



MARINE ILLUSTRATED PARTS MANUAL MODEL MP5.0/5.7L MY 2006





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"TYPICAL VIEWS ARE SHOWN"

ENGINE ROTATION

Engine Rotation is identified as "RH" or "LH" with the engine model number. Rotation always is determined from the flywheel end looking toward the front of the engine. In some instances, propeller shaft rotation may be opposite to that of the engine.

When ordering a replacement engine, production block or parts for the engine, be certain to check engine rotation. **DO NOT rely on propeller rotation in order to determine engine rotation.**

LEFT-HAND ROTATION is STANDARD ROTATION.

(Flywheel turns counterclockwise when viewed from flywheel end of the engine.)

RIGHT-HAND ROTATION is OPPOSITE ROTATION.

(Flywheel turns clockwise when viewed from flywheel end of the engine.)

HOW TO READ THIS PARTS BOOK:

ITEM	PART NO.	QTY.	DESCRIPTION	MODEL ID
1	RB001005	1	Base Engine Assembly, 5.7L	
4				
1	2	3	4	5

- 1 ITEM NUMBER This number corresponds with the number in the exploded view on the facing page.
- 2 PART NUMBER This is the designated part number for the particular component or assembly.
- 3 QUANTITY This refers to the number of pieces used.
- 4 DESCRIPTION This identifies what the component or assembly is.
- (5) MODEL ID This identifies a component or assembly that is unique to a specific engine model.

Symbols shown throughout parts list are defined here or on the bottom of the individual parts list page.

AR = As Required

OPT = Optional

NSS = Not Serviced Separately

NA = Not Available

OS = Oversize

US = Undersize

NS = Not Shown

TBD = To Be Determined

NI = Not Illustrated

REPLACEMENT PARTS:



WARNING:

Electrical, ignition and fuel system components on PCM Engines are designed and manufactured to comply with U.S. Coast Guard rules and regulations to minimize risks of fire or explosion.

Use of replacement electrical, ignition and fuel system components which do not comply with these rules and regulations could result in a fire or explosion hazard and should be avoided.

MAINTENANCE ITEM PART NUMBERS:

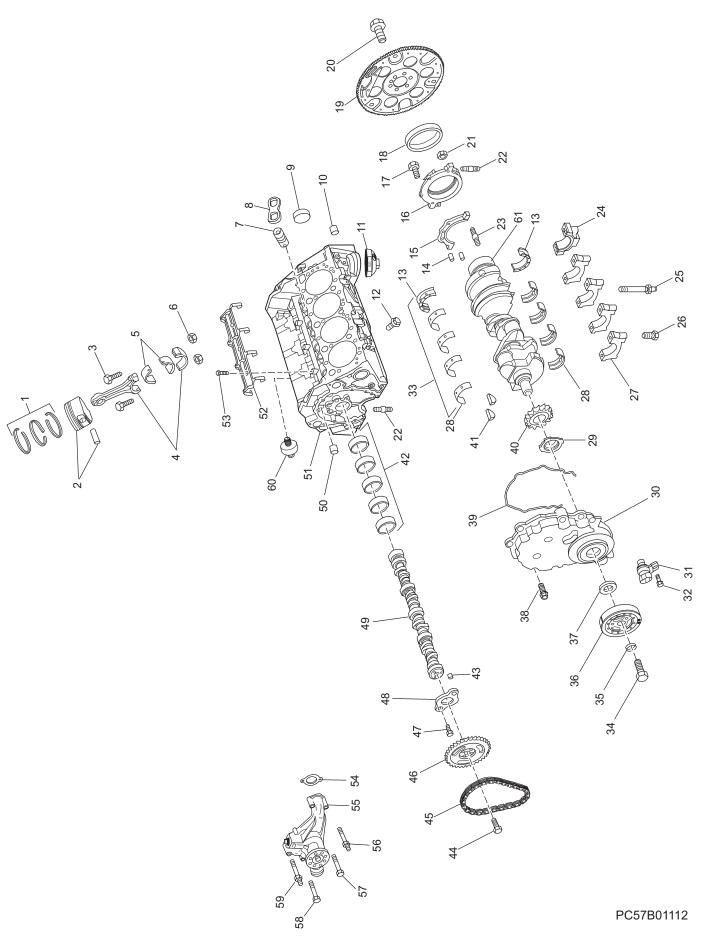
Description	Part Number
Oil Filter	R077001
Kit, Transmission Oil Filter (ZF)	RP077011
Fuel Filter, Pre-Filter	RP077014
Fuel Filter (FCC)	RP080026
Spark Plugs	RP030010
Spark Plug Wire Set	RK120018
Serpentine Belt	R066028
Impeller Kit (Serpentine Raw Water Pump)	RP061022
Oil Drain Kit	RK024179
Exhaust Service Kit, 5.0/5.7L	RP173091

MARINE TRANSMISSIONS:

PCM Engines are equipped with PCM or Hurth Transmissions, standard or "V"-drives. If transmission parts are required, contact your dealer or closest PCM Parts Distributor for required parts.

Parts manuals and overhaul manuals are available through PCM Distributors.

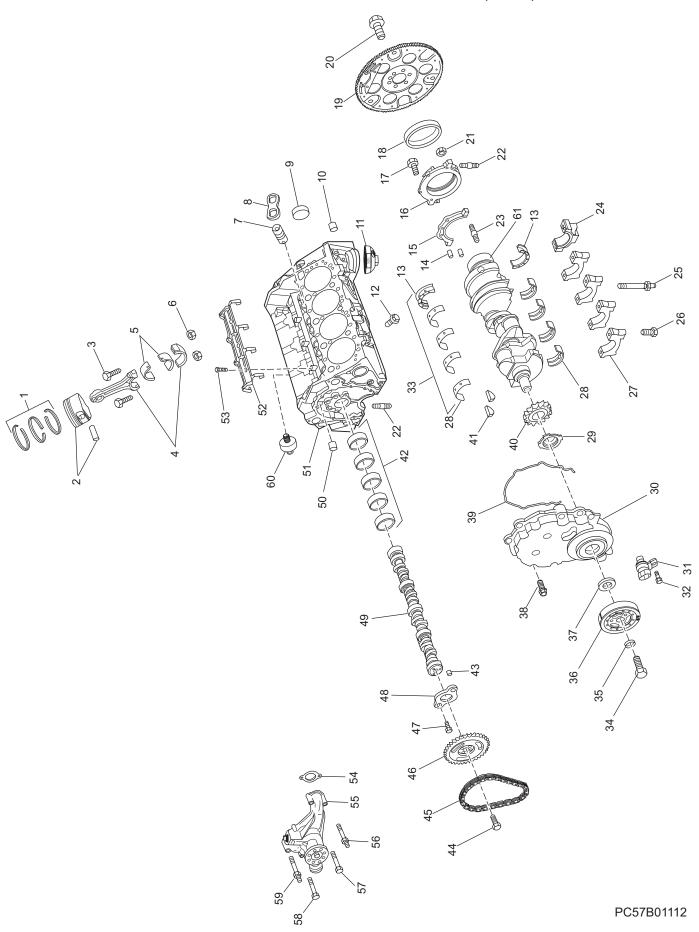
CYLINDER BLOCK ASSEMBLY - FIGURE 1



CYLINDER BLOCK ASSEMBLY - FIGURE 1

ITEM	PART NO.	QTY.	DESCRIPTION	MODEL ID
*	RB001004B		5.0L Base Engine Assembly	
*	RB001005I		5.7L Base Engine Assembly	
1	R015013	8	Ring Set, piston 5.7L (STD)	
1	R015006	8	Ring Set, piston 5.0L (STD)	
2	RA013016	8	Piston, 5.7L (STD)	
2	RA013017	8	Piston, 5.0L (STD)	
3	TBD	16	Bolt, connecting rod cap	
4	RA011012	8	Connecting Rod (STD)	
5	R007023	8	Bearing Set, connecting rod (STD)	
6	TBD	16	Nut, connecting rod cap	
7	R035038	16	Lifter, valve	
8	R037001	8	Guide, valve lifter	
9	R069064	1	Plug, camshaft	
10	TBD		Plug, oil gallery	
11	R079051	1	Adapter, oil bypass	
12	TBD	2	Plug, engine block coolant drain hole	
13	TBD	1	Bearing, crankshaft rear main (STD)	
13	TBD	AR	Bearing, crankshaft rear main (.001 US)	
13	TBD	AR	Bearing, crankshaft rear main (.010 US)	
13	TBD	AR	Bearing, crankshaft rear main (.020 US)	
14	TBD	2	Pin, flywheel locating	
15	TBD	1	Gasket, crankshaft rear oil seal housing	
16	R134070	1	Housing, crankshaft rear oil seal	
17	TBD	2	Bolt, crankshaft rear oil seal housing, short	
17	TBD	1	Bolt, crankshaft rear oil seal housing, long	
18	R047173A	1	Seal, crankshaft rear oil	
19	RA138008	AR	Flywheel Assembly (Top Mount Starter)	
19	RA138010	1	Flywheel Assembly (Bottom Mount Starter)	
20	TBD	6	Bolt, flywheel attaching	
21	TBD	2	Nut, crankshaft rear oil seal housing	
22	TBD	2	Stud, crankshaft rear oil seal housing	
23	TBD	2	Stud, crankshaft rear oil seal housing	
24	NSS	1	Cap, crankshaft bearing #5	
25	TBD	5	Stud, crankshaft bearing cap	
26	TBD	5	Bolt, crankshaft bearing cap	
27	NSS	4	Cap, crankshaft bearing #1 - #4	
28	TBD	4	Bearing, crankshaft main (STD)	
28	TBD	AR	Bearing, crankshaft main (.002 US)	
28	TBD	AR	Bearing, crankshaft main (.010 US)	
28	TBD	AR	Bearing, crankshaft main (.020 US)	
29	R056001	1	Ring, crankshaft position sensor reluctor	

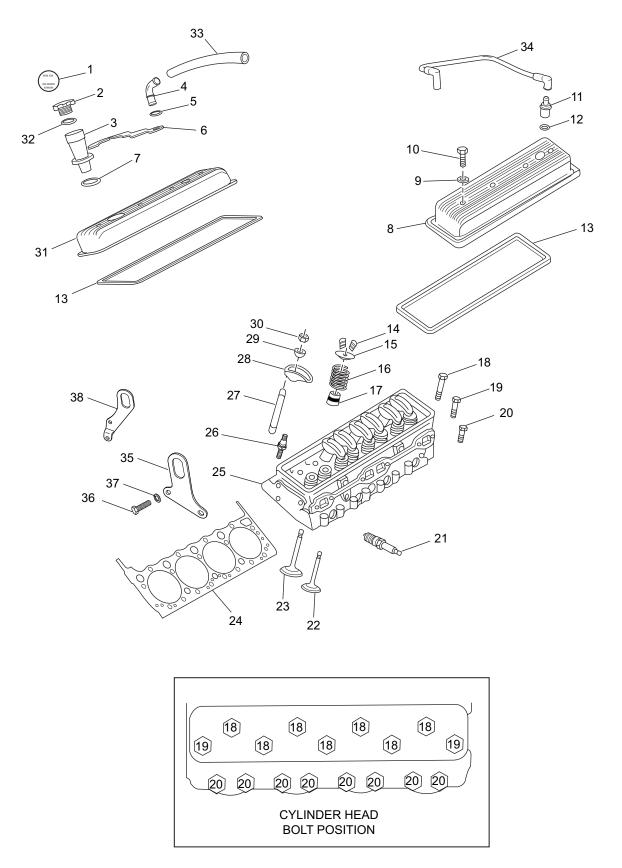
CYLINDER BLOCK ASSEMBLY - FIGURE 1 (cont'd)



CYLINDER BLOCK ASSEMBLY - FIGURE 1 (cont'd)

ITEM	PART NO.	QTY.	DESCRIPTION	MODEL ID
30	R004010A	1	Cover, engine front cover (includes gasket and seal)	
31	R020038	1	Sensor, crankshaft position	
32	TBD	1	Bolt, crankshaft position sensor attaching	
33	RK007020	1	Bearing Set, crankshaft main (STD)	
34	R009091	1	Bolt, crankshaft balancer	
35	R096074	1	Washer, crankshaft balancer bolt	
36	R064010A	1	Balancer, crankshaft - '02 and newer	
36	R064010	1	Balancer, crankshaft - '97-'01	
37	NSS	1	Seal, crankshaft front oil	
38	R009177	6	Bolt, engine front cover attaching, short	
38	R009176	2	Bolt, engine front cover attaching, long	
39	NSS	1	Gasket, engine front cover	
40	R054024	1	Sprocket, crankshaft	
41	R164024	2	Key, crankshaft balancer	
42	RK051030	1	Bearing Set, camshaft	
42	TBD	1	Cam Bearing #1	
42	TBD	2	Cam Bearing #2 & #5	
42	TBD	2	Cam Bearing #3 & #4	
43	R022022	1	Pin, camshaft sprocket locating	
44	TBD	1	Bolt, camshaft sprocket attaching	
45	R055011	1	Chain, camshaft timing	
46	R054041	1	Sprocket, camshaft	
47	TBD	2	Bolt, camshaft retaining	
48	R109050	1	Retainer, camshaft	
49	RA050021	1	Camshaft, engine	
50	TBD	1	Plug, oil gallery	
51	NSS		Block, engine	
52	R090253A	1	Retainer, valve lifter	
53	RS0279	3	Bolt, valve lifter retainer	
54	RM0203	2	Gasket, water pump to engine block	
55	RA057027	1	Water Pump Assembly	
56	R095026	1	Stud, water pump attaching	
57	RS0307	1	Bolt , water pump attaching	
58	90305275	1	Bolt, water pump attaching	
59	R095026	1	Stud, water pump attaching	
60	R020027	1	Sensor, knock	
61	R006017A	1	Crankshaft, 350 1996/Later	
NI	R069066	8	Plug, Brass, block 1 5/8"	

