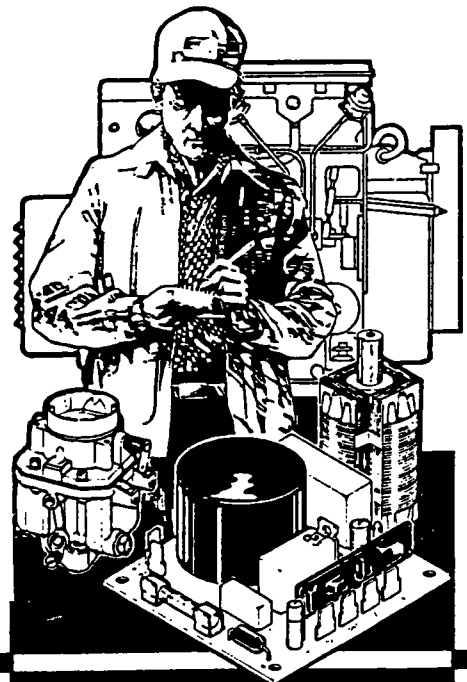

Onan

Parts Manual

DKC

GenSet

AUX/RV Electric Generating Set



Onan Service Parts

981-0239
1-89 (SPEC A-B)
Replaces 10-88 (SPEC A-B)
Printed in U.S.A.

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Introduction

This Parts Manual applies to the Standard Generator 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 of the parts lists, 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 side of the Set are determined by FACING the engine end (Front) of the Set.

NOTICE!

VARIATIONS WITHIN MODEL(S)

- I. GOVERNOR: Style I has a flyball type system; Style II has a flyweight type system. (See the Gearcase Illustration for visual external differences, and the Fuel System - Injection Pump for internal differences.)

Set Data Table

MODEL IDENTIFICATION	RATING
4.0 DKC-*/#@	4,000 WATTS

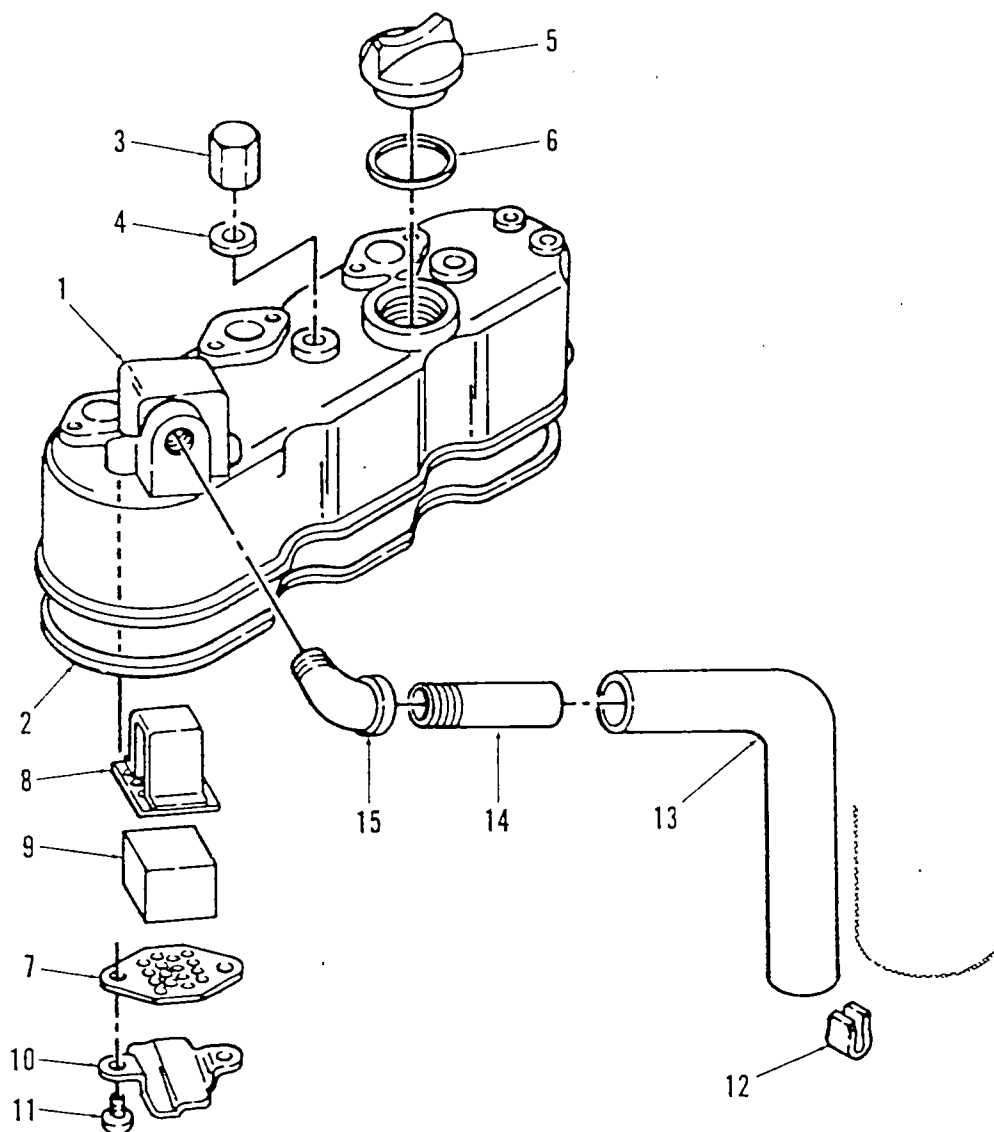
- * - Voltage Codes follow model letter designations.
- # - Specification Number: Number 1 is Standard, all others indicate variations.
- @ - Specification Letter: Letter advances (A to B, B to C, etc) with major manufacturing changes.
- + - These Generators are reconnectible, refer to Operator's Manual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

Electrical Data Table

B - 120/240 Volt, 60 Hertz, 1 Phase, 3 Wire
C - 120/208 Volt, 60 Hertz, 3 Phase, 4 Wire
D - 120/240 Volt, 60 Hertz, 3 Phase, 4 Wire
G - 277/480 Volt, 60 Hertz, 3 Phase, 4 Wire
J - 120/240 Volt, 60 Hertz, 3 Phase, 4 Wire
L - Reconnectible, 60 Hertz (Broad Range)
P - 120/240 Volt, 50 Hertz, 1 Phase, 4 Wire
Z - Reconnectible, 50 Hertz (Broad Range)
R - Special (Specification Number Req'd to Identify)

1 - 120 Volt, 1 Phase, 2 Wire
3 - 120/240 Volt, 1 Phase, 3 Wire
3C - 120/240 Volt, 1 Phase, 4 W (Reconnectible)
4 - 120/208 Volt, 3 Phase, 4 Wire
4X - 277/480 Volt, 3 Phase, 4 Wire
50 - 120/240 Volt, 3 Phase, 4 W (Delta Wound)
9X - 347/600 Volt, 3 Phase, 4 Wire
18 - Broad Range, 1 & 3 Phase, 12 Wire

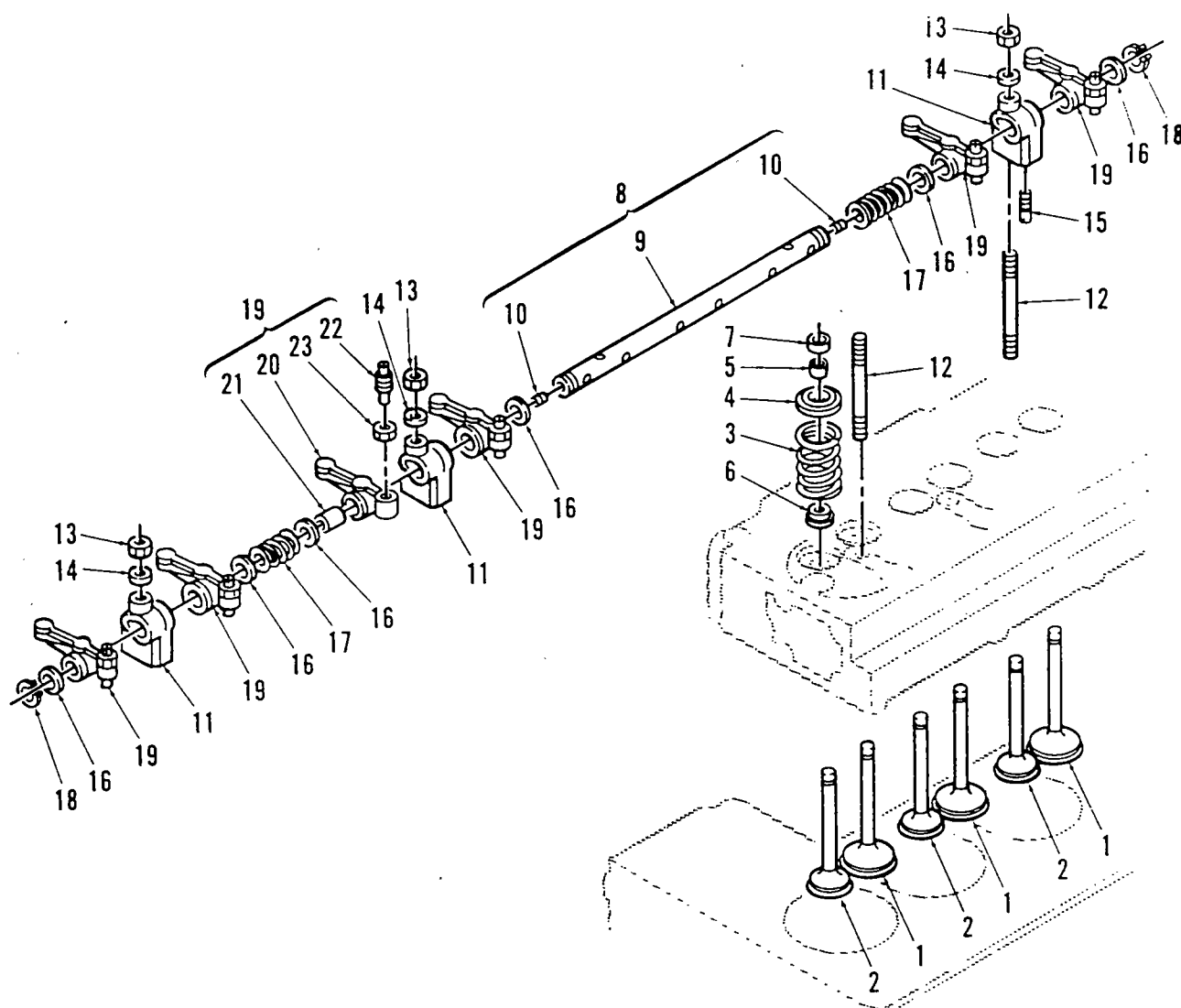
Valve Cover & Breather



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-2280	1	Cover, Cylinder Head
2	185-2217	1	Gasket
3	185-2290	3	Nut, Cap
4	185-2291	3	Seal, Oil
5	185-2093	1	Cap, Oil Fill
6	185-2349	1	O-Ring
7	185-2287	1	Plate, Breather
8	185-2230	1	Baffle, Breather
9	185-2232	1	Element, Breather

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
10	185-2288	1	Shield, Breather
11	185-2384	2	Screw, Machine - Pan Head with Lockwasher
12	518-0449	1	Clip, Retaining
13	503-1321	1	Hose, Rubber (7/16" ID x 5/8" OD x 26-1/2" LG)
14	505-0302	1	Nipple, Pipe - Half
15	505-0011	1	Elbow, Pipe - Street, 90°

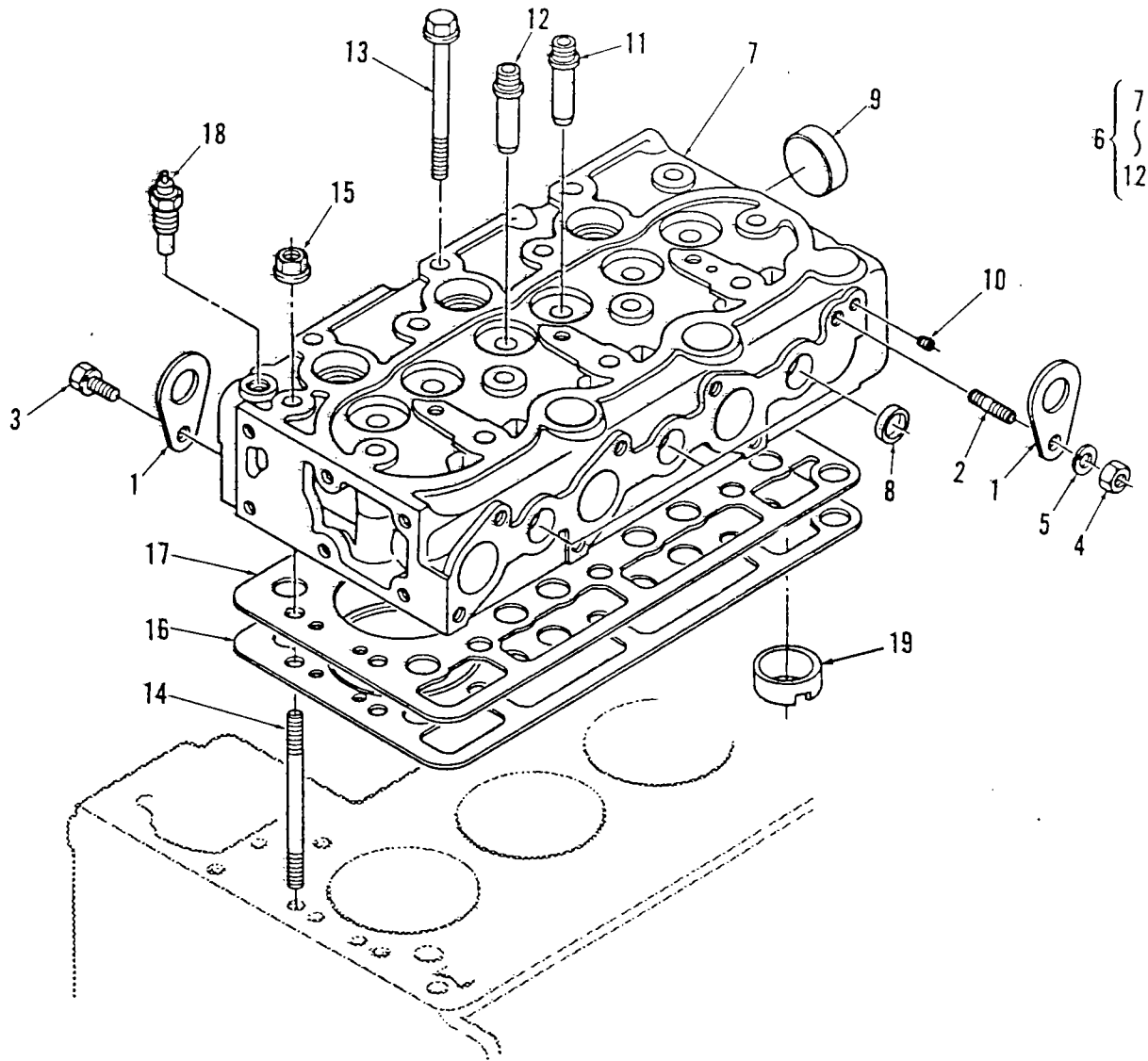
Rocker Arm Assembly



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	185-2064	3	Valve, Inlet
2	185-2065	3	Valve, Exhaust
3	185-2079	6	Spring, Compression
4	185-2076	6	Retainer, Spring
5	185-2077	12	Collet, Spring
6	185-2078	3	Seal, Oil - Inlet Valve
	185-2431	3	Seal, Oil - Exhaust Valve
7	185-2080	6	Cap, Valve Stem
8	185-2204	1	Shaft, Rocker Arm
9	NFS		Shaft
10	185-2375	2	Set screw
11	185-2071	3	Bracket, Support

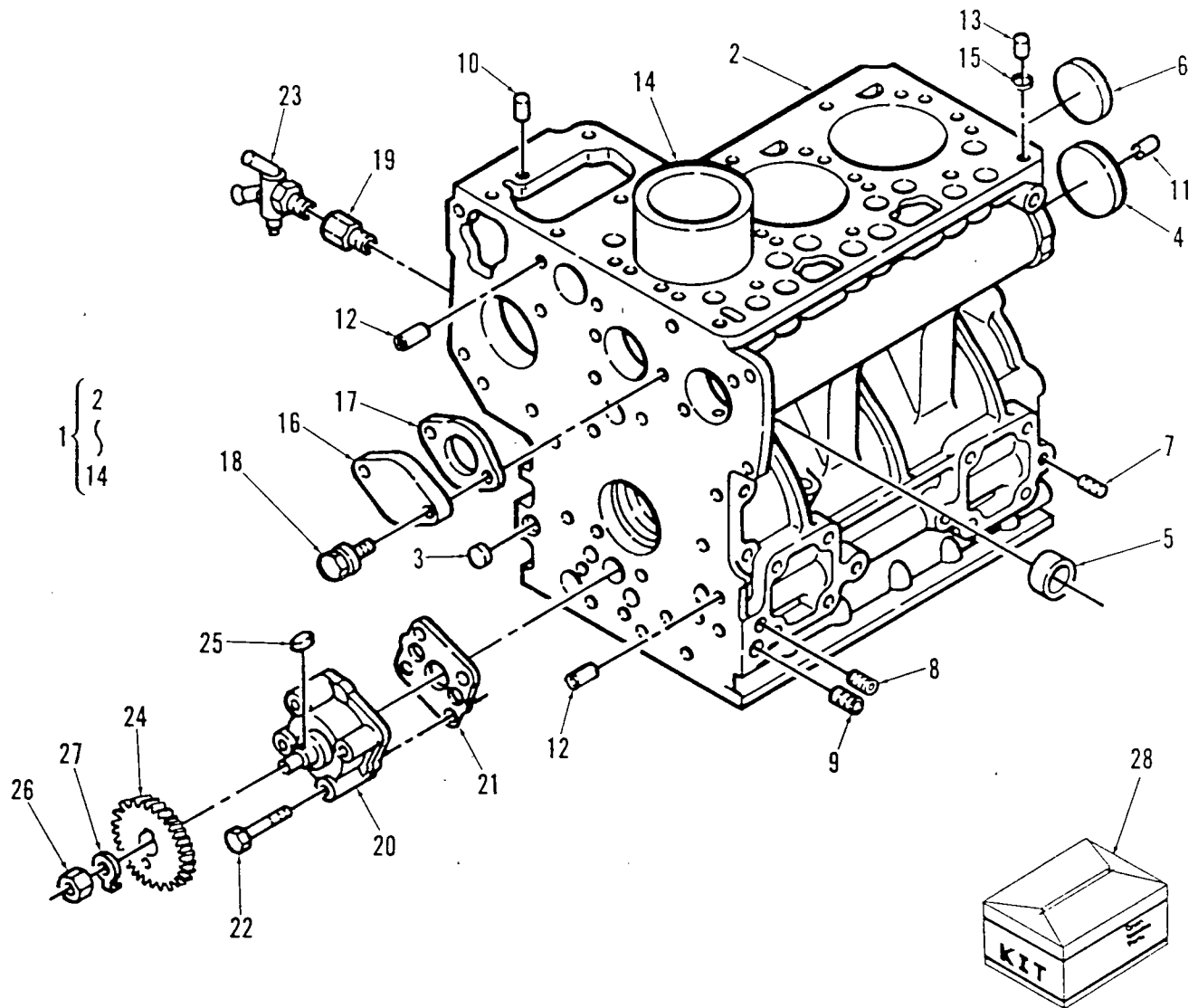
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
12	185-2292	3	Stud
13	185-2179	3	Nut, Hex
14	185-2184	3	Washer, Flat
15	185-2072	1	Set screw
16	185-2073	6	Washer, Flat
17	185-2070	2	Spring, Compression
18	185-2368	2	Ring, Retaining
19	185-2062	6	Arm, Rocker
20	NFS		Arm
21	185-2063	6	Bushing, Sleeve
22	185-2407	6	Screw, Adjusting
23	185-2408	6	Nut, Hex

Cylinder Head



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-2414	2	Bracket, Lifting	11	185-2068	3	Guide, Valve - Inlet
2	185-2361	1	Stud	12	185-2069	3	Guide, Valve - Exhaust
3	185-2399	1	Screw, Cap - Hex Head with Lockwasher (M8 x 1.25 x 16mm)	13	185-2053	12	Bolt, Hex - Cylinder Head
4	185-2367	1	Nut, Hex (M8 x 1.25)	14	185-2052	2	Stud
5	185-2381	1	Washer, Lock - Spring (M8)	15	185-2054	2	Nut, Hex
6	185-2050	1	Head, Cylinder	16	185-2066	1	Gasket, Cylinder Head
7	NFS		Head, Cylinder	17	185-2067	2	Shim
8	185-2413	5	Cup, Sealing	18	193-0318	1	Sender, Temperature - Engine Coolant (E2)
9	185-2411	1	Cup, Sealing	19	185-2478	1	Combustion Chamber
10	185-2188	2	Plug, Pipe - Socket Drive				

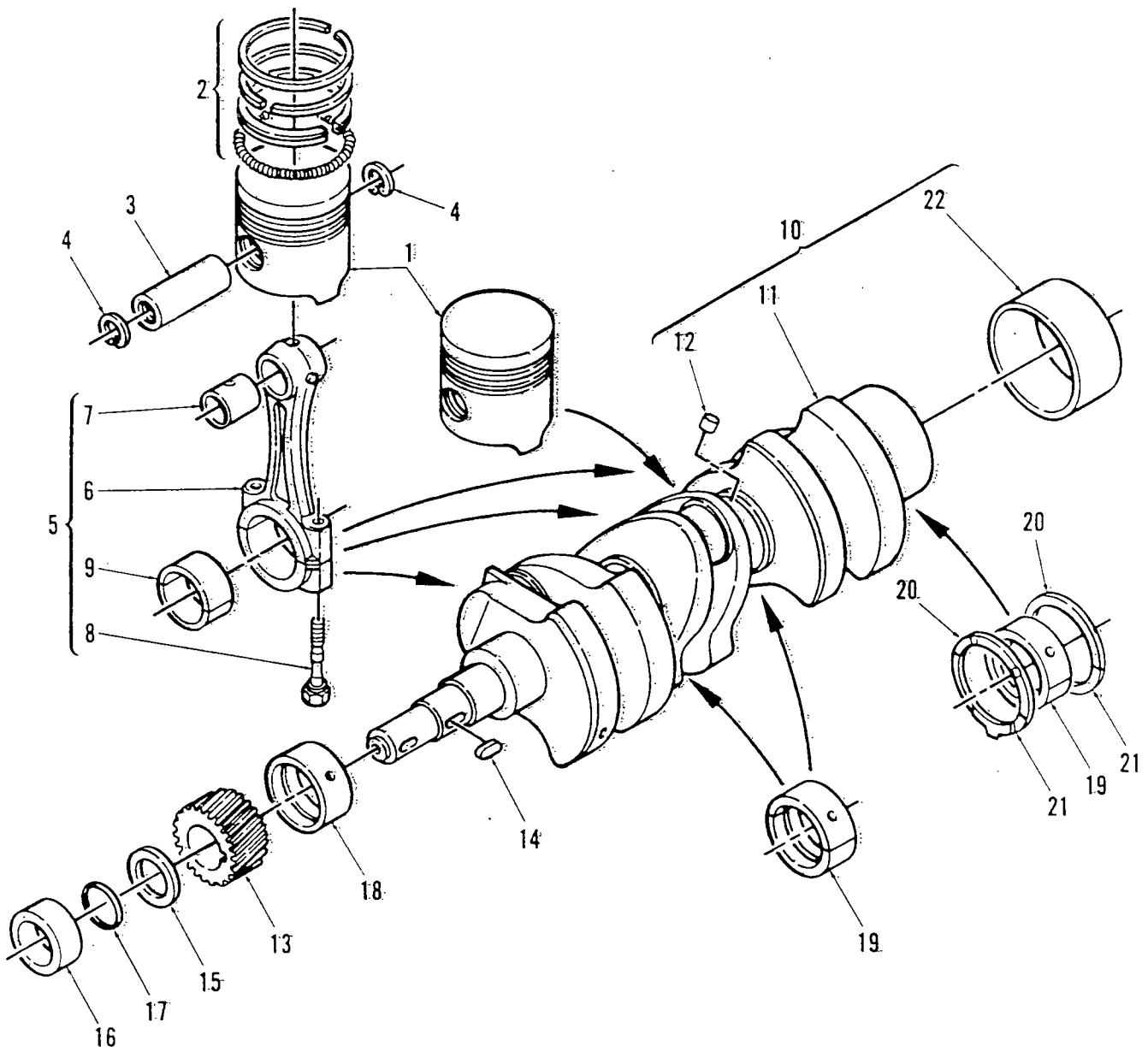
Cylinder Block & Oil Pump



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	185-2000	1	Crankcase
2	NFS		Block
3	185-2355	3	Plug, Expansion
4	185-2356	1	Plug, Expansion
5	185-2411	5	Cup, Sealing
6	185-2412	1	Cup, Sealing
7	185-2188	6	Plug
8	185-2233	3	Plug
9	185-2234	1	Plug
10	185-2350	2	Pin, Straight, Headless
11	775-0072	2	Pin, Straight, Headless
12	185-2115	2	Pin, Hollow
13	185-2094	1	Pin, Hollow
14	185-2002	3	Liner, Cylinder

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
15	185-2095	1	O-Ring
16	185-2176	1	Cover Plate
17	185-2177	1	Gasket
18	185-2389	2	Screw, Cap - Hex Head (M6 x 1 x 18MM)
19	185-2229	1	Plug, Hex
20	185-2155	1	Pump, Oil
21	185-2156	1	Gasket
22	185-2409	4	Bolt, Hex with Lockwasher
23	185-2337	1	Cock, Drain
24	185-2293	1	Gear, Drive - Oil Pump
25	185-2352	1	Key
26	185-2365	1	Nut, Hex (M10 x 1.5)
27	185-2382	1	Washer, Lock - Spring (M10)
28	185-2306	1	Kit, Gasket

