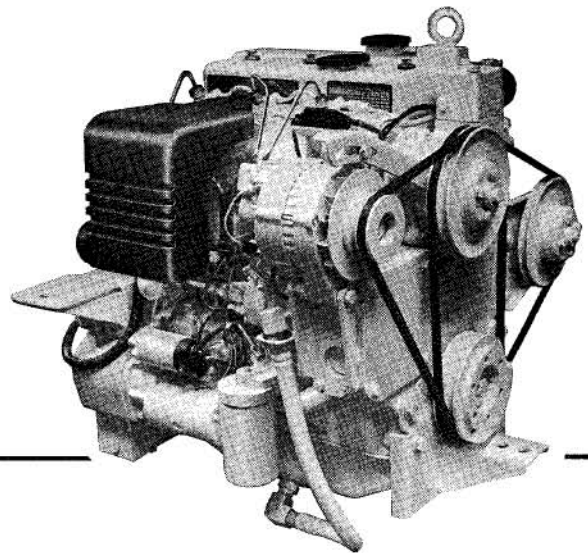


Onan

Parts Manual

L317D-M Propulsion Engine Diesel



934-0256
12-87 (SPEC B AND C)
Replaces
4-86 (Spec B and C)
Printed in U.S.A.

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INTRODUCTION

To assist your Onan Dealer in giving you prompt and efficient replacement parts service, a Sales Option Code plate is part of your Onan nameplate and lists Sales Option Code numbers that identify factory installed parts unique to your engine. Corresponding Code numbers are listed at the top of each parts group and are used to determine correct replacement parts. To aid in identifying Sales Option Codes that apply to your engine, refer to the Model Specification Number to Option Code Table at the rear of this manual.

The diagonal line (/) in the model and specification number separates engine characteristics from the specification number and letter. The specification number denotes customer requested options. The specification letter advances (A to B, B to C, etc.) with major manufacturing changes. This letter designation, when used in the part description, also applies when ordering replacement parts. Left (non-accessory) and right (accessory) sides are determined by facing the rear or drive end (flywheel) of the engine.

Listed below are Sales Option Code Modifier numbers that may appear on your Onan nameplate. These code numbers have no direct service replaceable parts and only modify another related Sales Option Code number by identifying a distinctive feature(s). Parts that differ as a result of the modifier are identified in the parts description for that part.

- 15AJ (Fuel System for #2 Diesel Fuel)
- 15AK (Fuel System for Jet A or JP-5 Fuel)
- 15AL (Fuel System for JP-4 Fuel)
- 15AU (Bosch Injection Pump in place of Stanadyne Injection Pump)
- 23CB (No Belts)
- 23CC (No Belts or Alternator Pulley)
- 23CD (Double Pulley and Belts to Replace Single)
- 23CE (Single Pulley and Belts to Replace Double)
- 31AG (12 Volt System)
- 31AH (24 Volt System)
- 31AJ (32 Volt System)
- 35AJ (Fuel Solenoid - Energized to Run)
- 35AK (Fuel Solenoid - Energized to Run, Manual Override)
- 35AL (Fuel Solenoid - Energized to Shut Off, Manual Override)
- 45AA (Auxiliary Gear Drive)
- 45AT (Two Groove Crankshaft Pulley to Replace Single)
- 47 (Literature and Shipping Hardware)
 - (Alpha letters after the number 47 are variable depending on model)
 - (Sales Code 47 is not a modifier, however, there are no service replaceable parts)

MODEL IDENTIFICATION LABEL

Onan

Engine

Model No:

Serial No:

Rated RPM:

Static Timing ° BTDC

Lube Oil Capacity

Fuel: Diesel

Firing Order:

Valve Lash:

Onan Corporation Minneapolis Minnesota 55432 U.S.A.

Sales Option Codes				

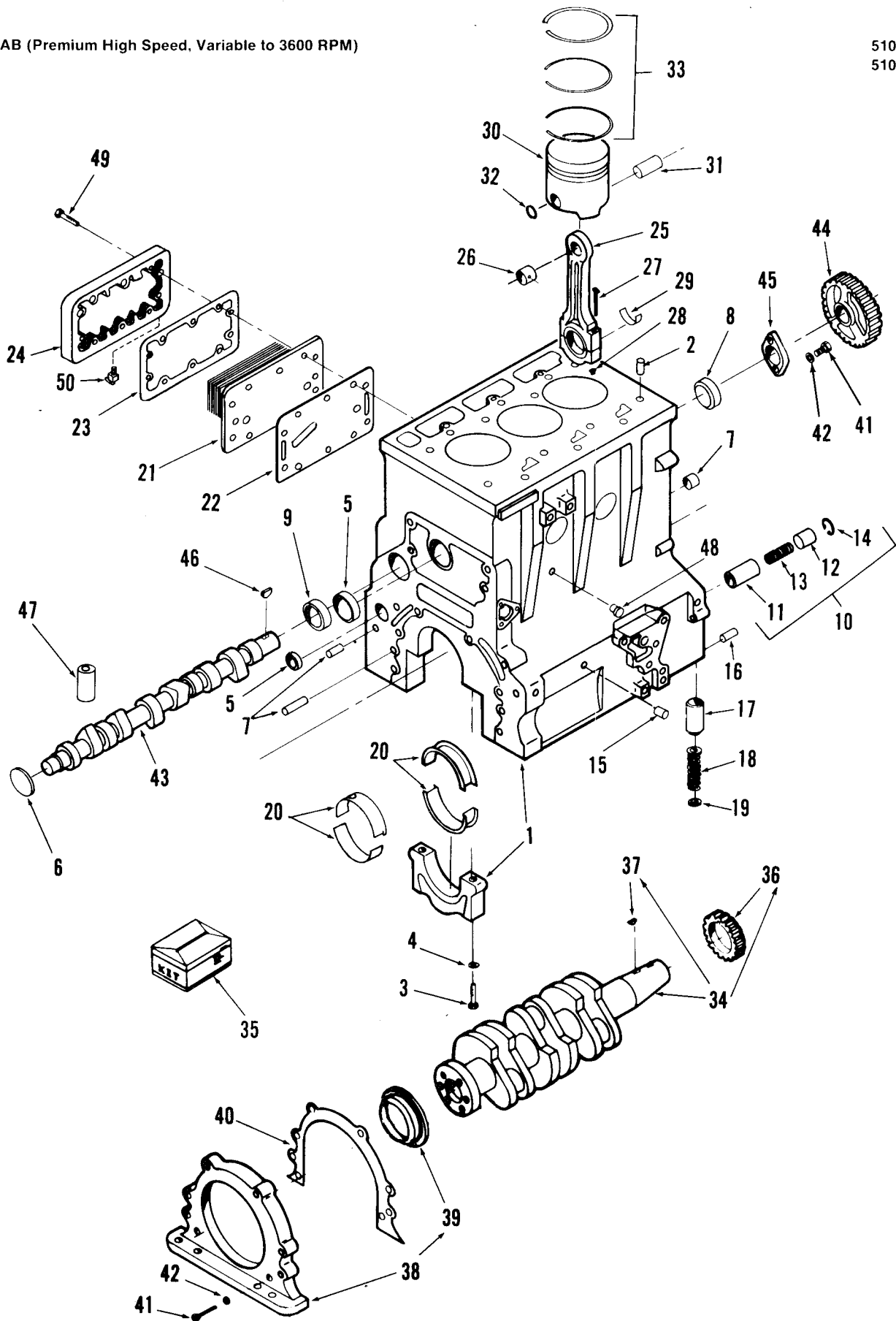
Made in U.S.A.

For handy reference, insert your rocker cover nameplate and Sales Option Code information in the spaces above.

CYLINDER BLOCK

Code 11AB (Premium High Speed, Variable to 3600 RPM)

5100-0707
5100-0715



CYLINDER BLOCK

Code 11AB (Premium High Speed, Variable to 3600 RPM)

5100-0707
5100-0715

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	110-3323	1	Block Assembly, Cylinder (Includes Parts Marked *)	29	BEARING, CONNECTING ROD (Half)		
2	110-2978	2	*Pin, Cylinder Head Alignment	114-0319	6	Standard	
3	720-1801	8	*Screw, Cap - Hex Head - Special	114-0319-01	6	0.25 MM Undersize	
4	740-1801	8	*Washer, Flat - Special	114-0319-02	6	0.50 MM Undersize	
5	PLUG, CUP			114-0319-03	6	0.75 MM Undersize	
	517-0141	3	*50.8 MM Stainless Steel	30	PISTON AND PIN KIT (Includes Retaining Rings)		
	517-0144	2	*12.7 MM Steel	112-0201	3	Standard	
	517-0146	1	*31.75 MM Stainless Steel	112-0202	3	0.25 MM Oversize	
	517-0250	1	54.37 MM Stainless Steel (Oversize)	112-0203	3	0.50 MM Oversize	
				112-0204	3	0.75 MM Oversize	
				112-0205	3	1.0 MM Oversize	
6	517-0140	1	*Plug, Welch (57.15 MM) - Steel	31	112-0165	3	Pin, Piston
7	PIN, ALIGNMENT			32	518-0409	6	Ring, Retaining - Piston Pin
	775-0074	2	* 8 MM x 20 MM	33	RING KIT, PISTON		
	775-0089	2	*10 MM x 20 MM	113-0233	3	Standard	
	775-0078	2	* 8 MM x 40 MM	113-0234	3	0.25 MM Oversize	
8	101-0511	1	*Bearing, Camshaft - Front	113-0235	3	0.50 MM Oversize	
9	101-0471	3	*Bearing, Camshaft - Intermediate and Rear	113-0236	3	0.75 MM Oversize	
10	123-1613	1	*Valve Assembly, Pressure Relief (Includes Parts Marked +)	113-0237	3	1.0 MM Oversize	
11	123-1515	1	+Body, Relief Valve	34	104-1585	1	Crankshaft Assembly (Includes Gear and Key)
12	123-1514	1	+Piston, Relief Valve	35	168-0176	1	Kit, Gasket - Lower End
13	123-1508	1	+Spring, Relief Valve	36	104-1138	1	Gear, Crankshaft
14	518-0410	1	+Ring, Retaining	37	515-0245	1	Key, Crankshaft Gear
15	505-0274	3	*Plug, Pipe (1/8")	38	101-0713	1	Plate, Rear Seal (Includes Seal)
16	516-2102	1	*Pin, Regulator Valve Spring	39	509-0203	1	Seal, Oil - Rear (Includes Wear Sleeve)
17	123-1514	1	*Piston, Regulator Valve	40	101-0600	1	Gasket, Rear Seal Plate
18	123-1511	1	*Spring, Regulator Valve	41	718-1037	8	Screw, Cap - Hex Head (M8 x 25 MM)
19	740-1004	1	*Washer, Flat (M6)	42	740-1006	8	Washer, Flat (M8)
20	BEARING KIT, MAIN (Includes Upper and Lower Bearing Half)			43	105-0566	1	Camshaft
			Front	44	105-0515	1	Gear, Camshaft
	101-0689	1	Standard	45	105-0534	1	Retainer, Camshaft
	101-0690	1	0.25 MM Undersize	46	515-0245	1	Key, Camshaft Gear
	101-0691	1	0.50 MM Undersize	47	115-0275	6	Tappet
	101-0692	1	0.75 MM Undersize	48	502-0775	1	*Plug, Pipe (3/8")
			Intermediate	49	725-1054	10	Screw, Socket Head (M8 x 40 MM)
	101-0685	2	Standard	50	504-0028	1	Valve, Coolant Drain
	101-0686	2	0.25 MM Undersize				
	101-0687	2	0.50 MM Undersize				
	101-0688	2	0.75 MM Undersize				
			Rear				
	101-0677	1	Standard				
	101-0678	1	0.25 MM Undersize				
	101-0679	1	0.50 MM Undersize				
	101-0680	1	0.75 MM Undersize				
21	102-1020	1	Cooler, Oil				
22	102-0973	1	Gasket, Oil Cooler				
23	102-0975	1	Gasket, Oil Cooler Cover				
24	102-0980	1	Cover, Oil Cooler				
25	114-0313	3	Rod, Connecting (Includes Finished Bearing, Bolts and Nuts)				
26	114-0316	3	Bushing, Connecting Rod (Semi Finished)				
27	114-0315	6	Bolt, Connecting Rod				
28	114-0318	6	Nut, Connecting Rod				

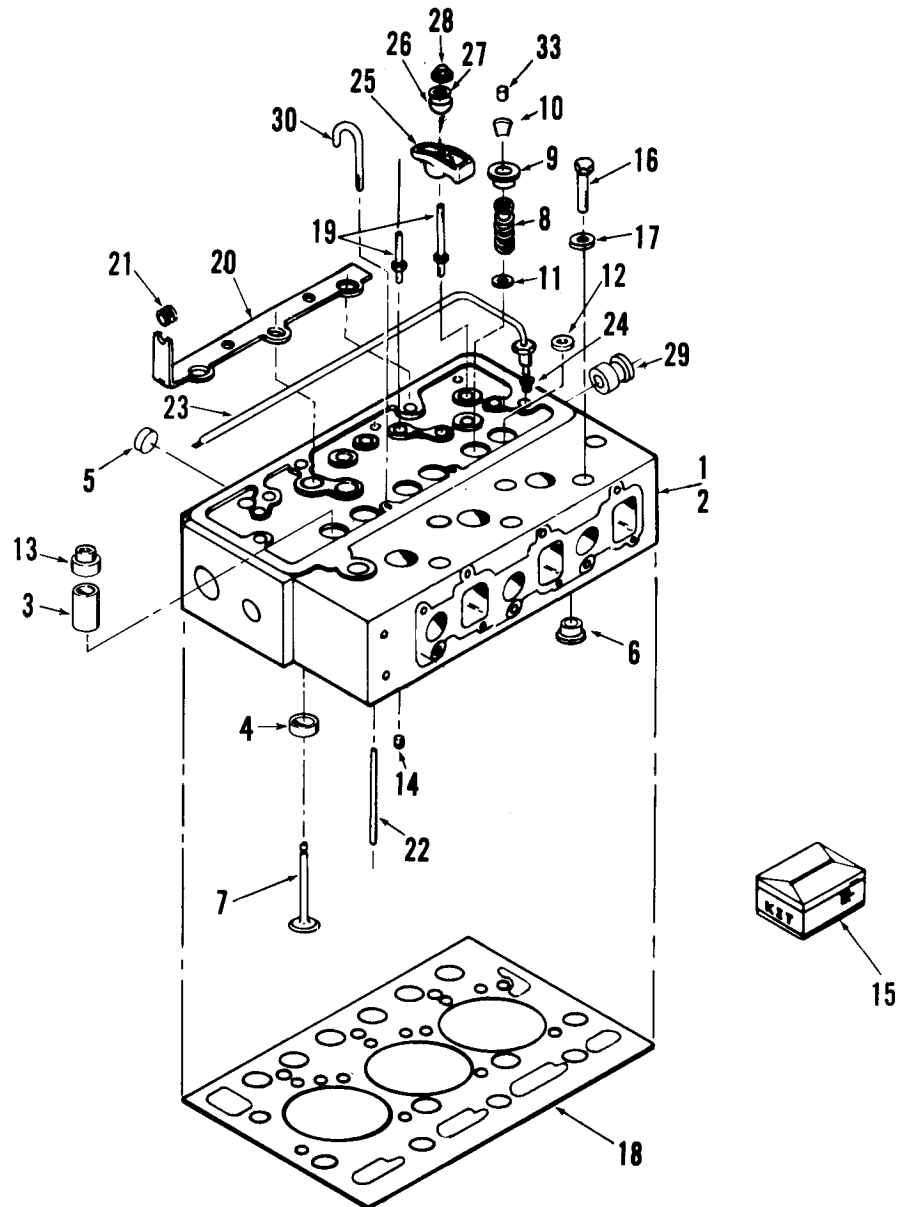
* - Parts Included in 110-3323 Cylinder Block Assembly.
+ - Parts Included in 123-1613 Pressure Relief Valve Assembly.

