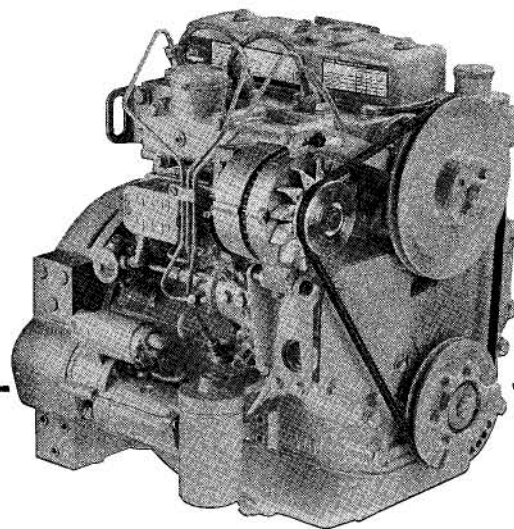


Onan

Parts Manual

L317D-I Engine Diesel



934-0254
12-87 (Spec B and C)
Replaces
3-86 (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. For early built Industrial Engines that do not have the rocker cover mounted nameplate, refer to the table at the rear or 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

Lube Oil Capacity

Fuel Diesel

Valve Lash

BTDC

Firing Order

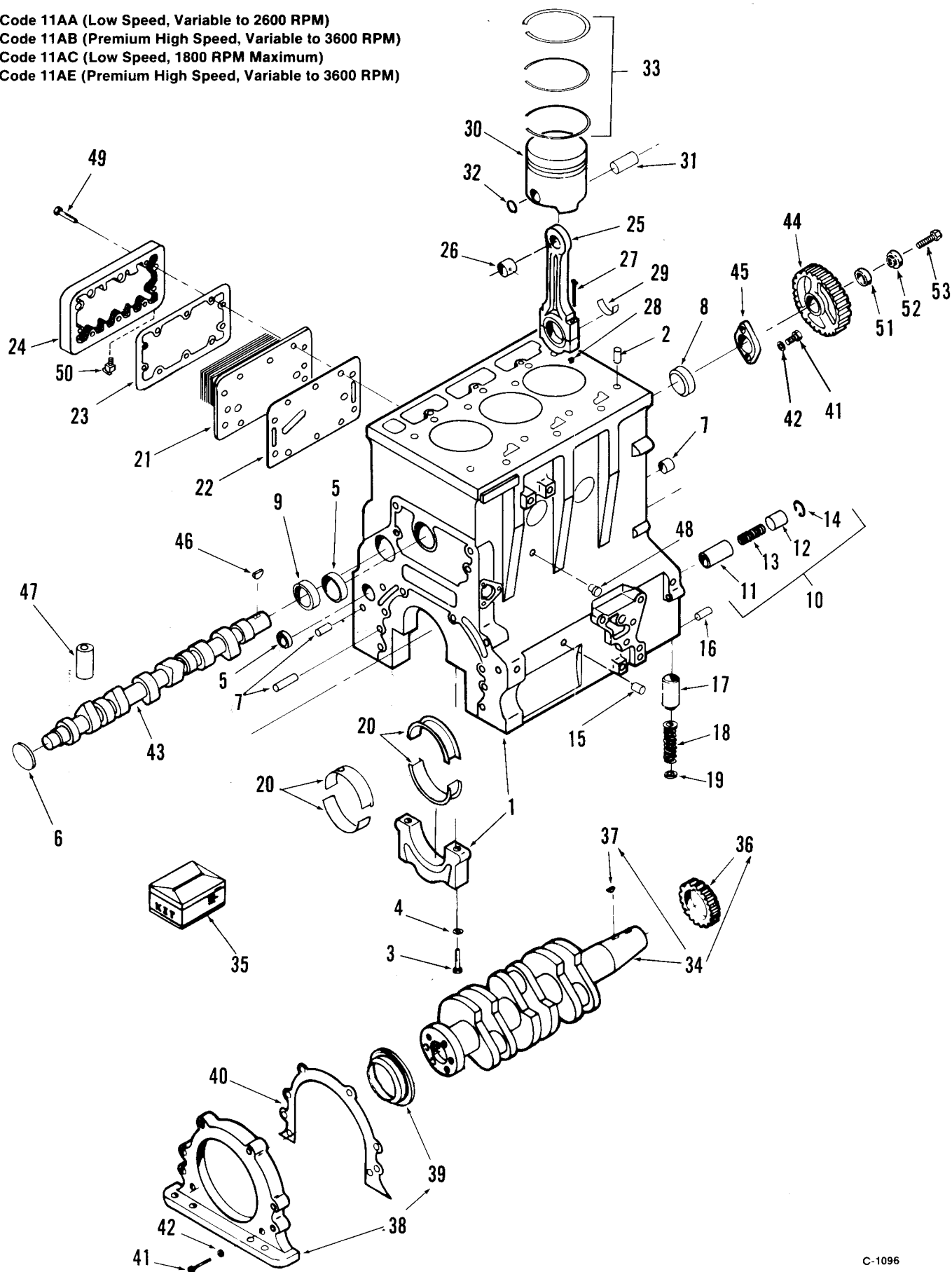
Onan Corporation Minneapolis Minnesota 55432 U.S.A.

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

CYLINDER BLOCK

Code 11AA (Low Speed, Variable to 2600 RPM)
 Code 11AB (Premium High Speed, Variable to 3600 RPM)
 Code 11AC (Low Speed, 1800 RPM Maximum)
 Code 11AE (Premium High Speed, Variable to 3600 RPM)



CYLINDER BLOCK

Code 11AA (Low Speed, Variable to 2600 RPM)
 Code 11AB (Premium High Speed, Variable to 3600 RPM)
 Code 11AC (Low Speed, 1800 RPM Maximum)
 Code 11AE (Premium High Speed, Variable to 3600 RPM)

5100-0706
 5100-0707
 5100-0715

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	BLOCK ASSEMBLY, CYLINDER (Includes Parts Marked *)			26	114-0316	3	Bushing, Connecting Rod (Semi Finished)
	110-3322	1	Code 11AA and 11AC	27	114-0315	6	Bolt, Connecting Rod
	110-3323	1	Code 11AB and 11AE	28	114-0318	6	Nut, Connecting Rod
2	110-2978	2	*Pin, Cylinder Head Alignment	29	BEARING, CONNECTING ROD (Half)		
3	720-1801	8	*Screw, Cap - Hex Head - Special		114-0319	6	Standard
4	740-1801	8	*Washer, Flat - Special		114-0319-01	6	0.25 MM Undersize
5	PLUG, CUP				114-0319-02	6	0.50 MM Undersize
	517-0141	3	*50.8 MM Stainless Steel		114-0319-03	6	0.75 MM Undersize
	517-0144	2	*12.7 MM Steel	30	PISTON AND PIN KIT (Includes Retaining Rings)		
	517-0146	1	*31.75 MM Stainless Steel		112-0201	3	Standard
	517-0250	1	54.37 MM Stainless Steel (Oversize)		112-0202	3	0.25 MM Oversize
6	517-0140	1	*Plug, Welch (57.15 MM) - Steel		112-0203	3	0.50 MM Oversize
7	PIN, ALIGNMENT				112-0204	3	0.75 MM Oversize
	775-0074	2	* 8 MM x 20 MM		112-0205	3	1.0 MM Oversize
	775-0089	2	*10 MM x 20 MM	31	112-0165	3	Pin, Piston
	775-0078	2	* 8 MM x 40 MM	32	518-0409	6	Ring, Retaining - Piston Pin
8	101-0511	1	*Bearing, Camshaft - Front	33	RING KIT, PISTON		
9	101-0471	3	*Bearing, Camshaft - Intermediate and Rear		113-0233	3	Standard
10	123-1613	1	*Valve Assembly, Pressure Relief (Includes Parts Marked +) - Code 11AB, 11AE		113-0234	3	0.25 MM Oversize
11	123-1515	1	+Body, Relief Valve - Code 11AB, 11AE		113-0235	3	0.50 MM Oversize
12	123-1514	1	+Piston, Relief Valve - Code 11AB, 11AE		113-0236	3	0.75 MM Oversize
13	123-1508	1	+Spring, Relief Valve - Code 11AB, 11AE		113-0237	3	1.0 MM Oversize
14	518-0410	1	+Ring, Retaining - Code 11AB, 11AE	34	104-1585	1	Crankshaft Assembly (Includes Gear and Key)
15	505-0274	3	*Plug, Pipe (1/8")	35	168-0176	1	Kit, Gasket - Lower End
16	516-2102	1	*Pin, Regulator Valve Spring	36	GEAR, CRANKSHAFT		
17	123-1514	1	*Piston, Regulator Valve		104-1138	1	Engines Without Front PTO
18	123-1511	1	*Spring, Regulator Valve		104-1418	1	Engines With Front PTO
19	740-1004	1	*Washer, Flat (M6)	37	515-0245	1	Key, Woodruff (Special)
20	BEARING KIT, MAIN (Includes Upper and Lower Bearing Half)			38	101-0713	1	Plate, Rear Seal (Includes Seal)
			Front	39	509-0203	1	Seal, Oil - Rear (Includes Wear Sleeve)
	101-0689	1	Standard	40	101-0600	1	Gasket, Rear Seal Plate
	101-0690	1	0.25 MM Undersize	41	718-1037	8	Screw, Cap - Hex Head (M8 x 25 MM)
	101-0691	1	0.50 MM Undersize	42	740-1006	8	Washer, Flat (M8)
	101-0692	1	0.75 MM Undersize	43	105-0566	1	Camshaft
			Intermediate	44	GEAR, CAMSHAFT		
	101-0685	2	Standard		105-0515	1	Engines Without Front PTO
	101-0686	2	0.25 MM Undersize		105-0552	1	Engines With Front PTO
	101-0687	2	0.50 MM Undersize	45	105-0534	1	Retainer, Camshaft
	101-0688	2	0.75 MM Undersize	46	515-0245	1	Key, Camshaft Gear
			Rear	47	115-0275	6	Tappet
	101-0677	1	Standard	48	FITTING (3/8")		
	101-0678	1	0.25 MM Undersize		504-0028	1	*Valve, Coolant Drain - Code 11AA, 11AC (Engines Without Code 23AW)
	101-0679	1	0.50 MM Undersize		502-0775	1	*Plug, Pipe - Code 11AB, 11AE
	101-0680	1	0.75 MM Undersize	49	725-1054	10	Screw, Socket Head (M8 x 40 MM) - Code 11AB, 11AE
21	102-1020	1	Cooler, Oil - Code 11AB, 11AE	50	504-0028	1	Valve, Coolant Drain - Code 11AB, 11AE
22	102-0973	1	Gasket, Oil Cooler - Code 11AB, 11AE	51	510-0140	1	Bearing, Ball - Camshaft - Engines With Front PTO
23	102-0975	1	Gasket, Oil Cooler Cover - Code 11AB, 11AE	52	105-0569	1	Retainer, Camshaft Bearing - Engines With Front PTO
24	102-0980	1	Cover, Oil Cooler - Code 11AB, 11AE	53	720-1039	1	Screw, Cap - Hex Head (M8 x 35 MM) Engines With Front PTO
25	114-0313	3	Rod, Connecting (Includes Finished Bearing, Bolts and Nuts)				

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

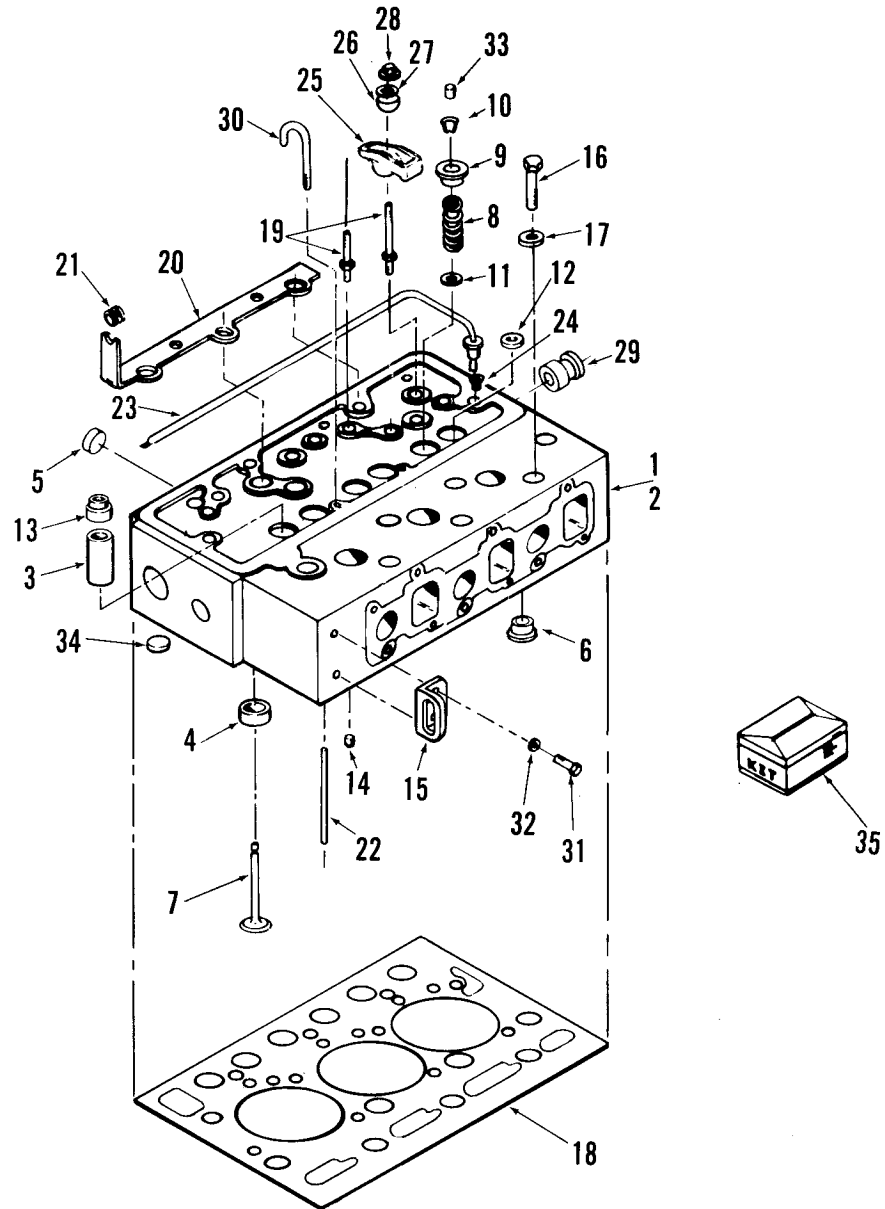
CYLINDER HEAD

Code 11AA (Low Speed, Variable to 2600 RPM)

