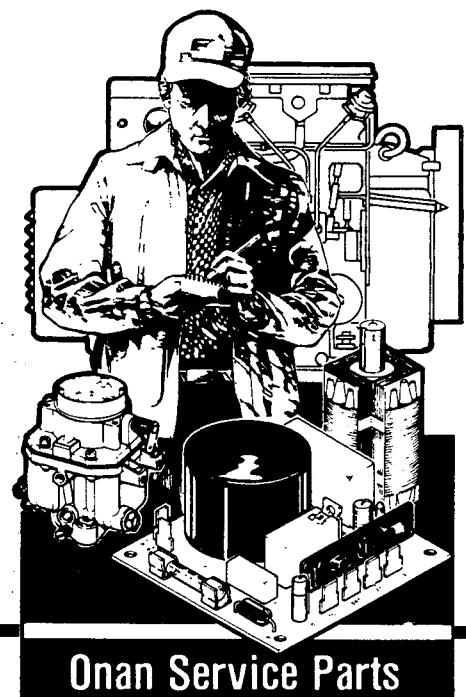


The following catalog
has gaps in its page
numbers, or doesn't
have any numbers.
We have chosen to
leave the page
numbering in the
order that Acrobat
assigns it.

Onan

Parts Manual

D V B
GenSet



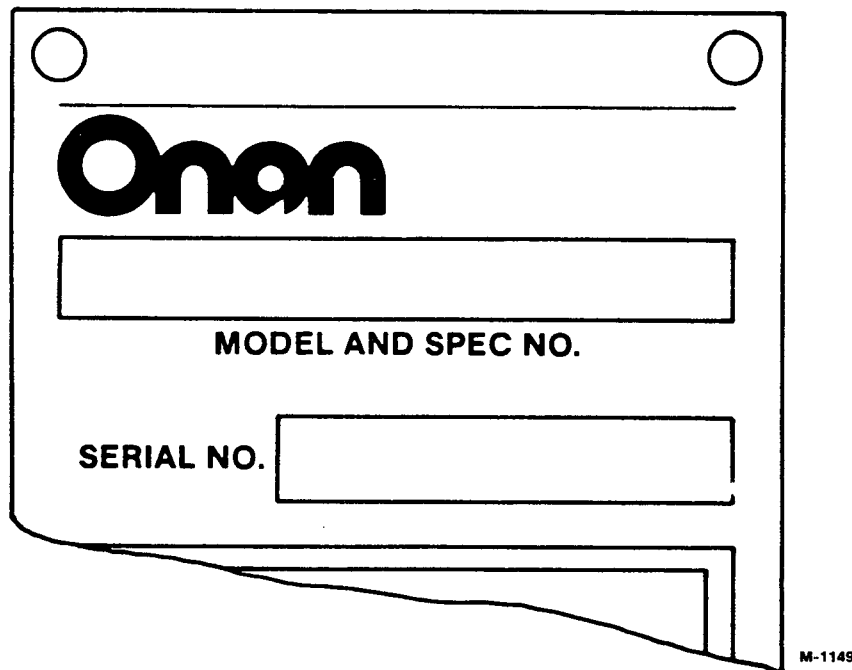
Onan Service Parts

982-0222
8-86 (Spec A-B)
Replaces 2-85 (Spec A)
Printed in U.S.A.

General Information

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

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

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

Onan

MODEL AND SPEC NO.

SERIAL NO.

M-1149

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

Important Safety Precautions

Read and observe these safety precautions when using or working on electric generators, engines and related equipment. Also read and follow the literature provided with the equipment.

Proper operation and maintenance are critical to performance and safety. Electricity, fuel, exhaust, moving parts and batteries present hazards that can cause severe personal injury or death.

FUEL, ENGINE OIL, AND FUMES ARE FLAMMABLE AND TOXIC

Fire, explosion, and personal injury can result from improper practices.

- Used engine oil, and benzene and lead, found in some gasoline, have been identified by government agencies as causing cancer or reproductive toxicity. When checking, draining or adding fuel or oil, do not ingest, breathe the fumes, or contact gasoline or used oil.
- Do not fill tanks with engine running. Do not smoke around the area. Wipe up oil or fuel spills. Do not leave rags in engine compartment or on equipment. Keep this and surrounding area clean.
- Inspect fuel system before each operation and periodically while running.
- Equip fuel supply with a positive fuel shutoff.
- Do not store or transport equipment with fuel in tank.
- Keep an ABC-rated fire extinguisher available near equipment and adjacent areas for use on all types of fires except alcohol.
- Unless provided with equipment or noted otherwise in installation manual, fuel lines must be copper or steel, secured, free of leaks and separated or shielded from electrical wiring.
- Use approved, non-conductive flexible fuel hose for fuel connections. Do not use copper tubing as a flexible connection. It will work-harden and break.

EXHAUST GAS IS DEADLY

- Engine exhaust contains carbon monoxide (CO), an odorless, invisible, poisonous gas. Learn the symptoms of CO poisoning.
- Never sleep in a vessel, vehicle, or room with a genset or engine running unless the area is equipped with an operating CO detector with an audible alarm.
- Each time the engine or genset is started, or at least every day, thoroughly inspect the exhaust system. Shut down the unit and repair leaks immediately.

- Warning: Engine exhaust is known to the State of California to cause cancer, birth defects and other reproductive harm.

Make sure exhaust is properly ventilated.

- Vessel bilge must have an operating power exhaust.
- Vehicle exhaust system must extend beyond vehicle perimeter and not near windows, doors or vents.
- Do not use engine or genset cooling air to heat an area.
- Do not operate engine/genset in enclosed area without ample fresh air ventilation.
- Expel exhaust away from enclosed, sheltered, or occupied areas.
- Make sure exhaust system components are securely fastened and not warped.

MOVING PARTS CAN CAUSE SEVERE PERSONAL INJURY OR DEATH

- Do not remove any guards or covers with the equipment running.
- Keep hands, clothing, hair, and jewelry away from moving parts.
- Before performing any maintenance, disconnect battery (negative [-] cable first) to prevent accidental starting.
- Make sure fasteners and joints are secure. Tighten supports and clamps, keep guards in position over fans, drive belts, etc.
- If adjustments must be made while equipment is running, use extreme caution around hot manifolds and moving parts, etc. Wear safety glasses and protective clothing.

BATTERY GAS IS EXPLOSIVE

- Wear safety glasses and do not smoke while servicing batteries.
- Always disconnect battery negative (-) lead first and reconnect it last. Make sure you connect battery correctly. A direct short across battery terminals can cause an explosion. Do not smoke while servicing batteries. Hydrogen gas given off during charging is explosive.
- Do not disconnect or connect battery cables if fuel vapors are present. Ventilate the area thoroughly.

DO NOT OPERATE IN FLAMMABLE AND EXPLOSIVE ENVIRONMENTS

Flammable vapor can be ignited by equipment operation or cause a diesel engine to overspeed and become difficult to stop, resulting in possible fire, explosion, severe personal injury and death. **Do not operate diesel equipment where a flammable vapor environment can be created by fuel spill, leak, etc., unless equipped with an automatic safety device to block the air intake and stop the engine.**

HOT COOLANT CAN CAUSE SEVERE PERSONAL INJURY

- Hot coolant is under pressure. Do not loosen the coolant pressure cap while the engine is hot. Let the engine cool before opening the pressure cap.

ELECTRICAL SHOCK CAN CAUSE SEVERE PERSONAL INJURY OR DEATH

- Do not service control panel or engine with unit running. High voltages are present. Work that must be done while unit is running should be done only by qualified service personnel.
- Do not connect the generator set to the public utility or to any other electrical power system. Electrocutation can occur at a remote site where line or equipment repairs are being made. An approved transfer switch must be used if more than one power source is connected.
- Disconnect starting battery (negative [-] cable first) before removing protective shields or touching electrical equipment. Use insulative mats placed on dry wood platforms. Do not wear jewelry, damp clothing or allow skin surface to be damp when handling electrical equipment.
- Use insulated tools. Do not tamper with interlocks.
- Follow all applicable state and local electrical codes. Have all electrical installations performed by a qualified licensed electrician. Tag open switches to avoid accidental closure.
- With transfer switches, keep cabinet closed and locked. Only authorized personnel should have cabinet or operational keys. Due to serious shock hazard from high voltages within cabinet, all service and adjustments must be performed by an electrician or authorized service representative.

If the cabinet must be opened for any reason:

1. Move genset operation switch or Stop/Auto/Handcrank switch (whichever applies) to Stop.
2. Disconnect genset batteries (negative [-] lead first).
3. Remove AC power to automatic transfer switch. If instructions require otherwise, use extreme caution due to shock hazard.

MEDIUM VOLTAGE GENERATOR SETS (601V TO 15kV)

- Medium voltage acts differently than low voltage. Special equipment and training are required to work on or around medium voltage equipment. Operation and maintenance must be done only by persons trained and qualified to work on such devices. Improper use or procedures will result in severe personal injury or death.
- Do not work on energized equipment. Unauthorized personnel must not be permitted near energized equipment. Induced voltage remains even after equipment is disconnected from the power source. Plan maintenance with authorized personnel so equipment can be de-energized and safely grounded.

GENERAL SAFETY PRECAUTIONS

- Do not work on equipment when mentally or physically fatigued or after consuming alcohol or drugs.
- Carefully follow all applicable local, state and federal codes.
- Never step on equipment (as when entering or leaving the engine compartment). It can stress and break unit components, possibly resulting in dangerous operating conditions from leaking fuel, leaking exhaust fumes, etc.
- Keep equipment and area clean. Oil, grease, dirt, or stowed gear can cause fire or damage equipment by restricting airflow.
- Equipment owners and operators are solely responsible for operating equipment safely. Contact your authorized Onan/Cummins dealer or distributor for more information.

KEEP THIS DOCUMENT NEAR EQUIPMENT FOR EASY REFERENCE.

Index

- Actuator, Governor 38
- Alternator 34
- Alternator - Components 35, 36
- Armature, Starter 32

- Bearing, Camshaft 8
- Bearing, Crankshaft 6
- Bearing, Rod - Connecting 8
- Bell, End - Generator 54, 56
- Belt Set, Drive - V 39
- Block, Cylinder 4
- Breaker, Circuit - Spec A 70
- Breaker, Circuit - Spec B 72

- Cable, Battery 30
- Cable, Pickup - Magnetic 38
- Camshaft 8
- Cap, Radiator 40, 42
- Chassis 50
- Cleaner, Air 44, 45
- Clutch, Starter 32
- Coil, Field - Starter 32
- Control, Engine 62
- Control, Generator 64
- Cooler, Oil 13
- Cooling System 40, 42
- Cover, Gear 10
- Cover, Head - Cylinder 19
- Crankshaft 6

- Drain, Oil 11

- Exhaust System 22

- Fan, Cooling 39
- Filter, Air 44, 45
- Filter, Fuel 29
- Filter, Oil 13
- Flywheel 12

- Gauge, Pressure - Oil 62
- Gauge, Temperature - Oil 62
- Gauge, Temperature - Water 62
- Gear, Ring 12
- Gearcase 10
- Generator 54, 56
- Governor, Electronic 38
- Guard, Belt 40, 42
- Guard, Fan 40, 42
- Guide, Valve 14

- Harness, Wiring - Control (AC) 64
- Harness, Wiring - Control (DC) 62
- Harness, Wiring - Control To Engine 30
- Harness, Wiring - Lo Coolant Level 40, 42
- Harness, Wiring - Watts Transducer 67
- Head, Cylinder 14
- Heater, Control 69
- Heater, Coolant - Engine 48
- Heater, Generator 60
- Holder, Nozzle 16
- Hose, Drain - Oil 11
- Hose, Radiator 40, 42
- Housing, Control 68
- Housing, Flywheel 12
- Housing, Set 52

- Impeller, Pump - Water 39
- Indicator, Level - Oil 4
- Indicator, Service - Air Cleaner 44, 45

- Kit, Gasket - Block - Cylinder 4
- Kit, Gasket - Head - Cylinder 14

- Light, Indicator 62, 64
- Line, Fuel 29
- Line, Injection - Fuel 26
- Liner, Cylinder 4

- Manifold, Exhaust 20
- Manifold, Intake 24
- Meter, Ampere 62, 64
- Meter, Frequency 64
- Meter, Tach 62
- Meter, Time - Running 62
- Meter, Volt 64
- Meter, Watt 67
- Muffler, Exhaust 22

- Nozzle, Fuel 16

- Pan, Oil 11
- Pickup, Magnetic 61
- Piston 8
- Pump, Injection - Fuel 26
- Pump, Injection - Fuel (Components) 26
- Pump, Oil 6
- Pump, Water 39

- Radiator 40, 42
- Radiator, Remote 46
- Regulator, Voltage 35, 36, 64
- Rod, Connecting 8
- Rod, Push 8
- Rotor, Alternator 35, 36
- Rotor, Exciter 54, 56
- Rotor, Exciter - Components 58
- Rotor, Generator 54, 56

- Seal, Oil - Front 10
- Seal, Oil - Rear 12
- Seat, Valve 14
- Sender, Level - Lo Coolant 40, 42
- Sender, Pressure - Oil 4
- Sender, Temperature - Oil 13
- Sender, Temperature - Water 39
- Solenoid, Control - Fuel 25
- Solenoid, Starter 32
- Starter 30
- Starter Components 32
- Stator, Alternator 35, 36
- Stator, Exciter 54, 56
- Stator, Generator 54, 56
- Suppressor, Voltage 59
- Switch, Level - Lo Coolant 40, 42
- Switch, Overspeed 61
- Switch, Pressure - Oil 4
- Switch, Push - Reset/Panel 62
- Switch, Push - Run/Stop/Remote 62
- Switch, Rotary - Generator Control 64
- Switch, Safety - Oil 4
- Switch, Shutdown - Pre Oil 4
- Switch, Temperature - Hi Engine 39
- Switch, Temperature - Lo Engine 25

- Tappet 8
- Thermostat, Temp - Hi Water 39
- Thermostat, Temp - Pre Water 39
- Transformer, Current 66
- Turbocharger 20

- Valve, Drain - Oil 11
- Valve, Exhaust 14
- Valve, Intake 14

- Wattmeter 67

Introduction

This Parts Manual applies to the Standard Sets Listed below. The illustrations are arranged in groups of related items, and each part or assembly is identified by a Reference Number. All parts illustrated are typical, and unless otherwise mentioned in the description column the parts are interchangeable between models.

These typical illustrations are subject to change and reflect only the latest replacement parts arrangement. The Right and Left sides of the Set are determined by FACING the FRONT (Engine end) of the Set.

Set Data Table

MODEL IDENTIFICATION	RATING	RPM RATING	BATTERY VOLTAGE
50.0 DVB - */ # @	50,000 WATTS	1500 RPM	24 VDC
60.0 DVB - */ # @	60,000 WATTS	1800 RPM	24 VDC
60.0 DVB - */ # @	60,000 WATTS	1500 RPM	24 VDC
75.0 DVB - */ # @	75,000 WATTS	1800 RPM	24 VDC

Electrical Data Table

*VOLTAGE CODE	VOLTS	HERTZ	WIRE	PHASE	NOTES
7	220/380	60	4	3	
9X	347/600	60	4	3	
15	120/240	60	12	1	+
15	120/208	60	12	3	+
	120/240				
	127/220				
	139/240				
	240/416				
	254/440				
	227/480				
515	110/220	50	12	1	+
	115/230				
515	110/190	50	12	3	+
	110/220				
	115/200				
	115/230				
	120/208				
	127/220				
	220/380				
	230/400				
	240/416				
	254/480				

- * - Voltage Codes follow Model Letter designations.
- # - Specification Number: Number 1 is Standard, all others indicate variations.
- @ - Specification Letter: Letter advances (A to B, B to C, etc) with major manufacturing changes.
- + - These Generators are Reconnectible, Refer To Operator's Manual for wiring data.

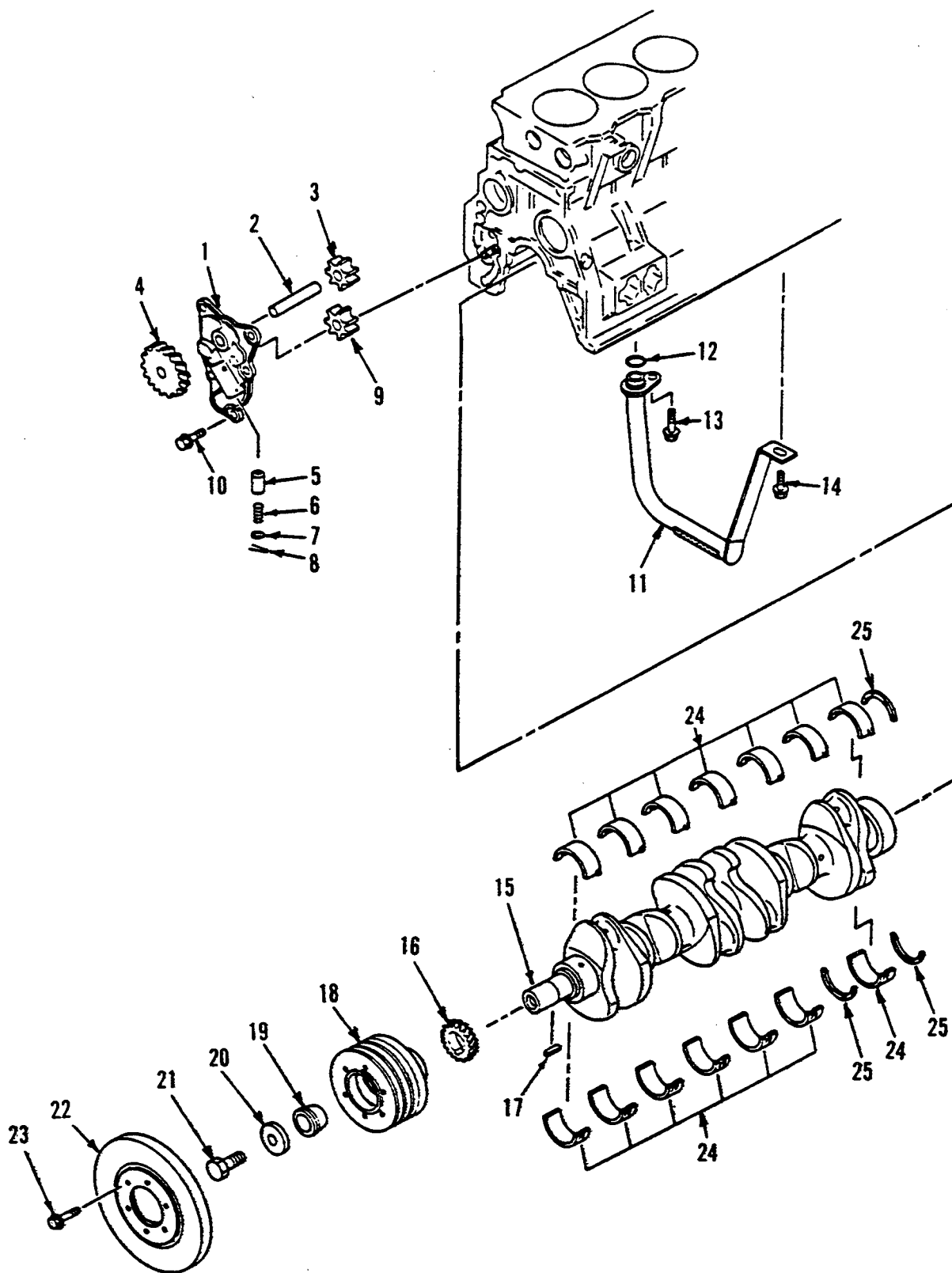


Cylinder Block

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-1059	1	Block, Cylinder (Includes Parts Marked *)	21	186-0748	1	Plug, Expansion
2	186-0734	6	*Cap, Bearing - Main	22	186-0951	1	Indicator, Level - Oil
3	186-0735	1	*Cap, Bearing - Main (Rear)	23	186-0953	1	Guide, Indicator - Oil Level
4	186-0736	14	*Bolt, Special - Bearing Cap	24	186-1061	1	Plate
5	186-0737	2	*Pin, Dowel	25	309-0272	1	Switch, Pressure - Lo Oil (S5)
6	186-0125	6	*Pin, Roll	26	309-0169	1	Switch, Pressure - Lo Oil (S1)
7	186-0738	1	*Bearing, Sleeve - Camshaft	27	502-0058	1	Tee, Pipe - Brass
8	186-0739	3	*Bearing, Sleeve - Camshaft	28	186-0749	1	Gasket
9	186-0740	1	*Bearing, Sleeve - Oil Pump	29	186-0750	4	Bolt, Hex Head
10	186-0741	1	*Shaft, Pump - Oil	30			Liner, Cylinder
11	186-0742	2	*Bushing, Sleeve		186-0751	6	Marked "A" On Lower Edge
12	186-0743	2	*Pin, Dowel		186-0752	6	Marked "B" On Lower Edge
13	186-0123	2	*Pin, Dowel	31	193-0244	1	Sender, Pressure - Oil (E1)
14	186-0744	4	*Plug	32	502-0917	2	Adapter, Pipe - Hex
15	186-0156	5	*Plug, Pipe	33	186-1063	6	Pin, Dowel
16	186-0745	1	*Plug, Pipe	34	186-0754	1	Flange
17	186-0746	1	*Plug, Expansion	35	186-0755	1	Gasket
18	186-0695	6	*Plug, Expansion	36	186-0756	4	Bolt, Hex Head
19	186-0747	9	*Plug, Expansion	37	186-0117	1	Plug, Pipe
20	186-0488	1	*Plug, Pipe	38	186-1111	1	Gasket Kit, Block - Cylinder

* Parts included in 186-1059 Cylinder Block Assembly.

Crankshaft, And Oil Pump

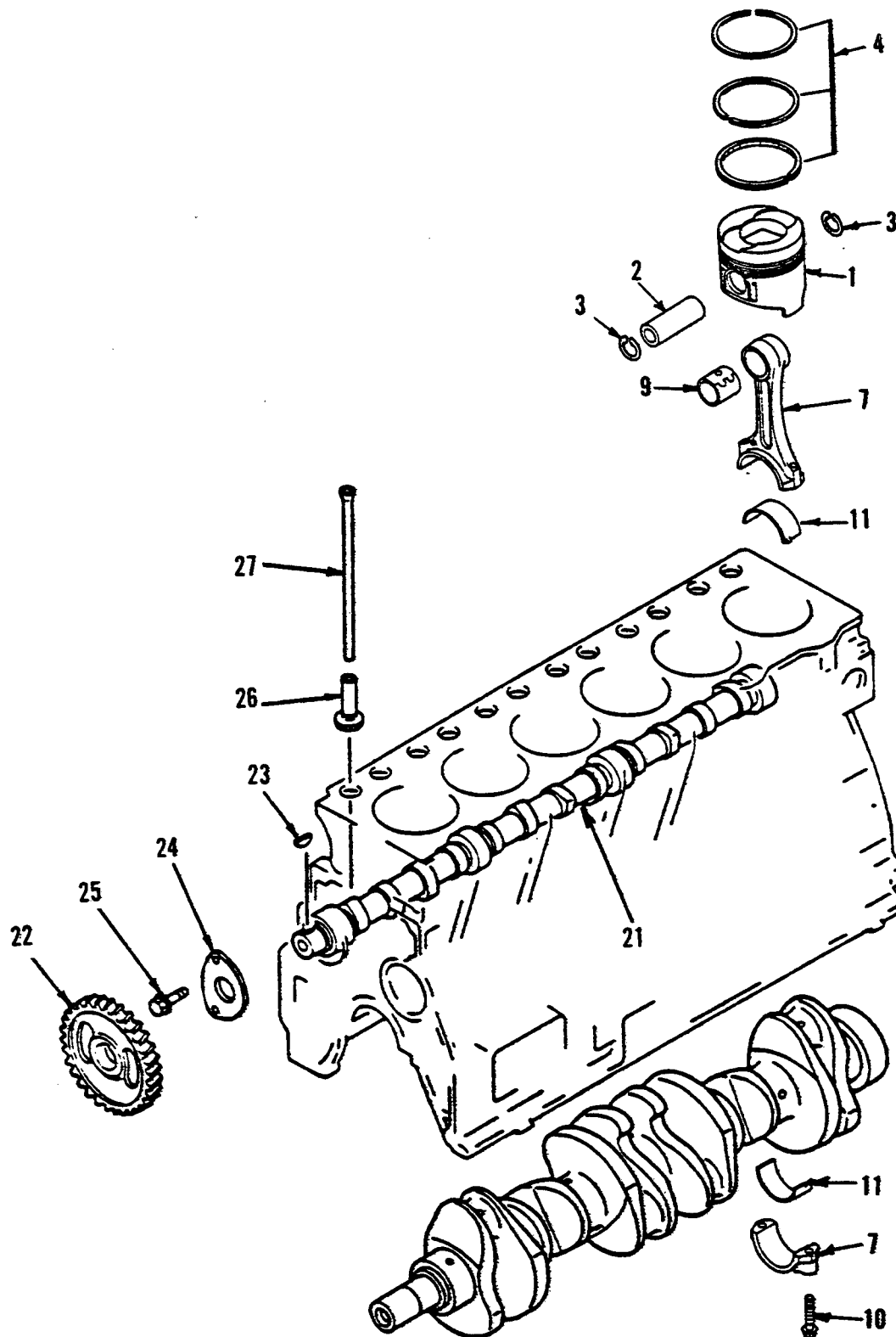


Crankshaft, And Oil Pump

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-1084	1	Cover Assembly (Includes Shaft Assembly)	18	186-0791	1	Pulley
2	186-1085	1	Shaft Assembly (Includes Internal Oil Pump Gears)	19	186-0283	1	Collar, Tapered
3	186-1086	1	Gear	20	186-0284	1	Plate
4	186-0834	1	Gear	21	186-0182	6	Bolt, Self-Locking - Hex Head
5	186-0835	1	Valve	22	186-0792	1	*Damper, Vibration
6	186-0836	1	Spring	23	186-0793	6	*Bolt, Hex Head
7	186-0837	1	Washer	24			Bearing, Main (Includes Upper and Lower Half Brgs)
8	186-0838	1	Pin, Retaining		186-0794	7	Standard
9	186-1087	1	Gear		186-0796	7	0.25mm Undersize
10	186-0750	5	Bolt, Hex Head		186-0798	7	0.50mm Undersize
11	186-0840	1	Tube, Pickup - Oil		186-0800	7	0.75mm Undersize
12	186-0812	1	Seal, O-Ring		186-0802	7	1.00mm Undersize
13	186-0842	1	Bolt, Hex Head	25			Washer Set, Thrust (Includes Three Half Washers)
14	186-0750	1	Bolt, Hex Head		186-0795	1	Standard
15	186-1065	1	Crankshaft (Includes Gear and Key)		186-0797	1	0.25mm Oversize
16	186-0788	1	Gear		186-0799	1	0.50mm Oversize
17	186-0789	1	Key		186-0801	1	0.75mm Oversize
					186-0803	1	1.00mm Oversize

* Not used on engine serial numbers 14383 and up.

Camshaft, Piston, And Connecting Rod

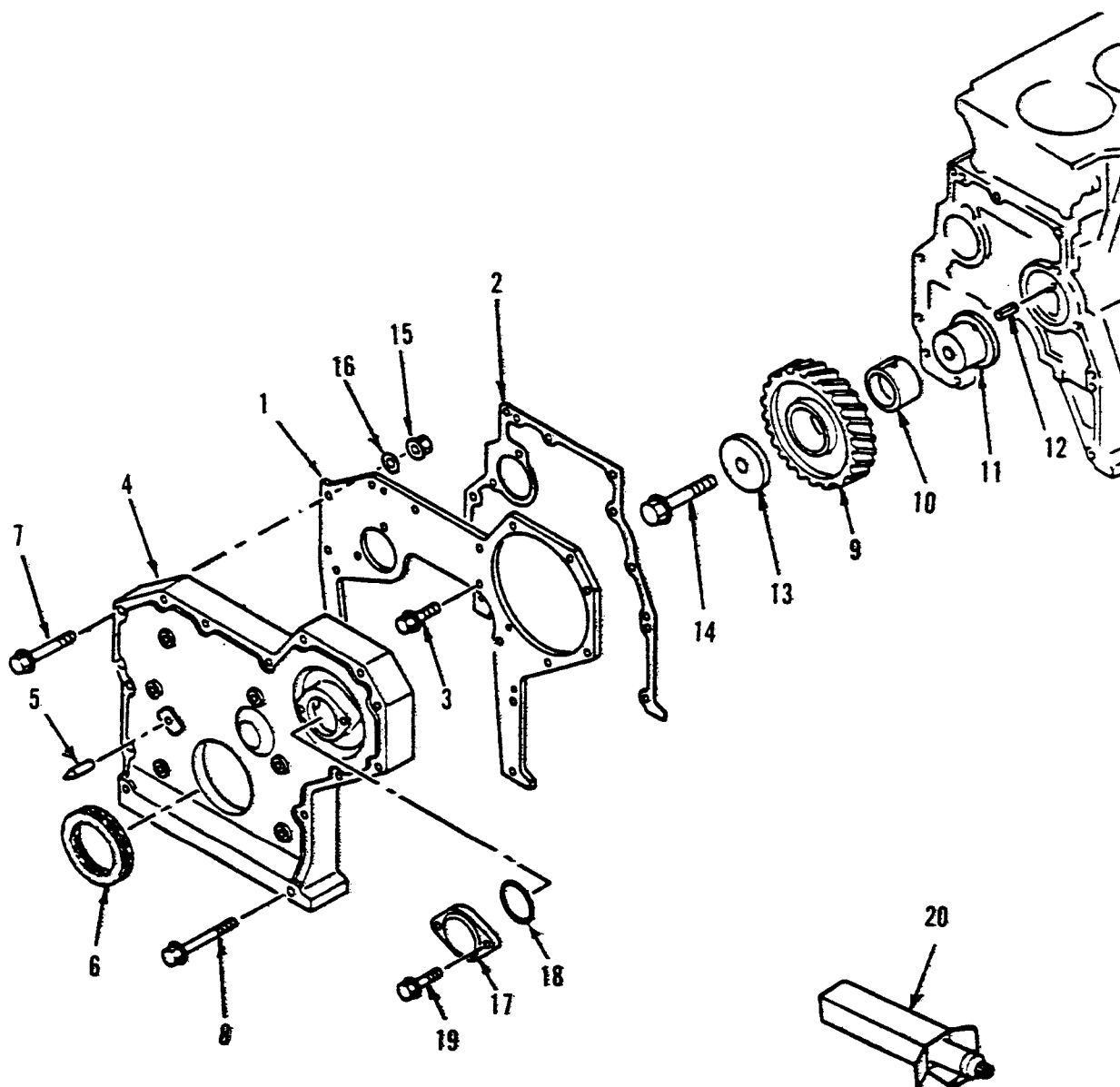


Camshaft, Piston, And Connecting Rod

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			*Piston	9	186-1077	6	Bushing, Sleeve
			Used With Cylinder Blocks	10	186-0816	12	Bolt, Special - Connecting Rod
			Marked "L"				
	186-1066	6	Standard	11			Bearing Set, Rod - Connecting
	186-1068	6	0.25mm Oversize		186-1078	6	Standard
	186-1070	6	0.50mm Oversize		186-1079	6	0.25mm Undersize
			Used With Cylinder Blocks		186-1080	6	0.50mm Undersize
			Marked "S"		186-1081	6	0.75mm Undersize
	186-1067	6	Standard		186-1082	6	1.00mm Undersize
	186-1069	6	0.25mm Oversize	21	186-0823	1	Camshaft (Includes Gear and Key)
	186-1071	6	0.50mm Oversize				
2	186-1072	6	Pin	22	186-0825	1	Gear
3	186-0810	12	Ring, Snap	23	186-0120	1	Key
4			Ring Set, Piston	24	186-0826	1	Plate, Thrust
	186-1073	6	Standard	25	186-0827	2	Bolt, Hex Head
	186-1074	6	0.25mm Oversize	26	186-0828	12	Tappet
	186-1075	6	0.50mm Oversize	27	186-0829	12	Rod, Push
7	186-1076	6	Rod, Connecting (Includes Cap)				

* Order the Piston according to the identification mark on the Cylinder Block. Block marked "L" use Piston indicated for "L", etc.

