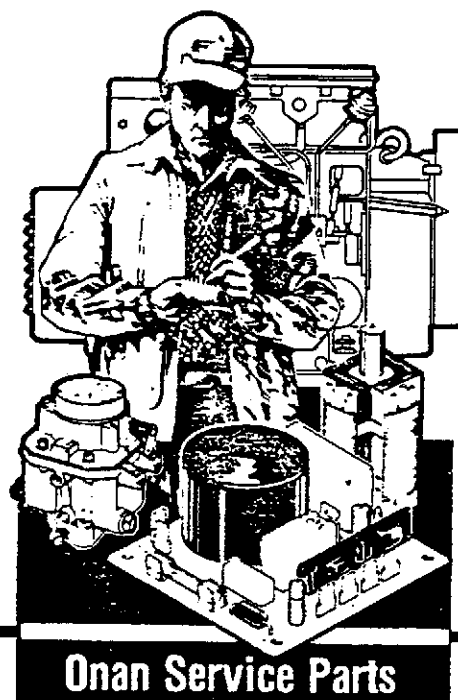


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Onan

Parts Manual

D V C
GenSet



Onan Service Parts

982-0223
9-86 (Spec A - B)
Replaces 1-85 (Spec A)
Printed in U.S.A.

 **Power
Generation**

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General Information

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

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

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

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

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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

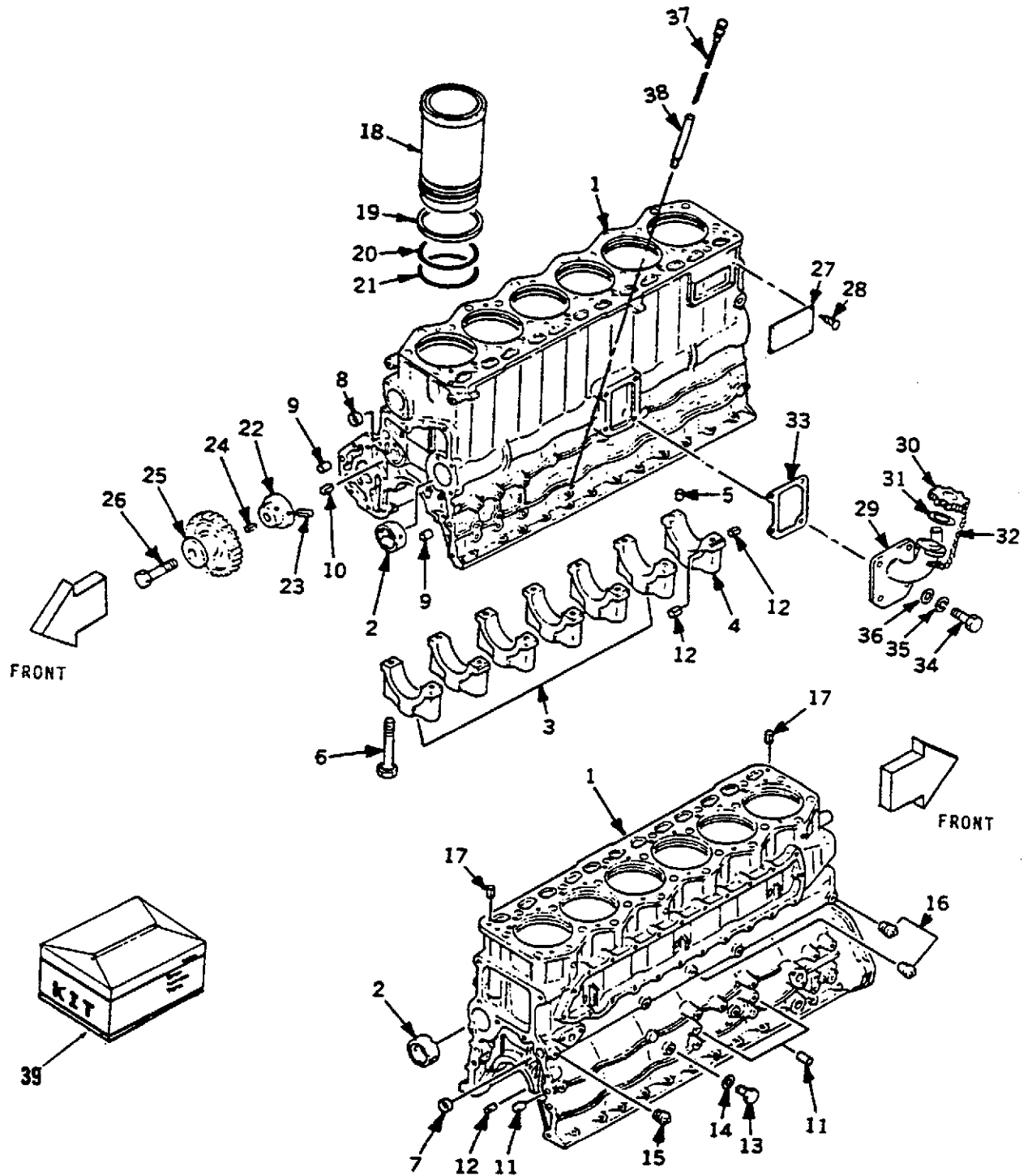
MODEL IDENTIFICATION	RATING	RPM RATING	BATTERY VOLTAGE
83.0 DVC - */ * 0	83,000 WATTS	1500 RPM	24 VDC
100.0 DVC - */ * 0	100,000 WATTS	1800 RPM	24 VDC

Electrical Data Table

*VOLTAGE CODE	VOLTS	HERTZ	WIRE	PHASE	NOTES
6D	240/480	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.
- 0 - 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

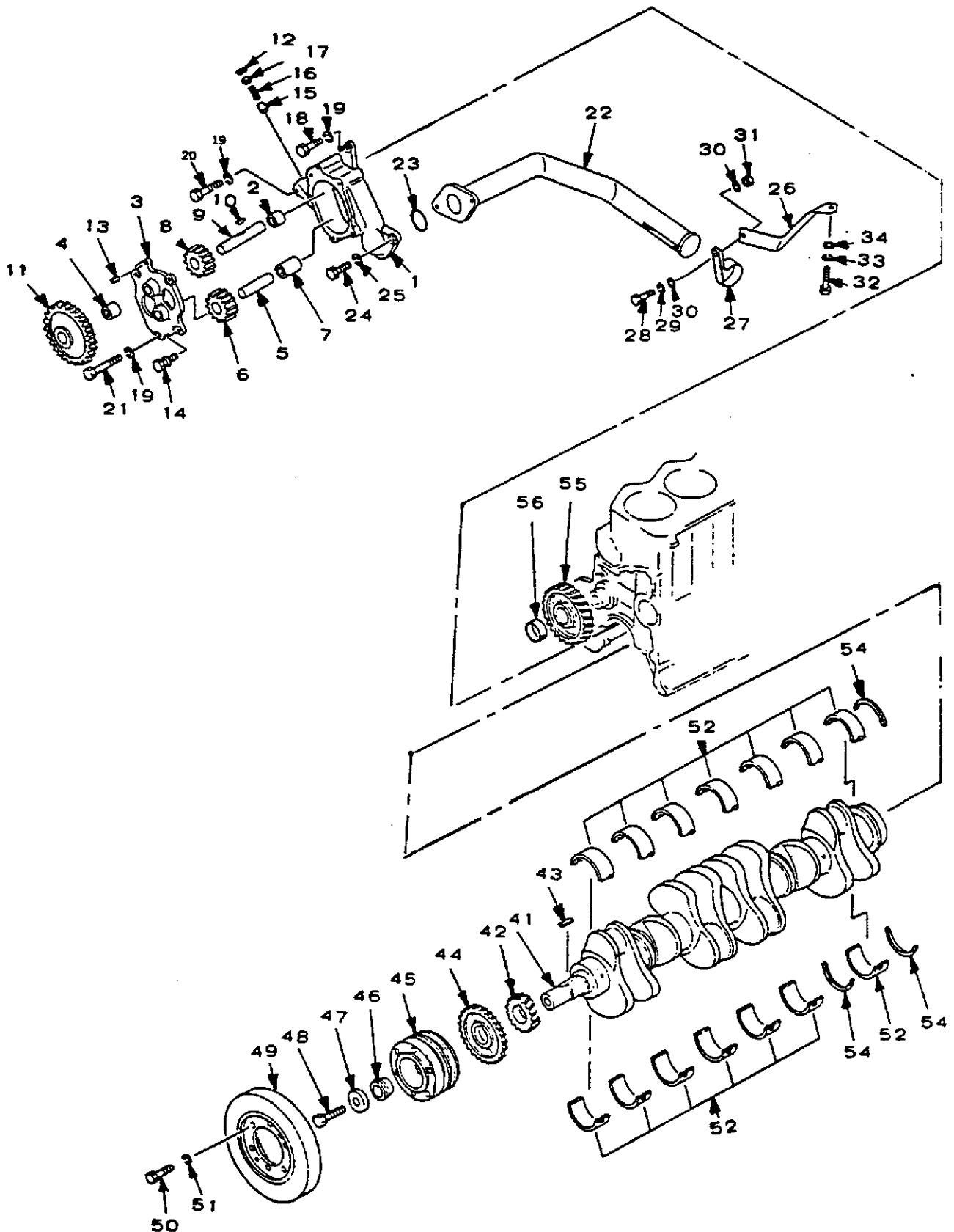


Cylinder Block

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-0265	1	Block, Cylinder (Includes Parts Marked *)	21	186-0241	6	Seal, O-Ring - Lower
2	186-0237	4	*Bearing, Sleeve - Camshaft	22	186-0242	1	Shaft
3	186-0274	6	*Cap, Bearing - Main	23	186-0124	1	Pin, Roll
4	186-0275	1	*Cap, Bearing - Main (Rear)	24	186-0126	1	Pin, Roll
5	186-0122	1	*Pin, Dowel	25	186-0243	1	Plate, Thrust
6	186-0266	14	*Bolt, Special - Bearing Cap	26	720-1083	1	Bolt, Hex Head (M12 x 1.75 x 75mm)
7	186-0190	1	*Plug, Expansion	29	186-0384	1	Housing, Fill - Oil (Includes Cap, Gasket, and Chain)
8	186-0190	1	*Plug, Expansion	30	186-0259	1	Cap, Fill - Oil (Includes Gasket)
9	186-0238	2	*Pin, Dowel	31	186-0260	1	Gasket
10	186-0126	1	*Pin, Roll	32	186-0261	1	Chain
11	186-0123	4	*Pin, Dowel	33	186-0263	1	Gasket
12	186-0125	6	*Pin, Roll	34	186-0083	4	Bolt, Hex Head
13	186-0150	1	*Plug, Threaded	35	186-0096	4	Washer, Lock - Spring
14	186-0146	1	*Gasket	36	186-0103	4	Washer, Flat
15	186-0152	2	*Plug, Pipe	37	186-0252	1	Indicator, level - Oil
16	186-0151	3	*Plug, Pipe	38	186-0253	1	Guide, Indicator - Oil
17	186-0127	2	*Pin, Roll	39	186-1118	1	Gasket Kit, Block - Cylinder
18	186-0385	6	Liner, Block - Cylinder				
19	186-0239	6	Seal				
20	186-0240	6	Seal, O-Ring - Upper				

* Parts included in 186-0265 Cylinder Block Assembly.

Crankshaft, And Oil Pump

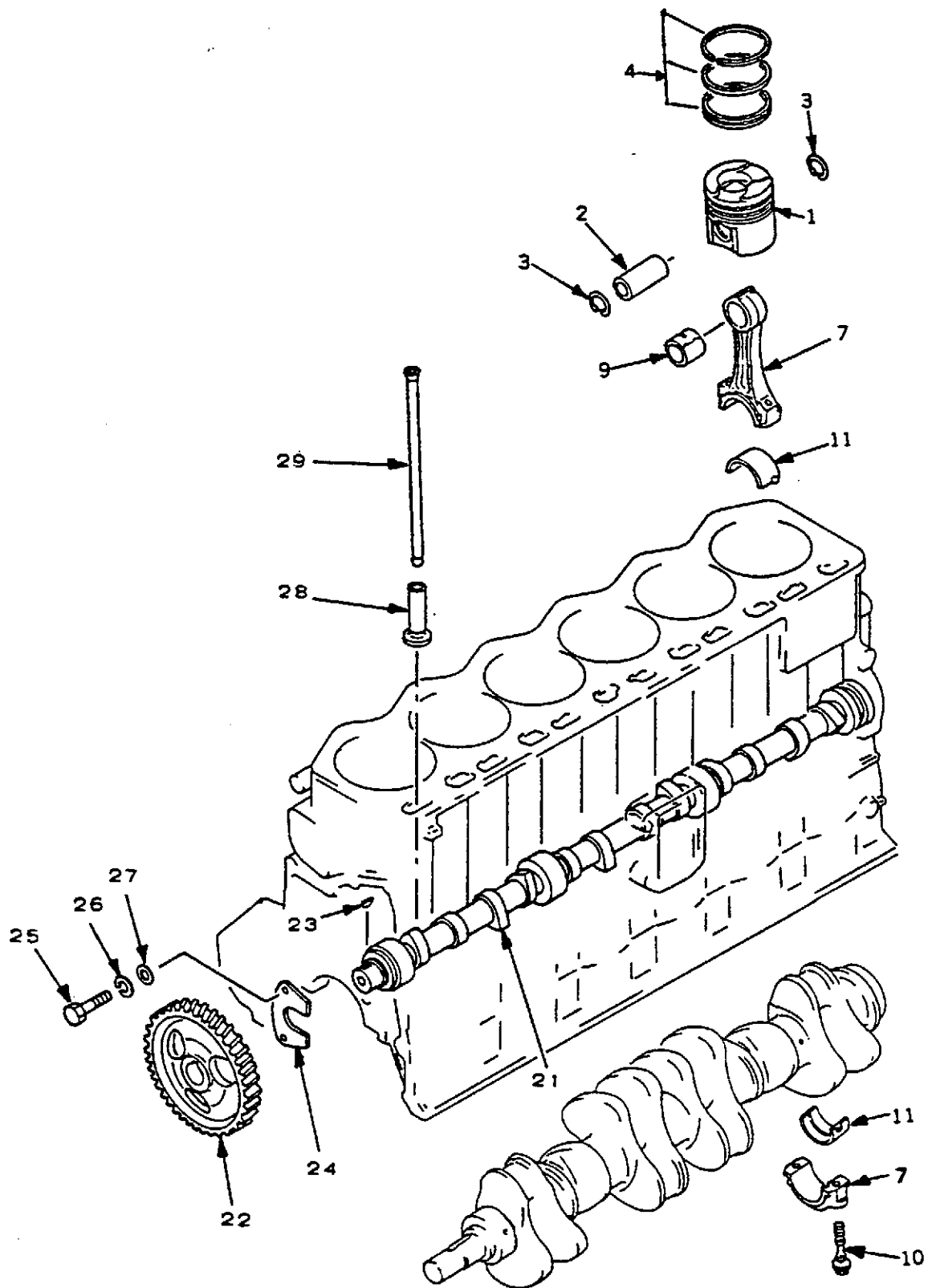


Crankshaft, And Oil Pump

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-0321	1	Pump, Oil (Includes Parts Marked *)	30	186-0102	2	Washer, Flat
2	186-0322	1	*Bushing, Sleeve	31	186-0089	1	Nut, Hex
3	186-0532	1	*Cover (Includes Bushing And Shaft)	32	720-1054	1	Bolt, Hex Head (M10 x 1.5 x 25mm)
4	186-0323	1	*Bushing, Sleeve	33	186-0096	1	Washer, Lock - Spring
5	186-0533	1	*Shaft	34	186-0103	1	Washer, Flat
6	186-0324	1	*Gear (Includes Bushing)	41	186-0278	1	Crankshaft (Includes Gear And Key)
7	186-0444	1	*Bushing, Sleeve	42	186-0279	1	Gear
8	186-0325	1	*Gear	43	186-0281	1	Key
9	186-0326	1	*Shaft	44	186-0280	1	Gear
10	186-0121	1	*Key	45	186-0282	1	Pulley
11	186-0327	1	*Gear	46	186-0283	1	Collar, Tapered
12	186-0130	1	*Ring, Snap	47	186-0284	1	Plate
13	186-0328	1	*Pin	48	186-0182	1	Bolt, Hex Head - Self-Locking
14	186-0329	3	*Bolt, Shoulder	49	186-0409	1	Damper, Vibration
15	186-0330	1	*Valve	50	720-1073	6	Bolt, Hex Head (M12 x 1.75 x 25mm)
16	186-0331	1	*Spring	51	186-0097	6	Washer, Lock - Spring
17	186-0332	1	*Retainer	52			Bearing Set, Main (Includes Upper and Lower Half Brgs)
18	720-1038	1	Bolt, Hex Head (M8 x 1.25 x 30mm)		186-0267	7	Standard
19	186-0095	3	Washer, Lock - Spring		186-0276	7	0.25mm Undersize
20	720-1041	1	Bolt, Hex Head (M8 x 1.25 x 45mm)		186-0272	7	0.50mm Undersize
21	720-0143	1	Bolt, Hex Head (M8 x 1.25 x 55mm)		186-0270	7	0.75mm Undersize
22	186-0316	1	Pipe, Pickup - Oil		186-0268	7	1.00mm Undersize
23	186-0143	1	Seal, O-Ring	54			Washer Set, Thrust (Includes Three Half Washers)
24	720-1037	2	Bolt, Hex Head (M8 x 1.25 x 25mm)		186-0264	1	Standard
25	186-0095	2	Washer, Lock - Spring		186-0277	1	0.25mm Oversize
26	186-0317	1	Bracket		186-0273	1	0.50mm Oversize
27	186-0318	1	Clamp		186-0271	1	0.75mm Oversize
28	720-1037	1	Bolt, Hex Head (M8 x 1.25 x 25mm)		186-0269	1	1.00mm Oversize
29	186-0095	1	Washer, Lock - Spring	55	186-0286	1	Gear
				56	186-0285	1	Bushing, Sleeve

* Parts included in 186-0321 Oil Pump Assembly.

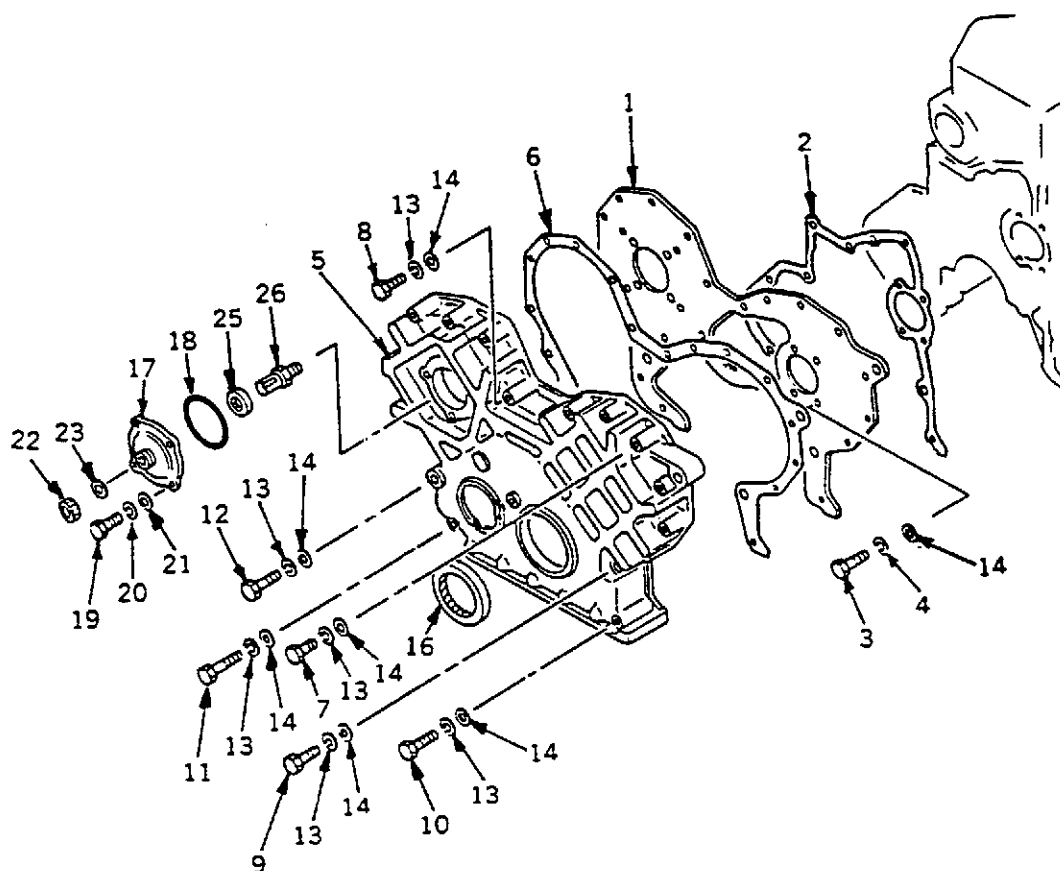
Camshaft, Piston, And Connecting Rod



Camshaft, Piston, And Connecting Rod

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-0389	6	Piston (Includes Pin and Snap Rings)	186-0291	6	1.00mm Undersize	
2	186-0388	1	Pin	21	186-0390	1	Camshaft (Includes Gear And Key)
3	186-0131	2	Ring, Snap	22	186-0295	1	Gear
4	186-0387	6	Ring Set, Piston	23	186-0120	1	Key
7	186-0288	6	Rod, Connecting (Includes Cap)	24	186-0296	1	Plate, Thrust
9	186-0289	1	Bushing, Sleeve	25	720-1037	2	Bolt, Hex Head (MB x 1.25 x 25mm)
10	186-0290	2	Bolt, Special - Connecting Rod	26	186-0095	2	Washer, Lock - Spring
11			Bearing Set, Rod - Connecting	27	186-0101	2	Washer, Flat
	186-0287	6	Standard	28	186-0302	12	Tappet
	186-0294	6	0.25mm Undersize	29	186-0303	12	Rod, Push
	186-0293	6	0.50mm Undersize				
	186-0292	6	0.75mm Undersize				

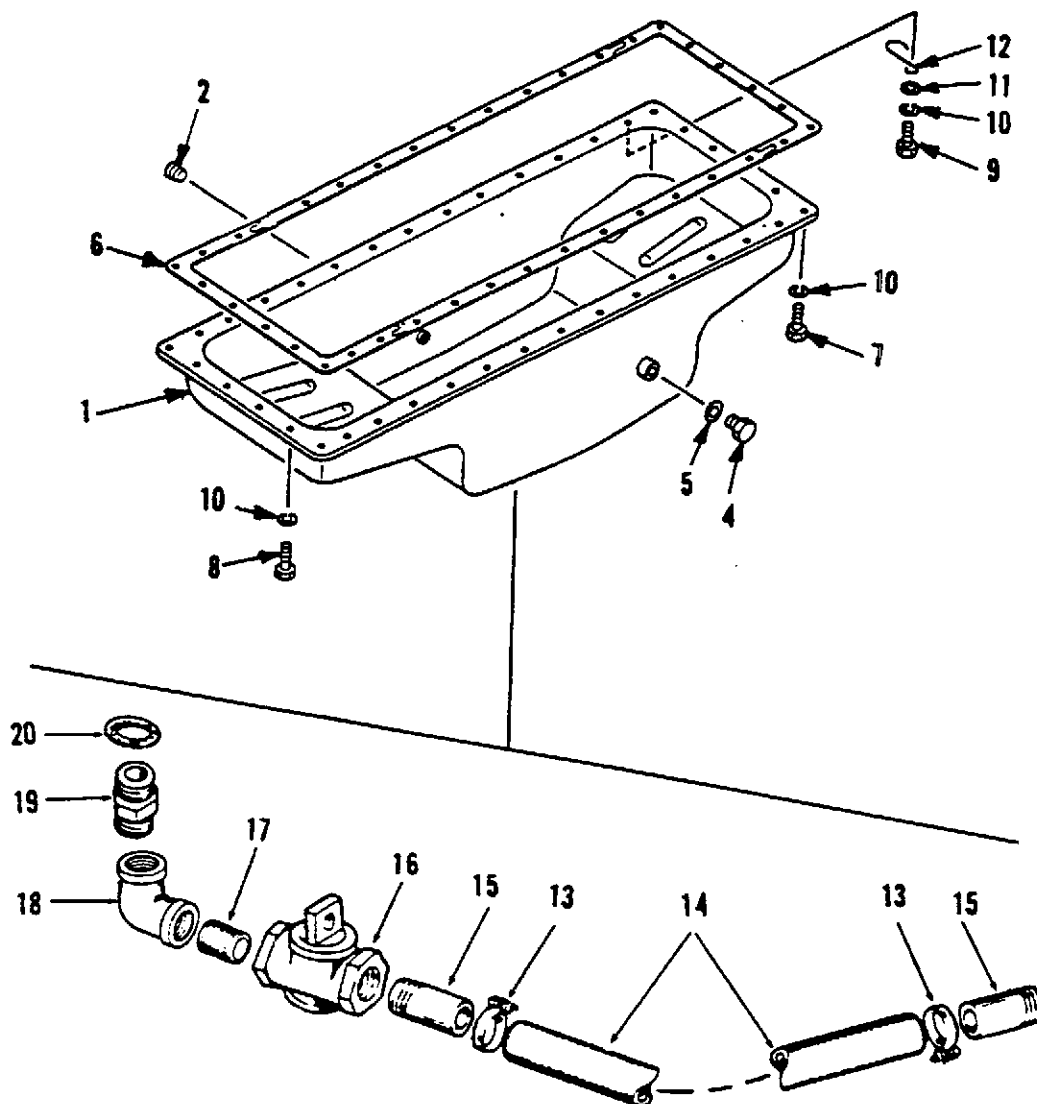
Gear Cover



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-0245	1	Plate, Front
2	186-0249	1	Gasket
3	186-0079	4	Bolt, Hex Head
4	186-0095	4	Washer, Lock - Spring
5	186-0244	1	Gearcase
6	186-0248	1	Gasket, Gearcase
7	720-1044	10	Bolt, Hex Head (M8 x 1.25 x 60mm)
8	720-1046	4	Bolt, Hex Head (M8 x 1.25 x 70mm)
9	720-1048	1	Bolt, Hex Head (M8 x 1.25 x 80mm)
10	720-1062	1	Bolt, Hex Head (M10 x 1.5 x 65mm)
11	720-1062	1	Bolt, Hex Head (M10 x 1.5 x 65mm)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
12	186-0081	1	Bolt, Hex Head
13	186-0095	18	Washer, Lock - Spring
14	186-0101	22	Washer, Flat
16	186-0246	1	Seal, Oil - Front
17	186-0247	1	Cover, Bearing
18	186-0136	1	Seal, O-Ring
19	720-1037	4	Bolt, Hex Head (M8 x 1.25 x 25mm)
20	186-0095	4	Washer, Lock - Spring
21	186-0101	4	Washer, Flat
22	186-0375	1	Cap, Drive - Tachometer
23	186-0199	1	Gasket
25	186-0405	1	Seal, Oil
26	186-0374	1	Shaft

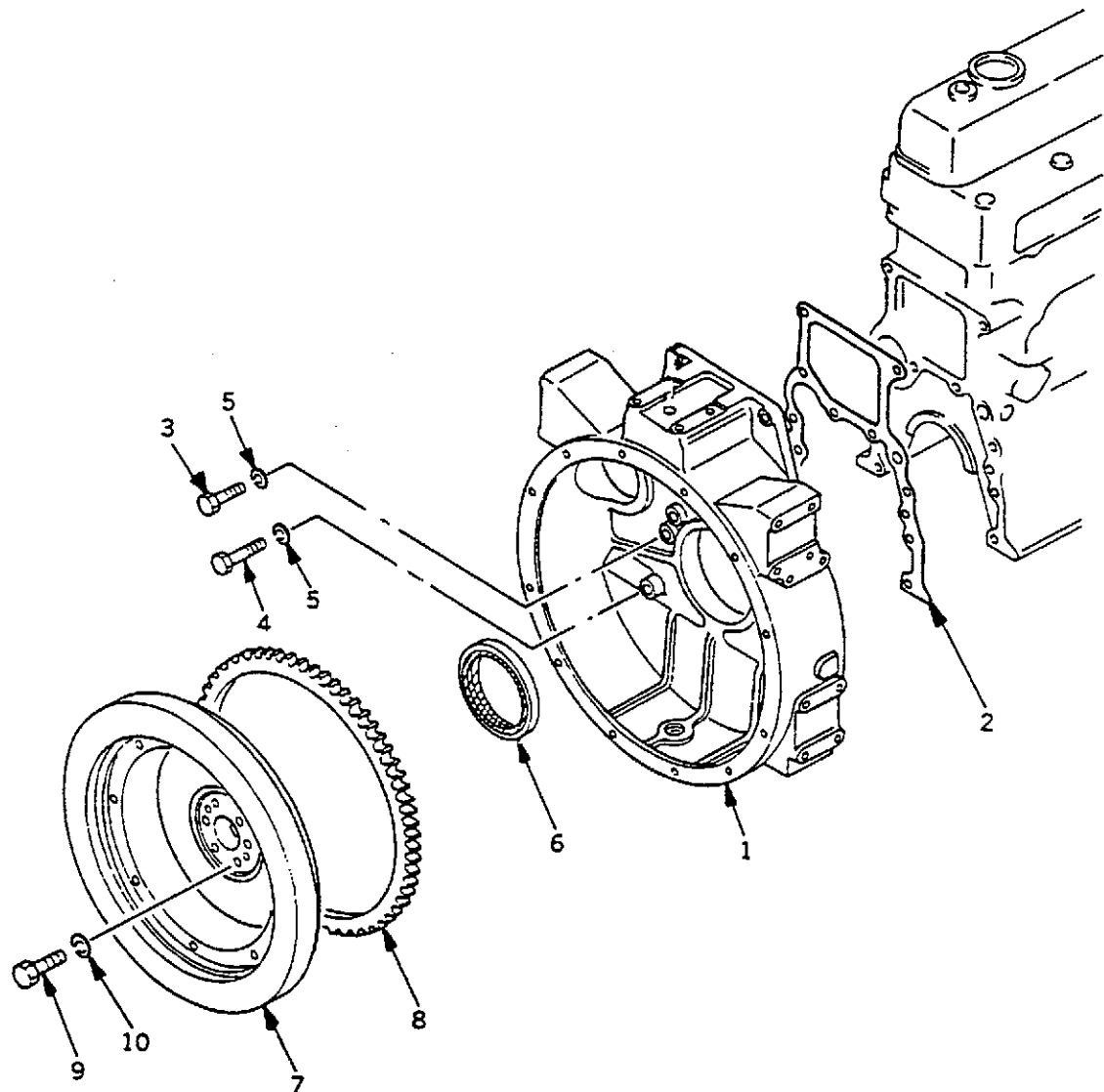
Oil Pan



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-0398	1	Pan, Oil
2	186-0117	1	Plug
4	186-0407	1	Plug
5	186-0148	1	Gasket
6	186-0254	1	Gasket, Pan - Oil
7	186-0079	27	Bolt, Hex Head
8	720-1037	8	Bolt, Hex Head (M8 x 1.25 x 25mm)
9	720-1038	3	Bolt, Hex Head (M8 x 1.25 x 30mm)
10	186-0095	38	Washer, Lock - Spring

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
11	186-0102	2	Washer, Flat
12	186-0192	1	Clip
13	503-0197	2	Clamp, Hose
14	503-1195	1	Hose, Rubber
15	505-0185	2	Nipple, Pipe - Half
16	504-0011	1	Valve, Cock - Brass
17	505-0100	1	Nipple, Pipe - Close
18	505-0040	1	Elbow, Pipe - 90°
19	502-0936	1	Adapter, Pipe - Hex
20	186-0140	1	Gasket, O-Ring

