

GM POWERTRAIN
INDUSTRIAL ENGINES by **KEM**

INDUSTRIAL GAS ENGINE
OPERATORS MANUAL

MODEL - GMG-857
Katolight Spec.

KEM Equipment, Inc.

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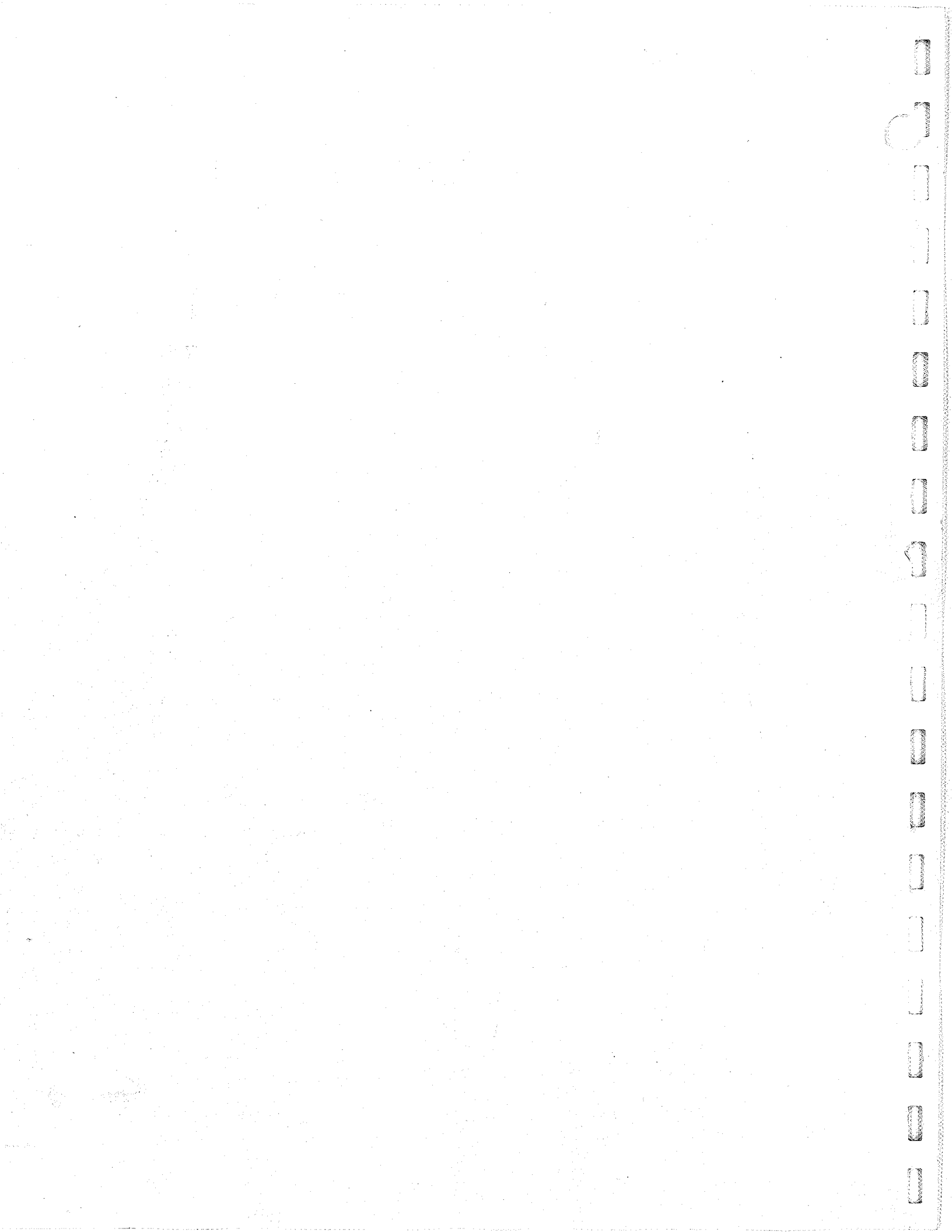


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1. The first part of the document is a list of names and addresses of the members of the committee.

2. The second part of the document is a list of names and addresses of the members of the committee.

3. The third part of the document is a list of names and addresses of the members of the committee.

4. The fourth part of the document is a list of names and addresses of the members of the committee.

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FORWARD

The necessary safety precautions and regulations have been observed in the design, choice of materials and manufacture of your Industrial Power Unit package. It has been run-in, tested and adjusted at the factory.

However, maximum engine performance and longevity is not possible without regard to maintenance. Therefore, this manual is presented, and should be used as a guide in setting forth a maintenance program and schedule.

In the interest of safety be sure to refit any guards and protective devices that may have been removed during work on the engine.

To prevent pollution to the environment, please retain and properly dispose of old fuel and oil.

11/11/11

Dear Mr. [Name],


I am writing to you regarding the [Topic]...

I hope this information is helpful to you.

Thank you for your time and attention.

1.1 ENGINE MODEL AND SERIAL NUMBER

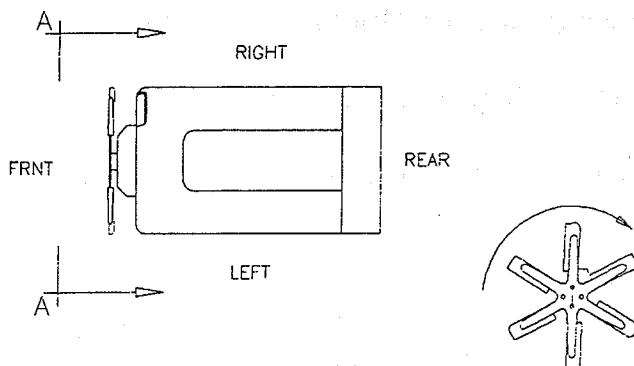
General Description:

	
TUALATIN OREGON	
MODEL	
S/N	
HDC	

Identification placard is located on the right side of the engine, under the starter.

General Description:

The terms "front and rear", "right and left" as well as fan rotation are shown below.



Description and use of hot date code (to give instruction on finding GM parts in the parts list from GM).

Hot Date Code is stamped on serial plate. Example: V0109AH

the underlined section will be your code. Number 9 indicates the model year of your engine. Letters indicate GM engine code. Using the numbers and letters in the hot date code, go to the back of the section (top end or bottom end) and you will find a list of notes, i.e. 1, note 2 . . . Within these notes you will find the number and letters that match your hot date code. Once you find your corresponding code, to the left of it you will find a note#. You will need this note # to find the correct part for your engine.

Example: Note #22

Gasket, head	(1,2,5,9,12,17)	12448061
Gasket, head	(1,5,12,20,22,28)	12346681

The gasket with the corresponding note # would be correct, and to the right of it would be the correct replacement part.

1.2 FUEL, COOLANT AND LUBRICANT

Periodical replenishment and replacement of oil and coolant are the key to the best maintenance, trouble-free performance, and increase of service life of the engine.

GENERAL LUBRICATION INSTRUCTIONS

1. Lubricate every necessary part as specified in "Periodic Check and Service Chart".
2. Always apply the oil of optimum viscosity to ambient temperature. In cold weather, use of too high viscosity oil can be often a cause of difficult engine starting.
3. Prior to the lubrication, be sure to clean oiler, grease gun, oil fillers, grease nipples, etc. If grease nipples or other oil filler parts are broken or bent, replace them at once with new ones.
4. If excessive leaks are noticed from oil seals or packings, etc., replace the seals or packings at once to stop leaks.

Always use clean fuel and pay attention to the following when handling the fuel.

- After the end of the day's work, fill the fuel tank with fuel to its capacity. This is to expel air from the tank as otherwise the moisture in the air might condense into water drops which contaminate the fuel. Also, this gives enough time for dust and water to be separated and settled before operation on the next day.
- Store the fuel in a storage tank for at least 24 hours to allow rust and water to precipitate before use.
- When filling the fuel tank from a drum, take care not to allow deposits on the bottom of the drum to be carried over into the tank.
- Open the drain plug at the bottom of the storage and fuel tanks occasionally to drain off deposits and water.

COOLANT

Use soft water with a low impurity content as the coolant. Use of water containing salt, or water in the vicinity of a mine or spa could accelerate deposit of scale in the water jacket and corrosion of the external surface of the cylinder liner.

Use anti-corrosive in hot weather to prevent corrosion and use anti-freeze in cold weather to prevent freezing of the coolant.

NOTE: If the coolant in the cooling system contains anti-freeze or anti-corrosive, add a solution of the same concentration as the solution initially put into the system.

Cautions on use and handling of anti-freeze

- Use a permanent type anti-freeze.
- When anti-freeze is to be applied or when the coolant with anti-freeze is to be replaced by coolant without anti-freeze to comply with the rise in the atmospheric temperature, wash and clean the cooling system.

The anti-freeze/water mixing ratio depends on the lowest temperature expected.

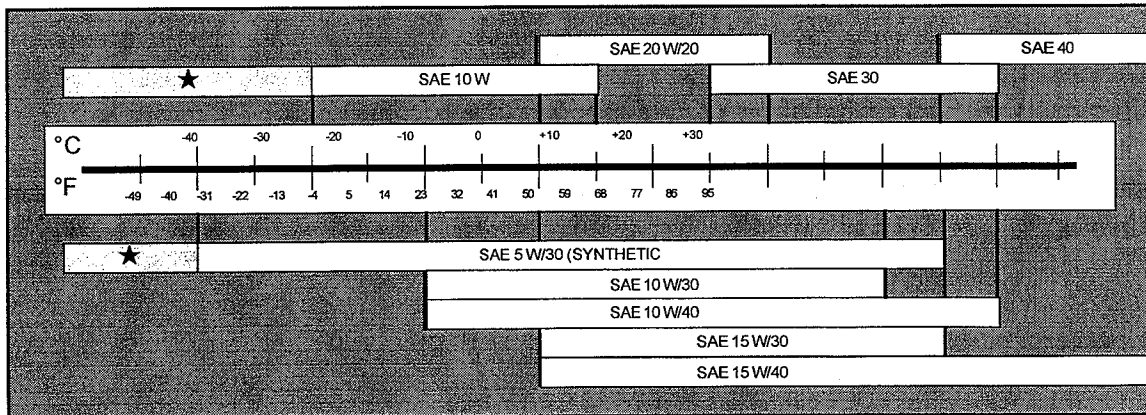
LUBRICANT

Engines which are often operated in more severe conditions require the use of higher quality engine oil. Use the oil and grease conforming to the specifications shown below.

Oil and Grease		Specifications	
	Under normal operating conditions	API CC or higher	40°C or above SAE 40
Engine Oil	Under severe operating conditions or for engine w/turbocharger.	API CD or higher	40 to -5°C SAE 30 10 to -30°C SAE 10W-30
Gear Oil		API GL-3	SAE 80 SAE 90
Brake fluid		SAE J1703	
Multipurpose type grease		NGLI No. 2	
Clutch shifter grease		MIL-G-3545B	

Oil Viscosity

The viscosity of the oil being greatly influenced by the ambient temperature, the choice of the SAE-grade should be governed by the ambient temperature at engine site (see diagram). If temperatures temporarily fall below the limit of the SAE-grade selected, this will merely affect the starting performance, but cause no engine damage.



★ Only with engine oil preheating.

Since a too viscous oil causes starting difficulties, the choice of the viscosity grade during winter operation should be governed by the ambient temperature prevailing at the time of starting the engine. Oil changes as a function of ambient temperatures can be avoided by using multigrade oils, which are again subject to the oil change intervals recommended.

Checking Oil Level

The oil level may be checked by two methods:

1. Dipstick

Pull out dipstick, wipe clean and reinsert as far as it will go, then withdraw. The oil level should be between the marks indicated on the dipstick. If the level is only up to or even below the lower mark, top with oil immediately, preferably up to the upper marking on dipstick.

2. Sight gauge (when applicable)

The oil level in the sight gauge will be approximately 1 1/2 inches down from the top of the glass when the engine oil level is maximum. Verify by checking the dipstick.

GMPT INDUSTRIAL ENGINE INFORMATION

Engine oil requirements:

Type

API-"SH"

Weight - SAE 30 for above 40° F

SAE 15W40 for above 0° F

SAE 10W30 for all temperatures

Oil Changes:

Change oil and filter ever 125 hours or 3 months, whichever comes first.

(NOTE: OEM air cleaners, PCV systems, or engine operating temperatures may vary the oil change interval.)

Oil Temperatures:

Upper limit is 266° F

Ideal running temperature is 221° F

Lower limit is 176° F

Lubrication System: (Maximum allowable degree angles of engine)

8.5 degrees with the front of the engine down

18 degrees with the rear of the engine down

20 degrees side to side

1.3 INSTRUMENTATION

Oil Pressure (20 to 50 PSI)

The oil pressure will vary according to temperature and the viscosity of the oil. If the oil is relatively light, on a warm day the gauge will register on the low end of the scale or approximately 20 PSI. Conversely, if the oil is heavy, on a cold day, gauge readings of 50 PSI would be expected.

Coolant Temperature (160-195°F)

The coolant temperature is regulated by a thermostat.

Volt Meter (12 - 15 volts)

Primarily the voltmeter is provided to indicate the condition of the battery. If the gauge registers in the red above 15 volts, shut the engine down and investigate. The engine will not automatically shut down in the unlikely event of over-voltage.

Should the voltage drop below approximately 12 volts, there will not be enough power to run the electrical system and the engine will quit running.

If the gauge registers in the red below 12 volts, check the condition of the battery.

2.0 INSPECTION AND MAINTENANCE

To prolong the life of the engine and maintain top operating conditions at all times, it is important that the engine is checked and serviced at regular intervals.

Periodic Inspection and Maintenance

1. The simple inspection and maintenance procedures are summarized below. An emergency engine should also be inspected and maintained according to the maintenance standard table described in the chart below.
2. Determine the inspection and maintenance intervals by checking the service meter readings. When the engine is operated under poor or severe conditions, perform inspection and maintenance earlier.

See following pages for maintenance schedules.

2.1 MAINTENANCE SCHEDULE

CHECK AND SERVICE ITEM		SERVICE INTERVALS						REMARKS	
		EVERY 10 HRS.	EVERY 60 HRS.	EVERY 125 HRS.	EVERY 250 HRS.	EVERY 500 HRS.	EVERY 1000 HRS.		
ENGINE GENERAL	Starting condition & noise		O						
	Low speed & acceleration (rated condition)		O					Check for hunting	
	Exhaust condition		O						
	Cylinder head, manifold & mounting bracket installation		O*				O	*Applicable to new engines only	
	Compression pressure						O		
	Valve clearance		O*					*New engines only	
	Air cleaner element (cyclone type)	Condition Replace				O		●	
	Air cleaner element (flat type)	Condition Replace				O	●		
	Check turbocharger bearing for rotating conditions. Check oil feed pipe joints							O	
LUBRICATION	Oil leaks		O						
	Damaged hose						O		
	Engine oil pan	Check oil for contamination & quantity	O						
		Replace Oil			●	●	●		*On new engine, be sure to replace engine oil.
	Oil filter element	Replace Oil			●	●	●		
FUEL SYS	Leaks-check hose for damage & deterioration		O						
	Fuel filter Clogging				O				
COOLING SYSTEM	Water leaks-Check hose for damage/deterioration	O							
	Replace coolant & clean system					O		Clean system before & after use of antifreeze.	
	Loose or damaged V-belt	O							
	Damaged fan, mounting condition of fan						O		
	Radiator	Water quality	O						
		Cap function				O			
		Clogged and/or damaged core					O		
Lubrication of water pump and idler pulley				O					
ELECTRICAL	Battery	Electrolyte quantity		O				Every 2 weeks-every week in summer.	
		Specific gravity of electrolyte			O				
		Connected condition of terminals				O			
	Loose electrical wiring connections and loose or damaged insulators				O				
MISC.	Check emergency stop equipment for operation			O					
	Lubrication of clutch shifter and fork shaft						O	Use clutch shifter grease.	
	Lubrication of bearings case (for direct drive type)						O	Use clutch shifter grease.	
	Check meters, gauges and pilot lamps				O				

SYMBOLS=O-Check, adjust or lubricate. / ●-Replace oil, grease or element.

2.2 INTAKE AND EXHAUST SYSTEM

Checking Engine Exhaust Emissions

After the engine has fully warmed up, check the color of exhaust gas.

Colorless or faint blue	Good
Black	Bad, showing incomplete combustion
White	Bad, showing combustion of oil forced up.

Please note: Exhaust gas which is really colorless or faint blue will look white due to winter weather.

2.3 AIR CLEANER

A dirty air cleaner element, if left as it is will decrease engine output. It will also cause increased fuel consumption, increase in harmful contents of exhaust emissions as well as black smoke.

Cyclone Type Air Cleaner

1. **Remove the dust cup and withdraw the element.** On a double element type cleaner, be sure not to remove the inner element when the outer element is cleaned. The inner element should be removed only when the outer element is replaced. Make sure that both elements are replaced at the same time.
2. **Prior to installation, clean the inside of the case and dust cup,** and slowly insert the element. If the air cleaner is placed in a horizontal position, install the dust cup so that the assembling direction indicating mark of the cup with face upward.

NOTE: Make sure that the element and dust cup are securely installed. If left loose, dust will be drawn in and the air cleaner will fail to function properly.

2.4 ENGINE OIL

Replace engine oil - after the first 60 hours and every 250 hours thereafter.

On a new engine, be sure to replace the oil after the first 60 hours of operation.

1. After shutdown, remove the oil while it is still hot. At the same time, the oil filter should be replaced.
2. Install the drain plug and pour in fresh engine oil from the oil filter port up to the FULL mark on the level gauge.
3. After running the engine at idle for several minutes recheck the oil level.

NOTE: A badly contaminated or deteriorated oil should be replaced regardless of the replacement intervals. **Replace the oil filter element each time that the oil is replaced.**

2.5 OIL FILTER

Replace element - Every 125 hours

NOTE: The element cannot be washed and reused.

1. Remove the element by turning counterclockwise. If the element is hard to loosen, use a special tool (filter wrench) for easier removal.
2. Prior to installation of a new element, apply a thin coat of engine oil to the packing of the element and tighten the element fully with a special tool (filter wrench).
3. If the element only has been replaced without replacing the engine oil, replenish to proper level and check the oil level.
4. After installation, thoroughly wipe away spilt oil, start the engine, and check for oil leaks from the packing.

2.6 FUEL FILTER

The fuel filter separates and removes foreign substances and precipitated water contained in fuel. Over a long period of service, however, the filter will be clogged with foreign substances. So the filter should be replaced at regular intervals.

Replace element - Every 500 hours.

1. Remove the element, while using care not to spill fuel.
2. **The element cannot be washed and reused.**
3. After installation, bleed the fuel system and check for fuel leaks.

NOTE: Wipe away spilt fuel as it could start a fire.

2.7 COOLANT

Replace coolant and clean system - Every 500 hours.

Scale and rust are formed in the radiator and engine water jacket in the course of time. It is important to clean the radiator and water jacket to remove deposits of scale and rust as they cause reduction of the cooling efficiency. Also make sure that the system is cleaned if the coolant contains anti-rust or anti-freeze.

When cleaning the system, heat the coolant to 80°C or higher and keep the engine idling. If the water temperature is lower, the thermostat is closed to shut off flow of the coolant to the radiator, making it impossible to clean the system thoroughly.

1. Open the radiator cap and open the drain cocks of the engine crankcase and radiator to remove the coolant.
2. Close the drain cocks and pour coolant into radiator. Run the engine until the coolant is heated to about 80°C.
3. If there is considerable scale or rust, pour in a cleaning solution and run the engine until the solution is heated to about 80°C.

Coolant Cont.

4. Continue to idle the engine for about 30 minutes.
5. After stopping the engine, open the drain cocks of the engine crankcase and radiator to drain off the coolant completely.
6. Close the drain cocks and pour in coolant to rinse the system thoroughly. Rinse until dirty water no longer runs out.
7. Use soft water and fill until it flows out from the overflow pipe.
NOTE: Use soft water. Use of well water or river water may cause scaling or rusting. Add anti-corrosive to water in hot season to prevent corrosion and add anti-freeze in cold season to prevent freezing of the coolant.
8. After filling the coolant, run the engine for awhile. After stopping the engine, check the coolant level and replenish, if necessary. This rechecking of the coolant level is necessary because the coolant level will fall after initial operation as a result of expelling air from the system.

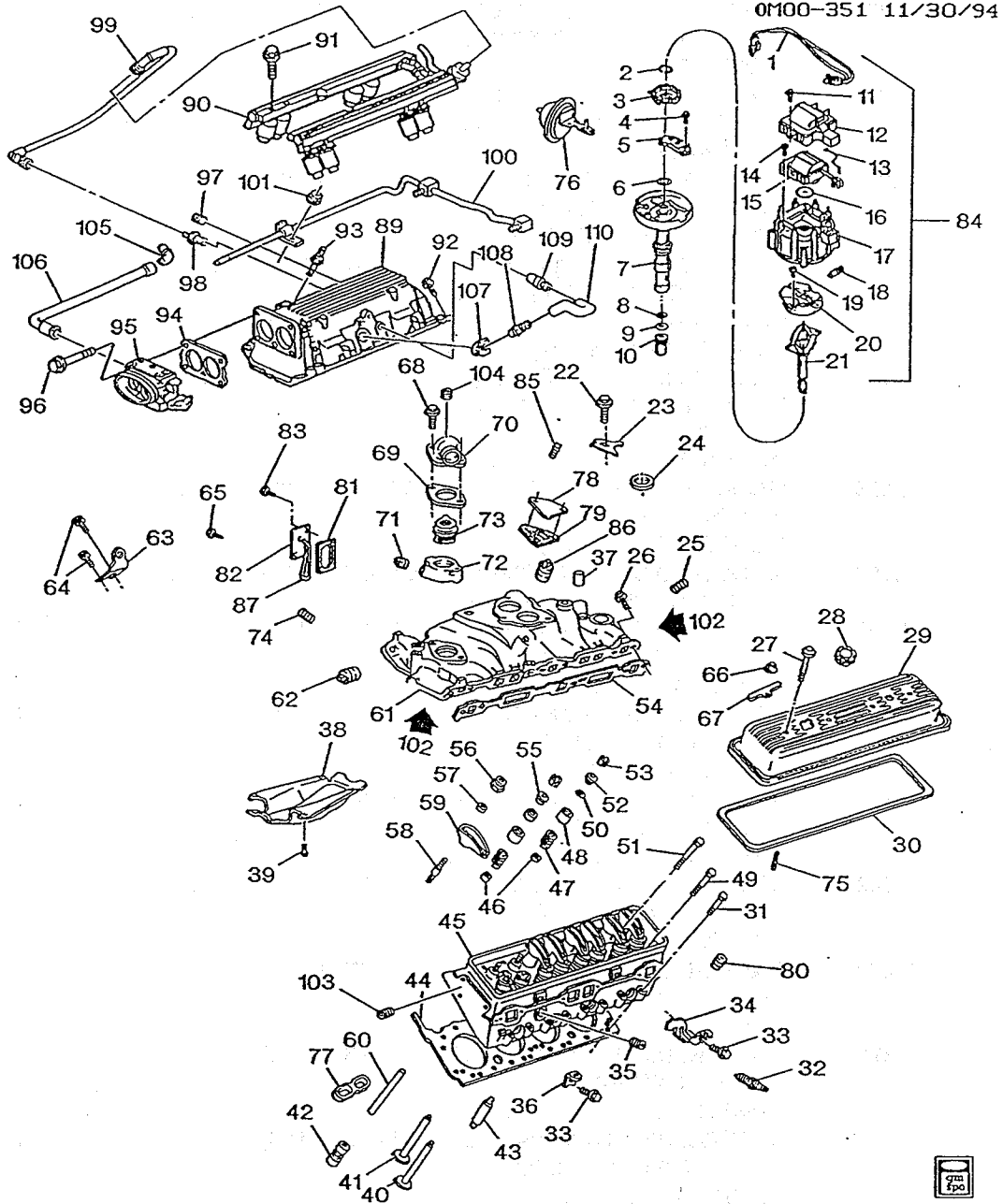


The first part of the report
 describes the general situation
 and the results of the
 investigation. The second part
 discusses the various factors
 which have influenced the
 results. The third part
 contains the conclusions
 and the recommendations
 for further work.

3.0 ACCESSORY PARTS GMG-857

<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QUANTITY</u>
K032049	ALTERNATOR, 12V 51amp MANDO	1
443830	ALTERNATOR GROUND WIRE	1
10236997	ALT. & BELT TENSION BRKT	1
12554522	ALTERNATOR BRACKET	1
12557819	FLAT (NO GROOVE) PULLEY	1
12550053	WATER PUMP PULLEY	1
10239670	IDLER TENSIONER	1
11516285	BOLT 10M X 95M X 1.5	4
11508540	BOLT TENSIONER BOLT	2
14103118	PULLEY	1
SP07-100-094	SPACER 7/16" X 1" X 15/16"	1
9000821	DELCO LOW MNT STARTER	1
1238064	STARTER BOLTS	2
12552903	MANIFOLD 350 INDUSTRIAL	2
12552469	5.7L EXH. MFLD. GASKET	2
6408-08	PLUG, BRASS #8 O'RING TYPE	2
MP18F	PLUG, EXHAUST MANIFOLD 18mm	2
12550283	EXHAUST FLANGE GASKET 5.7 IND.	2
KM1012	#3 SAE BELLHOUSING	1
KM1011	11 1/2" CLUTCH ADAPTER PLATE	1
602966271	COTTER PIN 3/16 X 21/2"	1
KM1056	FRONT ENG. RADIATOR SUPPORT	1
KM2172-57	EXHAUST SYSTEM, 5.7 LTR. IND.	1
#28	S.S. HOSE CLAMP	2
125HBL-10-8	5/8 X 1/2 HOSE BARB	3
#24	S.S. HOSE CLAMP	2
1319	19" FAN, PUSHER (REV ROTATION)	1
7694	BOTTOM RADIATOR HOSE	1
7240	UPPER RADIATOR HOSE	1
999558SNN	RADIATOR 4.3, 5.7 W/CAPS	1
300251-6	5/16 VINYL HOSE BLACK	3FT
183	192 DEG. THERMOSTAT	1
10105135	TERMOSTAT HOUSING	1
605-1012	CHEV H/E THERMOSTAT HOUSING	1
KM1045	4BL TO 2BL IND. CARB ADPTR.	1
#10	S.S. HOSE CLAMP	5
PC7098	5.7L IND. ELECT. BRKT.	1
KM2155	INTAKE MANIFOLD 350 GEN 1E	1
12550034	5.7L INTAKE GASKETS	1
1103799	V8 DELCO EST DISTRIBUTOR	1
1106010	COIL ASSY. 5.7/7.4 TBI	1
700430	PLUG WIRE SET 5.7 & 7.4 IND.	1
14102080	350 CHEV DIPSTICK TUBE	1
10110878	S/B V8 OIL INDICATOR	1
PP7002	BRACKET, WIRE HARNESS SUPPORT	2
2-9210	90 DEG. PCV VALVE	1
9171	CHROME BREATHER CAP (454 PFI)	1
3952301	OIL FILTER ADAPTOR	1
PF25	OIL FILTER	1
KM2066	ENGINE LIFTING EYES	2
14091870	VALVE COVER GROMMET	4
KM2186	4.3/5.7 #3 COVER STD STARTER	1

4.0 GM ENGINE PARTS



OM00-351

		1991-1999 ENGINE ASM-5.7L V8 PART 2			
1.	2.383	HARNES, DISTR WRG (INCLUDES CAPACITOR) (*9, 14, 22) (AC-DELCO #1892261) ...	91-93 I (L05)	1	1892261
	2.383	HARNES, DISTR WRG (INCLUDES CAPACITOR) (*14, 22) (AC-DELCO #1892261) ...	94-97 I (L05)	1	1892261
2.	2.372	RETAINER, DISTR POLE PIECE (*14, 22) (AC-DELCO #1892222)	94-97 I (L05)	1	1892222

	2.372	RETAINER, DISTR POLE PIECE (*9, 14, 22) (AC-DELCO #1892222)	91-93 I (L05)	1	1892222
3.	2.372	POLE PIECE, DISTR PICK UP (*1, 3, 5, 12, 15, 19, 20, 23, 24, 25, 26, 28, 30, 32, 34) (AC-DELCO #10469667)	94-95 I (L05)	1	10469667
	2.372	POLE PIECE, DISTR PICK UP (*14, 22) (AC-DELCO #D1907) (POLE PIECE.W/PLATE)	94-97 I (L05)	1	1875981
	2.372	POLE PIECE, DISTR PICK UP (*28, 29, 30, 31, 32) (AC-DELCO #10469667)	94-95 I (L05)	1	10469667
	2.372	POLE PIECE, DISTR PICK UP (*9, 14, 22) (AC-DELCO #D1907) (POLE PIECE.W/PLATE)	91-93 I (L05)	1	1875981
4.	2.363	BOLT, DISTR (*14, 22) (2.383) (AC-DELCO #1891234)	96-97 I (L05)	1	1891234
	2.363	BOLT, DISTR (*9, 14, 22) (2.383) (AC-DELCO #1891234)	91-95 I (L05)	1	1891234
5.	2.383	MODULE, DISTR IGN CONT (*1, 3, 5, 12, 15, 19, 20, 23, 24, 25, 26, 28, 30, 32, 34) (AC-DELCO #D1965A)	94-95 I (L05)	1	10482830
	2.383	MODULE, DISTR IGN CONT (*28, 29, 30, 31, 32.) (AC-DELCO #D1965A)	94-95 I (L05)	1	10482830
	2.383	MODULE, DISTR IGN CONT (*9, 14, 22) (AC-DELCO #1875990)	91-97 I (L05)	1	1875990
6.	2.363	SEAL, DISTR HSG OIL (O RING) (*9, 14, 22) (AC-DELCO #1950569)	91-97 I (L05)	1	1950569
7.	2.362	HOUSING, DISTR (PART OF 84) (*1, 2, 15, 17, 28, 29, 30, 31, 32) (AC-DELCO #10470804)	94-95 I (L05)	1	10470804
	2.362	HOUSING, DISTR (PART OF 84) (*28, 29, 30, 32) (AC-DELCO #10470804)	96-97 I (L05)	1	10470804
	2.362	HOUSING, DISTR (PART OF 84) (*9, 14, 22) (AC-DELCO #1876222)	91-97 I (L05)	1	1876222
8.	2.379	WASHER, DISTR SHF THR SPR (*9, 14, 22) (AC-DELCO #1965864)	91-97 I (L05)	1	1965864
9.	2.379	WASHER, DISTR SHF (PART OF 84) (*9, 14, 22) (AC-DELCO #1837617)	91-93 I (L05)	1	1837617
	2.379	WASHER, DISTR SHF (PART OF 84) (*14, 22) (AC-DELCO #1837617)	94-97 I (L05)	1	1837617
10.	2.374	GEAR, DISTR SHF (*1, 3, 5, 12, 15, 19, 20, 23, 24, 25, 26, 28, 30, 32, 34) (AC-DELCO #10469459)	94-95 I (L05)	1	10469459
	2.374	GEAR, DISTR SHF (*14, 22) (HARDENED GEAR FOR STEEL CAMSHAFT) (AC-DELCO #10456413)	97 I (L05)	1	10456413