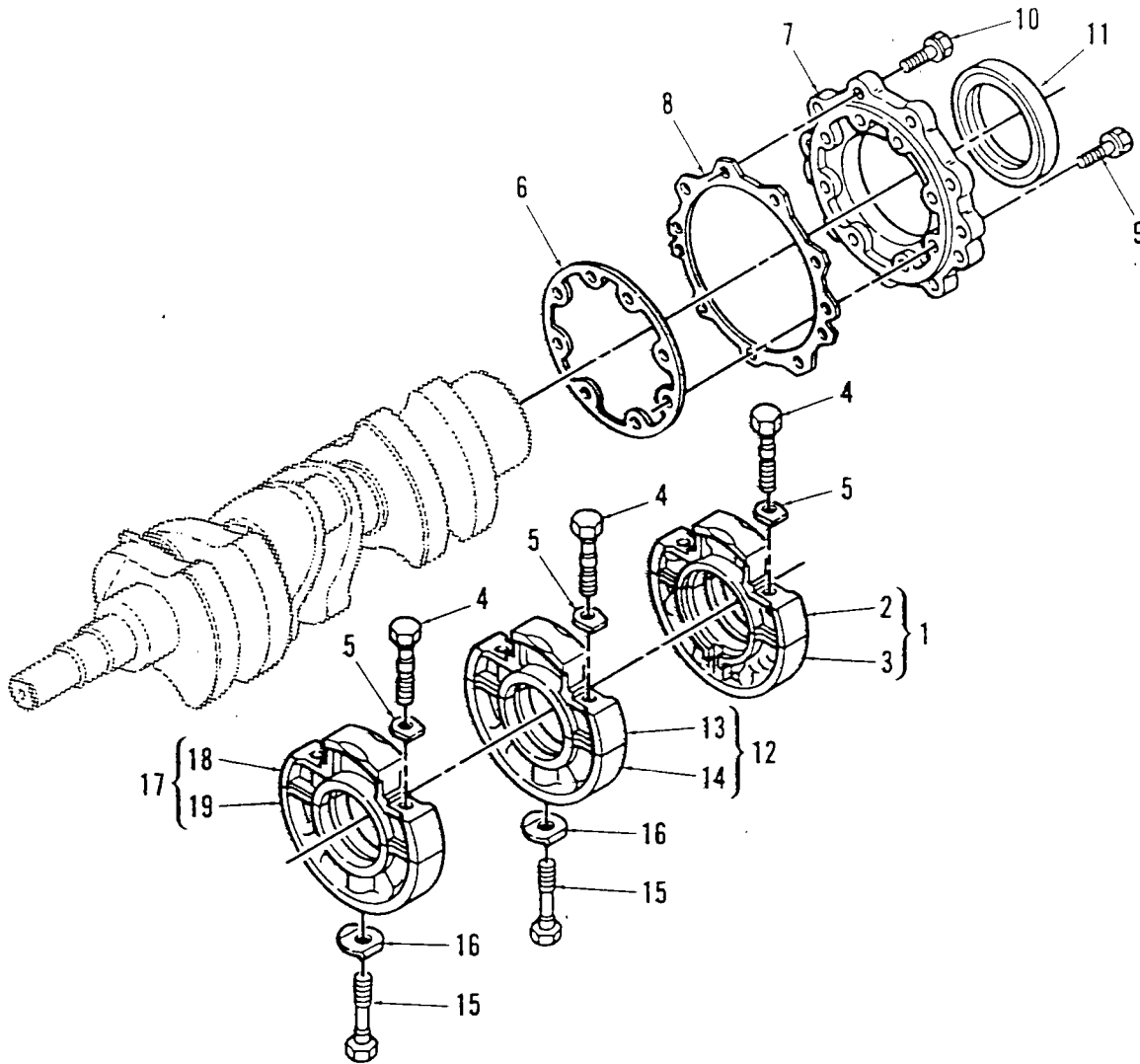
Crankshaft & Piston



Crankshaft and Piston

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Piston	15	185-2087	1	Slinger, Oil
	185-2003	3	Standard	16	185-2250	1	Spacer, Sleeve
	185-2004	3	0.5mm Oversize	17	185-2348	1	O-Ring
2			Ring Set	18			Bearing, Crankshaft
	185-2005	3	Standard		185-2020	1	Standard
	185-2006	3	0.5mm Oversize		185-2024	1	0.2mm Undersize
3	185-2015	3	Pin, Piston		185-2025	1	0.4mm Undersize
4	185-2016	6	Ring, Retaining	19			Bearing Set
5	185-2012	3	Rod, Connecting		185-2021	3	Standard
6	NFS		Rod		185-2026	3	0.2mm Undersize
7	185-2017	3	Bearing, Sleeve		185-2027	3	0.4mm Undersize
8	185-2018	6	Bolt, Hex - Rod Cap	20			Bearing, Thrust
9			Bearing Set		185-2022	2	Standard
	185-2013	3	Standard		185-2028	2	0.2mm Oversize
	185-2019	3	0.2mm Undersize		185-2029	2	0.4mm Oversize
	185-2014	3	0.4mm Undersize	21			Bearing, Thrust
10	185-2041	1	Crankshaft		185-2023	2	Standard
11	NFS		Crankshaft		185-2030	2	0.2mm Oversize
12	NFS		Plug		185-2031	2	0.4mm Oversize
13	185-2043	1	Gear	22	185-2033	1	Sleeve, Crankshaft
14	185-2353	1	Key				

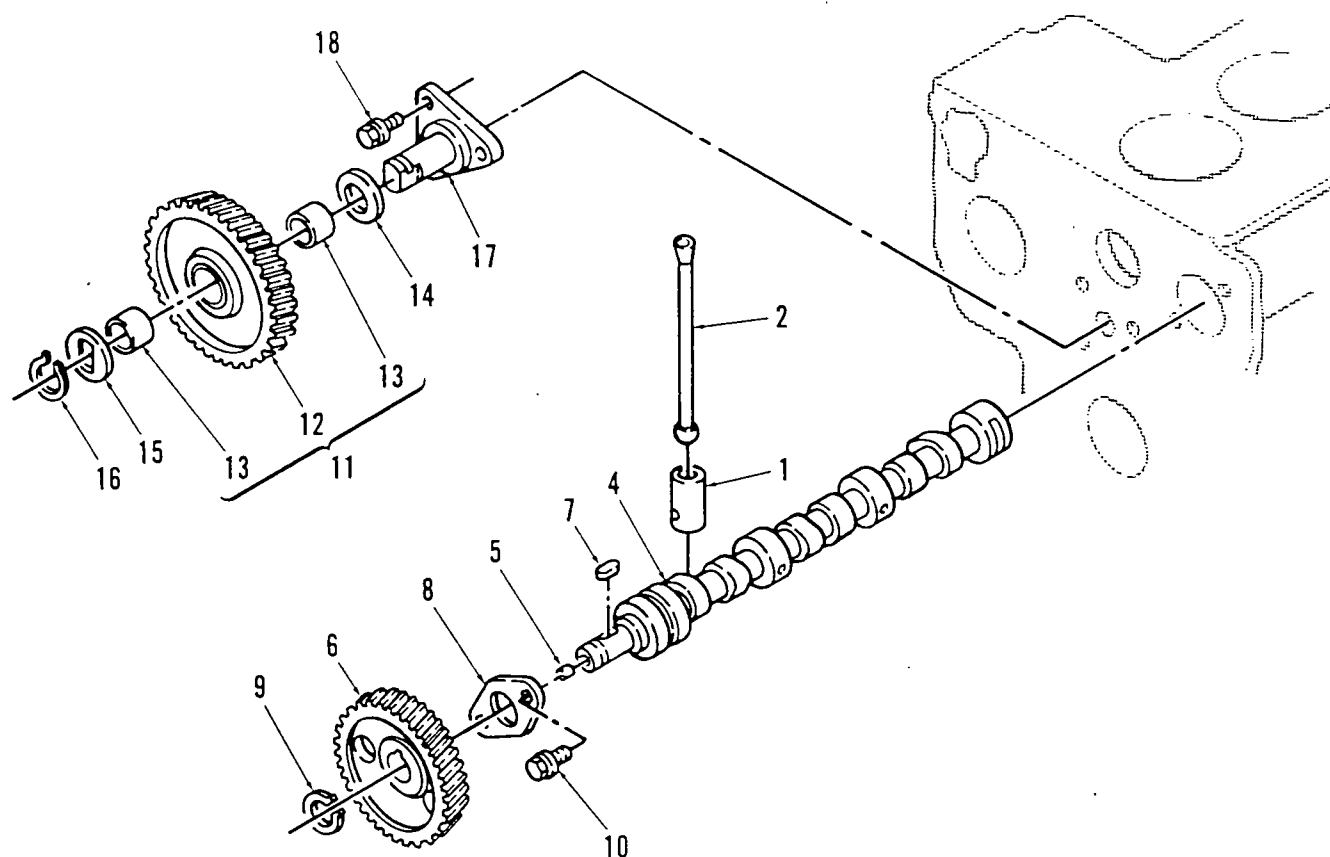
Main Bearing Holders



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-2035	1	Holder, Bearing - Main, Rear
2	NFS		Holder, Bearing - Half, Upper
3	NFS		Holder, Bearing - Half, Lower
4	185-2037	4	Bolt, Hex
5	185-2039	6	Retainer, Bolt/Nut
6	185-2036	1	Gasket
7	185-2254	1	Cover Plate - Bearing
8	185-2127	1	Gasket
9	185-2390	9	Screw, Cap - Hex Head with Lockwasher (M6 x 1 x 20mm)
10	185-2391	8	Screw, Cap - Hex Head with Lockwasher (M6 x 1 x 25mm)

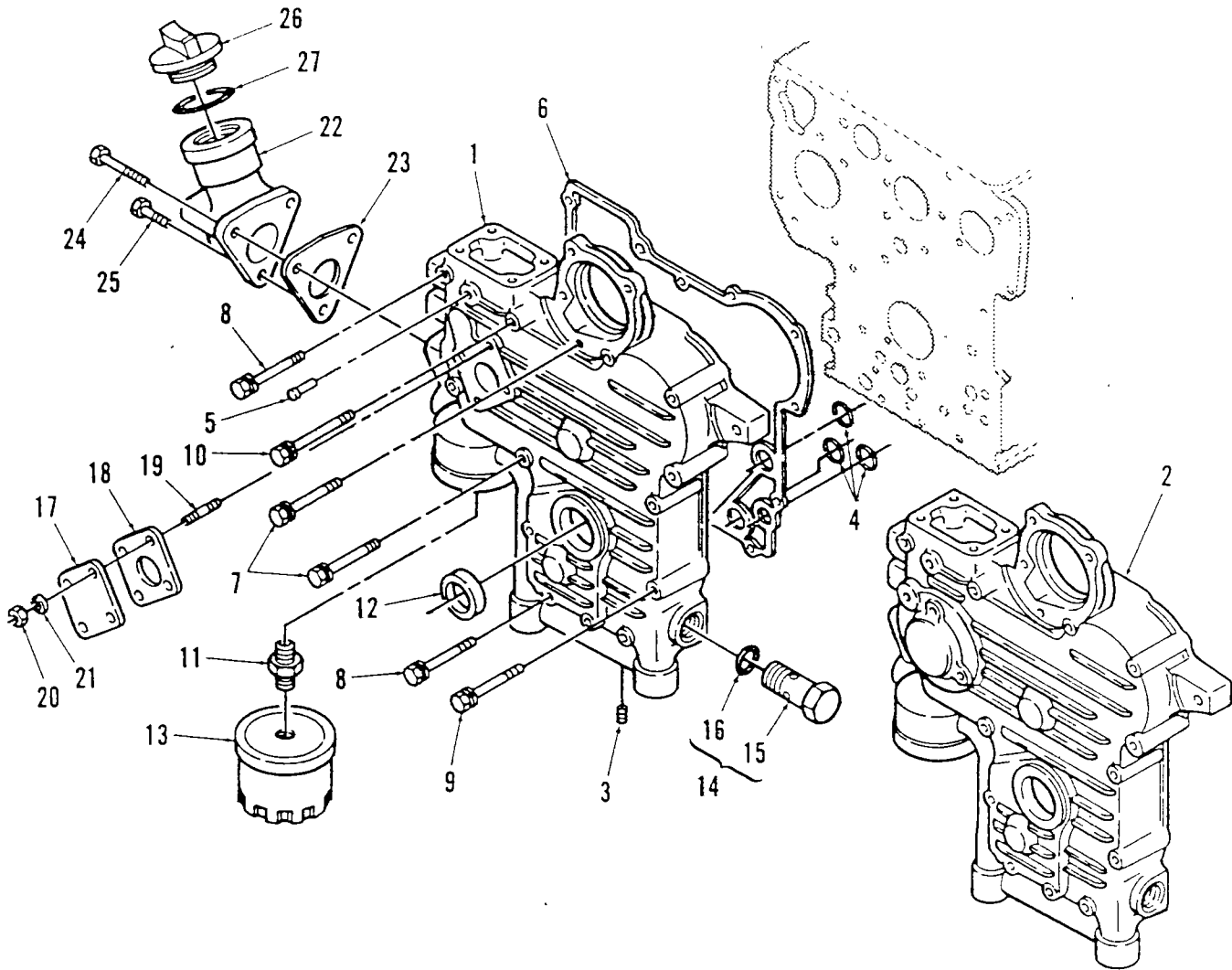
REF NO.	PART NO.	QTY USED	PART DESCRIPTION
11	185-2055	1	Seal, Oil - Crankshaft, Rear
12	185-2034	1	Holder, Bearing - Main, Center
13	NFS		Holder, Bearing - Half, Upper
14	NFS		Holder, Bearing - Half, Lower
15	185-2038	2	Bolt, Hex
16	185-2040	2	Retainer, Bolt/Nut
17	185-2213	1	Holder, Bearing - Main, Front
18	NFS		Holder, Bearing - Half, Upper
19	NFS		Holder, Bearing - Half, Lower

Camshaft



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-2075	6	Tappet	11	185-2042	1	Gear
2	185-2074	6	Rod, Push	12	NFS		Gear
4	185-2082	1	Camshaft	13	185-2048	2	Bushing, Sleeve
5	185-2190	2	Plug	14	185-2046	1	Spacer
6	185-2086	1	Gear	15	185-2047	1	Spacer
7	185-2353	1	Key	16	185-2045	1	Ring, Retaining
8	185-2084	1	Plate, Retaining	17	185-2044	1	Shaft
9	185-2369	1	Ring, Retaining	18	185-2388	3	Screw, Cap - Hex Head with Lockwasher (M6 x 1 x 16mm)
10	185-2387	2	Screw, Cap - Hex Head with Lockwasher (M6 x 1 x 14mm)				

Gearcase & Oil Filter

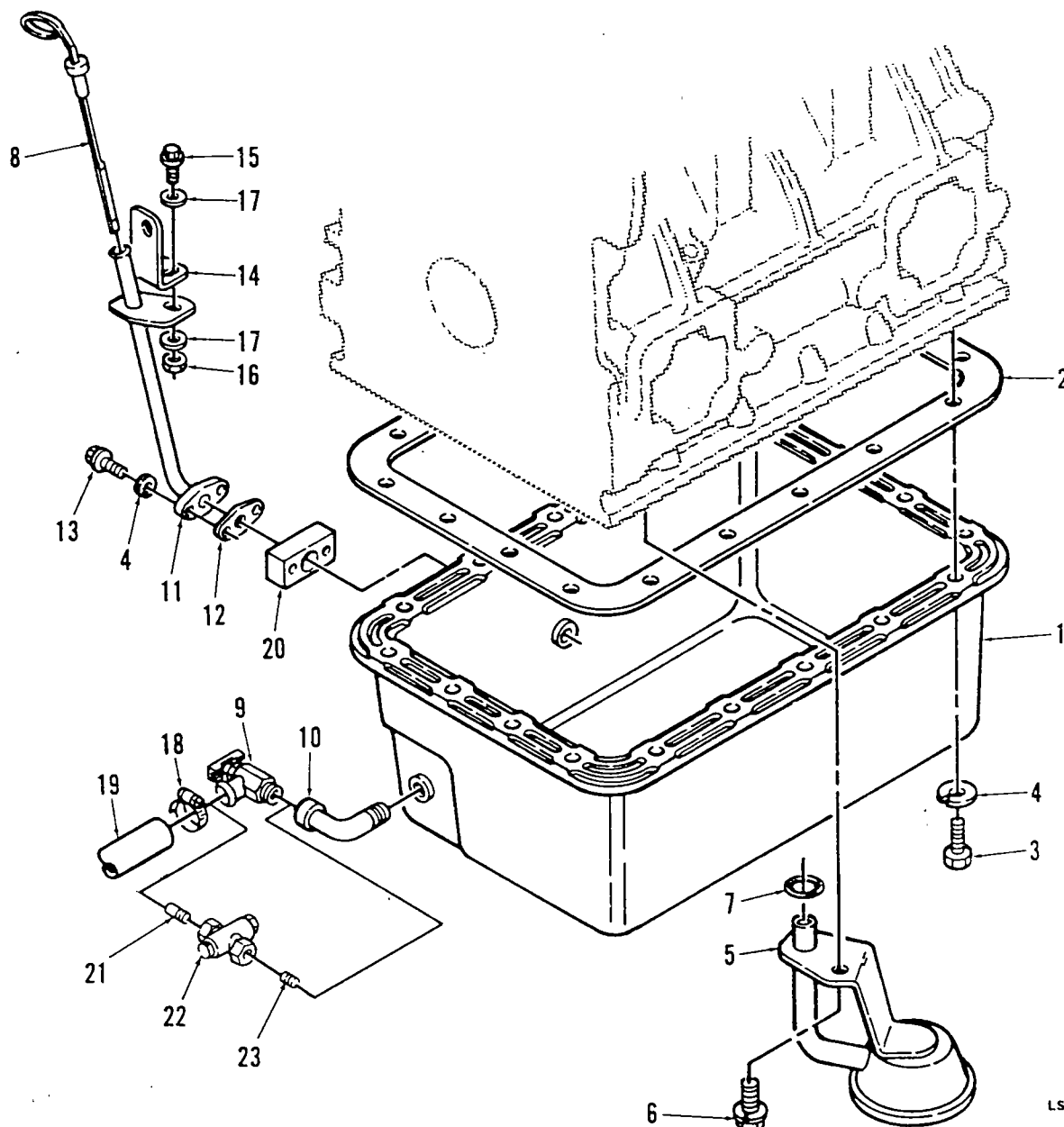


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REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	185-2051	1	Gearcase (Style I Governor)	14	185-2157	1	Valve, Relief - Pressure
2	185-2430	1	Gearcase (Style II Governor)	15	NFS		Valve
3	185-2189	2	Plug, Pipe - Socket Drive	16	185-2372	1	O-Ring
4	185-2374	3	O-Ring	17	185-2153	1	Plate, Cover (Style I Gov)
5	185-2102	1	Pin, Straight	18	185-2104	1	Gasket (Style I Gov)
6	185-2058	1	Gasket	19	185-2105	4	Stud
7	185-2395	7	Screw, Cap - Hex Head with Lockwasher (M6 x 1 x 60MM)	20	750-1004	4	Nut, Hex (M6 x 1)
8	185-2396	5	Screw, Cap - Hex Head with Lockwasher (M6 x 1 x 65MM)	21	185-2380	4	Washer, Lock - Spring (M6)
9	185-2397	1	Screw, Cap - Hex Head with Lockwasher (M6 x 1 x 70MM)	22	185-2296	1	Housing, Oil Fill
10	185-2398	1	Screw, Cap - Hex Head with Lockwasher (M6 x 1 x 75MM)	23	185-2309	1	Gasket
11	185-2124	1	Nipple, Pipe - Hex	24	185-2394	2	Screw, Cap - Hex Head with Lockwasher (M6 x 1 x 50MM)
12	185-2317	1	Seal, Oil - Crankshaft	25	185-2390	1	Screw, Cap - Hex Head with Lockwasher (M6 x 1 x 20MM)
13	185-2123	1	Filter, Oil	26	185-2093	1	Cap, Oil Fill
				27	185-2349	1	O-Ring

NOTE See introduction for governor style identification

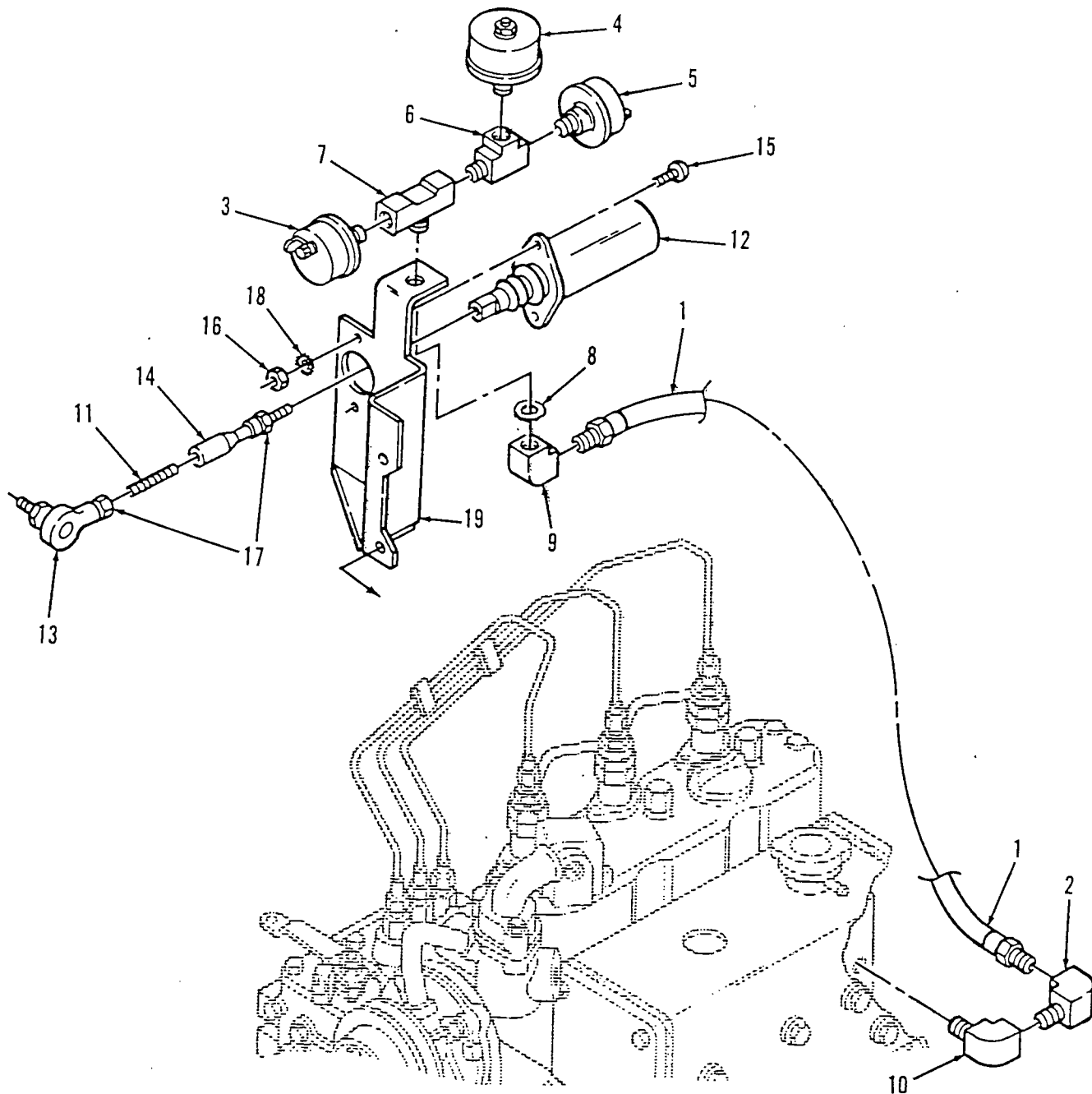
Oil Pan & Dipstick



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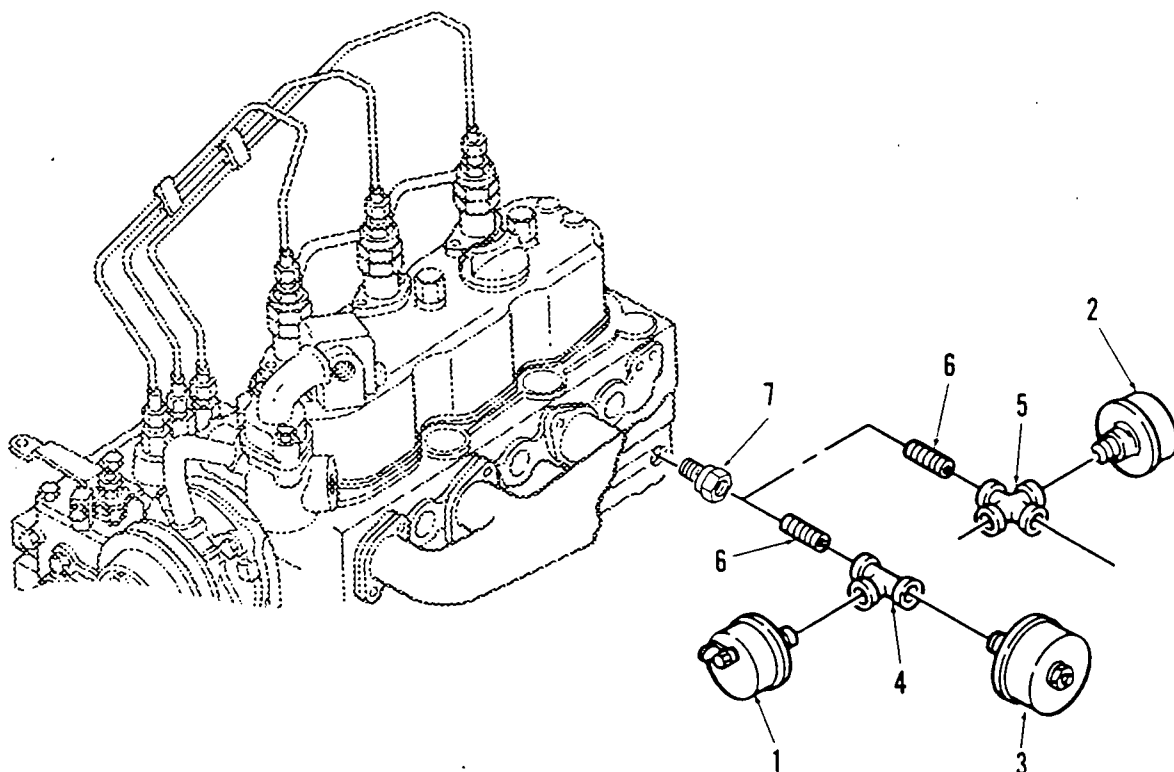
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-2281	1	Pan, Oil	14	185-2211	1	Bracket, Oil Indicator Guide
2	185-2212	1	Gasket	15	185-2400	1	Screw, Cap - Hex Head with Lockwasher (M8 x 1.25 x 18mm)
3	185-2226	18	Bolt, Hex with Lockwasher	16	185-2366	1	Nut, Hex (M8 x 1.25)
4	185-2380	1	Washer, Lock - Spring (M6)	17	185-2377	3	Washer, Flat (M8)
5	185-2220	1	Cup, Pickup - Oil	18	503-0131	1	Clamp, Hose
6	185-2399	1	Screw, Cap - Hex Head with Lockwasher (M8 x 1.25 x 16mm)	19	503-0891	1	Hose, Rubber
7	185-2371	1	O-Ring	20	123-1628	1	Spacer
8	185-2209	1	Indicator, Oil Level	21	505-0135	1	Nipple, Half - Used Beginning November 1984
9	504-0092	1	Cock, Valve (used through November 1984)	22	504-0030	1	Valve, Cock - Used Beginning November 1984
10	505-0120	1	Elbow, Pipe - Street, 90°	23	505-0101	1	Nipple, Close - Used Beginning November 1984
11	185-2210	1	Guide, Oil Indicator				
12	185-2410	2	Gasket				
13	800-2036	2	Screw, Cap - Hex Head (M6 x 1 x 30mm)				

