

0E9758

GENERAC[®]
POWER SYSTEMS, INC.

7.4 LITER

G A S

GM
ENGINE
PARTS
MANUAL

7.4L GAS TABLE OF CONTENTS

QUICK REFERENCE GUIDE 2
SERVICE RECOMMENDATIONS 3
ENGINE LOWER 8
ENGINE UPPER 12

LEGEND

- “AR” AS REQUIRED**
- “STD” STANDARD SIZE**
- “O.S.” OVERSIZE**
- “U.S.” UNDERSIZE**
- “NA” NOT AVAILABLE**

NOTICE!

THE INFORMATION IN THIS MANUAL IS KNOWN TO BE ACCURATE AS OF THE DATE OF RELEASE SHOWN ON THE COVER. HOWEVER, ENGINEERING CHANGES CAN OCCUR WITHOUT NOTICE. TO OBTAIN THE PROPER PARTS, PLEASE BE SURE TO USE THE MODEL NUMBER OF THE UNIT BEING SERVICED WHEN ORDERING FROM THIS MANUAL.

7.4L GAS QUICK REFERENCE GUIDE

QUICK REFERENCE ENGINE PARTS

PART NUMBER	DESCRIPTION	QTY
055505	OIL FILTER	1
029608	*FUEL FILTER	1
0A4637	*AIR FILTER 11.5" CA326	2
060834	*AIR FILTER	1
0767850171	SPARK PLUG	8
055508	SPARK PLUG WIRES	1
075885	THERMOSTAT	1
048665	THERMOSTAT GASKET	1
0767850118	TIMING CHAIN	1
0767850123	WATER PUMP (W/GASKETS) (91-95)	1
0A43500118	WATER PUMP (W/GASKETS) (96-00)	1
0767850122	WATER PUMP GASKET	2
055462	V-BELT (3/8" X 49-1/8")	1
058785	V-BELT (3/8" X 52-7/8")	1
	DISTRIBUTOR CAP (SEE LOCAL GM DEALER)	
	DISTRIBUTOR ROTOR (SEE LOCAL GM DEALER)	
058385A	BOLT STARTER (4-1/4")	2
059056A	STARTER	1

* For information pertaining to parts not found in this manual, please refer to the unit's Owner's Manual or Owner's CD.

7.4L GAS SERVICE RECOMMENDATIONS

◆ ENGINE OIL RECOMMENDATIONS

The unit has been filled with “break in” engine oil at the factory. Use a high-quality detergent oil classified “For Service CC, SD, SE or SF.” Detergent oils keep the engine cleaner and reduce carbon deposits. Use oil having the following SAE viscosity rating, based on the ambient temperature range anticipated before the next oil change:

Engine Lubrication System:

Crankcase Oil Capacity5.7 L (6 U.S. qts.)

Temperature	Oil Grade (Recommended)
Above 75° F (24° C)	SAE 30W
40° to 75° F (4.4° to 24° C)	SAE 20W or 15W-40
10° to 40° F (-12° to 4.4° C)	SAE 10W or 15W-40
Below 10° F (-12° C)	SAE 5W or 5W-20

◆ COOLANT

Use a mixture of half low silicate, ethylene glycol base antifreeze and half soft water. Use only soft water and only low silicate antifreeze. If desired, you may add a high quality rust inhibitor to the recommended coolant mixture. When adding coolant, always add the recommended 50-50 mixture.

Cooling System:

Coolant Capacity

System.....20 L (5 U.S. gals.)

Engine8 L (2 U.S. gals.)

—▲ DANGER ▲—

- ▲ Do not remove the radiator pressure cap while the engine is hot or serious burns from boiling liquid or steam could result.
- ▲ Ethylene glycol base antifreeze is poisonous. Do not use your mouth to siphon coolant from the radiator, recovery bottle or any container. Wash your hands thoroughly after handling. Never store used antifreeze in an open container because animals are attracted to the smell and taste of antifreeze even though it is poisonous to them.

—▲ CAUTION ▲—

- ▲ Do not use any chromate base rust inhibitor with ethylene glycol base antifreeze, or chromium hydroxide (“green slime”) will form and cause overheating. Engines that have been operated with a chromate base rust inhibitor must be chemically cleaned before adding ethylene glycol base antifreeze. Using any high silicate antifreeze boosters or additives also will cause overheating. We also recommend that you DO NOT use any soluble oil inhibitor for this equipment.

7.4L GAS SERVICE RECOMMENDATIONS

35 KW - 200 KW STANDBY GAS ENGINE DRIVEN GENERATOR SETS

Following is a recommended maintenance schedule for Generac standby gas engine driven generator sets from 35 kW to 200 kW in size. The established intervals in the schedule are the *maximum* recommended when the unit is used in an average service application. They will need to be decreased (performed more frequently) if the unit is used in a severe application. Use the unit hour meter or calendar time, whichever occurs first, from the previous maintenance interval to determine the next required maintenance interval.