	2.374	GEAR, DISTR SHF (*17, 19, 20, 21, 23, 24, 35, 39, 40) (AC-DELCO #10469459) (PROD 12550957)	96 I (L05)	1	10469459
	2.374	GEAR, DISTR SHF (*28, 29, 30, 31, 32) (AC-DELCO #10469459) (POA 1103799)	94-95 I (L05)	1	10469459
	2.374	GEAR, DISTR SHF (*34, 37, 38) (AC-DELCO #10493532) (12555956)	96 I (L31)	1	10493532
	2.374	GEAR, DISTR SHF (*9, 14, 22) (AC-DELCO #1958599)	91-97 I (L05)	1	1958599
11.	2.368	BOLT, DISTR CAP (*1, 3, 5, 12, 15, 19, 20, 23, 24, 25, 26, 28, 30, 32, 34) (AC-DELCO #10469669)	94-95 I (L05)	1	10469669
	2.368	BOLT, DISTR CAP (*14, 22) (AC-DELCO #1876153)	96-97 I (L05)	2	1876153
	2.368	BOLT, DISTR CAP (*28, 29, 30, 31) (AC-DELCO #10469669) ..	94-95 I (L05)	2	10469669
	2.368	BOLT, DISTR CAP (*32) (AC-DELCO #10469669)	95 I (L05)	2	10469669
	2.368	BOLT, DISTR CAP (*9, 14, 22) (AC-DELCO #1876153)	91-95 I (L05)	2	1876153
12.	2.362	COVER, IGN DISTR (*9, 14, 22) (2.368) (AC-DELCO #1875960)	91-97 I (L05)	1	1875960
13.	2.183	STRAP, DISTR COIL GND (*9, 14, 22) (2.400) (AC-DELCO #1894868)	91-97 I (L05)	1	1894868
14.	2.183	BOLT, IGN COIL (*9, 14, 22) (AC-DELCO #1985472)	91-97 I (L05)	1	1985472
15.	2.170	COIL, DISTR (*28, 29, 30, 31, 32) (2.372) (AC-DELCO #D1944A) .	94-95 I (L05)	1	10470794
	2.170	COIL, DISTR (*9, 14, 22) (AC-DELCO #D530)	91-97 I (L05)	1	1985473
16.	2.367	SEAL, DISTR COIL CAP (*9, 14, 22) (2.183) (AC-DELCO #1875962)	91-97 I (L05)	1	1875962
17.	2.367	CAP, DISTR (*1, 3, 5, 12, 15, 17, 19, 20, 21, 23, 24, 25, 26, 28, 29, 30, 31, 34) (AC-DELCO #D303A) (PROD 12550957)	94 I (L05)	1	10477841
	2.367	CAP, DISTR (*1, 3, 5, 12, 15, 19, 20, 23, 24, 25, 26, 28, 30, 32, 34) (AC-DELCO #D303A)	94-95 I (L05)	1	10477841
	2.367	CAP, DISTR (*28, 29, 30, 31, 32) (AC-DELCO #D303A) (W/01103799)	94-95 I (L05)	1	10477841
	2.367	CAP, DISTR (*34, 37, 38) (AC-DELCO #D303A) (PROD 12555956)	96 I (L31)	1	10477841
	2.367	CAP, DISTR (*34, 37, 41) (AC-DELCO #D303A) (PROD 12555956)	97 I (L31)	1	10477841
	2.367	CAP, DISTR (*34, 41) (AC-DELCO #D303A) (PROD 12559979)	98-99 I (L31)	1	10477841
	2.367	CAP, DISTR (*9, 14, 22) (AC-DELCO #D336)	91-97 I (L05)	1	1974408

18.	2.368	BRUSH, DISTR CAP (*9, 14, 22) (AC-DELCO #1989880)	91-97 I (L05)	1	1989880
19.	2.383	BOLT, DISTR ROT (*14, 22) (AC-DELCO #1875948)	96-97 I (L05)	1	1875948
	2.383	BOLT, DISTR ROT (*9, 14, 22) (AC-DELCO #1875948)	91-95 I (L05)	1	1875948
20.	2.382	ROTOR, DISTR (*1, 3, 5, 12, 15, 19, 20, 23, 24, 25, 26, 28, 30, 32, 34) (AC-DELCO #D452) (POA 1103799)	94-95 I (L05)	1	10470600
	2.382	ROTOR, DISTR (*28, 29, 30, 31, 32) (AC-DELCO #D452)	94-95 I (L05)	1	10470600
	2.382	ROTOR, DISTR (*9, 14, 22) (AC-DELCO #D448)	91-97 I (L05)	1	10498150
21.	2.372	SHAFT, DISTR (*1, 3, 5, 12, 15, 19, 20, 23, 24, 25, 26, 28, 30, 32, 34) (AC-DELCO #10475772) (POA 1103799)	94-95 I (L05)	1	10475772
	2.372	SHAFT, DISTR (*28, 29, 30, 31, 32) (AC-DELCO #10475772) ..	94-95 I (L05)	1	10475772
	2.372	SHAFT, DISTR (*9, 14, 22) (AC-DELCO #1894379)	91-97 I (L05)	1	1894379
22.	2.363	BOLT, DISTR CLA (3/8-16X1-1/8) (8.900)	91-95 I (L05)	1	14091544
	2.363	BOLT, DISTR CLA (*14, 17, 19, 20, 21, 22, 23, 24, 35, 39, 40) (3/8-16X1-1/8) (8.900)	96 I (L05)	1	14091544
	2.363	BOLT, DISTR CLA (*14, 27) (3/8-16X1-1/8) (8.900)	97 I (L05)	1	14091544
23.	2.363	CLAMP, DISTR (*21, 22, 23, 24, 25, 26, 28, 29, 30, 31)	91-93 I (L05)	1	10096197
	2.363	CLAMP, DISTR (*32, 33, 34, 35, 36)	94-97 I (L05)	1	10096197
24.	2.363	GASKET, DISTR (*14, 22) (AC-DELCO #10108445)	96-97 I (L05)	1	10108445
	2.363	GASKET, DISTR (*14, 22, 28, 29, 30, 31, 32) (AC-DELCO #10108445)	94-95 I (L05)	1	10108445
	2.363	GASKET, DISTR (*34, 41) (AC-DELCO #10108445) (PROD 12559979)	98-99 I (L31)	1	10108445
	2.363	GASKET, DISTR (*9, 14, 22) (AC-DELCO #10108445)	91-93 I (L05)	1	10108445
25.	8.971	PLUG, SQ SOCKRT 3/8-18 NPTF.47 (BRASS) (EGR VLV THERMAL VAC VLV HOLE) (*22, 24, 39) (AC-DELCO #444662) .	92-97 I (L05)	AR	444662
26.	3.275	BOLT, INT MANIF (*1, 2, 3, 5, 12, 14, 15, 17, 19, 20, 21, 22, 23, 24, 25, 26, 28, 29, 30, 31, 32, 34, 35, 36) (3/8-16X1 1/2) (7.006)	94-95 I (L05)	3	15538420
	3.275	BOLT, INT MANIF (*14, 17, 19, 20, 21, 22, 23, 24, 38, 39, 40) (3/8-16X1-1/8) (8.900)	96-97 I (L05)	AR	14091544
	3.275	BOLT, INT MANIF (*14, 17, 19, 20, 21, 22, 23, 24, 35, 36, 39, 40) (3/8-16X1 1/2) (7.006)	96-97 I (L05, L31)	3	15538420
	3.275	BOLT, INT MANIF (*17, 21, 31, 35) (3/8-16X1-1/8) (8.900)	94 I (L05)	AR	14091544

	3.275	BOLT, INT MANIF (*36) (3/8-16X1-1/8) (8.900)	95 I (L05)	AR 14091544
	3.275	BOLT, INT MANIF (*9, 17, 21) (3/8-16X1-1/8) (8.900)	91-93 I (L05)	AR 14091544
27.	0.413	BOLT, VLV RKR ARM CVR (*1, 2, 3, 4, 5, 6, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20, 22, 23, 24, 25, 26)	91-93 I (L05)	8 12338092
	0.413	BOLT, VLV RKR ARM CVR (*1, 2, 3, 5, 12, 14, 15, 19, 20, 22, 23, 24, 25, 26, 28, 29, 30, 32, 34, 36)	95 I (L05)	8 12338092
	0.413	BOLT, VLV RKR ARM CVR (*1, 2, 3, 5, 12, 14, 17, 19, 20, 21, 22, 23, 24, 25, 26, 28, 29, 31, 32, 34, 35)	94 I (L05)	8 12338092
	0.413	BOLT, VLV RKR ARM CVR (*14, 17, 19, 20, 21, 22, 23, 24, 34, 38, 39, 40.)	96-97 I (L05, L31)	8 12338092
	0.413	BOLT, VLV RKR ARM CVR (*15, 27, 30, 33, 35)	94 I (L05)	8 10108675
	0.413	BOLT, VLV RKR ARM CVR (*17)	91-92 I (L05)	8 12338092
	0.413	BOLT, VLV RKR ARM CVR (*22, 34, 41, 42, 43)	98-99 I (L31)	8 12338092
	0.413	BOLT, VLV RKR ARM CVR (*27, 33)	95 I (L05)	8 10108675
	0.413	BOLT, VLV RKR ARM CVR (*27, 35, 37)	96-97 I (L05)	8 10108675
	0.413	BOLT, VLV RKR ARM CVR (*31) (1/4X20X88)	94 I (L05)	8 10088165
	0.413	BOLT, VLV RKR ARM CVR (*7, 17, 21)	93 I (L05)	8 10108675
	0.413	BOLT, VLV RKR ARM CVR (*7, 8, 21) (1/4X20X88)	91-92 I (L05)	8 10088165
28.	1.758	CAP, OIL FIL (AC-DELCO #FC158)	98-99 I (L31)	1 10108650
	1.758	CAP, OIL FIL (*1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 18, 19, 20, 21, 22, 23, 24, 25, 26) (AC-DELCO #FC158)	91-92 I (L05)	1 10108650
	1.758	CAP, OIL FIL (*1, 2, 3, 4, 5, 8, 10, 11, 12, 17, 18, 19, 20, 22, 23, 24, 25, 26) (AC-DELCO #FC158) ..	93 I (L05)	1 10108650
	1.758	CAP, OIL FIL (*1, 2, 3, 5, 12, 14, 15, 17, 19, 20, 21, 22, 23, 24, 25, 26, 28, 29, 31, 32, 34) (AC-DELCO #FC158)	94 I (L05)	1 10108650
	1.758	CAP, OIL FIL (*1, 2, 3, 5, 12, 14, 15, 19, 20, 22, 23, 24, 25, 26, 28, 29, 30, 32, 34, 36) (AC-DELCO #FC158)	95 I (L05)	1 10108650
	1.758	CAP, OIL FIL (*14, 17, 19, 20, 21, 22, 23, 24, 34, 38, 39, 40.) (AC-DELCO #FC158)	96 I (L05, L31)	1 10108650
	1.758	CAP, OIL FIL (*14, 17, 19, 20, 21, 22, 23, 34, 39, 41) (AC-DELCO #FC158)	97 I (L05, L31)	1 10108650
	1.758	CAP, OIL FIL (*15, 16, 17) (AC-DELCO #FC122)	91-92 I (L05)	1 10110852
	1.758	CAP, OIL FIL (*15, 27, 30, 33, 35) (AC-DELCO #FC162)	94 I (L05)	1 10108694

	1.758	CAP, OIL FIL (*27, 33, 35, 37) (AC-DELCO #FC162)	95-97 I (L05)	1	10108694
	1.758	CAP, OIL FIL (*7, 14, 17, 21, 22) (AC-DELCO #FC162)	93 I (L05)	1	10108694
29.	0.386	COVER, VLV RKR ARM (*1, 2, 3, 4, 5, 6, 8, 10, 11, 12, 13, 15, 16, 18, 19, 20, 23, 24, 25, 26)	91-93 I (L05)	1	12555269
	0.386	COVER, VLV RKR ARM (*1, 2, 3, 4, 5, 6, 8, 10, 11, 12, 13, 15, 16, 18, 20, 23, 24, 25, 26.)	91-93 I (L05)	LH	12555269
	0.386	COVER, VLV RKR ARM (*1, 2, 3, 5, 12, 14, 15, 19, 20, 22, 23, 24, 25, 26, 28, 29, 30, 32, 36)	95 I (L05)	1	12555269
	0.386	COVER, VLV RKR ARM (*1, 2, 3, 5, 12, 17, 19, 20, 21, 23, 24, 25, 26, 28, 29, 32)	94 I (L05)	1	12555269
	0.386	COVER, VLV RKR ARM (*14, 22)	91-97 I (L05)	LH	12555270
	0.386	COVER, VLV RKR ARM (*14, 22)	91-97 I (L05)	RH	12555271
	0.386	COVER, VLV RKR ARM (*14, 22, 42, 43)	98-99 I (L31)	LH	12555271
	0.386	COVER, VLV RKR ARM (*15) ...	94-95 I (L05)	RH	12552322
	0.386	COVER, VLV RKR ARM (*17) ...	91-92 I (L05)	LH	12555269
	0.386	COVER, VLV RKR ARM (*17, 19, 20, 21, 23, 24, 38, 39, 40, 41) ...	96-97 I (L05, L31)	2	12555269
	0.386	COVER, VLV RKR ARM (*22, 42, 43)	98-99 I (L31)	RH	12555270
	0.386	COVER, VLV RKR ARM (*27) ...	96-97 I (L05)	LH	12552321
	0.386	COVER, VLV RKR ARM (*27) ...	96-97 I (L05)	RH	12552322
	0.386	COVER, VLV RKR ARM (*27, 33)	94-95 I (L05)	LH	12552321
	0.386	COVER, VLV RKR ARM (*27, 33)	94-95 I (L05)	RH	12552322
	0.386	COVER, VLV RKR ARM (*30, 35)	94 I (L05)	2	12552322
	0.386	COVER, VLV RKR ARM (*31) (CAST ALUMINUM)	94 I (L05) (1ST DES)	1	10055782
	0.386	COVER, VLV RKR ARM (*31) (STAMPED STEEL)	94 I (L05) (2ND DES)	1	12555269
	0.386	COVER, VLV RKR ARM (*34) (BLACK)	94-97 I (L05)	LH	10240813
	0.386	COVER, VLV RKR ARM (*34) ...	94-97 I (L05, L31)	RH	12555269
	0.386	COVER, VLV RKR ARM (*34, 41)	97-99 I (L31)	LH	12555272
	0.386	COVER, VLV RKR ARM (*34, 41)	98-99 I (L31)	RH	12555269
	0.386	COVER, VLV RKR ARM (*35, 37)	96-97 I (L05)	2	12552322
	0.386	COVER, VLV RKR ARM (*7, 17, 21)	93 I (L05)	1	12552322
	0.386	COVER, VLV RKR ARM (*7, 21) .	91-92 I (L05)	RH	10055782
	0.386	COVER, VLV RKR ARM (*9)	91-92 I (L05)	2	14025548
30.	0.423	GASKET, VLV RKR ARM CVR (*1, 2, 3, 4, 5, 6, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20, 22, 23, 24, 25, 26)	91-93 I (L05)	2	10046089
	0.423	GASKET, VLV RKR ARM CVR (*1, 2, 3, 5, 12, 14, 15, 17, 19, 20, 21, 22, 23, 24, 25, 26, 28, 29, 30, 32, 34, 36)	94-95 I (L05)	2	10046089
	0.423	GASKET, VLV RKR ARM CVR (*14, 17, 19, 20, 21, 22, 23, 24, 34, 38, 39, 40, 41)	96-97 I (L05, L31)	2	10046089
	0.423	GASKET, VLV RKR ARM CVR (*15)	94-95 I (L05)	AR	10108625

	0.423	GASKET, VLV RKR ARM CVR (*17)	91-92 I (L05)	2	10046089
	0.423	GASKET, VLV RKR ARM CVR (*22, 34, 41, 42, 43)	98-99 I (L31)	2	10046089
	0.423	GASKET, VLV RKR ARM CVR (*27, 33)	94-95 I (L05)	AR	10108625
	0.423	GASKET, VLV RKR ARM CVR (*27, 35, 37)	96-97 I (L05)	AR	10108625
	0.423	GASKET, VLV RKR ARM CVR (*30, 35)	94 I (L05)	AR	10108625
	0.423	GASKET, VLV RKR ARM CVR (*31) (STAMPED STEEL)	94 I (L05) (2ND DES)	2	10046089
	0.423	GASKET, VLV RKR ARM CVR (*31) (CAST ALUMINUM)	94 I (L05) (1ST DES)	2	14088564
	0.423	GASKET, VLV RKR ARM CVR (*7, 17, 21)	93 I (L05)	AR	10108625
	0.423	GASKET, VLV RKR ARM CVR (*7, 8, 21) (CAST ALUMINUM)	91-92 I (L05)	2	14088564
	0.423	GASKET, VLV RKR ARM CVR (*9)	91-92 I (L05)	2	14082322
31.	0.293	BOLT, CYL HD (SHORT 7/16X1 3/4, .78 PZOR)	91-93 I (L05)	16	10168527
	0.293	BOLT, CYL HD (*1, 2, 3, 5, 12, 14, 15, 19, 22, 23, 24, 25, 26, 28, 29, 30.) (SHORT 7/16X1 3/4, .78 PZOR)	94 I (L05)	16	10168527
	0.293	BOLT, CYL HD (*17, 21, 27, 31, 33.) (SHORT 7/16X1 3/4, .78 PZOR)	94 I (L05)	2	10168527
	0.293	BOLT, CYL HD (SHORT 7/16X1 3/4, .78 PZOR)	95 I (L05)	16	10168527
	0.293	BOLT, CYL HD (SHORT 7/16X1 3/4, .78 PZOR) (*14, 17, 19, 20, 21, 22, 23, 24)	96-97 I (L05)	16	10168527
	0.293	BOLT, CYL HD (SHORT 7/16X1 3/4, .78 PZOR) (*27, 35, 39, 40)	96-97 I (L05)	16	10168527
	0.293	BOLT, CYL HD (SHORT 7/16X1 3/4, .78 PZOR) (*34, 37, 38)	96-97 I (L31)	16	10168527
	0.293	BOLT, CYL HD (SHORT 7/16X1 3/4, .78 PZOR) (*22, 34, 41, 42, 43)	98-99 I (L31)	16	10168527
32.	2.270	SPARK PLUG, (*1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 15, 16, 18, 19, 20, 23, 24, 25, 26) (AC-DELCO #MR43T)	91-93 I (L05)	8	5613438
	2.270	SPARK PLUG, (*1, 2, 3, 5, 12, 15, 17, 19, 20, 22, 23, 24, 25, 26, 28, 29, 30, 32, 34) (AC-DELCO #MR43T)	94 I (L05)	8	5613438
	2.270	SPARK PLUG, (*1, 2, 3, 5, 12, 15, 19, 20, 23, 24, 25, 26, 28, 29, 30, 32, 34) (AC-DELCO #MR43T)	95 I (L05)	8	5613438
	2.270	SPARK PLUG, (*17) (AC-DELCO #MR43T)	91-92 I (L05)	8	5613438
	2.270	SPARK PLUG, (*17, 21, 27, 31, 33, 35) (AC-DELCO #MR43LTS)	94 I (L05)	8	5614210
	2.270	SPARK PLUG, (*17, 21, 27, 34, 37, 38, 41) (AC-DELCO #MR43LTS)	96-97 I (L05)	8	5614210

	2.270	SPARK PLUG, (*19, 20, 23, 24, 35, 39, 40) (AC-DELCO #MR43T)	96-97 I (L05)	8	5613438
	2.270	SPARK PLUG, (*21) (AC-DELCO #MR43LTS)	92-93 I (L05)	8	5614210
	2.270	SPARK PLUG, (*27, 33, 36) (AC-DELCO #MR43LTS)	95 I (L05)	8	5614210
	2.270	SPARK PLUG, (*34, 37, 38) (AC-DELCO #MR43LTS)	97 I (L05)	8	5614210
	2.270	SPARK PLUG, (*34, 41.) (AC-DELCO #MR43LTS)	98-99 I (L31)	8	5614210
	2.270	SPARK PLUG, (*42, 43) (41-932) (AC-DELCO #41-932)	98-99 I (L31)	8	25162556
	2.270	SPARK PLUG, (*9, 14, 22) (77.777) (AC-DELCO #MR44T)	91-97 I (L05)	8	5613689
33.	8.900	BOLT, HFH (1/4-20X.56 280M PZOR) (SPLG WIRE RET BRKT) (*14)	91-93 I (L05)	4	9439930
	8.900	BOLT, HFH (1/4-20X.56 280M PZOR) (SPLG WIRE RET BRKT) (*14, 22)	94-97 I (L05)	4	9439930
34.	2.251	SUPPORT, SPLG WIRE (*14, 21, 22)	91-93 I (L05)	LH	10045295
	2.251	SUPPORT, SPLG WIRE (*14, 22)	94-97 I (L05)	LH	10045295
	2.251	SUPPORT, SPLG WIRE (*14, 22)	94-97 I (L05)	RH	10045296
35.	0.293	PLUG, CYL HD CORE HOLE (*1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 15, 16, 18, 19, 20, 23, 24, 25, 26) (8.971) (AC-DELCO #444662)	91-93 I (L05)	AR	444662
	0.293	PLUG, CYL HD CORE HOLE (*1, 2, 3, 5, 12, 15, 19, 20, 23, 24, 25, 26, 28, 29, 30, 32, 34) (8.971) (AC-DELCO #444662)	94-95 I (L05)	AR	444662
	0.293	PLUG, CYL HD CORE HOLE (*14, 17, 21, 22, 31, 35, 36) (AUTO DRAIN, INT SQ, 3/8-18X.42 PEOR STL) (8.971)	94-96 I (L05)	1	14090911
	0.293	PLUG, CYL HD CORE HOLE (*17, 21, 27, 34) (AUTO DRAIN, INT SQ, 3/8-18X.42 PEOR STL) (8.971)	97 I (L05)	1	14090911
	0.293	PLUG, CYL HD CORE HOLE (*19, 20, 23, 24, 34, 35, 37, 38, 39, 40, 41.) (8.971) (AC-DELCO #444662)	96-97 I (L05, L31)	AR	444662
	0.293	PLUG, CYL HD CORE HOLE (*22, 42, 43) (AUTO DRAIN, INT SQ, 3/8-18X.42 PEOR STL) (8.971)	98-99 I (L31)	2	14090911
	0.293	PLUG, CYL HD CORE HOLE (*27) (1/4-18X.44 AM STD PIPE THD, STL, CZ (USED W/SEALER) (8.971)	96 I (L05)	AR	144011
	0.293	PLUG, CYL HD CORE HOLE (*27, 33) (1/4-18X.44 AM STD PIPE THD, STL, CZ (USED W/SEALER) (8.971)	94-95 I (L05)	AR	144011

	0.293	PLUG, CYL HD CORE HOLE (*34, 41.) (8.971) (AC-DELCO #444662)	98-99 I (L31)		
	0.293	PLUG, CYL HD CORE HOLE (*9, 14, 17, 22) (AUTO DRAIN, INT SQ, 3/8-18X.42 PEOR STL) (8.971)	91-93 I (L05)	1	14090911
36.	2.251	SUPPORT, SPLG WIRE (FRT RET) (*14, 21, 22)	91-93 I (L05)	LH	14102131
	2.251	SUPPORT, SPLG WIRE (FRT RET) (*14, 22)	94-97 I (L05)	LH	14102131
	2.251	SUPPORT, SPLG WIRE (FRT RET) (*14, 21, 22)	91-93 I (L05)	RH	10203468
	2.251	SUPPORT, SPLG WIRE (FRT RET) (*14, 22)	94-97 I (L05)	RH	10203468
37.	8.971	PLUG (INT MANIF VAC HOLE) (*4, 5, 6, 7, 8, 9, 13, 15, 16, 17, 18, 19, 20, 21, 23, 24)	91-93 I (L05)	1	14090911
	8.971	PLUG (INT MANIF VAC HOLE) (*17, 19, 20, 21, 23, 24, 31, 32, 34, 36.)	94-96 I (L05)	1	14090911
	8.971	PLUG (INT MANIF VAC HOLE) (*17, 19, 20, 21, 23, 24, 34, 35, 36, 39, 40.)	97 I (L05, L31)	1	14090911
	8.971	PLUG, AUTO SQ HD PIPE 3/4X14 STL ZP (4510 (INT MANIF VAC HOLE) (*27, 33.) (4.510)	94-95 I (L05)	AR	444595
38.	3.265	SHIELD, INT MANIF OIL SPH (*1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20, 22, 23, 24, 25, 26) (PART OF 80)	91-93 I (L05)	1	6271071
	3.265	SHIELD, INT MANIF OIL SPH (*1, 2, 3, 5, 12, 14, 15, 19, 20, 22, 23, 24, 25, 26, 28, 29, 30, 32) (PART OF 80)	94-95 I (L05)	1	6271071
	3.265	SHIELD, INT MANIF OIL SPH (*14, 19, 20, 22, 23, 24, 35, 39, 40.) (PART OF 80)	96-97 I (L05, L31)	1	6271071
	3.265	SHIELD, INT MANIF OIL SPH (*27, 33) (PART OF 80)	94-97 I (L05)	1	10128305
	3.265	SHIELD, INT MANIF OIL SPH (*34) (PART OF 80)	95 I (L05)	1	6271071
39.	3.265	BOLT, INT MANIF OIL SPH SHLD (*27, 33) (M6X1X12, FL HD) (8.900)	94-96 I (L05)	4	11516061
	3.265	STUD, INT MANIF OIL SPH SHLD (*1, 2, 3, 5, 14, 15, 19, 20, 22, 23, 24, 25, 26, 28, 29, 30, 32.) (3.601)	95 I (L05)	4	10229247
	3.265	STUD, INT MANIF OIL SPH SHLD (*14, 19, 20, 22, 23, 24, 35, 39, 40) (3.601)	96-97 I (L05)	4	10229247
40.	0.296	VALVE, INT (.0035 OS) (*9)	91-92 I (L05)	8	3997749
	0.296	VALVE, INT (.0035" O.S.) (*1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20, 22, 23, 24, 25, 26, 28, 29, 30, 32, 34) (.0035 O.S.)	91-95 I (L05)	8	10166151

0.296	VALVE, INT (.0035"O.S.) (*17, 31, 35)	93-95 I (L05)	8	10168466
0.296	VALVE, INT (.0035"O.S.) (*21) ..	91-95 I (L05)	8	10168466
0.296	VALVE, INT (.015 O.S.) (*9)	91-92 I (L05)	8	3997750
0.296	VALVE, INT (.0155" O.S.) (*1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20, 22, 23, 24, 25, 26, 28, 29, 30, 32, 34) (.0155 O.S.)	91-95 I (L05)	8	10166152
0.296	VALVE, INT (.0155"O.S.) (*17, 31, 35)	93-95 I (L05)	8	10168467
0.296	VALVE, INT (.0155"O.S.) (*21) ..	92-95 I (L05)	8	10168467
0.296	VALVE, INT (.0305" O.S.) (*1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20, 22, 23, 24, 25, 26, 28, 29, 30, 32, 34) (.0305 O.S.)	91-95 I (L05)	8	14034080
0.296	VALVE, INT (.0305"O.S.) (*17, 31, 35)	93-95 I (L05)	8	10168468
0.296	VALVE, INT (.0305"O.S.) (*21) ..	92-95 I (L05)	8	10168468
0.296	VALVE, INT (.0305"O.S.) (*9) ...	91-92 I (L05)	AR	3997751
0.296	VALVE, INT (*1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20, 22, 23, 24, 25, 26, 28, 29, 30, 32, 34.) (STD)	91-95 I (L05)	8	10093027
0.296	VALVE, INT (*14, 19, 20, 22, 23, 35, 39, 40.) (STD)	96-97 I (L05)	8	10093027
0.296	VALVE, INT (*14, 19, 20, 22, 23, 35, 39, 40.) (.0035 O.S.)	96-97 I (L05)	8	10166151
0.296	VALVE, INT (*14, 19, 20, 22, 23, 35, 39, 40.) (.0155 O.S.)	96-97 I (L05)	8	10166152
0.296	VALVE, INT (*14, 19, 20, 22, 23, 35, 39, 40.) (.0305 O.S.) (.0305 O.S.)	96-97 I (L05)	8	14034080
0.296	VALVE, INT (*17, 21, 27, 34, 37, 38, 41) (.0305 O.S.) (0.297)	96-97 I (L05)	8	12550913
0.296	VALVE, INT (*17, 21, 27, 34, 37, 39, 41) (STD)	96-97 I (L05)	8	10241743
0.296	VALVE, INT (*22, 34, 41, 42, 43) (STD)	98-99 I (L31)	8	10241743
0.296	VALVE, INT (*27, 33) (STD)	94-95 I (L05)	8	10241743
0.296	VALVE, INT (*9)	91-92 I (L05)	8	3989088
0.296	VALVE, INT (STD) (*17) (STD) ..	91-92 I (L05)	8	10093027
0.296	VALVE, INT (STD) (*17, 31, 35) ..	93-95 I (L05)	8	10168465
0.296	VALVE, INT (STD) (*21)	92-95 I (L05)	8	10168465
0.297	VALVE, EXH (.0035"O.S.) (*9) ..	91-92 I (L05)	8	14082312
0.297	VALVE, EXH (.0155"O.S.) (*9) ..	91-92 I (L05)	8	14082313
0.297	VALVE, EXH (*1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 18, 19, 20, 22, 23, 24, 25, 26) (STD)	91-93 I (L05)	8	10045251
0.297	VALVE, EXH (*1, 2, 3, 5, 12, 14, 15, 19, 20, 22, 23, 24, 25, 26, 28, 29, 30, 32, 34) (STD)	94-95 I (L05)	8	10045251
0.297	VALVE, EXH (*1, 2, 3, 5, 12, 14, 15, 19, 20, 22, 23, 24, 25, 26, 28, 29, 30, 32, 34) (.0035 O.S.)	94-95 I (L05)	8	10054581

41.