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

Code 11AC (Low Speed, 1800 RPM Maximum)

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



CYLINDER HEAD

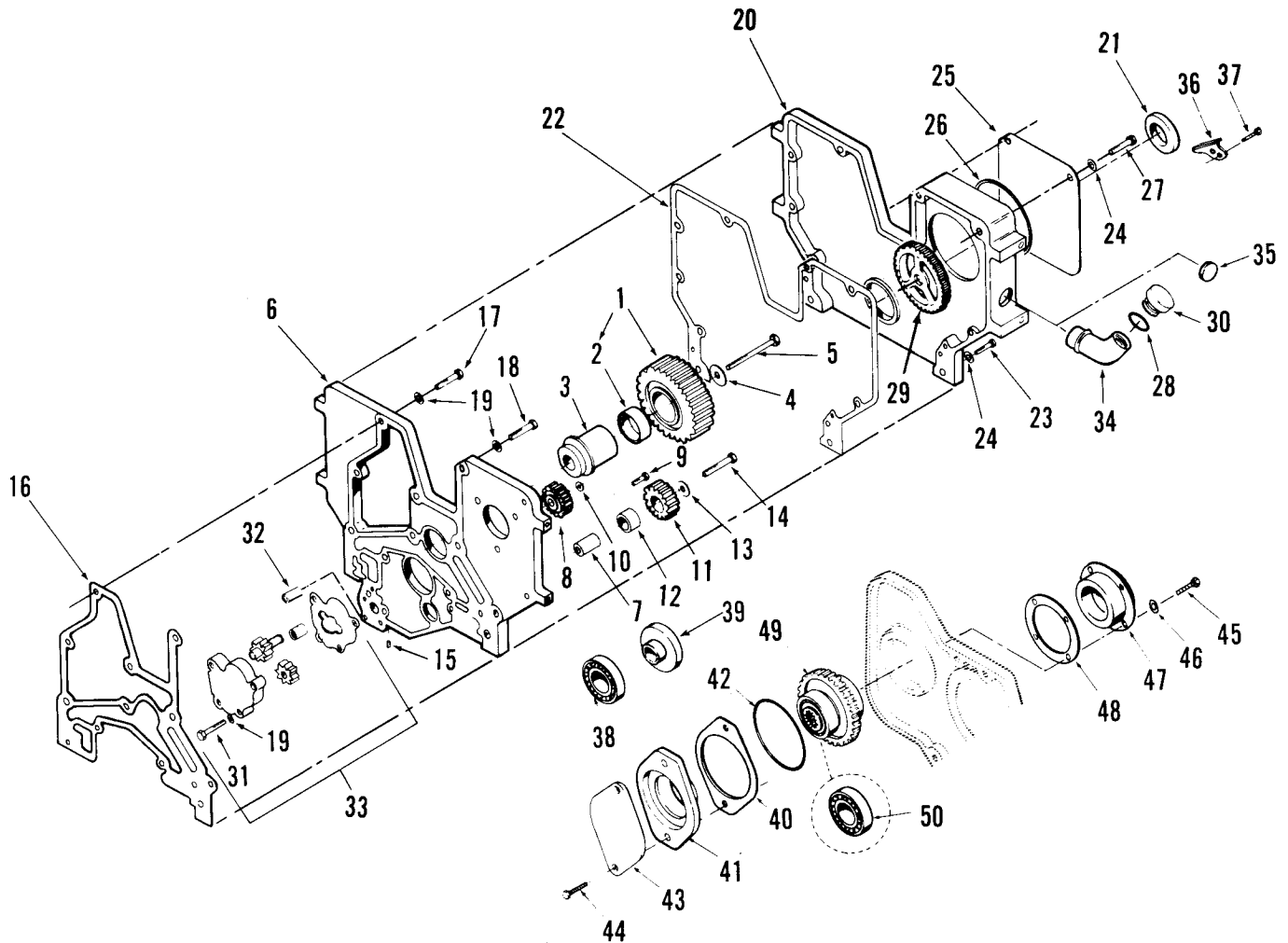
Code 11AA (Low Speed, Variable to 2600 RPM)
 Code 11AB (Premium High Speed, Variable to 3600 RPM)
 Code 11AC (Low Speed, 1800 RPM Maximum)
 Code 11AE (Premium High Speed, Variable to 3600 RPM)

5100-0723
 5100-0790
 5100-0872
 5100-0913
 5100-0914
 5100-0917

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	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)	9	110-3015	6	Retainer, Valve Spring
2	110-3476	1	Head, Cylinder (Includes Seats, Cup Plugs, Sleeves, Spacers, Water Pump Adapter, and Guides)	10	110-2752	12	Collet, Valve Lock
3	GUIDE, VALVE (Semi Finished)			11	PLATE, VALVE SPRING WEAR		
	110-3495	3	Intake (Std.)		110-2991	6	Spec B
	110-3496	3	Exhaust (Std.)		110-2991	3	Begin Spec C (Exhaust)
4	SEAT, VALVE			12	110-3432	3	Spacer, Valve Spring (Intake) Begin Spec C
	110-2839	3	Intake Spec B (Std.) Not Original Equipment Begin Spec C - Code 11AB, 11AE (Not Original Equipment for Code 11AA, 11AC)	13	110-3228	6	Seal Assembly, Valve Stem
	110-3226-01	3	Standard	14	110-2979	3	Sleeve, Sealing
	110-3226-02	3	.25 MM Oversize	15	403-1875	2	Bracket, Lifting
	110-3226-03	3	.50 MM Oversize	16	720-1802	14	Screw, Cap - Hex Head (M12 x 130 MM)
	110-2781-01	3	Standard	17	740-1801	11	Washer, Flat (M12)
	110-2781-02	3	.25 MM Oversize	18	110-3220	1	Gasket, Cylinder Head
	110-2781-03	3	.50 MM Oversize	19	STUD, ROCKER ARM		
5	PLUG, CUP				115-0204	3	Intake (Short)
	517-0142	5	38.1 MM		115-0270	3	Exhaust (Long)
	517-0146	4	31.75 MM	20	115-0310	1	Guide, Push Rod
	517-0162	3	19.05 MM	21	508-0228	1	Grommet
6	PLUG, HOT (Swirl)			22	115-0253	6	Pushrod
	110-3039	3	Code 11AB, 11AE	23	120-1044	1	Tube, Rocker Arm Oil
	110-3137	3	Code 11AA, 11AC	24	502-0003	1	Connector, Inverted Male
7	VALVE			25	115-0316	6	Arm, Rocker
	110-3066	3	Intake	26	115-0202	6	Ball, Rocker Arm
	110-2840	3	Exhaust	27	526-2119	6	Washer, Flat
8	110-3300	6	Spring, Valve	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
				31	718-1053	4	Screw, Cap - Hex Head (M10 x 20 MM)
				32	740-1008	4	Washer, Flat (M10)
				33	110-3245	6	Cap, Valve Stem
				34	517-0167	1	Plug, Cup (22.6 MM) Code 11AA and 11AC
				35	168-0177	1	Kit, Gasket - Valve Grind

GEARCASE

Code 11AA (Low Speed, Variable to 2600 RPM)
 Code 11AB (Premium High Speed, Variable to 3600 RPM)
 Code 11AC (Low Speed, 1800 RPM Maximum)
 Code 11AE (Premium High Speed, Variable to 3600 RPM)



GEARCASE

Code 11AA (Low Speed, Variable to 2600 RPM)

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

Code 11AC (Low Speed, 1800 RPM Maximum)

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

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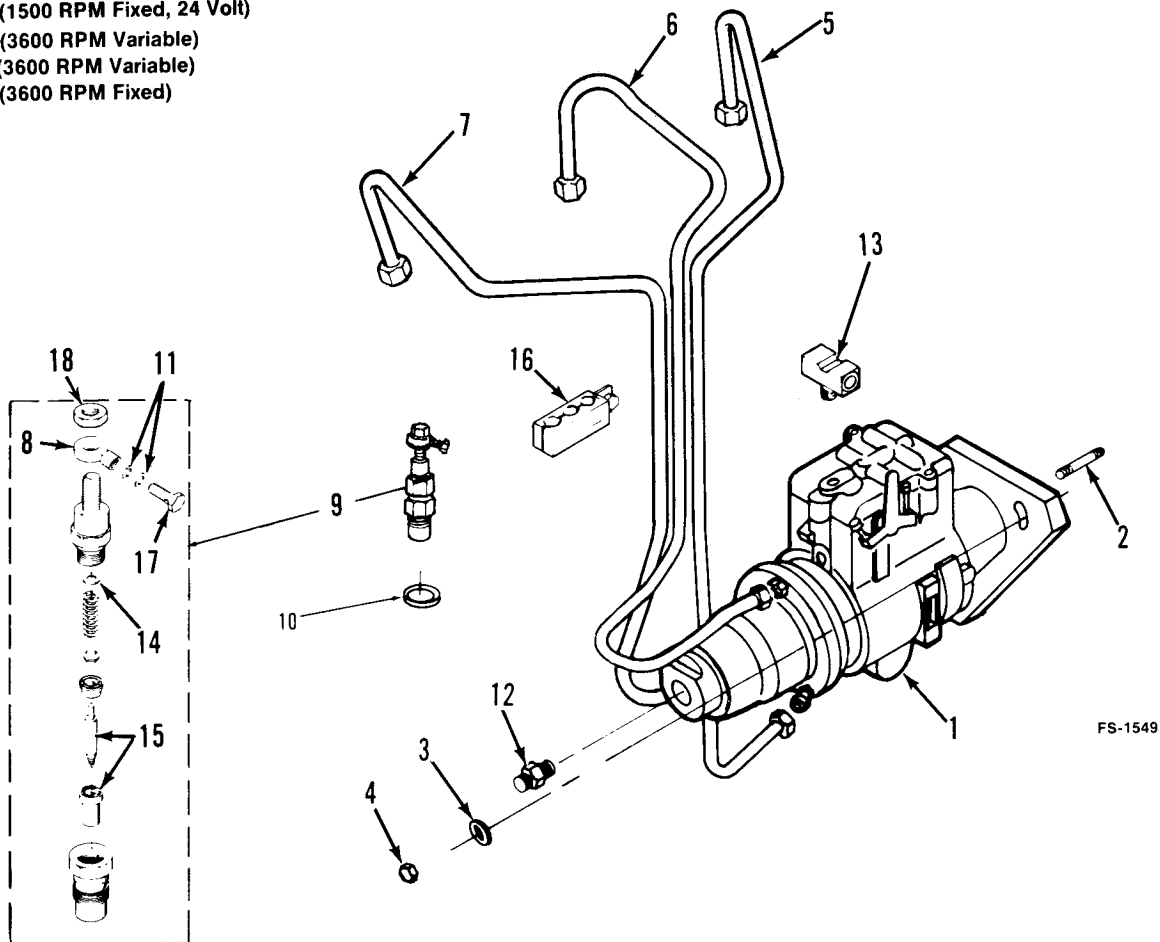
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REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	GEAR, IDLER 105-0513	1	Engines Without Front PTO (Includes Finished Bearing)	24	WASHER, FLAT 740-1006	4	M8
	105-0555	1	Engines With Front PTO		740-1010	6	M12
2	105-0519	1	Bearing, Idler Gear (Semi-Finished) - Engines Without Front PTO	25	103-0735	1	Cover, Injection Pump Gear
3	SHAFT, IDLER GEAR 105-0508	1	Engines Without Front PTO	26	509-0263	1	Seal, O-Ring
	105-0572	1	Engines With Front PTO	27	SCREW, CAP - HEX HEAD		
4	526-2127	1	Washer, Flat (M10) - Engines Without Front PTO		718-1048	1	M8 × 80 MM
5	718-1064	1	Screw, Cap - Hex Head (M10 × 75 MM)		718-1044	2	M8 × 60 MM
6	BACKPLATE, GEARCASE 103-0716	1	Engines Without Front PTO		718-1036	1	M8 × 20 MM
	103-0725	1	Engines With Front PTO	28	509-0142	1	Seal, O-Ring - Oil Fill Cap - Engines With Code 17AM
7	120-0983	1	Shaft, Oil Pump Idler Gear	29	147-0427	1	Gear, Injection Pump
8	120-0885	1	Gear, Oil Pump Drive	30	123-1647	1	Cap - Oil Fill (Engines With Code 17AM)
9	718-1035	1	Screw, Cap - Hex Head (M8 × 16 MM)	31	718-1041	2	Screw, Cap - Hex Head (M8 × 45 MM)
10	526-2106	1	Washer, Flat (M8)	32	120-0979	1	Bearing, Oil Pump Drive Shaft
11	120-1063	1	Gear, Oil Pump Idler (Includes Finished Bearing)	33	120-1015	1	Pump Kit, Oil (Includes Drive Shaft Bearing)
12	120-1041	1	Bearing, Oil Pump Idler Gear (Semi-Finished)	34	123-1558	1	Tube, Oil Fill - Engines With Code 17AM
13	526-2107	1	Washer, Flat (M8)	35	517-0188	1	Plug, Cup - Engines Without Code 17AM
14	718-1035	1	Screw, Cap - Hex Head (M8 × 16 MM)	36	103-0750	1	Plate, Timing
15	725-1802	1	Screw, Hex Socket Set (M16 × 16 MM)	37	815-0578	2	Screw, Cap - Hex Head (M6 × 12.5 MM)
16	103-0733	1	Gasket, Gearcase Backplate	38	510-0139	1	Bearing, Idler Gear - Engines With Front PTO
17	SCREW, CAP - HEX HEAD 718-1037	1	M8 × 25 MM	39	105-0556	1	Retainer, Idler Gear - Engines With Front PTO
	718-1039	2	M8 × 35 MM	40	121-0039	1	Gasket, Adapter - Engines With Front PTO
18	725-1801	2	Screw, Low Socket Head Cap (M8 × 16 MM)	41	121-0038	1	Adapter, Hydraulic Pump - Engines With Front PTO
19	740-1006	7	Washer, Flat (M8)	42	509-0175	1	Seal, O-Ring - Engines With Front PTO
20	GEARCASE (Includes Oil Seal)		Engines Without Front PTO	43	121-0040	1	Cover, Adapter - Engines With Front PTO
	103-0744	1	Without Side Oil Fill	44	718-1075	2	Screw, Cap - Hex Head - Engines With Front PTO
	103-0746	1	With Side Oil Fill	45	718-1037	4	Screw, Cap - Hex Head (M8 × 25 MM)
	103-0745	1	Engines With Front PTO (Without Side Oil Fill)	46	740-1006	4	Washer, Flat (M8)
21	509-0191	1	Seal, Oil (Includes Wear Sleeve)	47	101-0710	1	Support, Camshaft Bearing
22	GASKET, GEARCASE 103-0731	1	Engines Without Front PTO	48	101-0711	1	Gasket, Support
	103-0723	1	Engines With Front PTO	49	105-0571	1	Gear Assembly, Front PTO (Includes Bearings)
23	SCREW, CAP - HEX HEAD 718-1046	2	M8 × 70 MM	50	510-0141	2	Bearing, Front PTO Gear
	718-1043	2	M8 × 55 MM				
	718-1085	4	M8 × 85 MM (Engines Without Code 41AA and 41AH)				