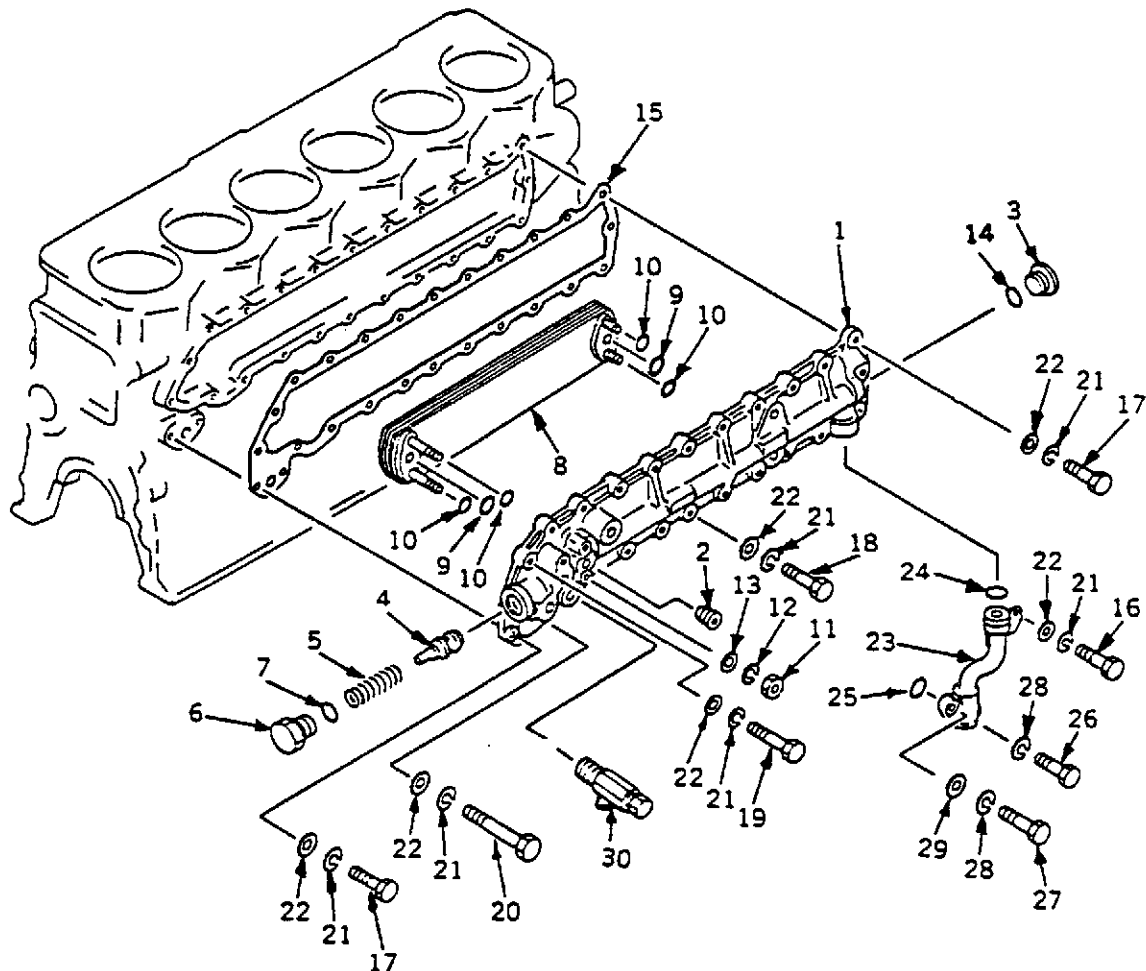
Flywheel, And Flywheel Housing



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-0250	1	Housing, Flywheel
2	186-0251	1	Gasket
3	720-1076	9	Bolt, Hex Head (M12 x 1.25 x 35mm)
4	720-1080	2	Bolt, Hex Head (M12 x 1.75 x 60mm)

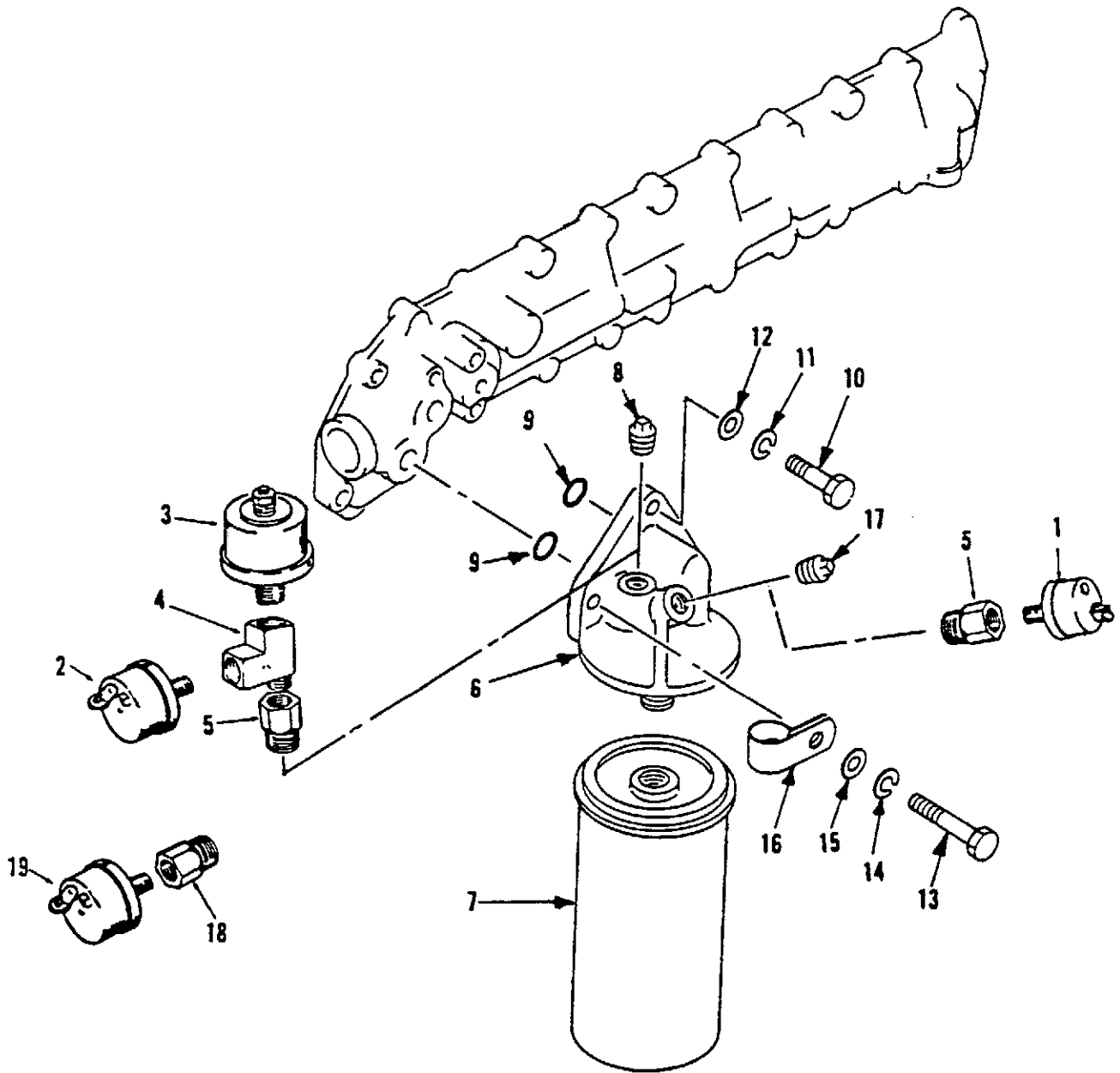
REF NO.	PART NO.	QTY USED	PART DESCRIPTION
5	186-0097	11	Washer, Lock - Spring
6	186-0191	1	Seal, Oil - Rear
7	186-0386	1	Flywheel (Includes Ring Gear)
8	186-0193	1	Gear, Ring
9	186-0086	6	Bolt, Hex Head
10	186-0181	6	Washer, Lock - Spring

011 Cooler



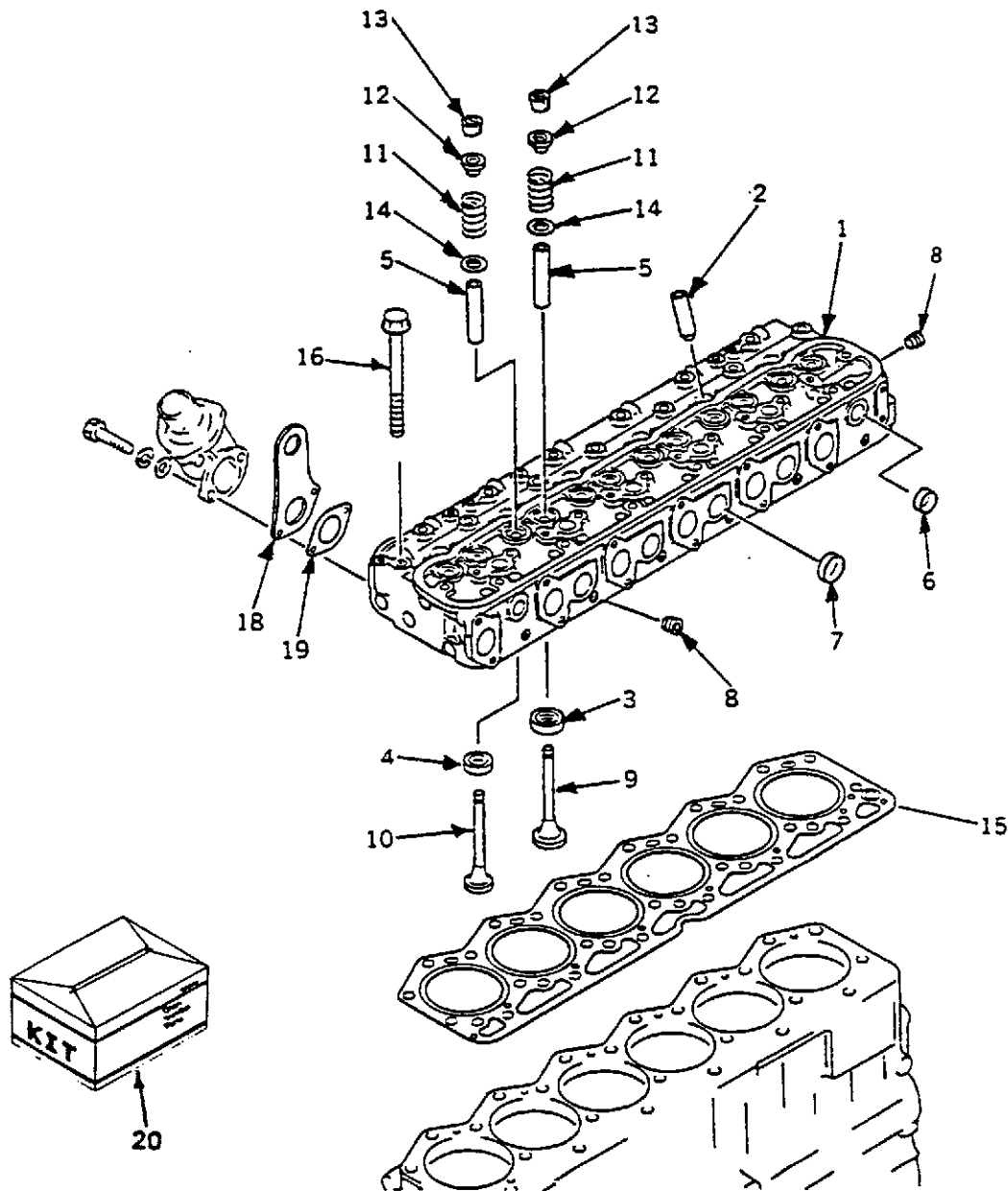
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-0351	1	Cover	18	720-1039	16	Bolt, Hex Head (M8 x 1.25 x 35mm)
2	186-0117	2	Plug	19	720-1045	1	Bolt, Hex Head (M8 x 1.25 x 65mm)
3	186-0399	1	Plug	20	720-1043	1	Bolt, Hex Head (M8 x 1.25 x 55mm)
4	186-0354	1	Valve, Thermo	21	186-0095	25	Washer, Lock - Spring
5	186-0353	1	Spring	22	186-0102	25	Washer, Flat
6	186-0352	1	Plug	23	186-0349	1	Pipe, Oil
7	186-0342	1	Seal, O-Ring	24	186-0429	1	Seal, O-Ring
8	186-0177	1	Element	25	186-0142	1	Seal, O-Ring
9	186-0343	2	Seal, O-Ring	26	720-1038	1	Bolt, Hex Head (M8 x 1.25 x 30mm)
10	186-0189	4	Seal, O-Ring	27	720-1043	1	Bolt, Hex Head (M8 x 1.25 x 55mm)
11	186-0092	4	Nut, Hex	28	186-0095	2	Washer, Lock - Spring
12	186-0099	4	Washer, Lock - Spring	29	186-0102	1	Washer, Flat
13	186-0106	4	Washer, Flat	30	186-0401	1	Valve, Drain
14	186-0343	1	Seal, O-Ring				
15	186-0345	1	Gasket				
16	720-1037	5	Bolt, Hex Head (M8 x 1.25 x 25mm)				
17	720-1038	2	Bolt, Hex Head (M8 x 1.25 x 30mm)				

Oil Filter



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	309-0272	1	Switch, Pressure - Lo Oil (S5)	11	186-0096	2	Washer, Lock - Spring
2	309-0169	1	Switch, Pressure - Lo Oil (S1)	12	186-0103	2	Washer, Flat
3	193-0244	1	Sender, Pressure - Oil (E1)	13	186-0080	1	Bolt, Hex Head
4	502-0058	1	Tee, Pipe - Brass	14	186-0095	1	Washer, Lock - Spring
5	502-0917	2	Adapter, Pipe - Hex	15	186-0102	1	Washer, Flat
6	186-0314	1	Adapter, Filter	16	186-0403	1	Clamp, Loop
7	186-0315	1	Filter, Oil	17	186-0151	1	Plug, Pipe
8	186-0154	2	Plug, Pipe	18	505-0395	1	Bushing, Reducer
9	186-0142	2	Seal, O-Ring	19	193-0353	1	Sender, Temperature - Oil
10	720-1056	2	Bolt, Hex Head (M10 x 1.5 x 35mm)				

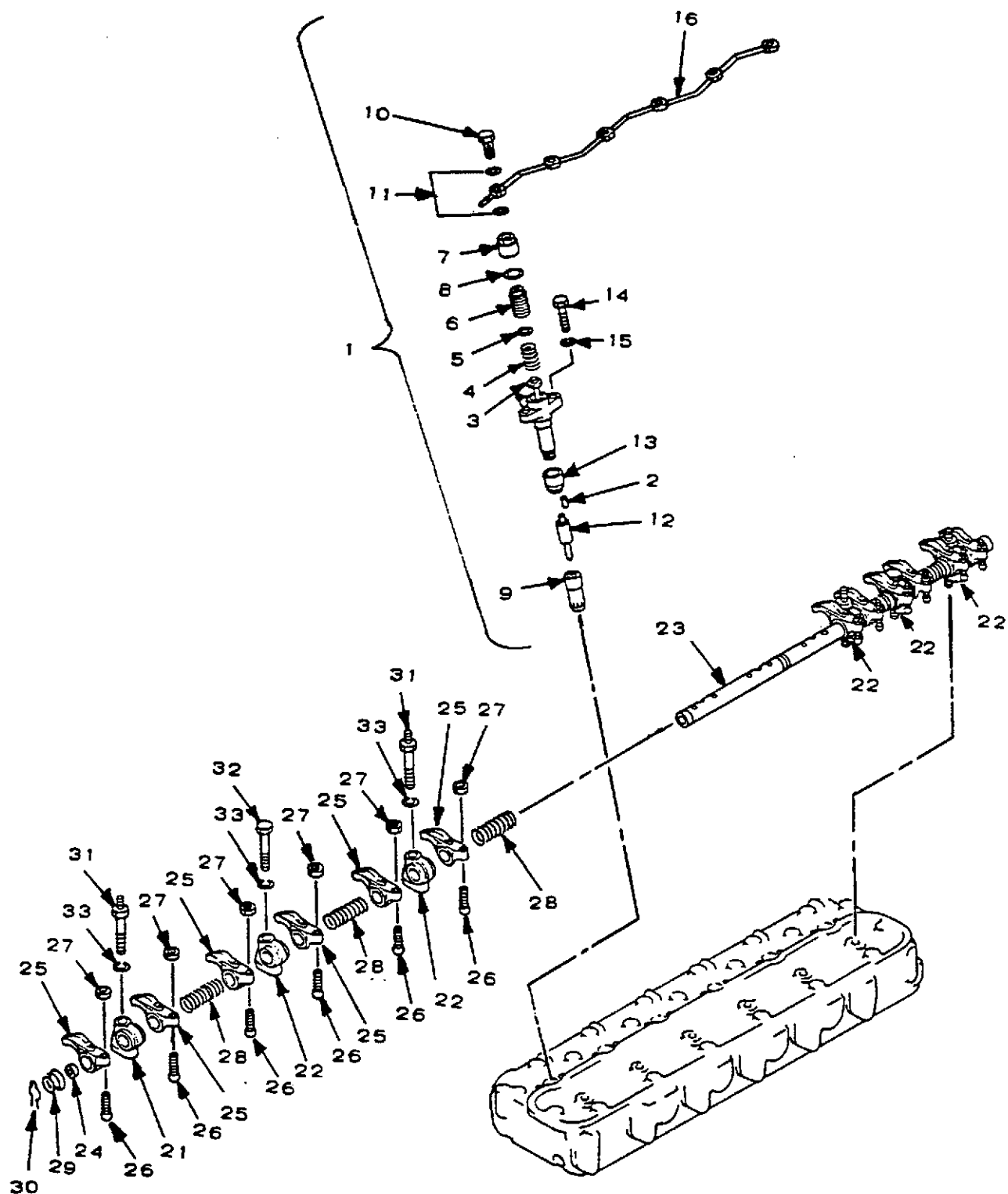
Cylinder Head



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-0381	1	Head, Cylinder With Valves (Includes Parts Marked *)	9	186-0304	6	*Valve, Poppet - Intake
	186-0382	1	Less Valves (Includes Parts Marked +)	10	186-0305	6	*Valve, Poppet - Exhaust
2	186-0204	6	**Sleeve	11	186-0306	12	*Spring, Valve
3	186-0484	6	**Seat, Valve - Intake (Std)	12	186-0307	12	*Guide, Valve
4	186-0225	6	**Seat, Valve - Exhaust (Std)	13	186-0308	24	*Collet, Lock - Valve
5	186-0236	12	**Guide, Valve	14	186-0297	12	*Seat, Spring - Valve
6	186-0157	13	**Plug, Expansion	15	186-0205	1	Gasket, Head - Cylinder
7	186-0158	4	**Plug, Expansion	16	186-0226	26	Bolt, Hex Head
8	186-0156	7	**Plug, Expansion	18	186-0207	1	Hanger, Front
				19	186-0206	1	Gasket
				20	186-1117	1	Gasket Kit, Head - Cylinder

* Parts included in 186-0381 Cylinder Head Assembly.
+ Parts included in 186-0382 Cylinder Head Assembly.

Rocker Arm, And Nozzle Holder

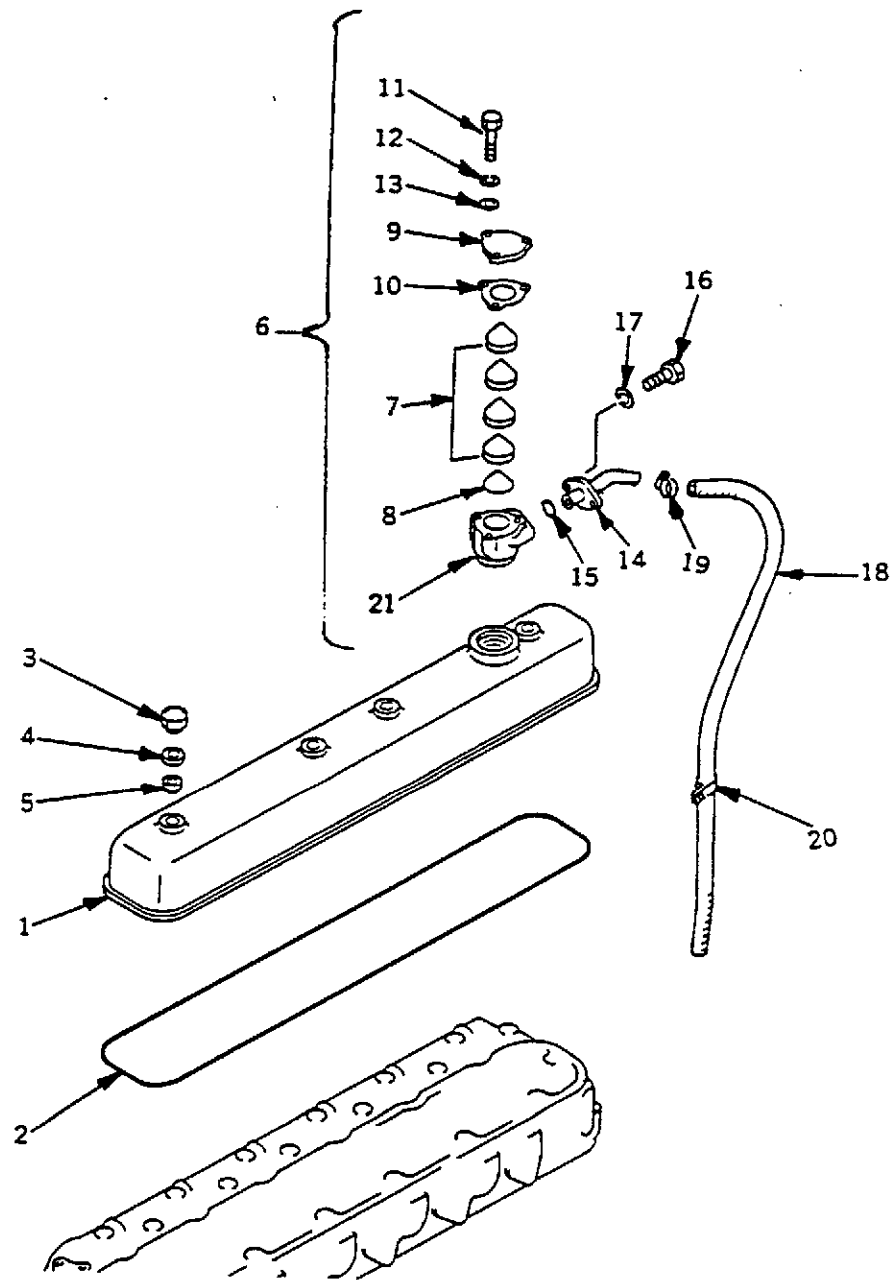


Rocker Arm, And Nozzle Holder

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-0227	6	Holder, Nozzle (Includes Parts Marked *)	16	186-0366	1	Line, Fuel - Return
2	186-0003	2	*Pin	21	186-0310	1	Bracket, Arm - Rocker
3	186-0005	1	*Rod, Push	22	186-0311	5	Bracket, Arm - Rocker
4	186-0004	1	*Spring	23	186-0309	1	Shaft, Arm - Rocker (Includes Plug)
5	186-0001	1	*Washer	24	186-0596	1	Plug
6	186-0006	1	*Screw, Adjusting	25	186-0312	12	Arm, Rocker
7	186-0007	1	*Nut, Lock	26	186-0313	12	Screw, Adjusting
8	186-0002	1	*Gasket	27	186-0089	12	Nut, Hex - Self-Locking
9	186-0008	1	*Retainer, Nozzle	28	186-0299	5	Spring
10	186-0187	1	*Bolt, Hex Head	29	186-0300	2	Spring
11	186-0144	2	*Gasket	30	186-0301	2	Clip
12	186-0383	1	*Nozzle	31	186-0298	4	Stud
13	186-0208	1	Packing	32	720-1084	2	Bolt, Hex Head (M12 x 1.75 x 80mm)
14	720-1043	12	Bolt, Hex Head (M8 x 1.25 x 55mm)	33	186-0097	6	Washer, Lock - Spring
15	186-0095	12	Washer, Lock - Spring				

* Parts included in 186-0227 Nozzle Holder Assembly.

Cylinder Head Cover



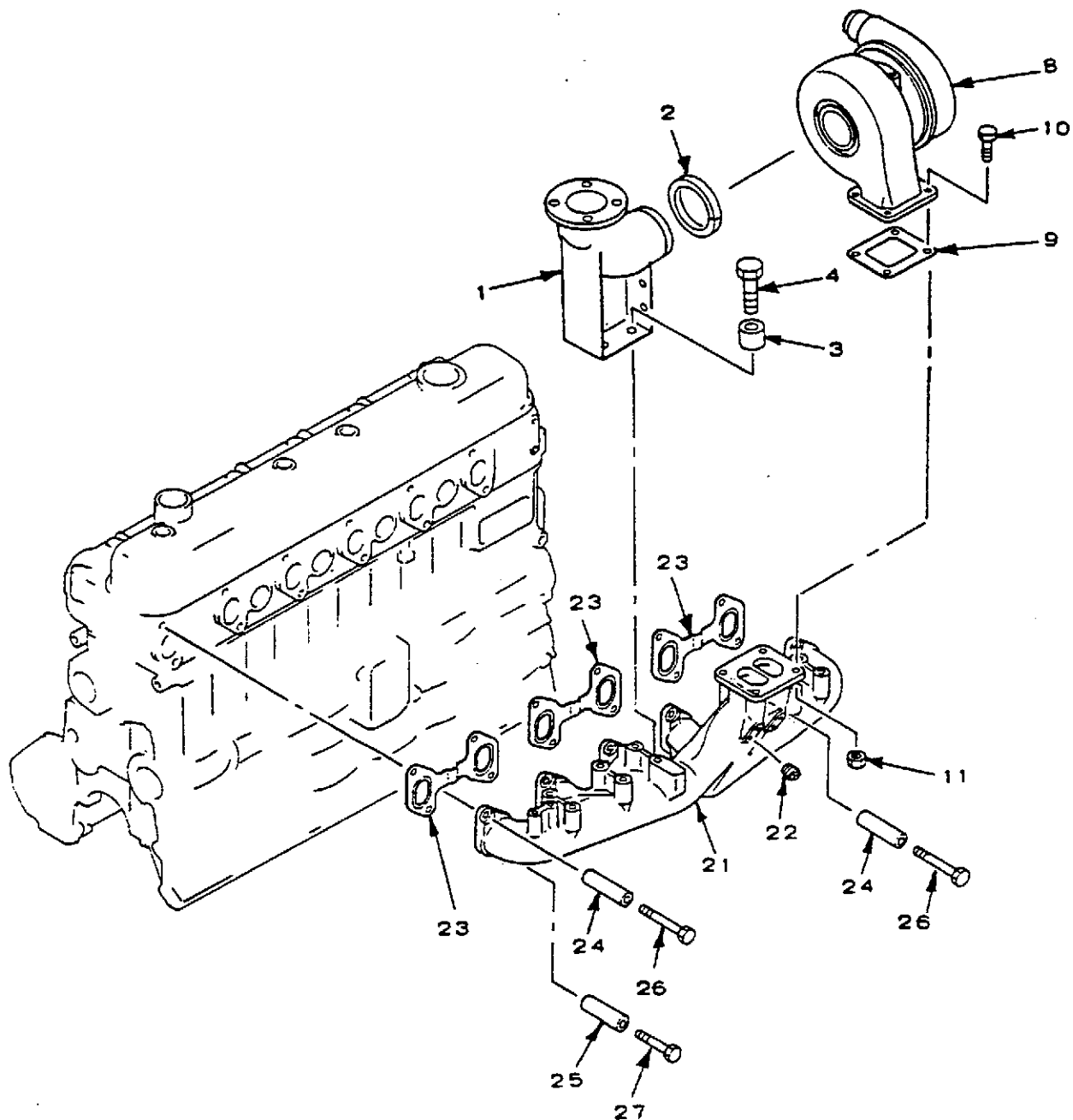
REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-0221	1	Cover, Head - Cylinder
2	186-0222	1	Seal, O-Ring - Valve Cover
3	186-0218	4	Nut, Hex - Crown
4	186-0219	4	Washer, Flat
5	186-0220	4	Seal
6	186-0410	1	Breather Assembly (Includes Parts Marked *)
7	186-0414	4	*Screen
8	186-0415	1	*Baffle
9	186-0412	1	*Cover, Breather
10	186-0413	1	*Gasket

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
11	186-0113	3	*Bolt, Hex Head
12	186-0116	3	*Washer, Lock - Spring
13	186-0115	3	*Washer, Flat
14	186-0262	1	Pipe, Breather
15	186-0139	1	Seal, O-Ring
16	186-0113	2	Bolt, Hex Head
17	186-0095	2	Washer, Lock - Spring
18	186-0223	1	Hose, Rubber
19	186-0167	1	Clamp, Hose
20	186-0403	1	Clip
21	186-0411	1	*Body, Breather

* Parts included in 186-0410 Breather Assembly.