CYLINDER HEAD

Code 11AB (Premium High Speed, Variable to 3600 RPM)

5100-0872

5100-0914



CYLINDER HEAD

Code 11AB (Premium High Speed, Variable to 3600 RPM)

5100-0872

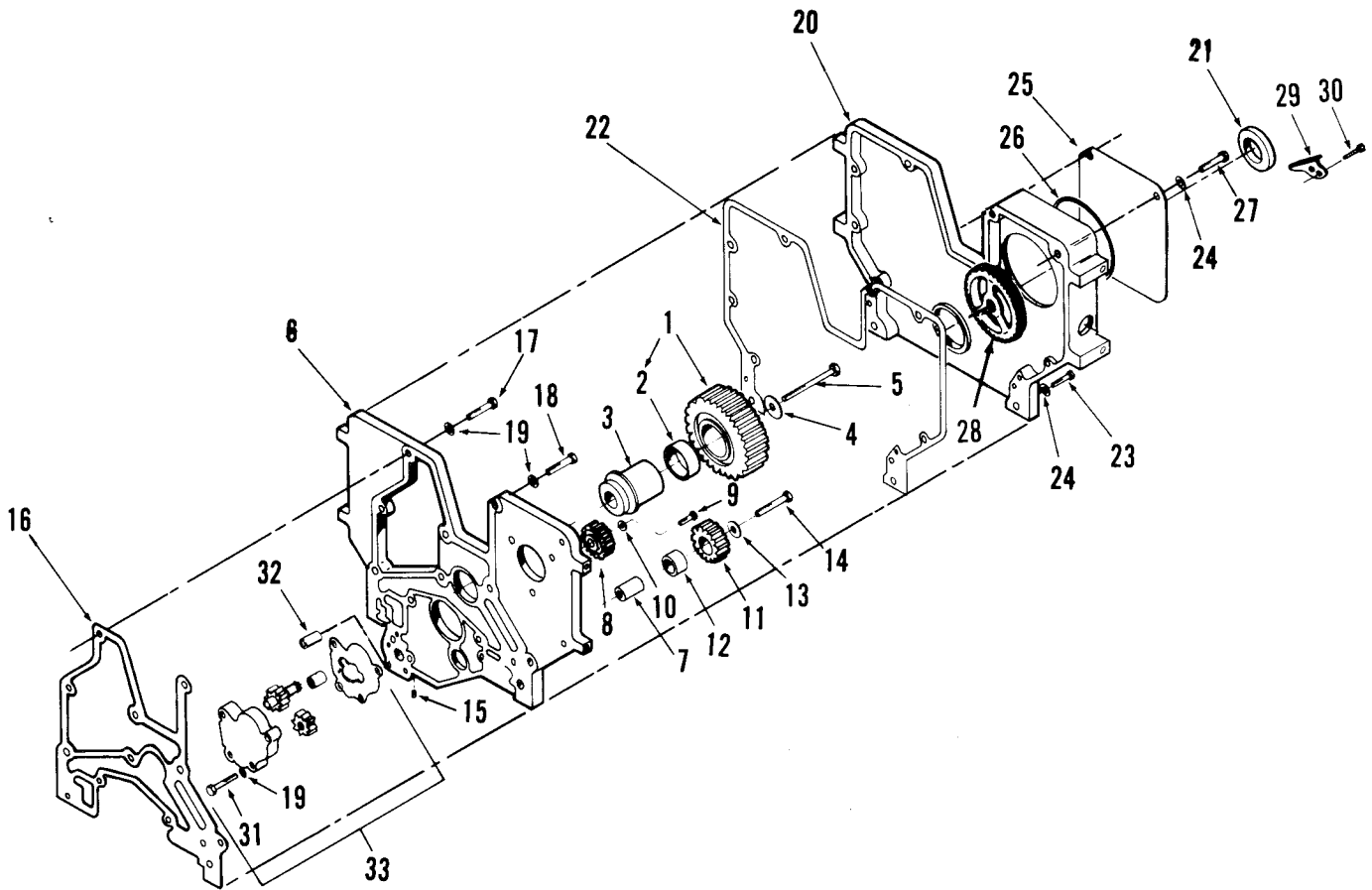
5100-0914

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	110-3325	1	Head Assembly, Cylinder (Includes Guides, Seats, Cup Plugs, Breather Tubes, Valves, Springs, Water Pump Adapter, Spacers, Retainers, Collets, Wear Plates, Sleeves and Seals)
2	110-3476	1	Head, Cylinder (Includes Seats, Cup Plugs, Sleeves, Spacers, Water Pump Adapter and Guides)
3	GUIDE, VALVE (Semi Finished)		
	110-3495	3	Intake (Std.)
	110-3496	3	Exhaust (Std.)
4	SEAT, VALVE		
			Intake
	110-2839	3	Spec B (Std.) Not Original Equipment Begin Spec C
	110-3226-01	3	Standard
	110-3226-02	3	.25 MM Oversize
	110-3226-03	3	.50 MM Oversize
			Exhaust
	110-2781-01	3	Standard
	110-2781-02	3	.25 MM Oversize
	110-2781-03	3	.50 MM Oversize
5	PLUG, CUP		
	517-0142	5	38.1 MM
	517-0146	4	31.75 MM
	517-0162	3	19.05 MM
6	110-3039	3	Plug, Hot (Swirl)
7	VALVE		
	110-3066	3	Intake
	110-2840	3	Exhaust
8	110-3300	6	Spring, Valve
9	110-3015	6	Retainer, Valve Spring
10	110-2752	12	Collet, Valve Lock
11	PLATE, VALVE SPRING WEAR		
	110-2991	6	Spec B
	110-2991	3	Begin Spec C (Exhaust)
12	110-3432	3	Spacer, Valve Spring (Intake) Begin Spec C
13	110-3228	6	Seal Assembly, Valve Stem
14	110-2979	3	Sleeve, Sealing
15	168-0177	1	Kit, Gasket - Valve Grind
16	720-1802	14	Screw, Cap - Hex Head (M12 x 130 MM)
17	740-1801	11	Washer, Flat (M12)
18	110-3220	1	Gasket, Cylinder Head
19	STUD, ROCKER ARM		
	115-0204	3	Intake (Short)
	115-0270	3	Exhaust (Long)
20	115-0310	1	Guide, Push Rod
21	508-0228	1	Grommet
22	115-0253	6	Pushrod
23	120-1044	1	Tube, Rocker Arm Oil
24	502-0003	1	Connector, Inverted Male
25	115-0316	6	Arm, Rocker
26	115-0202	6	Ball, Rocker Arm
27	526-2119	6	Washer, Flat
28	115-0315	6	Locknut, Rocker Arm
29	ADAPTER, WATER PUMP		
	110-3045	1	Standard
	110-3490	1	0.5 MM Oversize
30	123-1536	2	Tube, Breather
33	110-3245	6	Cap, Valve Stem

GEARCASE

Code 11AB (High Speed)

5100-0727
5100-0866



GEARCASE

Code 11AB (High Speed)

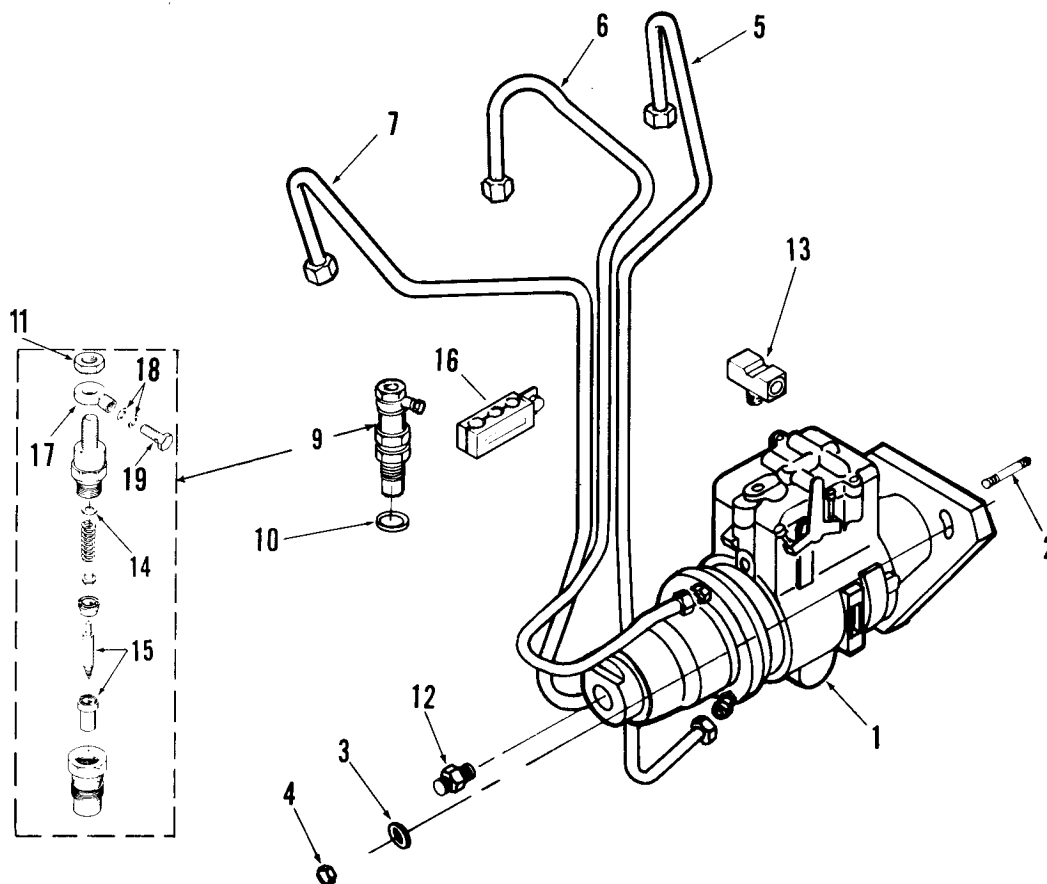
5100-0727
5100-0866

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	105-0513	1	Gear, Idler (Includes Finished Bearing)
2	105-0519	1	Bearing, Idler Gear (Semi-Finished)
3	105-0508	1	Shaft, Idler Gear
4	526-2127	1	Washer, Flat (M10)
5	718-1064	1	Screw, Cap - Hex Head (M10 × 75 MM)
6	103-0716	1	Backplate, Gearcase
7	120-0983	1	Shaft, Oil Pump Idler Gear
8	120-0885	1	Gear, Oil Pump Drive
9	718-1035	1	Screw, Cap - Hex Head (M8 × 16 MM)
10	526-2106	1	Washer, Flat (M8)
11	120-1063	1	Gear, Oil Pump Idler (Includes Finished Bearing)
12	120-1041	1	Bearing, Oil Pump Idler Gear (Semi-Finished)
13	526-2107	1	Washer, Flat (M8)
14	718-1035	1	Screw, Cap - Hex Head (M8 × 16 MM)
15	725-1802	1	Screw, Hex Socket Set (M16 × 16 MM)
16	103-0733	1	Gasket, Gearcase Backplate
17	SCREW, CAP - HEX HEAD		
	718-1037	1	M8 × 25 MM
	718-1039	2	M8 × 35 MM
18	725-1801	2	Screw, Low Socket Head Cap (M8 × 16 MM)
19	740-1006	7	Washer, Flat (M8)
20	103-0746	1	Gearcase (Includes Oil Seal and Oil Fill Tube)
21	509-0191	1	Seal, Oil (Includes Wear Sleeve)
22	103-0731	1	Gasket, Gearcase
23	SCREW, CAP - HEX HEAD		
	718-1046	2	M8 × 70 MM (Engines Without Code 23BT)
	718-1043	2	M8 × 55 MM (Engines Without Code 23BT)
	718-1085	4	M12 × 85 MM
24	WASHER, FLAT		
	740-1006	4	M8
	740-1010	4	M12
25	103-0735	1	Cover, Injection Pump Gear
26	509-0263	1	Seal, O-Ring
27	SCREW, CAP - HEX HEAD		
	718-1048	1	M8 × 80 MM
	718-1044	2	M8 × 60 MM
	718-1036	1	M8 × 20 MM
28	147-0427	1	Gear, Injection Pump
29	103-0750	1	Plate, Timing
30	815-0578	2	Screw, Cap - Hex Head (M6 × 12.5 MM)
31	718-1041	2	Screw, Cap - Hex Head (M8 × 45 MM)
32	120-0979	1	Bearing, Oil Pump Drive Shaft
33	120-1015	1	Pump Kit, Oil (Includes Drive Shaft Bearing)

FUEL INJECTION

Code 13AB (3600 RPM Variable, ETSO, MO, 12 Volt)

5100-0632



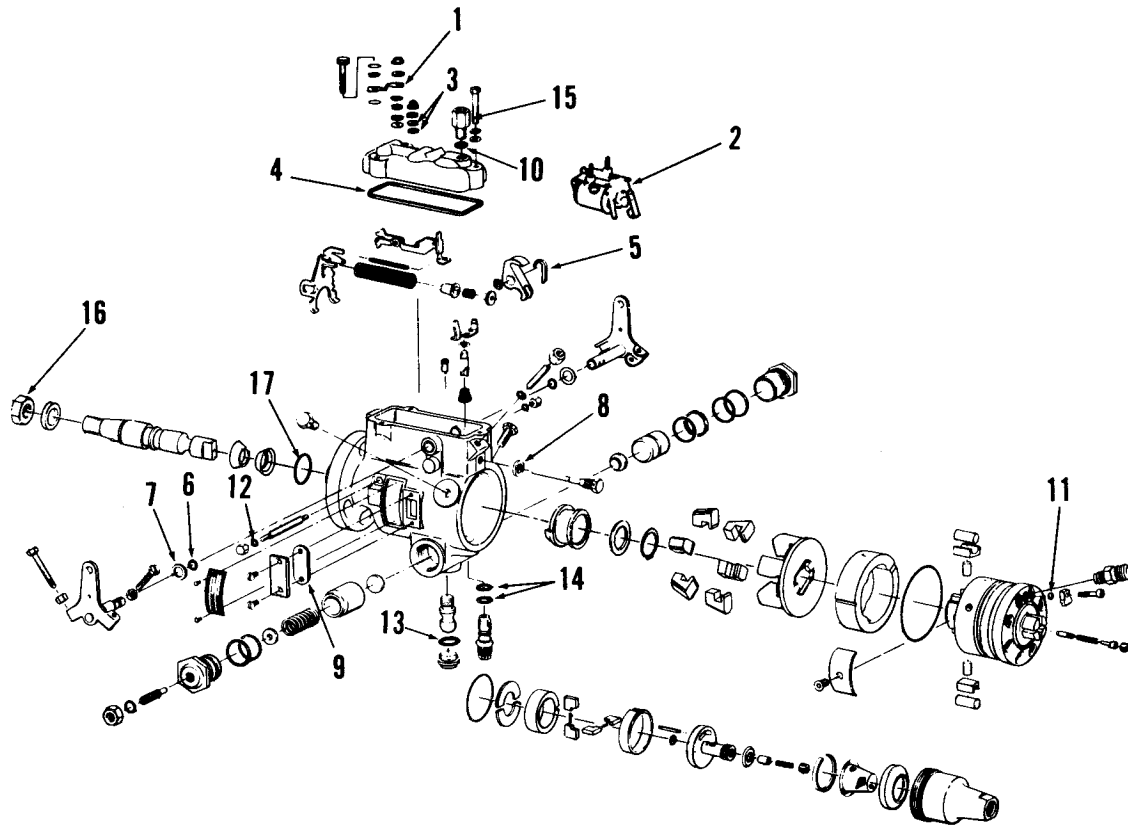
FS-1549

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	147-0461-07	1	Pump, Fuel Injection (See Separate Group for Components)
2	520-2403	3	Stud, Injection Pump (M8)
3	740-1006	3	Washer, Flat (M8)
4	750-1006	3	Nut, Hex (M8)
5	147-0708	1	Line, Fuel Injection (No. 1)
6	147-0709	1	Line, Fuel Injection (No. 2)
7	147-0710	1	Line, Fuel Injection (No. 3)
9	147-0700	3	Injector Kit, Fuel (Includes Seal)
10	147-0436	3	Seal, Injector
11	147-0780	3	Nut, Hex (M19)
12	502-0733	1	Connector
13	502-0057	1	Tee, Pipe - Special
14	WASHER, INJECTION NOZZLE SHIM		
	147-0617	As Req.	0.80 MM
	147-0618	As Req.	0.84 MM
	147-0619	As Req.	0.88 MM
	147-0620	As Req.	0.92 MM
	147-0621	As Req.	0.96 MM
	147-0622	As Req.	1.00 MM