	0.297	VALVE, EXH (*1, 2, 3, 5, 12, 14, 15, 19, 20, 22, 23, 24, 25, 26, 28, 29, 30, 32, 34) (.0155 O.S.)	94-95	I (L05)	8	10054582
	0.297	VALVE, EXH (*14, 19, 20, 22, 23, 24, 35, 39, 40) (STD)	96-97	I (L05)	8	10045251
	0.297	VALVE, EXH (*14, 19, 20, 22, 23, 24, 35, 39, 40) (.0035 O.S.)	96-97	I (L05)	8	10054581
	0.297	VALVE, EXH (*14, 19, 20, 22, 23, 24, 35, 39, 40) (.0155 O.S.)	96-97	I (L05)	8	10054582
	0.297	VALVE, EXH (*15, 16, 17) (.0035 O.S.)	91-92	I (L05)	8	336742
	0.297	VALVE, EXH (*17, 21, 27, 34, 37, 38, 41.) (STD)	96-97	I (L05, L31)	8	12550909
	0.297	VALVE, EXH (*17, 31, 35) (STD)	93-94	I (L05)	8	10168514
	0.297	VALVE, EXH (*17, 31, 35) (.0035*O.S.)	93-94	I (L05)	8	10168515
	0.297	VALVE, EXH (*17, 31, 35) (.0155 O.S.)	93-94	I (L05)	8	10168516
	0.297	VALVE, EXH (*21) (STD)	92-94	I (L05)	8	10168514
	0.297	VALVE, EXH (*21) (.0035*O.S.)	92-94	I (L05)	8	10168515
	0.297	VALVE, EXH (*21) (.0155 O.S.)	92-94	I (L05)	8	10168516
	0.297	VALVE, EXH (*22) (STD)	98	I (L31)	8	12552289
	0.297	VALVE, EXH (*27, 33) (STD)	94-95	I (L05)	8	12550909
	0.297	VALVE, EXH (*27, 33) (.0305 O.S.)	94	I (L05)	8	12550913
	0.297	VALVE, EXH (*31) (STD)	97	I (L31)	8	12552289
	0.297	VALVE, EXH (*34, 41.) (STD)	98-99	I (L31)	8	12550909
	0.297	VALVE, EXH (*34, 41.) (.0305 O.S.)	98-99	I (L31)	8	12550913
	0.297	VALVE, EXH (*36) (STD)	95	I (L05)	8	12550909
	0.297	VALVE, EXH (*36) (.0305 O.S.)	95	I (L05)	8	12550913
	0.297	VALVE, EXH (*42, 43) (STD)	99	I (L31)	8	12552289
	0.297	VALVE, EXH (STD)	91-92	I (L05)	8	14082305
42.	0.459	LIFTER, VLV (*1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 22, 24, 25, 26) (AC-DELCO #HL66)	91-93	I (L05)	16	5232720
	0.459	LIFTER, VLV (*1, 2, 3, 5, 12, 14, 15, 22, 24, 25, 26, 28, 29, 30) (AC-DELCO #HL66)	94-95	I (L05)	16	5232720
	0.459	LIFTER, VLV (*14, 22, 39) (AC-DELCO #HL66)	96-97	I (L05)	16	5232720
	0.459	LIFTER, VLV (*15, 16, 17, 18, 19, 20, 21, 23) (AC-DELCO #HL112)	91-93	I (L05)	16	5234890
	0.459	LIFTER, VLV (*17, 19, 20, 21, 23, 24, 27, 34, 35, 37, 38, 40, 41.) (AC-DELCO #HL123)	96-97	I (L05, L31)	16	17120735
	0.459	LIFTER, VLV (*17, 19, 20, 21, 23, 27, 31, 32, 33, 34, 35, 36) (AC-DELCO #HL112)	94-95	I (L05)	16	5234890
	0.459	LIFTER, VLV (*22, 34, 41, 42, 43) (AC-DELCO #HL123)	98-99	I (L31)	16	17120735
43.	0.293	PIN, CYL HD LOC (5/16X9/16 STL) (8.939) (AC-DELCO #585927)	91-95	I (L05)	8	585927
	0.293	PIN, CYL HD LOC (5/16X9/16 STL) (8.939) (AC-DELCO #585927)	96-97	I (L05, L31)	8	585927

	0.293	PIN, CYL HD LOC (5/16X9/16 STL) (8.939) (AC-DELCO #585927)	98-99 I (L31)	8	585927
44.	0.289	GASKET, CYL HD (*1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 23, 24, 25, 26)	91-93 I (L05)	2	14096405
	0.289	GASKET, CYL HD (*1, 2, 3, 5, 12, 15, 19, 20, 23, 24, 25, 26, 28, 29, 30, 32, 34)	94-95 I (L05)	2	14096405
	0.289	GASKET, CYL HD (*14, 22)	91-97 I (L05, L31)	2	10105117
	0.289	GASKET, CYL HD (*17)	93 I (L05)	2	12557236
	0.289	GASKET, CYL HD (*17, 21)	96-97 I (L05)	2	12557236
	0.289	GASKET, CYL HD (*17, 21, 31) .	94 I (L05)	2	12557236
	0.289	GASKET, CYL HD (*19, 20, 23, 24, 34, 35, 37, 38, 39, 40, 41) ...	96-97 I (L05, L31)	2	14096405
	0.289	GASKET, CYL HD (*21)	92-93 I (L05)	2	12557236
	0.289	GASKET, CYL HD (*22, 42, 43) .	98-99 I (L31)	2	10105117
	0.289	GASKET, CYL HD (*27, 33)	94-97 I (L05)	2	10168457
	0.289	GASKET, CYL HD (*34, 41)	98-99 I (L31)	2	14096405
	0.289	GASKET, CYL HD (*36)	95 I (L05)	2	12557236
	0.289	GASKET, CYL HD (*9)	91-92 I (L05)	2	10105117
	0.289	GASKET KIT, CYL HD (*27, 33) (INCL'S GASKET-CYL HEAD, INT MANIF, EXH MANIF, EGR VLV, THROT, WATER/PUMP, SEAL-VLV STEM OIL.)	94-95 I (L05)	1	12369146
45.	0.269	HEAD, CYL (*1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 26) (LONGER FASTENERS ARE REQUIRED; (1) 9439918 BOLT & (1) 15538420 T/W 12346004 SEALER, FOR EITHER R .H. (OR) L .H .HEAD) .	91-93 I (L05)	2	10159556
	0.269	HEAD, CYL (*1, 2, 3, 5, 12, 14, 15, 19, 20, 22, 23, 24, 25, 26, 28, 29, 30, 32, 34) (LONGER FASTENERS ARE REQUIRED; (1) 9439918 BOLT & (1) 15538420 * T/W 12346004 SEALER, FOR EITHER R .H. (OR) L .H .HEAD) .	94-95 I (L05)	2	10159556
	0.269	HEAD, CYL (*14, 19, 20, 22, 23, 24, 35, 39, 40) (LONGER FASTENERS ARE REQUIRED; (1) 9439918 BOLT & (1) 15538420 T/W 12346004 SEALER, FOR EITHER R .H. (OR) L .H .HEAD) .	96-97 I (L05, L31)	2	10159556
	0.269	HEAD, CYL (*17, 21)	96-97 I (L05)	2	12551944
	0.269	HEAD, CYL (*17, 21, 31, 35)	94 I (L05)	2	10125374
	0.269	HEAD, CYL (*21)	92-93 I (L05)	2	10125374
	0.269	HEAD, CYL (*22, 42, 43)	98-99 I (L31)	1	12529509
	0.269	HEAD, CYL (*27, 33)	94-97 I (L05)	2	10168448
	0.269	HEAD, CYL (*34, 37, 38, 41)	96-97 I (L31)	2	12528913
	0.269	HEAD, CYL (*34, 41)	98-99 I (L31)	2	12528913
	0.269	HEAD, CYL (*36)	95 I (L05)	2	12551944
	0.269	HEAD, CYL (W/STUD, INSTR SHT) (*9)	91-92 I (L05)	2	10121001
46.	0.308	SEAL, INT VLV STEM OIL (*17, 21, 27, 34, 37, 38, 41)	96-97 I (L05)	8	10212810

	0.308	SEAL, INT VLV STEM OIL (*22, 34, 41, 42, 43)	98-99 I (L31)	8	10212810
	0.308	SEAL, INT VLV STEM OIL (*27, 33, 36)	94-95 I (L05)	8	10212810
	0.308	SEAL, INT VLV STEM OIL (*34, 37, 38)	96 I (L31)	8	10212810
	0.308	SEAL, EXH VLV STEM OIL (STD) (.0155 O.S.)	91-93 I (L05)	8	10168534
	0.308	SEAL, EXH VLV STEM OIL (*1, 2, 3, 5, 12, 14, 15, 19, 20, 22, 23, 24, 25, 26, 28, 29, 30, 32, 34) (STD) (.0155 O.S.)	94-95 I (L05)	8	10168534
	0.308	SEAL, EXH VLV STEM OIL (*14, 19, 20, 22, 23, 24, 35, 39, 40.) (STD) (.0155 O.S.)	96-97 I (L05)	8	10168534
47.	0.303	SPRING, VLV (*1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20, 22, 23, 24, 25, 26, 28, 29, 30, 32, 34)	91-95 I (L05)	16	3911068
	0.303	SPRING, VLV (*14, 19, 20, 22, 23, 24, 35, 39, 40)	96-97 I (L05)	16	3911068
	0.303	SPRING, VLV (*17, 21, 27)	96-97 I (L05)	16	10206040
	0.303	SPRING, VLV (*17, 21, 27, 31, 33, 35, 36)	91-95 I (L05)	16	10206040
	0.303	SPRING, VLV (*22, 34, 41, 42) (W/O DMPR)	98-99 I (L31)	16	10212811
	0.303	SPRING, VLV (*34, 37, 38) (W/O DMPR)	96-97 I (L31)	8	10212811
48.	0.308	SHIELD, VLV STEM OIL	91-93 I (L05)	12	10007818
	0.308	SHIELD, VLV STEM OIL (*1, 2, 3, 5, 12, 14, 15, 19, 20, 22, 23, 24, 25, 26, 28, 29, 30, 32, 34)	94-95 I (L05)	12	10007818
	0.308	SHIELD, VLV STEM OIL (*14, 19, 20, 22, 23, 24, 35, 39, 40)	96-97 I (L05)	12	10007818
49.	0.293	BOLT, CYL HD (MEDIUM 7/16-14X3-1/16, 300M)	91-93 I (L05)	4	10168526
	0.293	BOLT, CYL HD (*1, 2, 3, 5, 12, 14, 15, 17, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 33.) (MEDIUM 7/16-14X3-1/16, 300M)	94 I (L05)	4	10168526
	0.293	BOLT, CYL HD (MEDIUM 7/16-14X3-1/16, 300M)	95-99 I (L05)	4	10168526
	0.293	BOLT, CYL HD (MEDIUM 7/16-14X3-1/16, 300M)	96-98 I (L31)	4	10168526
50.	0.308	SEAL, VLV STEM OIL (O-RING TYPE)	91-93 I (L05)	12	10214034
	0.308	SEAL, VLV STEM OIL (*1, 2, 3, 5, 12, 14, 15, 19, 20, 22, 23, 24, 25, 26, 28, 29, 30, 32, 34) (O-RING TYPE)	94-95 I (L05)	12	10214034
	0.308	SEAL, VLV STEM OIL (*14, 19, 20, 22, 23, 24, 35, 39, 40) (O-RING TYPE)	96-97 I (L05, L31)	12	10214034
	0.308	SEAL, VLV STEM OIL (*17, 21, 31, 35)	94-95 I (L05)	16	10128383
	0.308	SEAL, INT VLV STEM OIL (*17, 21, 27, 34, 37, 38, 41)	96-97 I (L05)	8	10212810

	0.308	SEAL, INT VLV STEM OIL (*22, 34, 41, 42, 43)	98-99 I (L31)	8	10212810
	0.308	SEAL, INT VLV STEM OIL (*27, 33, 36)	94-95 I (L05)	8	10212810
	0.308	SEAL, INT VLV STEM OIL (*34, 37, 38)	96 I (L31)	8	10212810
	0.308	SEAL, EXH VLV STEM OIL (*14, 22, 34, 41)	98-99 I (L31)	6	12558674
	0.308	SEAL, EXH VLV STEM OIL (*22, 34, 41, 42, 43)	98-99 I (L31)	8	10212810
	0.308	SEAL, EXH VLV STEM OIL (*34, 37, 38, 41.)	97 I (L31)	6	12558674
51.	0.293	BOLT, CYL HD (LONG 7/16-14X3-51/64, 300M)	91-93 I (L05)	14	10168525
	0.293	BOLT, CYL HD (*1, 2, 3, 5, 12, 14, 15, 19, 20, 22, 23, 24, 25, 26, 28, 29, 30.) (LONG 7/16-14X3-51/64, 300M)	94 I (L05)	14	10168525
	0.293	BOLT, CYL HD (7/16-14X3 51/64) (*17, 21, 27, 31, 33.) (LONG 7/16-14X3-51/64, 300M)	94 I (L05)	14	10168525
	0.293	BOLT, CYL HD (LONG 7/16-14X3-51/64, 300M)	95-97 I (L05)	14	10168525
	0.293	BOLT, CYL HD (LONG 7/16-14X3-51/64, 300M)	96-99 I (L31)	14	10168525
52.	0.309	CAP, VLV SPR (*1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20, 22, 23, 24, 25, 26, 28, 29, 30, 32, 34)	91-95 I (L05)	16	14003974
	0.309	CAP, VLV SPR (*17, 21, 27)	96-97 I (L05)	16	10212808
	0.309	CAP, VLV SPR (*17, 21, 31, 35)	91-94 I (L05)	AR	10168424
	0.309	CAP, VLV SPR (*22, 34, 41, 42, 43)	98-99 I (L31)	8	10241744
	0.309	CAP, VLV SPR (*27, 33, 36)	94-95 I (L05)	16	10212808
	0.309	CAP, VLV SPR (*34, 37, 38, 41.)	96-97 I (L31)	8	10241744
53.	0.310	KEY, VLV STEM	91-97 I (L05, L31)	32	24503856
	0.310	KEY, VLV STEM	98-99 I (L31)	32	24503856
54.	3.270	GASKET KIT, INT MANIF (*1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 28, 29, 30, 31, 32, 34, 35, 36)	91-95 I (L05)	1	12525816
	3.270	GASKET KIT, INT MANIF (*14, 17, 19, 20, 21, 22, 23, 24, 35, 39, 40.)	97 I (L05)	1	12525816
	3.270	GASKET KIT, INT MANIF (*14, 17, 19, 21, 22, 23, 24, 35, 39, 40)	96 I (L05)	1	12525816
	3.270	GASKET KIT, INT MANIF (*27, 33)	94-95 I (L05)	1	12524653
	3.270	GASKET KIT, INT MANIF (*9) ..	91-92 I (L05)	1	10159493
55.	0.309	ROTATOR, VLV (*1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20, 22, 23, 24, 25, 26, 28, 29, 30, 32, 34, 36)	91-95 I (L05)	8	14042575
	0.309	ROTATOR, VLV (*14, 19, 20, 22, 23, 24, 35, 39, 40)	96-97 I (L05)	8	14042575
56.	0.429	NUT, VLV RKR ARM (3/8-24) ...	91-96 I (L05)	16	465934
	0.429	NUT, VLV RKR ARM (3/8-24) ...	96-97 I (L31)	16	465934

57.	N.S.	BALL, VLV RKR ARM (PART OF ITEM #59)			
58.	0.429	STUD, VLV RKR ARM BALL (.003" O.S.) (*1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20, 22, 23, 24, 25, 26, 28, 29, 30, 32, 34)	91-95	I (L05)	16 3814692
	0.429	STUD, VLV RKR ARM BALL (.003" O.S.) (*14, 19, 20, 22, 23, 24, 34, 35, 37, 38, 39, 40, 41.)	96-97	I (L05, L31)	16 3814692
	0.429	STUD, VLV RKR ARM BALL (.003" O.S.) (*17)	91-92	I (L05)	16 3814692
	0.429	STUD, VLV RKR ARM BALL (.003" O.S.) (*22, 34, 41, 42, 43)	98-99	I (L31)	16 3814692
	0.429	STUD, VLV RKR ARM BALL (.013" O.S.) (*1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20, 22, 23, 24, 25, 26, 28, 29, 30, 32, 34.)	91-95	I (L05)	16 3815892
	0.429	STUD, VLV RKR ARM BALL (.013" O.S.) (*14, 19, 20, 22, 23, 24, 34, 35, 37, 38, 39, 40)	96-97	I (L05, L31)	16 3815892
	0.429	STUD, VLV RKR ARM BALL (.013" O.S.) (*17)	91-92	I (L05)	16 3815892
	0.429	STUD, VLV RKR ARM BALL (.013" O.S.) (*22, 34, 41, 42, 43)	98-99	I (L31)	16 3815892
	0.429	STUD, VLV RKR ARM BALL (*17, 31, 35)	93-94	I (L05)	8 10168410
	0.429	STUD, VLV RKR ARM BALL (*21)	92-94	I (L05)	8 10168410
	0.429	STUD, VLV RKR ARM BALL (*27, 33, 36)	94-95	I (L05)	16 12552126
	0.429	STUD, VLV RKR ARM BALL (*27, 35, 37)	96-97	I (L05)	16 12552126
59.	0.333	ARM KIT, VLV RKR (W/ARM, BALL, NUT) (INCL ITEMS #57) (STD THREADS) (INCLS ARMS, BALLS & NUTS)	91-97	I (L05)	16 10089648
	0.333	ARM KIT, VLV RKR (W/ARM, BALL, NUT) (INCL ITEMS #57) (STD THREADS) (INCLS ARMS, BALLS & NUTS)	98-99	I (L31)	16 10089648
60.	0.426	ROD, VLV PUSH (*1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 22, 24, 25, 26, 28, 29, 30)	91-95	I (L05)	16 14095256
	0.426	ROD, VLV PUSH (*14, 22, 39) ..	96-97	I (L05)	16 14095256
	0.426	ROD, VLV PUSH (*15, 16, 17, 18, 19, 20, 21, 21, 23, 27, 31, 33, 34, 35, 36) (INCLS INSERTS)	91-95	I (L05)	16 10046173
	0.426	ROD, VLV PUSH (*17, 19, 20, 21, 23, 24, 27, 34, 35, 37, 38, 40, 41.) (INCLS INSERT)	96-97	I (L05, L31)	16 10241740
	0.426	ROD, VLV PUSH (*22, 34, 41, 42, 43) (INCLS INSERT)	98-99	I (L31)	16 10241740
61.	3.265	MANIFOLD, INT (*1, 2, 3, 10, 11, 12, 14, 21, 25, 26)	91-93	I (L05)	1 14097496
	3.265	MANIFOLD, INT (*1, 2, 3, 12, 14, 25, 26, 28, 30)	94-95	I (L05)	1 14097496
	3.265	MANIFOLD, INT (*14)	96-97	I (L05)	1 14097496
	3.265	MANIFOLD, INT (*14, 21, 31, 35)	94	I (L05)	1 10185063

	3.265	MANIFOLD, INT (*17, 21)	91-93 I (L05)	1	10185063
	3.265	MANIFOLD, INT (*17, 21)	96-97 I (L05)	1	10185063
	3.265	MANIFOLD, INT (*19, 20, 23, 35, 40)	96-97 I (L05)	1	14097494
	3.265	MANIFOLD, INT (*22, 24)	91-95 I (L05)	1	14097498
	3.265	MANIFOLD, INT (*22, 24, 39, 41)	96-97 I (L05)	1	14097498
	3.265	MANIFOLD, INT (*36)	95 I (L05)	1	10185063
	3.265	MANIFOLD, INT (*4, 5, 6, 7, 8, 13, 15, 16, 17, 18, 19, 20, 23) ...	91-93 I (L05)	1	14097494
	3.265	MANIFOLD, INT (*5, 19, 20, 23, 32)	94 I (L05)	1	14097494
	3.265	MANIFOLD, INT (*5, 19, 20, 23, 32, 34)	95 I (L05)	1	14097494
	3.265	MANIFOLD, INT (*9)	91-92 I (L05)	1	14057060
62.	3.265	PLUG, EGR VLV INT MANIF HOLE (*1, 2, 3, 10, 11, 12, 14, 15, 25, 26, 28, 29, 30) (3/4-14, STEEL) (SQ SOCKET DRAIN) (8.971) (AC-DELCO #9409961)	91-95 I (L05)	1	9409961
	3.265	PLUG, EGR VLV INT MANIF HOLE (*14) (3/4-14, STEEL) (SQ SOCKET DRAIN) (8.971) (AC-DELCO #9409961)	96-97 I (L05)	1	9409961
63.	0.004	BRACKET, ENG LIFT FRT (*1, 2, 3, 5, 12, 15, 17, 19, 20, 21, 23, 24, 25, 26, 28, 29, 30, 31, 32, 36)	94-95 I (L05)	1	14094742
	0.004	BRACKET, ENG LIFT FRT (*14, 22)	91-97 I (L05)	1	10134335
	0.004	BRACKET, ENG LIFT FRT (*34)	95 I (L05)	1	10134335
64.	3.275	BOLT, INT MANIF (1.25 LG) (3/8-16X1.25) (*9)	91-92 I (L05)	6	10198997
	3.275	BOLT, INT MANIF (1.50 LG) (*1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 28, 29, 30, 31, 32.) (3/8-16X1 1/2) (7.006)	91-94 I (L05)	6	15538420
	3.275	BOLT, INT MANIF (*1, 2, 3, 5, 12, 14, 15, 17, 19, 20, 21, 22, 23, 24, 25, 26, 27, 29, 30, 31, 32, 34, 35, 36.) (3/8-16X1 1/2) (7.006)	95 I (L05)	6	15538420
	3.275	BOLT, INT MANIF (*14, 17, 19, 20, 21, 22, 23, 24, 35, 36, 39, 40.) (3/8-16X1 1/2) (7.006)	96-97 I (L05)	6	15538420
65.	8.900	BOLT, HEX 3/8-16X1.12 280M PEOR FULL THD (ENG SHPG LAT) (2.042)	91-97 I (L05)	2	9442339
66.	8.917	NUT, HFX, 1/4-20X.234, 284M, 69K, POR, 240 (VLV RKR ARM CVR)	91-97 I (L05)	AR	12337984
67.	0.413	REINFORCEMENT, VLV RKR ARM CVR (*9)	91-92 I (L05)	8	14082321
68.	8.900	BOLT, HEX 3/8-16X2 3/4, 300M (WAT OTLT) (*9)	91-92 I (L05)	2	9442250
	8.900	BOLT, HEX 3/8-16X1.25 (WAT OTLT) (*14, 22) (3.275)	91-97 I (L05)	2	10198997
69.	1.154	GASKET, WAT OTLT (*9, 14, 22) (AC-DELCO #10105135)	91-97 I (L05)	1	10105135

70.	1.153	OUTLET, WAT (*14) (WHEN USED IN PLACE OF 10108470, NECESSARY TO PLUG THE 1/2" HOLE WITH 25522466 & THE 3/8" HOLE WITH 14090911 PLUG.)	91-93 I (L05)	1	14088753
	1.153	OUTLET, WAT (*14) (AC-DELCO #15-1567)	94-95 I (L05)	1	10147884
	1.153	OUTLET, WAT (*14, 22) (AC-DELCO #15-1567)	96-97 I (L05)	1	10147884
	1.153	OUTLET, WAT (*22) (AC-DELCO #15-1567)	95 I (L05)	1	10147884
	1.153	OUTLET, WAT (*9, 22) (WHEN USED IN PLACE OF 10108470, NECESSARY TO PLUG THE 1/2" HOLE WITH 25522466 & THE 3/8" HOLE WITH 14090911 PLUG.)	91-94 I (L05)	1	14088753
71.	8.971	PLUG, SQ HD 3/4-14 NPT 1.06 LGTH CAST IRON ZC (ENG COOL THERM HSG) (*1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 23, 24, 25, 26, 28, 29, 30, 31, 32, 34, 35, 36.) ..	91-95 I (L05)	1	143936
	8.971	PLUG, SQ HD 3/4-14 NPT 1.06 LGTH CAST IRON ZC (ENG COOL THERM HSG) (*17, 19, 20, 21, 23, 24, 34, 35, 37, 38, 39, 40.) ..	96-97 I (L05)	1	143936
72.	1.251	HOUSING, ENG COOL THERM (*9)	91-92 I (L05)	1	460767
73.	1.246	THERMOSTAT, ENG COOL (W/GSKT) (*27, 33 (180 DEG) (AC-DELCO #131-100) (W/SEAL (10108682) (INCL ITEM #125)	94-97 I (L05)	1	12555290
	1.246	THERMOSTAT, ENG COOL (*9, 14) (AC-DELCO #131-75)	91 I (L05)	1	10207381
	1.246	THERMOSTAT, ENG COOL (*9, 14, 22)	92-97 I (L05)	1	10202456
	1.246	THERMOSTAT, ENG COOL (180 DEG) (*27, 33) (AC-DELCO #131-100)	94-95 I (L05)	1	12555290
	1.252	SEAL, ENG COOL THERM (O RING) (*27, 33) (AC-DELCO #12553106)	94-97 I (L05)	1	12553106
74.	1.073	PLUG, HTR HOSE NIP HOLE (*1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 21, 23, 24, 25, 26) (SQ HD FILL & DRN 1/2-14X0.610.) (PLAIN) (8.971) ..	91-93 I (L05)	1	444746
	1.073	PLUG, HTR HOSE NIP HOLE (*1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20) (HEADLESS SQ SOC, USE W/SEALER #1052080) (8.971) ..	91-93 I (L05)	2	25522466

	1.073	PLUG, HTR HOSE NIP HOLE (*1, 2, 3, 5, 12, 14, 15, 17, 19, 20, 21, 22, 23, 24, 25, 26, 28, 29, 30, 31, 32, 35, 36, 39, 40.) (HEADLESS SQ SOC, USE W/SEALER #1052080) (8.971)	94-96 I (L05)	2	25522466
	1.073	PLUG, HTR HOSE NIP HOLE (*1, 2, 3, 5, 12, 15, 17, 19, 20, 21, 23, 24, 25, 26, 28, 29, 30, 31, 32, 34, 35, 36) (SQ HD FILL & DRN 1/2-14X0.610.) (PLAIN) (8.971)	94-95 I (L05)	1	444746
	1.073	PLUG, HTR HOSE NIP HOLE (*17, 19, 20, 21, 23, 24, 35, 39, 40) (SQ HD FILL & DRN 1/2-14X0.610.) (PLAIN) (8.971)	96-97 I (L05)	1	444746
	1.073	PLUG, HTR HOSE NIP HOLE (*17, 21, 22, 24, 31, 35, 36) (AUTO DRAIN, INT SQ, 3/8-18X.42 PEOR STL) (8.971)	94-95 I (L05)	1	14090911
	1.073	PLUG, HTR HOSE NIP HOLE (*17, 21, 22, 24, 39) (AUTO DRAIN, INT SQ, 3/8-18X.42 PEOR STL) (8.971)	96-97 I (L05)	1	14090911
	1.073	PLUG, HTR HOSE NIP HOLE (*19, 20, 23, 24, 35, 39, 40) (HEADLESS SQ SOC, USE W/SEALER #1052080) (8.971) ..	97 I (L05)	2	25522466
75.	0.413	STUD, VLV RKR ARM CVR (*15, 27, 31, 33)	94-95 I (L05)	AR	10108674
	0.413	STUD, VLV RKR ARM CVR (*27, 35, 37)	96-97 I (L05)	AR	10108674
	0.413	STUD, VLV RKR ARM CVR (*7, 17, 21)	93 I (L05)	AR	10108674
	0.413	STUD, VLV RKR ARM CVR (*9)	91-92 I (L05)	8	14082320
76.	2.410	CONTROL, DISTR VAC (*9, 14, 22) (PART OF 17) (AC-DELCO #D1326B)	91-97 I (L05)	1	1973691
77.	0.439	GUIDE, VLV LFTR PUSH ROD (W/ALUM HEADS ONLY) (*17, 21, 31, 35)	91-94 I (L05)	8	10111771
	0.439	GUIDE, VLV LFTR (*14)	95 I (L05)	8	12550002
	0.439	GUIDE, VLV LFTR (*15, 16, 17, 18, 19, 20, 21, 23)	91-93 I (L05)	8	12550002
	0.439	GUIDE, VLV LFTR (*17, 19, 20, 21, 23, 24, 27, 34, 35, 37, 38, 40, 41.)	96-97 I (L05, L31)	8	12550002
	0.439	GUIDE, VLV LFTR (*17, 19, 20, 21, 23, 27, 31, 32, 33, 34, 35, 36)	94-95 I (L05)	8	12550002
	0.439	GUIDE, VLV LFTR (*34, 41, 42, 43)	98-99 I (L31, L05)	8	12550002
78.	3.671	COVER, EGR VLV OPG (*17, 21, 22, 24, 31, 35, 36)	91-95 I (L05) (OEM-MARINE ENGINES ONLY)	1	6269414
	3.671	COVER, EGR VLV OPG (*22, 24, 39)	96-97 I (L05) (OEM-MARINE ENGINES ONLY)	1	6269414
	3.671	COVER, EGR VLV OPG (*27, 33)	94-95 I (L05) (EXC EGR VLV)	1	10054880
79.	3.671	GASKET, EGR VLV OPG CVR (*17, 21, 22, 24, 31, 35, 36) (AC-DELCO #219-20)	91-95 I (L05)	AR	12554530

	3.671	GASKET, EGR VLV OPG CVR (*17, 21, 22, 24, 39) (AC-DELCO #219-20)	96-97	I (L05, L31)	1	12554530
	3.671	GASKET, EGR VLV OPG CVR (*27, 33) (3.680) (AC-DELCO #219-21)	94	I (L05)	1	12337972
80.	0.293	PLUG, ENG COOL TEMP IND SW HOLE (*1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 26) (8.971) (AC-DELCO #444662)	91-93	I (L05)	AR	444662
	0.293	PLUG, ENG COOL TEMP IND SW HOLE (*1, 2, 3, 5, 12, 15, 19, 20, 22, 23, 24, 25, 26, 28, 29, 30, 32, 34) (8.971) (AC-DELCO #444662)	94-95	I (L05)	AR	444662
	0.293	PLUG, ENG COOL TEMP IND SW HOLE (*22, 24, 39, 41) (8.971) (AC-DELCO #444662)	96-97	I (L05)	AR	444662
81.	3.750	GASKET, CARB CHOKE CVR (*17, 21, 22, 24, 31, 35, 36) (3.603)	92-95	I (L05)	1	14096848
	3.750	GASKET, CARB CHOKE CVR (*17, 21, 22, 24, 39.) (3.603)	96-97	I (L05)	1	14096848
82.	3.750	COVER, CARB CHOKE (*17, 21, 22, 24, 31, 35, 36)	92-95	I (L05)	1	14094792
	3.750	COVER, CARB CHOKE (*17, 21, 22, 24, 36, 39)	96-97	I (L05)	1	14094792
83.	8.900	BOLT, HEX 3/8-16X1.12 280M PEOR FULL THD (ENG SHPG LAT) (*17, 21, 22, 24, 31) (2.042)	91-93	I (L05)	2	9442339
	8.900	BOLT, HEX 3/8-16X1.12 280M PEOR FULL THD (ENG SHPG LAT) (2.042)	94-97	I (L05)	2	9442339
84.	2.361	DISTRIBUTOR, (INCL 1-21, 76) (SERVICE ONLY BY COMPONENTS) (*9, 14, 22) (AC-DELCO #1104067)	91-93	I (L05)	1	1104067
	N.S.	DISTRIBUTOR, (INCL 1-21, 76) (SERVICE BY COMPONENTS ONLY) (*28, 29, 30, 31)	94-95	I (L05)	1	CPS
	2.361	DISTRIBUTOR, (INCL 1-21, 76) (SERVICE ONLY BY COMPONENTS) (*14, 22) (AC-DELCO #1104067)	94-97	I (L05)	1	1104067
85.	8.971	PLUG (INT MANIF VAC HOLE) (AC-DELCO #3889330)	91-97	I (L05)	AR	3889330
86.	8.971	PLUG (EGR VLV INT MANIF HOLE) (*1, 2, 3, 10, 11, 12, 14, 25, 26) (AC-DELCO #9409961)	91-93	I (L05)	1	9409961
	3.265	PLUG, EGR VLV INT MANIF HOLE (EGR VLV INT MANIF HOLE) (*1, 2, 3, 14, 15, 25, 26, 28, 29, 30) (3/4-14, STEEL) (SQ SOCKET DRAIN) (8.971) (AC-DELCO #9409961)	94-95	I (L05)	1	9409961

