brass (#6-32 x 1/4")
8	303-0032	1	Knob	47	853-0003	4	+Washer, Lock - External Tooth (#6)
9	303-0076	1	Knob, Pointer	48	860-0006	4	+Nut, Hex (#6-32)
10	308-0284	1	Switch, Rotary - 4 Pole, 4 Position	49	812-0165	2	+Screw, Machine - Round Head (1/4-20 x 4-1/2")
11	303-0170	1	Rheostat	50	304-0427	4	+Washer, Shoulder - Centering
12	350-0556	1	+Resistor, Composition (47,000-Ohm, 1/2 Watt, 5%)	51	304-0292	2	+Insulator, Disk
13	VOLTMETER			52	850-0040	2	+Washer, Lock - Spring (1-4)
	302-0718	1	(0-300 Volt, 0-600 Volt) Used on 15R & 515R Sets	53	862-0001	2	+Nut, Hex (1/4-20)
	302-0779	1	(0-750 Volt) - Used on 9XR Sets	54	354-0025	2	+Resistor, Wirewound (10-Ohm, 100 Watts, 5%)
14	307-1061	1	Relay, Armature	55	232-2218	1	+Bracket, Angle - Mounting
15	322-0130	1	Light, Indicator - Optional (Lower Scale)	ATTACHING HARDWARE - NOT ILLUSTRATED (Select as Applicable)			
16	322-0131	1	Light, Indicator - Optional (Upper Scale)	812-0059	As Req'd	Screw, Machine - Round Head (#6-32 x 1/4")	
17	301-3244	1	Bracket, Angle - Relay Socket	812-0061	As Req'd	Screw, Machine - Round Head (#6-32 x 3/8")	
18	332-1268	1	Regulator, Voltage	812-0066	As Req'd	Screw, Machine - Round Head (#6-32 x 3/4")	
19	£	1	Harness, Wiring (Includes Parts Marked †)	812-0077	As Req'd	Screw, Machine - Round Head (#8-32 x 3/8")	
20	332-0051	1	Clamp, Loop	813-0100	As Req'd	Screw, Machine - Round Head (#10-32 x 1/2")	
21	406-0332	2	Receptacle, Turnbutton Fastener	815-0026	As Req'd	Screw, Machine - Truss Head (#10-32 x 3/8")	
22	406-0333	2	Stud, Turnbutton Fastener	815-0203	As Req'd	Screw, Machine - Round Head, Brass with External Tooth Lockwasher (#10-32 x 7/8")	
23	406-0334	2	Washer, Lock - Turnbutton Stud	800-0045	As Req'd	Screw, Cap - Hex Head (5/16-18 x 3/8")	
24	508-0001	4	Grommet, Rubber (1-1/16" OD)	800-0046	As Req'd	Screw, Cap - Hex Head (3/8-16 x 1/2")	
25	TIME TOTALIZING METER			526-0008	As Req'd	Washer, Flat (13/64" ID x 7/16" OD x 1/32" THK)	
	302-0466	1	Meter, Time Totalizing - 60 Hertz	526-0049	As Req'd	Washer, Flat - Brass (.200" ID x 7/16" OD x 1/32" THK)	
	302-0469	1	Meter, Time Totalizing - 50 Hertz	850-0020	As Req'd	Washer, Lock - Spring (#6)	
26	ELECTRICAL FREQUENCY METER			850-0025	As Req'd	Washer, Lock - Spring (#8)	
	302-0221	1	Meter, Electrical Frequency - 60 Hertz	850-0045	As Req'd	Washer, Lock - Spring (5 16)	
	302-0256	1	Meter, Electrical Frequency - 50 Hertz	853-0003	As Req'd	Washer, Lock - External Tooth (#6)	
27	AMMETER			853-0008	As Req'd	Washer, Lock - External Tooth (#10)	
	302-0412	2	Ammeter (0-250) - Optional	856-0003	As Req'd	Washer, Lock - External Internal Tooth (#10)	
	302-0719	1	Ammeter (0-75 0-150)	856-0008	As Req'd	Washer, Lock - External Internal Tooth (5 16)	
28	CURRENT TRANSFORMER			860-0008	As Req'd	Nut, Hex (#8-32)	
	302-0608	3	Transformer, Current - Used on 61-100 kW, 15R & 515R Sets	862-0015	As Req'd	Nut, Hex (5/16-18)	
	302-0547	3	Transformer, Current - Used on 101-125 kW, 15R & 515R Sets	870-0053	As Req'd	Nut, Hex (#10-32)	
28A	CURRENT TRANSFORMER			871-0010	As Req'd	Nut, Hex - Brass (#6-32)	
	302-0079	3	Transformer, Current - Used on 81-125 kW, 9XR Sets				
29	BRACKET, ANGLE - TRANSFORMER MOUNTING						
	302-0764	1	Used on 15R & 515R Sets				
	302-0729	1	Used on 9XR Sets				
30	302-0235	3	Clamp, Retaining, Transformer - Upper				
31	302-0236	3	Clamp, Retaining, Transformer - Lower				
32	302-0253	As Req'd	Shim - Transformer Mounting				
33	332-0795	1	+Board, Terminal (16 Place)				
34	323-0764	1	+Socket, Relay				
35	332-1280	As Req'd	+Terminal, Lug				
36	315-0384	1	Reactor				
37	305-0524	1	Rectifier Assembly				
38	320-0307	1	Lock, Handle - Circuit Breaker - Optional (Penn State Sets)				
39	307-1157	1	Clip, Retaining - Relay				