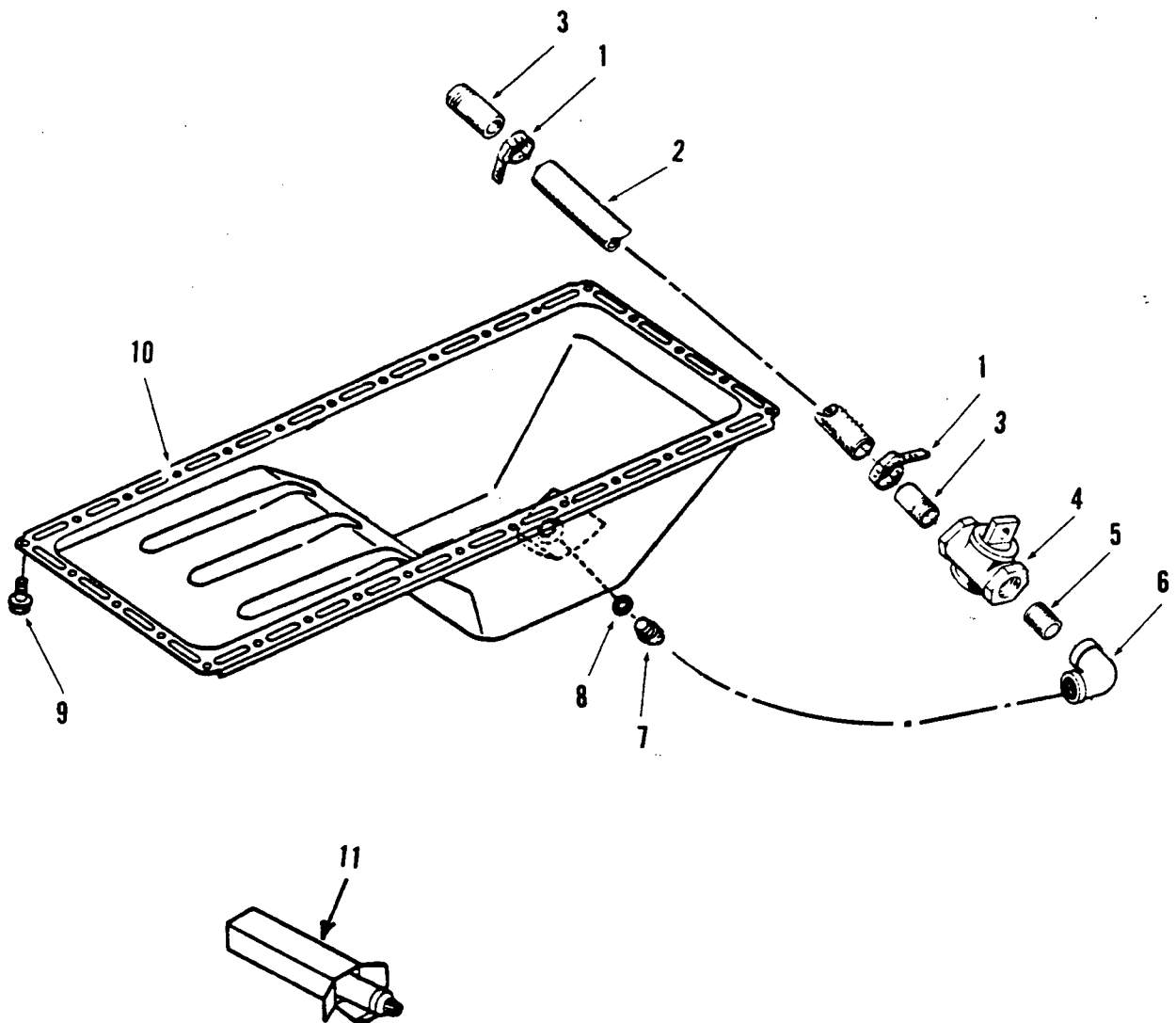
Gear Cover



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-0758	1	Plate, Front
2	186-0759	1	Gasket
3	186-0750	2	Bolt, Hex Head
4	186-0760	1	Gearcase
5	186-0761	1	Pin, Pointed
6	186-0762	1	Seal, Oil - Front
7	186-0763	13	Bolt, Hex Head
8	186-0764	2	Bolt, Hex Head
9	186-0765	1	Gear (Includes Bushing)
10	186-0766	1	Bushing, Sleeve

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
11	186-0767	1	Shaft
12	186-0126	1	Pin, Roll
13	186-0768	1	Washer, Flat
14	186-0769	1	Bolt, Hex Head
15	186-0770	1	Nut, Hex
16	186-0106	1	Washer, Flat
17	186-0771	1	Cover, Plate
18	186-0772	1	Seal, O-Ring
19	186-0773	2	Bolt, Hex Head
20	186-0727	1	Gasket, Liquid (Tube)

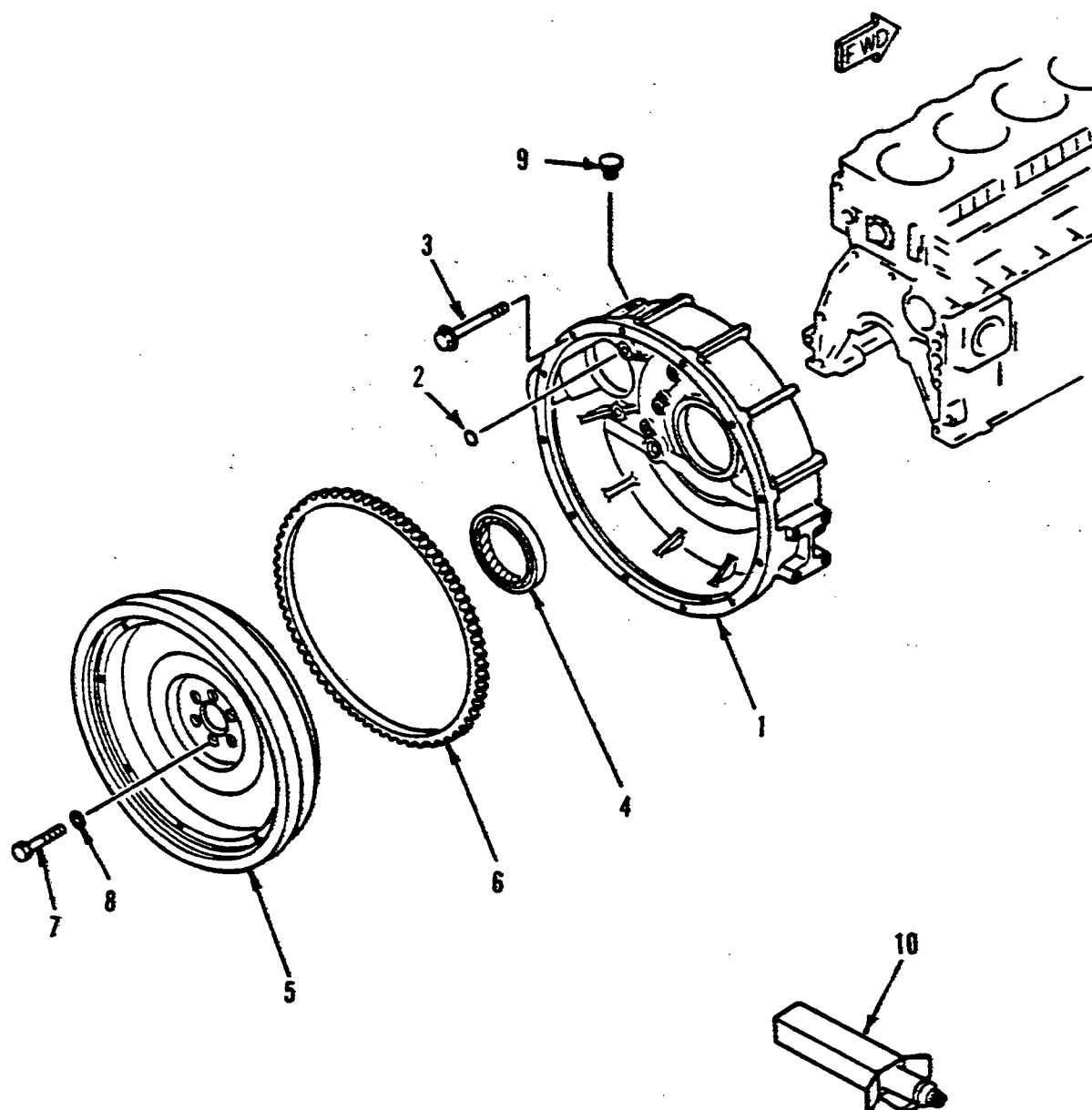
Oil Pan



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0197	2	Clamp, Hose
2	503-1195	1	Hose, Rubber
3	505-0185	2	Nipple, Pipe - Half
4	504-0011	1	Valve, Brass
5	505-0100	1	Nipple, Pipe - Close
6	505-0040	1	Elbow, Pipe - 90°

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
7	502-1004	1	Adapter, Pipe - Hex
8	508-0263	1	Washer, Nylon - Flat
9	186-0777	30	Bolt, Hex Head
10	186-0774	1	Pan, Oil
11	186-0727	1	Gasket, Liquid (Tube)

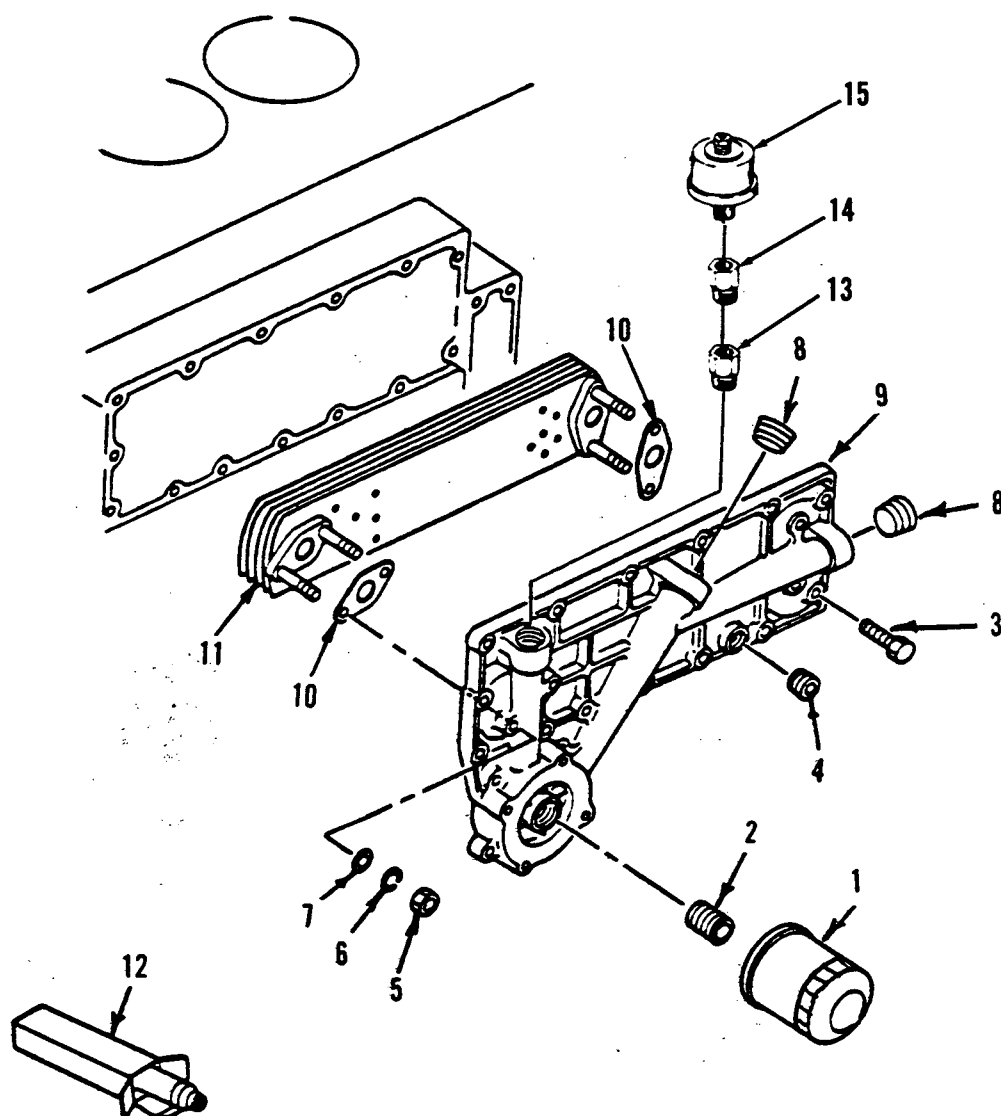
Flywheel, And Flywheel Housing



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-0778	1	Housing, Flywheel (Includes Plug)
2	186-0779	2	Plug
3	186-0780	11	Bolt, Hex Head
4	186-0781	1	Seal, Oil - Rear
5	186-0786	1	Flywheel (Includes Ring Gear)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
6	186-0783	1	Gear, Ring
7	186-0784	6	Bolt, Hex Head
8	186-0785	6	Washer, Lock - Spring
9	186-0407	1	Plug
10	186-0727	1	Gasket, Liquid (Tube)

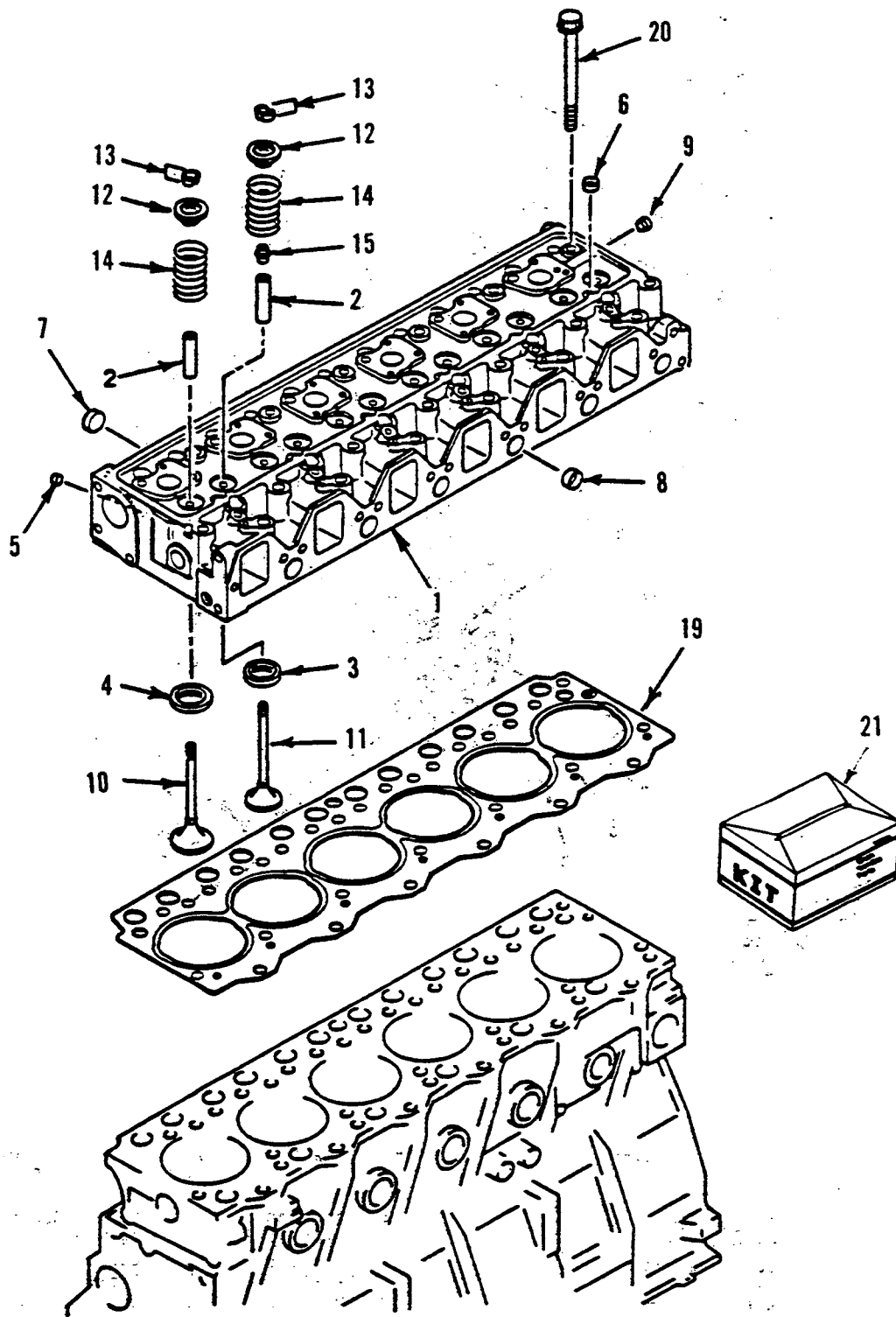
Oil Filter And Oil Cooler



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-0843	1	Filter, Oil
2	186-0844	1	Nipple, Pipe
3	186-1100	18	Bolt, Hex Head
4	186-1098	1	Plug
5	186-0092	4	Nut, Hex
6	186-0099	4	Washer, Lock - Spring
7	186-0106	4	Washer, Flat
8	186-1099	2	Plug, Pipe

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
9	186-1095	1	Cover, Cooler - Oil
10	186-1097	2	Gasket
11	186-1096	1	Cooler, Oil
12	186-0727	1	Gasket, Liquid (Tube)
13	502-0029	1	Bushing, Reducer
14	505-0020	1	Bushing, Reducer
15	193-0353	1	Sender, Temperature - Oil

Cylinder Head



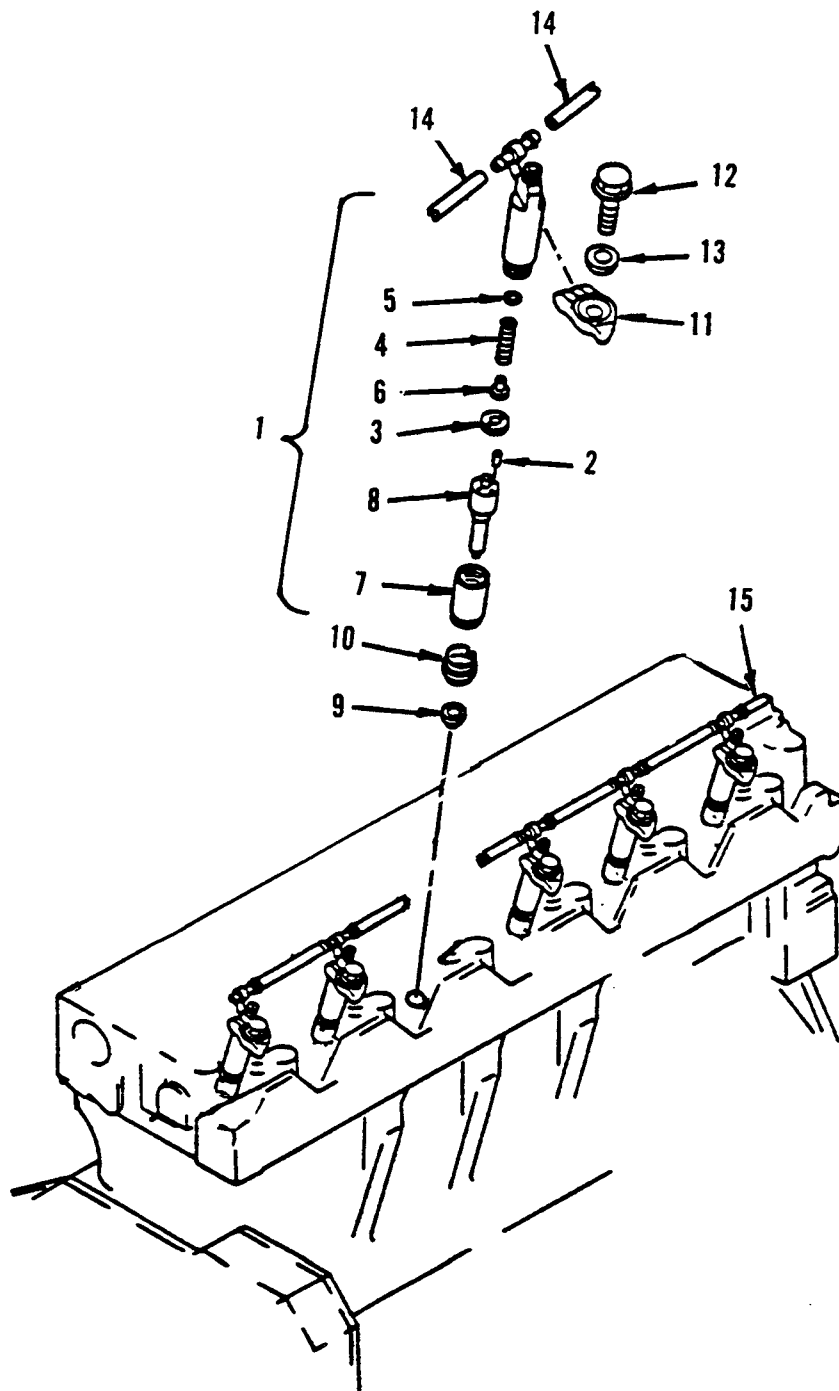
Cylinder Head

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-1027	1	Head Assembly, Cylinder With Valves (Includes Parts Marked *)	5	186-0692	6	**Plug, Expansion
	186-1028	1	Less Valves (Includes Parts Marked +)	6	186-0693	7	**Plug, Expansion
2	186-0688	12	**Guide, Valve	7	186-0694	5	**Plug, Expansion
3			Seat, Valve - Exhaust	8	186-0695	16	**Plug, Expansion
	186-1029	6	** Standard	9	186-0696	1	**Plug, Expansion
	186-1030	6	0.25mm Oversize	10	186-1035	1	*Valve, Intake
	186-1021	6	0.50mm Oversize	11	186-0699	1	*Valve, Exhaust
4			Seat, Valve - Intake	12	186-0700	12	*Seat, Spring
	186-1032	6	** Standard	13	186-0701	24	*Collet, Valve Lock
	186-1033	6	0.25mm Oversize	14	186-0702	12	*Valve, Spring
	186-1034	6	0.50mm Oversize	15	186-0703	6	*Seal, Valve Stem
				19	186-1037	1	Gasket
				20	186-0706	25	Bolt, Hex Head
				21	186-1110	1	Gasket Kit, Head - Cylinder

* Parts included in 186-1027 Cylinder Head Assembly.

+ Parts included in 186-1028 Cylinder Head Assembly.

Nozzle Holder

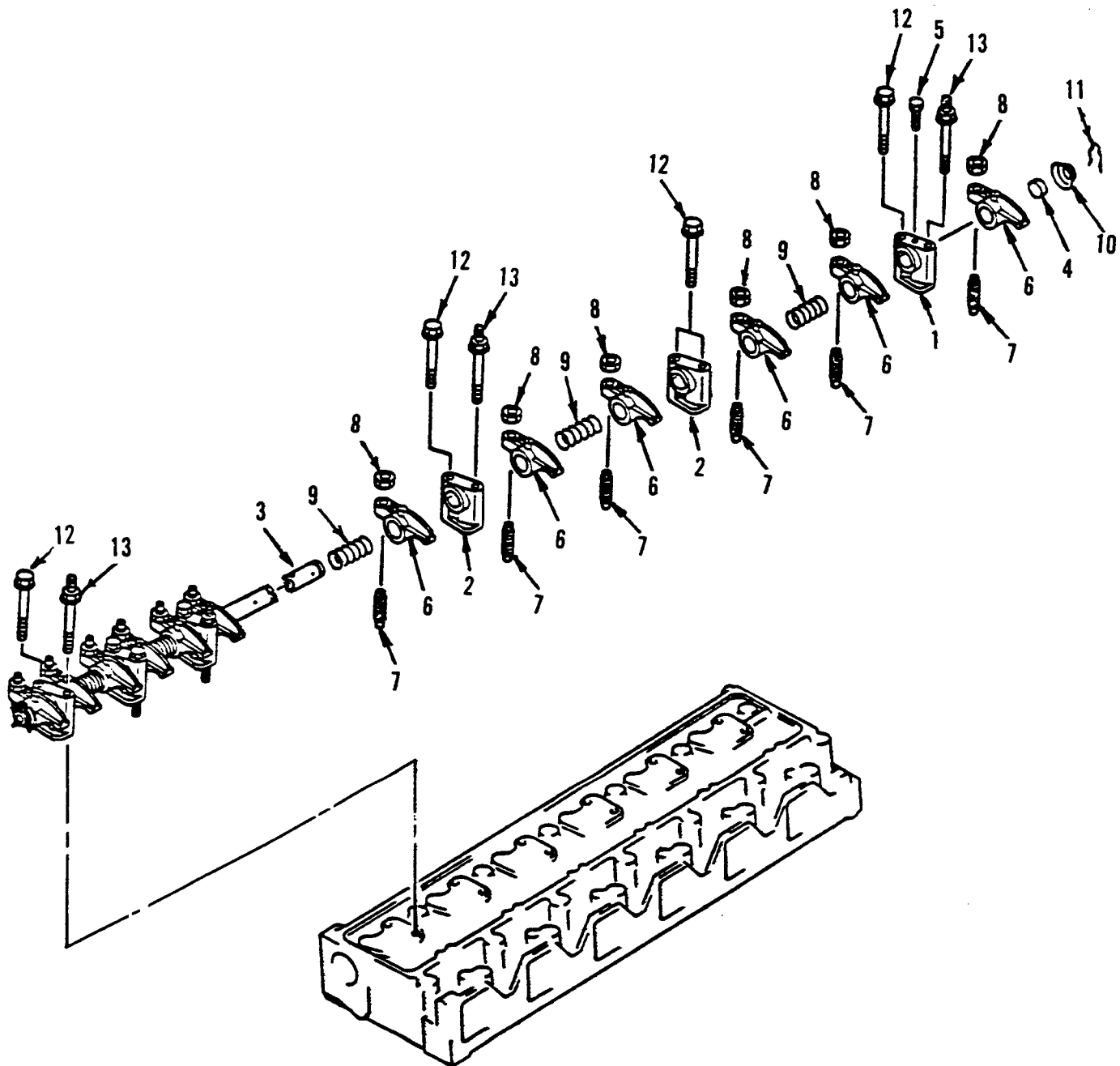


Nozzle Holder

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-0956	6	Holder, Nozzle (Includes Parts Marked *)		186-0983	1	1.075mm
2	186-0957	2	*Pin		186-0984	1	1.100mm
3	186-0958	1	*Seat		186-0985	1	1.125mm
4	186-0959	1	*Spring		186-0986	1	1.150mm
5			*Shim		186-0987	1	1.175mm
	186-0960	1	0.500mm		186-0988	1	1.200mm
	186-0961	1	0.525mm		186-0989	1	1.225mm
	186-0962	1	0.550mm		186-0990	1	1.250mm
	186-0963	1	0.575mm		186-0991	1	1.275mm
	186-0964	1	0.600mm		186-0992	1	1.300mm
	186-0965	1	0.625mm		186-0993	1	1.325mm
	186-0966	1	0.650mm		186-0994	1	1.350mm
	186-0967	1	0.675mm		186-0995	1	1.375mm
	186-0968	1	0.700mm		186-0996	1	1.400mm
	186-0969	1	0.725mm		186-0997	1	1.425mm
	186-0970	1	0.750mm		186-0998	1	1.450mm
	186-0971	1	0.775mm		186-0999	1	1.475mm
	186-0972	1	0.800mm		186-1000	1	1.500mm
	186-0973	1	0.825mm	6	186-1002	1	*Spacer
	186-0974	1	0.850mm	7	186-1001	1	*Nut, Lock
	186-0975	1	0.875mm	8	186-1003	1	*Nozzle
	186-0976	1	0.900mm	9	186-1004	6	Gasket
	186-0977	1	0.925mm	10	186-1005	6	Seal
	186-0978	1	0.950mm	11	186-1006	6	Retainer, Nozzle
	186-0979	1	0.975mm	12	186-1009	6	Bolt, Hex Head
	186-0980	1	1.000mm	13	186-1007	6	Washer, Flat
	186-0981	1	1.025mm	14	186-1010	5	Hose, Return - Fuel
	186-0982	1	1.050mm	15	186-1008	1	Cap, Return - Fuel

* Parts included in 186-0956 Nozzle Holder Assembly.

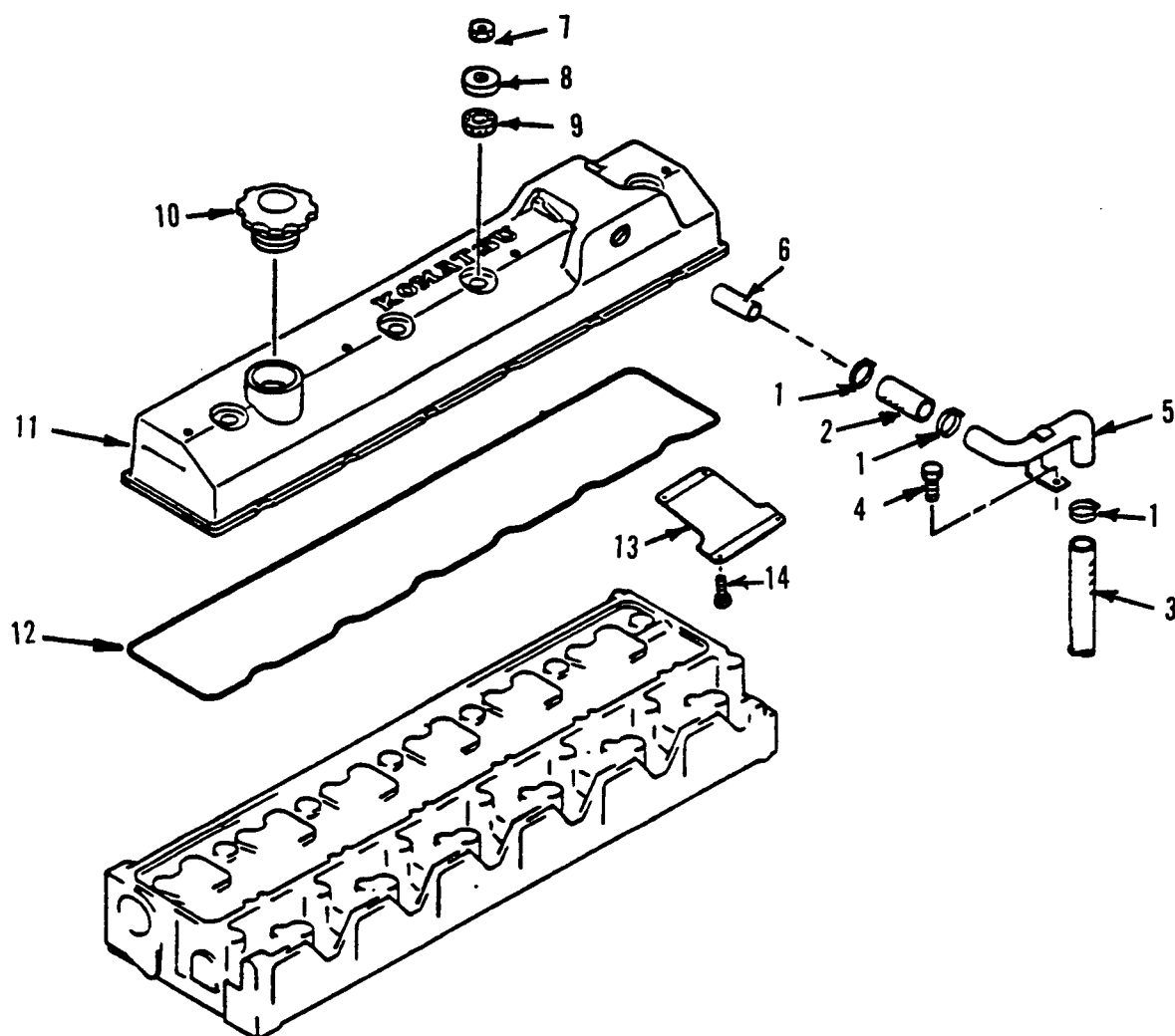
Rocker Arm



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-0707	1	Bracket, Arm - Rocker
2	186-0708	5	Bracket, Arm - Rocker
3	186-0709	1	Shaft, Arm - Rocker
4	186-0596	1	Plug
5	186-0710	1	Bolt, Hex Head
6	186-0711	12	Arm, Rocker
7	186-0712	12	Screw, Adjusting

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
8	186-0713	12	Nut, Self-Locking - Hex
9	186-0714	5	Spring
10	186-0300	2	Spring
11	186-0301	2	Clip
12	186-0715	8	Bolt, Hex Head
13	186-0716	4	Bolt, Hex Head