	3.265	PLUG, EGR VLV INT MANIF HOLE (EGR VLV INT MANIF HOLE) (*14) (3/4-14, STEEL) (SQ SOCKET DRAIN) (8.971) (AC-DELCO #9409961)	96-97 I (L05)	1	9409961
87.		CHOKE HT (*18) (3.603)	91 I (L05)	1	343769
89.	3.265	MANIFOLD, INT (*27, 33.)	94-97 I (L05)	1	12552137
90.	N.S.	RAIL, SEQ M/PORT F/INJN FUEL (SEE 3.000 GROUP FOR DETAILED ILLUSTRATED VIEW.)		
91.	3.330	BOLT, F/INJN FUEL RL (6X1X35) (9.8 PEOR) (8.900)	94-97 I (L05)	4	11514667
92.	3.275	BOLT, INT MANIF (HFH 3/8-16X1.38 280M PZOR) (*27, 33) (8.900)	94-97 I (L05)	11	9439918
93.	3.275	STUD, INT MANIF (3/8X16X1-1/4) (W/ 6194M ADHES) (*27, 33) (8.981)	94-97 I (L05)	1	336793
94.	3.336	GASKET, THROT BODY (*1, 3, 5, 12, 15, 19, 20, 23, 24, 25, 26, 28, 30, 32, 34) (3.726) (AC-DELCO #40-694)	94-95 I (L05)	1	10129565
	3.336	GASKET, THROT BODY (*27, 33.) (AC-DELCO #40-718) ...	94-97 I (L05)	1	10105379
	3.336	GASKET, THROT BODY (*34, 41) (3.726) (AC-DELCO #40-694) (PROD 12559978)	98-99 I (L31)	1	10129565
95.	3.335	BODY, THROT (3.725)	94-95 I (L05)	1	17095176
	3.335	BODY, THROT (3.725) (AC-DELCO #17113105)	94-95 I (L05)	1	17113105
	3.335	BODY, THROT (*1, 3, 5, 12, 15, 19, 20, 23, 24, 25, 26, 28, 30, 32, 34) (3.725)	94-95 I (L05)	1	17113403
	3.335	BODY, THROT (*27, 33.)	94-97 I (L05)	1	17094143
	3.335	BODY, THROT (*34, 41) (AC-DELCO #17113306) (PROD 12559978)	98-99 I (L31)	1	17113306
	3.335	BODY, THROT (*34, 41) (3.725)• (PROD 12559978)	98-99 I (L31)	1	17113324
	3.335	BODY, THROT (*34, 41) (3.725) (AC-DELCO #17113325) (PROD 12559978)	98-99 I (L31)	1	17113325
	3.335	BODY, THROT (*34, 41) (AC-DELCO #17113520)	98 I (L31)	1	17113520
96.	3.336	BOLT, THROT BODY (*1, 3, 5, 12, 15, 19, 20, 23, 24, 25, 26, 28, 30, 32, 34) (HFH 5/16-18X2.25 280M, POR .94 THD, .65 OD) (8.900) (HFH 5/16-18X2.25 280M POR .94THD .65 OD)	94-95 I (L05)	1	9440414
	3.336	BOLT, THROT BODY (*1, 3, 5, 12, 15, 19, 20, 23, 24, 25, 26, 28, 30, 32, 34) (5/16-18X56) (THK HEX HD W/M6X1X15 INT THD)	94-95 I (L05)	1	10105373
	3.336	BOLT, THROT BODY (*37, 38) (HFH M8X1.25X65 9.8 POR 17.6 OD) (8.900)	94-97 I (L05)	4	11508083

97.	3.265	PLUG, INT MANIF VAC HOLE (*27) (1/4-18X.44 AM STD PIPE THD, STL, CZ (USED W/SEALER) (8.971)	96-97 I (L05)	AR	144011
	3.265	PLUG, INT MANIF VAC HOLE (*27, 33) (1/4-18X.44 AM STD PIPE THD, STL, CZ (USED W/SEALER) (8.971)	94-95 I (L05)	AR	144011
98.	3.278	FITTING, INT MANIF VAC (*27, 33)	94-97 I (L05)	3	14082470
99.	3.330	TUBE, FUEL PRESS REG VAC (*27, 33.)	94-97 I (L05)	1	10216953
100.	1.097	PIPE, ENG COOL AIR BL (*27, 33.)	94-95 I (L05)	1	12556260
101.	1.097	NUT, ENG COOL AIR BL PIPE (*27, 33.) (3/8-16 PC, 286M) (HEX, FLANGE) (8.917)	94-97 I (L05)	1	9442958
102.	3.265	SEALER, INT MANIF (*1, 2, 3, 4, 5, 6, 7, 8, 9, 10) (8.800)	91-97 I (L05)	AR	9985969
	3.265	SEALER, INT MANIF (*11, 12, 13, 14, 15, 16, 17, 18, 19, 20) (8.800)	91-97 I (L05)	AR	9985969
	3.265	SEALER, INT MANIF (*21, 22, 23, 24, 25, 26, 27, 28, 29, 30) (8.800)	91-97 I (L05)	AR	9985969
	3.265	SEALER, INT MANIF (*21, 32, 33, 34, 35, 36, 37, 38, 39) (8.800) ...	91-97 I (L05)	AR	9985969
	3.265	SEALER, INT MANIF (*40, 41) (8.800)	96-97 I (L05, L31)	AR	9985969
103.	0.293	PLUG, CYL HD CORE HOLE (*14, 17, 21, 22, 31, 35, 36) (AUTO DRAIN, INT SQ, 3/8-18X.42 PEOR STL) (8.971) .	91-95 I (L05)	AR	14090911
	0.293	PLUG, CYL HD CORE HOLE (*14, 17, 21, 22) (AUTO DRAIN, INT SQ, 3/8-18X.42 PEOR STL). (8.971)	96-97 I (L05)	AR	14090911
104.	1.153	PLUG, WAT OTLT (*22) (HEADLESS SQ SOC, USE W/SEALER #1052080) (8.971) ..	92-99 I (L05)	AR	25522466
105.	1.762	CONNECTOR, PCV TUBE (*27, 33)	94-97 I (L05)	1	12550625
106.	1.762	TUBE, PCV (*27, 33) (ALSO INCL #105)	94-97 I (L05)	1	12550624
107.	1.745	GROMMET, PCV VLV (*15, 27, 30, 33, 35) (1.762)	94-95 I (L05)	RH	10240678
	1.745	GROMMET, PCV VLV (*15, 27, 33, 35, 37.) (1.762)	94-96 I (L05)	LH	10240678
	1.745	GROMMET, PCV VLV (*27) (1.762)	97 I (L05)	LH	10240678
108.	1.745	VALVE, PCV (*27, 33) (CV895C, 1 VACUUM PORT) (AC-DELCO #CV895C)	94-97 I (L05)	1	25095452
	1.745	VALVE, PCV (STRAIGHT FITTING HIGH FLOW 5.2 CFM *34, 41) (AC-DELCO #CV769C)	98-99 I (L31)	1	6487532
109.	1.745	CONNECTOR, PCV VLV HOSE (1/4-18 NPTF W/3/8 NIPPLE) (*27, 33)	94-97 I (L05)	1	336018
110.	1.762	HOSE, PCV VLV (*27)	96-97 I (L05)	1	12551389
	1.762	HOSE, PCV VLV (*27, 33)	94-95 I (L05)	1	10128361

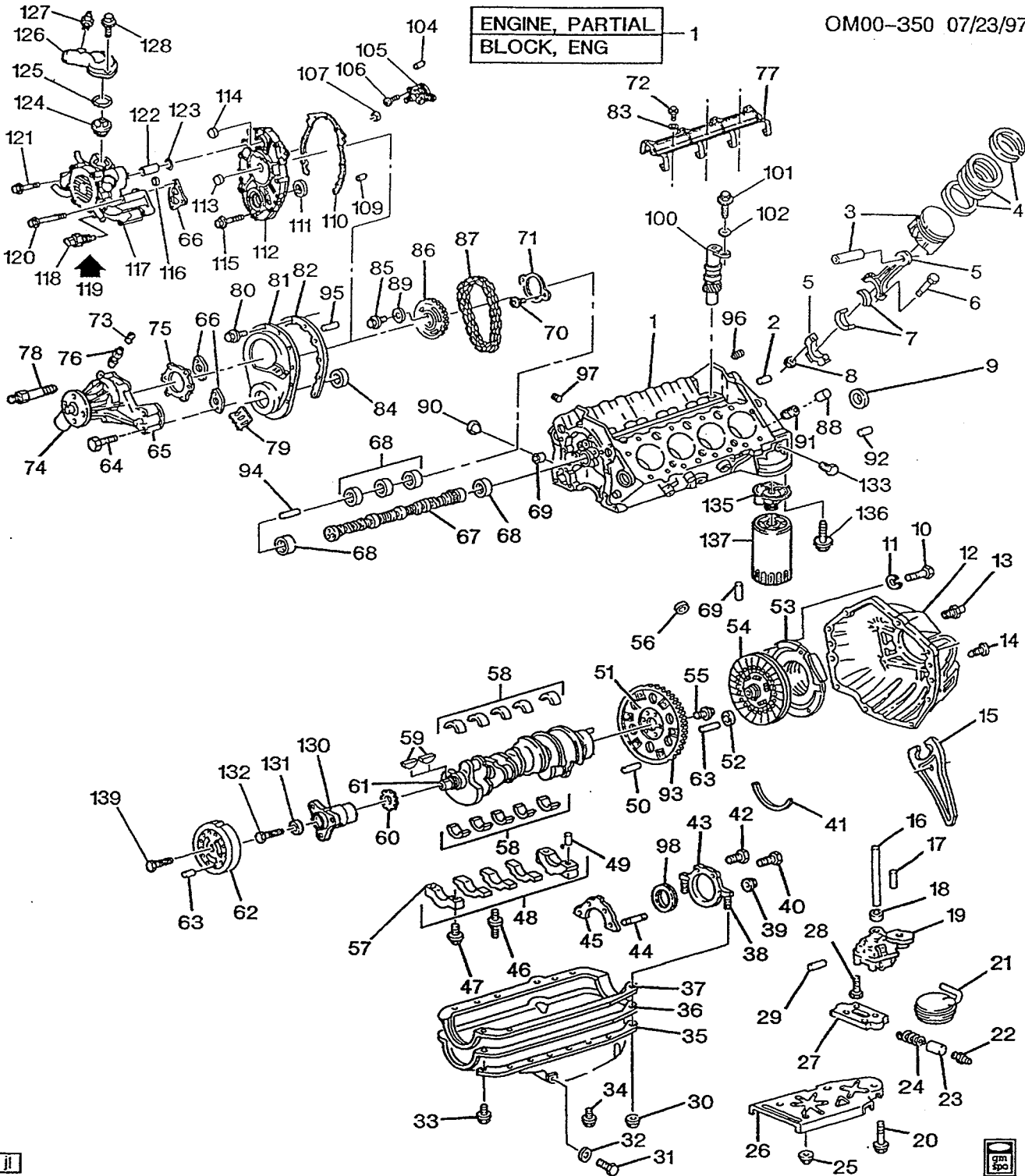
111.	0.303	SHIM, VLV SPR (*17, 21, 27) ...	96-97 I (L05)	8	10212809
	0.303	SHIM, VLV SPR (*17, 21, 31, 35) (0.519)	94-95 I (L05)	8	10168423
	0.303	SHIM, VLV SPR (*27, 33, 36) ...	94-95 I (L05)	8	10212809
NOTE 1: 5.7L 350 CID MARINE ENG. 1991 14096873 (1AN); 1992 14097408 (2AN); 1993 14097342 (3AN),1994 12550200 (4AN),1995 12550481 (5AN).					
NOTE 2: 5.7L 350 CID MARINE ENG. 1991 14096874 (1AR); 1992 14097410 (2AR); 1993 14097344 (3AR),1994 12550201 (4AR),1995 12550482 (5AR).					
NOTE 3: 5.7L 350 CID MARINE ENG. 1991 14096876 (1AB); 1992 14097412 (2AB); 1993 14097341 (3AB),1994 12550196 (4AB),1995 12550477 (5AB).					
NOTE 4: 5.7L 350 CID MARINE ENG. 1991 14096878 (1AP); 1993 10228451 (3AP).					
NOTE 5: 5.7L 350 CID MARINE ENG. 1991 14096879 (1AS); 1992 14097426 (2AS); 1993 14097338 (3AS),1994 12550198 (4AS),1995 12550479 (5AS).					
NOTE 6: 5.7L 350 CID MARINE ENG. 1991 14096880 (1AT); 1992 14097427 (2AT).					
NOTE 7: 5.7L 350 CID MARINE ENG. 1991 14096882 (1AK); 1992 14097428 (2AK); 1993 14097346 (3AK).					
NOTE 8: 5.7L 350 CID MARINE ENG. 1991 14096883 (1AX); 1992 14097429 (2AX); 1993 10228452 (3AX).					
NOTE 9: 5.7L 350 CID INDUSTRIAL ENG. 1991 14096885 (1AU); 1992 14097455 (2AU).					
NOTE 10: 5.7L 350 CID MARINE ENG. 1991 14097182 (1MN); 1992 14097409 (2MN); 1993 14097343 (3MN).					
NOTE 11: 5.7L 350 CID MARINE ENG. 1991 14097183 (1MR); 1992 14097411 (2MR); 1993 14097345 (3MR).					
NOTE 12: 5.7L 350 CID MARINE ENG. 1991 14097184 (1MB); 1992 14097413 (2MB); 1993 14097340 (3MB),1994 12550197 (4MB),1995 12550478 (5MB).					
NOTE 13: 5.7L 350 CID MARINE ENG. 1991 14097185 (1MS); 1992 14097414 (2MS).					
NOTE 14: 5.7L 350 CID IRRIGATION ENG. 1991 14097255 (1AF); 1992 14097423 (2AF); 1993 14097353 (3AF),1994 12550209 (4AF),1995 12550490 (5AF),1996 12550517 (6AF),1997 12555436 (7AF).					
NOTE 15: 5.7L 350 CID MARINE ENG. 1991 14097358 (1AY); 1992 14097417 (2AY). ,1994 12550199 (4AY),1995 12550480 (5AY).					
NOTE 16: 5.7L 350 CID MARINE ENG. 1991 14097359 (1AZ); 1992 14097418 (2AZ).					
NOTE 17: 5.7L 350 CID MARINE ENG. 1991 14097360 (1CA); 1992 14097419 (2CA); 1993 14097351 (3CA),1994 12550208 (4CA) 1996 12555312 (6CA),1997 12555306 (7CA).					
NOTE 18: 5.7L 350 CID MARINE ENG. 1991 14097378 (1CC).					
NOTE 19: 5.7L 350 CID MARINE ENG. 1991 14097379 (1CD); 1992 14097415 (2CD); 1993 14097347 (3CD),1994 12550204 (4CD),1995 12550485 (5CD),1996 12550512 (6CD),1997 12555303 (7CD).					
NOTE 20: 5.7L 350 CID MARINE ENG. 1991 14097380 (1CF); 1992 14097416 (2CF); 1993 14097349 (3CF),1994 12550206 (4CF),1995 12550487 (5CF),1996 12550514 (6CF),1997 12555305 (7CF).					
NOTE 21: 5.7L 350 CID MARINE ENG. 1992 14097471 (2CB), 1993 14097350 (3CB),1994 12550207 (4CB) 1996 12555311 (6CB), 1997 12555307 (7CB).					
NOTE 22: 5.7L 350 CID INDUSTRIAL ENG. 1992 14097421 (2AH); 1993 14097352 (3AH),1994 12550210 (4AH),1995 12550491 (5AH),1996 12550518 (6AH),1997 12555437 (7AH),1998 12558792 (8AH).					
NOTE 23: 5.7L 350 CID MARINE ENG. 1992 14097424 (2MD); 1993 14097348 (3MD),1994 12550205 (4MD),1995 12550486 (5MD),1996 12550513 (6MD),1997 12555304 (7MD).					
NOTE 24: 5.7L 350 CID MARINE ENG. 1992 14097430 (2AJ); 1993 14097337 (3AJ),1994 12550195 (4AJ),1995 12550476 (5AJ),1996 12550505 (6AJ),1997 12555302 (7AJ).					
NOTE 25: 5.7L 350 CID MARINE ENG. 1992 14097488 (2NN); 1993 14097354 (3NN),1994 12550202 (4NN),1995 12550483 (5NN).					
NOTE 26: 5.7L 350 CID MARINE ENG. 1992 14097489 (2NR); 1993 14097355 (3NR),1994 12550203 (4NR),1995 12550484 (5NR).					
NOTE 27: 5.7L 350 CID MARINE ENG. 1994 12550274 (4NT),1995 12550493 (5NT),1996 12550520 (6NT),1997 12555435 (7NT).					
NOTE 28: 5.7L 350 CID MARINE ENG. 1994 12550404 (4BN),1995 12550494 (5BN).					
NOTE 29: 5.7L 350 CID MARINE ENG. 1994 12550405 (4BR),1995 12550495 (5BR).					
NOTE 30: 5.7L 350 CID MARINE ENG. 1994 12550406 (4BY),1995 12550496 (5BY).					
NOTE 31: 5.7L 350 CID MARINE ENG. 1994 12550407 (4BA).					
NOTE 32: 5.7L 350 CID MARINE ENG. 1994 12550408 (4BF),1995 12550498 (5BF).					
NOTE 33: 5.7L 350 CID MARINE ENG. 1994 12550273 (4NS),1995 12550492 (5NS).					
NOTE 34: 5.7L 350 CID MARINE ENG. ,1994 12552652 (4MH),1995 12552653 (5MH),1996 12554997 (6MH),1997 12555176 (7MH),1998 12558291 (8MH),1999 12558293 (9MH).					
NOTE 35: 5.7L 350 CID MARINE ENG. ,1994 12551687 (4CY) ,1996 12555301 (6CY),1997 12555314 (7CY).					
NOTE 36: 5.7L 350 CID MARINE ENG. 1995 12553266 (5CH).					
NOTE 37: 5.7L 350 CID MARINE ENG. 1996 12554998 (6CJ),1997 12555177 (7CJ).					
NOTE 38: 5.7L 350 CID MARINE ENG. 1996 12554999 (6CK),1997 12555178 (7CK).					
NOTE 39: 5.7L 350 CID MARINE ENG. 1996 12555299 (6MJ),1997 12555308 (7MJ).					
NOTE 40: 5.7L 350 CID MARINE ENG. 1996 12555300 (6MM),1997 12555313 (7MM).					
NOTE 41: 5.7L 350 CID MARINE ENG. ,1997 12557780 (7MK),1998 12558292 (8MK),1999 12558294 (9MK).					
NOTE 42: 5.7L 350 CID IRRIGATION ENG. 1998 12558791 (8AF),1999 12558793 (9AF).					

NOTE 43: 5.7L 350 CID INDUSTRIAL ENG. 1999 12558794 (9AH)

RPO DEFINITIONS

L05 - ENGINE,5.7L(5.7-7)GAS 8 CYLINDER

L31 - ENGINE,GAS,8 CYL,5.7L,CPI



OM00-350

1.	0.033	1991-1999 I ENGINE ASM-5.7L V8 PART 1 ENGINE, (SERV PARTIAL) (*1, 2, 91-93 I (L05)	1 10104432
		3, 4, 7, 8, 9) (INCL BLK, PSTN & PIN ASMS, CR/SHF BRGS, RR SEAL.)	

	0.033	ENGINE, (SERV PARTIAL) (*1, 2, 3, 4, 7, 8, 9) (0.030) (INCL BLK, PSTN & PIN ASM, PSTN RINGS, CR/SHF BRGS, RR SEAL.)	91-93 I (L05)	1	10104433
	0.033	ENGINE, (SERV PARTIAL) (*1, 2, 3, 5, 12, 15, 19, 20, 22, 23, 24, 25, 26, 28, 29, 30, 31, 32, 34) (INCL BLK, PSTN & PIN ASMS, CR/SHF BRGS, RR SEAL.)	94-95 I (L05)	1	10104432
	0.033	ENGINE, (SERV PARTIAL) (*14, 19, 20, 22, 24, 35, 39, 40.) (INCL BLK, PSTN & PIN ASMS, CR/SHF BRGS, RR SEAL.)	96 I (L05)	1	10104432
	0.033	ENGINE, (SERV PARTIAL) (*14, 22, 34, 41)	98-99 I (L31)	1	12556121
	0.033	ENGINE, (SERV PARTIAL) (*27) (INCL BLK, CR/SHF, CR/SHF BRGS, PISTON & ROD, RODS BRGS, ROD BRGS, CR/SHF RR SEAL HSG GASKET.)	96-97 I (L05)	1	12509229
	0.033	ENGINE, (SERV PARTIAL) (*34, 37, 38)	96-97 I (L31)	1	12556121
	0.033	ENGINE, (SERV PARTIAL) (*5, 6, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26) (INCL BLK, PISTON & PIN ASMS, PSTR RINGS, CR/SHF & BRGS, RR SEAL.)	91-93 I (L05)	1	10054586
	DISCON	ENGINE, (SERV PARTIAL) (*5, 6, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26) (INCL BLK, PSTN & PIN ASMS, PSTN RINGS, CR/SHF BRGS, RR SEAL.)	91-93 I (L05)	1	10054587
	0.033	ENGINE, (SERV PARTIAL) (27, 33) (INCL BLK, CR/SHF, CR/SHF BRGS, PISTON & ROD, RODS BRGS, ROD BRGS, CR/SHF RR SEAL HSG GASKET.)	94-95 I (L05)	1	12509229
	0.033	BLOCK, ENG (W/PSTNS) (*17, 21) (INCL'S BLK, CR/SHF & BRGS, PISTON & RINGS, RR SEAL.)	96 I (L05)	1	12521318
	0.033	BLOCK, ENG (W/PSTNS) (*7, 21, 35, 36) (INCL'S BLK, CR/SHF & BRGS, PISTON & RINGS, RR SEAL.)	94-95 I (L05)	1	12521318
2.	1.531	PLUG, ENG BLK OIL GAL (HEX SOC, 1/4-18 THD, .69 LEN, 1038, PC, DOG PT) (W/SEALANT) (8.971)	91-96 I (L05)	AR	12338136
	1.531	PLUG, ENG BLK OIL GAL (HEX SOC, 1/4-18 THD, .69 LEN, 1038, PC, DOG PT) (W/SEALANT) (8.971)	97-99 I (L31)	AR	12338136
3.	0.629	PISTON, (W/PIN) (.030 O.S.) (*17, 21, 35)	94 I (L05)	8	10181392
	0.629	PISTON, (W/PIN) (.030 O.S.) (*27, 33)	94-97 I (L05)	8	10159438

0.629	PISTON, (W/PIN) (.030 O.S.) (INCL *36)	95 I (L05)	8 10181392
0.629	PISTON, (W/PIN) (.030 O.S.) (INCL *8)	92 I (L05)	8 10049090
0.629	PISTON, (W/PIN) (*14, 22, 34, 41, 42, 43) (.127 MM O.S.)	98-99 I (L31)	8 12533560
0.629	PISTON, (W/PIN) (*22, 34, 41, 42, 43) (.025 MM O.S.)	98-99 I (L31)	8 12369543
0.629	PISTON, (W/PIN) (*34, 37, 41) (.127 MM O.S.)	97 I (L31)	8 12533560
0.629	PISTON, (W/PIN) (HI LIMIT) (*17, 21, 35)	94 I (L05)	8 10181390
0.629	PISTON, (W/PIN) (HI LIMIT) (*7, 9, 17, 21)	91-93 I (L05)	8 10181390
0.629	PISTON, (W/PIN) (HI LIMIT) (INCL *36)	95 I (L05)	8 10181390
0.629	PISTON, (W/PIN) (HI-LIMIT) (*27, 33) (S2=101.632-101.614)	94-97 I (L05)	8 10159437
DISCON	PISTON, (W/PIN) (HI-LIMIT) (INCL *8)	92 I (L05)	8 10049089
0.629	PISTON, (W/PIN) (STD) (*17, 21, 35)	94 I (L05)	8 10181389
0.629	PISTON, (W/PIN) (STD) (*27, 33) (S1=101.614-101.596)	94-97 I (L05)	8 10159436
0.629	PISTON, (W/PIN) (STD) (*7, 9, 17, 21)	91-93 I (L05)	8 10181389
0.629	PISTON, (W/PIN) (STD) (INCL *36)	95 I (L05)	8 10181389
0.629	PISTON, (W/PIN) (STD) (INCL *8)	92 I (L05)	8 10049088
0.629	PISTON KIT, ENG (*1, 2, 3, 4, 5, 6, 8, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20, 22, 23, 24, 25, 26) (INCLS PIN & RINGS) (STD)	91-93 I (L05)	8 12514101
0.629	PISTON KIT, ENG (*1, 2, 3, 4, 5, 6, 8, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 22, 23, 24, 25, 26) (HI LIMIT) (W/PIN & RINGS)	91-93 I (L05)	8 12514102
0.629	PISTON KIT, ENG (*1, 2, 3, 4, 5, 6, 8, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 22, 23, 24, 25, 26.) (.030 O.S.) (W/PIN & RINGS) ...	91-93 I (L05)	8 12514103
0.629	PISTON KIT, ENG (*1, 2, 3, 5, 12, 14, 15, 19, 20, 22, 23, 24, 25, 26, 28, 29, 30, 32, 34) (INCLS PIN & RINGS) (STD)	94-95 I (L05)	8 12514101
0.629	PISTON KIT, ENG (*1, 2, 3, 5, 12, 14, 15, 19, 20, 22, 23, 24, 25, 26, 28, 29, 30, 32, 33, 34) (HI LIMIT) (W/PIN & RINGS)	94-95 I (L05)	8 12514102
0.629	PISTON KIT, ENG (*1, 2, 3, 5, 12, 15, 17, 19, 22, 23, 24, 25, 26, 28, 29, 30, 31, 32.) (.030 O.S.) (W/PIN & RINGS)	94 I (L05)	8 12514103
0.629	PISTON KIT, ENG (*14, 19, 20, 22, 23, 24, 35, 39, 40.) (INCLS PIN & RINGS) (STD)	96-97 I (L05)	8 12514101
0.629	PISTON KIT, ENG (*14, 19, 20, 22, 23, 24, 35, 39, 40.) (HI LIMIT) (W/PIN & RINGS)	96-97 I (L05)	8 12514102

0.629	PISTON KIT, ENG (*14, 19, 20, 22, 23, 24, 35, 39, 40.) (.030 O.S.) (W/PIN & RINGS)	96-97 I (L05)	8	12514103
0.629	PISTON KIT, ENG (*22, 34, 41, 42, 43) (STD)	98-99 I (L31)	8	12522850
0.629	PISTON KIT, ENG (*22, 34, 41, 42, 43) (0.50 MM O.S.)	98-99 I (L31)	8	12524224
0.629	PISTON KIT, ENG (*34, 37, 38, 41) (STD)	96-97 I (L31)	8	12522850
0.629	PISTON KIT, ENG (*34, 37, 38, 41) (0.50 MM O.S.)	96-97 I (L31)	8	12524224
4.	0.643 RING KIT, PSTN (.030 O.S.)	91-95 I (L05)	4	14089026
0.643	RING KIT, PSTN (*1, 2, 3, 5, 12, 14, 15, 17, 19, 20, 21, 22, 23, 24, 25, 26, 28, 29, 30, 31, 32, 34, 35) (STD) (FOR PISTONS W/DEEP OIL GROOVE)	94-95 I (L05)	8	14089025
0.643	RING KIT, PSTN (*1, 2, 3, 5, 12, 14, 15, 17, 19, 20, 21, 22, 23, 24, 25, 26, 28, 29, 30, 31, 32, 34, 35) (.030 O.S.)	94-95 I (L05)	8	14089026
0.643	RING KIT, PSTN (*1, 2, 3, 5, 12, 15, 17, 19, 20, 21, 22, 23, 24, 25, 26, 28, 29, 30, 31, 32) (STD) (FOR PISTONS W/DEEP OIL GROOVE)	91-93 I (L05)	8	14089025
0.643	RING KIT, PSTN (*14, 17, 19, 20, 21, 22, 23, 24, 35, 40.) (STD) (FOR PISTONS W/DEEP OIL GROOVE)	96 I (L05, L31)	8	14089025
0.643	RING KIT, PSTN (*14, 17, 19, 20, 21, 22, 23, 24, 35, 38, 39, 40.) (.030 O.S.)	96 I (L05, L31)	8	14089026
0.643	RING KIT, PSTN (*14, 22, 34, 41, 42) (STD)	98-99 I (L31)	8	12522848
0.643	RING KIT, PSTN (*14, 22, 34, 41, 42, 43) (.127 MM O.S.)	98-99 I (L31)	8	12533559
0.643	RING KIT, PSTN (*17, 21) (STD) (FOR PISTONS W/DEEP OIL GROOVE)	97 I (L05)	8	14089025
0.643	RING KIT, PSTN (*17, 21) (.030 O.S.)	97 I (L05)	8	14089026
0.643	RING KIT, PSTN (*22, 34, 41, 42, 43) (0.50 MM O.S.)	98-99 I (L31)	8	12524205
0.643	RING KIT, PSTN (*27) (STD) ...	96-97 I (L05)	8	12528817
0.643	RING KIT, PSTN (*27) (.005" O.S.)	96-97 I (L05)	8	12528818
0.643	RING KIT, PSTN (*27, 33) (.005" O.S.)	94-95 I (L05)	8	12528818
0.643	RING KIT, PSTN (*27, 33)	94-97 I (L05)	8	12528819
0.643	RING KIT, PSTN (*28, 31, 32) (.030 O.S.)	96 I (L31)	6	12507986
0.643	RING KIT, PSTN (*34, 37, 38, 41) (STD)	96-97 I (L31)	6	12522848
0.643	RING KIT, PSTN (*34, 37, 38, 41.) (0.50 MM O.S.)	96-97 I (L31)	8	12524205
0.643	RING KIT, PSTN (*34, 37, 41) (.127 MM O.S.)	97 I (L31)	8	12533559
5.	0.603 ROD, CONN	96-97 I (L05, L31)	8	10108688

	0.603	ROD, CONN	98-99	I (L31)	8	10108688
	0.603	ROD, CONN ((INCL 6, 8) *1, 2, 3, 4, 5, 6, 10, 11, 12, 14, 15, 16, 18, 19, 20, 22, 23, 24, 25, 26)	91-93	I (L05)	8	10108688
	0.603	ROD, CONN ((INCL 6, 8) *17) ..	91-92	I (L05)	8	10108688
	0.603	ROD, CONN (*1, 2, 3, 5, 12, 14, 15, 19, 20, 22, 23, 24, 25, 26, 28, 29, 30, 32, 34)	94-95	I (L05)	8	10108688
	0.603	ROD, CONN (*17)	93	I (L05)	8	10108688
	0.603	ROD, CONN (*17, 21, 27, 31, 33, 35)	94	I (L05)	8	10108688
	0.603	ROD, CONN (*21)	92-93	I (L05)	8	10108688
	0.603	ROD, CONN (*27, 33, 36)	95	I (L05)	8	10108688
6.	0.623	BOLT, CONN ROD (PART OF 5) .	91-97	I (L05, L31)	16	461372
	0.623	BOLT, CONN ROD (PART OF 5) .	98-99	I (L31)	16	461372
7.	0.616	BEARING KIT, CONN ROD (.001 U.S.) (.001 U.S.) (FEDERAL-MOGUL)	91-97	I (L05, L31)	8	12523925
	0.616	BEARING KIT, CONN ROD (.001 U.S.) (.001 U.S.) (FEDERAL-MOGUL)	98-99	I (L31)	8	12523925
	0.616	BEARING KIT, CONN ROD (STD) (STD)	91-97	I (L05, L31)	8	12523924
	0.616	BEARING KIT, CONN ROD (STD) (STD)	98-99	I (L31)	8	12523924
8.	0.626	NUT, CONN ROD (3/8-24) (HEX)	91-97	I (L05)	16	3866766
	0.626	NUT, CONN ROD (3/8-24) (HEX)	98-99	I (L31)	16	3866766
9.	0.553	PLUG, CM/SHF RR BRG HOLE (CUP W/CNTR INDENTATION, 53.48 O.D., 1010 STL, ZINC FLASH) (8.970)	91-95	I (L05)	1	10241154
	0.553	PLUG, CM/SHF RR BRG HOLE (CUP W/CNTR INDENTATION, 53.48 O.D., 1010 STL, ZINC FLASH) (8.970)	96-97	I (L05, L31)	1	10241154
	0.553	PLUG, CM/SHF RR BRG HOLE (CUP W/CNTR INDENTATION, 53.48 O.D., 1010 STL, ZINC FLASH) (8.970)	98-99	I (L31)	1	10241154
10.	0.862	BOLT, CLU PRESS PLT & CVR (*14) (3/8-16X1)	94-97	I (L05)	6	838653
	0.862	BOLT, CLU PRESS PLT & CVR (*14, 21) (3/8-16X1)	91-93	I (L05)	6	838653
	0.862	BOLT, CLU PRESS PLT & CVR (*42) (3/8-16X1)	98-99	I (L31)	6	838653
11.	0.862	WASHER, CLU PRESS PLT (*14) (29/64 X 49/64 X 7/64) (HEL SPR LK) (8.931)	94-96	I (L05)	6	9439513
	0.862	WASHER, CLU PRESS PLT (*14) (#10X18.30) (LK) (8.931) (*M10 HOLE SIZE X 18.30 OD X .117 THK)	97	I (L05)	AR	11500046
	0.862	WASHER, CLU PRESS PLT (*14, 21) (29/64 X 49/64 X 7/64) (HEL SPR LK) (8.931)	91-93	I (L05)	6	9439513
	0.862	WASHER, CLU PRESS PLT (*42) (#10X18.30) (LK) (8.931) (*M10 HOLE SIZE X 18.30 OD X .117 THK)	98-99	I (L31)	AR	11500046