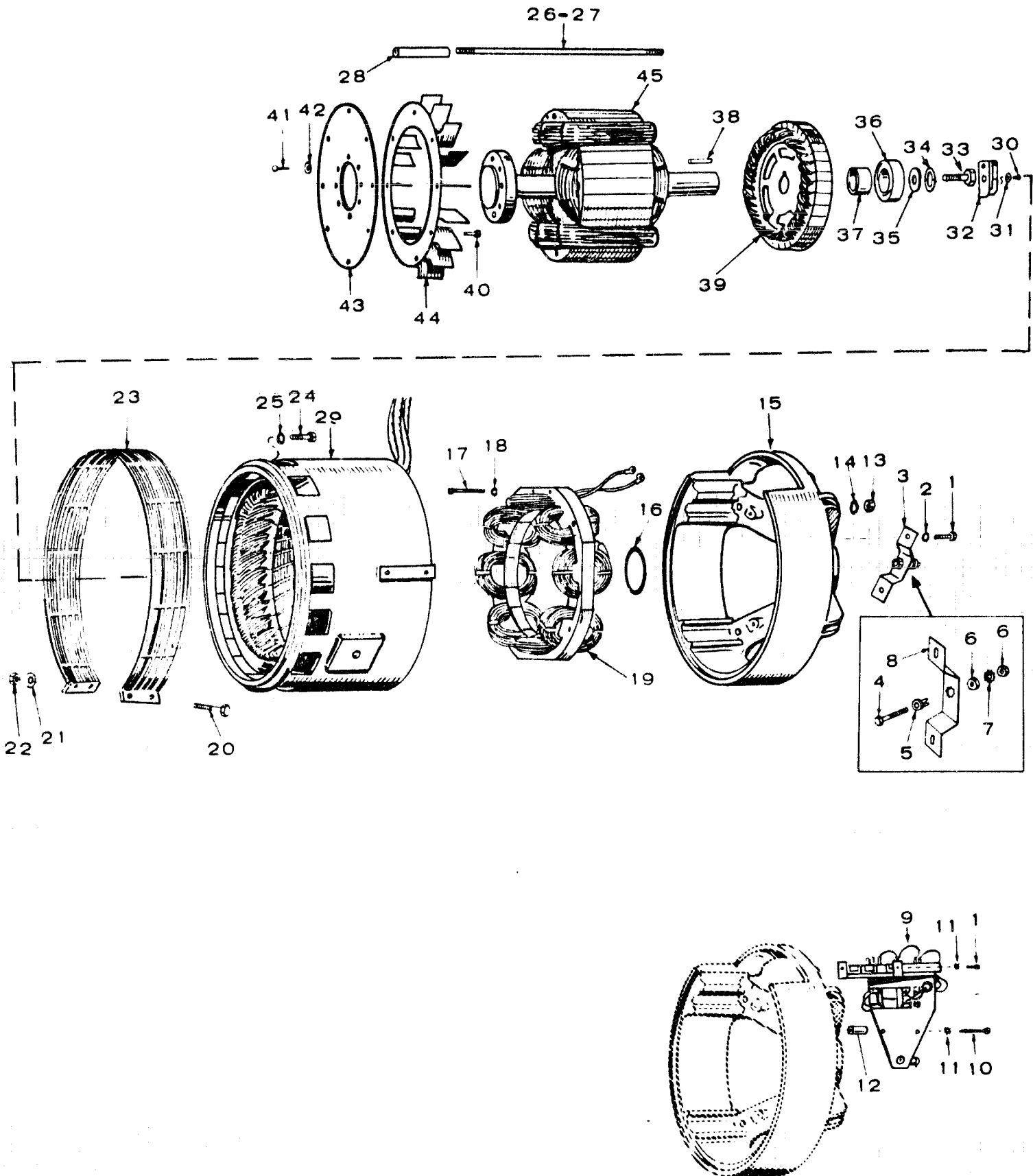
+ - Included in Filter.

† - Included in Wiring Harness.

* - See Separate Group for Components

£ - To order refer to Factory, giving Model, Spec and Serial number from nameplate; additional data as to Quantity of meters, etc., will assist identification

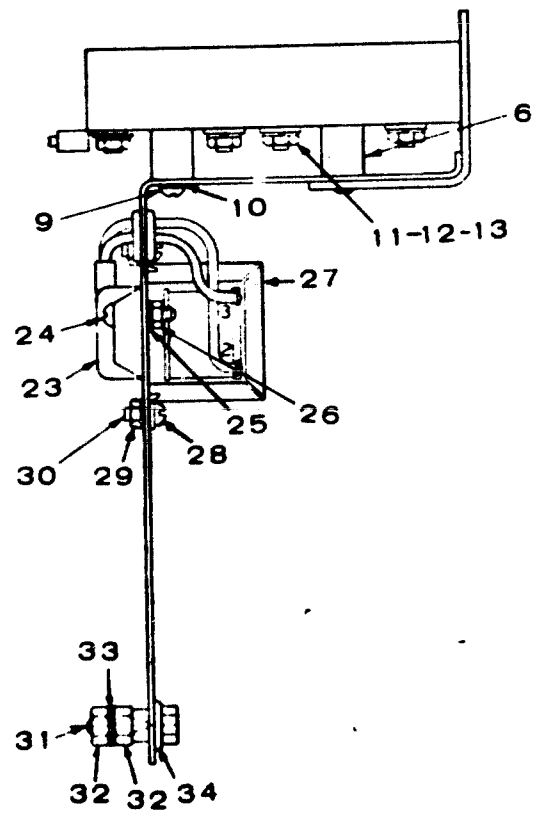
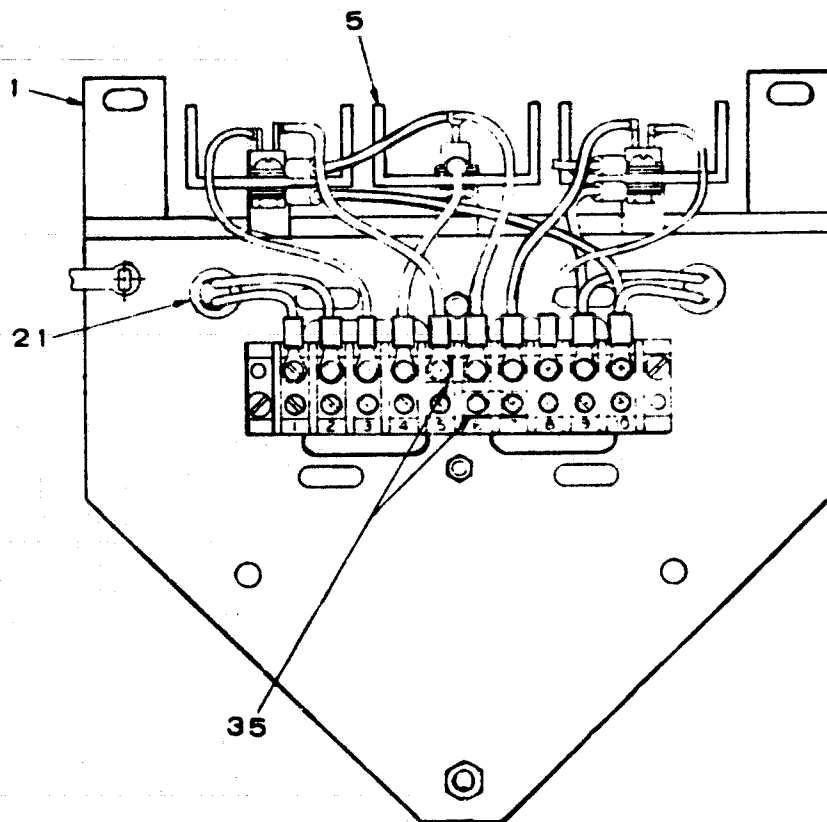
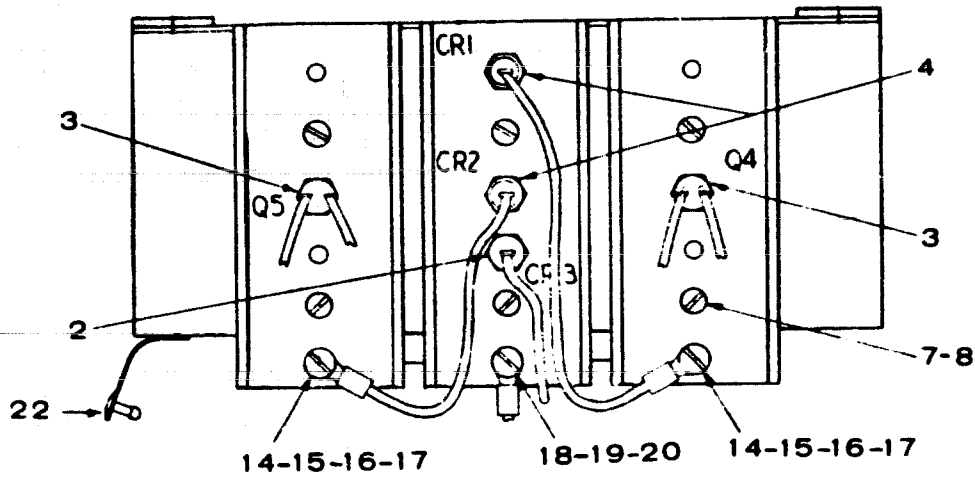
GENERATOR GROUP