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	147-0623	As Req.	1.04 MM
	147-0624	As Req.	1.08 MM
	147-0625	As Req.	1.12 MM
	147-0626	As Req.	1.16 MM
	147-0627	As Req.	1.20 MM
	147-0628	As Req.	1.24 MM
	147-0629	As Req.	1.28 MM
	147-0630	As Req.	1.32 MM
	147-0631	As Req.	1.36 MM
	147-0632	As Req.	1.40 MM
	147-0633	As Req.	1.44 MM
	147-0634	As Req.	1.48 MM
	147-0635	As Req.	1.52 MM
	147-0636	As Req.	1.56 MM
	147-0637	As Req.	1.60 MM
	147-0638	As Req.	1.64 MM
	147-0639	As Req.	1.68 MM
	147-0640	As Req.	1.72 MM
	147-0641	As Req.	1.76 MM
	147-0642	As Req.	1.80 MM
	147-0643	As Req.	1.84 MM
	147-0644	As Req.	1.88 MM
	147-0645	As Req.	1.92 MM
	147-0646	As Req.	1.96 MM
15	147-0647	3	Tip, Nozzle
16	147-0707	1	Clamp, Fuel Line
17	147-0766	3	Banjo
18	147-0767	6	Washer
19	147-0765	3	Screw, Hollow

FUEL INJECTION PUMP COMPONENTS

Code 13AB (3600 RPM Variable, ETSO, MO, 12 Volt)



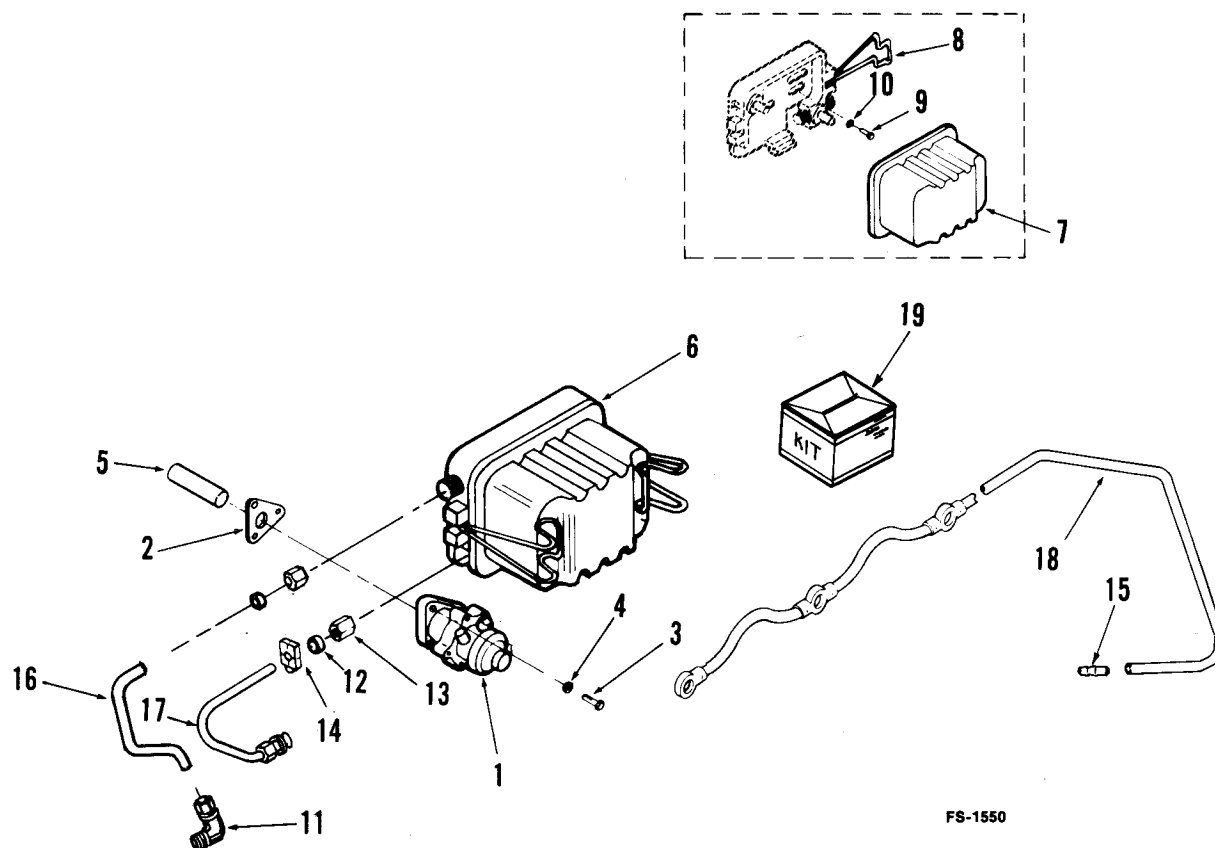
FS-1384

NOTE: Component part numbers for the 147-0461-07 pump were not available at time of printing. For component parts without reference numbers contact the manufacturer shown on nameplate.

FUEL SYSTEM

Code 15AH (Low Pressure, Metal Filter and Lines)

5100-0633



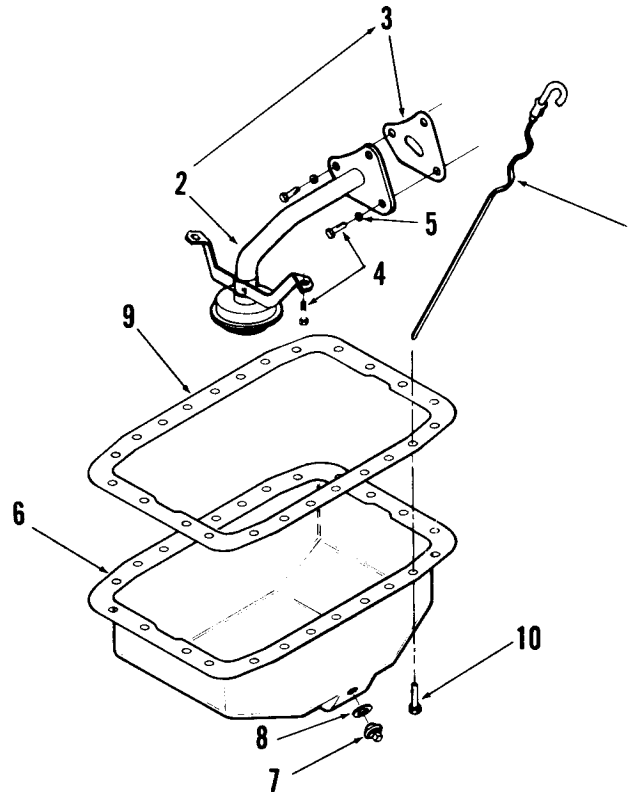
FS-1550

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	149-2067	1	Pump Kit, Fuel Transfer (Includes Mounting Gasket)
2	149-1728	1	Gasket, Fuel Transfer Pump
3	718-1021	3	Screw, Cap - Hex Head (M6 × 20 MM)
4	740-1004	3	Washer, Flat (M6)
5	149-1732	1	Pushrod, Fuel Transfer Pump
6	149-1759	1	Filter Assembly (Includes Filter, Base, Clips and Grommet)
7	149-1758	1	Filter Only, Fuel
8	149-1771	2	Clip, Fuel Filter
9	718-1053	2	Screw, Cap - Hex Head (M10 × 20 MM)
10	740-1008	2	Washer, Flat (M10)
11	502-0774	1	Elbow, Fuel Pump Outlet (Includes Sleeve and Nut)
12	502-0768	2	Sleeve, Flareless Line
13	502-0769	2	Nut, Flareless Line
14	149-1800	1	Grommet, Fuel Line
15	502-0830	1	Connector (Includes Sleeve and Nut)
16	149-1772	1	Line, Fuel
17	149-1889	1	Line, Fuel
18	147-0713	1	Tube, Nozzle Leak Off
19	149-2069	1	Repair Package - Transfer Pump

OIL PAN

Code 17AB (30° Tilt - Drain to Side)
Code 17BR (30° Tilt - Drain to Side - Epoxy Coated)

5100-0349
5100-0999

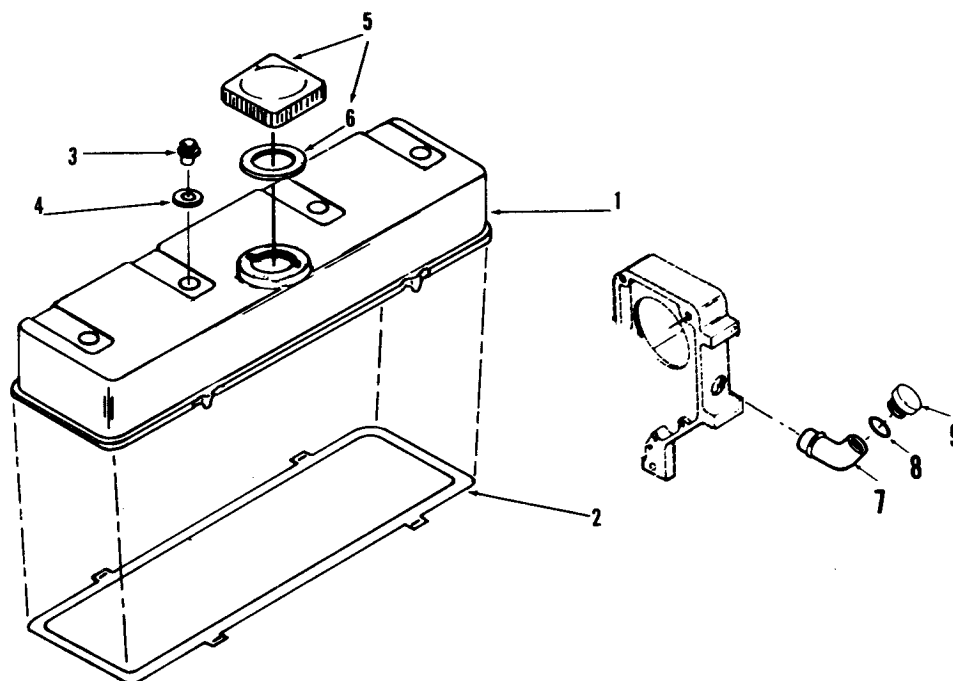


REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	123-1711-04	1	Indicator, Oil Level
2	120-1111	1	Pickup Kit, Oil (Includes Gasket)
3	120-0917	1	Gasket, Oil Pickup
4	SCREW, CAP - HEX HEAD		
	718-1036	2	M8 × 20 MM
	718-1044	2	M8 × 60 MM
5	740-1006	4	Washer, Flat (M8)
6	PAN, OIL		
	102-1260	1	Code 17AB (Includes Plug and Gasket)
	102-1112-01	1	Code 17BR
7	102-1146	1	Plug, Oil Drain (Engines Without Code 17BA)
8	102-1147	1	Gasket, Oil Drain
9	102-1128	1	Gasket, Oil Pan
10	815-0547	24	Screw, Cap - Hex Head (Includes Washer) - M8 × 20 MM

OIL FILL

Code 17AM (Top Center and Side Gearcase)

5100-0473
5100-0762



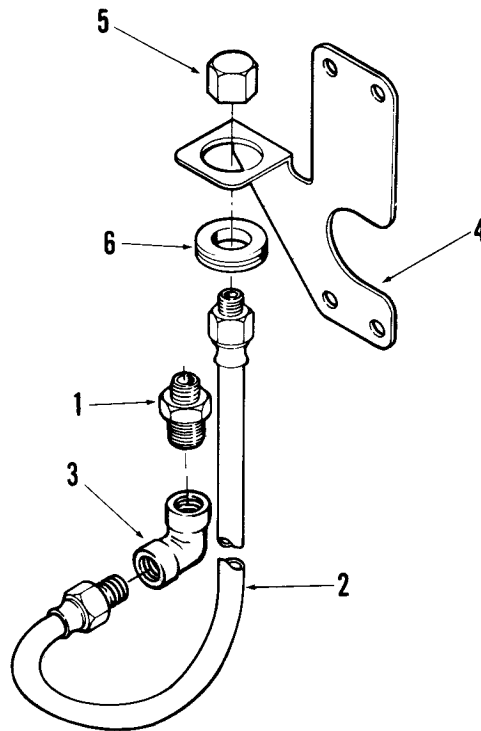
LS-1060

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	115-0344	1	Cover, Rocker
2	115-0309	1	Gasket, Rocker Cover
3	115-0320	3	Capnut, Rocker Cover
4	115-0232	3	Gasket, Capnut
5	123-1605	1	Cap, Oil Fill (Includes Gasket)
6	123-1518	1	Gasket, Oil Fill Cap
7	123-1558	1	Tube, Oil Fill
8	509-0142	1	Seal, O-Ring
9	123-1647	1	Cap, Oil Fill

REMOTE OIL DRAIN

Code 17BA

5100-0606



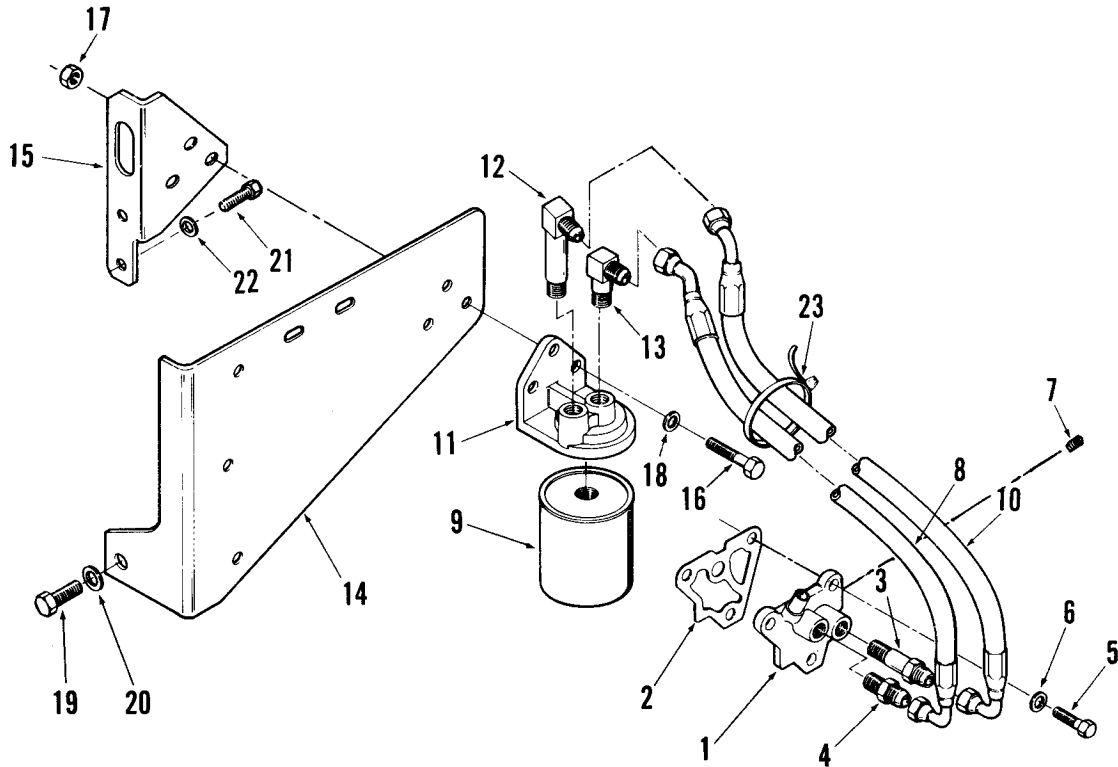
LS-1135-1

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	102-1237	1	Adapter, Oil Drain
2	501-0484	1	Line, Oil Drain
3	502-0908	1	Elbow
4	102-1235	1	Bracket, Oil Drain
5	502-0876	1	Cap, Pipe
6	508-0250	1	Grommet