12.	0.683	HOUSING, FLYWHL (*9, 14)	91-93 I (L05)	1	15530202
13.	0.796	STUD, CLU FORK BALL (*14) . .	91-93 I (L05)	1	15592268
14.	0.799	FITTING, CLU FORK BALL STUD LUB (*14) (1/4-28 CZ) (8.984) .	91-93 I (L05)	AR	9417901
15.	0.795	FORK, CLU (*14)	91-93 I (L05)	1	15592270
16.	1.639	SHAFT, O/PMP DRV	91-97 I (L05, L31)	1	3998287
	1.639	SHAFT, O/PMP DRV	98-99 I (L31)	1	3998287
17.	0.206	PIN, O/PMP LOC (1/4 X 5/8) (8.939)	91-97 I (L05, L31)	AR	12554553
	0.206	PIN, O/PMP LOC (1/4 X 5/8) (8.939)	98-99 I (L31)	1	12554553
18.	1.639	RETAINER, O/PMP DRV SHF . . .	91-97 I (L05, L31)	1	3764554
	1.639	RETAINER, O/PMP DRV SHF . . .	98-99 I (L31)	1	3764554
19.	1.652	PUMP, OIL (.742 DIA. TUBE) (INCLS BOLTS, COVERS, GEARS, HSGS, PIN, PLUG, SHFS, SPR&VLV)	94-97 I (L05, L31)	1	12555283
	1.652	PUMP, OIL (.742 DIA. TUBE) (INCLS BOLTS, COVERS, GEARS, HSGS, PIN, PLUG, SHFS, SPR&VLV)	98-99 I (L31)	1	12555283
	1.652	PUMP, OIL (*1, 2, 3, 5, 12, 15, 17, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33) (.620 DIA TUBE)	94 I (L05)	1	12555284
	1.652	PUMP, OIL (*22, 23, 24, 27, 28, 29) (.620 DIA. TUBE)	91-92 I (L05)	1	12555284
	1.652	PUMP, OIL (*22, 23, 24, 27, 28, 29) (INCLS BOLTS, COVERS, GEARS, HSGS, PIN, PLUG, SHFS, SPR&VLV) (.742 DIA. TUBE)	93 I (L05)	1	12555283
20.	1.652	BOLT, O/PMP (7/16-14X2 3/8) . .	91-97 I (L05, L31)	1	10046007
	1.652	BOLT, O/PMP (7/16-14X2 3/8) . .	98-99 I (L31)	1	10046007
21.	1.656	SCREEN, O/PMP (.620 DIA. TUBE)	91-92 I (L05)	1	3764113
	1.656	SCREEN, O/PMP (.620 DIA. TUBE)	94 I (L05)	1	3764113
	1.656	SCREEN, O/PMP	94-97 I (L05, L31)	1	12550042
	1.656	SCREEN, O/PMP	98-99 I (L31)	1	12550042
	1.656	SCREEN, O/PMP (.742 DIA TUBE)	93 I (L05)	1	10166159
22.	1.609	PLUG, OIL PRESS RLF VLV BORE (NON-THD 7/16 DIA, 13/32 LGTH) (CHAM ENDS, STL8)	91-97 I (L05, L31)	1	3704871
	1.609	PLUG, OIL PRESS RLF VLV BORE (NON-THD 7/16 DIA, 13/32 LGTH) (CHAM ENDS, STL8)	98-99 I (L31)	1	3704871
23.	1.609	VALVE, OIL PRESS RLF	91-97 I (L05, L31)	1	3702366
	1.609	VALVE, OIL PRESS RLF	98-99 I (L31)	1	3702366
24.	1.609	SPRING, OIL PRESS RLF VLV . .	96-97 I (L05, L31)	1	10044435
	1.609	SPRING, OIL PRESS RLF VLV . .	98-99 I (L31)	1	10044435

	1.609	SPRING, OIL PRESS RLF VLV (*1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36)	91-95 I (L05)	1	10044435
	1.609	SPRING, OIL PRESS RLF VLV (*9)	91-92 I (L05)	1	3814903
25.	0.648	NUT, CR/SHF OIL DFL (HEX 3/8-16) (8.917)	91-95 I (L05)	5	9442946
	0.648	NUT, CR/SHF OIL DFL (HFH, 3/8-16X.425, .8 DIA, GM301M, GM7111M, PREV TORQUE) (HEX 3/8-16) (8.917)	96-97 I (L05, L31)	5	9442946
	0.648	NUT, CR/SHF OIL DFL (HFH, 3/8-16X.425, .8 DIA, GM301M, GM7111M, PREV TORQUE) (HEX 3/8-16) (8.917)	98-99 I (L31)	5	9442946
26.	1.430	DEFLECTOR, CR/SHF OIL	91-95 I (L05)	1	12557231
	1.430	DEFLECTOR, CR/SHF OIL	96-97 I (L05, L31)	1	12557231
	1.430	DEFLECTOR, CR/SHF OIL	98-99 I (L31)	1	12557231
27.	1.723	COVER, O/PMP (INCLS COVER, PLUGS, SPRING&VALVE)	94-97 I (L05, L31)	1	10168528
	1.723	COVER, O/PMP (INCLS COVER, PLUGS, SPRING&VALVE)	98-99 I (L31)	1	10168528
	1.723	COVER, O/PMP (*1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26) (.620 DIA. TUBE)	91-92 I (L05)	1	14046552
	1.723	COVER, O/PMP (*1, 2, 3, 5, 7, 8, 10, 11, 12, 14, 17, 19, 20, 21, 22, 23, 24, 25, 26) (INCLS COVER, PLUGS, SPRING&VALVE)	93 I (L05)	1	10168528
	1.723	COVER, O/PMP (*9)	91-92 I (L05)	1	10055887
28.	1.723	BOLT, O/PMP CVR (8.900) (AC-DELCO #11508600)	91-97 I (L05, L31)	4	11508600
	1.723	BOLT, O/PMP CVR (8.900) (AC-DELCO #11508600)	98-99 I (L31)	4	11508600
29.	1.609	PIN, OIL PRESS RLF VLV SPR ST	91-97 I (L05, L31)	1	838839
	1.609	PIN, OIL PRESS RLF VLV SPR ST	98-99 I (L31)	1	838839
30.	1.428	NUT, OIL PAN (5/16-18 X 1/4, 286M) (POR) (8.915) (09417954)	91-95 I (L05)	2	12338130
	1.428	NUT, OIL PAN (5/16-18X20, 286M) (PC) (8.917)	95-97 I (L05, L31)	AR	1359887
	1.428	NUT, OIL PAN (5/16-18X20, 286M) (PC) (8.917)	98-99 I (L31)	AR	1359887
31.	1.453	PLUG, OIL PAN DRN (1/2-20, 81LG)	95 I (L05)	1	3921988
	1.453	PLUG, OIL PAN DRN (*1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 23, 24, 25, 26) (1/2-20, 81LG)	91-93 I (L05)	1	3921988
	1.453	PLUG, OIL PAN DRN (*1, 2, 3, 5, 12, 15, 16, 17, 19, 20, 23, 24, 25, 26, 27, 28; 29, 30, 31, 32, 33, 34, 35) (1/2-20, 81LG)	94 I (L05)	1	3921988
	1.453	PLUG, OIL PAN DRN (*14, 21, 22) (HFH 1/2-20X1.00 W/MAGNETIC PLUG)	91-93 I (L05)	AR	23011420

	1.453	PLUG, OIL PAN DRN (*14, 22) (HFH 1/2-20X1.00 W/MAGNETIC PLUG)	94	I (L05)		
	1.453	PLUG, OIL PAN DRN (EXC MAGNETIC) (M12X1.75X26.5) (METRIC OIL PAN PLUG)	91-95	I (L05)	1	10017615
	1.453	PLUG, OIL PAN DRN (M12X1.75-6G THD, 44.45MM LNG, 15MM FLG HEX HD) (W/MAGNET & SEAL)	96-97	I (L05, L31)	1	24100042
	1.453	PLUG, OIL PAN DRN (M12X1.75-6G THD, 44.45MM LNG, 15MM FLG HEX HD) (W/MAGNET & SEAL)	98-99	I (L31)	1	24100042
32.	1.456	GASKET, OIL PAN DRN PLUG ..	91-95	I (L05)	1	14090908
	1.456	SEAL, OIL PAN DRN PLUG (O RING)	96-97	I (L05, L31)	1	3536966
	1.456	SEAL, OIL PAN DRN PLUG (O RING)	98-99	I (L31)	1	3536966
33.	1.428	BOLT, OIL PAN (HFH 1/4-20X.62 280M POR) (8.900)	91-97	I (L05, L31)	AR	9440033
	1.428	BOLT, OIL PAN (*14, 22, 42, 43) (HFH 1/4-20X.62 280M POR) (8.900)	98	I (L31)	AR	9440033
	1.428	BOLT, OIL PAN (*34, 41, 42, 43) (HFH 1/4-20X.62 280M POR) (8.900)	99	I (L31)	AR	9440033
34.	1.428	BOLT, OIL PAN (HFH 1/4-20X.62 280M POR) (8.900)	91-97	I (L05, L31)	AR	9440033
	1.428	BOLT, OIL PAN (*14, 22, 42, 43) (HFH 1/4-20X.62 280M POR) (8.900)	98	I (L31)	AR	9440033
	1.428	BOLT, OIL PAN (*34, 41, 42, 43) (HFH 1/4-20X.62 280M POR) (8.900)	99	I (L31)	AR	9440033
35.	1.426	REINFORCEMENT, OIL PAN ...	91-97	I (L05, L31)	LH	12553058
	1.426	REINFORCEMENT, OIL PAN ...	91-97	I (L05, L31)	RH	12553059
	1.426	REINFORCEMENT, OIL PAN ...	98-99	I (L31)	LH	12553058
	1.426	REINFORCEMENT, OIL PAN ...	98-99	I (L31)	RH	12553059
36.	1.426	PAN, OIL (*1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 23, 24) (5 QUART) (SPECIAL OEM PRODUCT USAGES ONLY) (USE 10017615 FOR DRAIN PLUG)	91-92	I (L05)	1	12529306
	1.426	PAN, OIL (*1, 2, 3, 5, 12, 15, 17, 19, 20, 21, 23, 24, 27, 28, 29, 30, 32, 33, 34) (5 QUART) (SPECIAL OEM PRODUCT USAGES ONLY) (USE 10017615 FOR DRAIN PLUG)	94	I (L05)	1	12529306
	1.426	PAN, OIL (*1, 2, 3, 5, 12, 15, 19, 20, 23, 24, 27, 28, 29, 30, 32, 33, 34, 36) (5 QUART) (SPECIAL OEM PRODUCT USAGES ONLY) (USE 10017615 FOR DRAIN PLUG) (INCL GASKETS)	95	I (L05)	1	12529306

	1.426	PAN, OIL (*1, 2, 3, 5, 7, 8, 10, 11, 12, 17, 19, 20, 21, 23, 24) (5 QUART) (SPECIAL OEM PRODUCT USAGES ONLY) (USE 10017615 FOR DRAIN PLUG) ...	93 I (L05)	1	12529306
	1.426	PAN, OIL (*14, 17, 19, 20, 21, 22, 23, 24, 27, 34, 35, 37, 38, 39) (5 QUART) (SPECIAL OEM PRODUCT USAGES ONLY) (USE 10017615 FOR DRAIN PLUG) (INCL GASKETS)	96-97 I (L05, L31)	1	12529306
	1.426	PAN, OIL (*14, 22) (INCLS GSKT) (5 QUART)	94 I (L05)	1	12529174
	1.426	PAN, OIL (*14, 22, 34, 42.) (5 QUART) (SPECIAL OEM PRODUCT USAGES ONLY) (USE 10017615 FOR DRAIN PLUG) (INCL GASKETS)	98-99 I (L31)	1	12529306
	1.426	PAN, OIL (*25, 26) (W/GASKET) (USE 10017615 FOR DRAIN PLUG)	92-95 I (L05)	1	12529307
	1.426	PAN, OIL (*40, 41) (W/GASKET) (USE 10017615 FOR DRAIN PLUG)	96-97 I (L05, L31)	1	12529307
	1.426	PAN, OIL (*41) (W/GASKET) (USE 10017615 FOR DRAIN PLUG)	98-99 I (L31)	1	12529307
	1.426	PAN, OIL (*8, 14, 21, 22) (INCLS GSKT) (5 QUART)	91-92 I (L05)	1	12529174
37.	1.429	GASKET, OIL PAN	91-92 I (L05)	1	14088505
	1.429	GASKET, OIL PAN	93-97 I (L05, L31)	1	10108676
	1.429	GASKET, OIL PAN	98-99 I (L31)	1	10108676
38.	0.137	STUD, CR/SHF RR OIL SEAL RET (PART OF 43) (5/16X18X1 43/64) (1.428)	91-95 I (L05)	2	14080362
	0.137	STUD, CR/SHF RR OIL SEAL RET (PART OF 43) (5/16X18X1 43/64) (1.428)	96-99 I (L05, L31)	2	14080362
39.	0.137	NUT, CR/SHF RR OIL SEAL RET (HFH, 1/4-20X.234, 284M, 69K, POR, 240) (8.917)	91-95 I (L05)	1	12337984
	0.137	NUT, CR/SHF RR OIL SEAL RET (HFH, 1/4-20X.234, 284M, 69K, POR, 240) (8.917)	96-97 I (L05, L31)	1	12337984
	0.137	NUT, CR/SHF RR OIL SEAL RET (HFH, 1/4-20X.234, 284M, 69K, POR, 240) (8.917)	98-99 I (L31)	1	12337984
40.	0.137	BOLT, CR/SHF RR OIL SEAL HSG (1/4-20 X 1 3/4)	91-95 I (L05)	1	14088562
	0.137	BOLT, CR/SHF RR OIL SEAL HSG (1/4-20 X 1 3/4)	96-97 I (L05, L31)	1	14088562
	0.137	BOLT, CR/SHF RR OIL SEAL HSG (1/4-20 X 1 3/4)	98-99 I (L31)	1	14088562
41.	N.S.	SEAL, CR/SHF RR OIL		1	
42.	0.137	BOLT, CR/SHF RR OIL SEAL HSG (1/4-20 X 7/8)	91-95 I (L05)	2	14088561
	0.137	BOLT, CR/SHF RR OIL SEAL HSG (1/4-20 X 7/8)	96-97 I (L05, L31)	2	14088561

	0.137	BOLT, CR/SHF RR OIL SEAL HSG (1/4-20 X 7/8)	98-99 I (L31)	2	14088561
43.	0.137	HOUSING, CR/SHF RR OIL SEAL (0.659)	91-93 I (L05)	1	14088556
	0.137	HOUSING, CR/SHF RR OIL SEAL (0.659)	96 I (L05, L31)	1	14088556
	0.137	HOUSING, CR/SHF RR OIL SEAL	97 I (L05, L31)	1	12554312
	0.137	HOUSING, CR/SHF RR OIL SEAL	98-99 I (L31)	1	12554312
	0.137	HOUSING, CR/SHF RR OIL SEAL (*1, 3, 5, 12, 14, 15, 17, 19, 20, 21, 22, 23, 24, 25, 27, 29, 30, 31, 32, 33, 34, 35, 36) (0.659)	94-95 I (L05)	1	14088556
	0.137	HOUSING, CR/SHF RR OIL SEAL (*2, 26, 28)	94-95 I (L05)	1	14096052
44.	0.137	STUD, CR/SHF RR OIL SEAL RET (1/4-20 X 2.18)	91-97 I (L05)	1	14101058
	0.137	STUD, CR/SHF RR OIL SEAL RET (1/4-20 X 2.18)	96-99 I (L31)	1	14101058
45.	0.137	GASKET, CR/SHF RR OIL SEAL HSG	91-95 I (L05)	1	12555714
	0.137	GASKET, CR/SHF RR OIL SEAL HSG	96-97 I (L05, L31)	1	12555714
	0.137	GASKET, CR/SHF RR OIL SEAL HSG	98-99 I (L31)	1	12555714
46.	0.056	STUD, CR/SHF BRG CAP (7/16-14X3.36)	95-98 I (L31, L05)	AR	14091675
	0.056	STUD, CR/SHF BRG CAP (7/16-14X3.36)	99 I (L31)	AR	14091675
	0.056	STUD, CR/SHF BRG CAP (*1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 21, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35) (7/16-14X3.36)	91-94 I (L05)	AR	14091675
47.	0.056	BOLT, CR/SHF BRG CAP (7/16-14X3 11/32)	91-97 I (L05)	10	3932480
	0.056	BOLT, CR/SHF BRG CAP (7/16-14X3 11/32)	98-99 I (L31)	10	3932480
48.	DISCON	CAP, CR/SHF BRG	91-93 I (L05)		3932363
	N.S.	CAP, CR/SHF BRG (POS # 1, 2, 3, 4) (*1, 2, 3, 5, 12, 14, 15, 17, 19, 20, 21, 22, 23, 24, 25, 26, 28, 29, 30, 31, 32, 34, 35, 36, 37, 38, 39, 40.)	94-97		
	0.095	CAP, CR/SHF BRG (POS #2, 3, 4) (4-BOLT CAP) (*27, 33)	94-97 I (L05)	3	3956686
49.	0.137	PIN, CR/SHF RR OIL SEAL HSG LOC (SPRING TYPE S 7/16X9/16 STL ZP) (8.940)	91-97 I (L05)	1	9441003
	0.137	PIN, CR/SHF RR OIL SEAL HSG LOC (SPRING TYPE S 7/16X9/16 STL ZP) (8.940)	98-99 I (L31)	1	9441003
50.	0.669	PIN, FLYWHL LOC (7/16 DIA. X 7/8)	91-97 I (L05, L31)	1	3701679
	0.669	PIN, FLYWHL LOC (7/16 DIA. X 7/8)	98-99 I (L31)	1	3701679
51.	0.666	FLYWHEEL, ENG (*1, 2, 10, 11, 16, 17, 20, 25, 26)	91-93 I (L05)	1	14096020
	0.666	FLYWHEEL, ENG (*1, 2, 14, 15, 17, 25, 26, 28, 29, 30, 31, 32, 35)	94 I (L05)	1	14096020

	0.666	FLYWHEEL, ENG (*1, 2, 20, 25, 26, 28, 29, 30, 32, 33, 36)	95 I (L05)	1	14096020
	0.666	FLYWHEEL, ENG (*14, 19, 21, 22, 23, 24, 27, 34, 35, 37, 39.) (INCLS RING GEAR) (HAS HARDENED RING GEAR TEETH)	96-97 I (L05, L31)	1	10105832
	0.666	FLYWHEEL, ENG (*14, 22, 34.) (INCLS RING GEAR) (HAS HARDENED RING GEAR TEETH)	98-99 I (L31)	1	10105832
	0.666	FLYWHEEL, ENG (*17, 20, 38, 40, 41)	96-97 I (L05)	1	14096020
	0.666	FLYWHEEL, ENG (*3, 4, 5, 7, 9, 12, 13, 14, 15, 18, 19, 21, 22, 23, 24) (INCLS RING GEAR) (HAS HARDENED RING GEAR TEETH)	91-93 I (L05)	1	10105832
	0.666	FLYWHEEL, ENG (*3, 5, 12, 14, 15, 19, 22, 23, 24, 27, 34) (INCLS RING GEAR) (HAS HARDENED RING GEAR TEETH)	95 I (L05)	1	10105832
	0.666	FLYWHEEL, ENG (*3, 5, 12, 14, 19, 21, 22, 23, 24, 27, 34) (INCLS RING GEAR) (HAS HARDENED RING GEAR TEETH)	94 I (L05)	1	10105832
	0.666	FLYWHEEL, ENG (*41)	98-99 I (L31)	1	14096020
	0.666	FLYWHEEL, ENG (*6) (INCLS FLYWHEEL, RING GEAR, LABEL&WEIGHTS)	91-92 I (L05)	1	14088761
	0.666	FLYWHEEL, ENG (*8, 9, 17)	91-93 I (L05)	1	14088650
52.	0.649	BEARING, CLU PILOT (*14, 22) (NEEDLE) (19/32 ID 1 3/32 O.D.X 3/4)	94-97 I (L05)	1	14061685
	0.649	BEARING, CLU PILOT (*14, 22, 42) (NEEDLE) (19/32 ID 1 3/32 O.D.X 3/4)	97-99 I (L31)	1	14061685
53.	0.859	CLUTCH KIT, ENG (W/PRESS PLT & DRVN PLT) (*14) (PART OF 54) (INCLS DRV PLATE, DRVN PLATE)	94-95 I (L05)	1	12388069
	0.859	CLUTCH KIT, ENG (W/PRESS PLT & DRVN PLT) (*14) (PART OF 54)	96 I (L05)	1	12382947
	0.859	CLUTCH KIT, ENG (W/PRESS PLT & DRVN PLT) (*14) (PART OF 54)	97 I (L05, MW3)	1	15732268
	0.859	CLUTCH KIT, ENG (W/PRESS PLT & DRVN PLT) (*14) (PART OF 54)	97 I (L05, M50)	1	15732268
	0.859	CLUTCH KIT, ENG (W/PRESS PLT & DRVN PLT) (*14, 21) (PART OF 54) (INCLS DRV PLATE, DRVN PLATE)	91-93 I (L05)	1	12388069
	0.859	CLUTCH KIT, ENG (W/PRESS PLT & DRVN PLT) (*42) (PART OF 54)	98-99 I (L31)	1	15732268
54.	0.859	CLUTCH KIT, ENG (W/PRESS PLT & DRVN PLT) (*14) (PART OF 53) (INCLS DRV PLATE, DRVN PLATE)	94-95 I (L05)	1	12388069

	0.859	CLUTCH KIT, ENG (W/PRESS PLT & DRVN PLT) (*14) (PART OF 53)	96 I (L05)	1	12382947
	0.859	CLUTCH KIT, ENG (W/PRESS PLT & DRVN PLT) (*14) (PART OF 53)	97 I (L05, MW3)	1	15732268
	0.859	CLUTCH KIT, ENG (W/PRESS PLT & DRVN PLT) (*14) (PART OF 53)	97 I (L05, M50)	1	15732268
	0.859	CLUTCH KIT, ENG (W/PRESS PLT & DRVN PLT) (*14, 21) (PART OF 53) (INCLS DRV PLATE, DRVN PLATE)	91-93 I (L05)	1	12388069
	0.859	CLUTCH KIT, ENG (W/PRESS PLT & DRVN PLT) (*42) (PART OF 53)	98-99 I (L31)	1	15732268
55.	0.669	BOLT, FLYWHL (7/16-20X.97) ..	94-95 I (L05)	6	12337973
	0.669	BOLT, FLYWHL (7/16-20X.97) ..	96-97 I (L05, L31)	6	12337973
	0.669	BOLT, FLYWHL (7/16-20X.97) ..	98-99 I (L31)	6	12337973
	0.669	BOLT, FLYWHL (*1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20) (7/16-20X.97) ..	91-93 I (L05)	6	12337973
	0.669	BOLT, FLYWHL (*6) (7/16-20X.7) (0.685)	91-92 I (L05)	6	14088764
56.	0.034	PLUG, ENG BLK CORE HOLE (41.5MM DIA) (BRASS)	91-97 I (L31, L05)	8	3826504
	0.034	PLUG, ENG BLK CORE HOLE (41.5MM DIA) (BRASS)	98-99 I (L31)	8	3826504
	0.034	PLUG, ENG BLK CORE HOLE (*22, 42, 43) (41.5MM DIA) (STEEL)	98-99 I (L31)	1	838538
	0.034	PLUG, ENG BLK CORE HOLE (*27, 33) (41.5MM DIA) (STEEL)	95-97 I (L05, L31)	1	838538
57.	DISCON	SHIM KIT (#1, 2, 3, 4)	91-93 I (L05)	AR	3911010
	DISCON	SHIM KIT (RR)	91-93 I (L05)	AR	3911011
58.	0.096	BEARING KIT, CR/SHF (STD) (RR #5)	91-95 I (L05)	1	10120993
	0.096	BEARING KIT, CR/SHF (.010 U.S./STD FLG)	91-95 I (L05)	1	12329793
	0.096	BEARING KIT, CR/SHF (#1, 2, 3, 4) (.010 U.S.)	91-95 I (L05)	4	12329428
	0.096	BEARING KIT, CR/SHF (#1, 2, 3, 4) (.020 U.S.)	91-95 I (L05)	4	12329429
	0.096	BEARING KIT, CR/SHF (#1, 2, 3, 4) (.001 U.S./STD)	91-95 I (L05)	4	12531215
	0.096	BEARING KIT, CR/SHF (#1, 2, 3, 4) (.001 U.S./STD)	96-99 I (L31)	4	12531215
	0.096	BEARING KIT, CR/SHF (#1, 2, 3, 4 STD) (STD)	91-95 I (L05)	4	10120990
	0.096	BEARING KIT, CR/SHF (#5 RR LIPPED) (.001 U.S./STD)	96-99 I (L31)	1	12528826
	0.096	BEARING KIT, CR/SHF (RR) (.020 U.S./STD FLG)	91-95 I (L05)	1	12329794
	0.096	BEARING KIT, CR/SHF (RR# 5) (.002 U.S./STD FLG) (.002 U.S.) ..	91-95 I (L05)	1	12329792
	0.096	BEARING KIT, CR/SHF (RR#5) (.001"U.S., .008"O.S. FLG) (#5) (.001 U.S., .008 O.S. FLG)	91-95 I (L05)	1	10181326

	0.096	BEARING KIT, CR/SHF (RR#5) (STD) (.008"O.S.FLG) (STD) (.008 O.S. FLG)	91-95 I (L05)	1	10181325
59.	0.662	KEY, CR/SHF BALR (19.05MM X 4.75MM) (8.960)	91-93 I (L05)	2	106751
	0.662	KEY, CR/SHF BALR (19.05MM X 4.75MM) (8.960)	96-97 I (L05, L31)	2	106751
	0.662	KEY, CR/SHF BALR (19.05MM X 4.75MM) (8.960)	98-99 I (L31)	2	106751
	0.662	KEY, CR/SHF BALR (*1, 2, 3, 5, 12, 14, 15, 17, 19, 20, 21, 22, 23, 24, 25, 26, 28, 29, 30, 31, 32, 24, 35, 36) (19.05MM X 4.75MM) (8.960)	94-95 I (L05)	2	106751
	0.662	KEY, CR/SHF BALR (*27, 33) ...	94-97 I (L05)	1	10128303
	0.662	KEY, CR/SHF PUL HUB (19.05MM X 4.75MM) (8.960) ...	91-93 I (L05)	2	106751
	0.662	KEY, CR/SHF PUL HUB (*1, 2, 3, 5, 12, 14, 15, 17, 19, 20, 21, 22, 23, 24, 25, 26, 28, 29, 30, 31, 32, 24, 35, 36) (19.05MM X 4.75MM) (8.960)	94-95 I (L05)	2	106751
60.	N.S.	GEAR, CR/SHF (*KIT1)	91-93 I (L05)	1	
	N.S.	GEAR, CR/SHF (*KIT1)	94-95 I (L05)		
	0.728	SPROCKET, CR/SHF (*1, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 22, 24, 25, 26) (18 TEETH)) (IS A ROLLER CHAIN) (.275/.285"TOOTH WIDTH)	91-93 I (L05)	1	14088784
	0.728	SPROCKET, CR/SHF (*1, 3, 5, 12, 14, 15, 19, 20, 22, 23, 24, 25, 27, 28, 29, 30, 32, 33, 34, 36) (18 TEETH)) (IS A ROLLER CHAIN) (.275/.285"TOOTH WIDTH)	95 I (L05)	1	14088784
	0.728	SPROCKET, CR/SHF (*14, 17, 19, 20, 21, 22, 23, 24, 34, 35, 37, 38, 39, 40, 41) (18 TEETH)) (IS A ROLLER CHAIN) (.275/.285"TOOTH WIDTH)	96-97 I (L05, L31)	1	14088784
	0.728	SPROCKET, CR/SHF (*15, 16, 17, 18, 19, 20, 21, 23) (18 TEETH) (.40/.41" TOOTH WIDTH) (HAS INVERTED TOOTH CHAIN) (.40/.41 TOOTH WIDTH)	91-93 I (L05)	1	10128346
	0.728	SPROCKET, CR/SHF (*19, 20, 21, 23, 27, 31, 32, 34, 35) (18 TEETH) (.40/.41" TOOTH WIDTH) (HAS INVERTED TOOTH CHAIN)	94 I (L05)	1	10128346
	0.728	SPROCKET, CR/SHF (*19, 20, 21, 23, 27, 31, 32, 34, 35) (18 TEETH)) (IS A ROLLER CHAIN) (.275/.285"TOOTH WIDTH)	94 I (L05)	1	14088784
	0.728	SPROCKET, CR/SHF (*22, 34, 41, 42, 43) (18 TEETH)) (IS A ROLLER CHAIN) (.275/.285"TOOTH WIDTH)	98-99 I (L31)	1	14088784

	0.728	SPROCKET, CR/SHF (*27, 33) (18 TEETH) (.40/.41" TOOTH WIDTH) (HAS INVERTED TOOTH CHAIN)	95-97 I (L05)	1	10128346
61.	0.646	CRANKSHAFT, (*1, 3, 4, 5, 6, 10, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 28, 30, 31, 32, 34, 35, 36)	91-95 I (L05)	1	14088527
	0.646	CRANKSHAFT, (*14, 22)	95-97 I (L05)	1	14088527
	0.646	CRANKSHAFT, (*14, 22, 34, 41, 43)	98-99 I (L31)	1	10243068
	0.646	CRANKSHAFT, (*17, 19, 20, 21, 23, 24, 35, 39, 40.)	96-97 I (L05)	1	14088527
	0.646	CRANKSHAFT, (*27, 33)	94-97 I (L05)	1	12551485
	0.646	CRANKSHAFT, (*34, 37, 38, 41)	96-97 I (L31)	1	10243068
	0.646	CRANKSHAFT, (*8)	93 I (L05)	1	14088527
62.	0.659	BALANCER, CR/SHF (*1, 2, 3, 4, 5, 6, 10, 11; 12, 13, 15, 16, 17, 18, 19, 20, 23, 24, 25, 26)	91-93 I (L05)	1	12551537
	0.659	BALANCER, CR/SHF (*1, 2, 3, 5, 12, 15, 19, 20, 23, 24, 25, 26, 28, 29, 30, 32, 34)	94-95 I (L05)	1	12551537
	0.659	BALANCER, CR/SHF (*14, 17, 21, 22) (DAMPER HAS TIMMING MARKS)	96-97 I (L05)	1	12555879
	0.659	BALANCER, CR/SHF (*17, 21, 31, 35) (DAMPER HAS TIMMING MARKS)	94 I (L05)	1	12555879
	0.659	BALANCER, CR/SHF (*19, 20, 23, 24, 35, 39, 40)	96-97 I (L05)	1	12553165
	0.659	BALANCER, CR/SHF (*22, 34, 41, 42, 43) (DAMPER HAS TIMMING MARKS)	98-99 I (L31)	1	12555879
	0.659	BALANCER, CR/SHF (*27, 33) ..	94-97 I (L05)	1	10128489
	0.659	BALANCER, CR/SHF (*34, 37, 38, 41) (DAMPER HAS TIMMING MARKS)	96-97 I (L31)	1	12555879
	0.659	BALANCER, CR/SHF (*36) * (DAMPER HAS TIMMING MARKS)	95 I (L05)	1	12555879
	0.659	BALANCER, CR/SHF (*7, 8, 21) (DAMPER HAS TIMMING MARKS)	91-93 I (L05)	1	12555879
	0.659	BALANCER, CR/SHF (*9, 14, 22)	91-95 I (L05)	1	6272222
63.	0.685	PIN, TRANS LOC (5/8 DIA, 1 3/16 LG) (8.939)	91-97 I (L05)	2	12338119
	0.685	PIN, TRANS LOC (5/8 DIA, 1 3/16 LG) (8.939)	98-99 I (L31)	2	12338119
64.	1.079	BOLT, W/PMP (*1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 23, 24, 25, 26) (3/8-16 X 1 3/4 CAD) (HEX) (8.900)	91-93 I (L05)	2	9439637
	1.079	BOLT, W/PMP (*1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 23, 24, 25, 26, 28, 29, 30, 31, 32, 34, 36) (3/8-16X1.0X2.75LG) (HEX) (8.900)	91-95 I (L05)	1	9442250

