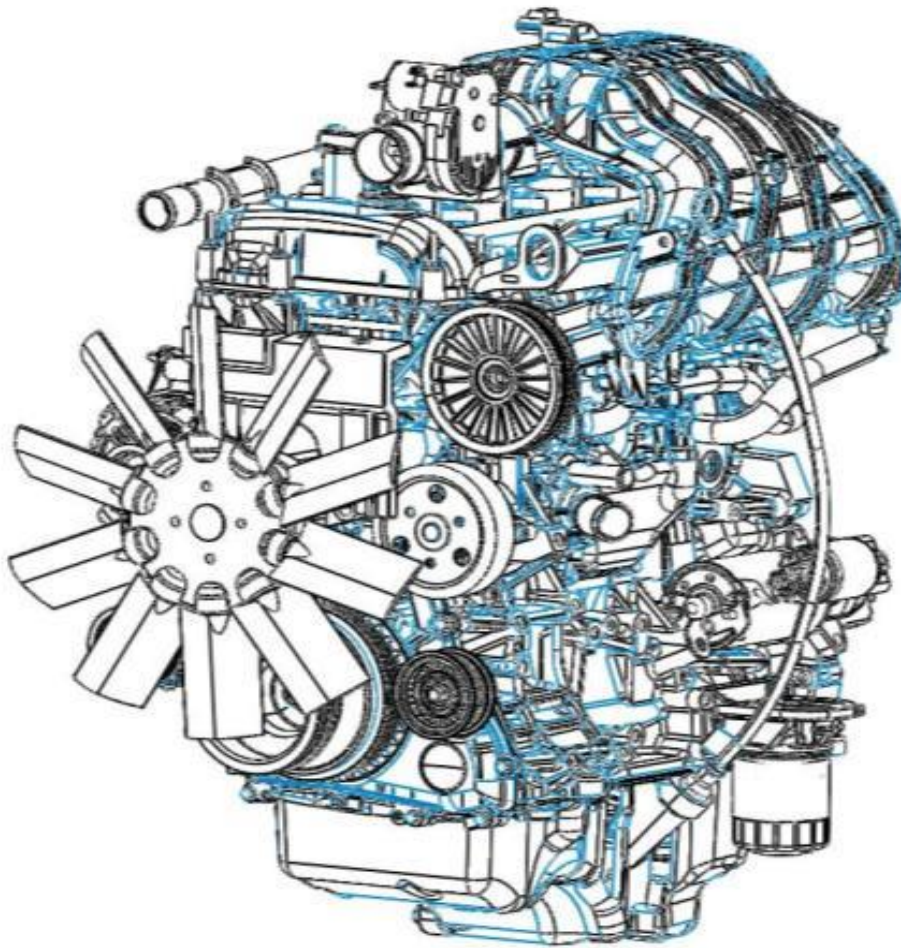




MSG425 Service Parts Manual



Part#: 1020040

Rev 12

7/26/2017

General Information

This catalog has been prepared to assist you, the owner, in identifying the correct replacement

Parts Information

Each listing contains base part number, part description and the quantity required to assist in indentifying and ordering the correct part.

NOTE: The descriptions and specifications contained in this manual were in effect at the time the book was released for printing. Engine Distributors, Inc. (EDI) reserves the right to discontinue models at any time, or change specifications or design, without notice and without

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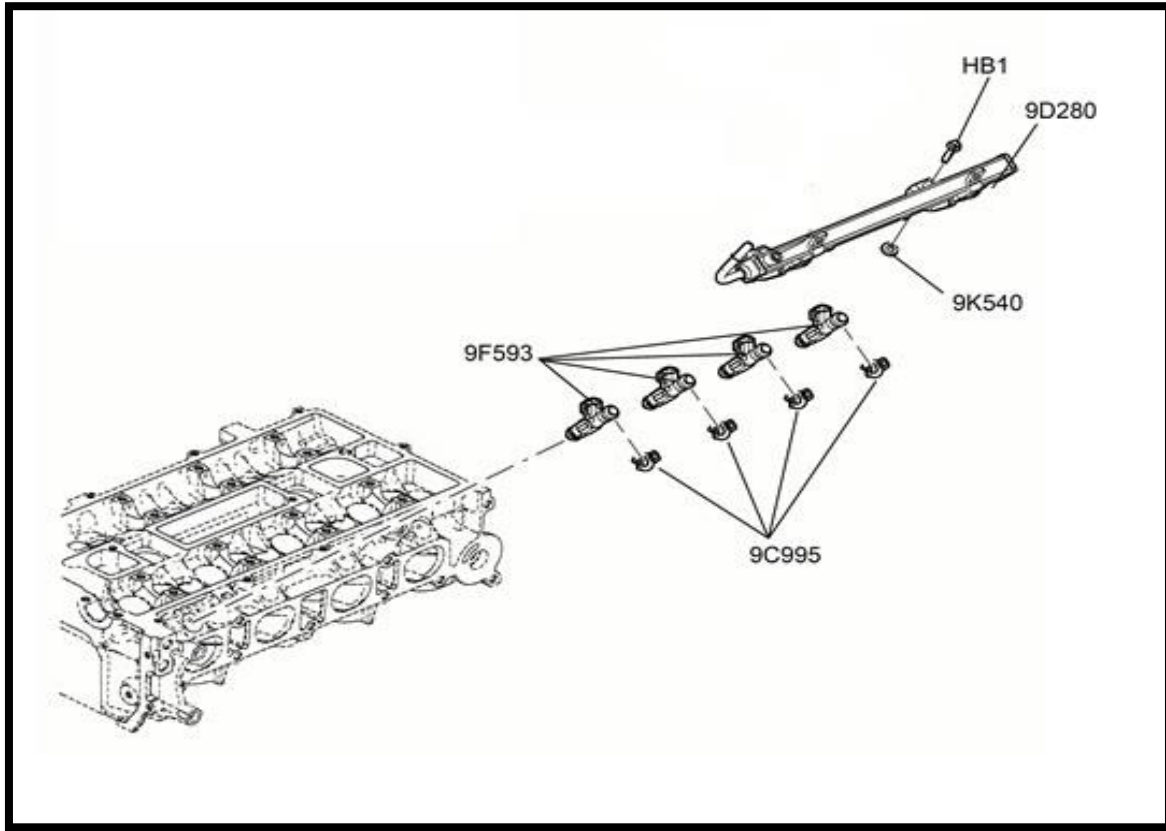