Oil Pressure Switches (Remote Start Sets)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	501-0005	1	Line, Fuel - Flexible	8	856-0012	1	Washer, Lock - EIT (7/16")
2	505-0049	1	Elbow, Pipe - Street, 90°	9	502-0005	1	Elbow, Pipe - 90°, Brass
3	309-0159	1	Switch, Pressure (S6) (Power Latch)	10	505-0049	1	Used through February 1984
4			Sender, Pressure - Oil (E1) (Not Used On All Applications)		505-1342	1	Used Beginning March 1984
	193-0244	1	Single Pole	11	520-0939	1	Stud, Solenoid - Stop
	193-0404	1	Double Pole	12	307-2546	1	Solenoid, Stop
5			Switch, Pressure (S1) (Shutdown)	13	150-1995	1	Ball, Joint
	309-0064	1	Single Pole	14	150-1733	1	Ball, Joint
	309-0578	1	Double Pole	15	813-0102	2	Screw, RHM (#10-32 x .62")
6	502-0058	1	Tee, Pipe - Brass (1/8) (Not Used On All Applications)	16	870-0131	2	Nut (#10-32)
7	502-0057	1	Tee, Pipe - Brass (1/8)	17	115-0025	2	Nut, Tappet (1/4-28)
				18	856-0003	2	Washer, Lock - EIT (#10)
				19	150-1992	1	Bracket, Mounting - Stop Solenoid

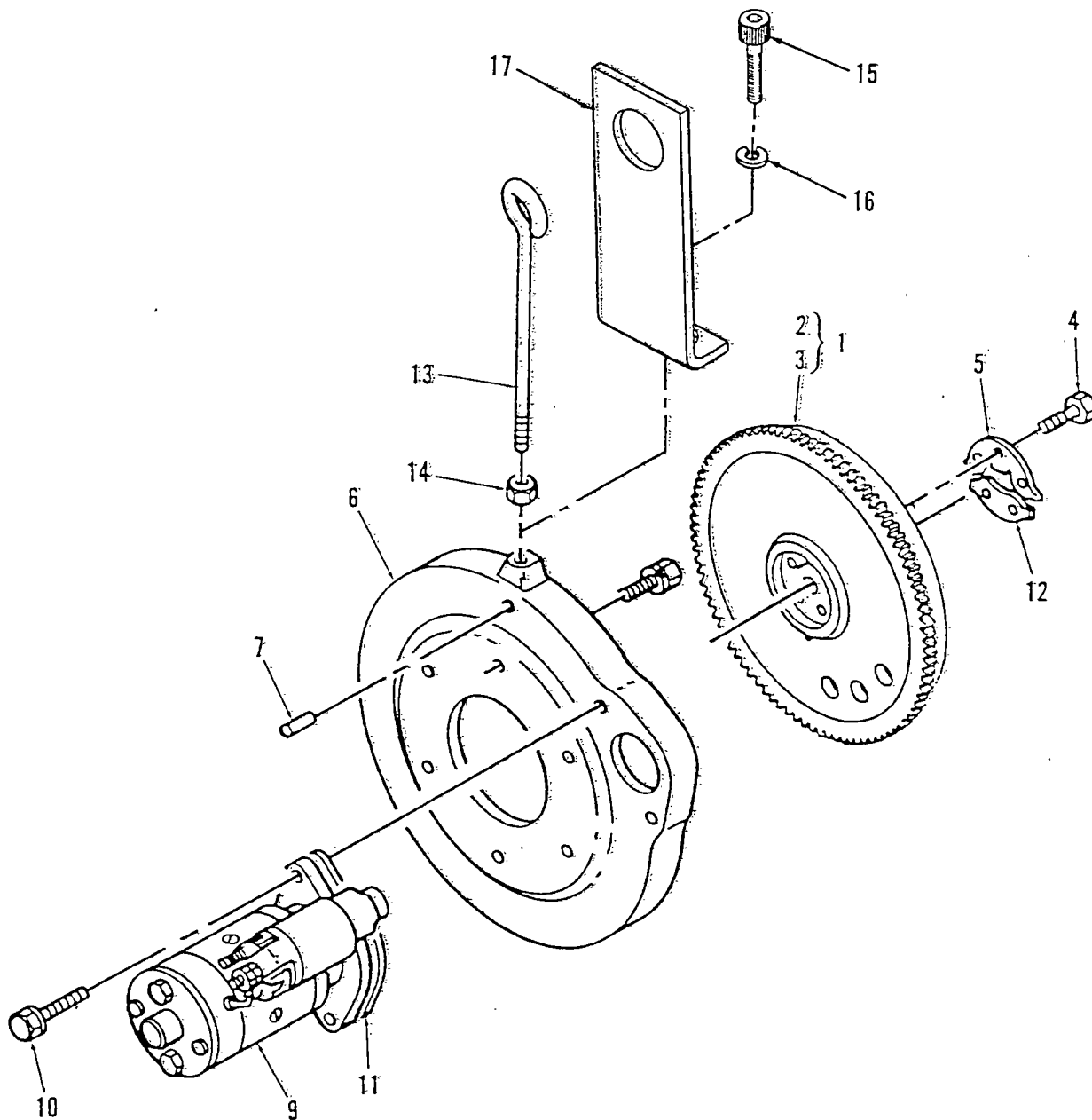
Oil Pressure Switches (Manual Start Sets)



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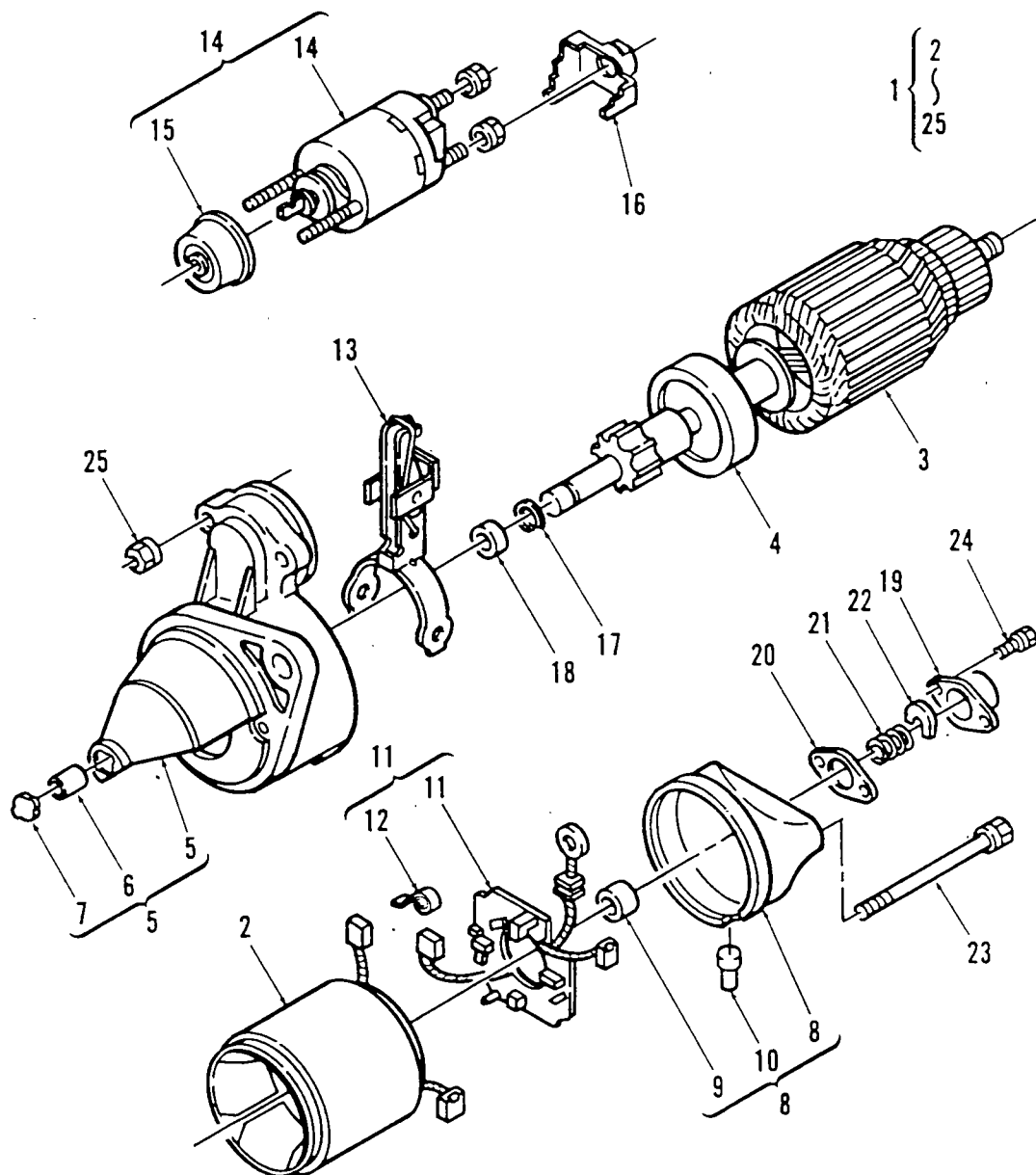
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	309-0064	1	Switch, Pressure - Oil (S1) (Shutdown)	4	505-0059	1	Tee, Pipe - Iron
2	309-0159	1	Switch, Pressure - Oil (S6) (Power Latch)	5	505-0763	1	Cross, Pipe - Iron
3	193-0244	1	Sender, Pressure - Oil (E1)	6	505-0098	1	Nipple, Pipe - Close
				7	502-0917	1	Adapter, Pipe - Brass (Used Beginning March 1984)

Flywheel & Starter



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-2308	1	Flywheel (Includes Gear Ring)	11	185-2314	1	Gasket
2	NFS		Flywheel	12	185-2219	1	Plate, Locking - Bolt/Nut
3	185-2170	1	Gear, Ring	13	403-2214	1	Bolt, Eye (Used Through Spec A)
4	185-2301	5	Bolt, Hex	14	862-0003	1	Nut, Hex (3/8-16) (Used Through Spec A)
5	185-2218	1	Plate, Locking - Bolt/Nut	15	802-0072	1	Screw, Socket Head (3/8-16 x 1")
6	185-2417	1	Adapter, Generator	16	850-0050	1	Washer, Lock - Spring (3/8")
7	775-0072	1	Pin, Straight	17	403-2634	1	Bracket, Lifting (Begin Spec B)
8	185-2178	8	Bolt, Hex with Lockwasher				
9	185-2116	1	Starter (12VDC) (See Separate Figure for Replacement Parts)				
10	185-2404	2	Screw, Cap - Hex Head with Lockwasher (M8 x 1.25 x 28mm)				

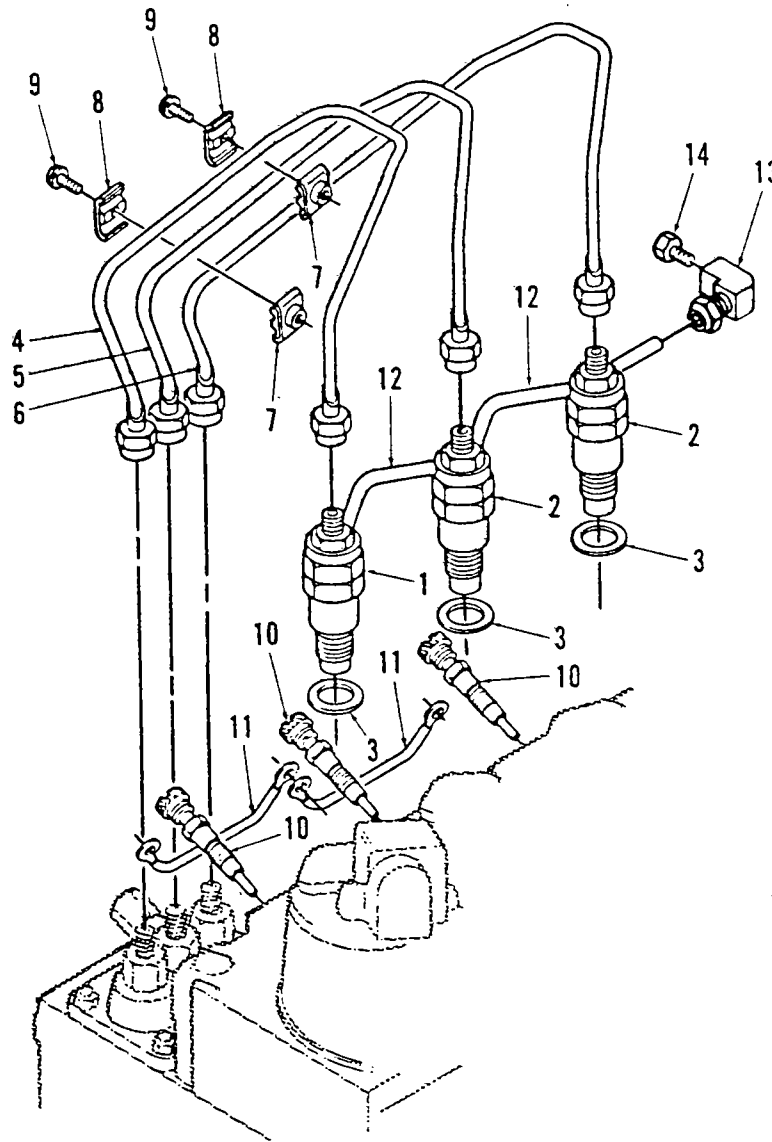
Starter - Exploded View



ES-1474

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	185-2116	1	Starter (12VDC) (Complete)	14	185-2117	1	Solenoid
2	185-2322	1	Coil, Field	15	185-2331	1	Cover, Plunger
3	185-2321	1	Armature	16	185-2323	1	Insulator, Terminal
4	185-2319	1	Clutch	17	185-2111	1	Ring, Retaining
5	185-2118	1	Housing, Drive End	18	185-2195	1	Spacer, Sleeve
6	185-2295	1	Bushing, Sleeve	19	185-2332	1	Housing
7	185-2335	1	Cover	20	185-2333	1	Gasket
8	185-2326	1	Housing, Brush End	21	185-2325	1	Spring
9	185-2327	1	Bushing, Sleeve	22	185-2324	1	Clip, Retaining
10	185-2119	1	Cover	23	185-2328	2	Bolt, Hex
11	185-2329	1	Brush Rig	24	185-2383	2	Screw, Machine - Pan Head with Lockwasher (M4 x .5 x 14MM)
12	185-2330	4	Spring	25	185-2334	2	Nut, Hex
13	185-2320	1	Lever, Drive				

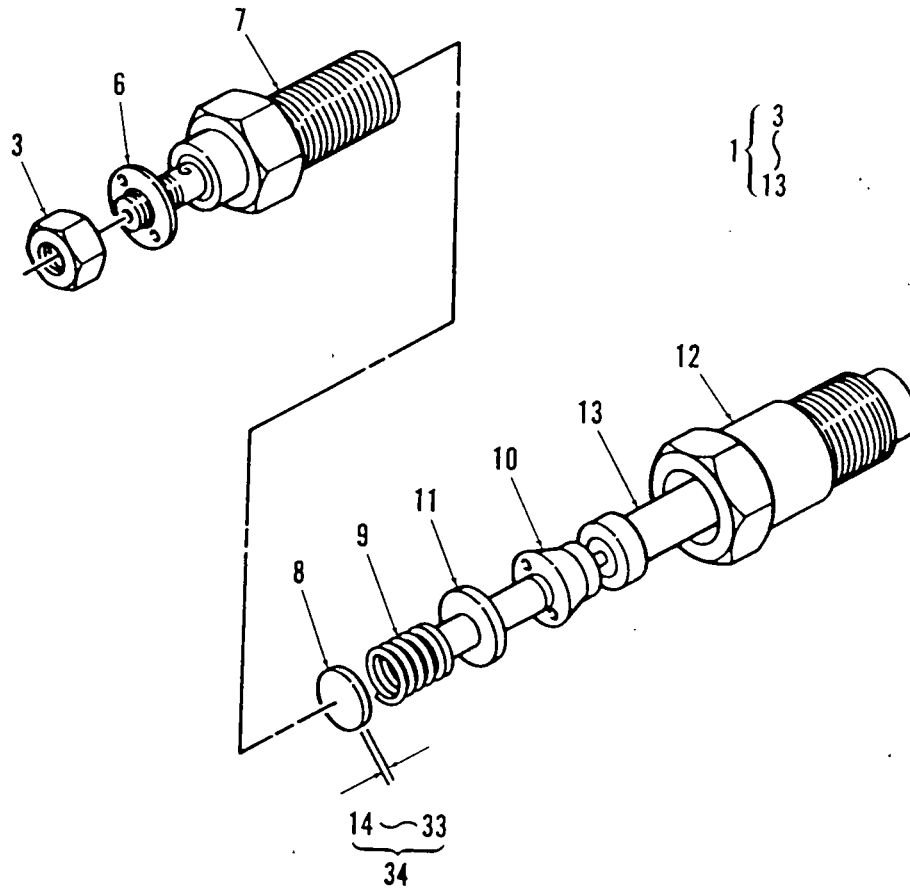
Glow Plug & Injection Nozzles



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-2436	1	Nozzle, Injection - Fuel (See Separate Page for Components)
2	185-2436	2	Nozzle, Injection - Fuel (See Separate Page for Components)
3	185-2294	3	Gasket
4	185-2159	1	Line, Fuel - Injection
5	185-2160	1	Line, Fuel - Injection
6	185-2224	1	Line, Fuel - Injection
7	185-2344	2	Clamp

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
8	185-2345	2	Clamp
9	185-2385	2	Screw, Machine - Pan Head with Lockwasher (MS x .8 x 20mm)
10	185-2289	3	Plug, Glow (12 VDC)
11	185-2172	2	Lead, Electrical
12	185-2437	1	Tube, Fuel - Overflow
13	502-0886	1	Elbow, Tube to Pipe, 90°
14	502-0175	1	Adapter, Pipe - Hex (Used Beginning November 1984)

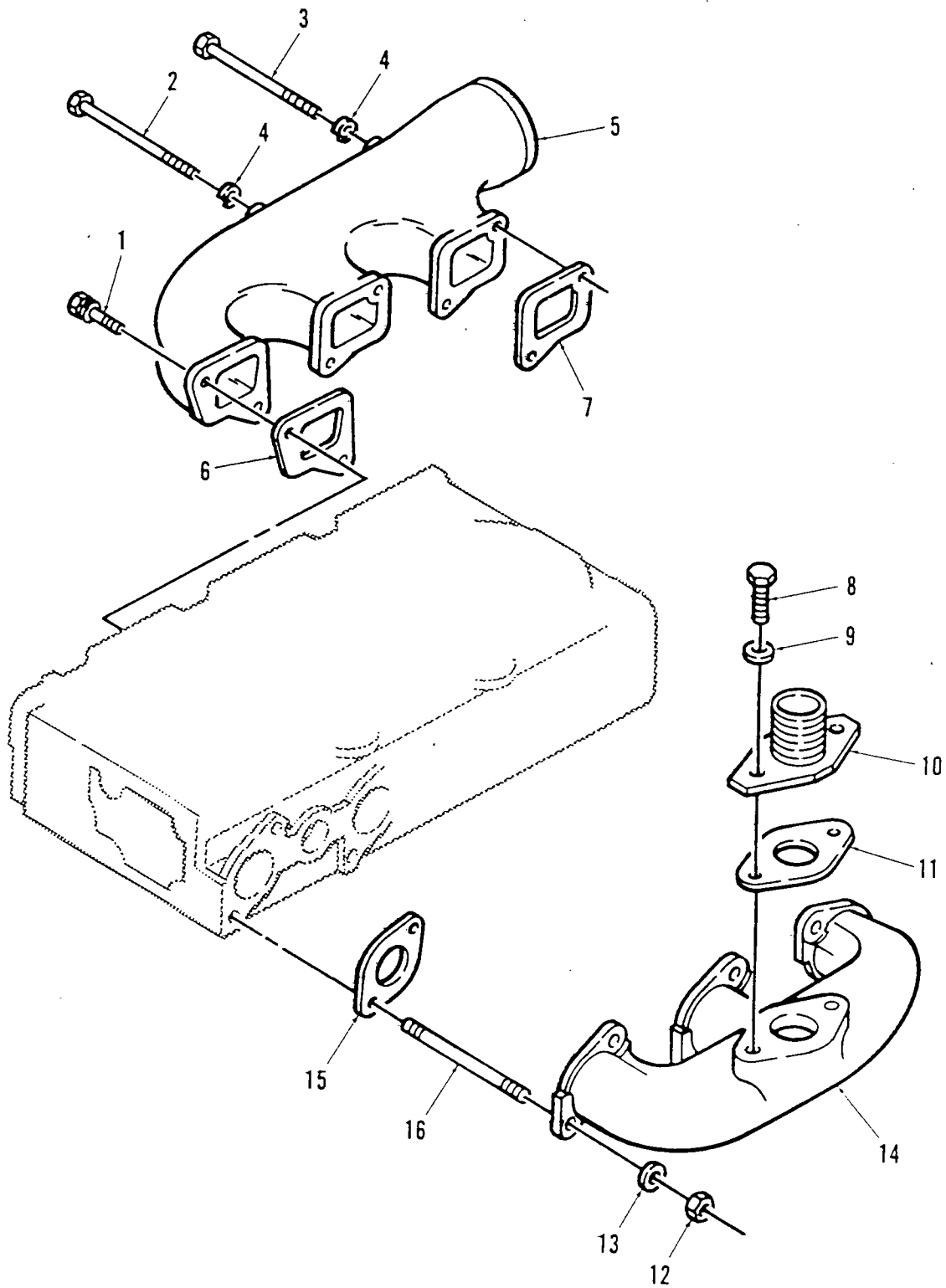
Injection Nozzle - Components



FS-1563

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-2436	1	Nozzle, Injection (Complete)	20	185-2138	1	Shim (1.30mm)
3	185-2107	1	Nut, Hex	21	185-2139	1	Shim (1.35mm)
6	185-2109	1	Washer, Flat	22	185-2140	1	Shim (1.40mm)
7	NFS		Screw, Adjusting - Pressure	23	185-2141	1	Shim (1.45mm)
8	185-2099	1	Shim	24	185-2142	1	Shim (1.50mm)
9	185-2098	1	Spring	25	185-2143	1	Shim (1.55mm)
10	185-2101	1	Spacer	26	185-2144	1	Shim (1.60mm)
11	185-2097	1	Spindle	27	185-2145	1	Shim (1.65mm)
12	185-2100	1	Holder, Nozzle	28	185-2146	1	Shim (1.70mm)
13	185-2459	1	Nozzle, Injection - Fuel	29	185-2147	1	Shim (1.75mm)
14	185-2132	1	Shim (1.00mm)	30	185-2148	1	Shim (1.80mm)
15	185-2133	1	Shim (1.05mm)	31	185-2149	1	Shim (1.85mm)
16	185-2134	1	Shim (1.10mm)	32	185-2150	1	Shim (1.90mm)
17	185-2135	1	Shim (1.15mm)	33	185-2151	1	Shim (1.95mm)
18	185-2136	1	Shim (1.20mm)	34	185-2444	1	Shim Pkg
19	185-2137	1	Shim (1.25mm)				

