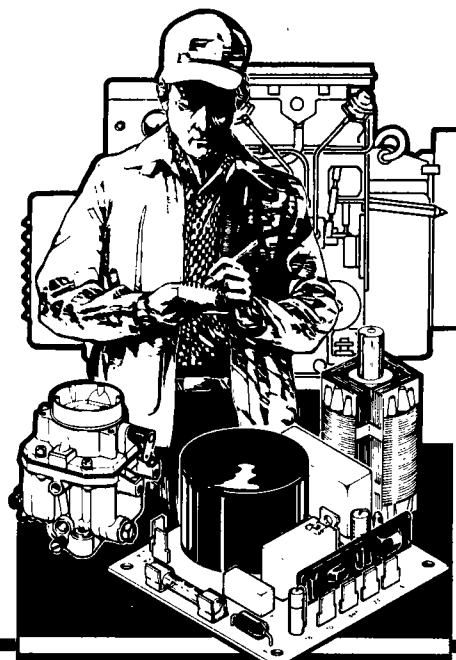

Onan

Parts Manual

D V G
GenSet



Onan Service Parts

982-0227
9-86 (Spec A - B)
Replaces 4-85 (Spec A)
Printed in U.S.A.

Index

- Actuator, Governor 38
- Alternator 39
- Alternator - Components 40, 42
- Armature, Starter 36

- Bar, Bus 64
- Bearing, Camshaft 4
- Bearing, Crankshaft 8
- Bearing, Rod - Connecting 10
- Bell, End - Generator 62
- Belt Set, Drive - V 44
- Block, Cylinder 4
- Breaker, Circuit - Spec A 80
- Breaker, Circuit - Spec B 82

- Cable, Battery 36
- Cable, Pickup - Magnetic 38
- Camshaft 10
- Cap, Radiator 50, 52
- Cap, Rain - Exhaust 26
- Chassis 57
- Cleaner, Air 54, 56
- Clutch, Starter 36
- Coil, Field - Starter 36
- Control, Engine 70
- Control, Generator 72
- Cooler, Oil 16
- Cooling System 50, 52
- Cover, Gear 12
- Cover, Head - Cylinder 20
- Crankshaft 8

- Drain, Oil 14

- Exhaust System 26

- Fan, Cooling 44
- Filter, Air 54, 56
- Filter, Fuel 35
- Filter, Oil 17
- Flywheel 15

- Gauge, Pressure - Oil 70
- Gauge, Temperature - Oil 70
- Gauge, Temperature - Water 70
- Gear, Ring 15
- Gearcase 12
- Generator 62
- Governor, Electronic 38
- Guard, Belt 50, 52
- Guard, Fan 50, 52
- Guide, Valve 18

- Harness, Wiring - Control (AC) 72
- Harness, Wiring - Control (DC) 70
- Harness, Wiring - Control To Engine 36
- Harness, Wiring - Lo Coolant Level 50, 52
- Harness, Wiring - Watts Transducer 77
- Head, Cylinder 18
- Heater, Control 79
- Heater, Coolant - Engine 60
- Heater, Generator 66
- Holder, Nozzle 20
- Hose, Drain - Oil 14
- Hose, Radiator 50, 52
- Housing, Control 78
- Housing, Flywheel 15
- Housing, Set 58

- Impeller, Pump - Water 46
- Indicator, Level - Oil 6
- Indicator, Service - Air Cleaner 54, 56

- Kit, Gasket - Cylinder Block 4
- Kit, Gasket - Cylinder Head 18
- Kit, Gasket - Water Pump 46

- Light, Indicator 72
- Line, Fuel 35
- Line, Injection - Fuel 32
- Liner, Cylinder 4

- Manifold, Exhaust 22
- Manifold, Intake 28
- Manifold, Water 48
- Meter, Ampere 70, 72
- Meter, Frequency 72
- Meter, Tach 70
- Meter, Time - Running 70
- Meter, Volt 72
- Meter, Watt 72, 77
- Muffler, Exhaust 26

- Nozzle, Fuel 20

- Pan, Oil 14
- Pickup, Magnetic 68
- Piston 10
- Pump, Injection - Fuel 32
- Pump, Injection - Fuel (Components) 34
- Pump, Oil 8
- Pump, Water 46

- Radiator 50, 52
- Radiator, Remote 49
- Regulator, Voltage - Alternator 40, 42
- Resistor, Current - Cross 75
- Rod, Connecting 10
- Rod, Push 10
- Rotor, Alternator 40, 42
- Rotor, Exciter 62
- Rotor, Exciter - Components 65
- Rotor, Generator 62

- Seal, Oil - Front 12
- Seal, Oil - Rear 15
- Seat, Valve 18
- Sender, Pressure - Oil 17
- Sender, Temperature - Oil 16
- Sender, Temperature - Water 46
- Solenoid, Control - Fuel 31
- Solenoid, Starter 36
- Starter 36
- Stator, Alternator 40, 42
- Stator, Exciter 62
- Stator, Generator 62
- Suppressor, Voltage 67
- Switch, Level - Lo Coolant 50, 52
- Switch, Overspeed 69
- Switch, Pressure - Oil 17
- Switch, Push - Reset/Panel 70
- Switch, Push - Run/Stop/Remote 70
- Switch, Rotary - Generator Control 72
- Switch, Temperature - Lo Engine 46

- Thermostat 48
- Thermostat, Temperature - Pre Water 46
- Thermostat, Temperature - Hi Water 46
- Transducer, Watts 77
- Transformer, Current 74, 75, 76
- Turbocharger 24

- Valve, Delivery - Fuel 34
- Valve, Drain - Oil 14
- Valve, Exhaust 18
- Valve, Intake 18

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
200.0 DVG - */ # @	200,000 WATTS	1500 RPM	24 VDC
250.0 DVG - */ # @	250,000 WATTS	1800 RPM	24 VDC

Electrical Data Table

*VOLTAGE CODE	VOLTS	HERTZ	WIRE	PHASE	NOTES
5D	120/240	60	4	3	+
6D	240/480	60	4	3	
9X	347/600	60	4	3	
17	120/208	60	12	3	
	127/220				
	139/240				
	240/416				
	254/440				+
	277/480				
517	110/190	50	12	3	
	115/200				
	120/208				
	127/220				
	220/380				
	230/400				
	240/416				
	254/440				

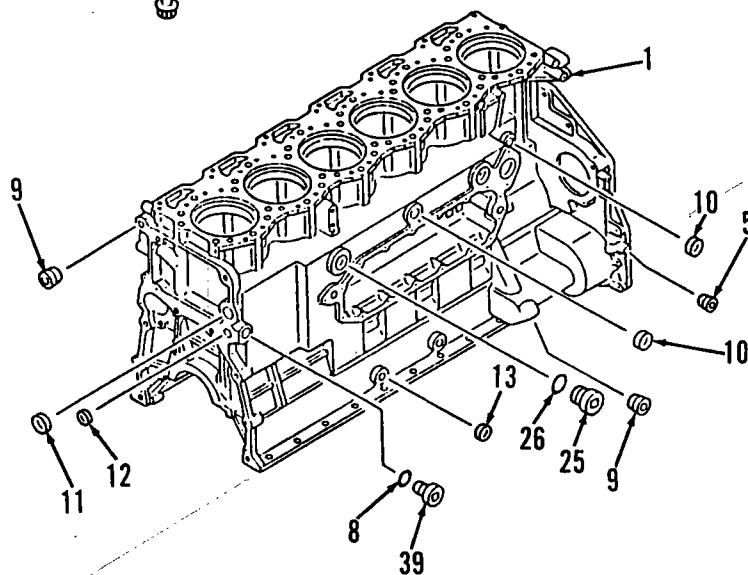
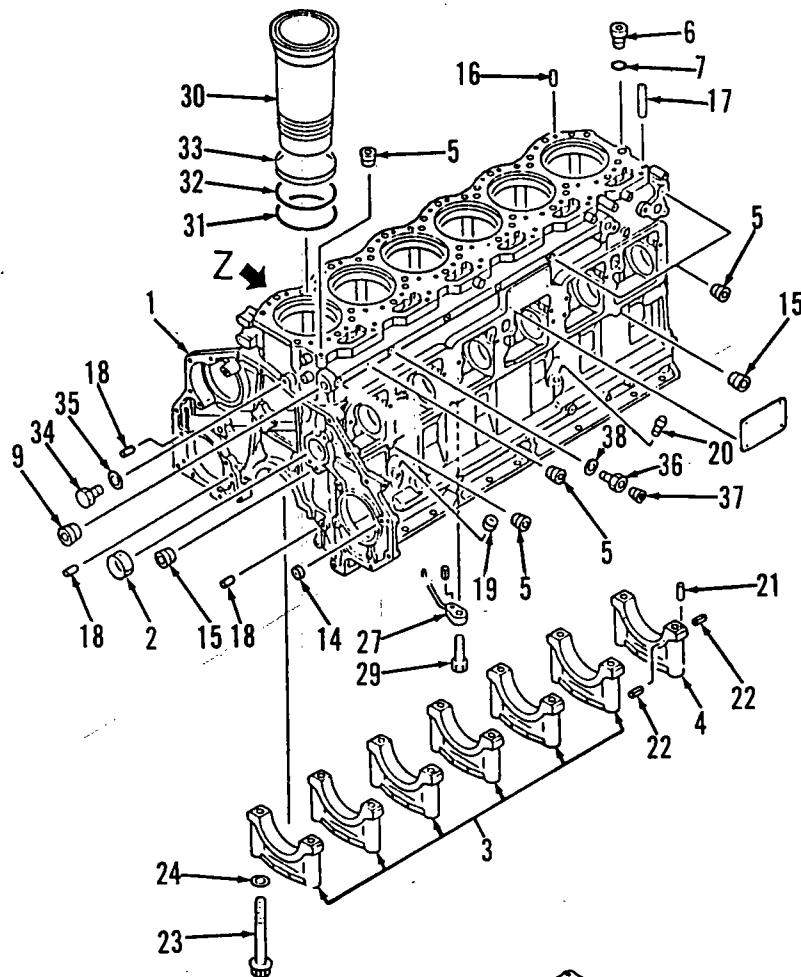
* - Voltage Codes follow Model Letter designations.

- Specification Number: Number 1 is Standard, all others indicate variations.

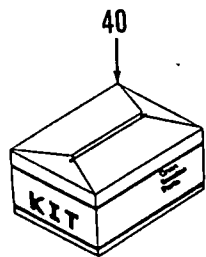
@ - Specification Letter: Letter advances (A to B, B to C, etc) with major manufacturing changes.

+ - These Generators are Reconnectible, Refer To Operator's Manual for wiring data.

Cylinder Block



View Z

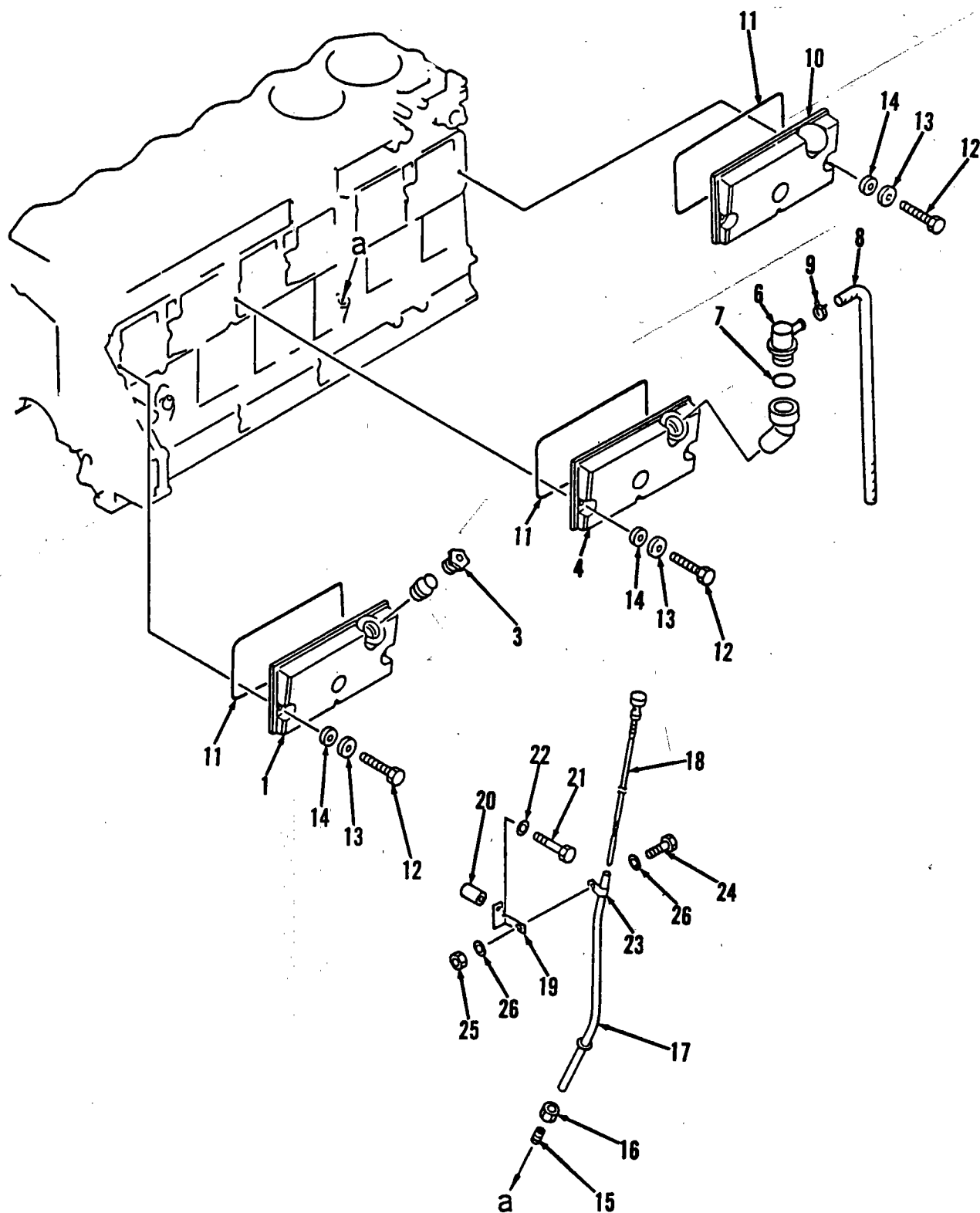


Cylinder Block

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-1543	1	Block Assembly, Cylinder (Includes Parts Marked *)	20	186-1232	1	*Bushing
2	186-1227	7	*Bushing, Camshaft	21	186-0122	2	*Pin, Dowel
3	186-1228	6	*Cap, Bearing - Main	22	186-0125	6	*Pin, Spring
4	186-1229	1	*Cap, Bearing - Main	23	186-1233	14	*Bolt
5	186-0154	7	*Plug	24	186-1225	14	*Washer
6	186-1216	1	*Plug	25	186-1234	2	Plug
7	186-1217	1	*Seal, O-Ring	26	186-1235	2	Seal, O-Ring
8	186-1219	1	*Seal, O-Ring	27	186-1240	6	Nozzle Assembly (Includes Pin)
9	186-1220	3	*Plug	29	186-1239	6	Bolt
10	186-0747	2	*Plug	30	186-1241	6	Liner, Cylinder
11	186-0158	1	*Plug	31	186-1236	6	Seal, O-Ring - Lower
12	186-1221	1	*Plug	32	186-1237	6	Seal, O-Ring - Upper
13	186-0157	1	*Plug	33	186-1238	6	Seal
14	186-1222	4	*Plug	34	186-1226	1	Plug
15	186-1223	4	*Plug	35	186-0147	1	Gasket
16	186-0743	12	*Pin, Dowel	36	186-1242	1	Nipple
17	186-1230	1	*Tube	37	186-0726	1	Plug
18	186-1231	3	*Pin	38	186-0145	1	Gasket
19	186-1224	2	*Plug	39	186-1218	1	Plug
				40	186-1512	1	Gasket Kit, Block - Cylinder

* Parts included in 186-1543 Cylinder Block Assembly.

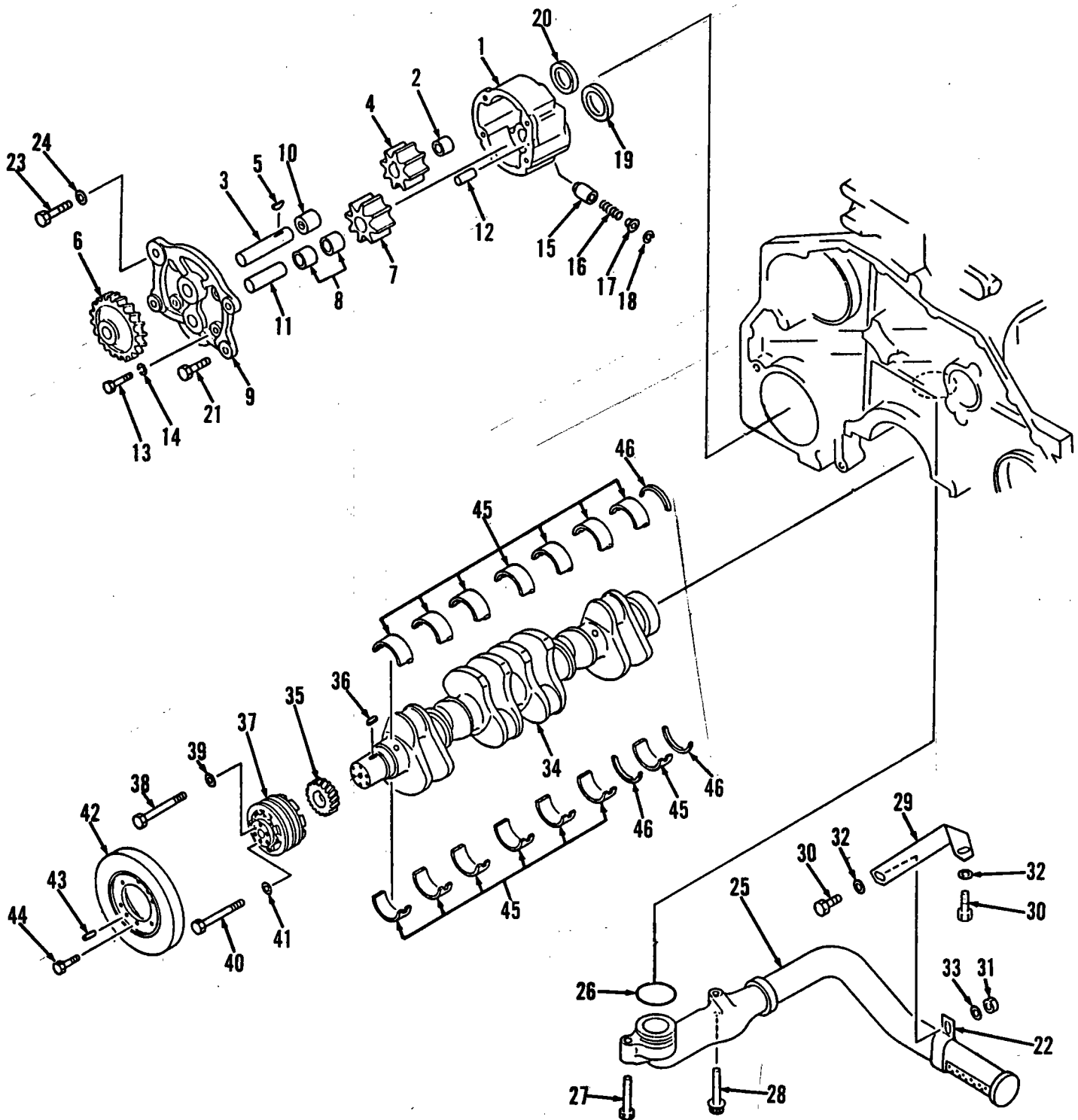
Cylinder Block Cover



Cylinder Block Cover

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-1244	1	Cover Assembly (Includes Tube)	15	186-1250	1	Collar
3	186-0719	1	Cap	16	186-1251	1	Nut
4	186-1245	1	Cover Assembly (Includes Connector)	17	186-1252	1	Guide
6	186-1246	1	Breather	18	186-1261	1	Gauge, Level
7	186-1259	1	Seal, O-Ring	19	186-1253	1	Bracket
8	186-1258	1	Hose	20	186-1262	1	Spacer
9	186-1257	1	Clamp	21	186-1254	1	Bolt
10	186-1247	1	Cover	22	186-0103	1	Washer
11	186-1248	3	Seal, O-Ring - Cover	23	186-1260	1	Clip
12	186-1249	9	Bolt	24	186-1255	1	Bolt
13	186-0219	9	Washer	25	186-1256	1	Nut
14	186-0220	9	Packing	26	186-0103	2	Washer

Crankshaft, Oil Pump And Suction Pipe

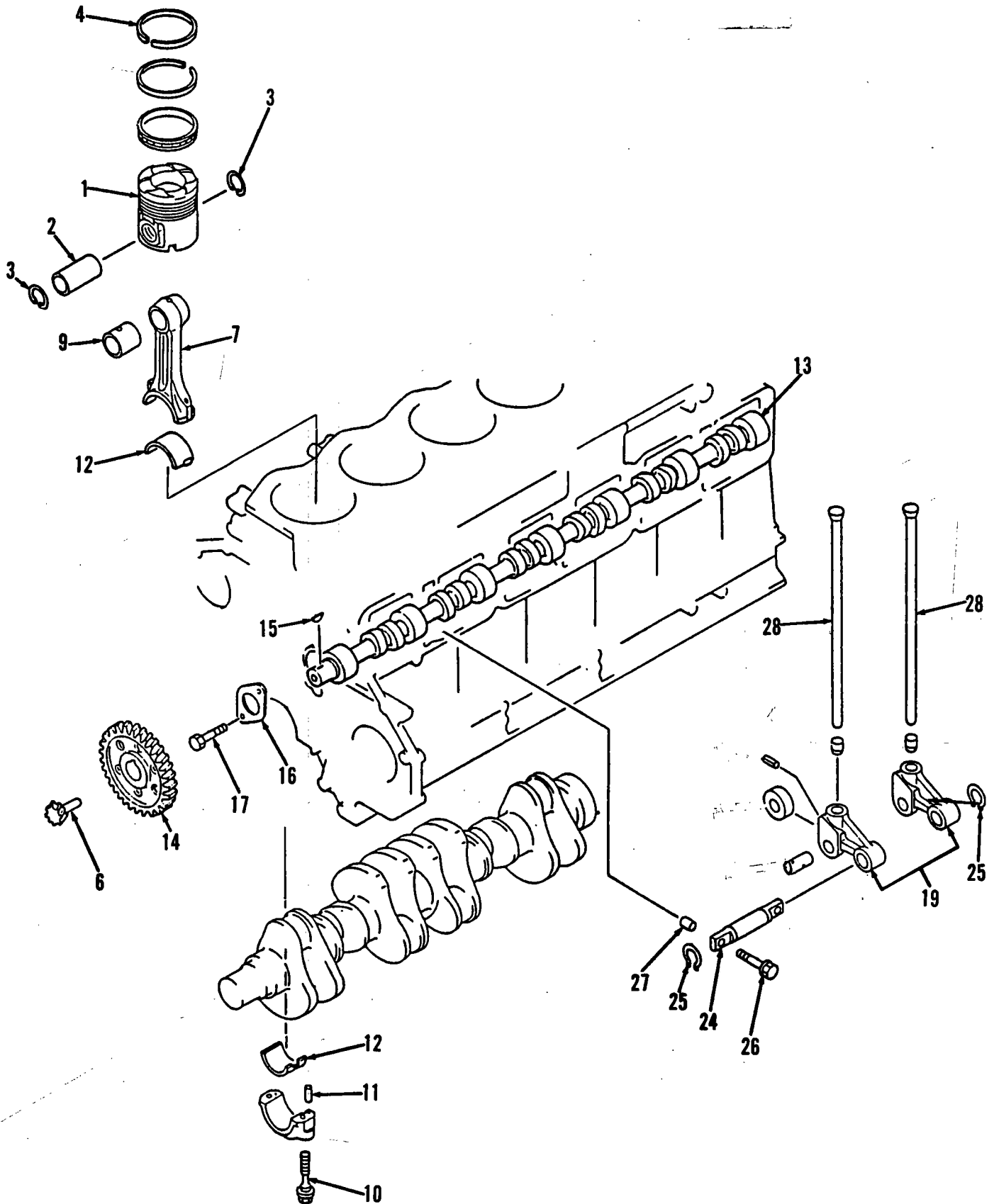


Crankshaft, Oil Pump And Suction Pipe

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-1345	1	Pump Assembly, Oil (Includes Parts Marked *)	28	186-1160	1	Bolt
2	186-1346	1	*Bushing	29	186-1358	1	Bracket
3	186-1347	1	*Shaft	30	186-1361	2	Bolt
4	186-1348	1	*Gear	31	186-0090	1	Nut
5	186-0121	1	*Key	32	186-0505	2	Washer
6	186-1349	1	*Gear	33	186-1363	1	Washer
7	186-1350	1	*Gear Assembly (Includes Bushing)	34	186-1320	1	Crankshaft Assembly (Includes Gear And Key)
8	186-1351	2	*Bushing	35	186-1545	1	Gear, Crankshaft
9	186-1352	1	*Cover Assembly (Includes Bushing And Shaft)	36	186-1307	1	Key
10	186-1346	1	*Bushing	37	186-1308	1	Pulley
11	186-1353	1	*Shaft	38	186-1304	1	Bolt
12	186-0328	1	*Pin	39	186-0785	1	Washer
13	720-1037	4	*Bolt	40	186-1305	5	Bolt
14	186-0095	4	*Washer, Spring	41	186-1309	5	Washer
15	186-0330	1	*Valve	42	186-1321	1	Damper
16	186-0331	1	*Spring	43	186-0123	1	Pin, Dowel
17	186-1354	1	*Retainer	44	186-1306	6	Bolt
18	186-0130	1	*Ring, Snap	45			Bearing, Main
19	186-1355	1	Ring		186-1310	7	Standard
20	186-1356	1	Ring		186-1312	7	0.25mm Undersize
21	186-1360	3	Bolt		186-1313	7	0.50mm Undersize
22	186-1359	1	Clamp		186-1314	7	0.75mm Undersize
23	720-1056	1	Bolt		186-1315	7	1.00mm Undersize
24	186-0487	1	Washer	46			Bearing, Thrust
25	186-1357	1	Strainer		186-1311	1	Standard
26	186-1362	1	Seal, O-Ring		186-1316	1	0.25mm Oversize
27	720-1056	1	Bolt		186-1317	1	0.50mm Oversize
					186-1318	1	0.75mm Oversize
					186-1319	1	1.00mm Oversize

* Parts included in 186-1345 Oil Pump Assembly

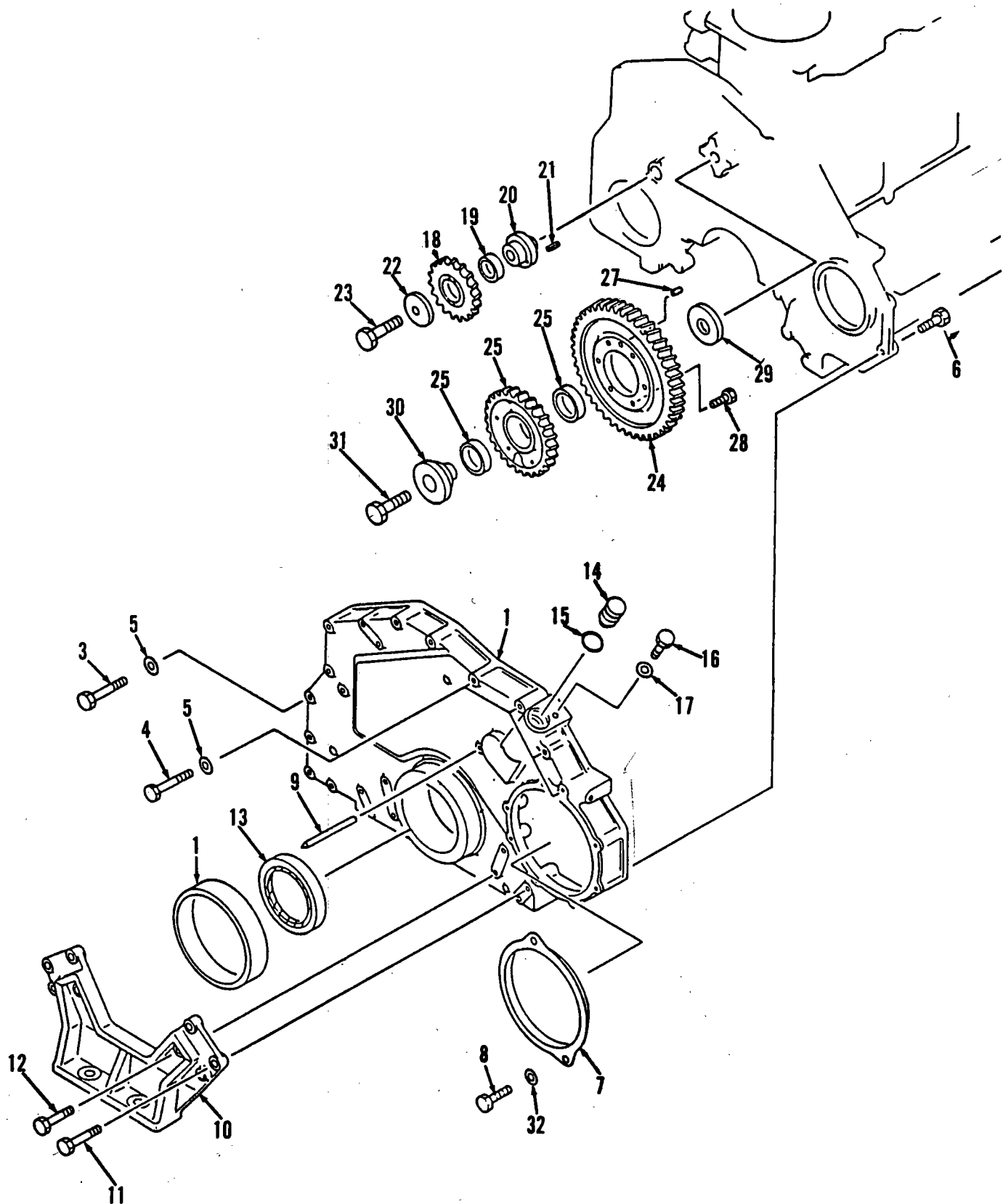
Camshaft, Piston And Connecting Rod



Camshaft, Piston And Connecting Rod

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-1322	6	Piston Assembly (Includes Ring And Pin)		186-1328	6	0.75mm Undersize
2	186-1323	1	Pin, Piston		186-1329	6	1.00mm Undersize
3	186-1333	2	Ring, Snap	13	186-1335	1	Camshaft Assembly (Includes Gear, Key And Thrust Plate)
4	186-1330	6	Ring Assembly, Piston	14	186-1336	1	Gear, Camshaft
6	186-1515	1	Gear, Drive - Tachometer	15	186-1342	1	Key
7	186-1324	1	Rod Assembly, Connecting (Includes Bushing, Bolt And Dowel Pin)	16	186-1341	1	Plate, Thrust
9	186-1331	1	Bushing	17	186-1344	2	Bolt
10	186-1332	2	Bolt	19	186-1337	2	Lever Assembly (Includes Socket, Roller And Pins)
11	186-1334	2	Pin, Dowel	24	186-1338	1	Shaft
12			Bearing Assembly, Crankshaft	25	186-1343	2	Ring, Snap
	186-1325	6	Standard	26	186-1339	12	Bolt
	186-1326	6	0.25mm Undersize	27	186-1231	12	Pin
	186-1327	6	0.50mm Undersize	28	186-1340	12	Rod, Push