GENERATOR GROUP

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	800-0003	2	Screw, Cap - Hex Head (1/4-20 x 1/2")	26	520-0718	4	Stud (3/8-16 x 3/8-16 x 14-11/16") Used on Single Phase Sets
2	850-0040	2	Washer, Lock - Spring (1/4")	27	520-0721	4	Stud (3/8-16 x 3/8-16 x 16-11/32") Used on Three Phase Sets
3	150-1456	1	Contact Assembly - Overspeed Switch (Includes Parts Marked †) - Begin Spec D	28	503-0611	4	Hose, Rubber
4	150-0723	1	†Point, Overspeed Switch	29	£	1	Stator, Generator
5	870-0250	1	†Nut, Insulated - Overspeed Switch	30	812-0189	1	Screw, Machine - Round Head (3/8-16 x 3/4")
6	862-0001	2	†Nut, Hex (1/4-20)	31	856-0010	1	Washer, Lock - External/Internal Tooth (3/8")
7	853-0013	1	†Washer, Lock - External Tooth (1/4")	32	150-0717	1	Switch, Overspeed
8	150-1356	1	†Bracket, Overspeed Switch	ROTOR ASSEMBLY, GENERATOR (Includes Parts Marked *)			
9	VOLTAGE REGULATOR ASSEMBLY - SPEC A THROUGH C (See Separate Group for Components)			33	800-0513	1	*Screw, Cap - Hex Head Special Heat Treated, Unplated (3/4-10 x 1-1/2")
10	800-0009	2	Screw, Cap - Hex Head (1/4-20 x 1-1/2") Spec A through C	34	850-0079	1	*Washer, Lock - Spring (3/4")
11	853-0013	4	Washer, Lock - External Tooth (1/4") Spec A thru C	35	526-0238	1	*Washer, Flat - Steel Alloy (13/16" ID x 2" OD x 3/16" THK)
12	305-0461	2	Spacer, Sleeve	36	510-0101	1	*Bearing, Ball
13	862-0011	4	Nut, Hex - Special, Grade 8 (3/8-16)	37	232-2102	1	*Spacer, Sleeve
14	850-0050	4	Washer, Lock - Spring (3/8")	38	515-0145	1	*Key, Machine (1/4" x 1/4" x 7/8")
15	211-0185	1	End Bell - Generator	39	201-1739	1	*Rotor Assembly, Exciter (See Separate Group for Components)
16	509-0125	1	Seal, Oil - "O" Ring	40	805-0018	8	Bolt, Hex Head - Grade 8 (3/8-16 x 1")
17	800-0009	4	Screw, Cap - Hex Head (1/4-20 x 1-1/2")	41	805-0033	8	*Bolt, Hex Head - Grade 8 (5/8-11 x 1")
18	850-0040	4	Washer, Lock - Spring (1/4")	42	526-0259	8	*Washer, Flat - Special Hardened Steel (5/8")
19	220-2353	1	Stator, Exciter - Brushless Generator	43	232-2037	1	*Disk, Drive - Generator
20	800-0008	2	Screw, Cap - Hex Head (1/4-20 x 1-1/4")	44	205-0095	1	*Fan, Centrifugal - Generator
21	850-0040	2	Washer, Lock - Spring (1/4")	45	£	1	*Rotor, Generator
22	862-0001	2	Nut, Hex (1/4-20)	† - Included in Overspeed Contact Assembly #150-1456			
23	334-0368	1	Screen, Air Outlet - Generator	* - Included in Generator Rotor Assembly			
24	800-0051	8	Screw, Cap - Hex Head (3/8-16 x 1-1/4")	£ - Refer to Factory giving Complete Model, Spec and Serial Number from nameplate			
25	850-0050	8	Washer, Lock - Spring (3/8")				