CYLINDER HEAD ASSEMBLY - FIGURE 2

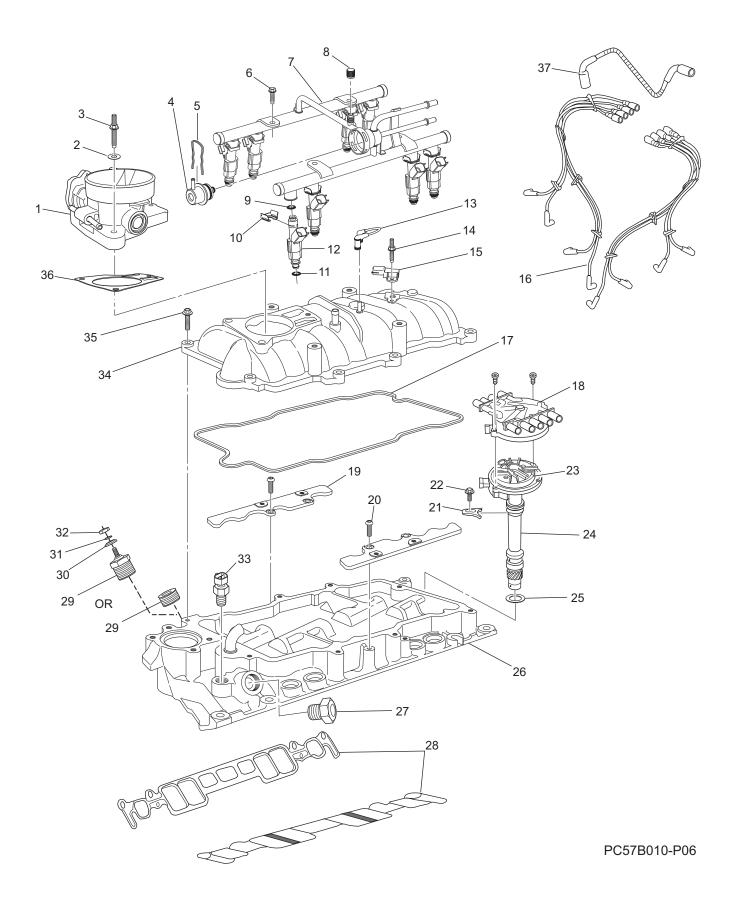


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CYLINDER HEAD ASSEMBLY - FIGURE 2

ITEM	PART NO.	QTY.	DESCRIPTION	MODEL ID
1	R143137	1	Decal, oil fill riser cap	
2	R034037	1	Cap, oil fill riser	
3	R034048	1	Riser, oil fill	
4	R024013C	1	Elbow, breather tube	
5	R094002	1	Grommet, breather tube elbow	
6	R127098	1	Retainer, oil fill riser	
7	R047228	1	O-ring, oil fill riser	
8	R033008A	1	Cover, rocker (left side)	
9	TBD	8	Washer, rocker cover retaining bolt	
10	TBD	8	Bolt, rocker cover retaining	
11	R035015	1	Valve, positive crankcase ventilation	
12	R094015	1	Grommet, pcv valve	
13	RM0193	2	Gasket, rocker cover	
14	R049012	32	Retainer, valve stem	
15	R049015	16	Cap, valve spring	
16	R046050	16	Valve Spring Assembly	
17	R047238	8	Seal, valve stem (intake)	
17	R047239	8	Seal, valve stem (exhaust)	
18	R009168	14	Bolt, cylinder head to engine block (long)	
19	TBD	4	Bolt, cylinder head to engine block (medium)	
20	TBD	16	Bolt, cylinder head to engine block (short)	
21	R030010	8	Spark Plug	
22	R043035	8	Valve, (intake)	
23	R043036	8	Valve, (exhaust)	
24	RM0195	2	Gasket, cylinder head	
25	R003007B	2	5.0L Cylinder Head Assembly	
25	R003008B	2	5.7L Cylinder Head Assembly	
26	R095034	16	Stud, valve rocker arm	
26	TBD	AR	Stud, valve rocker arm (.013 OS)	
26	R095035	AR	Stud, valve rocker arm (.033 OS)	
27	R039023	16	Push Rod	
28	R038015	16	Rocker Arm, Assembly w/ball	
29	R038011	16	Ball, rocker arm	
30	R017069	16	Nut, rocker arm attaching	
31	R033008	1	Cover, rocker (right side)	
32	NSS	1	O-Ring, oil fill riser cap	
33	TBD	1	Tube, breather	
34	TBD	1	Tube, PCV	
35	R042015	1	Bracket, lift ring (front, replaces R042008)	
36	RS0304	3	Bolt, lift ring attaching	
37	RS2180	3	Lockwasher, lift ring attaching	
38	R042014	1	Bracket, lift ring (rear, replaces R042008)	
		I		

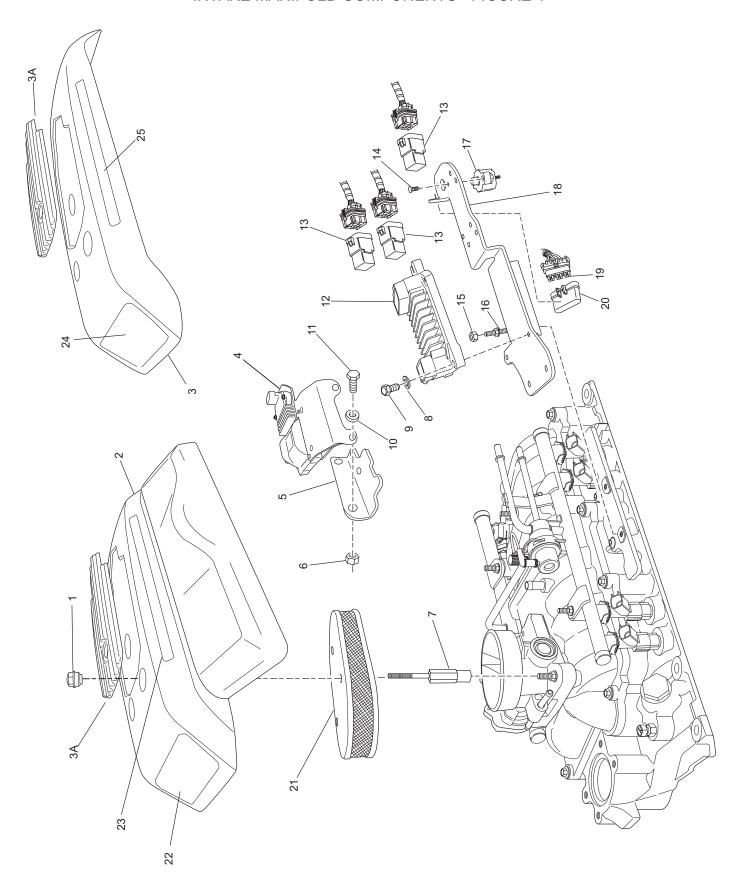
INTAKE MANIFOLD ASSEMBLY - FIGURE 3



INTAKE MANIFOLD ASSEMBLY - FIGURE 3

ITEM	PART NO.	QTY.	DESCRIPTION	MODEL ID
1	RA035041	1	Throttle Body Assembly, DBW	
2	NSS	3	Washer, throttle body attaching stud	
3	R095040	3	Stud, throttle body attaching	
4	R088002	1	Regulator, fuel pressure	
5	TBD	1	Retainer, fuel pressure regulator	
6	98222018	1	Bolt, fuel rail attaching	
7	RA086002	1	Fuel Rail Assembly	
8	TBD	1	Cap, fuel pressure service port	
9	NSS	8	O-Ring, fuel injector (top)	
10	TBD	8	Clip, fuel injector retaining	
11	NSS	8	O-Ring, fuel injector (bottom)	
12	RA087007	8	Fuel Injector Assembly	
13	R085074A	1	Hose, fuel pressure regulator vacuum	
14	R095041	4	Stud, fuel rail and MAP sensor attaching	
15	R020039	1	Sensor, manifold absolute pressure	
16	RK120018	1	Spark Plug Wire Set	
17	RM0271	1	Gasket, upper intake manifold to lower	
18	RA108009	1	Cap, distributor	
19	NSS	2	Plate, component attaching	
20	TBD	4	Bolt, component attaching plate attaching	
21	R127026A	1	Hold Down, distributor	
22	R009193	1	Bolt, distributor hold down	
23	R103011	1	Rotor, distributor	
24	RA107044	1	Distributor Assembly (LH)	
25	RM0123	1	Gasket, distributor assembly	
26	R002023	1	Intake Manifold, lower	
27	R069069	1	Plug, intake manifold	
28	RM0250	2	Gasket, intake manifold	
29	444705	1	Plug, 1/2" NPT, hex socket, Brass (RWC)	
29	R020003	1	Sender, temperature (FWC)	
30	RS2746	1	Washer, sender terminal (FWC)	
31	RS2197	1	Lockwasher, sender terminal (FWC)	
32	RS1540	1	Nut, sender terminal (FWC)	
33	R020019	1	Sensor, engine coolant temperature	
34	R002024	1	Intake Manifold, upper	
35	TBD	8	Bolt, upper intake manifold to lower attaching	
36	RM0251	1	Gasket, throttle body to upper manifold	
37	RA120018	1	Coil Wire, Ignition (red)	
		l		

INTAKE MANIFOLD COMPONENTS - FIGURE 4

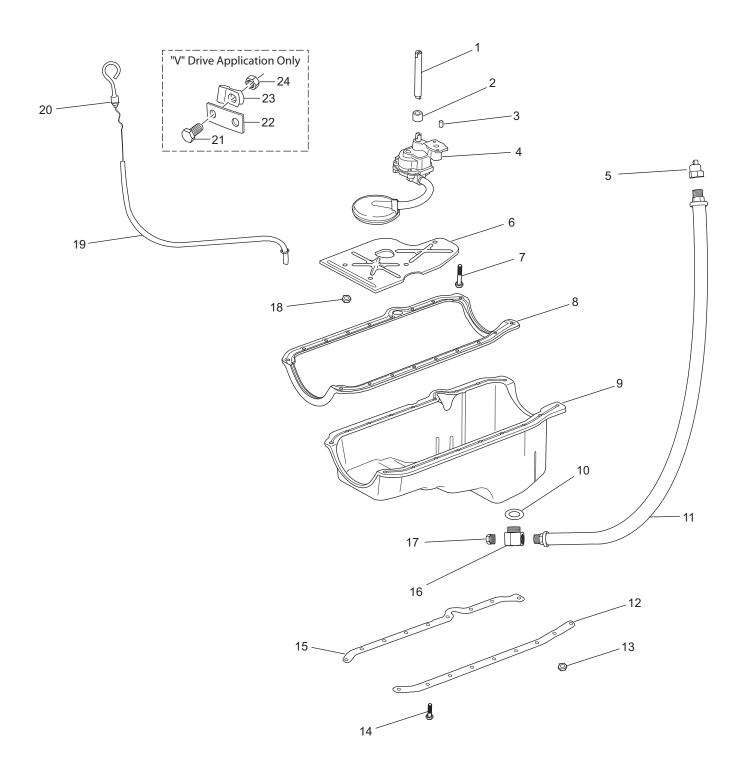


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INTAKE MANIFOLD COMPONENTS - FIGURE 4

ITEM	PART NO.	QTY.	DESCRIPTION	MODEL ID
1	R009194	3	Nut, engine cover attaching	
2	R060060B	1	Cover, engine (Red, w/insert)	
3	R060061C	1	Cover, engine (Red, w/insert)	
3A	R060067	1	Insert, cover, engine (Black)	
4	RA117011	1	Ignition Coil/Module Assembly	
5	R090249	1	Bracket, ignition coil/module assembly mounting	
6	RS2058	2	Nut, attaching	
7	R095038	3	Stud, flame arrestor/engine cover attaching	
8	RS2178	2	Washer, ECM attaching	
9	90105075	2	Bolt, ECM attaching	
10	92100000	2	Washer, attaching	
11	RS0254	2	Bolt, attaching	
12	R116021	1	Engine Control Module	
13	R130011A	3	Relay Assembly	
14	RS5084	2	Bolt, circuit breaker mounting	
15	TBD	2	Nut, bracket attaching	
16	TBD	2	Stud, bracket attaching	
17	R153006C	1	Circuit Breaker Assembly (60 amp)	
18	R090250	1	Bracket, ECM/relay mounting	
19	R153017B	3	Fuses, 20 amp	
20	R126014	1	Cover, fuse holder	
21	R145025A	1	Flame Arrestor	
22	R143141C	1	Decal, hood, front (5.7L PCM)	
23	R143142C	2	Decal, hood, side (5.7L PCM)	
24	R143148A	1	Decal, hood, front (5.0L PCM)	
33	R143149A	1	Decal, hood, side (5.0L PCM)	
NI	R143143	1	Decal, Spec, hood (5.7L, PCM)	
NI	R143146	1	Decal, Spec, hood (5.0L, PCM)	
NI	R143158	1	Decal, "Ultra Low Emissions"	
NI	R143159A-06	1	Decal, 5.7L Emission (C.A.R.B.) MY '06	