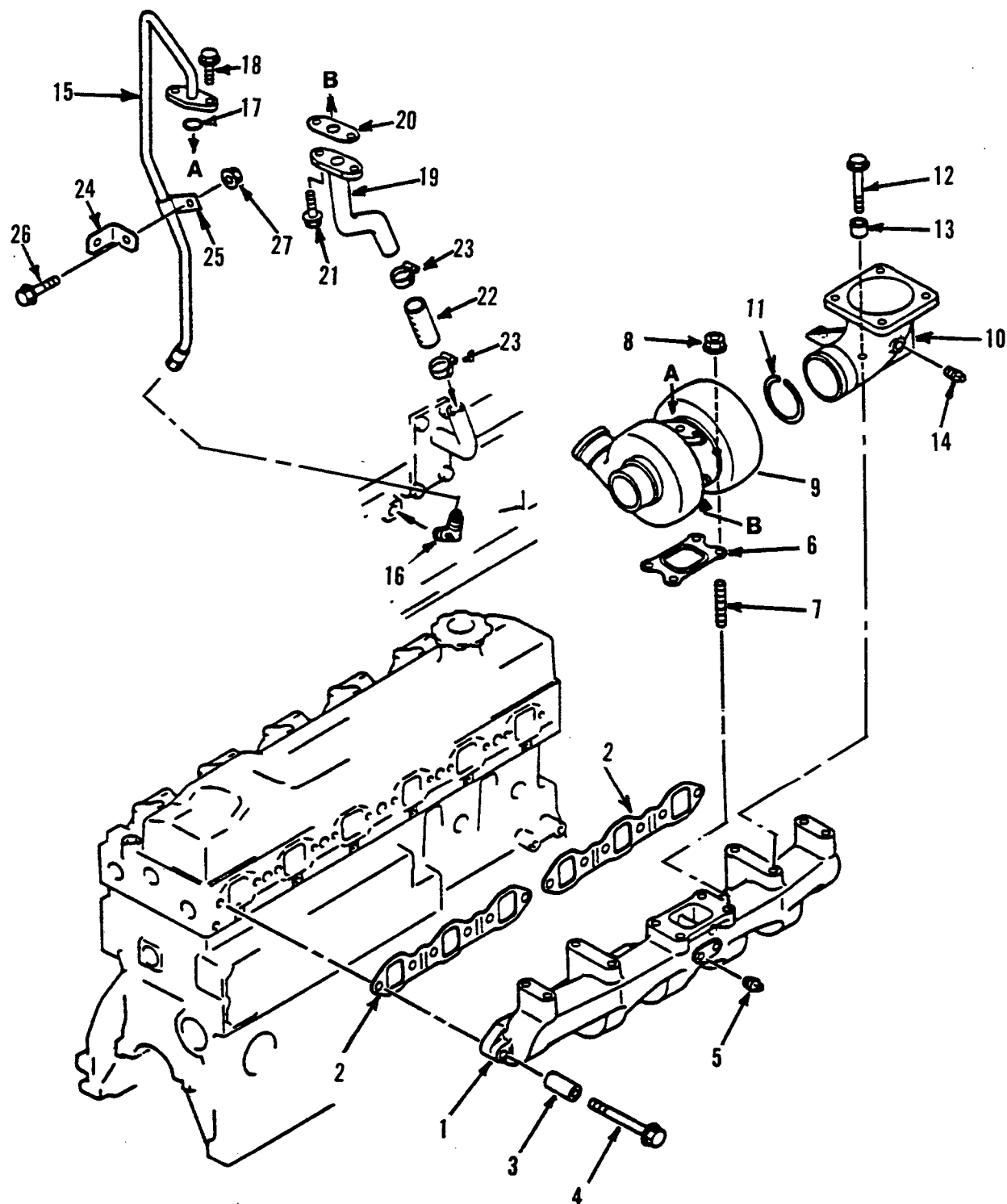
Cylinder Head Cover



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-1043	3	Clamp, Hose
2	186-1042	1	Hose, Rubber
3	186-1044	1	Hose, Rubber
4	186-0756	1	Bolt, Hex Head
5	186-1041	1	Line, Breather
6	186-1039	1	Tube
7	186-0218	4	Nut, Hex

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
8	186-0219	4	Washer, Flat
9	186-0220	4	Washer, Rubber
10	186-0719	1	Cap, Fill - Oil
11	186-1038	1	Cover, Head - Cylinder
12	186-0718	1	Gasket, O-Ring
13	186-1040	1	Plate
14	186-0753	5	Screw, Hex Head

Exhaust Manifold And Turbocharger

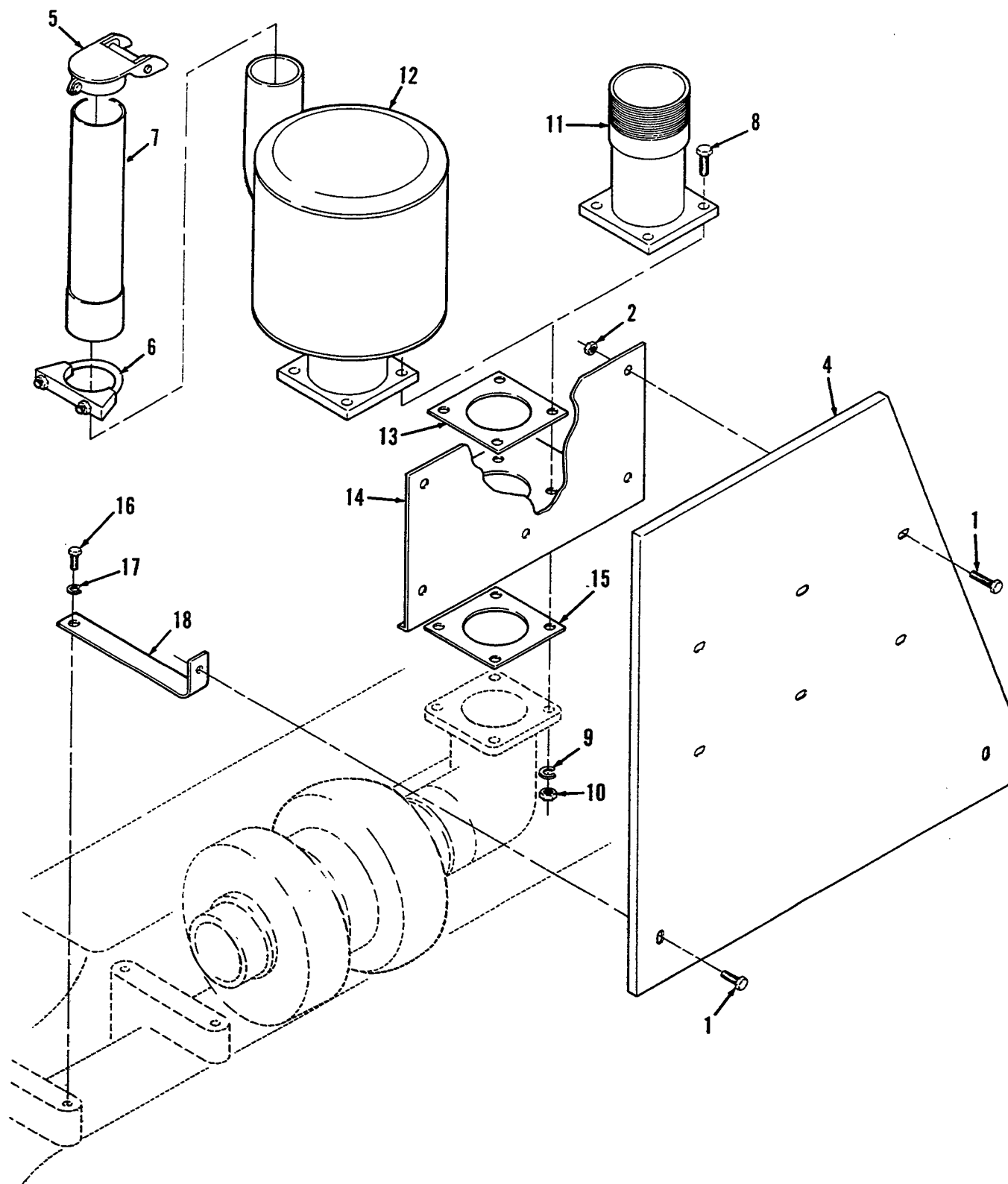


Exhaust Manifold And Turbocharger

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-1049	1	Manifold, Exhaust
2	186-0729	2	Gasket
3	186-0730	12	Spacer
4	186-0731	12	Bolt, Hex Head
5	186-0153	2	Plug, Pipe
6	186-1050	1	Gasket
7	186-0732	4	Stud
8	186-1054	4	Nut, Hex
9	186-1057	1	Turbocharger
10	186-1058	1	Elbow, Exhaust
11	186-1053	1	Ring, Sealing
12	720-1057	4	Bolt, Hex Head (M10 x 1.5 x 40mm)
13	186-0406	2	Spacer

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
14	186-0151	1	Plug, Pipe
15	186-1094	1	Pipe, Inlet
16	186-1089	1	Elbow, Pipe
17	186-0141	1	Seal, O-Ring
18	186-0827	2	Bolt, Hex Head
19	186-0923	1	Pipe, Outlet
20	186-0202	1	Gasket
21	186-0827	2	Bolt, Hex Head
22	186-1091	1	Hose, Rubber
23	186-0168	2	Clamp, Hose
24	186-1092	1	Bracket
25	186-1093	1	Clip
26	186-0750	1	Bolt, Hex Head
27	186-0848	1	Nut, Hex

Exhaust System

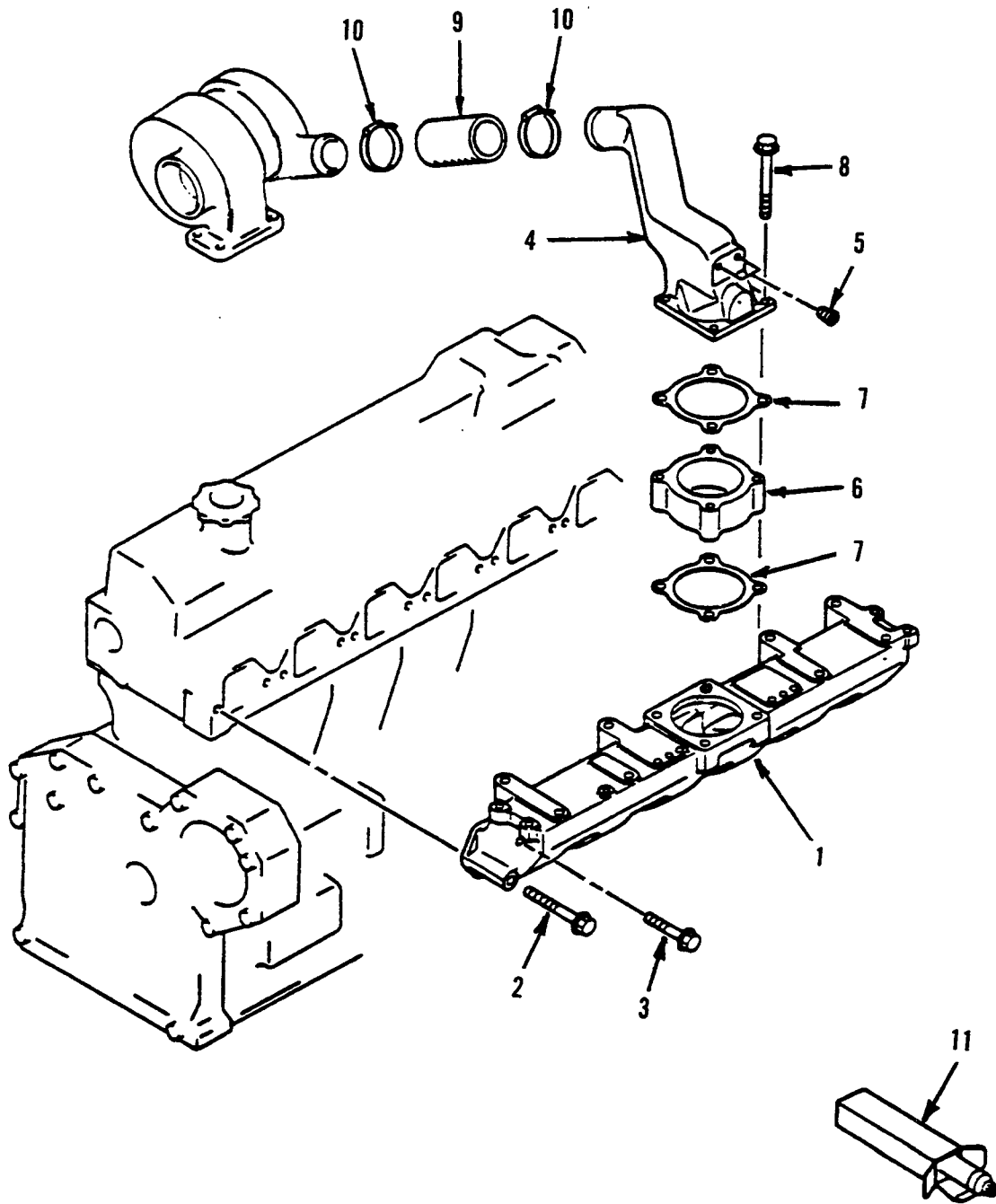


Exhaust System

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	821-0029	8	Screw, Cap - Hex Head (3/8 - 16 x 3/4")	10	862-0003	4	Nut, Hex (3/8 - 16)
2	870-0281	8	Nut, Hex (3/8 - 16)	11	154-2592	1	Adapter, Exhaust
4	155-2077	1	*Shield, Heat	12	155-2082	1	Muffler, Exhaust
5	155-2062-01	1	Cap, Rain	13	154-2580		*Gasket
6	155-2080	1	Clamp, Muffler	14	155-2079	1	*Bracket, Support - Heat Shield
7	154-2581	1	Tube, Exhaust	15	154-2580	1	Gasket
8	800-0052	4	Screw, Cap - Hex Head (3/8 - 16 x 1-1/2")	16	800-2085	2	Screw, Cap - Hex Head (M10 x 1.5 x 20mm)
9	850-0050	4	Washer, Lock - Spring (3/8)	17	850-2010	2	Washer, Lock - Spring (M10)
				18	155-2078	2	*Strap, Mounting - Heat Shield

*Items used on Housed Sets.

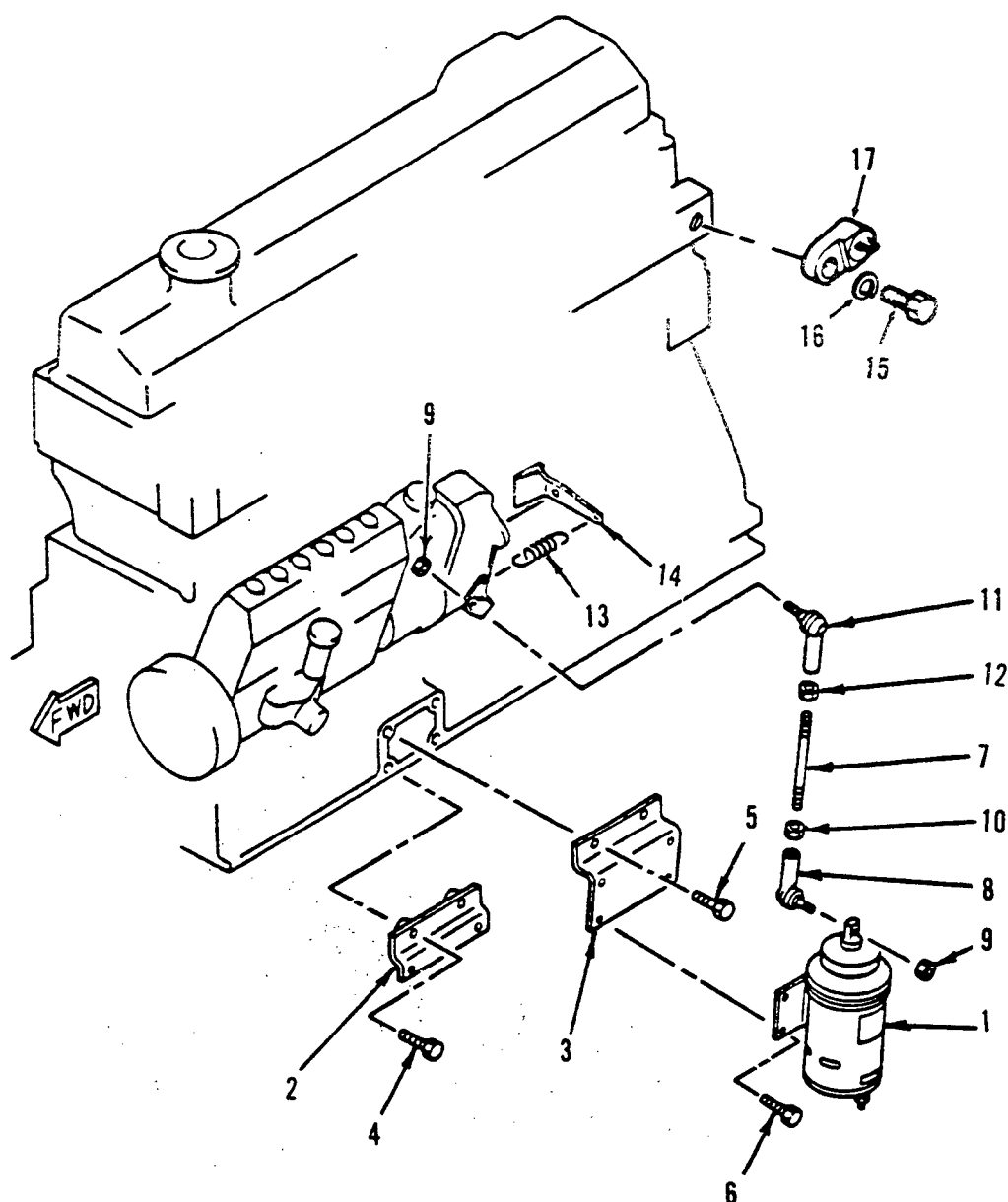
Intake Manifold



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-0720	1	Manifold, Intake
2	186-0721	1	Bolt, Hex Head
3	186-0722	11	Bolt, Hex Head
4	186-1048	1	Duct, Air
5	186-0156	2	Plug, Pipe
6	186-1046	1	Spacer

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
7	186-0211	1	Gasket
8	186-0724	4	Bolt, Hex Head
9	186-1047	1	Hose, Rubber
10	186-0170	2	Clamp, Hose
11	186-0727	1	Gasket, Liquid (Tube)

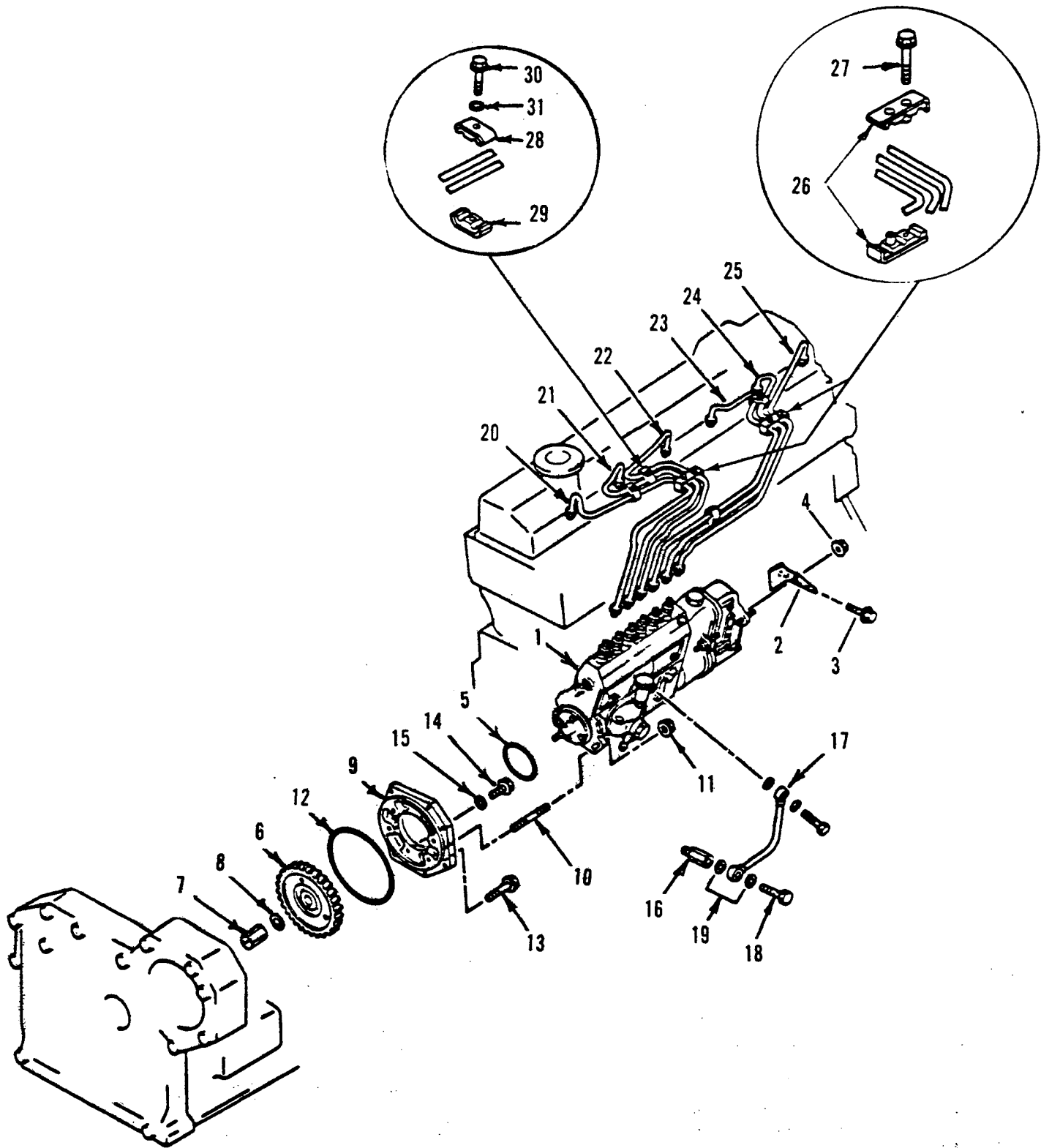
Fuel Control Solenoid



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-0915	1	Solenoid, Electric
2	186-0916	1	Bracket
3	186-0917	1	Bracket, Mounting - Solenoid
4	186-0725	2	Bolt, Hex Head
5	186-0756	2	Bolt, Hex Head
6	186-0918	4	Bolt, Hex Head
7	186-0919	1	Rod, Threaded
8	186-0416	1	Joint, Ball
9	186-0920	2	Nut, Hex
10	186-0088	1	Nut, Hex

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
11	186-0417	1	Joint, Ball - LH Threads
12	186-0087	1	Nut, Hex - LH Threads
13	186-0921	1	Spring
14	186-0846	1	Bracket
15	718-1055	1	Screw, Cap - Hex Head (M10 x 1.5 x 30mm)
16	850-2010	1	Washer, Lock - Spring (M10)
17	309-0269	1	Switch, Thermostatic - Low Engine Temperature (S4)

Fuel Injection Pump

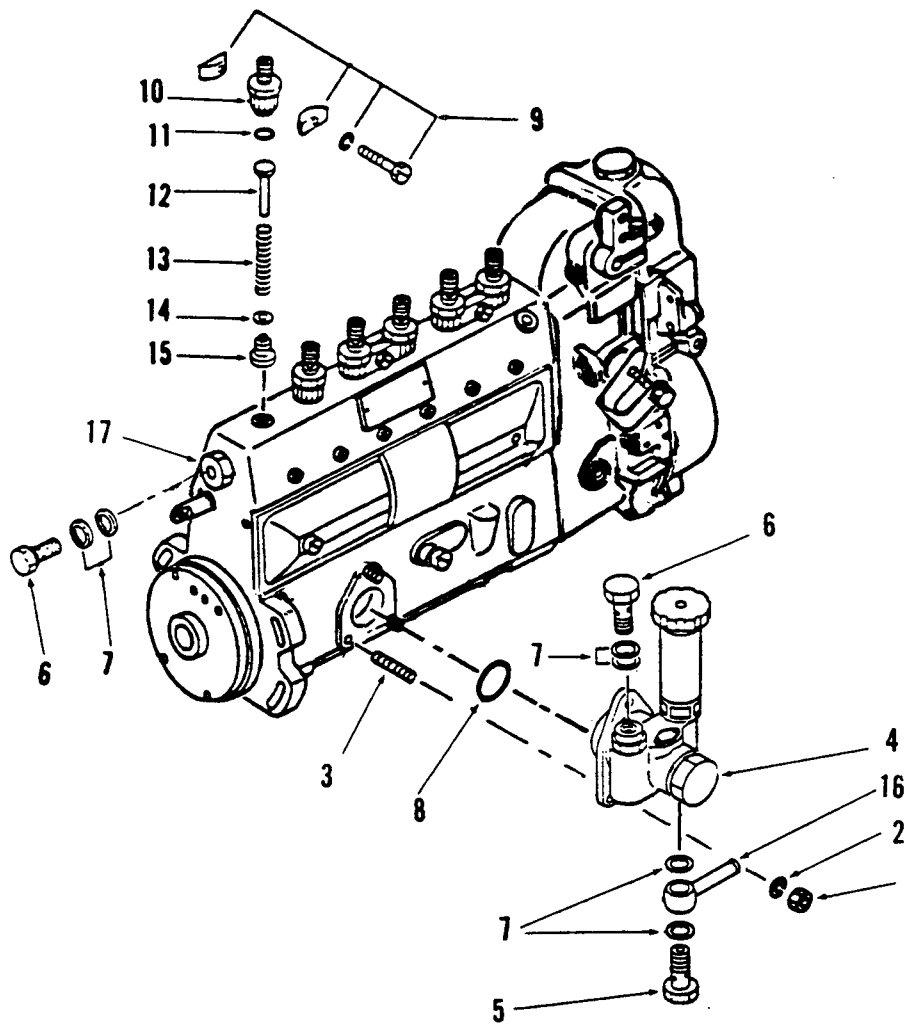


Fuel Injection Pump

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-1101	1	Pump, Injection - Fuel (See Separate Page For Components)	17	186-0859	1	Pipe
2	186-0846	1	Bracket	18	186-0860	1	Bolt, Hollow - Hex Head
3	186-0847	1	Bolt, Hex Head	19	186-0145	4	Gasket
4	186-0848	1	Nut, Hex	20	186-0861	1	Line, Injection - Fuel (No. 1)
5	186-0849	1	Seal, O-Ring	21	186-0862	1	Line, Injection - Fuel (No. 2)
6	186-1102	1	Gear	22	186-0863	1	Line, Injection - Fuel (No. 3)
7	186-0851	1	Nut, Hex	23	186-0864	1	Line, Injection - Fuel (No. 4)
8	186-0852	1	Washer, Lock	24	186-0865	1	Line, Injection - Fuel (No. 5)
9	186-0853	1	Holder	25	186-0866	1	Line, Injection - Fuel (No. 6)
10	186-0854	4	Stud	26	186-0867	4	Clamp
11	186-0855	4	Nut, Hex	27	186-0868	4	Bolt, Hex Head
12	186-0856	1	Seal, O-Ring		186-0869	4	Clip Assembly (Includes Parts Marked *)
13	186-0857	1	Bolt, Hex Head	28	186-0869	1	*Clamp
14	186-0842	1	Bolt, Hex Head	29	186-0869	1	*Clamp
15	186-0144	1	Gasket	30	186-0872	1	*Bolt, Hex Head
16	186-0858	1	Connector	31	186-0105	1	*Washer, Flat

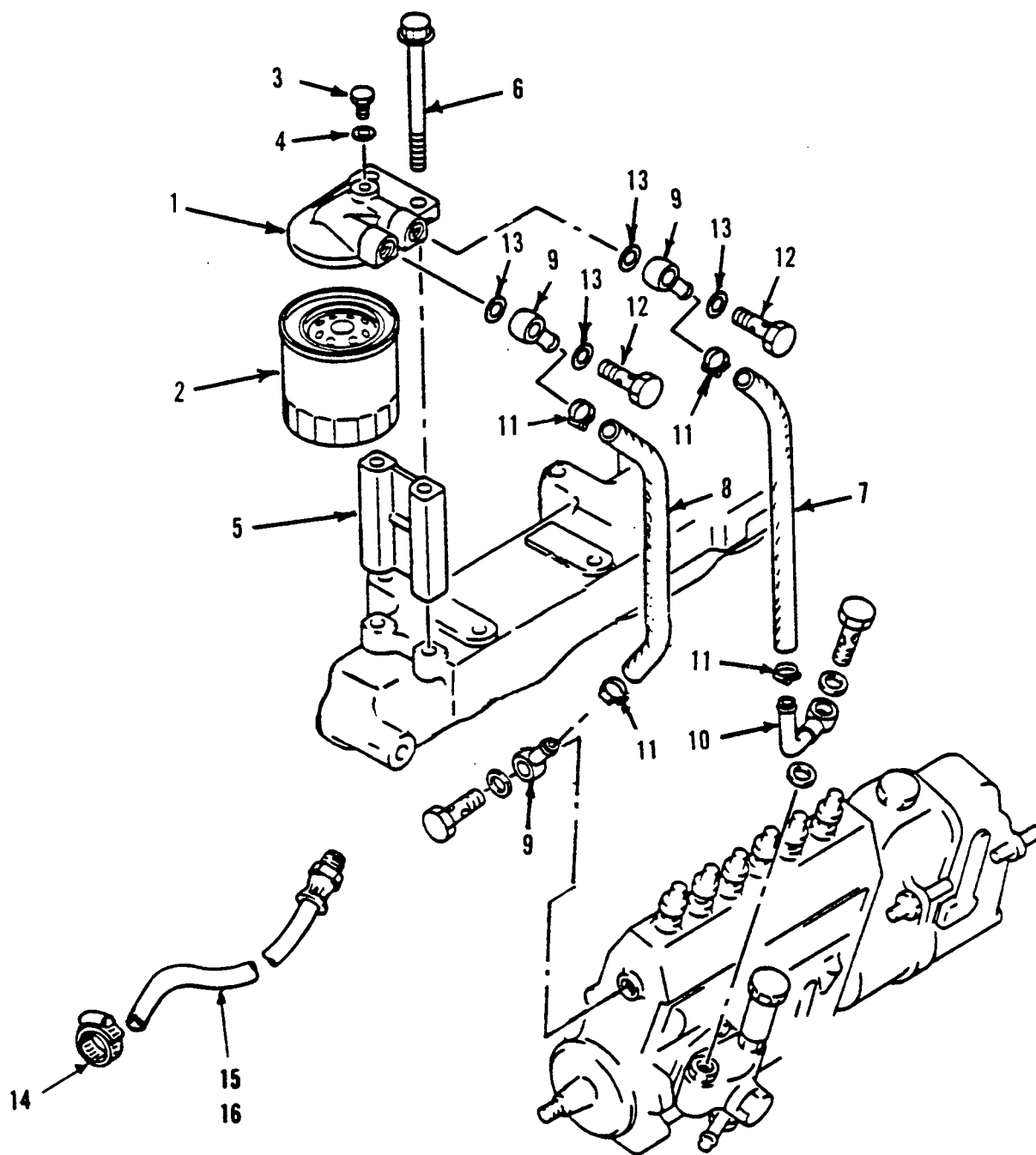
* Parts included in 186-0869 Clip Assembly.