REMOTE OIL FILTER

Code 17BE

5100-0670



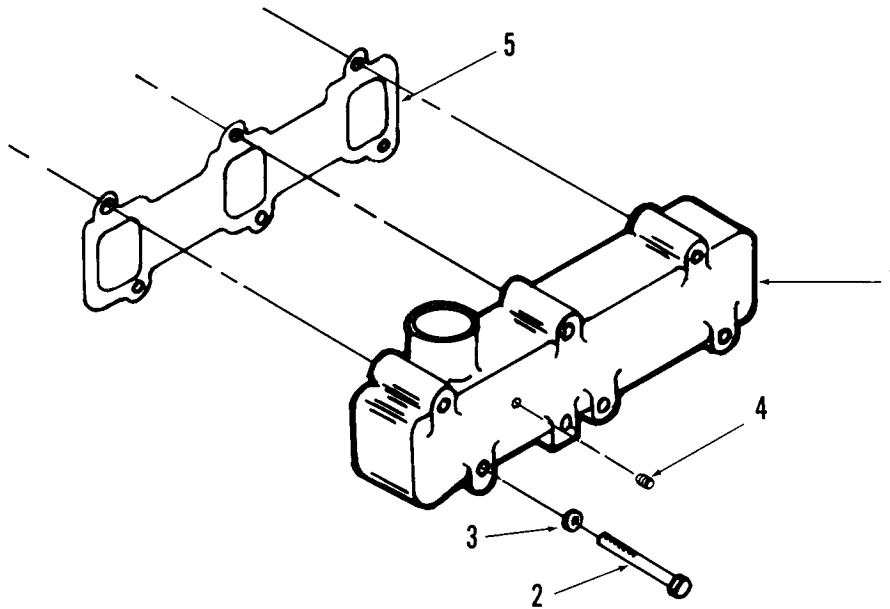
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	122-0612	1	Adapter Kit, Oil Filter (Includes Mounting Gasket)
2	122-0635	1	Gasket, Mounting
3	502-0895	1	Adapter, Oil Line (Long)
4	502-0873	1	Adapter, Oil Line (Short)
5	718-1040	3	Screw, Cap - Hex Head (M8 x 40 MM)
6	526-2108	3	Washer, Flat (M8)
7	505-0274	1	Plug, Pipe (1/8")
8	501-0490	1	Line, Oil (With 90° Swivels)
9	122-0602	1	Filter, Oil
10	501-0489	1	Line, Oil (With 90° and 45° Swivels)
11	122-0581	1	Base, Oil Filter
12	502-0893	1	Elbow, 90° (Long)
13	502-0894	1	Elbow, 90° (Short)
14	122-0629	1	Bracket, Base Mounting
15	403-2223	1	Bracket, Lifting
16	718-1038	3	Screw, Cap - Hex Head (M8 x 30 MM)
17	750-1006	3	Nut, Hex (M8)
18	740-1006	3	Washer, Flat (M8)
19	718-1073	1	Screw, Cap - Hex Head (M12 x 25 MM)
20	740-1010	1	Washer, Flat (M12)
21	718-1054	2	Screw, Cap - Hex Head (M10 x 25 MM)
22	526-0174	2	Washer, Flat (M10)
23	332-2262	3	Tie, Cable

XLS-1142

INTAKE MANIFOLD

Code 19AA (Center Up)

5100-0347



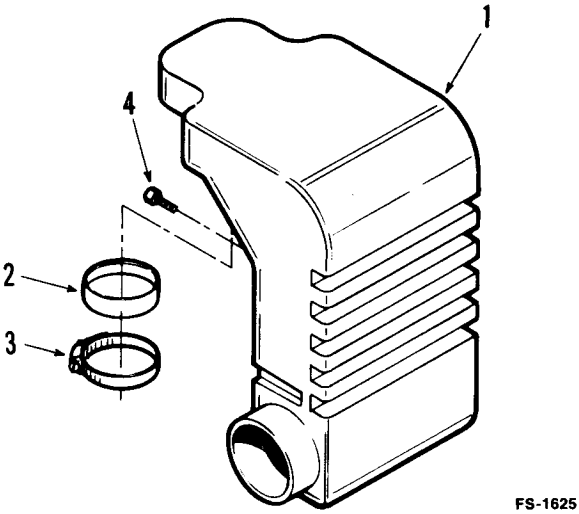
EXS-1106

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	154-2370	1	Manifold, Intake
2	718-1801	6	Screw, Cap - Hex Head (M8 x 85 MM) (Engines Without Code 31AL, 31AS)
3	740-1006	6	Washer, Flat (M8)
4	505-0274	1	Plug, Pipe (1/8")
5	154-2385	1	Gasket, Manifold

AIR SILENCER

Code 19AG

5500-0071

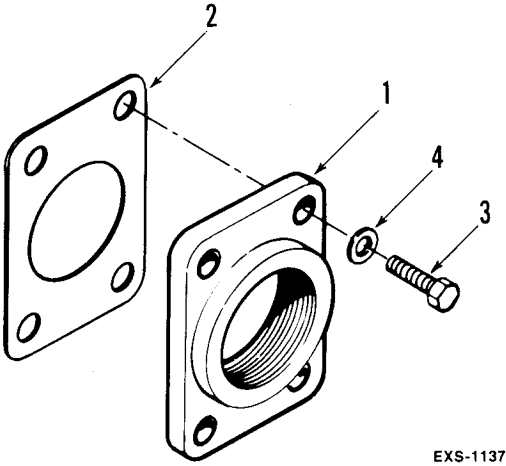


REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	140-2020	1	Silencer, Air Intake
2	140-1857	1	Sleeve
3	503-0648	1	Clamp
4	821-0014	2	Screw, Cap - Flange Hex Head (5/16-18 x 1/2")

EXHAUST FLANGE

Code 21AG
541-0052 Field Installation Kit

5500-0067

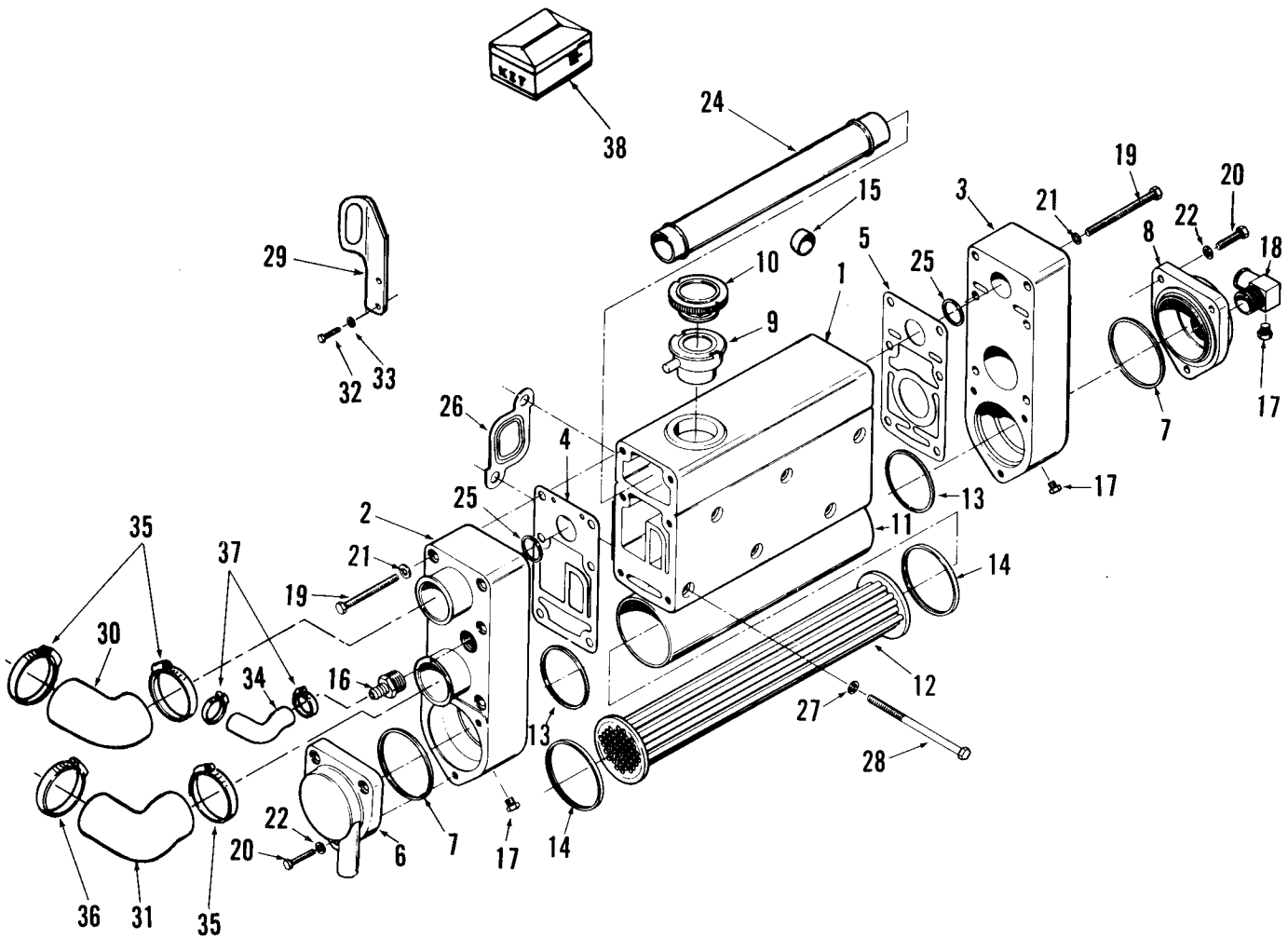


REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	154-2546	1	Flange, Exhaust
2	154-2373	1	Gasket
3	720-1047	4	Screw, Cap - Hex Head (M8 x 75 MM)
4	740-1006	4	Washer, Flat (M8)

EXHAUST MANIFOLD

Code 21AH

5100-0634



EXS-1138

EXHAUST MANIFOLD

Code 21AH

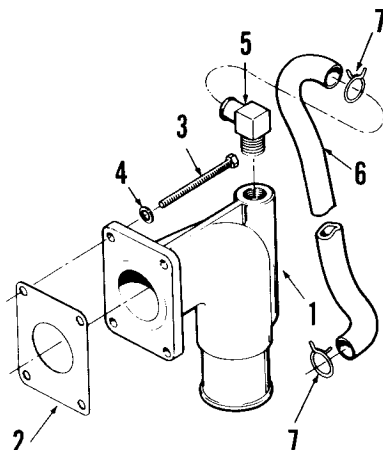
5100-0634

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	154-2453	1	Manifold, Exhaust
2	154-2347	1	Cap, Manifold End (Front)
3	154-2348	1	Cap, Manifold End (Rear)
4	154-2353	1	Gasket, Manifold Front Cap
5	154-2352	1	Gasket, Manifold Rear Cap
6	154-2349	1	Cover, Heat Exchanger (Front)
7	509-0179	2	Seal, O-Ring - Heat Exchanger Cover
8	154-2350	1	Cover, Heat Exchanger (Rear)
9	130-2304	1	Neck, Filler
10	130-2248	1	Cap, Pressure
11	130-2334	1	Shell, Heat Exchanger
12	130-2387	1	Core, Heat Exchanger
13	130-2147	2	Gasket, Heat Exchanger Shell
14	130-2130	2	Gasket, Heat Exchanger
15	517-0142	2	Plug, Cup
16	502-0836	1	Adapter, Pipe to Hose
17	502-0153	3	Plug, Pipe (1/4")
18	502-0881	1	Elbow, 90°
19	720-1044	8	Screw, Cap - Hex Head (M8 × 60 MM)
20	718-1022	6	Screw, Cap - Hex Head (M6 × 25 MM)
21	740-1006	8	Washer, Flat (M8)
22	740-1004	6	Washer, Flat (M6)
24	154-2482	1	Tube, Coolant Flow
25	509-0190	2	Seal, O-Ring - Coolant Flow Tube
26	154-2162	3	Gasket, Exhaust Manifold
27	740-1802	6	Washer, Flat (M8)
28	806-2001	6	Screw, Cap - Counter Bore
29	403-2486-01	1	Bracket, Lifting
30	503-1123	1	Hose, Coolant - Upper
31	503-1165	1	Hose, Coolant - Lower
32	718-1054	2	Screw, Cap - Hex Head (M10 × 25 MM)
33	740-1008	2	Washer, Flat (M10)
34	503-1124	1	Hose, Coolant - Manifold
35	503-1141	3	Clamp, Hose (#32)
36	503-1140	1	Clamp, Hose (#28)
37	503-1136	2	Clamp, Hose (#12)
38	168-0172	1	Kit, Gasket - Heat Exchanger

EXHAUST ELBOW

Code 21AM

5100-0817



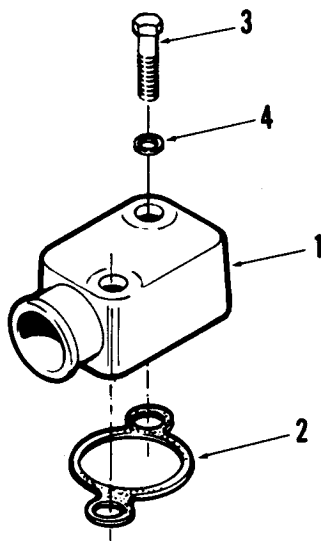
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	154-2409	1	Elbow, Exhaust
2	154-2373	1	Gasket, Exhaust Elbow
3	720-1047	4	Screw, Cap - Hex Head (M8 × 75 MM)
4	740-1006	4	Washer, Flat (M8)
5	502-0881	1	Elbow, 90°
6	503-1242	1	Hose, Exhaust Cooling
7	503-1138	2	Clamp, Hose

XEXS-1098

COOLANT OUTLET CONNECTOR

Code 23AB (Horizontal, Non-Accessory Side)