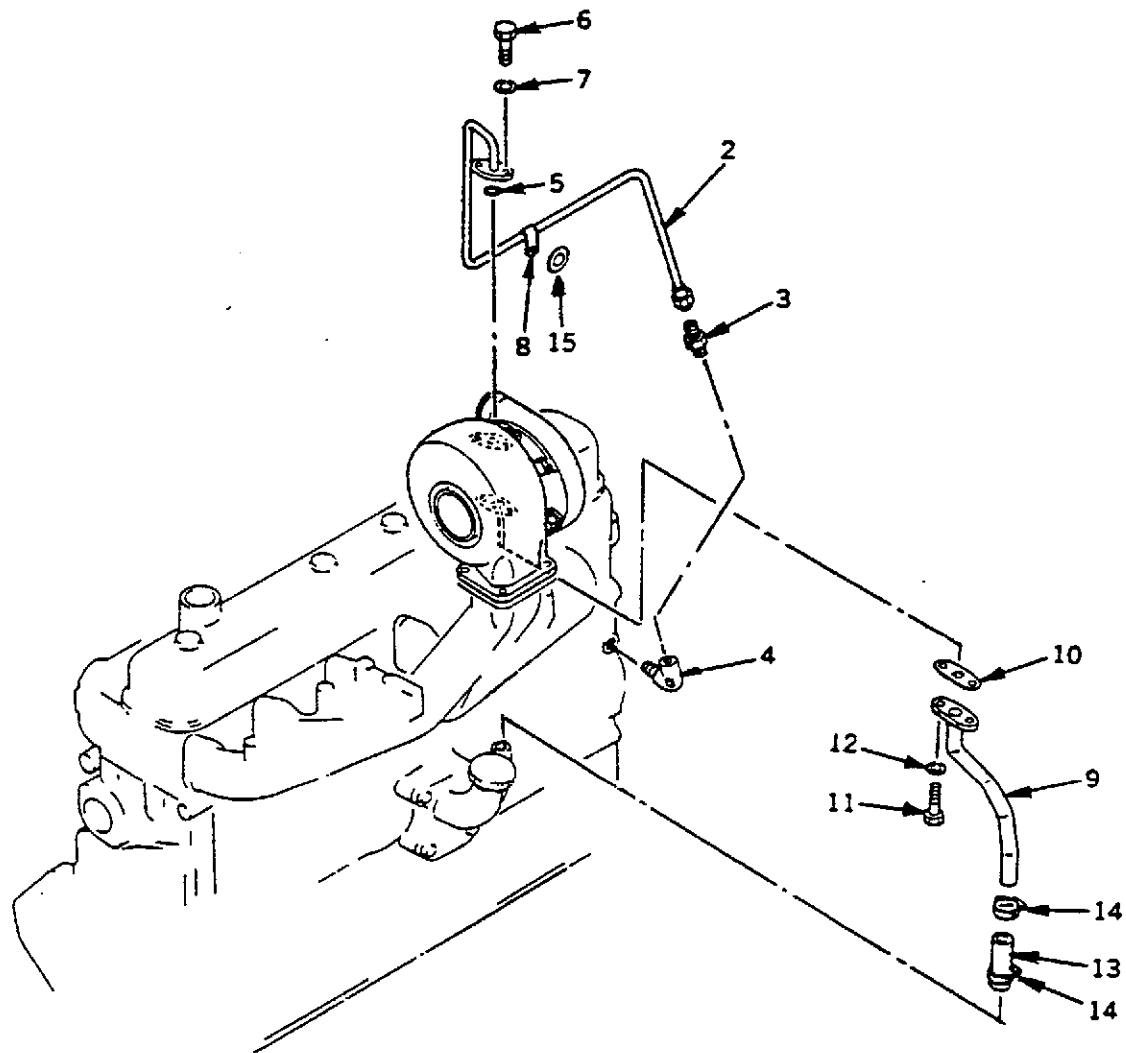
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Exhaust Manifold, And Turbocharger



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-0380	1	Elbow, Exhaust	21	186-0379	1	Manifold, Exhaust
2	186-0186	1	Ring, Seal	22	186-0153	2	Plug
3	186-0406	4	Spacer	23	186-0213	3	Gasket
4	720-1057	4	Bolt, Hex Head (M10 x 1.5 x 40mm)	24	186-0212	11	Spacer
8	186-0395	1	Turbocharger	25	186-0185	1	Spacer
9	186-0201	1	Gasket	26	186-0082	11	Bolt, Hex Head
10	186-0114	4	Bolt, Hex Head	27	720-1061	1	Bolt, Hex Head (M10 x 1.5 x 60mm)
11	186-0200	4	Nut, Hex				

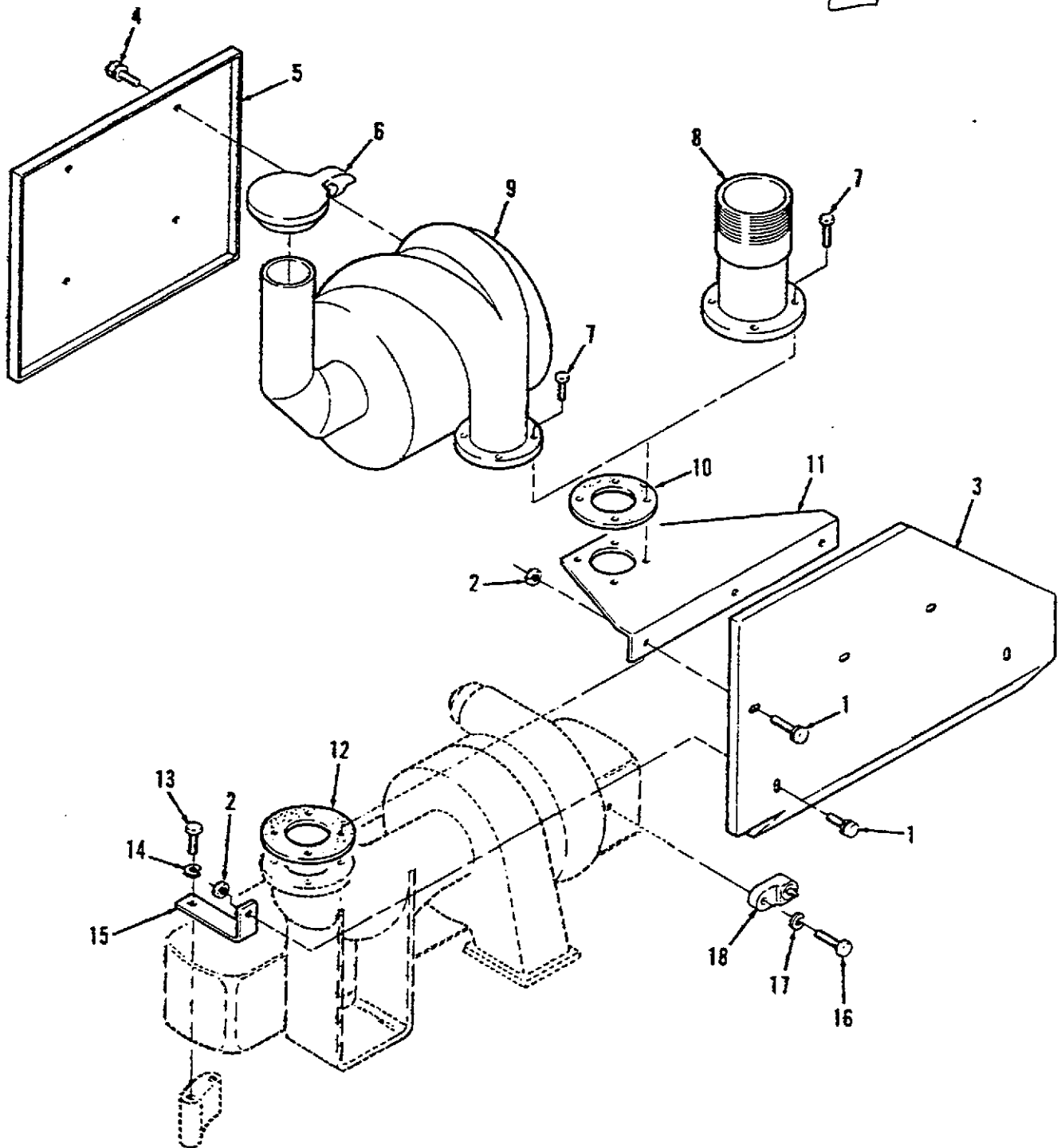
Turbocharger Lubricating System



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
2	186-0392	1	Pipe, Inlet	10	186-0202	1	Gasket
3	186-0162	1	Nipple, Pipe - Hex	11	720-1056	2	Bolt, Hex Head (M10 x 1.5 x 25mm)
4	186-0393	1	Elbow, Pipe	12	186-0486	2	Spacer
5	186-0141	1	Seal, O-Ring	13	186-0165	1	Hose, Rubber
6	186-0079	2	Bolt, Hex Head	14	186-0168	2	Clamp, Hose
7	186-0095	2	Washer, Lock - Spring	15	186-0487	1	Washer, Flat
8	186-0188	1	Clip				
9	186-0391	1	Pipe, Outlet				

Exhaust System

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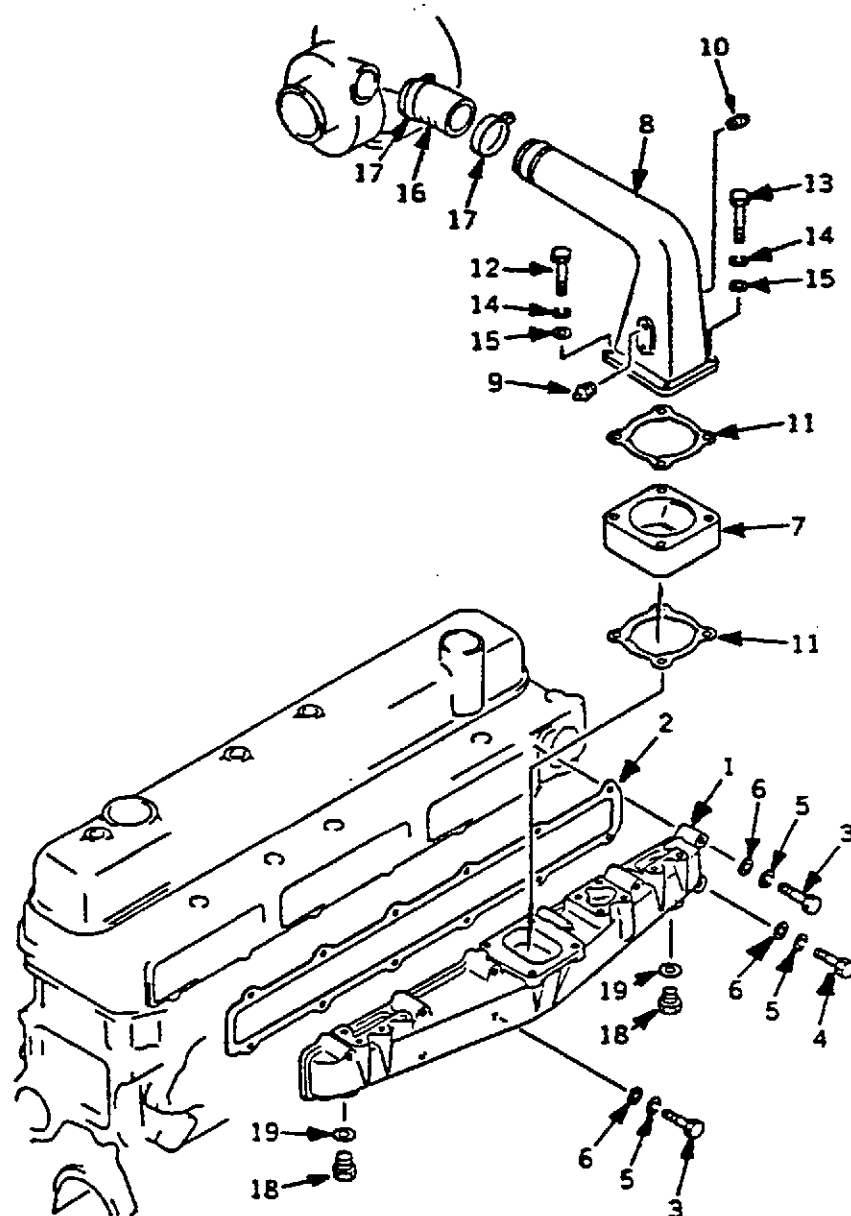


Exhaust System

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	821-0029	5	# Screw, Self-Lock - Hex Washer Head (3/8 - 16 x 3/4")	10	155-2165	1	# Gasket
2	870-0281	5	# Nut, Self-Locking - Hex Washer Head (3/8 - 16)	11	155-2072	1	# Plate, Mounting - Head Shield
3	155-2069	1	# Shield, Heat	12	155-1886	1	*Gasket
4	821-0016	4	# Screw, Self-Lock - Hex Washer Head (5/16 - 18 x 3/4")	13	800-2085	2	# Screw, Cap - Hex Head (M10 x 1.5 x 20mm)
5	155-2070	1	# Shield, Heat	14	850-2010	2	# Washer, Lock - Spring (M10)
6	155-2062-02	1	# Cap, Rein	15	155-2071	2	# Bracket, Mtg - Heat Shield
7	720-1058	4	# Screw, Cap - Hex Head (M10 x 1.5 x 30mm)	16	800-2087	1	Screw, Cap - Hex Head (M10 x 1.5 x 30mm)
8	154-2570	1	Adapter, Exhaust	17	850-2010	1	Washer, Lock - Spring (M10)
9	155-2060	1	# Muffler, Exhaust	18	309-0269	1	Switch, Thermostatic - Lo Engine Temperature (S4)
				19			KIT, EXH (incl #)

* Parts used on Housed Generator Sets.

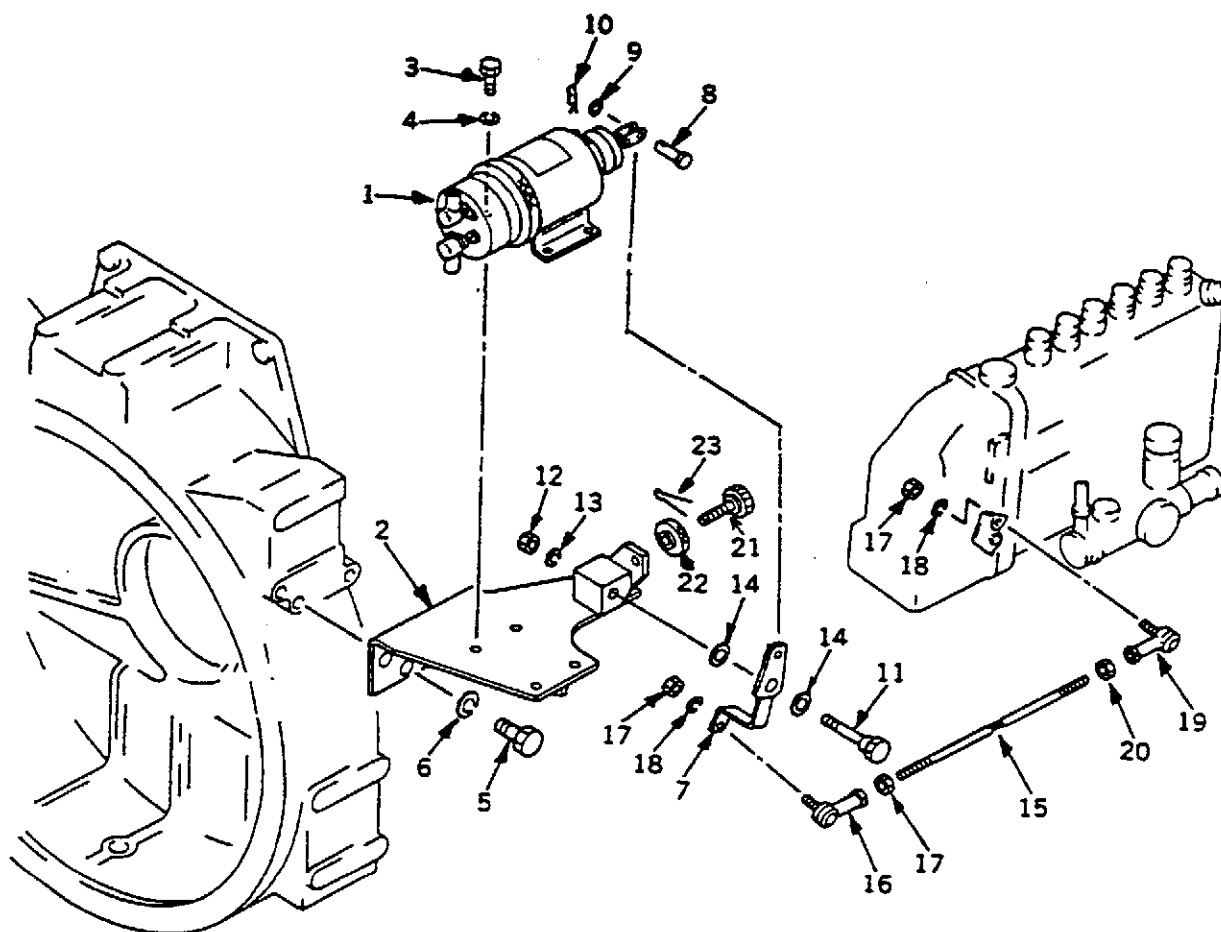
Intake Manifold



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-0209	1	Manifold, Intake
2	186-0210	1	Gasket
3	720-1045	10	Bolt, Hex Head (M8 x 1.25 x 65mm)
4	720-1042	2	Bolt, Hex Head (M8 x 1.25 x 50mm)
5	186-0095	12	Washer, Lock - Spring
6	186-0102	12	Washer, Flat
7	186-0424	1	Spacer
8	186-0377	1	Duct, Air
9	186-0151	2	Plug
10	186-0155	1	Plug

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
11	186-0211	2	Gasket
12	720-1046	3	Bolt, Hex Head (M8 x 1.25 x 70mm)
13	720-1047	1	Bolt, Hex Head (M8 x 1.25 x 75mm)
14	186-0095	4	Washer, Lock - Spring
15	186-0102	4	Washer, Flat
16	186-0378	1	Hose, Rubber
17	186-0170	2	Clamp, Hose
18	186-0438	2	Plug
19	186-0430	2	Gasket

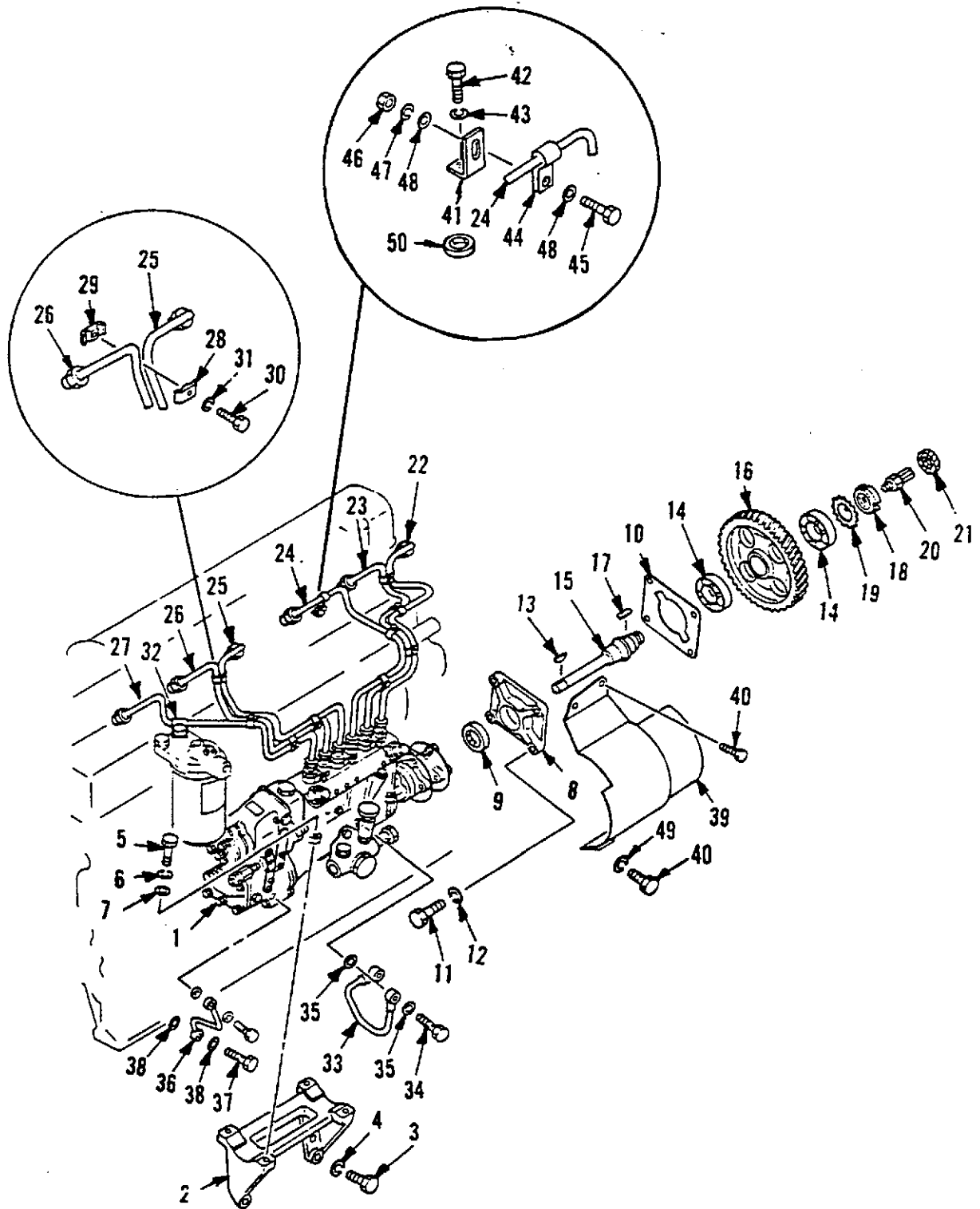
Fuel Control Solenoid



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-0179	1	Solenoid, Electric
2	186-0423	1	Bracket
3	186-0489	4	Bolt, Hex Head
4	186-0094	4	Washer, Lock - Spring
5	720-1073	2	Bolt, Hex Head (M12 x 1.75 x 25mm)
6	186-0097	2	Washer, Lock - Spring
7	186-0418	1	Lever
8	186-0133	1	Pin
9	186-0105	1	Washer, Flat
10	186-0129	1	Pin, Snap
11	186-0419	1	Bolt, Shoulder - Hex Head

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
12	186-0089	1	Nut, Self-Locking - Hex
13	186-0095	1	Washer, Lock - Spring
14	186-0104	2	Washer, Flat
15	186-0422	1	Rod
16	186-0416	1	Joint, Ball
17	186-0088	3	Nut, Hex
18	186-0094	2	Washer, Lock - Spring
19	186-0417	1	Joint, Ball (LH Thread)
20	186-0087	1	Nut, Hex (LH Threads)
21	186-0420	1	Knob (Thumbscrew)
22	186-0421	1	Nut, Knurled
23	186-0510	1	Pin, Cotter

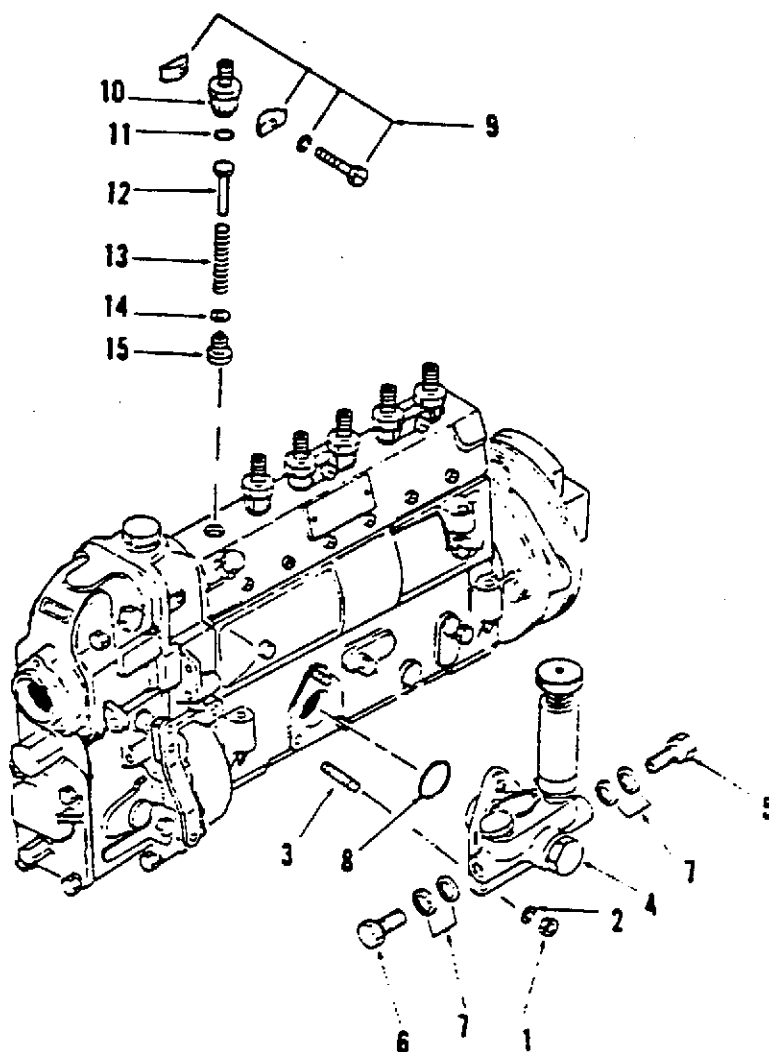
Fuel Injection Pump



Fuel Injection Pump

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-0394	1	Pump, Injection - Fuel (See Separate Page For Components)	26	186-0364	1	Line, Injection - Fuel (No. 5)
2	186-0255	1	Bracket	27	186-0365	1	Line, Injection - Fuel (No. 6)
3	720-1056	4	Bolt, Hex Head (M10 x 1.5 x 35mm)	28	186-0195	1	Clip
4	186-0096	4	Washer, Lock - Spring	29	186-0196	1	Clip
5	720-1046	4	Bolt, Hex Head (M8 x 1.25 x 70mm)	30	186-0197	1	Screw, Cap - Hex Head
6	186-0095	4	Washer, Lock - Spring	31	186-0093	1	Washer, Lock - Spring
7	186-0183	4	Washer, Flat	32	186-0368	1	Clip
8	186-0359	1	Cover	33	186-0320	1	Line, Fuel
9	186-0149	1	Seal, Oil	34	186-0159	2	Bolt, Hollow - Hex
10	186-0203	1	Gasket	35	186-0145	4	Gasket
11	186-0084	4	Bolt, Hex Head	36	186-0319	1	Line, Fuel
12	186-0096	4	Washer, Lock - Spring	37	186-0160	2	Bolt, Hollow - Hex
13	186-0113	1	Key	38	186-0146	4	Gasket
14	186-0134	2	Bearing, Ball	39	186-0400	1	Cover
15	186-0358	1	Shaft	40	720-1042	5	Bolt, Hex Head (M8 x 1.25 x 50mm)
16	186-0355	1	Gear	41	186-0371	1	Bracket
17	186-0118	1	Key	42	720-1056	1	Bolt, Hex Head (M10 x 1.5 x 35mm)
18	186-0356	1	Nut, Lock	43	186-0100	1	Washer, Lock - Spring
19	186-0357	1	Washer, Lock - ET	44	186-0368	1	Clip
20	186-0374	1	Shaft	45	720-1054	1	Bolt, Hex Head (M10 x 1.5 x 25mm)
21	186-0405	1	Seal, Oil	46	186-0090	1	Nut, Hex
22	186-0360	1	Line, Injection - Fuel (No. 1)	47	186-0100	1	Washer, Lock - Spring
23	186-0361	1	Line, Injection - Fuel (No. 2)	48	186-0108	2	Washer, Flat
24	186-0362	1	Line, Injection - Fuel (No. 3)	49	186-0095	1	Washer, Lock - Spring
25	186-0363	1	Line, Injection - Fuel (No. 4)	50	186-0486	1	Spacer

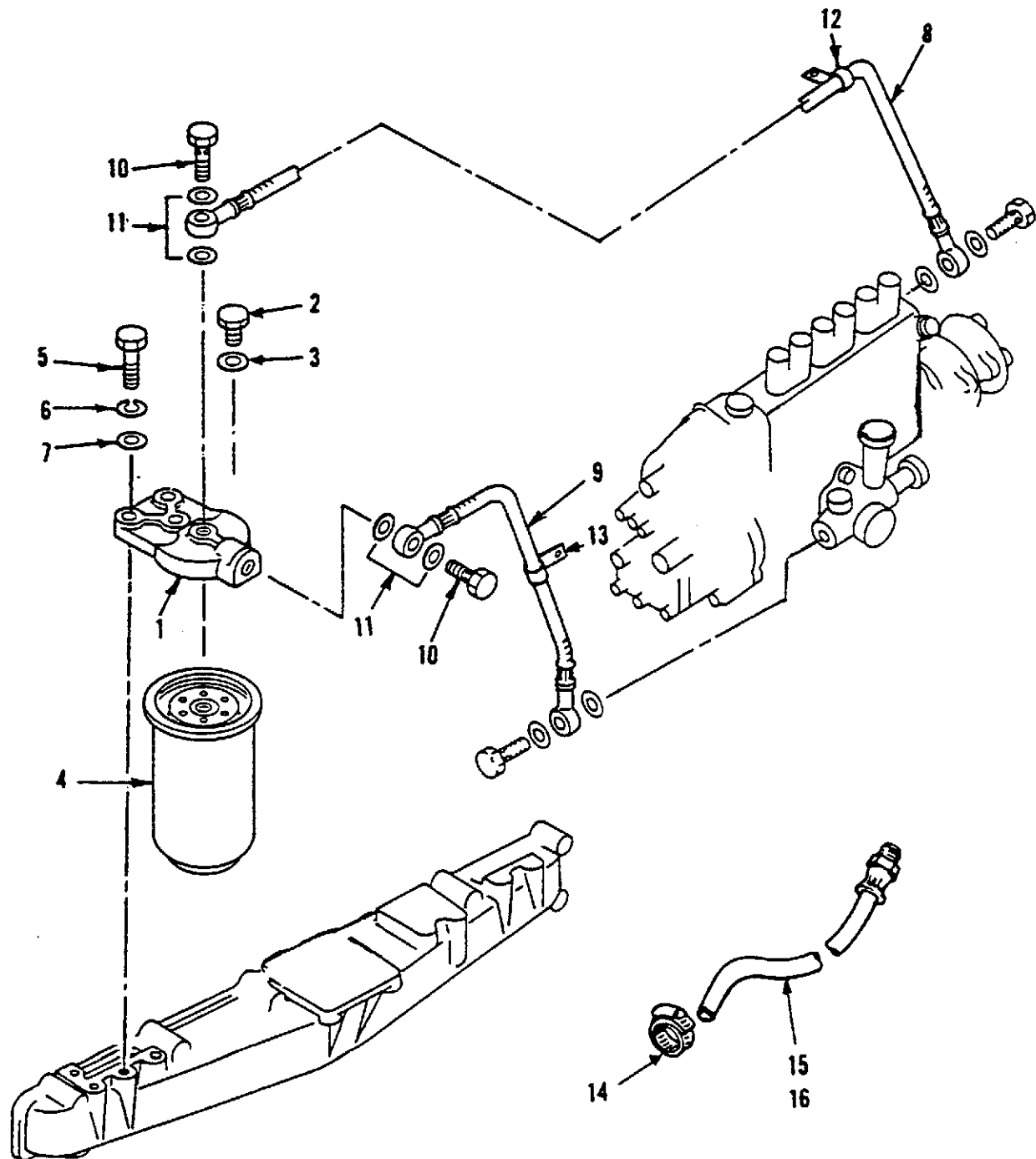
Fuel Injection Pump Components



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-1018	3	Nut, Hex
2	186-1017	3	Washer, Lock - Spring
3	186-1016	3	Stud
4	186-1116	1	Pump, Fuel - Feed (Includes Joint Bolts And Gaskets)
5	186-1023	1	Bolt, Hollow - Hex
6	186-1021	1	Bolt, Hollow - Hex
7	186-1022	4	Gasket

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
8	186-1019	1	Seal, O-ring
9	186-1011	3	Clamp Assembly
10	186-1115	6	Holder
11	186-1013	6	Seal, O-ring
12	186-1114	6	Plunger
13	186-1014	6	Spring
14	186-1104	6	Gasket
15	186-1113	6	Valve, Delivery