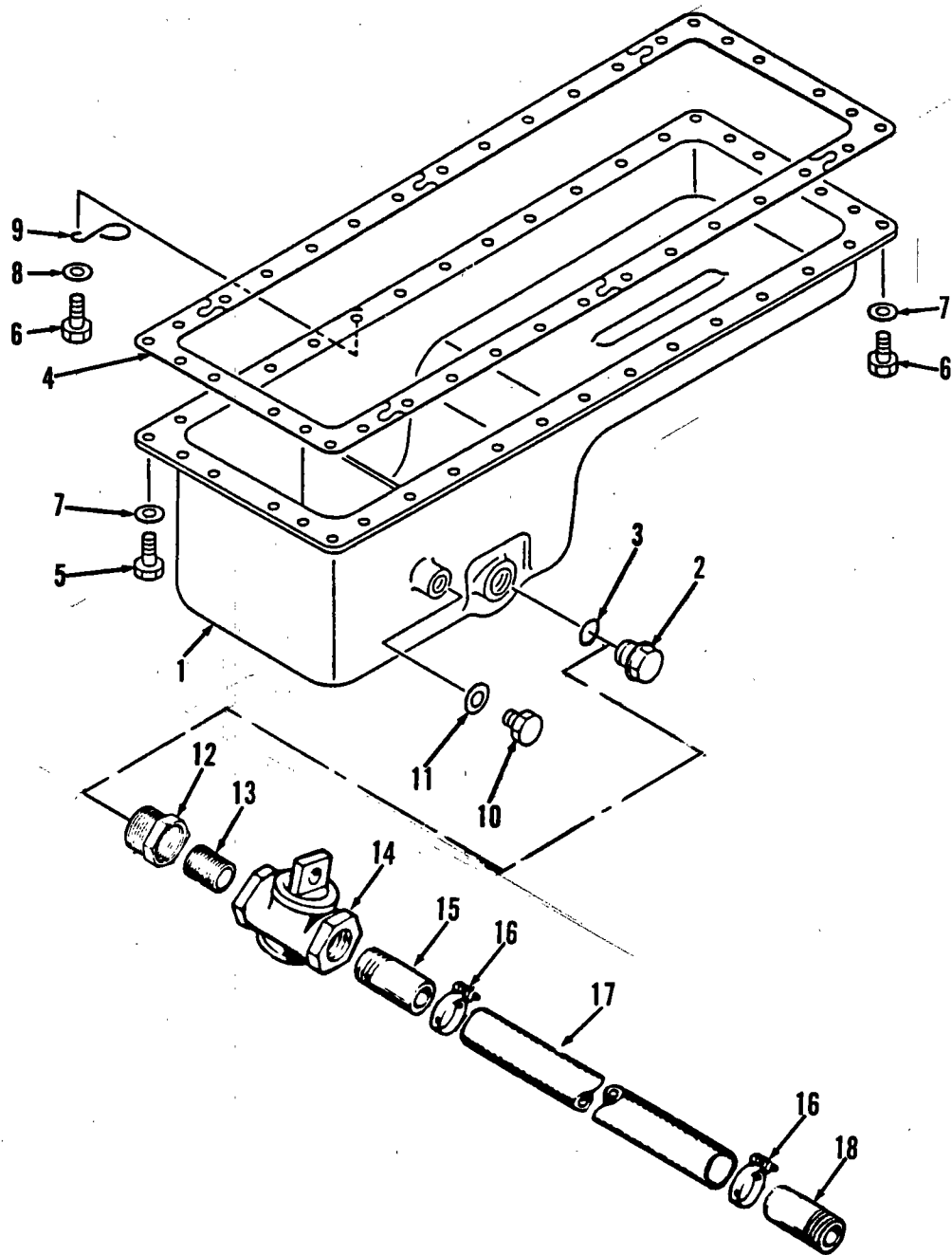
Gear Cover And Support



Gear Cover And Support

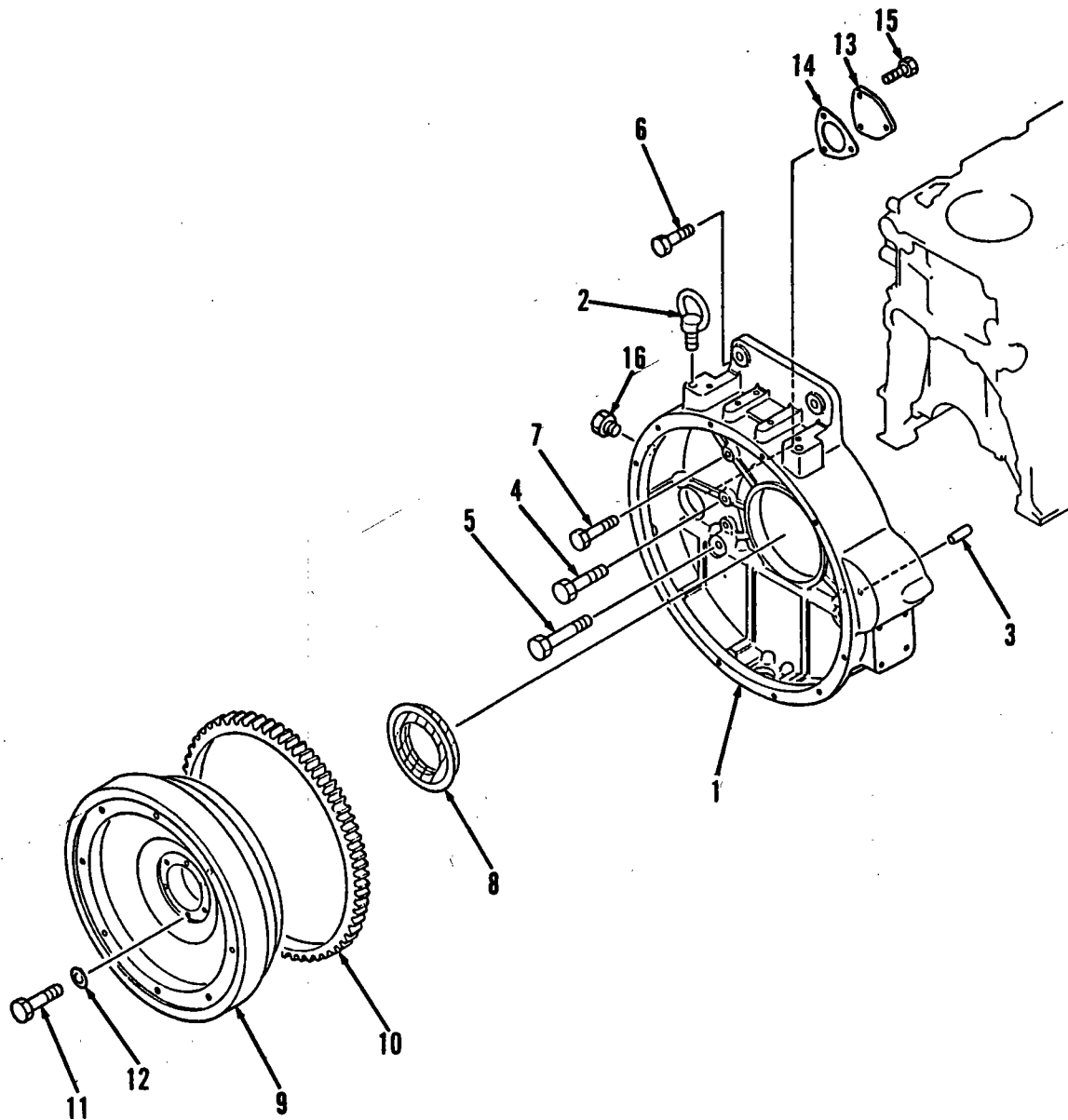
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-1273	1	Cover Assembly (Includes Bushing)	17	186-1271	1	Spacer
3	186-1263	7	Bolt	18	186-1283	1	Gear
4	186-1264	4	Bolt	19	186-1282	1	Bushing
5	186-0103	11	Washer	20	186-1278	1	Shaft
6	186-1285	4	Bolt	21	186-0126	1	Pin
7	186-1274	1	Cover	22	186-1279	1	Plate
8	186-1265	2	Bolt	23	186-1269	1	Bolt
9	186-1559	1	Pointer	24	186-1280	1	Gear
10	186-1276	1	Support, Front	25	186-1281	1	Gear Assembly (Includes Bushing)
11	186-1266	2	Bolt	27	186-1272	1	Pin
12	186-1267	6	Bolt	28	720-1037	6	Bolt
13	186-1277	1	Seal, Front	29	186-1286	1	Plate
14	186-1284	1	Plug	30	186-1287	1	Shaft
15	186-1270	1	Seal, O-Ring - Shaft	31	186-1288	1	Bolt
16	186-1268	1	Bolt	32	186-0103	2	Washer

Oil Pan



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-1292	1	Pan, Oil	10	186-0407	1	Plug
2	186-1290	1	Plug	11	186-0148	1	Gasket
3	186-1289	1	Seal, O-Ring	12	505-1355	1	Bushing, Reducer - Hex
4	186-1291	1	Gasket	13	505-0100	1	Nipple, Pipe
5	186-1268	29	Bolt	14	504-0011	1	Valve, Shutoff
6	186-1179	7	Bolt	15	505-0185	1	Nipple, Half
7	186-0103	35	Washer	16	503-0197	2	Clip, Hose - Corbin
8	186-0487	1	Washer	17	503-0098	1	Hose, Drain
9	186-0192	1	Clip	18	505-0674	1	Nipple, Half

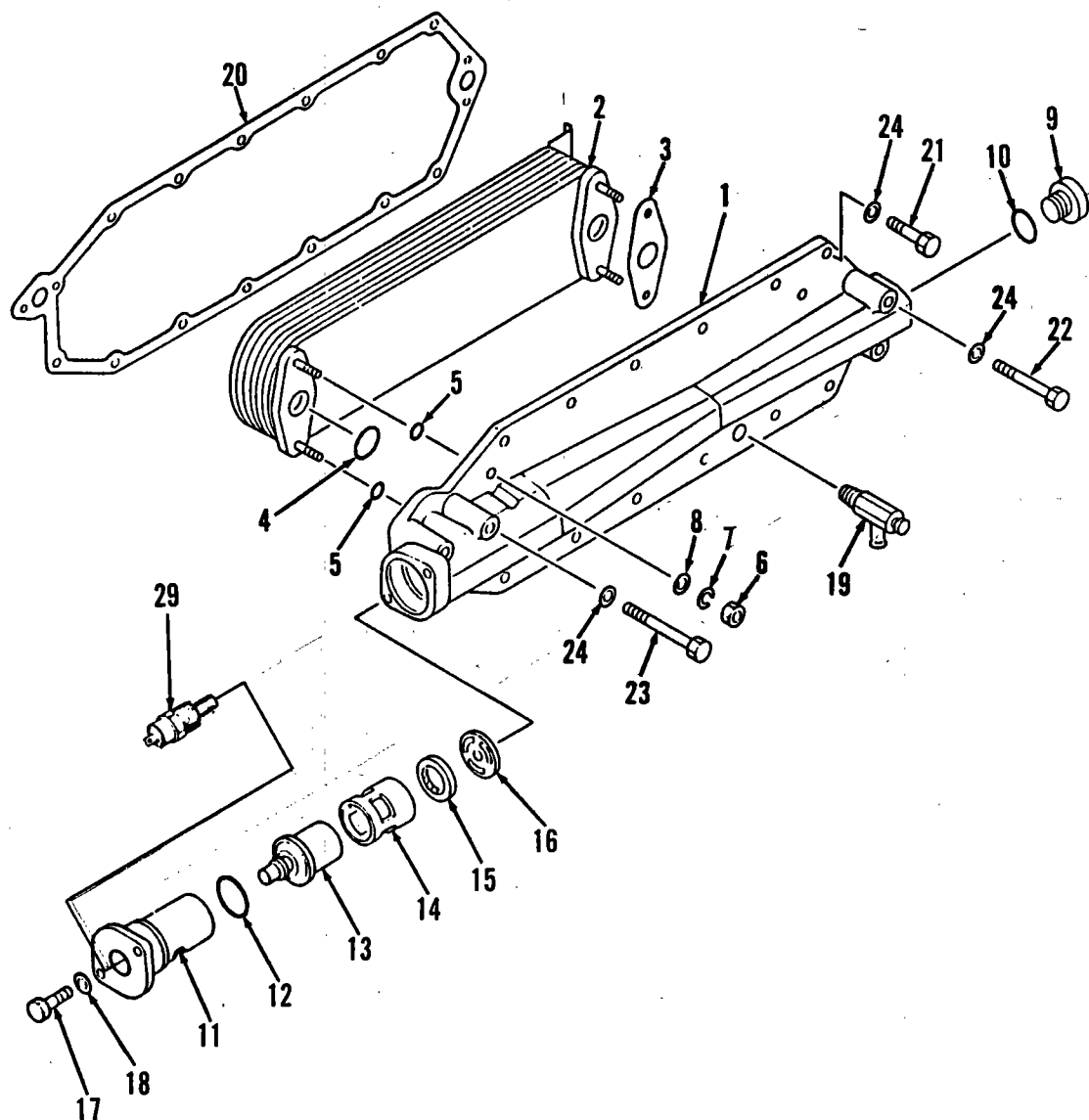
Flywheel, And Flywheel Housing



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-1303	1	Housing, Flywheel
2	186-1297	2	Bolt, Eye
3	186-1298	2	Pin, Dowel
4	186-1294	6	Bolt
5	186-1295	2	Bolt
6	186-1298	2	Bolt
7	186-0502	2	Bolt
8	186-1299	1	Seal, Rear
9	186-1302	1	Flywheel Assembly (Includes Gear)

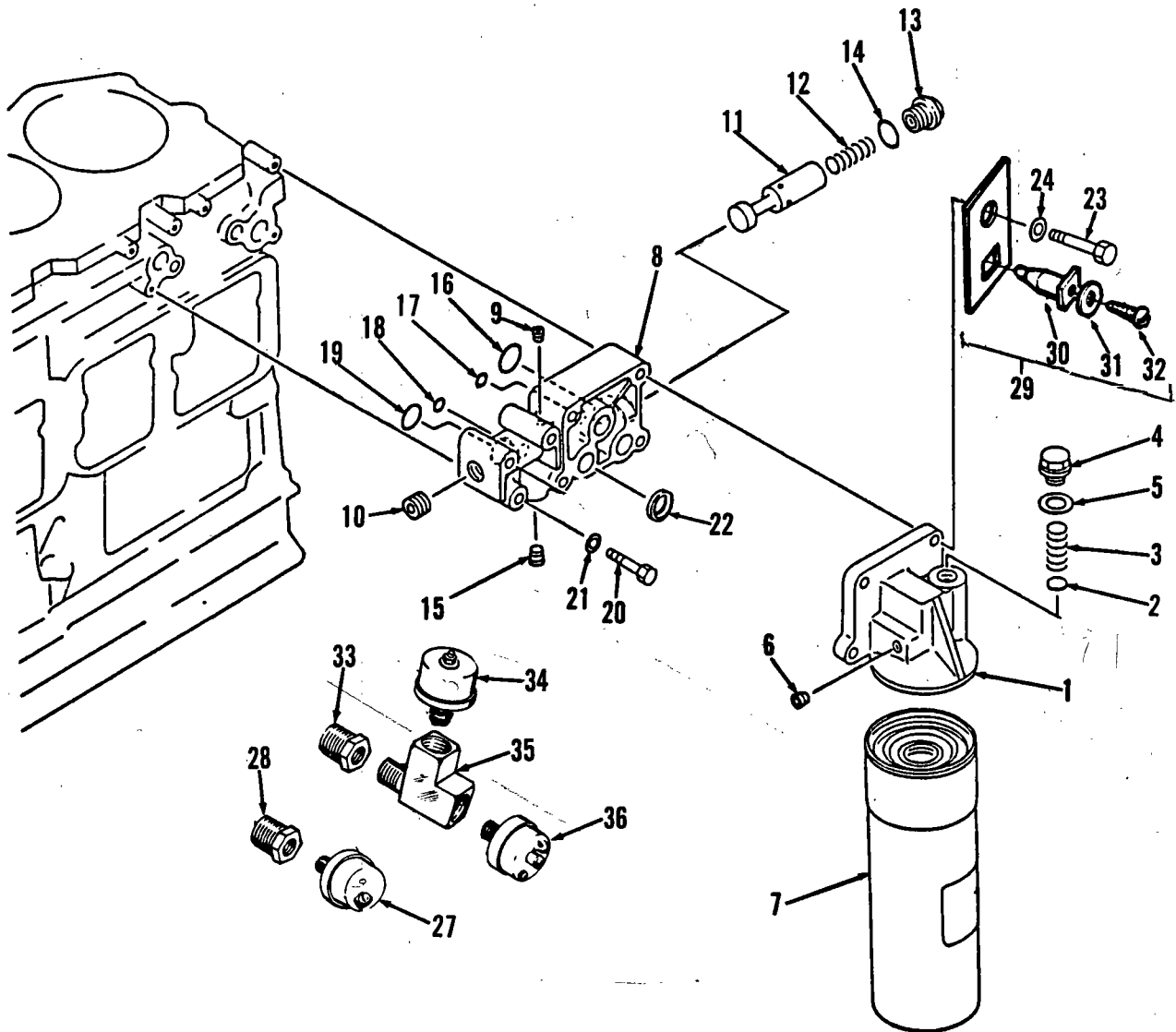
REF NO.	PART NO.	QTY USED	PART DESCRIPTION
10	186-0193	1	Gear
11	186-1296	6	Bolt
12	186-1225	6	Washer
13	186-1300	1	Plate
14	186-1301	1	Gasket
15	186-1265	3	Bolt
16	186-0407	1	Plug

Oil Cooler



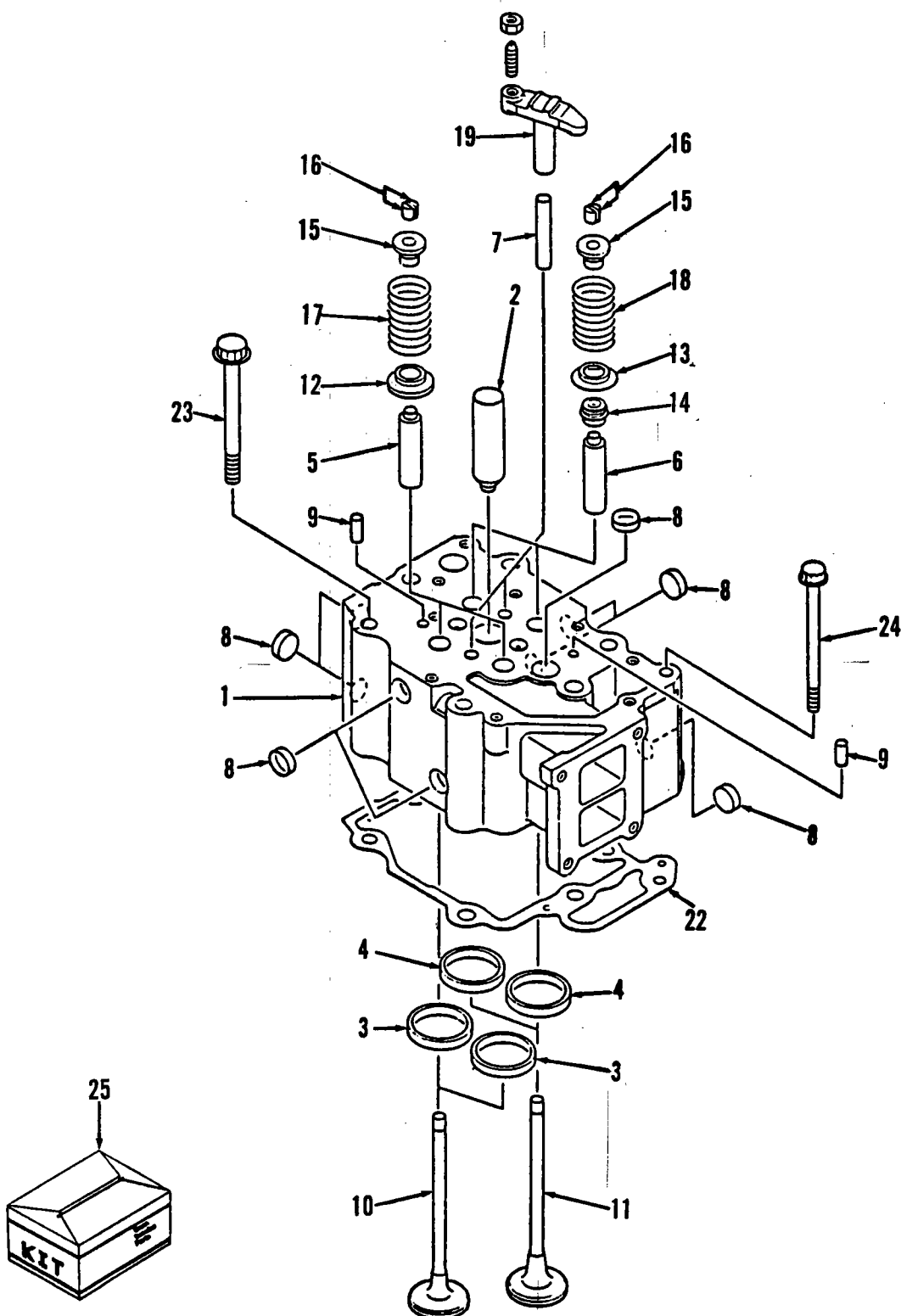
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-1521	1	Cover	13	186-1398	1	Thermostat
2	186-1522	1	Element	14	186-1400	1	Case
3	186-1392	2	Gasket	15	186-1399	1	Seal
4	186-1393	2	Seal, O-Ring	16	186-1401	1	Plate
5	186-1394	4	Seal, O-Ring	17	186-1387	2	Bolt
6	186-1256	4	Nut	18	186-0102	2	Washer
7	186-0100	4	Washer, Spring	19	186-0401	1	Valve
8	186-0103	4	Washer	20	186-1402	1	Gasket, Cooler - Oil
9	186-1395	1	Plug	21	186-1266	12	Bolt
10	186-1396	1	Seal, O-Ring	22	186-1264	2	Bolt
11	186-1397	1	Cover	23	186-1447	2	Bolt
	186-1397	1	Used Without Oil Temperature Sender	24	186-0103	16	Washer
	102-1317	1	Used With Oil Temperature Sender	25	186-1474	1	Bolt
12	186-1390	1	Seal, O-Ring	26	186-0103	1	Washer
				29	193-0353	1	Sender, Temperature - Oil

Oil Filter



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-1373	1	Bracket	19	186-0142	1	Seal, O-Ring
2	186-1376	1	Packing	20	186-1368	1	Bolt
3	186-1364	1	Spring	21	186-0103	1	Washer
4	186-1377	1	Cap	22	186-1370	3	Grommet
5	186-1378	1	Packing	23	186-1369	4	Bolt
6	186-0515	1	Plug	24	186-0103	4	Washer
7	186-1365	1	Cartridge	27	309-0272	1	Switch, Pressure - Oil (S5)
8	186-1374	1	Adapter	28	502-0917	1	Adapter, Pipe
9	186-0154	1	Plug	29	332-2739	1	Bracket, Terminal (Includes Nut, Washer And Screw)
10	186-1220	1	Plug	30	870-0196	1	Nut, Insulating
11	186-1371	1	Valve	31	508-0015	1	Washer, Fiber
12	186-1375	1	Spring	32	809-0035	1	Screw, Round Head (#8 x 3/4")
13	186-1372	1	Plug	33	502-0917	1	Adapter, Pipe
14	186-0142	1	Seal, O-Ring	34	193-0244	1	Sender, Pressure - Oil
15	186-0515	1	Plug	35	502-0058	1	Tee, Special
16	186-0143	1	Seal, O-Ring	36	309-0169	1	Switch, Safety - Oil
17	186-1366	1	Seal, O-Ring				
18	186-1367	1	Seal, O-Ring				

Cylinder Head

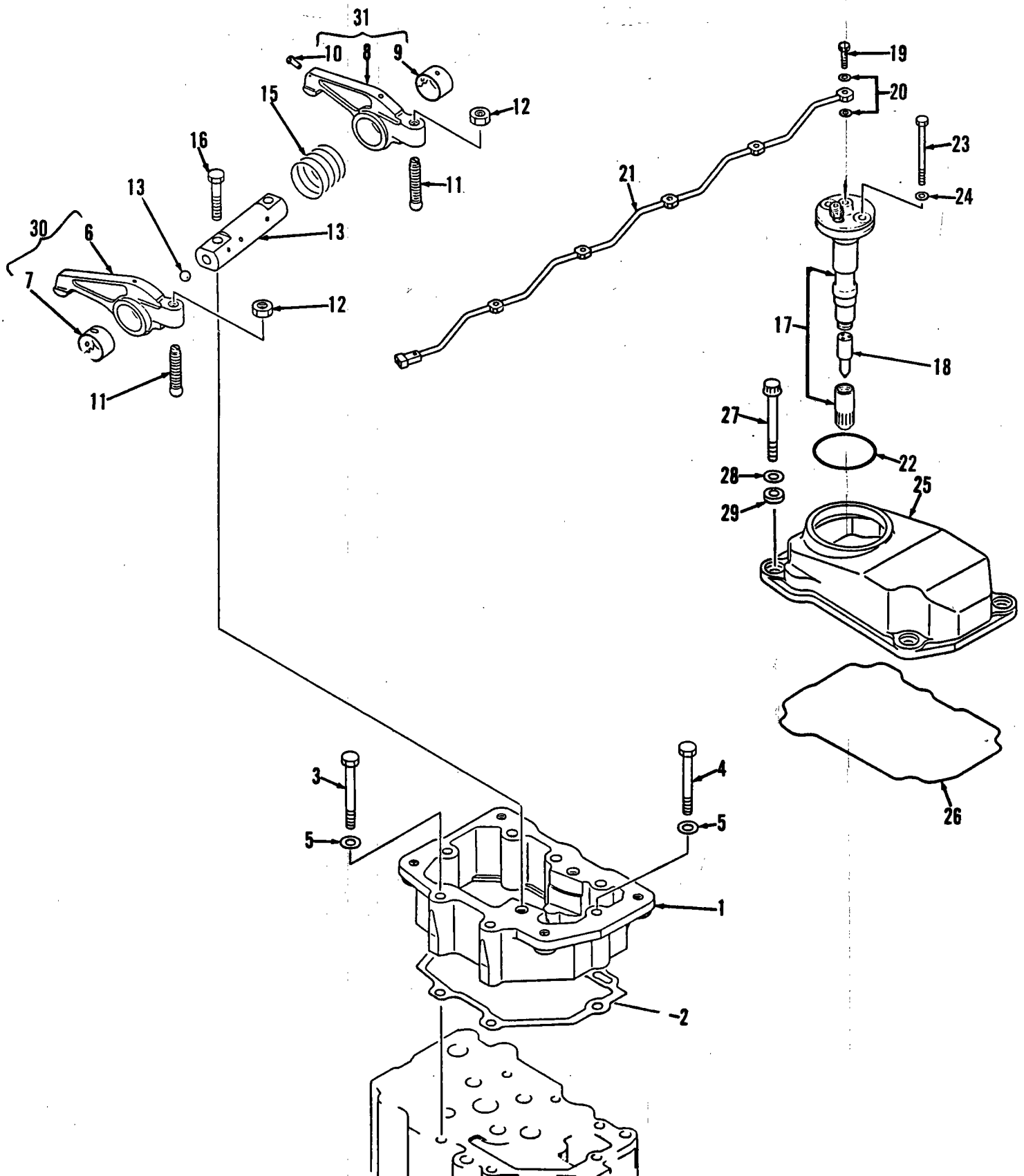


Cylinder Head

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Head Assembly, Cylinder	6	186-1142	2	+*Guide, Valve - Exhaust
	186-1129	6	With Valves (Includes Parts Marked *)	7	186-1143	2	+*Guide
	186-1130	6	* Less Valves (Includes Parts Marked +)	8	186-1144	8	+*Plug
2	186-0204	1	+*Sleeve	9	186-0743	2	+*Pin, Dowel
3			Insert, Valve - Intake	10	186-1145	2	*Valve, Intake
	186-1131	2	Standard	11	186-1146	2	*Valve, Exhaust
	186-1132	2	0.25mm Oversize	12	186-1147	2	*Seat, Lower Spring - Intake
	186-1133	2	0.50mm Oversize	13	186-1148	2	*Seat, Lower Spring - Exhaust
	186-1134	2	0.75mm Oversize	14	186-1149	2	*Seal
	186-1135	2	1.00mm Oversize	15	186-1150	4	*Seat, Spring - Upper
4			Insert, Valve - Exhaust	16	186-0308	8	*Collet
	186-1136	2	+* Standard	17	186-1151	2	*Spring, Intake
	186-1137	2	0.25mm Oversize	18	186-1152	2	*Spring, Exhaust
	186-1138	2	0.50mm Oversize	19	186-1153	12	Crosshead Assembly
	186-1139	2	0.75mm Oversize	22	186-1155	6	Gasket, Head
	186-1140	2	1.00mm Oversize	23	186-1154	36	Bolt
5	186-1141	2	+*Guide, Valve - Intake	24	186-1156	6	Bolt
				25	186-1517	1	Gasket Kit, Head - Cylinder

* Parts included in 186-1129 Cylinder Head Assembly.
+ Parts included in 186-1130 Cylinder Head Assembly.

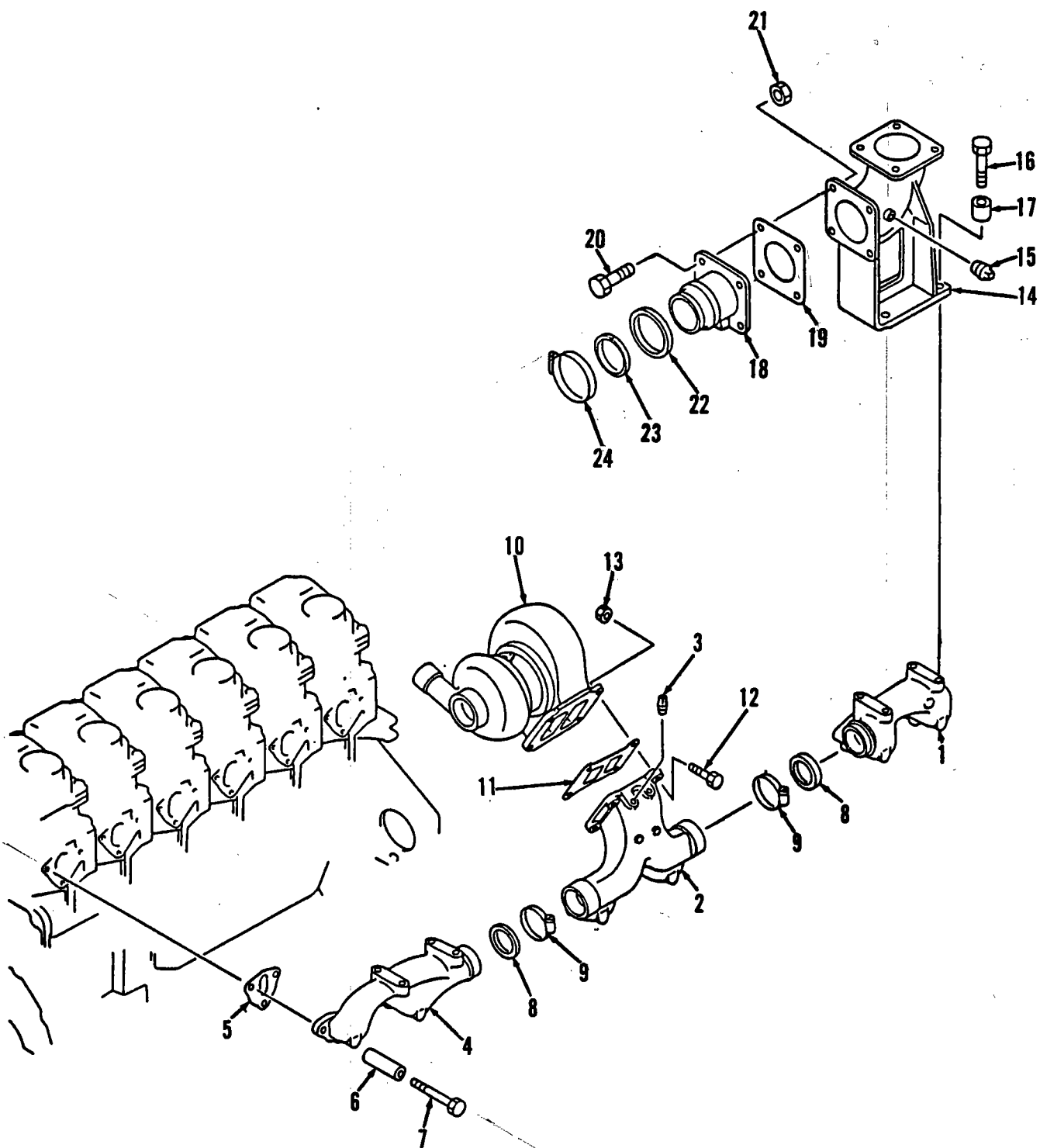
Nozzle Holder, Rocker Arm, Cover, And Housing



Nozzle Holder, Rocker Arm, Cover, And Housing

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-1157	6	Housing, Arm - Rocker	18	186-1519	1	Nozzle
2	186-1158	6	Gasket	19	186-1449	1	Bolt, Joint
3	186-1159	40	Bolt	20	186-0144	2	Gasket
4	186-1169	2	Bolt	21	186-1452	1	Tube
5	186-0505	40	Washer	22	186-1453	6	Seal, O-Ring - Nozzle Holder
6	186-1162	1	Arm, Rocker - Intake	23	186-1454	12	Bolt
7	186-1163	1	Bushing	24	186-0145	12	Gasket
8	186-1165	1	Arm, Rocker - Exhaust	25	186-1172	6	Cover, Head
9	186-1163	1	Bushing	26	186-1173	6	Gasket, Cover - Head
10	186-1171	1	Rivet	27	186-1175	24	Bolt
11	186-1166	12	Screw	28	186-0103	24	Washer
12	186-1170	12	Nut	29	186-1174	24	Rubber
13	186-1167	6	Shaft Assembly, Arm - Rocker	30	186-1161	6	Arm Assembly, Rocker - Intake (Includes Arm, And Bushing)
15	186-1168	6	Spring				
16	186-1160	12	Bolt	31	186-1164	6	Arm Assembly, Rocker - Exhaust (Includes Arm, Bushing, And Rivet)
17	186-1518	6	Holder Assembly, Nozzle (Includes Bolt And Gasket)				