Service Maintenance Interval Information:

The various service maintenance intervals are designated by interval numbers as follows:

- 1 An early inspection of the generator set to insure it is ready to operate when required and to identify any potential problem areas.

Performed monthly or following each 10 hours of operation of the unit and requires approximately .5 man-hours per unit to complete.

This inspection may be performed by the end user providing the following safety steps are taken to prevent the engine from starting automatically without warning:

To prevent injury, perform the following steps in the order indicated before starting any maintenance:

- **Disable the generator set from starting and/or connecting to the load by setting the control panel Auto-Off-Manual switch to the "OFF" position.**
- **Remove the control panel fuse.**
- **Turn off the battery charger.**
- **Remove the negative battery cable.**

The battery charger must be turned off BEFORE removing the battery cable to prevent an over current condition from burning out sensitive control panel components and circuits.

Following all maintenance, reverse these steps to insure the unit is returned to standby setup for normal operation when required.

- 2 A break-in service inspection of the generator set to insure it is ready to operate and carry the load when required, and to identify any potential problem areas.

*Performed **ONLY ONCE** following the first three months or the first 30 hours of operation after purchase of the unit and requires approximately 2.5 man-hours per unit to complete.*

This inspection contains some maintenance tasks which require special tools, equipment, and/or knowledge to accomplish and should be performed only by an authorized Generac Service Dealer.

- 3 An operational inspection of the generator set to insure it is ready to operate and carry the load when required, and to identify any potential problem areas.

Performed semi-annually or following each 50 hours of operation of the unit and requires approximately 1.5 man-hours per unit to complete.

This inspection contains some maintenance tasks which require special tools, equipment, and/or knowledge to accomplish and should be performed only by an authorized Generac Service Dealer.

- 4 A mid-level inspection of the generator set to insure it is ready to operate and carry the load when required, and to identify any potential problem areas.

Performed annually or following each 100 hours of operation of the unit and requires approximately 5.0 man-hours per unit to complete.

This inspection contains some maintenance tasks which require special tools, equipment, and/or knowledge to accomplish and should be performed only by an authorized Generac Service Dealer.

NOTE: Add 20% to all times for 8 cylinder or larger engines.

7.4L GAS SERVICE RECOMMENDATIONS

GENERAC POWER SYSTEMS, INC.

RECOMMENDED SCHEDULED MAINTENANCE PROGRAM
SERVICE WORK TO BE PERFORMED BY FACTORY-TRAINED PERSONNEL ONLY.

DEALER INFORMATION

NAME: _____
ACCOUNT #: _____
ADDRESS: _____

PHONE: _____
TECHNICIAN: _____
SIGNATURE: _____

OWNER INFORMATION

NAME: _____
ADDRESS: _____

SITE: _____
PHONE: _____
SIGNATURE: _____

PURCHASE DATE: _____ START-UP DATE: _____

APPLICATION: ___ Standby Power ___ Prime Power ___ Rental/Trailerized

GENERATOR & TRANSFER SWITCH INFORMATION

GENERATOR

MODEL NUMBER: _____
SERIAL NUMBER: _____

TRANSFER SWITCH

MODEL NUMBER: _____
SERIAL NUMBER: _____

HOOR METER READING *at Completion of the Inspection*: _____

▲ WARNING! ▲

To prevent injury, perform the following steps in the order indicated before starting any maintenance:

- Disable the generator set from starting and/or connecting to the load by setting the control panel Auto-Off-Manual switch to the "OFF" position.
- Remove the control panel fuse.
- Turn off the battery charger.
- Remove the negative battery cable.

NOTE:

The battery charger must be turned off BEFORE removing the battery cable to prevent an over current condition from burning out sensitive control panel components and circuits.

Following all maintenance, reverse these steps to insure the unit is returned to standby setup for normal operation when required.