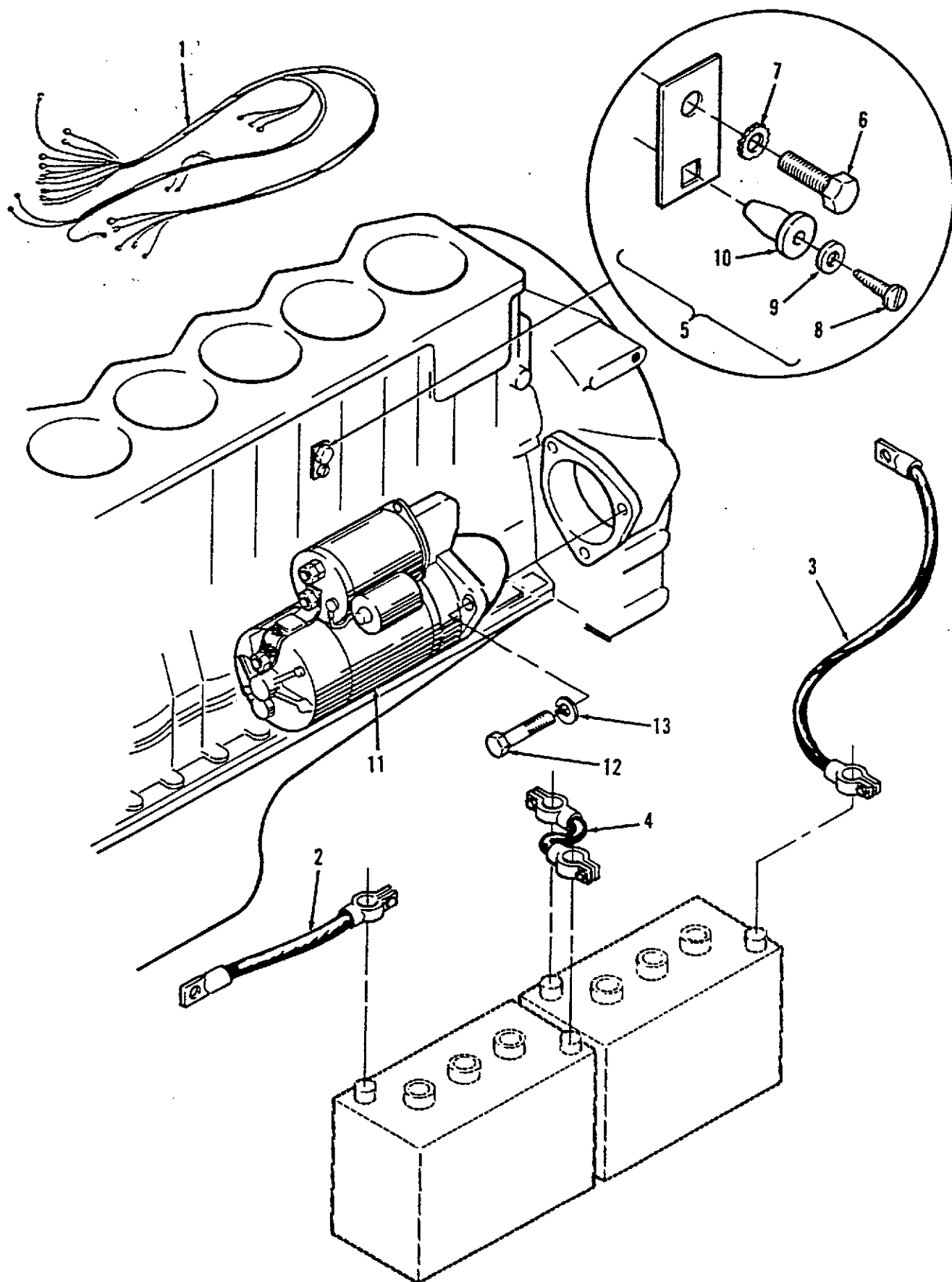
Fuel Filter



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-0372	1	Adapter, Filter - Fuel
2	186-0373	1	Plug
3	186-0147	1	Gasket
4	186-0370	1	Filter, Fuel
5	720-1056	2	Bolt, Hex Head (M10 x 1.5 x 35mm)
6	186-0096	2	Washer, Lock - Spring
7	186-0103	2	Washer, Flat
8	186-0163	1	Hose, Fuel

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
9	186-0166	1	Hose, Fuel
10	186-0161	2	Bolt, Joint
11	186-0147	4	Gasket
12	186-0198	1	Clip
13	186-0367	1	Clip
14	503-0685	2	Clamp, Hose
15	501-0501	1	Line, Fuel - Flexible (30")
16	501-0502	1	Line, Fuel - Flexible (60")

Starter

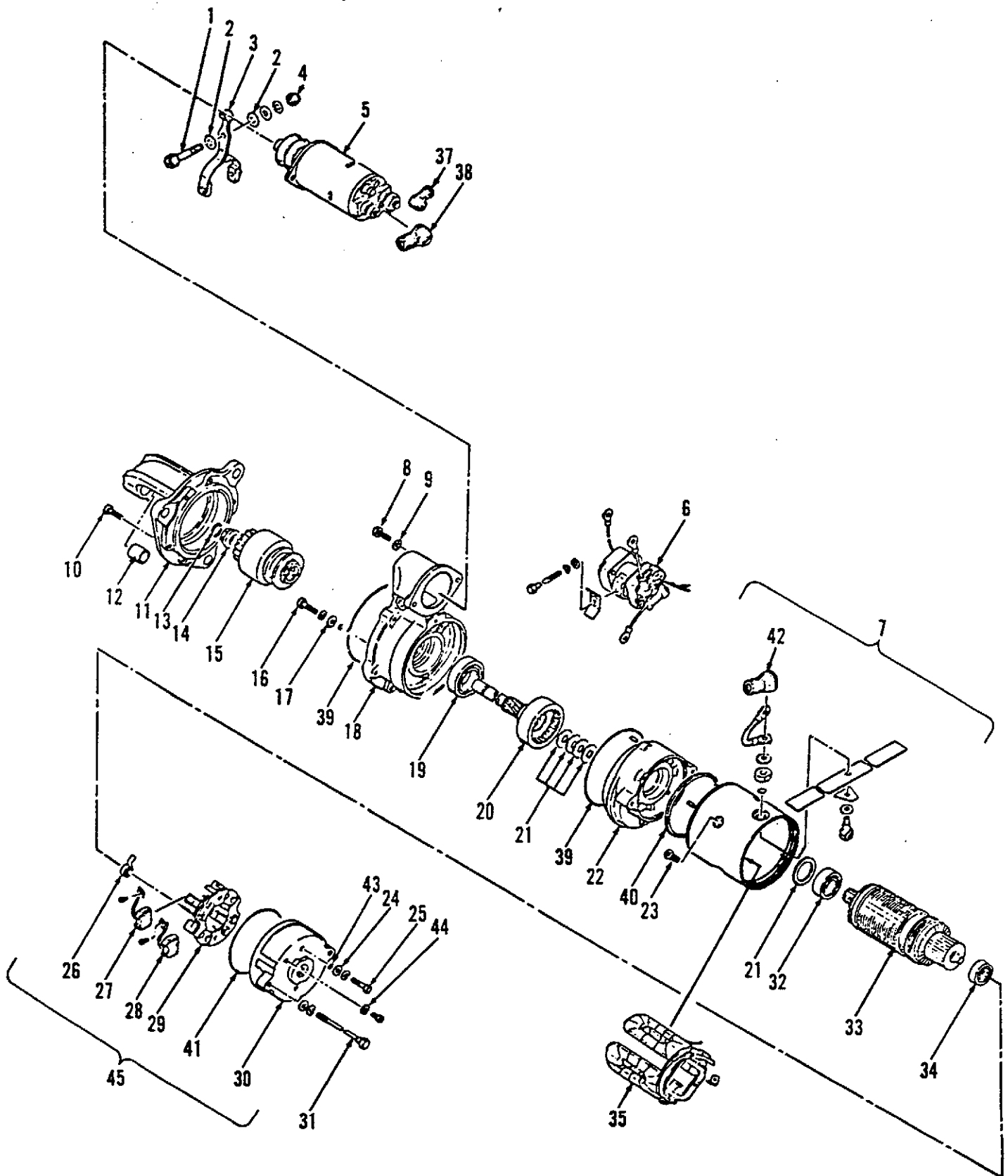


Starter

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	338-1823	1	Harness, Wiring - Control To Engine	7	856-2012	1	Washer, Lock - EIT (M12)
2	416-0619	1	Cable, Battery (18")	8	809-0035	1	*Screw, Thread Cutting - Round Head (#8 x 3/4")
3	416-0531	1	Cable, Battery (24")	9	508-0015	1	*Washer, Insul - Fiber (#8)
4	416-0473	1	Cable, Battery (Jumper)	10	870-0196	1	*Nut, Insulating (#8)
5	332-2739	1	Terminal Assembly (Includes Parts Marked *)	11	186-2096	1	Starter (See Separate Page For Components)
6	800-2112	1	Screw, Cap - Hex Head (M12 x 1.75 x 30mm)	12	186-0491	3	Screw, Cap - Hex Head
				13	186-0492	3	Washer, Lock - Spring

* Parts included in 332-2739 Terminal Assembly.

Starter Components

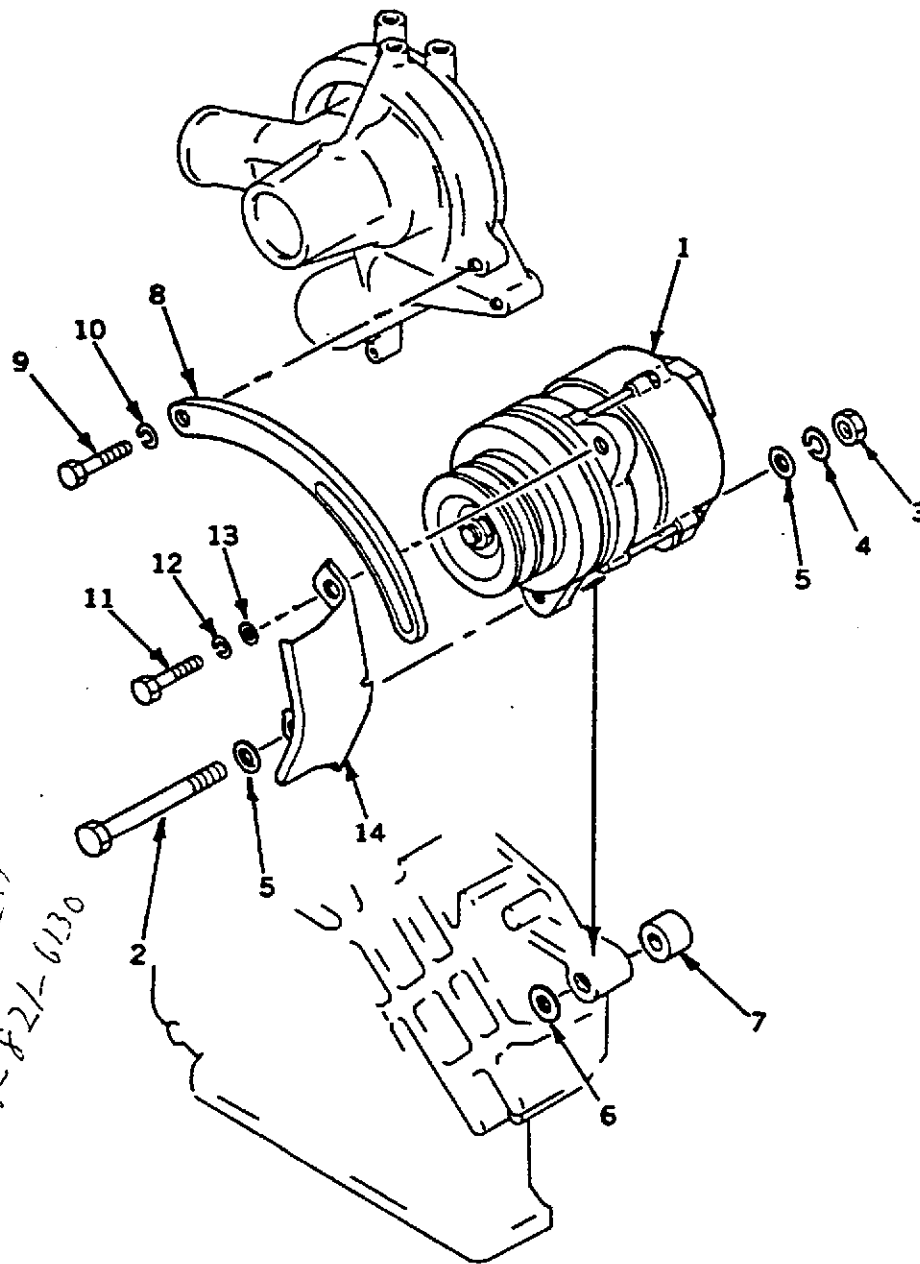


Starter Components

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	186-0046	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	186-2132	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	186-2134	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				

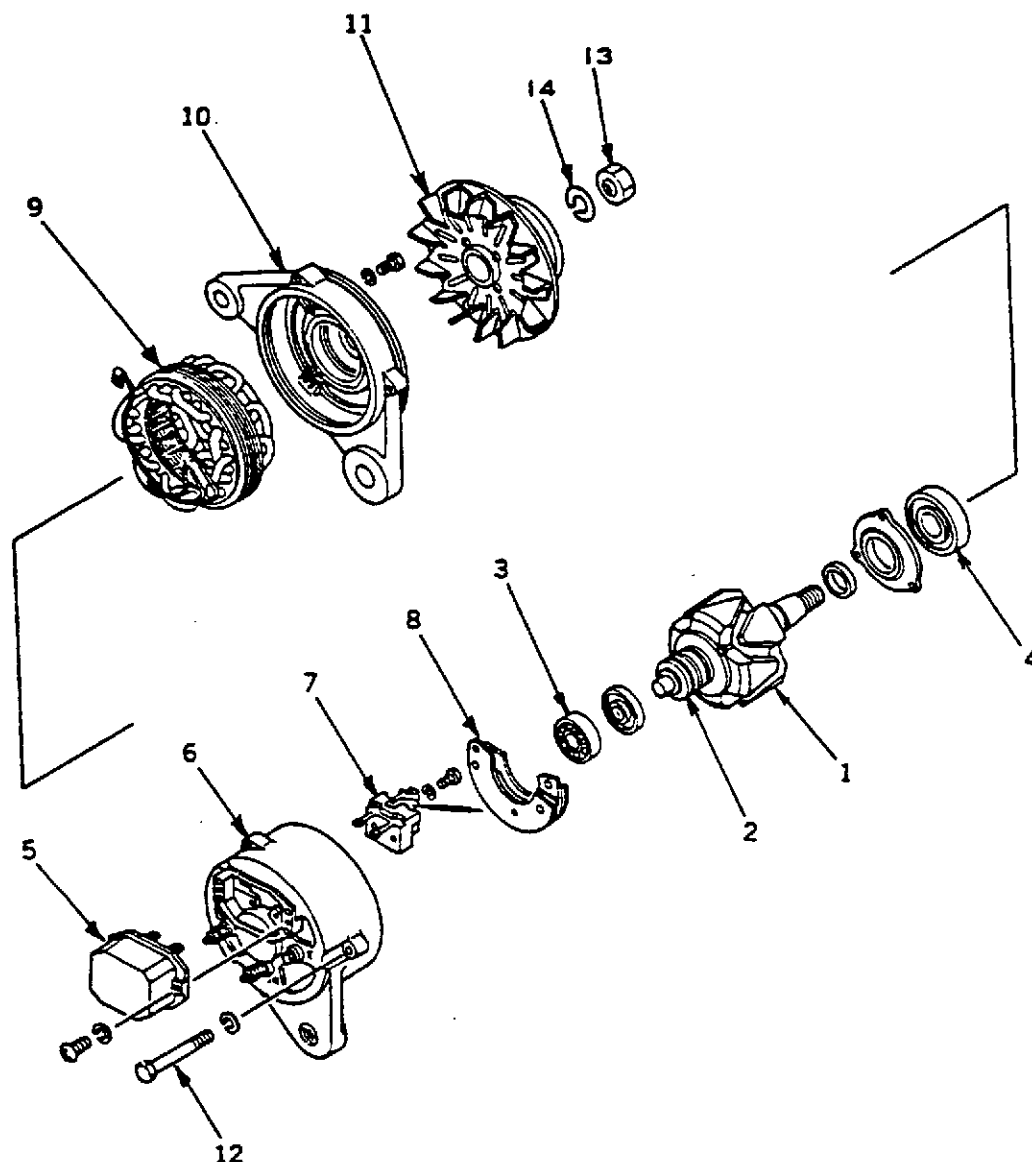
* Parts included in 186-2140 O-Ring Seal Set.

Alternator



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-2602	1	Alternator (See Separate Page For Components)	8	186-0258	1	Arm, Adjusting
2	186-0184	1	Bolt, Hex Head	9	720-1054	1	Bolt, Hex Head (M10 x 1.5 x 25mm)
3	186-0094	1	Nut, Hex	10	186-0096	1	Washer, Lock - Spring
4	186-0098	1	Washer, Lock - Spring	11	186-0085	1	Bolt, Hex Head
5	186-0107	1	Washer, Flat	12	186-0097	1	Washer, Lock - Spring
6	186-0256	1	Spacer	13	186-0109	1	Washer, Flat
7	186-0257	1	Spacer, Sleeve	14	186-0376	1	Guard, Belt

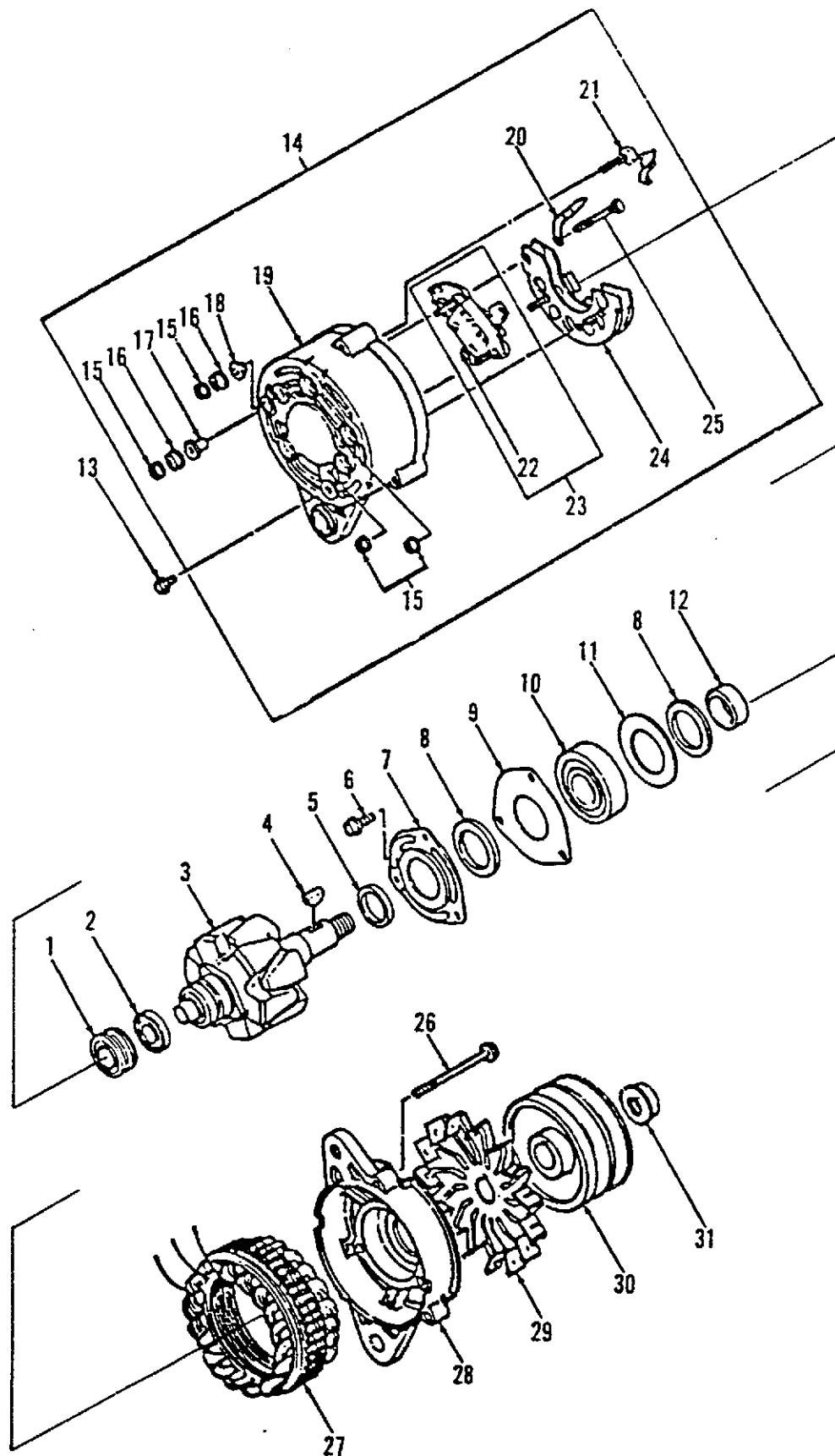
Alternator Components (8-Pole)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-0078	1	Rotor (Includes Slip Ring)
2	186-0067	1	Ring, Slip
3	186-0032	1	Bearing, Ball
4	186-0033	1	Bearing, Ball
5	186-0071	1	Regulator, Voltage
6	186-0024	1	Bracket, Mounting - Rear (Includes Brush Holder And Diode)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
7	186-0070	1	Holder, Brush
8	186-0025	1	Diode
9	186-0068	1	Stator
10	186-0069	1	Bracket, Mounting - Front
11	186-0023	1	Pulley
12	186-0019	3	Bolt, Hex Head
13	186-0493	1	Nut, Hex
14	186-0494	1	Washer, Lock - Spring

Alternator Components (12-Pole)

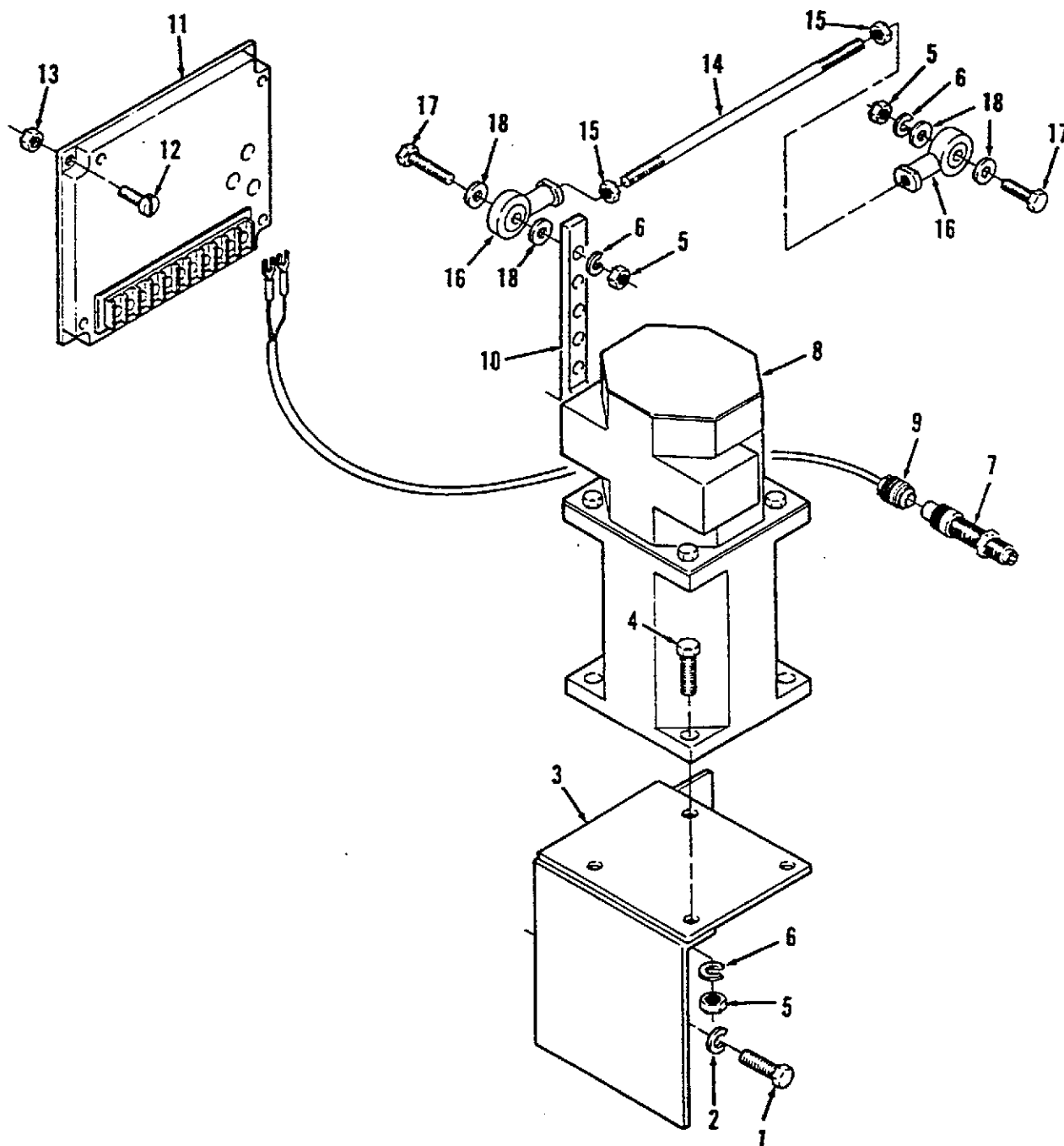


Alternator Components (12-Pole)

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 Assembly, 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.

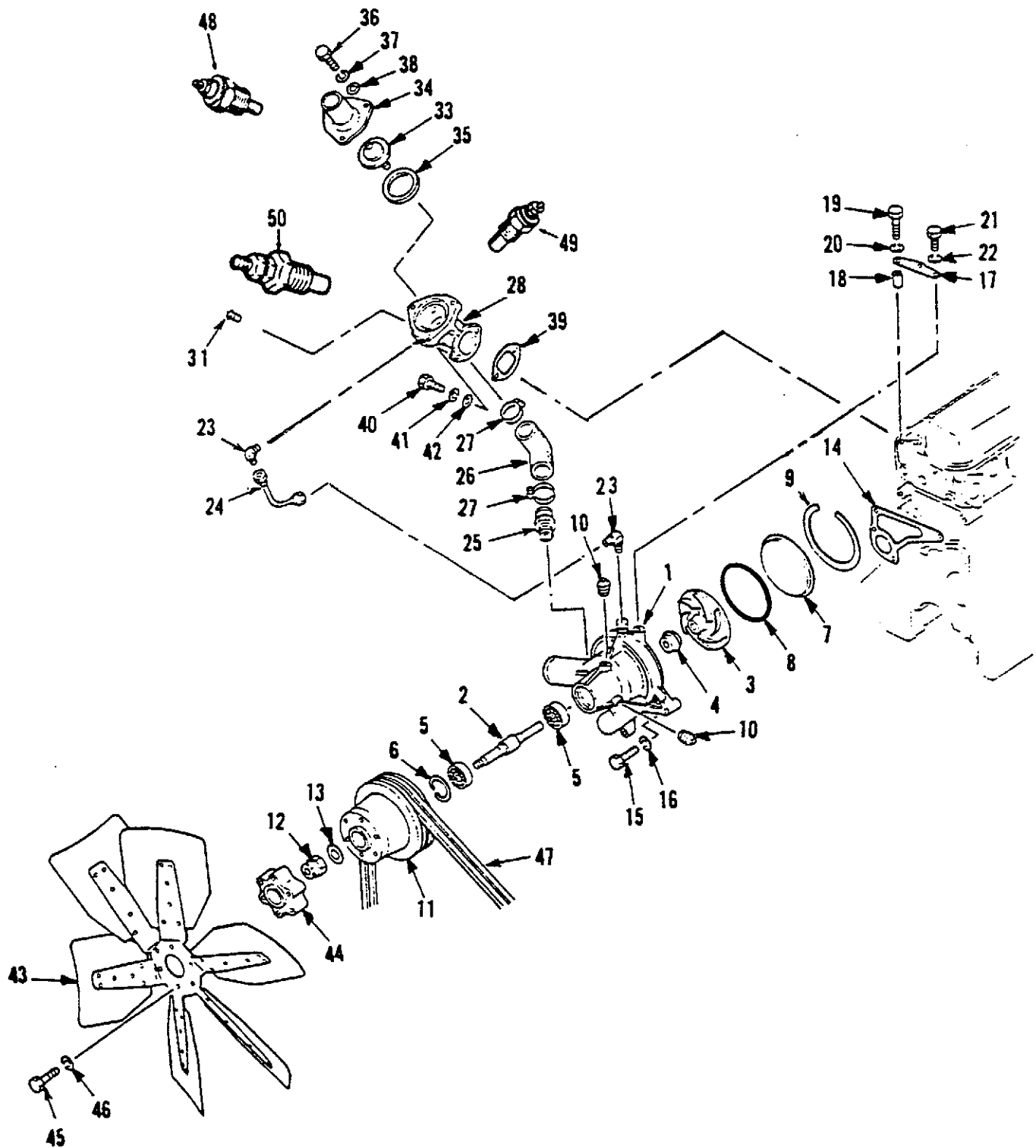
Electric Governor



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	800-2111	4	Screw, Cap - Hex Head (M12 x 1.75 x 25mm)
2	850-2012	4	Washer, Lock (M12)
3	150-2118	1	Bracket, Mounting - Governor
4	800-2037	4	Screw, Cap - Hex Head (M6 x 1 x 35mm)
5	860-2007	6	Nut, Hex (M6)
6	850-2006	6	Washer, Lock (M6)
7	151-0603-02	1	Sensor, Speed - Sensor
8	151-0612	1	Actuator, Governor
9	151-0613	1	Cable, Pickup - Magnetic

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
10	150-2145	1	Lever, Actuator
11	151-0611	1	Control, Governor
12	813-0103	4	Screw (#10 - 32 x 3/4")
13	870-0131	4	Nut, Hex - ET (#10 - 32)
14	520-0957	1	Stud
15	115-0025	2	Nut, Hex (1/4 - 28)
16	150-2120	2	End, Rod
17	800-2035	2	Screw, Cap - Hex Head (M6 x 1 x 25mm)
18	526-0021	4	Washer, Flat (1/4)

Cooling Fan, And Water Pump

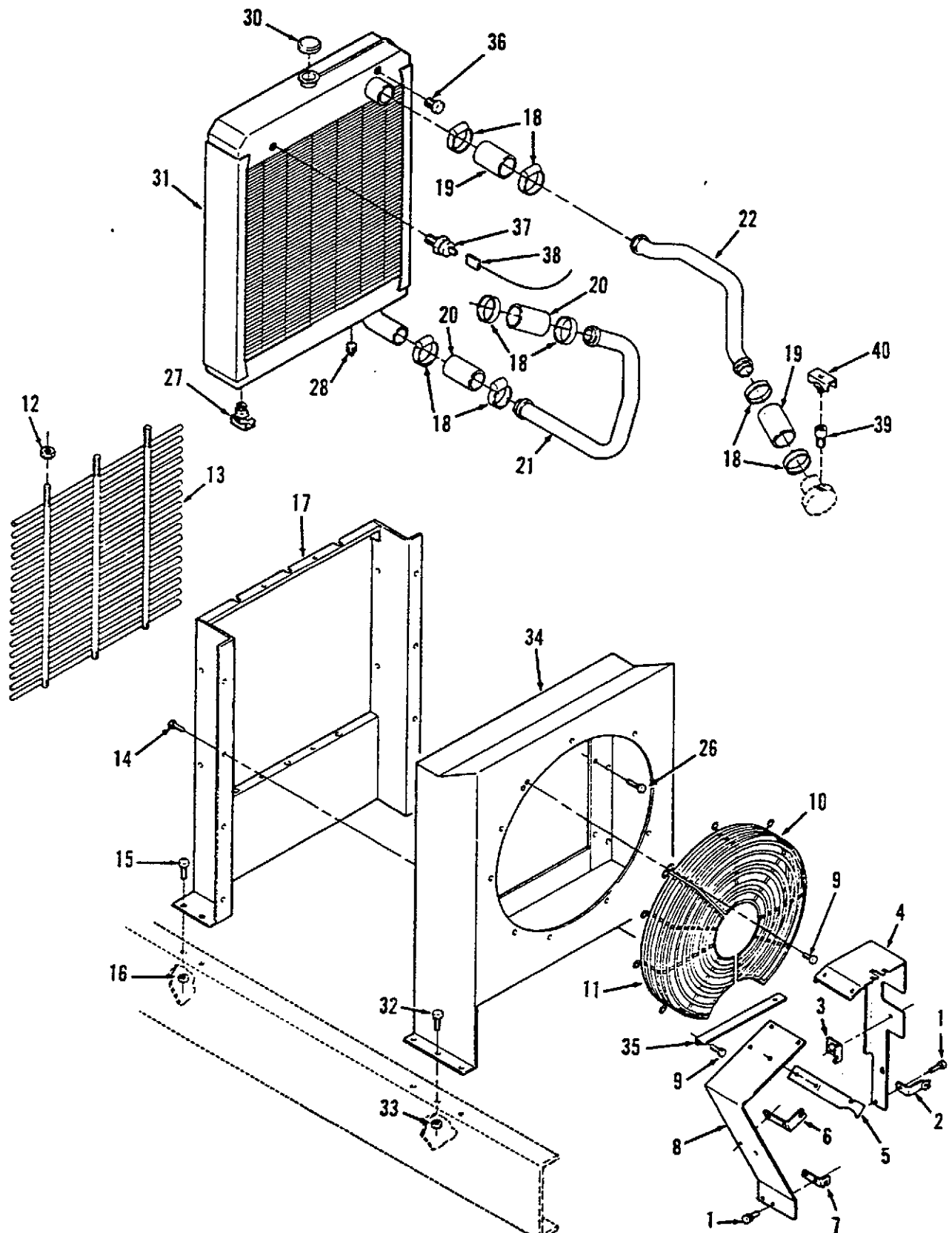


Cooling Fan, And Water Pump

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-0339	1	Pump, Water (Includes Parts Marked *)	26	186-0348	1	Hose, Rubber
2	186-0337	1	*Shaft	27	186-0169	2	Clamp, Hose
	186-0338	1	*Impeller	28	186-0214	1	Housing, Thermostat
4	186-0404	1	*Seal	31	186-0490	3	Plug
5	186-0135	2	*Bearing, Ball	33	186-0175	1	Thermostat
6	186-0335	1	*Ring, Snap	34	186-0215	1	Connector, Outlet - Water
7	186-0333	1	*Cover	35	186-0216	1	Gasket
8	186-0138	1	*Seal, O-Ring	36	720-1038	3	Bolt, Hex Head 9M8 x 1.25 x 30mm)
9	186-0334	1	*Ring, Snap	37	186-0095	3	Washer, Lock - Spring
10	186-0151	2	*Plug	38	186-0102	3	Washer, Flat
11	186-0346	1	*Pulley	39	186-0217	1	Gasket
12	186-0111	1	*Nut, Self-Locking - Hex	40	720-1060	2	Bolt, Hex Head (M10 x 1.5 x 55mm)
13	186-0110	1	*Washer, Flat	41	186-0096	2	Washer, Lock - Spring
14	186-0341	1	Gasket	42	186-0103	2	Washer, Flat
15	720-1061	4	Bolt, Hex Head (M10 x 1.5 x 60mm)	43	186-0176	1	Fan
16	186-0096	4	Washer, Lock - Spring	44	186-0194	1	Spacer, Fan
17	186-0336	1	Bracket	45	720-1058	6	Bolt, Hex Head (M10 x 1.5 x 45mm)
18	186-0408	1	Spacer	46	186-0096	6	Washer, Lock - Spring
19	725-1062	1	Bolt, Socket Head (M8 x 1.25 x 90mm)	47	186-0132	1	Belt Set, V
20	186-0096	1	Washer, Lock - Spring	48	193-0375	1	Sender, Temperature - Engine Coolant (E2)
21	720-1020	2	Bolt, Hex Head (M6 x 1 x 16mm)	49	309-0521	1	Switch, Thermostatic - Hi Engine Coolant Temp (S6)
22	186-0095	2	Washer, Lock - Spring	50	309-0522	1	Switch, Thermostatic - Hi Engine Coolant Temp (S2)
23	186-0164	2	Elbow, Pipe				
24	186-0340	1	Tube, Metal				
25	186-0347	1	Adapter, Pipe				

* Parts included in 186-0339 Water Pump.