OIL PAN and OIL PUMP ASSEMBLY - FIGURE 5

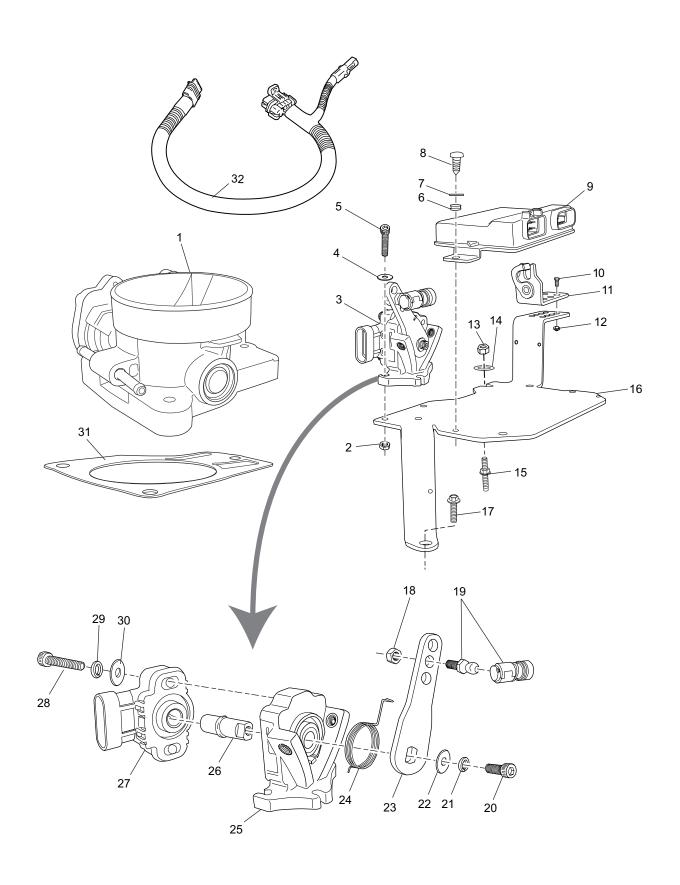


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OIL PAN and OIL PUMP ASSEMBLY - FIGURE 5

ITEM	PART NO.	QTY.	DESCRIPTION	MODEL ID
1	R058054	1	Shaft, oil pump drive	
2	TBD	1	Retainer, oil pump drive shaft	
3	R022022	2	Pin, oil pump locating	
4	RA070010	1	Oil Pump Assembly	
5	R024066	1	Fitting, oil pan drain hose	
6	R012028	1	Deflector, crankshaft oil	
7	TBD	1	Bolt, oil pump	
8	RM0249	1	Gasket, oil pan	
9	R005011	1	Oil Pan	
10	RM0245	1	Gasket, oil pan drain hose fitting	
11	R045049	1	Hose, oil pan drain	
12	TBD	1	Reinforcement, oil pan (LH)	
13	95200010	4	Nut, oil pan	
14	R009157	14	Bolt, oil pan	
15	TBD	1	Reinforcement, oil pan (RH)	
16	R024179	1	Fitting, oil pan drain hose	
17	RS3552	1	Plug, oil pan drain hose fitting	
18	TBD	5	Nut, crankshaft oil deflector	
19	R041065	1	Tube, oil level dipstick	
19	R041066	AR	Tube, oil level dipstick (V-drive)	
20	R041036A	AR	Dipstick, oil level (0 to 4 degree)	
20	R041043A	AR	Dipstick, oil level (12 degree)	
20	R041067A	AR	Dipstick, v-drive	
21	RS0302	AR	Bolt , dipstick tube mounting clamp	
22	R090233	AR	Bracket, dipstick tube	
23	R127015	AR	Clamp, dipstick tube mounting	
24	RS1028	AR	Nut, dipstick tube mounting clamp bolt	
NI	RK024179	1	Kit , oil drain (includes items 5,10,11,16,17)	

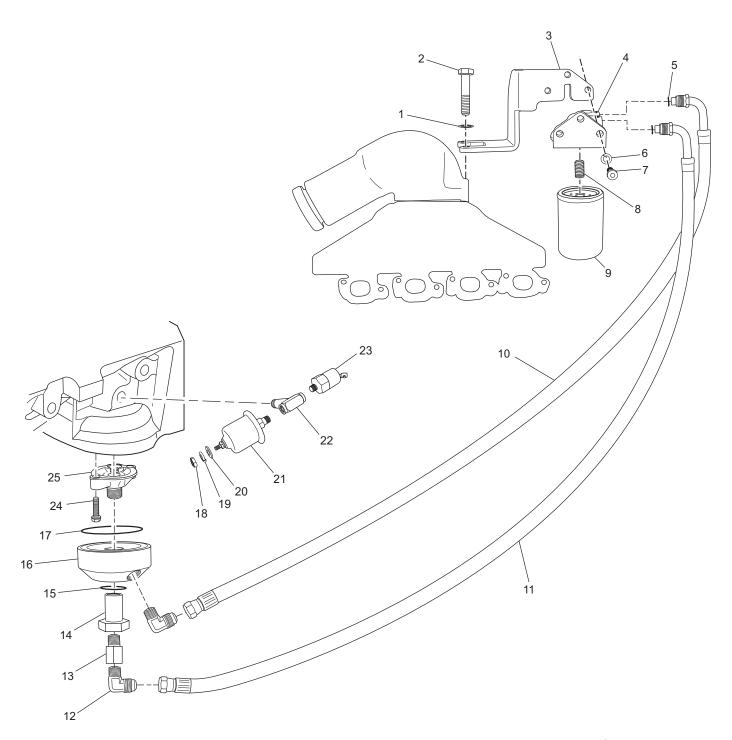
THROTTLE BODY and RELATED COMPONENTS - FIGURE 6



THROTTLE BODY and RELATED COMPONENTS - FIGURE 6

ITEM	PART NO.	QTY.	DESCRIPTION	MODEL ID
1	RA035041	1	Throttle Body Assembly	
2	RS2052	3	Nut, TCP Sensor attaching	
3	RA119004	1	Throttle Control Position (TCP) Sensor Assembly	
4	92004000	3	Washer, flat, TCP Sensor attaching	
5	91864075	3	Bolt, TCP Sensor attaching	
6	R094042	2	Grommet, TAC Module attaching	
7	R096142	2	Washer, flat, TAC Module attaching	
8	91087050	2	Screw, self-tapping, TAC Module attaching	
9	R116020	1	Throttle Actuator Control (TAC) Module Assembly	
10	RS5122	2	Bolt, cable clip attaching	
11	R090086	1	Cable Clip, throttle	
12	RS2050	2	Nut, cable clip attaching	
13	97224300	1	Nut, Nylok, TAC module bracket attaching	
14	92920000	1	Washer, flat, TAC module bracket attaching	
15	R095041	1	Stud, TAC module bracket (fuel rail) attaching	
16	R090320	1	Bracket, TAC Module	
17	TBD	1	Bolt, TAC module attaching (upper to lower intake attaching)	
18	RS1568	1	Nut, ball joint attaching	
19	R178003	1	Ball Joint Assembly	
20	91874050	1	Bolt, TCP Sensor arm attaching	
21	94854500	1	Lock Washer, TCP Sensor arm attaching	
22	94804000	1	Flat Washer, TCP Sensor arm attaching	
23	R081009	1	Arm, TCP Sensor	
24	R046051	1	Spring, TCP Sensor	
25	R109053	1	Plate Assembly, TCP Sensor	
26	R058070	1	Shaft, TCP Sensor	
27	R119004	1	TCP Sensor	
28	91064100	2	Bolt, TCP Sensor attaching	
29	93040000	2	Lock Washer, TCP Sensor attaching	
30	92004000	2	Flat Washer, TCP Sensor attaching	
31	RM0251	1	Gasket, throttle body to upper manifold	
32	R121086	1	Harness, TCP Sensor to TAC Module	

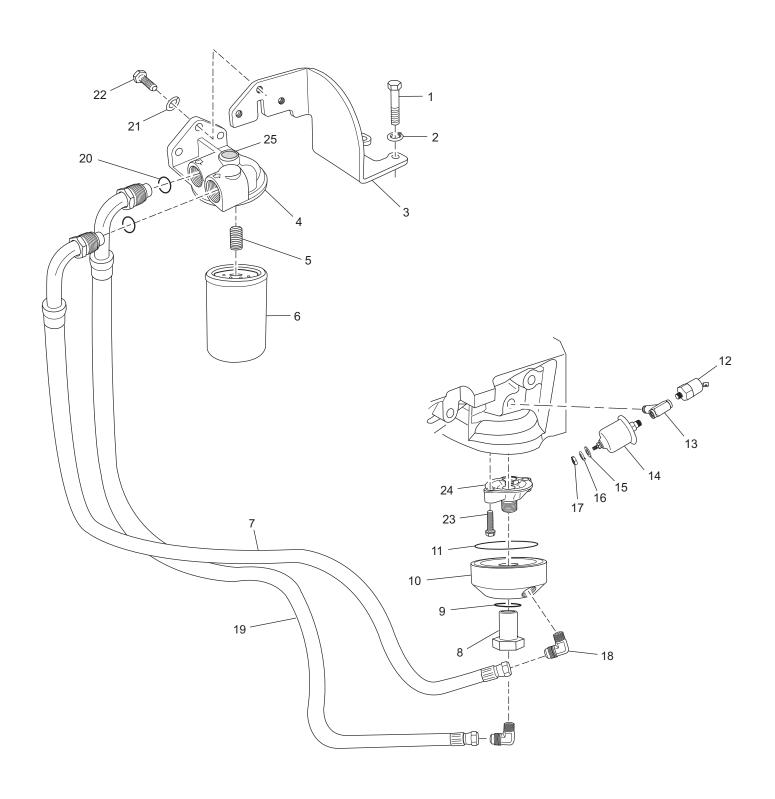
REMOTE OIL FILTER COMPONENTS V-DRIVE - FIGURE 7



REMOTE OIL FILTER COMPONENTS V-DRIVE - FIGURE 7

ITEM	PART NO.	QTY.	DESCRIPTION	MODEL ID
1	RS2179	2	Lockwasher, attaching bolt	
2	90205200	2	Bolt, oil filter header mounting bracket attaching	
3	R090257	1	Bracket, oil filter header mounting	
4	R079066	1	Oil Filter Header	
5	R047245	2	O-Ring, oil line	
6	RS2179	3	Lockwasher, oil filter header mounting bolt	
7	99333020	3	Bolt, oil filter header mounting	
8	R024203	1	Nipple, header filter adapter	
9	R077001	1	Filter, oil	
10	RA045120D	1	Hose Assembly, bypass adapter to filter header	
11	RA045120D	1	Hose Assembly, filter header to bypass adapter	
12	R024184	2	Fitting, 90 degree	
13	R024182	1	Adapter, fitting	
14	R017073	1	Fitting, oil bypass adapter attaching	
15	R047202	1	O-ring, oil bypass adapter attaching fitting	
16	R079051	1	Adapter, oil bypass	
17	R047203	1	O-ring, oil bypass adapter	
18	95011000	1	Nut, sender terminal	
19	95300300	1	Lockwasher, sender terminal	
20	92300200	1	Washer, sender terminal	
21	R020001	1	Sender, oil pressure	
22	R024205	1	Tee, sender attaching	
23	R020015A	1	Switch, oil pressure	
24	R009089	2	Bolt, oil adapter attaching	
25	RA079028	1	Adapter, oil	