VOLTAGE REGULATOR GROUP

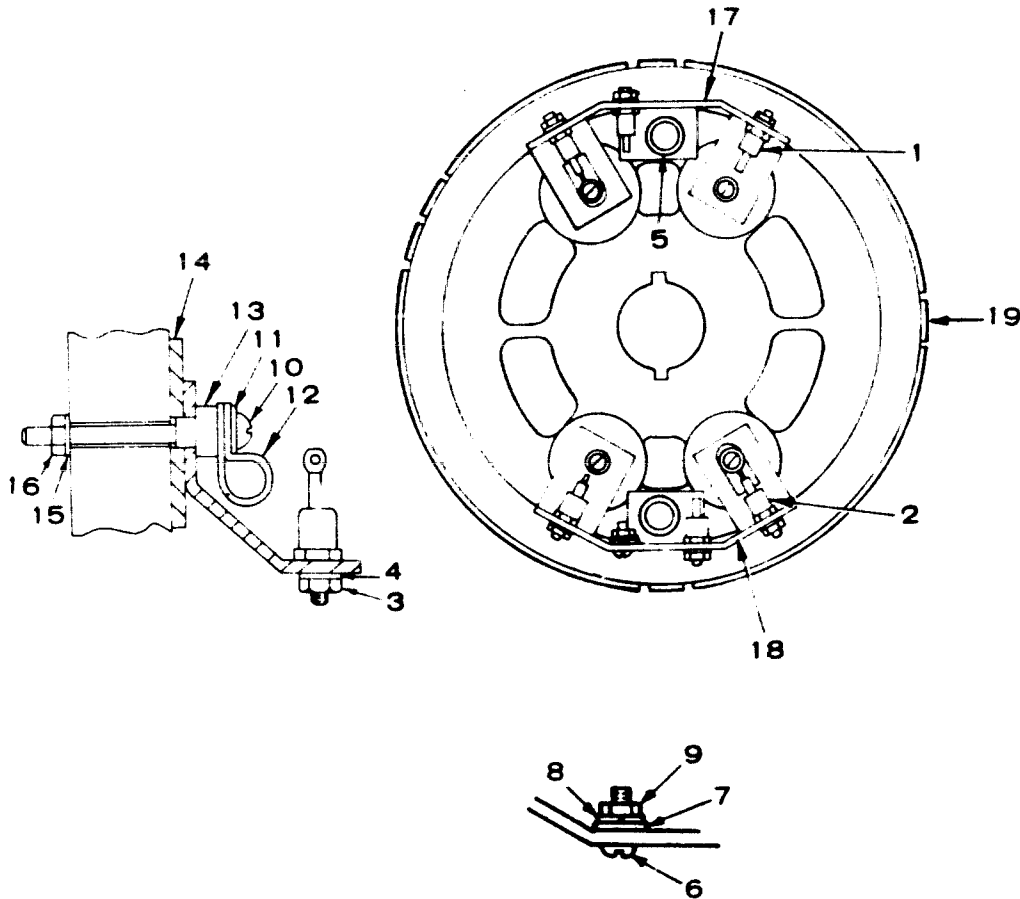


VOLTAGE REGULATOR GROUP

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	CHASSIS ASSEMBLY, VOLTAGE REGULATOR (Complete)			17	871-0007	2	*†Nut, Hex - Rectifier Lead to Heat Sink (#8-32)
	305-0491		Brushless Generator (Includes Parts Marked *)	18	812-0079	1	*†Screw, Machine Roundhead - Terminal Block Lead to Heatsink (#8-32 x 1/2")
	305-0489	1	Brush Type Generator (Includes Parts Marked †)	19	853-0005	1	*†Washer, Lock - ET - Terminal Block to Heat Sink (#8)
1	305-0482	1	*†Chassis, Voltage Regulator	20	871-0007	1	*†Nut, Hex - Terminal Block Lead to Heat Sink (#8-32)
2	358-0029	1	*†Rectifier, Silicon (CR3)	21	508-0002	2	*†Grommet, Rubber
3	RECTIFIER, SILICON CONTROLLED			22	332-1415	1	*†Clamp, Cable
	364-0014	2	*Brushless Generator (Q4 & Q5)	23	332-1266	1	*†Block, Terminal
	364-0012	2	*†Brush Type Generator (Q4 & Q5)	24	812-0081	2	*†Screw Machine - Roundhead - Terminal Block Mounting (#8-32 x 5/8")
4	RECTIFIER, SILICON			25	853-0005	2	*†Washer, Lock - ET - Terminal Block Mounting (#8)
	359-0035	2	*Brushless Generator (CR1 & CR2)	26	860-0008	2	*†Nut, Hex - Terminal Block Mounting (#8-32)
	358-0031	2	*†Brush Type Generator (CR1 & CR2)	27	REACTOR ASSEMBLY, COMMUTATOR		
5	363-0048	3	*†Heat Sink, Rectifier		315-0343	1	*Brushless Generator
6	332-1265	6	*†Insulator, Stand off		315-0341	1	*†Brush Type Generator
7	812-0077	6	*†Screw, Roundhead - Heat Sink Mtg. (#8-32 x 3/8")	28	812-0077	2	*†Screw, Machine - Roundhead - Reactor Mtg. (#8-32 x 3/8")
8	853-0005	6	*†Washer, Lock - ET - Heat Sink Mtg. (#8)	29	853-0005	2	*†Washer, Lock - ET - Reactor Mounting (#8)
9	812-0077	6	*†Screw, Machine Roundhead - Stand off Insulator Mtg (#8-32 x 3/8")	30	860-0008	2	*†Nut, Hex - Reactor Mtg. (#8-32)
10	853-0005	6	*†Washer, Lock - ET Stand off Insulator Mtg. (#8)	31	150-0723	1	*†Point, Contact - Overspeed Switch
11	871-0010	3	*†Nut, Hex - Rectifier Mounting (CR1, CR2 & CR3) (#10-32)	32	862-0001	2	*†Nut, Hex - Contact Point (1/4-20)
12	526-0009	3	*†Washer, Flat (7/32" I.D. x 1/2" O.D. x 1/16" Thick) - Rectifier Mtg. (CR1, CR2 & CR3)	33	853-0013	1	*†Washer, Lock - ET Contact Point (1/4)
13	850-0030	3	*†Washer, Lock - Spring - Rectifier Mtg. (CR1, CR2 & CR3) (#10)	34	870-0250	2	*†Nut, Insulator - Contact Point (1/4)
14	812-0079	2	*†Screw, Machine - Roundhead - Rectifier Lead to Heat Sink (#8-32 x 1/2")	35	332-1043	2	*†Jumper - Terminal Block
15	526-0048	2	*†Washer, Flat-Brass (.172" I.D. x 3/8" O.D. x 1/32" Thick)				
16	853-0005	2	*†Washer, Lock - ET - Rectifier Lead to Heat Sink (#8)				

* - Parts included in 305-0491 Voltage Regulator
† - Parts included in 305-0489 Voltage Regulator