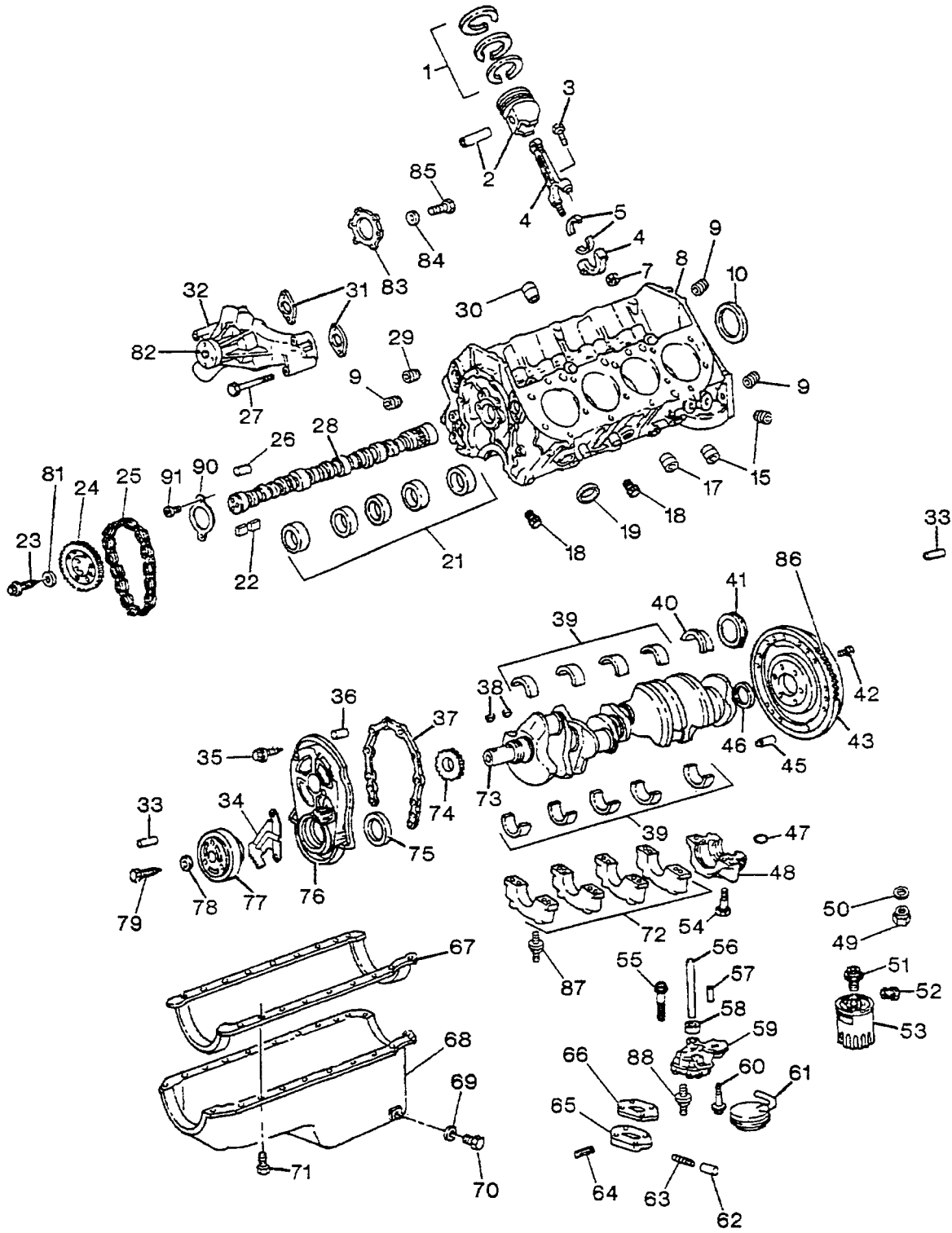
7.4L GAS SERVICE RECOMMENDATIONS

Maintenance Tasks	Level 1	Task Comp. (Date-Initials)	Level 2	Task Comp. (Date-Initials)	Level 3	Task Comp. (Date-Initials)	Level 4	Task Comp. (Date-Initials)
	Recommended to be done monthly/ 10 hrs.		Required to be done 3 months/ Break-in 30 hrs.		Required to be done Semi-annually/ 50 hrs.		Required to be done Annually/ 100 hrs.	
1. Disable the unit from operating per the first page warning.	○		○		○		○	
2. Check the engine oil level. Adjust as necessary.	○		○		○		○	
3. Check the engine coolant level. Adjust as necessary.	○		○		○		○	
4. Check the engine coolant thermal protection level. Correct as necessary.							○	
5. Check the natural gas delivery system. Tighten connections as necessary.			○		○		○	
6. Check the air inlets and outlets for debris. Clean as necessary.	○		○		○		○	
7. Check the battery electrolyte level if accessible. Adjust as necessary.	○		○		○		○	
8. Check the battery posts, cables, and charger for loose connections, corrosion, and proper operation. Correct as necessary.	○		○		○		○	
9. Check the unit wiring for loose connections, corrosion, and damage. Correct as necessary.							○	
10. Check the engine accessory drive belts for wear, weather cracking and damage. Replace as necessary.							○	
11. Visually inspect the unit looking for leaks, wear or damage, loose connections or components, and corrosion. Correct as necessary.	○		○		○		○	
12. Test the engine and transfer switch safety devices. Correct and/or adjust as necessary.							○	