REMOTE OIL FILTER COMPONENTS DIRECT DRIVE - FIGURE 8

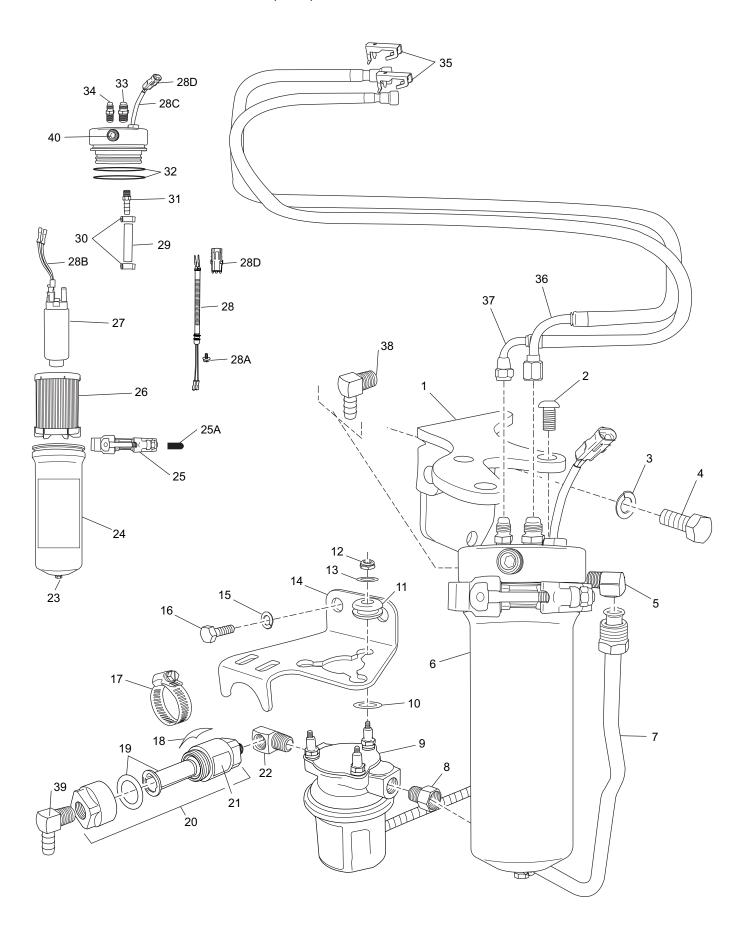


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REMOTE OIL FILTER COMPONENTS DIRECT DRIVE - FIGURE 8

ITEM	PART NO.	QTY.	DESCRIPTION	MODEL ID
1	RS0286	2	Bolt, oil filter header mounting bracket attaching	
2	RS2180	2	Lockwasher, attaching bolt	
3	R090257	1	Bracket, oil filter header mounting	
4	R079066	1	Oil Filter Header	
5	R024203	1	Nipple, header filter adapter	
6	R077001	1	Filter, oil	
7	RA045120D	1	Hose Assembly, bypass adapter to filter header	
8	R017073	1	Fitting, oil bypass adapter attaching	
9	R047202	1	O-ring, oil bypass adapter attaching fitting	
10	R079051	1	Adapter, oil bypass	
11	R047203	1	O-ring, oil bypass adapter	
12	R020015A	1	Switch, oil pressure	
13	R024205	1	Tee, sender attaching	
14	R020001	1	Sender, oil pressure	
15	92300200	1	Washer, sender terminal	
16	95300300	1	Lockwasher, sender terminal	
17	95011000	1	Nut, sender terminal	
18	R024184	2	Fitting, 90 degree	
19	RA045120D	1	Hose Assembly, filter header to bypass adapter	
20	R047245	2	O-Ring, oil line	
21	RS2179	3	Lockwasher, oil filter header mounting bolt	
22	98333020	3	Bolt, oil filter header mounting	
23	R009089	2	Bolt, oil adapter attaching	
24	RA079028	1	Adapter, oil	
25	R143175	1	Decal, "Hot", oil header	
		-		

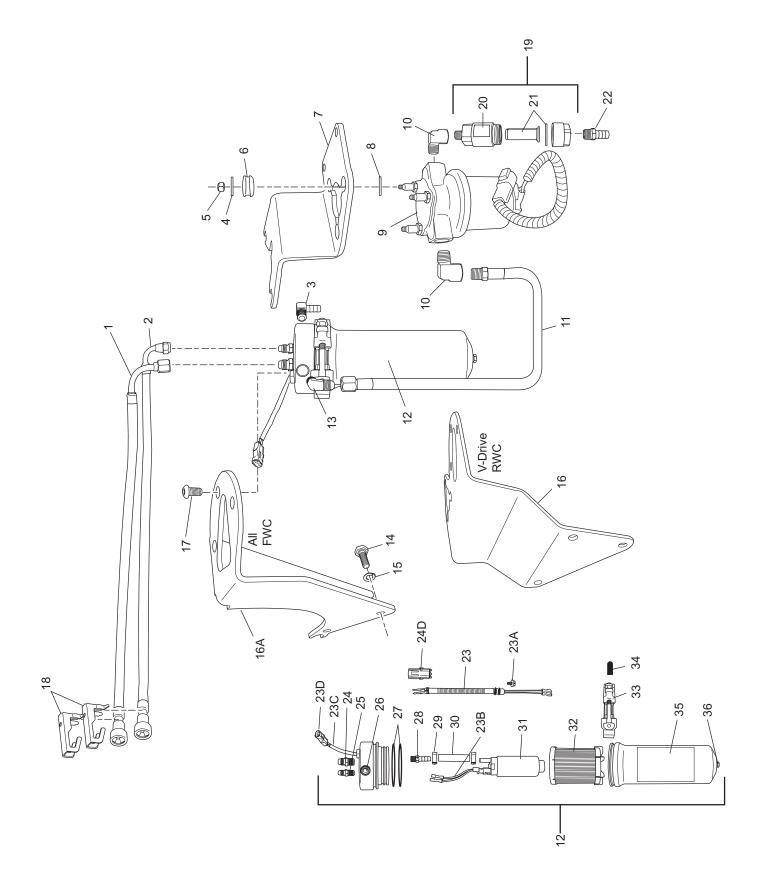
FUEL CONTROL CELL (FCC) COMPONENTS DIRECT DRIVE - FIGURE 9



FUEL CONTROL CELL (FCC) COMPONENTS DIRECT DRIVE - FIGURE 9

ITEM	PART NO.	QTY.	DESCRIPTION	MODEL ID
1	R090179	1	Bracket, FCC mounting	
2	90384075	3	Bolt, FCC mounting	
3	RS2180	2	Lockwasher, FCC mounting bracket	
4	RS0304	2	Bolt, FCC mounting bracket	
5	R024017	1	Fitting, 90 degree	
6	RA080031	1	Fuel Control Cell Assembly	
7	RA085096A	1	Fuel Line, low-pressure pump to FCC	
8	R024146	1	Adapter, fuel line fitting	
9	RA080018	1	Fuel Pump, low-pressure	
10	R096141	3	Washer, fuel pump mounting	
11	R094035A	3	Grommet, mounting bracket	
12	RS1521L	3	Locking Nut, low-pressure fuel pump	
13	R096142	3	Washer, fuel pump mounting	
14	R090308	1	Bracket, low-pressure fuel pump mounting	
15	RS2180	2	Lockwasher, bracket mounting	
16	RS0302	2	Bolt, bracket mounting	
17	RS3858	1	Clamp, prefilter retaining	
18	R094040	1	Adhesive, rubber strip	
19	RP077014	1	Gasket/Filter Kit, prefilter	
20	RA077014	1	Prefilter Assembly	
21	R143174	1	Decal, prefilter	
22	R024192	1	Fitting, 90 degree	
23	RS3554	1	Plug, FCC drain	
24	R143112A	1	Decal, FCC	
25	R171010	1	Clamp, FCC bowl-to-head retaining	
25A	R128002	1	Cover, FCC clamp T-bolt	
26	R080026	1	Filter, FCC	
27	RA080025A	1	Pump, FCC high pressure fuel	
28	R121085B	1	Harness, 1 piece, FCC high pressure fuel pump (1-piece harness does not retrofit for 2-piece)	
28A	91620025	1	Screw, self-tapping, 1 piece harness retaining	
28B	RA121061	1	Harness, 2 piece, FCC high pressure fuel pump	
28C	RA121060	1	Harness, 2 piece, FCC high pressure fuel pump	
28D	7172040	1	Connector, W/P 2-Way Female	
29	R045098B	1	Hose, FCC internal fuel	
30	R127087	2	Clamp, Oeticker	
31	R024219	1	Fitting, FCC internal	
32	R047241	2	O'Ring, FCC bowl-to-head seal	
33	R024175	1	Fitting, FCC head (fuel supply line)	
34	R024163A	1	Fitting, FCC head (fuel return line)	
35	R127100	2	Retainer, fuel line	
36	RA085090A	1	Hose Assembly, FCC to fuel rail (inlet)	
37	RA085091A	AR	Hose Assembly, fuel rail to FCC (return)	
38	R024225	1	Fitting, return line 90 degree barb	
39	R024226	1	Fitting, inlet line 90 degree barb	
40	RS3550	1	Plug, FCC head	

FUEL CONTROL CELL (FCC) COMPONENTS (V-Drive)- FIGURE 10

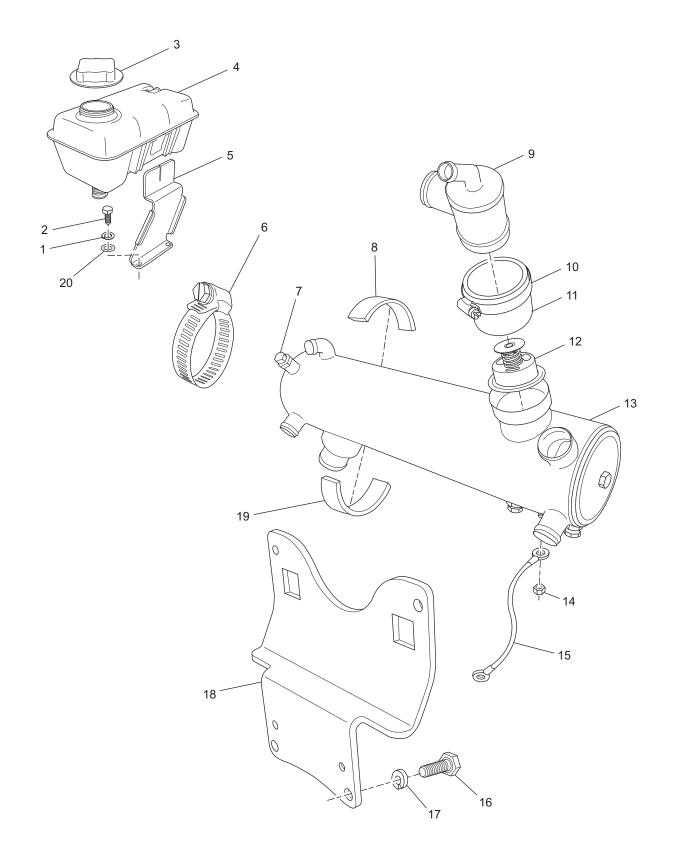


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FUEL CONTROL CELL (FCC) COMPONENTS (V-Drive)- FIGURE 10

ITEM	PART NO.	QTY.	DESCRIPTION	MODEL ID
1	RA085090B	1	Hose Assembly, FCC to fuel rail (inlet)	
2	RA085091B	1	Hose Assembly, fuel rail to FCC (return)	
3	R024225	1	Fitting, 90 degree	
4	R096142	3	Washer, fuel pump mounting	
5	RS1521L	3	Locking Nut, low-pressure fuel pump	
6	R094035	3	Grommet, mounting bracket	
7	R090299	1	Bracket, LPFP mounting (FWC)	
8	R096141	3	Washer, fuel pump mounting	
9	RA080018	1	Fuel Pump, low-pressure	
10	R024017	2	Fitting, 90 degree	
11	RA085102	1	Hose Assembly, low-pressure pump to FCC (Raw Water Cooling)	
11	RA085102A	1	Hose Assembly, low-pressure pump to FCC (Fresh Water Cooling)	
12	RP080031	1	Fuel Filter, FCC assembly	
13	R024224	1	Fitting, 90 degree	
14	RS0304	2	Bolt, FCC mounting bracket	
15	RS2180	2	Lockwasher, FCC mounting bracket	
16	R090204	1	Bracket, FCC/LPFP mounting (RWC)	
16A	R090296	1	Bracket, FCC mounting (FWC)	
17	RS2180	3	Lockwasher, FCC mounting	
18	RS0304	3	Bolt, FCC mounting	
19	R127100	2	Locking Clip, fuel line	
20	RA077014	1	Fuel Pre-Fileter Assembly	
21	R143174	1	Decal, prefilter	
22	RP077014	1	Gasket/Filter Kit, prefilter	
23	30641	1	Fitting, fuel line	
24	R1210085B	1	Harness, 1 piece, FCC high pressure fuel pump (1-piece harness does not retrofit for 2-piece)	
24A	91620025	1	Screw, self-tapping, 1 piece harness retaining	
24B	RA121061	1	Harness, 2 piece, FCC high pressure fuel pump	
24C	RA121060	1	Harness, 2 piece, FCC high pressure fuel pump	
24D	7172040	1	Connector, W/P 2-Way Female	
25	R024175	1	Fitting, FCC head (fuel supply line)	
26	R024163A	1	Fitting, FCC head (fuel return line)	
27	RS3550	1	Plug, FCC head	
28	R047241	2	O'Ring, FCC bowl-to-head seal	
29	R024219	1	Fitting, FCC internal	
30	R127087	2	Clamp, Oeticker	
31	R045098B	1	Hose, FCC internal fuel	
32	RA080025A	1	Pump, FCC high pressure fuel	
33	R080026	1	Filter, FCC	
NI	RP080026	1	Kit, Filter and O-Rings, FCC	
34	R171010	1	Clamp, FCC bowl-to-head retaining	
35	R128002	1	Cover, FCC clamp T-bolt	
36	R143112A	1	Decal, FCC	
37	RS3554	1	Plug, FCC drain	