Fuel Injection Pump Components



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-1018	3	Nut, Hex	10	186-1106	6	Holder
2	186-1017	3	Washer, Lock - Spring	11	186-1013	6	Seal, O-Ring
3	186-1016	3	Stud	12	186-1114	6	Plunger
4	186-1107	1	Pump, Fuel	13	186-1105	6	Spring
5	186-1023	1	Bolt, Hollow - Hex	14	186-1104	6	Gasket
6	186-1021	2	Bolt, Hollow - Hex	15	186-1015	6	Valve, Delivery
7	186-1022	6	Gasket	16	186-1024	1	Fitting, Hose - Banjo
8	186-1019	1	Seal, O-Ring	17	186-1020	1	Adapter, Line - Fuel
9	186-1011	3	Clamp Assembly				

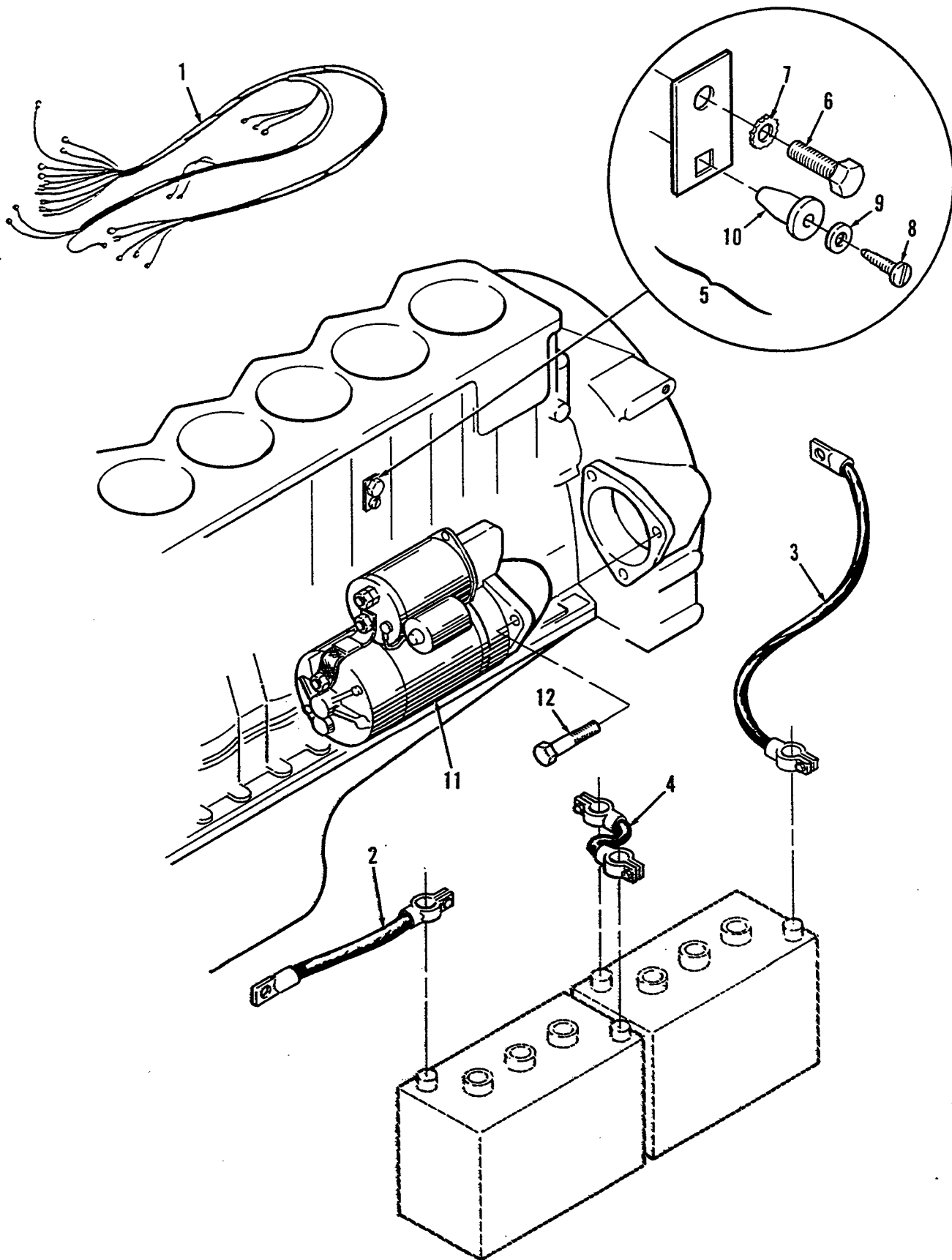
Fuel Filter



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-0873	1	Adapter, Filter - Fuel
2	186-0874	1	Element, Filter - Fuel
3	186-0875	1	Plug, Pipe - Hex
4	186-0144	1	Gasket
5	186-0876	1	Spacer
6	186-0877	2	Bolt, Hex Head
7	186-1103	1	Hose
8	186-0878	1	Hose

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
9	186-0880	3	Fitting, Hose - Banjo
10	186-0881	1	Fitting, Hose - Banjo
11	186-0882	4	Clamp, Hose
12	186-0883	2	Bolt, Hollow - Hex
13	186-0147	4	Gasket
14	503-0685	2	Clamp, Hose
15	501-0501	1	Line, Fuel - Flexible (30")
16	501-0502	1	Line, Fuel - Flexible (60")

Starter

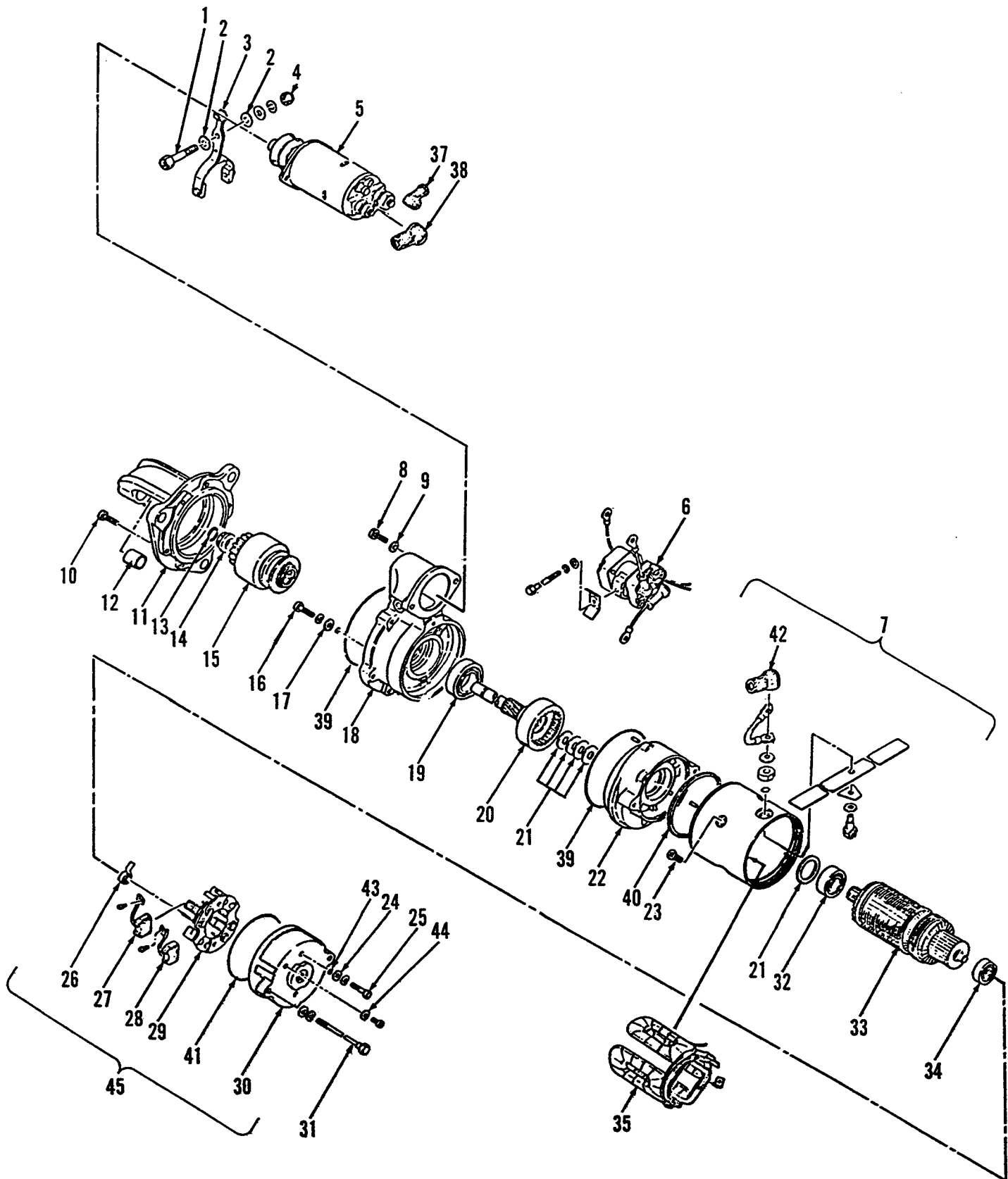


Starter

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	338-1873	1	Harness, Wiring - Control To Engine	7	856-2010	2	Washer, Lock - EIT (M10)
2	416-0619	1	Cable, Battery (18")	8	809-0035	1	*Screw, Thread Cutting - Round Head (#8)
3	416-0618	1	Cable, Battery (42")	9	508-0015	1	*Washer, Insul - Fiber (#8)
4	416-0446	1	Cable, Battery (Jumper)	10	870-0196	1	*Nut, Insulating (#8)
5	332-1292	1	Terminal Assembly (Includes Parts Marked *)	11	186-2095	1	Starter (See Separate Page For Components)
6	718-1052	1	Screw, Cap - Hex Head (M10 x 1.5 x 16mm)	12	186-2127	3	Screw, Cap - Hex Head

* Parts included in 332-1292 Terminal Assembly.

Starter Components

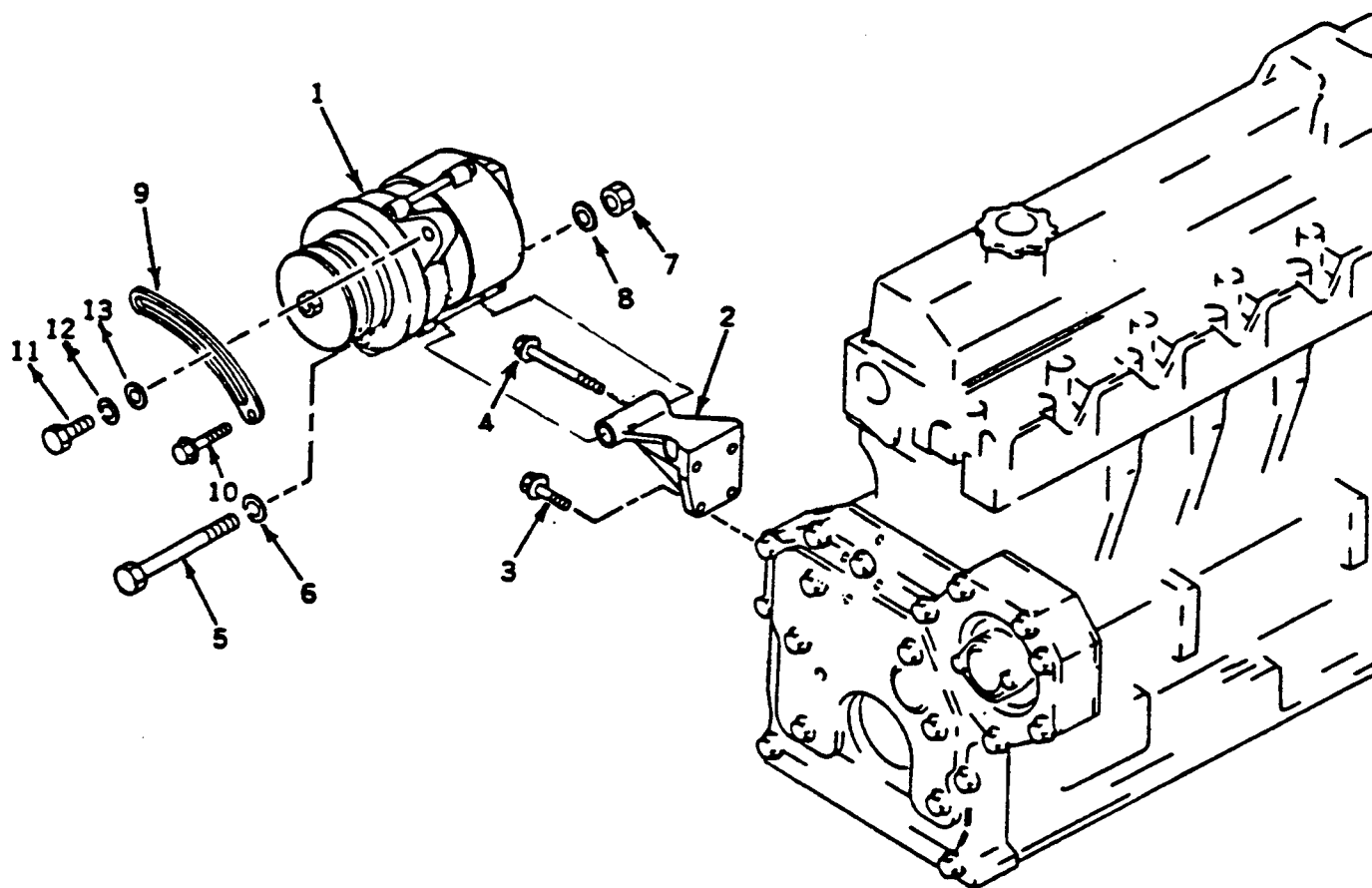


Starter Components

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-0047	1	Pin, Lever - Threaded	24	186-0625	2	Washer, Flat
2	186-0030	2	Seal	25	186-0626	2	Bolt, Hex Head
3	186-2128	1	Lever, Shift	26	186-0053	4	Spring
4	186-0599	1	Nut, Hex	27	186-0051	2	Brush
5	186-0476	1	Solenoid	28	186-0675	2	Brush
6	186-0475	1	Switch	29	186-0020	1	Holder, Brush
7	186-2129	1	Terminal Assembly (Does Not Include Rubber Cap)	30	186-0077	1	Housing, Rear
8	186-0027	2	Bolt, Hex Head	31	186-0021	2	Bolt, Hex Head
9	186-0665	1	Washer, Lock - Spring	32	186-2138	1	Bearing, Ball
10	186-0941	6	Bolt, Hex Head	33	186-2137	1	Armature
11	186-2130	1	Housing, Front	34	186-2139	1	Bearing, Ball
12	186-0075	1	Bushing, Sleeve	35	186-0045	1	Coil, Field
13	186-0666	1	Ring, Retaining	36	186-2140	1	Seal Set, O-Ring (Includes Parts Marked *)
14	186-0667	1	Stop, Pinon	37	186-0042	1	*Cap, Rubber
15	186-0944	1	Clutch	38	186-0612	2	*Cap, Rubber
16	186-0668	3	Bolt, Hex Head	39	186-0036	2	*Seal, O-Ring
17	186-0628	3	Washer, Flat	40	186-0682	1	*Gasket
18	186-2131	1	Bracket, Center	41	186-0683	1	*Seal, O-Ring
19	186-2135	1	Bearing, Ball	42	186-0041	1	*Cap, Rubber
20	186-2133	1	Shaft	43	186-0680	2	*Seal, O-Ring
21	186-2141	1	Washer Set, Thrust	44	186-0610	1	*Seal, Washer
22	186-0672	1	Bracket, Center	45	186-2136	1	Bracket Assembly, Rear (Includes Rear Housing)
23	186-0028	4	Screw, Flat Head				

* Parts included in 186-2140 O-Ring Seal Set.

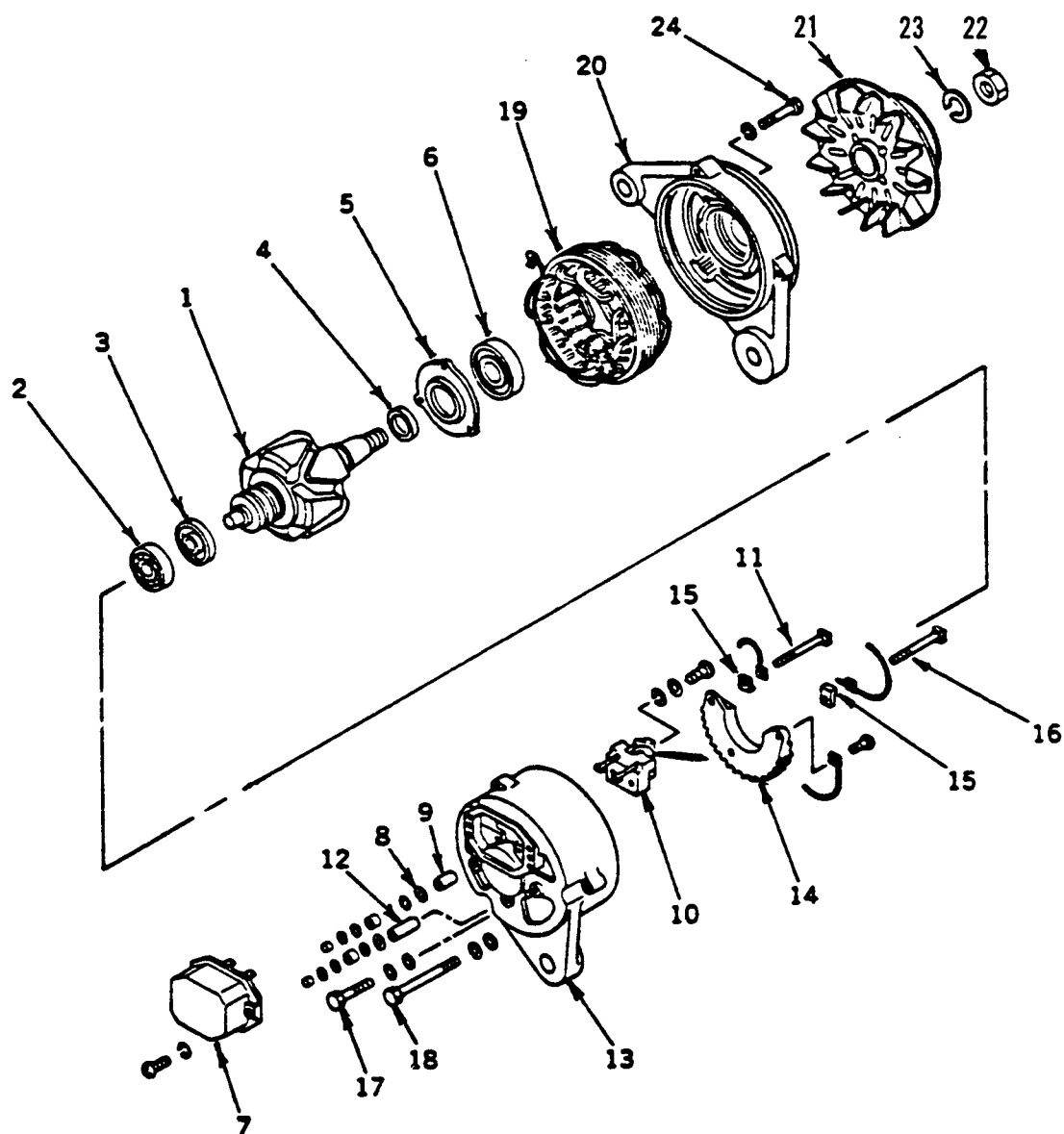
Alternator



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-2092	1	Alternator
2	186-0909	1	Bracket, Mounting
3	186-0910	3	Bolt, Hex Head
4	186-0911	1	Bolt, Hex Head
5	186-0184	1	Bolt, Hex Head
6	186-0098	1	Washer, Lock - Spring
7	186-0091	1	Nut, Hex

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
8	186-0506	1	Washer, Flat
9	186-0912	1	Plate, Adjusting
10	186-0763	1	Bolt, Hex Head
11	186-0085	1	Bolt, Hex Head
12	186-0097	1	Washer, Lock - Spring
13	186-0109	1	Washer, Flat

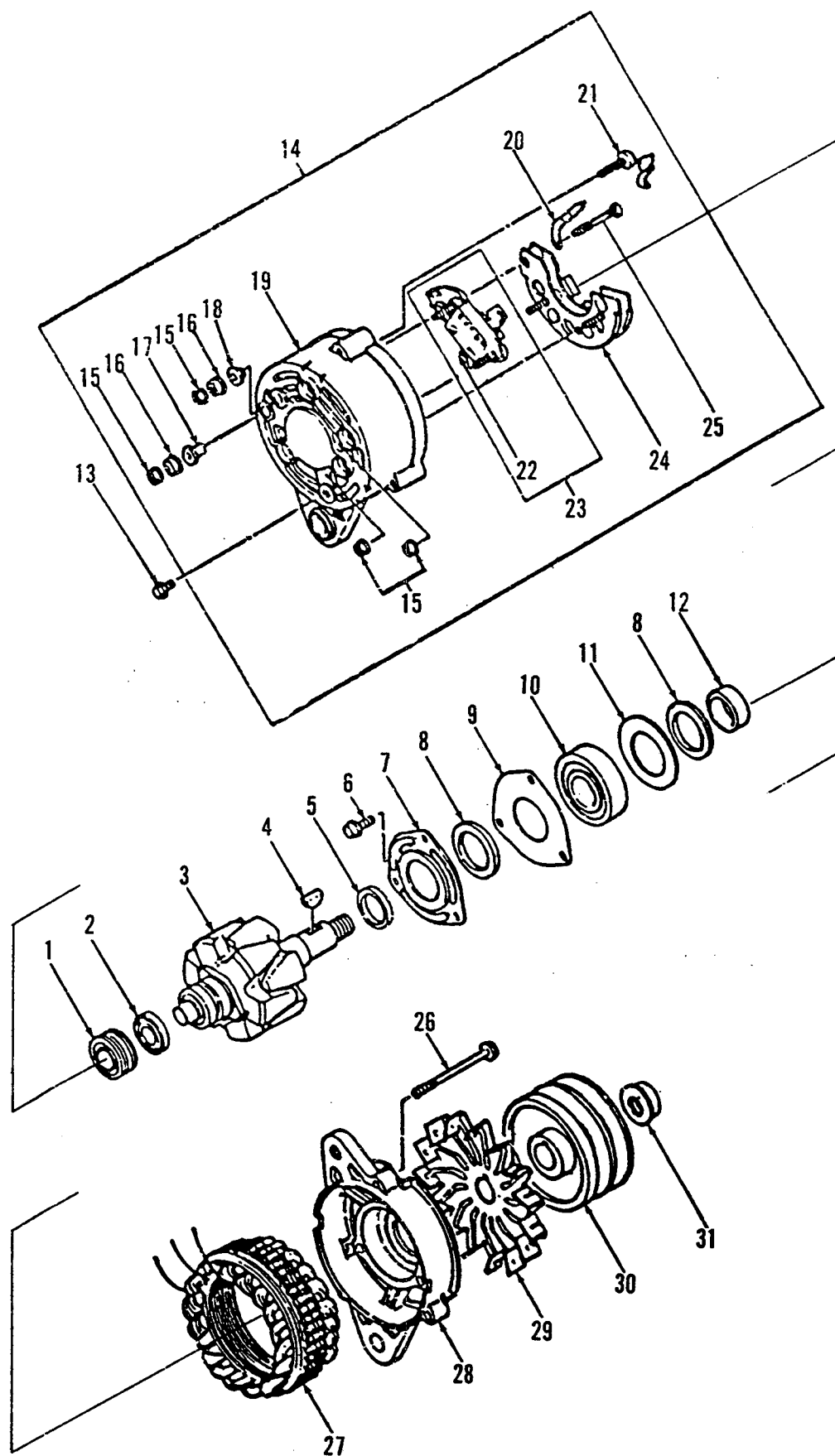
Alternator Components (8-Pole)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-0922	1	Rotor Assy (Includes Parts Marked *)	12	186-0932	1	+Tube, Insulating
2	186-0032	1	*Bearing, Ball	13	186-0933	1	+Bracket, Rear
3	186-0924	1	*Retainer	14	186-0934	1	+Diode
4	186-0925	1	*Collar	15	186-0935	2	+Bushing, Insulator
5	186-0926	1	*Retainer	16	186-0936	1	+Bolt, Square Head
6	186-0033	1	*Bearing, Ball	17	186-0937	1	+Bolt, Square Head
7	186-0928	1	Regulator, Voltage	18	186-0019	3	Bolt, Hex Head
	186-0024	1	Housing Assembly - Rear (Includes Parts Marked +)	19	186-0938	1	Stator
8	186-0929	1	+Washer, Insulator	20	186-0069	1	Bracket, Front
9	186-0930	1	+Tube, Insulating	21	186-0023	1	Pulley
10	186-0070	1	+Holder, Brush	22	186-0493	1	Nut, Hex
11	186-0931	1	+Bolt, Square Head	23	186-0494	1	Washer, Lock - Spring
				24	186-0939	1	Screw, Cap - Hex Head

* Parts included in 186-0922 Rotor Assembly.
+ Parts included in 186-0024 Housing Assembly.

Alternator Components (12-Pole)

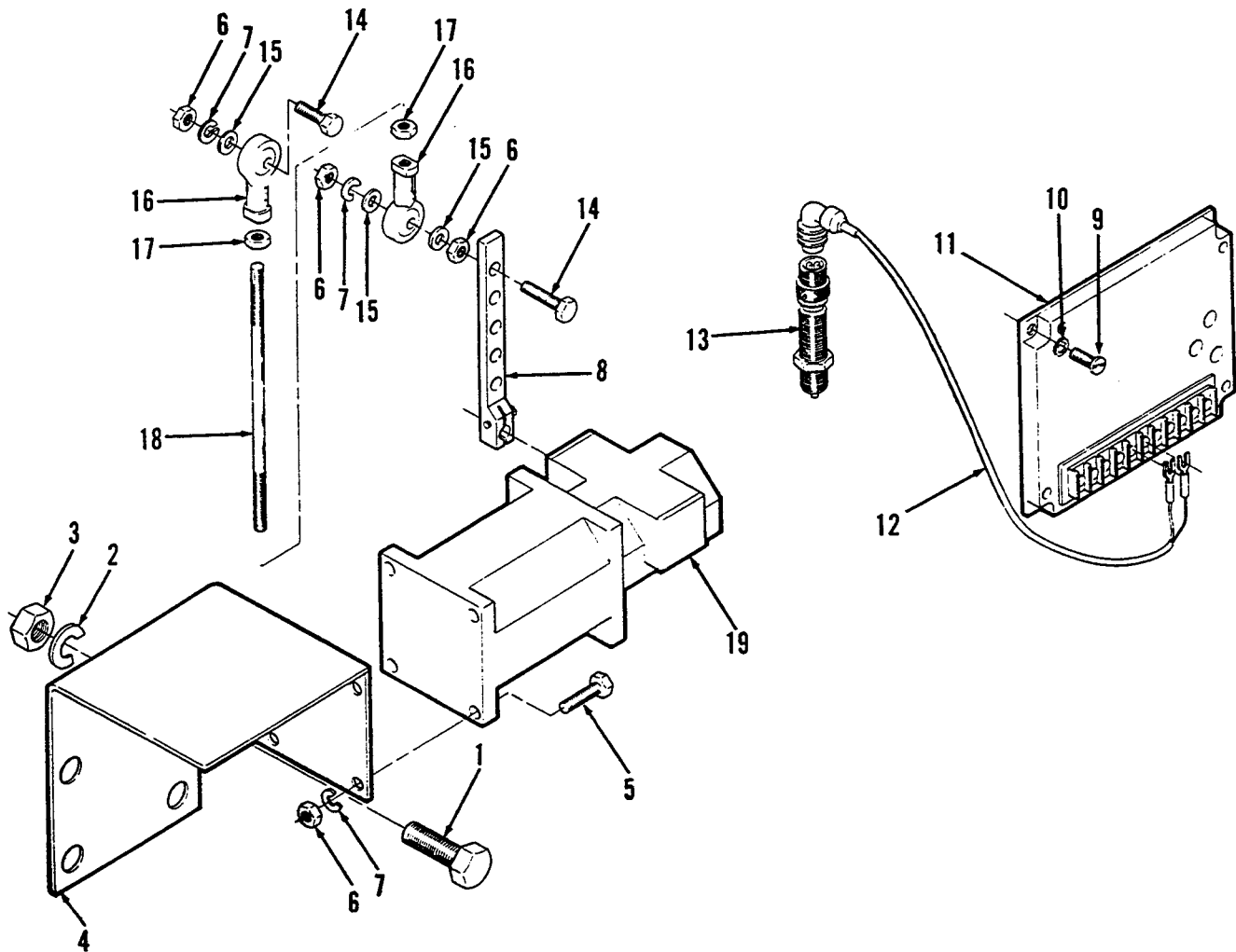


Alternator Components (12-Pole)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-2097	1	Bearing, Ball	17	186-2110	1	*Bushing, Insulating
2	186-2098	1	Retainer	18	186-2111	1	*Bushing, Insulating
3	186-2099	1	Rotor	19	186-2112	1	*Bracket, Rear
4	186-1645	1	Key, Woodruff	20	186-2113	1	*Bar, Connect
5	186-2100	1	Collar	21	186-2114	1	*Terminal
6	186-2101	3	Bolt	22	186-2115	2	*Holder, Brush
7	186-2102	1	Retainer	23	186-2116	1	*Regulator Assy (Includes Brush Holder)
8	186-1655	2	Packing	24	186-2117	1	*Rectifier Assembly
9	186-1653	1	Retainer	25	186-2118	1	*Bolt
10	186-2103	1	Bearing, Ball	26	186-2119	3	Bolt
11	186-2104	1	Retainer	27	186-2120	1	Stator Assembly
12	186-2105	1	Collar	28	186-2121	1	Bracket, Front
13	186-2106	1	Bolt	29	186-2122	1	Fan
14	186-2107	1	Bracket Assy, Rear (Includes Parts Marked *)	30	186-2123	1	Pulley
15	186-2108	6	*Nut	31	186-2124	1	Nut
16	186-2109	2	*Nut				

* Parts included in 186-2107 Rear Bracket Assembly.