FUEL INJECTION

Code 13AA (2600 RPM Variable)
 Code 13AB (3600 RPM Variable, 12 Volt)
 (3600 RPM Variable, ETSO, MO, 12 Volt)
 (3600 RPM Variable, ETSO, MO, 24 Volt)
 Code 13AC (1800 RPM Fixed, 12 Volt)
 (1800 RPM Fixed, 24 Volt)
 Code 13AD (3600 RPM Fixed)
 Code 13AE (1500 RPM Fixed, 12 Volt)
 (1500 RPM Fixed, 24 Volt)
 Code 13AH (3600 RPM Variable)
 Code 13AJ (3600 RPM Variable)
 Code 13AP (3600 RPM Fixed)



FS-1549

FUEL INJECTION

Code 13AA (2600 RPM Variable)	5100-0632
Code 13AB (3600 RPM Variable, 12 Volt)	5100-0730
(3600 RPM Variable, ETSO, MO, 12 Volt)	5100-0731
(3600 RPM Variable, ETSO, MO, 24 Volt)	5100-0732
Code 13AC (1800 RPM Fixed, 12 Volt)	5100-0733
(1800 RPM Fixed, 24 Volt)	5100-0950
Code 13AD (3600 RPM Fixed)	5100-1157
Code 13AE (1500 RPM Fixed, 12 Volt)	
(1500 RPM Fixed, 24 Volt)	
Code 13AH (3600 RPM Variable)	
Code 13AJ (3600 RPM Variable)	
Code 13AP (3600 RPM Fixed)	

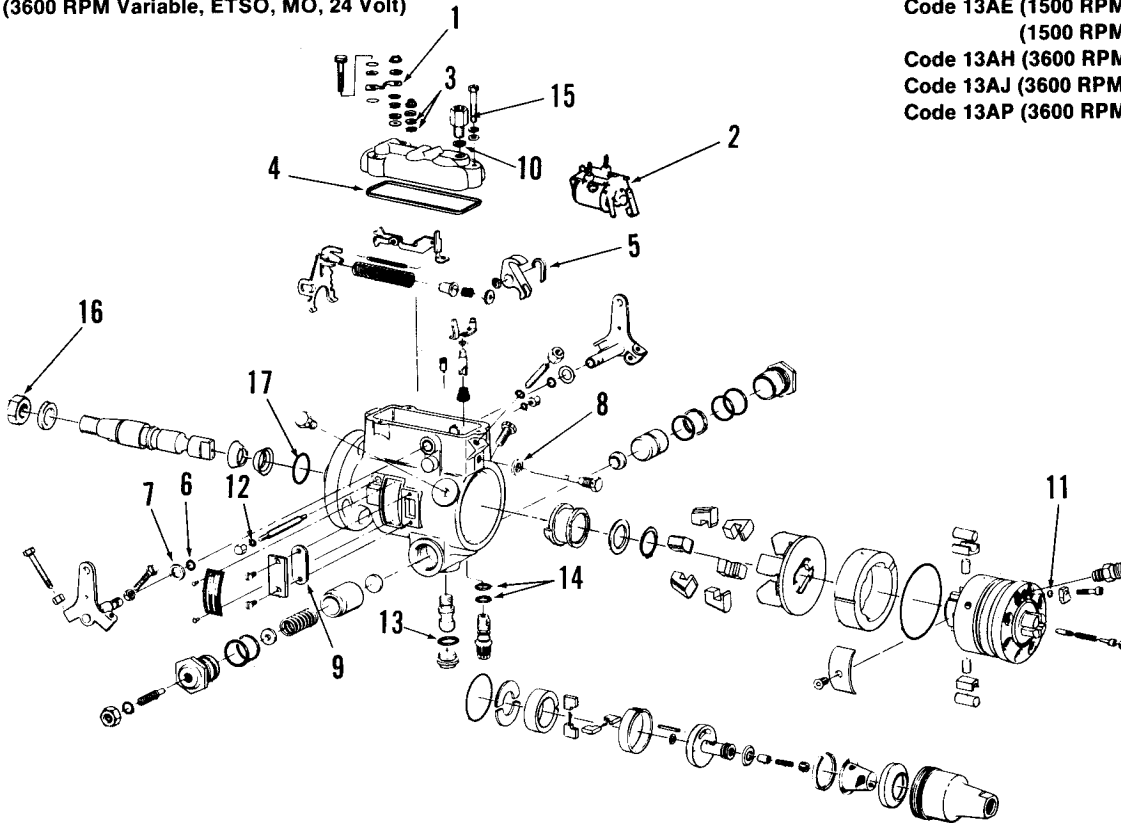
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	PUMP, FUEL INJECTION (See Separate Group for Components)		
	147-0461-02	1	Code 13AA
			Code 13AB
	147-0461-01	1	3600 RPM Variable, 12 Volt
	147-0461-07	1	3600 RPM Variable, ETSO, MO, 12 Volt
	147-0461-08	1	3600 RPM Variable, ETSO, MO, 24 Volt
			Code 13AC, 13AE
	147-0461-03	1	12 Volt
	147-0461-10	1	24 Volt
	147-0461-04	1	Code 13AD, 13AP
	147-0461-01	1	Code 13AH, 13AJ
2	520-2403	3	Stud, Injection Pump (M8)
3	526-2106	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)
8	147-0766	3	Banjo
9	INJECTOR, FUEL (Includes Seal)		
	147-0562	3	Code 13AA, 13AD, 13AH, 13AJ, 13AP
			Code 13AB
	147-0562	3	3600 RPM Variable, 12 Volt
	147-0700	3	3600 RPM Variable, ETSO, MO, 12 Volt
	147-0700	3	3600 RPM Variable, ETSO, MO, 24 Volt
			Code 13AC
	147-0562	3	12 Volt
	147-0700	3	24 Volt
			Code 13AE
	147-0562	3	Spec B
	147-0700	3	Begin Spec C
10	147-0436	3	Seal, Injector
11	147-0767	6	Washer
12	502-0733	1	Connector
13	502-0057	1	Tee, Pipe - Special

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
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
	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	147-0765	3	Screw, Hollow
18	147-0780	3	Nut, Hex (M19) Used With 147-0700 Fuel Injector

FUEL INJECTION PUMP COMPONENTS

Code 13AA (2600 RPM Variable)
 Code 13AB (3600 RPM Variable, 12 Volt)
 (3600 RPM Variable, ETSO, MO, 12 Volt)
 (3600 RPM Variable, ETSO, MO, 24 Volt)

Code 13AC (1800 RPM Fixed, 12 Volt)
 (1800 RPM Fixed, 24 Volt)
 Code 13AD (3600 RPM Fixed)
 Code 13AE (1500 RPM Fixed, 12 Volt)
 (1500 RPM Fixed, 24 Volt)
 Code 13AH (3600 RPM Variable)
 Code 13AJ (3600 RPM Variable)
 Code 13AP (3600 RPM Fixed)



FS-1384

NOTE: Component part numbers listed below do not apply to the two Code 13AB injection pumps (147-0461-07 and -08) with Energized to Shut Off/Manual Override features. Component part numbers for these pumps were not available at time of printing.

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	PUMP, FUEL INJECTION (Complete)		
	147-0461-02	1	Code 13AA
			Code 13AB
	147-0461-01	1	3600 RPM Variable, 12 Volt
	147-0461-07	1	3600 RPM Variable, ETSO, MO, 12 Volt
	147-0461-08	1	3600 RPM Variable, ETSO, MO, 24 Volt
			Code 13AC, 13AE
	147-0461-03	1	12 Volt
	147-0461-10	1	24 Volt
	147-0461-04	1	Code 13AD, 13AP
1	147-0592	1	Strap, Terminal Grounding
2	SOLENOID AND FRAME KIT		
	147-0593	1	12 Volt
	147-0703	1	24 Volt
3	147-0591	2	Washer, Terminal Insulating
4	147-0590	1	Gasket, Governor Cover

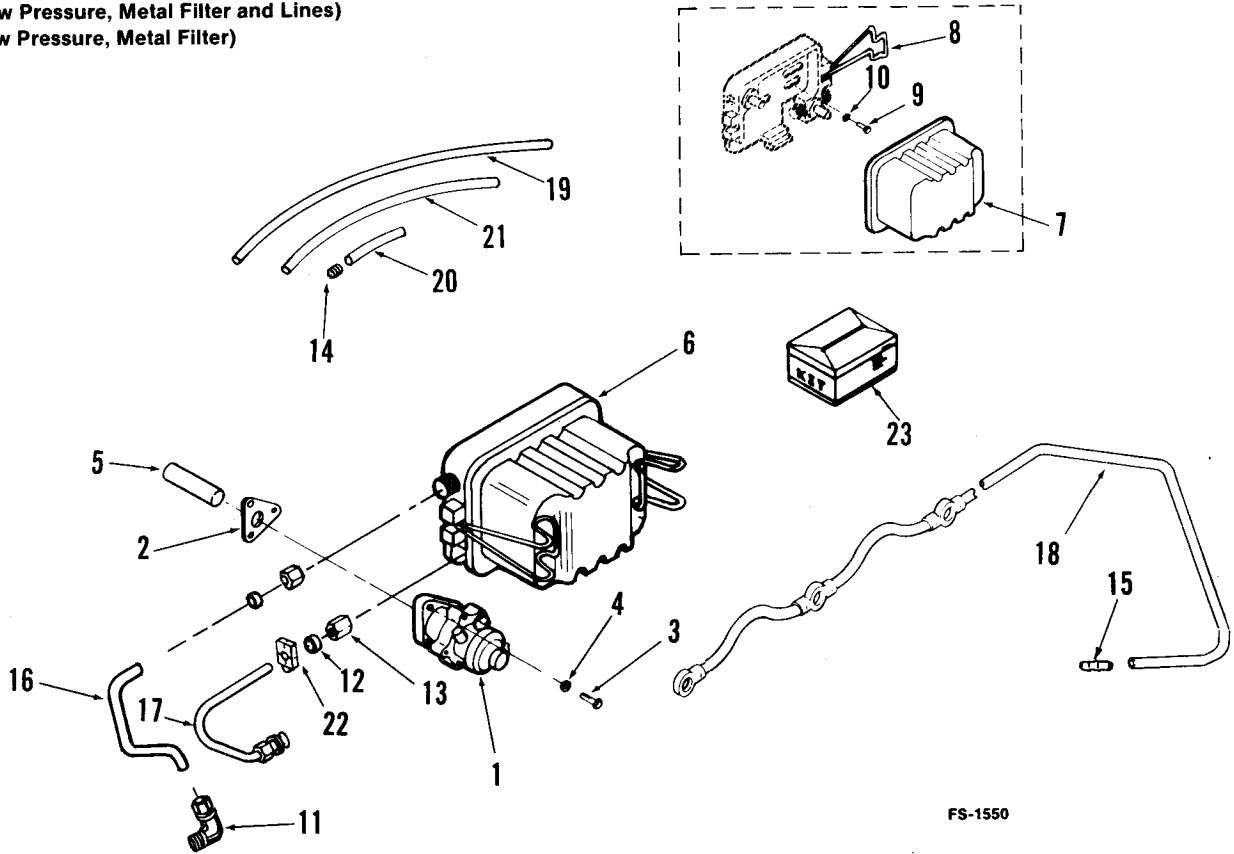
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
5	147-0589	1	Clip, Shaft Retaining
6	147-0588	2	Seal, Throttle Shaft
7	147-0587	2	Washer, Throttle Shaft Seal
8	147-0586	1	Washer, Guide Stud
9	147-0585	1	Gasket, Timing Line Cover
10	147-0584	1	Seal, Return Line Connector
11	147-0583	1	Seal, Locking Plate
12	147-0582	2	Seal, Pivot Shaft
13	147-0581	1	Seal, Advance Screw Hole Plug (Not required on some pumps)
14	147-0580	2	Seal, Head Locating Screws (Some pumps require 1)
15	147-0579	1	Connector, Return Line
16	147-0578	1	Nut, Drive Shaft
17	509-0265	1	Seal, Pilot Tube