7.4L GAS SERVICE RECOMMENDATIONS

Maintenance Tasks	Level 1		Level 2		Level 3		Level 4	
	Recom- mended to be done monthly/ 10 hrs.	Task Comp. (Date- Initials)	Required to be done 3 months/ Break-in 30 hrs.	Task Comp. (Date- Initials)	Required to be done Semi- annually/ 50 hrs.	Task Comp. (Date- Initials)	Required to be done Annually/ 100 hrs.	Task Comp. (Date- Initials)
13. Initiate an automatic start and transfer of the unit to site load and exercise it for at least 1 hour looking for leaks, loose connections or components, and abnormal operating conditions. Correct as necessary.			●		●			
14. Start and exercise the unit at full rated load (use a load bank if the site load is not enough) for at least 2 hours looking for leaks, loose connections or components, and abnormal operating conditions. Correct as necessary.							●	
15. Change the engine oil.			●				●	
16. Replace the engine oil filter(s).			●				●	
17. Replace the engine air filter(s).							●	
18. Check the engine spark plugs. Clean and re-gap or replace as necessary.			●				●	
19. Perform a 5 minute no-load operational run of the unit looking for any post service problems.			●				●	
20. Return the unit to standby setup for operation when required.	●		●		●		●	

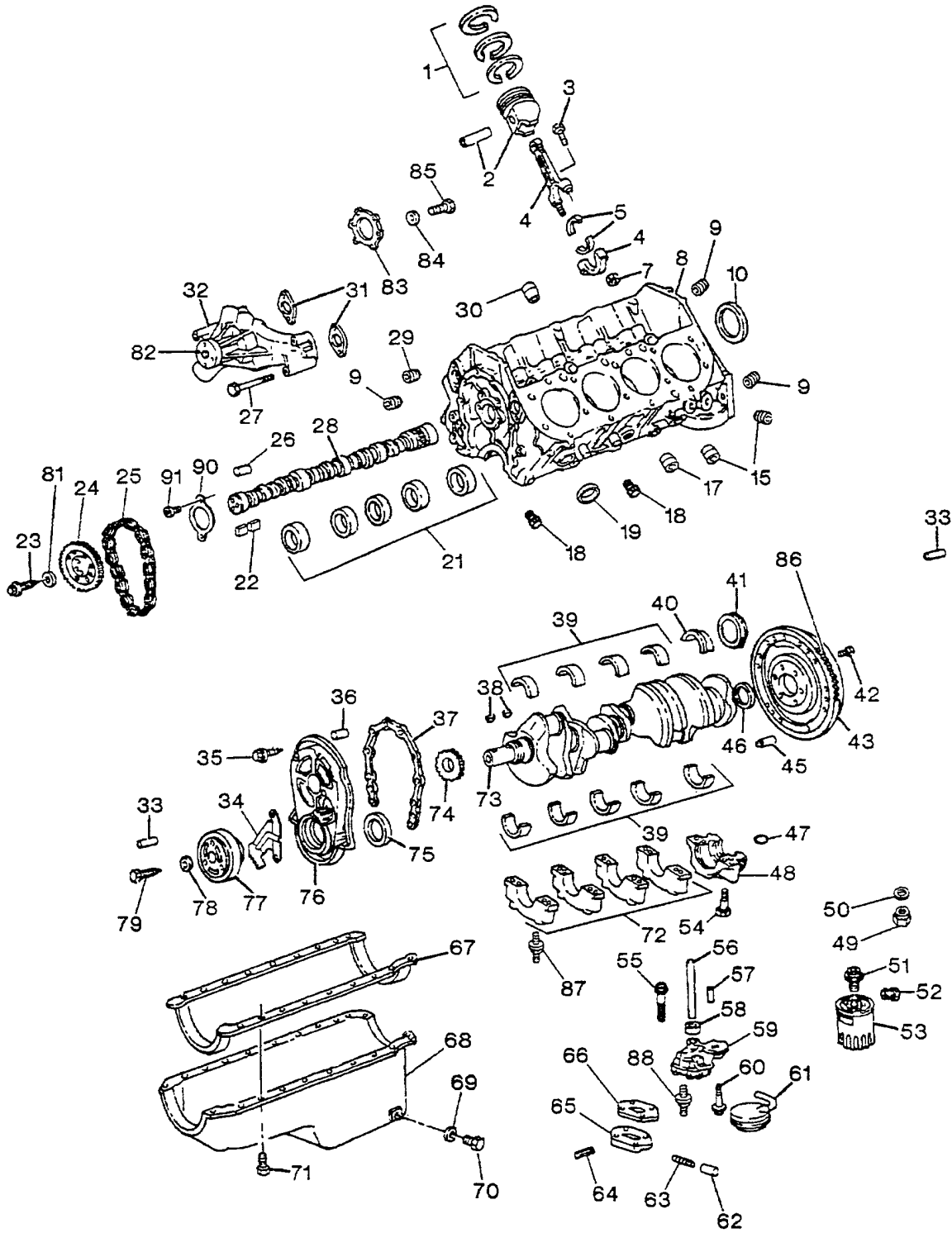
7.4L GAS ENGINE LOWER



7.4L GAS ENGINE LOWER

ITEM	PART NUMBER	DESCRIPTION	QTY
1	0767850100	RING KIT (STD) (91,92,93)	1
1	0A43500110	RING KIT (STD) (94,95,96,97,98,99,00)	1
1	0767850101	RING KIT (.030 O.S.) (91,92,93)	AR
1	0A43500111	RING KIT (.030 O.S.)(94-00)	AR
2	0767850102	PISTON (W/PIN)(STD)	8
2	0767850104	PISTON (W/PIN)(.030 O.S.)	AR
3	0767850105	BOLT (CONN. ROD)(INCLUDED W/ #4)	16
4	0767850107	ROD, CONNECTING (INCLUDEDS #3,7)	8