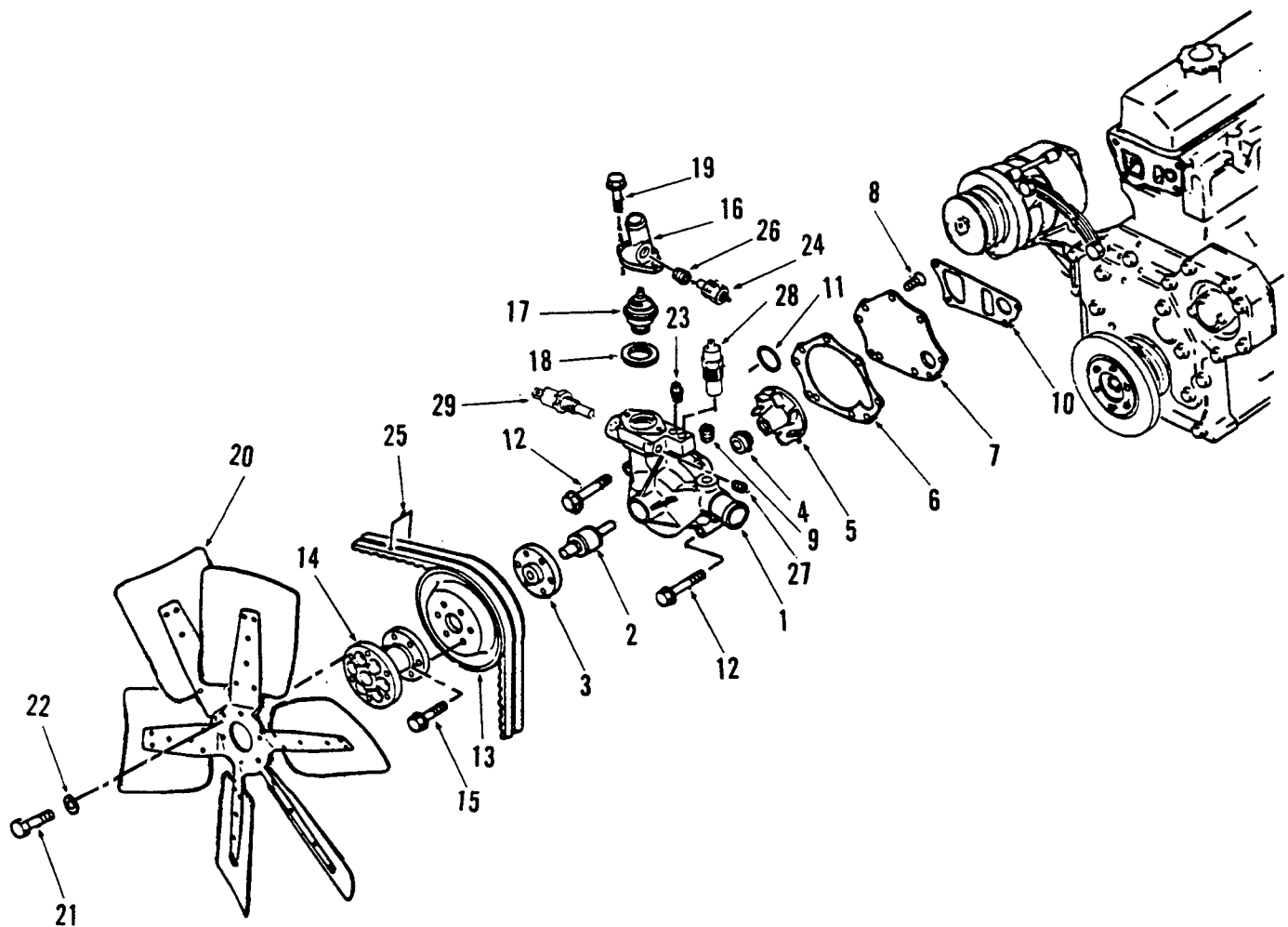
Electric Governor



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	800-0092	3	Screw, Cap - Hex Head (1/2 - 13 x 1-1/2")
2	850-0060	3	Washer, Lock (1/2)
3	862-0016	3	Nut, Hex (1/2)
4	150-2118	1	Bracket, Mounting - Governor
5	800-2037	4	Screw, Cap - Hex Head (M6 x 1 x 35mm)
6	860-2007	7	Nut, Hex (M6)
7	850-2006	6	Washer, Lock (M6)
8	150-2145	1	Lever, Actuator
9	813-0103	4	Screw (#10 - 32 x 3/4")

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
10	870-0131	4	Nut, Hex - ET (#10 - 32)
11	151-0611	1	Control, Governor
12	338-1765-02	1	Cable, Pickup - Magnetic
13	151-0603-02	1	Sensor, Speed - Magnetic
14	800-2035	2	Screw, Cap - Hex (M6 x 1 x 25mm)
15	526-0021	3	Washer, Flat (1/4)
16	150-2120	2	End, Rod
17	115-0025	2	Nut, Hex (1/4 - 28)
18	520-0960	1	Stud
19	151-0612	1	Actuator, Governor

Cooling Fan, And Water Pump

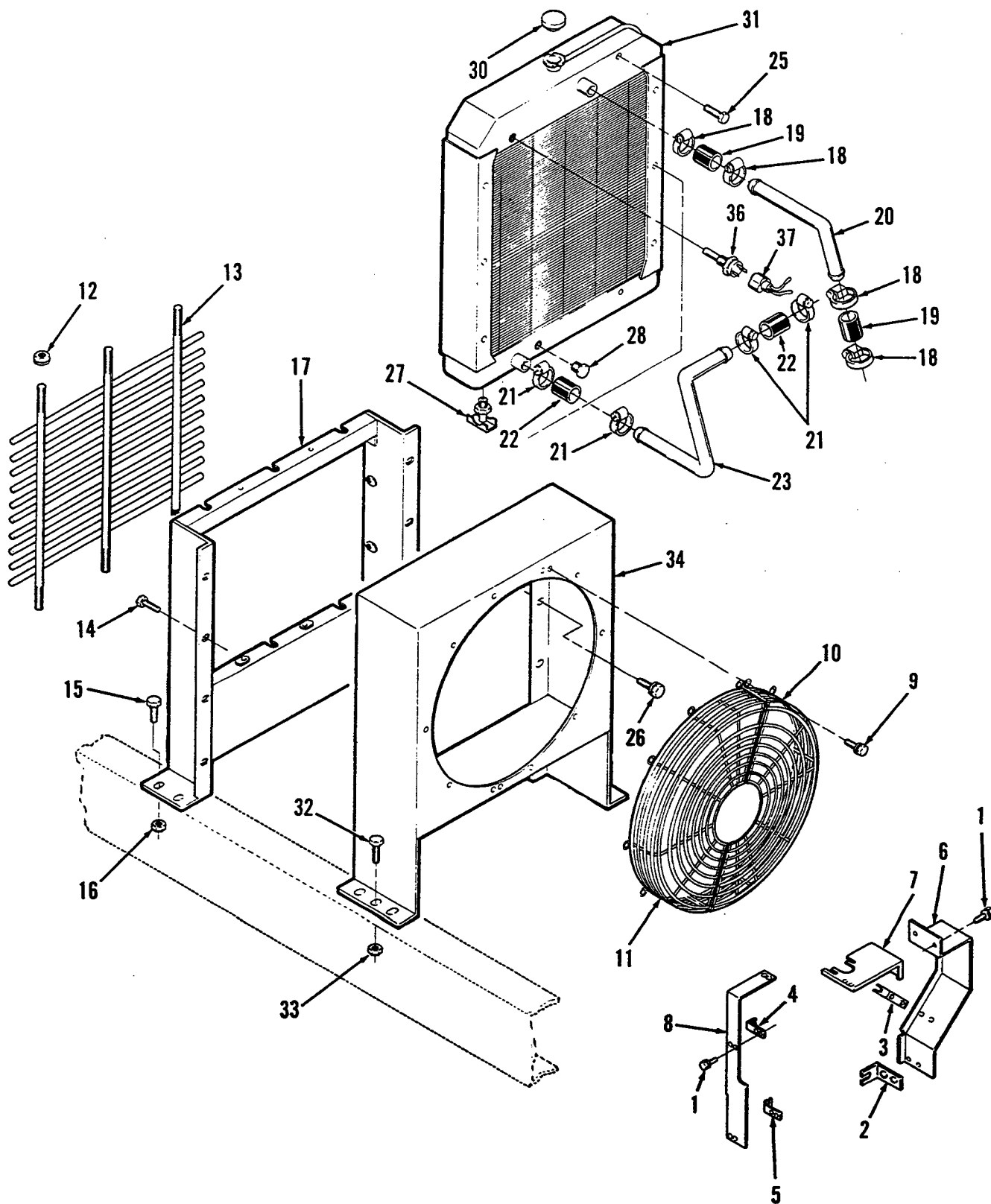


REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-0885	1	Pump, Water (Includes Parts Marked *)
2	186-1025	1	*Shaft
3	186-1026	1	*Spacer
4	186-0886	1	*Seal
5	186-0887	1	*Impeller
6	186-0888	1	*Cover
7	186-0889	1	*Gasket
8	186-0890	5	*Screw, Cap - Hex Head
9	186-0488	1	Plug, Pipe
10	186-0891	1	Gasket
11	186-0892	1	Seal, O-Ring
12	186-0723	4	Bolt, Hex Head
13	186-0894	1	Pulley
14	186-0896	1	Spacer
15	186-0898	6	Bolt, Hex Head

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
16	186-0900	1	Housing, Thermostat
17	186-0901	1	Thermostat
18	186-0902	1	Gasket
19	186-0827	2	Bolt, Hex Head
20	186-2659	1	Fan
21	186-0756	6	Bolt, Hex Head
22	186-0904	6	Washer
23	186-0117	1	Plug, Pipe
24	193-0318	1	Sender, Temperature - Water
25	186-0906	1	Belt Set, V
26	186-0907	1	Plug, Pipe
27	186-0117	1	Plug, Pipe
28	309-0521	1	Switch, Thermostatic - Pre Hi Engine Coolant Temp (S6)
29	309-0522	1	Thermostat

* Parts included in 186-0885 Water Pump.

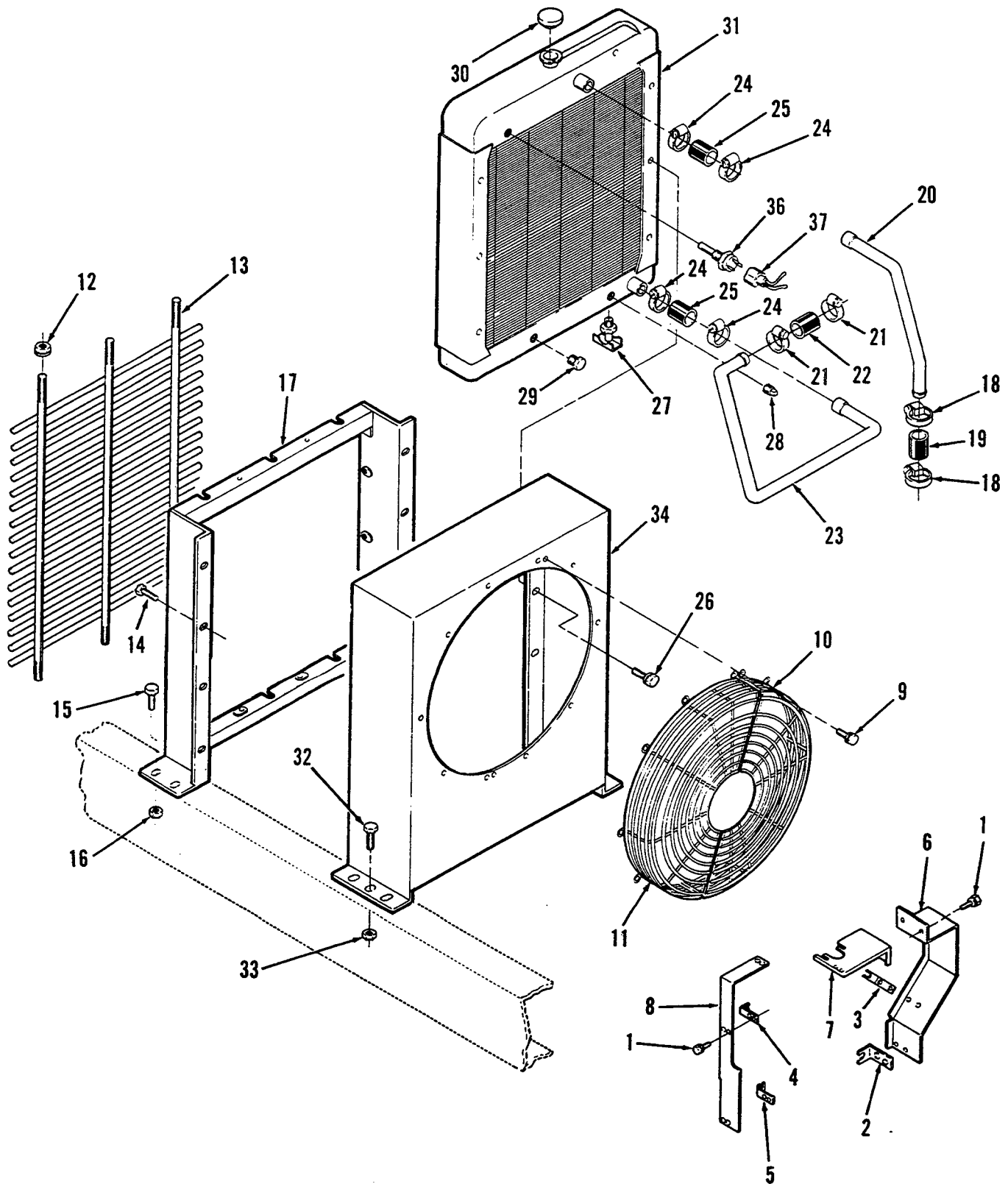
Cooling System (Standard)



Cooling System (Standard)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	821-0009	12	Screw, Self-Locking - Hex	18	503-0398	4	Clamp, Hose
			Washer Hd (1/4 - 20 x 3/8")	19	503-1390-01	2	Hose, Rubber
2	130-2677	1	Bracket, Support - Belt Guard	20	130-2672	1	Tube, Inlet - Coolant
			and Alternator Guard	21	503-0365	4	Clamp, Hose
3	130-2676	1	Bracket, Support - Belt Guard	22	503-1391-01	2	Hose, Rubber
			and Alternator Guard	23	130-2673	1	Tube, Outlet - Coolant
4	130-2674	1	Bracket, Support - Belt Guard	25	502-0153	3	Plug, Pipe - Hex Head
5	130-2675	1	Bracket, Support - Belt Guard	26	821-0029	10	Screw, Self-Locking - Hex
6	191-1685	1	Guard, Belt (Less Brackets)				Washer Hd (3/8 - 16 x 3/4")
7	130-2680	1	Guard, Belt (Center)	27	504-0028	1	Valve, Drain
8	130-2679	1	Guard, Belt (Less Brackets)	28	502-0155	1	Plug, Pipe - Square Head
9	821-0018	9	Screw, Self-Locking - Hex	30			Cap, Radiator
			Washer Hd (1/4 - 20 x 5/8")		130-0523	1	Large Neck
10	130-2660-02	1	Guard, Fan (Left Side)		130-2344	1	Small Neck
11	130-2660-01	1	Guard, Fan (Right Side)	31	130-2667	1	Radiator (Includes Cap)
12	870-0281	6	Nut, Self-Locking - Hex	32	821-0029	6	Screw, Self-Locking - Hex
			Washer Head (3/8 - 16)				Washer Hd (3/8 - 16 x 3/4")
13	130-2614	1	Grille	33	870-0281	6	Nut, Self-Locking - Hex
14	821-0010	8	Screw, Self-Locking - Hex				Washer Head (3/8 - 16)
			Washer Hd (1/4 - 20 x 1/2")	34	130-2669	1	Shroud, Fan
15	821-0029	4	Screw, Self-Locking - Hex	35	130-2671	1	Bracket, Guard - Fan
			Washer Hd (3/8 - 16 x 3/4")	36	193-0322	1	Switch, Level - Lo Coolant
16	870-0281	4	Nut, Self-Locking - Hex	37	338-1919	1	Harness, Wiring - Lo Coolant
			Washer Head (3/8 - 16)				Level
17	130-2663	1	Guard, Radiator (Less Grille)				

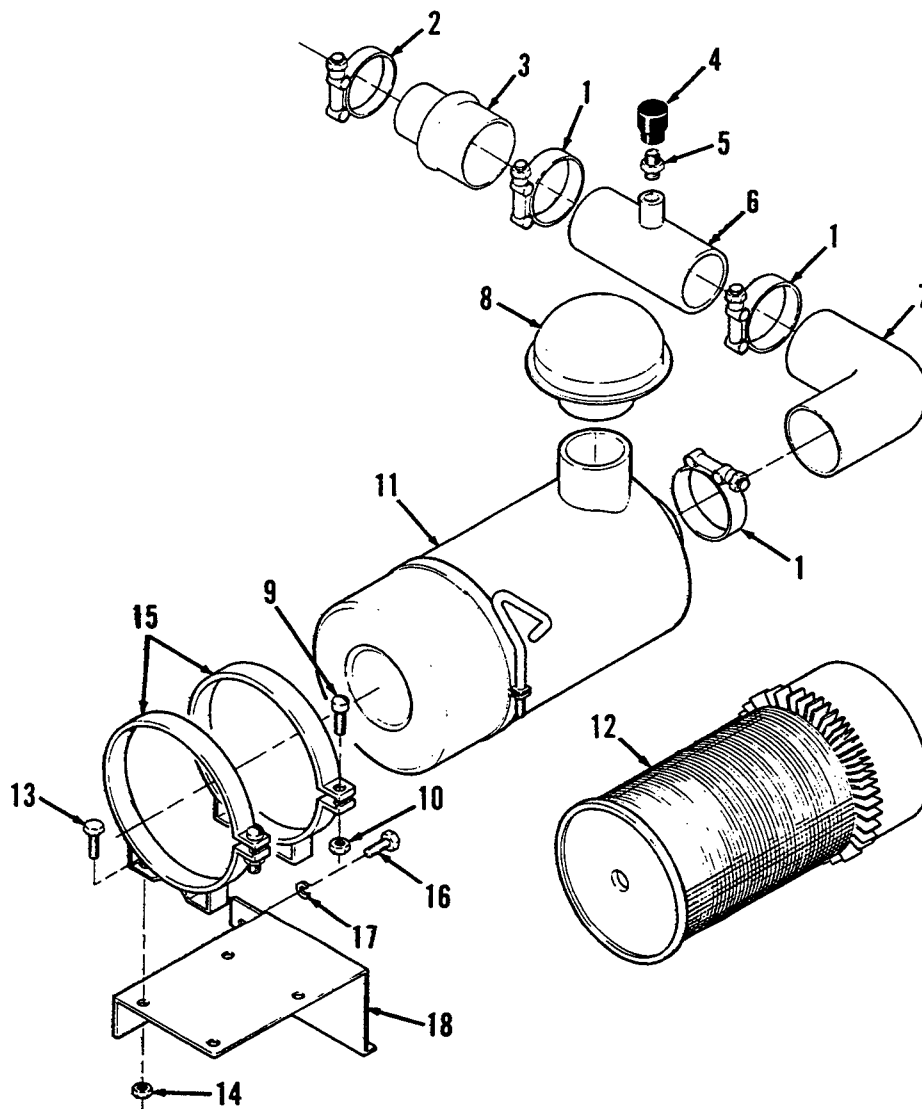
Cooling System (Hi Temperature)



Cooling System (Hi Temperature)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	821-0009	12	Screw, Self-Locking - Hex Washer Hd (1/4 - 20 x 3/8")	19	503-1390-01	1	Hose, Rubber
2	130-2677	1	Bracket, Support - Belt Guard and Alternator Guard	20	130-2696	1	Tube, Inlet - Coolant
3	130-2676	1	Bracket, Support - Belt Guard and Alternator Guard	21	503-0365	2	Clamp, Hose
4	130-2674	1	Bracket, Support - Belt Guard	22	503-1391-01	1	Hose, Rubber
5	130-2675	1	Bracket, Support - Belt Guard	23	130-2697	1	Tube, Outlet - Coolant
6	191-1685	1	Guard, Belt (Less Brackets)	24	503-0354	4	Clamp, Hose
7	130-2680	1	Guard, Belt (Center)	25	503-1380-01	2	Hose, Rubber
8	130-2679	1	Guard, Belt (Less Brackets)	26	821-0029	10	Screw, Self-Locking - Hex Washer Hd (3/8 - 16 x 3/4")
9	821-0018	9	Screw, Self-Locking - Hex Washer Hd (1/4 - 20 x 5/8")	27	504-0003	1	Valve, Drain
10	130-2660-02	1	Guard, Fan (Left Side)	28	502-0155	1	Plug, Pipe - Square Head
11	130-2660-01	1	Guard, Fan (Right Side)	29	502-0153	3	Plug, Pipe - Hex Head
12	870-0281	6	Nut, Self-Locking - Hex Washer Head (3/8 - 16)	30			Cap, Radiator
13	130-2625	1	Grille		130-0523	1	Large Neck
14	821-0010	8	Screw, Self-Locking - Hex Washer Hd (1/4 - 20 x 1/2")		130-2344	1	Small Neck
15	821-0029	4	Screw, Self-Locking - Hex Washer Hd (3/8 - 16 x 3/4")	31	130-2519	1	Radiator (Includes Cap)
16	870-0281	4	Nut, Self-Locking - Hex Washer Head (3/8 - 16)	32	821-0029	6	Screw, Self-Locking - Hex Washer Hd (3/8 - 16 x 3/4")
17	130-2687	1	Guard, Radiator (Less Grille)	33	870-0281	6	Nut, Self-Locking - Hex Washer Head (3/8 - 16)
18	503-0398	2	Clamp, Hose	34	130-2690	1	Shroud, Fan
				35	130-2671	1	Bracket, Guard - Fan
				36	193-0322	1	Switch, Level - Lo Coolant
				37	338-1919	1	Harness, Wiring - Lo Coolant Level

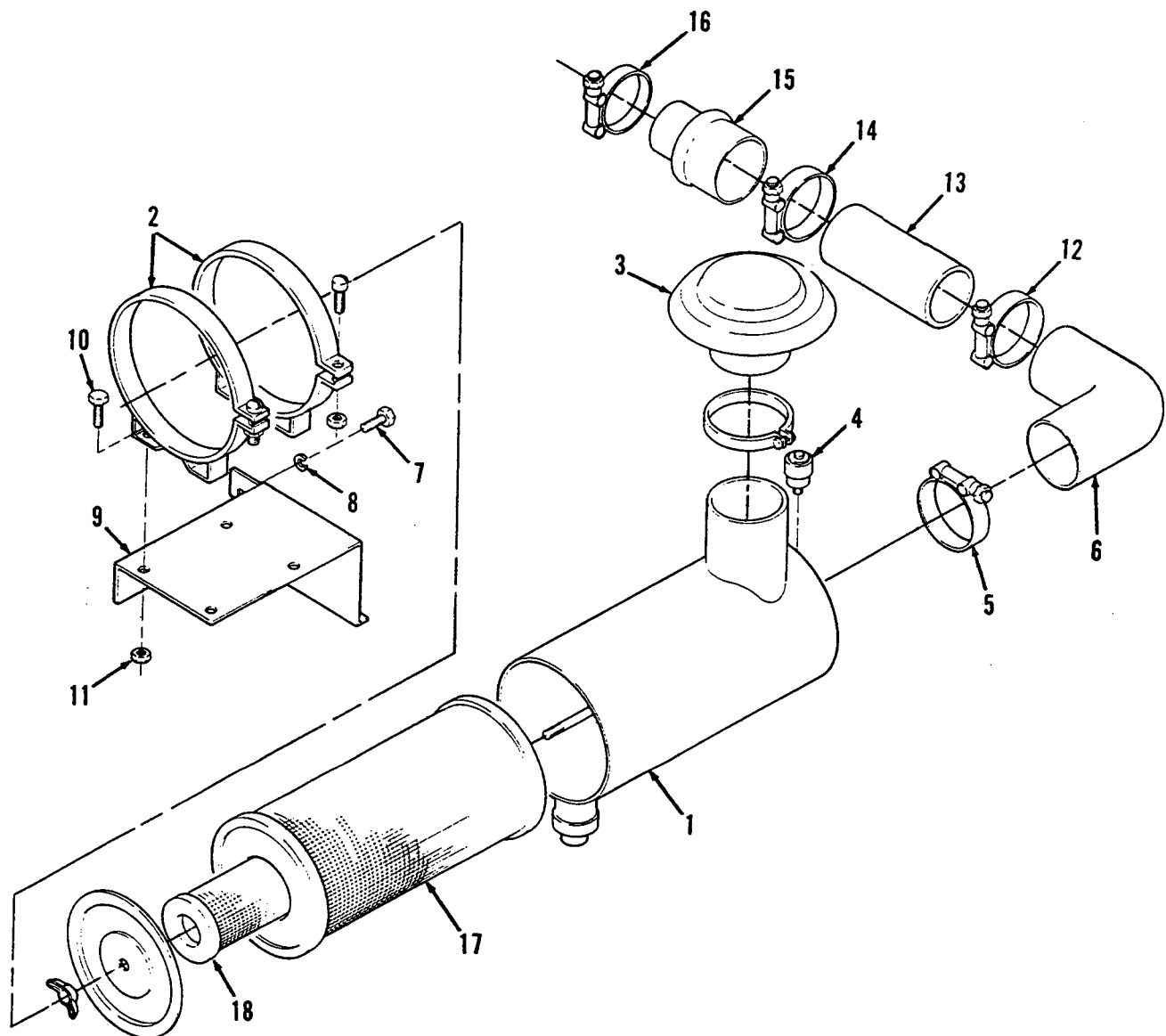
Air Cleaner (Standard)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0868	1	Clamp, Hose
2	503-0999	1	Clamp, Hose
3	503-1392	1	Hose, Air
4	140-1548	1	Indicator, Service - Air
5	140-1260	1	Adapter, Hex Head
6	140-1982	1	Tube, Air
7	140-1467	1	Elbow, Rubber - 90°
8	140-1435	1	Cap, Cleaner - Air
9	815-0115	2	Screw, Machine - Fillister Head (1/4 - 20 x 1")
10	863-0002	2	Nut, Square (1/4 - 20)
11	140-1454	1	Cleaner Assembly, Air (Includes Element)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
12	140-1455	1	Element, Cleaner - Air
13	821-0016	4	Screw, Self-Lock - Hex Washer Head (5/16 - 18 x 3/4")
14	870-0048	4	Nut, Self-Lock - Hex Washer Head (5/16 - 18)
15	140-0317	2	Band, Mounting
16	800-2084	2	Screw, Cap - Hex Head (M10 x 1.5 x 16mm)
17	850-2010	2	Washer, Lock (M10)
18	140-1983	1	Bracket, Mounting - Air Cleaner

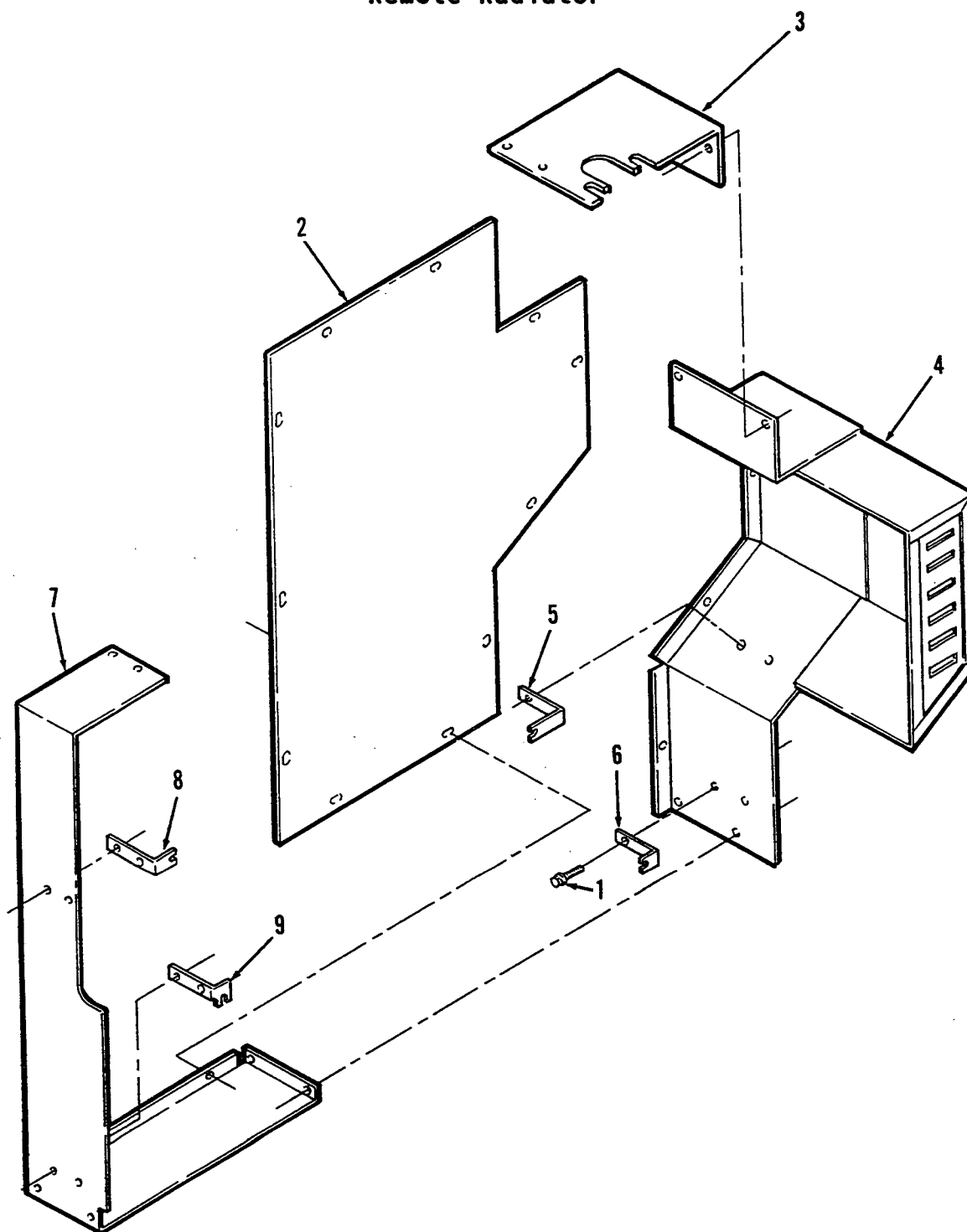
Heavy Duty Air Cleaner (Dual Air Filter)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	140-2066	1	Cleaner Assembly, Air (Includes Elements)
2	140-1599	2	Band, Mounting
3	140-1601	1	Hood, Inlet - Air
4	140-1548	1	Indicator, Service - Air
5	503-0900	1	Clamp, Hose - T-Bolt
6	140-1970	1	Elbow, Reducing - 90°
7	718-1052	2	Screw, Cap - Hex Head (M10 x 1.5 x 16mm)
8	850-2010	2	Washer, Lock (M10)
9	140-2069	1	Bracket, Mounting - Air Cleaner

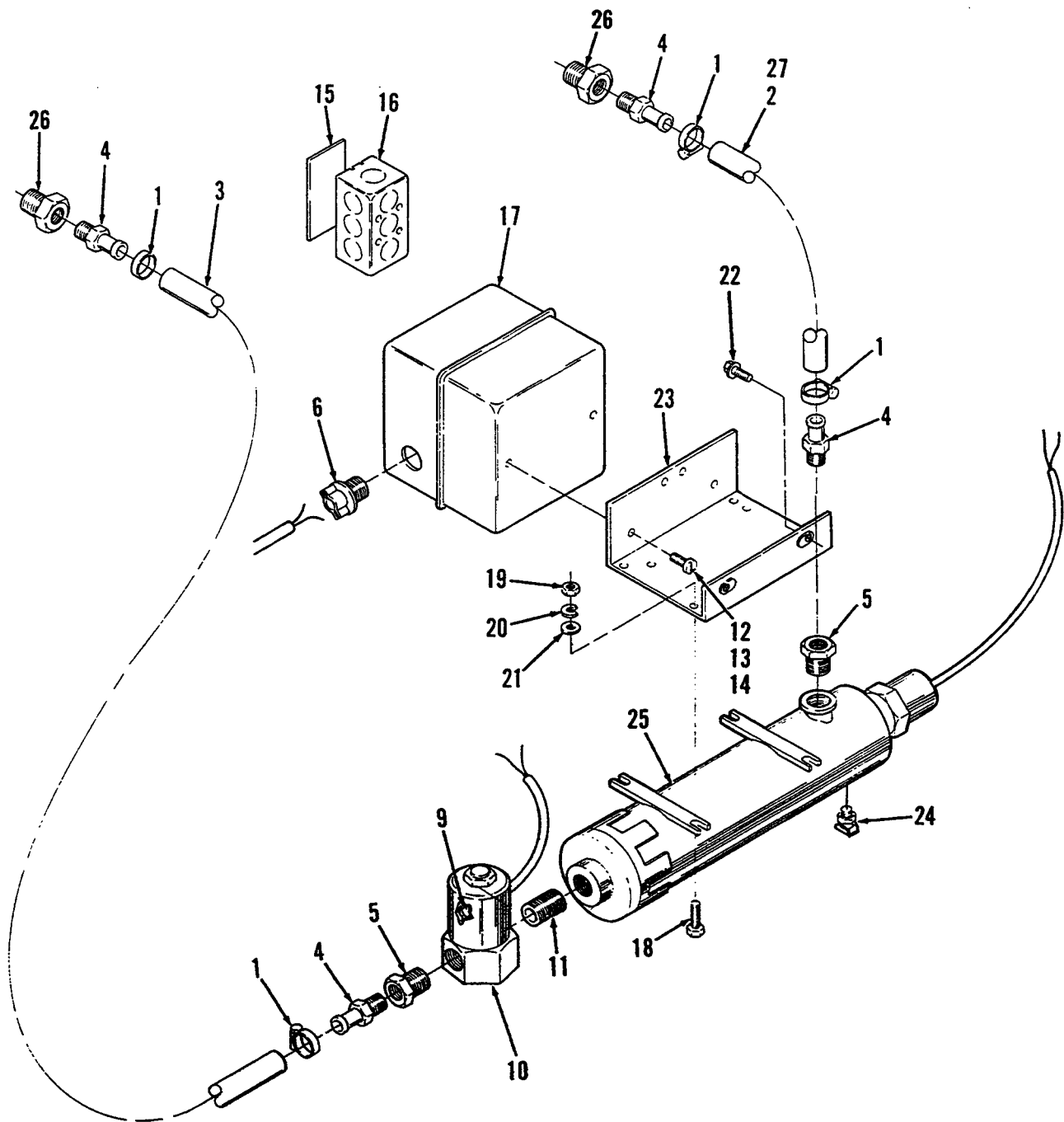
REF NO.	PART NO.	QTY USED	PART DESCRIPTION
10	821-0016	4	Screw, Hex Locking Washer Head (5/16 - 18 x 3/4")
11	870-0048	4	Nut, Lock (5/16 - 18)
12	503-0885	1	Clamp, Hose
13	140-2070	1	Tube, Inlet - Air
14	503-0868	1	Clamp, Hose - T-Bolt
15	503-1392	1	Hose, Inlet - Air
16	503-0999	1	Clamp, Hose
17	140-2067	1	Element, Air Cleaner - Primary
18	140-2068	1	Element, Air Cleaner - Safety

Remote Radiator



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	821-0010	25	Screw, Cap - Locking Hex Washer Hd (1/4 - 20 x 1/2")	5	130-2676	1	Bracket, Guard - Belt
2	130-2847	1	Cover, Guard - Belt	6	130-2677	1	Bracket, Guard - Belt
3	130-2844	1	Wrapper, Guard - Belt (Top)	7	130-2843	1	Wrapper, Guard - Belt (Right)
4	191-1736	1	Wrapper, Guard - Belt (Left)	8	130-2674	1	Bracket, Guard - Belt
				9	130-2675	1	Bracket, Guard - Belt