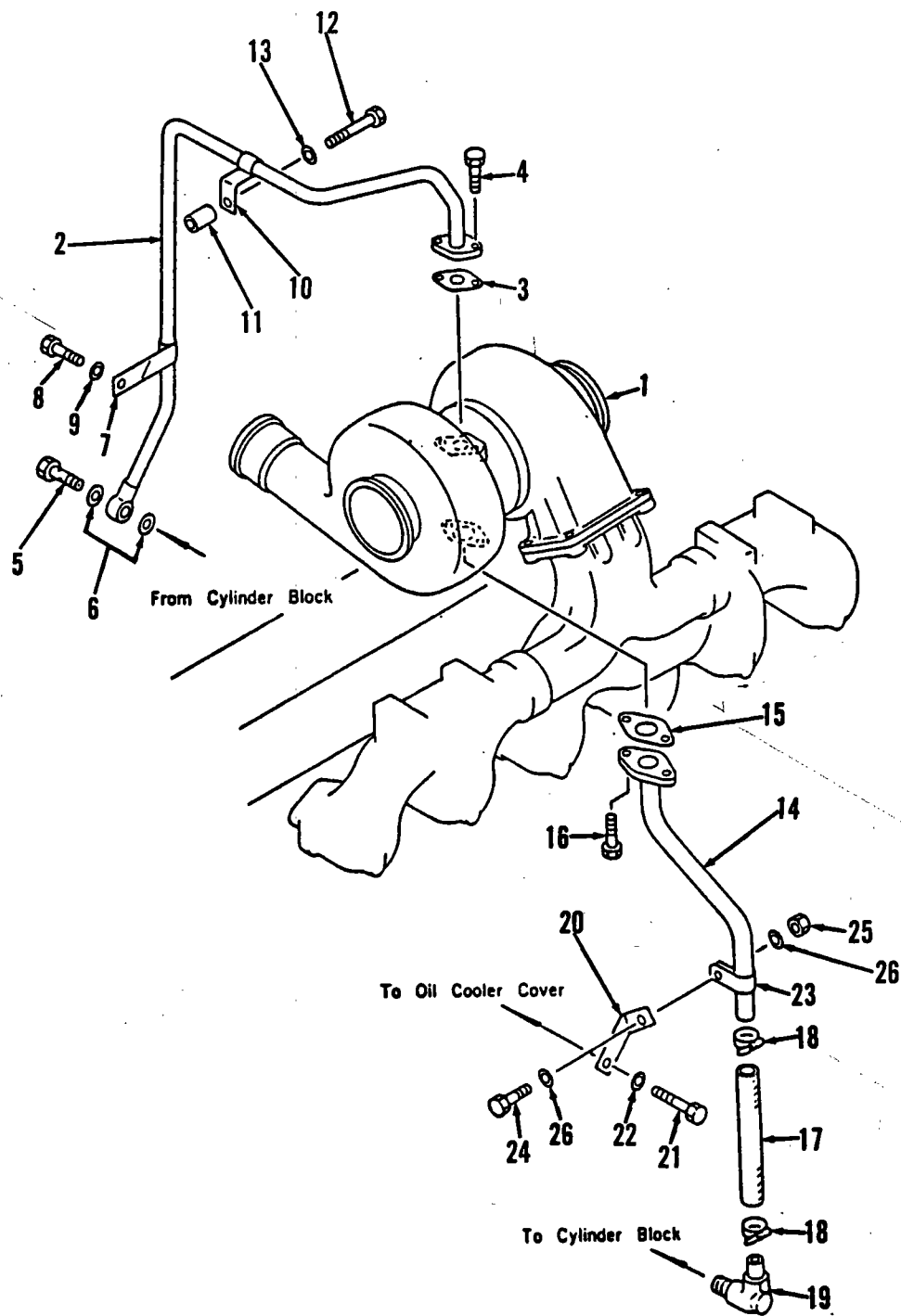
Exhaust Connection, Manifold, And Turbocharger



Exhaust Connection, Manifold, And Turbocharger

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-1187	1	Manifold, Exhaust - Front	13	186-1194	4	Nut
2	186-1188	1	Manifold, Exhaust - Center	14	186-1211	1	Elbow
3	186-0151	2	Plug	15	186-0154	1	Plug
4	186-1189	1	Manifold, Exhaust - Rear	16	720-1057	4	Bolt
5	186-1192	6	Gasket, Manifold - Exhaust	17	186-0406	4	Spacer
6	186-0212	18	Spacer	18	186-1212	1	Joint
7	186-0082	18	Bolt	19	186-1215	1	Gasket
8	186-1190	2	Seal	20	186-1208	4	Bolt
9	186-1195	2	Clamp	21	186-1209	4	Nut
10	186-1193	1	Turbocharger	22	186-1213	1	Seal
11	186-1191	1	Gasket, Turbocharger	23	186-1214	1	Seal, Ring
12	186-1196	4	Bolt	24	186-1210	1	Clamp

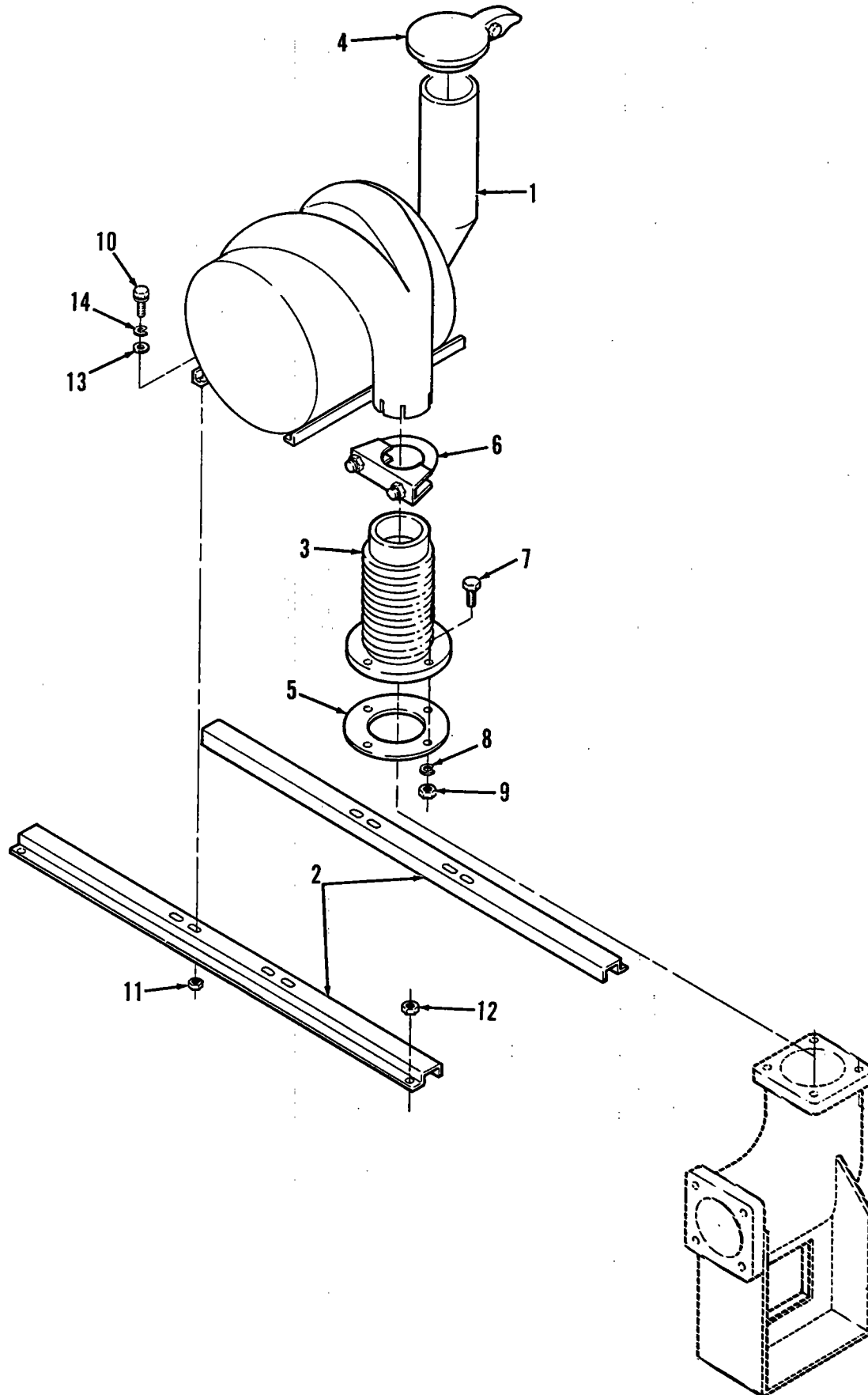
Turbocharger Oil Piping



Turbocharger Oil Piping

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-1193	1	Turbocharger	14	186-1382	1	Tube
2	186-1523	1	Pipe, Inlet	15	186-1383	1	Gasket, Pipe - Oil Outlet
3	186-1381	1	Gasket, Pipe - Oil Inlet	16	186-1265	2	Bolt
4	186-1265	2	Bolt	17	186-1379	1	Hose, Rubber
5	186-0883	1	Bolt, Joint	18	186-0168	2	Clamp
6	186-0147	2	Gasket	19	186-1384	1	Elbow
7	186-1524	1	Clamp	20	186-1385	1	Bracket
8	186-1265	1	Bolt	21	186-1474	1	Bolt
9	186-0103	1	Washer	22	186-0103	1	Washer
10	186-1558	1	Clip	23	186-0403	1	Clamp
11	186-1525	1	Spacer	24	186-1265	1	Bolt
12	186-1254	1	Bolt	25	186-1256	1	Nut
13	186-0103	1	Washer	26	186-0103	2	Washer

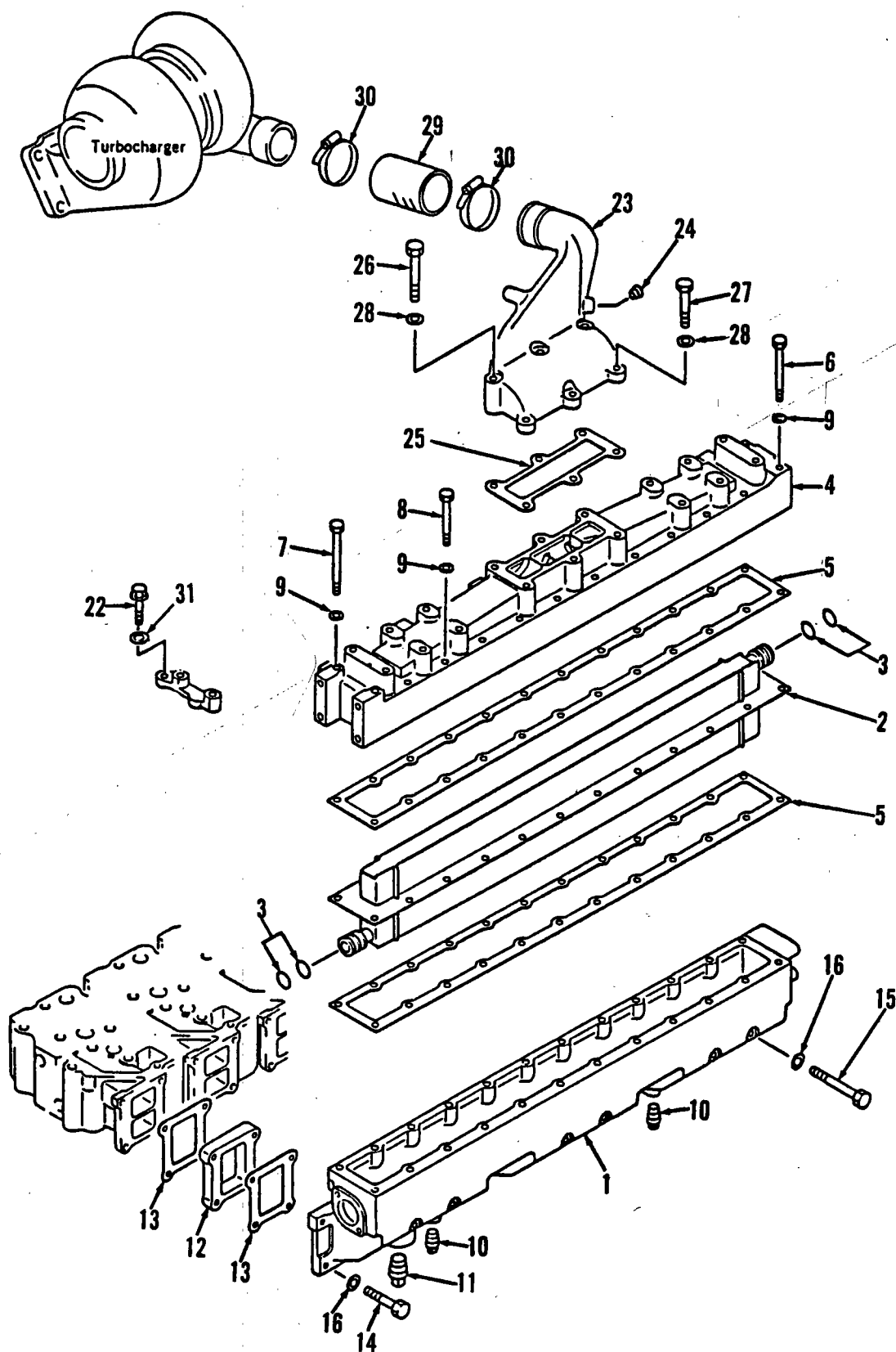
Exhaust System



Exhaust System

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	155-2093	1	Silencer	8	850-0060	4	Washer, Lock (1/2)
2	155-2092	2	Bracket, Mounting - Silencer	9	862-0016	4	Nut, Hex (1/2 - 13)
3			Adapter, Exhaust	10	800-0071	4	Screw, Lock (7/16 - 14 x 1")
	155-2097	1	Used With Silencer	11	862-0004	4	Nut, Lock - Hex (3/16 - 14)
	155-2124	1	Used Without Silencer	12	870-0257	4	Nut, Lock - Hex (5/16 - 18)
4	155-2062-04	1	Cap, Rain	13	526-0014	4	Washer, Flat (7/16)
5	155-2094	1	Gasket, Exhaust	14	850-0055	4	Washer, Lock (7/16)
6	155-2105	1	Clamp, Muffler				
7	800-0093	4	Screw, Cap - Hex Head (1/2 - 13 x 1-3/4")				

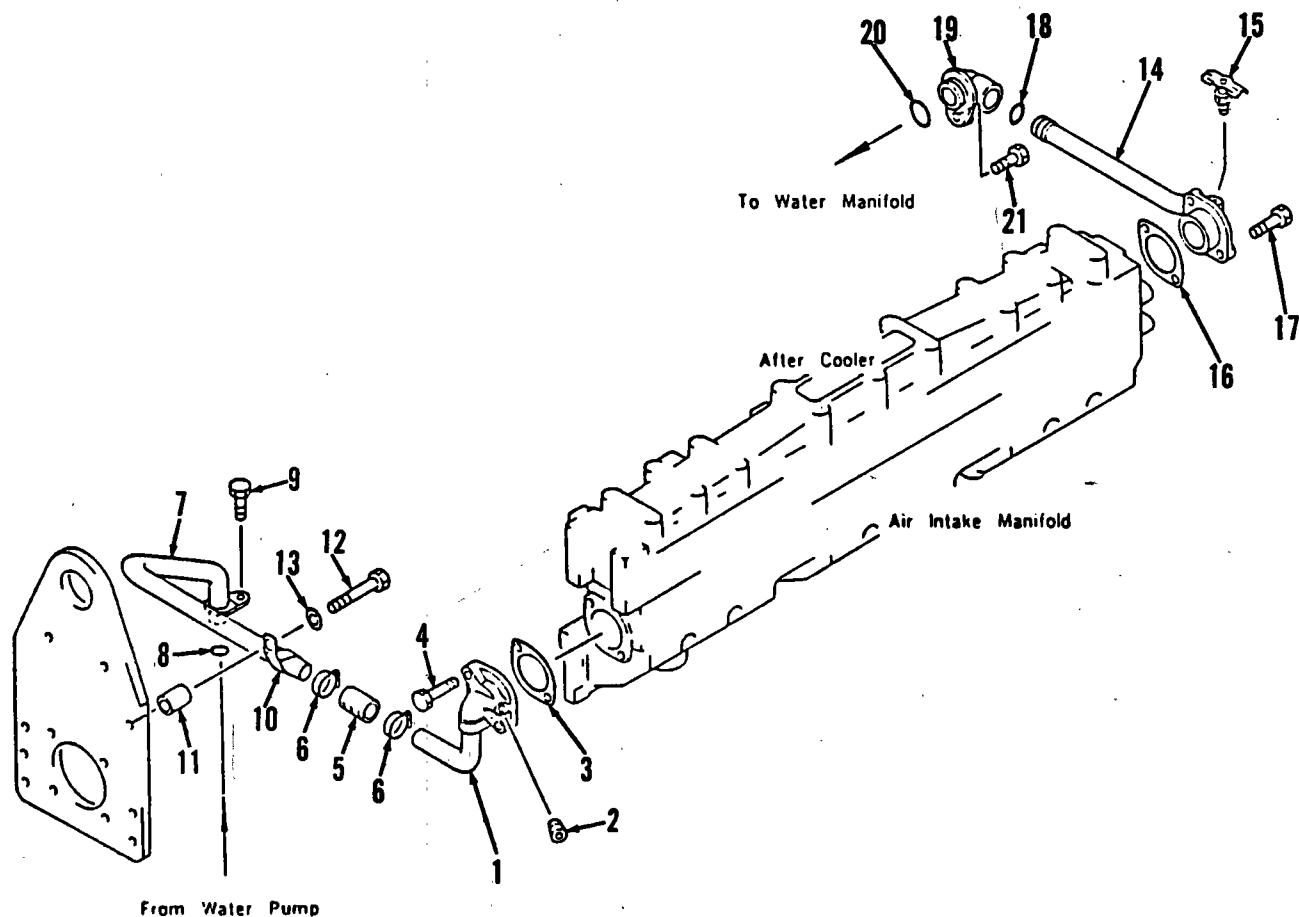
Air Intake Manifold, And After Cooler



Air Intake Manifold, And After Cooler

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-1539	1	Manifold, Intake	14	186-1526	18	Bolt
2	186-1562	1	Core	15	186-1180	6	Bolt
3	186-0472	4	Seal, O-Ring	16	186-0103	24	Washer
4	186-1537	1	Cover	22	186-1159	8	Bolt
5	186-1538	2	Gasket	23	186-1536	1	Connector
6	186-1532	2	Bolt	24	186-0726	1	Plug
7	186-1533	2	Bolt	25	186-1563	1	Gasket
8	186-1535	20	Bolt	26	186-1264	3	Bolt
9	186-0106	24	Washer	27	186-1266	3	Bolt
10	186-0151	2	Plug	28	186-0103	6	Washer
11	186-0514	1	Plug	29	186-1186	1	Hose
12	186-1540	6	Spacer	30	186-1183	2	Clamp
13	186-1176	12	Gasket	31	186-0103	8	Washer

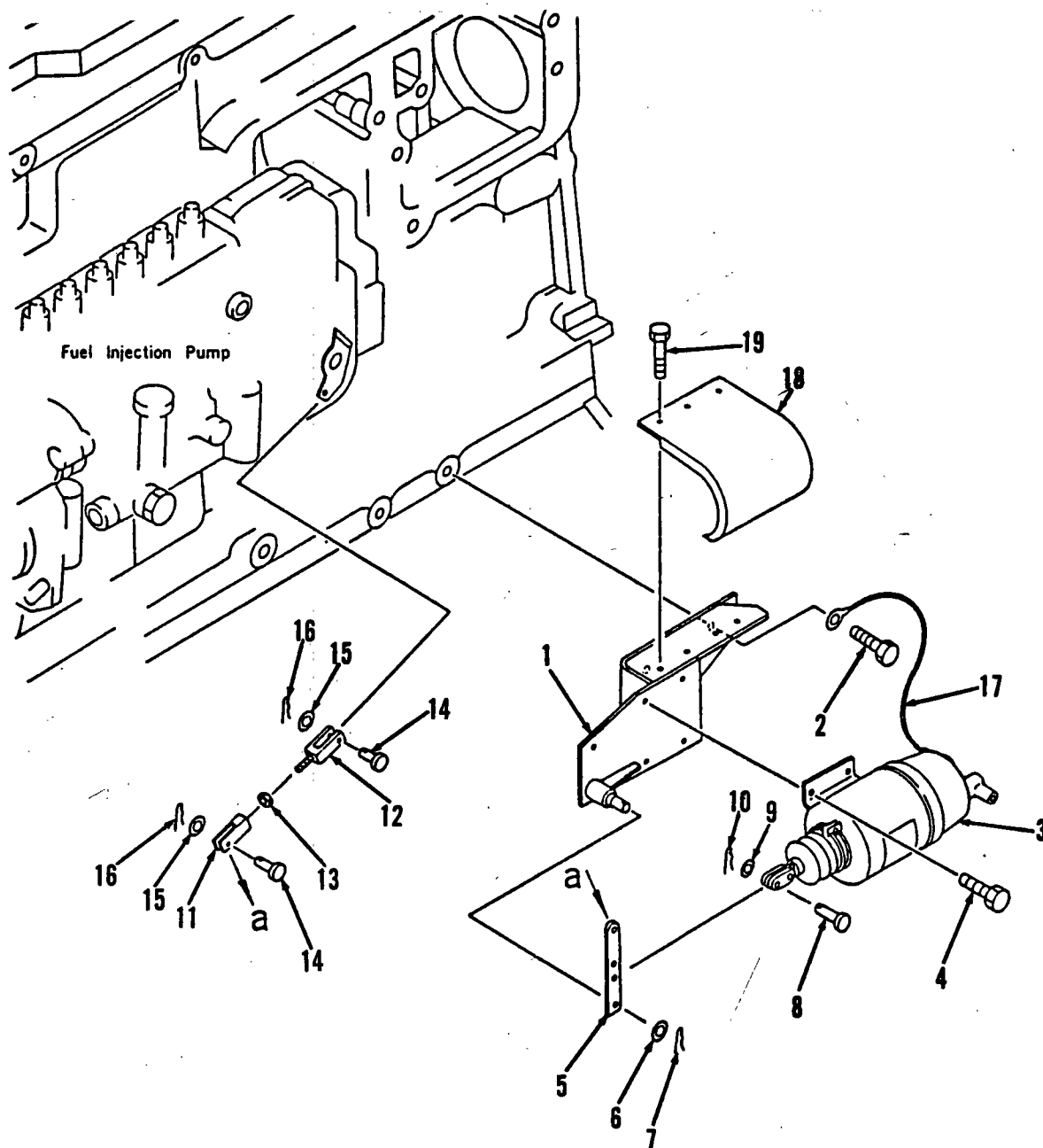
After Cooler Piping



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-1528	1	Pipe, Water
2	186-0726	1	Plug
3	186-1529	1	Gasket
4	186-1266	2	Bolt
5	186-0165	1	Hose
6	186-0168	2	Clamp
7	186-1530	1	Pipe, Water
8	186-0427	1	Seal, O-Ring
9	186-1265	1	Bolt
10	186-1560	1	Clip
11	186-1527	1	Spacer

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
12	186-1526	1	Bolt
13	186-0103	1	Washer
14	186-1531	1	Pipe, Water
15	186-0517	1	Cock
16	186-1529	1	Gasket
17	186-1266	2	Bolt
18	186-0427	1	Seal, O-Ring
19	186-1561	1	Elbow
20	186-1270	1	Seal, O-Ring
21	186-1268	1	Bolt

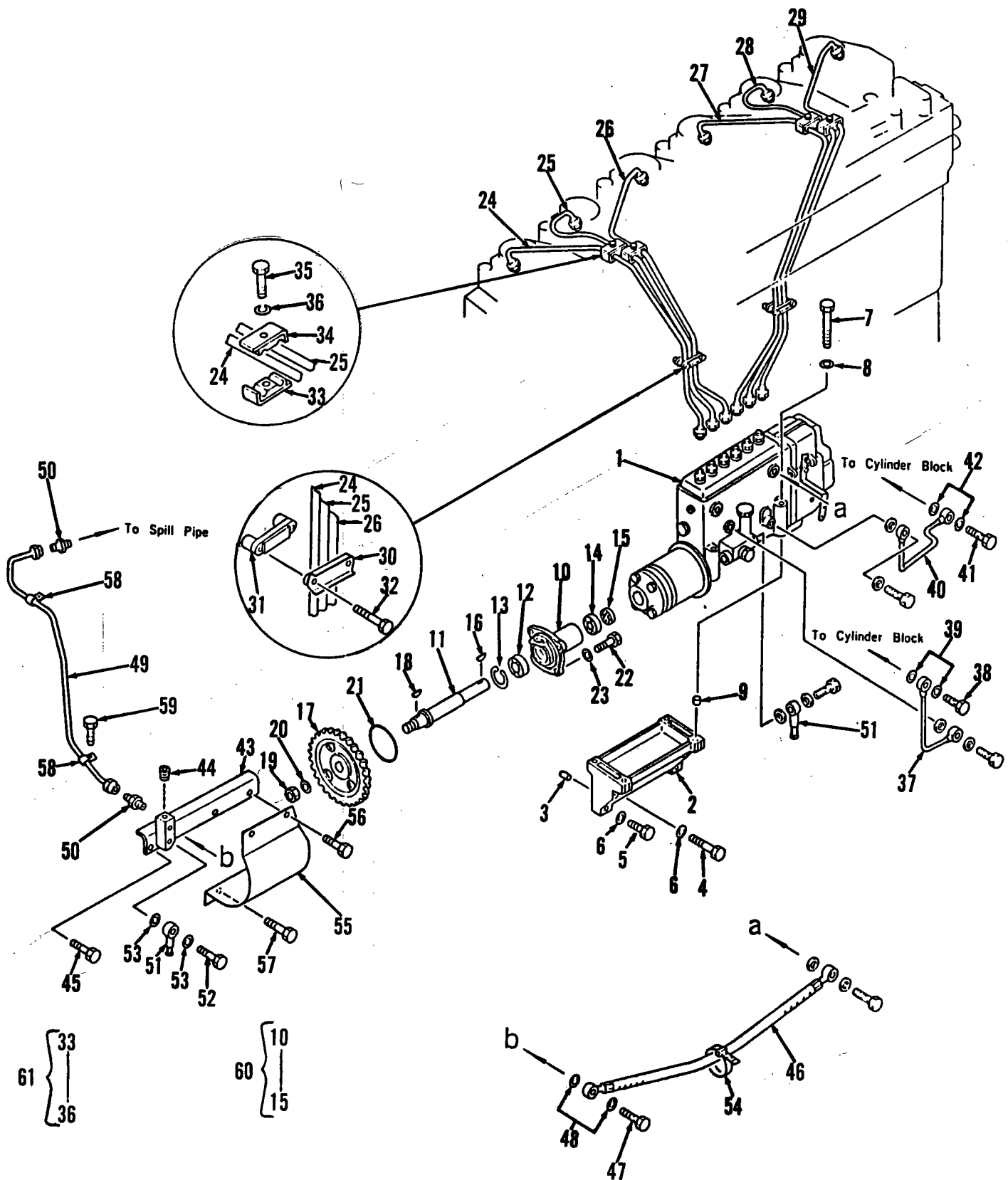
Solenoid, And Mounting



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-1446	1	Bracket
2	186-1265	2	Bolt
3	186-2126	1	Solenoid
4	186-1437	4	Bolt
5	186-1555	1	Plate
6	186-1438	1	Washer
7	186-0510	1	Pin, Snap
8	186-1439	1	Pin
9	186-0105	1	Washer
10	186-0129	1	Pin, Snap

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
11	186-1442	1	Yoke
12	186-1443	1	Rod
13	186-1440	1	Nut
14	186-1441	2	Pin
15	186-1438	2	Washer
16	186-0510	2	Pin, Snap
17	186-1444	1	Wire
18	186-1445	1	Cover
19	186-1255	3	Bolt

Fuel Injection Pump, And Piping



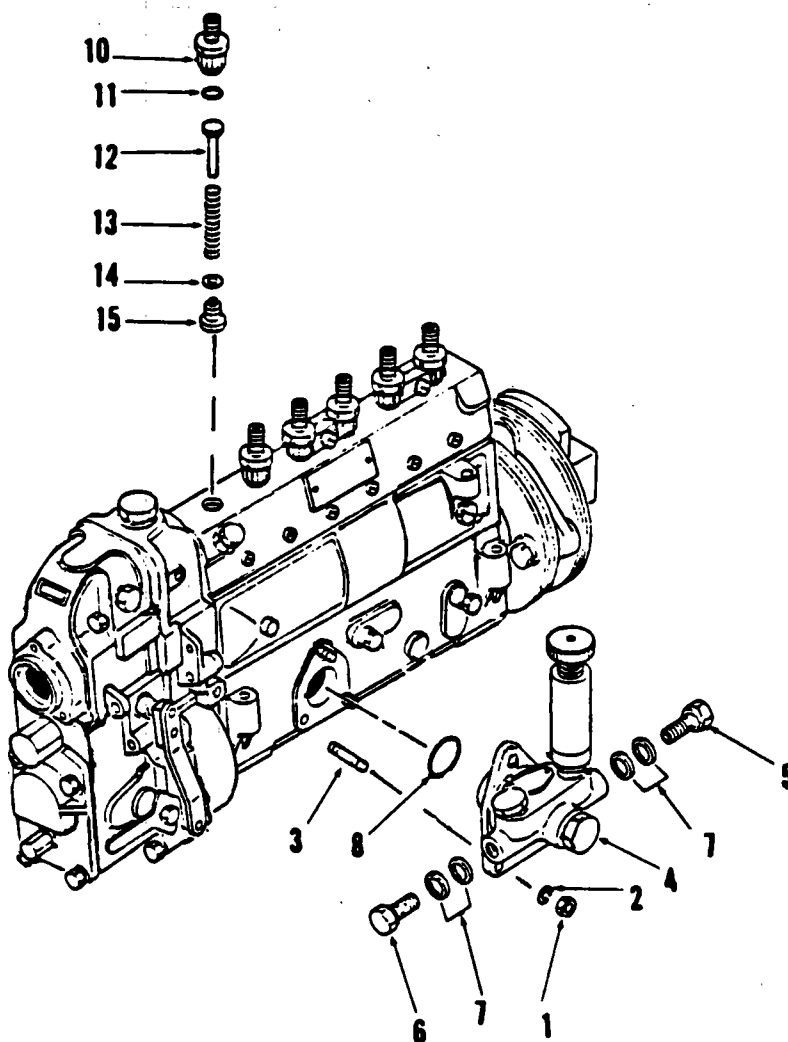
Fuel Injection Pump, And Piping

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-1520	1	Pump, Injection (See Separate Page For Components)	32	186-1179	4	Bolt
2	186-1416	1	Bracket	33	186-1427	1	+Clip
3	186-1405	2	Pin, Dowel	34	186-1428	1	+Plate
4	186-1264	2	Bolt	35	186-1421	1	+Bolt
5	186-1404	2	Bolt	36	186-1422	1	+Washer, Spring
6	186-0487	4	Washer	37	186-1430	1	Tube
7	186-1413	4	Bolt	38	186-0860	1	Bolt, Joint
8	186-0103	4	Washer	39	186-0145	2	Gasket
9	186-1231	2	Pin	40	186-1431	1	Tube
10	186-1419	1	*Case	41	186-0883	1	Bolt, Joint
11	186-1420	1	*Shaft	42	186-0147	2	Gasket
12	186-1406	1	*Bearing, Ball	43	186-1432	1	Adapter
13	186-1407	1	*Ring, Snap	44	186-0154	1	Plug
14	186-1408	1	*Bearing, Ball	45	186-1265	2	Bolt
15	186-1547	1	*Seal, Oil	46	186-1423	1	Hose
16	186-1414	1	Key	47	186-0883	1	Bolt, Joint
17	186-1415	1	Gear	48	186-0147	2	Gasket
18	186-1409	1	Key	49	186-1433	1	Tube
19	186-1410	1	Nut	50	186-1424	2	Nipple
20	186-1411	1	Washer	51	186-1436	2	Joint
21	186-1412	1	Seal, O-Ring	52	186-0883	1	Bolt, Joint
22	186-1268	4	Bolt	53	186-0147	2	Gasket
23	186-0103	4	Washer	54	186-1425	1	Band
24	186-1548	1	Line, Injection - Fuel (No 1)	55	186-1434	1	Cover
25	186-1549	1	Line, Injection - Fuel (No 2)	56	186-1265	2	Bolt
26	186-1550	1	Line, Injection - Fuel (No 3)	57	186-1255	2	Bolt
27	186-1551	1	Line, Injection - Fuel (No 4)	58	186-1435	2	Clip
28	186-1552	1	Line, Injection - Fuel (No 5)	59	186-1268	1	Bolt
29	186-1553	1	Line, Injection - Fuel (No 6)	60	186-1418	1	Case Assembly (Includes Parts Marked *)
30	186-1554	2	Clamp	61	186-1426	4	Clip Assembly (Includes Parts Marked +)
31	186-1429	2	Clamp				

* Parts included in 186-1418 Case Assembly.

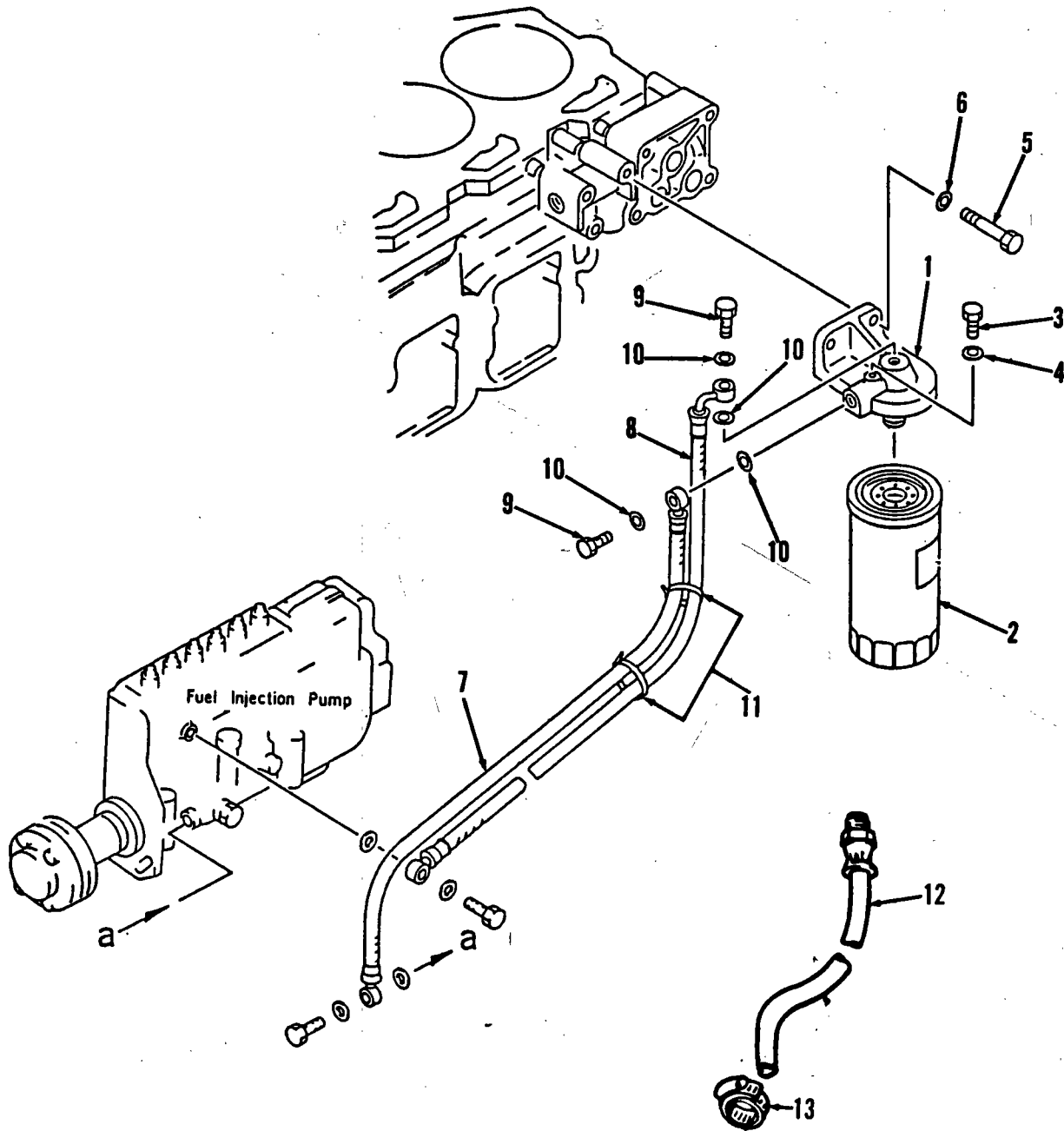
+ Parts included in 186-1426 Clip Assembly.