	1.079	BOLT, W/PMP (*1, 2, 3, 5, 12, 15, 17, 19, 20, 21, 23, 24, 25, 26, 28, 29, 30, 31, 32, 34, 36) (3/8-16 X 1 3/4 CAD) (HEX) (8.900)	94-95 I (L05)	2	9439637
	1.079	BOLT, W/PMP (*14, 22) (3/8-16X2 1/4 *) (8.900)	94-97 I (L05)	1	9442012
	1.079	BOLT, W/PMP (*17, 19, 20, 21, 23, 24, 27, 34, 35, 37, 38, 39, 40, 41.) (3/8-16X1.0X2.75LG) (HEX) (8.900)	96-97 I (L05, L31)	1	9442250
	1.079	BOLT, W/PMP (*17, 19, 20, 21, 23, 24, 34, 35, 37, 38, 39, 40, 41) (3/8-16 X 1 3/4 CAD) (HEX) (8.900)	96-97 I (L05, L31)	2	9439637
	1.079	BOLT, W/PMP (*22, 42, 43) (3/8-16X2.12) (LWR LH-UPR RH HOLES)	98-99 I (L31)	1	12552096
	1.079	BOLT, W/PMP (*27, 33) (HFH 3/8-16X2.00 280M POR 6174M) (8.900)	94-97 I (L05)	3	9440073
	1.079	BOLT, W/PMP (*34, 41) (3/8-16 X 1 3/4 CAD) (HEX) (8.900)	98-99 I (L31)	2	9439637
	1.079	BOLT, W/PMP (*34, 41.) (3/8-16X1.0X2.75LG) (HEX) (8.900)	98-99 I (L31)	1	9442250
	1.079	BOLT, W/PMP (*9, 14, 21, 22) (3/8-16X2 1/4 *) (8.900)	91-93 I (L05)	1	9442012
	1.079	BOLT, W/PMP (USED W/SEALANT) (*27, 33) (8.900) ..	94-97 I (L05)	4	9423592
65.	1.069	PUMP, WAT (*14, 22) (AC-DELCO #251-544)	94-97 I (L05)	1	12529305
	1.069	PUMP KIT, WAT (INCLS BOLT, BRG, CON, CVR, GKST, HSG, HUB, IMPEL, LABEL, NIPPLE&SEAL) (AC-DELCO #251-579)	96 I (L31)	1	12532528
	1.069	PUMP KIT, WAT (*1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 23, 24, 25, 26) (AC-DELCO #251-568)	91-93 I (L05)	1	12529508
	1.069	PUMP KIT, WAT (*1, 2, 3, 5, 12, 15, 17, 19, 20, 21, 23, 24, 25, 26, 28, 29, 30, 31, 34, 36) (AC-DELCO #251-568)	94-95 I (L05)	1	12529508
	1.069	PUMP KIT, WAT (*17, 19, 20, 21, 23, 24, 34, 35, 37, 38, 39, 40, 41.) (AC-DELCO #251-568)	96-97 I (L05, L31)	1	12529508
	1.069	PUMP KIT, WAT (*22, 42, 43) (INCLS BOLT, BRG, CON, CVR, GKST, HSG, HUB, IMPEL, LABEL, NIPPLE&SEAL) (AC-DELCO #251-579)	98-99 I (L31)	1	12532528
	1.069	PUMP KIT, WAT (*27, 33) (AC-DELCO #251-537)	94-97 I (L05)	1	12529560
	1.069	PUMP KIT, WAT (*34, 41.) (AC-DELCO #251-568)	98-99 I (L31)	1	12529508
66.	1.079	GASKET, W/PMP	91-93 I (L05)	1	3754587

	1.079	GASKET, W/PMP (*1, 2, 3, 5, 12, 14, 15, 17, 19, 20, 21, 22, 23, 24, 25, 26, 28, 29, 30, 31, 32, 34, 35, 36)	94-95 I (L05)	1	3754587
	1.079	GASKET, W/PMP (*14, 17, 19, 20, 21, 22, 23, 24, 34, 35, 37, 38, 39, 40, 41.)	96-97 I (L05, L31)	1	3754587
	1.079	GASKET, W/PMP (*22, 34, 41, 42, 43)	98-99 I (L31)	1	3754587
	1.079	GASKET, W/PMP (*27, 33)	94-97 I (L05)	2	10128343
67.	0.519	CAMSHAFT, (*1, 3, 4, 5, 6, 10, 12, 13, 24, 25)	91-93 I (L05, EP2)	1	340284
	0.519	CAMSHAFT, (*1, 3, 5, 12, 15, 24, 25, 28, 30)	94-95 I (L05, EP2)	1	340284
	0.519	CAMSHAFT, (*14, 22)	94-97 I (L05)	1	14088839
	0.519	CAMSHAFT, (*14, 22, 42, 43) ..	97-99 I (L31)	1	10241264
	0.519	CAMSHAFT, (*17, 19, 20, 21, 23, 24, 27, 34, 35, 37, 38, 40, 41) ..	96-97 I (L05)	1	14097395
	0.519	CAMSHAFT, (*17, 19, 20, 21, 23, 31, 32, 34, 35, 36)	94-95 I (L05)	1	14097395
	0.519	CAMSHAFT, (*18, 19, 20, 23) ..	91-93 I (L05)	1	14097395
	0.519	CAMSHAFT, (*2, 11, 26)	91-93 I (L05, EP2)	1	6272971
	0.519	CAMSHAFT, (*2, 26, 29)	94-95 I (L05, EP2)	1	6272971
	0.519	CAMSHAFT, (*27, 33)	94-95 I (L05)	1	10224241
	0.519	CAMSHAFT, (*34, 41.)	98-99 I (L31)	1	14097395
	0.519	CAMSHAFT, (*39)	96-97 I (L05, EP2)	1	340284
	0.519	CAMSHAFT, (*7, 8)	91-93 I (L05)	1	3896962
	0.519	CAMSHAFT, (*9, 14, 21, 22) ...	91-93 I (L05)	1	14088839
68.	0.539	BEARING, CM/SHF (POS #1) ..	91-97 I (L05)	1	12453170
	0.539	BEARING, CM/SHF (POS #1) ..	98-99 I (L31)	1	12453170
	0.539	BEARING, CM/SHF (POS #2-5) ..	91-97 I (L05)	2	12453171
	0.539	BEARING, CM/SHF (POS #2-5) ..	98-99 I (L31)	2	12453171
	0.539	BEARING, CM/SHF (POS #3-4) ..	91-97 I (L05)	2	12453172
	0.539	BEARING, CM/SHF (POS #3-4) ..	98-99 I (L31)	2	12453172
69.	1.531	PLUG, ENG BLK OIL GAL (1/2" STEEL EXPANSION PLUG) (8.970)	91-97 I (L05, L31)	1	3701638
	1.531	PLUG, ENG BLK OIL GAL (8.153) ..	91-97 I (L05, L31)	1	3738198
	1.531	PLUG, ENG BLK OIL GAL (37/64X1/4, 1/4 MM HOLE IN CTR, 1008, PL)	91-97 I (L05, L31)	2	10110897
	1.531	PLUG, ENG BLK OIL GAL (CUP .476X.31)	91-97 I (L05, L31)	1	14091563
	1.531	PLUG, ENG BLK OIL GAL (HEX) (1/4-18X0.56) (STEEL) (8.971) (AC-DELCO #3889330)	97-99 I (L31)	2	3889330
	1.531	PLUG, ENG BLK OIL GAL (HEX SOC, 1/4-18 THD, .69 LEN, 1038, PC, DOG PT) (W/SEALANT) (8.971)	97 I (L05, L31)	1	12338136
	1.531	PLUG, ENG BLK OIL GAL (1/2" STEEL EXPANSION PLUG) (8.970)	98-99 I (L31)	1	3701638
	1.531	PLUG, ENG BLK OIL GAL (8.153) ..	98-99 I (L31)	1	3738198
	1.531	PLUG, ENG BLK OIL GAL (37/64X1/4, 1/4 MM HOLE IN CTR, 1008, PL)	98-99 I (L31)	2	10110897

	1.531	PLUG, ENG BLK OIL GAL (CUP .476X.31)	98-99 I (L31)	1	14091563
	1.531	PLUG, ENG BLK OIL GAL (HEX SOC, 1/4-18 THD, .69 LEN, 1038, PC, DOG PT) (W/SEALANT) (8.971)	99 I (L31)	1	12338136
70.	0.529	BOLT, CM/SHF RET (HEX SOC TORQ DR 1/4-20X.5, .47 OD) ..	97-99 I (L31)	2	14093637
	0.529	BOLT, CM/SHF RET (*15, 16, 17, 18, 19, 20, 21, 23) (HEX SOC TORQ DR 1/4-20X.5, .47 OD) ..	91-93 I (L05)	2	14093637
	0.529	BOLT, CM/SHF RET (*17, 19, 20, 21, 23, 27, 31, 32, 33, 34, 35, 36) (HEX SOC TORQ DR 1/4-20X.5, .47 OD)	94-95 I (L05)	2	14093637
71.	0.529	RETAINER, CM/SHF (*15, 16, 17, 18, 19, 20, 21, 23)	91-93 I (L05)	1	10168501
	0.529	RETAINER, CM/SHF (*17, 19, 20, 21, 23, 24, 34, 35, 37, 38, 40, 41.)	96-97 I (L05, L31)	1	10168501
	0.529	RETAINER, CM/SHF (*17, 19, 20, 21, 23, 27, 31, 32, 34, 35, 36) ...	94-95 I (L05)	1	10168501
	0.529	RETAINER, CM/SHF (*22, 34, 41, 42, 43)	98-99 I (L31)	1	10168501
72.	0.459	BOLT, VLV LFTR GDE RET (*15, 16, 17, 18, 19, 20, 21, 23,) (8.900) (USED W/120386 WASHER)	91-93 I (L05)	3	180075
	0.459	BOLT, VLV LFTR GDE RET (*17, 19, 20, 21, 23, 24, 27, 34, 35, 37, 38, 40, 41.) (8.900) (USED W/120386 WASHER)	96-97 I (L05)	3	180075
	0.459	BOLT, VLV LFTR GDE RET (*17, 19, 20, 21, 23, 27, 31, 32, 33, 34, 36) (8.900) (USED W/120386 WASHER)	94-95 I (L05)	3	180075
	0.459	BOLT, VLV LFTR GDE RET (*22, 34, 41, 42, 43) (8.900) (USED W/120386 WASHER)	98-99 I (L31)	3	180075
73.	1.073	PLUG, W/PMP (*1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 23, 24, 25, 26.) (SQ HD 3/4-14 NPT 1.06 LGTH CAST IRON ZC) (8.971)	91-93 I (L05)	AR	143936
	1.073	PLUG, W/PMP (*1, 2, 3, 5, 12, 15, 17, 19, 20, 21, 23, 24, 25, 26, 28, 29, 30, 31, 32, 34, 36.) (SQ HD 3/4-14 NPT 1.06 LGTH CAST IRON ZC) (8.971)	94-95 I (L05)	AR	143936
	1.073	PLUG, W/PMP (*1, 2, 3, 5, 12, 15, 17, 19, 20, 21, 23, 24, 25, 26, 28, 29, 30, 31, 32, 34, 36.) (SQ HD FILL & DRN 1/2-14X0.610.) (PLAIN) (8.971)	94-95 I (L05)	1	444746
	1.073	PLUG, W/PMP (*1, 2, 3, 5, 6, 7, 8, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 23, 24, 25, 26) (SQ HD FILL & DRN 1/2-14X0.610.) (PLAIN) (8.971)	91-93 I (L05)	1	444746

1.073	PLUG, W/PMP (*17, 19, 20, 21, 23, 24, 34, 35, 37, 38, 39, 40, 41.) (SQ HD 3/4-14 NPT 1.06 LGTH CAST IRON ZC) (8.971)	96-97 I (L05, L31)	AR	143936
1.073	PLUG, W/PMP (*34, 41.) (SQ HD 3/4-14 NPT 1.06 LGTH CAST IRON ZC) (8.971)	98-99 I (L31)	AR	143936
1.073	PLUG, HTR HOSE NIP HOLE (*1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 21, 23, 24, 25, 26) (SQ HD FILL & DRN 1/2-14X0.610.) (PLAIN) (8.971) .	91-93 I (L05)	1	444746
1.073	PLUG, HTR HOSE NIP HOLE (*1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20) (HEADLESS SQ SOC, USE W/SEALER #1052080) (8.971) ..	91-93 I (L05)	2	25522466
1.073	PLUG, HTR HOSE NIP HOLE (*1, 2, 3, 5, 12, 14, 15, 17, 19, 20, 21, 22, 23, 24, 25, 26, 28, 29, 30, 31, 32, 35, 36, 39, 40.) (HEADLESS SQ SOC, USE W/SEALER #1052080) (8.971)	94-96 I (L05)	2	25522466
1.073	PLUG, HTR HOSE NIP HOLE (*1, 2, 3, 5, 12, 15, 17, 19, 20, 21, 23, 24, 25, 26, 28, 29, 30, 31, 32, 34, 35, 36) (SQ HD FILL & DRN 1/2-14X0.610.) (PLAIN) (8.971) .	94-95 I (L05)	1	444746
1.073	PLUG, HTR HOSE NIP HOLE (*17, 19, 20, 21, 23, 24, 35, 39, 40) (SQ HD FILL & DRN 1/2-14X0.610.) (PLAIN) (8.971) .	96-97 I (L05)	1	444746
1.073	PLUG, HTR HOSE NIP HOLE (*17, 21, 22, 24, 31, 35, 36) (AUTO DRAIN, INT SQ, 3/8-18X.42 PEOR STL) (8.971) .	94-95 I (L05)	1	14090911
1.073	PLUG, HTR HOSE NIP HOLE (*17, 21, 22, 24, 39) (AUTO DRAIN, INT SQ, 3/8-18X.42 PEOR STL) (8.971)	96-97 I (L05)	1	14090911
1.073	PLUG, HTR HOSE NIP HOLE (*19, 20, 23, 24, 35, 39, 40) (HEADLESS SQ SOC, USE W/SEALER #1052080) (8.971) ..	97 I (L05)	2	25522466
74.	1.062 HUB, FAN & W/PMP PUL (*1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 21, 23, 24, 25, 26, 28, 29, 30, 31, 32)	91-93 I (L05) (OEM-HARDIN & THERMO ELECTRON)	1	354480
	1.062 HUB, FAN & W/PMP PUL (*1, 2, 3, 5, 15, 17, 19, 20, 21, 23, 24, 25, 26, 28, 29, 30, 31, 32, 34, 35, 36)	94-95 I (L05) (OEM-HARDIN & THERMO ELECTRON)	1	354480
	1.062 HUB, FAN & W/PMP PUL (*17, 19, 20, 21, 23, 24, 34, 35, 37, 38, 39, 40, 41)	96-97 I (L05, L31) (OEM-HARDIN & THERMO ELECTRON)	1	354480
	1.062 HUB, FAN & W/PMP PUL (*22, 42, 43)	98-99 I (L31)	1	12550600

	1.062	HUB, FAN & W/PMP PUL (*34, 41)	98-99 I (L31) (OEM-HARDIN & THERMO ELECTRON)	1	354480
75.	1.079	GASKET, W/PMP CVR (*1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 28, 29, 30, 31, 32, 33, 34, 35, 36.)	91-95 I (L05)	1	12555493
	1.079	GASKET, W/PMP CVR (*14, 17, 19, 20, 21, 22, 23, 24, 34, 35, 37, 38, 39, 40, 41.)	96-97 I (L05, L31)	1	12555493
	1.079	GASKET, W/PMP CVR (*22, 34, 41, 42, 43)	98-99 I (L31)	1	12555493
	1.079	GASKET, W/PMP CVR (*9)	91-92 I (L05)	1	12555493
76.	8.846	FITTING, HTR HOSE (*14)	91-94 I (L05)	1	10088196
77.	0.459	RETAINER, VLV LFTR GDE (*15, 16, 17, 18, 19, 20, 21, 23) (1 PC) (RESTRICTOR)	91-93 I (L05)	1	14101116
	0.459	RETAINER, VLV LFTR GDE (*17, 19, 20, 21, 23, 27, 31, 32, 33, 34, 35, 36.) (1 PC) (RESTRICTOR) ..	94-95 I (L05)	1	14101116
	0.459	RETAINER, VLV LFTR GDE (*17, 19, 20, 21, 23, 27, 34, 35, 37, 38, 40, 41.) (1 PC) (RESTRICTOR) ..	96-97 I (L05, L31)	1	14101116
	0.459	RETAINER, VLV LFTR GDE (*22, 34, 41, 42, 43) (1 PC) (RESTRICTOR)	98-99 I (L31)	1	14101116
78.	1.079	STUD, W/PMP (*1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 23, 24, 25, 26) (5/16-24 X 3/8-16 X 2 9/16) (1.073)	91-93 I (L05)	RH	3759755
	1.079	STUD, W/PMP (*1, 2, 3, 5, 12, 15, 17, 19, 20, 21, 23, 24, 25, 26, 28, 29, 30, 31, 32, 34, 35, 36) (5/16-24 X 3/8-16 X 2 9/16) (1.073)	94-95 I (L05)	RH	3759755
	1.079	STUD, W/PMP (*17, 19, 20, 21, 22, 23, 24, 34, 35, 37, 38, 39, 40, 41.) (5/16-24 X 3/8-16 X 2 9/16) (1.073)	96-97 I (L05, L31)	RH	3759755
	1.079	STUD, W/PMP (*22, 34, 41, 43) (5/16-24 X 3/8-16 X 2 9/16) (1.073)	98-99 I (L31)	RH	3759755
79.	0.219	INDICATOR, TMG (*1, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 15, 16, 17, 18, 19, 20.)	91-93 I (L05)	1	3991436
	0.219	INDICATOR, TMG (*1, 3, 5, 12, 15, 19, 20, 23, 24, 25, 28, 30, 32, 34.)	94-95 I (L05)	1	3991435
	0.219	INDICATOR, TMG (*17, 21, 31, 35.)	94 I (L05)	1	3991436
	0.219	INDICATOR, TMG (*36)	95 I (L05)	1	3991436
80.	0.206	BOLT, ENG FRT CVR (8.900) ...	91-94 I (L05)	1	9439930
	0.206	BOLT, ENG FRT CVR (CENTER OF COVER) (*14, 17, 19, 20, 21, 22, 23, 24, 34, 35, 37, 38, 39, 40, 41.) (HWH 1/4-20 THD SHLD LEN .92) \.....	96-97 I (L05, L31)	2	12551135

	0.206	BOLT, ENG FRT CVR (CENTER OF COVER) (*22, 34, 41, 42, 43) (HWH 1/4-20 THD SHLD LEN .92)	98-99 I (L31)	2	12551135
	0.206	BOLT, ENG FRT CVR (*1, 2, 3, 5, 12, 14, 15, 19, 20, 22, 23, 24, 25, 26, 28, 29, 30, 32, 34, 36) (1/4-20 X 1/2, 1/8 THD) (300M, PC) (8.900)	95 I (L05)	AR	9442895
	0.206	BOLT, ENG FRT CVR (*14, 17, 19, 20, 21, 22, 23, 24, 34, 35, 37, 38, 39, 40.) (HWH 1/4-20 THD SHLD LEN .41)	96-97 I (L05, L31)	6	10213293
	0.206	BOLT, ENG FRT CVR (*22, 34, 41, 42, 43) (HWH 1/4-20 THD SHLD LEN .41)	98-99 I (L31)	6	10213293
	0.206	BOLT, ENG FRT CVR (*27, 33) (8.900) (1/4-20X1 3/8 .52 OD, .75 THD, 280M, PO)	94-97 I (L05)	8	9442397
81.	0.206	COVER, ENG FRT (*1, 2, 3, 5, 12, 14, 15, 17, 19, 20, 21, 22, 23, 24, 25, 26, 28, 29, 30, 31, 32, 34, 35, 36)	94-95 I (L05)	1	10046160
	0.206	COVER, ENG FRT (*14, 17, 19, 20, 21, 22, 23, 24, 34, 35, 37, 38, 39, 40, 41)	96-97 I (L05, L31)	1	12552557
	0.206	COVER, ENG FRT (*14, 21, 22) (INCLS CVR & IND)	91-93 I (L05)	1	12523973
	0.206	COVER, ENG FRT (*2, 11, 26) ..	91-93 I (L05)	1	12513955
	0.206	COVER, ENG FRT (*22, 34, 41, 42, 43)	98-99 I (L31)	1	12552557
	0.206	COVER, ENG FRT (REQUIRES PTR 3991435) (*1, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 15, 16, 17, 18, 19, 20, 23, 24, 25) (LESS POINTER)	91-93 I (L05)	1	10243967
82.	0.207	GASKET, ENG FRT CVR	91-93 I (L05)	1	10108435
	0.207	GASKET, ENG FRT CVR (*1, 2, 3, 5, 12, 14, 15, 17, 19, 20, 21, 22, 23, 24, 25, 26, 28, 29, 30, 31, 31, 32, 34, 35, 36.)	94-95 I (L05)	1	10108435
	0.207	GASKET, ENG FRT CVR (*27, 33)	94-97 I (L05)	1	10128293
83.	0.480	WASHER, VLV LFTR GDE RET (*15, 16, 17, 18, 19, 20, 21, 23) (5/16X47/64X1/16) (ZC) (8.929) ..	91-93 I (L05)	3	120386
	0.480	WASHER, VLV LFTR GDE RET (*17, 19, 20, 21, 23, 27, 32, 33, 34, 35, 36.) (5/16X47/64X1/16) (ZC) (8.929)	94-95 I (L05)	3	120386
84.	0.213	SEAL, CR/SHF FRT OIL (*14, 17, 19, 20, 21, 22, 23, 24, 34, 35, 37, 38, 39, 40, 41) (58MM OD W/PART NUMBER STAMPING) ..	96-97 I (L05, L31)	1	10228655
	0.213	SEAL, CR/SHF FRT OIL (*14, 22, 34, 41, 42, 43) (58MM OD W/PART NUMBER STAMPING) ..	98-99 I (L31)	1	10228655
	0.213	SEAL, CR/SHF FRT OIL (*2, 26, 29)	94-95 I (L05)	1	10244151

	0.213	SEAL, CR/SHF FRT OIL (TIMING GR CVR (*1, 2, 3, 5, 12, 14, 15, 17, 19, 20, 21, 22, 23, 24, 25, 28, 30, 31, 32, 34, 35, 36.)	94 I (L05)	1	10243247
	0.213	SEAL, CR/SHF FRT OIL (TIMING GR CVR (*1, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25.)	91-93 I (L05)	1	10243247
	0.213	SEAL, CR/SHF FRT OIL (TIMING GR CVR (*1, 3, 5, 12, 14, 15, 19, 20, 22, 24, 25, 28, 30, 32, 33, 34)	95 I (L05)	1	10243247
85.	0.738	BOLT, CM/SHF SPKT (5/16-18 X 3/4, 300M) (HEX HD, STEEL) (8.900) (PROD 09417950)	91-97 I (L05)	3	9424877
	0.738	BOLT, CM/SHF SPKT (5/16-18 X 3/4, 300M) (HEX HD, STEEL) (8.900) (PROD 09417950)	98-99 I (L31)	3	9424877
86.	N.S.	GEAR, CM/SHF (*KIT1)	I (L05)		
	0.736	SPROCKET, CM/SHF (*1, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 22, 24, 25, 26) (36 TEETH) (.275/.285" TOOTH WIDTH) (.272/.285" TOOTH WIDTH)	91-93 I (L05)	1	14088785
	0.736	SPROCKET, CM/SHF (*1, 3, 5, 12, 14, 15, 22, 24, 25, 28, 30) (36 TEETH) (.275/.285" TOOTH WIDTH) (.272/.285" TOOTH WIDTH)	94-95 I (L05)	1	14088785
	0.736	SPROCKET, CM/SHF (*14, 22, 39) (36 TEETH) (.275/.285" TOOTH WIDTH) (.272/.285" TOOTH WIDTH)	96-97 I (L05)	1	14088785
	0.736	SPROCKET, CM/SHF (*15, 16, 17, 18, 19, 20, 21, 23) (36 TEETH) (.395/.405" TOOTH WIDTH) (HAS INVERTED TOOTH CHAIN)	91-93 I (L05)	1	12552128
	0.736	SPROCKET, CM/SHF (*17, 19, 20, 21, 23, 24, 34, 35, 36, 37, 38, 40, 41.) (36 TEETH)) (IS A ROLLER CHAIN)	96-97 I (L05, L31)	1	12552129
	0.736	SPROCKET, CM/SHF (*17, 24) (36 TEETH)) (IS A ROLLER CHAIN)	94 I (L05)	1	12552129
	0.736	SPROCKET, CM/SHF (*19, 20, 21, 23, 27, 31, 32, 34, 35) (36 TEETH) (.395/.405" TOOTH WIDTH) (HAS INVERTED TOOTH CHAIN)	94 I (L05) (1ST DES)	1	12552128
	0.736	SPROCKET, CM/SHF (*19, 20, 21, 23, 27, 31, 32, 34, 35) (36 TEETH)) (IS A ROLLER CHAIN)	94 I (L05) (2ND DES)	1	12552129
	0.736	SPROCKET, CM/SHF (*19, 20, 23, 32, 34, 36) (36 TEETH)) (IS A ROLLER CHAIN)	95 I (L05)	1	12552129
	0.736	SPROCKET, CM/SHF (*22, 34, 41, 42, 43) (36 TEETH)) (IS A ROLLER CHAIN)	98-99 I (L31)	1	12552129
	0.736	SPROCKET, CM/SHF (*27, 33) (W/O SPLINED SPRKT)	94-97 I (L05)	1	10206039

	0.736	SPROCKET, CM/SHF (*27, 33) (0.728) (W/SPLINED SPRKT) ...	95 I (L05)	1	10128349
87.	0.724	CHAIN, CM/SHF TMG (*1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 22, 24, 25, 26) (IS A ROLLER CHAIN) (.275/.285")	91-93 I (L05)	1	14088783
	0.724	CHAIN, CM/SHF TMG (*1, 2, 3, 5, 12, 14, 15, 17, 22, 24, 25, 28, 29, 30, 33) (IS A ROLLER CHAIN) (.275/.285")	94 I (L05)	1	14088783
	0.724	CHAIN, CM/SHF TMG (*1, 3, 5, 12, 14, 15, 19, 20, 22, 23, 24, 25, 28, 30, 32, 34, 36.) (IS A ROLLER CHAIN) (.275/.285")	95 I (L05)	1	14088783
	0.724	CHAIN, CM/SHF TMG (*15, 16, 17, 18, 19, 20, 21, 23) (DIM 4.532 36 TEETH, DIM 4.522 18 TEETH) (HAS INVERTED TOOTH CHAIN)	91-93 I (L05)	1	10128485
	0.724	CHAIN, CM/SHF TMG (*17, 19, 20, 21, 23, 24, 27, 34, 35, 37, 38, 40, 41.) (IS A ROLLER CHAIN) (.275/.285")	96-97 I (L05)	1	14088783
	0.724	CHAIN, CM/SHF TMG (*19, 20, 21, 23, 27, 31, 32, 33, 35) (DIM 4.532 36 TEETH, DIM 4.522 18 TEETH) (HAS INVERTED TOOTH CHAIN)	94 I (L05) (1ST DES)	1	10128485
	0.724	CHAIN, CM/SHF TMG (*19, 20, 21, 23, 27, 31, 32, 34, 35) (IS A ROLLER CHAIN) (.275/.285") ...	94 I (L05) (2ND DES)	1	14088783
	0.724	CHAIN, CM/SHF TMG (*22, 34, 41, 42, 43) (IS A ROLLER CHAIN) (.275/.285")	98-99 I (L31)	1	14088783
	0.724	CHAIN, CM/SHF TMG (*27, 33) (DIM 4.532 36 TEETH, DIM 4.522 18 TEETH) (HAS INVERTED TOOTH CHAIN)	95 I (L05)	1	10128485
	0.724	CHAIN, CM/SHF TMG (*35) (DIM 4.532 36 TEETH, DIM 4.522 18 TEETH) (HAS INVERTED TOOTH CHAIN)	96-97 I (L05)	1	10128485
88.	1.531	PLUG, ENG BLK OIL GAL (1/2" STEEL EXPANSION PLUG) (8.970)	91-97 I (L05, L31)	1	3701638
	1.531	PLUG, ENG BLK OIL GAL (1/2" STEEL EXPANSION PLUG) (8.970)	98-99 I (L31)	1	3701638
89.	0.738	WASHER, CM/SHF SPKT (5/16X5/8X1/16, ZP) (HARDENED) (8.929)	91-97 I (L05)	3	2436162
	0.738	WASHER, CM/SHF SPKT (5/16X5/8X1/16, ZP) (HARDENED) (8.929)	98-99 I (L31)	3	2436162
90.	1.531	PLUG, ENG BLK OIL GAL (OIL RTN HOLE) (*1, 2, 2, 3, 4, 5, 6, 7, 8, 9) (8.153)	91-95 I (L05)	AR	3738198
	1.531	PLUG, ENG BLK OIL GAL (OIL RTN HOLE) (*10, 11, 12, 13, 14, 15, 16, 17, 18, 19) (8.153)	91-97 I (L05)	AR	3738198