5100-0303



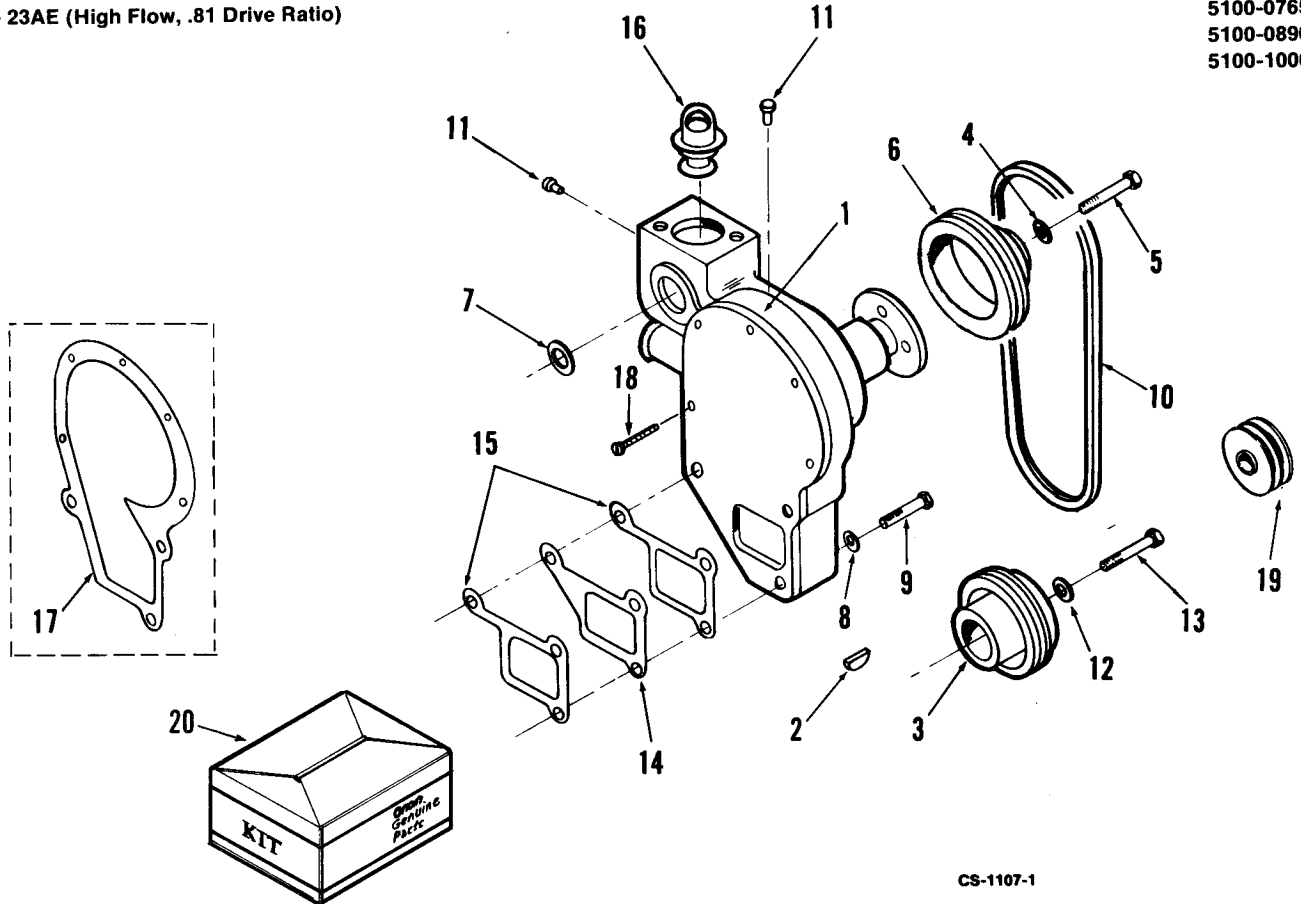
CS-1111

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	309-0518	1	Cover Kit, Thermostat (Includes Gasket)
2	309-0417	1	Gasket, Thermostat Cover
3	718-1048	2	Screw Cap - Hex Head (M8 × 80 MM)
4	740-1006	2	Washer, Flat (M8)

COOLANT PUMP

Code 23AE (High Flow, .81 Drive Ratio)

5100-0765
5100-0890-01
5100-1000



CS-1107-1

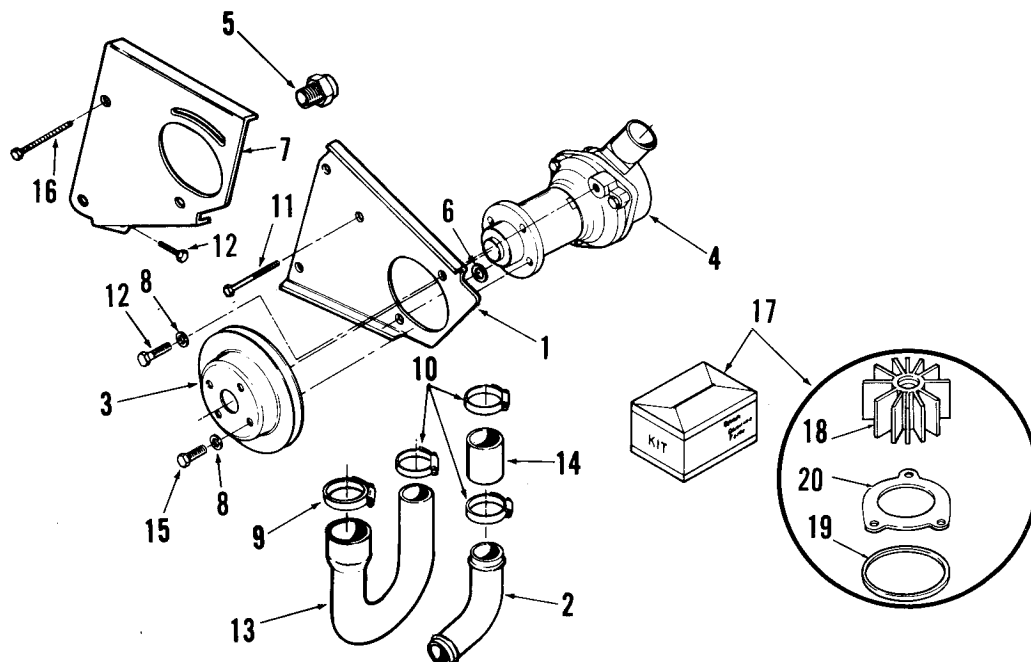
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	131-0352	1	Pump Kit, Coolant (Includes Mounting Gaskets)
2	515-0245	1	Key - Crankshaft Pulley
3	PULLEY, CRANKSHAFT		
	104-1577	1	Single Groove
	104-1592	1	Double Groove
4	740-1006	4	Washer, Flat (M8)
5	718-1035	4	Screw, Cap - Hex Head (M8 x 16 MM)
6	PULLEY, COOLANT PUMP		
	131-0344	1	Single Groove
	131-0345	1	Double Groove
7	509-0264	1	Seal, O-Ring
8	740-1006	3	Washer, Flat (M8)
9	718-1044	3	Screw, Cap - Hex Head (M8 x 60 MM)
10	BELT		
	511-0147-22	1	Single Groove Pulleys Double Groove Pulleys
	511-0147-01	1	Alternator Belt
	511-0147-06	1	Raw Water Pump Belt

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
11	PLUG, BRASS		
	502-0775	3	3/8"
	502-0317	1	3/4"
12	526-0283	1	Washer, Flat (M8)
13	720-1123	1	Screw, Cap - Hex Head (M16 x 60 MM)
14	131-0324	1	Spacer, Coolant Pump
15	131-0294	2	Gasket, Coolant Pump Mounting
16	309-0458	1	Thermostat Kit (Includes Gasket)
17	131-0334	1	Gasket, Coolant Pump Backplate
18	815-0612	5	Screw, Countersunk - Flat Head - Torque Drive (Special)
19	PULLEY, ALTERNATOR		
	191-1338	1	Single Groove
	191-1342	1	Double Groove
20	541-0214-01	1	Kit, Repair - Coolant Pump (Includes Gaskets, Seal, Hub, Bearing, Impeller and Back- Plate Mounting Screws)

RAW WATER PUMP

Code 23BT

5100-0638
5100-1001



CS-1242-1

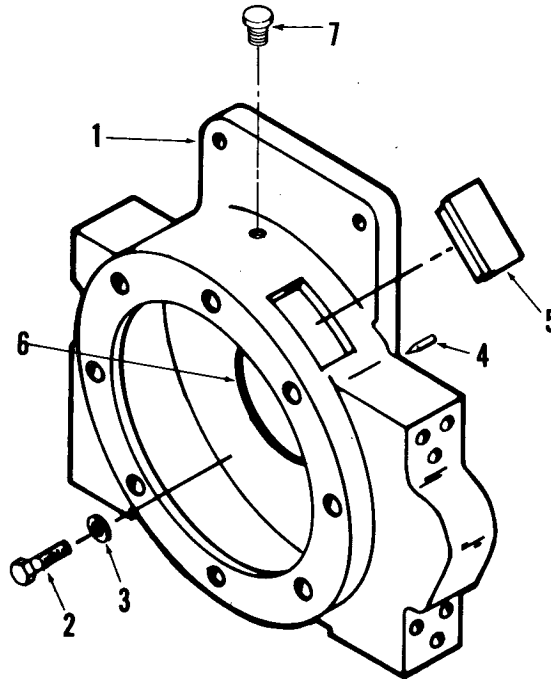
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	130-2422	1	Bracket, Water Pump Mounting (Used Spec B through Portion of Spec C)
2	503-1322	1	Tube, Inlet
3	131-0344	1	Pulley, Water Pump
4	132-0278	1	Pump, Raw Water
5	502-0836	1	Adapter - Pipe to Hose
6	526-1122	2	Washer, Flat (5/16") Use Began During Spec C
7	131-0427	1	Bracket, Water Pump Mounting (Use Began During Spec C)
8	740-1006	6	Washer, Flat (M8)
9	503-1138	1	Clamp, Hose
10	503-1140	3	Clamp, Hose
11	718-1047	1	Screw, Cap - Hex Head (M8 x 75 MM) Used Spec B through Portion of Spec C
12	SCREW, CAP - HEX HEAD (M8 x 25 MM)		
	718-1037	2	Used Spec B through Portion of Spec C
	718-1037	4	Use Began During Spec C
13	503-1318	1	Hose, Outlet
14	503-1327	1	Hose, Connector
15	718-1034	4	Screw, Cap - Hex Head (M8 x 14 MM)
16	718-1044	2	Screw, Cap - Hex Head (M8 x 60 MM)
17	132-0283	1	Kit, Service - Water Pump (Includes Seal and Seat Assembly and Parts Marked *)
18	132-0292	1	*Impeller
19	132-0293	1	*Gasket, Ring
20	132-0294	1	*Gasket, Cover

* - Parts Included in 132-0283 Water Pump Service Kit.

FLYWHEEL HOUSING

Code 27AE (SAE 5 With One Magnetic Pickup)

5100-0214-02
5100-0585



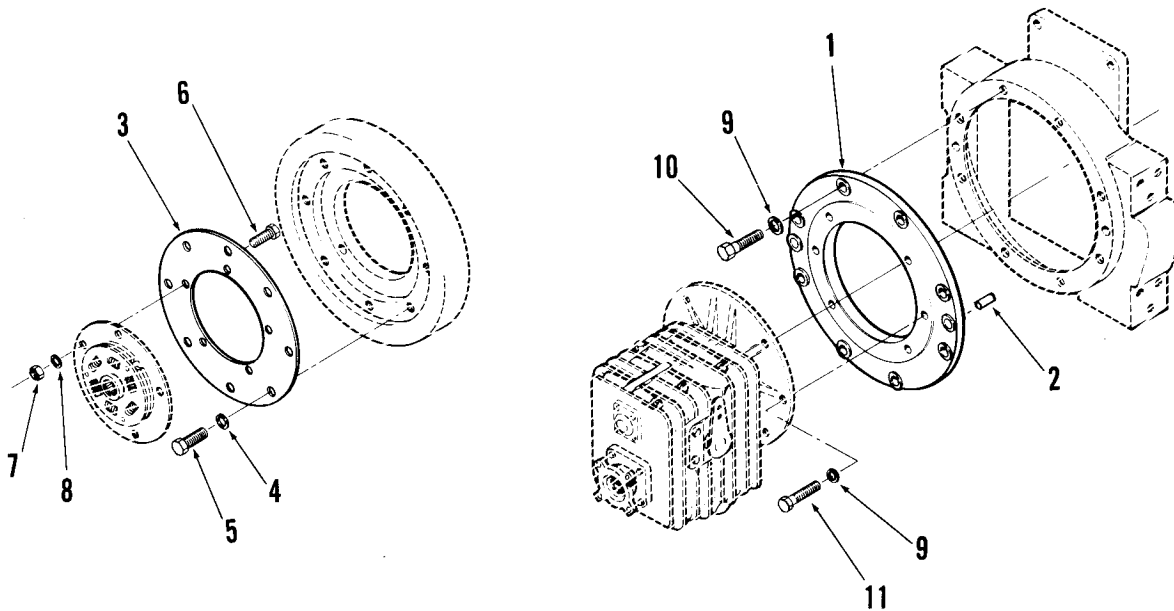
CS-1109

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	HOUSING, FLYWHEEL (Includes Seal and Indicator)		
	101-0723	1	Spec B
	101-0698-02	1	Spec C
2	718-1078	6	Screw, Cap - Hex Head (M12 x 50 MM)
3	740-1801	6	Washer, Flat (M12)
4	160-1292	1	Indicator, Timing
5	101-0592	1	Plug, Timing Window
6	101-0630	1	Seal, Flywheel Housing
7	517-0265	1	Plug, Cap

TRANSMISSION ADAPTER

Code 27AK

5500-0063



CT-1081

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	190-0620	1	Adapter Assembly, Transmission (Includes Parallel Pins)
2	775-0075	2	Pin, Parallel
3	104-1543	1	Plate, Drive
4	740-1006	8	Washer, Flat (M8)
5	718-1036	8	Screw, Cap - Hex Head (M8 × 20 MM)
6	800-0533	5	Screw, Cap - Hex Head (1/4-20 × 3/4") (Hardened)
7	862-0001	5	Nut, Hex (1/4-20)
8	740-1004	5	Washer, Flat (M6)
9	740-1008	14	Washer, Flat (M10)
10	718-1056	8	Screw, Cap - Hex Head (M10 × 35 MM)
11	718-1054	6	Screw, Cap - Hex Head (M10 × 25 MM)

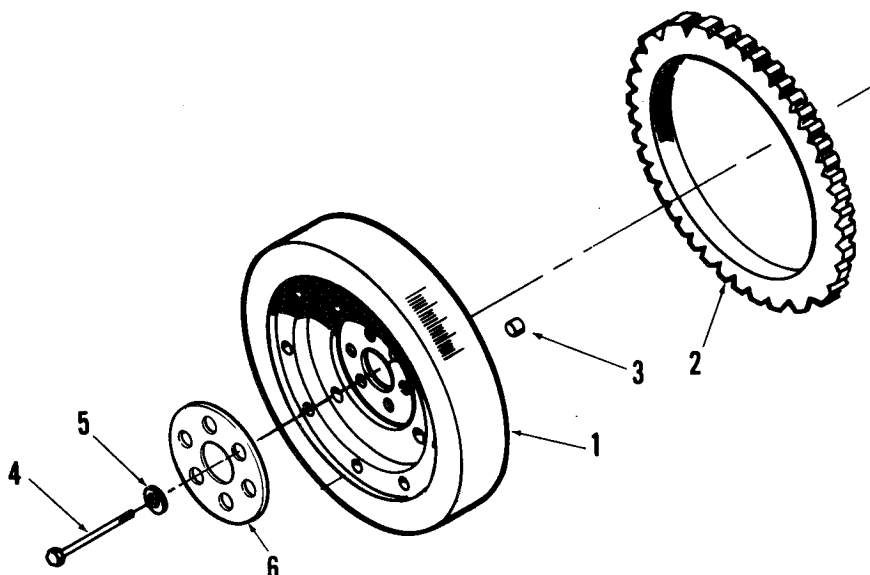
FLYWHEEL

Code 29AA (7.5" Over Center - SAE #5)

Code 29AD (10" Over Center - SAE #4)