Inlet/Exhaust Manifold

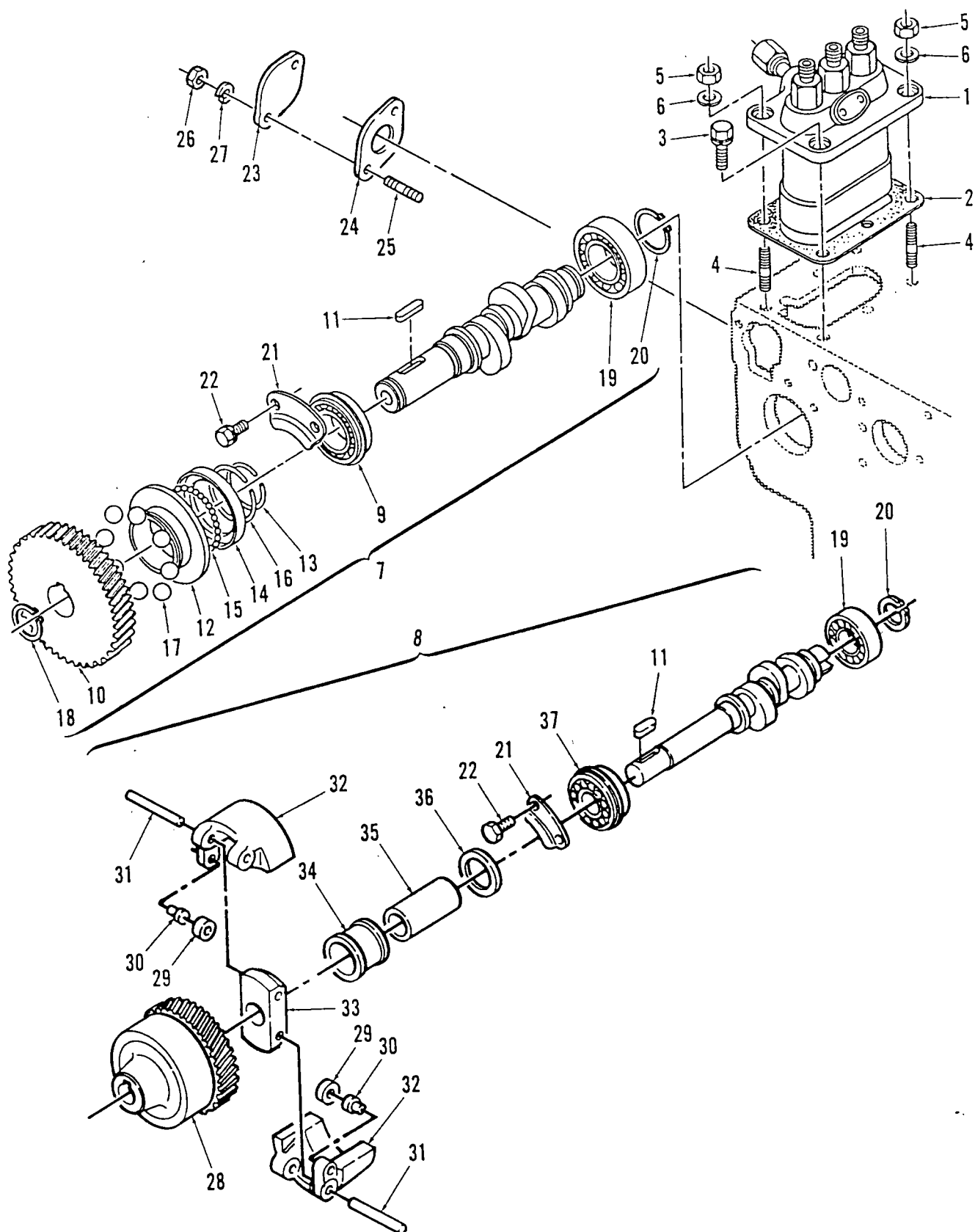


EXS-1115

Inlet/Exhaust Manifold

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-2390	4	Screw, Cap - Hex Head with Lockwasher (M6 x 1 x 20mm)	9	526-2120	2	Washer, Flat (M10)
2	185-2253	1	Bolt, Hex	10	154-2485	1	Adapter, Exhaust
3	185-2225	1	Bolt, Hex	11	185-2203	1	Gasket, Exhaust Manifold
4	850-2006	2	Washer, Lock - Spring (M6)	12	860-2007	6	Nut, Hex (M6)
5	185-2307	1	Manifold, Inlet	13	850-2006	6	Washer, Lock - Spring (M6)
6	185-2129	1	Gasket	14	185-2214	1	Manifold, Exhaust
7	185-2130	2	Gasket	15	185-2131	3	Gasket
8	815-0585	2	Screw, Cap - Hex Head (M10 x 1.25 x 20mm)	16	185-2227	6	Stud

Fuel System - Injection Pump & Driveshaft

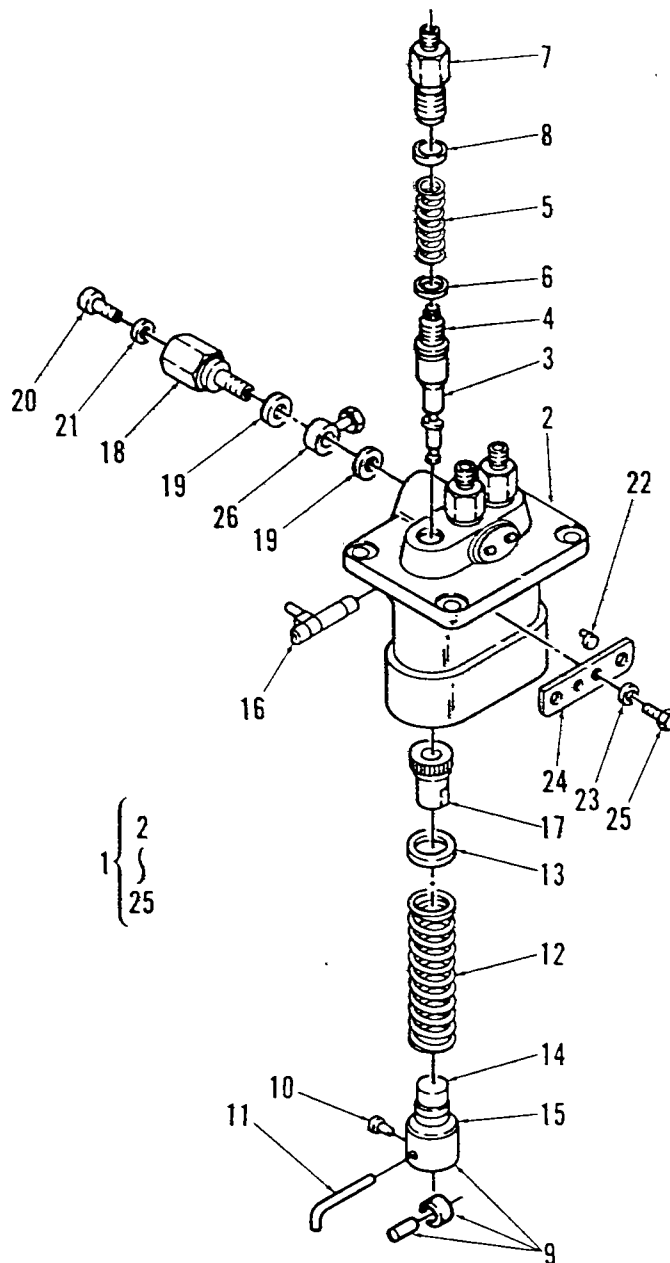


Fuel System Injection Pump and Driveshaft

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-2221	1	Pump, Injection - Fuel (See Separate Page for Components)	21	185-2085	1	Plate, Retaining
2	185-2223	4	Shim (0.15mm)	22	185-2386	2	Screw, Cap - Hex Head with Lockwasher (M6 x 1 x 12mm)
3	185-2402	2	Screw, Cap - Hex Head with Lockwasher (M8 x 1.25 x 22mm)	23	185-2418	1	Cover, Fuel Pump Mounting Hole
4	185-2106	2	Stud (M8 x 1.25)	24	185-2125	1	Gasket
5	185-2367	2	Nut, Hex (M8 x 1.25)	25	185-2359	2	Stud (M6 x 1 x 16mm)
6	185-2381	2	Washer, Lock - Spring (M8)	26	750-1004	2	Nut, Hex (M6 x 1)
7	185-2083	1	Shaft Assembly, Fuel (Style I Governor)	27	185-2380	2	Washer, Lock - Spring (M6)
8	185-2446	1	Shaft Assembly, Fuel (Style II Governor)	28	185-2448	1	Gear
9	185-2316	1	Bearing, Ball	29	185-2443	2	Roller
10	185-2158	1	Gear	30	NFS	2	Pin, Straight - Headed
11	185-2354	1	Key	31	185-2452	2	Pin, Straight - Headless
12	185-2162	1	Retainer, Ball - Governor	32	815-2454	2	Weight, Governor (Includes Pivot Pins)
13	185-2163	1	Ring, Retaining	33	185-2453	1	Holder, Weight
14	185-2164	1	Race, Ball - Governor	34	185-2449	1	Sleeve
15	185-2357	30	Ball	35	185-2451	1	Collar
16	185-2165	1	Ring, Retaining	36	185-2450	1	Washer, Thrust
17	185-2358	7	Ball	37	185-2447	1	Bearing, Ball
18	185-2369	1	Ring, Retaining				
19	815-2315	1	Bearing, Ball				
20	185-2370	1	Ring, Retaining				

NOTE: See Introduction for governor style
identification.

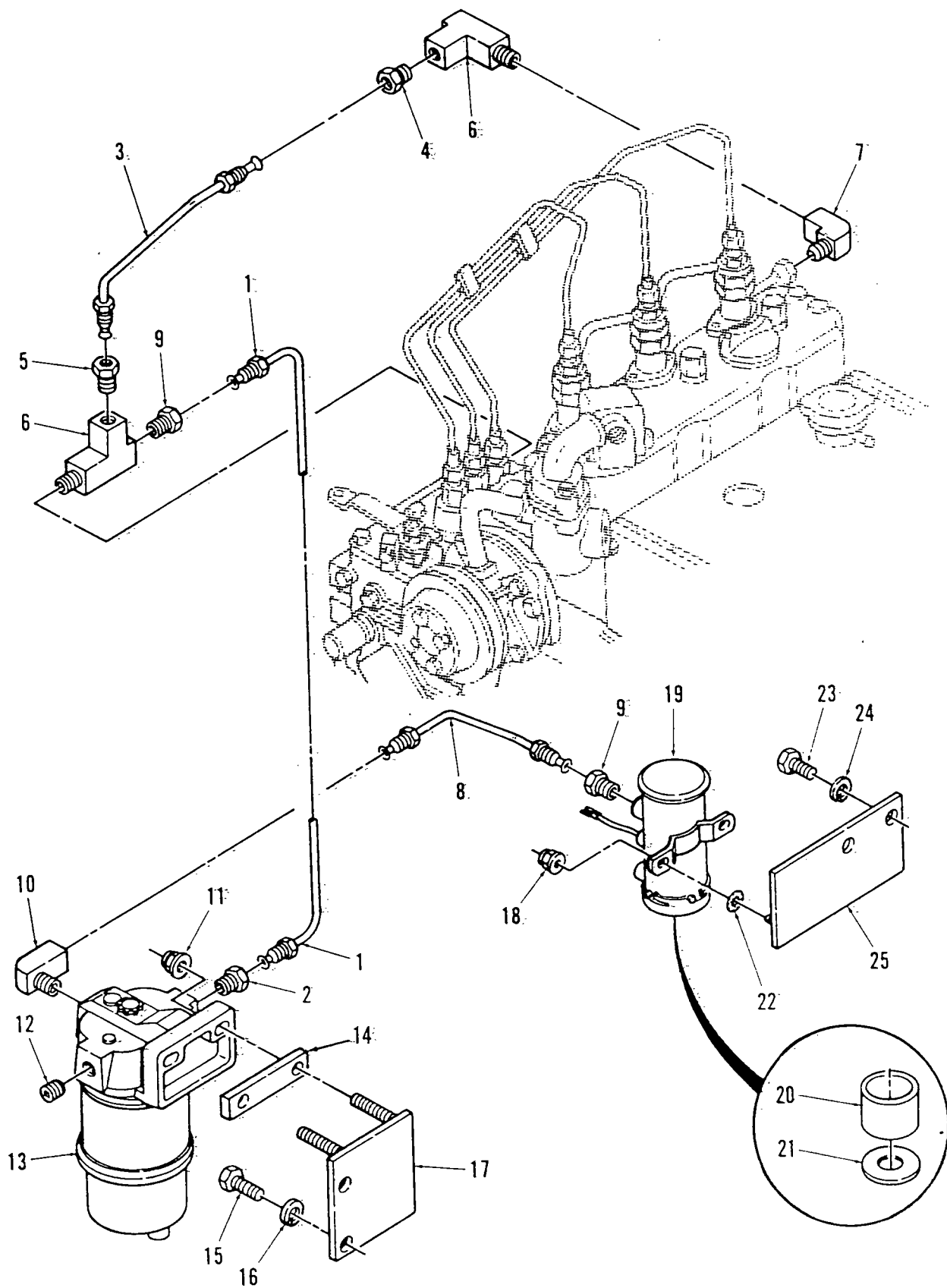
Injection Pump - Components



FS-1564

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	185-2221	REF	Pump, Injection - Fuel	14	NFS		Seat, Spring - Lower
2	NFS		Housing, Pump	15	NFS		Shim
3	NFS		Plunger, Delivery Valve	16	NFS		Shaft, Fuel Control
4	NFS		Valve, Delivery	17	NFS		Sleeve, Fuel Control
5	NFS		Spring	18	NFS		Vent, Air
6	185-2196	3	Gasket	19	185-2197	2	O-Ring
7	NFS		Connector, Fuel Line	20	NFS		Screw, Cap - Hex Head (Air Vent)
8	185-2198	3	O-Ring	21	185-2318	1	O-Ring
9	NFS		Tappet (Includes Roller and Shaft)	22	NFS		Collar
10	NFS		Pin, Shouldered	23	NFS		Washer, Lock - Spring
11	NFS		Pin, Roller Shaft	24	NFS		Plate, Adjusting
12	NFS		Spring	25	NFS		Screw, Cap - Hex Head
13	NFS		Seat, Spring - Upper	26	185-2415	1	Adapter, Line - Fuel

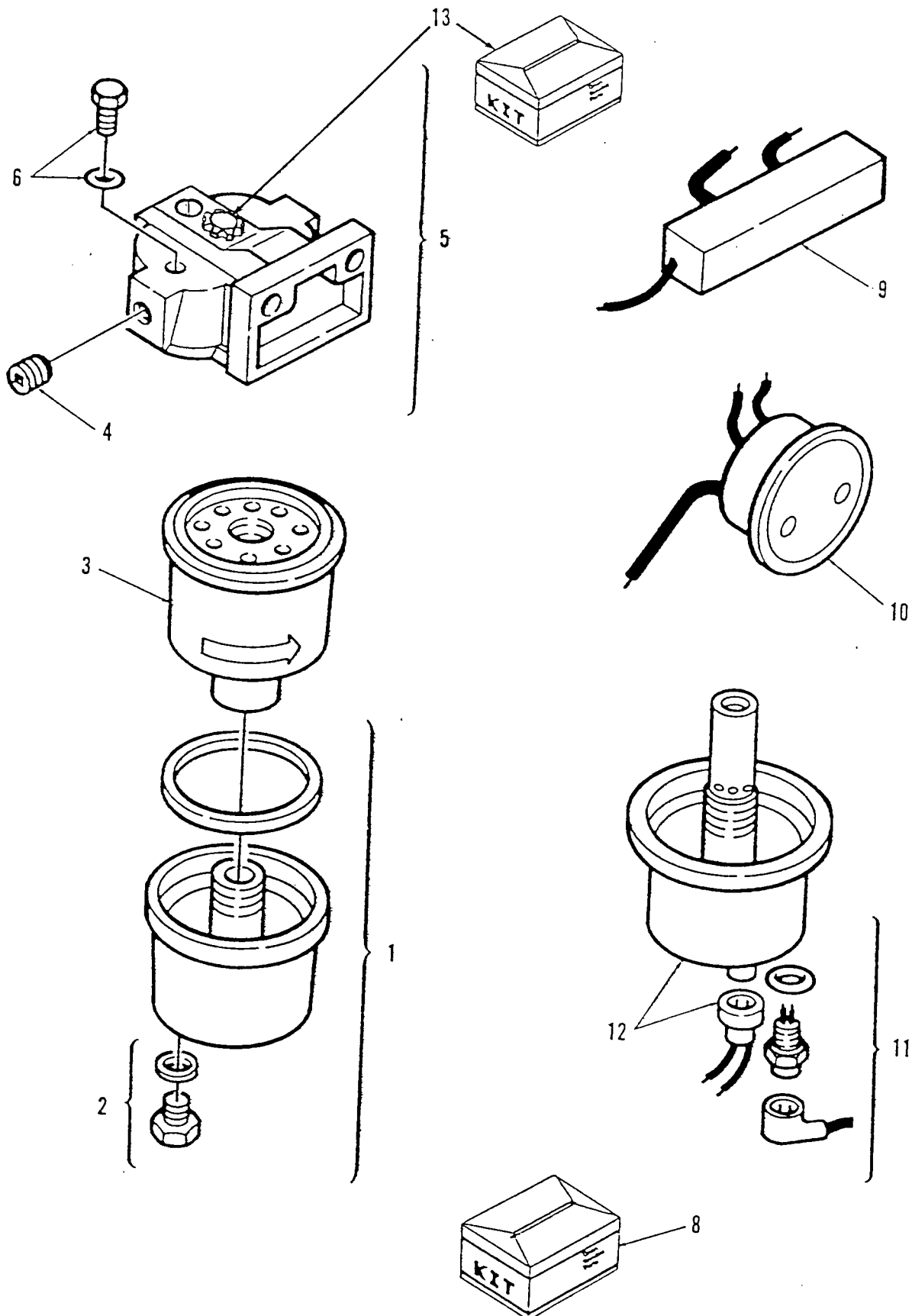
Fuel System - With Electrical Pump and Filter
(Aux - Spec A and B)



Fuel System - With Electrical Pump and Filter (Aux - Spec A and B)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	149-1945	1	Line, Fuel	14	149-1922	1	Spacer, Filter - Fuel
2	502-0033	1	Adapter, Pipe - Hex	15	815-0600	2	Screw, Cap - Hex Head (M10 x 1.25 x 25mm)
3	149-1944	1	Line, Fuel	16	850-2010	2	Washer, Lock - Spring (M10)
4	502-0281	1	Adapter, Pipe - Hex with Restrictor Plug	17	149-1920	1	Plate, Mounting - Fuel Filter
5	502-0097	1	Adapter, Pipe - Hex	18	870-0212	2	Nut, Self-locking - Hex Washer Head (1/4-20)
6	502-0058	2	Pipe, Tee	19	149-1828	1	Pump, Fuel - Electric (12 VDC)
7	502-0886	1	Elbow, Tube to Pipe - 90°	20	149-1445	1	Filter, Pump - Fuel
8	149-1932	1	Line, Fuel	21	149-1446	1	Gasket, Cover - Fuel Pump
9	502-0003	2	Adapter, Pipe - Hex	22	856-0006	2	Washer, Lock - EIT (1/4)
10	502-0041	1	Pipe, Elbow - Street, 90°, Brass	23	815-0586	2	Screw, Cap - Hex Head (M10 x 1.25 x 16mm)
11	870-0257	2	Nut, Self-Locking - Hex Washer Head (5/16-18)	24	850-2010	2	Washer, Lock - Spring (M10)
12	505-0180	1	Plug, Pipe - Square Socket Drive	25	149-1921	1	Plate, Mounting - Fuel Pump
13	149-1908-04	1	Filter/Separator - Fuel (Pressure Type) (See Separate Page for Components)				
	149-1908-06	1	Filter/Separator - Fuel (Pressure Type) (Includes Electric Fuel Heater and Bowl Heater) (See Separate Page for Components)				

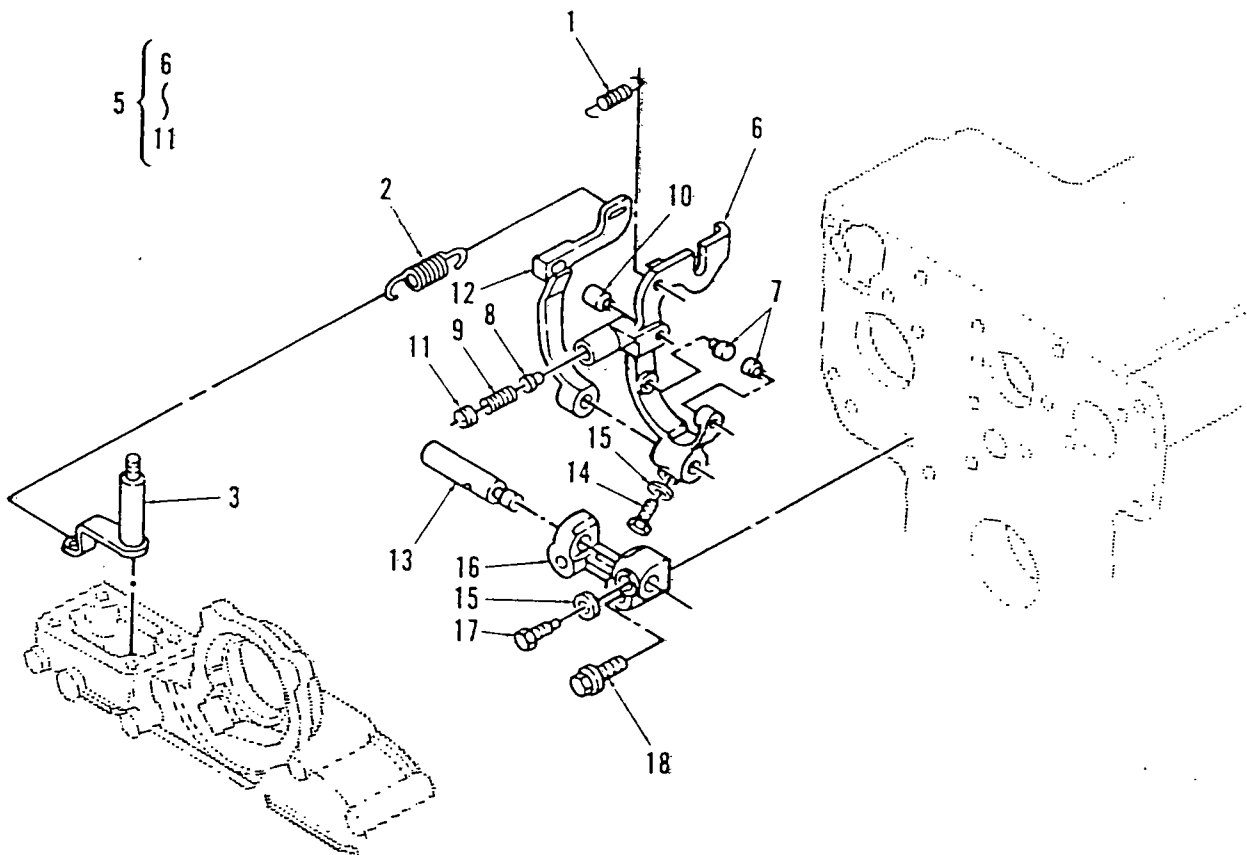
Fuel/Water Separator



Fuel/Water Separator

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
			Filter/Separator, Fuel Complete (Pressure Applications)	8	149-2045	1	Seal Kit, Separator - Fuel/Water (Includes all O-Ring Seals and Plunger)
	149-1908-04	1	Without Fuel and Bowl Heaters	9	149-1971	1	Alarm/Tight - Water Sensor (Rectangular)
	149-1908-06	1	With Fuel and Bowl Heaters	10			Alarm/Tight - Water Sensor (Round)
1	149-2046	1	Bowl, Metal - Replacement (Includes Seals, Plugs, and Drain Assembly)		149-1972	1	12 Volt DC
					149-2048	1	24 Volt DC
2	149-1953	1	Drain Assembly (Includes Knob and Seal)	11	149-2044	1	Probe Assembly (Includes Connector and O-Ring Seal)
3	149-1914-04	1	Element, Filter (Includes O-Ring Seal) (2 Micron)	12			Heater Assembly (Includes Metal Bowl)
4	502-0180	1	Plug, Pipe - Square Socket Drive		149-1978	1	12 Volt DC
					149-1970	1	24 Volt DC
5	149-1949	1	Head Assembly, Replacement (Includes Vent Plug, O-Ring Seals, Pump Assembly and Tube)	13	149-2047	1	Replacement Kit - Pump (Includes Knob, Shaft, Plunger, Ball and Ring) (The only way to get a replacement knob!)
6	149-1952	1	Plug, Vent (Includes Seal)				

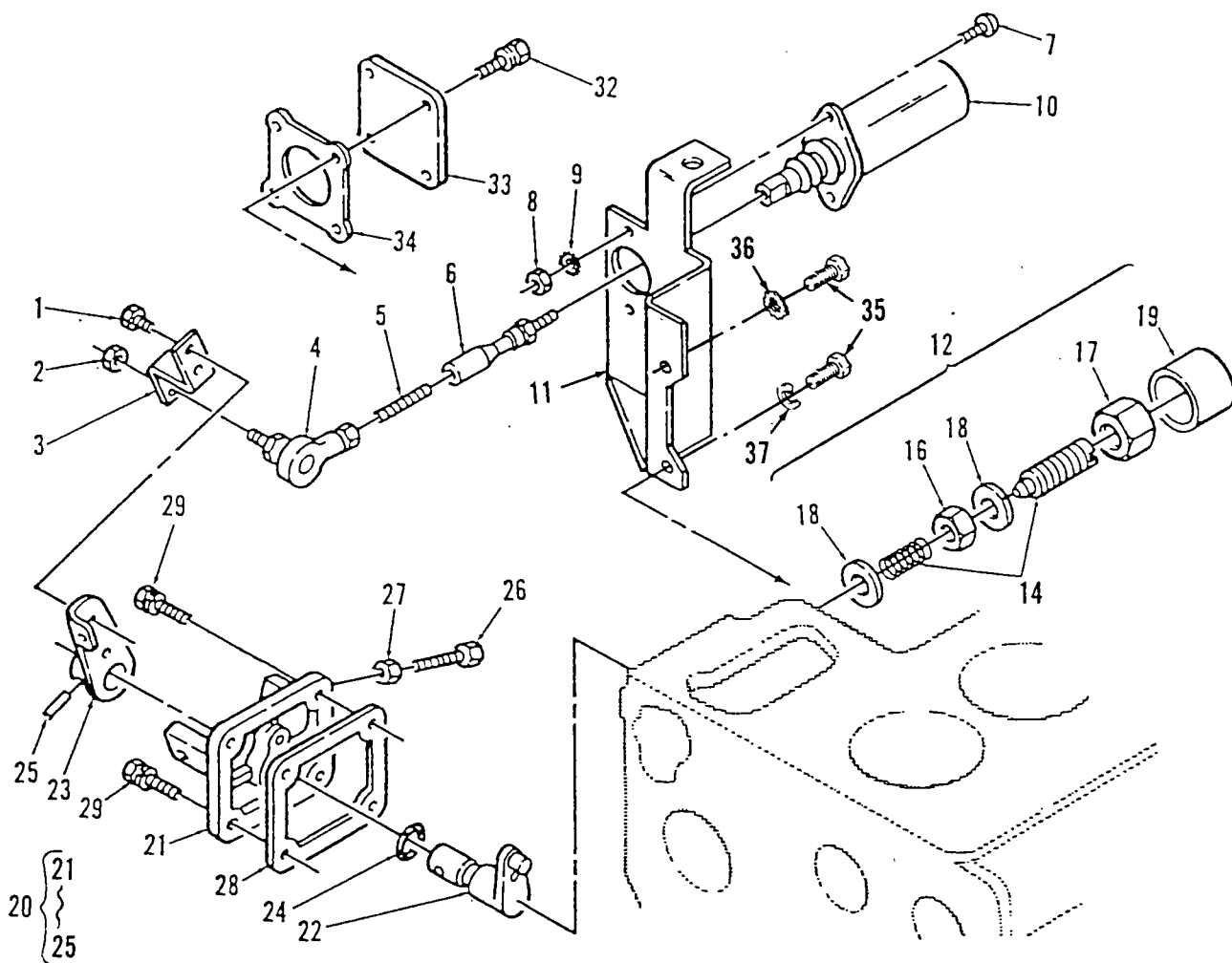
Governor



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-2103	1	Spring	9	NFS		Spring
2			Spring, Governor	10	NFS		Pivot
	185-2466	1	50 Hz	11	NFS		Screw, Adjusting
	185-2427	1	60 Hz	12	185-2262	1	Lever, Governor (Style I Gov.)
	185-2440	1	Style II		185-2442	1	Lever, Governor (Style II Gov.)
3	185-2261	1	Lever, with Shaft - Governor	13	185-2166	1	Shaft
5	185-2310	1	Lever Assembly, Governor (Style I Gov.)	14	718-1006	1	Screw, Cap - Hex Head (M5 x .5 x 16mm)
	185-2441	1	Lever Assembly, Governor (Style II Gov.)	15	185-2379	1	Washer, Lock - Spring (M5)
6	NFS		Lever	16	185-2167	1	Holder, Lever - Governor
7	NFS		Follower, Cam	17	185-2173	1	Bolt, Hex
8	NFS		Plug	18	185-2392	2	Screw, Cap - Hex Head with Lockwasher (M6 x 1 x 28mm)

NOTE: See introduction for governor style identification.