Fuel Injection Pump Components



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-1581	3	Nut, Hex	8	186-1582	1	Gasket
2	186-1580	3	Washer, Spring	10	186-1575	6	Holder
3	186-1573	3	Stud	11	186-1576	6	Seal, O-Ring
4	186-1572	1	Pump, Fuel - Feed (Includes Joint Bolts, And Gaskets)	12	186-1577	6	Plunger
5	186-1023	1	Bolt, Hollow	13	186-1578	6	Spring
6	186-1021	1	Bolt, Hollow	14	186-1579	6	Gasket
7	186-1022	2	Gasket	15	186-1583	6	Valve, Delivery

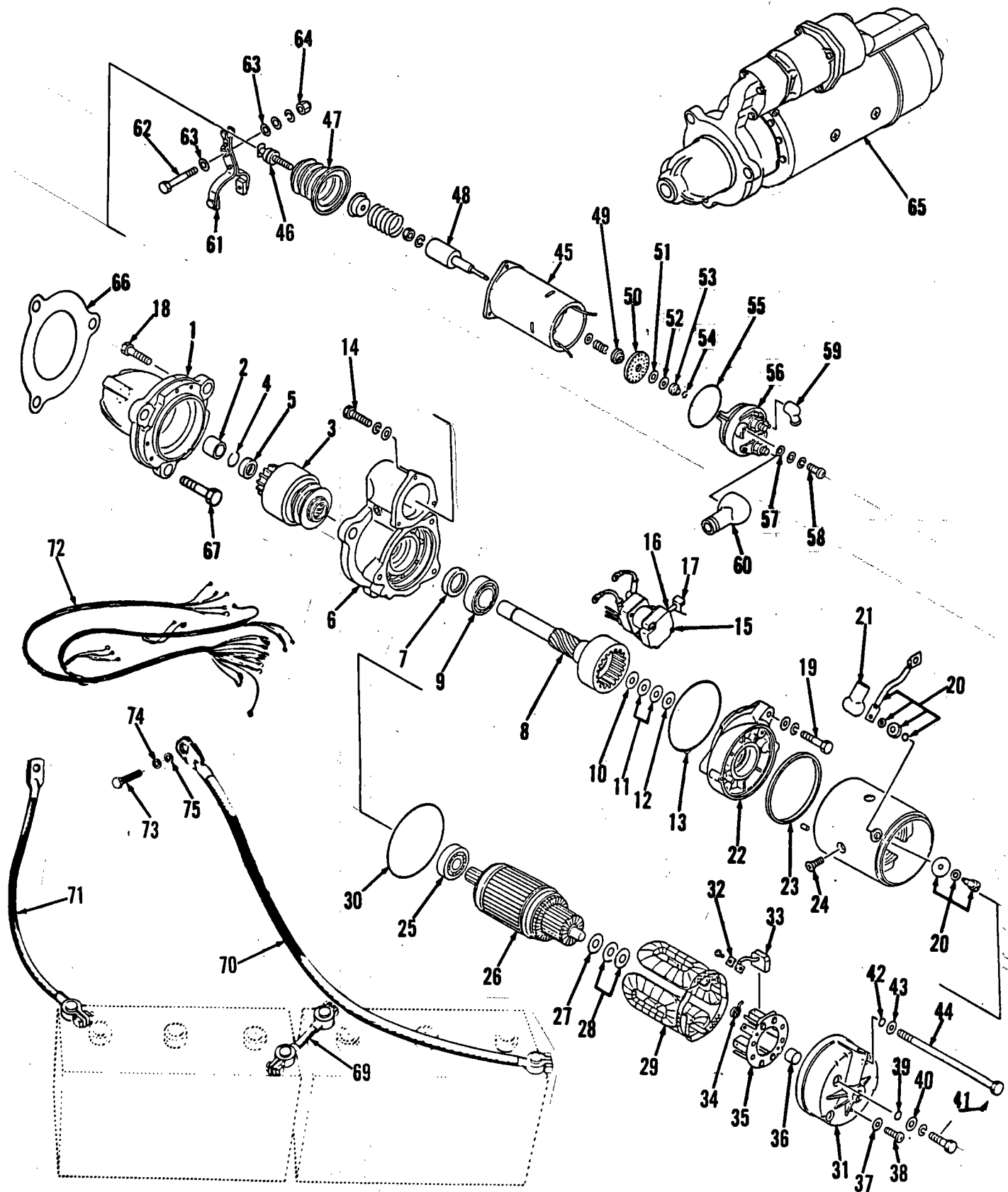
Fuel Filter, And Piping



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-1556	1	Bracket
2	186-0435	1	Cartridge
3	186-0522	1	Plug
4	186-0144	1	Gasket
5	186-1447	2	Bolt
6	186-0103	2	Washer
7	186-1423	1	Hose, Fuel

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
8	186-1448	1	Hose, Fuel
9	186-0883	2	Bolt, Joint
10	186-0147	4	Gasket
11	186-1425	2	Band
12	501-0501	2	Line, Flex - Fuel
13	503-0685	2	Clamp, Hose

Starting Motor, And Mounting



Starting Motor, And Mounting

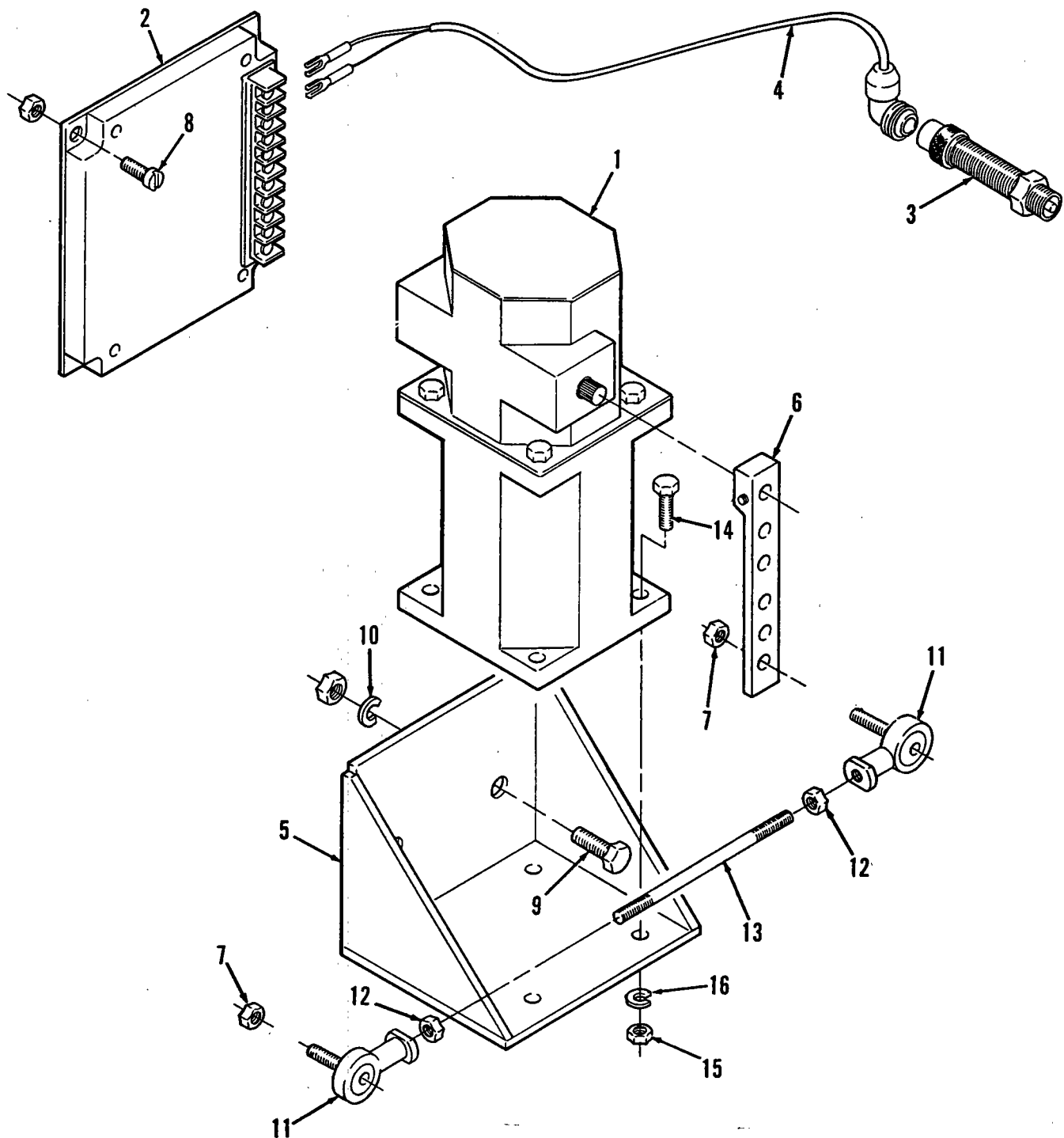
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-0643	1	*Bracket Assembly, Front (Includes Front Bearing)	39	186-0624	2	**Seal, O-Ring
2	186-0483	1	*Bearing, Front	40	186-0625	2	**Washer
3	186-0479	1	*Clutch Assembly, Over Running	41	186-0626	2	**Bolt
4	186-0630	1	*Ring, Clip	42	186-0627	2	**Seal, O-Ring
5	186-0631	1	*Stopper, Pinion	43	186-0628	2	*Washer
6	186-0632	1	*Bracket Assembly, Center (Includes Oil Seal)	44	186-1509	2	*Bolt, Through
7	186-0633	1	*Seal, Oil	45	186-0476	1	*Switch Assembly, Magnetic (Includes Parts Marked +)
8	186-0634	1	*Shaft Assembly (Includes Bearing)	46	186-0600	1	**Screw
9	186-0477	1	*Bearing, Ball	47	186-0648	1	**Cap, Gum
10	186-0054	1	*Washer	48	186-0601	1	**Plunger
11	186-0055	2	*Washer, Adjust	49	186-0602	1	**Bushing, Insulate
12	186-0637	1	*Washer, Insulate	50	186-0603	1	**Contactor, Moving
13	186-0036	1	*Seal, O-Ring	51	186-0604	1	**Washer, Insulate
14	186-0613	3	*Bolt	52	186-0605	2	**Washer, Adjust
15	186-1508	1	*Switch, Relay - Safety (Includes Bolt, And Holder)	53	186-0606	1	**Holder
16	186-0018	1	*Bolt	54	186-0607	2	**Ring, Clip
17	186-0614	1	*Holder	55	186-0608	1	**Seal, O-Ring
18	186-0029	6	*Bolt	56	186-0609	1	**Terminal
19	186-0615	3	*Bolt	57	186-0610	2	**Washer, Seal
20	186-0616	1	*Terminal	58	186-1510	2	**Screw
21	186-0041	1	*Cap, Gum	59	186-0042	1	*Cap, Gum
22	186-0639	1	*Bracket, Center	60	186-0612	1	*Cap, Gum
23	186-0640	1	*Packing	61	186-1557	1	*Lever, Shift
24	186-0641	4	*Screw, Dish	62	186-0047	1	*Pin, Lever
25	186-0478	1	*Bearing, Ball	63	186-0030	2	*Washer, Seal
26	186-0644	1	*Armature	64	186-0599	1	*Nut
27	186-0645	1	*Washer	65	186-1502	1	Motor Assembly, Starting (Includes Parts Marked *)
28	186-0646	2	*Washer, Adjust	66	186-1503	1	Gasket
29	186-0647	1	*Coil, Field	67	186-1501	3	Bolt
30	186-0642	1	*Seal, O-Ring	68	186-0617	1	Bracket Assembly, Rear (Includes Parts Marked #)
31	186-0620	1	**Bracket, Rear	69	416-0619	1	Cable, Battery - 18"
32	186-0618	4	**Plate	70	416-0618	1	Cable, Battery - 42"
33	186-0480	4	**Brush	71	416-0473	1	Cable, Battery - 27"
34	186-0621	4	**Spring, Brush	72	338-1883	1	Harness, Wiring - Control To Engine
35	186-0619	1	**Holder, Brush	73	800-2085	1	Screw, Cap - Hex Head (M10 x 1.5 x 20mm)
36	186-0482	1	**Bearing, Rear	74	850-2010	1	Washer, Lock (M10)
37	186-0610	1	**Washer, Seal	75	856-0010	1	Washer, EIT (3/8)
38	186-0623	1	**Screw				

* Parts included in 186-1502 Starting Motor Assembly.

Parts included in 186-0617 Rear Bracket Assembly.

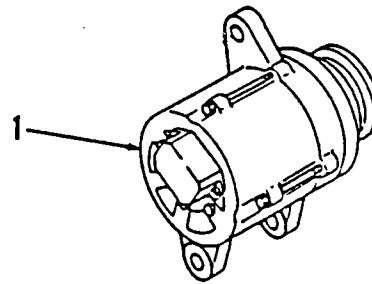
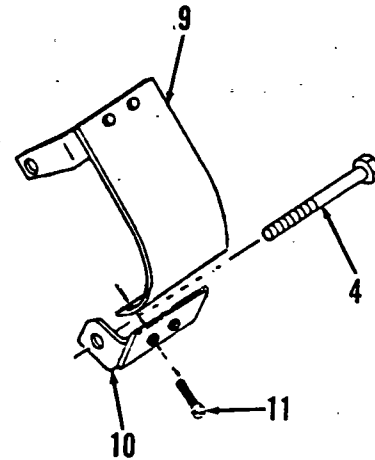
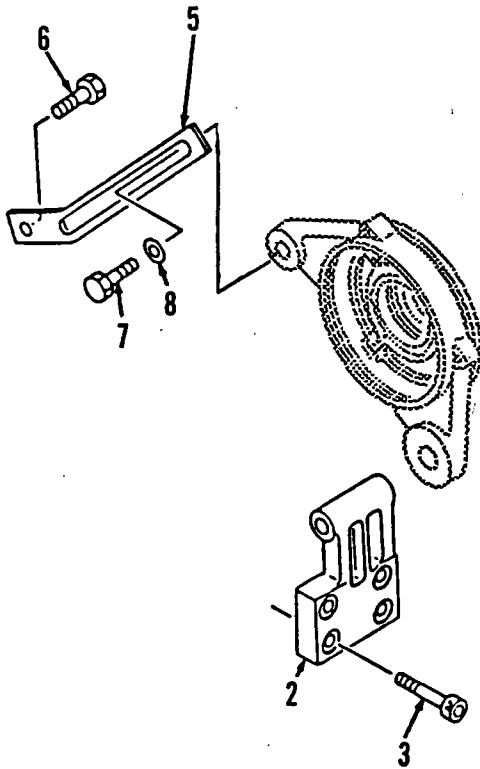
+ Parts included in 186-0476 Magnetic Switch Assembly.

Electric Governor



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	151-0612	1	Actuator, Governor	10	850-2010	2	Washer, Lock (M10)
2	151-0611	1	Control, Governor	11	150-0939	2	Joint, Ball
3	151-0603-02	1	Sensor, Speed - Magnetic	12	870-1053	2	Nut, Hex (#10 - 32)
4	338-1765-02	1	Cable, Pickup - Magnetic	13	520-0962	1	Stud
5	151-0615	1	Bracket, Mounting - Governor	14	800-2037	4	Screw, Cap - Hex Head (M6 x 1 x 35mm)
6	150-2145	1	Lever, Actuator	15	860-2007	6	Nut, Hex (M6)
7	870-0131	6	Nut, Hex - ET (#10 - 32)	16	850-2006	4	Washer, Lock (M6)
8	813-0103	4	Screw, Machine - Round Head (#10 - 32 x 3/4")				
9	800-2086	2	Screw, Cap - Hex Head (M10 x 1.5 x 25mm)				

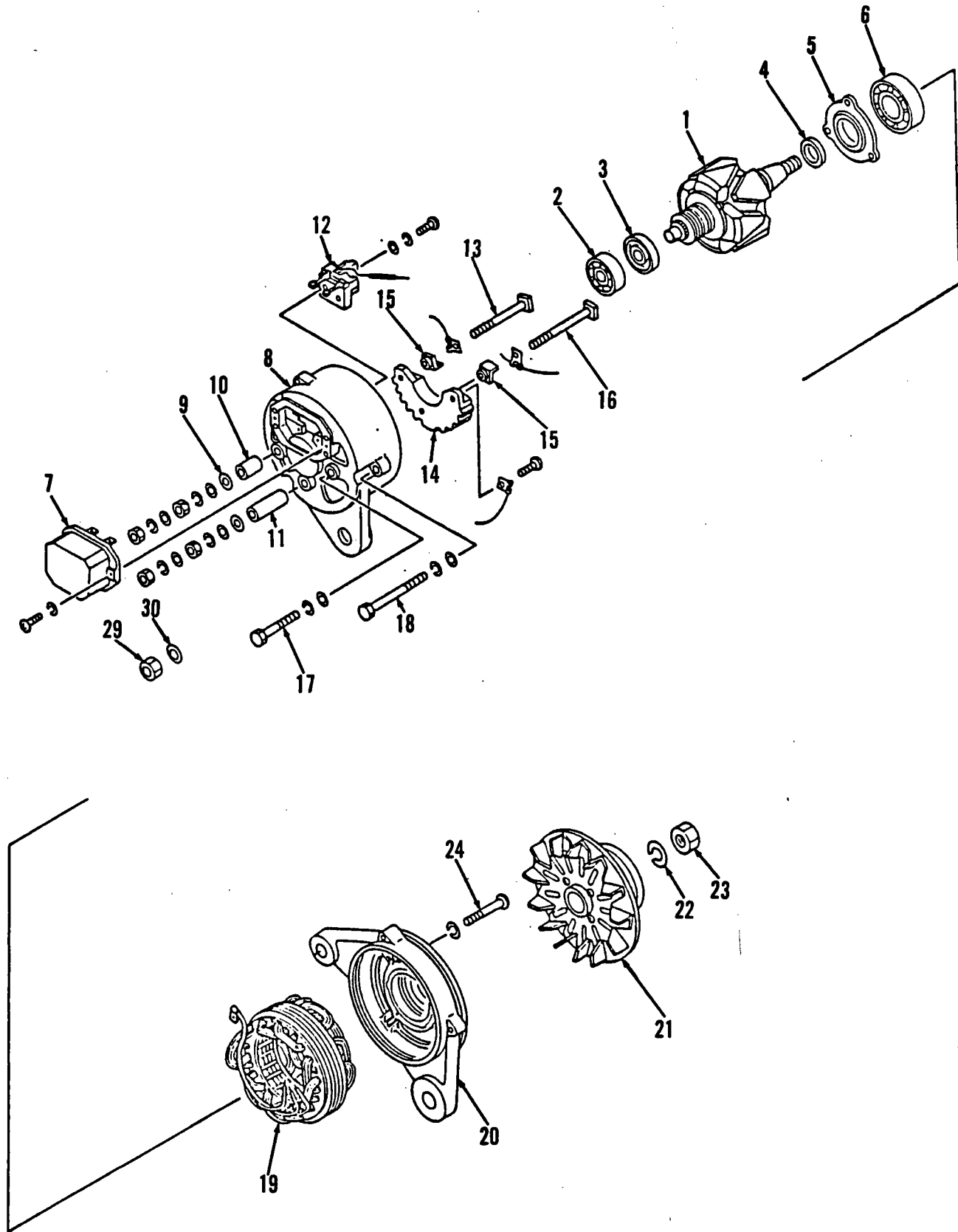
Alternator, And Mounting



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-1497	1	Alternator Assembly (See Separate Group For Components)
2	186-1498	1	Bracket
3	186-1285	4	Bolt
4	186-0184	1	Bolt
5	186-1499	1	Plate, Adjust
6	186-1264	1	Bolt

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
7	186-1494	1	Bolt
8	186-0109	1	Washer
9	191-1661	1	Bracket, Guard - Alternator
10	191-1660	1	Bracket, Guard - Alternator
11	821-0004	2	Screw, Cap - Hex Washer Head (#10 - 32 x .31")

Alternator Components (8-Pole)



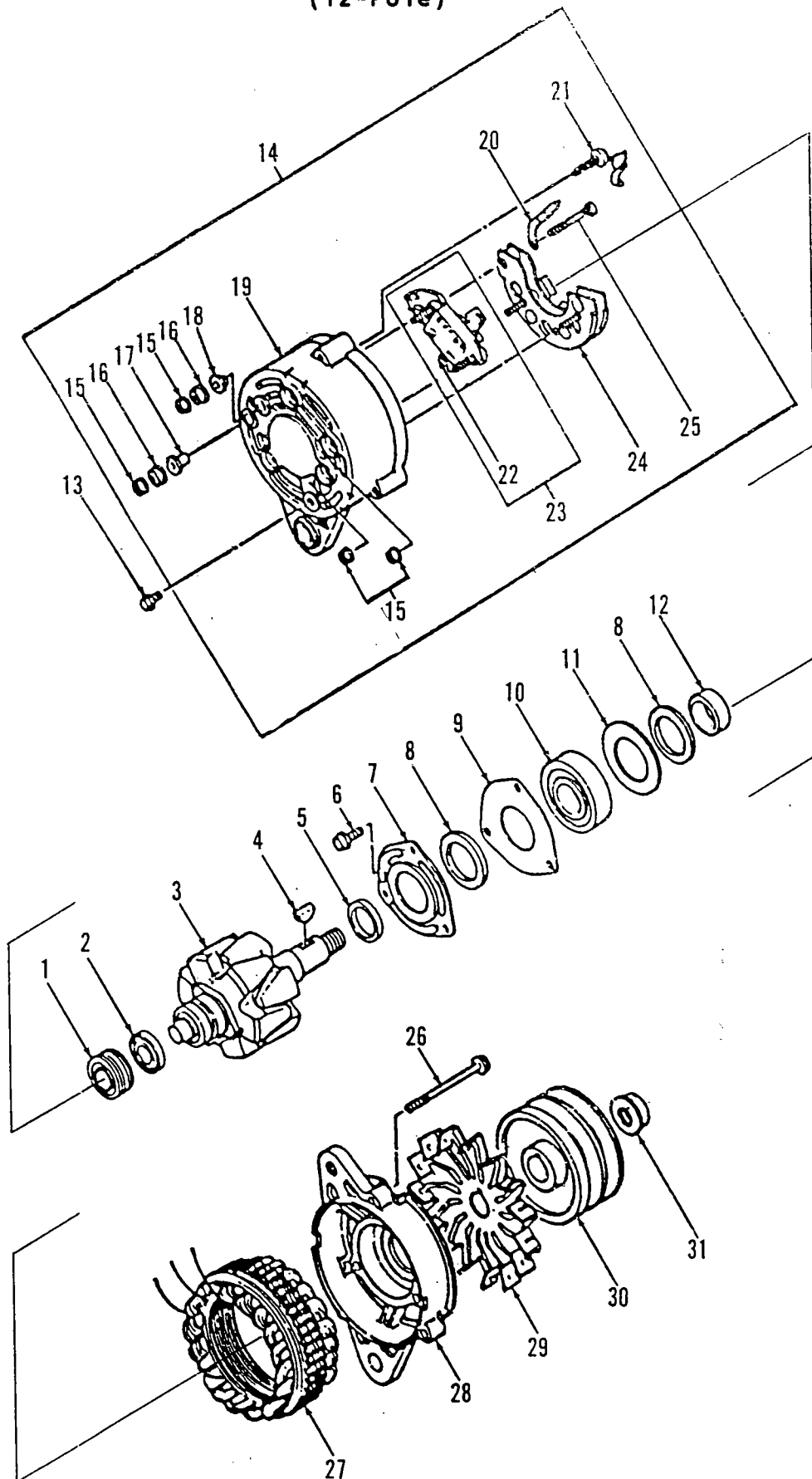
Alternator Components (8-Pole)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-1504	1	Rotor Assembly (Includes Parts Marked #)	15	186-0935	2	+Bushing, Insulate
2	186-0032	1	#Bearing, Ball - Rear	16	186-0936	1	+Bolt
3	186-0924	1	#Retainer	17	186-0937	1	Bolt
4	186-0925	1	#Collar	18	186-0019	3	Bolt, Through
5	186-1505	1	#Retainer	19	186-0938	1	Stator
6	186-0033	1	#Bearing, Ball - Front	20	186-0069	1	Bracket, Front
7	186-0928	1	Regulator Assembly	21	186-1506	1	Pulley
8	186-0933	1	+Bracket, Rear	22	186-0494	1	Washer, Spring
9	186-0929	2	+Plate, Insulate	23	186-0493	1	Nut
10	186-0930	1	+Tube, Insulate	24	186-1507	3	Screw
11	186-0932	1	+Tube, Insulate	29	186-1495	1	Nut
12	186-0070	1	+Holder, Brush	30	186-1496	1	Washer
13	186-0931	1	+Bolt	36	186-0024	1	Bracket Assembly, Rear (Not Shown) (Includes Parts Marked +)
14	186-0934	1	+Rectifier				

Parts included in 186-1504 Rotor Assembly.

+ Parts included in 186-0024 Rear Bracket Assembly.

Alternator Components (12-Pole)

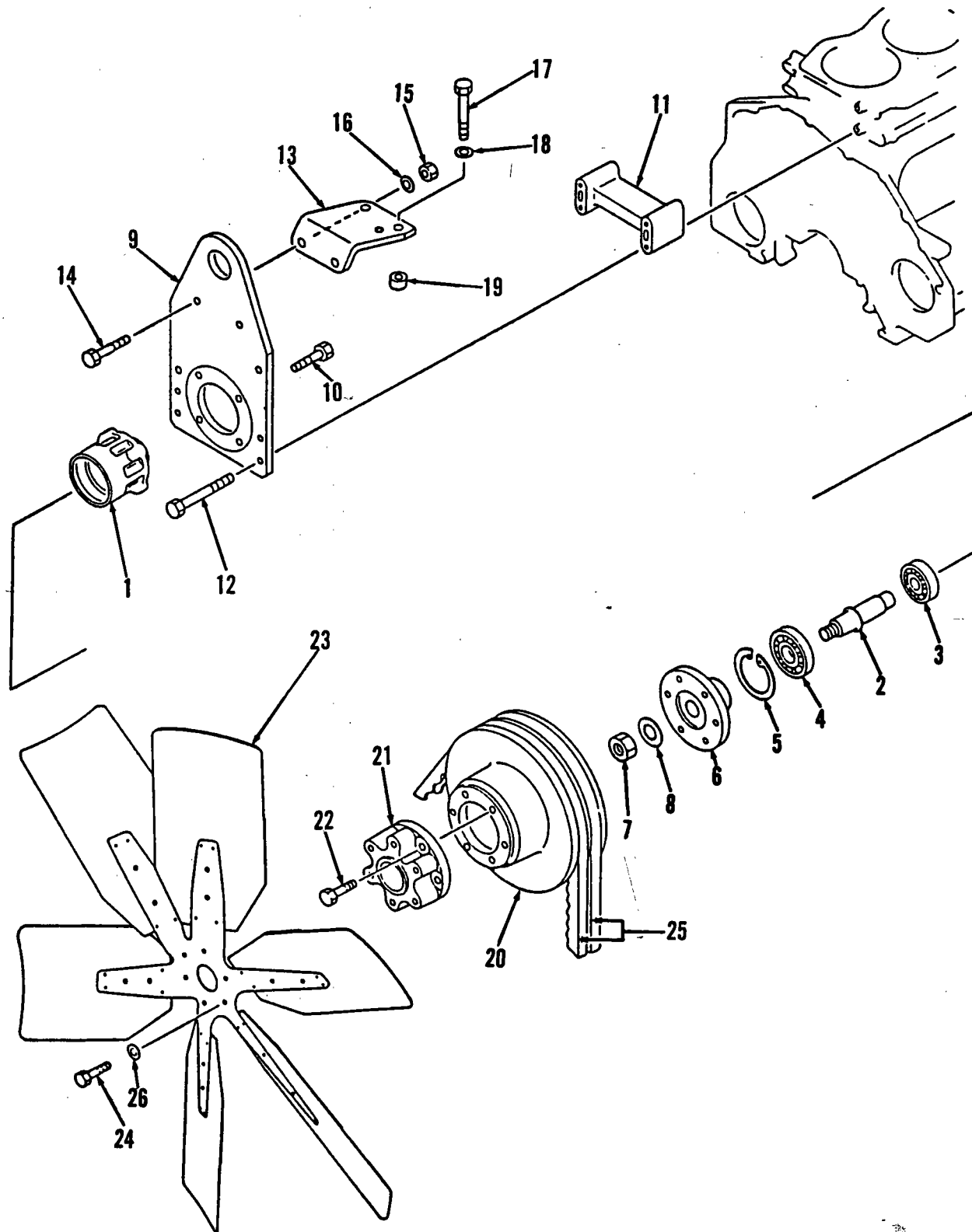


Alternator Components (12-Pole)

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 Assembly (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 Assyembly, Rear (Includes Parts Marked *)	30	186-2125	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.

Cooling Fan, And Mounting

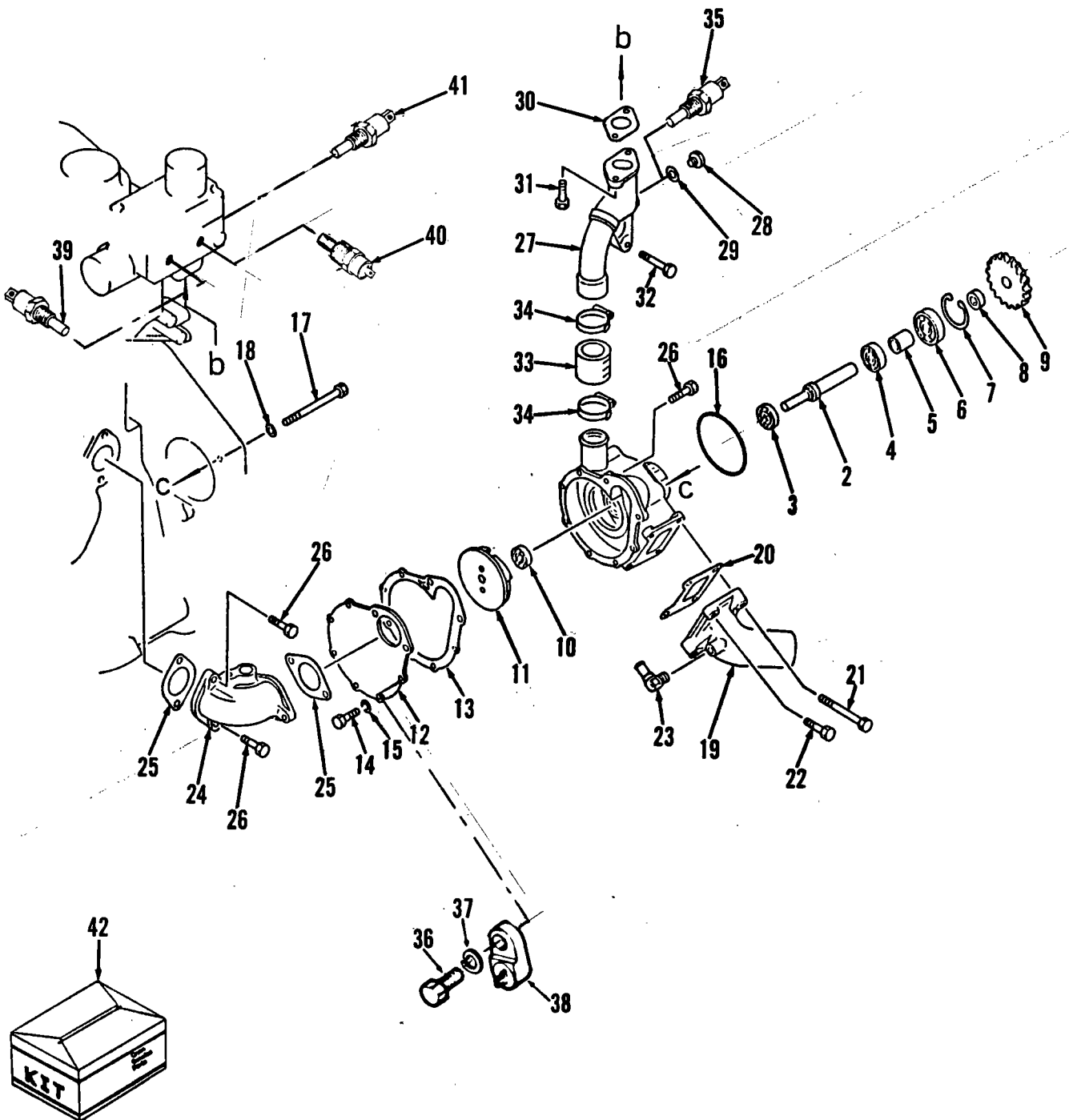


Cooling Fan, And Mounting

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	186-1485	1	Case Assembly (Includes Parts Marked *)	13	186-1490	1	Bracket
1	186-1486	1	*Case	14	186-1474	2	Bolt
2	186-1487	1	*Shaft	15	186-1256	2	Nut
3	186-1479	1	*Bearing, Ball	16	186-0487	2	Washer
4	186-1480	1	*Bearing, Ball	17	186-1169	2	Bolt
5	186-1407	1	*Ring, Snap	18	186-0103	2	Washer
6	186-1488	1	*Hub	19	186-1483	2	Spacer
7	186-1481	1	*Nut	20	186-1516	1	Pulley
8	186-1411	1	*Washer	21	186-1492	1	Spacer
9	186-1489	1	Plate	22	186-1474	6	Bolt
10	186-1179	4	Bolt	23	186-1484	1	Fan
11	186-1493	1	Spacer	24	186-1179	6	Bolt
12	186-1456	4	Bolt	25	186-1417	1	Belt Set, V
				26	186-0487	6	Washer

* Parts included in 186-1485 Case Assembly.