5	0767850108	BEARING KIT (STD)	16
7	0767850114	NUT, CONN ROD	16
8	AR	ENGINE	AR
9	0767850111	PLUG (ENGINE BLOCK OIL GALLERY)	AR
10	0767850112	PLUG (CAMSHAFT BEARING HOLE)	1
15	0887780179	OIL GALLERY PLUG	AR
17	0758720116	PLUG(ENG OIL PRESS GAUGE OR SWTCH HOLE)	AR
18	0A37970221	PLUG (H2O DRAIN HOLE)	AR
19	0887780213	PLUG (ENG BLOCK CORE HOLE)(91-94)	AR
21	0767850114	BEARING(#1)	1
21	0767850115	BEARING(#2 & RR)	2
21	0767850116	BEARING (#3 & #4)	2
22	0758720175	KEY (PART OF 28)	AR
23	0887780151	BOLT	3
24	0767850117	GEAR (91-95)	1
24	0A43500112	GEAR (96-98)	1
24	0A43500113	GEAR (99-00)	1
25	0767850118	TIMING CHAIN	1
26	0C81660115	PIN	1
27	0A43500114	BOLT H2O PUMP (91-96)	4
27	0A43500115	BOLT H2O PUMP (97-00)	4
28	0A43500116	CAMSHAFT (91-93) (INCLUDES #22,26,36,57)	1
28	0767850120	CAMSHAFT (94-95) (INCLUDES #22,26,36,57)	1
28	0A43500117	CAMSHAFT (96-00) (INCLUDES #22,26,36,57)	1
29	0767850121	PLUG (ENG BLCK OIL GAL. FRONT)	AR
30	0767850113	PLUG (ENG. BLCK OIL GAL.)	AR
31	0767850122	GASKET H2O PUMP	2
32	0767850123	PUMP KIT (91-95)	1
32	0A43500118	PUMP KIT (96-00)	1
33	0758720150	FLY WEIGHT	AR
34	0767850124	INDICATOR TIMING (91-95)	1
35	0887780154	BOLT (91-93)	8
35	0A43500119	BOLT (94-95)	10
35	0A43500120	BOLT (96-00)	6
36	0C81660115	PIN	1
37	0767850125	GASKET (ENG FRNT CVR) (91-95)	1
37	0A43500121	GASKET (ENG FRNT CVR) (96-00)	1
38	0767850126	KEY CRNK/SHFT BALR	1
39	0767850127	BEARING KIT (STD) (#1)	4
40	0767850128	BEARING KIT (STD)(#5)	1
41	0767850129	SEAL (CRSHFT RR OIL SEAL)	1
42	0758720179	BOLT, FLYWHEEL (91-97)	6
42	0887780172	BOLT, FLYWHEEL (98-00)	6
43	081471	FLY WHEEL	1
45	0758720155	PIN FLYWHL LOC (PART OF #73)	1
46	0A43500122	BEARING	1
47	0767850132	SEAL	1
48		CAP	NA