HEAT EXCHANGER and COMPONENTS (SERPENTINE BELT SYSTEM) - FIGURE 11

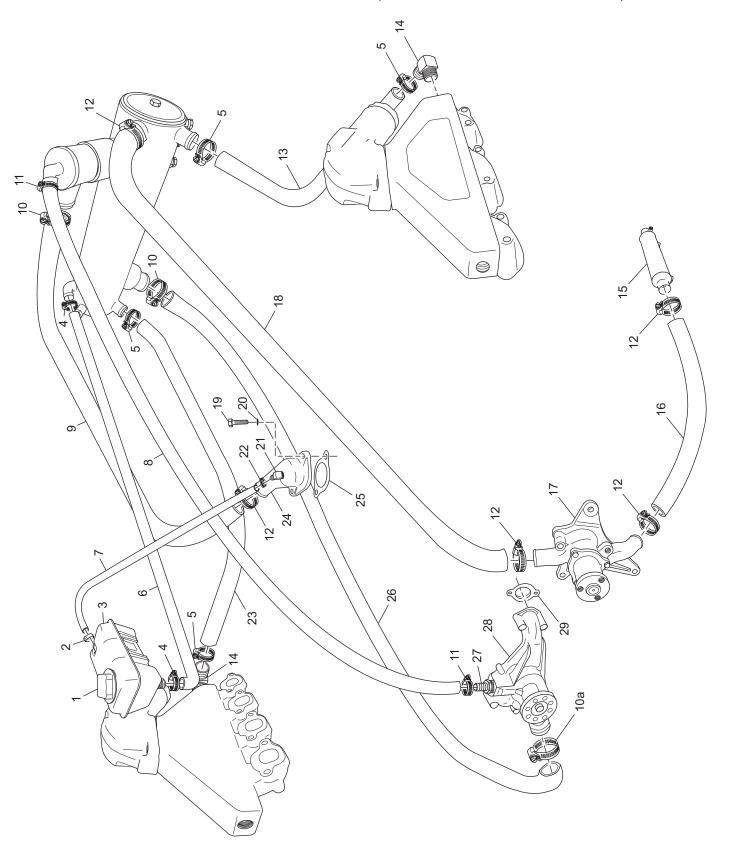


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HEAT EXCHANGER and COMPONENTS (SERPENTINE BELT SYSTEM) - FIGURE 11

ITEM	PART NO.	QTY.	DESCRIPTION	MODEL ID
1	RS7068	2	Lockwasher, mounting bolt	
2	98223016	2	Bolt, degas bottle bracket mounting	
3	R034045	1	Cap, degas bottle	
4	R146001	1	Bottle, degas	
NI	R143169	1	Decal, specification, 5.0L	
NI	R143170	1	Decal, specification, 5.7L	
NI	R143153	1	Decal, coolant fill	
5	R090295	1	Bracket, degas bottle mounting	
6	RS3857	2	Clamp, exchanger mounting	
7	R168005	1	Zinc, sacrificial	
8	R094040	2	Isolator, top	
9	R025039	1	Thermostat Housing	
10	RS3860	2	Clamp, thermostat housing	
11	R045162	1	Hose, thermostat housing attaching	
12	R026007	1	Thermostat, (170 degree)	
13	RA147050	1	Heat Exchanger Assembly	
14	RS1078	1	Nut, ground wire stud	
15	R101013	1	Wire, grounding	
16	RS0304	2	Bolt, bracket mounting	
17	RS2180	2	Lockwasher, bracket mounting	
18	R090266	1	Bracket, heat exchanger	
19	R094040	1	Isolator, bottom	
20	RS2672	2	Washer, mounting bolt	
N.I.	TBD	AR	End Cap Kit, exchanger	
NI	R143155	1	Decal, Protective Anode	
NI	R143159A-06	1	Decal, 5.7L Emission (C.A.R.B.) '06 MY	
NI	R143158	1	Decal, "Ultra Low Emission"	
NI	R143156	1	Decal, Raw Water Drain	
NI	R143157	1	Decal, Fresh Water Drain	

FRESH WATER COOLING SYSTEM COMPONENTS (SERPENTINE RAW WATER PUMP) - FIGURE 12

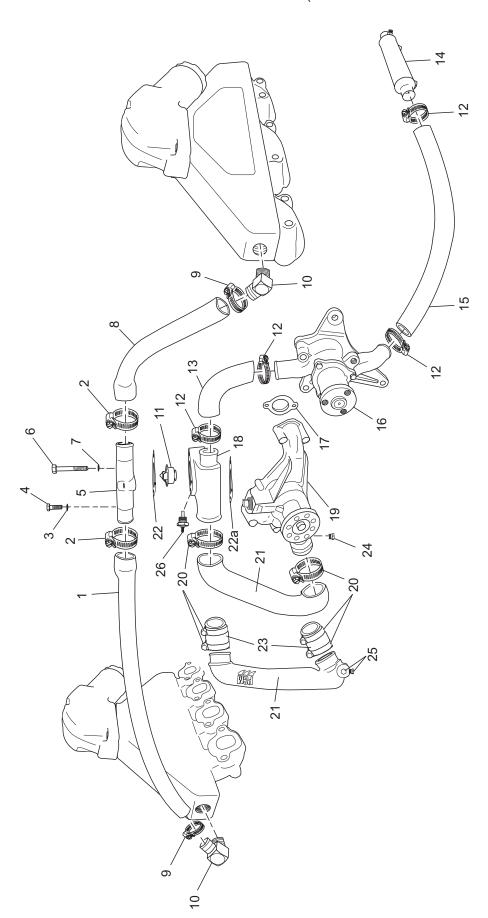


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FRESH WATER COOLING SYSTEM COMPONENTS (SERPENTINE RAW WATER PUMP) - FIGURE 12

ITEM	PART NO.	QTY.	DESCRIPTION	MODEL ID
1	R034045	1	Cap, degas bottle	
2	R127087	1	Clamp, hose (5/8" oetiker)	
3	R146001	1	Bottle, degas	
4	RS3854	2	Clamp, hose (3/4")	
5	RS3851	4	Clamp, hose (1")	
6	R045161	1	Hose, degas bottle to exchanger	
7	R045132	1	Hose, degas bottle to water neck (1/4" X 30")	
8	R045086	1	Hose, water pump to thermostat housing (5/8" X 31")	
9	R045144	1	Hose, water neck to exchanger	
10	RS3858	2	Clamp , hose (1 1/2")	
10a	RS3852	1	Clamp , hose (1 3/4")	
11	RS3852	2	Clamp, hose (5/8")	
12	RS3858	5	Clamp , hose (1 1/4")	
13	R045151	1	Hose, exchanger to exhaust manifold (Port)	
14	R024006A	2	Fitting, 90 degree	
15	R147014	1	Cooler, oil, transmission	
16	R045159	1	Hose , oil cooler to raw water pump (level installation with 1.23:1 transmission)	
16	R045152	1	Hose , oil cooler to raw water pump (angled installation with 1.0:1 transmission)	
17	RA057034	1	Raw Water Pump	
18	R045163	1	Hose, raw water pump to exchanger	
19	RS6531	2	Bolt, water neck attaching	
20	RS2179	2	Lockwasher, water neck attaching	
21	R024055	1	Fitting, 90 degree, water neck	
22	RS3870	1	Clamp, hose (1/4")	
23	R045151	1	Hose, exchanger to exhaust manifold (Starboard)	
24	R025015A	1	Water Neck	
25	RM0121	1	Gasket, water neck	
26	R045146	1	Hose, exchanger to circulation pump	
27	R024217	2	Fitting, straight, barbed; water pump	
28	RA057027	1	Water Pump Assembly	
29	RM0266	2	Gasket, water pump to engine block	
NI	RK147050	AR	Kit , Fresh Water Cooling, Direct Drive (See L591001 for Instructions and Contents)	
NI	RK147050A	AR	Kit , Fresh Water Cooling, V-Drive (See L591002 for Instructions and Contents)	

RAW WATER COOLING SYSTEM COMPONENTS (SERPENTINE RAW WATER PUMP) - FIGURE 13

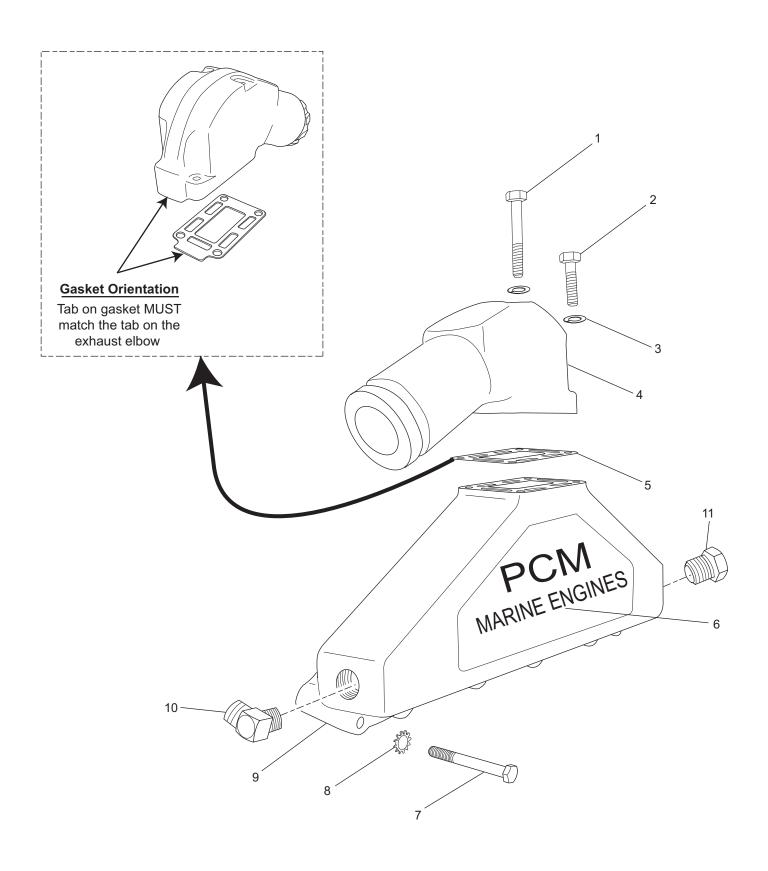


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RAW WATER COOLING SYSTEM COMPONENTS (SERPENTINE RAW WATER PUMP) - FIGURE 13

ITEM	PART NO.	QTY.	DESCRIPTION	MODEL ID
1	R045107	1	Hose, fill riser to exhaust manifold (starboard)	
2	RS3858	6	Clamp, hose	
3	93920000	1	Lockwasher, attaching bolt	
4	98223035	1	Bolt, upper fill riser to lower fill riser attaching	
5	R025033	1	Fill Riser, upper	
6	90205200	2	Bolt, upper fill riser to lower fill riser attaching	
7	RS2180	2	Lockwasher, attaching bolt	
8	R045107	1	Hose, fill riser to exhaust manifold (port)	
9	RS3851	2	Clamp, hose	
10	R024006A	2	Fitting, 90 degree	
11	R026002	1	Thermostat, coolant (160 degree)	
12	RS3858	3	Clamp , hose (1 1/4")	
13	R045160	1	Hose, raw water pump to fill riser	
14	R147014	1	Cooler, oil, transmission	
15	R045159	1	Hose , oil cooler to raw water pump (level installation with 1.23:1 transmission)	
15	R045152	1	Hose , oil cooler to raw water pump (angled installation with 1.0:1 transmission)	
16	RA057034	1	Raw Water Pump Assembly	
17	RM0203	2	Gasket, water pump to engine block	
18	R025031	1	Fill Riser, lower	
19	RA057027	1	Water Pump Assembly	
20	RS3852	AR	Clamp, hose	
21	R045048	1	Hose, fill riser to water pump	
21	R024220	AR	Connector, fill riser to water pump (Red)	
21	R024220A	AR	Connector, fill riser to water pump (Black)	
22	RM0258	1	Gasket, upper fill riser to lower fill riser	
22a	RM0121	1	Gasket, lower fill riser to intake manifold	
23	R045169A	2	Hose, Connector to fill riser and water pump	
24	RS3554	1	Plug, water pump drain	
25	RS3552	1	Plug, Connector drain	
NI	RK147050	AR	Kit , Fresh Water Cooling, Direct Drive (See L591001 for Instructions and Contents)	
NI	RK147050A	AR	Kit, Fresh Water Cooling, V-Drive (See L591002 for Instructions and Contents)	

EXHAUST MANIFOLD and COMPONENTS - FIGURE 14

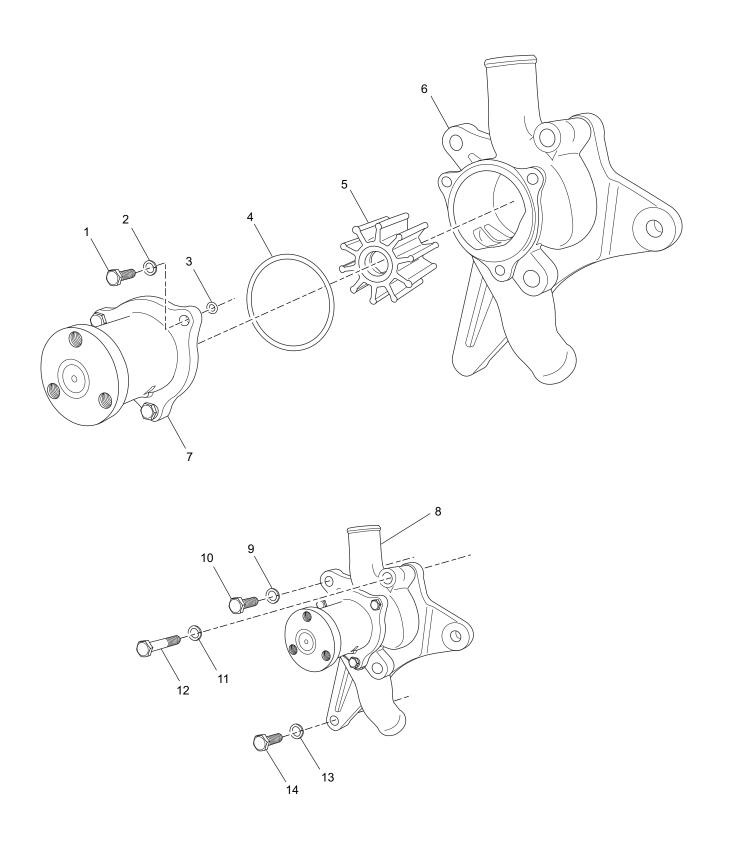


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EXHAUST MANIFOLD and COMPONENTS - FIGURE 14

·				
ITEM	PART NO.	QTY.	DESCRIPTION	MODEL ID
1	RS0387	4	Bolt, exhaust elbow attaching (long)	
2	RS0285	4	Bolt, exhaust elbow attaching (short)	
3	RS2179	8	Lockwasher, exhaust elbow attaching bolt	
4	R029011	2	Exhaust Elbow Assembly	
5	RM0002	2	Gasket, manifold to exhaust elbow	
6	R143002E	2	Decal, exhaust manifold	
6	R143002H	2	Decal, exhaust manifold (MY '05)	
7	RS0454	16	Bolt, manifold to cylinder head attaching	
8	RS2425	16	Starwasher, manifold attaching bolt	
9	R028009	2	Exhaust Manifold Assembly	
10	R024006A	2	Fitting, 90 degree	
NI	RP173091	AR	Kit, Exhaust Service	
			*NOTE: See Fresh Water Cooling section for parts used on Fresh Water Cooled engines.	