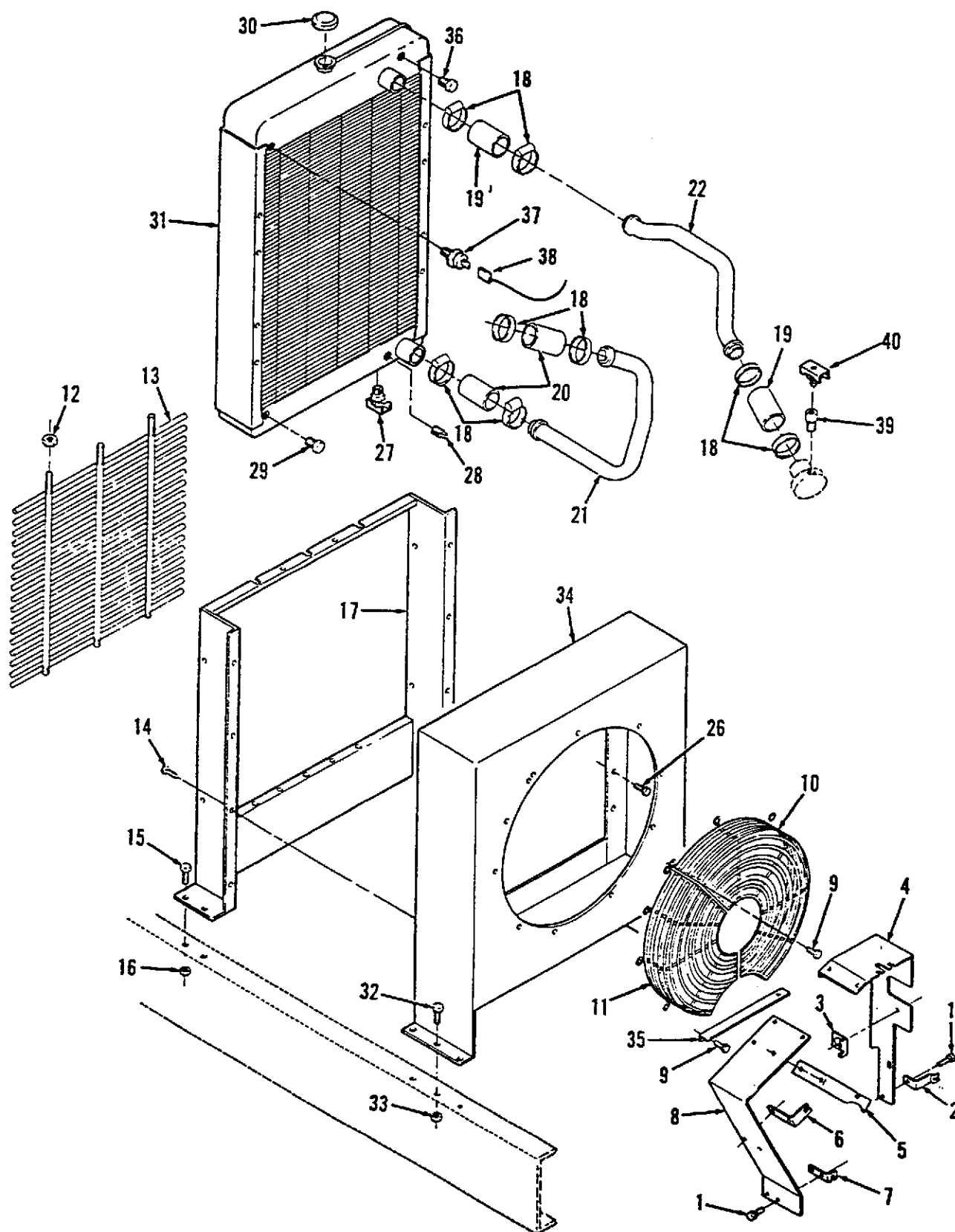
Cooling System (Standard)



Cooling System (Standard)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	821-0010	9	Screw, Self-Locking - Hex Washer Head (1/4 - 20 x 1/2")	19	503-1379-01	2	Hose, Rubber
2	130-2605	1	Bracket, Support - Belt Guard	20	503-1380-01	2	Hose, Rubber
3	130-2604	1	Bracket, Support - Belt Guard	21	130-2617	1	Tube, Outlet - Coolant
4	130-2601	1	Guard, Belt (Less Brackets)	22	130-2616	1	Tube, Inlet - Coolant
5	130-2603	1	Bracket, Support - Belt Guard	26	821-0029	6	Screw, Self-Locking - Hex Washer Head (3/8 - 16 x 3/4"
6	130-2602	1	Bracket, Support - Belt Guard	27	504-0028	1	Cock, Drain
7	130-2606	1	Bracket, Support - Belt Guard	28	502-0155	1	Plug, Pipe - Square Head
8	130-2600	1	Guard, Belt (Less Brackets)	30			Cap, Radiator
9	821-0018	11	Screw, Self-Locking - Hex Washer Head (1/4 - 20 x 5/8")		130-0523	1	Large Neck
10	130-2615-02	1	Guard, Fan		130-2344	1	Small Neck
11	130-2615-01	1	Guard, Fan	31	130-2517	1	Radiator (Includes Cap)
12	870-0281	6	Nut, Self-Locking - Hex Washer Head (3/8 - 16)	32	821-0030	6	Screw, Self-Locking - Hex Washer Head (3/8 - 16 x 1")
13	130-2614	1	Grille	33	870-0281	6	Nut, Self-Locking - Hex Washer Head (3/8 - 16)
14	821-0018	8	Screw, Self-Locking - Hex Washer Head (1/4 - 20 x 5/8")	34	130-2599	1	Shroud, Fan
15	821-0030	4	Screw, Self-Locking - Hex Washer Head (3/8 - 16 x 1")	35	130-2683	1	Bracket, Guard - Fan
16	870-0281	4	Nut, Self-Locking - Hex Washer Head (3/8 - 16)	36	502-0153	1	Plug, Hex
17	130-2613	1	Guard, Radiator (Less Grille)	37	193-0322	1	Switch, Level - Coolant
18	503-0354	8	Clamp, Hose	38	338-1919	1	Harness, Wiring
				39	502-0917	1	Adapter, Pipe
				40	504-0005	1	Cock, Drain

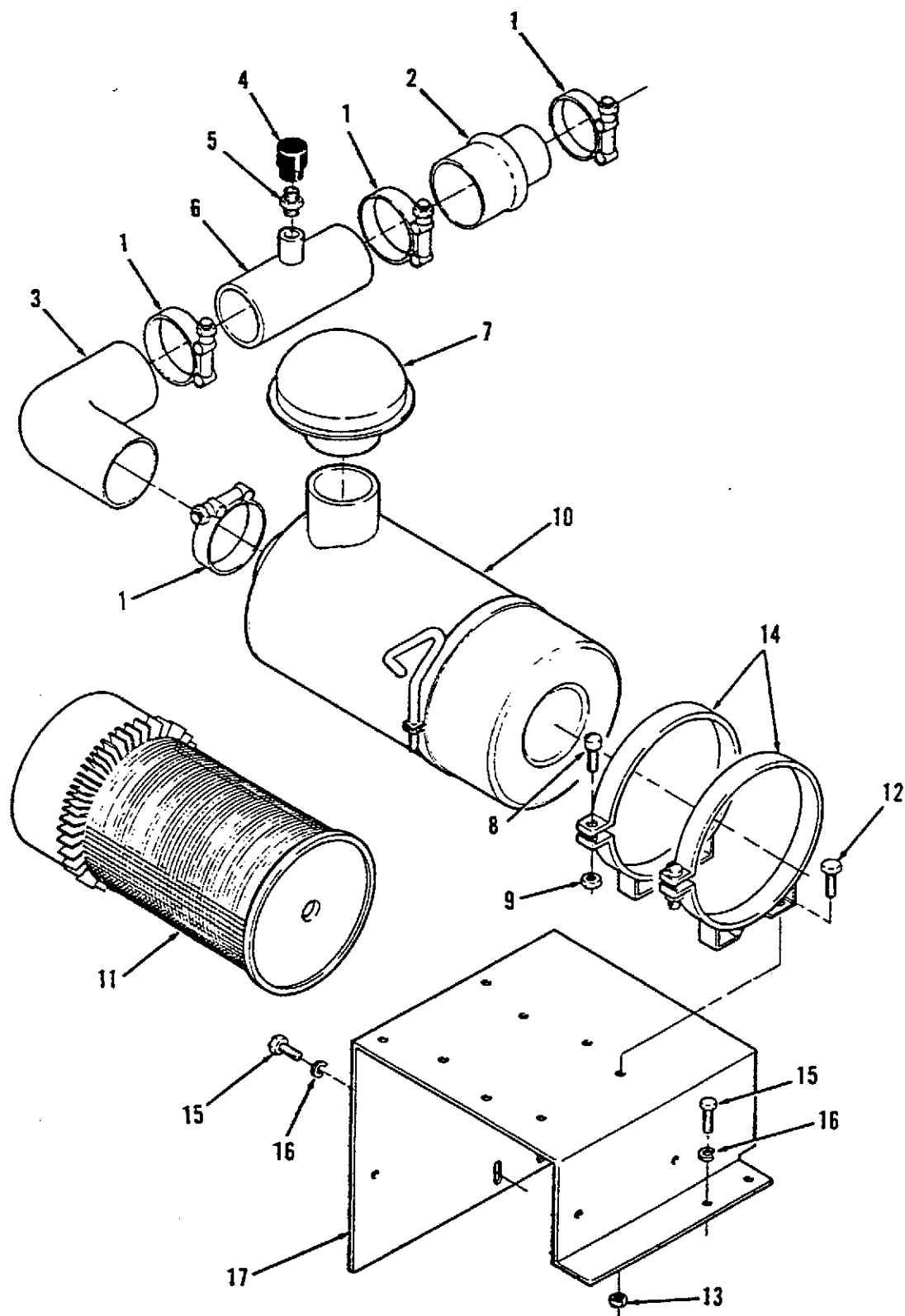
Cooling System (Hi Temperature)



Cooling System (Hi Temperature)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	821-0010	9	Screw, Self-Locking - Hex Washer Head (1/4 - 20 x 1/2")	19	503-1379-01	2	Hose, Rubber
2	130-2605	1	Bracket, Support - Belt Guard	20	503-1380-01	2	Hose, Rubber
3	130-2604	1	Bracket, Support - Belt Guard	21	130-2617	1	Tube, Outlet - Coolant
4	130-2601	1	Guard, Belt (Less Brackets)	22	130-2616	1	Tube, Inlet - Coolant
5	130-2603	1	Bracket, Support - Belt Guard	26	821-0029	6	Screw, Self-Locking - Hex Washer Head (3/8 - 16 x 3/4")
6	130-2602	1	Bracket, Support - Belt Guard	27	504-0003	1	Cock, Drain
7	130-2606	1	Bracket, Support - Belt Guard	28	502-0153	1	Plug, Pipe - Square Head
8	130-2600	1	Guard, Belt (Less Brackets)	30			Cap, Radiator
9	821-0018	11	Screw, Self-Locking - Hex Washer Head (1/4 - 20 x 5/8")		130-0523	1	Large Neck
					130-2344	1	Small Neck
10	130-2615-02	1	Guard, Fan	31	130-2519	1	Radiator (Includes Cap)
11	130-2615-01	1	Guard, Fan	32	821-0030	6	Screw, Self-Locking - Hex Washer Head (3/8 - 16 x 1")
12	870-0281	6	Nut, Self-Locking - Hex Washer Head (3/8 - 16)	33	870-0281	6	Nut, Self-Locking - Hex Washer Head (3/8 - 16)
13	130-2625	1	Grille				
14	821-0018	8	Screw, Self-Locking - Hex Washer Head (1/4 - 20 x 5/8")	34	130-2587-02	1	Shroud, Fan
				35	130-2683	1	Bracket, Guard - Fan
15	821-0030	4	Screw, Self-Locking - Hex Washer Head (3/8 - 16 x 1")	36	502-0153	1	Plug, Hex
				37	193-0322	1	Switch, Level - Coolant
16	870-0281	4	Nut, Self-Locking - Hex Washer Head (3/8 - 16)	38	338-1919	1	Harness, Wiring
				39	502-0917	1	Adapter, Pipe
17	130-2627	1	Guard, Radiator (Less Grille)	40	504-0005	1	Cock, Drain
18	503-0354	8	Clamp, Hose				

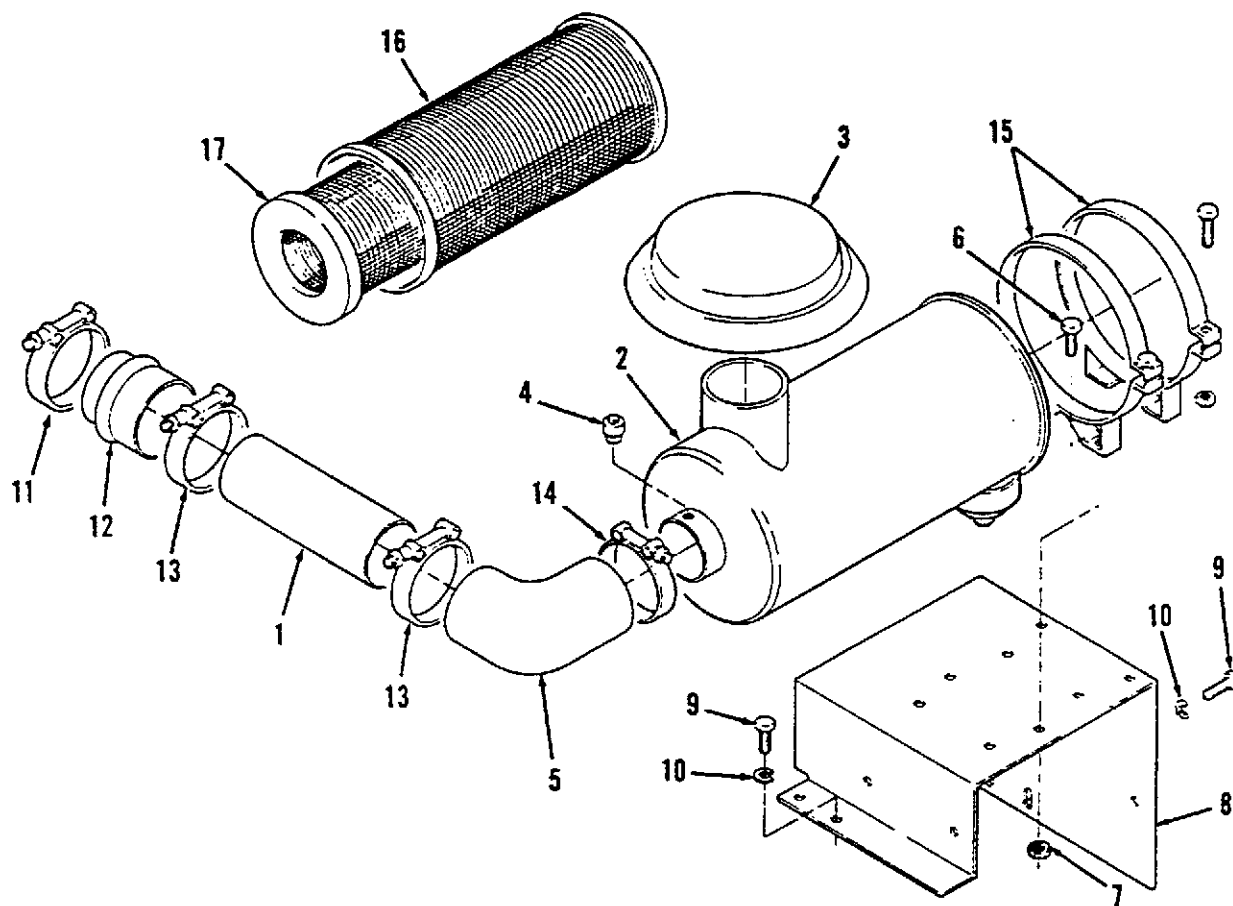
Air Cleaner (Standard)



Air Cleaner (Standard)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0648	4	Clamp, Hose	11	140-1455	1	Element, Cleaner - Air
2	503-1371	1	Hose, Air	12	821-0016	4	Screw, Self-Locking - Hex Head (5/16 - 18 x 3/4")
3	140-1467	1	Elbow, Rubber - 90°	13	870-0048	4	Nut, Self-Locking - Hex Washer Head (5/16 - 18)
4	140-1548	1	Indicator, Service - Air	14	140-0317	2	Band, Mounting
5	140-1260	1	Adapter, Hex - Air Service Indicator	15	800-2110	4	Screw, Cap - Hex Head (M12 x 1.75 x 20mm)
6	140-1958	1	Tube, Air	16	850-2012	4	Washer, Lock - Spring (M12)
7	140-1435	1	Hood, Cleaner - Air	17	140-1959	1	Bracket, Mounting - Air Cleaner
8	815-0115	2	Screw, Machine - Fillister Head (1/4 - 20 x 1")				
9	863-C002	2	Nut, Square (1/4 - 20)				
10	140-1454	1	Cleaner Assembly, Air (Includes Element)				

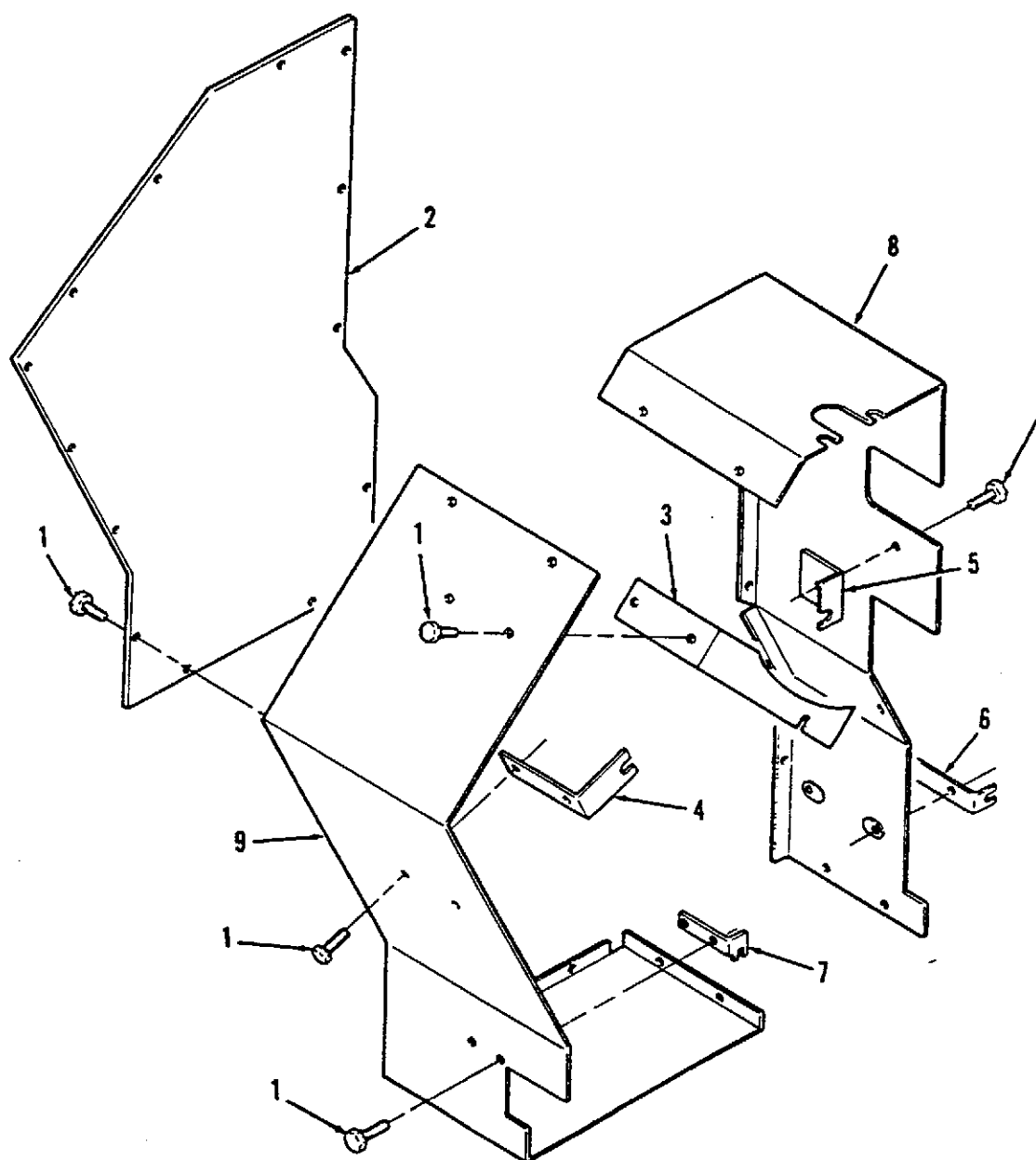
Heavy Duty Air Cleaner (Dual Air Filter)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	140-2076	1	Tube, Inlet - Air
2	140-2072	1	Cleaner, Air (Includes Elements)
3	140-2002	1	Hood, Inlet - Air
4	140-1548	1	Indicator, Service
5	140-2077	1	Elbow, Reducing - 90°
6	821-0029	4	Screw, Cap - Locking Hex Head (Flange) (3/8 - 16 x 3/4")
7	870-0281	4	Nut, Lock (3/8 - 16)
8	140-2075	1	Bracket, Mounting - Air Cleaner

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
9	800-2110	4	Screw, Cap - Hex Head (M12 x 1.75 x 20mm)
10	850-2012	4	Washer, Lock (M12)
11	503-0868	1	Clamp, Hose - T-Bolt
12	503-1464	1	Hose, Air Inlet - Reducer
13	503-0900	2	Clamp, Hose - T-Bolt
14	503-0960	1	Clamp, Hose - T-Bolt
15	140-0752	2	Band, Mounting
16	140-2073	1	Element, Air Cleaner - Primary
17	140-2074	1	Element, Air Cleaner - Safety

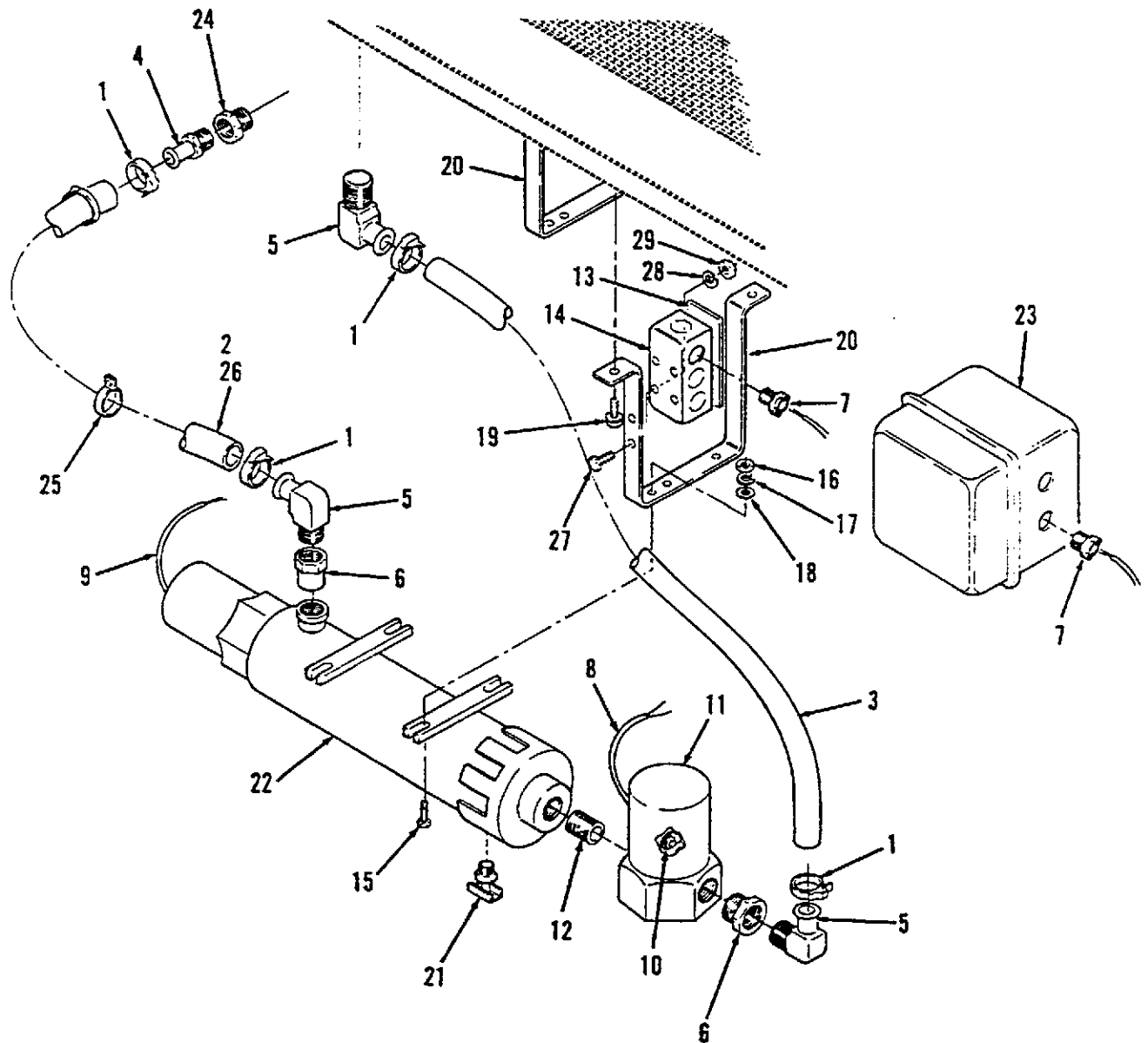
Remote Radiator



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	821-0010	26	Screw, Self-Locking - Hex Washer Head (1/4 - 20 x 1/2")
2	130-2811	1	Cover, Guard - Belt
3	130-2603	1	Bracket, Guard - Belt
4	130-2602	1	Bracket, Guard - Belt
5	130-2604	1	Bracket, Guard - Belt

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
6	130-2806	1	Bracket, Guard - Belt
7	130-2606	1	Bracket, Guard - Belt
8	130-2808	1	Wrapper, Guard - Belt (Left Hand)
9	130-2807	1	Wrapper, Guard - Belt (Right Hand)