Water Pump

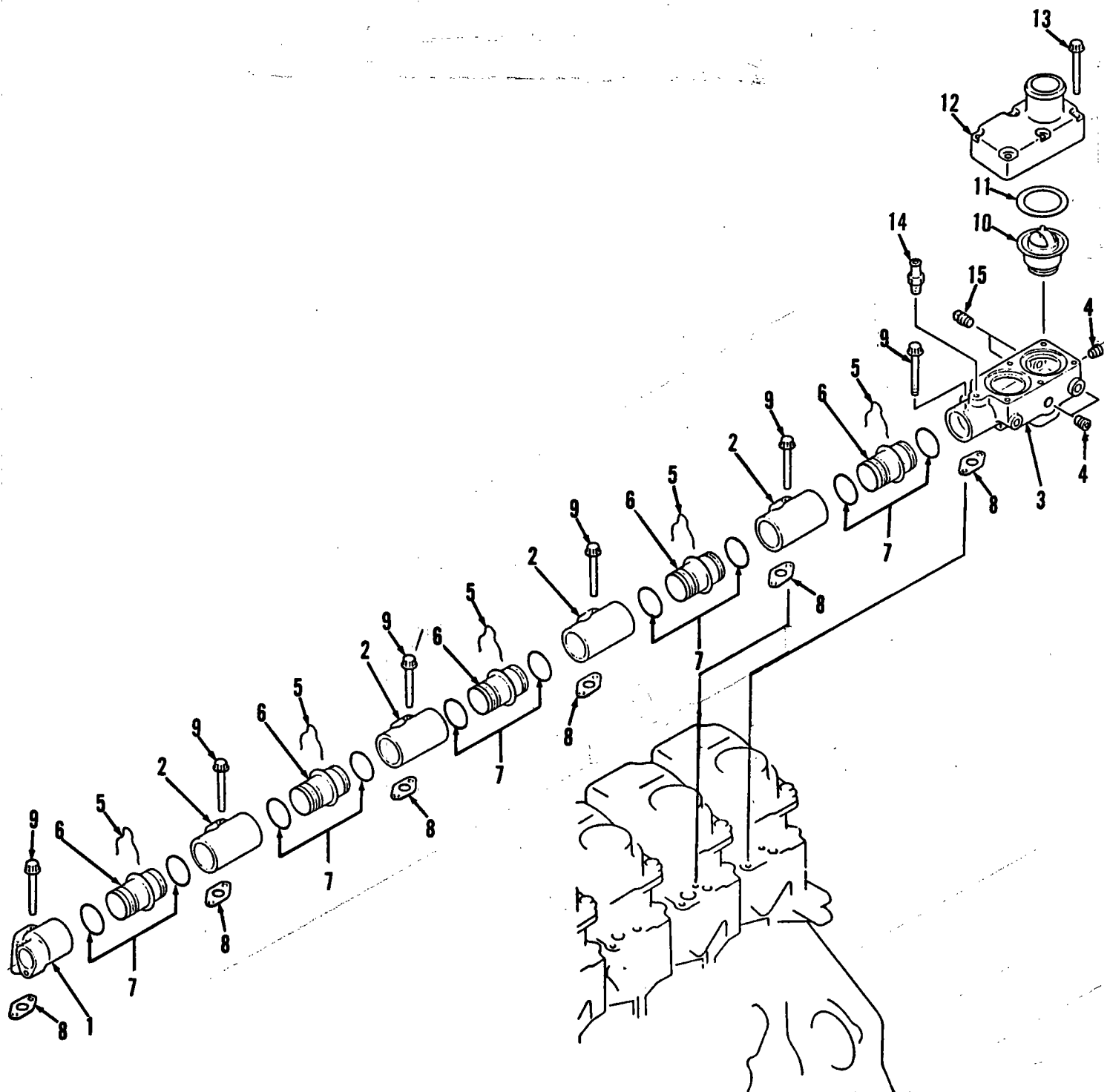


Water Pump

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-1467	1	Pump Assembly, Water (Includes Parts Marked *)	24	186-1544	1	Connector
2	186-1468	1	*Shaft	25	186-1466	2	Gasket
3	186-1461	1	*Seal, Water	26	186-1179	4	Bolt
4	186-1457	1	*Bearing, Ball	27	186-1476	1	Connector
5	186-1469	1	*Spacer	28	186-1226	1	Plug
6	186-1458	1	*Bearing, Ball	29	186-0149	1	Gasket
7	186-1459	1	*Ring, Snap	30	186-1477	1	Gasket
8	186-1462	1	*Spacer	31	186-1179	2	Bolt
9	186-1463	1	*Gear	32	186-1474	2	Bolt
10	186-0404	1	*Seal, Water	33	186-1475	1	Hose
11	186-1470	1	*Impeller	34	186-0170	2	Clamp
12	186-1471	1	*Cover	35	309-0521	1	Thermostat
13	186-1472	1	*Gasket	36	800-2058	1	Screw, Cap - Hex Head (M8 x 1.25 x 25mm)
14	186-1455	6	*Bolt	37	850-2008	1	Washer, Lock (M8)
15	186-0099	6	*Washer	38	309-0269	1	Switch, Temperature - Low Engine
16	186-1460	1	Seal, O-Ring	39	193-0375	1	Sender, Temperature - Water
17	186-1456	3	Bolt	40	309-0522	1	Thermostat, Temperature - Hi Water
18	186-0103	3	Washer	41	309-0521	1	Thermostat, Temperature - Pre Water
19	186-1464	1	Connector	42	186-1513	1	Gasket Kit, Pump - Water
20	186-1465	1	Gasket				
21	186-1254	2	Bolt				
22	186-1268	2	Bolt				
23	186-1478	1	Elbow				

* Parts included in 186-1467 Water Pump Assembly.

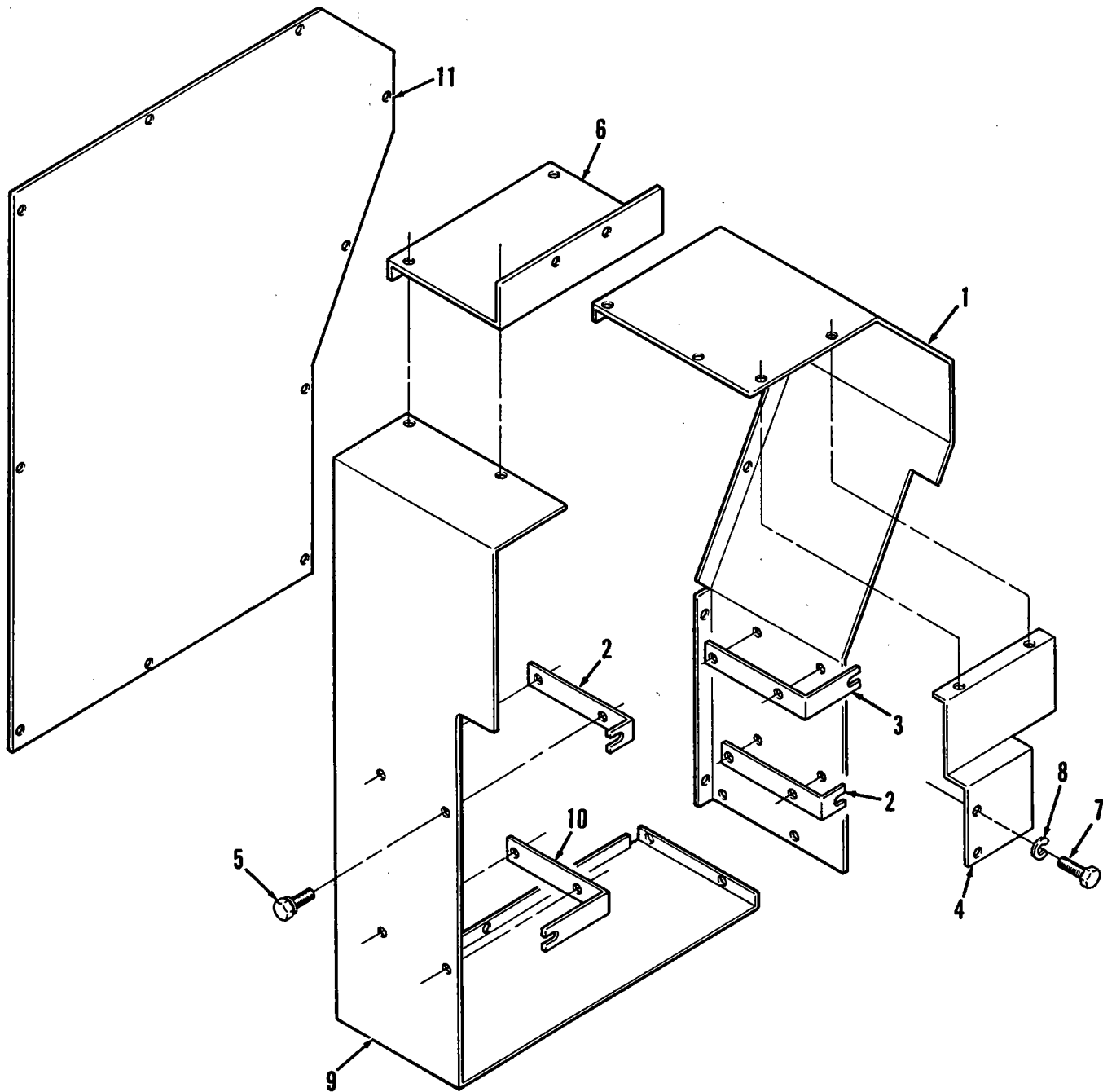
Water Manifold, And Thermostat



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-1197	1	Manifold, Water
2	186-1202	4	Manifold, Water
3	186-1198	1	Housing
4	186-0907	3	Plug
5	186-1203	5	Spring
6	186-1204	5	Tube
7	186-1207	10	Seal, O-Ring
8	186-1205	6	Gasket, Manifold - Water

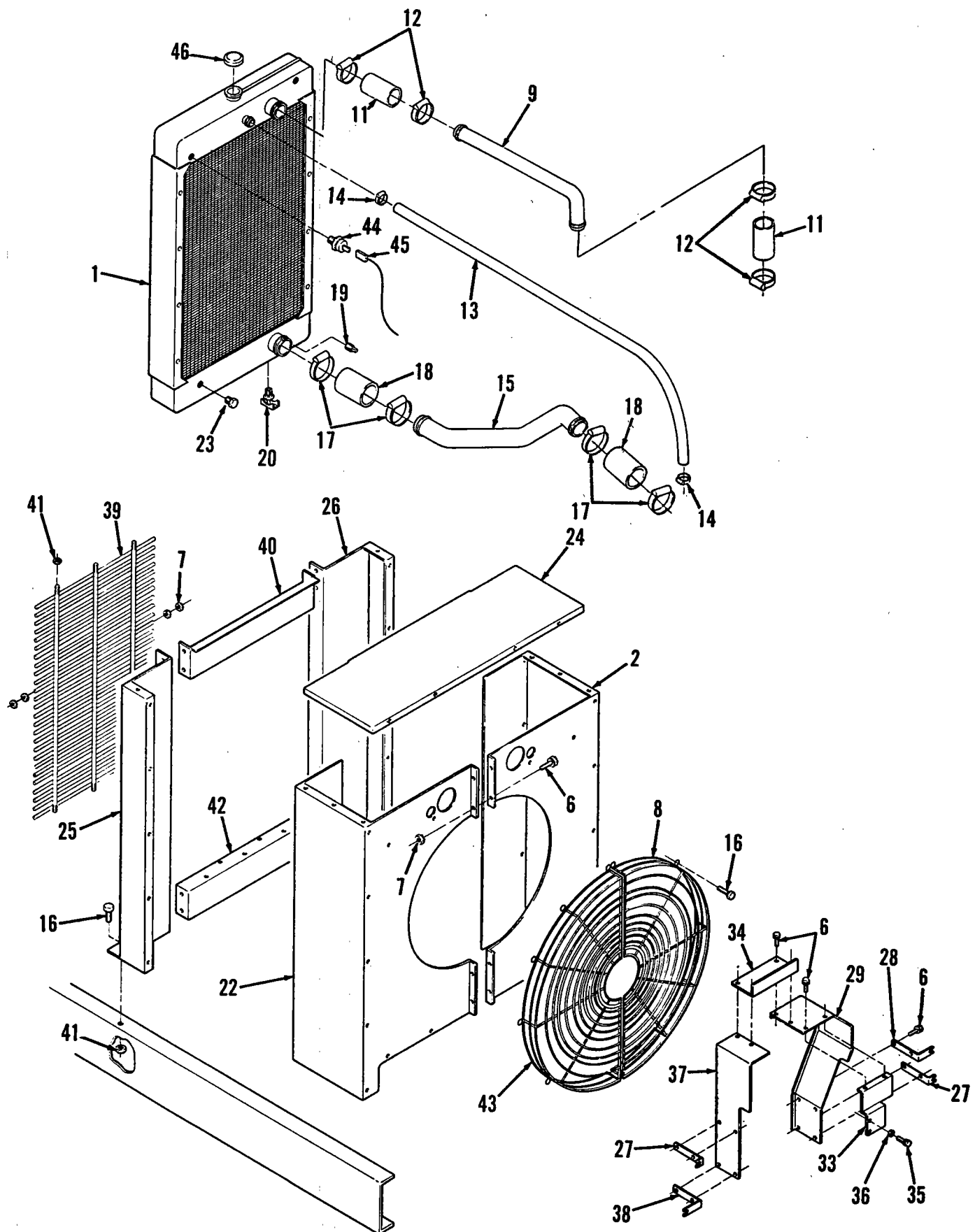
REF NO.	PART NO.	QTY USED	PART DESCRIPTION
9	186-1200	12	Bolt
10	186-0436	2	Thermostat
11	186-0451	2	Gasket, Thermostat
12	186-1206	1	Cover
13	186-1201	6	Bolt
14	186-1199	1	Nipple
15	186-0488	2	Plug

Remote Radiator



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	130-2887	1	Wrapper, Guard - Belt (Left Hand)	6	130-2890	1	Bracket, Guard - Belt
2	130-2727	2	Bracket, Guard - Belt	7	800-2084	2	Screw, Cap - Hex Head (M10 x 1.5 x 16mm)
3	130-2726	1	Bracket, Guard - Belt (Left Hand)	8	850-2010	2	Washer, Lock (M10)
4	130-2730	1	Bracket, Guard - Belt	9	130-2888	1	Wrapper, Guard - Belt (Right Hand)
5	821-0018	26	Screw, Locking Head (Flange) (1/4 - 20 x 5/8")	10	130-2728	1	Bracket, Guard - Belt
				11	130-2889	1	Cover, Guard - Belt

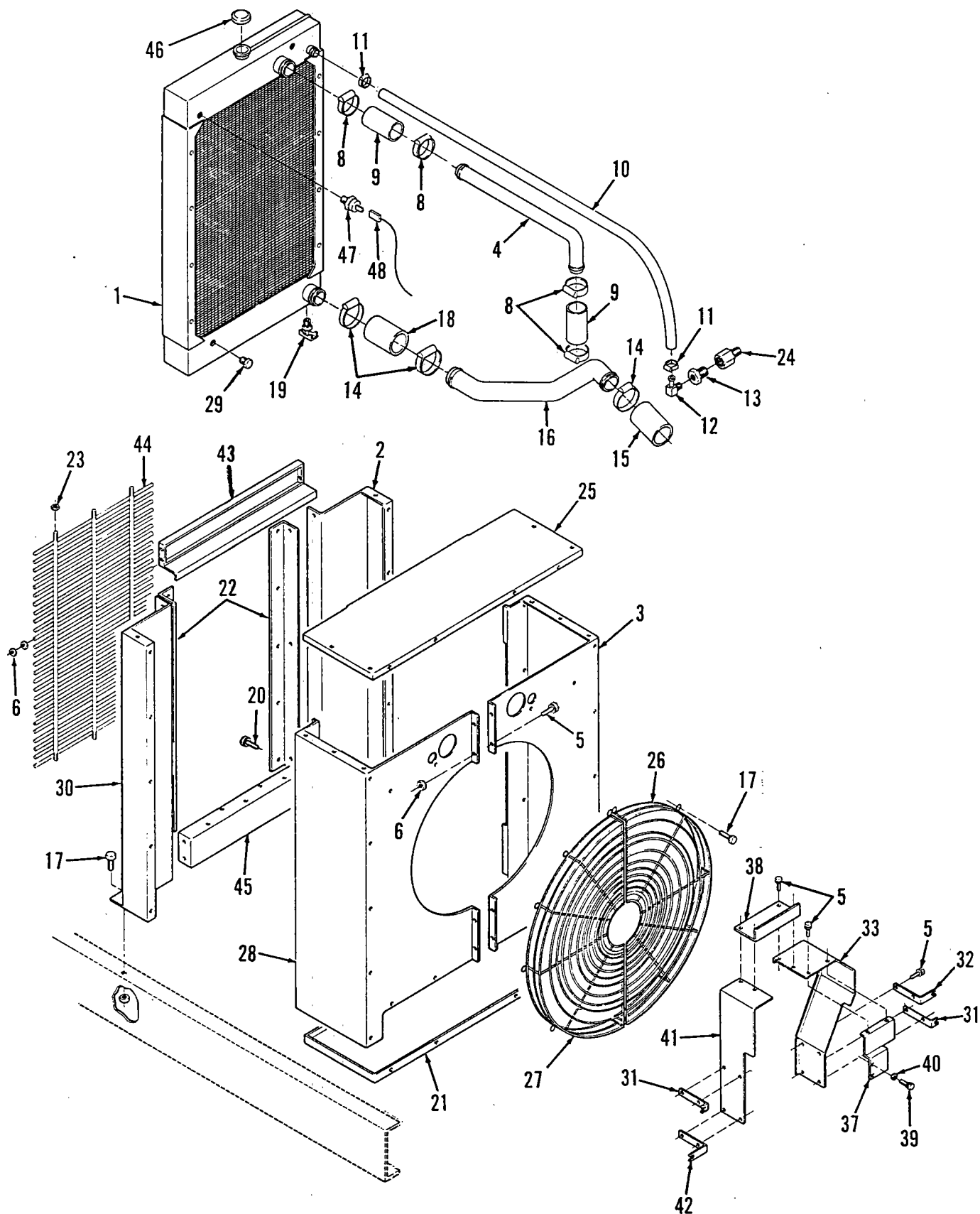
Cooling System (Standard)



Cooling System (Standard)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	130-2522	1	Radiator	25	130-2773-02	1	Guard, Radiator (Right Hand)
2	130-2772-01	1	Wrapper, Shroud - Fan (Left Hand)	26	130-2773-01	1	Guard, Radiator (Left Hand)
6	821-0018	40	Screw, Locking Head (Flange) (1/4 - 20 x 5/8")	27	130-2727	2	Bracket, Guard - Belt
7	870-0212	8	Nut, Lock (Flange) (1/4 - 20)	28	130-2726	1	Bracket, Guard - Belt
8	130-2733-02	1	Guard, Fan	29	130-2732	1	Wrapper, Guard - Belt (Left Hand)
9	130-2755	1	Tube, Inlet - Radiator	33	130-2730	1	Bracket, Guard - Belt
11	503-1380-01	2	Hose, Radiator	34	130-2729	1	Bracket, Guard - Belt
12	503-0354	4	Clamp, Hose	35	800-2084	2	Screw, Cap - Hex Head (M10 x 1.5 x 16mm)
13	503-1412-01	1	Hose	36	850-2010	2	Washer, Lock (M10)
14	503-0189	2	Clamp, Hose	37	130-2731	1	Wrapper, Guard - Belt (Right Hand)
15	130-2769	1	Tube, Outlet - Radiator	38	130-2728	1	Bracket, Guard - Belt
16	821-0029	38	Screw, Locking Head (3/8 - 16 x 3/4")	39	130-2776	1	Grille
17	503-0648	4	Clamp, Hose	40	130-2774	1	Bracket, Mounting - Grille
18	503-1414-01	2	Hose, Radiator	41	870-0281	19	Nut, Locking Head (3/8 - 16)
19	502-0155	1	Plug, Square	42	130-2775	1	Support, Grille
20	504-0003	1	Cock, Drain	43	130-2733-01	1	Guard, Fan
22	130-2772-02	1	Wrapper, Shroud - Fan (Right Hand)	44	193-0322	1	Sender, Level - Lo Coolant
23	502-0153	3	Plug, Pipe	45	338-1919	1	Harness, Wiring - Lo Coolant
24	130-2770	2	Shroud, Fan	46	130-0523	1	Cap, Radiator

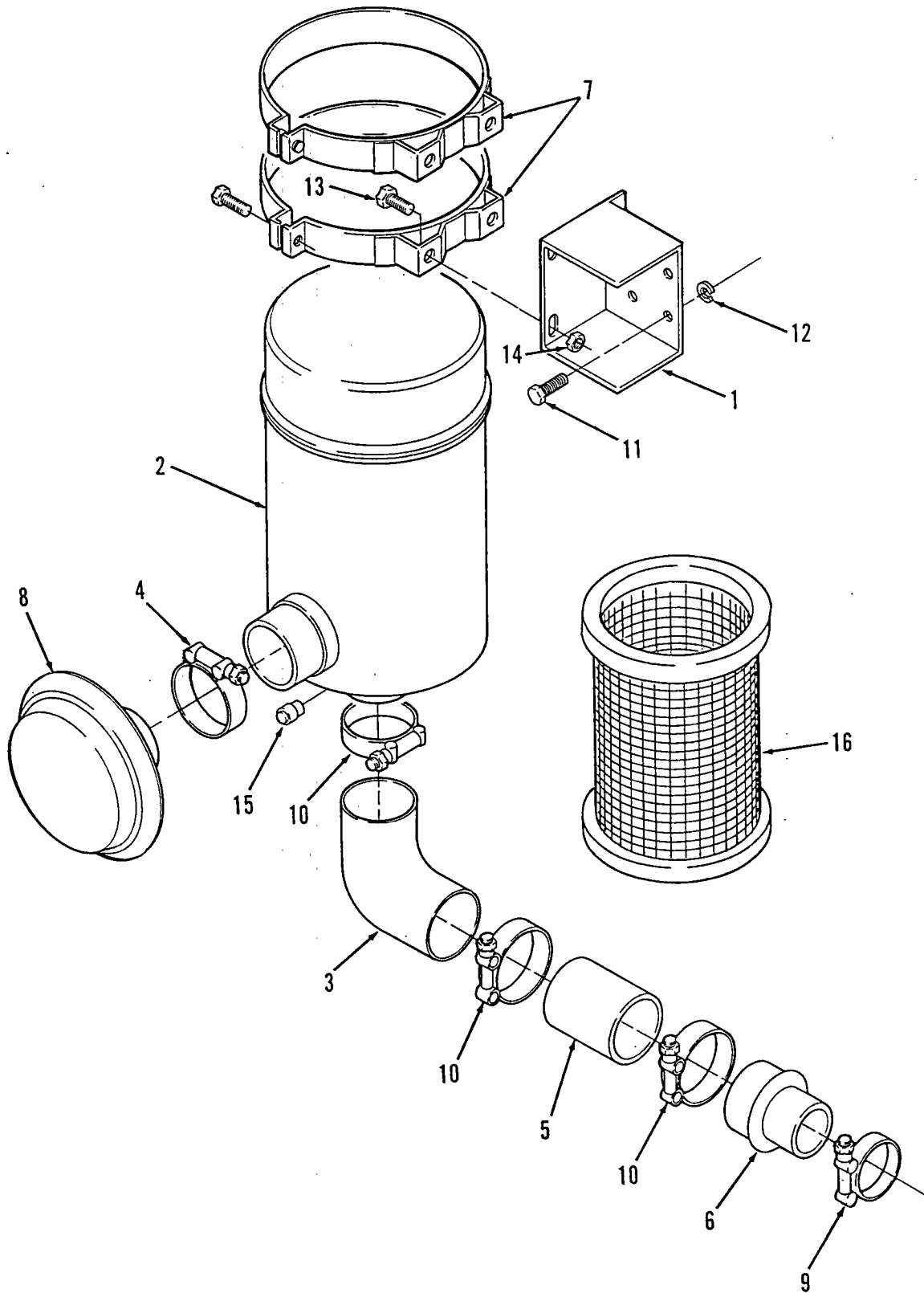
Cooling System (Hi Temperature)



Cooling System (Hi Temperature)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	130-2862	1	Radiator	23	870-0281	19	Nut, Locking Head (3/8 - 16)
2	130-2911-01	1	Guard, Radiator (Left Hand)	24	502-1001	1	Adapter, Pipe
3	130-2908-01	1	Wrapper, Shroud - Fan (Left Hand)	25	130-2910	1	Shroud, Fan - Top
4	130-2913	1	Tube, Inlet - Radiator	26	130-2733-02	1	Guard, Fan (Left Hand)
5	821-0018	40	Screw, Locking Head (Flange) 1/4 - 20 x .62"	27	130-2733-01	1	Guard, Fan (Right Hand)
6	870-0212	8	Nut, Self Locking (Flange) (1/4 - 20)	28	130-2908-02	1	Wrapper, Shroud - Fan (Right Hand)
7	332-1389	3	Cable, Tie (Not Shown)	29	502-0153	3	Plug, Pipe - Hex
8	503-0354	4	Clamp, Hose	30	130-2911-02	1	Guard, Radiator (Right Hand)
9	503-1380-01	2	Hose, Radiator	31	130-2727	2	Bracket, Guard - Belt
10	503-1467	1	Hose	32	130-2726	1	Bracket, Guard - Belt
11	503-0189	2	Clamp, Hose	33	130-2732	1	Wrapper, Guard - Belt (Left Hand)
12	502-0999	1	Elbow, Hose - 90°	37	130-2730	1	Bracket, Guard - Belt
13	505-0021	1	Bushing, Reducer	38	130-2729	1	Bracket, Guard - Belt
14	503-0648	4	Clamp, Hose	39	800-2084	2	Screw, Cap - Hex Head (M10 x 1.5 x 16mm)
15	503-1414-01	1	Hose, Radiator	40	850-2010	2	Washer, Lock (M10)
16	130-2912	1	Tube, Outlet - Radiator	41	130-2731	1	Wrapper, Guard - Belt (Right Hand)
17	821-0029	18	Screw, Locking Head (3/8 - 16 x 3/4")	42	130-2728	1	Bracket, Guard - Belt
18	503-1460	1	Hose, Radiator	43	130-2874	1	Bracket, Mounting - Grille
19	504-0028	1	Cock, Drain	44	130-2875	1	Grille
20	821-0028	26	Screw, Locking Head (3/8 - 16 x 1/2")	45	130-2873	1	Support, Grille
21	130-2909	1	Shroud, Fan - Bottom	46	130-0449	1	Cap, Radiator
22	130-2870	2	Bracket	47	193-0322	1	Sender, Level - Lo Coolant
				48	338-1919	1	Harness, Wiring - Lo Coolant

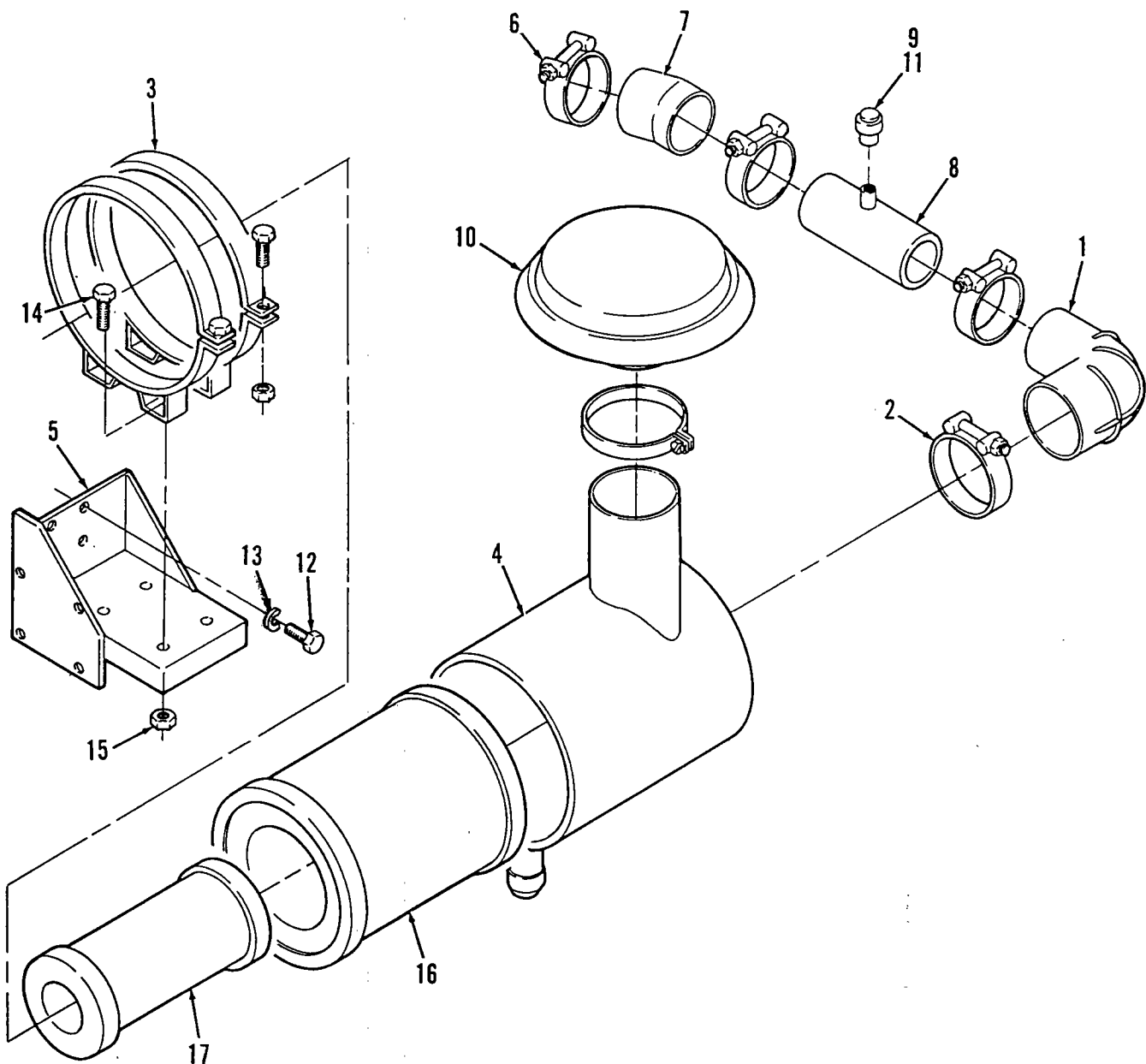
**Air Cleaner
(Standard)**



Air Cleaner (Standard)

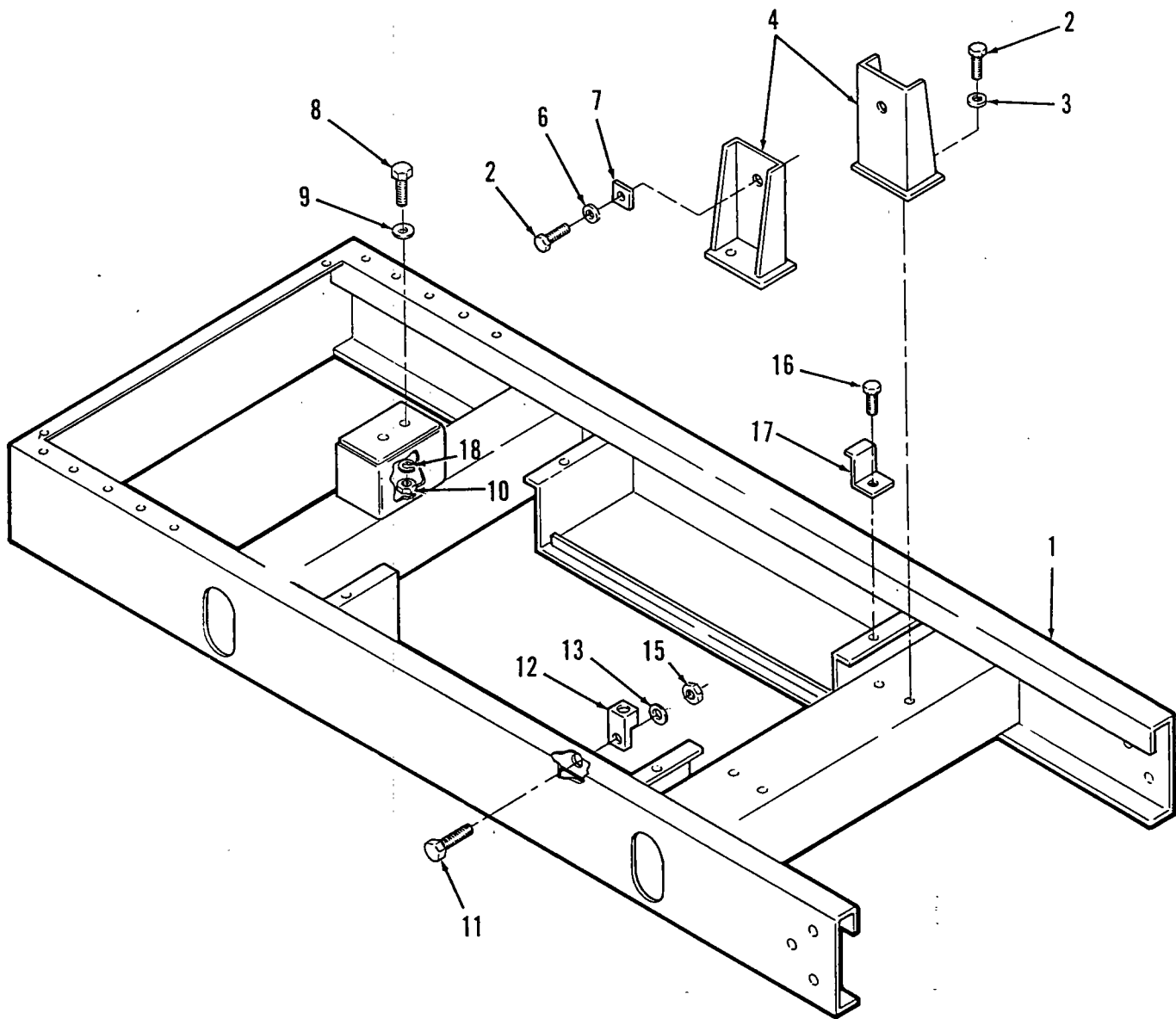
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	140-1999	1	Bracket, Cleaner - Air	10	503-0863	3	Clamp, Hose
2	140-2001	1	Cleaner, Air	11	800-2082	4	Screw, Cap - Hex Head (M10 x 1.5 x 14mm)
3	140-1415	1	Elbow, Hose	12	850-2010	4	Washer, Lock (M10)
4	503-1153	1	Clamp, Hose	13	821-0029	4	Screw, Lock (3/8 - 16 x 3/4")
5	140-1989	1	Tube, Inlet - Air	14	870-0281	4	Nut, Lock (3/8 - 16)
6	503-1398	1	Hose, Reducer	15	140-1548	1	Indicator, Service
7	140-0757	2	Clamp, Cleaner - Air	16	140-1735	1	Element
8	140-2002	1	Hood, Inlet - Air				
9	503-0900	1	Clamp, Hose				