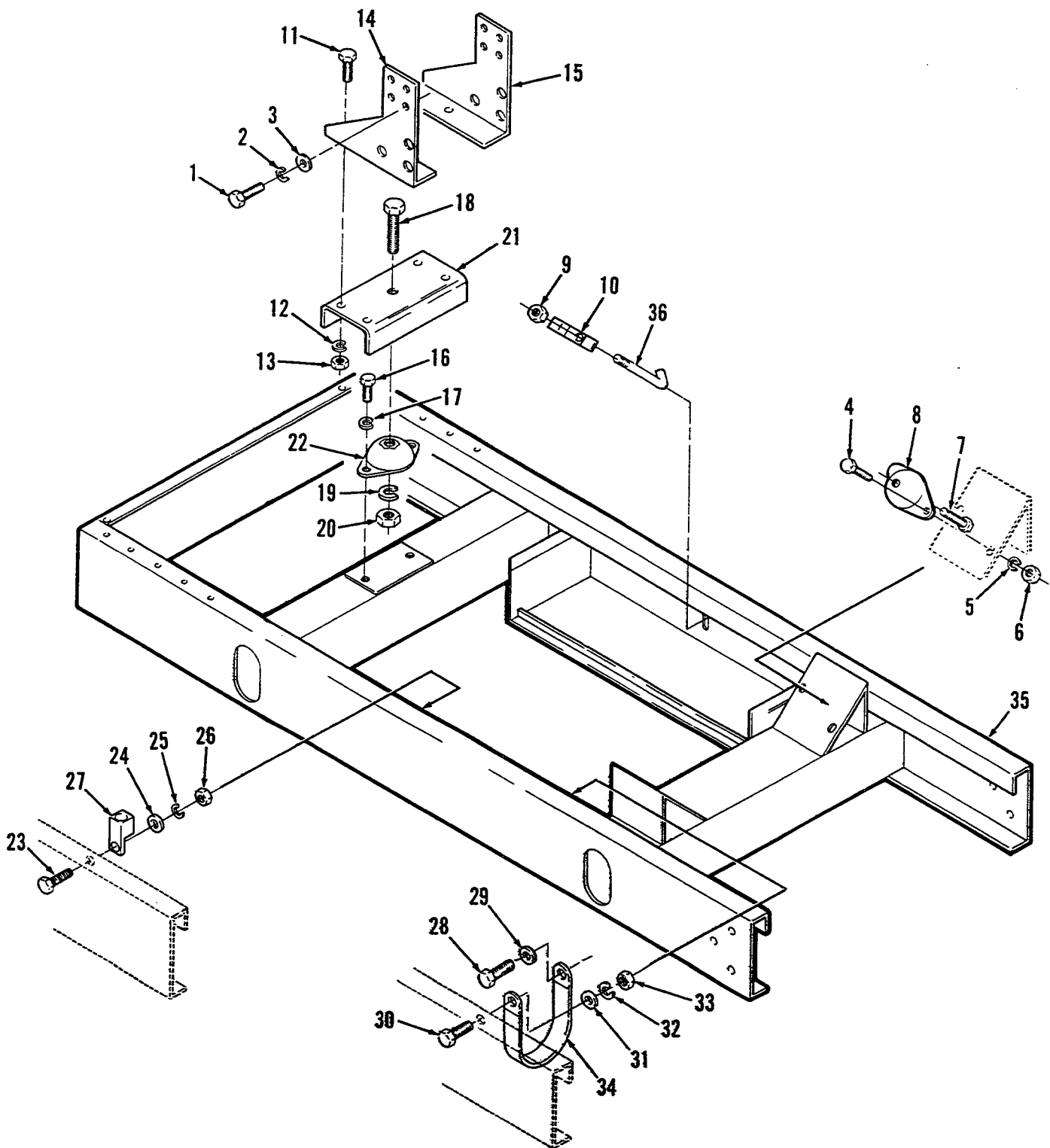
Engine Coolant Heater



Engine Coolant Heater

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0183	4	Clamp, Hose	17	307-1164	1	Contactor, Electrical
2	503-0833	1	Hose, Rubber				480 VAC, 3 Pole
3	503-1169	1	Hose, Rubber	18	800-0006	4	Screw, Cap - Hex Head
4	502-0943	4	Adapter, Hose				(1/4 - 20 x 7/8")
5	505-0455	2	Bushing, Reducer - Hex	19	862-0001	4	Nut, Hex (1/4 - 20)
6	331-0027	4	Clamp, Cable	20	850-0040	4	Washer, Lock - Spring (1/4)
9			Terminal	21	526-0018	4	Washer, Flat (1/4)
	332-0014	2	#10 (Used on White Leads)	22	821-0029	2	Screw, Self-Locking - Hex
	332-0149	5	#8 (Used on White Leads)				Washer Hd (3/8 - 16 x 3/4")
	323-0957	4	Nut, Wire (Used on Black Leads)	23	130-2653	1	Bracket, Mounting
10	309-0304	1	Switch, Thermostatic	24	504-0003	1	Valve, Drain
11	505-0004	1	Nipple, Pipe - Close	25			Heater, Electric - 1500 Watt
12	812-0100	2	Screw, Mach - Round Head		333-0093	1	120 VAC, 1 Phase
			(#10 - 24 x 1/2")		333-0177	1	208 VAC, 1 Phase
13	850-0030	2	Washer, Lock - Spring (#10)		333-0162	1	240 VAC, 1 Phase
14	860-0011	2	Nut, Hex (#10 - 24)		333-0168	1	480 VAC, 1 Phase
15	330-0004	1	Cover, Box - Outlet	26	502-0948	2	Adapter, Pipe - Hex
16	330-0005	1	Box, Outlet - Electrical	27	128-0108	1	Insulation, Hose

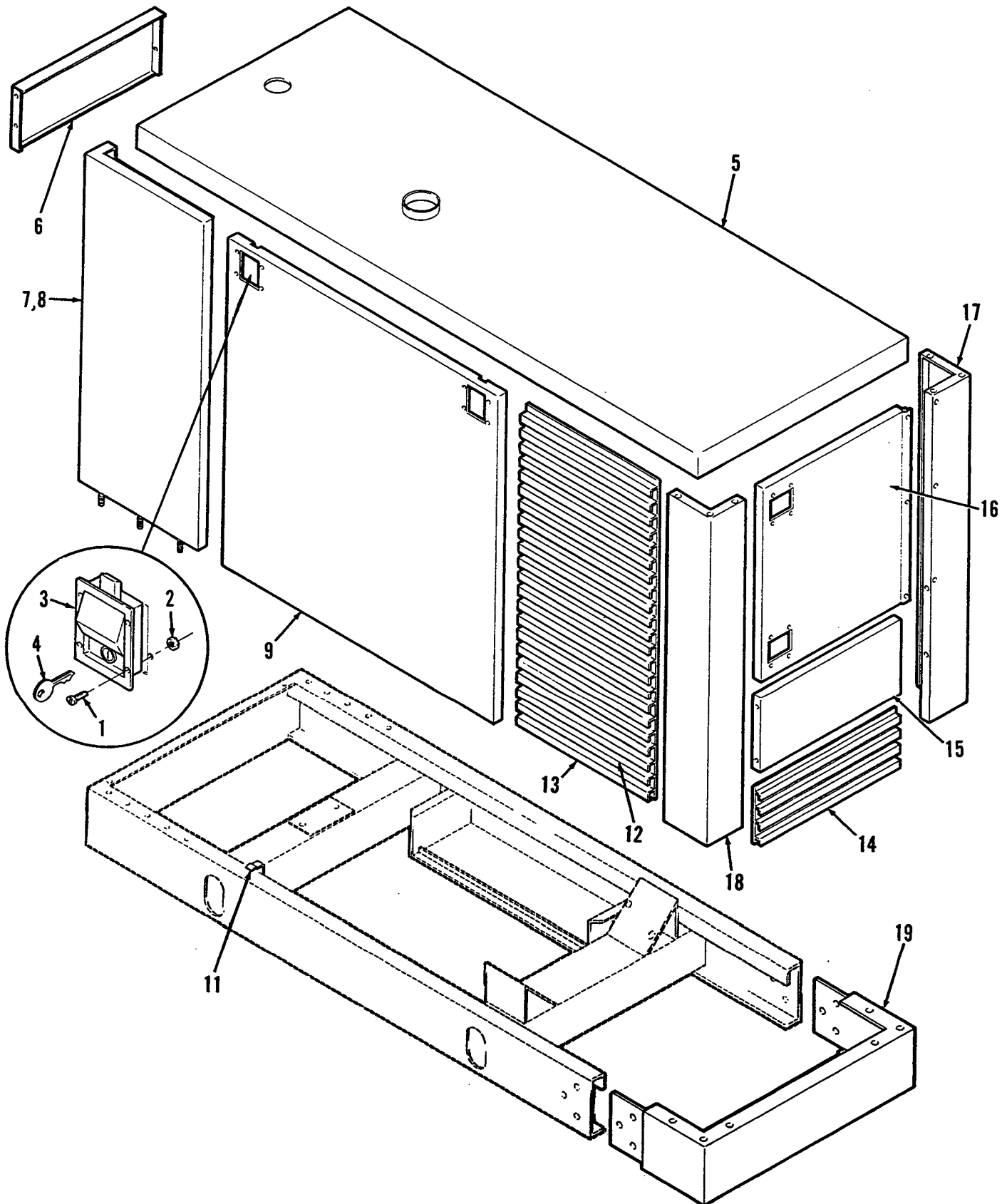
Chassis



Chassis

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	718-1054	8	Screw, Cap - Hex Head (M10 x 1.5 x 30mm)	18	800-0153	1	Screw, Cap - Hex Head (3/4 - 10 x 1-1/2")
2	850-2010	8	Washer, Lock - Spring (M10)	19	850-0079	1	Washer, Lock - Spring (3/4)
3	856-0012	2	Washer, Lock - EIT (7/16)	20	862-0008	1	Nut, Hex (3/4 - 10)
4	800-0071	4	Screw, Cap - Hex Head (7/16 - 14 x 1")	21	403-2333	1	Brace, Mounting - Engine
5	850-0055	4	Washer, Lock - Spring (7/16)	22	402-0030	1	Mount, Vibration
6	862-0004	4	Nut, Hex (7/16 - 14)	23	800-0028	1	Screw, Cap - Hex Head (5/16 - 18 x 1")
7	402-0030	2	Mount, Vibration	24	856-0008	1	Washer, Lock - EIT (5/16)
8	800-0520	2	Screw, Cap - Hex Head (3/4 - 10 x 1")	25	850-0045	1	Washer, Lock - Spring (5/16)
9	870-0212	1	Nut, Self-Locking - (Flange) (1/4 - 20)	26	862-0015	1	Nut, Hex (5/16 - 18)
10	416-0854	1	Bracket, Hold-down - Battery	27	332-1473	1	Lug, Solderless
11	800-0091	4	Screw, Cap - Hex Head (1/2 - 13 x 1-1/4")	28	718-1073	1	Screw, Cap - Hex Head (M12 x 1.75 x 25mm)
12	850-0060	4	Washer, Lock - Spring (1/2)	30	800-0090	1	Screw, Cap - Hex Head (1/2 - 13 x 1")
13	862-0016	4	Nut, Hex (1/2 - 13)	31	856-0013	2	Washer, Lock - EIT (1/2)
14	403-2330-01	1	Bracket, Mounting - Engine	32	850-0060	1	Washer, Lock - Spring (1/2)
15	403-2330-02	1	Bracket, Mounting - Engine	33	862-0016	1	Nut, Hex (1/2 - 13)
16	800-0090	2	Screw, Cap - Hex Head (1/2 - 13 x 1")	34	337-0090	1	Strap, Electrical - Ground
17	850-0060	2	Washer, Lock - Spring (1/2)	35	403-2326	1	Chassis
				36	416-0853	1	Hook, J - Battery Hold-Down

Set Housing

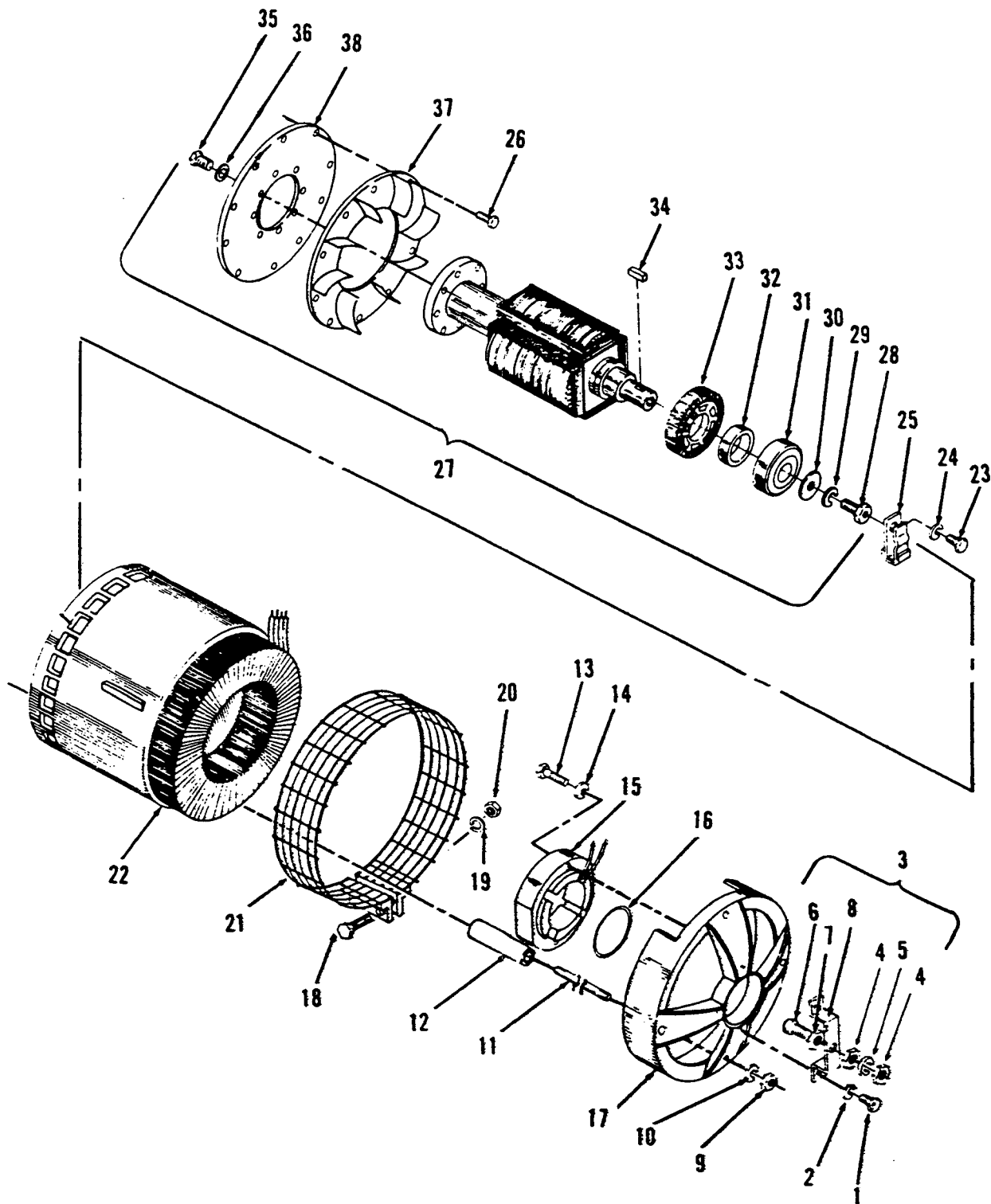


Set Housing

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	815-0607	24	Screw, Machine - Oval Head (#8 - 32 x 3/8")				Side Grille
2	870-0235	24	Nut, Self-Locking - Hex (#8 - 32)	821-0014	4		Screw, Self-Lock - Hex Wash Hd (5/16 - 18 x 1/2")
3	406-0576	1	Latch, Door (Includes Key)	870-0257	4		Nut, Self-Locking - Hex (5/16 - 18)
4	406-0577	1	Key, Latch	14	405-3357	1	Grille, Housing - Rear
5	405-3366	1	Panel, Top	821-0014	4		Screw, Self-Lock - Hex Wash Hd (5/16 - 18 x 1/2")
	821-0029	14	Screw, Self-Locking - Hex Washer (3/8 - 16 x 3/4")	870-0257	4		Nut, Self-Locking - Hex (5/16 - 18)
	870-0281	14	Nut, Self-Locking - Hex (3/8 - 16)	15	405-3353	1	Panel, Housing - Rear
6			Panel, Housing - Front	821-0014	4		Screw, Self-Lock - Hex Wash Hd (5/16 - 18 x 1/2")
	405-3377-04	1	Standard Cooling Systems	870-0257	4		Nut, Self-Locking - Hex (5/16 - 18)
	405-3377-05	1	Hi Temp Cooling Systems	16	405-3361	1	Door, Access - Control
	821-0010	4	Screw, Self-Locking Hex Washer (1/4 - 20 x 1/2")	819-1083	3		Screw, Machine - Pan Head (1/4 - 20 x 7/16")
	870-0212	4	Nut, Self-Locking - Hex (1/4 - 20)	17	405-3348	1	Panel, Housing - Rear Post
7	405-3349	1	Panel, Housing - Side/Front	821-0029	3		Screw, Self-Locking - Hex Washer Hd (3/8 - 16 x 3/4")
	870-0281	4	Nut, Self-Locking - Hex (3/8 - 16)	870-0281	3		Nut, Self-Locking - Hex (3/8 - 16)
8	405-3350	1	Panel, Housing - Side/Front (Not Illustrated)	18	405-3374	1	Panel, Housing - Rear Post
	870-0281	4	Nut, Self-Locking - Hex (3/8 - 16)	821-0029	3		Screw, Self-Locking - Hex Washer Hd (3/8 - 16 x 3/4")
9	405-3352	2	Door, Access - Engine	870-0281	3		Nut, Self-Locking - Hex (3/8 - 16)
11	406-0574	4	Pivot, Hinge - Door/Panel	19	403-2313-01	1	Base, Skid - Rear
	815-0236	4	Screw, Thread Cutting - Hex Head (5/16 - 18 x 5/8")	800-0090	6		Screw, Cap - Hex Head (1/2 - 13 x 1")
12	405-3358	2	Grille, Housing - Side	850-0060	6		Washer, Lock - Spring (1/2)
	821-0014	4	Screw, Self-Locking - Hex Washer (5/16 - 18 x 1/2")	862-0016	6		Nut, Hex (1/2 - 13)
13	405-3368	2	Bracket, Support - Housing				

NOTE: Heat shields used with Housing are illustrated in the Exhaust System.

Generator
60kW 60Hertz
50kW 50Hertz



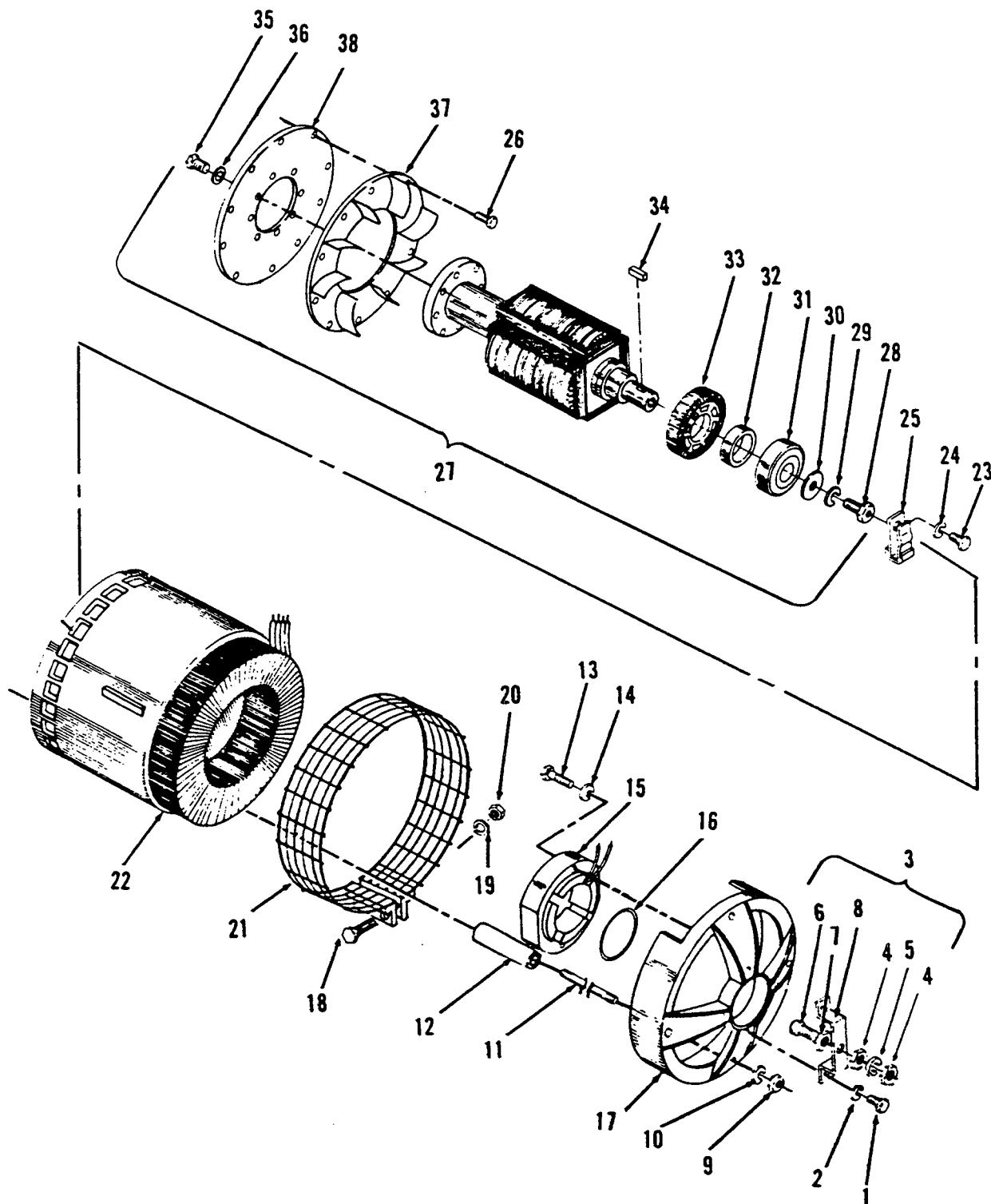
**Generator
60kW 60Hertz
50kW 50Hertz**

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")		220-1788	1	Code 15 (Environmental Protected)
2	850-0040	2	Washer, Lock - Spring (1/4)		220-1459	1	Code 15 (Extended Stack)
3	150-1456	1	Contact Assembly, Overspeed (Includes Parts Marked *)		220-1999	1	Code 515
4	862-0001	2	*Nut, Hex (1/4 - 20)		220-2002	1	Code 515 (Extended Stack)
5	853-0013	1	*Washer, Lock - ET (1/4)	23	800-0048	1	Screw, Cap - Hex Head (3/8 - 16 x 3/4")
6	150-0723	1	*Contact, Electrical	24	856-0010	1	Washer, Lock - EIT (3/8)
7	870-0250	1	*Nut, Insulator	25	150-0717	1	Switch, Overspeed
8	150-1356	1	*Bracket, Mounting - Contact	26	720-1054	8	Screw, Cap - Hex Head (M10 x 1.5 x 25mm)
9	750-1008	4	Nut, Hex (M10 x 1.5)	27			Rotor Assembly, Generator (Includes Parts Marked +)
10	850-2010	4	Washer, Lock - Spring (M10)				Codes 7, 9X, 15, 515
11			Stud (M10)				Codes 15, 515
	520-2415	4	460.4mm (18 - 1/8)		201-2671	1	(Environmental Protected)
	520-2416	4	485.8mm (19 - 1/8)		201-2689	1	Codes 15, 515 (Extended Stack)
	520-2417	4	514.4mm (20 - 1/4)				
	520-2418	4	549.3mm (21 - 5/8)		201-2674	1	Codes 15, 515 (Extended Stack)
12	503-1274	4	Hose, Rubber				
13	800-0009	4	Screw, Cap - Hex Head (1/4 - 20 x 1-1/2")	28	800-0513	1	+Screw, Cap (Special)
14	850-0040	4	Washer, Lock - Spring (1/4)	29	850-0079	1	+Washer, Lock - Spring (3/4)
15			Stator, Exciter	30	526-0238	1	+Washer, Flat (13/16" ID x 2" OD x 3/16" THK)
	220-2353	1	Standard	31	510-0101	1	+Bearing, Ball
	220-1774	1	Environmental Protected	32	232-2102	1	+Spacer, Sleeve
16	509-0125	1	Seal, O-Ring	33			Rotor Assembly, Exciter (See Separate Page For Components)
17	211-0185	1	Bell, End - Generator				
18	114-0023	2	Screw, Cap - Hex Head (1/4 - 20 x 1-1/4")		201-1739	1	+ Standard
					201-1845	1	Environmental Protected
19	850-0040	2	Washer, Lock - Spring (1/4)	34	515-0145	1	+Key, Machine
20	862-0001	2	Nut, Hex (1/4 - 20)	35	805-0035	8	+Bolt, Hex Head (5/8 - 11 x 1-1/2")
21	234-0368	1	Screen, Air - Generator	36	526-0259	8	+Washer, Flat (11/16" ID x 1-3/8" OD x 7/64" THK)
22			Stator, Generator				
	220-2464	1	Code 7	37	205-0089	1	+Fan, Generator
	220-1604	1	Code 9X	38	232-2078	1	+Disk, Drive - Generator
	220-1456	1	Code 15				

* Parts included in 150-1546 Overspeed Contact Assembly.

+ Parts included in Generator Rotor Assembly.

Generator
75kW 60Hertz
60kW 50Hertz

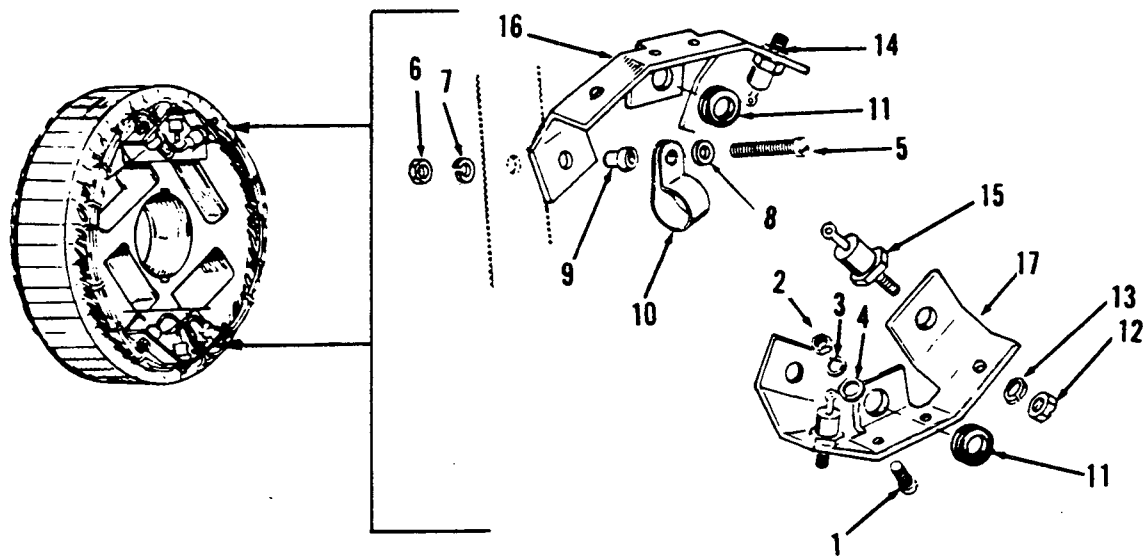


Generator
75kW 60Hertz
60kW 50Hertz

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")		220-1789	1	Code 15 (Environmental Protected)
2	850-0040	2	Washer, Lock - Spring (1/4)		220-1460	1	Code 15 (Extended Stack)
3	150-1456	1	Contact Assembly, Overspeed (Includes Parts Marked *)		220-2000	1	Code 515
4	862-0001	2	*Nut, Hex (1/4 - 20)		220-2003	1	Code 515 (Extended Stack)
5	853-0013	1	*Washer, Lock - ET (1/4)	23	800-0048	1	Screw, Cap - Hex Head (3/8 - 16 x 3/4")
6	150-0723	1	*Contact, Electrical	24	856-0010	1	Washer, Lock - EIT (3/8)
7	870-0250	1	*Nut, Insulator	25	150-0717	1	Switch, Overspeed
8	150-1356	1	*Bracket, Mounting - Contact	26	720-1054	8	Screw, Cap - Hex Head (M10 x 1.5 x 25mm)
9	860-2009	4	Nut, Hex (M10 x 1.5)				Rotor Assembly, Generator (Includes Parts Marked +)
10	850-2010	4	Washer, Lock - Spring (M10)	27			Codes 9X, 15, 515
11			Stud (M10)				Codes 15, 515
	520-2416	4	485.8mm (19 - 1/8)		201-2672	1	(Environmental Protected)
	520-2417	4	514.4mm (20 - 1/4)		201-2690	1	Codes 15, 515 (Extended Stack)
	520-2418	4	549.3mm (21 - 5/8)				
	520-2419	4	587.4mm (23 - 1/8)		201-3266	1	Codes 15, 515 (Extended Stack)
	520-2420	4	631.8mm (24 - 7/8)				
12	503-0611	4	Hose, Rubber	28	800-0513	1	+Screw, Cap (Special)
13	800-0009	4	Screw, Cap - Hex Head (1/4 - 20 x 1-1/2")	29	850-0079	1	+Washer, Lock - Spring (3/4)
14	850-0040	4	Washer, Lock - Spring (1/4)	30	526-0238	1	+Washer, Flat (13/16" ID x 2" OD x 3/16" THK)
15			Stator, Exciter	31	510-0101	1	+Bearing, Ball
	220-2353	1	Standard	32	232-2102	1	+Spacer, Sleeve
	220-1774	1	Environmental Protected	33			Rotor Assembly, Exciter (See Separate Page For Components)
16	509-0125	1	Seal, O-Ring				
17	211-0185	1	Bell, End - Generator		201-1739	1	+ Standard
18	800-0008	2	Screw, Cap - Hex Head (1/4 - 20 x 1-1/4")		201-1845	1	Environmental Protected
19	850-0040	2	Washer, Lock - Spring (1/4)	34	515-0145	1	+Key, Machine
20	862-0001	2	Nut, Hex (1/4 - 20)	35	805-0035	8	+Bolt, Hex Head (5/8 - 11 x 1-1/2")
21	234-0368	1	Screen, Air - Generator	36	526-0259	8	+Washer, Flat (11/16" ID x 1-3/8" OD x 7/64" THK)
22			Stator, Generator	37	205-0089	1	+Fan, Generator
	220-1605	1	Code 9X	38	232-2078	1	+Disk, Drive - Generator
	220-1457	1	Code 15				

* Parts included in 150-1456 Overspeed Contact Assy.
+ Parts included in Generator Rotor Assembly.