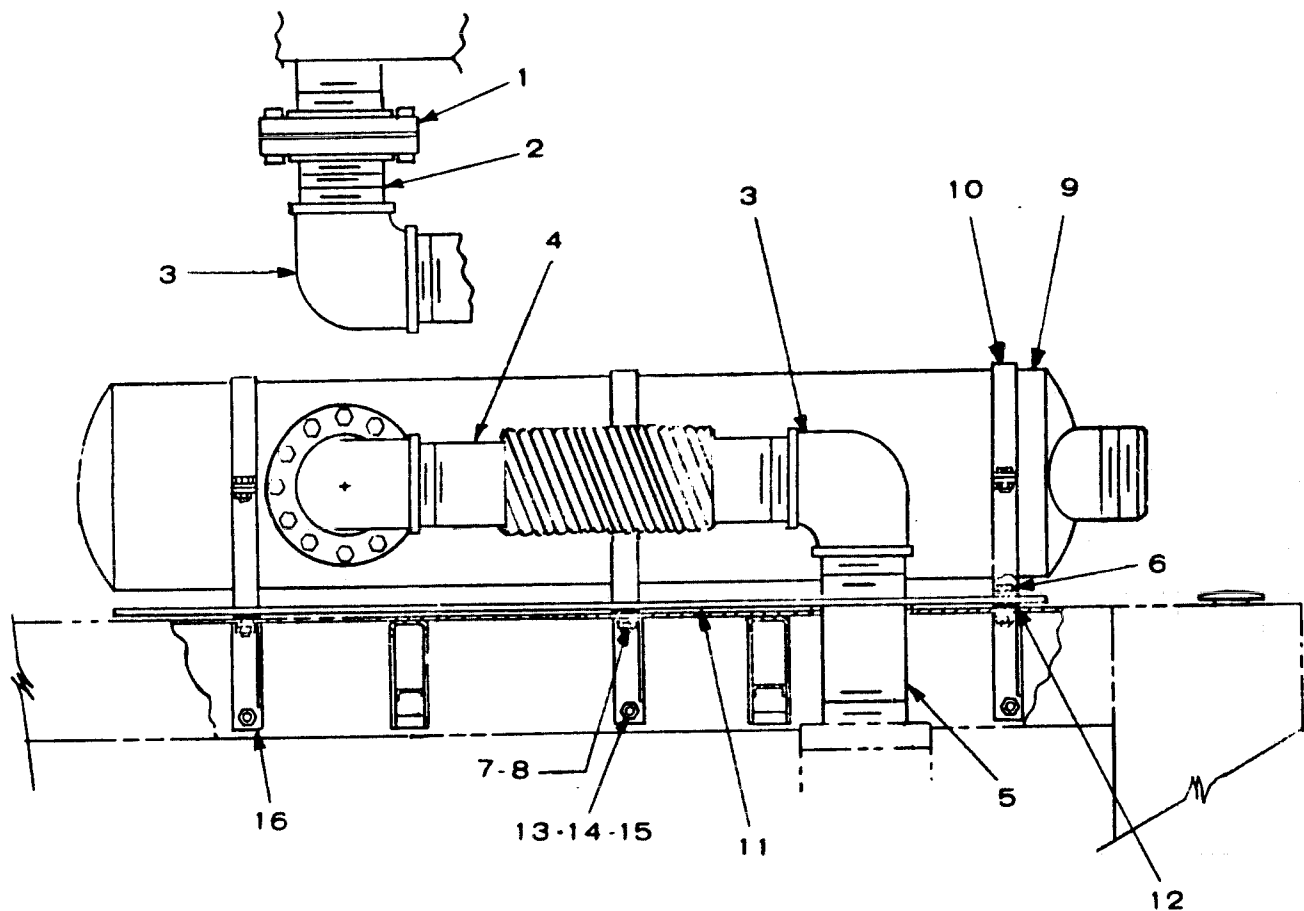
EXCITER ROTOR GROUP



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	358-0016	3	Rectifier, Diode - Positive
2	358-0015	3	Rectifier, Diode - Negative
3	870-0053	6	Nut, Hex (#10-32)
4	850-0030	6	Washer, Lock - Spring (#10)
5	508-0093	2	Grommet, Rubber
6	813-0100	2	Screw, Machine - Round Head (#10-32 x 1/2")
7	526-0008	2	Washer, Flat (13/64" ID x 7/16" OD x 1/32" THK)
8	850-0030	2	Washer, Lock - Spring (#10)
9	870-0053	2	Nut, Hex (#10-32)
10	813-0110	4	Screw, Machine - Round Head (#10-32 x 2")

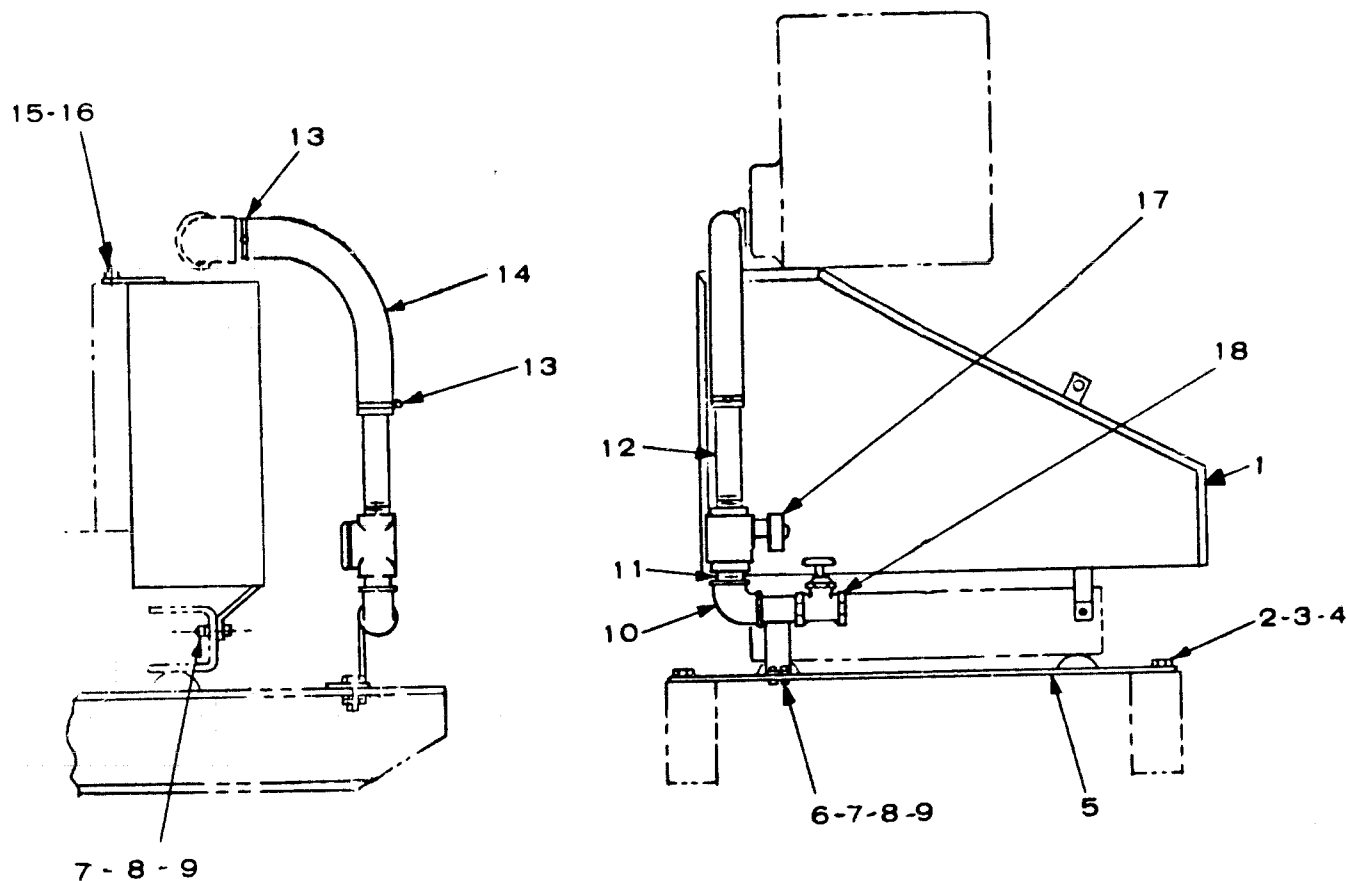
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
11	526-0009	4	Washer, Flat (7/32" ID x 1/2" OD x 1/16" THK)
12	332-0050	2	Clamp, Loop
13	508-0124	4	Spacer, Stepped
14	508-0156	4	Washer, Flat - Fiber (19/64" ID x 1-7/8" OD x 1/8" THK)
15	850-0030	5	Washer, Lock - Spring (#10)
16	870-0053	4	Nut, Hex (#10-32)
17	363-0054	1	Heat Sink, Rectifier - Positive
18	363-0055	1	Heat Sink, Rectifier - Negative
19	201-1737	1	Rotor, Exciter

INSTALLATION EXHAUST MUFFLER (Housed Sets) — OPTIONAL EQUIPMENT



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	155-0679	1	Flange Assembly, Companion
2	505-0664	1	Nipple, Pipe (5" NPT x 4-1/2")
3	505-0665	2	Elbow, Pipe - 90° (5" NPT)
4	155-1153	1	Tube, Exhaust - Flexible
5	505-0734	1	Nipple, Pipe (5" NPT x 10")
6	800-0028	6	Screw, Cap - Hex Head (5/16-18 x 1")
7	850-0045	6	Washer, Lock - Spring (5/16")
8	862-0002	6	Nut, Hex (5/16-18)
9	155-1152	1	Muffler, Exhaust
10	140-0752	3	Clamp, Loop
11	155-1154	1	Shield, Heat - Exhaust Muffler
12	526-0172	6	Washer, Flat (1/2" ID x 2-1/4" OD x 1/4" THK)
13	800-0028	6	Screw, Cap - Hex Head (5/16-18 x 1")
14	850-0045	6	Washer, Lock - Spring (5/16")
15	862-0002	6	Nut, Hex (5/16-18)
16	405-1924	3	Bracket, Support - Muffler Mounting