Heavy Duty Air Cleaner (Dual Air Filter)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-1482	1	Elbow, Reducer - 90°	9	140-1548	1	Indicator, Service
2	503-0863	2	Clamp, Hose	10	140-1347	1	Cap, Weather - Air Cleaner
3	140-0757	2	Clamp, Cleaner - Air	11	140-1260	1	Fitting, Safety - Filter
4	140-2094	1	Cleaner, Air (Includes Elements)	12	800-2082	4	Screw, Cap - Hex Head (M10 x 1.5 x 14mm)
5	140-2089	1	Bracket, Mounting - Air Cleaner	13	850-2010	4	Washer, Lock (M10)
6	503-0900	2	Clamp, Hose	14	821-0029	4	Screw, Lock (3/8 - 16 x 3/4")
7	503-1481	1	Elbow, Reducing	15	870-0281	4	Nut, Lock (3/8 - 16)
8	140-2091	1	Tube, Inlet - Air	16	140-2092	1	Element, Air Cleaner - Primary
				17	140-2093	1	Element, Air Cleaner - Safety

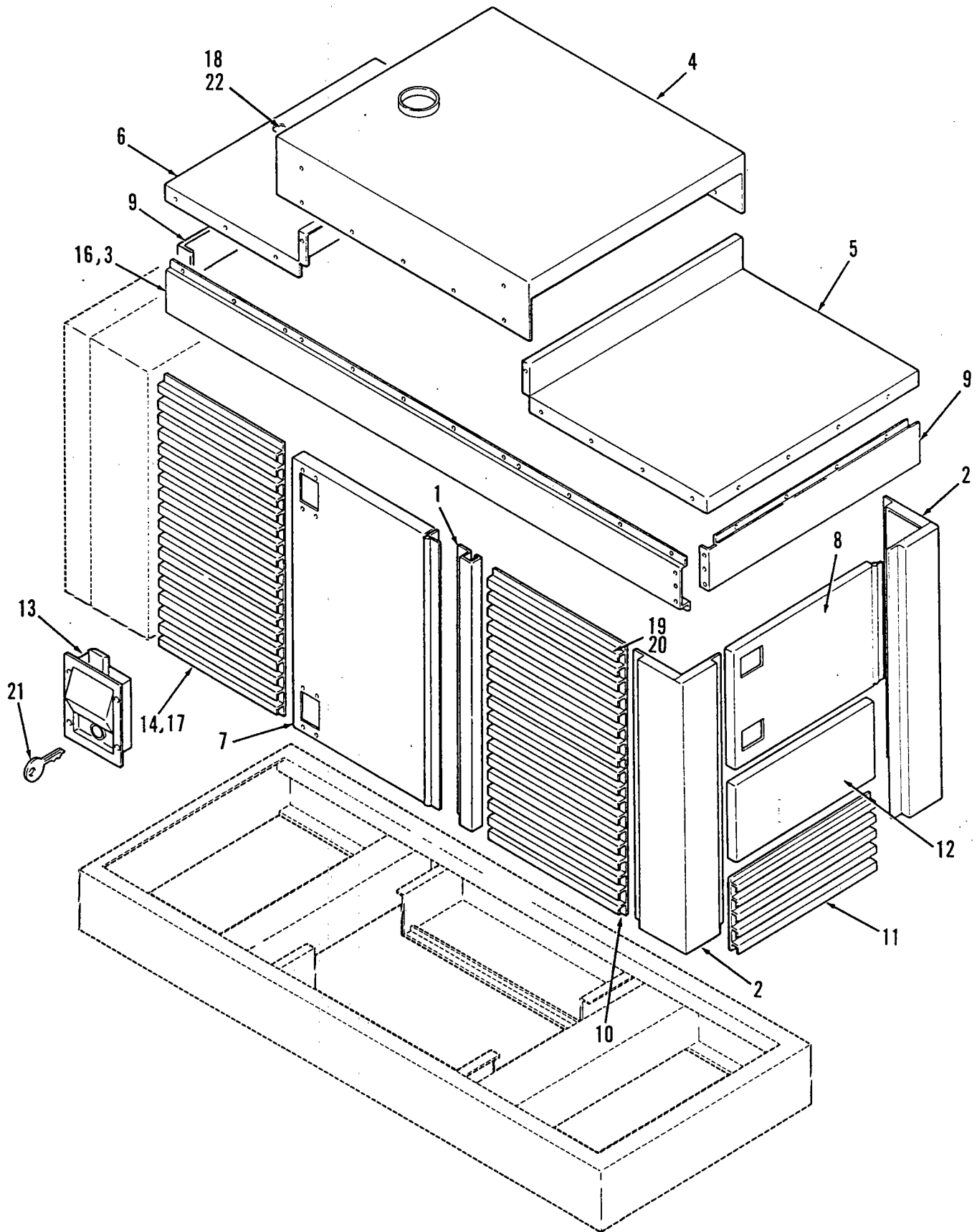
Chassis



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	403-2353-02	1	*Skid	11	821-0016	1	Screw, Lock - Hex Washer Head (5/16 - 18 x 3/4")
2	800-0153	6	Screw, Cap - Hex Head (3/4 - 10 x 1-1/2")	12	332-1473	1	Lug, Solderless
3	850-0079	4	Washer, Lock (3/4)	13	856-0008	1	Washer, EIT (5/16)
4	232-2389	2	Bracket, Mounting - Generator	15	870-0257	1	Nut, Hex Locking (5/16 - 18)
6	850-0079	2	Washer, Lock (3/4)	16	800-0048	4	Screw, Cap - Hex Head (3/8 - 16 x 3/4)
7	232-2385	1	Plate, Mounting - Generator	17	416-0850	4	Bracket, Battery
8	800-0156	2	Screw, Cap - Hex Head (3/4 - 10 x 2-1/4")	18	526-0238	2	Washer, Flat (3/4)
9	850-0079	2	Washer, Lock (3/4)	19	232-1489	2	Shim (16 Ga)
10	862-0008	2	Nut, Hex (3/4 - 10)	20	232-1490	2	Shim (20 Ga)

* For bolted on generator end skid, see Housing.

Set Housing

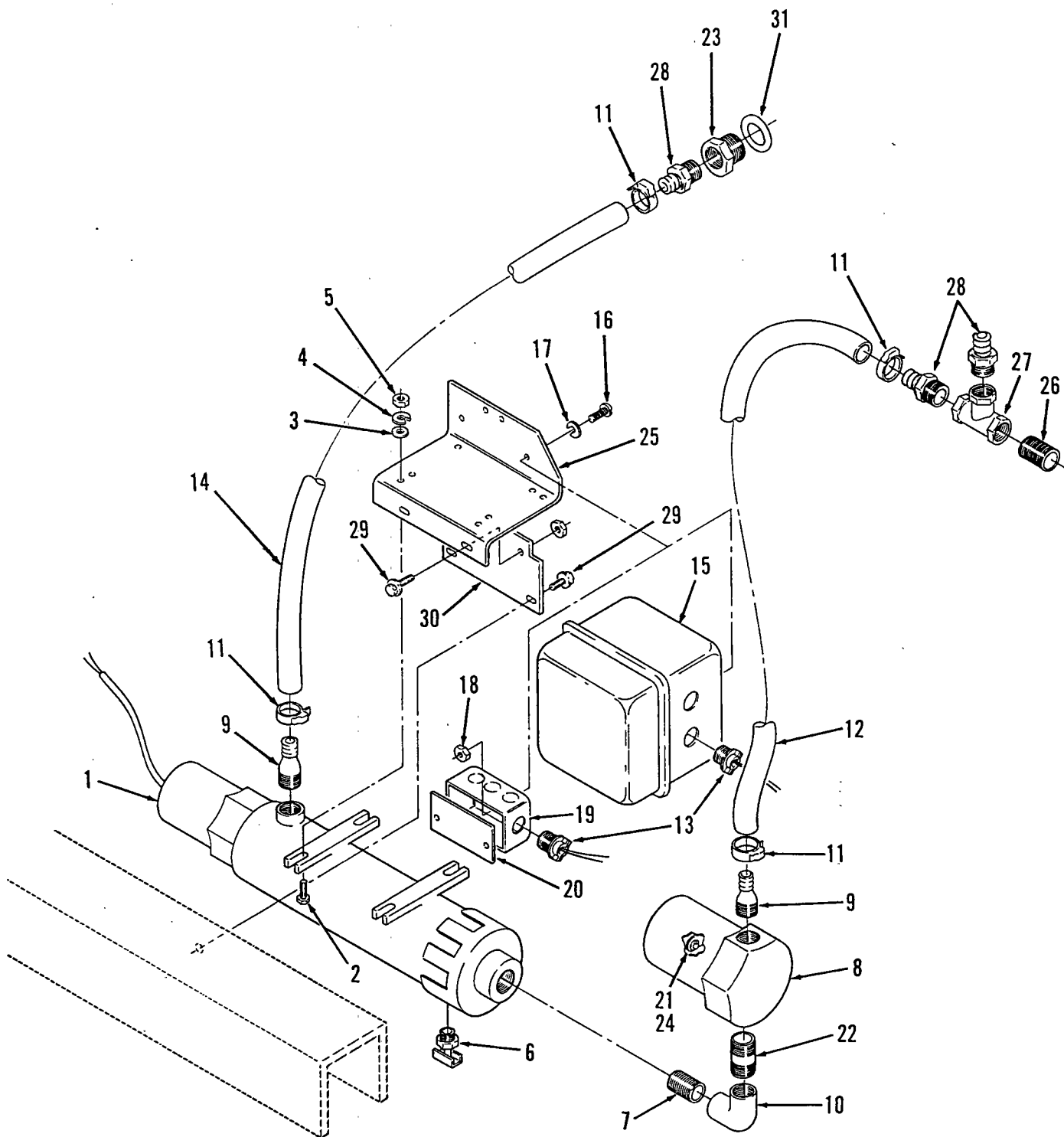


Set Housing

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	405-3442	2	Post, Housing - Center	821-0014		20	Screw, Lock - Hex Washer Head (5/16 - 18 x 1/2")
2	405-3441	2	Post, Housing - Rear				
3	405-3440-01	1	Rail, Side - Roof (Right Hand)	870-0257		18	Nut, Lock - Hex (5/16 - 18)
4	405-3439	1	Roof, Housing - Center	812-0077		24	Screw, Round Head (#8 - 32 x 3/8")
5	405-3438	1	Roof, End - Generator				
6	405-3437	1	Roof, End - Engine	870-0235		24	Nut, Lock (#8 - 32)
7	405-3436	2	Door, Housing - Side	821-0029		28	Screw, Lock - Hex Washer Head (3/8 - 16 x 3/4")
8	405-3434	1	Door, Control				
9	405-3432	2	Cap, End - Housing Top	870-0281		22	Nut, Lock - Hex (3/8 - 16)
10	405-3507	2	Grille, Housing - Side	819-1102		29	Screw, Recessed - Pan Head (5/16 - 18 x 1/2")
11	405-3429	1	Grille, Housing - Side				
12	405-3424	1	Panel, Housing - Rear	816-0098		48	Bolt, Carriage (5/16 - 18 x .62")
13	406-0576	6	Handle, Housing				
14	405-3678	1	Door Assembly, Grille (Left Hand)	526-0032		48	Washer, Flat (7/16)
15	403-2408	1	*Skid, End - Generator (Not Shown)	800-0090		6	*Screw, Cap - Hex Head (1/2 - 13 x 1")
16	405-3440-02	1	Rail, Side - Roof (Left Hand)	850-0060		6	*Washer, Lock (1/2)
17	405-3677	1	Door Assembly, Grille (Right Hand)	862-0016		6	*Nut, Hex (1/2 - 13)
18	517-0245	1	Plug	865-0007		4	Nut, Wing (5/16 - 18)
19	405-3508	1	Door, Grille (Right Hand)	508-1035		8	Seal, Housing - Door
20	405-3509	1	Door, Grille (Left Hand)	405-3739		2	Stop, Housing - Door
21	406-0577	1	Key, Latch	895-0098		1	Stripping, Weather (18")
22	98-5429	2	Silkscreen, Fill - Cool	406-0609		4	Catch, Magnetic
				128-0109		1	Insulation, Foam

* Used on serial numbers prior to H850775600.

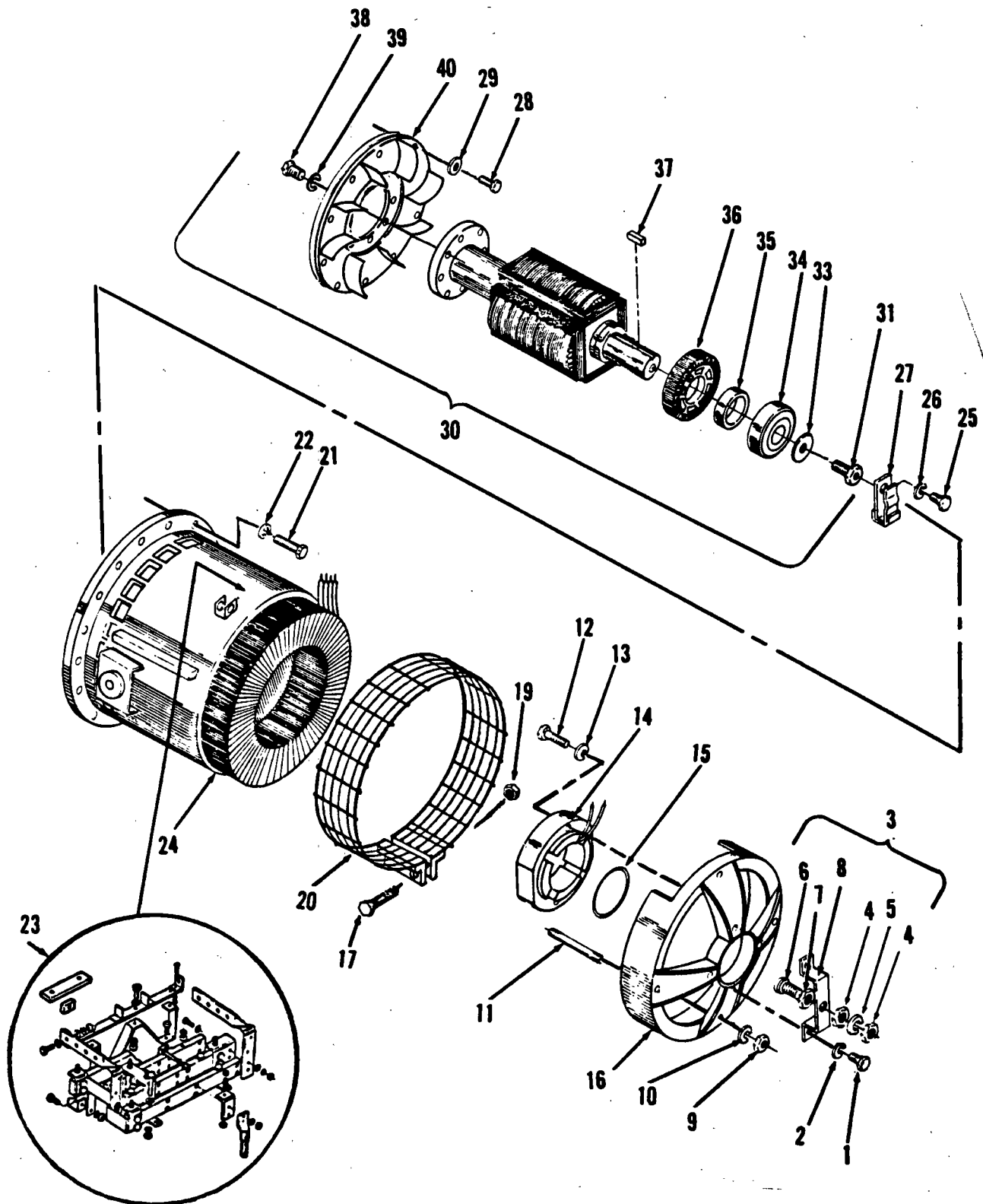
Engine Coolant Heater



Engine Coolant Heater

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Heater, Engine - 2500 Watt	15	307-1164	1	Contactora, Electric - 480 VAC
	333-0094	1	115 VAC	16	812-0100	2	Screw, Machine - Round Head (#10 - 24 x 1/2")
	333-0169	1	208 VAC	17	850-0030	2	Washer, Lock (#10)
	333-0131	1	230 VAC	18	860-0011	2	Nut, Hex (#10 - 24)
	333-0166	1	480 VAC	19	330-0005	1	Box, Outlet - Electrical
2	800-0006	4	Screw, Cap - Hex Head (1/4 - 20 x 7/8")	20	330-0004	1	Cover, Box - Outlet
3	526-0013	4	Washer, Flat (1/4)	21	332-0149	1	Terminal (#8) (Used on White Leads)
4	850-0040	4	Washer, Lock (1/4)	22	505-0086	1	Nipple, Pipe
5	862-0001	4	Nut, Hex (1/4 - 20)	23	505-1366	1	Adapter, Pipe
6	504-0003	1	Valve, Drain	24	323-0957	1	Nut, Wire (Used on Black Leads)
7	505-0004	1	Nipple, Close	25	130-2851	1	Bracket, Mounting - Heater
8	309-0304	1	Switch, Thermostatic	26	505-0102	1	Nipple, Close
9	505-0759	2	Adapter, Pipe	27	505-0166	1	Pipe, Tee
10	505-0041	1	Elbow, Hose - 90°	28	502-0971	3	Connector, Hose - Beaded
11	503-0189	4	Clamp, Hose	29	821-0029	4	Screw, Lock (3/8 - 16 x 3/4")
12	503-0848	1	Hose, Rubber (1 x 27")	30	130-2850	1	Bracket, Mounting - Heater
13	331-0027	2	Clamp, Cable	31	509-0222	1	Seal, O-Ring
14	503-0848	1	Hose, Rubber (1 x 32")				

Generator



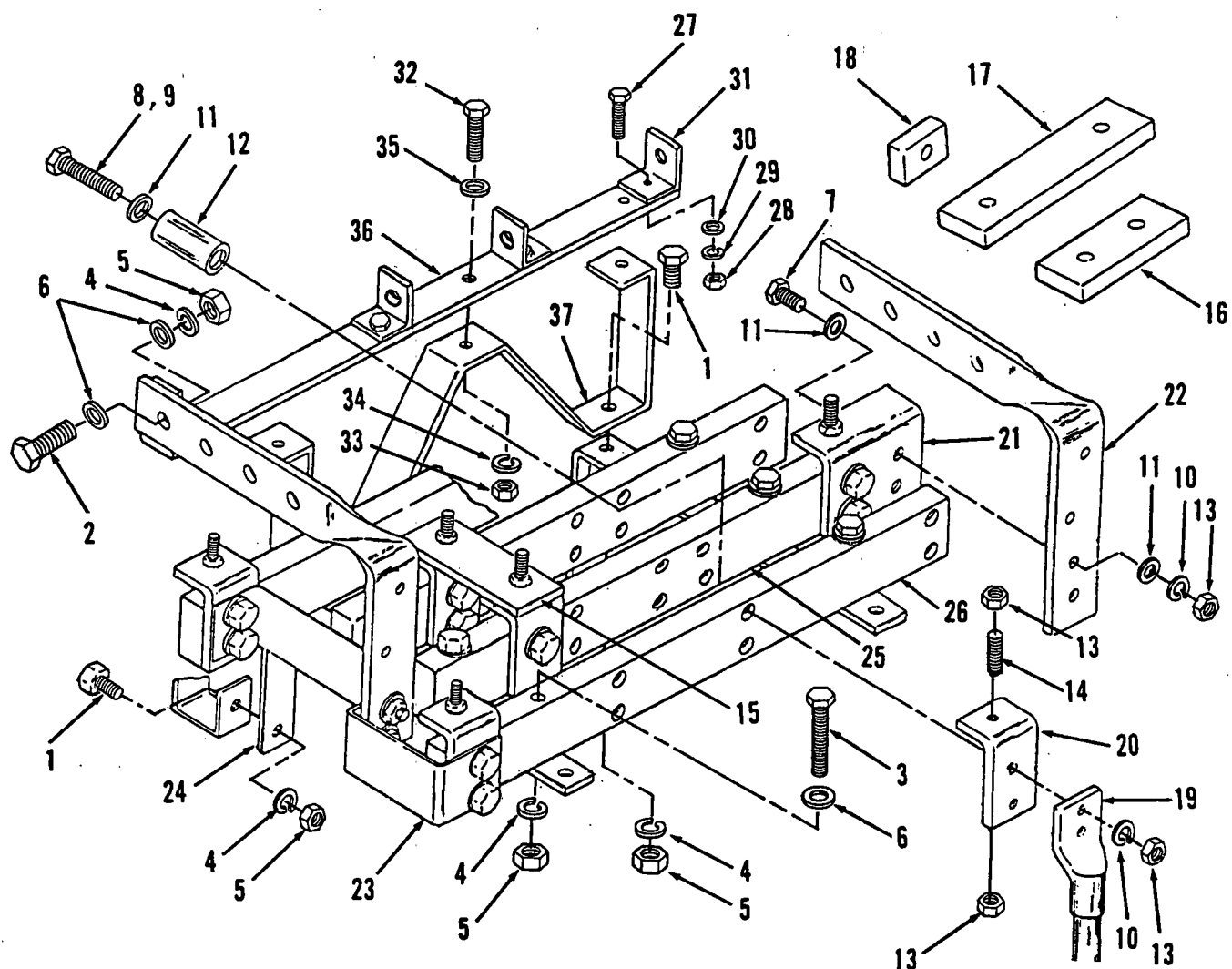
Generator

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")		220-2349	1	Code 6D
2	850-0040	2	Washer, Lock - Spring (1/4")		220-2319	1	Code 9X
3	150-2105	1	Contact Assembly, Overspeed (Includes Parts Marked *)		220-1914	1	Code 17
4	862-0001	2	*Nut, Hex (1/4 - 20)		220-2612	1	Code 17 (Environmental Protected)
5	853-0013	1	*Washer, Lock - ET (1/4)	25	220-2137	1	Code 517
6	150-0723	1	*Contact, Electrical		800-0048	1	Screw, Cap - Hex Head (3/8 - 16 x 3/4")
7	870-0250	1	*Nut, Insulator	26	856-0010	1	Washer, Lock - Spring (3/8)
8	150-2104	1	*Bracket, Mounting - Contact	27	150-0717	1	Switch, Overspeed
9	862-0016	4	Nut, Hex (1/2 - 13)	28	720-1075	8	Screw, Cap - Hex Head (M12 x 1.75 x 35mm)
10	850-0060	4	Washer, Lock - Spring (1/2)				
11	520-0780	4	Stud	29	526-2140	8	Washer, Flat (M12)
12	800-0009	4	Screw, Cap - Hex Head (1/4 - 20 x 1-1/2")	30			Rotor Assembly, Generator (Includes Parts Marked +)
13	850-0040	4	Washer, Lock - Spring (1/4)		201-3330	1	Codes 5D, 6D, 9X, 17, 517
14			Stator, Exciter		201-3340	1	Codes 17, 517 (Environmental Protected)
	220-1920	1	Standard	31	800-0513	1	+Screw, Cap - Hex Head (3/4 - 10 x 1-1/2")
	220-2607	1	Environmental Protected	33	526-0331	1	+Washer, Flat (3/4)
15	509-0151	1	Seal, O-Ring - Oil	34	510-0106	1	+Bearing, Ball
16	211-0214	1	Bell, End - Generator	35	232-2317	1	+Spacer, Sleeve
17	800-0009	2	Screw, Cap - Hex Head (1/4 - 20 x 1-1/2")	36			Rotor Assembly, Exciter (See Separate Page For Components)
19	870-0212	2	Nut, Lock - Hex (1/4 - 20)		201-1902	1	+ Standard
20	234-0455	1	Screen, Air - Generator		201-2453	1	Environmental Protected
21	720-1075	12	Screw, Cap - Hex Head (M12 x 1.75 x 35mm)	37	515-0145	1	+Key, Machine
22	526-2140	12	Washer, Flat (M12)	38	805-0035	8	+Bolt, Hex (5/8 - 11 x 1")
23		1	Bar Assembly, Bus (See Separate Page For Components)	39	526-0259	8	+Washer, Flat (5/8)
24			Stator, Generator	40	232-2898	1	+Fan & Disc Drive Assembly
	220-2343	1	Code 5D				

* Parts included in 150-2105 Overspeed Contact Assembly.

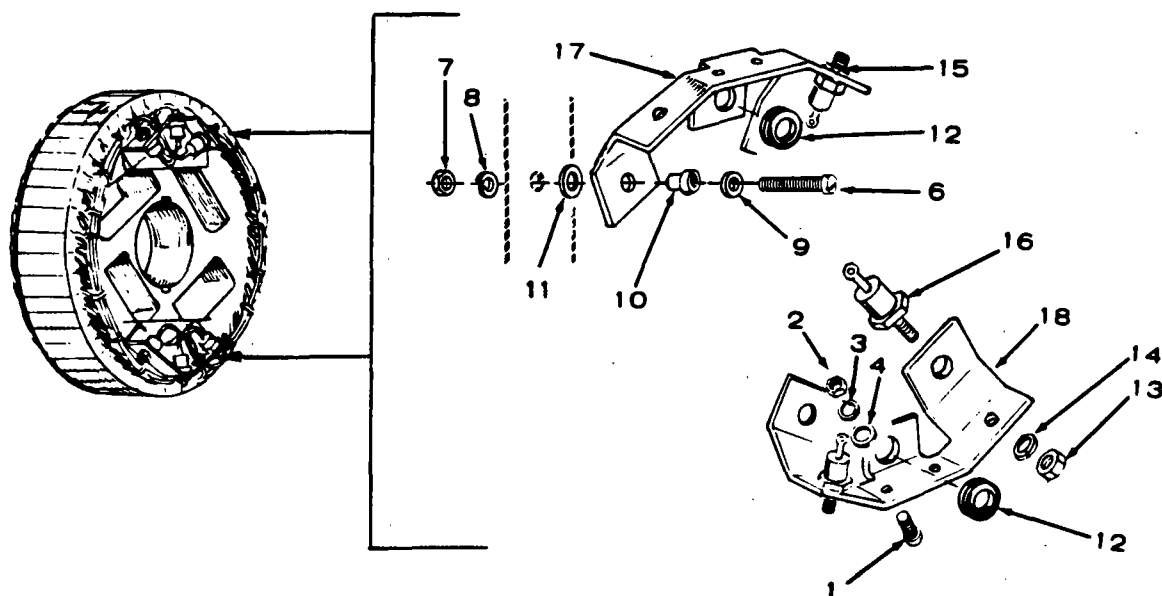
+ Parts included in Generator Rotor Assembly.

Bus Bar Assembly



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	800-0050	4	Screw, Cap - Hex Head (3/8 - 16 x 1")	18	232-2583	1	Spacer, Bar - Bus
2	800-0051	4	Screw, Cap - Hex Head (3/8 - 16 x 1-1/4")	19	332-1152	12	Terminal, Lug
3	800-0056	8	Screw, Cap - Hex Head (3/8 - 16 x 2-1/2")	20	232-2241	11	Bar, Bus
4	850-0050	16	Washer, Lock - Spring (3/8)	21	232-2343	3	Bar, Bus
5	862-0003	16	Nut, Hex (3/8 - 16)	22	232-2240	4	Bar, Bus
6	526-0029	16	Washer, Flat (25/64"ID x 7/8"OD x 1/16"THK)	23	232-2238	1	Bar, Bus
7	800-0028	4	Screw, Cap - Hex Head (5/16 - 18 x 1")	24	232-2249	2	Bracket, Mounting - Bus Bar
8	114-0022	24	Screw, Cap - Hex Head (5/16 - 18 x 1-3/4")	25	232-2242	2	Board, Insulator - Center
9	800-0033	8	Screw, Cap - Hex Head (5/16 - 18 x 2")	26	232-2243	2	Board, Insulator - Front/Rear
10	850-0045	36	Washer, Lock - Spring (5/16)	27	800-0007	4	Screw, Cap - Hex Head (1/4 - 20 x 1")
11	526-0115	48	Washer, Flat (11/32"ID x 11/16"OD x 1/16"THK)	28	862-0001	4	Nut, Hex (1/4 - 20)
12	232-2344	32	Spacer, Sleeve	29	850-0040	4	Washer, Lock - Spring (1/4)
13	862-0015	50	Nut, Hex (5/16 - 18)	30	526-0018	4	Washer, Flat (21/64"ID x 3/4"OD x 1/16"THK)
14	520-0142	14	Stud (5/16 - 18 x 1-1/4")	31	232-2387	4	Bracket, Angle
15	232-2246	2	Bar, Reconnection - Long	32	800-0051	3	Screw, Cap - Hex Head (3/8 - 16 x 1-1/4")
16	232-2248	2	Bar, Reconnection - Short	33	862-0003	3	Nut, Hex (3/8 - 16)
17	232-2582	1	Jumper, Bar - Bus	34	850-0050	3	Washer, Lock - Spring (3/8)
				35	526-0029	3	Washer, Flat (25/64"ID x 7/8"OD x 1/16"THK)
				36	232-2245	1	Board, Insulator
				37	232-2237	1	Bracket, Support

Exciter Rotor

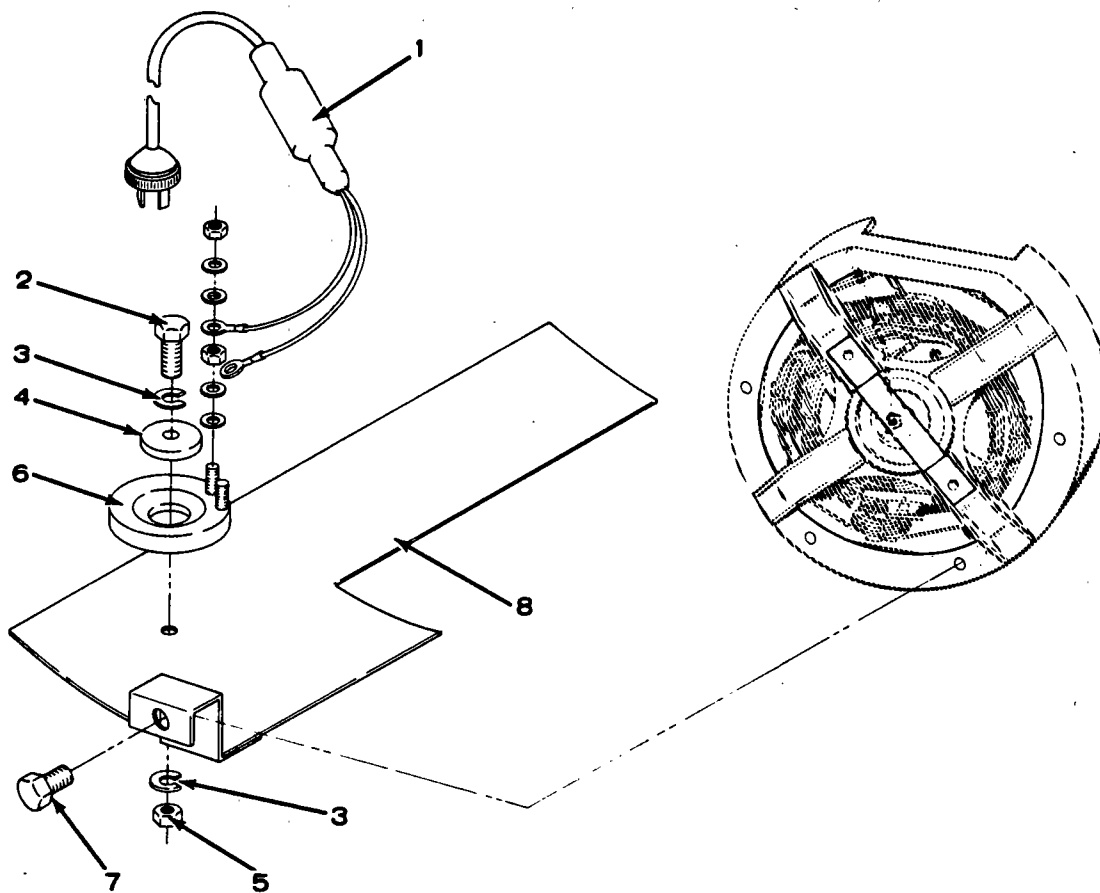


REF NO.	PART NO.	QTY USED	PART DESCRIPTION
			Rotor Assembly, Exciter (Includes Parts Marked *)
	201-1902	1	Standard
	201-2453	1	Environmental Protected
1	813-0100	2	Screw, Machine - Round Head
2	870-0053	2	Nut, Hex (#10 - 32)
3	850-0030	2	Washer, Lock - Spring (#10)
4	526-0008	2	Washer, Flat (#10)
6	813-0110	4	*Screw, Machine - Round Head (#10 - 32 x 2")
7	870-0053	4	*Nut, Hex (#10 - 32)
8	850-0030	4	*Washer, Lock - Spring (#10)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
9	526-0009	4	*Washer, Flat (#10)
10	508-0187	4	*Spacer, Stepped
11	508-0156	4	*Washer, Insulating
12	508-0093	2	*Grommet, Rubber
13	868-0001	6	*Nut, Hex (1/4 - 28)
14	850-0040	6	*Washer, Lock - Spring (1/4)
15	358-0011	3	*Diode, Rectifier - Positive (CR1, CR2, CR3)
16	358-0012	3	*Diode, Rectifier - Negative (CR4, CR5, CR6)
17	363-0049	1	*Sink, Heat - Positive Diodes
18	363-0050	1	*Sink, Heat - Negative Diodes

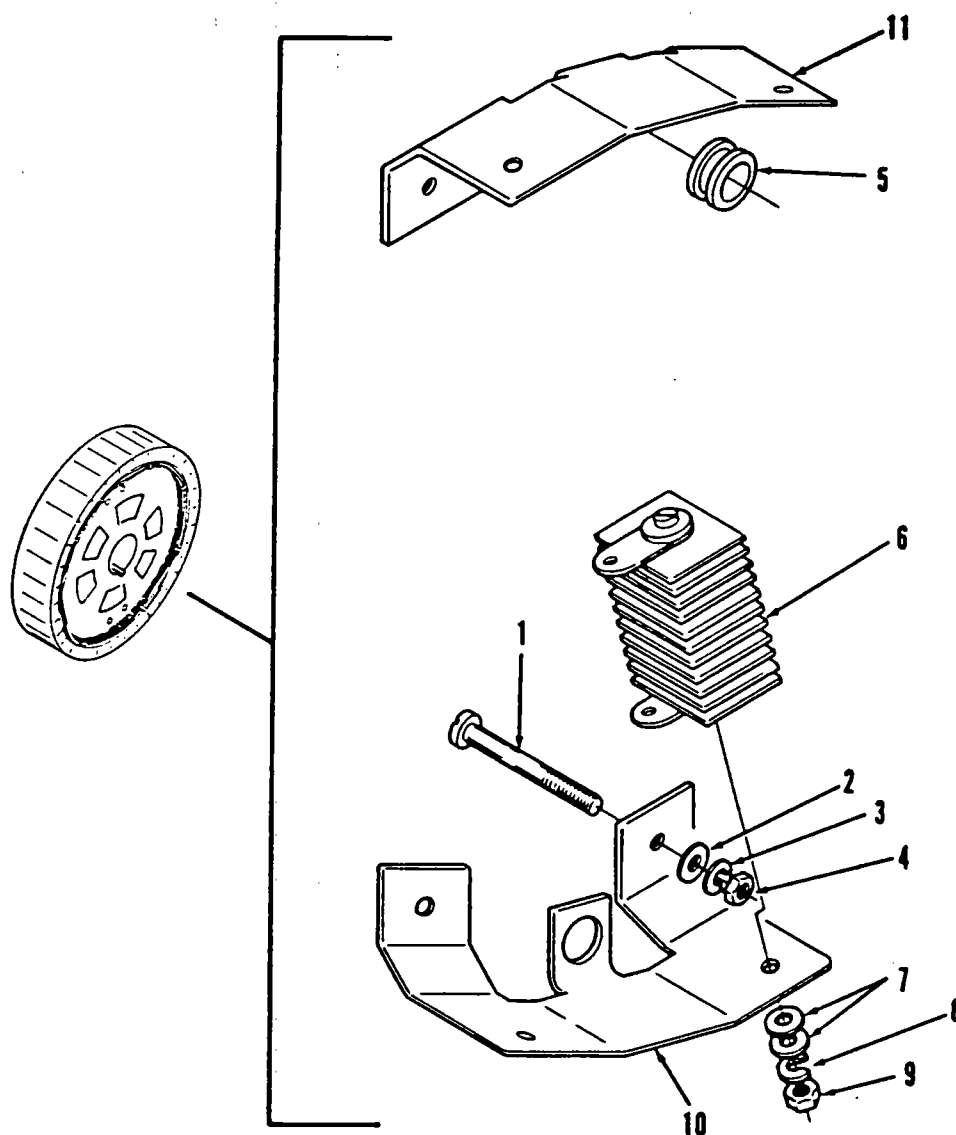
* Parts included in Exciter Rotor Assembly.