RAW WATER COOLING PUMP (SERPENTINE) - FIGURE 15

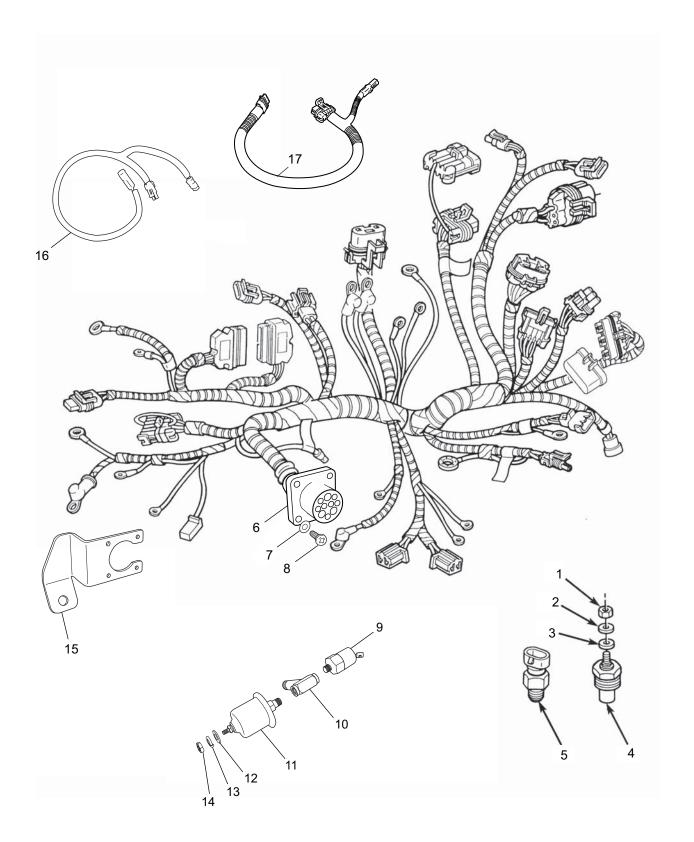


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RAW WATER COOLING PUMP (SERPENTINE) - FIGURE 15

ITEM	PART NO.	QTY.	DESCRIPTION	MODEL ID
1	TBD	3	Bolt, bearing housing attaching	
2	TBD	3	Lockwasher, bearing housing attaching bolt	
3	R047243	3	O-ring, bearing housing attaching bolt	
4	R047242	1	O-ring, bearing housing attaching	
5	RP061022	1	Impeller Kit (includes O-rings and impeller)	
6	R057034	1	Housing, raw water pump	
7	RA134071	1	Bearing Housing Assembly	
8	RA057034	1	Raw Water Pump Assembly	
9	RS2180	1	Lockwasher, raw water pump attaching; upper left flange	
10	RS0306	1	Bolt, raw water pump attaching; upper left flange	
11	RS2180	1	Lockwasher, raw water pump attaching; upper right flange	
12	RS0454	1	Bolt, raw water pump attaching; upper right flange	
13	RS2180	1	Lockwasher, raw water pump attaching; lower left flange	
14	RS0306	1	Bolt, raw water pump attaching; lower left flange	

WIRING HARNESS ASSEMBLIES and SENDERS - FIGURE 16

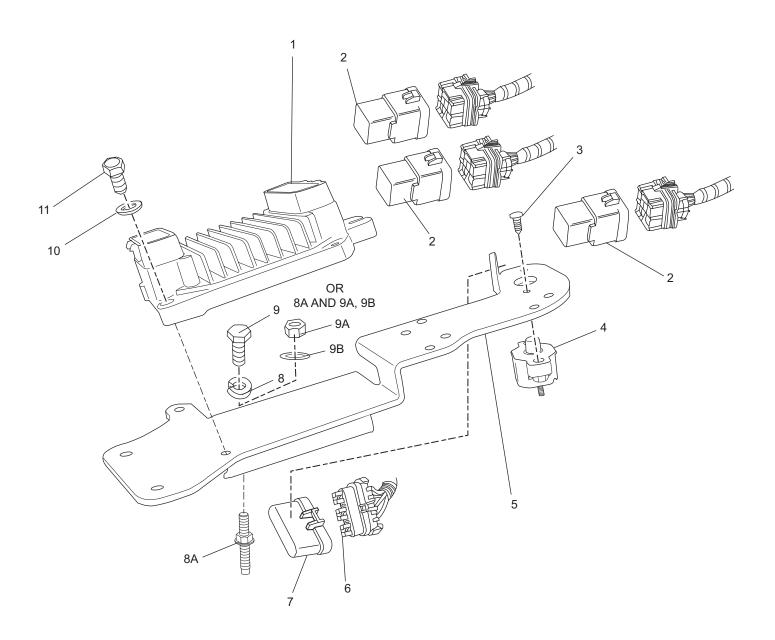


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WIRING HARNESS ASSEMBLIES and SENDERS - FIGURE 16

ITEM	PART NO.	QTY.	DESCRIPTION	MODEL ID
1	RS1540	1	Nut, sender terminal	
2	RS2197	1	Lockwasher, sender terminal	
3	RS2746	1	Washer, sender terminal	
4	R020002	1	Sender, temperature (RWC)	
4	R020003	1	Sender, temperature (FWC)	
5	R020019	1	Sensor, engine coolant temperature (ECT)	
6	RA121079B	1	Engine Wiring Harness Assembly ('06)	
7	R096142	4	Washer, main harness attaching	
8	RS5115	4	Screw, main harness attaching	
9	R020015A	1	Switch, oil pressure	
10	R024205	1	Tee, sender attaching	
11	R020001	1	Sender, oil pressure	
12	RS2746	1	Washer, sender terminal	
13	RS2197	1	Lockwasher, sender terminal	
14	RS1540	1	Nut, sender terminal	
15	R090251	1	Bracket, main harness attaching	
16	RA121062C	AR	Harness, jumper (V-drive applications)	
NI	R153018A	1	100 amp Fused Wire, starter to circuit breaker	
17	R121086	1	Harness, TCP Sensor to TAC Module	
	<u> </u>			

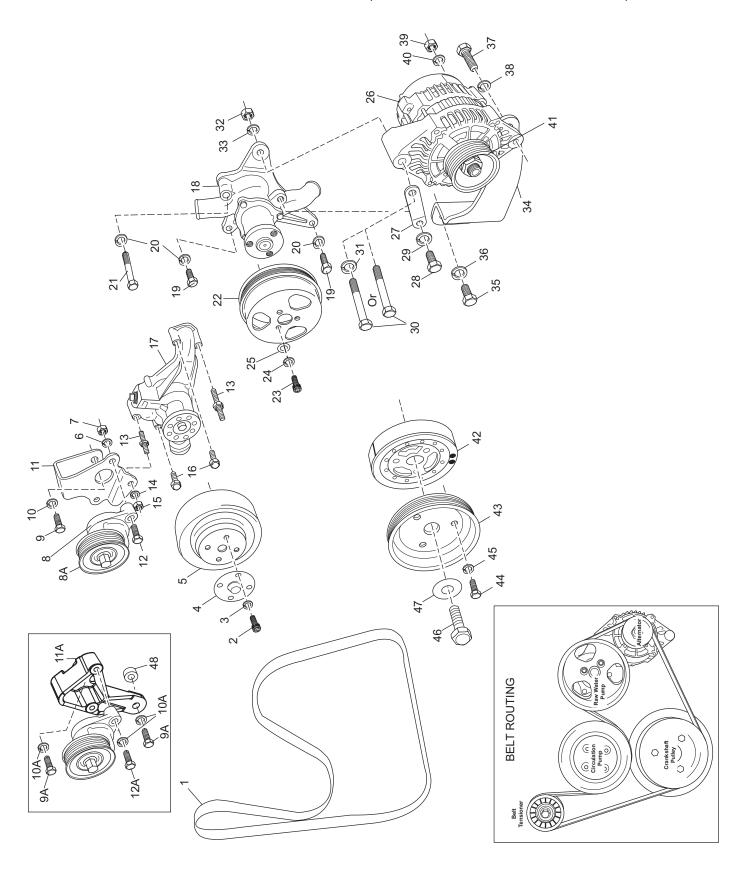
ECM and RELAYS - FIGURE 17



ECM and RELAYS - FIGURE 17

ITEM	PART NO.	QTY.	DESCRIPTION	MODEL ID
1	R116021	AR	Engine Control Module (5.0L - LH) cksum - 22488 (57D8)	
1	R116021	AR	Engine Control Module (5.7L - LH) cksum - 7663 (1DEF)	
2	R130011A	3	Relay, fuel pump, ignition, starter (s/n 440612 and above)	
3	RS5084	2	Bolt, circuit breaker mounting	
4	R153006C	1	Circuit Breaker Assembly (60 amp)	
5	R090250	1	Bracket, ECM/relay mounting	
6	R153017B	3	Fuses, 20 amp	
7	R126014	1	Cover, fuse holder	
8	93920000	2	Lockwasher, bracket attaching bolt	
8A	TBD	2	Stud, bracket attaching	
9	98223016	2	Bolt, bracket attaching	
9A	97224300	2	Nut, nylok, bracket attaching	
9B	92920000	2	Washer, flat, bracket attaching	
10	RS2178	2	Washer, ECM attaching	
11	RS0254	2	Bolt, ECM attaching	
		i		

ACCESSORY DRIVE SYSTEM COMPONENTS (SERPENTINE RAW WATER PUMP) - FIGURE 18

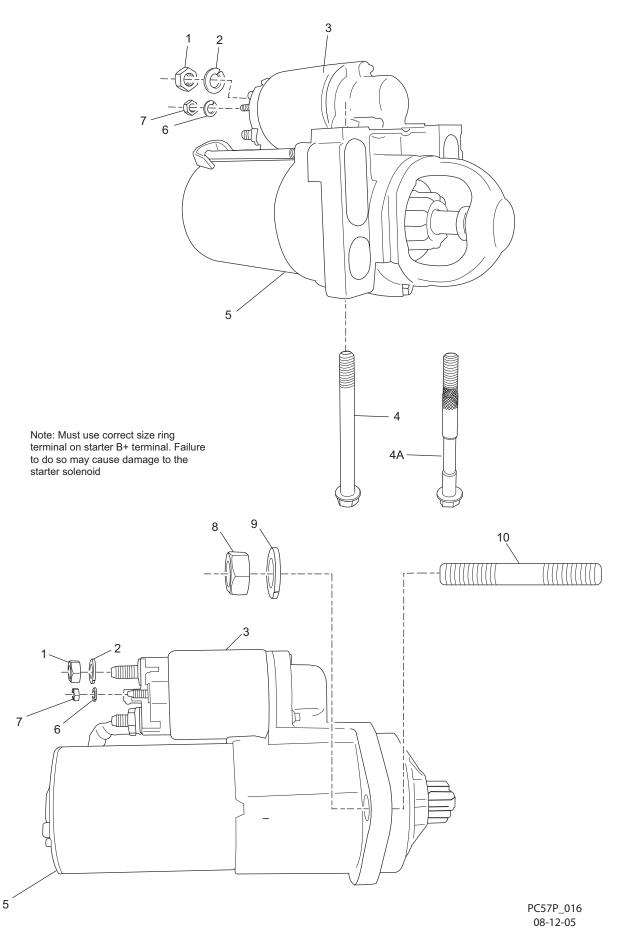


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ACCESSORY DRIVE SYSTEM COMPONENTS (SERPENTINE RAW WATER PUMP) - FIGURE 18