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

FUEL SYSTEM

5100-0353
5100-0633

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

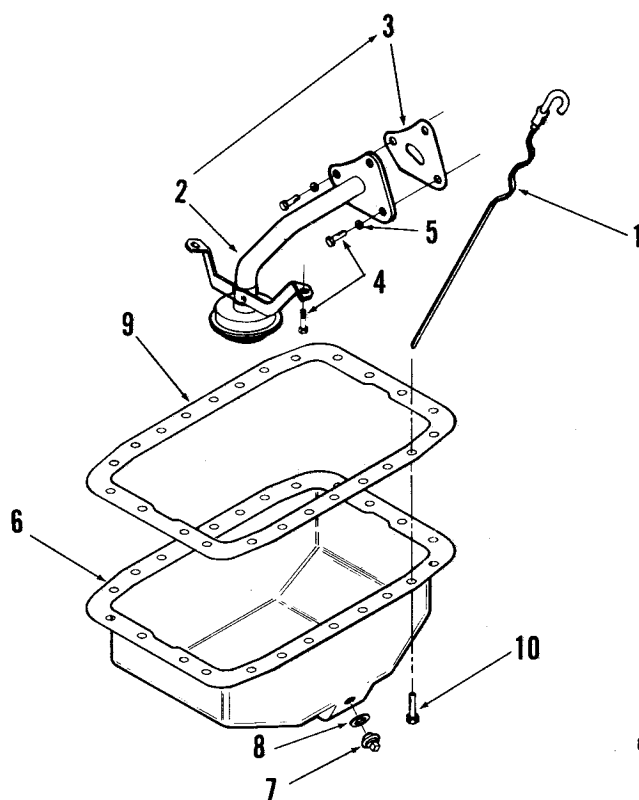


REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	149-2067	1	Pump Kit, Fuel Transfer (Includes Mounting Gasket)	12	502-0768	2	Sleeve, Flareless Line
2	149-1728	1	Gasket, Fuel Transfer Pump	13	502-0769	2	Nut, Flareless Line
3	718-1021	3	Screw, Cap - Hex Head (M6 x 20 MM)	14	502-0736	1	Plug - Code 15AA, 15AP
4	740-1004	3	Washer, Flat (M6)	15	502-0830	1	Connector - Code 15AH (Includes Sleeve and Nut)
5	149-1732	1	Pushrod, Fuel Transfer Pump	16	149-1772	1	Line, Fuel
6	149-1759	1	Filter Assembly (Includes Filter, Base, Clips and Grommet)	17	149-1889	1	Line, Fuel
7	149-1758	1	Filter Only, Fuel	18	147-0713	1	Tube, Nozzle Leak Off - Code 15AH
8	149-1771	2	Clip, Fuel Filter	19	503-1055	1	Line, Fuel Return (380 MM Long) Code 15AA, 15AP
9	725-1074	2	Screw, Cap - Hex Head (M10 x 20 MM)	20	503-1054	1	Line, Fuel Return (25 MM Long) Code 15AA, 15AP
10	740-1008	2	Washer, Flat (M10)	21	503-1053	2	Line, Fuel Return (180 MM Long) Code 15AA, 15AP
11	502-0774	1	Elbow, Fuel Pump Outlet (Includes Sleeve and Nut)	22	149-1800	1	Grommet, Fuel Line
				23	149-2069	1	Repair Package - Fuel Pump

OIL PAN

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

5100-0349
 5100-0999



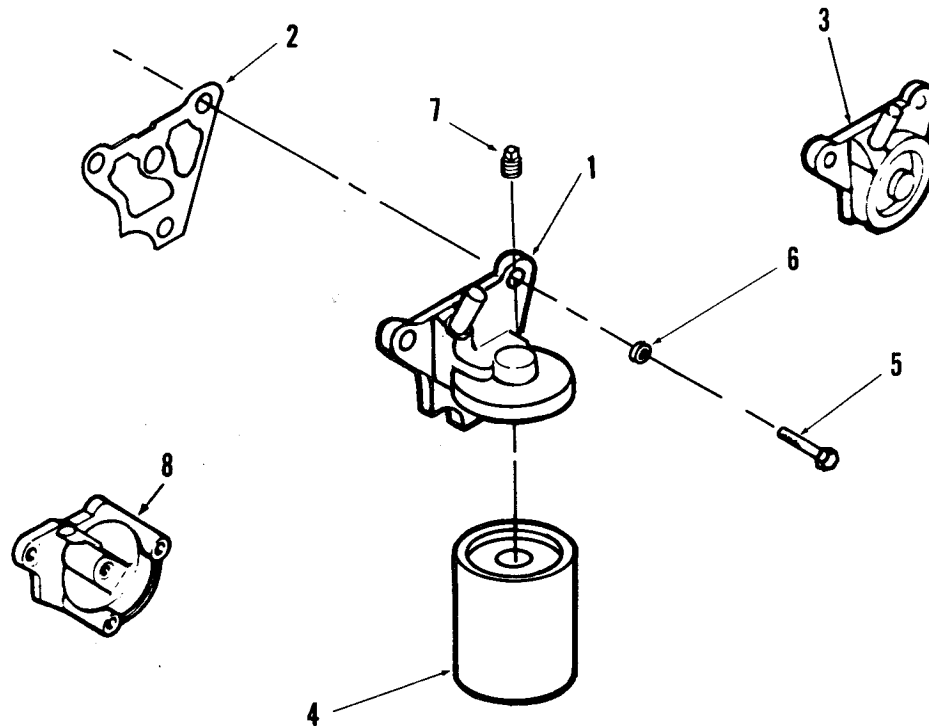
LS-1129

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		
	718-1044	2	M8 × 60 MM
	718-1036	2	M8 × 20 MM
5	740-1006	4	Washer, Flat (M8)
6	PAN, OIL		
	102-1260	1	Code 17AB, 17AH (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 FILTER

Code 17AJ (Vertical Down)
 Code 17AK (Horizontal)
 Code 17AW (45°)

5100-0348
 5100-0454
 5100-0802



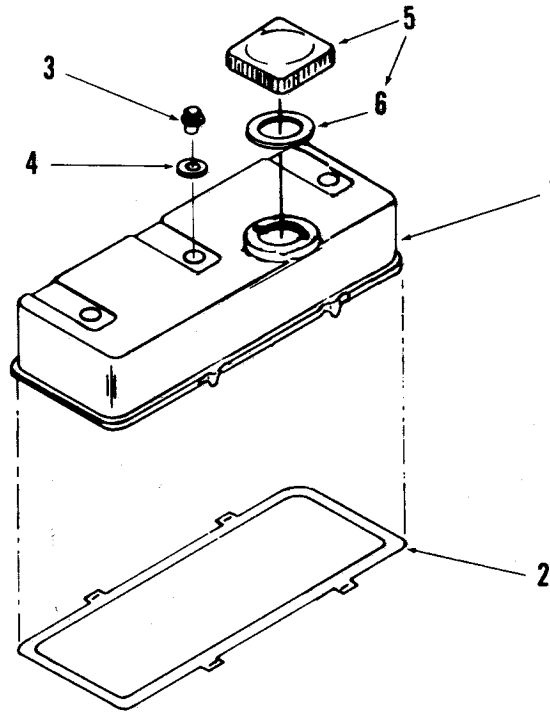
LS-1057

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	122-0632	1	Adapter, Oil Filter - Code 17AJ
2	122-0635	1	Gasket, Adapter Mounting
3	122-0614	1	Adapter, Oil Filter - Code 17AK
4	FILTER, OIL		
	122-0602	1	Code 17 AJ
	122-0550	1	Code 17AK, 17AW
5	SCREW, CAP		
	718-1037	3	Code 17AJ (M8 × 25 MM) Hex Head
	718-1040	2	Code 17AK M8 × 40 MM - Hex Head
	725-1053	1	M8 × 35 MM - Socket Head
	718-1037	1	Code 17AW - Hex Head M8 × 25 MM
	718-1804	2	M8 × 110 MM
6	WASHER, FLAT (M8)		
	526-2108	3	Code 17AJ, 17AW
	526-2108	2	Code 17AK 15.5 MM O.D.
	740-1802	1	14.0 MM O.D.
7	505-0274	1	Plug, Pipe (1/8")
8	122-0606	1	Adapter, Oil Filter - Code 17AW

ROCKER COVER

Code 17AL (Top Center)
Code 17AM (Top Center and Side Gearcase)

5100-0473
5100-0762



LS-1130

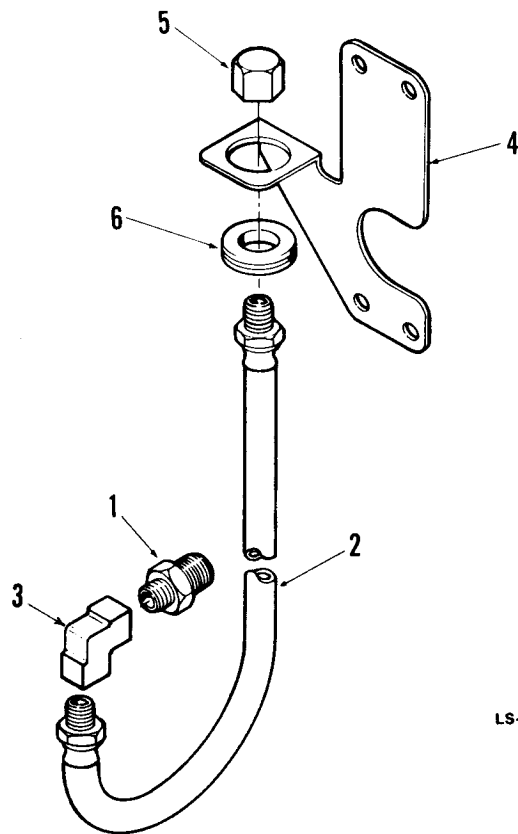
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	115-0344	1	Cover, Rocker
2	115-0309	1	Gasket, Rocker Cover
3	115-0320	3	Capnut, Rocker Cover
4	115-0232	3	Gasket, Capnut
5	123-1605	1	Cap, Oil Fill (Includes Gasket)
6	123-1518	1	Gasket, Oil Fill Cap

NOTE: Additional parts for Code 17AM will be found in the Gearcase Group.

REMOTE OIL DRAIN

Code 17BA

5100-0650



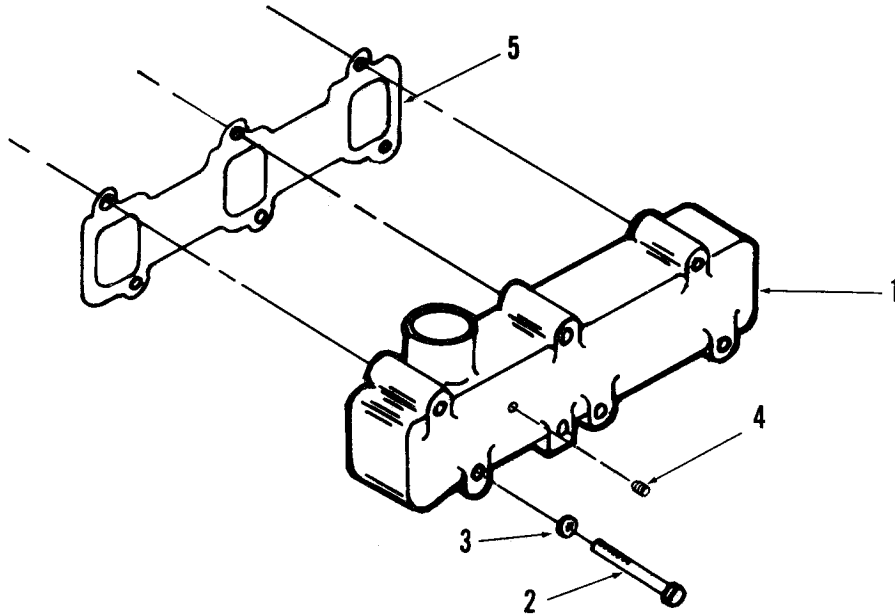
LS-1135

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

INTAKE MANIFOLD

Code 19AA (Center Up)