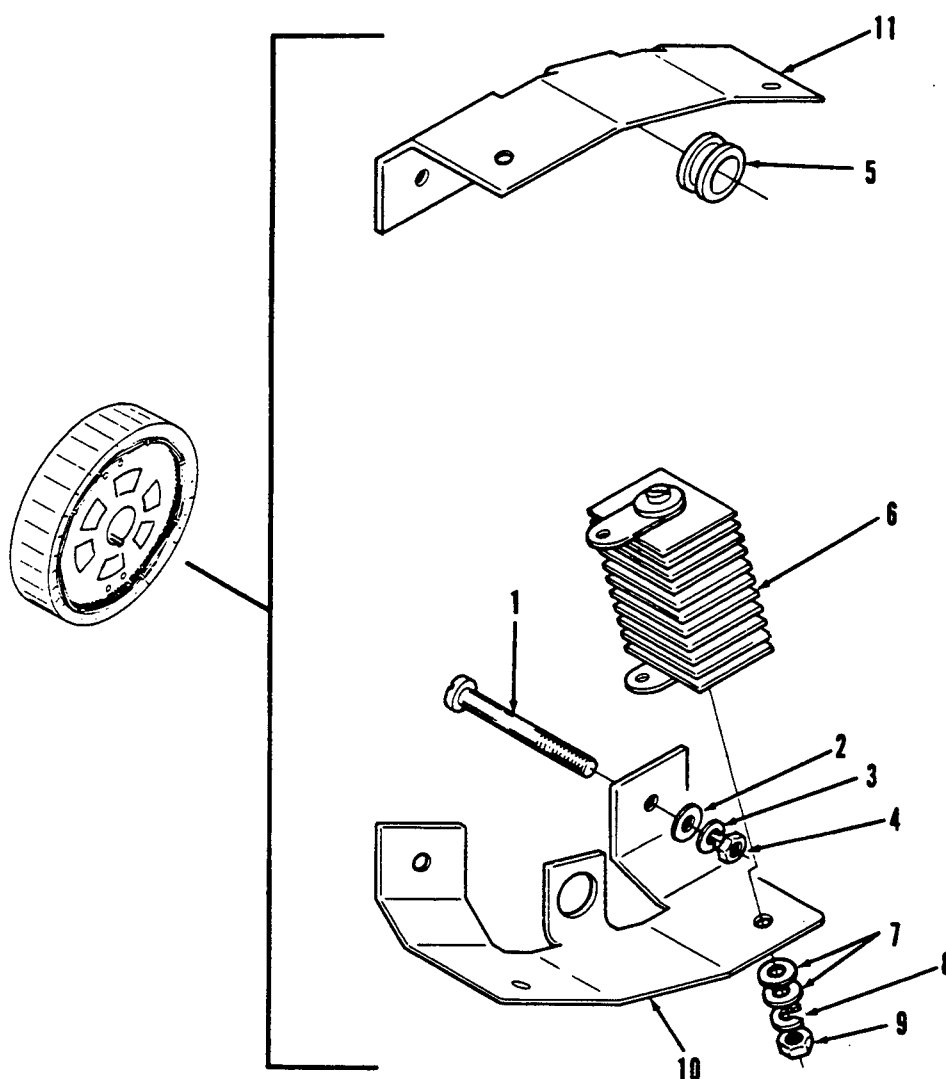
Exciter Rotor



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	201-1739	1	Rotor Assembly - Exciter Standard
	201-1845	1	Environmental Protected
1	813-0100	2	Screw, Machine - Round Head (#10 - 32 x 1/2")
2	870-0053	2	Nut, Hex (#10 - 32)
3	850-0030	2	Washer, Lock - Spring (#10)
4	526-0008	2	Washer, Flat (13/64" ID x 7/16" OD x 1/32" THK)
5	813-0110	4	Screw, Machine - Round Head (#10 - 32 x 2")
6	870-0053	4	Nut, Hex (#10 - 32)
7	850-0030	4	Washer, Lock - Spring (#10)
8	526-0009	4	Washer, Flat (7/32" ID x 1/2" OD x 1/16" THK)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
9	508-0187	4	Spacer, Stepped
10	332-0050	2	Clamp, Loop
11	508-0093	2	Grommet, Rubber
12	870-0053	6	Nut, Hex (#10 - 32)
13	850-0030	6	Washer, Lock - Spring (#10)
14			Diode, Rectifier - Positive (CR1, CR2, CR3)
	358-0097	3	Standard
	358-0044	3	Environmental Protected
15			Diode, Rectifier - Negative (CR4, CR5, CR6)
	358-0096	3	Standard
	358-0043	3	Environmental Protected
16	363-0054	1	Sink, Heat - Positive Diodes
17	363-0055	1	Sink, Heat - Negative Diodes

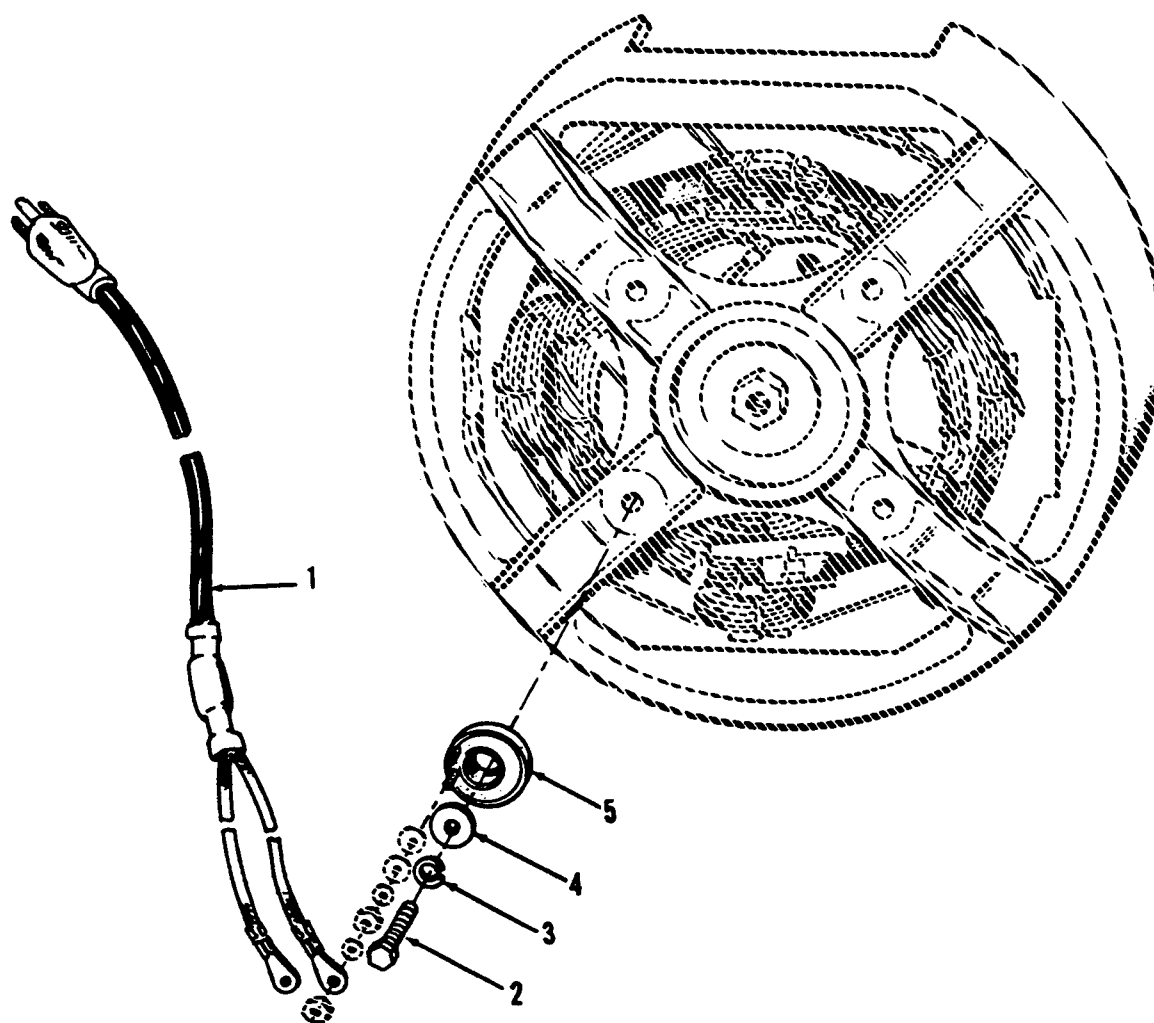
Voltage Suppressor



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	813-0112	4	Screw, Machine - Round Head (#10 - 32 x 2-1/2")
2	526-0140	4	Washer, Flat (7/32" ID x 3/8" OD x 3/64" THK)
3	850-0030	4	Washer, Lock - Spring (#10)
4	870-0053	4	Nut, Hex (#10 - 32)
5	508-0093	2	Grommet, Rubber
6	305-0526	1	Suppressor Set, Voltage (Matched Pair)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
7	526-0140	4	Washer, Flat (7/32" ID x 3/8" OD x 3/64" THK)
8	850-0030	4	Washer, Lock - Spring (#10)
9	870-0053	4	Nut, Hex (#10 - 32)
10	363-0054	1	Sink, Heat - Positive
11	363-0055	1	Sink, Heat - Negative

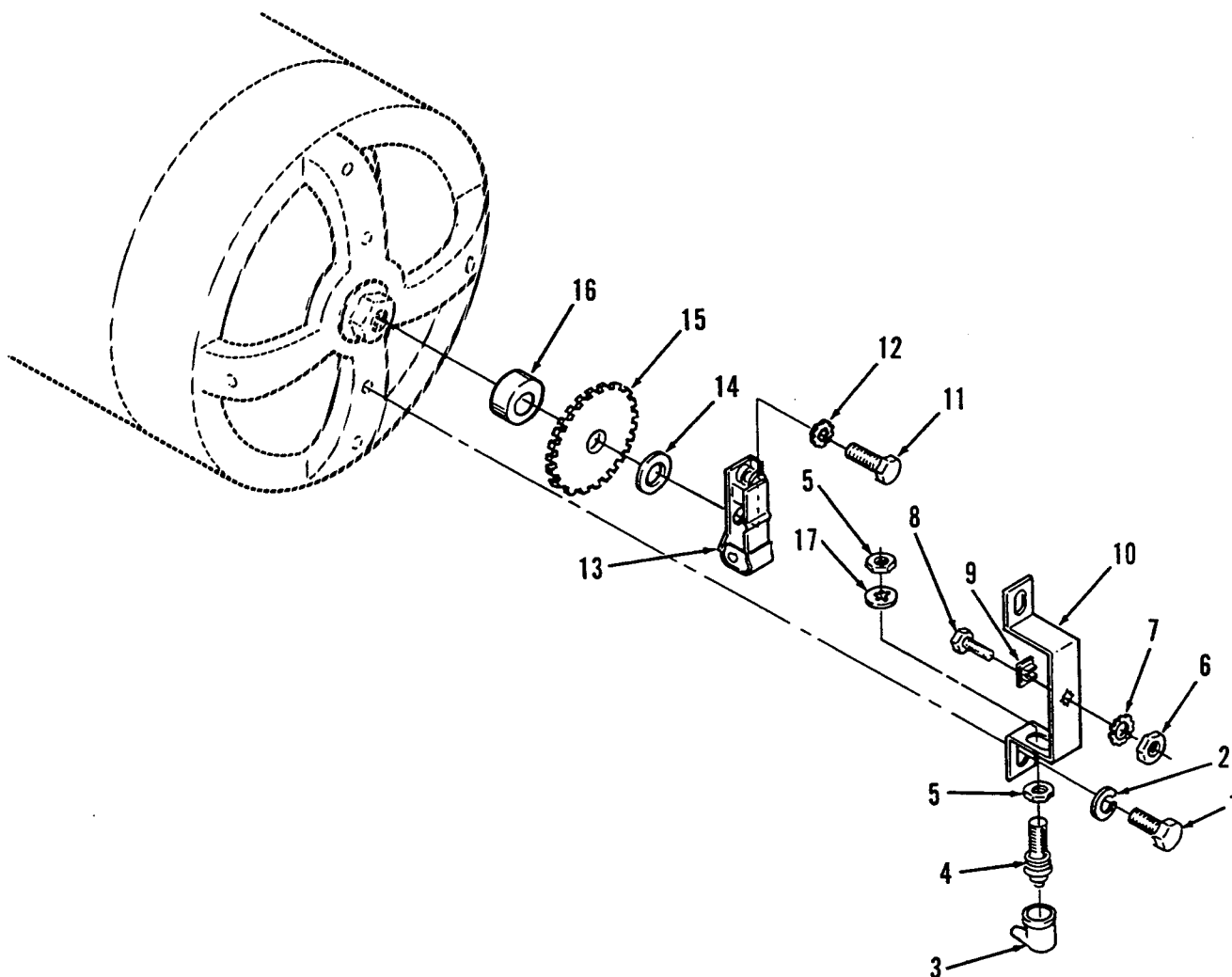
Generator Heater



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Cable Assembly, Electric (Includes Thermostat)
	335-0146	1	120 VAC
	335-0147	1	240 VAC
2	800-0004	1	Screw, Cap - Hex Head (1/4 - 20 x 5/8")

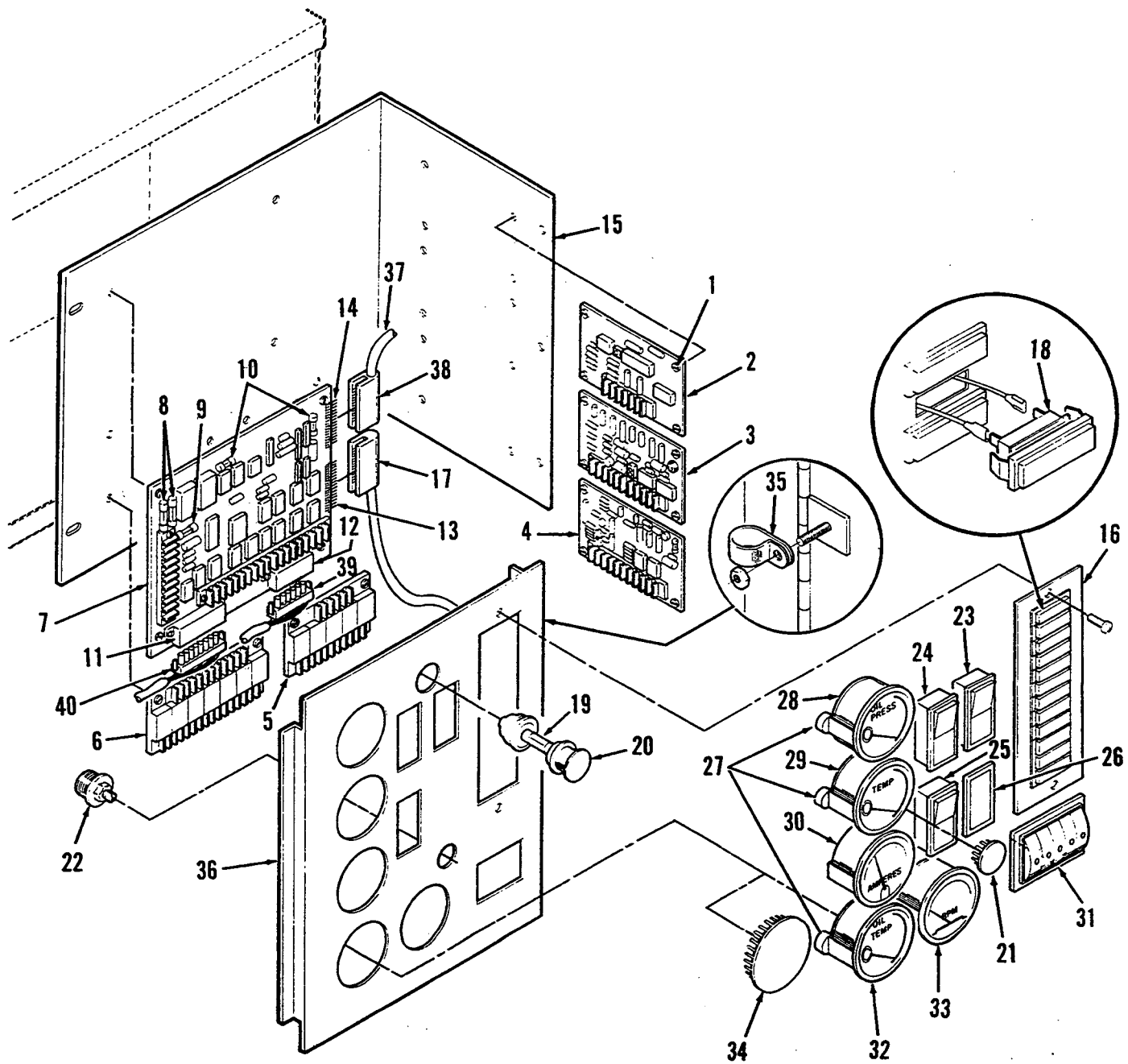
REF NO.	PART NO.	QTY USED	PART DESCRIPTION
3	850-0038	1	Washer, Lock - Spring (1/4)
4	526-0158	1	Washer, Flat (17/64" ID x 1" OD x 1/8" THK)
5			Heater, Electrical
	333-0059	1	120 VAC, 125 Watt
	333-0192	1	240 VAC, 200 Watt

Magnetic Pickup



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 1/3")	10	301-9402	1	Bracket, Mounting
2	850-0040	2	Washer, Lock - Spring (1/4")	11	800-0053	1	Screw, Cap - Hex Head (3/8 - 16 x 1-3/4")
3	150-1410	1	Cap, Insulator	12	856-0010	1	Washer, Lock - EIT (3/8)
4	150-1406	1	Sensor, Speed - Magnetic	13	150-0717	1	Switch, Overspeed
5	868-0011	2	Nut, Hex - Jam (3/4 - 16)	14	526-0077	1	Washer, Flat (13/32" ID x 1-1/4" OD x 1/4" THK)
6	862-0001	2	Nut, Hex (1/4 - 20)	15	150-1557	1	Wheel, Sensor - Speed
7	853-0013	1	Washer, Lock - ET (1/4)	16	370-4011	1	Spacer, Sleeve
8	150-0723	1	Contact, Electrical	17	854-0031	1	Washer, Lock - IT (3/4)
9	870-0250	1	Nut, Insulator				

Engine Control

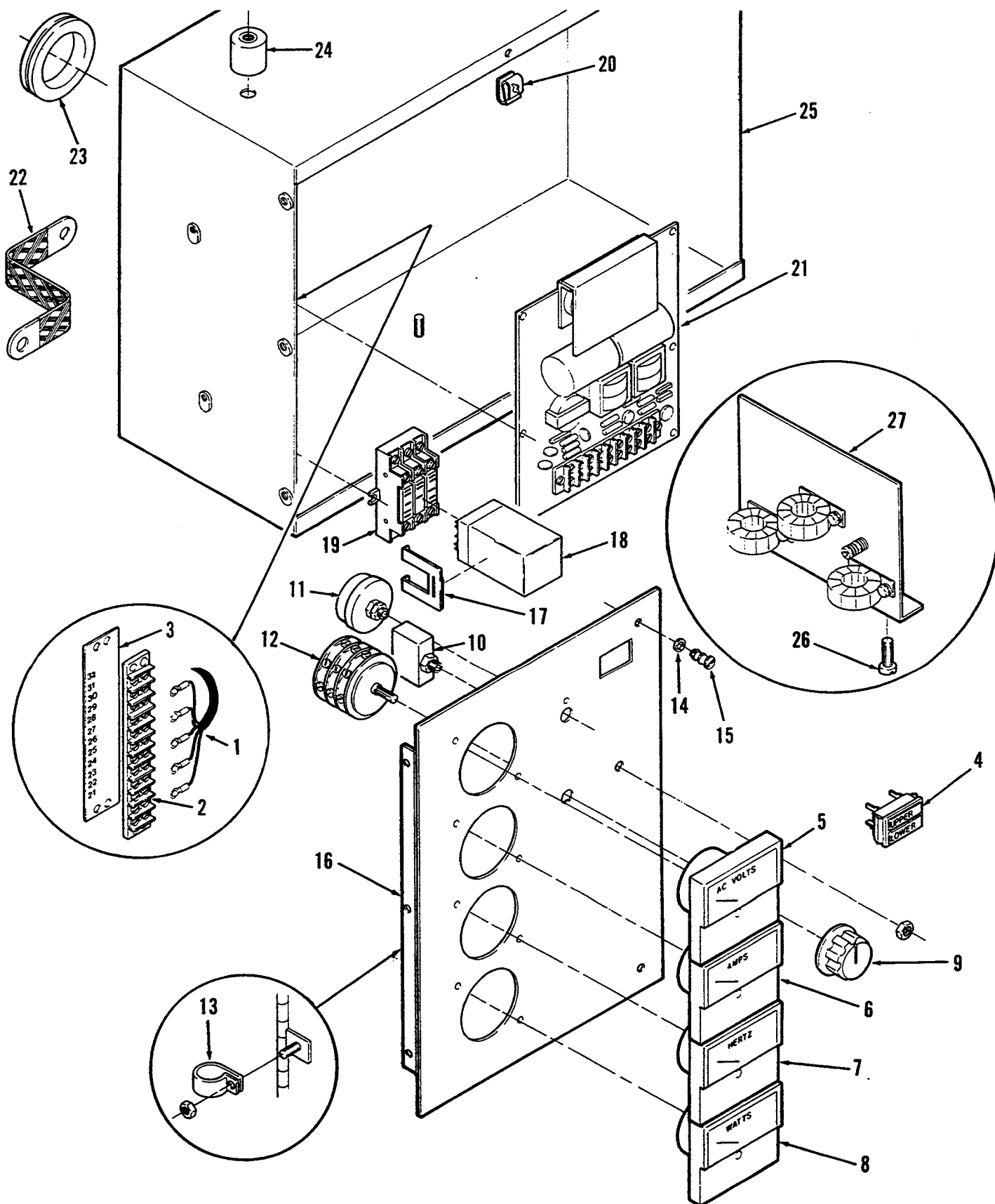


Engine Control

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	815-0544	24	Screw, Machine - Round Head IT Washer (#6 - 32 x 1/2")	815-0385	2		Screw, Machine - Round Head (#6 - 32 x 1/2")
2	300-2899	1	Board Assy, Printed Circuit - Time Delay, Start/Stop (A15)	870-0183	2		Nut, Self-Locking - ET Hex Washer Head (#6 - 32)
3			Board Assy, Printed Circuit - Magnetic Pickup (A16)	17	323-1310	1	Housing, Conn - 13 pin (J3)
	300-2903	1	Standard (Fixed Sensitivity)		323-1302	13	Contact, Pin
	300-2904	1	Precision (Adj Sensitivity)	18	322-0369-02	1	Lamp, Incandescent - 1/3 Watt 28 Volts DC
4	300-2906	1	Board Assy, Printed Circuit - Over/Under Volt Sensor (A17)	19	322-0017	1	Lamp, Incandescent - 28 Volts DC (DS11)
5	300-2856	1	Board Assy, Printed Circuit - Relay Assembly - (A13)	20	322-0361	1	Holder, Lamp
6	300-2863	1	Board Assy, Printed Circuit - Relay Assembly - (A14)	21	517-0131	1	Plug, Button
7			Board Assy, Printed Circuit - Engine Monitor - (A11)	22	151-0402	1	Potentiometer - Speed Control (R11)
			(Includes Fuses & Connectors)	23	308-0785	1	Switch, Push - Reset/Panel Lamp (S11)
	300-2808	1	2 Light Control	24	308-0784	1	Switch, Push - Run/Stop/Remote (S12)
	300-2810	1	7 Light Control	26	301-6257	1	Cover, Hole - Switch
	300-2812	1	12 Light Control	27	193-0250	3	Resistor, Gauge (R12)
8	321-0270	2	Fuse, Cartridge - 20 Amp (F1, F2)	28	193-0352	1	Gauge, Pressure - Oil (M11)
9	321-0231	1	Fuse, Cartridge - 15 Amp (F3)	29	193-0351	1	Gauge, Temp - Water (M12)
10	321-0094	2	Fuse, Cartridge - 5 Amp (F4, F5)	30	302-1790	1	Meter, Ampere - DC (M13)
11	323-1305	1	Connector - 8 Pin (P1)	31	302-0885	1	Meter, Running Time (M14)
12	323-1303	1	Connector - 6 Pin (P2)	32	193-0330	1	Gauge, Temp - Oil (M15)
13	323-1309	1	Connector - 13 Pin (P3)	33	302-1715	1	Meter, Tach (M16)
14	323-1307	1	Connector - 12 Pin (P4)	34	517-0221	1	Plug, Button
15	301-8851	1	Bracket, Mounting - Printed Circuit Board Assembly	35	322-0052	1	Clamp, Loop
	821-0004	4	Screw, Self-Locking - Hex Washer Head (#10 - 32 x 5/16")		870-0131	1	Nut, Self-Locking - ET Hex Washer Head (#10 - 32)
16			Module, Indicator - Fault (A12) (Includes Connector Housing)	36			Door, Control
	322-0358-02	1	2 Light Control		301-9055-01	1	5 Gauge Holes
	322-0359-02	1	7 Light Control		301-9055-02	1	3 Gauge Holes
	322-0360-02	1	12 Light Control	37	338-1817	1	Harness, Wiring - DC (Includes Connector Housing)
				38	323-1308	1	Housing, Conn - 12 Pin (J4)
					323-1302	12	Contact, Pin
				39	323-1304	1	*Housing, Conn - 6 Pin (J2)
					323-1200	6	* Contact, Pin
				40	323-1306	1	*Housing, Conn - 8 Pin (J1)
					323-1200	8	* Contact, Pin

* Parts included in Control To Engine Wiring Harness.

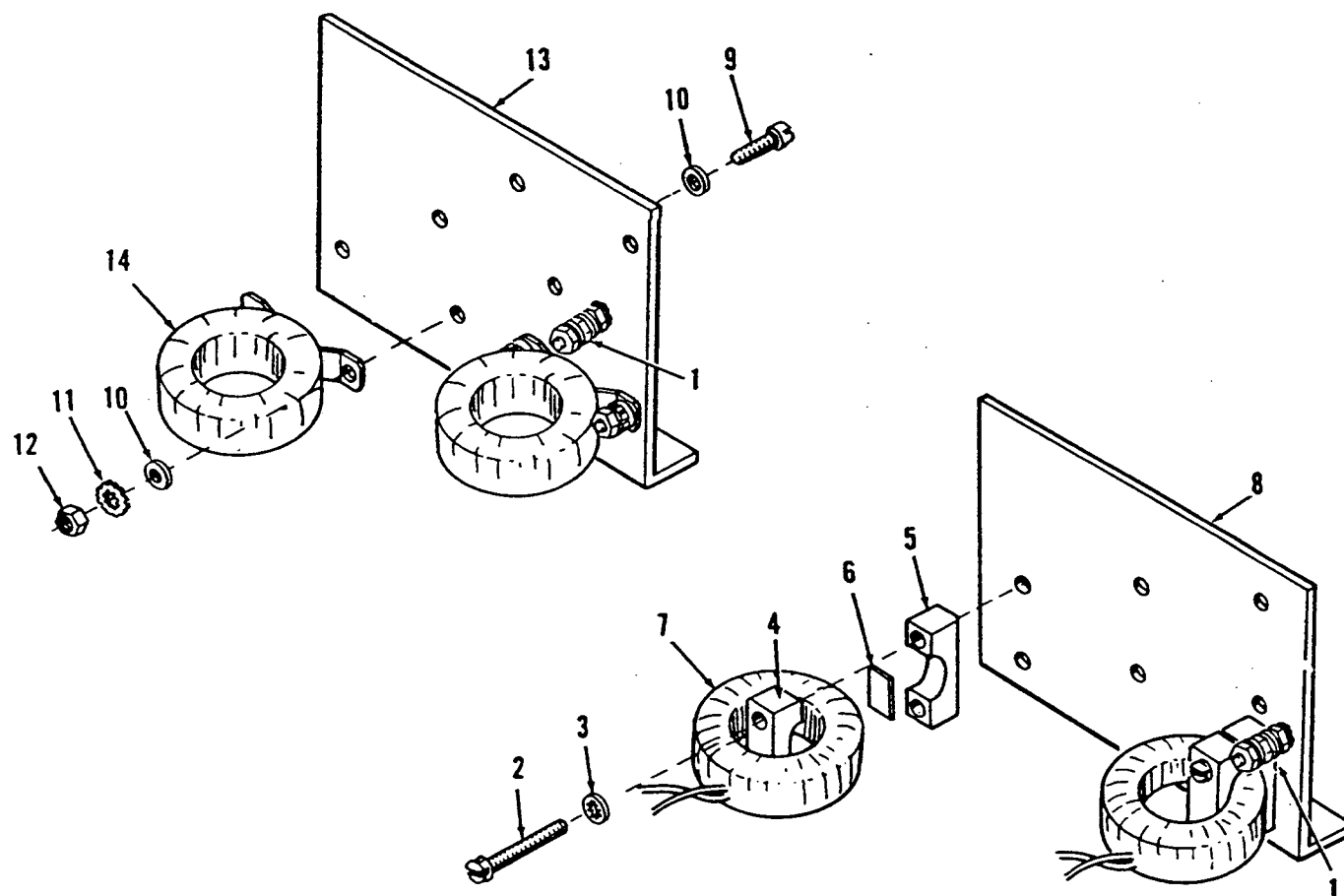
Generator Control



Generator Control

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Harness, Wiring - AC (Includes Terminal Block)	15	406-0333	2	Stud, Fastener - Turnbutton
	338-1818	1	Controls With Meters	16			Door, Control
	338-1853	1	Controls Without Meters		301-9054-01	1	4 Meter Holes
	812-0065	2	Screw, Machine - Round Head (#6 - 32 x 5/8")		301-9054-02	1	3 Meter Holes
					301-9054-03	1	No Meter Holes
2	332-0607	1	Block, Terminal (TB1)		821-0004	3	Screw, Self-Locking - Hex Washer Hd (#10 - 32 x 5/16")
3	332-2723	1	Strip, Marker	17	307-1987	2	Clip, Retaining - Relay
4	322-0363	1	Light, Indicator - Dual (DS21, DS22)	18	307-1056	1	Relay, 24 VDC
5	302-1148	1	Meter, Volt - AC (M21)	19	323-0804	1	Socket, Relay
6			Meter, Ampere - M22 Single Scale		815-0544	2	Screw, Machine - IT Round Washer Hd (#6 - 32 x 1/2")
	302-1691	1	0-100 Amp - 60, 75 kW (Voltage Code 9X)	20	406-0332	2	Receptacle, Turnbutton Fastener
			Dual Scale	21	300-2880	1	Regulator, Voltage (VR21)
	302-1684	1	0-150/300 Amp - 50, 60 kW (Voltage Code 7, 15, 515)		815-0544	6	Screw, Machine - IT Round Washer Hd (#6 - 32 x 1/2")
	302-1685	1	0-200/400 Amp - 75 kW (Voltage Code 15)	22	337-0049	1	Strap, Electrical (Ground)
7	302-1720	1	Meter, Frequency (M23)		800-0024	1	Screw, Cap - Hex Head (5/16 - 18 x 1/2")
8		1	Meter, Watt (M24) (See Separate Page For Components)		856-0008	1	Washer, Lock - EIT (5/16)
9	303-0032	1	Knob	23	508-0051	1	Grommet
10		1	Breaker, Circuit (CB21)	24	402-0527	4	Mount, Vibration
	320-1121	1	Without Auxiliary Contacts		800-0045	4	Screw, Cap - Hex Head (5/16 - 18 x 3/8")
	320-1438	1	With Auxiliary Contacts		850-0045	4	Washer, Lock - Spring (5/16)
11	303-0261	1	Rheostat (R21)	25	301-8065	1	Box, Control
12	308-0284	1	Switch, Rotary (S21)	26	821-0010	2	Screw, Self-Locking - Hex Washer Hd (1/4 - 20 x 1/2")
13	332-0052	1	Clamp, Loop				Transformer Assembly - Current (See Separate Page For Components)
	870-0131	1	Nut, Self-Locking - ET Hex Washer Head (#10 - 32)	27		1	
14	406-0334	2	Clip, Retaining - Turnbutton Fastener				

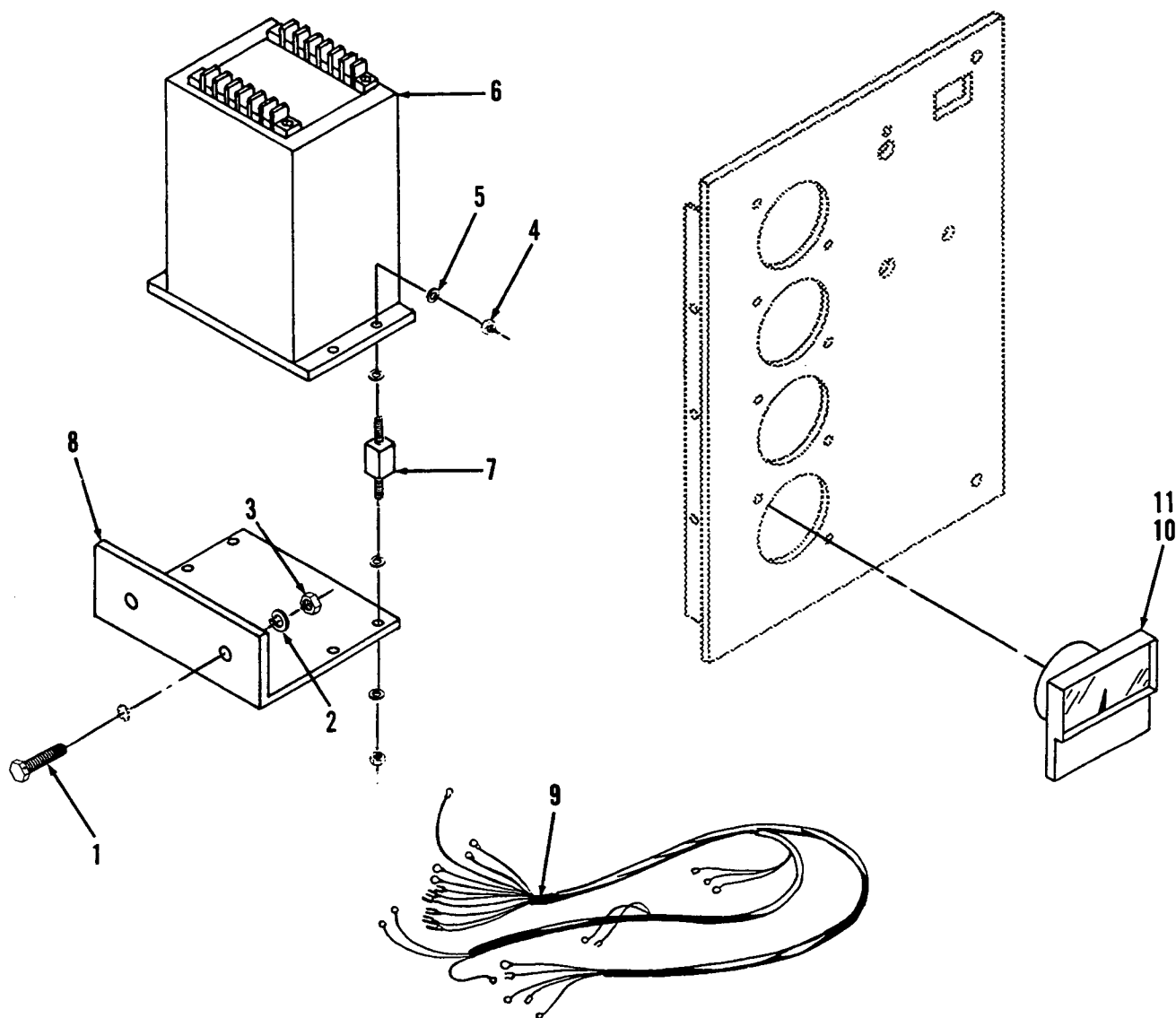
Current Transformer



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Terminal Assembly, Ground (Includes Parts Marked *)	7	302-0078	3	Transformer, Current - Ratio 100/5, 60, 75 kW (Voltage Code 9X)
	815-0203	1	* Screw, Machine - Round Head Brass (#10 - 32 x 7/8")	8	302-0729	1	Bracket, Mounting - Transformer
	871-0010	3	* Nut, Hex - Brass (#10 - 32)	9	813-0100	6	Screw, Machine - Round Head (#10 - 32 x 1/2")
	856-0003	1	* Washer, Lock - EIT (#10)	10	526-0008	6	Washer, Flat (13/64" ID x 7/16" OD x 1/32" THK)
	854-0010	2	* Washer, Lock - IT (#10)	11	856-0003	6	Washer, Lock - EIT (#10)
	526-0049	2	* Washer, Flat - Brass (13/64" ID x 7/32" OD x 1/32" THK)	12	870-0053	6	Nut, Hex (#10 - 32)
2	813-0110	6	Screw, Machine - Round Head (#10 - 32 x 2")	13	302-0764	1	Bracket, Mounting - Transformer
3	854-0010	6	Washer, Lock - IT (#10)	14	302-0866	3	Transformer, Current Ratio 300/5, 50, 60 kW (Voltage Code 7, 15, 515)
4	302-0235	3	Clamp, Upper		302-0608	3	Ratio 400/5, 75 kW (Voltage Code 15)
5	302-0236	3	Clamp, Lower				
6	302-0253	6	Shim				