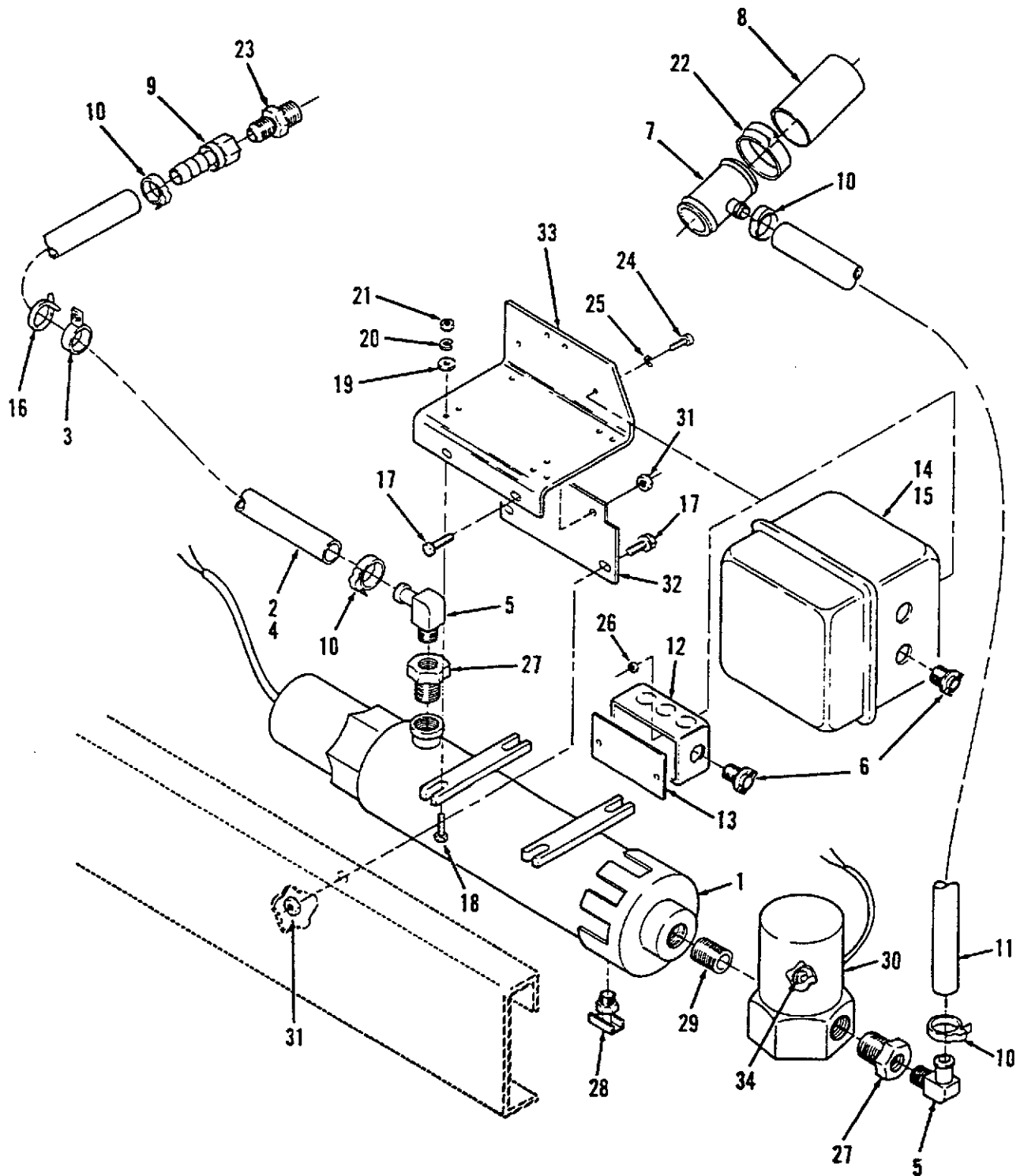
Engine Coolant Heater



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	19	821-0029	4	Screw, Self-Locking - Hex Washer Head (3/8 - 16 x 3/4"
2	503-1170	1	Hose, Rubber	20	130-2618	2	Bracket, Mounting
3	503-1012	1	Hose, Rubber	21	504-0003	1	Cock, Drain
4	502-0943	1	Adapter, Hose	22			Heater, Electrical - 2000 Wat
5	502-0942	3	Elbow, Hose - 90°		333-0158	1	120 VAC, 1 Phase
6	505-0455	2	Bushing, Reducer - Hex		333-0167	1	208 VAC, 1 Phase
7	331-0027	4	Clamp, Cable		333-0141	1	240 VAC, 1 Phase
10			Terminal		333-0147	1	480 VAC, 1 Phase
	332-0014	2	#10 (Used On White Leads)	23	307-1164	1	Contactor, Electric - 480 VAC
	332-0149	5	#8 (Used On White Leads)		812-0100	2	Screw, Machine - Round Head (#10 - 24 x 1/2")
	323-0957	4	Nut, Wire (Used On Black Leads)		850-0030	2	Washer, Lock - Spring (#10)
11	309-0304	1	Switch, Thermostatic		860-0011	2	Nut, Hex (#10 - 24)
12	505-0004	1	Nipple, Pipe - Close	24	502-0948	1	Adapter, Pipe
13	330-0016	1	Cover, Box - Outlet	25	148-0274	1	Clip, J
14	330-0005	1	Box, Outlet - Electrical	26	128-0108	1	Insulation, Hose
15	800-0006	4	Screw, Cap - Hex Head (1/4 - 20 x 7/8")	27	812-0100	2	Screw, Machine - Round Head (#10 - 24 x 1/2")
16	862-0001	4	Nut, Hex (1/4 - 20)	28	850-0030	2	Washer, Lock (#10)
17	850-0040	4	Washer, Lock - Spring (1/4)	29	860-0011	2	Nut, Hex (#10 - 24)
18	526-0018	4	Washer, Flat (1/4)				

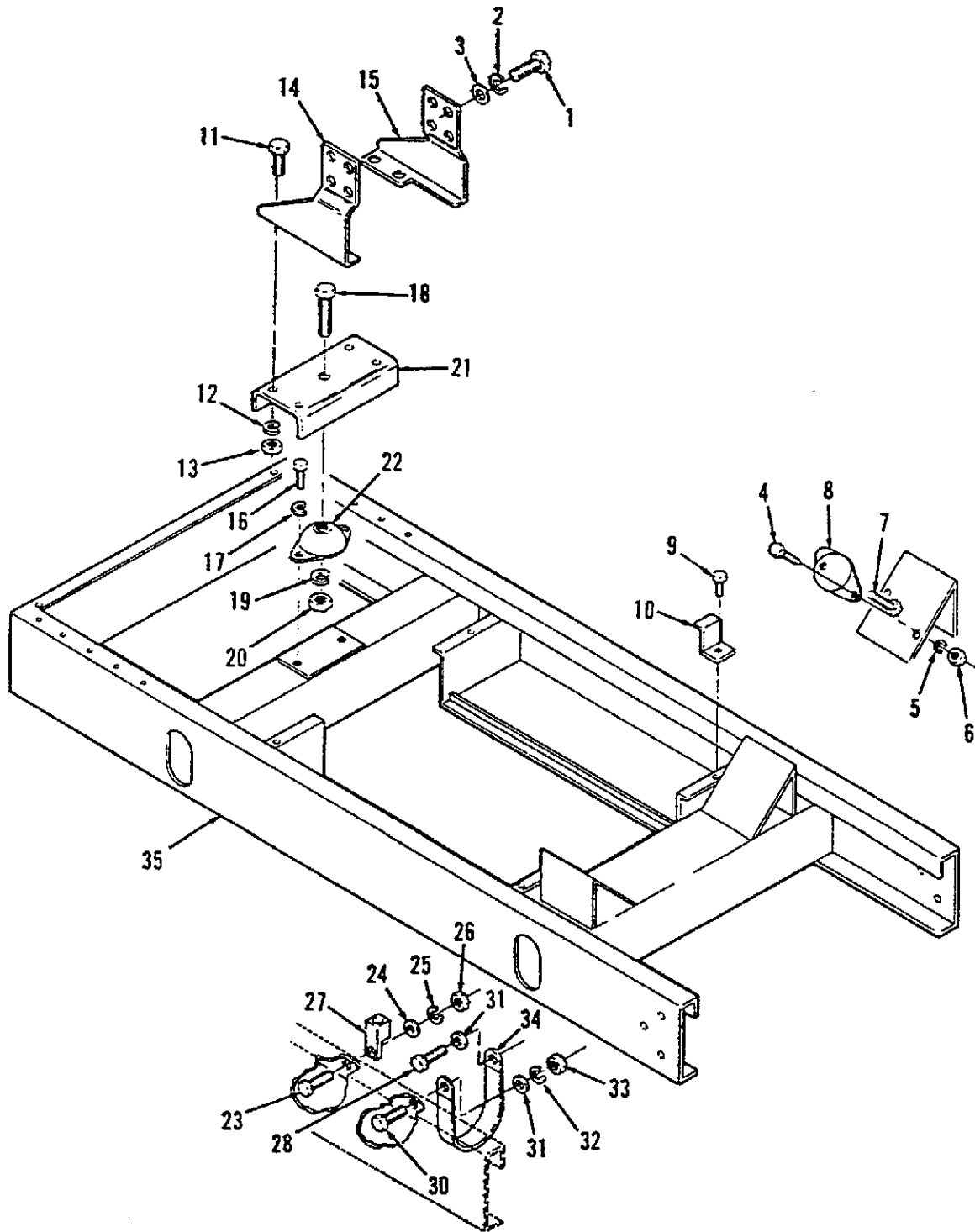
Engine Coolant Heater (Remote Radiator Set)



Engine Coolant Heater (Remote Radiator Set)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Heater, Electrical - 2000 Watt	17	821-0029	4	Screw, Lock (3/8 - 16 x 3/4")
	333-0158	1	120 VAC.	18	800-0006	4	Screw, Cap - Hex Head (1/4 - 20 x 8 3/4")
	333-0167	1	208 VAC.				
	333-0141	1	240 VAC.	19	526-0018	4	Washer, Flat (1/4)
	333-0147	1	480 VAC.	20	850-0040	4	Washer, Lock (1/4)
2	128-0108	1	Insulation, Hose (3/4 x 54")	21	862-0001	4	Nut, Hex (1/4 - 20)
3	148-0274	1	Clip, J	22	503-0354	2	Clamp, Hose
4	503-1169	1	Hose, Rubber (5/8 x 39")	23	502-0948	1	Adapter, Pipe
5	502-0942	2	Elbow, Hose - 90°	24	812-0100	2	Screw, Machine - Round Head (#10 - 24 x 1/2")
6	331-0027	2	Clamp, Cable				
7	130-2906	1	Tube, Heater - Water	25	850-0030	2	Washer, Lock (#10)
8	503-1380-01	1	Hose, Radiator (2 3/8 x 4")	26	860-0011	2	Nut, Hex (#10 - 24)
9	502-0943	1	Connector, Hose (Beaded)	27	505-0455	2	Bushing, Reducer
10	503-0183	4	Clamp, Hose	28	504-0003	1	Valve, Drain
11	503-1168	1	Hose, Rubber (5/8 x 25")	29	505-0004	1	Nipple, Close
12	330-0005	1	Box, Outlet - Electrical	30	309-0304	1	Switch, Thermostatic
13	330-0004	1	Cover, Box - Outlet	31	870-0281	2	Nut, Lock (3/8 - 16)
14	307-1164	1	Contactor, Electric - 480 VAC	32	130-2850	1	Bracket, Mounting - Heater
15	332-0149	1	Terminal (#8) (Used on White Leads)	33	130-2851	1	Bracket, Mounting - Heater
16	332-0941	10	Tie, Cable	34	323-0957	1	Nut, Wire (Used on Black Leads)

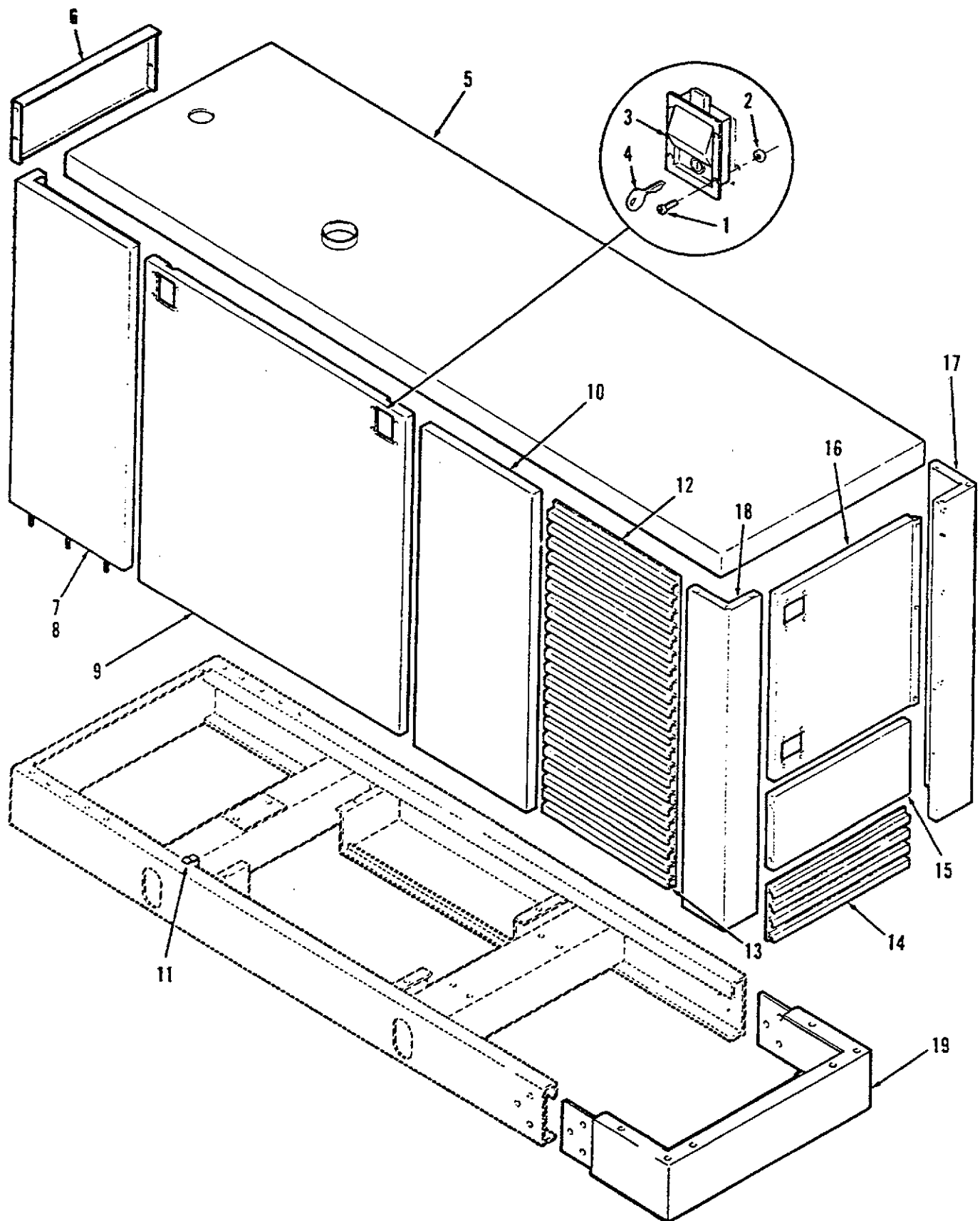
Chassis



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)	17	850-0060	2	Washer, Lock - Spring (1/2)
2	850-2010	8	Washer, Lock - Spring (M10)	18	800-0153	1	Screw, Cap - Hex Head (3/4 - 10 x 1-1/2")
3	740-1008	2	Washer, Lock - EIT (M10)	19	850-0079	1	Washer, Lock - Spring (3/4)
4	800-0091	4	Screw, Cap - Hex Head (1/2 - 13 x 1-1/4")	20	862-0008	1	Nut, Hex (3/4 - 10)
5	850-0060	4	Washer, Lock - Spring (1/2)	21	403-2323	1	Brace, Mounting - Engine
6	862-0016	4	Nut, Hex (1/2 - 13)	22	402-0030	1	Mount, Vibration
7	800-0520	2	Screw, Cap - Hex Head (3/4 - 10 x 1")	23	800-0028	1	Screw, Cap - Hex Head (5/16 - 18 x 1")
8	402-0568	2	Mount, Vibration	24	856-0008	1	Washer, Lock - EIT (5/16)
9	800-0048	4	Screw, Cap - Hex Head (3/8 - 16 x 3/4")	25	850-0045	1	Washer, Lock - Spring (5/16)
10	416-0850	4	Bracket, Holddown - Battery	26	862-0015	1	Nut, Hex (5/16 - 18)
11	800-0091	4	Screw, Cap - Hex Head (1/2 - 13 x 1-1/4")	27	332-1473	1	Terminal, Lug
12	850-0060	4	Washer, Lock - Spring (1/2)	28	800-2111	1	Screw, Cap - Hex Head (M12 x 1.75 x 25mm)
13	862-0010	4	Nut, Hex (1/2 - 13)	30	800-0090	1	Screw, Cap - Hex Head (1/2 - 13 x 1")
14	403-2301	1	Bracket, Mounting - Engine	31	856-0013	2	Washer, Lock - EIT (1/2)
15	403-2302	1	Bracket, Mounting - Engine	32	850-0060	1	Washer, Lock - Spring (1/2)
15	800-0090	2	Screw, Cap - Hex Head (1/2 - 13 x 1")	33	862-0016	1	Nut, Hex (1/2 - 13)
				34	337-0090	1	Strap, Electrical - Ground
				35	403-2293	1	Chassis

Set Housing

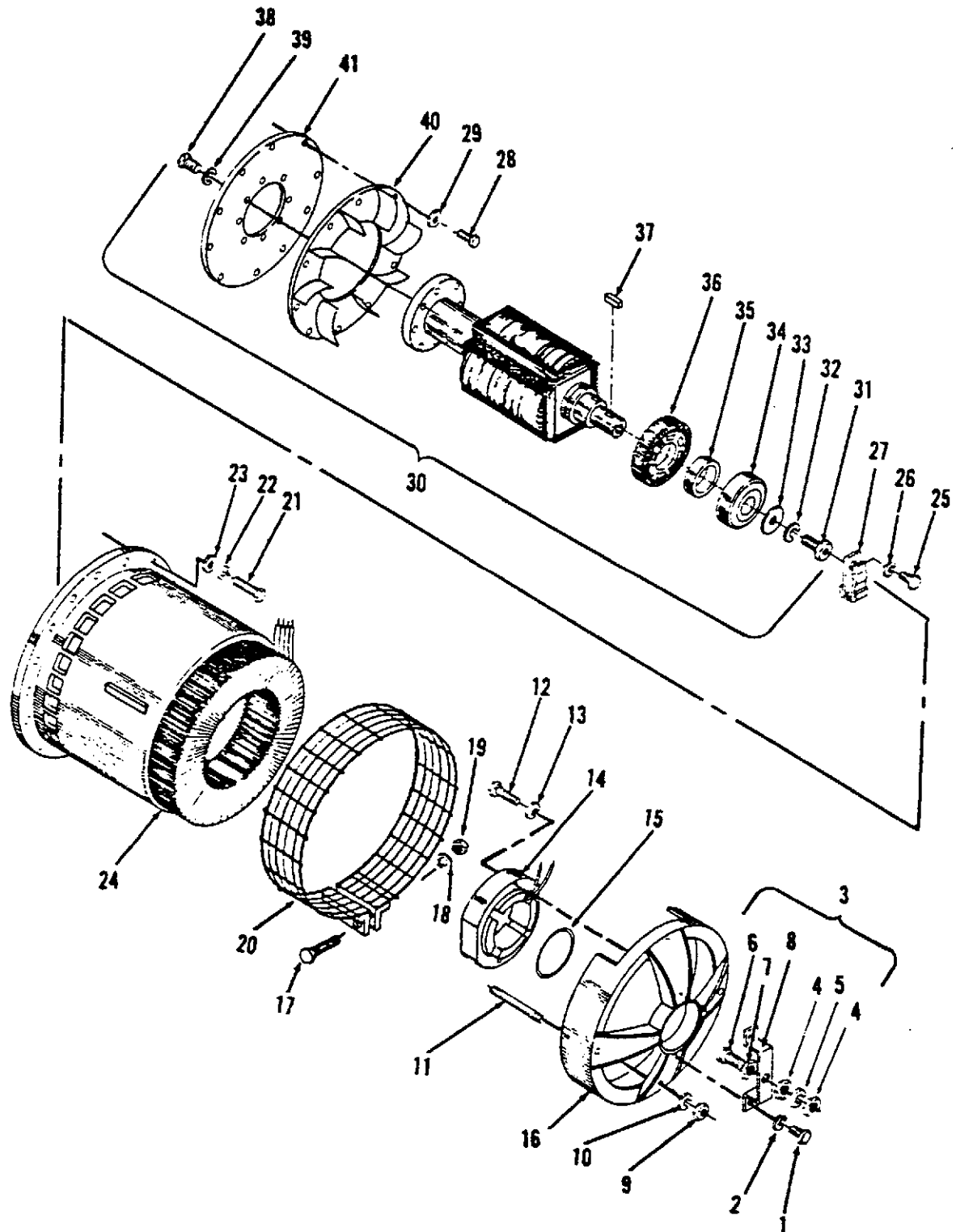


Set Housing

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")	13	405-3368	2	Bracket, Support - Grille
2	870-0235	24	Nut, Lock - Hex (#8 - 32)		821-0014	4	Screw, Self-Lock - Hex Wash Head (5/16 - 18 x 1/2")
3	406-0576	4	Latch, Door (Includes Key)		870-0257	4	Nut, Lock - Hex (5/16 - 18)
4	406-0577	1	Key, Latch	14	405-3357	1	Grille, Housing - Rear
5	405-3367	1	Panel, Top		821-0014	4	Screw, Self-Lock - Hex Wash Head (5/16 - 18 x 1/2")
	821-0029	14	Screw, Self-Locking - Hex Wash Head (3/8 - 16 x 3/4")		870-0257	4	Nut, Lock - Hex (5/16 - 18)
	870-0281	14	Nut, Lock - Hex (3/8 - 16)	15	405-3353	1	Panel, Housing - Rear
6			Panel, Housing - Front		821-0014	4	Screw, Self-Lock - Hex Wash Head (5/16 - 18 x 1/2")
	405-3377-01	1	Standard Cooling System		870-0257	4	Nut, Lock - Hex (5/16 - 18)
	405-3377-02	1	Hi Temp Cooling System	16	405-3361	1	Door, Access - Control
	821-0010	4	Screw, Lock - Hex Washer Head (1/4 - 20 x 1/2")		819-1083	3	Screw, Mach - Pan Head, (1/4 - 20 x 7/16")
	870-0212	4	Nut, Lock - Hex (1/4 - 20)	17	405-3347	1	Panel, Housing - Rear Post
7	405-3349	1	Panel, Housing - Side/Front		821-0029	3	Screw, Self-Lock - Hex Wash Head (3/8 - 16 x 3/4")
	870-0281	4	Nut, Lock - Hex (3/8 - 16)		870-0281	3	Nut, Lock - Hex (3/8 - 16)
8	405-3350	1	Panel, Housing - Side/Front (Not Illustrated)	18	405-3375	1	Panel, Housing - Rear Post
	870-0281	4	Nut, Lock - Hex (3/8 - 16)		821-0029	3	Screw, Self-Lock - Hex Wash Head (3/8 - 16 x 3/4")
9	405-3352	2	Door, Access - Engine (Does NOT Include Latches)		870-0281	3	Nut, Lock - Hex (3/8 - 16)
10	405-3373	2	Panel, Housing - Side	19	403-2313-02	1	Base, Skid - Rear
11	406-0574	8	Pivot, Hinge - Door/Panel		800-0090	6	Screw, Cap - Hex Head (1/2 - 13 x 1")
	821-0010	8	Screw, Self-Locking - Hex Wash Head (1/4 - 20 x 1/2")		850-0060	6	Washer, Lock - Spring (1/2)
	870-0212	8	Nut, Lock - Hex (1/4 - 20)		862-0016	6	Nut, Hex (1/2 - 13)
12	405-3358	2	Grille, Housing - Side				
	821-0014	4	Screw, Self-Lock - Hex Wash Head (5/16 - 18 x 1/2")				

Note: Heat Shields used with Housing are illustrated in the Exhaust System.

Generator

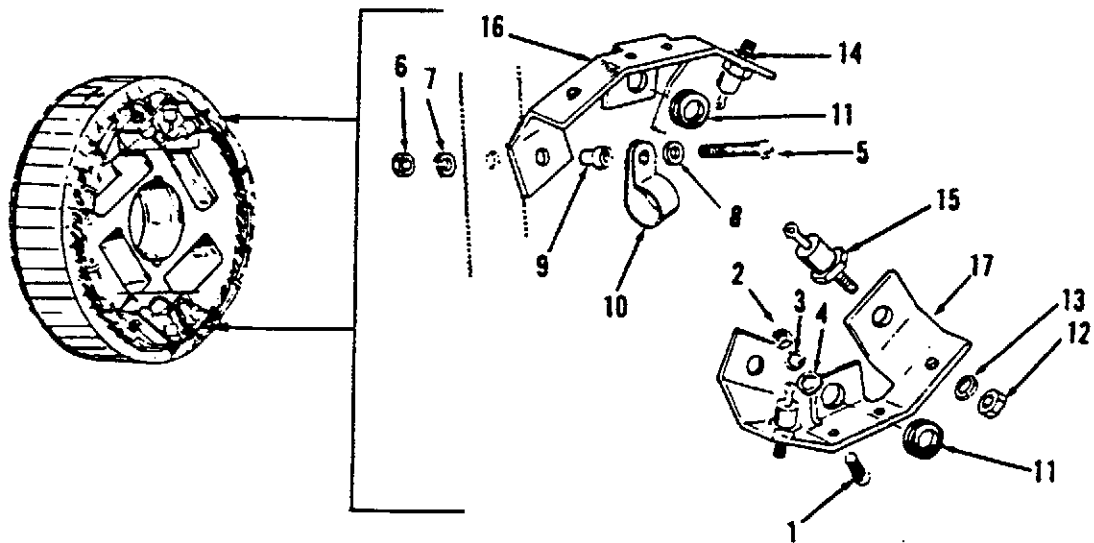


Generator

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")	220-1515	1	Code 15	
2	850-0040	2	Washer, Lock - Spring (1/4)	220-1518	1	Code 15 (Extended Stack)	
3	150-1456	1	Contact Assembly, Overspeed (Includes Parts Marked *)	220-1987	1	Code 515	
4	862-0001	2	*Nut, Hex (1/4 - 20)	220-1990	1	Code 515 (Extended Stack)	
5	853-0013	1	*Washer, Lock - ET (1/4)	25	800-0048	1	Screw, Cap - Hex Head (3/8 - 16 x 3/4")
6	150-0723	1	*Contact, Electrical	26	856-0010	1	Washer, Lock - Spring (3/8)
7	870-0250	1	*Nut, Insulator	27	150-0717	1	Switch, Overspeed
8	150-1356	1	*Bracket, Mounting - Contact	28	720-1075	8	Screw, Cap - Hex Head (M12 x 1.75 x 35mm)
9	862-0011	4	Nut, Hex (3/8 - 16)	29	740-1010	8	Washer, Flat (M12)
10	850-0050	4	Washer, Lock - Spring (3/8)	30			Rotor Assembly, Generator (Includes Parts Marked +)
11	520-0735	4	Stud		201-3268	1	Codes 6D, 9X, 15, 515
12	800-0009	4	Screw, Cap - Hex Head (1/4 - 20 x 1-1/2)		201-3271	1	Codes 15, 515 (Extended Stack)
13	850-0040	4	Washer, Lock - Spring (1/4)	31	800-0513	1	+Screw, Cap - Hex Head (3/4 - 10 x 1-1/2")
14	220-2353	1	Stator, Exciter Standard	32	850-0079	1	+Washer, Lock - Spring (3/4)
	220-1774	1	Environmental Protected	33	526-0238	1	+Washer, Flat (3/4)
15	509-0125	1	Seal, O-Ring - Oil	34	510-0101	1	+Bearing, Ball
16	211-0185	1	Bell, End - Generator	35	232-2102	1	+Spacer, Sleeve
17	800-0008	2	Screw, Cap - Hex Head (1/4 - 20 x 1-1/4")	36			+Rotor Assembly, Exciter (See Separate Page For Components)
18	850-0040	2	Washer, Lock - Spring (1/4)		201-1739	1	Standard
19	862-0001	2	Nut, Hex (1/4 - 20)		201-1845	1	Environmental Protected
20	234-0368	1	Screen, Air - Generator	37	515-0145	1	+Key, Machine
21	800-2088	12	Screw, Cap - Hex Head (M10 x 1.5 x 35mm)	38	805-0033	8	+Bolt, Hex Head (5/8 - 11 x 1")
22	850-2010	12	Washer, Lock - Spring (M10)	39	526-0259	8	+Washer, Flat (11/16" ID x 1-3/8" OD x 7/64" THK)
23	740-1008	12	Washer, Flat (M10)	40	205-0095	1	+Fan, Generator
24			Stator, Generator	41	232-2037	1	+Disc, Drive - Generator
	220-2637	1	Code 6D				
	220-1610	1	Code 9X				

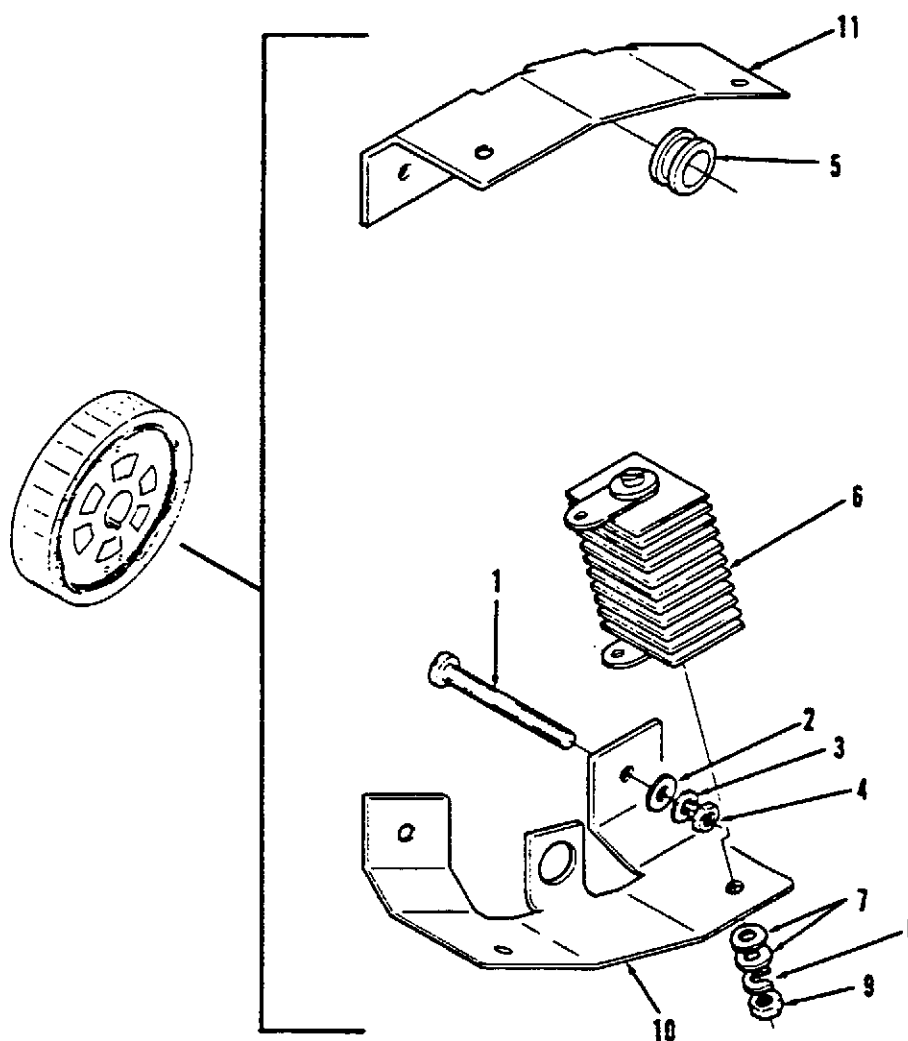
* Parts included in 150-1456 Overspeed Contact Assy.
+ Parts included in Generator Rotor Assembly.