5100-0347



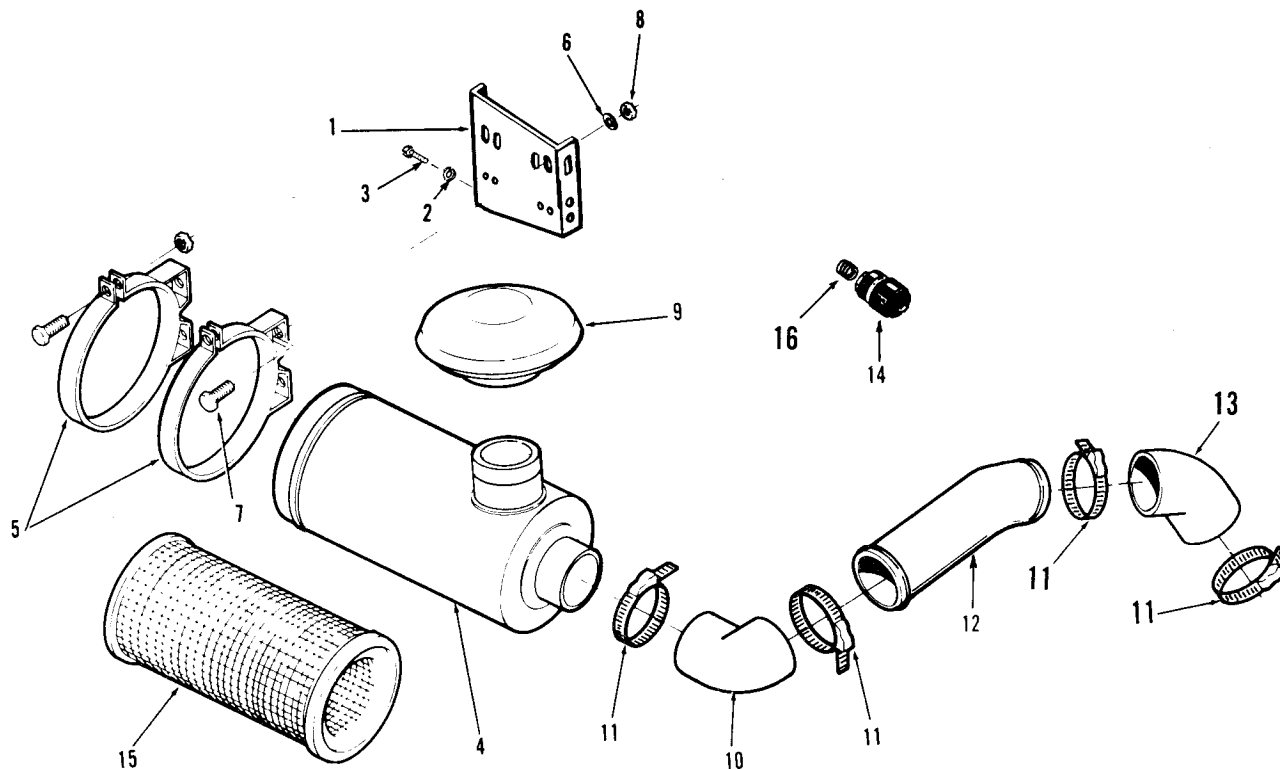
EXS-1106

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	154-2370	1	Manifold, Intake
2	718-1801	6	Screw, Cap - Hex Head (M8 × 85 MM)
3	740-1006	6	Washer, Flat (M8)
4	505-0274	1	Plug, Pipe
5	154-2385	1	Gasket, Manifold

AIR CLEANER

Code 19AB (Medium Duty - Single Stage - Engine Mounted)

5100-1058



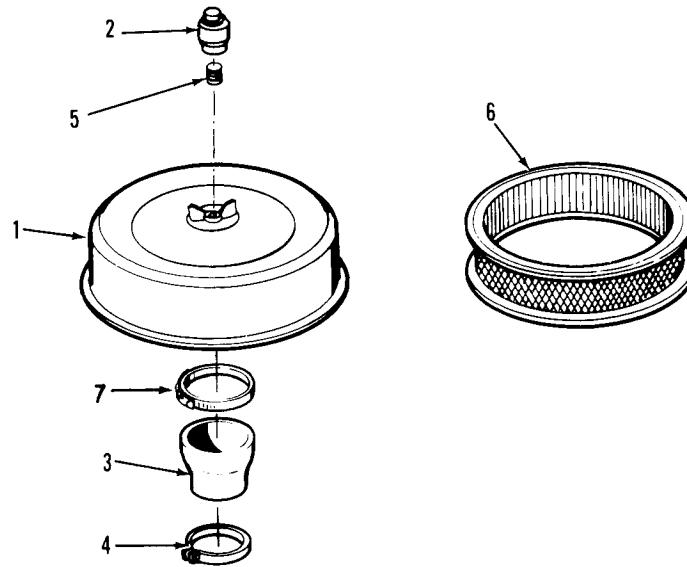
XFS-1383

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	140-1772	1	Bracket, Air Cleaner Mounting
2	740-1010	1	Washer, Flat - Hardened (M12)
3	718-1073	1	Screw, Cap - Hex Head (M12 x 25 MM)
4	140-1869	1	Cleaner, Air (Includes Element)
5	140-0078	2	Band, Air Cleaner
6	740-1006	4	Washer, Flat-Hardened (M8)
7	718-1036	4	Screw, Cap - Hex Head (M8 x 20 MM)
8	750-1006	4	Nut, Hex (M8)
9	140-1787	1	Hood, Air Inlet
10	503-1222	1	Elbow, 90°
11	503-0354	4	Clamp, Hose
12	140-1991-03	1	Tube, Air Inlet
13	503-1406	1	Elbow, 90°
14	140-1791	1	Indicator, Service (Intake Manifold Mounted)
15	140-1204	1	Element, Air Cleaner
16	140-1260	1	Fitting, Indicator (Intake Manifold Mounted)

AIR CLEANER

Code 19AJ

5100-0106



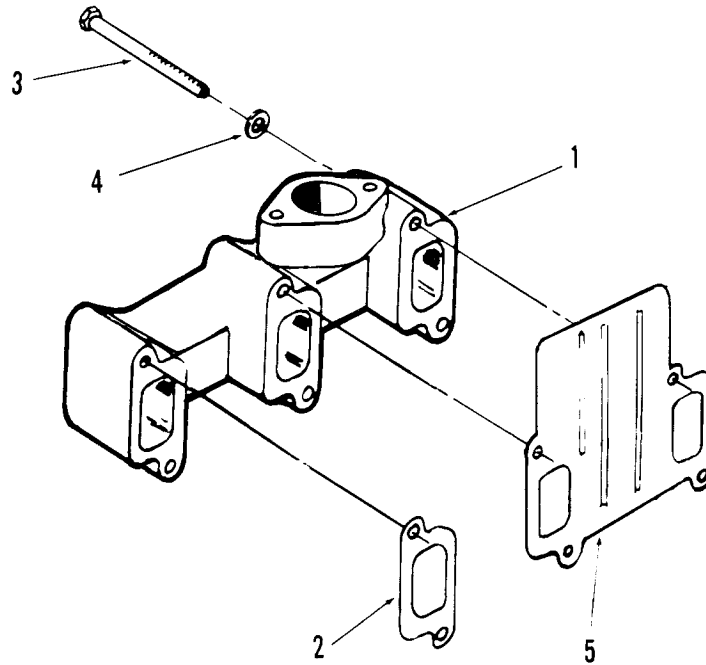
FS-1385

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	140-1091	1	Cleaner, Air (Includes Element)
2	140-0961	1	Indicator, Service
3	503-1181	1	Hose, Air Cleaner
4	503-0465	1	Clamp, Hose
5	505-0098	1	Nipple, Pipe
6	140-1089	1	Element, Air Cleaner
7	503-0648	1	Clamp, Hose

EXHAUST MANIFOLD

Code 21AA (Center Up)

5100-0351



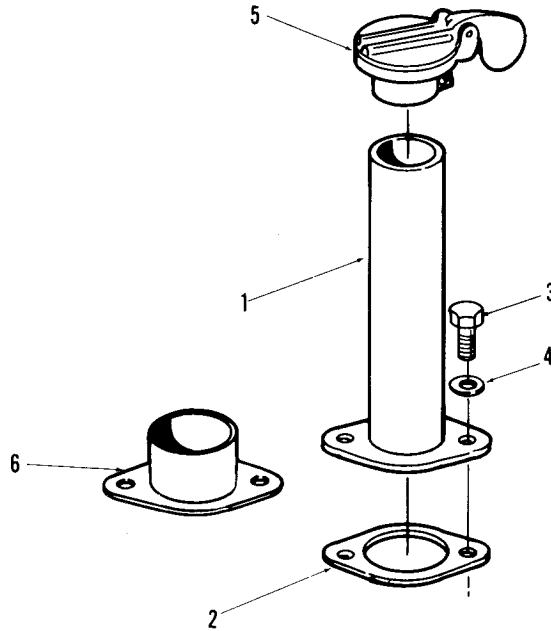
EXS-1107

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	154-2369	1	Manifold, Exhaust
2	154-2162	1	Gasket, Manifold
3	800-2524	6	Screw, Cap - Hex Head (M8 x 90 MM)
4	740-1006	6	Washer, Flat (M8)
5	154-2325	1	Gasket, Exhaust Manifold

EXHAUST PIPE

Code 21AD (With Rain Cap)
Code 21AG (Exhaust Flange)
Code 21AJ (Gasket Only)

5100-0190
5100-0285
5100-0338



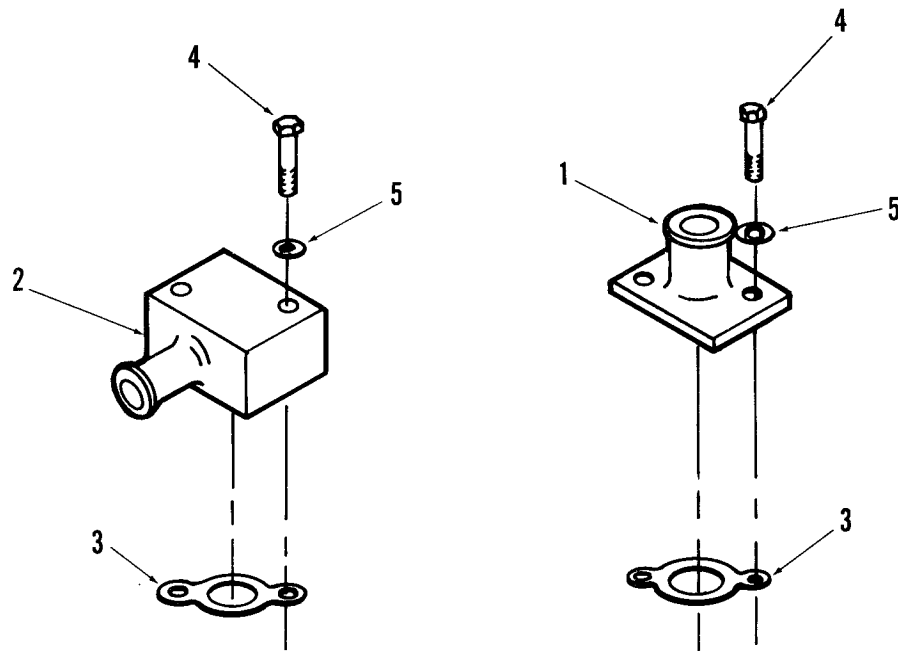
EXS-1065

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	155-1919	1	Pipe, Exhaust - Code 21AD
2	155-1920	1	Gasket
3	718-1054	2	Screw, Cap - Hex Head (M10 × 25 MM) - Code 21AD, 21AG
4	740-1008	2	Washer, Flat (M10) - Code 21AD, 21AG
5	155-0985	1	Cap, Rain - Code 21AD
6	155-1916	1	Flange, Exhaust - Code 21AG

COOLANT OUTLET CONNECTOR

Code 23AA (Vertical)
Code 23AB (Horizontal, Non-Accessory Side)

5100-0099
5100-0303



CS-1111

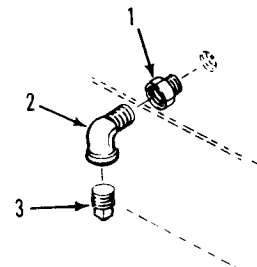
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	309-0472	1	Cover, Thermostat (Includes Gasket) - Code 23AA
2	309-0518	1	Cover, Thermostat (Includes Gasket) - Codes 23AB
3	309-0417	1	Gasket, Thermostat Cover
4	SCREW CAP - HEX HEAD		
	718-1037	2	M8 × 25 MM - Code 23AA
	718-1048	2	M8 × 80 MM - Code 23AB
5	740-1006	2	Washer, Flat (M8)