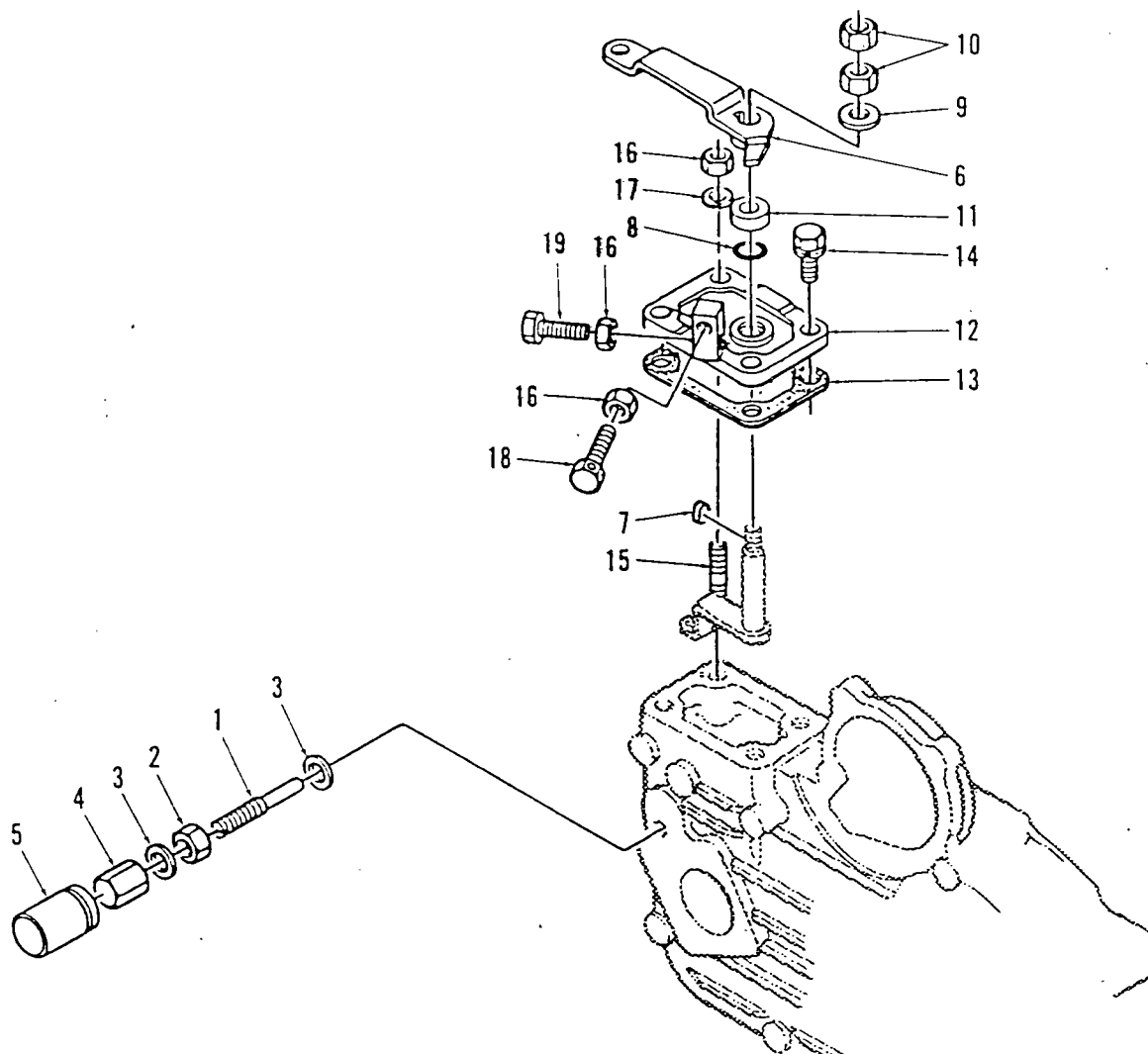
Stop Assembly



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	815-0181	2	Screw, Tapping - Hex Head (#10-32 x 1/2")	20	185-2462	1	Lever, Stop (Includes Parts Marked *)
2	115-0025	1	Nut, Hex (1/4-28 UNF)	21	185-2257	1	*Cover
3	150-1991	1	Bracket, Stop Lever	22	NFS		*Shaft
4	150-1995	1	Ball Joint (1/4-28 UNF)	23	NFS		*Lever
5	520-0939	1	Stud (1/4-28 x 1-1/2" LG)	24	185-2347	1	*O-Ring
6	150-1733	1	Ball Joint (1/4-28 UNF)		185-2461	1	Seal, Oil
7	813-0102	2	Screw, Machine - Round Head (#10-32 x 5/8")	25	185-2351	1	*Pin, Spring
8	870-0131	2	Nut, Hex with ET Lockwasher (#10-32)	26	185-2342	1	Bolt, Hex
9	856-0003	2	Washer, Lock - EIT (#10)	27	750-1004	1	Nut, Hex (M6 x 1)
10	307-2546	1	Solenoid, Electric (12 VDC)	28	185-2114	1	Gasket
11	150-1992	1	Bracket, Solenoid Mounting	29	185-2389	4	Screw, Cap - Hex Head with Lockwasher (M6 x 1 x 18mm)
12			Control, Idle - Governor	32	185-2400	4	Screw, Cap - Hex Head with Lockwasher (M8 x 1.25 x 18mm)
	185-2258	1	Style I	33	185-2126	1	Cover
	185-2432	1	Style II	34	185-2120	1	Gasket
14			Adjuster, Idle - Governor	35	800-2057	2	Screw, Hex Head (M8 x 1.25 x 20mm)
	185-2259	1	Style I	36	856-0008	1	Washer, Lock - External, Internal Tooth (M8)
	185-2433	1	Style II	37	850-2008	1	Washer, Lock
16	185-2180	1	Nut, Hex				
17	185-2182	1	Cap Nut				
18	185-2338	2	Seal, Oil				
19	185-2161	1	Cap				

* - Parts Included in Stop Lever Assembly

Speed Control Assembly

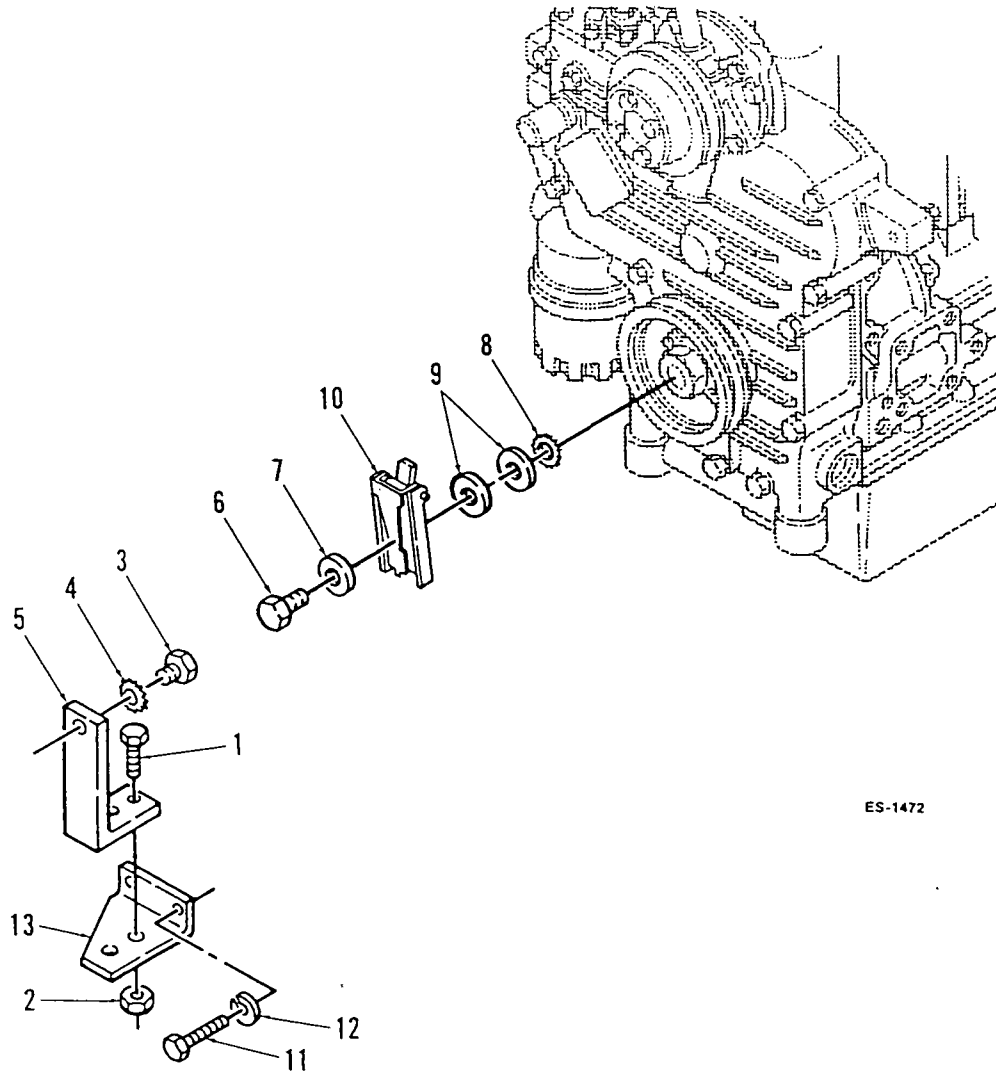


REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-2260	1	Screw, Adjusting
	185-2438	1	Style I
2	185-2248	1	Nut, Hex
3	185-2284	3	Seal, Oil
4	185-2282	1	Cap Nut
5	185-2283	1	Cap
6	185-2264	1	Lever, Control - Speed
7	185-2187	1	Key
8	185-2373	1	O-Ring
9	185-2376	1	Washer, Flat (M6)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
10	185-2364	2	Nut, Hex (M6 x 1)
11	185-2169	1	Bearing, Sleeve
12	185-2263	1	Housing, Control - Speed
13	185-2168	1	Gasket
14	185-2390	3	Screw, Cap - Hex Head with Lockwasher (M6 x 1 x 20mm)
15	185-2105	1	Stud
16	750-1004	3	Nut, Hex (M6 x 1)
17	185-2380	1	Washer, Lock - Spring (M6)
18	815-0649	1	Bolt, Hex - Lever Stop
19	185-2439	1	Bolt, Hex - Lever Stop

NOTE: See Introduction for governor style identification.

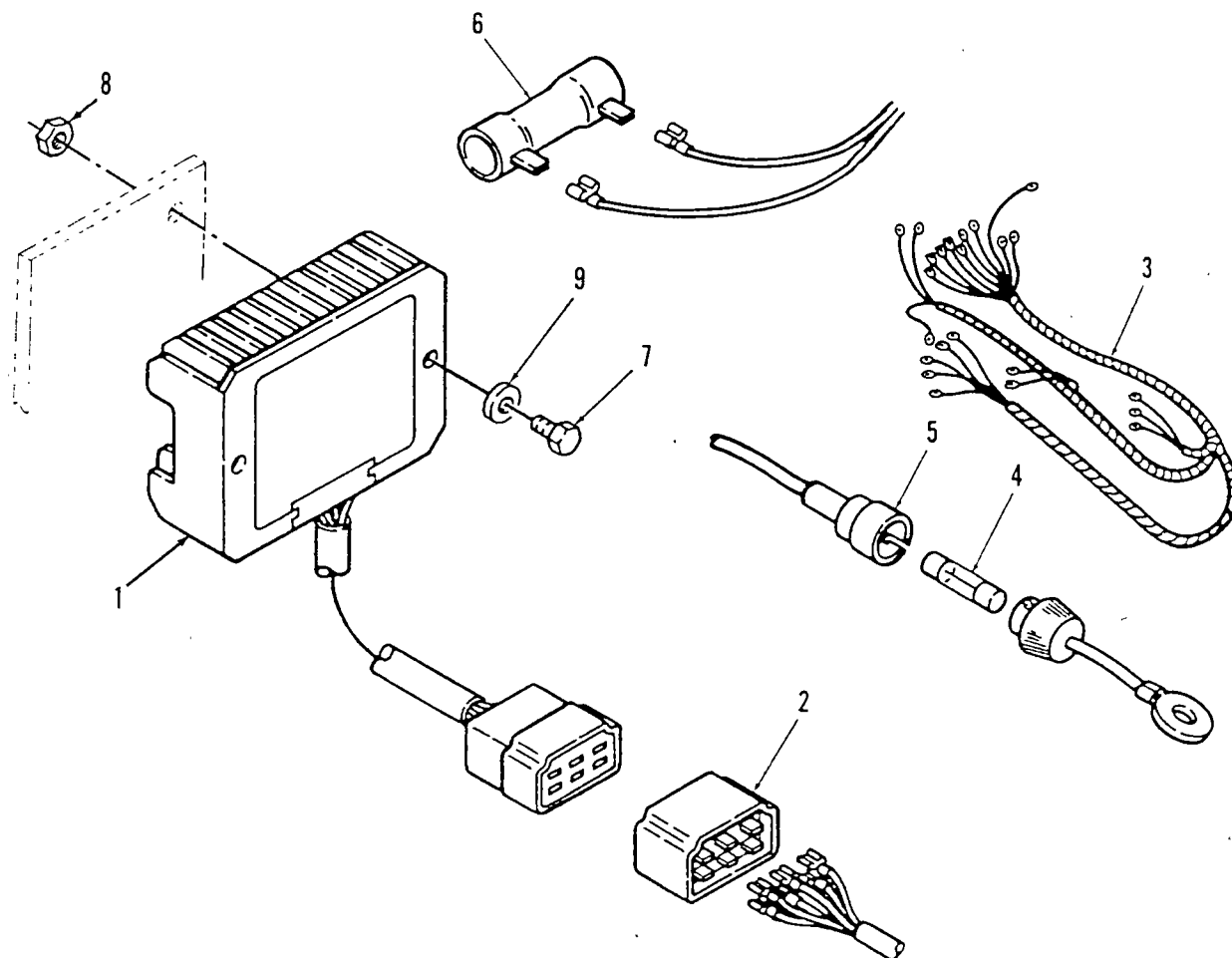
Overspeed Switch



ES-1472

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	821-0015	2	Screw, Self-locking - Hex Washer Head (1/4-20 x 3/4")	7	850-2008	1	Washer, Lock - Spring (M8)
2	870-0212	2	Nut, Self-locking - Hex Washer Head (1/4-20)	8	856-0008	1	Washer, Lock - EIT (5/16")
3	150-2011	1	Point, Contact - Electrical (1/4-20 x 3/8")	9	526-0113	2	Washer, Flat (5/16")
4	853-0013	1	Washer, Lock - ET (1/4")	10	150-0717	1	Switch, Overspeed
5	150-2009	1	Bracket, Support - Overspeed Contact (Nonmetallic)	11	800-2044	2	Screw, Cap - Hex Head (M6 x 1.0 x 70mm)
6	800-2057	1	Screw, Cap - Hex Head (M8 x 1.25 x 20mm)	12	850-2006	2	Washer, Lock - Spring (M6)
				13	150-2010	1	Bracket, Support - Overspeed Switch

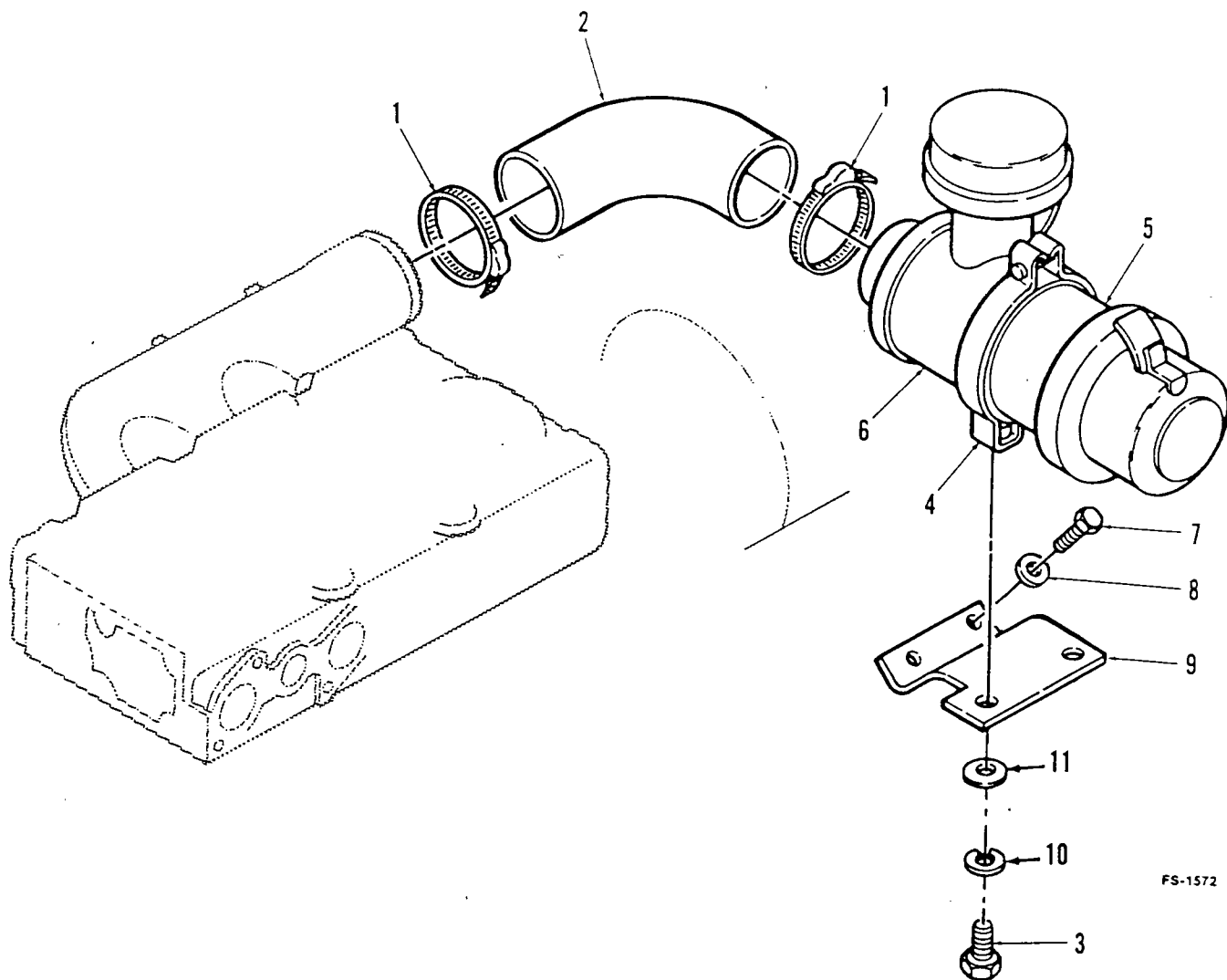
Voltage Regulator & Wiring Harness



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-2252	1	Regulator, Voltage (12 VDC)
	815-0236	4	Screw, Tapping - Hex Head (5/16-18 x 5/8")
2	185-2424	1	Adaptor, Electrical Connector
3			Harness, Wiring - Engine to Control
	338-1762	1	Manual Remote
	338-1825-01	1	Without Overspeed Switch
	338-1825-01	1	With Overspeed Switch
4	321-0113	1	Fuse, Cartridge (30 Amp, 32 VDC, Slo Blo)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
5	321-0267	1	Holder, Fuse
6	304-0776	1	Resistor, Fixed, Wirewound (R1) 5 Ohm, 10 Watt (Part of Engine to Control Wiring Harness)
7	815-0544	2	Screw, Round Head Machine - Cross-Recessed with Internal Teeth (#6-32 x 1/2)
8	870-0050	2	Nut, Self-Locking (6-32)
9	526-1002	2	Washer, Flat (#6)

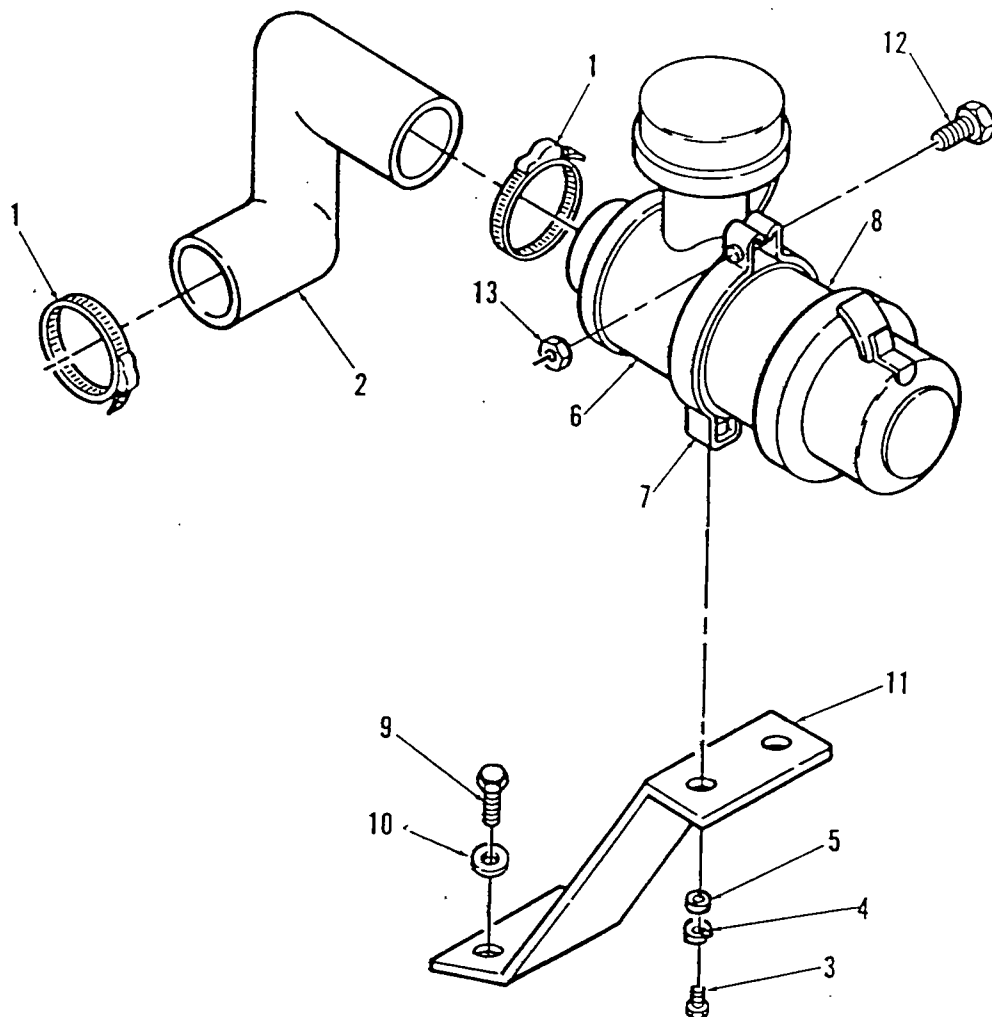
Air Cleaner
(Mobile - Spec A)



FS-1572

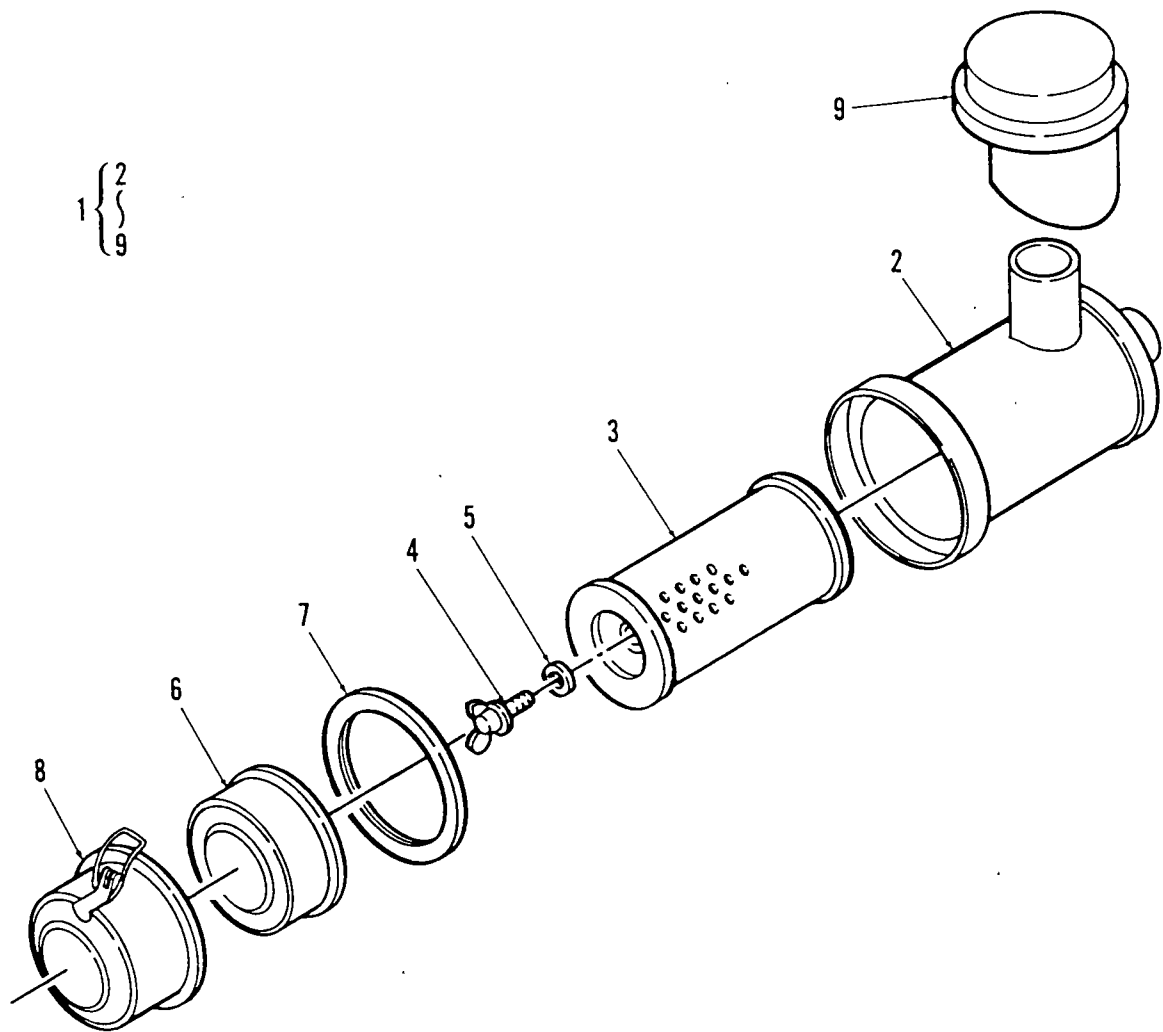
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0365	2	Clamp, Hose	8	526-0018	2	Washer, Flat (17/64" ID x 5/8" OD x 1/16" Thk)
2	503-1316	1	Hose, Elbow - Preformed	9	140-1902	1	Bracket, Mounting - Air Cleaner
3	800-2056	2	Screw, Cap - Hex Head (M8 x 1.25 x 16mm)	10	850-2008	2	Washer, Lock (M8)
4	185-2199	1	Band, Mounting - Air Cleaner	11	526-2100	2	Washer, Flat (M8)
5	185-2201	1	Cushion				
6	185-2206	1	Cleaner Assembly, Air (See Separate Page for Components)				
7	815-0315	2	Screw, Tapping - Hex Washer Head (1/4-20 x 1/2") or use -				
	821-0010	2	Screw, Self-locking - Hex Washer Head (1/4-20 x 1/2")				