Generator Heater



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Cable Assembly (Includes Thermostat)	4	526-0158	1	Washer, Flat (1/4)
	335-0146	1	120 VAC	5	862-0001	1	Nut, Hex (1/4 - 20)
	335-0147	1	240 VAC	6			Heater, Electrical
2			Screw, Cap - Hex Head		333-0059	1	120 VAC, 125 Watt
	800-0004	1	(1/4 - 20 x 5/8") 120 Volt Heater		333-0192	1	240 VAC, 200 Watt
	800-0005	1	(1/4 - 20 x 3/4") 240 Volt Heater	7	821-0014	1	Screw, Self-Locking - Hex
3	850-0038	1	Washer, Lock - Spring (1/4)				Washer Head (5/16 - 18 x 1/2)
				8			Bracket, Mounting
					232-2446	1	120 Volt Heater
					232-2832	1	240 Volt Heater

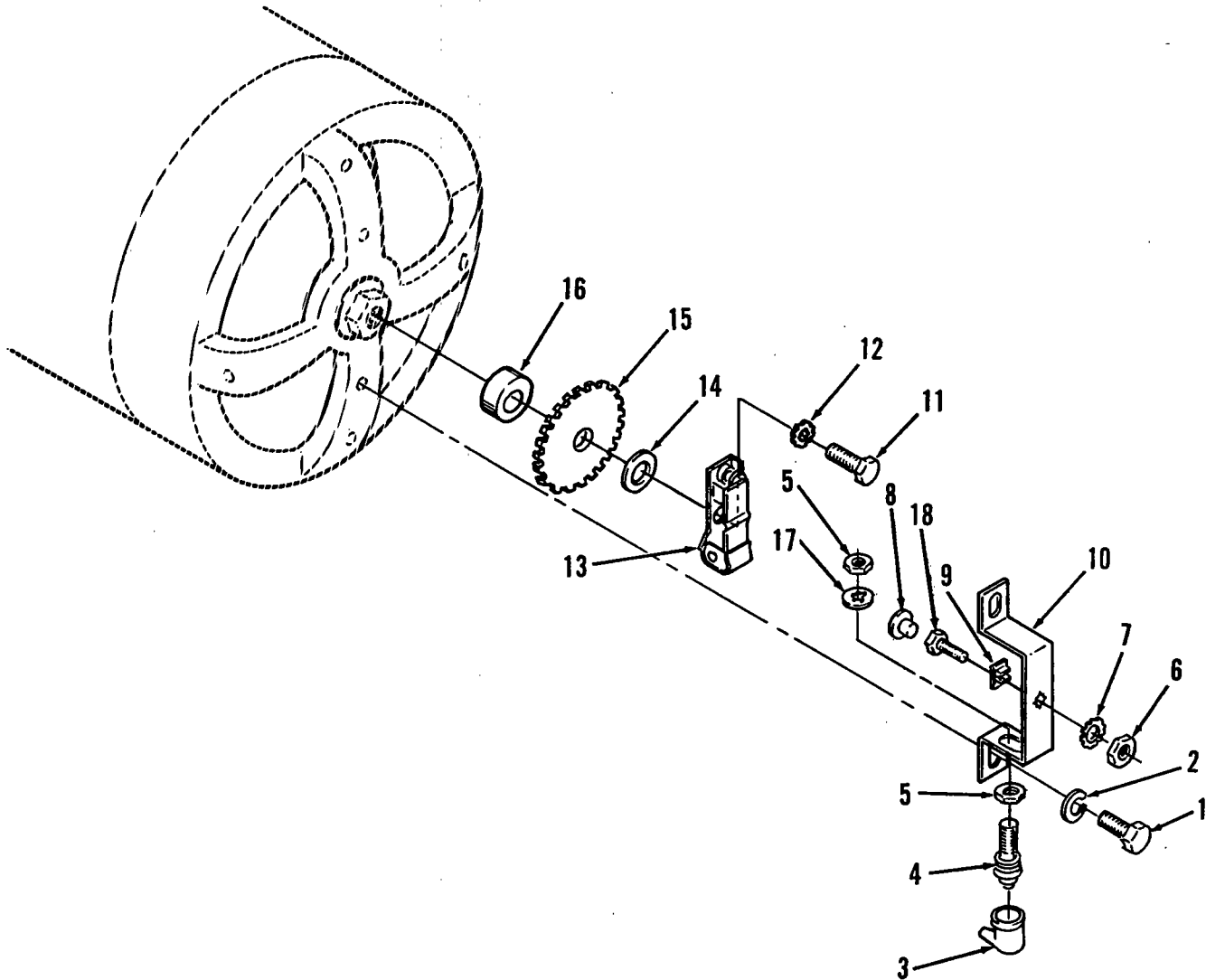
Voltage Suppressor



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 (#10)
3	850-0030	4	Washer, Lock - Spring (#10)
4	870-0053	4	Nut, Hex (#10 - 32)
5	508-0093	2	Grommet, Rubber

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
6	305-0526	1	Suppressor Set, Voltage
7	526-0140	4	Washer, Flat (#10)
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

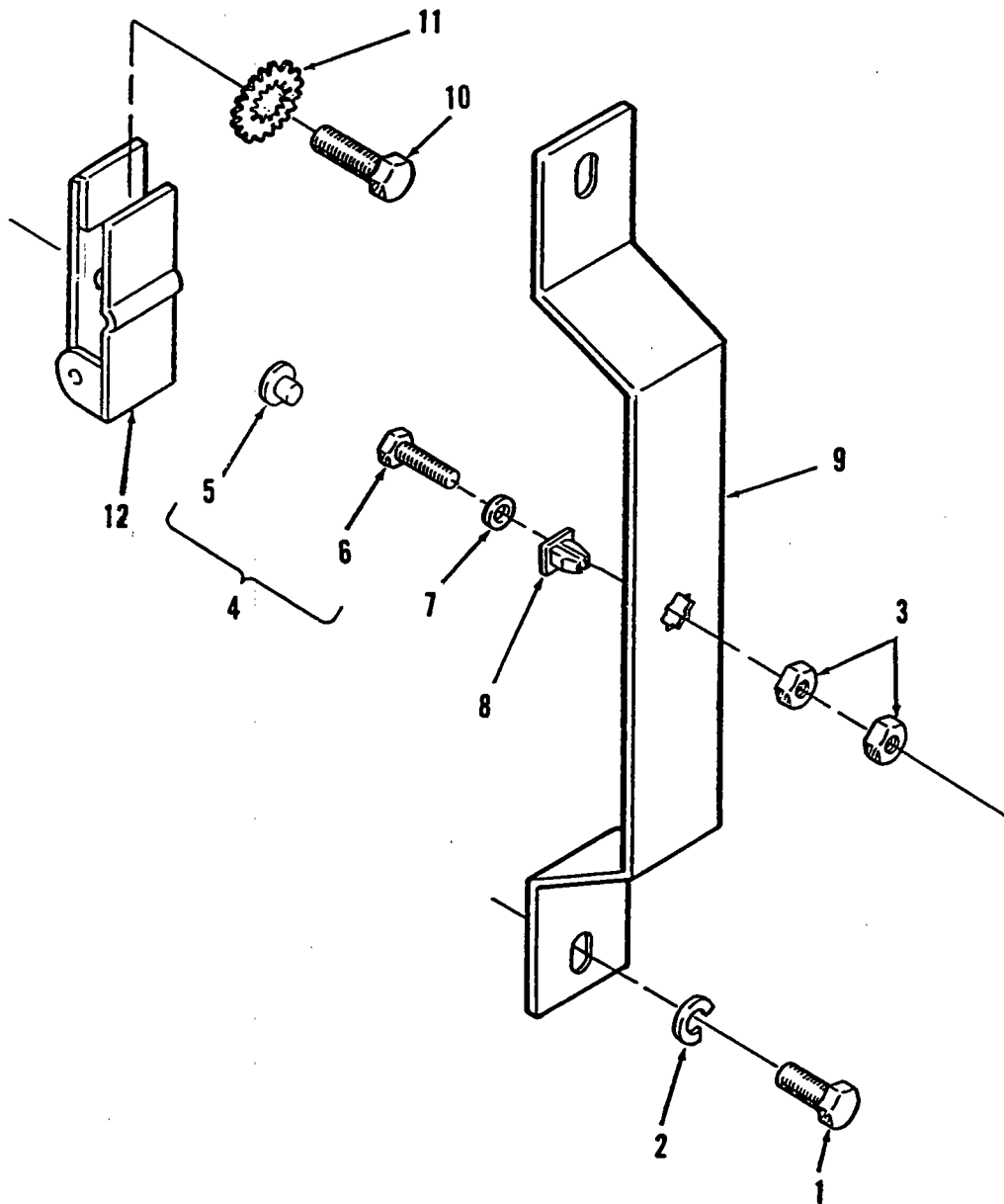
Magnetic Pickup



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	800-0003	2	Screw, Cap - Hex Head (1/4 - 20 x 1/3")
2	850-0040	2	Washer, Lock - Spring (1/4")
3	150-1410	1	Cap, Insulator
4	150-1406	1	Sensor, Speed - Magnetic
5	868-0011	2	Nut, Hex - Jam (3/4 - 16)
6	862-0001	2	Nut, Hex (1/4 - 20)
7	853-0013	1	Washer, Lock - ET (1/4)
8	306-0036	1	Contact, Electrical
9	870-0250	1	Nut, Insulator
10	301-9697	1	Bracket, Mounting
11	800-0053	1	Screw, Cap - Hex Head (3/8 - 16 x 1-3/4")

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
12	856-0010	1	Washer, Lock - EIT (3/8)
13	150-0717	1	Switch, Overspeed
14	526-0077	1	Washer, Flat (13/32" ID x 1-1/4" OD x 1/4" THK)
15	150-1557	1	Wheel, Sensor - Speed
16	370-4011	1	Spacer, Sleeve
17	854-0031	1	Washer, Lock - IT (3/4)
18	150-0724	1	Screw, Cap - Hex Head (Mod)
19	150-0723	1	Point Assembly, Overspeed (Includes Contact and Modified Screw)

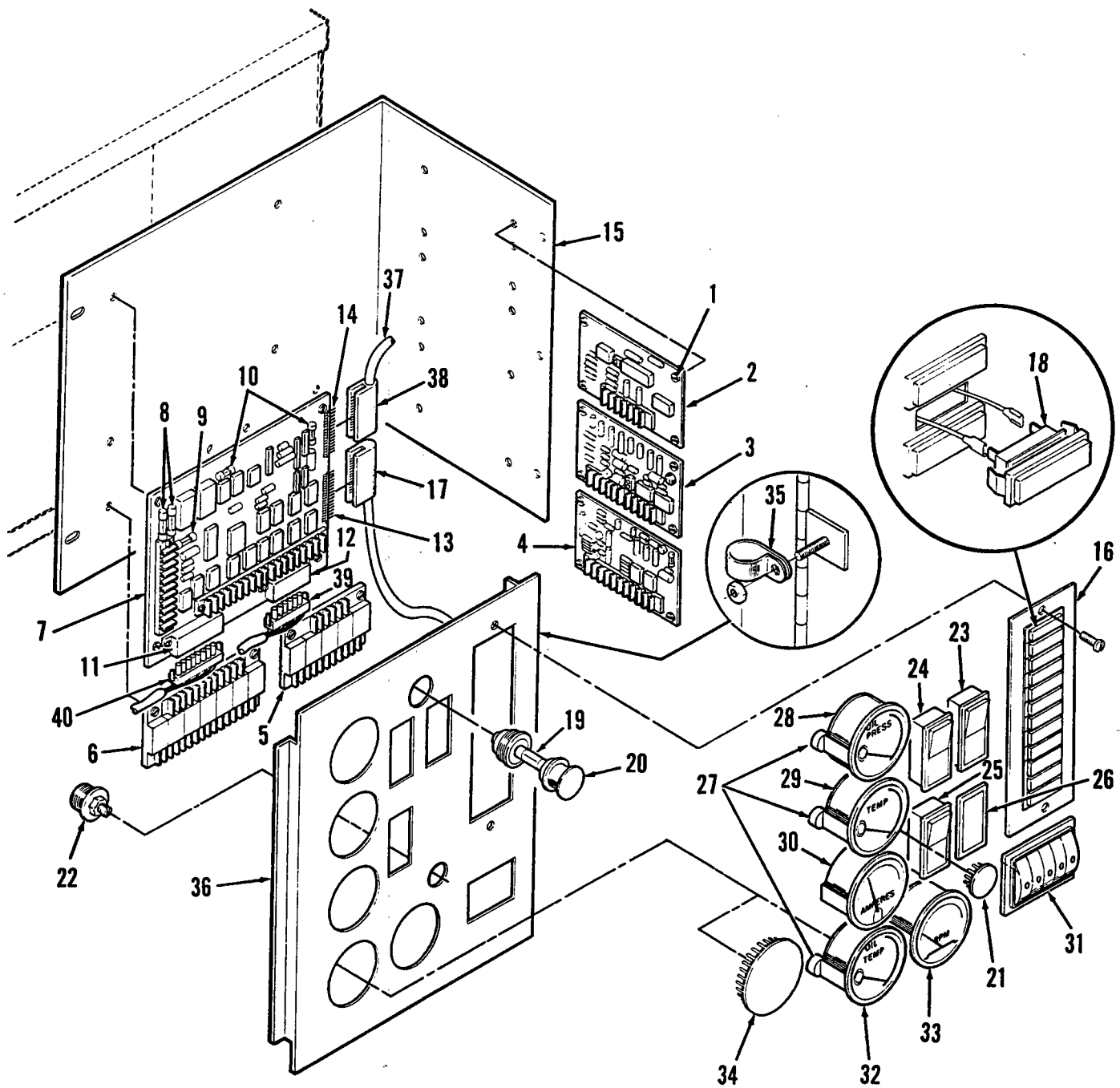
Overspeed Switch Assembly



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	800-0003	2	Screw, Cap - Hex Head (1/4 - 20 x 1/2")
2	850-0040	2	Washer, Lock - Spring (1/4)
3	862-0001	2	Nut, Hex (1/4 - 20)
4	150-0723	1	Point Assembly, Overspeed (Includes Contact and Modified Screw)
5	306-0036	1	Contact, Electrical
6	150-0724	1	Screw, Cap - Hex Head (Modified)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
7	853-0013	1	Washer, Lock - ET (1/4)
8	870-0250	1	Nut, Insulating (1/4)
9	150-2104	1	Bracket, Mounting
10	800-0048	1	Screw, Cap - Hex Head (3/8 - 16 x 3/4")
11	856-0010	1	Washer, Lock - EIT (3/8)
12	150-0717	1	Switch, Overspeed

Engine Control

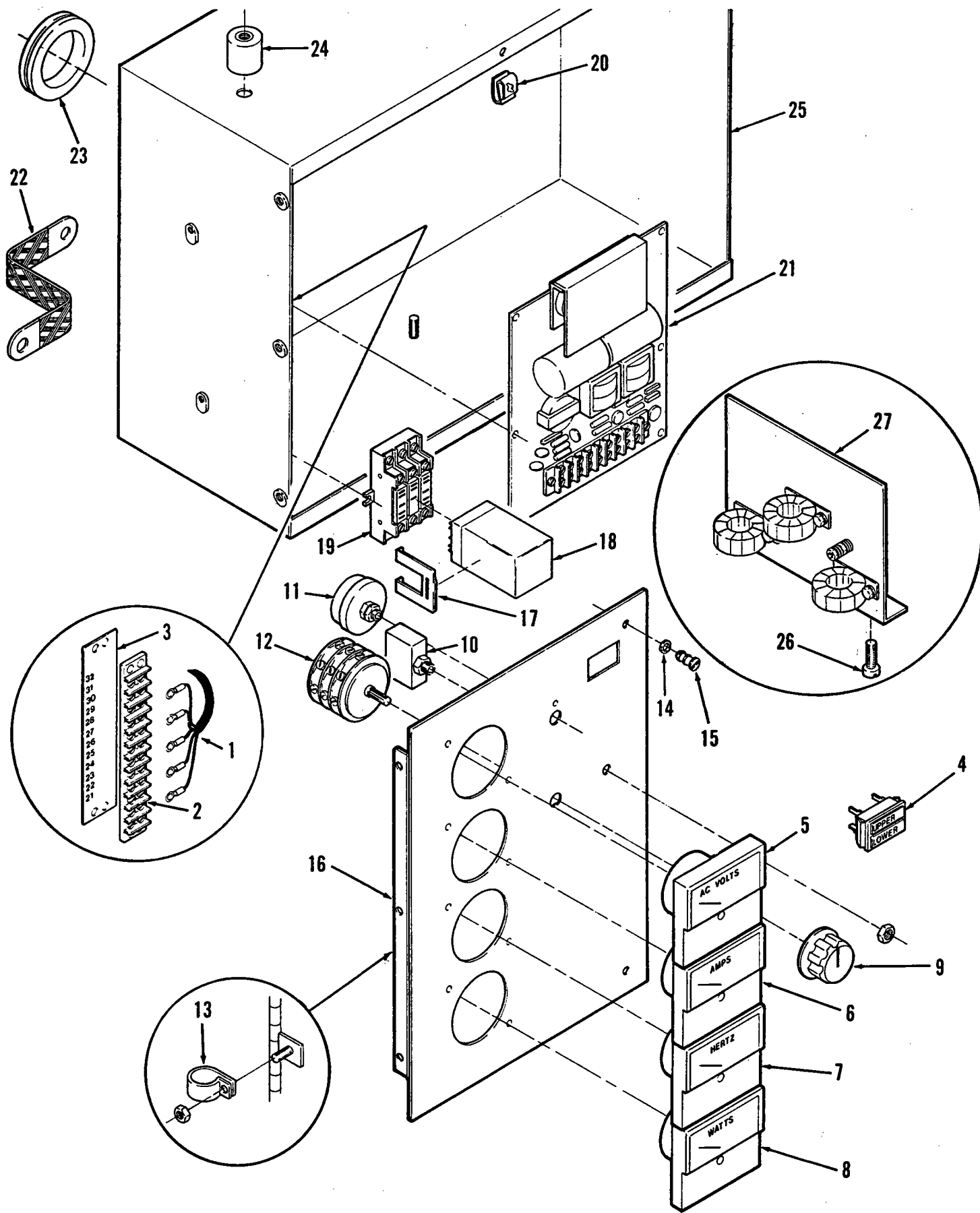


Engine Control

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) (Includes Fuses & Connectors)	22	151-0402	1	Potentiometer - Speed Control (R11)
	300-2808	1	2 Light Control	23	308-0785	1	Switch, Push - Reset/Panel Lamp (S11)
	300-2810	1	7 Light Control	24	308-0784	1	Switch, Push - Run/Stop/Remote (S12)
	300-2812	1	12 Light Control	26	301-6257	1	Cover, Hole - Switch
8	321-0270	2	Fuse, Cartridge - 20 Amp (F1, F2)	27	193-0250	3	Resistor, Gauge (R12)
9	321-0231	1	Fuse, Cartridge - 15 Amp (F3)	28	193-0352	1	Gauge, Pressure - Oil (M11)
10	321-0094	2	Fuse, Cartridge - 5 Amp (F4, F5)	29	193-0351	1	Gauge, Temp - Water (M12)
11	323-1305	1	Connector - 8 Pin (P1)	30	302-1790	1	Meter, Ampere - DC (M13)
12	323-1303	1	Connector - 6 Pin (P2)	31	302-0885	1	Meter, Running Time (M14)
13	323-1309	1	Connector - 13 Pin (P3)	32	193-0330	1	Gauge, Temp - Oil (M15)
14	323-1307	1	Connector - 12 Pin (P4)	33	302-1715	1	Meter, Tach (M16)
15	301-8851	1	Bracket, Mounting - Printed Circuit Board Assembly	34	517-0221	1	Plug, Button
	821-0004	4	Screw, Self-Locking - Hex Washer Head (#10 - 32 x 5/16")	35	322-0052	1	Clamp, Loop
16			Module, Indicator - Fault (A12) (Includes Connector Housing)		870-0131	1	Nut, Self-Locking - ET Hex Washer Head (#10 - 32)
	322-0358-02	1	2 Light Control	36			Door, Control
	322-0359-02	1	7 Light Control		301-9055-01	1	5 Gauge Holes
	322-0360-02	1	12 Light Control		301-9055-02	1	3 Gauge Holes
				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.

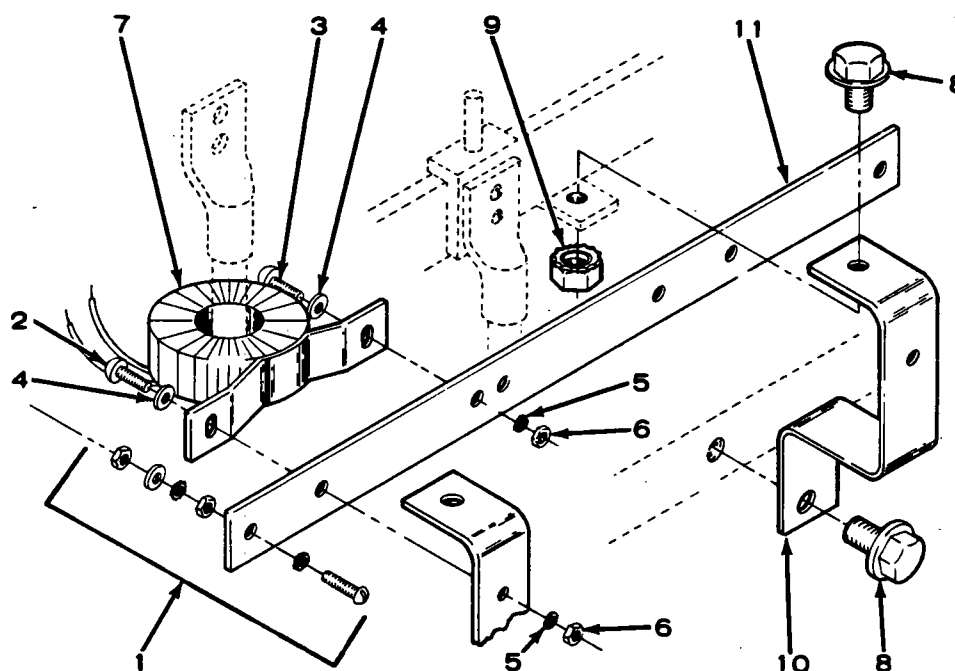
Generator Control



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)	16			Door, Control
	338-1818	1	Controls With Meters		301-9054-01	1	4 Meter Holes
	338-1853	1	Controls Without Meters		301-9054-02	1	3 Meter Holes
	812-0065	2	Screw, Machine - Round Head (#6 - 32 x 5/8")		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		815-0544	2	Screw, Machine - IT Round Washer Hd (#6 - 32 x 1/2")
	302-1687	1	Code 9X - 0-400 (Single Scale)	20	406-0332	2	Receptacle, Turnbutton Fastener
	302-1727	1	Codes 5D, 6D, 17 - 0-500, 0-1000 (Dual Scale)	21	300-2880	1	Regulator, Voltage (VR21)
7	302-1720	1	Meter, Frequency (M23)		815-0544	6	Screw, Machine - IT Round Washer Hd (#6 - 32 x 1/2")
8		1	Meter, Watt (M24) (See Separate Page For Components)	22	337-0049	1	Strap, Electrical (Ground)
9	303-0032	1	Knob		800-0024	1	Screw, Cap - Hex Head (5/16 - 18 x 1/2")
10		1	Breaker, Circuit (CB21)		856-0008	1	Washer, Lock - EIT (5/16)
	320-1121	1	Without Auxiliary Contacts	23	508-0051	1	Grommet
	320-1438	1	With Auxiliary Contacts	24	402-0527	4	Mount, Vibration
11	303-0261	1	Rheostat (R21)		800-0045	4	Screw, Cap - Hex Head (5/16 - 18 x 3/8")
12	308-0284	1	Switch, Rotary (S21)		850-0045	4	Washer, Lock - Spring (5/16)
13	332-0052	1	Clamp, Loop	25	301-8065	1	Box, Control
	870-0131	1	Nut, Self-Locking - ET Hex Washer Head (#10 - 32)	26	821-0010	2	Screw, Self-Locking - Hex Washer Hd (1/4 - 20 x 1/2")
14	406-0334	2	Clip, Retaining - Turnbutton Fastener	27		1	Transformer Assembly - Current (See Separate Page For Components)
15	406-0333	2	Stud, Fastener - Turnbutton				

Current Transformer

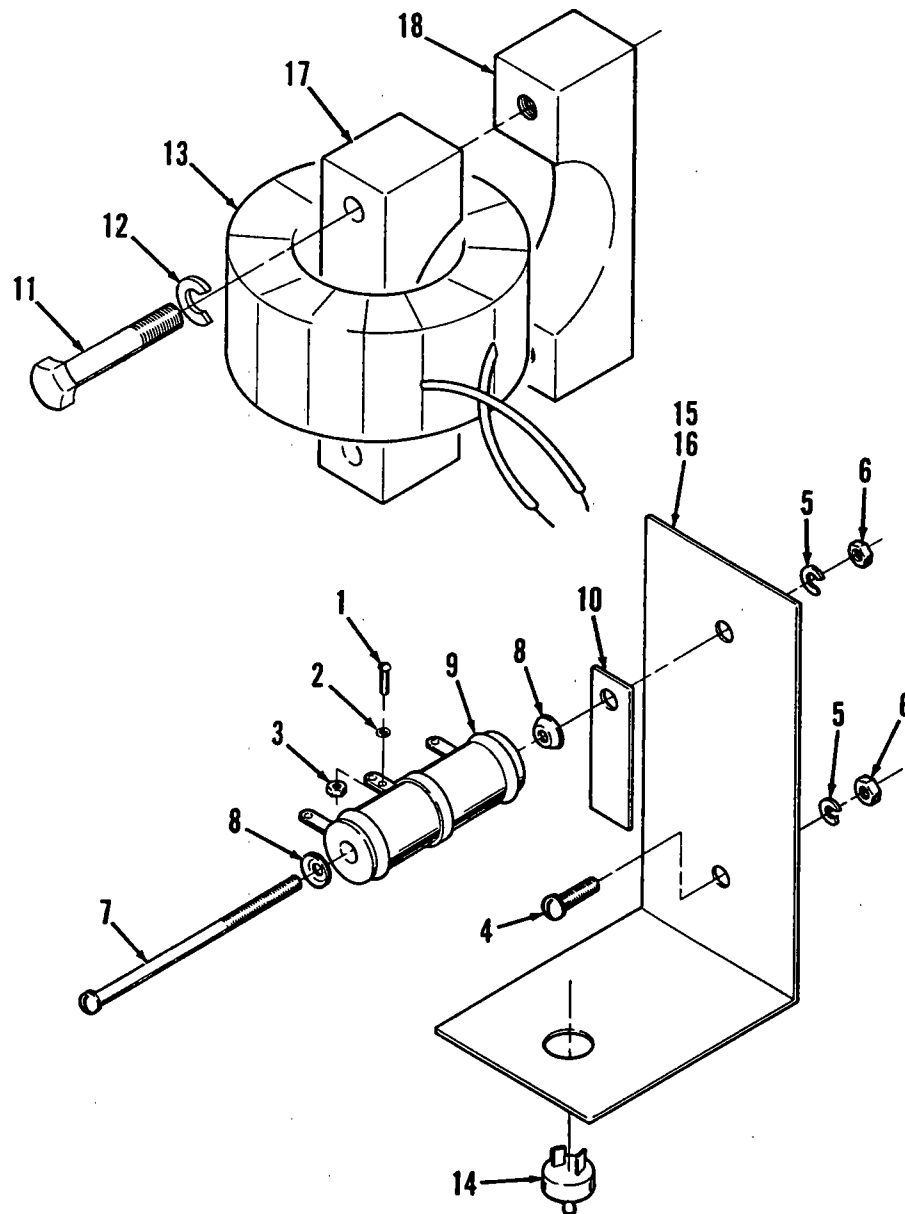


REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Terminal Assembly, Ground (Includes Parts Marked *)
	815-0203	1	* Screw, Machine - Round Head Brass (#10 - 32 x 7/8")
	871-0010	2	* Nut, Hex - Brass (#10 - 32)
	856-0003	2	* Washer, Lock - EIT (#10)
	526-0049	1	* Washer, Flat (#10)
2	813-0103	2	Screw, Machine - Round Head (#10 - 32 x 3/4")
3	813-0100	4	Screw, Machine - Round Head (#10 - 32 x 1/2")
4	526-0008	6	Washer, Flat (#10)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
5	856-0003	6	Washer, Lock - EIT (#10)
6	870-0053	6	Nut, Hex (#10 - 32)
7			Transformer, Current - 2 VA Code 9X - Ratio 400/5 Codes 6D, 17 - Ratio 500/5 Code 5D - Ratio 1000/5
	302-0608	3	
	302-0547	3	
	302-0963	3	
8	821-0029	4	Screw, Self-Locking - Hex Washer Head (3/8 - 16 x 3/4")
9	870-0281	4	Nut, Lock - Hex (3/8 - 16)
10	232-2342	2	Bracket, Mounting - Transformer
11	315-0389	1	Plate, Mounting - Transformer

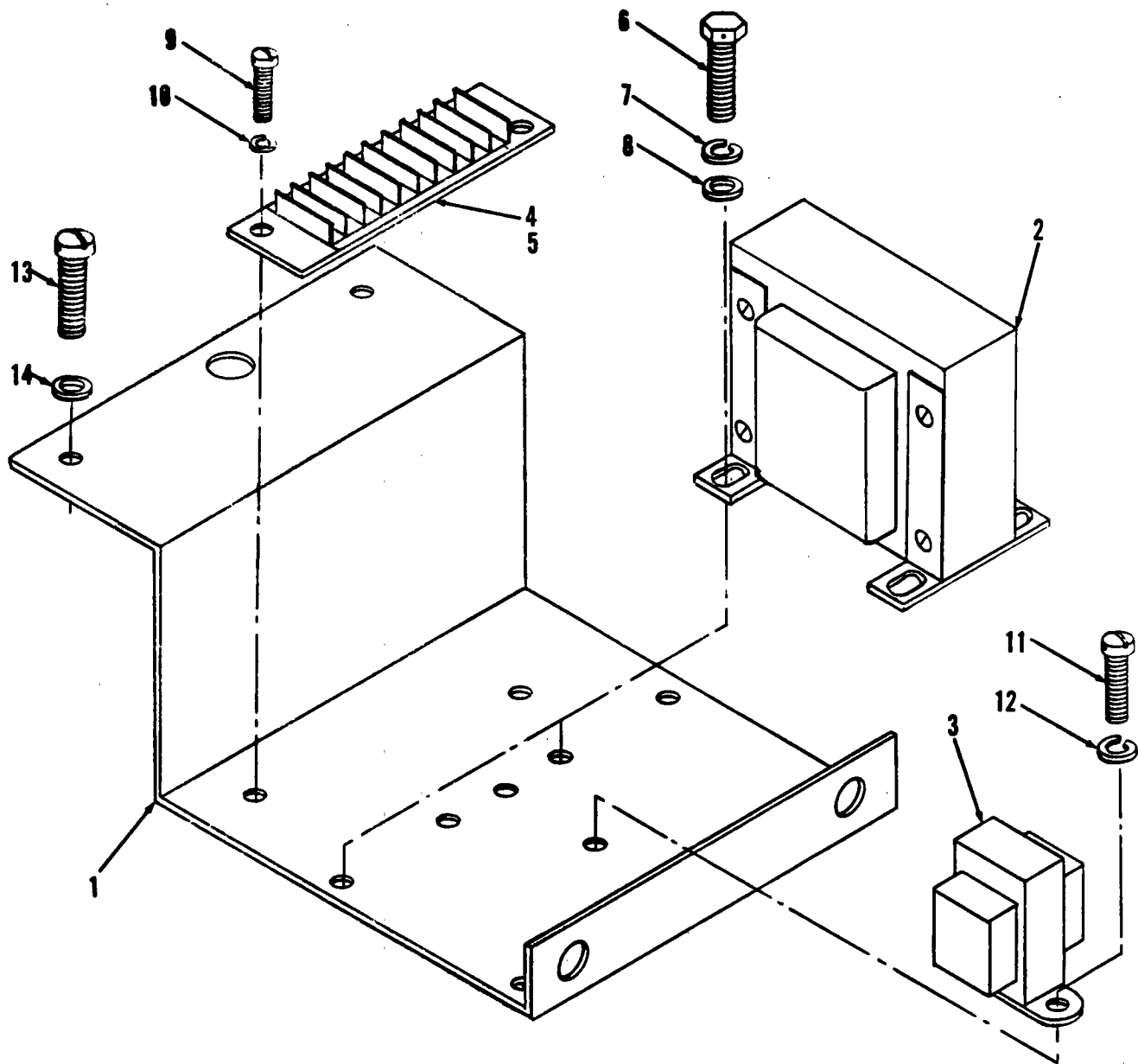
* Parts included in Ground Terminal Assembly.