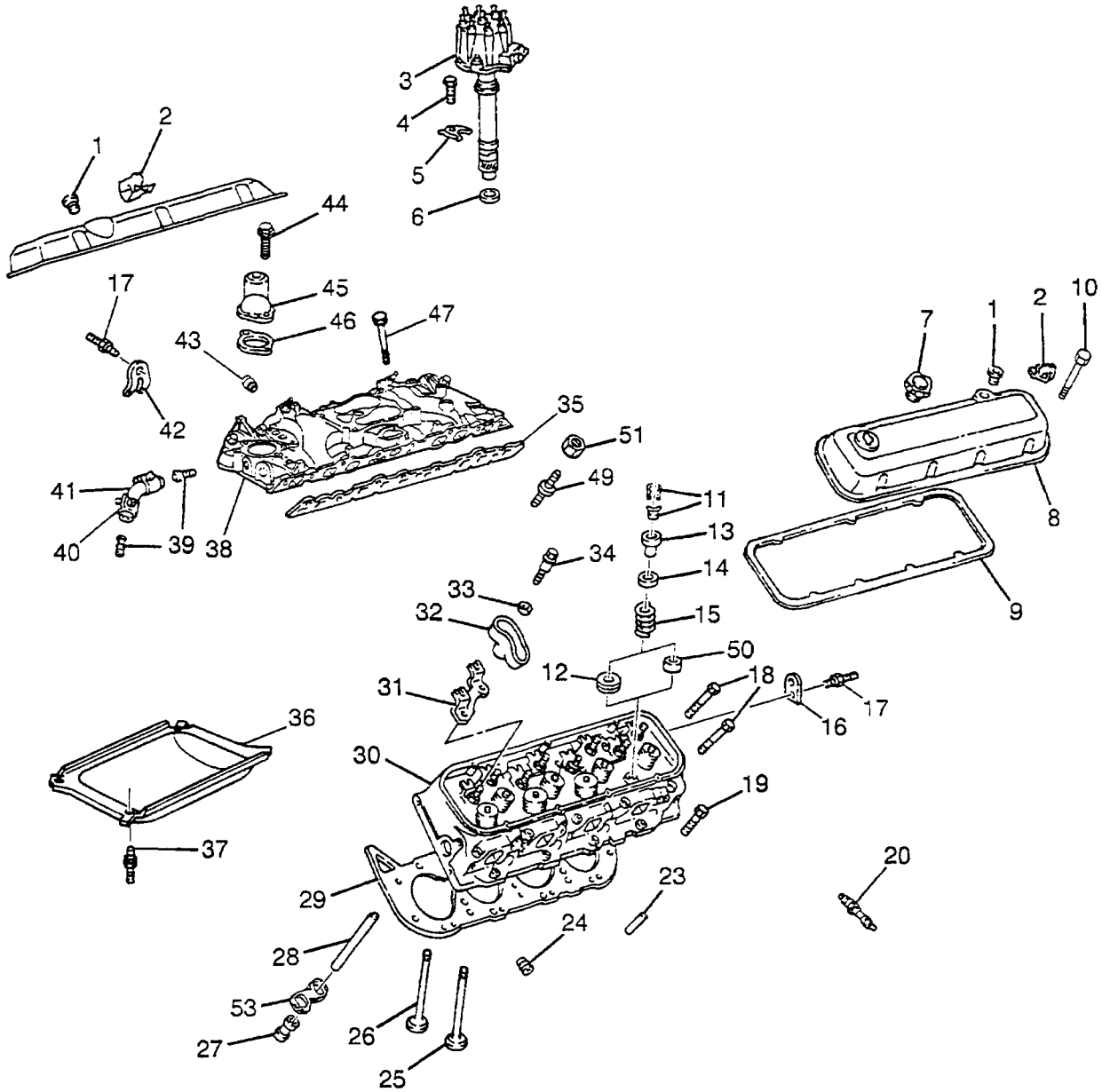
7.4L GAS ENGINE LOWER



7.4L GAS ENGINE LOWER

ITEM	PART NUMBER	DESCRIPTION	QTY
51	0887780124	FITTING	1
52	0887780122	VALVE OIL FILTER BYPASS	1
53	055505	OIL FILTER	1
54	0767850134	BOLT (CRANKSHAFT BEARING CAP)(OUTBOARD)	10
54	0767850135	BOLT (CRANKSHAFT BEARING CAP)(INBOARD)	10
55	0830340111	BOLT(OIL PUMP DRIVE)	5
56	0767850136	SHAFT OIL PUMP DRIVE	1
57	0758720122	PIN,OIL PUMP (PART OF #21)	AR
58	0758720123	RETAINER	1
59	0767850137	OIL PUMP(W/ SCREEN)(INCLUDES #55,61,62,63,64)	1
60	0767850138	BOLT	2
61		SCREEN (PART OF 59)	NA
62	0767850139	VALVE (OIL PRSS. RELIEF)(PART OF 59)	1
63	0767850140	SPRING (OIL PRSS RELIEF)(PART OF 59,65) (91-93)	1
63	0C81660140	SPRING (OIL PRSS RELIEF)(PART OF 59,65) (94-00)	1
64	0887780158	PIN	1
65	0767850141	COVER, OIL PUMP	1
66	0767850142	GASKET, OIL PUMP COVER (PART OF # 59)	1
67	0767850143	GASKET, OIL PAN	1
68	0767850144	OIL PAN (INCLUDES #69,70)	1
69	0767850145	GASKET OIL PAN DRAIN PLUG (91-95)	1
69	0A37970217	GASKET OIL PAN DRAIN PLUG (96-00)	1
70	0767850146	PLUG, OIL PAN DRAIN (PART OF #70) (91-95)	AR
70	0A37970218	PLUG, OIL PAN DRAIN (PART OF #70) (96-00)	AR
71	0767850147	BOLT (OIL PAN)	20
72		CAP	NA
73	0767850148	CRANKSHAFT	1
74	0767850149	GEAR (CRNK SHFT)	1
75	0767850150	SEAL CRANKSHAFT	1
76	0767850151	COVER ENGINE FRONT W/TIMING INDICATOR (PART #34) (91-95)	1
76	0A43500123	COVER ENGINE FRONT W/TIMING INDICATOR (PART #34) (96-00)	1
77	0767850152	BALANCER CRANKSHAFT	1
78	0767850153	WASHER CRNKSHFT BALENCER	1
79	0767850154	BOLT CRNKSHFT BALENCER	1
81	0758720134	WASHER CRNKSHFT BALENCER (91-93)	1
83	0A37970219	GASKET WATER PUMP COVER (PART OF #32)	1
84	0A43500124	WASHER	
85	0758720190	BOLT W/PUMP CVR	6
86	0758720151	RING GEAR	1
87	0A43500125	STUD CRNKSHFT BRG CAP (98-00)	4
88	0A43500126	STUD OIL PUMP	1
90	0C81660153	RETAINER CAM SHAFT (96-00)	1
91	0C81660151	BOLT CAM SHAFT RETAINER	2