COOLANT HEATER CONNECTION

Code 23AW

5100-0672

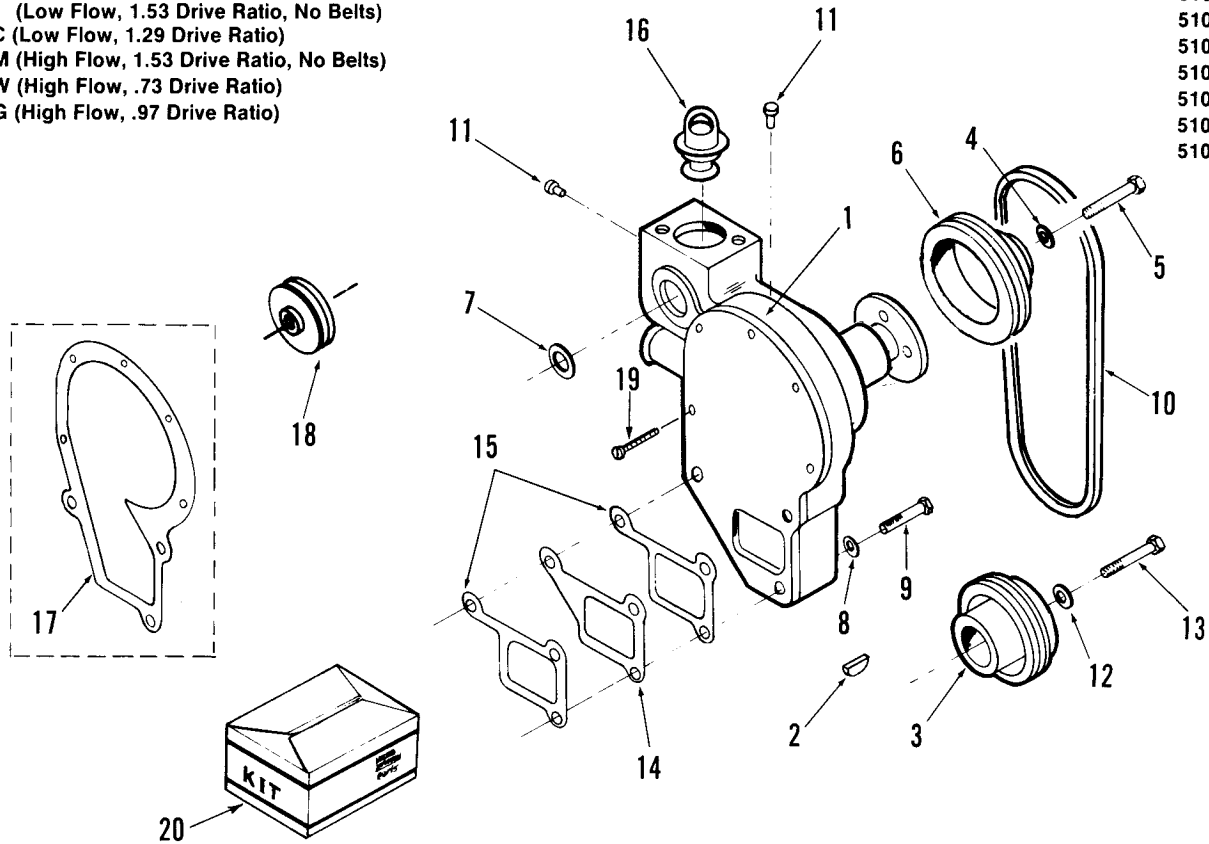
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	505-0017	1	Bushing
2	502-0156	1	Elbow, Street
3	502-0153	1	Plug, Brass



COOLANT PUMP

Code 23AE (High Flow, .81 Drive Ratio)
 Code 23AM (Low Flow, 1.53 Drive Ratio)
 (Low Flow, 1.53 Drive Ratio, No Belts)
 Code 23BC (Low Flow, 1.29 Drive Ratio)
 Code 23BM (High Flow, 1.53 Drive Ratio, No Belts)
 Code 23BW (High Flow, .73 Drive Ratio)
 Code 23DG (High Flow, .97 Drive Ratio)

5100-0765
 5100-0766
 5100-0792
 5100-0796
 5100-0798
 5100-0923
 5100-1112
 5100-1195



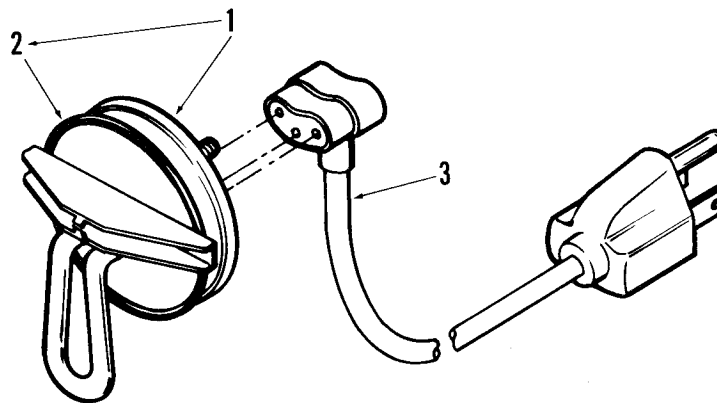
CS-1107-1

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	PUMP KIT, COOLANT (Includes Mounting Gaskets)			511-0147-02	1	Code 23AM	
	131-0352	1	Code 23AE, 23BM, 23BW, 23DG		511-0147-13	1	Code 23BC
	131-0350	1	Code 23AM, 23BC		511-0147-08	1	High Mounted Alternator
2	515-0245	1	Key, Pulley		511-0147-03	1	Low Mounted Alternator
3	PULLEY, CRANKSHAFT				511-0147-15	1	Code 23BW
	104-1488	1	Single Groove - Code 23AM, 23BC, 23BM, 23BW, 23DG				Code 23DG
	104-1592	1	Double Groove - Code 23AE	11	PLUG, PIPE - BRASS		
4	740-1006	4	Washer, Flat (M8)		502-0775	3	3/8"
5	718-1035	4	Screw, Cap - Hex Head (M8 x 16 MM)		502-0317	1	3/4"
6	PULLEY, COOLANT PUMP			12	526-0283	1	Washer, Flat (M8)
			Single Groove	13	720-1123	1	Screw, Cap - Hex Head (M16 x 60 MM)
	131-0341	1	Code 23AM, 23BM	14	131-0324	1	Spacer, Coolant Pump
	131-0342	1	Code 23BC	15	131-0294	2	Gasket, Coolant Pump Mounting
	131-0346	1	Code 23BW	16	309-0458	1	Thermostat (Includes Gaskets)
	131-0344	1	Code 23DG	17	131-0334	1	Gasket, Coolant Pump Backplate
	131-0345	1	Double Groove - Code 23AE	18	PULLEY, ALTERNATOR		
7	509-0264	1	Seal, O-Ring		191-1339	1	Single Groove
8	740-1006	3	Washer, Flat (M8)				- Code 23BC, 23BW, 23DG
9	718-1044	3	Screw, Cap - Hex Head (M8 x 60 MM)		191-1342	1	Double Groove - Code 23AE
10	BELT, COOLANT PUMP AND ALTERNATOR DRIVE			19	815-0612	5	Screw, Countersunk - Flat Head
			Code 23AE				- Torque Drive (Special)
	511-0147-13	2	High Mounted Alternator	20	KIT, REPAIR - Coolant Pump (Includes Gaskets, Seal, Hub, Bearing, Impeller and Backplate Mounting Screws)		
	511-0147-01	2	Low Mounted Alternator		541-0214-01	1	Code 23AE, 23BM, 23BW, 23DG
					541-0214-02	1	Code 23AM, 23BC

ENGINE BLOCK HEATER

Code 23AL (600 Watt)

5100-0540



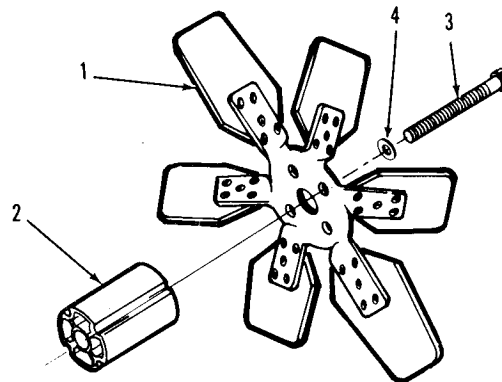
M-1597

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	333-0187	1	Heater (Includes O-Ring Seal)
2	509-0104	1	Seal, O-Ring
3	335-0158	1	Cord, Heater

COOLING SYSTEM - FAN

Code 23AU (17-1/2" Diameter Blower Fan and 46 MM Spacer)
Code 23CW (32 MM Spacer)

5100-0651
5100-1124

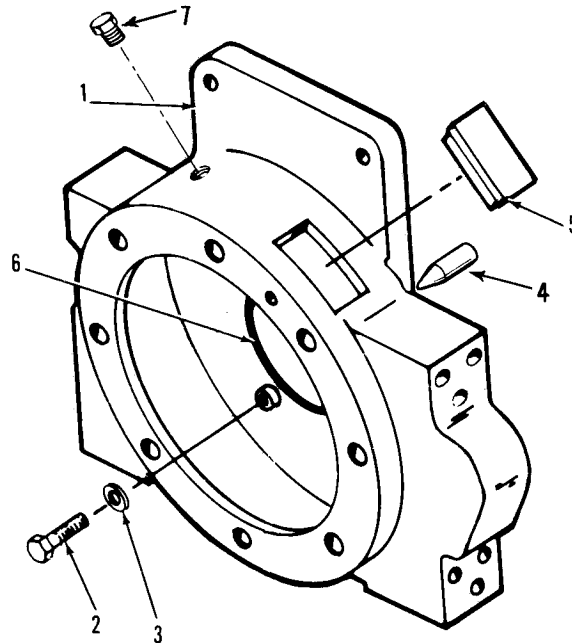


REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	130-2148	1	Fan, Cooling - Code 23AU
2	SPACER, FAN		
	130-1872	1	Code 23AU
	130-1880	1	Code 23CW
3	SCREW, CAP - HEX HEAD		
	718-1046	4	M8 x 70 MM - Code 23AU
	718-1043	4	M8 x 55 MM - Code 23CW
4	WASHER, FLAT		
			Code 23AU
	740-1006	4	1.6 MM Thick
	526-0122	4	3.4 MM Thick
	740-1006	4	Code 23CW - M8

FLYWHEEL HOUSING

Code 27AA (SAE 5 Without Magnetic Pickup)
 Code 27AB (SAE 4 Without Magnetic Pickup)
 Code 27AC (SAE 3 Without Magnetic Pickup)
 Code 27AE (SAE 5 With One Magnetic Pickup - Metric Tapped)
 Code 27AF (SAE 4 With One Magnetic Pickup 70° From Horizontal)
 Code 27AG (SAE 3 With One Magnetic Pickup)
 Code 27AH (SAE 4 With Two Magnetic Pickups)
 Code 27AN (SAE 4 With One Magnetic Pickup 47° From Horizontal)
 Code 27AV (SAE 5 With One Magnetic Pickup - English Tapped)

5100-0212
 5100-0214
 5100-0974



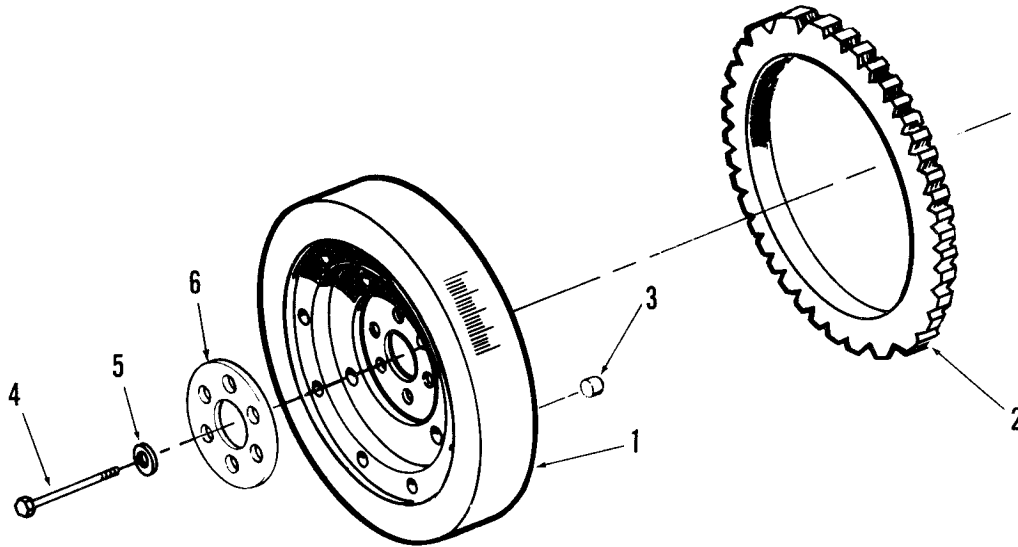
CS-1109

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	HOUSING, FLYWHEEL (Includes Seal and Indicator)		
	101-0719	1	Code 27AA
	101-0740-04	1	Code 27AB
	101-0714	1	Code 27AC
	101-0720	1	Code 27AE
	101-0740-01	1	Code 27AF
	101-0715	1	Code 27AG
	101-0740-03	1	Code 27AH
	101-0740-02	1	Code 27AN
	101-0698-03	1	Code 27AV
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	PLUG, CAP		
	517-0265	1	Code 27AE, 27AF, 27AG, 27AN (5/8-24)
	517-0265	2	Code 27AH (5/8-24)
	517-0259	1	Code 27AV (3/4-16)

FLYWHEEL

Code 29AA (7.5" Over Center - SAE #5)
 Code 29AD (10" Over Center - SAE #4)
 Code 29AG (11.5" Over Center - SAE #3)
 Code 29AK (SAE #500)