Exciter Rotor



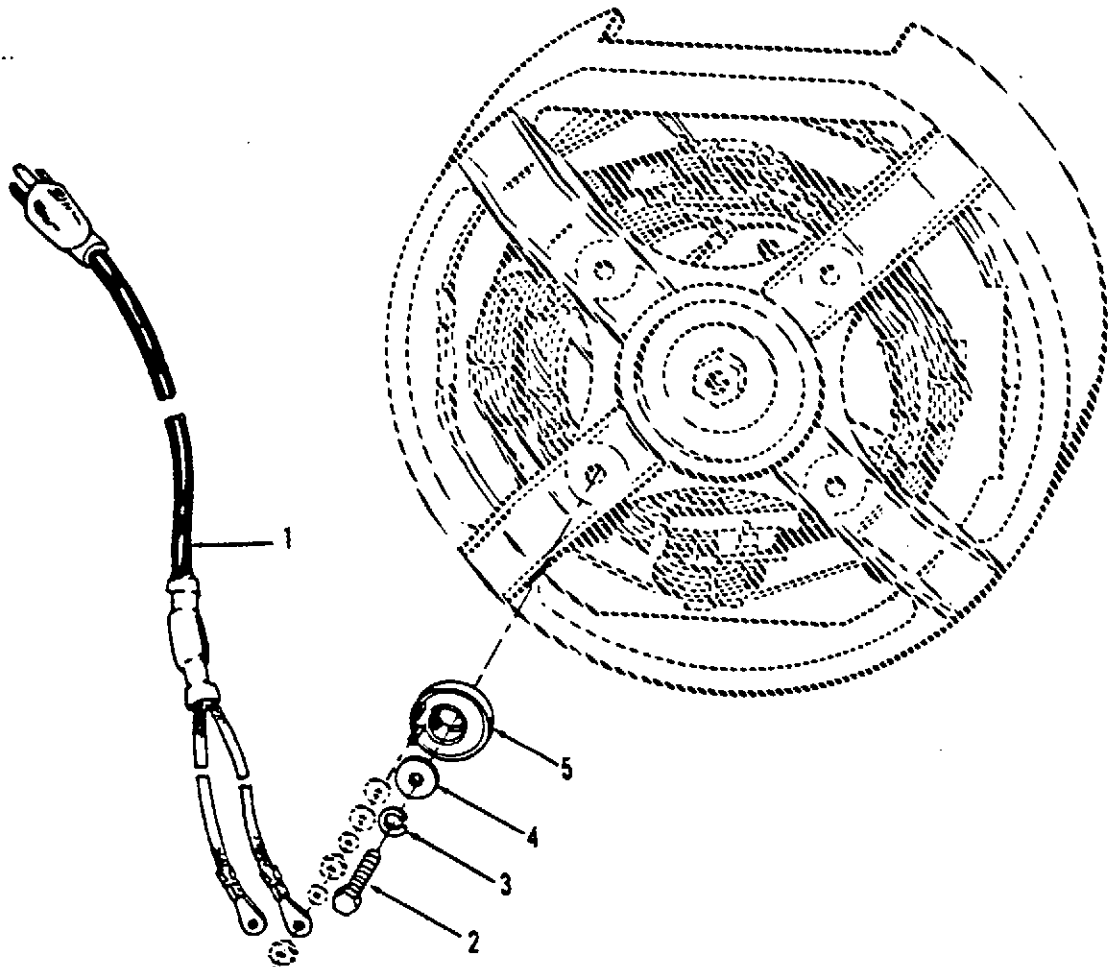
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	201-1739	1	Rotor Assembly - Exciter	9	508-0187	4	Spacer, Stepped
	201-1845	1	Standard	10	332-0050	2	Clamp, Loop
1	813-0100	2	Environmental Protected	11	508-0093	2	Grommet, Rubber
			Screw, Machine - Round Head	12	870-0053	6	Nut, Hex (#10 - 32)
			(#10 - 32 x 1/2")	13	850-0030	6	Washer, Lock - Spring (#10)
2	870-0053	2	Nut, Hex (#10 - 32)	14			Diode, Rectifier - Positive
3	850-0030	2	Washer, Lock - Spring (#10)		358-0097	3	Standard
4	526-0008	2	Washer, Flat (13/64" ID x		358-0044	3	Environmental Protected
			7/16" OD x 1/32" THK)	15			Diode, Rectifier - Negative
5	813-0110	4	Screw, Machine - Round Head		358-0096	3	Standard
			(#10 - 32 x 2")		358-0043	3	Environmental Protected
6	870-0053	4	Nut, Hex (#10 - 32)	16	363-0054	1	Sink, Heat - Positive Diodes
7	850-0030	4	Washer, Lock - Spring (#10)	17	363-0055	1	Sink, Heat - Negative Diodes
8	526-0009	4	Washer, Flat (7/32" ID x				
			1/2" OD x 1/16" THK)				

Voltage Suppressor



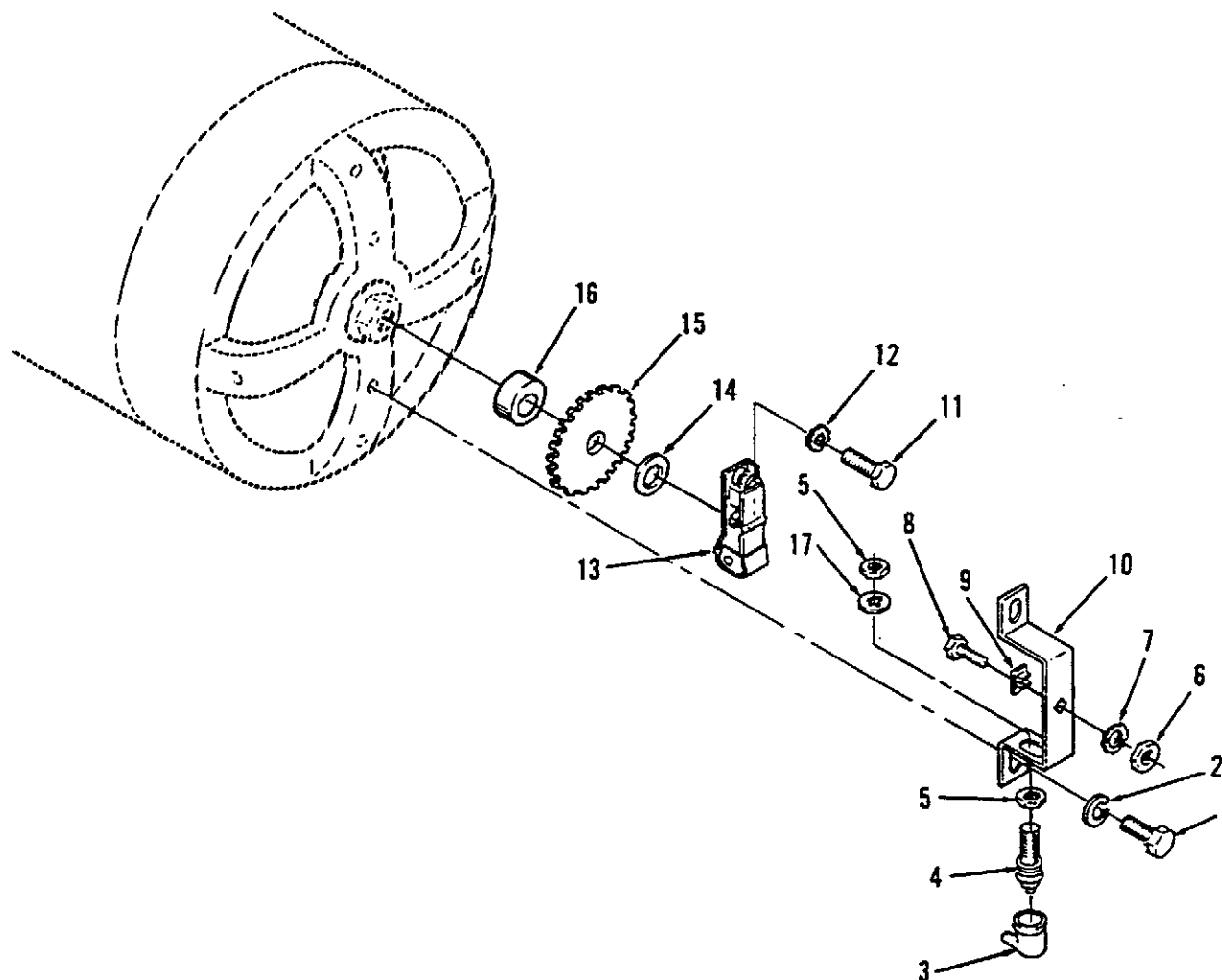
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	813-0112	4	Screw, Machine - Round Head (#10 - 32 x 2-1/2")	7	526-0140	4	Washer, Flat (7/32" ID x 3/8" OD x 3/64" THK)
2	526-0140	4	Washer, Flat (7/32" ID x 3/8" OD x 3/64" THK)	8	850-0030	4	Washer, Lock - Spring (#10)
3	850-0030	4	Washer, Lock - Spring (#10)	9	870-0053	4	Nut, Hex (#10 - 32)
4	870-0053	4	Nut, Hex (#10 - 32)	10	363-0054	1	Sink, Heat - Positive
5	508-0093	2	Grommet, Rubber	11	363-0055	1	Sink, Heat - Negative
6	305-0526	1	Suppressor Set, Voltage (Matched Pair)				

Generator Heater



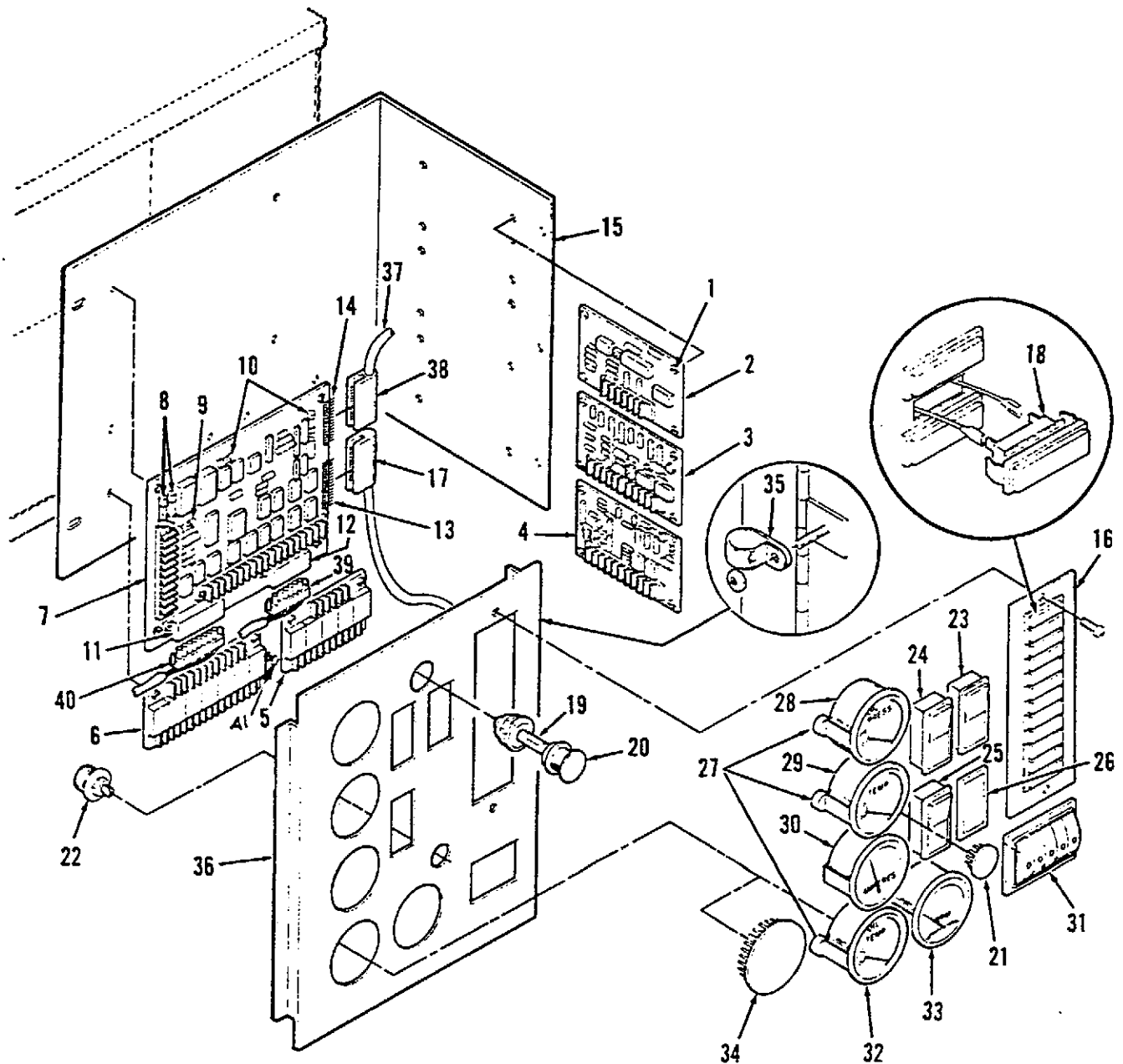
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Cable Assembly, Electric (Includes Thermostat)	3	850-0038	1	Washer, Lock - Spring (1/4)
	335-0146	1	120 VAC	4	526-0158	1	Washer, Flat (17/64" ID x 1" OD x 1/8" THK)
	335-0147	1	240 VAC	5			Heater, Electrical
2	800-0004	1	Screw, Cap - Hex Head (1/4 - 20 x 5/8")		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

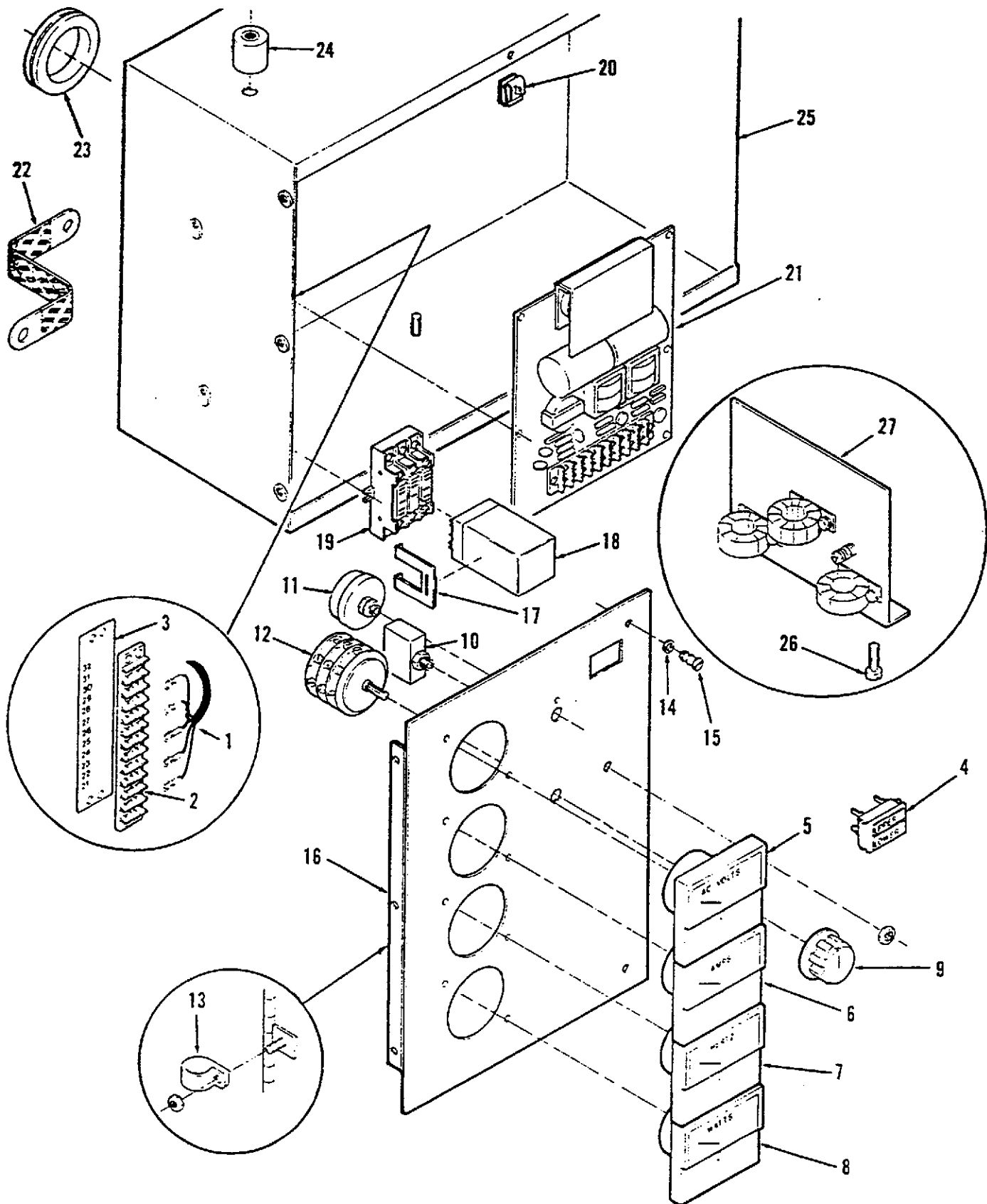


Engine Control

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)
	300-2808	1	(Includes Fuses & Connectors)	23	308-0785	1	Switch, Push - Reset/Panel Lamp (S11)
	300-2810	1	2 Light Control	24	308-0784	1	Switch, Push - Run/Stop/ Remote (S12)
	300-2812	1	7 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
				41	253-0003	8	* WASHER, LOCK-ET (#6)

* Parts included in Control To Engine Wiring Harness.

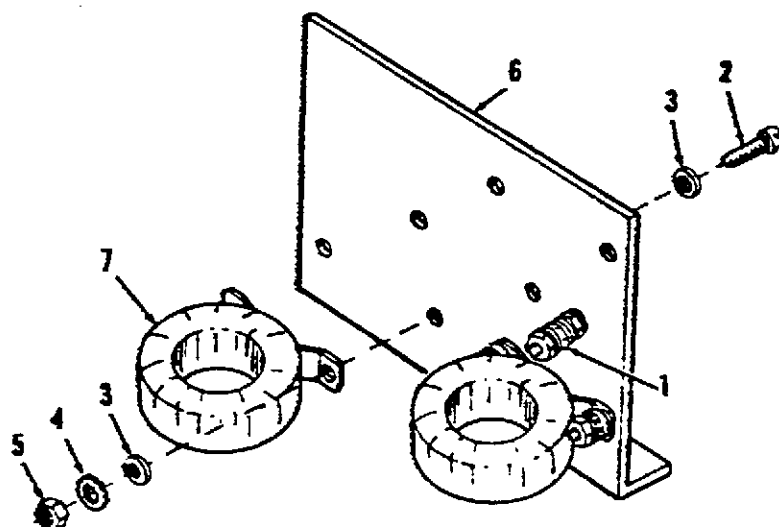
Generator Control



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")
			Single Scale	20	406-0332	2	Receptacle, Turnbutton Fastener
	302-1468	1	0-150 (Voltage Code 9X)	21	300-2880	1	Regulator, Voltage (VR21)
			Dual Scale		815-0544	6	Screw, Machine - IT Round Washer Hd (#6 - 32 x 1/2")
	302-1685	1	0-200/400 Amp (Voltage Code 15, 515)	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 - 11 (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			1	Transformer Assembly - Current (See Separate Page For Components)
	870-0131	1	Nut, Self-Locking - ET Hex Washer Head (#10 - 32)				
14	406-0334	2	Clip, Retaining - Turnbutton Fastener	27			
15	406-0333	2	Stud, Fastener - Turnbutton				

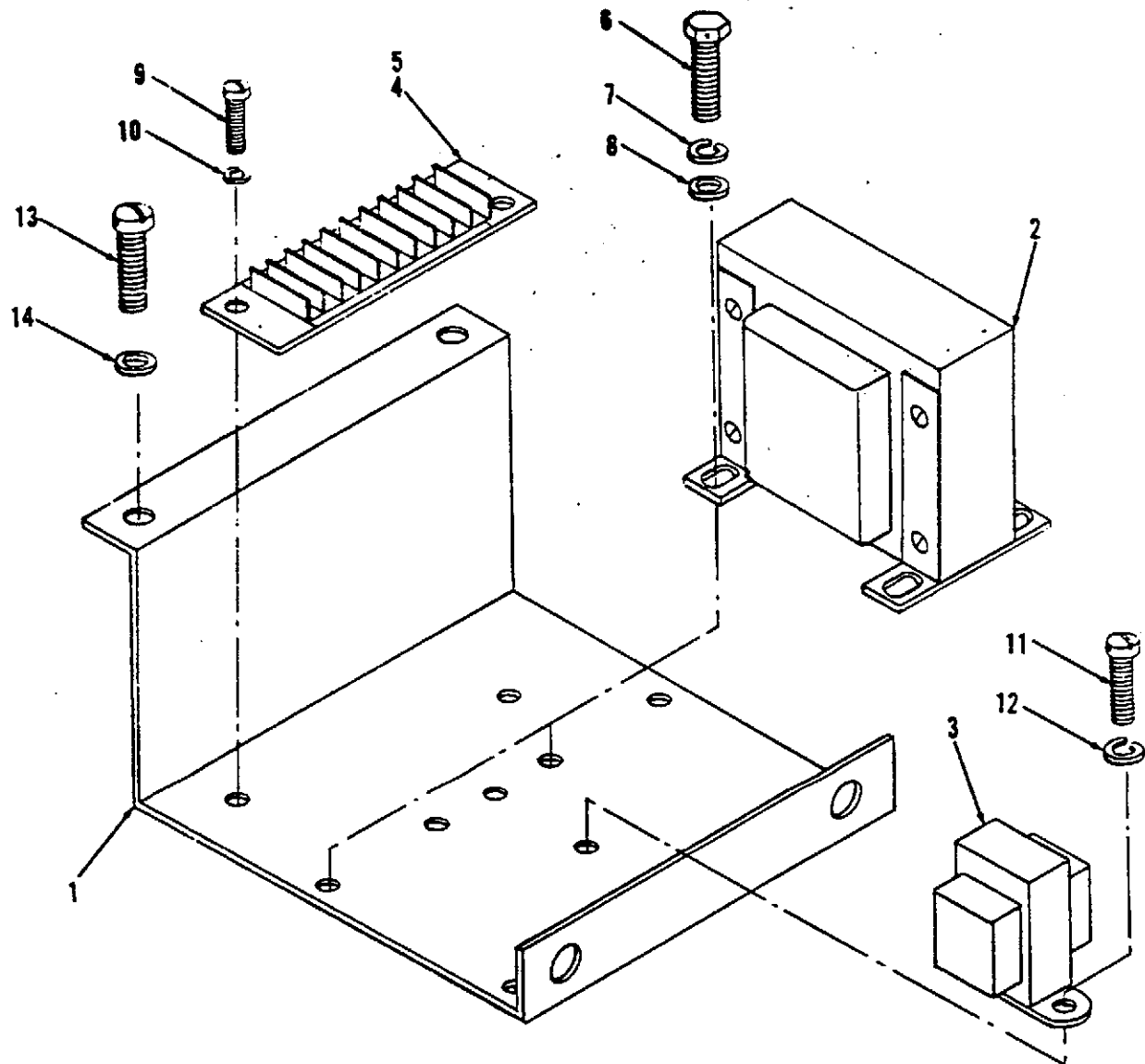
Current Transformer



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Terminal Assembly, Ground (Includes Parts Marked *)	2	813-0100	6	Screw, Machine - Round Head (#10 - 32 x 1/2")
815-0203	1	*	Screw, Machine - Round Head	3	526-0008	6	Washer, Flat (13/64" ID x 7/16" OD x 1/32" THK)
871-0010	3	*	Nut, Hex - Brass (#10 - 32)	4	856-0003	6	Washer, Lock - EIT (#10)
856-0003	1	*	Washer, Lock - EIT (#10)	5	870-0053	6	Nut, Hex (#10 - 32)
854-0010	2	*	Washer, Lock - IT (#10)	6	302-0764	1	Bracket, Mtg - Transformer
526-0049	2	*	Washer, Flat - Brass (13/64" ID x 7/32" OD x 1/32" THK)	7	302-0864	3	Transformer, Current Code 9X - Ratio 150/5
					302-0608	3	Codes 6D, 15, 515 - Ratio 400/5

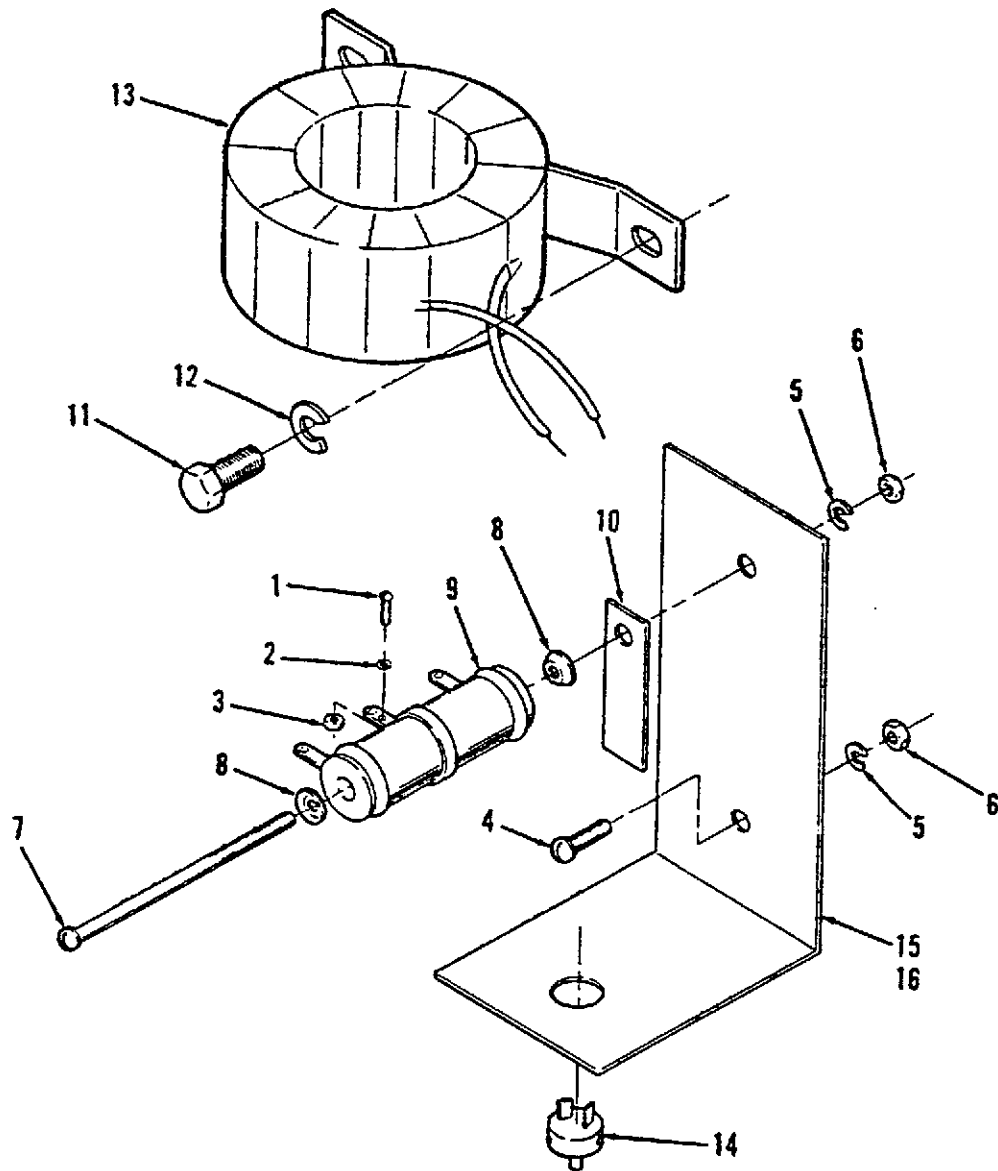
* Parts included in Ground Terminal Assembly.

Current Transformer (Voltage Code 6D)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	301-9540	1	Bracket, Mounting - Transformer	9	812-0077	2	Screw, Machine - Round Head (#8 - 32 x 3/8")
2	315-0636	2	Transformer, Current	10	850-0025	2	Washer, Lock (#8)
3	315-0635	1	Transformer, Current	11	812-0079	2	Screw, Machine - Round Head (#8 - 32 x 1/2")
4	332-2562	1	Block, Terminal	12	850-0025	2	Washer, Lock (#8)
5	332-2563	1	Strip, Marker	13	812-0156	4	Screw, Machine - Round Head (1/4 - 20 x 1-1/2")
6	800-0007	8	Screw, Cap - Hex Head (1/4 - 20 x 1")	14	850-0040	4	Washer, Lock (1/4)
7	850-0040	8	Washer, Lock (1/4)				
8	526-0018	8	Washer, Flat (1/4)				

Cross Current Transformer

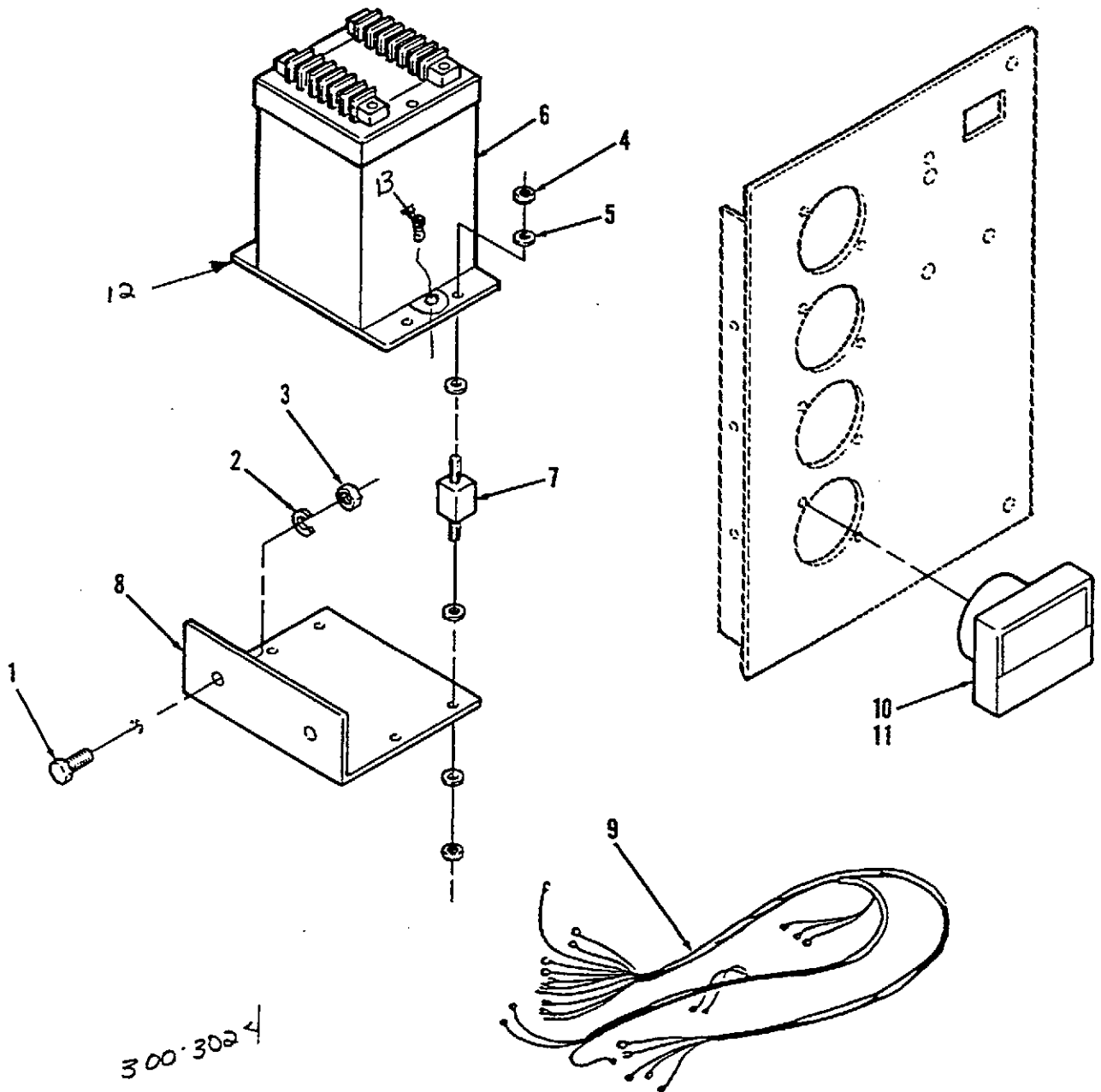


REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	812-0061	3	Screw, Machine - Round Head (#6 - 32 x 3/8")
2	853-0003	6	Washer, Lock - ET (#6)
3	860-0006	6	Nut, Machine - Hex (#6 - 32)
4	813-0100	1	Screw, Machine - Round Head (#10 - 32 x 1/2")
5	850-0030	2	Washer, Lock (#10)
6	870-0053	2	Nut, Hex (#10 - 32)
7	813-0113	1	Screw, Machine - Round Head (#10 - 32 x 2-3/4")

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
8	304-0014	2	Washer, Centering (7/32)
9	304-0094	1	Resistor, Current - Cross
10	304-0292	1	Insulator, Resistor
11	800-0003	2	Screw, Cap - Hex Head (1/4 - 20 x 1/2)
12	850-0040	2	Washer, Lock (1/4)
13	302-0826	1	Transformer, Current - Cross
14	308-0069	1	Switch, Toggle
15	301-9657	1	Bracket, Current - Cross
16	98-2313	1	Decal