**Air Cleaner
(Truck - Spec A and B)**



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0365	2	Clamp, Hose	8	185-2201	1	Cushion
2	503-1450	1	Hose, Cleaner - Air	9	815-0261	2	Screw, Hex Head Cap - Self Tapping
3	800-2056	2	Screw, Hex Head Cap (M8 x 1-1/4 x 16)	10	526-0018	2	Washer, Flat (1/4)
4	850-2008	2	Washer, Lock (M8)	11	140-2042	1	Bracket, Mounting - Air Cleaner
5	526-2100	2	Washer, Flat (M8)	12	821-0012	1	Screw, Hex Head Self Lock (1/4-20 x 1-1/8)
6	185-2206	1	Cleaner, Air (See Separate Page for Components)	13	870-0212	1	Nut, Hex Head Self Lock (1/4-20)
7	185-2199	1	Band, Cleaner - Air				

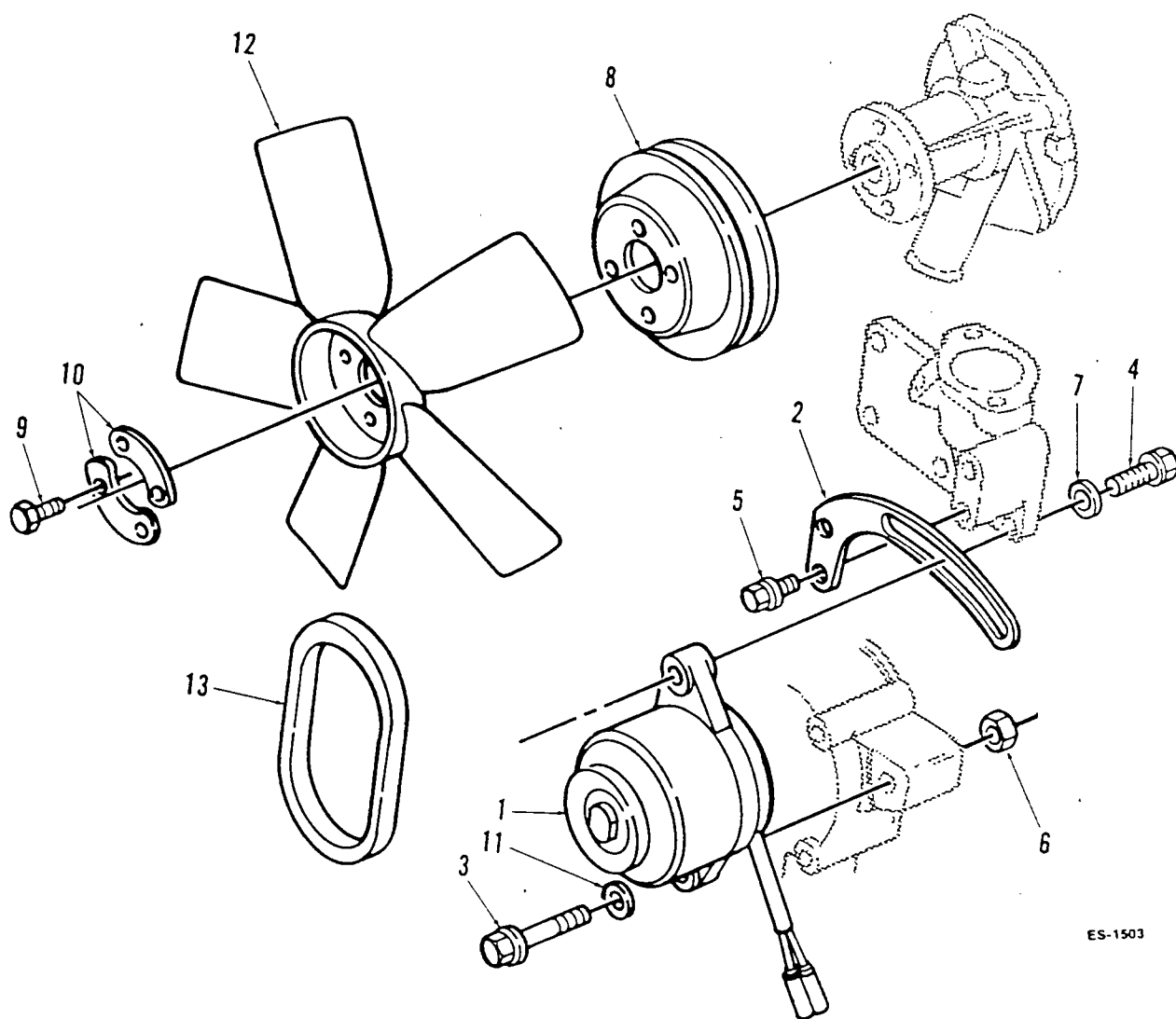
Air Cleaner - Components



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-2206	1	Cleaner Assembly, Air
2	NFS		Housing, Air Cleaner
3	185-2090	1	Element, Filter - Air Cleaner
4	185-2108	1	Bolt, Wing
5	185-2110	1	Gasket

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
6	185-2091	1	Baffle
7	185-2089	1	Gasket
8	185-2121	1	Cover
9	185-2122	1	Hood, Air Inlet

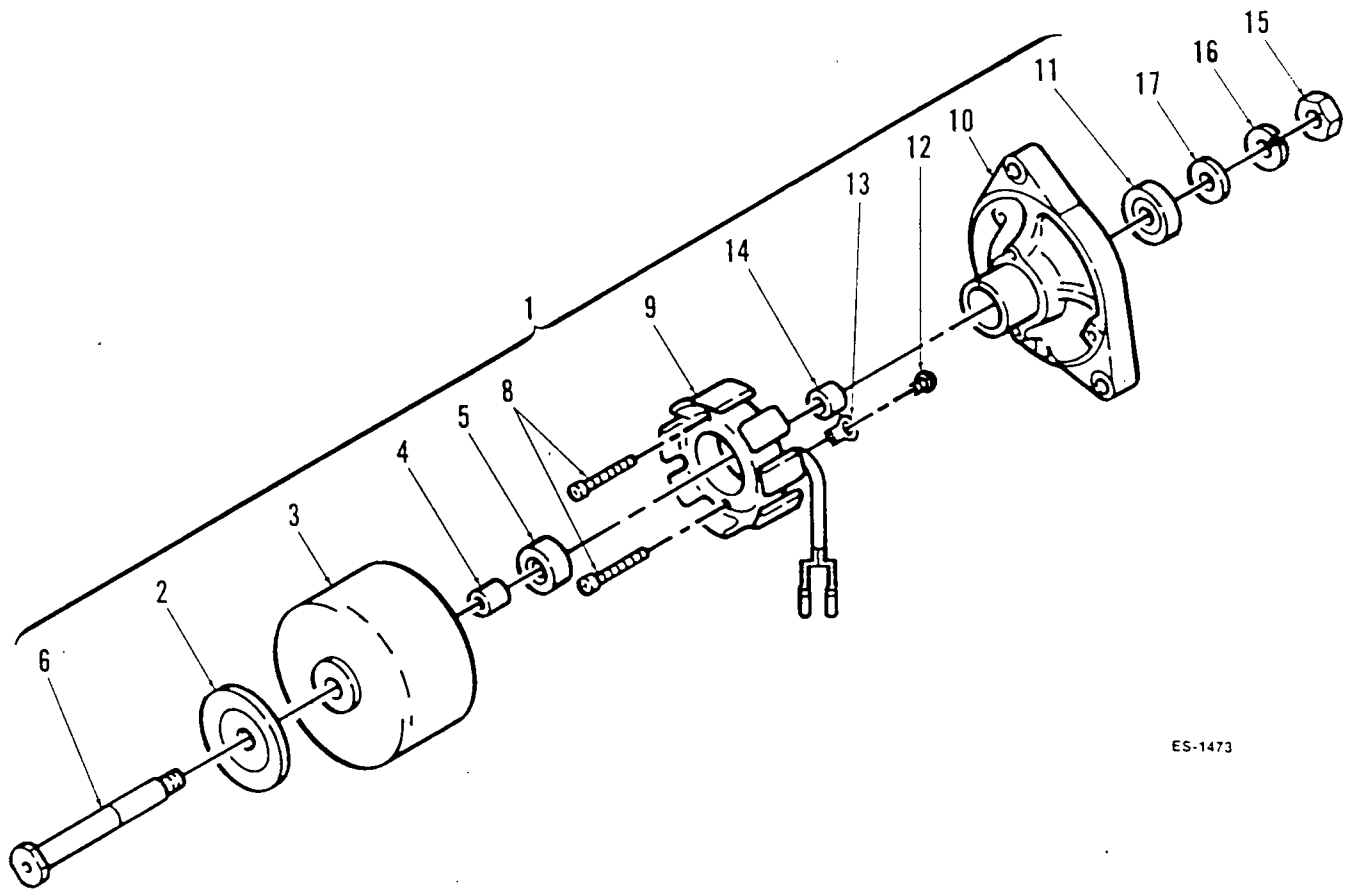
Alternator



ES-1503

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-2266	1	Alternator (12 VDC) (See Separate Page for Components)	7	185-2377	1	Washer, Flat (M8)
2	185-2273	1	Bracket, Adjusting	8	185-2247	1	Pulley
3	185-2405	1	Screw, Cap - Hex Head with Lockwasher (M8 x 1.25 x 60mm)	9	718-1018	4	Screw, Cap - Hex Head (M6 x 10mm)
4	185-2403	1	Screw, Cap - Hex Head with Lockwasher (M8 x 1.25 x 25mm)	10	185-2346	2	Locking Plate - Bolt/Nut
5	185-2388	1	Screw, Cap - Hex Head with Lockwasher (M6 x 1 x 16mm)	11	185-2378	1	Washer, Flat (M8)
6	750-1006	1	Nut, Hex (M8 x 1.25)	12	185-2286	1	Fan, Pusher (4 Blade)
					185-2460	1	Fan, Suction
				13	185-2275	1	Belt, Drive

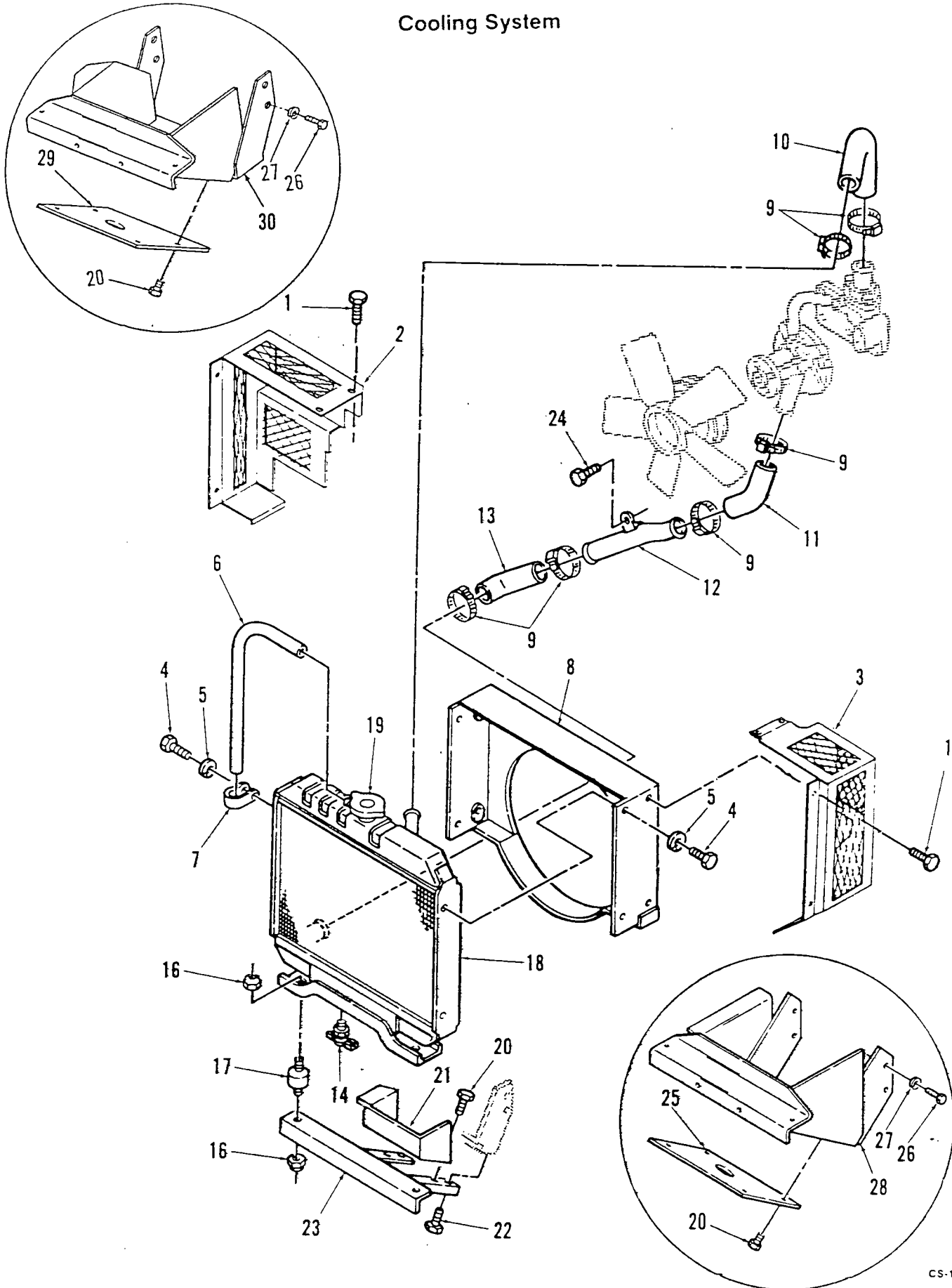
Alternator - Components



ES-1473

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-2266	1	Alternator (12 VDC)	10	185-2268	1	Housing, Alternator
2	185-2269	1	Pulley	11	185-2246	1	Bearing, Ball
3	185-2267	1	Rotor	12	185-2249	1	Screw, Machine - Round Head - Cross-Recessed Drive, with Lockwasher
4	185-2270	1	Spacer, Sleeve	13	185-2271	1	Clamp, Electrical Cord
5	185-2246	1	Bearing, Ball	14	185-2171	1	Spacer, Sleeve
6	185-2245	1	Shaft, Rotor	15	185-2181	1	Nut, Hex
8	185-2183	2	Screw, Machine - Round Head, Cross-Recessed Drive, with Lockwasher	16	185-2186	1	Washer, Lock - Spring
9	185-2272	1	Stator	17	185-2185	1	Washer, Flat

Cooling System

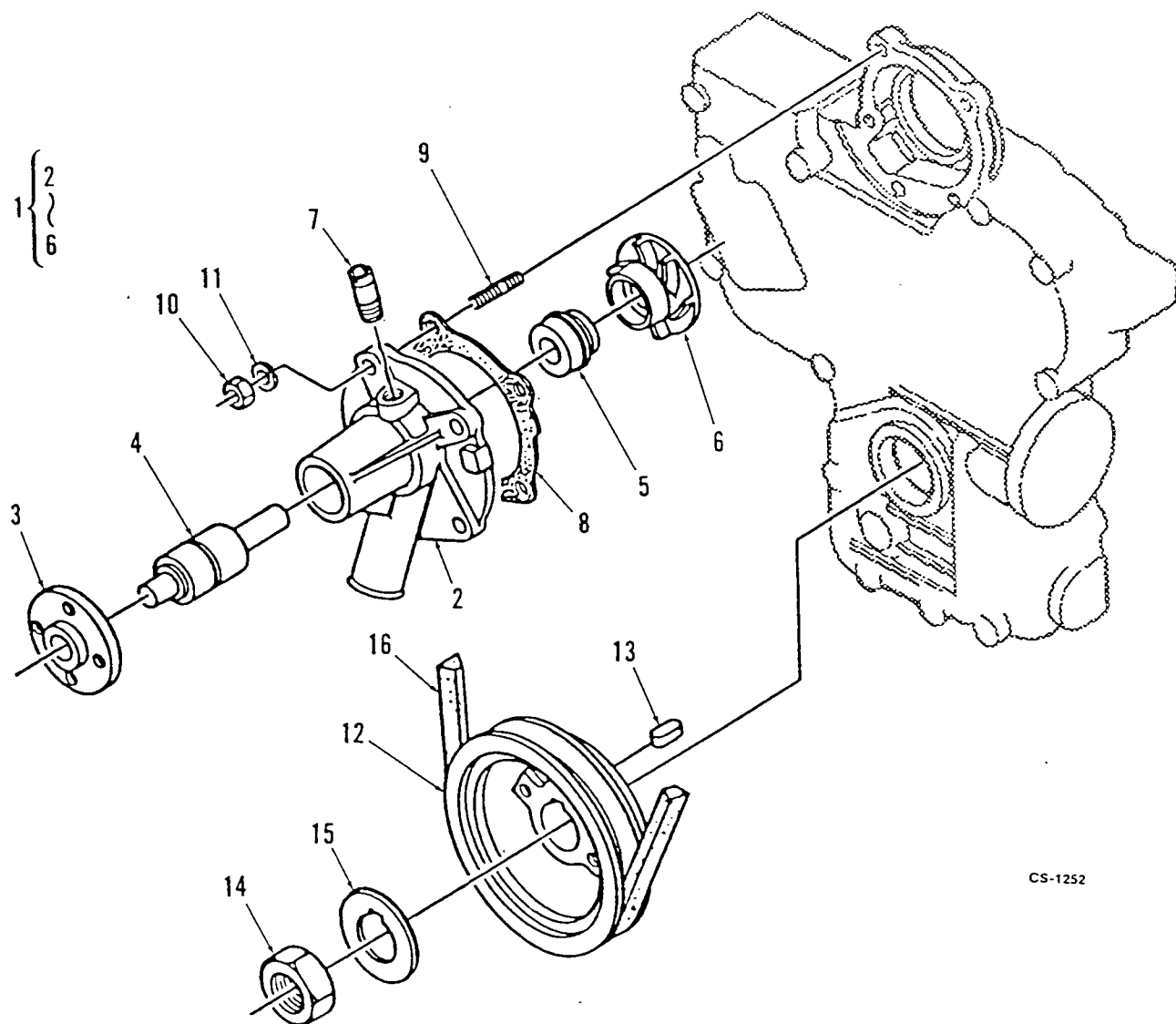


CS-1257

Cooling System

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	821-0009	6	Screw, Self-locking - Hex Washer Head (1/4-20 x 3/8")	21	130-2501	1	Guard, Belt (Used Through February 1984)
2	130-2500	1	Guard, Belt (Left Side)	22	821-0029	2	Screw, Self-locking - Hex Washer Head (3/8-16 x 3/4") (Used Through February 1984)
3	130-2493	1	Guard, Belt (Right Side)	23	130-2350	1	Assembly, Bracket - Radiator (Used Through February 1984)
4	800-2027	4	Screw, Cap - Hex Head (M6 x 1 x 10mm)	24	718-1017	1	Screw, Cap - Hex Head (M6 x 1.0 x 10mm) (Used Through February 1984)
5	850-2006	4	Washer, Lock - Spring (M6)	25	130-2550	1	Guard, Belt (Used Through March 1984)
6	185-2421	1	Hose, Rubber - Overflow	26	815-0585	4	Screw, Cap - Hex Head (M10 x 1.25 x 20mm) (Used Beginning March 1984)
7	332-2650	1	Clamp, Loop	27	850-2010	4	Washer, Lock - Spring (M10) (Used Beginning March 1984)
8	130-2514	1	Shroud, Fan	28	130-2548	1	Assembly, Bracket - Radiator (Used Beginning March 1984)
9	503-0189	6	Clamp, Hose	29	130-3231	1	Guard, Belt (Use Beginning Spec B)
10	185-2256	1	Hose, Radiator - Preformed	30	130-3232	1	Assembly, Bracket - Radiator (Use Beginning Spec B)
11	185-2278	1	Hose, Rubber - Preformed				
12	185-2277	1	Tube, Water				
13	185-2276	1	Hose, Rubber - Preformed				
14	504-0005	1	Cock, Drain (3/8 NPT)				
16	870-0212	4	Nut, Self-locking - Hex Washer Head (1/4-20)				
17	402-0581	2	Mount, Vibration				
18	185-2255	1	Radiator (Includes Cap)				
19	185-2193	1	Cap, Radiator				
20	815-0389	4	Screw, Tapping - Hex Washer Head (1/4-20 x 3/8") or use -				
	821-0009	4	Screw, Self-locking - Hex Washer Head (1/4-20 x 3/8")				

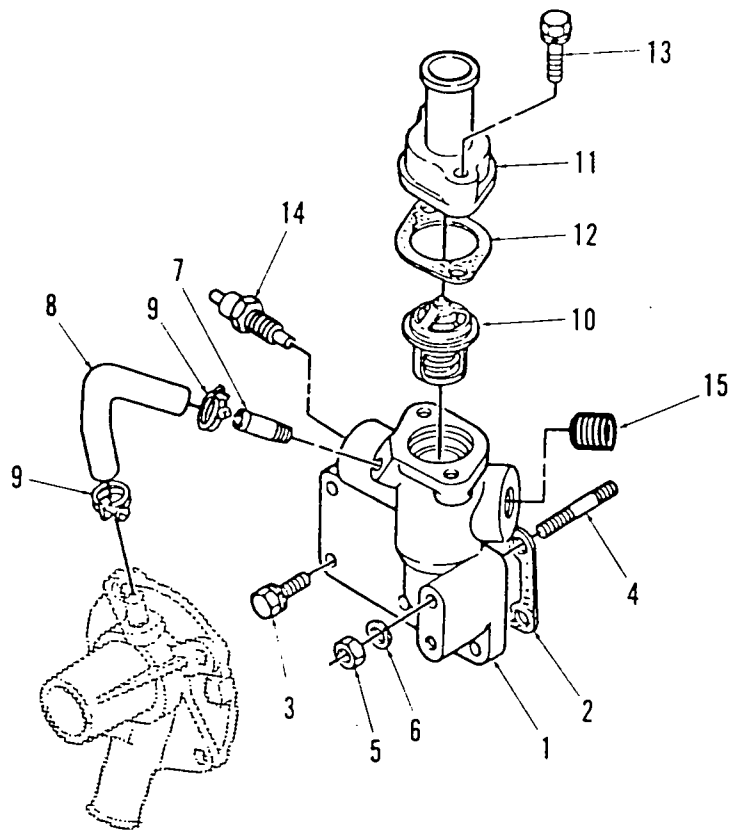
Water Pump



CS-1252

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-2236	1	Pump, Water	9	185-2363	4	Stud
2	NFS		Housing, Pump	10	750-1004	4	Nut, Hex (M6 x 1)
3	185-2243	1	Flange, Pump Shaft	11	185-2380	4	Washer, Lock - Spring (M6)
4	185-2244	1	Shaft with Bearing	12	185-2251	1	Pulley
5	185-2237	1	Seal	13	185-2353	1	Key
6	185-2242	1	Impeller	14	185-2088	1	Nut, Hex
7	185-2239	1	Adapter, Hose	15	185-2207	1	Washer, Flat - Keyed
8	185-2241	1	Gasket	16	185-2275	1	Belt, Drive