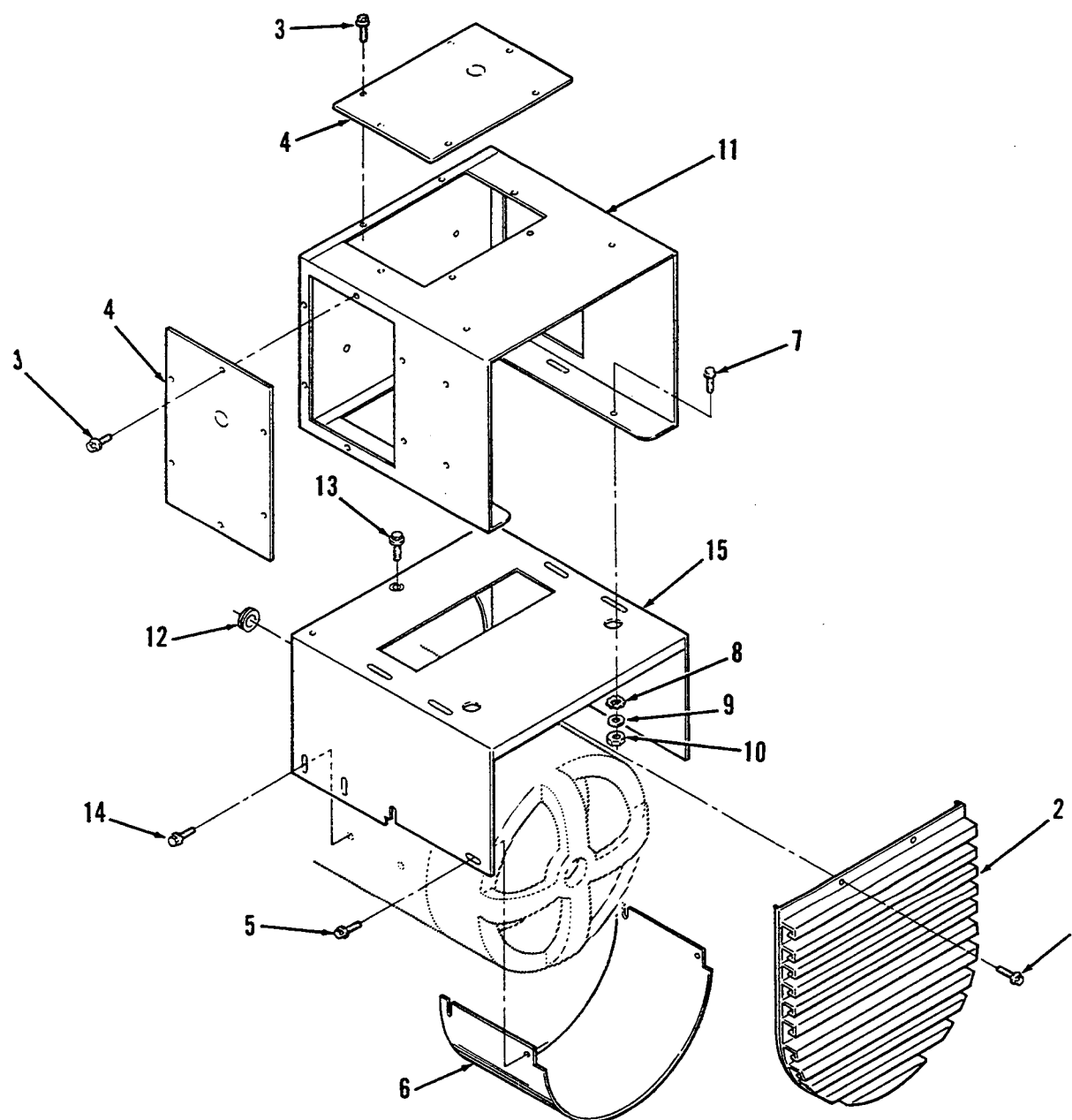
* Parts included in Ground Terminal Assembly.

Wattmeter



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	821-0017	2	Screw, Lock (5/16 - 18 x 1/2")	8	301-6987	1	Bracket, Mounting - Watts Transducer
2	850-0045	2	Washer, Lock (5/16)	9	338-1936	1	Harness, Wiring - Watts Transducer
3	862-0014	2	Nut, Hex (5/16 - 18)	10	302-1722	1	Meter, Watt - DC
4	860-0008	8	Nut, Hex (#8 - 32)	11			Dial, Wattmeter
5	856-0002	16	Washer, Lock - EIT (#8)		302-1721-03	1	60 kW
6	302-1082	1	Transducer, Watts		302-1721-04	1	75 kW
	302-1083	1	3 Phase, 60 Hertz				
7	402-0354	4	3 Phase, 50 Hertz				
			Mount, Shock				

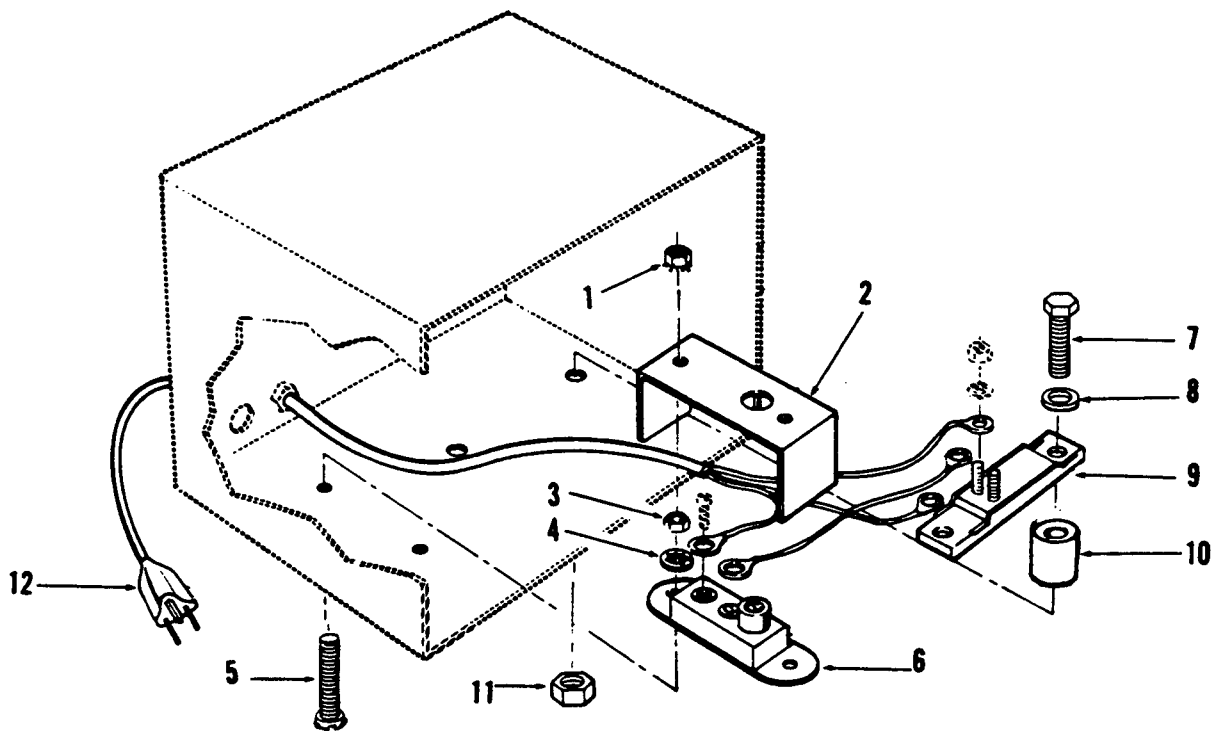
Control Housing



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	821-0010	8	Screw, Self-Locking - Hex Washer Hd (1/4 - 20 x 1/2")
2	234-0370	1	Grille, Air - Generator Inlet
3	815-0350	18	Screw, Tap - Hex Washer Head (#10 - 32 x 3/8")
4	301-3156	3	Panel, Access
5	821-0010	4	Screw, Self-Locking - Hex Washer Hd (1/4 - 20 x 1/2")
6	234-0361	1	Wrapper, Bell - End
7	821-0018	6	Screw, Self-Locking - Hex Washer Hd (1/4 - 20 x 5/8")
8	856-0006	1	Washer, Lock - EIT (1/4)

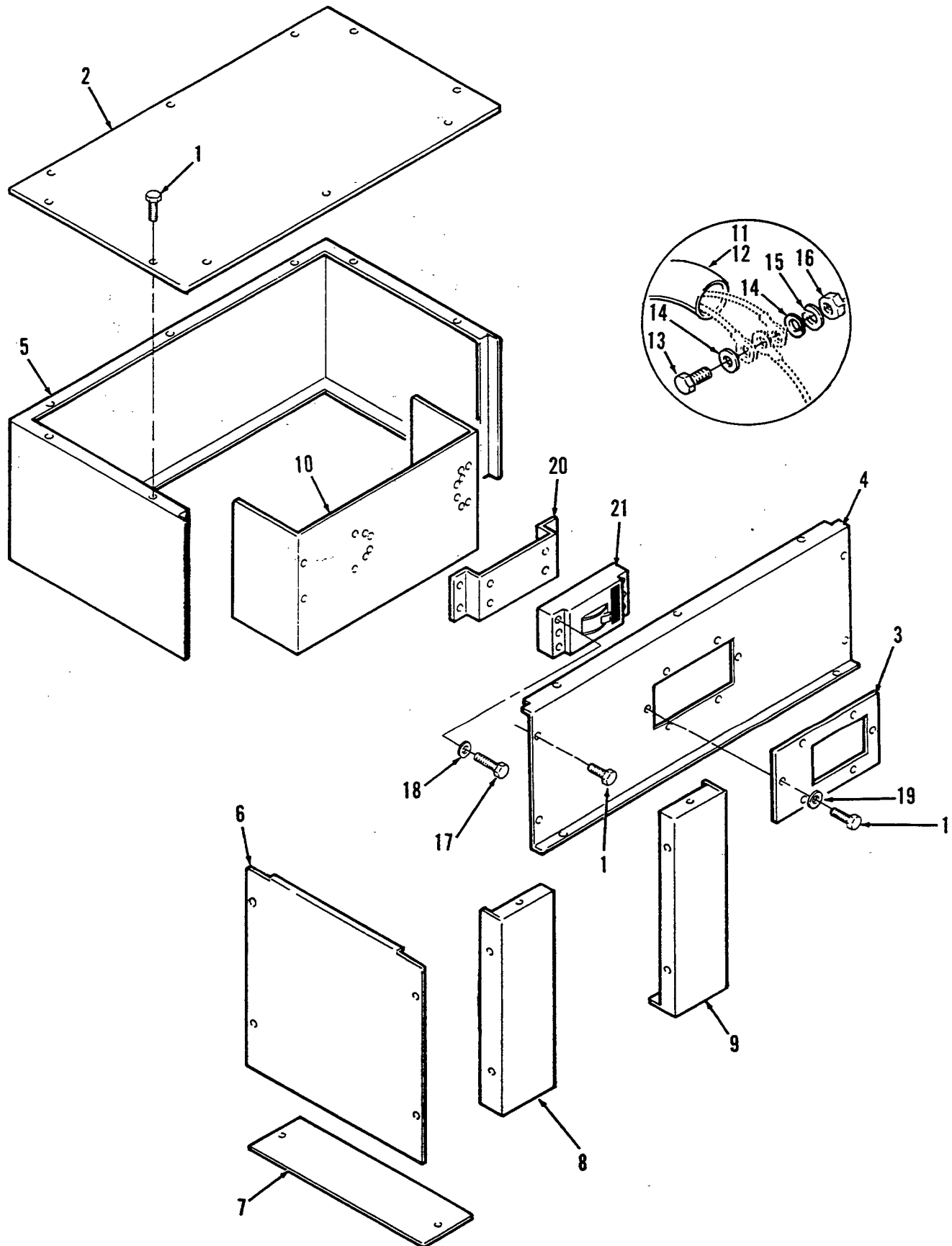
REF NO.	PART NO.	QTY USED	PART DESCRIPTION
9	526-0018	5	Washer, Flat (17/64" ID x 5/8" OD x 1/16" THK)
10	870-0212	6	Nut, Hex (1/4 - 20)
11	301-3155	1	Housing, Box - Control
12	508-0203	1	Grommet
	508-0051	1	Used Thru October 1984
	508-0051	1	Used Beginning November 1984
13	821-0010	1	Screw, Self-Locking - Hex Washer Hd (1/4 - 20 x 1/2")
14	821-0014	8	Screw, Self-Locking - Hex Washer Hd (5/16 - 18 x 1/2")
15	301-3154	1	Saddle, Box - Control

Control Heater



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	870-0183	2	Nut, Self-Locking - Hex ET (#6 - 32)	7	800-0034	2	Screw, Cap - Hex Head (5/16 - 18 x 2-1/4")
2	301-1886	1	Cover, Thermostat	8	526-0113	2	Washer, Flat (11/32" ID x 1" OD x 3/32" THK)
3	860-0006	2	Nut, Hex (#6 - 32)	9	333-0151	1	Heater, Electrical
4	854-0006	2	Washer, Lock - IT (#6)	10	130-1107	2	Spacer, Sleeve
5	812-0070	2	Screw, Machine - Round Head (#6 - 32 x 1-1/4)	11	870-0257	2	Nut, Self-Locking (5/16 - 18)
6	309-0128	1	Thermostat, Adjustable	12	335-0161	1	Cable, Electrical

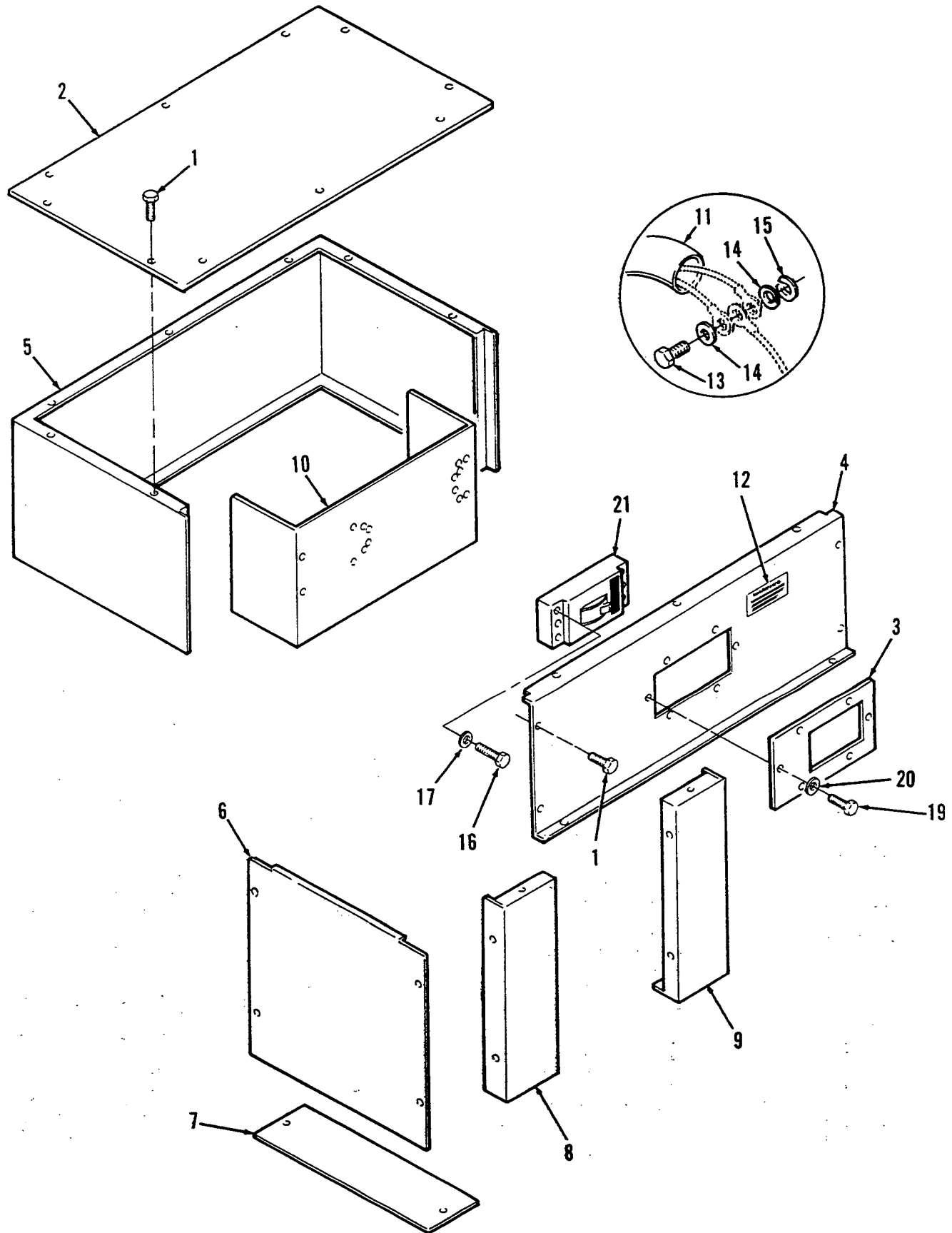
Circuit Breaker (Spec A)



Circuit Breaker (Spec A)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	813-0096	48	Screw, Machine - Round Head (#10 - 32 x 1/4")	320-0349	1	225 Amp, 240 VAC	
2	301-9406	1	Cover, Top	320-0269	1	225 Amp, 480/600 VAC	
3			Cover, Breaker - Circuit	320-0422	1	250 Amp, 240 VAC	
	301-9259	1	5" x 3-1/4" Breaker Hole	320-0445	1	250 Amp, 480/600 VAC	
	301-9458	1	3-1/4" x 1-1/2" Breaker Hole	320-0423	1	300 Amp, 240 VAC	
4	301-9403	1	Panel, Front	320-0401	1	300 Amp, 480/600	
5	301-9405	1	Wrapper, Enclosure	320-0448	1	350 Amp, 240 VAC	
6	301-9255	2	Cover, Access - Side			Three Pole with Aux Contact	
7	301-9409	2	Panel, Access - Bottom	320-1231	1	90 Amp, 480 VAC	
8	301-9408	2	Panel, End	320-1421	1	100 Amp, 480 VAC	
9	301-9407	2	Panel, End	320-1428	1	125 Amp, 600 VAC	
10	301-9256	1	Bracket, Mounting - Circuit Breaker	320-0738	1	150 Amp, 480/600 VAC	
	301-9459	1	Used on Circuit Breakers 480 Volts and Up	320-0700	1	175 Amp, 240 VAC	
	301-9460	1	Used on Circuit Breakers 240 Volts and Below	320-0988	1	200 Amp, 480/600 VAC	
11			Sleeving, Shrinkable	320-1222	1	225 Amp, 240 VAC	
	898-0863	1	0.75" ID	320-0975	1	250 Amp, 480/600 VAC	
	898-0865	1	1.00" ID	320-0620	1	300 Amp, 240 VAC	
	898-0875	1	1.50" ID	320-0300	1	300 Amp, 480/600 VAC	
	898-0869	1	2.00" ID	320-1425	1	350 Amp, 240 VAC	
	898-1112	1	3.00" ID			Three Pole with 12 Volt Shunt Trip	
12			Sleeving, Fiberglass	320-0556	1	125 Amp, 600 VAC	
	898-0974	1	0.75" ID	320-0658	1	150 Amp, 600 VAC	
	898-0976	1	1.00" ID	320-0453	1	175 Amp, 600 VAC	
13	800-0028	5	Screw, Cap - Hex Head (5/16 - 18 x 1")	320-0392	1	200 Amp, 600 VAC	
14	526-0022	10	Washer, Flat (21/64" ID x 9/16" OD x 1/16" THK)	320-0370	1	300 Amp, 600 VAC	
15	850-0045	5	Washer, Lock - Spring (5/16)			Three Pole with 24 Volt Shunt Trip	
16	862-0015	5	Nut, Hex (5/16 - 18)	320-1427	1	100 Amp, 480 VAC	
17	812-0156	4	Screw, Machine - Round Head (1/4 - 20 x 1-1/2")	320-1432	1	100 Amp, 600 VAC	
18	850-0040	4	Washer, Lock - Spring (1/4)	320-1430	1	125 Amp, 600 VAC	
19	850-0030	6	Washer, Lock (#10)	320-0688	1	150 Amp, 600 VAC	
20			Breaker, Circuit	320-0731	1	175 Amp, 600 VAC	
			Two Pole	320-0529	1	200 Amp, 600 VAC	
	320-1061	1	125 Amp, 240 VAC	320-1433	1	225 Amp, 600 VAC	
	320-1062	1	150 Amp, 240 VAC	320-0438	1	300 Amp, 600 VAC	
	320-0344	1	175 Amp, 240 VAC	320-0627	1	350 Amp, 240 VAC	
	320-1409	1	200 Amp, 240 VAC	320-0524	1	350 Amp, 600 VAC	
	320-0359	1	225 Amp, 240 VAC			Three Pole with 120 Volt Shunt Trip	
	320-1411	1	250 Amp, 240 VAC	320-0238	1	125 Amp, 600 VAC	
	320-0420	1	300 Amp, 240 VAC	320-0315	1	150 Amp, 600 VAC	
	320-0421	1	350 Amp, 240 VAC	320-0215	1	175 Amp, 600 VAC	
			Three Pole	320-0573	1	200 Amp, 600 VAC	
	320-1408	1	80 Amp, 240 VAC	320-0285	1	225 Amp, 600 VAC	
	320-1407	1	80 Amp, 480 VAC	320-0708	1	250 Amp, 600 VAC	
	320-1404	1	80 Amp, 600 VAC	320-0268	1	300 Amp, 600 VAC	
	320-0411	1	90 Amp, 240 VAC	320-0275	1	350 Amp, 600 VAC	
	320-0379	1	90 Amp, 480 VAC			Three Pole with 480 Volt Shunt Trip	
	320-0418	1	90 Amp, 600 VAC	320-0331	1	300 Amp, 600 VAC	
	320-0412	1	100 Amp, 240 VAC	320-0279	1	350 Amp, 600 VAC	
	320-0380	1	100 Amp, 480 VAC			Two Pole with 12 or 24 Volt Shunt Trip and Aux Contact	
	320-1405	1	100 Amp, 600 VAC	320-1144	1	200 Amp, 240 VAC (24 V)	
	320-1049	1	125 Amp, 240 VAC	320-1424	1	300 Amp, 240 VAC (24 V)	
	320-0446	1	125 Amp, 480/600 VAC			Three Pole with 12 or 24 Volt Shunt Trip and Aux Contacts	
	320-0346	1	150 Amp, 240 VAC	320-1300	1	90 Amp, 480 VAC (12 V)	
	320-0425	1	150 Amp, 480/600 VAC	320-0772	1	150 Amp, 240 VAC (12 V)	
	320-0347	1	175 Amp, 240 VAC	320-1422	1	150 Amp, 600 VAC (24 V)	
	320-0426	1	175 Amp, 480/600 VAC	320-1145	1	200 Amp, 240 VAC (24 V)	
	320-0348	1	200 Amp, 240 VAC	320-1035	1	225 Amp, 240 VAC (12 V)	
	320-0447	1	200 Amp, 480/600 VAC	320-1429	1	250 Amp, 600 VAC (24 V)	

Circuit Breaker
(Spec B)



Circuit Breaker (Spec B)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	815-0350	52	Screw, Self-Locking - Hex Washer Hd (#10 - 32 x 3/8")	320-1458-31	1	150 Amp, 480 VAC	
2	301-9406	1	Cover, Top	320-1458-48	1	150 Amp, 600 VAC	
3	301-9720	1	Cover, Breaker - Circuit For use with 225 Amp Circuit Breakers and below	320-1459-08	1	175 Amp, 600 VAC	
	301-9721	1	For use with 250 Amp Circuit Breakers and above	320-1459-09	1	200 Amp, 600 VAC	
4	301-9403	1	Panel, Front	320-1459-10	1	225 Amp, 600 VAC	
5	301-9405	1	Wrapper, Enclosure	320-1460-06	1	250 Amp, 600 VAC	
6	301-9255	2	Cover, Access - Side	320-1460-07	1	300 Amp, 600 VAC	
7	301-9409	2	Panel, Access - Bottom	320-1460-08	1	350 Amp, 600 VAC	
8	301-9408	2	Panel, End				Two Pole with Aux Contacts
9	301-9407	2	Panel, End	320-1515-06	1	125 Amp, 600 VAC	
10			Bracket, Mounting - Circuit Breaker	320-1515-07	1	150 Amp, 600 VAC	
	301-9716	1	Used on Circuit Breakers 600 Amps and below	320-1515-08	1	175 Amp, 600 VAC	
	301-9722	1	Used on Circuit Breakers 700 Amps and above	320-1515-09	1	200 Amp, 600 VAC	
11			Sleeving, Shrinkable	320-1515-10	1	225 Amp, 600 VAC	
	898-0863	1	0.75" ID	320-1516-06	1	250 Amp, 600 VAC	
	898-0865	1	1.00" ID	320-1516-07	1	300 Amp, 600 VAC	
	898-0867	1	1.50" ID	320-1516-08	1	350 Amp, 600 VAC	
	898-0869	1	2.00" ID				Three Pole with Aux Contacts
12	98-2304	1	Silkscreen, Breaker - Circuit (Warning)	320-1462-12	1	80 Amp, 240 VAC	
13	800-0028	5	Screw, Cap - Hex Head (5/16 - 18 x 1")	320-1462-26	1	80 Amp, 480 VAC	
14	526-0022	10	Washer, Flat (21/64" ID x 9/16" OD x 1/16" THK)	320-1462-43	1	80 Amp, 600 VAC	
15	850-0045	5	Washer, Lock - Spring (5/16)	320-1462-13	1	90 Amp, 240 VAC	
16	862-0015	5	Nut, Hex (5/16 - 18)	320-1462-27	1	90 Amp, 480 VAC	
17	812-0156	4	Screw, Machine - Round Head (1/4 - 20 x 1-1/2")	320-1462-44	1	90 Amp, 600 VAC	
18	850-0040	4	Washer, Lock - Spring (1/4)	320-1462-14	1	100 Amp, 240 VAC	
19	332-1445	3	Tie, Cable	320-1462-28	1	100 Amp, 480 VAC	
20	813-0096	6	Screw, Machine - Round Head (#10 - 32 x 1/4")	320-1462-45	1	100 Amp, 600 VAC	
21	850-0030	6	Washer, Lock (#10)	320-1462-30	1	125 Amp, 480 VAC	
22			Breaker, Circuit	320-1462-47	1	125 Amp, 600 VAC	
			Two Pole	320-1462-31	1	150 Amp, 480 VAC	
	320-1512-06	1	125 Amp, 600 VAC	320-1462-48	1	150 Amp, 600 VAC	
	320-1512-07	1	150 Amp, 600 VAC	320-1463-08	1	175 Amp, 600 VAC	
	320-1512-08	1	175 Amp, 600 VAC	320-1463-09	1	200 Amp, 600 VAC	
	320-1512-09	1	200 Amp, 600 VAC	320-1463-10	1	225 Amp, 600 VAC	
	320-1512-10	1	225 Amp, 600 VAC	320-1464-06	1	250 Amp, 600 VAC	
	320-1513-06	1	250 Amp, 600 VAC	320-1464-07	1	300 Amp, 600 VAC	
	320-1513-07	1	300 Amp, 600 VAC	320-1464-08	1	350 Amp, 600 VAC	
	320-1513-08	1	350 Amp, 600 VAC				Two Pole with 24 Volt Shunt Trip
			Three Pole	320-1522-07	1	300 Amp, 600 VAC	
	320-1458-12	1	80 Amp, 240 VAC				Two Pole with 120 Volt Shunt Trip
	320-1458-26	1	80 Amp, 480 VAC	320-1524-08	1	175 Amp, 600 VAC	
	320-1458-43	1	80 Amp, 600 VAC				Three Pole with 12 Volt Shunt Trip
	320-1458-13	1	90 Amp, 240 VAC	320-1466-47	1	125 Amp, 600 VAC	
	320-1458-27	1	90 Amp, 480 VAC	320-1466-48	1	150 Amp, 600 VAC	
	320-1458-44	1	90 Amp, 600 VAC	320-1467-08	1	175 Amp, 600 VAC	
	320-1458-14	1	100 Amp, 240 VAC	320-1467-09	1	200 Amp, 600 VAC	
	320-1458-28	1	100 Amp, 480 VAC	320-1468-07	1	300 Amp, 600 VAC	
	320-1458-45	1	100 Amp, 600 VAC				Three Pole with 24 Volt Shunt Trip
	320-1458-30	1	125 Amp, 480 VAC	320-1470-26	1	80 Amp, 480 VAC	
	320-1458-47	1	125 Amp, 600 VAC	320-1470-28	1	100 Amp, 480 VAC	
				320-1470-47	1	125 Amp, 600 VAC	
				320-1470-48	1	150 Amp, 600 VAC	
				320-1471-08	1	175 Amp, 600 VAC	
				320-1471-09	1	200 Amp, 600 VAC	
				320-1471-10	1	225 Amp, 600 VAC	
				320-1472-06	1	250 Amp, 600 VAC	
				320-1472-07	1	300 Amp, 600 VAC	
				320-1472-08	1	350 Amp, 600 VAC	

Circuit Breaker (Spec B)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
			Three Pole with 120 Volt Shunt Trip				Three Pole with 12 Volt Shunt Trip & Axuiliary Contacts
320-1474-47	1		125 Amp, 600 VAC				90 Amp, 480 VAC
320-1474-48	1		150 Amp, 600 VAC	320-1486-27	1		150 Amp, 600 VAC
320-1475-09	1		200 Amp, 600 VAC	320-1487-07	1		225 Amp, 600 VAC
320-1475-10	1		225 Amp, 600 VAC	320-1487-10	1		Three Pole with 24 Volt Shunt Trip & Auxiliary Contacts
320-1476-06	1		250 Amp, 600 VAC				100 Amp, 600 VAC
320-1476-07	1		300 Amp, 600 VAC				200 Amp, 600 VAC
320-1476-08	1		350 Amp, 600 VAC				225 Amp, 600 VAC
			Three Pole with 480 Volt Shunt Trip	320-1490-45	1		250 Amp, 600 VAC
320-1484-07	1		300 Amp, 600 VAC	320-1491-09	1		300 Amp, 600 VAC
320-1484-08	1		350 Amp, 600 VAC	320-1491-10	1		
			Two Pole with 24 Volt Shunt Trip & Auxiliary Contacts	320-1492-06	1		
320-1536-09	1		200 Amp, 600 VAC	320-1492-07	1		