5100-0346
 5100-0900
 5100-1094
 5100-1190



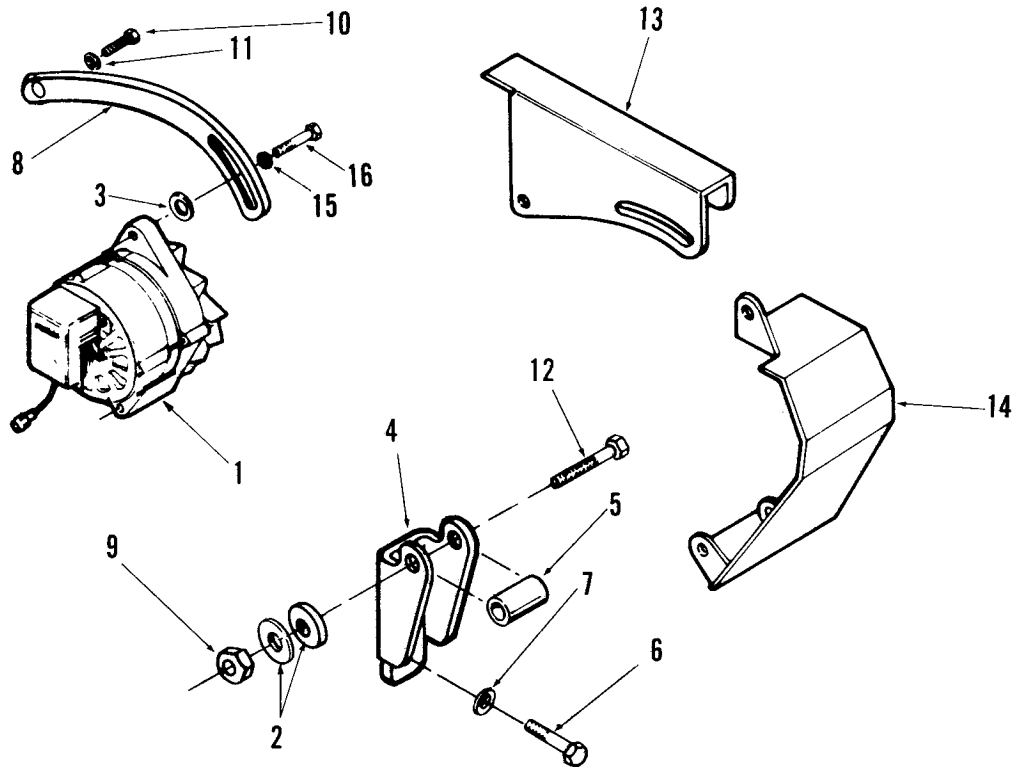
CS-1110

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	FLYWHEEL (Includes Ring Gear and Alignment Pin)		
	104-1491	1	Code 29AA
	104-1591	1	Code 29AD
	104-1692	1	Code 29AG
	104-1657	1	Code 29AK
2	GEAR, RING		
	104-1169	1	Code 29AA
	104-1185	1	Code 29AD
	104-1679	1	Code 29AG
	104-1666	1	Code 29AK
3	PIN, ALIGNMENT		
	104-1171	1	Code 29AA, 29AD
	104-1690	1	Code 29AG, 29AK
4	SCREW, CAP - FLANGE HEX HEAD (Special)		
	720-1804	6	Code 29AA, 29AK
	720-1805	6	Code 29AD, 29AG
5	740-1008 6 Washer, Flat (M10)		
			Code 29AA, 29AK
6	104-1036	1	Plate, Washer - Code 29AD, 29AG

ALTERNATOR

Code 31AA (High Mount Accessory Side - 37 Amp, 12 Volt)
 Code 31AB (Low Mount Accessory Side - 37 Amp, 12 Volt)
 Code 31AC (High Mount Accessory Side - 62 Amp, 12 Volt)
 Code 31AR (High Mount Accessory Side - 35 Amp, 24 Volt)
 Code 31AU (Belt and Alternator Guard - High Mount Accessory Side)

5100-0781
 5100-0782
 5100-0785
 5100-0786
 5100-0899
 5100-0948



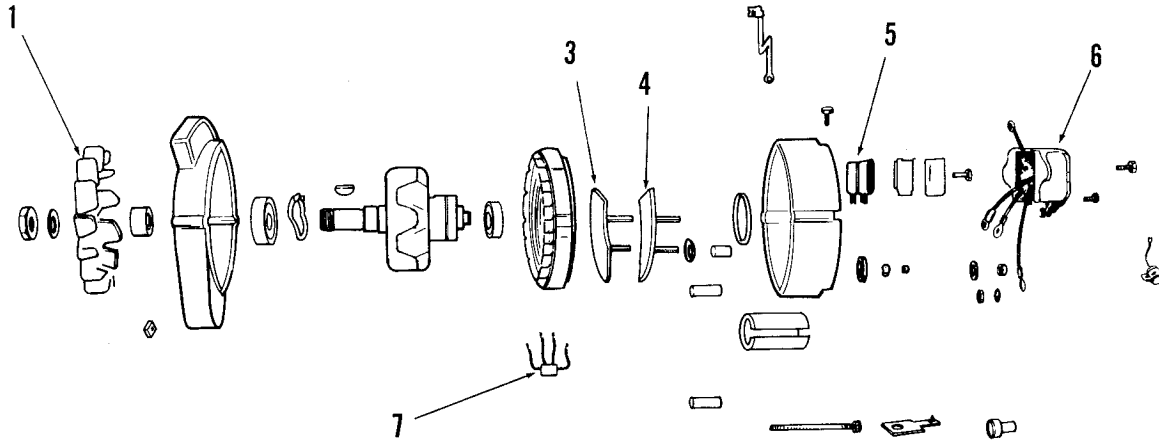
ES-1469

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	ALTERNATOR (See Separate Group for Components)		
	191-1525	1	Code 31AA, 31AB
	191-1526	1	Code 31AC
	191-1570	1	Code 31AR
2	526-2123	2	Washer, Flat (M10)
3	191-1322	1	Spacer, Alternator Strap
4	BRACKET, ALTERNATOR MOUNTING		
	191-1331	1	Code 31AA, 31AC, 31AR
	191-1332	1	Code 31AB
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	STRAP, ALTERNATOR ADJUSTING		
	191-1365	1	Code 31AA, 31AC, 31AR
	191-1312	1	Code 31AB

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
9	860-2009	1	Nut, Hex (M10)
10	718-1036	1	Screw, Cap - Hex Head (M8 x 20 MM) Code 31AA, 31AC
11	740-1006	1	Washer, Flat (M8) Code 31AA, 31AB, 31AC, 31AR
12	800-2100	1	Screw, Cap - Hex Head (M10 x 100 MM)
13	130-2784	1	Guard, Belt - Code 31AU
14	191-1677	1	Guard, Alternator - Code 31AU
15	526-2106	1	Washer, Flat (M8)
16	800-2058	1	Screw, Cap - Hex Head (M8 x 25 MM)

ALTERNATOR COMPONENTS

Code 31AA (High Mount Accessory Side - 37 Amp, 12 Volt)
 Code 31AB (Low Mount Accessory Side - 37 Amp, 12 Volt)
 Code 31AR (High Mount Accessory Side - 35 Amp, 24 Volt)
 Code 31AC (High Mount Accessory Side - 62 Amp, 12 Volt)



ES-1470

NOTE: Component part numbers for 35 Amp Alternator not available at time of printing.

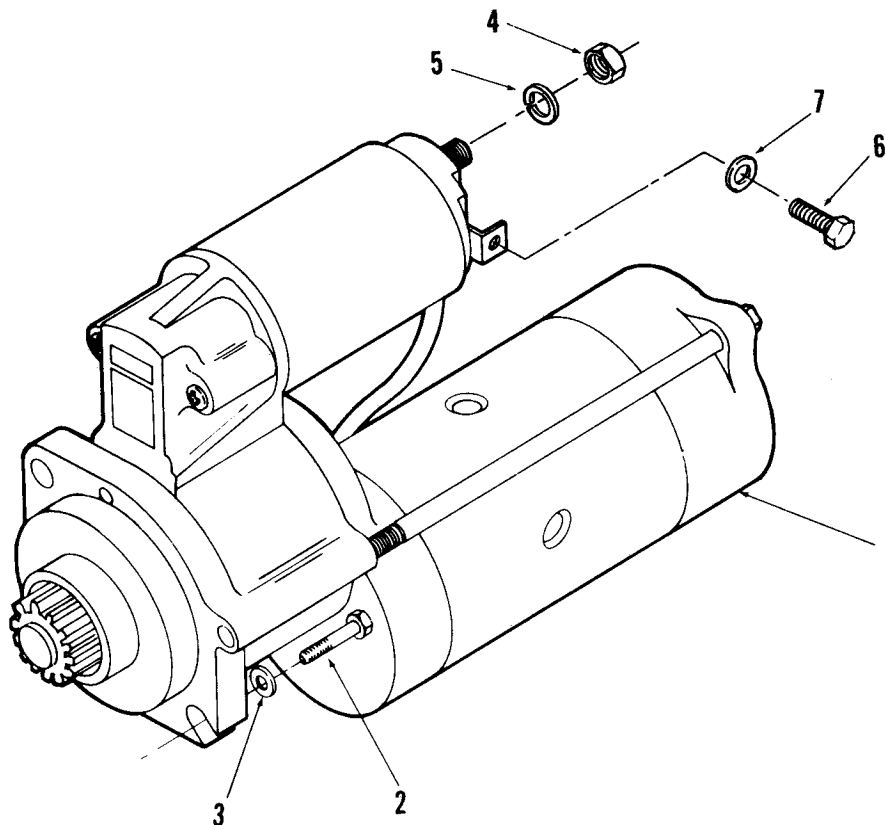
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
ALTERNATOR (Complete)			
	191-1525	1	Code 31AA, 31AB
	191-1526	1	Code 31AC
	191-1570	1	Code 31AR
1	191-0943	1	Fan, Alternator
3	191-1560	1	Diode, Rectifier - Negative
4	191-1559	1	Diode, Rectifier - Positive
5	191-1558	1	Brush Assembly
6	191-1557	1	Regulator, Voltage
7	191-1556	1	Diode, Trio

STARTER

Code 33AA (12 or 24 Volt)

5100-0082

5100-0411

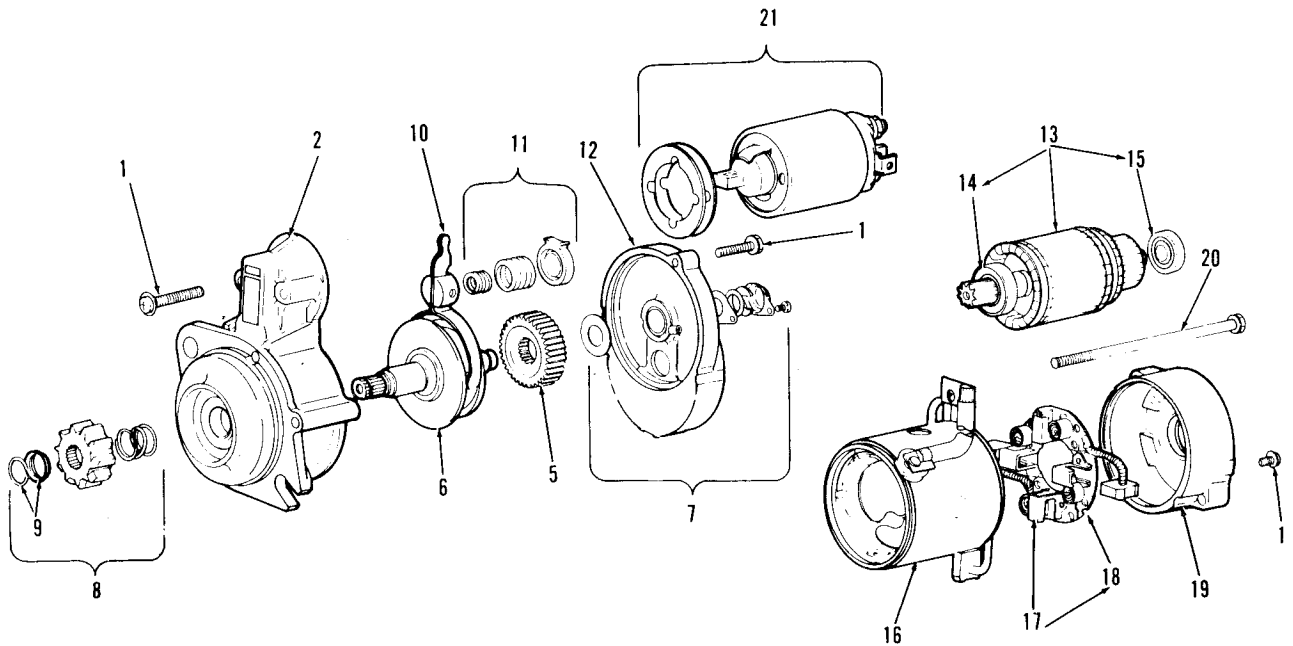


XES-1169

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	STARTER (See Separate Group for Components) (Includes Switch Terminal Hardware)		
	191-1394	1	12 Volt
	191-1550	1	24 Volt
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 or 24 Volt)



XES-1255

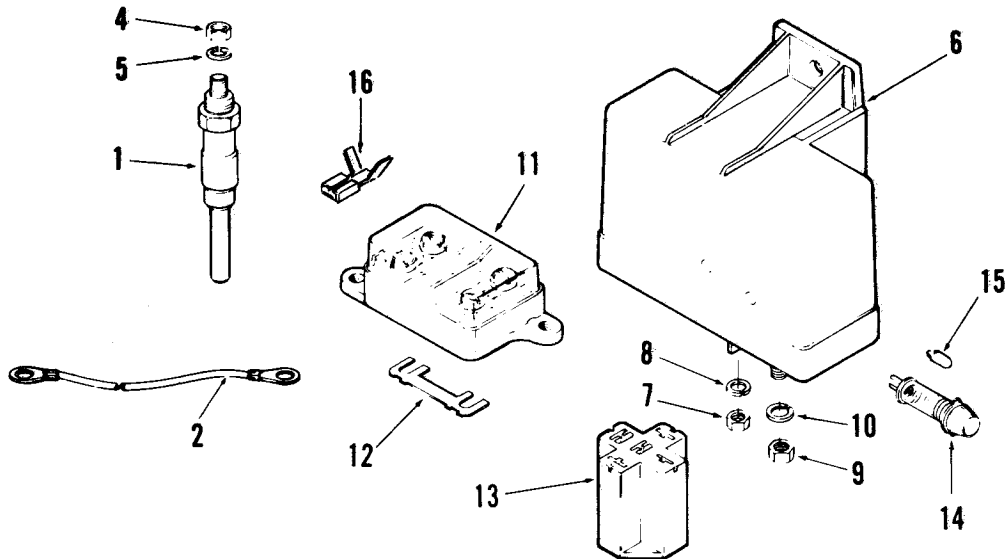
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	STARTER (Complete)		
	191-1394	1	12 Volt
	191-1550	1	24 Volt
1	191-1450	1	Screw Set
2	BRACKET ASSEMBLY, FRONT (Includes Bearing)		
	191-1449	1	12 Volt
	191-1605	1	24 Volt
5	191-1446	1	Gear
6	191-1445	1	Clutch
7	191-1444	1	Cover Set (Includes Cover, Plate, 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
12	191-1439	1	Bracket Assembly, Center