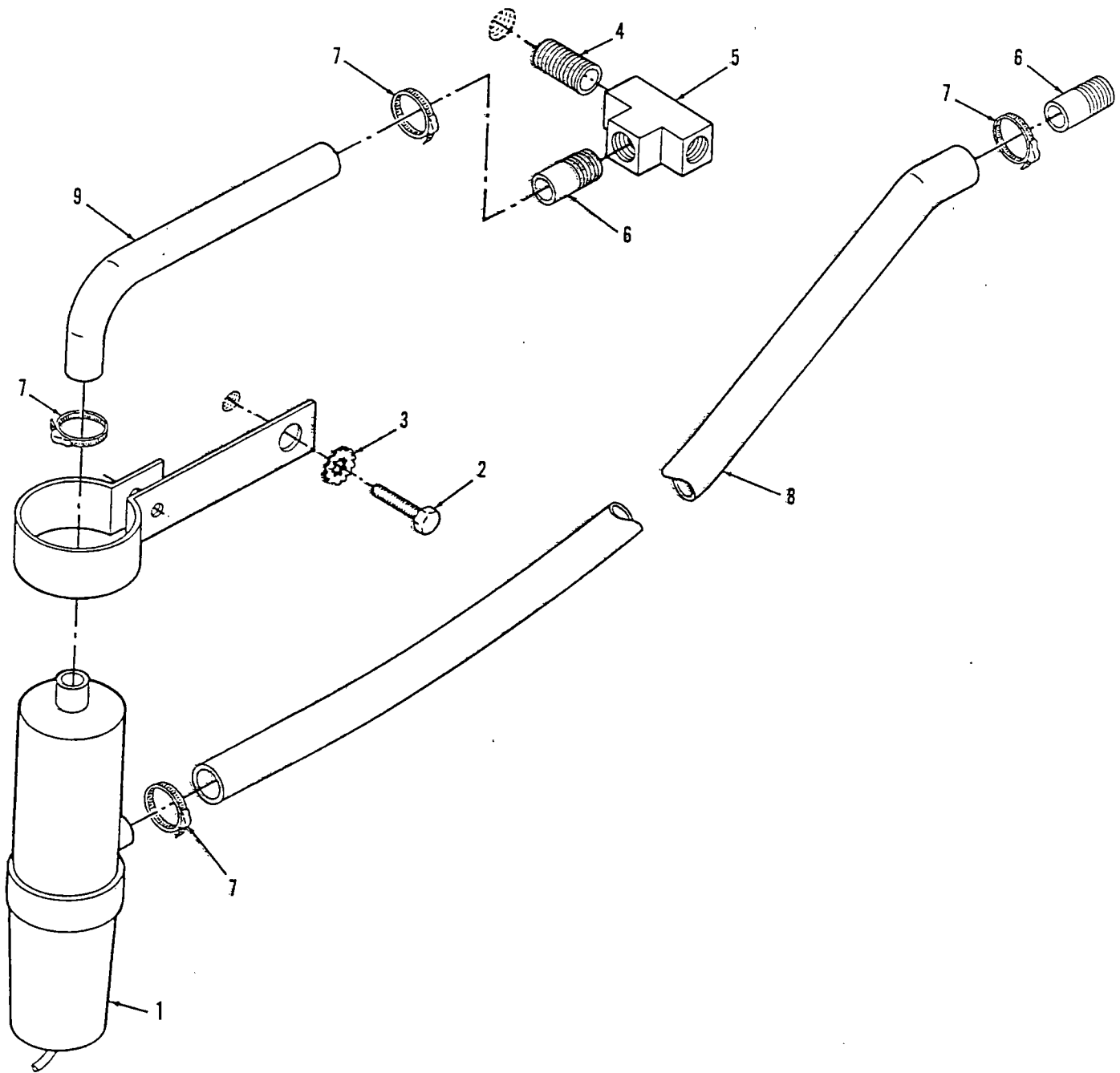
Cooling System - Thermostat & Housing



CS-1259

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-2311	1	Housing, Thermostat	10	185-2235	1	Thermostat
2	185-2175	1	Gasket	11	185-2423	1	Cover, Thermostat
3	185-2388	5	Screw, Cap - Hex Head with Lockwasher (M6 x 1 x 16mm)	12	185-2238	1	Gasket
4	185-2360	1	Stud	13	185-2393	2	Screw, Cap - Hex Head with Lockwasher (M6 x 1 x 35mm)
5	750-1004	1	Nut, Hex (M6 x 1)	14	309-0513	1	Switch, Thermostatic - High Engine Temperature Shutdown (S2)
6	185-2380	1	Washer, Lock - Spring (M6)	15	505-0266	1	Plug, Pipe - Square Socket Drive
7	185-2239	1	Adapter, Hose				
8	185-2300	1	Hose, Rubber - Preformed				
9	185-2240	2	Clamp, Hose				

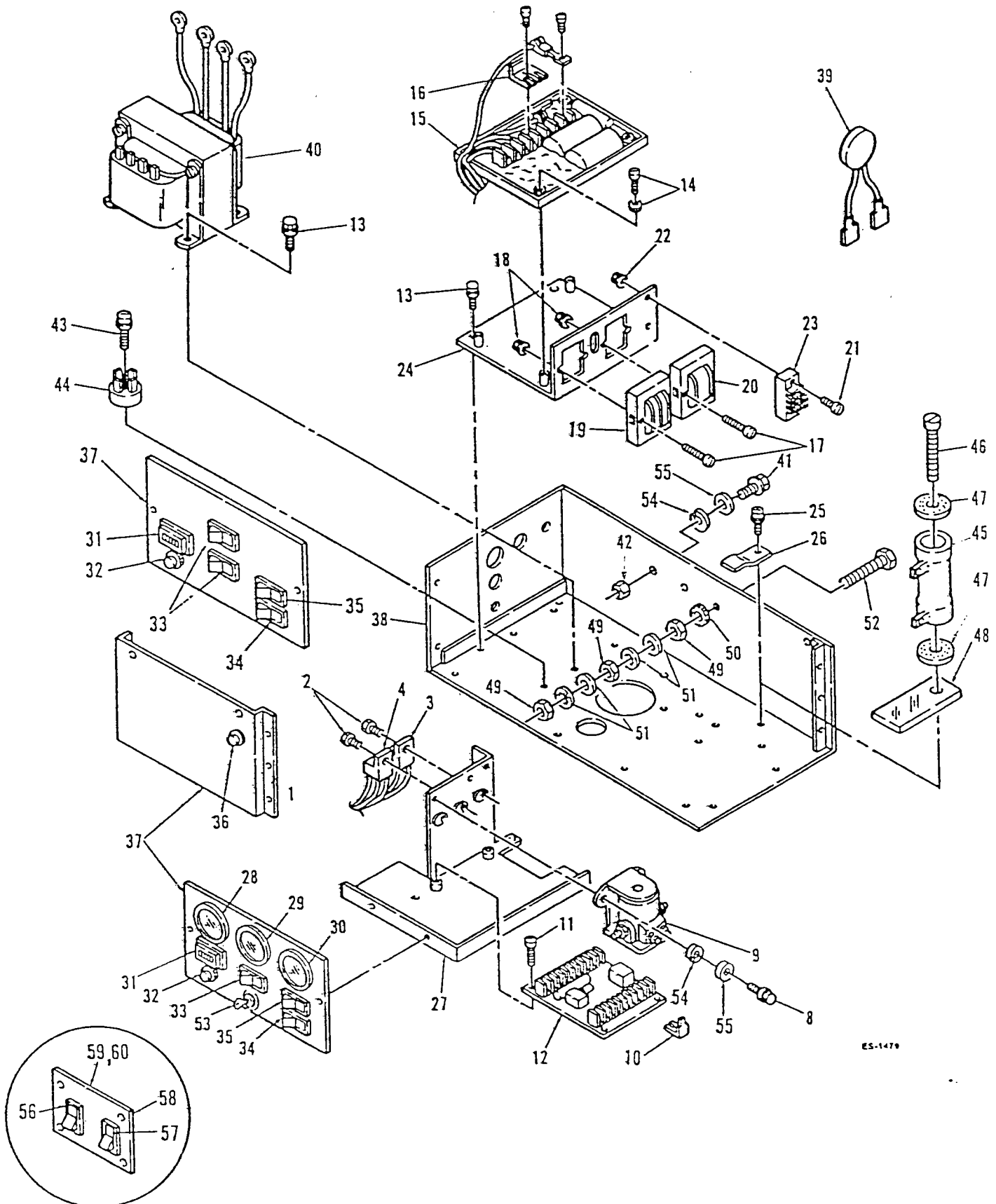
Engine Heater



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	333-0406-01	1	Heater, Engine (Mod)
2	815-0586	1	Screw, Cap - Hex Head (M10 x 1-1/4 x 16)
3	856-0010	1	Washer, Lock - EIT (M10)
4	505-0306	1	Nipple, Pipe

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
5	505-0060	1	Tee, Pipe
6	505-0135	2	Nipple, Pipe - Half
7	503-0183	4	Clamp, Hose (#10)
8	503-0712	1	Hose, Heater (28" Lg)
9	503-0261	1	Hose, Water (8.5" Lg)

Control

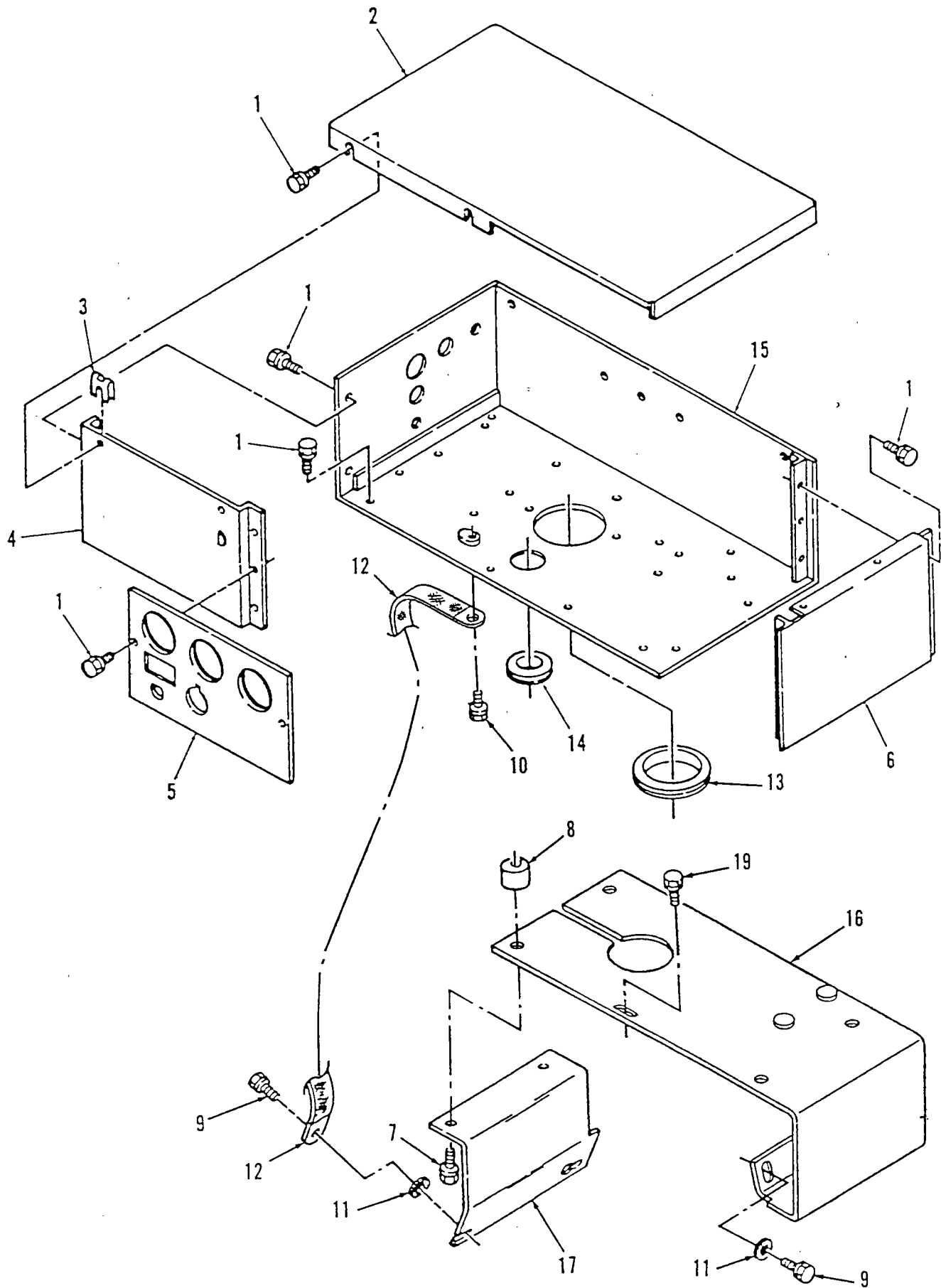


ES-1479

Control

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	338-1760	1	Harness, Wiring - Control (Includes K13, K14 Relays)	35	308-0739	1	Switch, Rocker (S11) (Start/Stop)
	338-1920-02	1	Harness, Wiring - Control (Includes K13, K14 Relays) (Mobile Applications)	36	320-1121	1	Breaker, Circuit - 3 Amp, 250 VAC (CB21)
2	821-0004	2	Screw, Self-locking - Hex Washer Head (#10-32 x 5/16")	37			Panels (See Control Box Assembly Figure for Identification)
3	307-1886	1	Relay (K13)	38			Box, Control (See Control Box Assembly Figure for Identification)
4	307-1886	1	Relay (K14)	39	305-0703	1	Suppressor, Voltage (RV21) - Single Phase Sets
8	821-0003	2	Screw, Self-locking - Hex Washer Head (1/4-20 x 1/2")	40			Transformer, Voltage Regulating (T21) - Single Phase Sets
9	307-1617	1	Solenoid, Electric - 12 VDC (K11)		315-0571	1	60 Hz 3 to 4 kW
10	332-1564	2	Lug, Terminal - Right Angle		315-0582	1	50 Hz 3 to 4 kW
11	815-0544	4	Screw, Machine - Round Head Cross-Recessed Drive with IT Lockwasher (#6-32 x 1/2")		315-0572	1	60 Hz 6 to 8 kW
12	300-2604	1	Engine Monitor (A11)		315-0583	1	50 Hz 6 to 8 kW
13	821-0004	7	Screw, Self-locking - Hex Washer Head (#10-32 x 5/16")	41	821-0003	2	Screw, Self-locking - Hex Washer Head (1/4-20 x 1/2") - Single Phase Sets
15	305-0688	1	Regulator, Voltage - Switching (VR12)	42	332-2370	2	Standoff, Insulating - Hex (TB21,22) - Single Phase Sets
	812-0071	4	Screw, Machine - Round Head (#6-32 x 1-1/2")	43	815-0346	1	Screw, Machine - Round Head Brass with IT Lockwasher (#10-32 x 4/8") - Single Phase Sets)
	853-0003	4	Washer, Lock - ET (#6)	44	305-0696	1	Rectifier, Bridge (CR21) - Single Phase Sets
16	332-2605	1	Jumper, Terminal	45	304-0776	1	Resistor, Fixed Wirewound (R1) 5 Ohm 10 Watt (Part of Engine to Control Wiring Harness) - Manual Start Sets
17	812-0070	4	Screw, Machine - Round Head (#6-32 x 1-1/4")	46	812-0090	1	Screw, Machine - Round Head (#8-32 x 2-1/4") - Manual Start Sets
18	870-0183	4	Nut, Hex - with ET Lockwasher (#6-32)	47	508-0015	2	Washer, Flat - Fiber (#8) - Manual Start Sets
19	315-0386	1	Transformer, Voltage Ref (T21)	48	304-0580	1	Plate, Insulating - Manual Start Sets
20	315-0391	1	Reactor (CMR21)	49	871-0016	3	Nut, Hex - Brass - Manual Start Sets
21	812-0063	2	Screw, Machine - Round Head (#6-32 x 1/2")	50	856-0006	2	Washer, Lock - EIT (1/4) - Manual Start Sets
22	870-0183	2	Nut, Hex - with ET Lockwasher (#6-32)	51	526-0052	4	Washer, Flat - Brass (17/64" ID x 7/16" OD x 1/16" Thk) - Manual Start Sets
23	332-1655	1	Block, Terminal (TB21)	52	821-0012	1	Screw, Self-Locking - Hex Washer Head (1/4-20 x 1-1/8") - Manual Start Sets
24	301-3719	1	Panel, Mounting - Regulator	53	308-0779	1	Switch, Selector with Key (S11) - Manual Start Sets
25	815-0544	1	Screw, Machine - Round Head Cross-Recessed Drive with IT Lockwasher (#6-32 x 1/2")		308-0843	1	Key
26	518-0437	1	Clip, Holddown	54	850-0040	3	Washer, Lock (1/4)
27	301-8454	1	Tray, Control - Relay Mounting	55	526-0018	3	Washer, Flat (1/4)
28	193-0352	1	Gauge, Oil Pressure (M12)	56	308-0827	1	Switch, Start/Run/Stop
29	193-0351	1	Gauge, Coolant Temperature (M13)	57	308-0826	1	Switch, Preheat
30	302-1641	1	Voltmeter - 12 VDC (M14)	58	301-9484	1	Panel, Remote
	302-0270	1	Clamp, Mounting	59	98-5496	1	Decal, Panel (Front)
	526-0049	36	Washer, Flat (#10)	60	98-5497	1	Decal, Panel (Rear)
	871-0010	6	Nut, Hex (#10-32)				
31	302-0885	1	Meter, Time Totalizing (M11)				
	815-0544	2	Screw, Machine - Round Head Cross-Recessed Drive with IT Lockwasher (#6-32 x 1/2")				
	870-0183	2	Nut, Hex - with ET Lockwasher (#6-32)				
32	320-1139	1	Breaker, Circuit - 1/2 Amp, 50 VDC (CB12)				
33	320-1140	1	Breaker, Circuit - 15 Amp, 32 VDC, 125 VAC (CB11, 13)				
34	308-0778	1	Switch, Rocker (S12) (Preheat)				

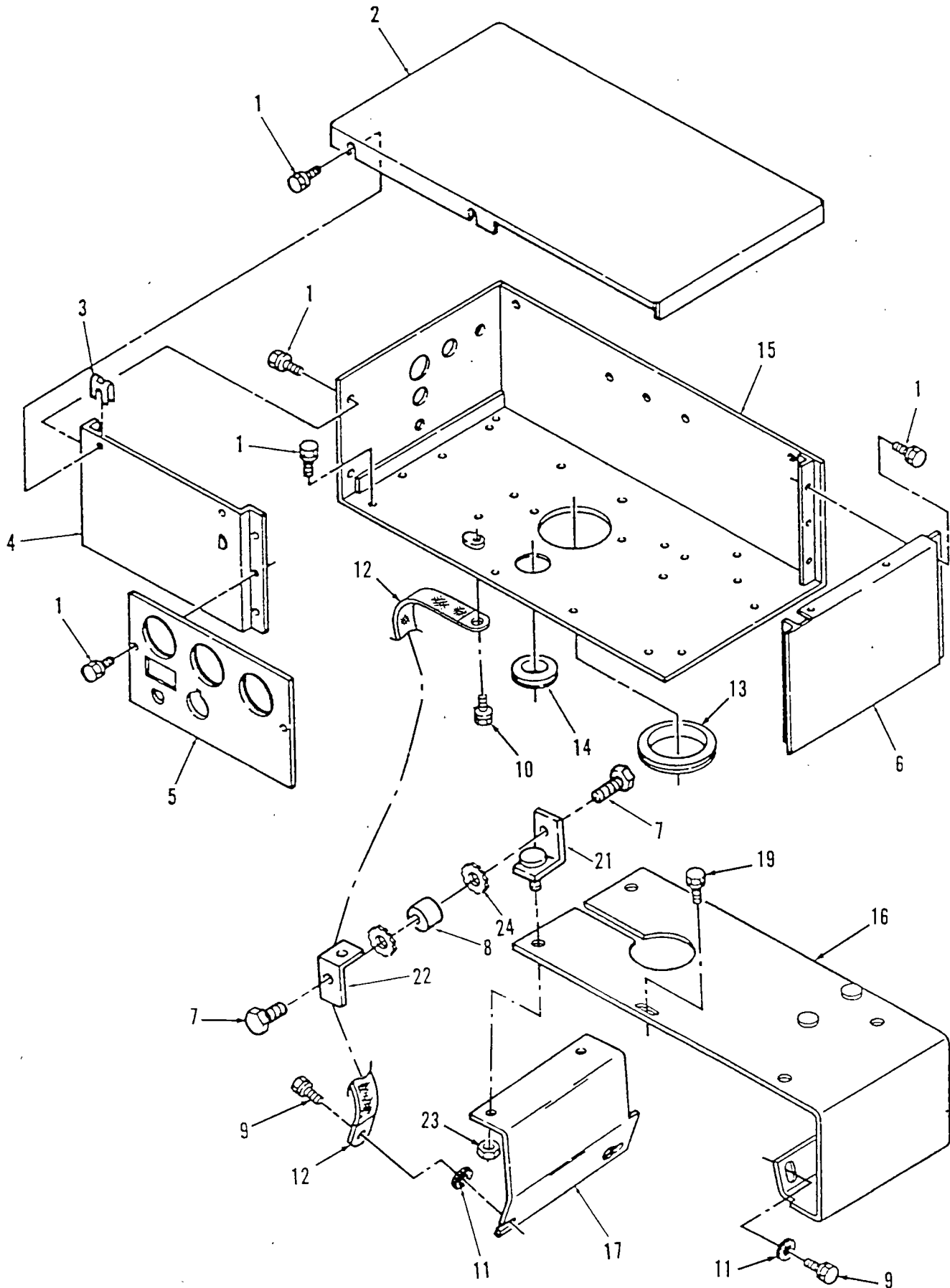
Control Box Assembly
(Mobile - Spec "A")



Control Box Assembly (Mobile - Spec "A")

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	815-0544	16	Screw, Self-locking - Hex Washer Head (1/4-20 x 5/8")	6	301-8450	1	Panel, End
2	301-8447	1	Cover, Control	7	821-0014	4	Screw, Self-locking - Hex Washer Head (5/16-18 x 1/2")
3	870-0398	6	Nut, Retaining (#10-32)	8	402-0078	4	Mount, Vibration
4			Panel, Generator Control (AC)	9	815-0236	4	Screw, Tapping - Hex Washer Head (5/16-18 x 5/8") or use
	301-8445	1	Without Hole for Circuit Breaker	10	821-0025	1	Screw, Self-locking - Hex Washer Head (5/16-18 x 5/8")
	301-8569	1	With Hole for Circuit Breaker	11	856-0008	4	Washer, Lock - EIT (5/16")
5			Panel, Engine Control (DC)	12	337-0049	1	Strap, Electrical - Ground
			Manual Start Sets	13	508-0115	2	Grommet (2-1/8" ID x 2-7/8" OD)
	301-8448	1	With Holes for Time Totalizing Meter, Selector Switch and Round Circuit Breaker	14	508-0117	1	Grommet (1-1/8" ID x 1-3/8" OD)
	301-8449	2	With Holes for Three Gauges, Time Totalizing Meter, Selector Switch and Round Circuit Breaker	15	301-8453	1	Box, Control
			Remote Control Sets	16	301-8446	1	Saddle, Control Mounting
	301-8451	1	With Holes for Two Switches, Rectangular Circuit Breaker, Time Totalizing Meter and Round Circuit Breaker	17	301-8634	1	Support, Saddle
	301-8452	1	With Holes for Three Gauges, Two Switches, Rectangular Circuit Breaker, Time Totalizing Meter and Round Circuit Breaker	19	821-0009	1	Screw, Self-Locking - Hex Washer Head (1/4-20 x 3/8")

Control Box Assembly
(Aux - Spec A and B)



Control Box Assembly (Aux - Spec A and B)

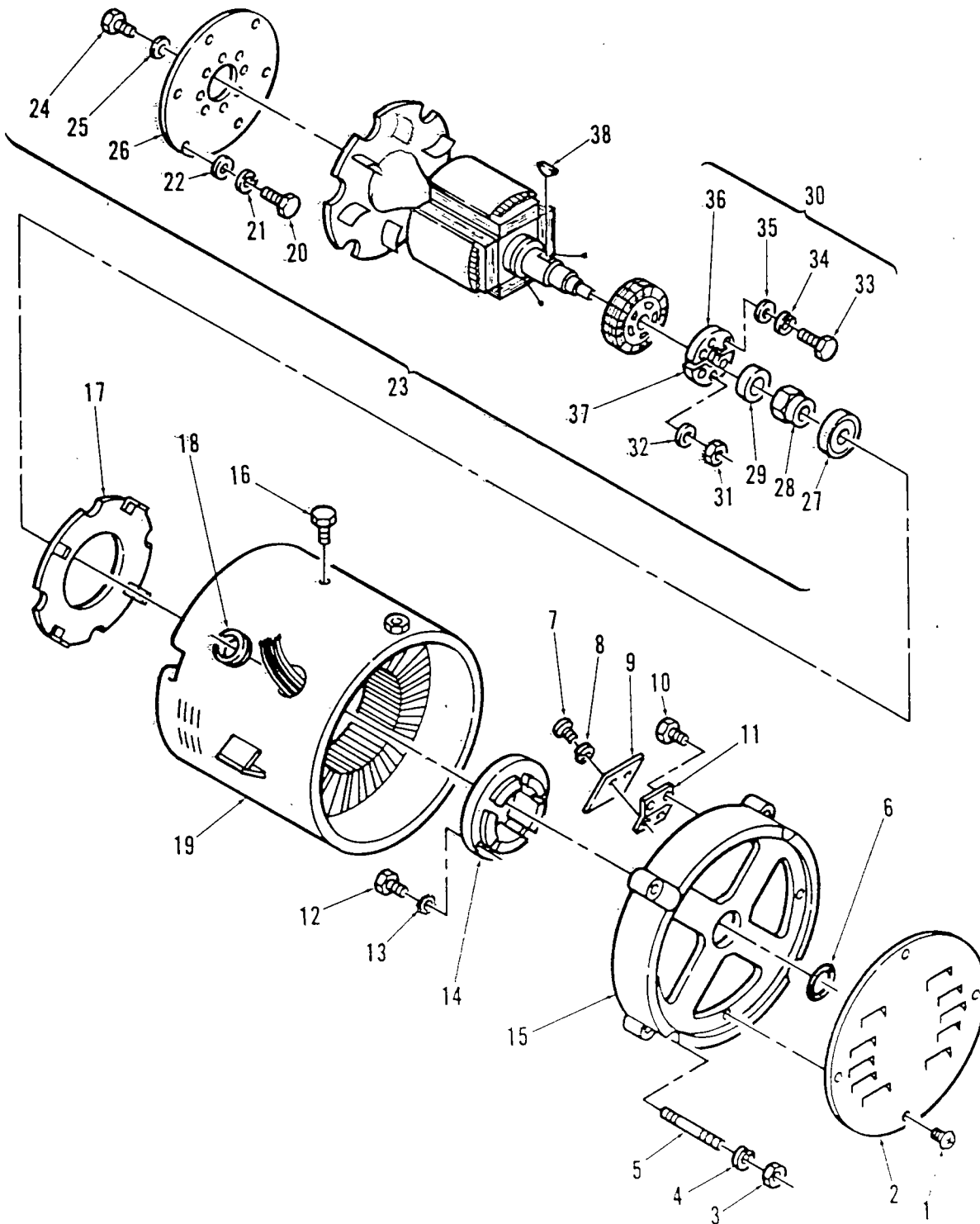
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	815-0544	16	Screw, Self-locking - Hex Washer Head (1/4-20 x 5/8")	6	301-8450	1	Panel, End
2	301-8447	1	Cover, Control	7	821-0014	8	Screw, Self-locking - Hex Washer Head (5/16-18 x 1/2")
3	870-0398	6	Nut, Retaining (#10-32)	8	402-0078	4	Mount, Vibration
4			Panel, Generator Control (AC)	9	815-0236	4	Screw, Tapping - Hex Washer Head (5/16-18 x 5/8") or use
	301-8445	1	Without Hole for Circuit Breaker	10	821-0025	1	Screw, Self-locking - Hex Washer Head (5/16-18 x 5/8")
	301-8569	1	With Hole for Circuit Breaker	11	856-0008	4	Washer, Lock - EIT (5/16")
5			Panel, Engine Control (DC) Manual Start Sets	12	337-2312	1	Strap, Electrical - Ground
				13	508-0115	2	Grommet (2-1/8" ID x 2-7/8" OD)
	301-8448	1	With Holes for Time Totalizing Meter, Selector Switch and Round Circuit Breaker	14	508-0117	1	Grommet (1-1/8" ID x 1-3/8" OD)
				15	301-8453	1	Box, Control
	301-8449	2	With Holes for Three Gauges, Time Totalizing Meter, Selector Switch and Round Circuit Breaker	16	301-8446	1	Saddle, Control Mounting
				17	301-8634	1	Support, Saddle
				19	821-0009	1	Screw, Self-Locking - Hex Washer Head (1/4-20 x 3/8")
			Remote Control Sets	21	301-8955	4	Bracket, Control Box
	301-8451	1	With Holes for Two Switches, Rectangular Circuit Breaker, Time Totalizing Meter and Round Circuit Breaker	22	301-9544	4	Bracket, Isolator Mounting
				23	870-0257	8	Nut, Self-Locking (Flange) (5/16-18)
				24	856-0008	8	Washer, Lock - EIT (5/16)
	301-8452	1	With Holes for Three Gauges, Two Switches, Rectangular Circuit Breaker, Time Totalizing Meter and Round Circuit Breaker				