ITEM	PART NO.	QTY.	DESCRIPTION	MODEL ID
1	R066028	1	Belt, serpentine drive	
2	90274075	4	Bolt, water pump pulley attaching	
3	RS2307	4	Lockwasher, water pump pulley attaching bolt	
4	R096147	1	Cover, water pump pulley	
5	R065053	1	Pulley, water pump (5.7L: Red)	
5	R065053A	1	Pulley, water pump (5.0L: Black)	
6	RS2180	2	Lockwasher, belt tensioner attaching	
7	RS1028	2	Nut, belt tensioner attaching	
8	RA068001	1	Belt Tensioner Assembly	
8A	R065057	1	Pulley, Belt Tensioner	
9	RS0304	1	Bolt, tensioner bracket attaching	
9A	TBD	1	Bolt, cast tensioner bracket attaching	
10	RS2180	1	Lockwasher, tensioner bracket attaching	
10A	TBD	1	Lockwasher, cast tensioner bracket attaching	
11	R090287	1	Bracket, belt tensioner mounting	
11A 12	R090287A RS0307	1 2	Bracket, Cast, belt tensioner mounting (replaces R090287) Bolt, belt tensioner attaching	
12A	TBD	2	Bolt, cast belt tensioner attaching	
12A 13	R095026	2	Stud, water pump mounting	
14	RS2179	1	Lockwasher, belt tensioner attaching	
15	RS2179 RS1527	1	Nut, belt tensioner attaching	
16	90305275	2	Bolt, water pump mounting	
17	RA057027	1	Water Pump Assembly	
18	RA057034	1	Raw Water Pump Assembly	
19	RS0305	2	Bolt, raw water pump attaching	
20	RS2180	3	Lockwasher, raw water pump attaching	
21	90305300	1	Bolt, raw water pump attaching	
22	R065052	1	Pulley, raw water pump	
23	99335016	3	Bolt , RWP pulley attaching	
24	93934000	3	Lockwasher, RWP pulley attaching	
25	92934000	3	Flatwasher, RWP pulley attaching	
26	RA097007C	1	Alternator Assembly, 70A	
26	RA097009	1	Alternator Assembly, 100A	
NI	RF097009B	AR	Retrofit Kit, 100A Alternator (5.7L)	
NI	R121081A	AR	Harness, Jumper, adapt 70A engine harness to 100A alt.	
NI	R101015	1	Ground Lead, Alternator (54", 5.0/5.7/8.1L)	
NI	R101017	1	Wire, Charge, Alternator (5.0/5.7L)	
NI	R153018A	1	Wire, Fused, starter to circuit breaker (5.0/5.7/6.0L)	
27	R090289	1	Bracket, Alternator, Strap, upper mounting	
28	RS0304	1	Bolt, Alternator strap mounting	
29	RS2180	1	Lockwasher, Alternator strap mounting	
30	RS0454	1	Bolt , Alternator mounting, upper, through bolt mount	
30	RS0311	1	Bolt, Alternator mounting, upper, tapped mount	
31	RS2180	1	Lockwasher, Alternator mounting bolt, upper, tapped mnt.	
32	RS1028	1	Nut, Alternator mounting bolt, upper, through mount	
33	RS2180	1	Lockwasher, Alternator mounting bolt, upper, through mnt.	
34	R090288	1	Bracket, Alternator mounting, lower	
35	RS0304	1	Bolt, Alternator bracket attaching, lower	
36	RS2180	1	Lockwasher, Alternator bracket attaching bolt, lower	
37 38	98333025 RS2179	1	Bolt, Alternator mounting, lower Lockwasher, Alternator mounting bolt, lower	
39	97220060	1	Nut, KEPS, Alternator Positive Post, 70A	
39	97220060	1	Nut, KEPS, Alternator Positive Post, 70A Nut, KEPS, Alternator Positive Post, 100A	
40	92920000	1	Washer, Flat, Alternator Positive Post 70A (only)	
41	R065055	1	Pulley, Alternator (5.X/6.0), serpentine	
42	R064010A	1	Balancer, crankshaft	
43	R06505	1	Pulley, crank, serpentine	
44	90315100	3	Bolt, drive belt pulley attaching	
45	RS2180	3	Lockwasher, drive belt pulley attaching bolt	
46	R009091	1	Bolt, crankshaft balancer	
47	R096074	1	Washer, crankshaft balancer	
48	R062089	1	Spacer, tensioner bracket (V-drive)	xx-570V-xx

STARTER ASSEMBLY COMPONENTS - FIGURE 19

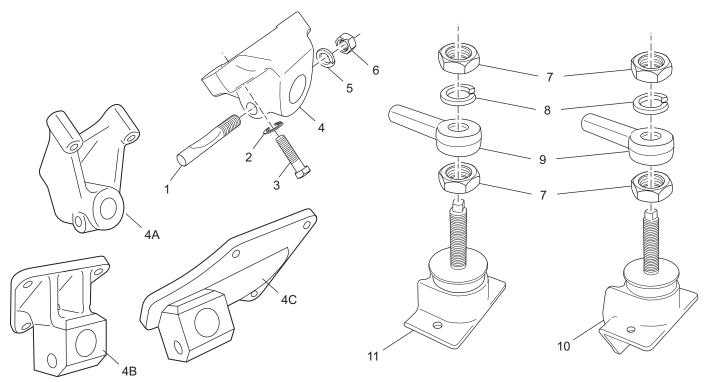


STARTER ASSEMBLY COMPONENTS - FIGURE 19

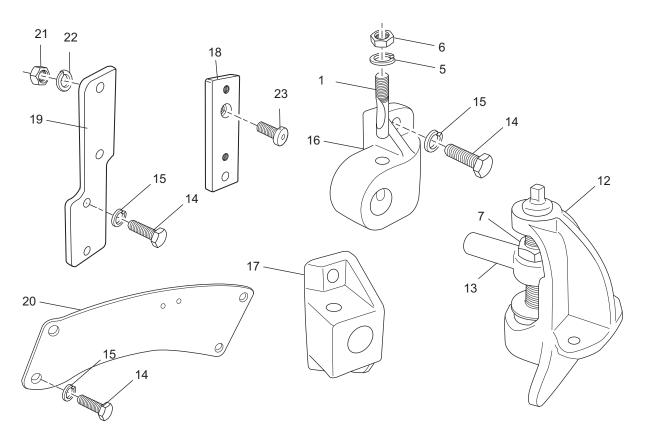
ITEM	PART NO.	QTY.	DESCRIPTION	MODEL ID
1	RS7018	1	Nut, solenoid terminal	
2	RS7080	1	Lockwasher, solenoid terminal	
3	RU0050B	1	Solenoid, starter	
4	R009167	2	Bolt, starter mounting	
4A	R009167A	AR	Bolt, starter mounting, special offset	
5	RA122015	1	Starter Motor Assembly (bottom mount)	
5	RA122009	AR	Starter Motor Assembly (top mount)	
6	93003000	1	Lockwasher, solenoid terminal	
7	RS7036	1	Nut, solenoid terminal	
8	RS1029	2	Nut, starter mounting (top mount)	
9	RS2181	2	Lockwasher, starter mounting (top mount)	
10	R031018	2	Stud, starter mounting (top mount)	

ENGINE and TRANSMISSION MOUNTS - FIGURE 20

Engine Mount Group Front Mount



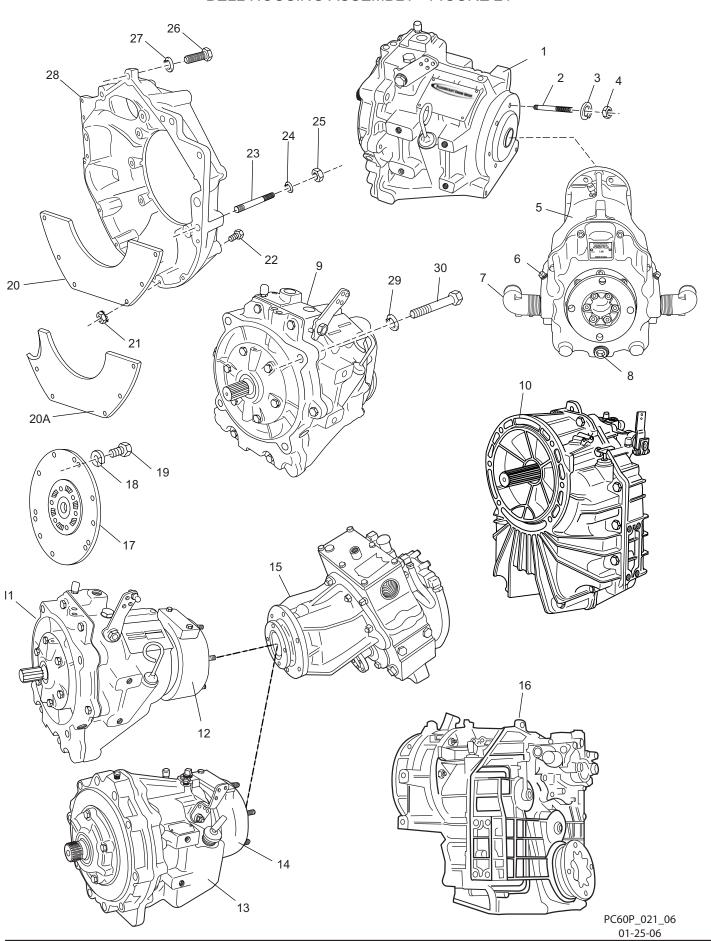
Engine Mount Group Rear Mount



ENGINE and TRANSMISSION MOUNTS - FIGURE 20

ITEM	PART NO.	QTY.	DESCRIPTION	MODEL ID
1	R095020	2	Bolt, trunnion clamp	
2	RS2180	6	Lockwasher, engine mount attaching bolt	
3	RS0306	6	Bolt, engine mount attaching (R090071)	
3	RS0311	4	Bolt, engine mount attaching (R090071A)	
NI	RS3442	2	Stud, engine mount attaching (R090071A)	
NI	RS1028	2	Nut, engine mount attaching (R090071A)	
4	R090071	2	Mount, engine front, short	
4A	R090071A	AR	Mount, engine front, tall	
4B	R090071C	AR	Mount, engine front	
4C	R090317	AR	Mount, engine front, 5.7 to 5.8 footprint (star)	
4C	R090316	AR	Mount, engine front, 5.7 to 5.8 footprint (port)	
5	RS2181	2	Lockwasher, trunnion clamp bolt	
6	RS1529	2	Nut, trunnion clamp bolt	
7	RS1075	4	Nut, adjustment and lock	
8	RS2186	2	Lockwasher, adjusting nut	
9	R091001	AR	Trunnion, long	
9	R091007	2	Trunnion, short, used with R090071	
10	RC091001	2	Trunnion Assembly	
11	RA092016	2	Trunnion Assembly	
12	RA092011	2	Trunnion Assembly, tall (1.23:1 STD / V-drive) Used with item #17 - R090145 mount	
12	RA092011A	2	Trunnion Assembly, tall (1.23:1 STD / V-drive) Used with item #16 - R090205 mount	
12	RA091003	2	Trunnion Assembly, short (1.0:1 STD) Used with item #17 - R090145 mount	
12	RA091006	2	Trunnion Assembly, short (1.0:1 STD) Used with item #16 - R090205 mount	
13	R091003	2	Trunnion , 2.5" (use with R090145)	
13	R091006	2	Trunnion , 2.125" (use with R090205)	
14	RS0327	4	Bolt , rear mount attaching (R109054, R090318-lower)	
14	RS0328	4	Bolt , rear mount attaching (R090145)	
14	RS0329	4	Bolt, rear mount attaching (R090205)	
14	RS0330	4	Bolt, rear mount attaching (R090318, upper)	
15	RS2181	4	Lockwasher, rear mount attaching bolt	
16	R090205	2	Mount, rear	
17	R090145	2	Mount, rear	
NI	R090343	1	Mount, rear, port	15-570V-02, 15-570V-04
NI	R090344	1	Mount, rear, starboard	15-570V-02, 15-570V-04
18	R169062	AR	Shim, Mount, rear	03-570-01, 03-570-02, 03-572-01, 15-570V-01, 15-570V-03
NI	R090217A	1	Mount , rear, port (Hurth)	09-570V-01, 09-570V-02
NI	R090218A	1	Mount, rear, starboard (Hurth)	09-570V-01, 09-570V-02
NI	R109042	AR	Shim, Mount, rear (2 per side) (Hurth)	09-570V-01, 09-570V-02
NI	R169063	AR	Spacer, Mount, rear, 2"	04-570V-03
NI	R169063A	AR	Spacer, Mount, rear, 2" offset	19-570-01, 19-570-02, 19-572-01, 19-572-02
19	R090318	2	Mount, PCM V-DRV (use with RA092016, item 11)	, ,
20	R109054	2	Plate, brace, PCM V-DRV used when there is no mount	15-570V-02, 15-570V-04
21	RS1029	4	Nut, rear mount attaching (R090318)	
22	RS2181	4	Lockwasher, rear mount attaching (R090318)	
23	90465100	2	Bolt , shim mount attaching (R169062)	03-570-01, 03-570-02, 03-572-01, 15-570V-01, 15-570V-03