Cross Current Transformer



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	812-0061	3	Screw, Machine - Round Head (#6 - 32 x 3/8")	9	304-0642	1	Resistor, Current - Cross
2	853-0003	6	Washer, Lock - ET (#6)	10	304-0292	1	Insulator, Resistor
3	860-0006	6	Nut, Machine - Hex (#6 - 32)	11	800-0003	2	Screw, Cap - Hex Head (1/4 - 20 x 1/2)
4	813-0100	1	Screw, Machine - Round Head (#10 - 32 x 1/2")	12	850-0040	2	Washer, Lock (1/4)
5	850-0030	2	Washer, Lock (#10)	13	302-0892	1	Transformer, Current
6	870-0053	2	Nut, Hex (#10 - 32)	14	308-0069	1	Switch, Toggle
7	813-0113	1	Screw, Machine - Round Head (#10 - 32 x 2-3/4")	15	301-9657	1	Bracket, Current - Cross
8	304-0014	2	Washer, Centering (7/32)	16	98-2313	1	Decal
				17	302-0235	1	Clamp, Transformer (Upper)
				18	302-0236	1	Clamp, Transformer (Lower)

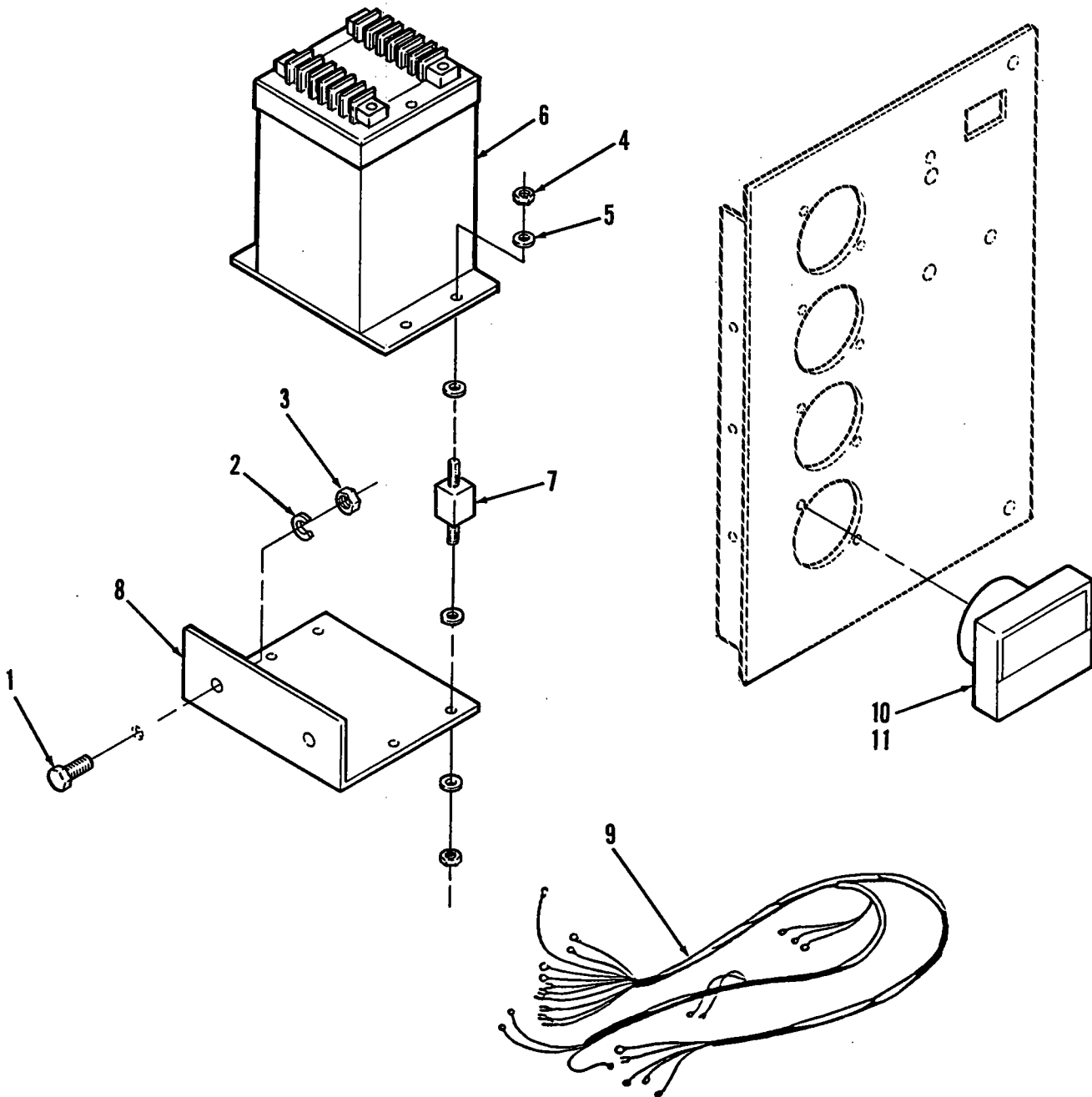
Current Transformer (Voltage Code 6D)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	301-9541	1	Bracket, Transformer - Current
2	315-0636	2	Transformer, Current
3	315-0635	1	Transformer, Current
4	332-2562	1	Block, Terminal
5	332-2563	1	Strip, Marker
6	800-0007	8	Screw, Cap - Hex Head (1/4 - 20 x 1")
7	850-0040	8	Washer, Lock (1/4)
8	526-0018	8	Washer, Flat (17/64" ID x 5/8" OD x 1/16" THK)

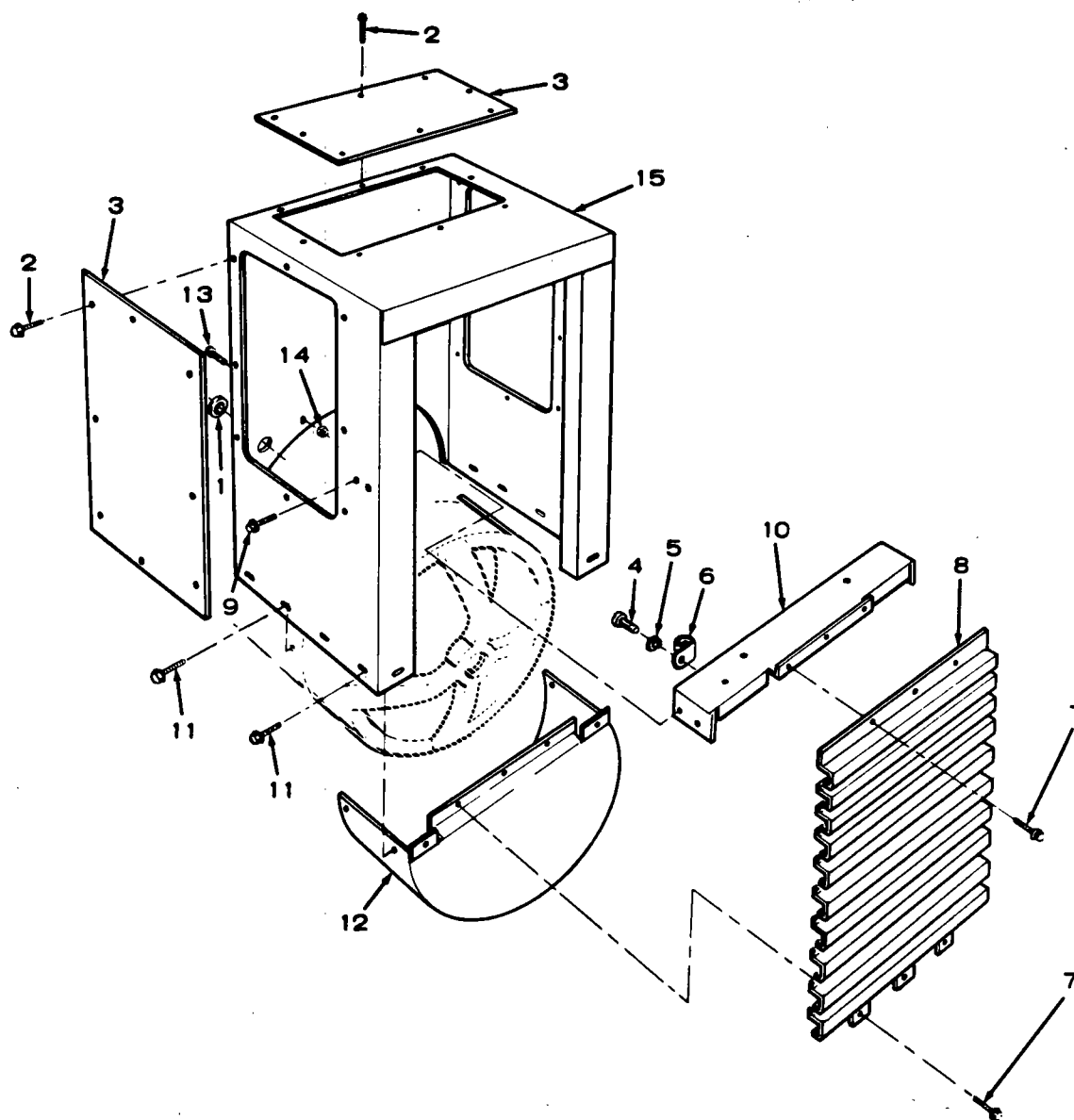
REF NO.	PART NO.	QTY USED	PART DESCRIPTION
9	812-0077	2	Screw, Machine - Round Head (#8 - 32 x 3/8")
10	850-0025	2	Washer, Lock (#8)
11	812-0079	2	Screw, Machine - Round Head (#8 - 32 x 1/2")
12	850-0025	2	Washer, Lock (#8)
13	812-0156	4	Screw, Machine - Round Head (1/4 - 20 x 1-1/2")
14	850-0040	4	Washer, Lock (1/4)

Wattmeter



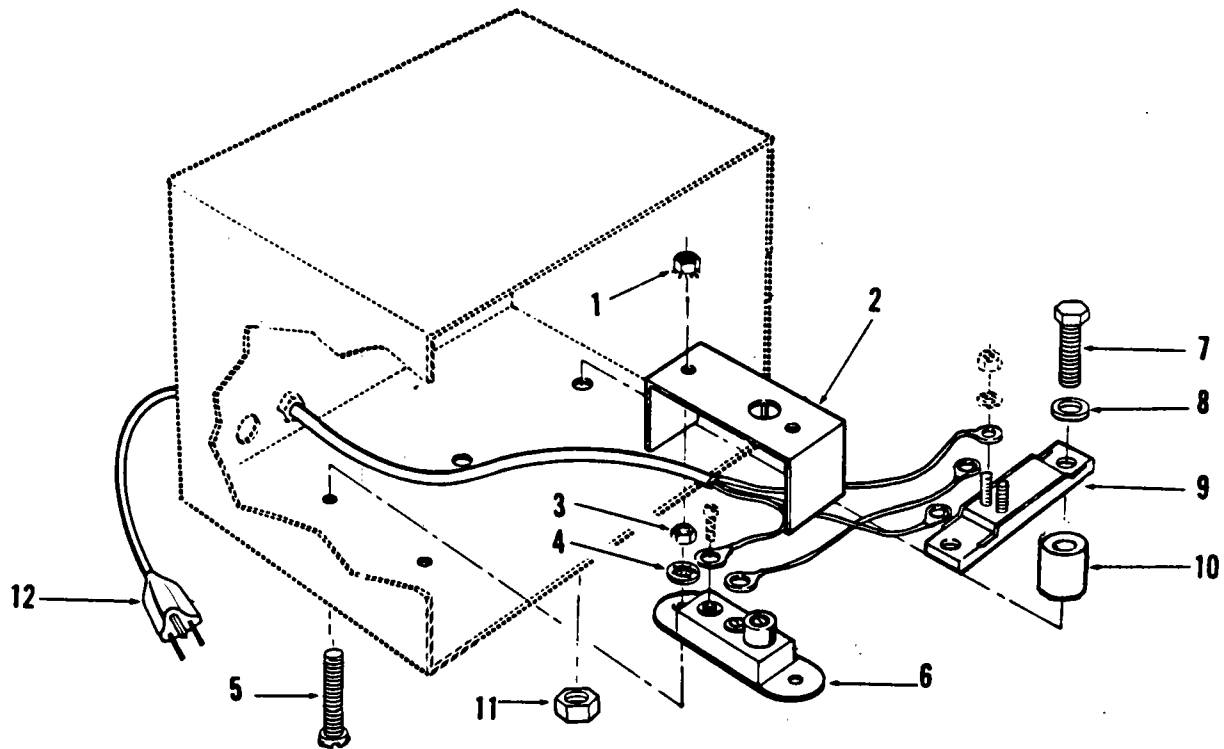
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	821-0017	2	Screw, Lock (5/16 - 18 x 1/2")	7	402-0354	4	Mount, Shock
2	850-0045	2	Washer, Lock (5/16)	8	301-6987	1	Bracket, Mounting - Watts Transducer
3	862-0014	2	Nut, Hex (5/16 - 18)	9	338-1936	1	Harness, Wiring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

Control Housing



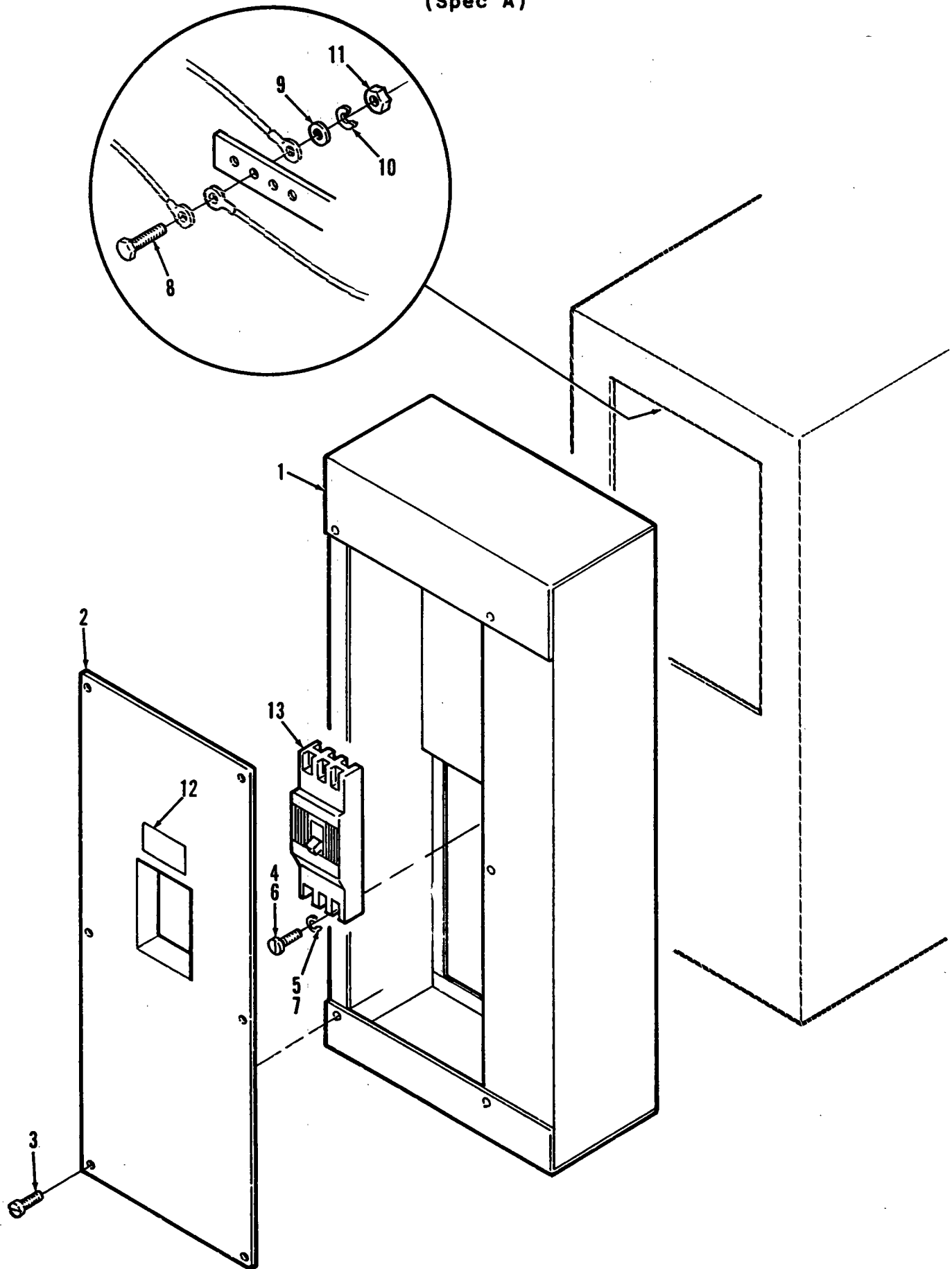
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	508-0203	1	Bushing, Grommet	9	821-0010	4	Screw, Self-Locking - Hex Washer Head (1/4 - 20 x 1/2")
2	821-0010	24	Screw, Self-Locking - Hex Washer Head (1/4 - 20 x 1/2")	10	301-3604	1	Shelf, Mounting - Control Box
3	301-3731	3	Plate, Access	11	821-0014	10	Screw, Self-Locking - Hex Washer Head (5/16 - 18 x 1/2)
4	813-0102	1	Screw, Machine - Round Head (#10 - 32 x 5/8")	12	234-0489	1	Cover, Bell - End
5	850-0030	1	Washer, Lock - Spring (#10)	13	821-0016	2	Screw, Self-Locking - Hex Washer Head (5/16 - 18 x 3/4)
6	332-0052	3	Clamp, Loop	14	870-0257	2	Nut, Self-Locking - Hex (5/16 - 18)
7	821-0010	6	Screw, Self-Locking - Hex Washer Head (1/4 - 20 x 1/2")	15	301-3605	1	Housing, Control
8	234-0490	1	Grille, Inlet - Air				

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

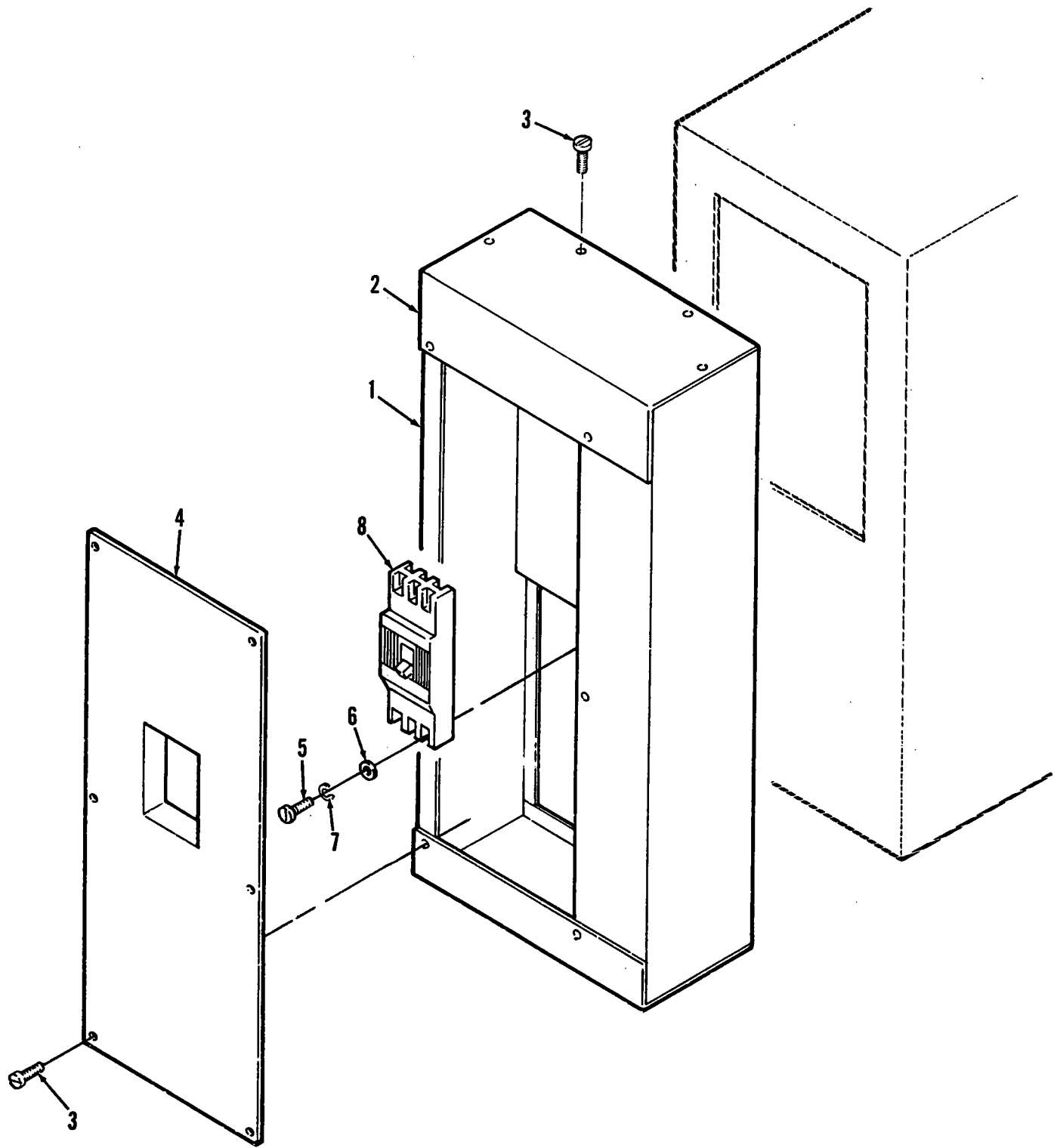
Circuit Breaker (Spec A)



Circuit Breaker (Spec A)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	301-3728	1	Box, Breaker - Circuit				With 12 VDC Shunt Trip
2			Cover, Breaker - Circuit	320-0370	1		300 Amp 240/480, 277/480, 347/600 VAC
	301-9139	1	225 - 800 Amp Breakers				
	301-9138	1	900 - 1200 Amp Breakers	320-0267	1		400 Amp 200/346 VAC
3	815-0026	6	Screw, Machine - Truss Head (#10 - 32 x 3/8")	320-0387	1		400 Amp 220/380, 240/480, 277/480 VAC
4	812-0156	4	Screw, Machine - Round Head (1/4 - 20 x 1/2")	320-0245	1		500 Amp 220/380 VAC
5	850-0040	4	Washer, Lock (1/4)	320-0438	1		With 24 VDC Shunt Trip
6	812-0182	4	Screw, Machine - Round Head (5/16 - 18 x 1-1/2")	320-0429	1		300 Amp 240/480, 277/480, 347/600 VAC
7	850-0045	4	Washer, Lock (5/16)				400 Amp 200/346, 220/380, 240/480, 277/480 VAC
8	800-0071	8	Screw, Cap - Hex Head (7/16 - 14 x 1")	320-0403	1		500 Amp 220/380 VAC
				320-0436	1		700 Amp 120/208, 120/240 VAC
9	526-0141	8	Washer, Flat (7/16)				800 Amp 120/208, 120/240 VAC
10	850-0055	8	Washer, Lock (7/16)	320-0466	1		
11	862-0004	8	Nut, Hex (7/16 - 14)				900 Amp 120/208 VAC
12	98-2304	1	Silkscreen, Breaker - Circuit (Warning)	320-0517	1		With 120 VAC Shunt Trip
13			Breaker, Circuit - 3 Pole	320-0268	1		300 Amp 240/480, 277/480, 347/600 VAC
	320-0401	1	300 Amp 240/480, 277/480, 347/600 VAC	320-0290	1		400 Amp 200/346, 220/380, 240/480, 277/480 VAC
	320-0405	1	400 Amp 200/346, 277/480, 240/480, 220/380 VAC	320-0236	1		500 Amp 220/380 VAC
	320-0625	1	450 Amp 200/346 VAC	320-0213	1		700 Amp 120/208, 120/240 VAC
	320-0598	1	500 Amp 200/346, 220/380 VAC				900 Amp 120/208 VAC
	320-0599	1	600 Amp 220/380 VAC	320-0362	1		With 240 VAC Shunt Trip
	320-0518	1	700 Amp 120/208, 120/240 VAC	320-0433	1		700 Amp 120/208, 120/240 VAC
	320-0519	1	800 Amp 120/208, 120/240 VAC				With 480 VAC Shunt Trip
	320-0520	1	900 Amp 120/208 VAC	320-0331	1		300 Amp 240/480, 277/480, 347/600 VAC
			With Auxiliary Contacts	320-0226	1		400 Amp 200/346, 220/380, 240/480, 277/480 VAC
	320-0741	1	300 Amp 240/480, 277/480, 347/600 VAC	320-0398	1		500 Amp 220/380 VAC
	320-0730	1	400 Amp 220/380, 240/480, 277/480 VAC	320-0396	1		700 Amp 120/208, 120/240 VAC
	320-1562	1	800 Amp 120/208, 120/240 VAC				
	320-1445	1	900 Amp 120/208 VAC				

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	301-9778	1	Box, Breaker - Circuit	320-1480-08	1	350 Amp	
2	301-9779	2	Panel, Breaker - Circuit	320-1480-09	1	400 Amp	
3	821-0010	8	Screw, Lock (1/4 - 20 x 1/2")	320-1480-10	1	450 Amp	
4			Cover, Box - Circuit Breaker	320-1480-11	1	500 Amp	
	301-9781	1	3" x 4" Breaker Hole	320-1480-12	1	600 Amp	
	301-9793	1	2-1/2" x 3-5/8" Breaker Hole	320-1481-07	1	700 Amp	
5			Screw	320-1481-08	1	800 Amp	
	812-0094	4	225 Amp Breaker				With 480 Volt Shunt Trip
	812-0157	4	250 - 600 Amp Breaker	320-1484-07	1	300 Amp	
	800-0031	4	700 - 800 Amp Breaker	320-1484-08	1	350 Amp	
6			Washer, Flat	320-1484-09	1	400 Amp	
	526-0048	4	225 Amp Breaker	320-1484-10	1	450 Amp	
	526-0108	4	250 - 600 Amp Breaker	320-1484-11	1	500 Amp	
	526-0115	4	700 - 800 Amp Breaker	320-1484-12	1	600 Amp	
7			Washer, Lock	320-1485-07	1	700 Amp	
	850-0025	4	225 Amp Breaker	320-1485-08	1	800 Amp	
	850-0040	4	250 - 600 Amp Breaker				With 12 Volt Shunt Trip &
	850-0045	4	700 - 800 Amp Breaker				Auxiliary Contacts
8			Breaker, Circuit - 3 Pole	320-1488-07	1	300 Amp	
			600 VAC	320-1488-08	1	350 Amp	
	320-1460-07	1	300 Amp	320-1488-09	1	400 Amp	
	320-1460-08	1	350 Amp	320-1488-10	1	450 Amp	
	320-1460-09	1	400 Amp	320-1488-11	1	500 Amp	
	320-1460-10	1	450 Amp	320-1488-12	1	600 Amp	
	320-1460-11	1	500 Amp	320-1489-07	1	700 Amp	
	320-1460-12	1	600 Amp	320-1489-08	1	800 Amp	
	320-1461-07	1	700 Amp				With 24 Volt Shunt Trip &
	320-1461-08	1	800 Amp				Auxiliary Contacts
			With Auxiliary Contacts	320-1492-07	1	300 Amp	
	320-1464-07	1	300 Amp	320-1492-08	1	350 Amp	
	320-1464-08	1	350 Amp	320-1492-09	1	400 Amp	
	320-1464-09	1	400 Amp	320-1492-10	1	450 Amp	
	320-1464-10	1	450 Amp	320-1492-11	1	500 Amp	
	320-1464-11	1	500 Amp	320-1492-12	1	600 Amp	
	320-1464-12	1	600 Amp	320-1493-07	1	700 Amp	
	320-1465-07	1	700 Amp	320-1493-08	1	800 Amp	
	320-1465-08	1	800 Amp				With 120 Volt Shunt Trip &
			With 12 Volt Shunt Trip				Auxiliary Contacts
	320-1468-07	1	300 Amp	320-1496-07	1	300 Amp	
	320-1468-08	1	350 Amp	320-1496-08	1	350 Amp	
	320-1468-09	1	400 Amp	320-1496-09	1	400 Amp	
	320-1468-10	1	450 Amp	320-1496-10	1	450 Amp	
	320-1468-11	1	500 Amp	320-1496-11	1	500 Amp	
	320-1468-12	1	600 Amp	320-1496-12	1	600 Amp	
	320-1469-07	1	700 Amp	320-1497-07	1	700 Amp	
	320-1469-08	1	800 Amp	320-1497-08	1	800 Amp	
			With 24 Volt Shunt Trip				With 240 Volt Shunt Trip &
	320-1472-07	1	300 Amp				Auxiliary Contacts
	320-1472-08	1	350 Amp	320-1500-07	1	300 Amp	
	320-1472-09	1	400 Amp	320-1500-08	1	350 Amp	
	320-1472-10	1	450 Amp	320-1500-09	1	400 Amp	
	320-1472-11	1	500 Amp	320-1500-10	1	450 Amp	
	320-1472-12	1	600 Amp	320-1500-11	1	500 Amp	
	320-1473-07	1	700 Amp	320-1500-12	1	600 Amp	
	320-1473-08	1	800 Amp	320-1501-07	1	700 Amp	
			With 120 Volt Shunt Trip	320-1501-08	1	800 Amp	
	320-1476-07	1	300 Amp				With 480 Volt Shunt Trip &
	320-1476-08	1	350 Amp				Auxiliary Contacts
	320-1476-09	1	400 Amp	320-1504-07	1	300 Amp	
	320-1476-10	1	450 Amp	320-1504-08	1	350 Amp	
	320-1476-11	1	500 Amp	320-1504-09	1	400 Amp	
	320-1476-12	1	600 Amp	320-1504-10	1	450 Amp	
	320-1477-07	1	700 Amp	320-1504-11	1	500 Amp	
	320-1477-08	1	800 Amp	320-1504-12	1	600 Amp	
			With 240 Volt Shunt Trip	320-1505-07	1	700 Amp	
	320-1480-07	1	300 Amp	320-1505-08	1	800 Amp	