5100-0346

5100-0900



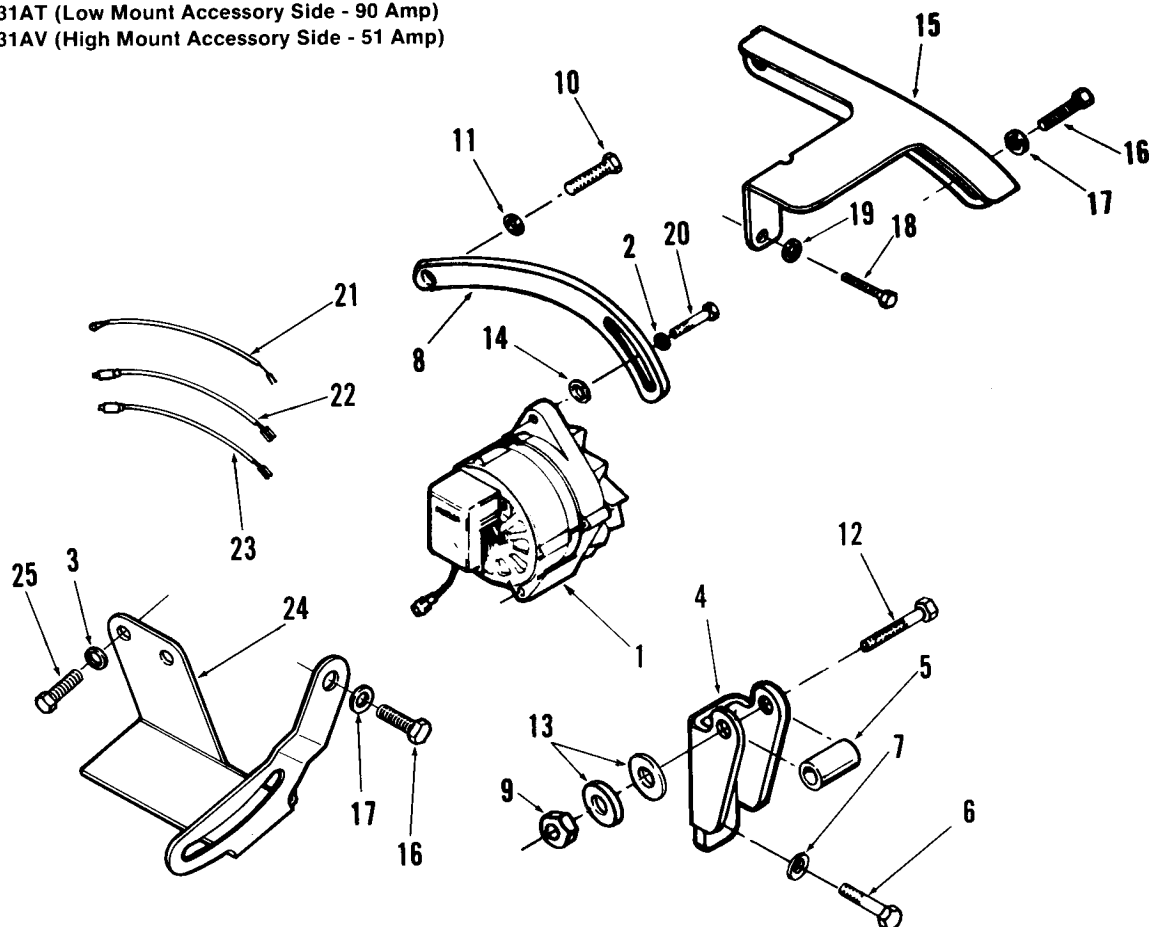
CS-1110

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	FLYWHEEL ASSEMBLY (Includes Ring Gear and Alignment Pin)		
	104-1491	1	Code 29AA
	104-1591	1	Code 29AD
2	GEAR, RING		
	104-1169	1	Code 29AA
	104-1185	1	Code 29AD
3	104-1171	1	Pin, Alignment
4	SCREW, CAP - FLANGE HEX HEAD (Special)		
	720-1804	6	Code 29AA
	720-1805	6	Code 29AD
5	740-1008	6	Washer, Flat (M10) Code 29AA
6	104-1036	1	Plate, Washer - Code 29AD

ALTERNATOR

Code 31AA (High Mount Accessory Side - 37 Amp)
 Code 31AL (High Mount Accessory Side - 72 Amp)
 Code 31AS (High Mount Accessory Side - 90 Amp)
 Code 31AT (Low Mount Accessory Side - 90 Amp)
 Code 31AV (High Mount Accessory Side - 51 Amp)

5100-0781
 5100-0784
 5100-0785
 5100-0787
 5100-0889
 5100-0975
 5100-1045



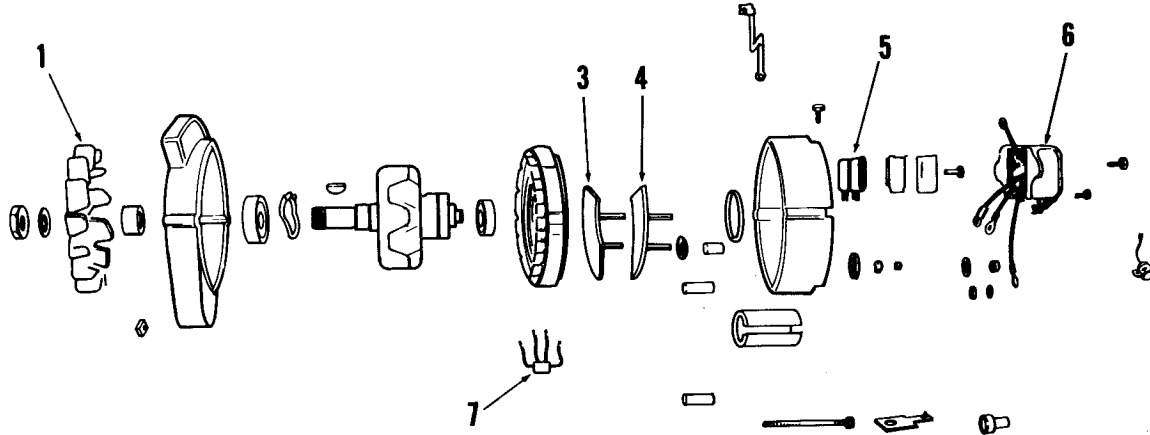
ES-1170-2

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	ALTERNATOR (See Separate Group for Components)		
	191-1525	1	Code 31AA
	191-1600	1	Code 31AL
	191-1634	1	Code 31AV
	191-1664	1	Code 31AS, 31AT
2	526-2106	1	Washer, Flat (M8) Code 31AA, 31AS, 31AT
3	740-1010	2	Washer, Flat (M12) Code 31AT
4	BRACKET, ALTERNATOR MOUNTING		
	191-1331	1	Code 31AA, 31AL, 31AS, 31AV
	191-1332	1	Code 31AT
5	191-1321	1	Spacer, Alternator Bracket
6	718-1037	4	Screw, Cap - Hex Head (M8 x 25 MM)
7	740-1006	4	Washer, Flat (M8)
8	191-1365	1	Strap, Alternator Adjusting - Code 31AA
9	860-2009	1	Nut, Hex (M10)
10	718-1036	1	Screw, Cap - Hex Head (M8 x 20 MM)
11	740-1006	1	Washer, Flat (M8)
12	800-2100	1	Screw, Cap - Hex Head (M10 x 100 MM)

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
13	526-2123	2	Washer, Flat (M10)
14	191-1322	1	Spacer, Alternator Strap
15	191-1555	1	Strap, Alternator Adjusting - Code 31AL, 31AS, 31AV
16	800-0028	1	Screw, Cap - Hex Head (5/16-18 x 1 inch) Code 31AL, 31AS, 31AT, 31AV
17	526-0122	1	Washer, Flat (5/16 inch) Code 31AL, 31AS, 31AT, 31AV
18	718-1806	1	Screw, Cap - Hex Head (M8 x 90 MM) Code 31AL, 31AS, 31AV
19	740-1006	1	Washer, Flat (M8) Code 31AL, 31AS, 31AV
20	800-2058	1	Screw, Cap - Hex Head (M8 x 25 MM) Code 31AA
21	226-3108	1	Lead - Code 31AS, 31AT
22	332-2301	1	Terminal - Code 31AS, 31AT
23	332-2298	1	Housing, Terminal - Code 31AS, 31AT
24	191-1615	1	Bracket, Alternator Adjusting - Code 31AT
25	718-1072	2	Screw, Cap - Hex Head (M12 x 20 MM) Code 31AT

ALTERNATOR COMPONENTS

Code 31AA (High Mount Accessory Side - 37 Amp)
 Code 31AL (High Mount Accessory Side - 72 Amp)
 Code 31AS (High Mount Accessory Side - 90 Amp)
 Code 31AT (Low Mount Accessory Side - 90 Amp)
 Code 31AV (High Mount Accessory Side - 51 Amp)



ES-1470

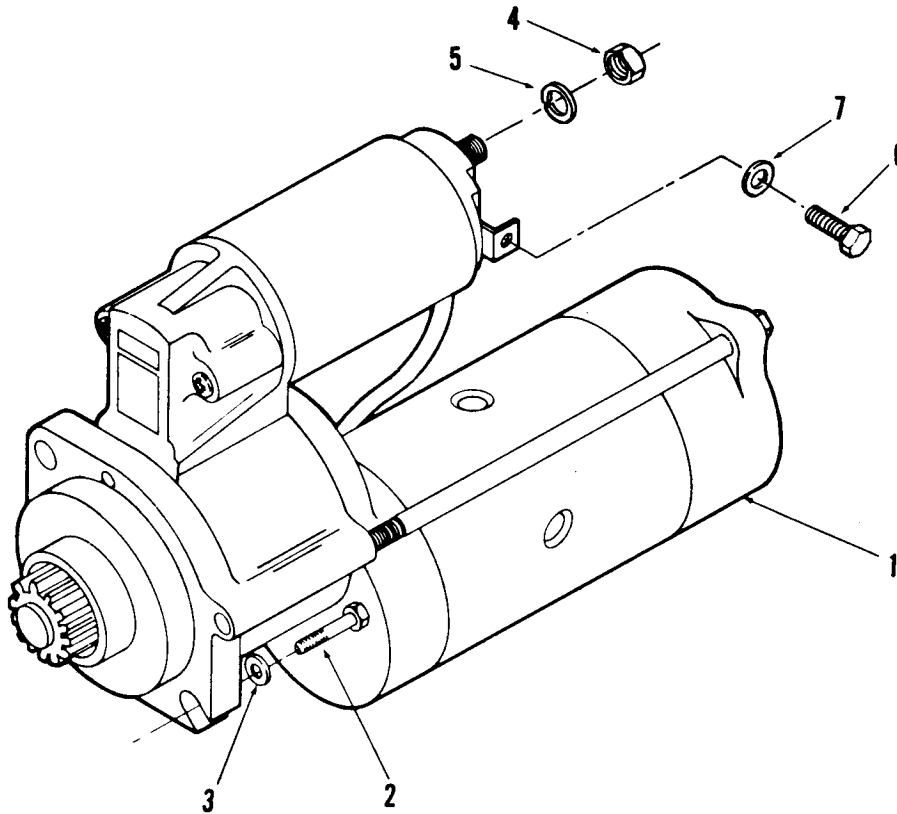
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	ALTERNATOR (Complete) 12 Volt		
	191-1525	1	Code 31AA
	191-1600	1	Code 31 AL
	191-1664	1	Code 31AS, 31AT
	191-1634	1	Code 31AV
1	191-0943	1	Fan, Alternator - Code 31AA
3	191-1560	1	Diode, Rectifier - Negative - Code 31AA
4	191-1559	1	Diode, Rectifier - Positive - Code 31AA
5	191-1558	1	Brush Assembly - Code 31AA
6	191-1557	1	Regulator, Voltage - Code 31AA
7	191-1556	1	Diode, Trio - Code 31AA

NOTE: Component part numbers for 51, 72 and 90 Amp Alternators not available at time of printing.

STARTER

Code 33AA (12 Volt)

5100-0082

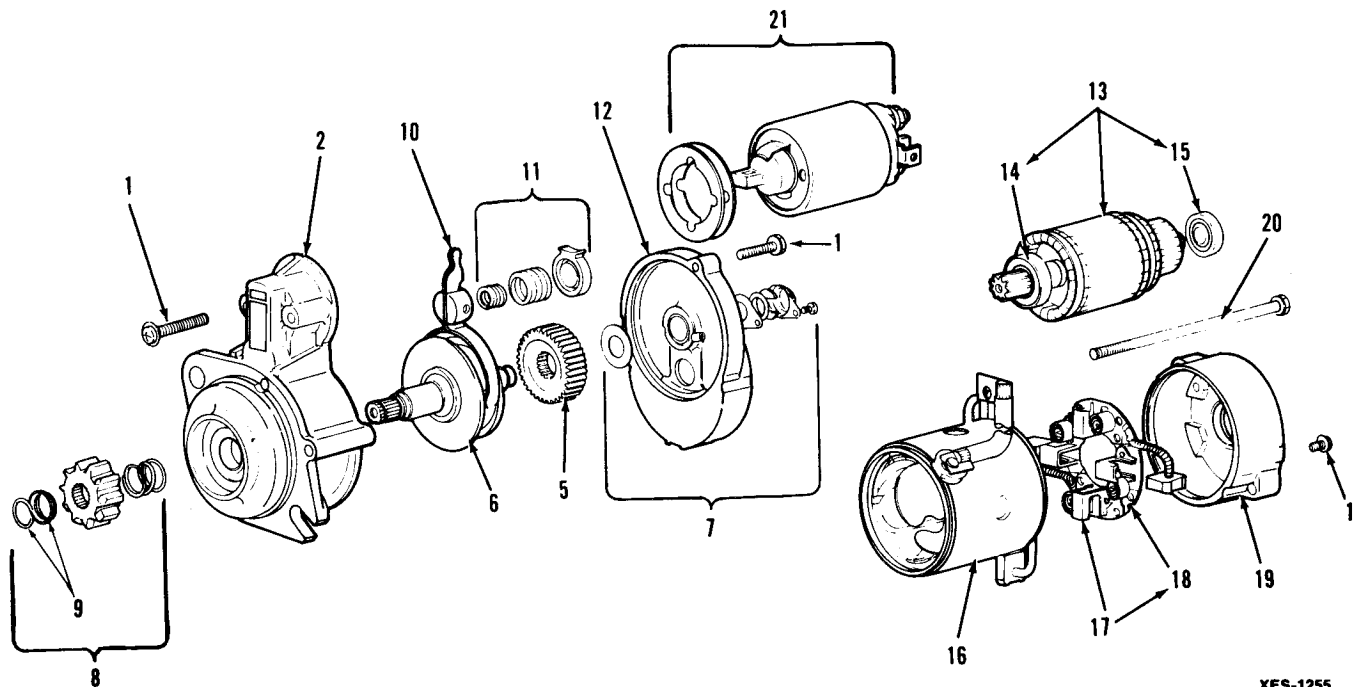


XES-1169

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	191-1394	1	Starter (Includes Switch Terminal Hardware) (See Separate Group for Components)
2	720-1806	2	Screw, Cap - Flanged Hex Head (M12 x 30 MM)
3	740-1010	2	Washer, Flat (M12)
4	860-2008	1	Nut, Hex (M8) B+ Terminal
5	850-2008	1	Washer, Lock - Spring (M8) B+ Terminal
6	718-1002	1	Screw, Cap - Hex Head (M5 x 8 MM) Solenoid Terminal
7	850-2005	1	Washer, Lock - Spring (M5) Solenoid Terminal

STARTER COMPONENTS

Code 33AA (12 Volt)