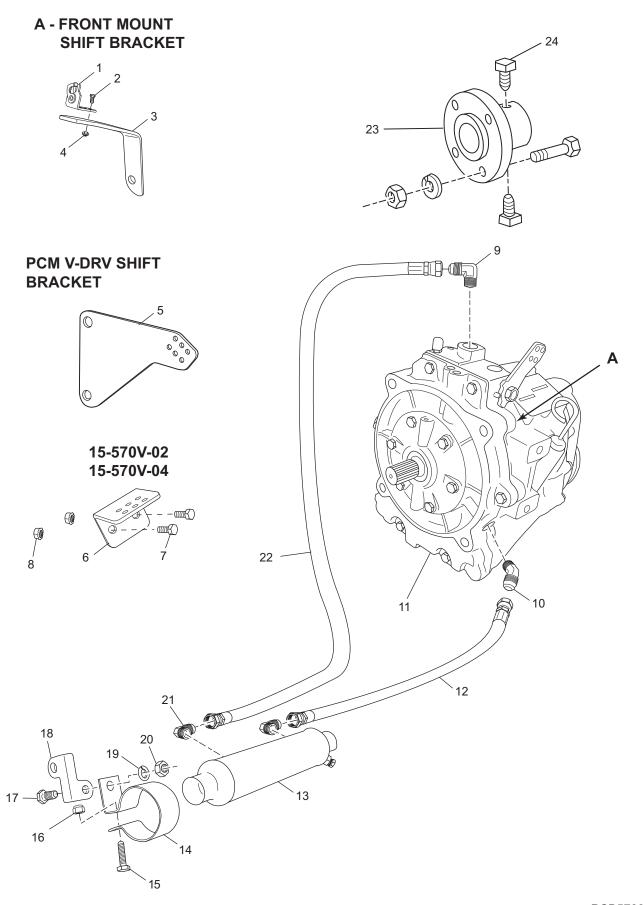
BELL HOUSING ASSEMBLY - FIGURE 21



BELL HOUSING ASSEMBLY - FIGURE 21

ITEM	PART NO.	QTY.	DESCRIPTION	MODEL ID
1	RA157015	AR	Transmission Assembly, IRM40S, PCM to PCM V-DRV	
2	R031035	8	Stud, PCM V-DRV to transmission attaching	
3	RS2179	8	Lockwasher, PCM V-DRV to transmission attaching	
4	RS7026	8	Nut, PCM V-DRV to transmission attaching	
5	RA156011B	AR	PCM Power-Plus V-Drive Assembly, 1.48:1	
NI	R190250	AR	Gear Lube, synthetic SAE 50, PCM V-DRV (1 qt.)	
6	TBD	2	Plug, brass, oil fill/drain, PCM V-DRV	
7	97854	2	Fitting, brass elbow 90°,PCM V-DRV	
8	RS3633	1	Plug, brass, raw water drain, 1/2" square socket	
9	RA157017	AR	Transmission Assembly, IRM40A, 1.23:1 PCM	
10	RA156009	AR	Transmission Assembly, 630V, HURTH, 1.29:1	
10	RA156009A	AR	Transmission Assembly, 630V, HURTH, 1.5:1	
11	RA157016	AR	Transmission Assembly, IRM40I, 1.0:1 PCM	
12	R079056	AR	Adapter, V-Drive, PCM to Walter	
13	RA157001	AR	Transmission Assembly, 1.0:1 Warner (71C)	
13	RA157003	AR	Transmission Assembly, 1.0:1 Warner (72C)	
13	RA157001A	AR	Transmission Assembly, (71C w/v-drive adapter))	
14	R079072	AR	Adapter, V-Drive, Warner to Walter	
15	RA156004	AR	V-Drive Assembly, Walters, 1.46:1	
16	RA156010	AR	Transmission Assembly, 90VTS, ZF 2-speed	04-570-02
NI	RK104013	AR	Connector Kit, ZF 2-speed	
17	R140004	1	Plate, damper (Warner Transmissions, 5.0/5.7L)	
17	R140016	1	Plate, damper (PCM Transmissions)	
17	R140019	1	Plate, damper (Hurth Transmission/2-speed)	
18	RS2180	4	Lockwasher, damper plate attaching bolt	
19	R009092	4	Bolt , damper plate attaching	
20	R019008	1	Cover, dust (use w/top mount starter)	
20A	R019008A	1	Cover, dust (use w/bottom mount starter)	
21	RS1078	2	Nut, dust cover attaching	
22	RS0256	2	Bolt, dust cover attaching	
23	R031033	2	Stud, bellhousing attaching	
24	RS2180	2	Lockwasher, bellhousing attaching	
25	RS1028	2	Nut, bellhousing attaching	
26	98443050	3	Bolt, bellhousing attaching	
27	93940000	3	Lockwasher, bellhousing attaching	
28	R142014	1	Bellhousing, top or bottom mount starter	
28	R142006B	1	Bellhousing, bottom mount starter, only	
NI	R019010	1	Cover, dust, top mount starter	
			(used w/R019008A)	
NI	RS0327	2	Bolt, dust cover attaching	
NI	RS2181	2	Lockwasher, dust cover attaching	
			** PCM **	
29	RS2180	4	Lockwasher, transmission attaching bolt	
30	RS0329	4	Bolt, transmission attaching	
			**Velvet Drive **	
NI	96541	2	Stud, transmission mounting (4")	
NI	RS2181	6	Lockwasher, transmission mounting	
NI	RS1029	2	Nut, transmission mounting stud	
NI	RS0337	4	Bolt, transmission mounting	
	D004040	_	**Hurth Gears**	
NI	R031018	2	Stud, transmission mounting (1 5/8")	
NI	RS2181	6	Lockwasher, transmission mounting	
NI	RS1029	2	Nut, transmission mounting stud	
NI	RS0329	4	Bolt, transmission mounting	

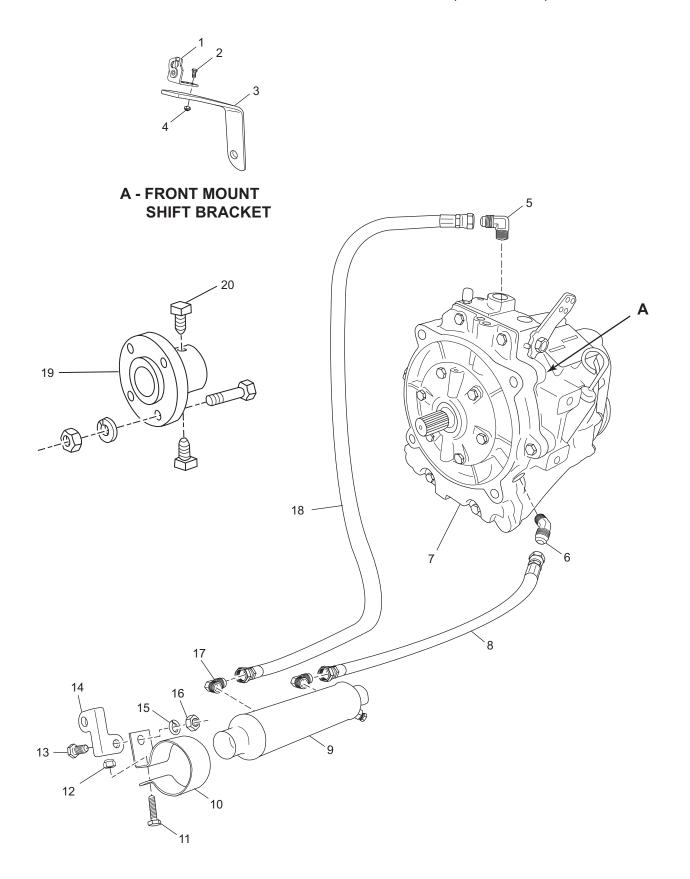
TRANSMISSION AND RELATED COMPONENTS (1.23:1 FWC) - FIGURE 22



TRANSMISSION AND RELATED COMPONENTS (1.23:1 FWC) - FIGURE 22

ITEM	PART NO.	QTY.	DESCRIPTION	MODEL ID
1	R090086	1	Cable Clip, single cable	
2	RS5122	2	Bolt, cable clip attaching	
3	R090143	1	Bracket, shift (RWC)	
3	R090143A	1	Bracket, shift (FWC)	
4	RS2055	2	Nut, cable clip attaching bolt	
5	R090319	1	Bracket, shift (PCM V-DRV)	
6	R090348	1	Bracket, shift (PCM V-DRV, attaches to R109054)	15-570V-02, 15-570V-04
7	RS5124	2	Bolt, bracket attaching	
8	RS1078	2	Nut, KEPS, bracket attaching bolt	
9	R024010	1	Fitting, 90 degree	
10	R024053	1	Fitting, 45 degree	
11	RA157017	1	Transmission, 1.23:1	
12	RA045007S	1	Hose Assembly, cooler to transmission	
13	R147014	1	Oil Cooler Assembly, transmission	
14	R090010	1	Clamp, oil cooler assembly mounting	
15	RS0256	1	Bolt, oil cooler attaching	
16	RS1078	1	Nut, oil cooler attaching	
17	RS0302	1	Bolt, oil cooler clamp attaching	
18	R090013A	1	Bracket, oil cooler mounting	
19	RS2180	1	Lockwasher, oil cooler clamp attaching bolt	
20	RS1028	1	Nut, oil cooler clamp attaching bolt	
21	R024010	2	Fitting, 90 degree	
22	RA045007T	1	Hose Assembly, transmission to cooler	
23	R148010	OPT	Coupler, prop shaft (4" X 1" shaft)	
23	R148011	OPT	Coupler, prop shaft (4" X 1 1/8" shaft)	
24	2000090	2	Screw, set - coupler	

TRANSMISSION AND RELATED COMPONENTS (1.23:1 RWC) - FIGURE 23

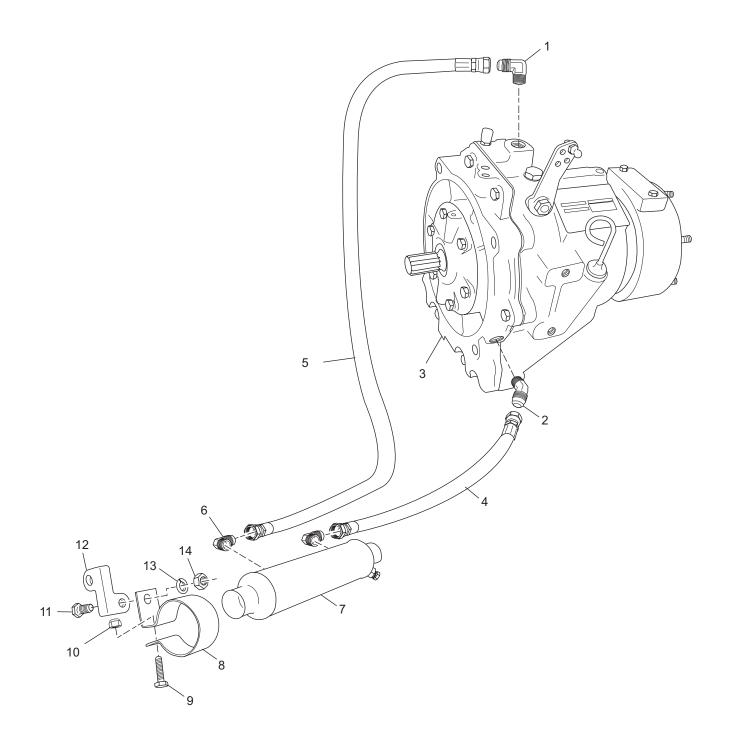


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TRANSMISSION AND RELATED COMPONENTS (1.23:1 RWC) - FIGURE 23

R090086			I
1030000	1	Cable Clip, single cable	
RS5122	2	Bolt, cable clip attaching	
R090143	1	Bracket, shift (RWC)	
R090143A	1	Bracket, shift (FWC)	
RS2055	2	Nut, cable clip attaching bolt	
R024010	1	Fitting, 90 degree	
R024053	1	Fitting, 45 degree	
RA157017	1	Transmission, 1.23:1	
RA045007S	1	Hose Assembly, cooler to transmission	
R147014	1	Cooler Assembly, transmission	
R090010	1	Clamp, cooler assembly mounting	
RS0256	1	Bolt, cooler attaching	
RS1078	1	Nut, cooler attaching	
RS0302	1	Bolt, cooler clamp attaching	
R090013A	1	Bracket, cooler mounting	
RS2180	1	Lockwasher, cooler clamp attaching bolt	
RS1028	1	Nut, oil cooler clamp attaching bolt	
R024010	2	Fitting, 90 degree	
RA045007T	1	Hose Assembly, transmission to cooler	
R148010	OPT	Coupler, prop shaft (4" X 1" shaft)	
R148011	OPT	Coupler, prop shaft (4" X 1 1/8" shaft)	
2000090	2	Screw, set - coupler	
	R090143 R090143A RS2055 R024010 R024053 RA157017 RA045007S R147014 R090010 RS0256 RS1078 RS0302 R090013A RS2180 RS1028 R024010 RA045007T R148010 R148011	R090143 1 R090143A 1 RS2055 2 R024010 1 R024053 1 RA157017 1 RA045007S 1 R147014 1 R090010 1 RS0256 1 RS1078 1 RS0302 1 R090013A 1 RS2180 1 RS1028 1 RO24010 2 RA045007T 1 R148010 OPT R148011 OPT	R090143

TRANSMISSION AND RELATED COMPONENTS (1.0:1 "V" - DRIVE) - FIGURE 24



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TRANSMISSION AND RELATED COMPONENTS (1.0:1 "V" - DRIVE) - FIGURE 24

ITEM	PART NO.	QTY.	DESCRIPTION	MODEL ID
1	R024010	1	Fitting, 90 degree	
2	R024053	1	Fitting, 45 degree	
3	RA157016	1	Transmission, 1.0:1, (w/R079056 Adapter)	
4	RA045007S	1	Hose Assembly, cooler to transmission	
5	RA045007T	1	Hose Assembly, transmission to cooler	
6	R024010	2	Fitting, 90 degree	
7	R147014	1	Cooler Assembly, transmission	
8	R090010	1	Clamp, cooler assembly mounting	
9	RS0256	1	Bolt, cooler attaching	
10	RS1078	1	Nut, cooler attaching	
11	RS0302	1	Bolt, cooler clamp attaching	
12	R090013A	1	Bracket, cooler mounting	
13	RS2180	1	Lockwasher, cooler clamp attaching bolt	
14	RS1028	1	Nut, oil cooler clamp attaching bolt	
	1			