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Generator Assembly



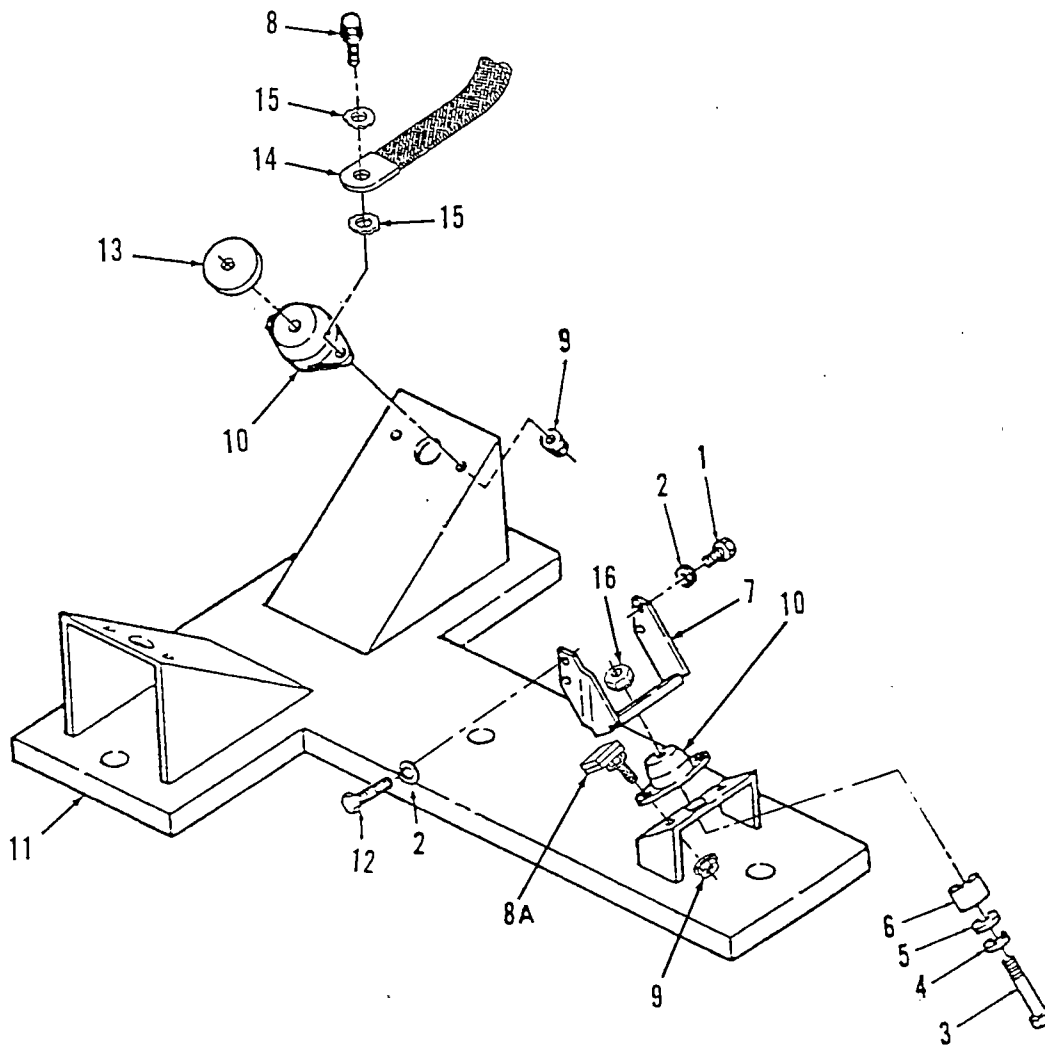
Generator Assembly

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	813-0100	4	Screw, Machine - Round Head (#10-32 x 1/2")	20	718-1036	6	Screw, Cap - Hex Head (M8 x 1.25 x 20mm)
2	234-0767	1	Cover, End Bell	21	850-2008	6	Washer, Lock - Spring (M8)
3	862-0011	4	Nut, Hex (3/8-16)	22	526-0115	6	Washer, Flat (11/32" ID x 11/16" OD x 1/16" THK)
4	850-0050	4	Washer, Lock - Spring (3/8") Stud	23			Rotor Assembly, Gen (Includes Parts Marked *)
5	520-0935	4	(3/8-16 UNC x 13" LG)		201-3129	1	3.5 thru 4.0 kW, Codes 3C, 53C, 18.518
	520-0936	4	(3/8-16 UNC x 13-3/4" LG)		201-3130	1	3.5 thru 4.0 kW, Code 18 (Extended Stack)
	520-0937	4	(3/8-16 UNC x 14-5/16" LG)	24	805-0015	6	*Bolt, Hex - Slotted - Grade 8 (3/8-16 x 3/4")
6	509-0094	1	O-Ring	25	526-0029	6	*Washer, Flat (3/8")
7	813-0098	2	Screw, Machine - Round Head (#10-32 x 3/8")	26	232-2826	1	*Disk, Drive
8	856-0003	2	Washer, Lock - EIT (#10)	27	510-0112	1	*Bearing, Ball
9	232-2418	1	Terminal Board	28	870-0284	1	*Nut, Self-locking - Hex (1-1/8-12)
10	815-0194	2	Screw, Tapping - Hex Head W/ET Lockwasher (#10-32 x 3/8")	29	232-3017	1	*Spacer, Sleeve
11	232-3038	1	Bracket, Mounting - Terminal Board	30			*Rotor Assembly, Exciter (Includes Parts Marked *)
12	800-0009	2	Screw, Cap - Hex Head (1/4-20 x 1-1/2")		201-2151	1	Standard
13	853-0013	2	Washer, Lock - ET (1/4")		201-2299	1	Environmental Protected
14			Stator, Exciter	31	870-0131	6	++Nut, Self-locking - Hex with ET Lockwasher (#10-32)
	220-2009	1	Standard	32	526-0008	6	++Washer, Flat (13/64" ID x 7/16" OD x 1/32" THK)
	220-2308	1	Environmental Protected	33	813-0100	4	++Screw, Machine - Round Head (#10-32 x 1/2")
15	211-0370	1	End Bell	34	853-0008	4	++Washer, Lock - ET (#10)
16	821-0015	4	Screw, Self-locking - Hex Washer Head (1/4-20 x 3/4")	35	526-0008	4	++Washer, Flat (13/64" ID x 7/16" OD x 1/32" THK)
17	234-0766	1	Baffle, Air	36	358-0069	1	++Rectifier Assembly - Positive
18	508-0183	1	Grommet (1-1/2" ID x 2-1/8" OD)	37	358-0070	1	++Rectifier Assembly - Negative
19			Stator, Generator	38	515-0094	1	*Key, Woodruff (#6)
	220-3911	1	3.5 kW, Code 53C (Standard)				
	220-4022	1	3.5 kW, Code 53C (Environmental Protected)				
	220-3928	1	3.5 kW, Code 518				
	220-3903	1	4 kW, Code 3C (Standard)				
	220-4014	1	4 kW, Code 3C (Environmental Protected)				
	220-3920	1	4 kW, Code 18				
	220-3921	1	4 kW, Code 18 (Extended Stack)				

* - Parts Included in Rotor Assembly.

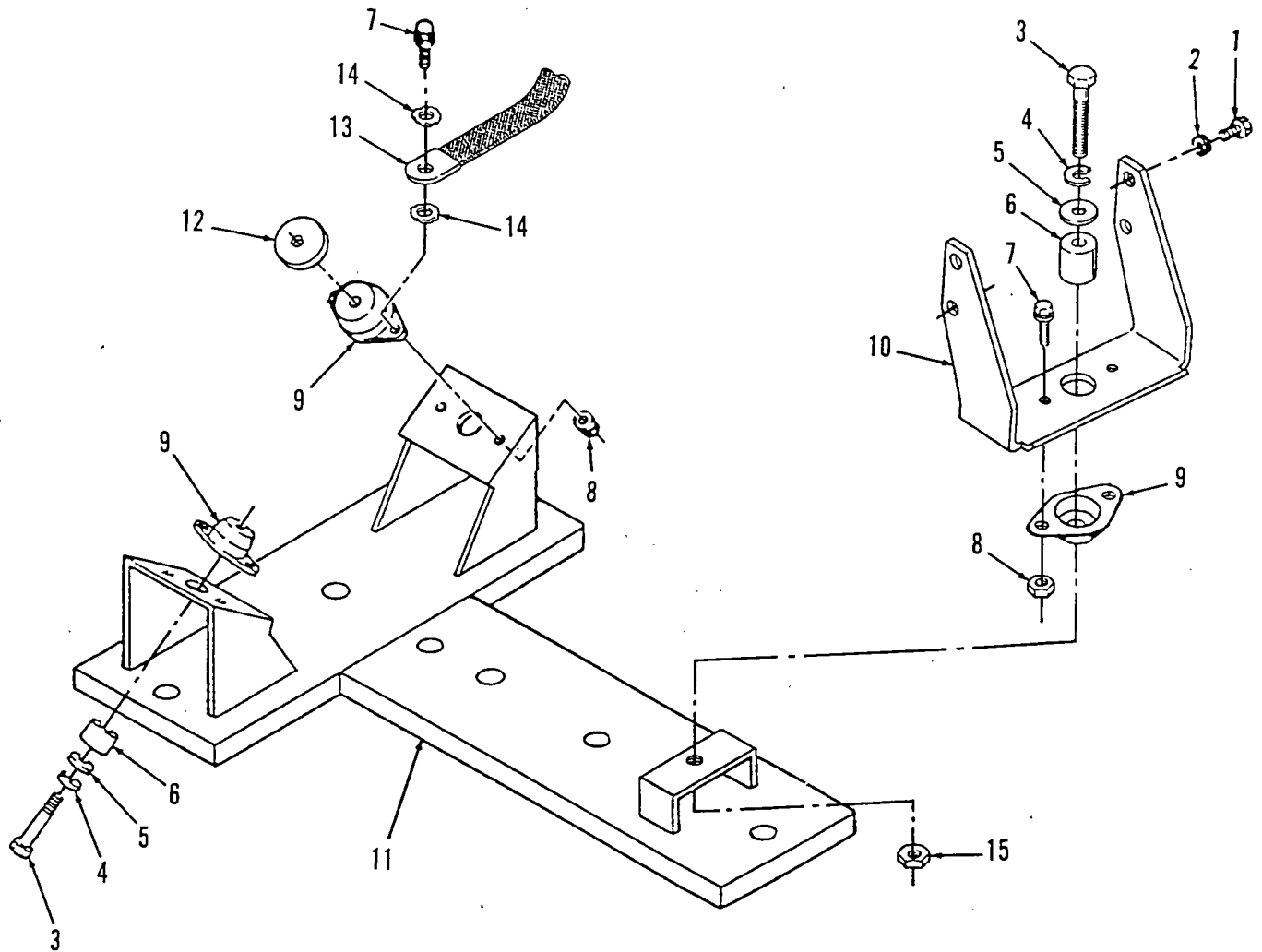
+ - Parts Included in Exciter Rotor Assembly.

Frame (Spec A)



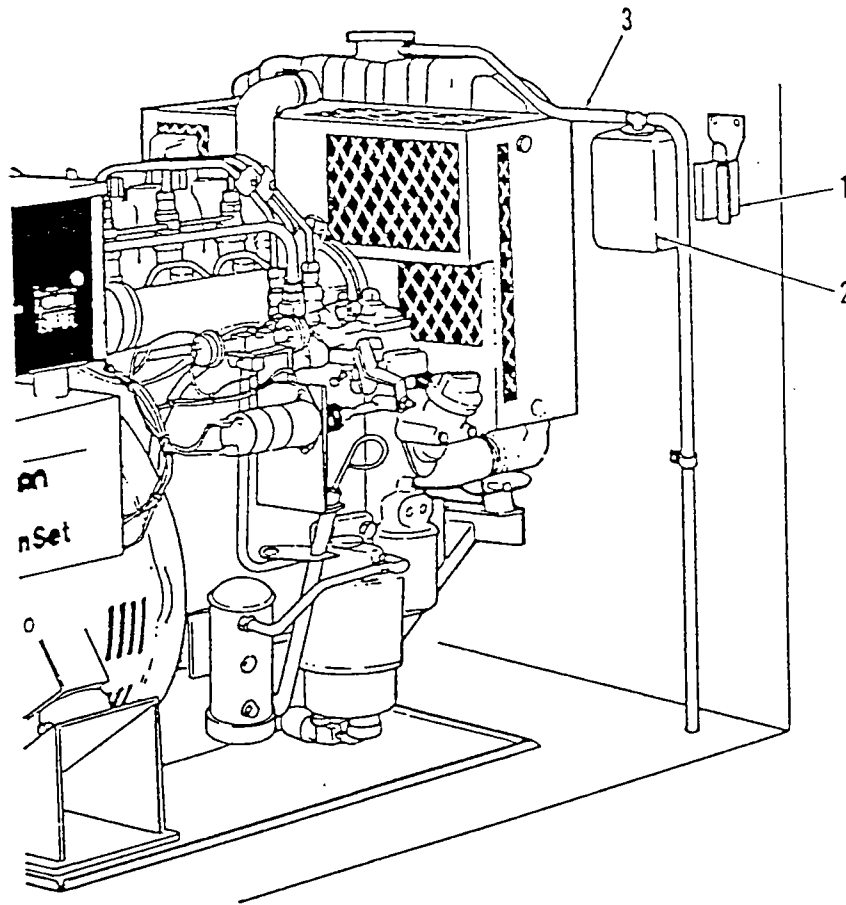
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	815-0585	2	Screw, Cap - Hex Head (M10 x 1.25 x 20mm)	9	870-0257	6	Nut, Self-locking - Hex Washer Head (5/16-18)
2	850-2010	4	Washer, Lock - Spring (M10)	10	402-0544	3	Mount, Vibration
3	800-0573	3	Screw, Cap - Hex Head (3/8-16 x 2-1/4")	11	403-2257	1	Frame ("T" Shape)
4	850-0050	3	Washer, Lock - Spring (3/8")	12	815-0600	2	Screw, Cap - Hex Head (M10 x 1.25 x 25mm)
5	526-0077	3	Washer, Flat (3/8")	13	526-0172	2	Washer, Flat (1/2" ID x 2-1/4" OD x 1/4" THK)
6	403-2213	3	Spacer, Sleeve	14	337-0049	1	Strap, Bonding
7	403-2194	1	Support, Engine (Used Through February 1984)	15	856-0008	2	Washer, Lock - EIT (5/16")
8	821-0016	4	Screw, Self-locking - Hex Washer Head (5/16-18 x 3/4")	16	870-0138	3	Nut, Self-locking (3/8-16)
8A	403-2267	2	Plate Assy, Mounting - Shock (Used From Feb. 1984 to Feb. 1988)				

Frame (Spec B)



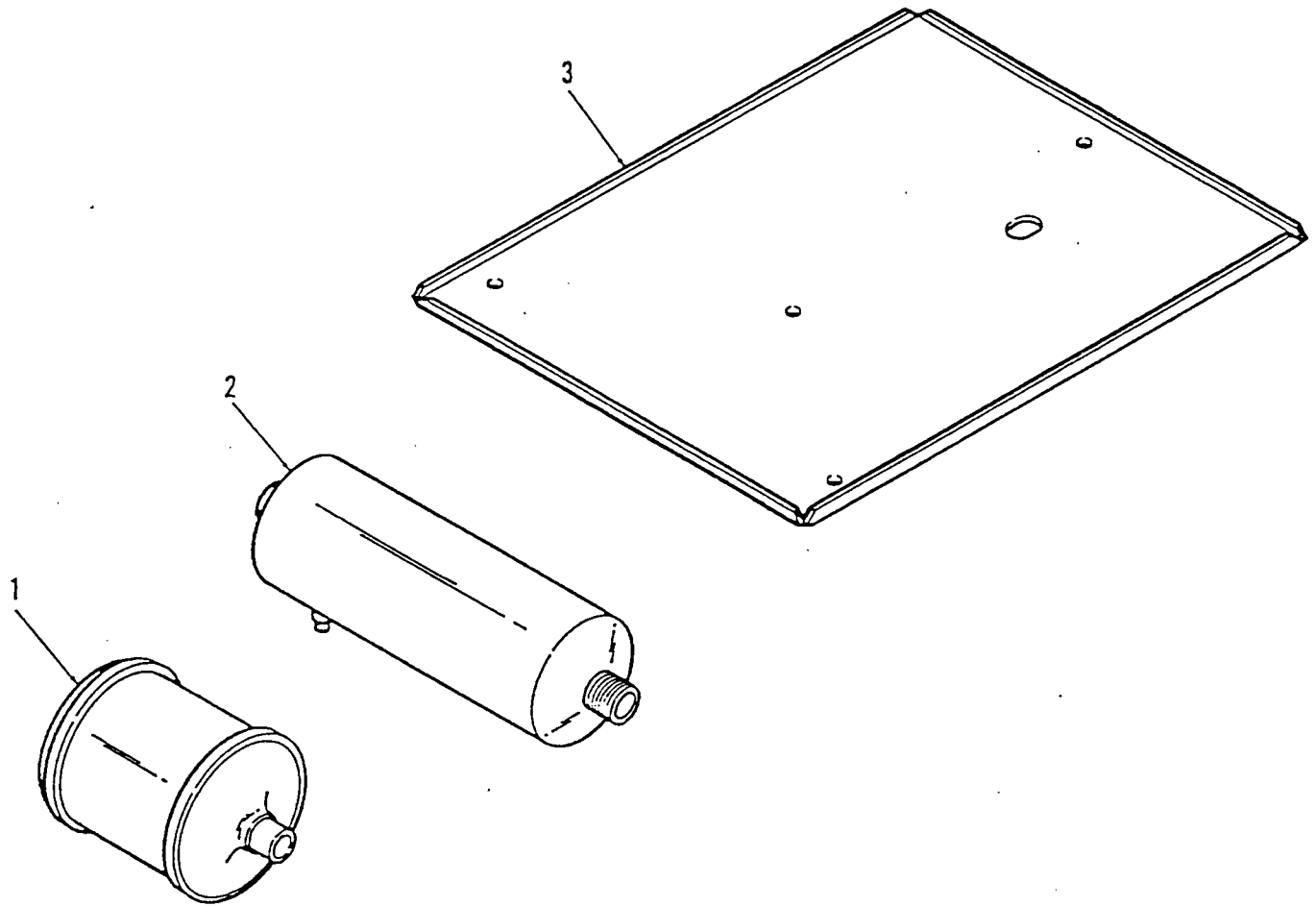
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	815-0585	2	Screw, Cap - Hex Head (M10 x 1.25 x 20mm)	8	870-0257	6	Nut, Self-locking - Hex Washer Head (5/16-18)
2	850-2010	2	Washer, Lock - Spring (M10)	9	402-0544	3	Mount, Vibration
3	800-0573	3	Screw, Cap - Hex Head (3/8-16 x 2-1/4")	10	403-2711	1	Support, Engine
4	850-0050	3	Washer, Lock - Spring (3/8")	11	403-2713	1	Frame ("T" Shape)
5	526-0077	3	Washer, Flat (3/8")	12	526-0172	2	Washer, Flat (1/2" ID x 2-1/4" OD x 1/4" THK)
6	403-2213	3	Spacer, Sleeve	13	337-0049	1	Strap, Bonding
7	821-0016	6	Screw, Self-locking - Hex Washer Head (5/16-18 x 3/4")	14	856-0008	2	Washer, Lock - EIT (5/16")
				15	870-0138	1	Nut, Self Lock (3/8-16)

Coolant Tank



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	130-2780	1	Bracket	3		1	Hose, Overflow (Comes with Recovery Tank)
2	130-2779	1	Tank, Recovery				

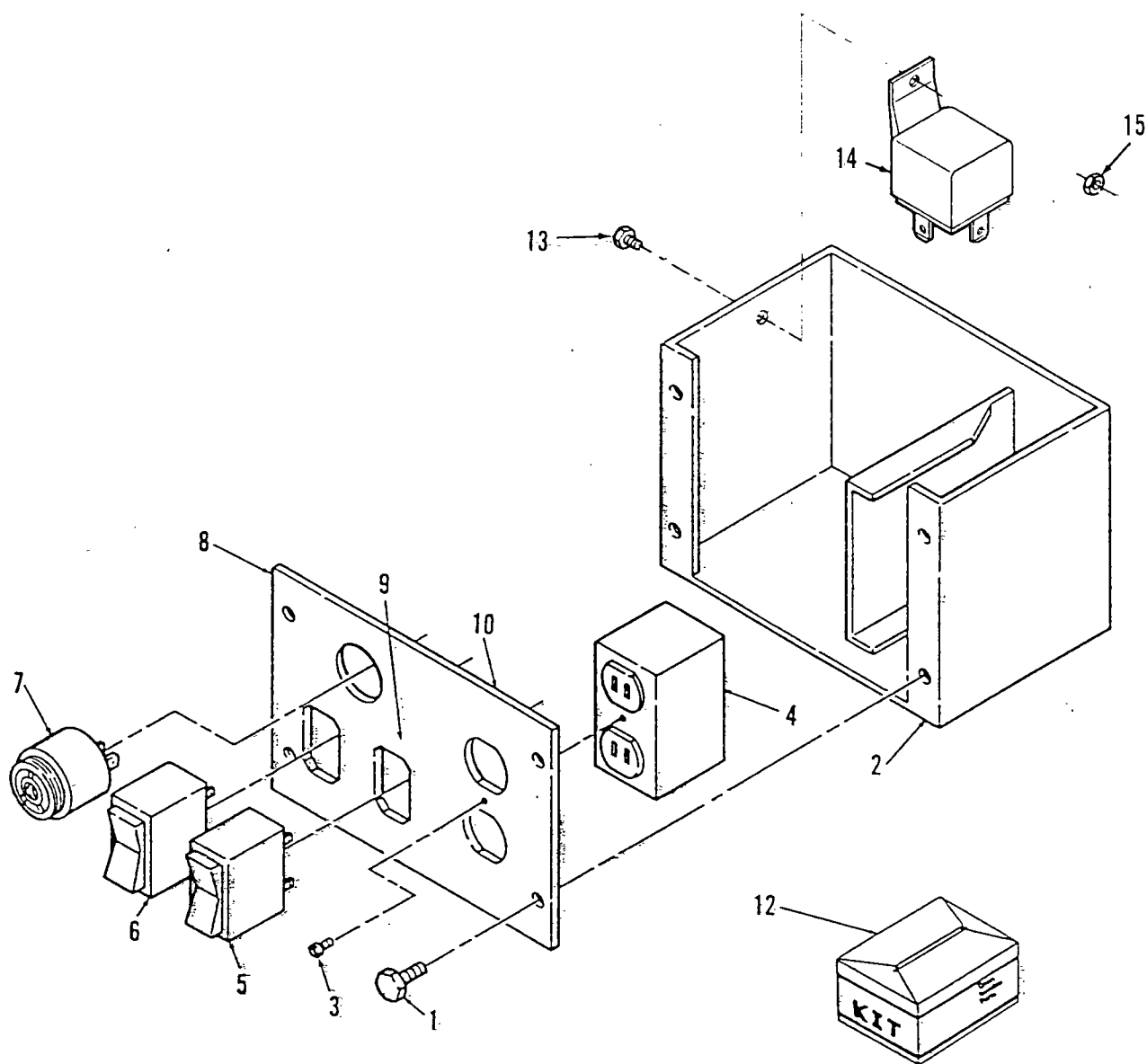
Exhaust Muffler and Drip Pan



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	155-2083	1	Muffler, Exhaust
2			Muffler, Exhaust - Spark Arrestor
	155-2068	1	1-1/4 Outlet
	155-2314	1	1-3/4 Outlet

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
3	403-2334	1	Pan, Drip

Remote Panel



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	815-0350	4	Screw, Hex Head Washer (#10-32 x .38)	9	98-5505	1	Label, Panel - Remote (Front)
2	301-9500	1	Box, Control	10	98-5506	1	Label, Panel - Remote (Rear)
3	822-2030	1	Screw, Pan. Head - External Tooth (#6-32 x .38)	11	525-0273	1	Paint, Black
4	323-1104	1	Receptacle	12	300-3048	1	Kit, Control - Remote
5	308-0830	1	Switch, Rocker (Preheat)	13	821-0009	1	Screw, Self-locking - Hex Head (#10-32 x 5/16)
6	308-0827	1	Switch, Rocker (Start/Stop)	14	307-1886	1	Relay
7	333-0133	1	Signal, Audible	15	870-0131	1	Nut, Hex - With External Tooth (#10-32)
8	301-9493	1	Panel, Control				