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
13	ARMATURE ASSEMBLY (Includes Bearings)		
	191-1438	1	12 Volt
	191-1606	1	24 Volt
14	191-1437	1	Bearing, Center
15	191-1436	1	Bearing, Rear
16	YOKE ASSEMBLY (Includes Pole Shoes, Field Coil and Positive Brushes)		
	191-1435	1	12 Volt
	191-1607	1	24 Volt
17	HOLDER, BRUSH (Includes Negative Brushes)		
	191-1434	1	12 Volt
	191-1608	1	24 Volt
18	191-1433	4	Spring, Brush
19	191-1432	1	Bracket, Rear
20	191-1431	1	Bolt Set
21	SWITCH ASSEMBLY		
	191-1430	1	12 Volt
	191-1609	1	24 Volt

GLOW PLUG

Code 33AE (12 Volt 7 Second Glow Plugs, Lead and Control)
 Code 33AG (24 Volt 60 Second Glow Plugs, Lead)
 Code 33AR (12 Volt 7 Second Glow Plugs, Lead)

5100-0475
 5100-0860
 5100-0947



M-1565

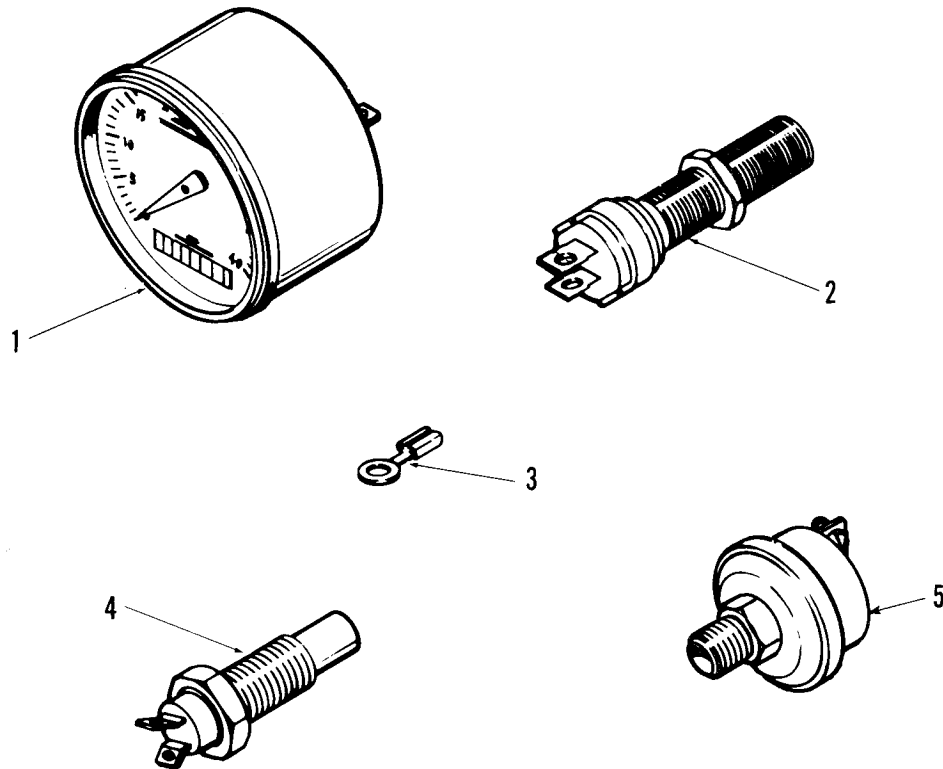
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	PLUG, GLOW		
	333-0220	3	Code 33AE, 33AR
	333-0226	3	Code 33AG
2	336-4131	2	Lead, Glow Plug
4	750-1002	3	Nut, Hex (M5)
5	850-2005	3	Washer, Lock - Spring (M5)
6	333-0245	1	Controller, Glow Plug - Code 33AE
7	750-1002	1	Nut, Hex (M5) - Code 33AE
8	850-2005	1	Washer, Lock-Spring (M5) - Code 33AE

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
9	750-1004	1	Nut, Hex (M6) - Code 33AE
10	850-2006	1	Washer, Lock-Spring (M6) - Code 33AE
11	321-0263	1	Holder, Fuse - Code 33AE
12	321-0262-02	1	Fuse, Strip (50 Ampere) - Code 33AE
13	307-1690	1	Plug, Harness - Code 33AE
14	322-0354	1	Light, Indicator - Code 33AE
15	322-0353	1	Lamp, Indicator - Code 33AE
16	332-1497	4	Connector, Terminal - Code 33AE

TACHOMETER AND SWITCHES

Code 35AC (Low Oil Pressure and High Water Temperature Switches)
 Code 35AE (Magnetic Speed Sensor)
 Code 35AF (Tachometer/Hour Meter)

5100-0261
 5100-0340
 5100-0341



M-1489

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	302-1438	1	Meter, Tachometer/Hour Code 35AF
2	150-1925	1	Sensor, Speed - Magnetic - Code 35AE, 35AF
3	332-0807	5	Terminal - Code 35AF
4	309-0482	1	Switch, High Water Temperature - Code 35AC
5	309-0177	1	Switch, Low Oil Pressure - Code 35AC

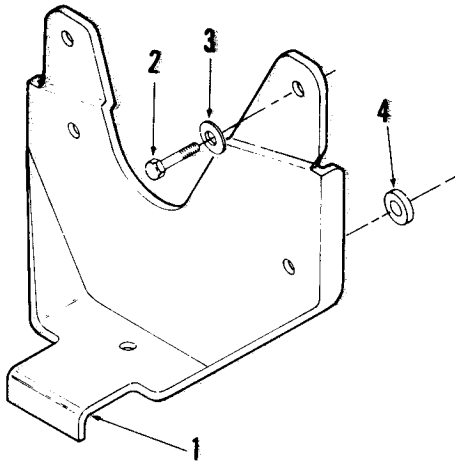
FRONT ENGINE MOUNT

Code 41AA (Single Point)

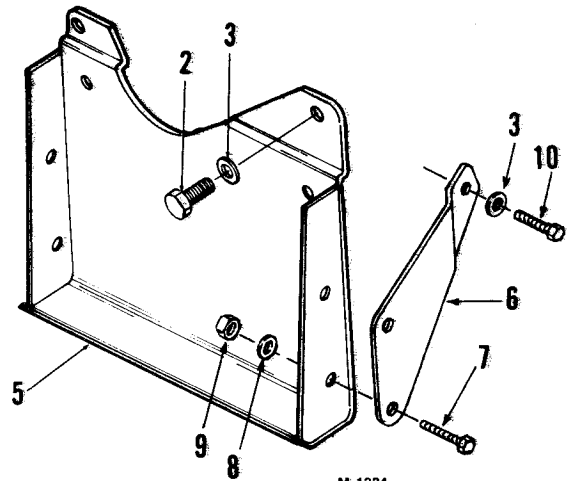
Code 41AH (Rigid Four Point - Without Radiator Support Arms)

5100-0065

5100-1034



M-1548



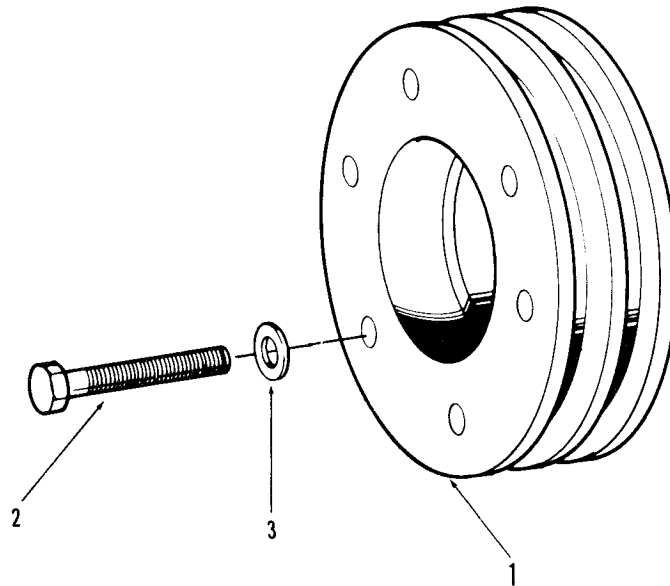
M-1224

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	403-2664	1	Bracket, Mount - Code 41AA
2	SCREW, CAP - HEX HEAD		
	718-1086	2	M12 × 90 MM (Top)
	718-1802	2	M12 × 95 MM (Bottom)
3	WASHER, FLAT (M12)		
	740-1010	4	Code 41AA
	740-1010	6	Code 41AH
4	403-1932	2	Spacer, Bracket Mounting
			- Code 41AA
5	403-2033	1	Bracket, Mount - Code 41AH
6	SUPPORT - Code 41AH		
	130-2797	1	Right Hand
	130-2798	1	Left Hand
7	718-1074	4	Screw, Cap - Hex Head
			(M12 × 30 MM) Code 41AH
8	850-2012	4	Washer, Lock (M12) Code 41AH
9	750-1010	4	Nut, Hex (M12) Code 41AH
10	718-1073	2	Screw, Cap - Hex Head
			(M12 × 25 MM) Code 41AH

CRANKSHAFT PULLEY

Code 45AB (Double Groove)

5100-0144



CT-1042

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	104-1374	1	Pulley, Crankshaft
2	720-1059	6	Screw, Cap - Hex Head (M10 x 50 MM)
3	740-1008	6	Washer, Flat (M10)

PAINT AND THREAD SEALANT

PART NO.	QTY. USED	PART DESCRIPTION
525-0454		Paint, Greige (13 oz. Pressurized Spray Can)
518-0452		Sealant, Thread (50 cc Bottle)

MODEL SPECIFICATION NUMBER TO OPTION CODE TABLE

The front of this parts manual states that an option code identification plate is attached to each engine. This plate lists all the option codes used to manufacture and service the engine. Early production engines have been manufactured and shipped less this plate leaving no proper identification of component parts. 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.	10124	10143	10163	10164	10165	10166	10196	10215	10260	10269	10274	10277	10298	10302	10348	10358
OPTION	11AB	11AA	11AC	11AC	11AE	11AE	11AC	11AB	11AA	11AB	11AB	11AA	11AA	11AB	11AC	11AC
	13AB	13AA	13AE	13AC	13AD	13AP	13AC	13AB	13AA	13AB	13AB	13AA	13AA	13AB	13AC	13AC
	15AA	15AA	15AA	15AA	15AA	15AA	15AJ	15AA	15AA	15AH	15AH	15AA	15AJ	15AJ	15AJ	15AJ
	15AJ	15AJ	15AJ	15AJ	15AJ	15AJ	15AP	15AJ	15AJ	15AJ	15AJ	15AJ	15AP	15AP	15AP	15AP
CODE	17AB	17AB	17AB	17AB	17AB	17AB	17AB	17AB	17AB	17AB	17AB	17AB	17AB	17AB	17AB	17AB
	17AJ	17AJ	17AJ	17AJ	17AJ	17AJ	17AJ	17AJ	17AJ	17AJ	17AJ	17AJ	17AJ	17AJ	17AJ	17AJ
	17AL	17AL	17AL	17AL	17AL	17AL	17AL	17AL	17AL	17AM	17AM	17AL	17AL	17AL	17AL	17AL
	19AA	19AA	17BA	17BA	17BA	17BA	19AA	19AA	19AA	19AA	19AA	19AA	19AA	19AA	19AA	19AA
NUMBERS	21AA	21AA	19AA	19AA	19AA	19AA	21AA	21AA	21AA	23AB	23AB	21AA	21AA	21AA	21AA	19AB
	23AA	23AA	21AA	21AA	21AA	21AA	23AA	23AA	23AA	23AE	23AE	23AA	23AA	23AA	23AA	21AA
	23BW	23BC	23AA	23AA	23AA	23AA	23BC	23AU	23BC	27AE	23CB	23BC	23BC	23BW	23BC	21AG
	27AA	27AA	23AM	23AM	23BW	23BW	27AB	23BW	27AA	29AA	23CD	27AE	27AE	27AE	27AF	23AA
	29AA	29AA	23AW	23AW	27AF	27AF	29AD	27AA	29AA	31AA	27AE	29AA	29AA	29AA	29AD	23BC
	31AA	31AA	27AF	27AF	29AK	29AK	31AA	29AA	31AA	31AG	29AA	31AA	31AA	31AA	31AB	27AF
	31AG	31AG	29AK	29AK	31AG	31AG	31AG	31AA	31AG	33AA	31AR	31AG	31AG	31AG	31AG	29AD
	33AA	33AA	31AG	31AG	33AA	33AA	33AA	31AG	33AA	33AE	31AH	33AA	33AA	33AA	33AA	31AB
	33AE	33AE	33AA	33AA	33AR	33AR	33AE	33AA	33AE	35AL	33AA	33AE	33AE	33AE	33AR	31AG
	35AJ	35AJ	33AR	33AR	35AJ	35AJ	35AJ	33AE	35AJ		33AG	35AC	35AJ	35AJ	35AJ	33AA
			35AJ	35AJ	41AA	41AA		35AJ	45AA		35AL	35AJ				33AR
			41AA	41AA									41AA			35AJ
													45AA			41AH
													45AB			



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