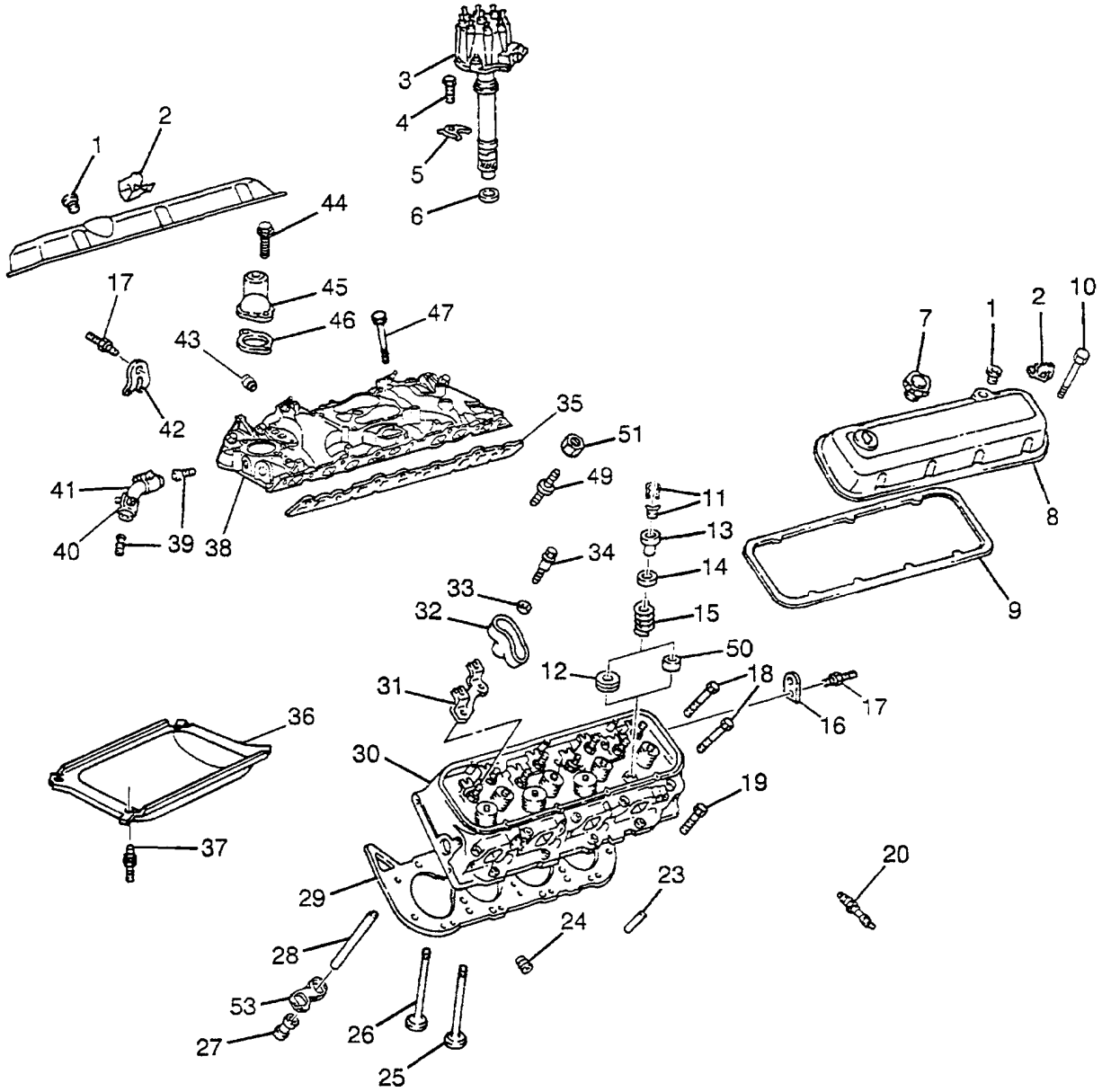
7.4L GAS ENGINE UPPER



7.4L GAS ENGINE UPPER

ITEM	PART NUMBER	DESCRIPTION	QTY
1	0767850155	GROMMET, PCV VLV	1
2	0767850156	SUPPORT, SPARK PLUG WIRE	5
3	*****	DISTRIBUTOR (SEE LOCAL GM DEALER)	NA
4	0A43500127	BOLT DIST CLAMP	2
5	0758720224	CLAMP DIST.	1
6	0758720225	GASKET DISTR.	1
7	0767850159	CAP, OIL FILL (91-97)	1
7	0C81660201	CAP, OIL FILL (98-00)	1
8	0767850161	COVER VLV RKR ARM LEFT	1
8	0767850162	COVER VLV RKR ARM RIGHT	1
9	0767850163	GASKET	2
10	0887780188	BOLT	AR
11	0767850164	KEY	32
12	0767850165	ROTATOR (91-95)	8
12	0C81660205	ROTATOR (96-00)	16
13	0767850166	CAP (91-94)	16
13	0A43500100	CAP (95-00)	16
14	0767850167	SEAL. VALVE STEM OIL	8
15	0767850168	SPRING, VALVE (91-95)	16
15	0A43500101	SPRING, VALVE (96-00)	16
16	NA	BRACKET	NA
17	0767850169	STUD(BRACKET REAR)	1
18	0767850170	BOLT, CYC HEAD	24
19	0767850172	BOLT, CYC HEAD	8
20	0767850171	SPARK PLUG	8
23	0C81660156	PIN CYL HEAD	4
24	0758720236	PLUG, ENG COOL TEMP	2
25	0767850174	VALVE, INTAKE (91-97)	8
25	0A43500102	VALVE, INTAKE (98-00)	8
26	0767850175	VALVE, EXHAUST (91-97)	8
26	0A43500106	VALVE, EXHAUST (98-00)	8
27	0767850176	LIFTER (91-95)	8
27	0C81660223	LIFTER (96-00)	8