	1.531	PLUG, ENG BLK OIL GAL (OIL RTN HOLE) (*20, 21, 22, 23, 24, 25, 26, 27, 28, 29) (8.153)	91-97 I (L05)	AR	3738198
	1.531	PLUG, ENG BLK OIL GAL (OIL RTN HOLE) (*30, 31, 32, 33, 34, 35, 36, 37, 38, 39) (8.153)	91-97 I (L05, L31)	AR	3738198
	1.531	PLUG, ENG BLK OIL GAL (OIL RTN HOLE) (*40, 41) (8.153) ...	96-97 I (L05, L31)	AR	3738198
	1.531	PLUG, ENG BLK OIL GAL (OIL RTN HOLE) (*22, 34, 41, 42, 43) (8.153)	98-99 I (L31)	AR	3738198
91.	8.971	PLUG (ENG OIL PRESS GA SEN OR IND SW HOLE) (AC-DELCO #3889330)	91-93 I (L05)	AR	3889330
	1.531	PLUG, ENG OIL PRESS GA SEN OR IND SW HOLE (1/8-27X3/8 NPTF) (AUTO, HH, PIPE PLAIN) (8.971) (AC-DELCO #444613) .	94-95 I (L05)	AR	444613
	8.971	PLUG, 1/4-18 NPTF, SQ SOCKET PIPE (ENG OIL PRESS GA SEN OR IND SW HOLE)	91-97 I (L05, L31)	AR	444654
	8.971	PLUG, 1/4-18 NPTF, SQ SOCKET PIPE (ENG OIL PRESS GA SEN OR IND SW HOLE)	98 I (L31)	AR	444654
92.	0.685	PIN, TRANS LOC (TRANS) (5/8 DIA, 1 3/16 LG) (8.939)	91-97 I (L05)	2	12338119
	0.685	PIN, TRANS LOC (TRANS) (5/8 DIA, 1 3/16 LG) (8.939)	98-99 I (L31)	2	12338119
93.	0.673	GEAR, FLYWHL RING	94-97 I (L05, L31)	1	460583
	0.673	GEAR, FLYWHL RING	98-99 I (L31)	1	460583
	0.673	GEAR, FLYWHL RING (*1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 18, 19, 30, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33) ...	91-93 I (L05)	1	460583
	0.673	GEAR, FLYWHL RING (*9, 17) ..	91-92 I (L05)	1	3991407
94.	0.738	PIN, CM/SHF GR LOC (1/4 X 5/8) (8.939)	91-97 I (L05)	2	12554553
	0.738	PIN, CM/SHF GR LOC (1/4 X 5/8) (8.939)	98-99 I (L31)	2	12554553
95.	0.206	PIN, ENG FRT CVR LOC (1/4 X 5/8) (8.939)	91-97 I (L05)	2	12554553
	0.206	PIN, ENG FRT CVR LOC (1/4 X 5/8) (8.939)	98-99 I (L31)	2	12554553
96.	0.034	PLUG, ENG BLK COOL DRN HOLE (HEX) (1/4-18X0.56) (STEEL) (8.971) (AC-DELCO #3889330)	91-97 I (L05)	2	3889330
	0.034	PLUG, ENG BLK COOL DRN HOLE (HEX) (1/4-18X0.56) (STEEL) (8.971) (AC-DELCO #3889330)	98-99 I (L31)	2	3889330
97.	0.034	PLUG, ENG BLK COOL DRN HOLE (HEX) (1/4-18X0.56) (STEEL) (8.971) (AC-DELCO #3889330)	91-97 I (L05)	2	3889330
	0.034	PLUG, ENG BLK COOL DRN HOLE (HEX) (1/4-18X0.56) (STEEL) (8.971) (AC-DELCO #3889330)	98-99 I (L31)	2	3889330

98.	0.137	SEAL, CR/SHF RR OIL (PART OF 43)	97 I (L05, L31)	1	12554314
	0.137	SEAL, CR/SHF RR OIL (PART OF 43)	98-99 I (L31)	1	12554314
	0.137	SEAL, CR/SHF RR OIL (*1, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 27, 28, 30, 31, 32, 33, 34, 35, 36) (PART OF 43) (NORMAL ROTATION)	91-94 I (L05)	1	10088158
	0.137	SEAL, CR/SHF RR OIL (*2, 11, 26, 29) (PART OF 43) (OPPOSITE ROTATION)	91-95 I (L05)	1	14096051
	0.137	SEAL, CR/SHF RR OIL (NORMAL ROTATION) (PART OF 43)	95-96 I (L05)	1	10088158
100.	1.639	DRIVE, O/PMP (*27, 33) (AC-DELCO #1103868)	94-97 I (L05)	1	1103868
101.	1.639	BOLT, O/PMP DRV SHF (*27, 33) (5/16-18 X 3/4, 300M) (HEX HD, STEEL) (8.900)	94-97 I (L05)	2	9424877
102.	1.652	WASHER, O/PMP (*27, 33) (5/16X5/8X1/16, ZP) (HARDENED) (8.929)	94-95 I (L05)	3	2436162
104.	1.079	PIN, W/PMP LOC (*27, 33) (DOWELL, 0.31X1.25, STL-HRD, PL, CHAM ENDS)	94-97 I (L05)	2	10128487
105.	1.105	SHAFT, W/PMP DRV (*27, 33) ..	94-97 I (L05)	1	10219554
106.	1.105	BOLT, W/PMP DRV SHF BRG RET (*27, 33) (HEX SOC TORQ DR 1/4-20X.5, .47 OD) (0.529) ..	94-97 I (L05)	2	14093637
107.	1.123	SEAL, W/PMP BRG (*27, 33) ...	94-97 I (L05)	1	10217886
109.	0.206	PIN, ENG FRT CVR LOC (1/4 X 5/8) (8.939)	91-97 I (L05)	2	12554553
	0.206	PIN, ENG FRT CVR LOC (1/4 X 5/8) (8.939)	98-99 I (L31)	2	12554553
110.	0.207	GASKET, ENG FRT CVR	91-93 I (L05)	1	10108435
	0.207	GASKET, ENG FRT CVR (*1, 2, 3, 5, 12, 14, 15, 17, 19, 20, 21, 22, 23, 24, 25, 26, 28, 29, 30, 31, 31, 32, 34, 35, 36.)	94-95 I (L05)	1	10108435
	0.207	GASKET, ENG FRT CVR (*27, 33)	94-97 I (L05)	1	10128293
111.	0.213	SEAL, CR/SHF FRT OIL (*27, 33) (61.5MM O.D. W/PART NUMBER STAMPING)	94-97 I (L05)	1	10128316
112.	0.206	COVER, ENG FRT (*27, 33) (REMOVE CENTER SEAL AND ADD PLUG (14097460) (SEE ITEM 113)	94-97 I (L05)	1	12551636
113.	0.206	PLUG, ENG FRT CVR HOLE (*27, 33)	94-97 I (L05)	1	14097460
114.	1.123	SEAL, W/PMP BRG (*27, 33) ...	94-97 I (L05)	1	10217886
115.	0.206	BOLT, ENG FRT CVR (*27, 33) (8.900)	94-97 I (L05)	AR	9442397
116.	1.123	SEAL, W/PMP CVR (O RING) (*27, 33) (1.114)	94-97 I (L05)	1	10128329

117.	1.069	PUMP KIT, WAT (INCLS BOLT, BRG, CON, CVR, GKST, HSG, HUB, IMPEL, LABEL, NIPPLE&SEAL) (AC-DELCO #251-579)	96 I (L31)	1	12532528
	1.069	PUMP KIT, WAT (*1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 23, 24, 25, 26) (AC-DELCO #251-568)	91-93 I (L05)	1	12529508
	1.069	PUMP KIT, WAT (*1, 2, 3, 5, 12, 15, 17, 19, 20, 21, 23, 24, 25, 26, 28, 29, 30, 31, 34, 36) (AC-DELCO #251-568)	94-95 I (L05)	1	12529508
	1.069	PUMP KIT, WAT (*17, 19, 20, 21, 23, 24, 34, 35, 37, 38, 39, 40, 41.) (AC-DELCO #251-568)	96-97 I (L05, L31)	1	12529508
	1.069	PUMP KIT, WAT (*22, 42, 43) (INCLS BOLT, BRG, CON, CVR, GKST, HSG, HUB, IMPEL, LABEL, NIPPLE&SEAL) (AC-DELCO #251-579)	98-99 I (L31)	1	12532528
	1.069	PUMP KIT, WAT (*27, 33) (AC-DELCO #251-537)	94-97 I (L05)	1	12529560
	1.069	PUMP KIT, WAT (*34, 41.) (AC-DELCO #251-568)	98-99 I (L31)	1	12529508
118.	3.682	SENSOR, ENG COOL TEMP (*1, 3, 5, 12, 15, 19, 20, 23, 24, 25, 26, 28, 30, 32, 34) (3/8-18 THD) (2 BLADE TERM) (1.150) (AC-DELCO #213-72)	94-95 I (L05)	1	25036979
	1.150	SENSOR, ENG COOL TEMP (*27, 33) (3/8-18 THD) (2 BLADE TERM) (AC-DELCO #213-72) .	94-97 I (L05)	1	25036979
119.	8.800	SEALANT-LOCTITE PIPE-W/TEFLON 50CC TUBE (*27, 33)	94-97 I (L05)	AR	12346004
120.	1.079	BOLT, W/PMP (8.900)	94-97 I (L05)	AR	9423592
121.	1.079	BOLT, W/PMP (HFH 3/8-16X2.00 280M FOR 6174M) (8.900)	94-97 I (L05)	AR	9440073
122.	1.105	COUPLING, W/PMP DRV SHF (*27, 33)	94-95 I (L05)	1	10128334
123.	1.105	SEAL, W/PMP DRV SHF (*27, 33)	94-97 I (L05)	1	12553792
124.	1.246	THERMOSTAT, ENG COOL (W/GSKT) (*27, 33 (180 DEG) (AC-DELCO #131-100) (W/SEAL (10108682) (INCL ITEM #125)	94-97 I (L05)	1	12555290
125.	1.252	SEAL, ENG COOL THERM (O RING) (*27, 33) (AC-DELCO #12553106)	94-97 I (L05)	1	12553106
126.	1.073	INLET, W/PMP (W/THERM HSG & BLEDR SCREW) (*27, 33)	94-97 I (L05)	1	10108667
127.	1.035	VALVE, ENG COOL AIR BL (*27, 33)	94-97 I (L05)	1	10070107
128.	1.079	BOLT, W/PMP INL (*27, 33) (HFH, M6X1X25, 10.9, FULL, PS) (8.900)	94-97 I (L05)	1	22539278
130.	0.659	HUB, CR/SHF BALR (*27)	96-97 I (L05, EP2)	1	12553250
	0.659	HUB, CR/SHF BALR (*27, 33) ..	94-95 I (L05)	1	12553250

131.	0.662	WASHER, CR/SHF BALR (*27, 33)	94-97 I (L05)	1	10128306
132.	0.662	BOLT, CR/SHF BALR (7/16-20X2.25 300M) (*27, 33) (8.900)	94-97 I (L05)	1	9440024
133.	1.531	PLUG, ENG BLK OIL GAL (0.413)	91-94 I (L05)	8	12338036
	1.531	PLUG, ENG BLK OIL GAL (1/4-18 SQ HD NPTF, .46 THD, W/SEALER) (8.971)	97-99 I (L31)	3	14081701
	1.531	PLUG, ENG BLK OIL GAL (HOLE (RR)) (HEX SOC, 1/4-18 THD, .69 LEN, 1038, PC, DOG PT) (W/SEALANT) (8.971)	91-96 I (L05, L31)	1	12338136
	1.531	PLUG, ENG BLK OIL GAL (OIL PRESS LH RR SI HOLE RR) (*27, 33) (HEX) (1/4-18X0.56) (STEEL) (8.971) (AC-DELCO #3889330)	94-95 I (L05)	2	3889330
135.	1.840	ADAPTER, OIL FLTR (*27, 33) (INCLS ADAP, PLUG, SPR&VLV)	94-97 I (L05)	1	3952301
136.	1.840	BOLT, OIL FLTR ADAP (*27, 33) (.312-18X1.25 PL) (8.900)	94-97 I (L05)	AR	3951644
137.	1.836	FILTER, OIL (AC-DELCO #PF25)	94-97 I (L05)	1	6438261
139.	0.662	BOLT, CR/SHF BALR (*27, 33) ..	94-97 I (L05)	3	9442449

SERVICE KITS

1.	0.736	GEAR KIT, CM/SHF & CR/SHF (*2, 11) (INCL 60, 86) (0.728)	91-93 I (L05) 5.7L O.E.M MARINE (OPP ROT) ..	1	14091440
	0.736	GEAR KIT, CM/SHF & CR/SHF (*2, 26, 29) (INCL 60, 86) (0.728) .	94-95 I (L05) 5.7L O.E.M MARINE (OPP ROT) ..	1	14091440

NOTE 1: 5.7L 350 CID MARINE ENG. 1991 14096873 (1AN); 1992 14097408 (2AN); 1993 14097342 (3AN), 1994 12550200 (4AN), 1995 12550481 (5AN).

NOTE 2: 5.7L 350 CID MARINE ENG. 1991 14096874 (1AR); 1992 14097410 (2AR); 1993 14097344 (3AR), 1994 12550201 (4AR), 1995 12550482 (5AR).

NOTE 3: 5.7L 350 CID MARINE ENG. 1991 14096876 (1AB); 1992 14097412 (2AB); 1993 14097341 (3AB), 1994 12550196 (4AB), 1995 12550477 (5AB).

NOTE 4: 5.7L 350 CID MARINE ENG. 1991 14096878 (1AP); 1993 10228451 (3AP).

NOTE 5: 5.7L 350 CID MARINE ENG. 1991 14096879 (1AS); 1992 14097426 (2AS); 1993 14097338 (3AS), 1994 12550198 (4AS), 1995 12550479 (5AS).

NOTE 6: 5.7L 350 CID MARINE ENG. 1991 14096880 (1AT); 1992 14097427 (2AT).

NOTE 7: 5.7L 350 CID MARINE ENG. 1991 14096882 (1AK); 1992 14097428 (2AK); 1993 14097346 (3AK).

NOTE 8: 5.7L 350 CID MARINE ENG. 1991 14096883 (1AX); 1992 14097429 (2AX); 1993 10228452 (3AX).

NOTE 9: 5.7L 350 CID INDUSTRIAL ENG. 1991 14096885 (1AU); 1992 14097455 (2AU).

NOTE 10: 5.7L 350 CID MARINE ENG. 1991 14097182 (1MN); 1992 14097409 (2MN); 1993 14097343 (3MN).

NOTE 11: 5.7L 350 CID MARINE ENG. 1991 14097183 (1MR); 1992 14097411 (2MR); 1993 14097345 (3MR).

NOTE 12: 5.7L 350 CID MARINE ENG. 1991 14097184 (1MB); 1992 14097413 (2MB); 1993 14097340 (3MB), 1994 12550197 (4MB), 1995 12550478 (5MB).

NOTE 13: 5.7L 350 CID MARINE ENG. 1991 14097185 (1MS); 1992 14097414 (2MS).

NOTE 14: 5.7L 350 CID IRRIGATION ENG. 1991 14097255 (1AF), 1992 14097423 (2AF), 1993 14097353 (3AF), 1994 12550209 (4AF), 1995 12550490 (5AF), 1996 12550517 (6AF), 1997 12555436 (7AF)

NOTE 15: 5.7L 350 CID MARINE ENG. 1991 14097358 (1AY); 1992 14097417 (2AY) , 1994 12550199 (4AY), 1995 12550480 (5AY).

NOTE 16: 5.7L 350 CID MARINE ENG. 1991 14097359 (1AZ); 1992 14097418 (2AZ).

NOTE 17: 5.7L 350 CID MARINE ENG. 1991 14097360 (1CA); 1992 14097419 (2CA); 1993 14097351 (3CA), 1994 12550208 (4CA) , 1996 12555312 (6CA), 1997 12555306 (7CA)

NOTE 18: 5.7L 350 CID MARINE ENG. 1991 14097378 (1CC).

NOTE 19: 5.7L 350 CID MARINE ENG. 1991 14097379 (1CD); 1992 14097415 (2CD); 1993 14097347 (3CD), 1994 12550204 (4CD), 1995 12550485 (5CD), 1996 12550512 (6CD), 1997 12555303 (7CD).

NOTE 20: 5.7L 350 CID MARINE ENG. 1991 14097380 (1CF); 1992 14097416 (2CF); 1993 14097349 (2CF), 1994 12550206 (4CF), 1995 12550487 (5CF), 1996 12550514 (6CF), 1997 12555305 (7CF).

NOTE 21: 5.7L 350 CID MARINE ENG. 1992 14097471 (2CB); 1993 14097350 (3CB), 1994 12550207 (4CB) , 1996 12555311 (6CB), 1997 12555307 (7CB).

NOTE 22: 5.7L 350 CID INDUSTRIAL ENG. 1992 14097421 (2AH), 1993 14097352 (3AH), 1994 12550210 (4AH), 1995 12550491 (5AH), 1996 12550518 (6AH), 1997 12555437 (7AH), 1998 12558792 (8AH).

NOTE 23: 5.7L 350 CID MARINE ENG. 1992 14097424 (2MD); 1993 14097348 (3MD), 1994 12550205 (4MD), 1995 12550486 (5MD), 1996 12550513 (6MD), 1997 12555304 (7MD).

NOTE 24: 5.7L 350 CID MARINE ENG. 1992 14097430 (2AJ); 1993 14097337 (3AJ), 1994 12550195 (4AJ), 1995 12550476 (5AJ), 1996 12550505 (6AJ), 1997 12555302 (7AJ).

NOTE 25: 5.7L 350 CID MARINE ENG. 1992 14097488 (2NN); 1993 14097354 (3NN), 1994 12550202 (4NN), 1995 12550483 (5NN).

NOTE 26: 5.7L 350 CID MARINE ENG. 1992 14097489 (2NR); 1993 14097355 (3NR), 1994 12550203 (4NR), 1995 12550484 (5NR).

NOTE 27: 5.7L 350 CID MARINE ENG 1994 12550274 (4NT), 1995 12550493 (5NT), 1996 12550520 (6NT), 1997 12555435 (7NT).

NOTE 28: 5.7L 350 CID MARINE ENG 1994 12550404 (4BN), 1995 12550494 (5BN).

NOTE 29: 5.7L 350 CID MARINE ENG 1994 12550405 (4BR), 1995 12550495 (5BR).

NOTE 30: 5.7L 350 CID MARINE ENG 1944 12550406 (4BY), 1995 12550496 (5BY).

NOTE 31: 5.7L 350 CID MARINE ENG 1994 12550407 (4BA).

NOTE 32: 5.7L 350 CID MARINE ENG 1994 12550408 (4BF), 1995 12550498 (5BF).

NOTE 33: 5.7L 350 CID MARINE ENG 1994 12550273 (4NS), 1995 12550492 (5NS).

NOTE 34: 5.7L 350 CID MARINE ENG. 1994 12552652 (4MH), 1995 12552653 (5MH), 1996 12554997 (6MH), 1997 12555176 (7MH), 1998 12558291 (8MH), 1999 12558293 (9MH)

NOTE 35: 5.7L 350 CID MARINE ENG. 1994 12551687 (4CY), 1996 12555301 (6CY), 1997 12555314 (7CY).

NOTE 36: 5.7L 350 CID MARINE ENG. 1995 12553266 (5CH).

NOTE 37: 5.7L 350 CID MARINE ENG. 1996

NOTE 38: 5.7L 350 CID MARINE ENG. 1996
12554998 (6CJ), 1997 12555177 (7CJ).

NOTE 39: 5.7L 350 CID MARINE ENG. 1996
12554999 (6CK), 1997 12555178 (7CK).

NOTE 40: 5.7L 350 CID MARINE ENG. 1996
12555299 (6MJ), 1997 12555308 (7MJ).

NOTE 41: 5.7L 350 CID MARINE ENG. 1997 12557780
12555300 (6MM), 1997 12555313 (7MM).

NOTE 42: 5.7L 350 CID IRRIGATION ENG. 1998 12558292 (8MK), 1999 12558294 (9MK), 1998 12558292 (8MK), 1999 12558294 (9MK)

NOTE 43: 5.7L 350 CID INDUSTRIAL ENG. 1999 12558791 (8AF), 1999 12558293 (9AF).

NOTE 43: 5.7L 350 CID INDUSTRIAL ENG. 1999 12558794 (9AH)

RPO DEFINITIONS

EP2 – MARINE(EP2)

L05 – ENGINE, 5.7L(5.7-7)GAS 8 CYLINDER

L31 – ENGINE, GAS, 8 CYL, 5.7L, CPI

MW3 – TRANSMISSION, MANUAL, 5 SPEED, NEW VENTURE GEAR, 109MM, 5.61 1ST, O/D

M50 – TRANSMISSION, MANUAL, 5 SPEED, NVG, 85 MM, 3.49 1ST, O/D

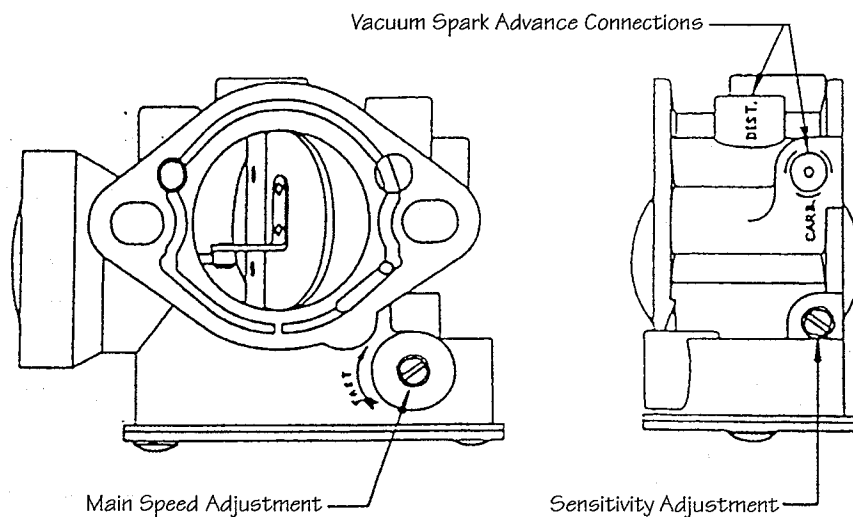
5.1 VELOCITY GOVERNOR

The SENSITIVITY ADJUSTMENT is factory set and sealed to cover a range of engine speeds. Only in rare instances should the sensitivity adjustment be changed. To readjust the sensitivity setting proceed as follows:

1. Remove the plug covering the sensitivity adjusting screw by carefully drilling a 1/8 diameter hole thru the center of the plug and prying the plug out.
2. If engine is too sensitive, turn the SENSITIVITY SCREW 1/4 turn clockwise, and readjust the MAIN ADJUSTMENT to obtain the desired speed. End each adjustment with a clockwise turn of the screw. Repeat as needed.
3. If the engine speed drops excessively when loaded, turn the SENSITIVITY SCREW 1/2 turn counter-clockwise, then turn this screw 1/4 turn clockwise. Readjust the MAIN ADJUSTMENT to obtain the desired speed. End each adjustment with a clockwise turn of the screw. Repeat this procedure as needed.
4. When all adjustments are completed, seal the adjusting screws using HOOV SEAL KIT 200-940. If the seal kit is not available, seal each screw by forcing SILICONE SEALER into the cavity around the screw. Sealer must enter the screw slot to lock the screw from turning.

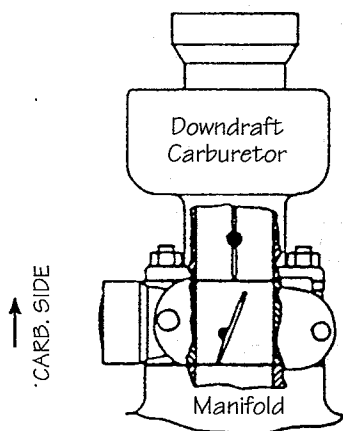
NOTE: If spark advance ports in governor are not used, plug these holes in the governor with 1/8" pipe plugs.

Also, if carburetor has vacuum controlled power jets, plug the connecting channel in the carburetor flange so that the power jet hole vents to the vacuum channel on the governor flange through a slotted gasket.

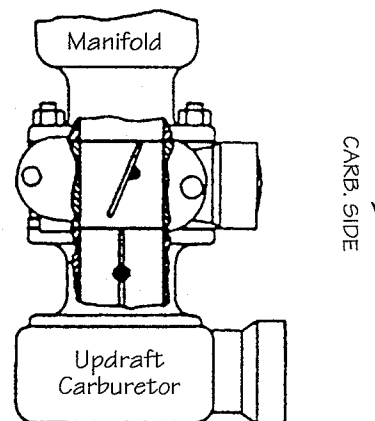


INSTRUCTION SHEET

- REMOVE:** Air cleaner and carburetor, after disconnecting throttle linkage, choke cable, spark advance tubing, and fuel line. Also remove and discard the old gasket and studs.
- INSTALL:** Long studs, gasket, governor, gasket, aluminum spacer (if needed for carburetor linkage clearance), gasket, and carburetor. Also install drilled brass nut on one carburetor stud.
- CONNECT:** Fuel line, choke cable, throttle linkage, and vacuum spark-advance tubing.
- CHECK:** Carburetor for smooth throttle action to wide open position, and choke control linkage.
- START:** The engine. check for fuel and vacuum leaks. Allow the engine to warm up to normal operating temperature.
- ADJUST:** Governor for required engine speed with carburetor wide open. Turn governor adjusting screw clockwise for higher speeds, and counter-clockwise for lower speeds. Always end any speed adjustment with a clockwise turn of the screw to remove lost motion within the governor linkage.
- SEAL:** Governor to engine by passing seal wire (Kit 200-481) through hole in brass nut, around carburetor body, and through two holes in Hoof Seal Body. Twist wire ends together and snip off excess wire. Snap Seal Cover over Seal Body.
- INSTALL:** Air cleaner. Road test the vehicle, and make final speed adjustments as needed. Recheck to fuel or vacuum leaks.
- SEAL:** Governor adjustment by placing Brass Locking Disc (Kit 200-940) on top of adjusting screw so that tang on disc is located in slot of screw. Then place Expansion Plug over Brass Disc and tap the plug with a 1/4" diameter punch and hammer to set the plug in place.



NOTE:
Arrow cast on
side of governor
must always
point toward
carburetor.



5.2 ELECTRONIC GOVERNOR

225 SERIES ELECTRONIC ACTUATOR

INTRODUCTION

The 225 Series actuator is a rotary output, linear torque proportional electric servo designed for mechanical actuation of fuel system control levers. The actuator is energized by appropriate speed control unit signals, and is capable of 25 degrees rotation.

INSTALLATION

the actuator must be rigidly mounted as close as possible to the engine throttle lever. When selecting the mounting location, consideration must be given to possible linkage obstructions.

The linkage should be direct, short, and as light as possible. Low friction rod end bearings should be used throughout the linkage system.

The linkage should be adjusted so that the fuel control minimum fuel and maximum fuel stops are used rather than the internal actuator stops.

A. Drill the actuator mounting holes in a pre-fabricated mounting bracket. Mounting hole configuration is illustrated in Diagram 4. The position of the actuator on the mounting bracket should insure minimal misalignment between each end of the governor system linkage. The linkage ball bearing rod ends can tolerate a maximum misalignment of 10 degrees.

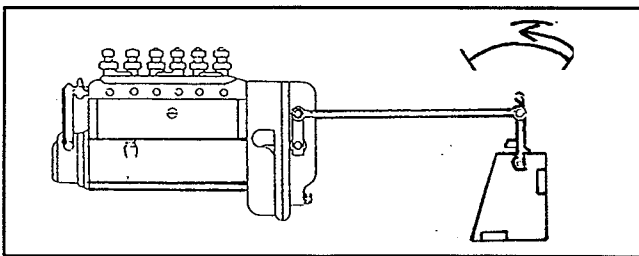
B. Affix the actuator bracket to the selected location on engine.

C. Attach the actuator securely to the mounting bracket.

D. Adjust and secure the linkage rod and rod end bearings. For proportional actuators to operate with linear control systems, it is important to obtain a linear relationship between actuator stroke and fuel delivery.

Diesel Fuel Systems

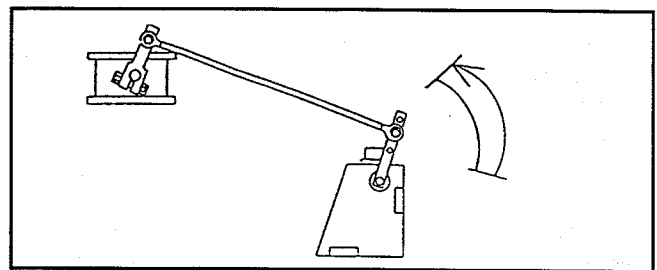
For diesel fuel systems, the linkage configuration is typically linear. The actuator lever should be nearly parallel to the fuel control lever and perpendicular to the linkage rod at the mid fuel position. See Diagram 1.



Fuel Control Lever At Mid Fuel Position
DIAGRAM 1

Carbureted Fuel Systems

For carbureted fuel systems, the linkage is typically non-linear. The ideal linkage relationship is for the carburetor butterfly valve lever to be parallel with the actuator lever and the linkage rod to be perpendicular to the actuator lever at maximum fuel position. See Diagram 2.



Carburetor Fuel Valve At Mid Fuel Position
DIAGRAM 2

The actuators with 2 pin connectors are prewired for 12 or 24V. Use the included harness to connect the actuator to the speed control unit.

E. Fabricate a cable harness to connect the speed control unit to the actuator. The recommended wire size of the cable harness is at least #16 gauge (1.5 mm) for 12 volt systems and #18 (1.0 mm) for 24 volt systems. The wiring must be capable of handling typical current levels of 8 amps for 12 volt systems and 4 amps for 24 volt systems without experiencing a significant voltage drop. Larger gauge wire will be necessary for cable lengths greater than 10 ft. (3 meters).

If an actuator with a military connector is used, the electrical connector EC 1000 must be prewired in a configuration to match the system voltage supply. See Diagram #.

32 Volt Operation

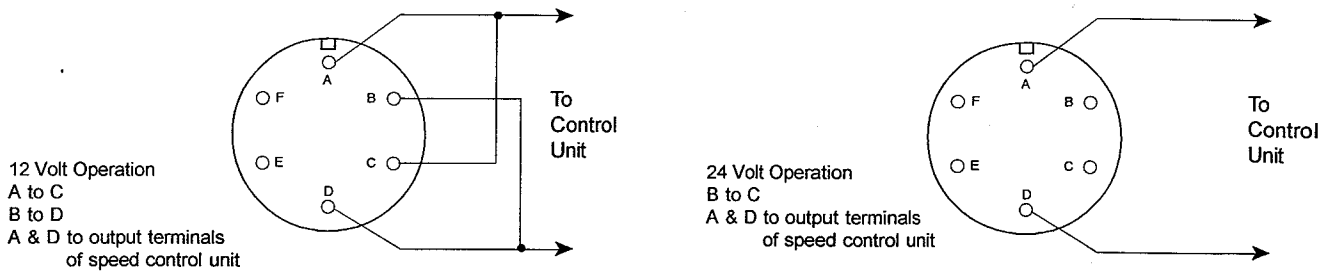
Wire the actuator electrical connector as illustrated for 24 Volt operation. A 1.5 ohm, 25 Watt resistor must be added in series with pin A of actuator and the output terminal of the speed control unit.

F. Connect A and D of the military connector or the 2 pin connector harness to the speed control unit. Refer to applicable speed control unit literature.

Before Starting The Engine

G. Push the actuator lever to the maximum full fuel position. Upon release, the linkage should return smoothly to minimum fuel position. Recheck the linkage to insure both the linkage and the levers are securely fastened and that no binding is present.

DIAGRAM 3
Military Connector Wiring



LINKAGE ADJUSTMENT

The linkage can be optimized by adjusting for an actuator current difference from no engine load to full engine load of approximately 2 amps for 12 volt systems or 1 amp for 24 volt systems.

Smaller angles of actuator travel may improve transient performance, but will reduce the force available at the fuel control lever. Adjusting the actuator to operate through at least one half (12 degrees) of its stroke will provide near optimum response.

The no load current is altered by varying the length of the linkage, and the range is adjusted by changing the hole used by the rod end bearing on the actuator lever.

TROUBLESHOOTING

If the governor system fails to operate, make the following tests at the actuator mounted connector while moving the actuator through its stroke.

Measure the Resistance
ACB 225/ADB 225

A to B	2.5 ohms
C to D	2.5 ohms
A to C	Infinity
A to Housing	Infinity
C to Housing	Infinity

ADC 225

Red to White (12V)	1.25 ohms
Red to White (24V)	5.0 ohms
Red to Housing	Infinity
White to Housing	Infinity

Energize the actuator to full fuel (follow steps in control unit publication) and manually move the actuator through its range. No binding or sticking should occur.

If the actuator passes these tests, the problem is elsewhere in the system. Refer to the control unit troubleshooting publication.