XES-1255

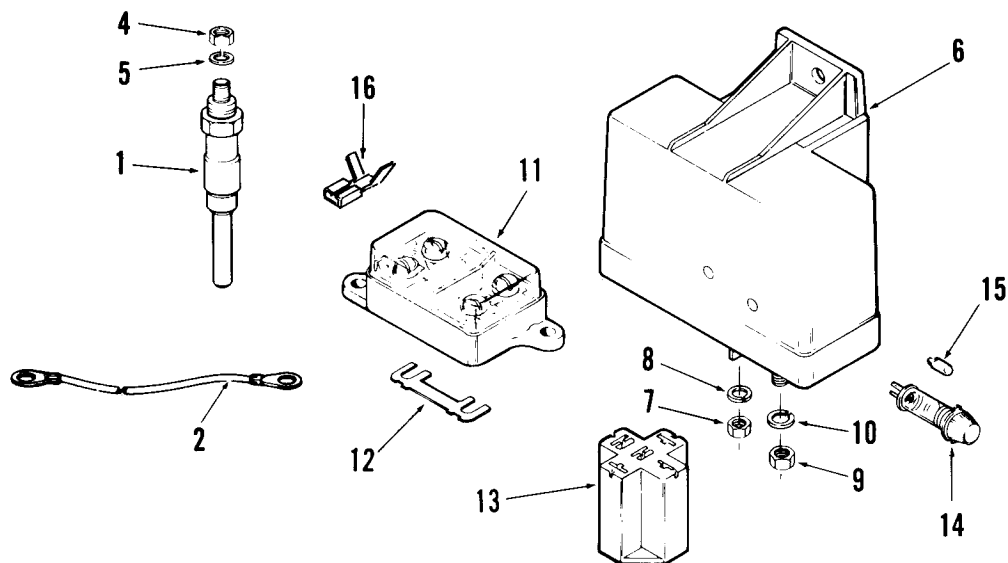
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	191-1394	1	Starter (Complete)
1	191-1450	1	Screw Set
2	191-1449	1	Bracket Assembly, Front (Includes Bearing)
5	191-1446	1	Gear
6	191-1445	1	Clutch
7	191-1444	1	Cover Set (Includes Cover, Plate, Washers, Snap Ring, and Screws)
8	191-1443	1	Pinion Set (Includes Pinion, Spring, and Stopper Set)
9	191-1442	1	Stopper Set (Includes Stopper and Ring)
10	191-1441	1	Lever Assembly
11	191-1440	1	Spring Set

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
12	191-1439	1	Bracket Assembly, Center
13	191-1438	1	Armature Assembly (Includes Bearings)
14	191-1437	1	Bearing, Center
15	191-1436	1	Bearing, Rear
16	191-1435	1	Yoke Assembly (Includes Pole Shoes, Field Coil and Positive Brushes)
17	191-1434	1	Holder, Brush (Includes Negative Brushes)
18	191-1433	4	Spring, Brush
19	191-1432	1	Bracket, Rear
20	191-1431	1	Bolt Set
21	191-1430	1	Switch Assembly

GLOW PLUG

Code 33AE (12 Volt 7 Second Glow Plugs, Lead and Control)

5100-0475



M-1565

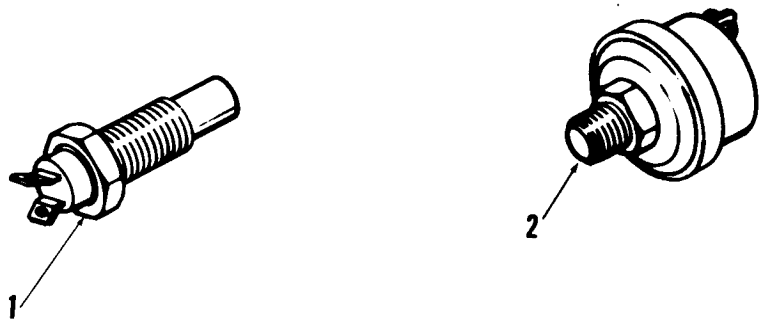
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	333-0220	3	Plug, Glow
2	336-4131	2	Lead, Glow Plug
4	750-1002	3	Nut, Hex (M5)
5	850-2005	3	Washer, Lock - Spring (M5)
6	333-0245	1	Controller, Glow Plug
7	750-1002	1	Nut, Hex (M5)
8	850-2005	1	Washer, Lock - Spring (M5)

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
9	750-1004	1	Nut, Hex (M6)
10	850-2006	1	Washer, Lock - Spring (M6)
11	321-0263	1	Holder, Fuse
12	321-0262-02	1	Fuse, Strip (50 Ampere)
13	307-1690	1	Plug, Harness
14	322-0354	1	Light, Indicator
15	322-0353	1	Lamp, Indicator
16	332-1497	4	Connector, Terminal

SWITCHES

Code 35AC (Low Oil Pressure Switch and High Water Temperature Switch)

5100-0261



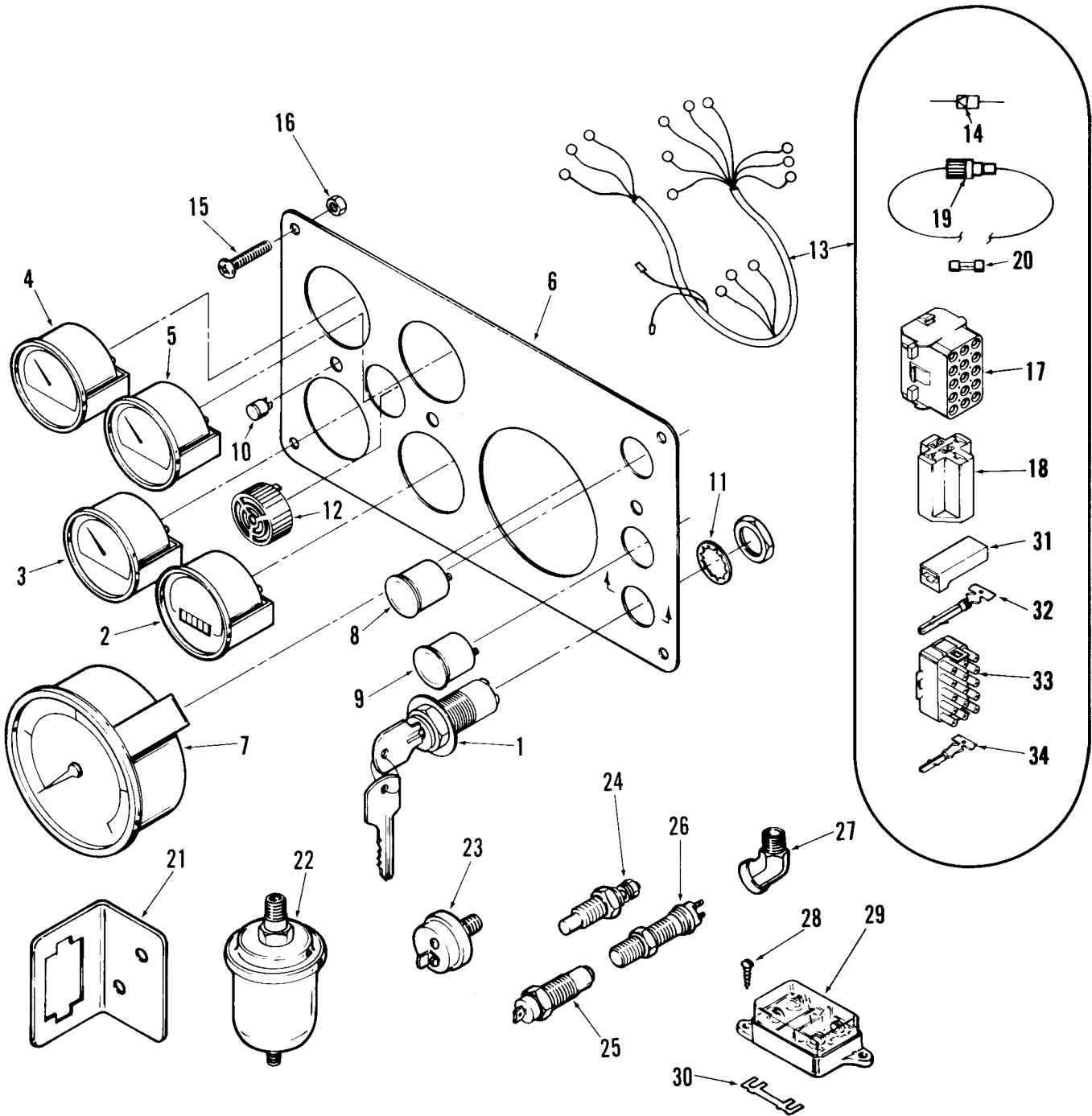
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	309-0482	1	Switch, High Water Temperature
2	309-0177	1	Switch, Low Oil Pressure

PAINT AND THREAD SEALANT

PART NO.	QTY. USED	PART DESCRIPTION
PAINT, TOUCH UP (Enamel - 13 oz. Pressurized Spray Can)		
525-0494	-	Off White
525-0529	-	Brilliant White
518-0452	-	Sealant, Thread (50 cc Bottle)

REMOTE INSTRUMENT PANEL **(Large Panel - 6.5" x 12.4")**

Code 35AS
 541-0048 Field Installation Kit



SC-1526-1

REMOTE INSTRUMENT PANEL (Large Panel - 6.5" x 12.4")

Code 35AS
541-0048 Field Installation Kit

5500-0065

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	308-0790	1	Switch, Ignition (Includes Keys)	19	321-0268	1	#Holder, Fuse
2	302-1717	1	Meter, Hour (Includes Mounting Hardware)	20	321-0254	1	#Fuse (20 Amp)
3	302-1718	1	Voltmeter	21	403-2340	1	Bracket, Connector - Engine Wiring Harness
4	193-0373	1	Gauge, Oil Pressure (Includes Mounting Hardware)	22	193-0363	1	Sender, Oil Pressure
5	193-0372	1	Gauge, Water Temperature (Includes Mounting Hardware)	23	309-0169	1	Switch, Oil Pressure
6	301-8991	1	Panel, Instrument (Used Spec B through a Portion of Spec C)	24	193-0318	1	Sender, Water Temperature
7	302-1719	1	Tachometer (Includes Mounting Hardware)	25	309-0437	1	Thermostat
8	308-0794	1	Switch, Start/Stop (With Red Cap)	26	150-1925	1	Sensor, Speed - Magnetic
9	308-0791	1	Switch, Start/Stop (With Black Cap)	27	502-0950	1	Elbow, Street - 45° (Oil Pressure Sender Mounting)
10	322-0370	3	Light, Indicator	28	815-0242	2	Screw, Tapping (#8-32 x 1/2")
11	854-0033	1	Washer, Lock - IT (13/16")	29	321-0263	1	Holder, Fuse - Fuse Not Included (Alternator Bracket Mounted)
12	333-0133	1	Signal, Audible	30	321-0262-02	1	Fuse (50 Amp)
13	HARNESS, WIRING			31	332-0819	1	#Housing, Connector Push On (Alternator Excitation)
	338-1830	1	Instrument Panel (Includes Parts Marked *)	32	PIN, CONTACT		
	338-1832	1	Engine (Includes Parts Marked#) Instrument Panel Harness to Engine Harness (Includes Parts Marked +)		323-1199	14	#Used with 338-1832 Harness
					323-1199	11	+Used with 338-1831-01, -02, -03 Harnesses
	338-1831-01	1	10' Long		323-1324	3	+Used with 338-1831-01, -02, -03 Harnesses
	338-1831-02	1	20' Long	33	323-1252	2	*+Plug, Circuit (15 Place)
	338-1831-03	1	30' Long	34	SOCKET, CONTACT		
14	357-0075	2	*Diode		323-1200	14	*Used with 338-1830 Harness
15	SCREW - Panel Mounting (One Style Used)				323-1200	11	+Used with 338-1831-01, -02, -03 Harnesses
	815-0614	4	Tapping (#10-16 x 3/4")		323-1323	3	+Used with 338-1831-01, -02, -03 Harnesses
	815-0613	4	Machine (#10-24 x 1")				
16	870-1230	4	Nut, Hex - ET (#10-24)				
17	323-1253	2	#+Cap, Circuit (15 Place)				
18	307-1690	1	#Plug, Relay Harness (5 Place)				

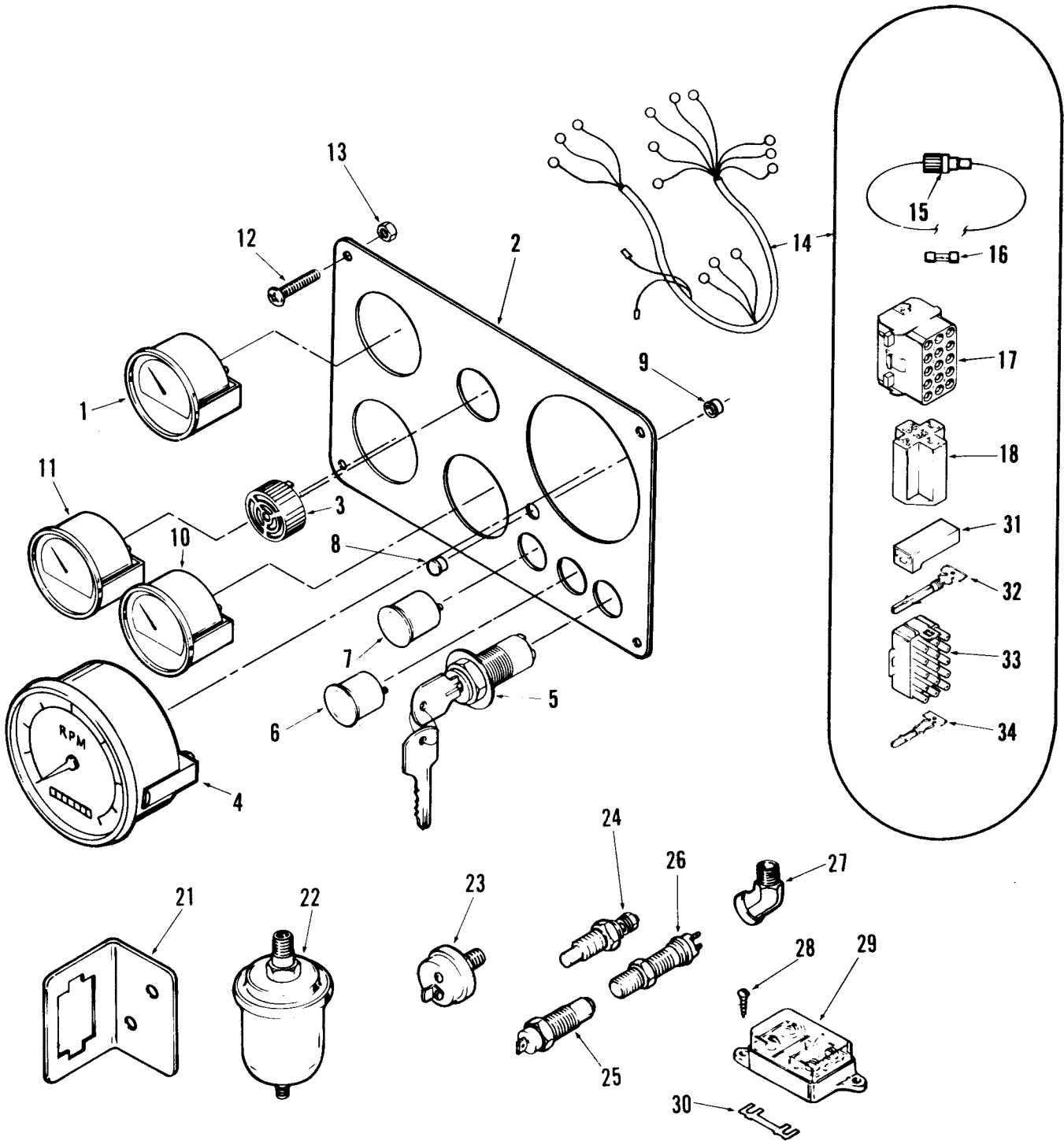
* - Parts Included in 338-1830 Wiring Harness.

- Parts Included in 338-1832 Wiring Harness.

+ - Parts Included in 338-1831-01, -02, -03 Wiring Harnesses.