28	0767850177	ROD, INT(91-95)	8
28	0A43500177	ROD, INT (96-97)	8
28	0A43500128	ROD, INT (98-00)	8
28	0767850178	ROD, EXH (91-95)	8
28	0A43500178	ROD, EXH (96-97)	8
28	0A43500129	ROD, EXH (98-00)	8
29	0767850179	GASKET, CYL HEAD	2
30	0767850180	CYLINDER HEAD (BARE ORDER COMPON SEP)(91-97)	2
30	0A43500130	CYLINDER HEAD (BARE ORDER COMPON SEP)(98-00)	2
31	0767850181	GUIDE, VALVE(91-97)	8
31	0C81660230	GUIDE, VALVE(98-00)	8
32	0767850182	ARM KIT, VALVE RKR	16
33	0767850183	BALL, VLV RKR ARM	16
34	0767850184	BOLT, VLV RKR ARM PIV	16
35	0767850185	GASKET, INT MANIF	1
38	0767850188	INTAKE MANIFOLD (INCLUDES #36,37)	1
39	0767850189	CONNECTOR, THERM BYPASS	2
40	0767850190	CLAMP THERM BYPASS HOSE	2
41	0767850191	HOSE THERMAL BYPASS	1
42	0767850192	BRACKET	1

7.4L GAS ENGINE UPPER



7.4L GAS ENGINE UPPER

ITEM	PART NUMBER	DESCRIPTION	QTY
43	0758720236	PLUG, HTR HOSE NIP HOLE	1
44	0887780192	BOLT WATER OUTLET	2
45	0767850194	WATER OUTLET	1
46	0887780196	GASKET WATER OUTLET	1
47	0767850195	BOLT, INTAKE MANIFOLD	AR
47	0758720227	BOLT, INTAKE MANIFOLD	AR
50	0A43500131	SHIM	8
51	0A43500132	NUT, VLV RCKR ARM	16
53	0A43500133	GUIDE, VALVE LIFTER (ACCOMMODATES 2 VLV LFTERS)	8