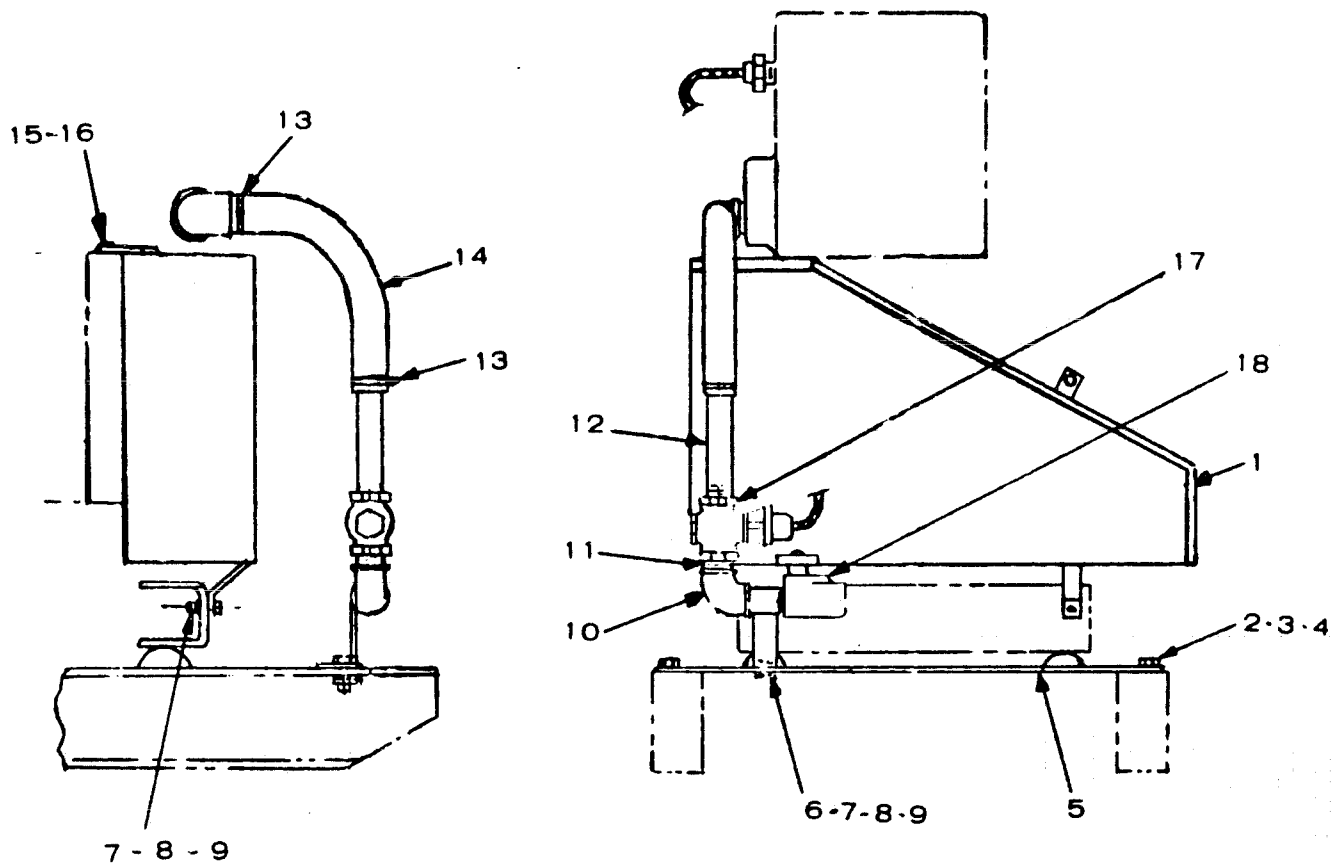
INSTALLATION HEAT EXCHANGER COOLING — OPTIONAL EQUIPMENT



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	191-0893	1	Guard, Belt
2	800-0092	2	Screw, Cap - Hex Head (1/2-13 x 1-1/2")
3	850-0060	2	Washer, Lock - Spring (1/2")
4	862-0005	2	Nut, Hex (1/2-13)
5	130-0875	1	Plate, Mounting - Solenoid
6	110-1168	1	Bracket & Pipe Nipple Assembly
7	800-0007	4	Screw, Cap - Hex Head (1/4-20 x 1")
8	850-0040	4	Washer, Lock - Spring (1/4")
9	862-0001	4	Nut, Hex (1/4-20)
10	505-0042	1	Elbow, Pipe (1-1/4 NPT x 90°)
11	505-0177	1	Nipple, Pipe - Close (1-1/4 NPT x 1-5/8")
12	505-0756	1	Nipple, Pipe - Half (1-1/4 NPT x 7")
13	503-0465	2	Clamp, Hose
14	503-0536	1	Hose, Rubber
15	800-0026	1	Screw, Cap - Hex Head (5/16-18 x 3/4")
16	850-0045	1	Washer, Lock - Spring (5/16")
17	307-0839	1	Valve, Solenoid
18	504-0051	1	Valve, Globe