Wattmeter

C

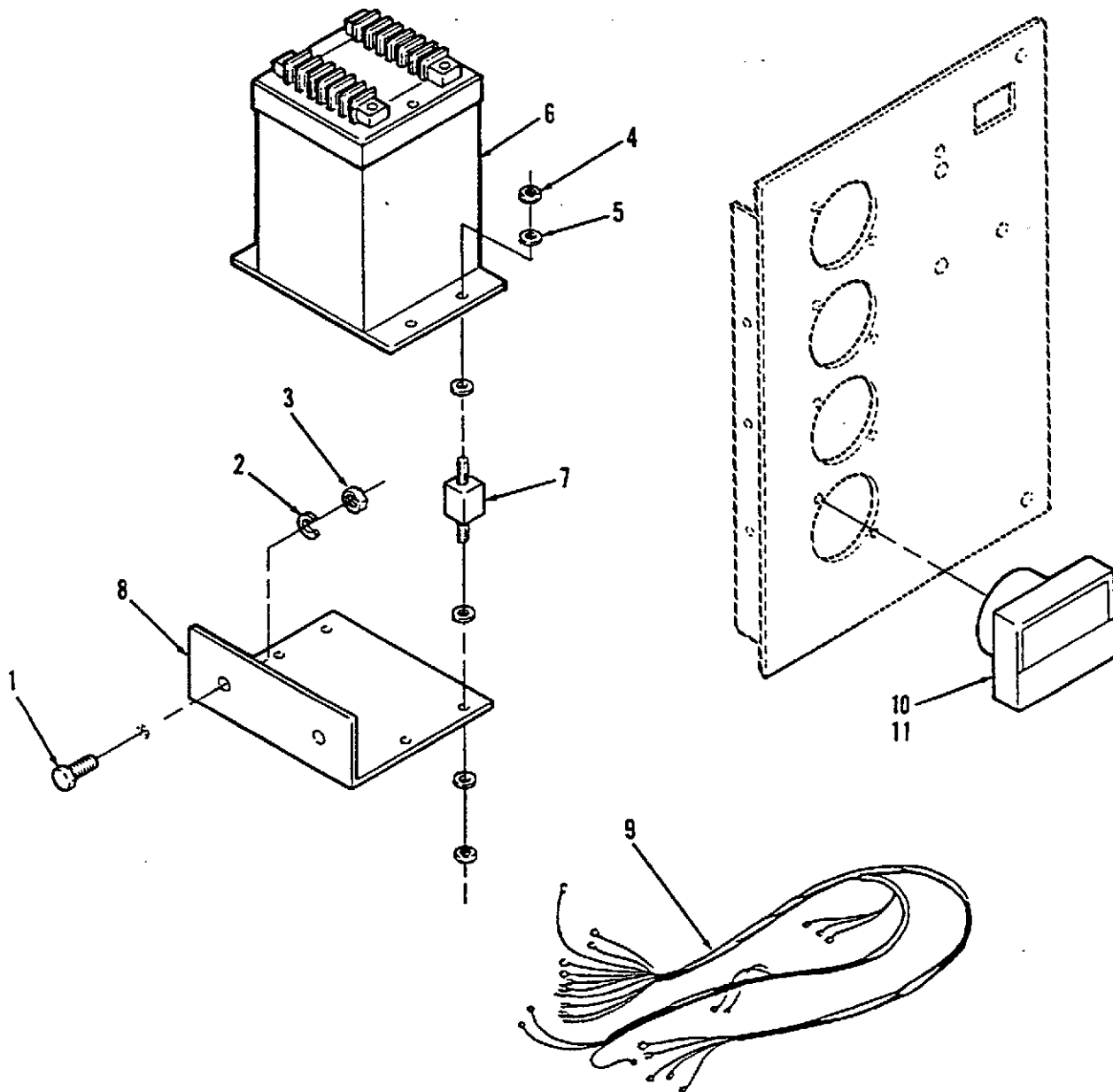


REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	821-0017	2	Screw, Lock (5/16 - 18 x 1/2")
2	850-0045	2	Washer, Lock (5/16)
3	862-0014	2	Nut, Hex (5/16 - 18)
4	860-0008	8	Nut, Hex (#8 - 32)
5	856-0002	16	Washer, Lock - EIT (#8)
6	302-1082	1	Transducer, Watts
	302-1083	1	3-Phase, 60 Hertz
	302-1083	1	2-Phase, 50 Hertz
6	303-1233-01	1	TRANS DU CER, WATTS

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
7	402-0354	4	Mount, Shock
8	301-6987	1	Bracket, Mounting - Watts
9	338-1936	1	Transducer
			Harness, Wiring - Watts
			Transducer
10	302-1722 05	1	Meter, Watt - DC
11	302-1721-12	1	Dial, Wattmeter (SEE DRG FOR <i>Case</i>)
12	319-0030	1	PLATE, TRANS DU CER - WATTS
13	813-0102	2	SCREW, RHIN (#10-32, 5/8")

871

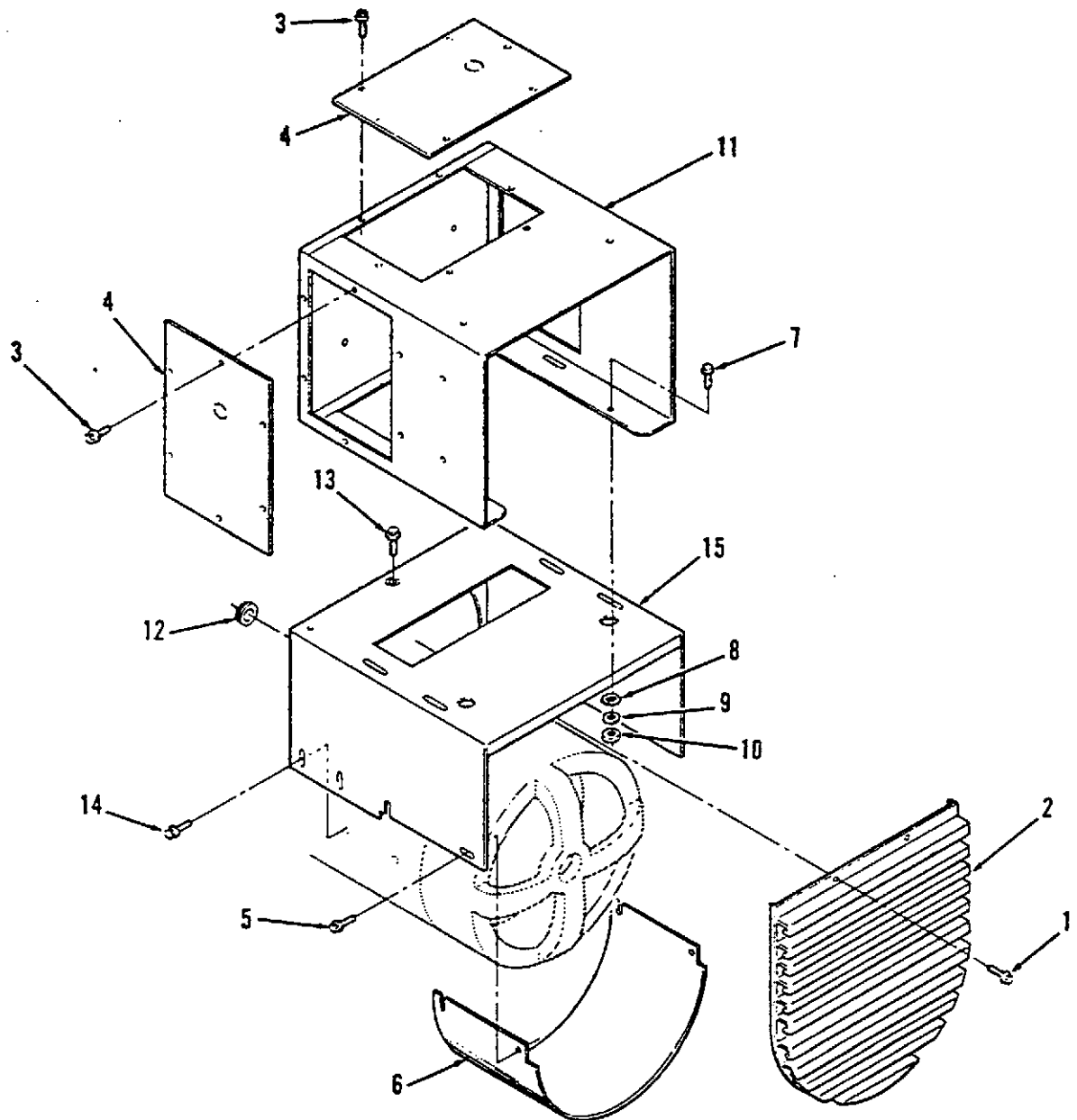
Wattmeter



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	821-0017	2	Screw, Lock (5/16 - 18 x 1/2")
2	850-0045	2	Washer, Lock (5/16)
3	862-0014	2	Nut, Hex (5/16 - 18)
4	860-0008	8	Nut, Hex (#8 - 32)
5	856-0002	16	Washer, Lock - EIT (#8)
6			Transducer - Watts

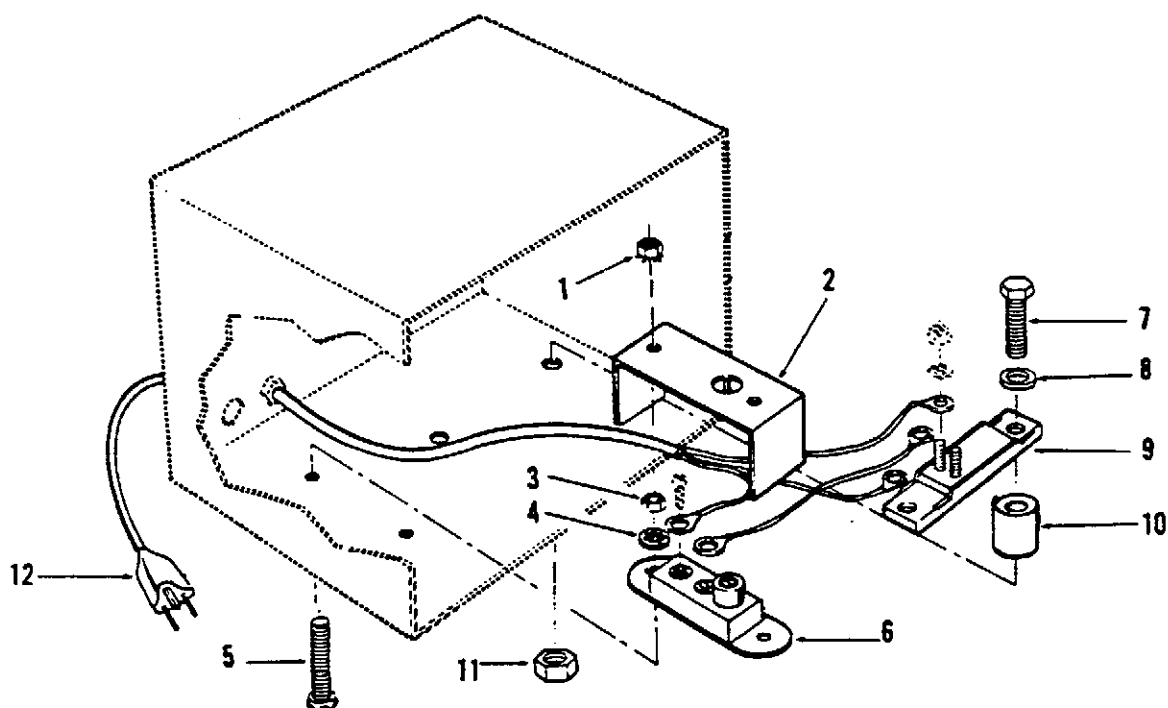
REF NO.	PART NO.	QTY USED	PART DESCRIPTION
7	402-0354	4	Mount, Shock
8	301-6987	1	Bracket, Mounting - Watts
9	338-1936	1	Transducer
10	302-1722	1	Harness, Wiring - Watts
11	301-1722	1	Transducer

Control Housing



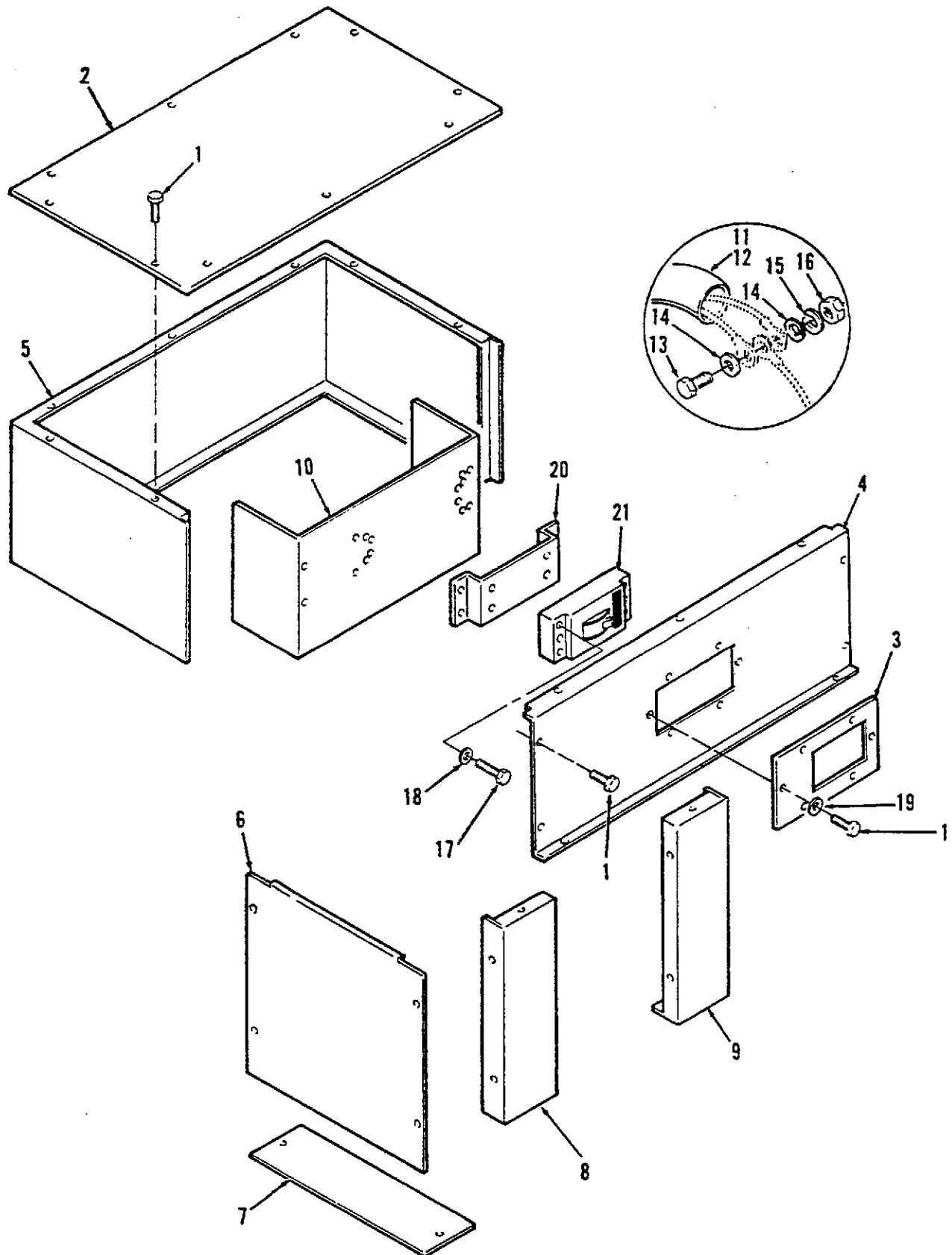
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	821-0010	8	Screw, Self-Locking - Hex Washer Hd (1/4 - 20 x 1/2")	9	526-0018	5	Washer, Flat (17/64" ID x 5/8" OD x 1/16" THK)
2	234-0370	1	Grille, Air - Generator Inlet	10	870-0212	6	Nut, Hex (1/4 - 20)
3	815-0350	18	Screw, Tap - Hex Washer Head (#10 - 32 x 3/8")	11	301-3155	1	Housing, Box - Control
4	301-3156	3	Panel, Access	12	508-0203	1	Grommet
5	821-0010	4	Screw, Self-Locking - Hex Washer Hd (1/4 - 20 x 1/2")		508-0051	1	Used Thru October 1984
6	234-0361	1	Wrapper, Bell - End	13	821-0010	1	Used Beginning November 1984
7	821-0018	6	Screw, Self-Locking - Hex Washer Hd (1/4 - 20 x 5/8")	14	821-0014	8	Screw, Self-Locking - hex Washer Hd (5/16 - 18 x 1/2")
8	856-0006	1	Washer, Lock - EIT (1/4)	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

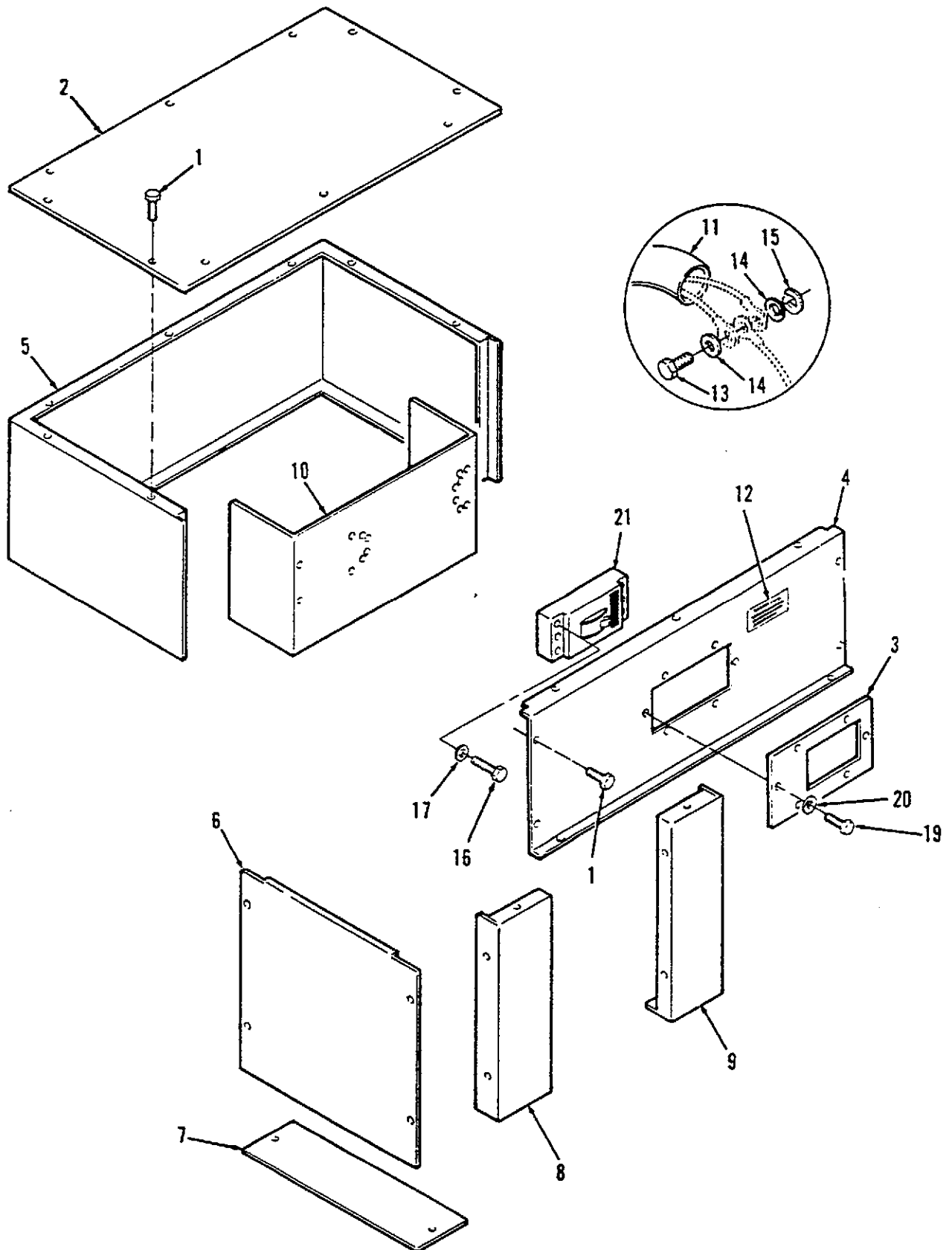
Circuit Breaker (Spec A)



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")	320-0269	1	225 Amp, 480/600 VAC	
2	301-9257	1	Cover, Top	320-0422	1	250 Amp, 240 VAC	
3			Cover, Breaker - Circuit	320-0445	1	250 Amp, 480/600 VAC	
	301-9259	1	5" x 3-1/4" Breaker Hole	320-0423	1	300 Amp, 240 VAC	
	301-9458	1	3-1/4" x 1-1/2" Breaker Hole	320-0401	1	300 Amp, 480/600	
4	301-9251	1	Panel, Front	320-0448	1	350 Amp, 240 VAC	
5	301-9258	1	Wrapper, Enclosure			Three Pole with Aux Contact	
6	301-9255	2	Cover, Access - Side	320-1428	1	125 Amp, 600 VAC	
7	301-9254	2	Panel, Access - Bottom	320-0738	1	150 Amp, 480/600 VAC	
8	301-9253	2	Panel, End	320-0700	1	175 Amp, 240 VAC	
9	301-9252	2	Panel, End	320-0988	1	200 Amp, 480/600 VAC	
10	301-9256	1	Bracket, Mounting - Circuit Breaker	320-1222	1	225 Amp, 240 VAC	
11			Sleeving, Shrinkable	320-0975	1	250 Amp, 480/600 VAC	
	898-0863	1	0.75" ID	320-0620	1	300 Amp, 240 VAC	
	898-0865	1	1.00" ID	320-0300	1	300 Amp, 480/600 VAC	
	898-0875	1	1.50" ID	320-1425	1	350 Amp, 240 VAC	
	898-0869	1	2.00" ID			Three Pole with 12 Volt Shunt Trip	
	898-1112	1	3.00" ID	320-0556	1	125 Amp, 600 VAC	
12			Sleeving, Fiberglass	320-0658	1	150 Amp, 600 VAC	
	898-0974	1	0.75" ID	320-0453	1	175 Amp, 600 VAC	
	898-0976	1	1.00" ID	320-0392	1	200 Amp, 600 VAC	
13	800-0028	5	Screw, Cap - Hex Head (5/16 - 18 x 1")	320-0370	1	300 Amp, 600 VAC	
14	526-0022	10	Washer, Flat (21/64" ID x 9/16" OD x 1/16" THK)			Three Pole with 24 Volt Shunt Trip	
15	850-0045	5	Washer, Lock - Spring (5/16)	320-1430	1	125 Amp, 600 VAC	
16	862-0015	5	Nut, Hex (5/16 - 18)	320-0688	1	150 Amp, 600 VAC	
17	812-0156	4	Screw, Machine - Round Head (1/4 - 20 x 1-1/2")	320-0731	1	175 Amp, 600 VAC	
18	850-0040	4	Washer, Lock - Spring (1/4)	320-0529	1	200 Amp, 600 VAC	
19	850-0030	6	Washer, Lock (#10)	320-1433	1	225 Amp, 600 VAC	
20			Bracket, Mounting - Circuit Breaker	320-0438	1	300 Amp, 600 VAC	
	301-9459	1	Used on Circuit Breakers 480 Volts and Up	320-0627	1	350 Amp, 240 VAC	
	301-9460	1	Used on Circuit Breakers 240 Volts and Below	320-0524	1	350 Amp, 600 VAC	
21			Breaker, Circuit			Three Pole with 120 Volt Shunt Trip	
			Two Pole	320-0238	1	125 Amp, 600 VAC	
	320-1061	1	125 Amp, 240 VAC	320-0315	1	150 Amp, 600 VAC	
	320-1062	1	150 Amp, 240 VAC	320-0215	1	175 Amp, 600 VAC	
	320-0344	1	175 Amp, 240 VAC	320-0573	1	200 Amp, 600 VAC	
	320-1409	1	200 Amp, 240 VAC	320-0285	1	225 Amp, 600 VAC	
	320-0359	1	225 Amp, 240 VAC	320-0708	1	250 Amp, 600 VAC	
	320-1411	1	250 Amp, 240 VAC	320-0268	1	300 Amp, 600 VAC	
	320-0420	1	300 Amp, 240 VAC	320-0275	1	350 Amp, 600 VAC	
	320-0421	1	350 Amp, 240 VAC			Three Pole with 480 Volt Shunt Trip	
			Three Pole	320-0331	1	300 Amp, 600 VAC	
	320-1049	1	125 Amp, 240 VAC	320-0279	1	350 Amp, 600 VAC	
	320-0446	1	125 Amp, 480/600 VAC			Two Pole with 12 or 24 Volt Shunt Trip and Aux Contact	
	320-0346	1	150 Amp, 240 VAC	320-1144	1	200 Amp, 240 VAC (24 V)	
	320-0425	1	150 Amp, 480/600 VAC	320-1424	1	300 Amp, 240 VAC (24 V)	
	320-0347	1	175 Amp, 240 VAC			Three Pole with 12 or 24 Volt Shunt Trip and Aux Contacts	
	320-0426	1	175 Amp, 480/600 VAC	320-0772	1	150 Amp, 240 VAC (12 V)	
	320-0348	1	200 Amp, 240 VAC	320-1422	1	150 Amp, 600 VAC (24 V)	
	320-0447	1	200 Amp, 480/600 VAC	320-1145	1	200 Amp, 240 VAC (24 V)	
	320-0349	1	225 Amp, 240 VAC	320-1035	1	225 Amp, 240 VAC (12 V)	
				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	320-1458-31	1	150 Amp, 480 VAC	
			Washer Hd (#10 - 32 x 3/8")	320-1458-48	1	150 Amp, 600 VAC	
2	301-9257	1	Cover, Top	320-1459-08	1	175 Amp, 600 VAC	
3	301-9720	1	Cover, Breaker - Circuit	320-1459-09	1	200 Amp, 600 VAC	
			For use with 225 Amp Circuit	320-1459-10	1	225 Amp, 600 VAC	
	301-9721	1	Breakers and below	320-1460-06	1	250 Amp, 600 VAC	
			For use with 250 Amp Circuit	320-1460-07	1	300 Amp, 600 VAC	
			Breakers and above	320-1460-08	1	350 Amp, 600 VAC	
4	301-9251	1	Panel, Front			Two Pole with Aux Contacts	
5	301-9258	1	Wrapper, Enclosure	320-1515-06	1	125 Amp, 600 VAC	
6	301-9255	2	Cover, Access - Side	320-1515-07	1	150 Amp, 600 VAC	
7	301-9254	2	Panel, Access - Bottom	320-1515-08	1	175 Amp, 600 VAC	
8	301-9253	2	Panel, End	320-1515-09	1	200 Amp, 600 VAC	
9	301-9252	2	Panel, End	320-1515-10	1	225 Amp, 600 VAC	
10			Bracket, Mounting - Circuit	320-1516-06	1	250 Amp, 600 VAC	
			Breaker	320-1516-07	1	300 Amp, 600 VAC	
	301-9716	1	Used on Circuit Breakers	320-1516-08	1	350 Amp, 600 VAC	
			600 Amps and below			Three Pole with Aux Contact	
	301-9722	1	Used on Circuit Breakers	320-1462-30	1	125 Amp, 480 VAC	
			700 Amps and above	320-1462-47	1	125 Amp, 600 VAC	
11			Sleeving, Shrinkable	320-1462-31	1	150 Amp, 480 VAC	
	898-0863	1	0.75" ID	320-1462-48	1	150 Amp, 600 VAC	
	898-0865	1	1.00" ID	320-1463-08	1	175 Amp, 600 VAC	
	898-0867	1	1.50" ID	320-1463-09	1	200 Amp, 600 VAC	
	898-0869	1	2.00" ID	320-1463-10	1	225 Amp, 600 VAC	
12	98-2304	1	Silkscreen, Breaker - Circuit	320-1464-06	1	250 Amp, 600 VAC	
			(Warning)	320-1464-07	1	300 Amp, 600 VAC	
13	800-0028	5	Screw, Cap - Hex Head (5/16 -	320-1464-08	1	350 Amp, 600 VAC	
			18 x 1")			Two Pole with 24 Volt	
14	526-0022	10	Washer, Flat (21/64" ID x			Shunt Trip	
			9/16" OD x 1/16" THK)	320-1522-07	1	300 Amp, 600 VAC	
15	850-0045	5	Washer, Lock - Spring (5/16)			Two Pole with 120 Volt	
16	812-0156	4	Screw, Machine - Round Head			Shunt Trip	
			(1/4 - 20 x 1-1/2")	320-1524-08	1	175 Amp, 600 VAC	
17	850-0040	4	Washer, Lock - Spring (1/4)			Three Pole with 12 Volt	
18	332-1445	3	Tie, Cable (Not Shown)			Shunt Trip	
19	813-0096	6	Screw, Machine - Round Head	320-1466-47	1	125 Amp, 600 VAC	
			(#10 - 32 x 1/4")	320-1466-48	1	150 Amp, 600 VAC	
20	850-0030	6	Washer, Lock (#10)	320-1467-08	1	175 Amp, 600 VAC	
21			Breaker, Circuit	320-1467-09	1	200 Amp, 600 VAC	
			Two Pole	320-1468-07	1	300 Amp, 600 VAC	
	320-1512-06	1	125 Amp, 600 VAC			Three Pole with 24 Volt	
	320-1512-07	1	150 Amp, 600 VAC			Shunt Trip	
	320-1512-08	1	175 Amp, 600 VAC	320-1470-47	1	125 Amp, 600 VAC	
	320-1512-09	1	200 Amp, 600 VAC	320-1470-48	1	150 Amp, 600 VAC	
	320-1512-10	1	225 Amp, 600 VAC	320-1471-08	1	175 Amp, 600 VAC	
	320-1513-06	1	250 Amp, 600 VAC	320-1471-09	1	200 Amp, 600 VAC	
	320-1513-07	1	300 Amp, 600 VAC	320-1471-10	1	225 Amp, 600 VAC	
	320-1513-08	1	350 Amp, 600 VAC	320-1472-06	1	250 Amp, 600 VAC	
			Three Pole	320-1472-07	1	300 Amp, 600 VAC	
	320-1458-30	1	125 Amp, 480 VAC	320-1472-08	1	350 Amp, 600 VAC	
	320-1458-47	1	125 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				Two Pole with 24 Volt Shunt Trip & Auxiliary Contacts
320-1474-47	1		125 Amp, 600 VAC	320-1536-09	1		200 Amp, 600 VAC
320-1474-48	1		150 Amp, 600 VAC				Three Pole with 12 Volt Shunt Trip & Auxiliary
320-1475-09	1		200 Amp, 600 VAC				Contacts
320-1475-10	1		225 Amp, 600 VAC	320-1487-07	1		150 Amp, 600 VAC
320-1476-06	1		250 Amp, 600 VAC	320-1487-10	1		225 Amp, 600 VAC
320-1476-07	1		300 Amp, 600 VAC				Three Pole with 24 Volt Shunt Trip & Auxiliary
320-1476-08	1		350 Amp, 600 VAC				Contacts
			Three Pole with 480 Volt Shunt Trip				200 Amp, 600 VAC
320-1484-07	1		300 Amp, 600 VAC	320-1491-09	1		225 Amp, 600 VAC
320-1484-08	1		350 Amp, 600 VAC	320-1491-10	1		250 Amp, 600 VAC
				320-1492-06	1		300 Amp, 600 VAC
				320-1492-07	1		