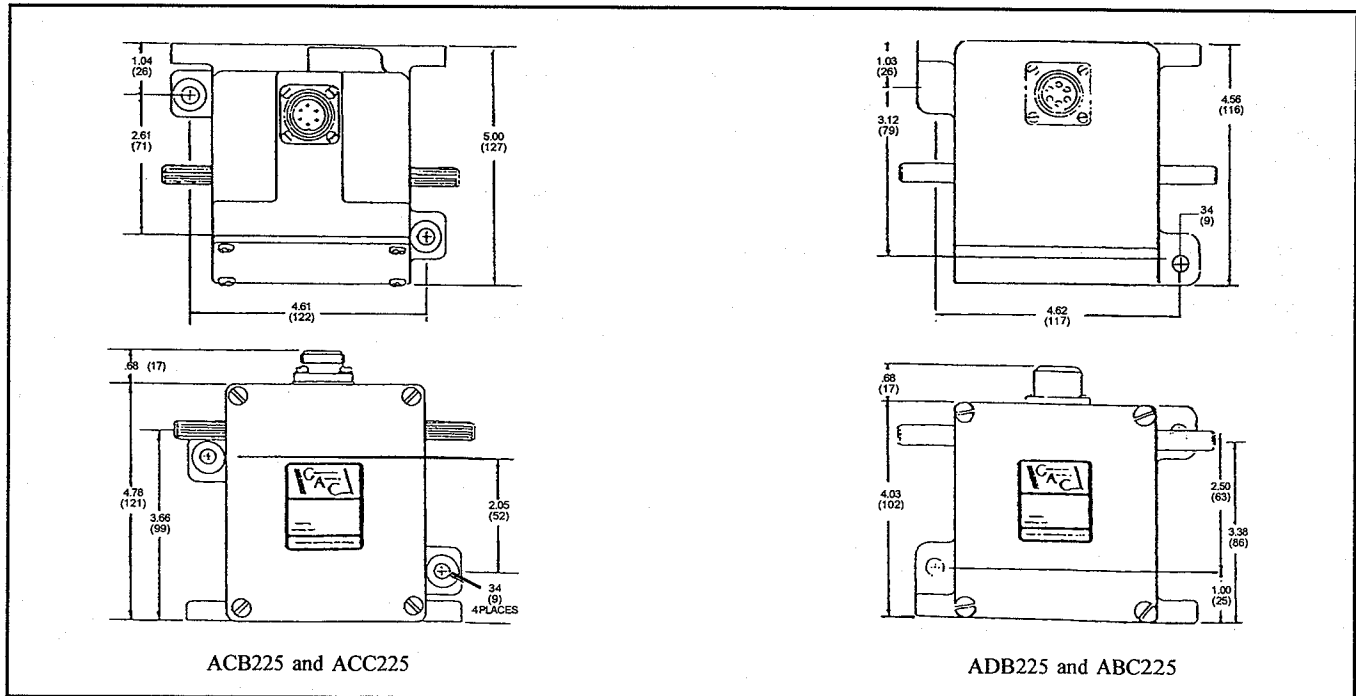
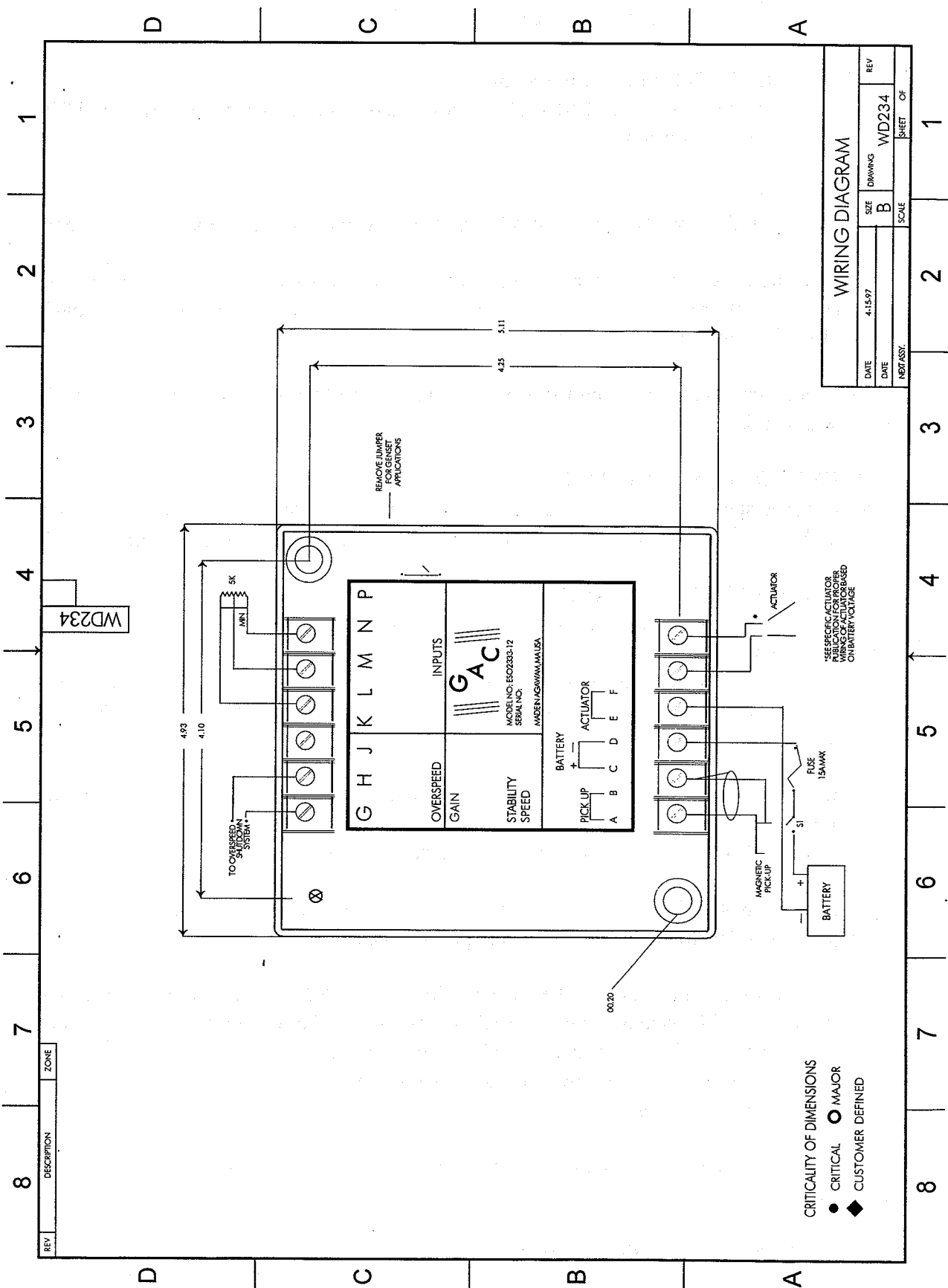


DIAGRAM 4
Actuator Outline Dimensions



5.3 ELECTRONIC GOVERNOR

ADJUSTMENT - Before starting engine

Check to insure the GAIN, and STABILITY controls, and if applied the external SPEED TRIM control, are set to mid-position.

ENGINE START

The controller is factory set at approximately engine idle speed. (1000 Hz. Speed Sensor Signal)

Crank the engine with D.C. battery power applied to the governor system. The actuator will energize fully to the maximum fuel position until the engine has started. The governor should be controlling the engine at low idle speed.

If the engine is unstable after starting, turn the GAIN and STABILITY adjustments counterclockwise until the engine is stable.

GOVERNOR SPEED SETTING

The governed speed setpoint is increased by a clockwise rotation of the SPEED adjustment control. Fine, precise speed adjustments can be obtained with an optional Speed Trim control.

GOVERNOR PERFORMANCE

Once the engine is at the operating speed and at no load, the following governor performance adjustments can be made.

- A. Rotate the GAIN adjustment clockwise until instability develops. Gradually move the adjustment counterclockwise until stability returns. Then move the adjustment 1/8 turn counterclockwise to insure stable performance.
- B. Rotate the STABILITY adjustment clockwise until instability develops. Gradually move the adjustment counterclockwise until stability returns. Then move the adjustment 1/8 turn counterclockwise to insure stable performance.
- C. Gain and stability adjustments may require minor changes after engine load is applied. Normally, adjustments at no load achieve satisfactory performance.
- D. The dead time compensation can be changed with posts E1, E2, and E3 to optimize the control system. If a rapid instability, greater than 2Hz., is present at the actuator lever, cut the jumper between post E1 and E2. If the fast instability is still present, remove the jumper between posts E4 and E5. If slow instability, low gain setting, or poor response exists, add a 22 mfd. Capacitor between posts E2 (-) and E3 (-).

If the throttle is erratic, but performance is good, removing the E4 to E5 jumper will tend to steady the throttle.

To be performed by qualified personnel only.

6.0 TROUBLESHOOTING

IGNITION

1. Gas fuel requires the finest heavy duty spark plugs, with gaps not over .030". More voltage is required to bridge the plug gap than that required using gasoline as a fuel.
2. Spark timing requires rigid adherence to factory recommendations, as natural gas burns relatively slowly. Late timing will result in power loss, excessive heating of the exhaust valves and high exhaust stack temperatures. With no vaporization of liquid fuel in the cylinder to help cool valves during intake and compression cycles, excessive exhaust temperatures may burn or reduce the life of exhaust valves.
3. Propane requires retarded spark setting from that specified for natural gas under load, as the burning rate is faster than that of natural gas. An automatic or manual spark timing adjustment is necessary for dual fuel applications of natural and L.P. gas, particularly with a high compression ratio or a turbo-charged engine.
4. Gasoline engines require a spark plug gap of .045".
5. Dual fuel engines require a spark plug gap of .025.

HIGH ENERGY IGNITION (HEI) DISTRIBUTOR TIMING

These instructions relate to High Energy Ignition (HEI) distributor systems with electronic spark timing.

Distributor Ignition Systems with EST accomplishes the spark timing function electronically. This results in longer spark plug life, eliminates mechanical contacts and scheduled maintenance, provides better cold weather starting and is environmentally protected.

EST achieves new standards of distributor ignition performance by providing 40% more output voltage and 85% higher energy level. With higher energy available, combustion is more reliable and complete.

Available for GM based L4, V6, and V8 engines.

TIMING PROCEDURE

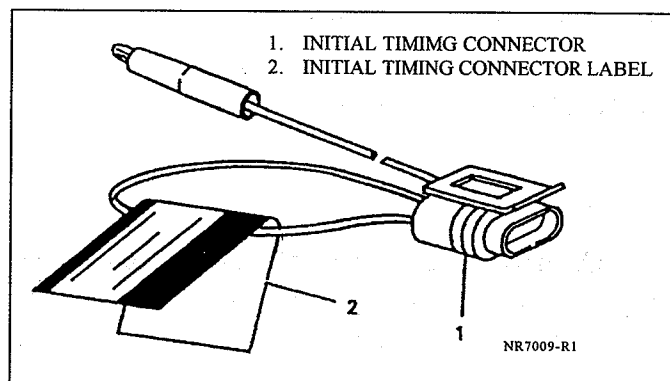
1. Do not use a timing light that requires piercing of the secondary insulation. Use only a timing light with inductive pick-up or jumper type connectors. Piercing the secondary insulation will cause spark plug misfiring and may damage the internal conductor resulting in failure of the secondary wire later.
2. Install timing light at #1 spark plug lead, per manufacturer's instructions.
3. Do not connect alligator clip lead of the initial timing connector to a B+ source until after engine is started. If the initial timing connector is connected to B+ source while engine is started, the ignition control module (ICM) in the distributor may be damaged. If the engine must be restarted while the initial timing connector is installed, detach alligator clip lead from B+ source to avoid damaging the ICM.

Troubleshooting Cont.

4. Start the engine and allow it to warm to operating temperature. (Follow engine manufacturer's instructions.) Connect alligator clip on long lead of the initial timing connector to convenient B+ voltage source, such as battery terminal on starter solenoid. This removes all advance from electronic spark timing. Engine will probably slow down when connection is made. Engine speed should be around 650 RPM. Loosen the distributor clamp screw just enough to rotate distributor, and set base timing to specification shown for engine.

ENGINE TIMING SPECIFICATIONS:		
INDUSTRIAL		DO NOT EXCEED:
454	INITIAL 6°	TOTAL 30°
350	INITIAL 6°	TOTAL 28°
262	INITIAL 2°	TOTAL 26°
181	INITIAL 0°	TOTAL 20°
Set idle speed to 700 RPM \pm 50 RPM		
NOTE: Reduce initial timing if total exceeds limits.		

5. When timing is set to specification, secure distributor in position with clamp screw.
6. Tighten clamp screw to torque specified.
7. Recheck timing to assure that distributor did not move during tightening.



Installing Initial Timing Connector Label

8. Disconnect the initial timing connector from B+ source. Label the initial timing connector as shown by folding adhesive label (in package) over one of the wires, matching the edges to cover the adhesive. Keep with engine for future use.

Troubleshooting Cont.

CARBURETION

1. Gas carburetion, because of its simplicity, is unlikely to give any problems when properly installed with an adequate supply of gas. Since the carburetor has the least complicated function to perform, and has the least moving parts, it would be well to exhaust every other avenue of possible mechanical or electrical failure before tampering with gas pressure or carburetor adjustments, particularly if the system has been functioning normally in the past.
2. If carburetion is definitely at fault, the first corrective step is to measure gas inlet pressures at idle and full load with a water manometer. Do not attempt to measure gas pressure with a mercury manometer. If this pressure is determined to be correct for the B.T.U. content of the fuel and the light load mixtures it is desired to maintain, proceed to the next step described under paragraph 3.
 - a. Pressures recommended for various conditions of load and fuel heat content are covered in paragraph 8.
3. If conditions still indicate carburetor malfunction, remove the air valve cover (or covers) and lift out the spring and air-gas valve complete with diaphragm.
 - a. Inspect diaphragm for possible holes, or charring from excessive heat or backfiring. The diaphragm should be reasonably flexible. Diaphragm life under normal conditions should be as much as five years without difficulty. Heat from proximity to exhaust manifolds, or from turbo-charged air which is not properly cooled due to insufficient or hot water passing through the inter-cooler, can shorten diaphragm life considerably. Impco has a silicone rubber on fibre-glass diaphragm for extreme heat conditions, on special order.
 - b. If diaphragms prove sound, check the inside diameter of the air valve cup and the fins on the outside of the gas jet which guide the air valve. Under ultra high frequency vibrations sometimes encountered in deep well pumping, it is possible to find grooves worn in the cup by the fins, which may lead to poor metering as the valve tries to pass up and down over the step. Impco has a specially constructed metering bowl for this infrequent emergency.
 - c. Also inspect the inside diameter of the gas jet, and the O.D. of the small tapered gas valve for possible wear from the same cause.
 - d. If everything to this point appears o.k., wash all the parts thoroughly in kerosene or the equivalent. If the fuel is digester (sewage) gas, wash parts in water and detergent. This residue will not dissolve in petroleum products.
 - e. Reassemble cleaned or replaced parts in the bowl, centering the spring on the air valve, and replace and fasten the cover. From the air-fuel outlet of the mixer to the throttle body, reach in with fingers or non-sharp rod, and lift valve several times to assure free travel with the spring closing the valve. Check the gas valve for leaks in closed position by sucking on the gas inlet. It should be sealed.

Carburetion Cont.

A water manometer may be easily constructed if no manufactured model is available. Using transparent plastic tubing from a hardware store, a "U" can be formed on a board with a ruler taped next to the "U" approximately half way between the top and bottom. Fill the "U" tube half way with water and measure the number of inches between the two levels of water when pressure is applied to one end of the tube.

Failing this, a piece of automotive vacuum hose may be marked off into inches at one end. This end may be weighted by forcing a small steel nut or one or two washers over the scaled end. Drop the weighted end in a container of water. With the other end fastened to the pressure source, adjust the pressure to the point where bubbles start to flow at the depth in inches at which the desired pressure is reached. Quite an exact check can be made by raising or lowering the hose slightly to see the exact depth at which bubbles start to flow.

With the engine running at idle, gas pressure should be 5 to 7" depending on light load air-fuel mixtures you wish to maintain. Using 1050 B.T.U. natural gas, 7" pressure will produce a straight power mixture, while 5" pressure will give economy mixtures at light load.

At full load of 2" to 7" of mercury intake manifold vacuum, the gas pressure ideally should not drop more than 2" of water column, although this is of no matter as long as the power adjustment on the carburetor is effective in controlling full load mixtures.

If the power adjustment is not effective, it indicates:

- A. The engine is lightly loaded and gas metering valve is not withdrawn from the gas jet.
 1. Mixture may be richened by increasing gas pressure.
 - B. Heat content of the fuel is less than 1000 B.T.U. per cubic foot.
 1. Increase gas pressure. It may be raised to 12" to 16" of water column if necessary.
 - C. If mixture is still too lean:
 1. Try DG (digester gas) air-gas valve assembly in the carburetor with normal gas pressure of 5" to 7".
 - D. If mixture is still too lean:
 1. The B.T.U. content must be as low as 600 to 700 B.T.U. per cubic foot.
 2. Substitute a complete DG (digester gas) mixer in place of the standard model. This DG model is effective down to 600 B.T.U. per cubic foot.
4. To understand the flexible control of the mixture under various conditions of load, refer to figure #3 showing a cut away of an Impco #200 carburetor. This shows the air gas valve assembly to be the only moving part in the mixers. The air flow measuring valve rises precisely in relation to the volume of air consumed by the engine, which is in turn controlled by engine speed and throttle position.

Carburetion Cont.

The cut away shows the air-gas valve assembly lifted about one third of the available travel. Notice that the greatest restriction to gas flow is the shaped gas metering valve, the bulk of which is not yet withdrawn from the gas jet. In this position, the power adjustment valve has little or no control over mixtures, since even in its fully closed position, its restriction to gas flow is less than that of the metering valve.

Mixtures may be leaned or richened with the valve in this or less open positions, by increasing or decreasing gas pressure to the carburetor.

5. Full power mixtures are controlled by the power mixture adjustment. This adjustment must be made with the engine under full or working load. With the gas metering valve withdrawn from the jet, the major restriction to gas flow becomes the power mixture adjustment, which is most effective at full load, and decreasingly effective down to approximately one half load where it no longer has much effect.
6. This dual control of mixtures at different load settings, makes it possible to maintain a straight best power mixture from idle to full power with increased gas pressure up to certain limits, or a lean light load mixture may be obtained with lower gas pressure and readjustment of the power mixture adjustment to proper full load mixtures.
7. Illustration #4 is a graph showing air fuel mixtures obtained at light and full load with various inlet pressures to the carburetor. Graphs for different engine configurations will vary as to the percentage of load where the curve moves from the mixture controlled by gas pressure, to the mixture controlled by the power mixture adjustment.

This is so because of the relationship of carburetor size to engine displacement and speed. A large engine with a comparatively small carburetor, will withdraw the gas metering valve from the jet more quickly, and at a lesser percentage of load than a large carburetor on a small engine. Different Impco carburetors vary slightly as to ideal gas inlet pressure for best economy. 5" of water column gas pressure is a compromise which suits most conditions with 1050 B.T.U. fuel.

8. For fuel with less heat (B.T.U.'s) per cubic foot, an increase in gas inlet pressure to 10" to 12" of water column will compensate for fuel down to 900 - 950 B.T.U. heat value.

Fuel with even less heating value in the 800 B.T.U. range requires a special gas valve #DG-AV1-12. Digester gas with 650 B.T.U. heat value requires a special mixing bowl with restricted air passages. These would be the DG-200 mixer, DG-200D mixer and DG-200T mixer (DG for digester gas).

9. No compensation in mixtures is necessary because of altitude changes. Air and gas expand essentially the same amount at high altitude, whereas a liquid fuel has a constant density so that mixtures richen at high altitude.

Carburetion Cont.

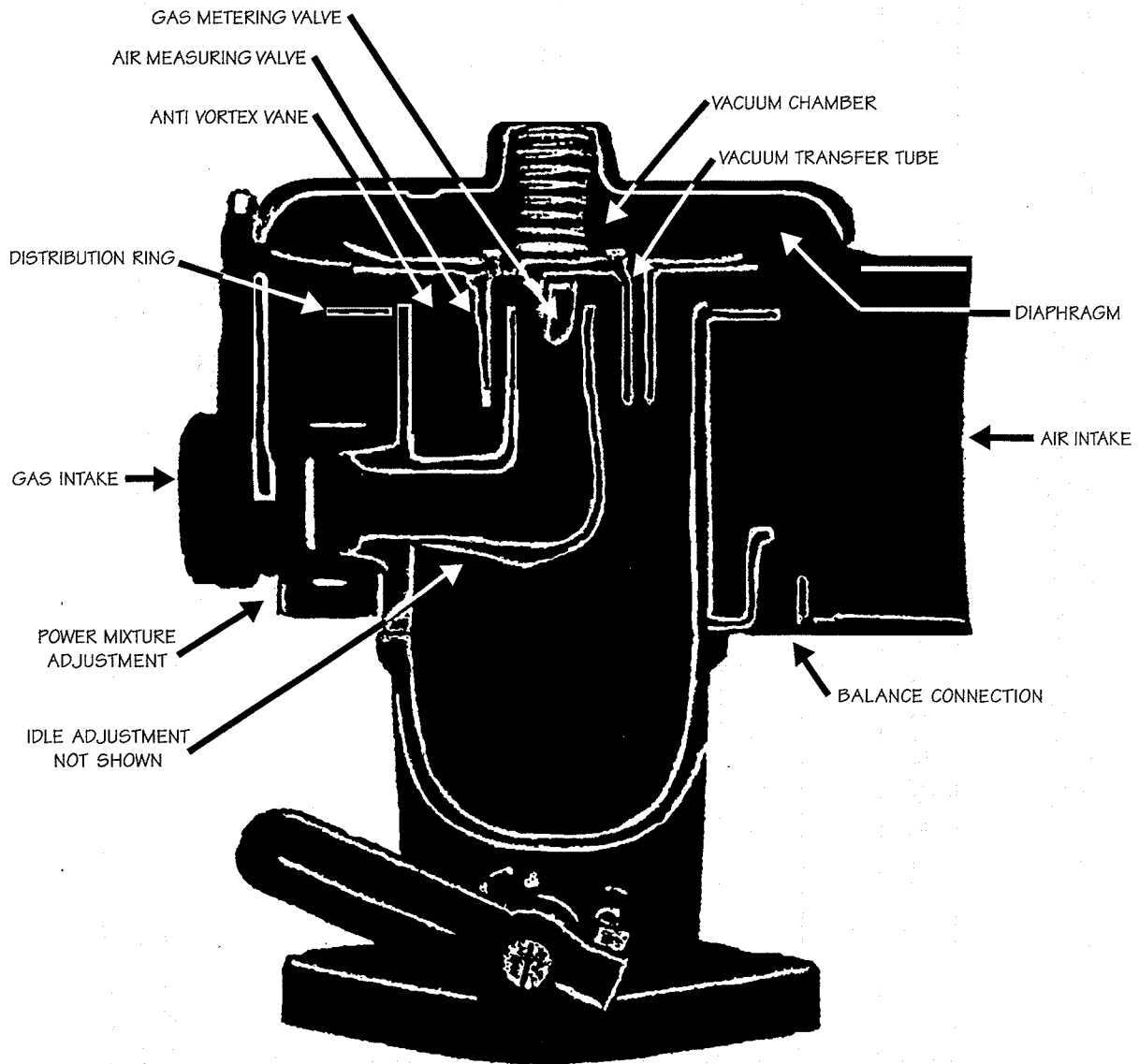
Power declines 3% for each 1000 feet of altitude even with correct air fuel mixtures, so that loss with a liquid fuel is even greater, and consumption of liquid fuel per horsepower hour increases at higher altitude unless the carburetor or diesel injection system is adjusted to compensate for altitude.

10. A turbo-charged engine likewise causes no problem with air fuel mixture ratios. By using a balance pressure connection from the air inlet at the carburetor to the atmospheric vent of the gas regulator, both air and gas densities increase equally. Volume of air-gas flow is the same as in a naturally aspirated engine, however the weight of air and fuel flowing is increased by pressurizing each. In order to check the fuel to air pressure differential which should still be approximately 5" of water column at idle for 1050 B.T.U. gas, it is necessary to connect the water manometer to the air pressure entering the carburetor, and to the gas pressure entering the carburetor. This will measure the difference in pressures only, not the total pressure of either. This difference should be the same as that of a naturally aspirated system.

One minor difference in mixtures occurs due to compression heating of the air by the turbo-compressor. This air temperature is almost always controlled by the use of an inter-cooler, however the temperature still rises a bit above ambient temperature. This causes a slight richening of the air-fuel ratio, since the gas remains at relatively constant temperature, as the air temperature is raised. A slight adjustment of the power mixture towards lean will compensate for the air temperature rise.

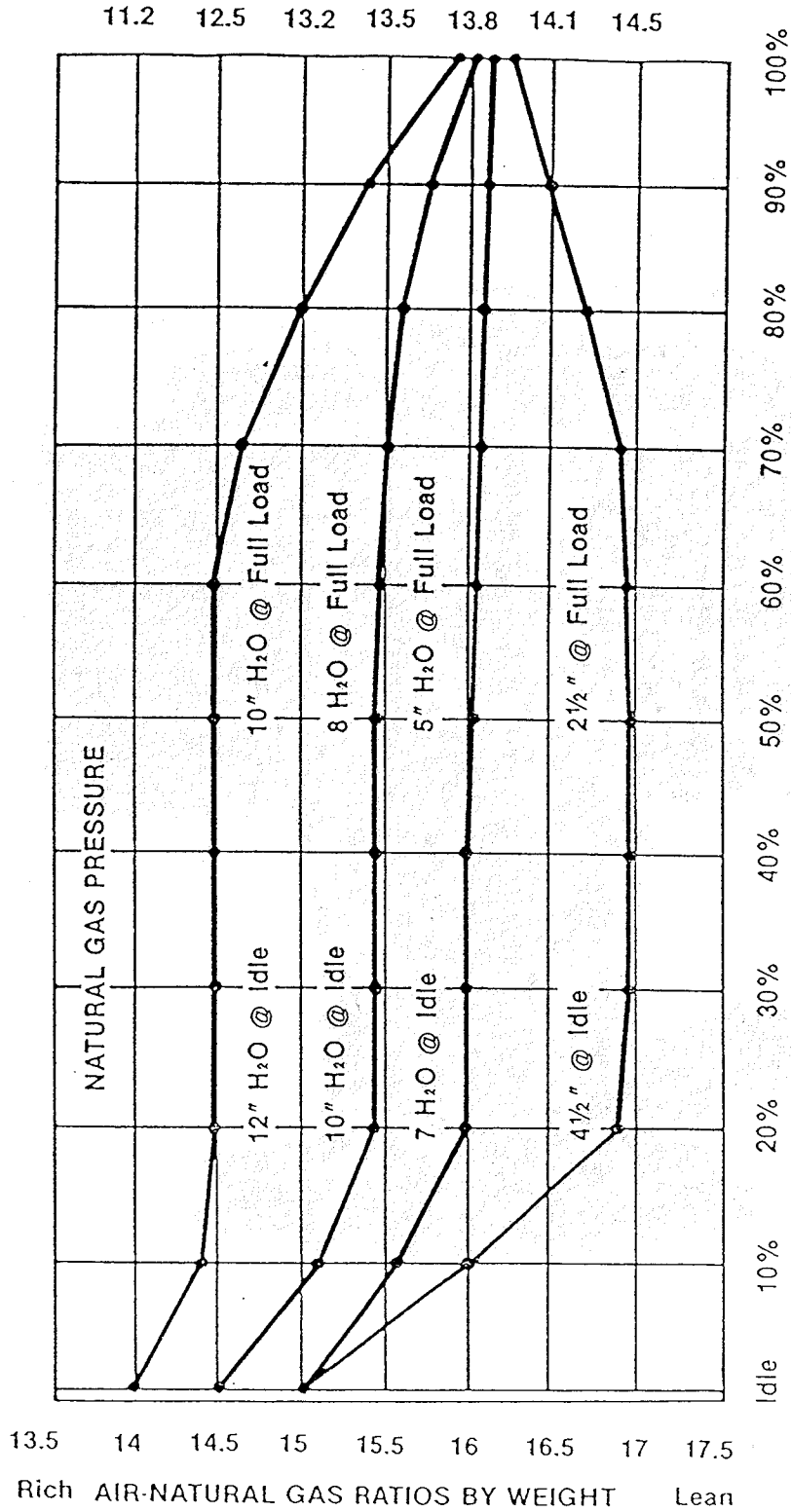
11. Hot intake air to a naturally aspirated engine cuts power production materially, as well as increasing the possibility of detonation and pre-ignition which can injure or destroy an engine in short order. Aside from power loss from detonation, there is a loss of 1% of power for each 10 of air temperature rise. Roughly 7# of air is required to produce one horsepower for one hour. Since heating air lightens it (as in a hot air balloon) a greater volume of hot air is required to weigh 7#. An engine at full load will only breathe a fixed volume of air, so that the number of available pounds of air are reduced by using hot air to the carburetor.
12. Heated air to the carburetor is especially critical in a turbo-charged installation using propane fuel full or part time. Water temperature is required to be 60° through the inter-cooler for a 10 to 1 compression ratio with turbo-charger, in order to avoid detonation. This cold water is seldom available.

DIAPHRAGM OPERATED AIR VALVE GAS CARBURETOR



EQUIVALENT READINGS ON GASOLINE SCALE OF EXHAUST GAS ANALYZER

GRAPH: Mixture Comparison At Light Loads — Full Load Mixtures Readjusted For Each Pressure
1050 B.T.U. Natural Gas (High Heat Value)



LOAD — PERCENTAGE OF AVAILABLE HORSEPOWER

ENGINE: Ford 352 cubic inches w/Impco #425-12 Carburetor.

NOTE: Exhaust gas analyzers do not read accurately below 14.5 to 1 on the gasoline scale. They will not register leaner mixtures, and may reverse with very lean air-fuel ratios.

Fig. #4

TROUBLE SHOOTING CHART

PROBLEM:

POSSIBLE CAUSE:

	ENGINE FAILURE OR FAILURE TO START	TEMPERATURE WARNING	ENGINE PERFORMANCE LOW	ENGINE OIL PRESSURE LOW OR ZERO	ENGINE OIL CONSUMPTION HIGH	ENGINE NOT RUNNING SMOOTHLY	ENGINE SMOKING	ENGINE BACKFIRING
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IGNITION FUSE OR FUSES	◆							
BATTERY LOW	◆							
FOULED PLUGS OR WIRES	◆		◆		◆			
FUEL FILTER CLOGGED	◆		◆		◆			
FUEL PRESSURE LOW	◆		◆		◆			◆
FUEL TANK EMPTY	◆							◆
AIR IN FUEL SYSTEM	◆		◆		◆			◆
DEFECTIVE FUEL INJECTOR	◆				◆	◆		
AIR CLEANER CLOGGED		◆	◆			◆		
OIL LEVEL TOO HIGH		◆		◆				
OIL LEVEL TOO LOW				◆				
WRONG SAE GRADE OF OIL		◆		◆				
OIL PUMP SUCTION LEAK				◆				
OIL LINE OR FILTER LEAK				◆				
CRANKSHAFT BEARING WORN				◆				
COMPRESSION LOW	◆		◆		◆		◆	
CYLINDERS OR RINGS WORN	◆				◆		◆	
VALVE GUIDES WORN					◆		◆	
DRIVE COUPLING FAILURE		◆						
FAN DRIVE OR IDLER FAILURE		◆						
RADIATOR CLOGGED		◆						
FAN BELT LOOSE OR BROKEN		◆						

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The table is extremely faint and illegible. It appears to have several columns and many rows of data. The text within the table is too light to be transcribed accurately.