REMOTE INSTRUMENT PANEL **(Small Panel - 6" x 10")**

Code 35AS
 541-0086 Field Installation Kit



REMOTE INSTRUMENT PANEL (Small Panel - 6" x 10")

Code 35AS
541-0086 Field Installation Kit

5500-0065

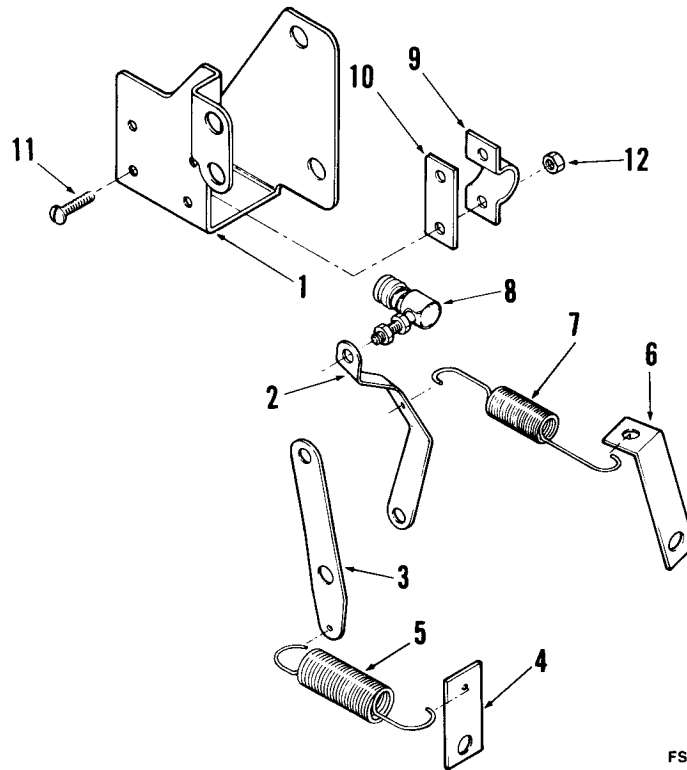
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	193-0373	1	Gauge, Oil Pressure (Includes Mounting Hardware)	22	193-0363	1	Sender, Oil Pressure
2	301-9417	1	Panel, Instrument (Use Began During Spec C)	23	309-0169	1	Switch, Oil Pressure
3	333-0133	1	Signal, Audible	24	193-0318	1	Sender, Water Temperature
4	302-1768	1	Meter, Tachometer/Hour	25	309-0437	1	Thermostat
5	308-0790	1	Switch, Ignition (Includes Keys, Boot and Mounting Hardware)	26	150-1925	1	Sensor, Speed - Magnetic
6	308-0794	1	Switch, Start/Stop (With Red Cap)	27	502-0950	1	Elbow, Street - 45° (Oil Pressure Sender Mounting)
7	308-0791	1	Switch, Start/Stop (With Black Cap)	28	815-0242	2	Screw, Tapping (#8-32 x 1/2")
8	322-0370	1	Light, Indicator	29	321-0263	1	Holder, Fuse - Fuse Not Included (Alternator Bracket Mounted)
9	518-0494	1	Clip, Retainer	30	321-0262-02	1	Fuse (50 Amp)
10	193-0372	1	Gauge, Water Temperature (Includes Mounting Hardware)	31	332-0819	1	#Housing, Connector Push On (Alternator Excitation)
11	302-1718	1	Voltmeter	32	PIN, CONTACT		
12	SCREW - Panel Mounting (One Style Used)				323-1199	14	#Used with 338-1832 Harness
	815-0614	4	Tapping (#10-16 x 3/4")		323-1199	11	+Used with 338-1831-01, -02, -03 Harnesses
	815-0613	4	Machine (#10-24 x 1")		323-1324	3	+Used with 338-1831-01, -02, -03 Harnesses
13	870-1230	4	Nut, Hex - ET (#10-24)	33	323-1252	2	*+Plug, Circuit (15 Place)
14	HARNESS, WIRING			34	SOCKET, CONTACT		
	338-1917	1	Instrument Panel (Includes Parts Marked *)		323-1200	14	*Used with 338-1917 Harness
	338-1832	1	Engine (Includes Parts Marked#) Instrument Panel Harness to Engine Harness (Includes Parts Marked +)		323-1200	11	+Used with 338-1831-01, -02, -03 Harnesses
	338-1831-01	1	10' Long		323-1323	3	+Used with 338-1831-01, -02, -03 Harnesses
	338-1831-02	1	20' Long				
	338-1831-03	1	30' Long				
15	321-0268	1	#Holder, Fuse				
16	321-0254	1	#Fuse (20 Amp)				
17	323-1253	2	#+Cap, Circuit (15 Place)				
18	307-1690	1	#Plug, Relay Harness (5 Place)				
21	403-2340	1	Bracket, Connector - Engine Wiring Harness				

* - Parts Included in 338-1917 Wiring Harness.
- Parts Included in 338-1832 Wiring Harness.
+ - Parts Included in 338-1831-01, -02, -03 Wiring Harnesses.

THROTTLE LINKAGE

Code 39AE

5500-0069



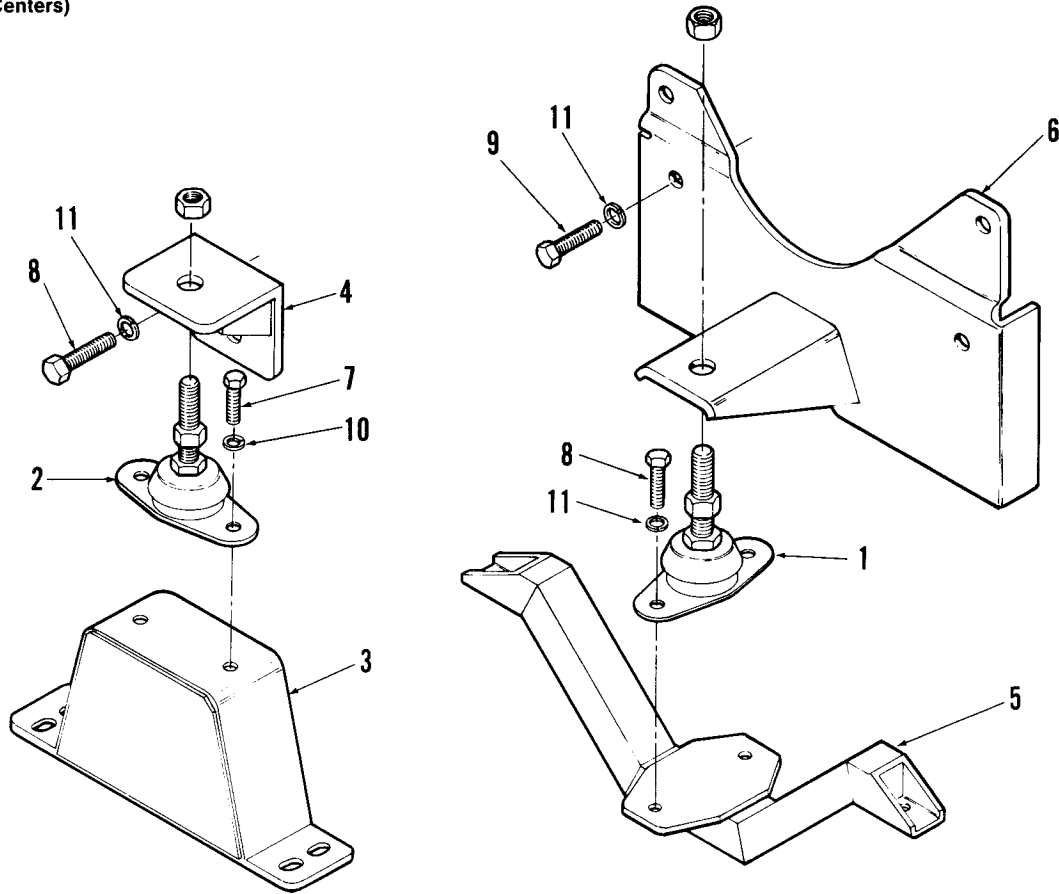
FS-1623

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	150-2108	1	Bracket, Throttle
2	147-0751	1	Lever, Injection Pump Throttle (Long)
3	147-0752	1	Lever, Injection Pump Shutoff (Short)
4	147-0743	1	Bracket, Shutoff Spring
5	150-1264	1	Spring, Shutoff Lever Return
6	150-2057	1	Bracket, Throttle Spring
7	150-2056	1	Spring, Throttle Lever Return
8	150-2110	1	Joint, Ball
9	150-2111	1	Clamp, Cable
10	150-2112	1	Clamp, Cable
11	812-0103	2	Screw, Round Head (10-24 x 3/4")
12	870-1230	2	Nut, Locking (10-24)

ENGINE MOUNT

Code 41AG (18" Centers)
Code 41AJ (22.5" Centers)

5500-0068
5500-0072



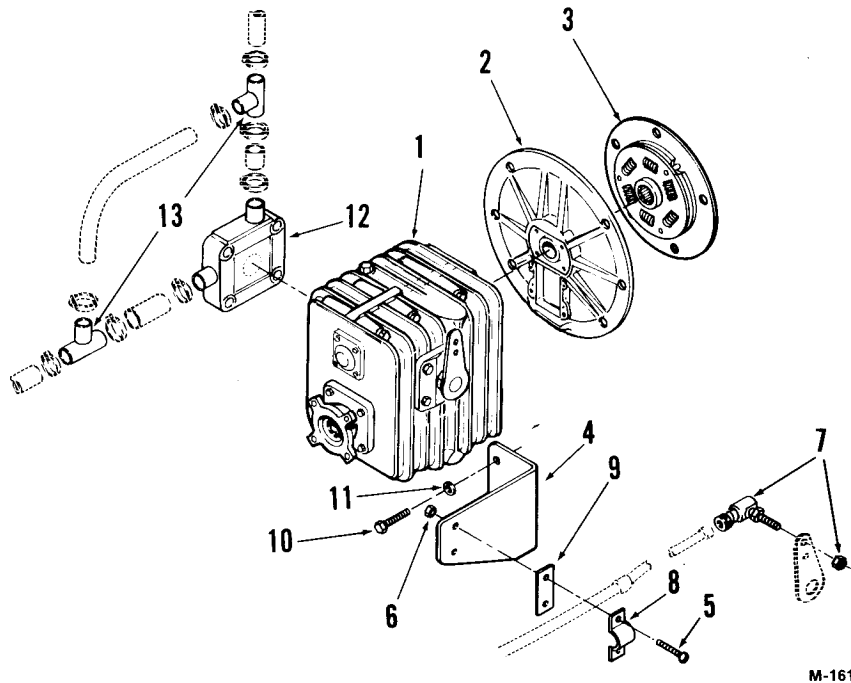
M-1671

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	402-0566	1	Isolator - Front (Includes Mounting Stud and Nuts)
2	402-0567	2	Isolator - Rear (Includes Mounting Stud and Nuts)
3	BRACKET, MOUNTING - REAR (Lower)		
	403-2300	1	Code 41AG Right Side
	403-2322	1	Code 41AG Left Side
	403-2322	2	Code 41AJ
4	BRACKET, MOUNTING - REAR (Upper)		
	403-2304	2	Code 41AG
	403-2398	2	Code 41AJ
5	CROSSMEMBER		
	403-2309	1	Code 41AG
	403-2402	1	Code 41AJ
6	403-2316	1	Bracket, Mounting - Front
7	718-1052	4	Screw, Cap - Hex Head (M10 × 16 MM)
8	718-1073	8	Screw, Cap - Hex Head (M12 × 25 MM)
9	718-1086	4	Screw, Cap - Hex Head (M12 × 90 MM)
10	740-1008	4	Washer, Flat (M10)
11	740-1010	12	Washer, Flat (M12)

TRANSMISSION

Code 45AM (1.88:1 Forward Ratio, 1.95:1 Reverse Ratio)
 Code 45AN (2.63:1 Forward Ratio, 1.95:1 Reverse Ratio)
 Code 45AU (1.88:1 Forward Ratio, 2.10:1 Reverse Ratio)
 Code 45AV (2.74:1 Forward Ratio, 2.72:1 Reverse Ratio)
 541-0074 Field Installation Kit

5100-0825
 5100-0985
 5500-0064
 5500-0066



M-1611

NOTE: For component parts not listed contact manufacturer shown on nameplate.

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	TRANSMISSION		
	190-0638-02	1	Code 45AM
	190-0638-03	1	Code 45AN
	190-0639-02	1	Code 45AU
	190-0639-03	1	Code 45AV
2	FLANGE (Includes Mounting Hardware)		
	190-0636-01	1	Code 45AM, 45AN
	190-0636-02	1	Code 45AU, 45AV
3	COUPLING, FLEXIBLE		
	190-0637-01	1	Code 45AM, 45AN
	190-0637-02	1	Code 45AU, 45AV
4	BRACKET, SHIFT CONTROL MOUNTING		
	190-0635	1	Code 45AM, 45AN
	190-0644	1	Code 45AU, 45AV
5	812-0103	2	Screw, Machine - Round Head (10-24 × 3/4")
6	870-1230	2	Nut, Hex - With ET (10-24)
7	150-2110	1	Joint, Ball
8	150-2111	1	Clamp - Upper
9	150-2112	1	Clamp - Lower
10	718-1035	2	Screw, Cap - Hex Head (M8 × 16 MM)
11	740-1006	2	Washer, Flat (M8)
12	190-0633	1	Cooler, Transmission
13	502-0968	2	Tee, Pipe - Plastic

MODEL SPECIFICATION NUMBER TO OPTION CODE TABLE

This table lists the applicable option codes below the specification number. Using the specification number from your engine nameplate determine the option codes that apply to your engine.

SPEC NO.	10174	10292	10325	10343	10364	10396	10436	10437	10445
OPTION	11AB	11AB	11AB	11AB	11AB	11AB	11AB	11AB	11AB
	13AB	13AB	13AB	13AB	13AB	13AB	13AB	13AB	13AB
	15AH	15AH	15AH	15AH	15AH	15AH	15AH	15AH	15AH
	15AJ	15AJ	15AJ	15AJ	15AJ	15AJ	15AJ	15AJ	15AJ
	17AB	17AB	17AM	17AM	17AM	17AM	17AM	17AM	17AM
CODE	17AM	17AM	17BA	17BA	17BA	17BA	17BA	17BA	17BA
	17BA	17BA	17BE	17BE	17BE	17BE	17BE	17BE	17BE
	17BE	17BE	17BR	17BR	17BR	17BR	17BR	17BR	17BR
	19AA	19AA	19AA	19AA	19AA	19AA	19AA	19AA	19AA
	21AH	21AH	19AG	19AG	19AG	19AG	19AG	19AG	19AG
NUMBERS	23AB	23AB	21AG	21AG	21AG	21AH	21AG	21AG	21AH
	23AE	23AE	21AH	21AH	21AH	23AB	21AH	21AH	23AB
	23BT	23BT	23AB	23AB	23AB	23AE	23AB	23AB	23AE
	23CE	23CE	23AE	23AE	23AE	23BT	23AE	23AE	23BT
	27AE	27AE	23BT	23BT	23BT	23CE	23BT	23BT	23CE
	29AA	29AA	27AE	27AE	27AE	27AE	27AE	27AE	27AE
	31AA	31AG	27AK	29AA	27AK	29AA	27AK	27AK	29AA
	31AG	31AL	29AA	31AA	29AA	31AA	29AA	29AA	31AA
	33AA	33AA	31AG	31AG	31AA	31AG	31AA	31AG	31AG
	33AE	33AE	31AV	33AA	31AG	33AA	31AG	31AV	33AA
	35AL	35AL	33AA	33AE	33AA	33AE	33AA	33AA	33AE
			33AE	35AL	33AE	35AL	33AE	33AE	35AL
			35AL	35AS	35AL	35AS	35AL	35AL	35AS
			35AS	39AE	35AS	39AE	35AS	35AS	39AE
			39AE	41AJ	39AE		39AE	39AE	
			41AG		41AJ		41AJ	41AG	
			45AM					45AM	



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