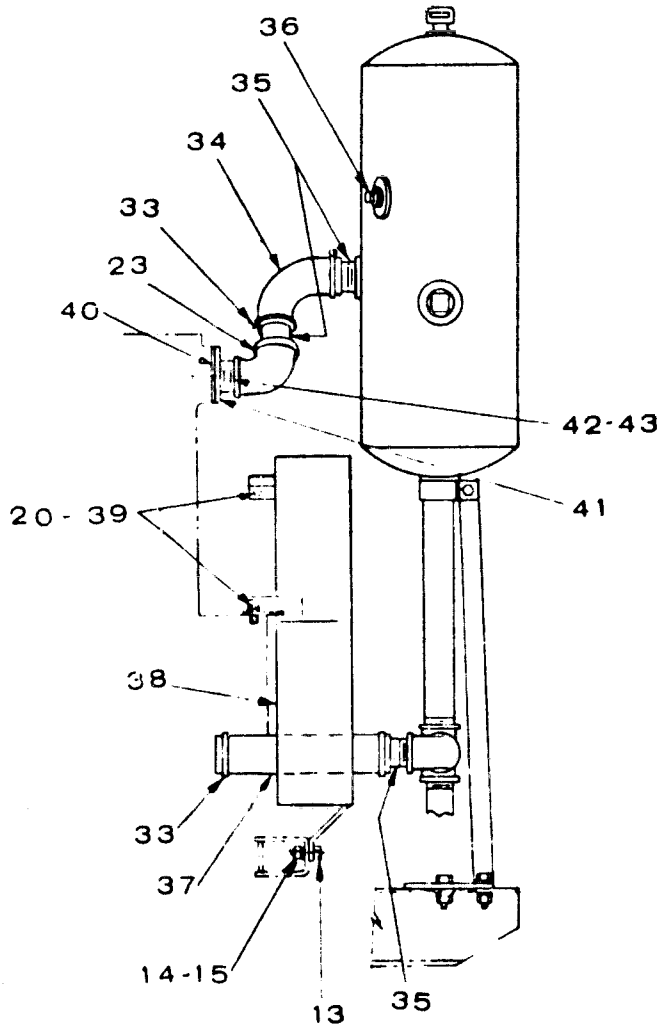
INSTALLATION HEAT EXCHANGER COOLING WITH REGULATOR —

OPTIONAL EQUIPMENT

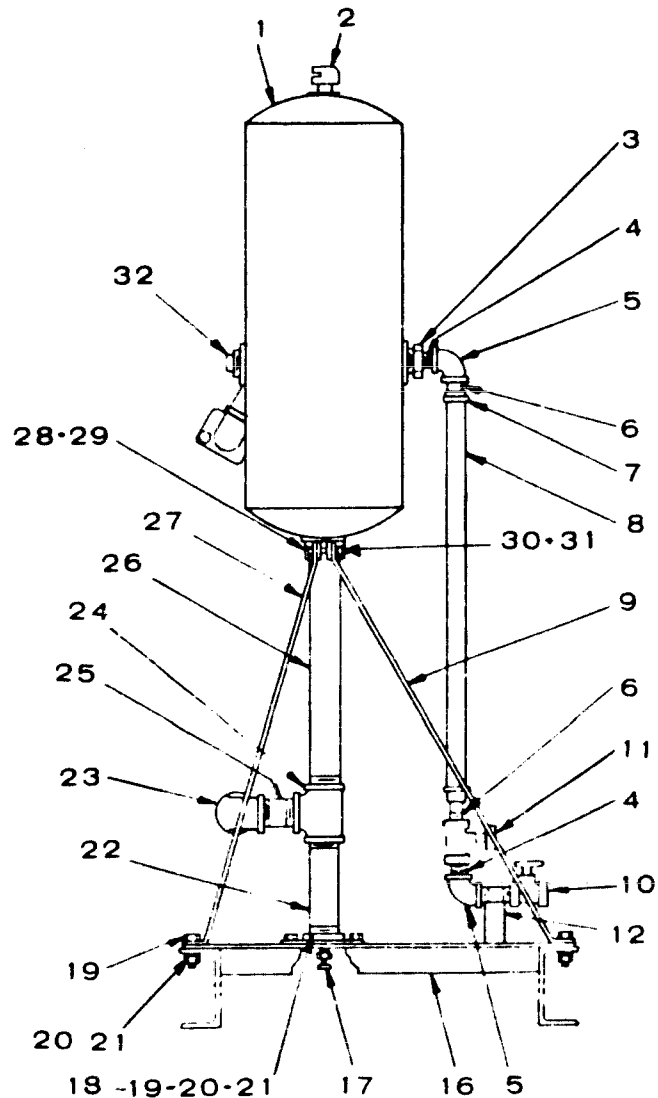


REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	191-0893	1	Guard, Belt
2	800-0092	2	Screw, Cap - Hex Head (1/2-13 x 1-1/2")
3	850-0060	2	Washer, Lock - Spring (1/2")
4	862-0005	2	Nut, Hex (1/2-13)
5	130-0875	1	Plate, Mounting - Solenoid
6	110-1168	1	Bracket & Pipe Nipple Assembly
7	800-0007	4	Screw, Cap - Hex Head (1/4-20 x 1")
8	850-0040	4	Washer, Lock - Spring (1/4")
9	862-0001	4	Nut, Hex (1/4-20)
10	505-0042	1	Elbow, Pipe (1-1/4 NPT x 90°)
11	505-0177	1	Nipple, Pipe - Close (1-1/4 NPT x 1-5/8")
12	505-0756	1	Nipple, Pipe - Half (1-1/4 NPT x 7")
13	503-0465	2	Clamp, Hose
14	503-0536	1	Hose, Rubber
15	800-0026	1	Screw, Cap - Hex Head (5/16-18 x 3/4")
16	850-0045	1	Washer, Lock - Spring (5/16")
17	307-0839	1	Valve, Solenoid
18	309-0243	1	Valve, Regulator - Water Temperature

INSTALLATION STANDPIPE COOLING — OPTIONAL EQUIPMENT

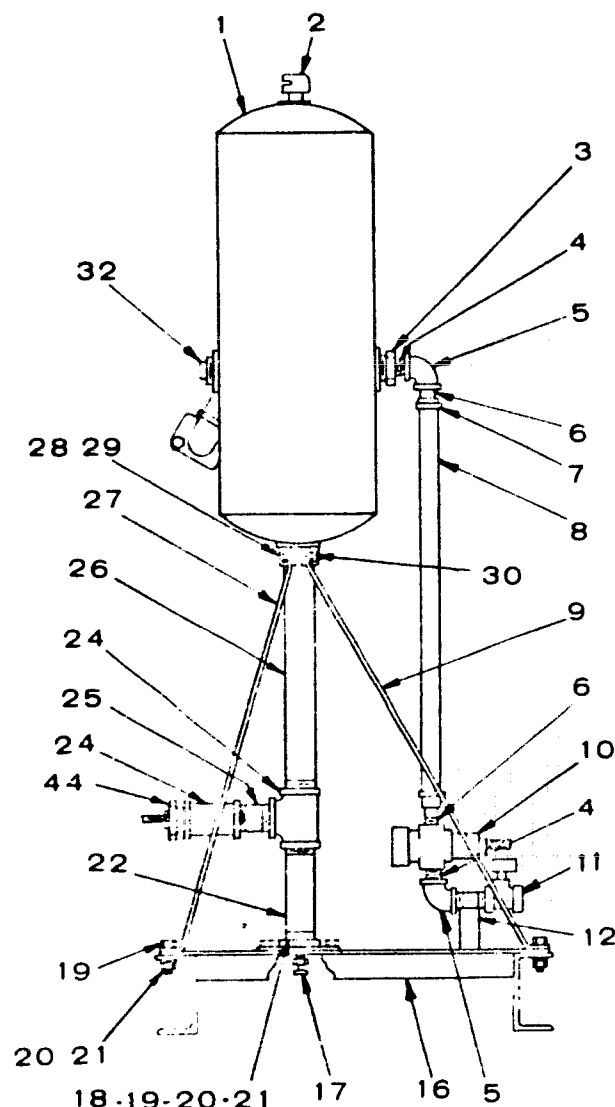
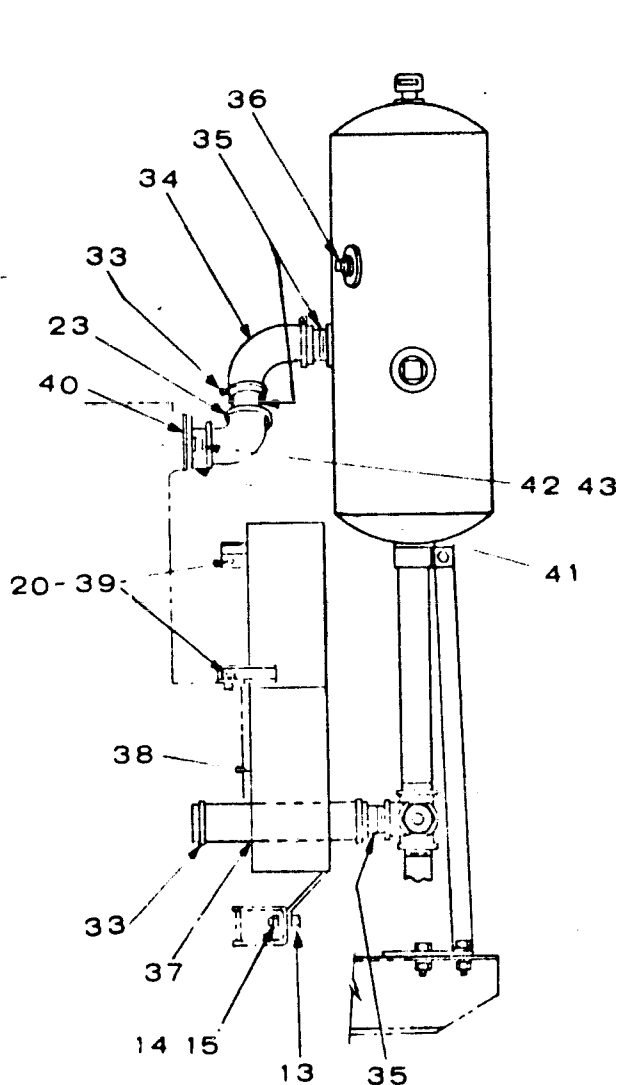


REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	130-0425	1	Stand Pipe Tank
2	504-0062	1	Valve, Vacuum Relief
3	505-0023	1	Bushing, Reducer (1-1/4" NPT x 1" NPT)
4	505-0004	2	Nipple, Pipe - Closed (1" NPT x 1-1/2")
5	505-0041	2	Elbow, Pipe (1" NPT x 90°)
6	505-0330	2	Nipple, Pipe - Half (1" NPT x 2")
7	503-0189	2	Clamp, Hose
8	503-0361	As Req'd	Hose, Rubber (Order 36")
9	130-0869	1	Brace, Standpipe
10	504-0090	1	Valve, Globe
11	307-1135	1	Valve, Solenoid
12	130-0797	1	Bracket & Pipe Nipple Assembly
13	800-0007	4	Screw, Cap - Hex Head (1/4-20 x 1")
14	850-0040	4	Washer, Lock - Spring (1/4")
15	862-0001	4	Nut, Hex (1/4-20)
16	130-0857	1	Support, Standpipe
17	504-0006	1	Valve, Drain
18	130-0442	1	Base, Standpipe
19	800-0092	8	Screw, Cap - Hex Head (1/2-13 x 1-1/2")
20	856-0060	10	Washer, Lock - Spring (1/2")
21	865-0005	8	Nut, Hex (1/2-13)
22	505-0748	1	Nipple, Pipe (2" NPT x 9")



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
23	505-0175	2	Elbow, Pipe (2" NPT x 90°)
24	505-0374	1	Tee, Pipe (2" NPT x 2" NPT x 2" NPT)
25	505-0172	1	Nipple, Pipe (2" NPT x 2")
26	505-0377	1	Nipple, Pipe (2" NPT x 18-1/2")
27	130-0870	1	Brace, Standpipe
28	130-0871	1	Clamp, Loop
29	800-0051	1	Screw, Cap - Hex Head (3/8-16 x 1-1/4")
30	850-0050	1	Washer, Lock - Spring (3/8")
31	862-0003	1	Nut, Hex (3/8-16)
32	505-0359	1	Plug, Pipe (1-1/4" NPT)
33	503-0354	4	Clamp, Hose
34	503-0617	1	Hose, Rubber
35	505-0204	3	Nipple, Pipe - Half (2" NPT x 2")
36	505-0140	1	Plug, Pipe (1" NPT)
37	503-0324	As Req'd	Hose, Rubber (Order 7")
38	191-0880	1	Guard, Belt
39	800-0090	2	Screw, Cap - Hex Head (1/2-13 x 1")
40	130-0880	1	Gasket - Water Outlet Flange
41	130-0878	1	Flange, Outlet - Water
42	800-0071	2	Screw, Cap - Hex Head (7/16-14 x 1")
43	850-0055	2	Washer, Lock - Spring (7/16")

INSTALLATION STANDPIPE COOLING WITH REGULATOR — OPTIONAL EQUIPMENT



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	130-0425	1	Stand Pipe Tank
2	504-0062	1	Valve, Vacuum Relief
3	505-0023	1	Bushing, Reducer (1-1/4" NPT x 1" NPT)
4	505-0004	2	Nipple, Pipe - Closed (1" NPT x 1-1/2")
5	505-0041	2	Elbow, Pipe (1" NPT x 90°)
6	505-0330	2	Nipple, Pipe - Half (1" NPT x 2")
7	503-0189	2	Clamp, Hose
8	503-0361	As Req'd	Hose, Rubber (Order 36")
9	130-0869	1	Brace, Standpipe
10	309-0242	1	Valve, Regulator - Water Temp
11	307-1135	1	Valve, Solenoid
12	130-0797	1	Bracket & Pipe Nipple Assembly
13	800-0007	4	Screw, Cap - Hex Head (1/4-20 x 1")
14	850-0040	4	Washer, Lock - Spring (1/4")
15	862-0001	4	Nut, Hex (1/4-20)
16	130-0857	1	Support, Standpipe
17	504-0006	1	Valve, Drain
18	130-0442	1	Base, Standpipe
19	800-0092	8	Screw, Cap - Hex Head (1/2-13 x 1-1/2")
20	856-0060	10	Washer, Lock - Spring (1/2")
21	865-0005	8	Nut, Hex (1/2-13)
22	505-0748	1	Nipple, Pipe (2" NPT x 9")

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
23	505-0175	1	Elbow, Pipe (2" NPT x 90°)
24	505-0374	1	Tee, Pipe (2" NPT x 2" NPT x 2" NPT)
25	505-0172	1	Nipple, Pipe (2" NPT x 2")
26	505-0377	1	Nipple, Pipe (2" NPT x 18-1/2")
27	130-0870	1	Brace, Standpipe
28	130-0871	1	Clamp, Loop
29	800-0051	1	Screw, Cap - Hex Head (3/8-16 x 1-1/4")
30	850-0050	1	Washer, Lock - Spring (3/8")
31	862-0003	1	Nut, Hex (3/8-16)
32	505-0359	1	Plug, Pipe (1-1/4" NPT)
33	503-0354	4	Clamp, Hose
34	503-0617	1	Hose, Rubber
35	505-0204	3	Nipple, Pipe - Half (2" NPT x 2")
36	505-0140	1	Plug, Pipe (1" NPT)
37	503-0324	As Req'd	Hose, Rubber (Order 7")
38	191-0880	1	Guard, Belt
39	800-0090	2	Screw, Cap - Hex Head (1/2-13 x 1")
40	130-0880	1	Gasket - Water Outlet Flange
41	130-0878	1	Flange, Outlet - Water
42	800-0071	2	Screw, Cap - Hex Head (7/16-14 x 1")
43	850-0055	2	Washer, Lock - Spring (7/16")
44	505-0351	1	Bushing, Reducer (2" NPT x 3/4" NPT)