Engine Distributors Inc
400 University Ct.
Blackwood, NJ 08012
800-220-2700

INDEX

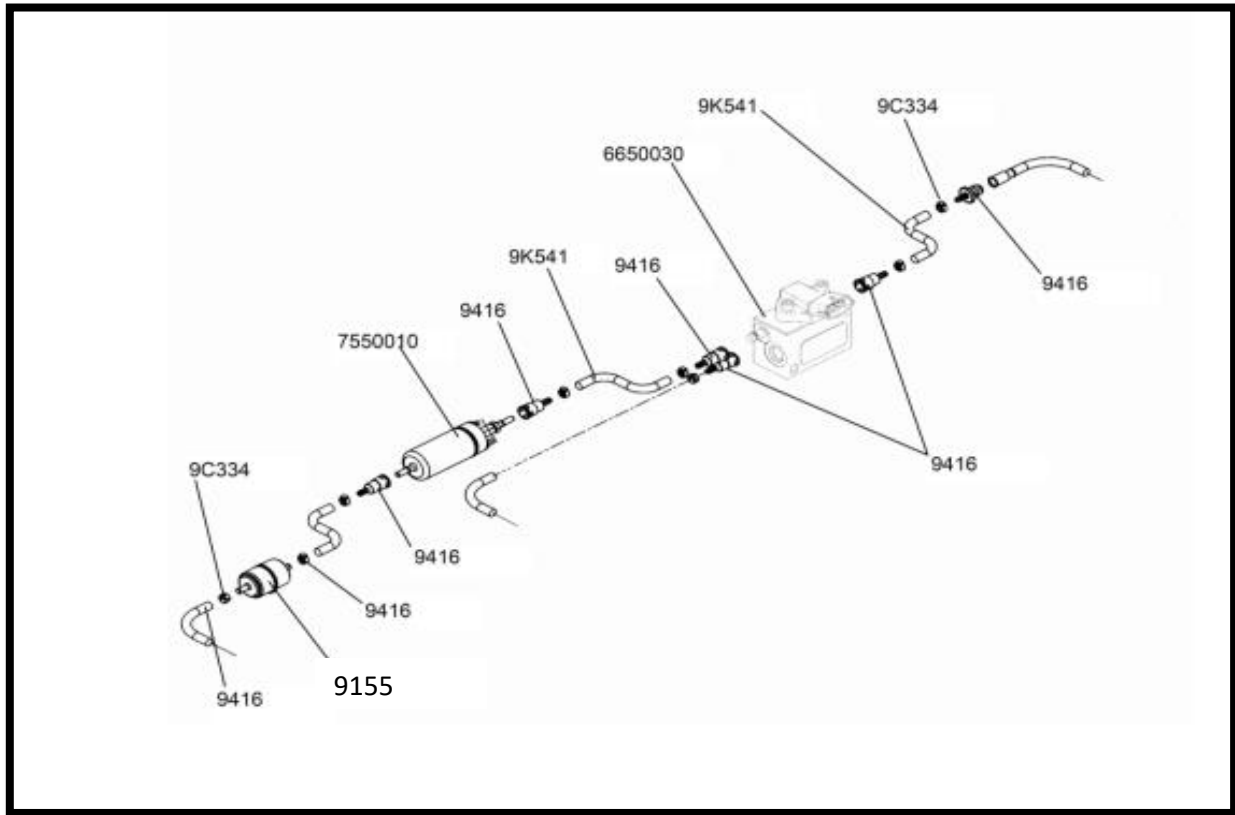
MSG425 Service Parts	Section	PAGE
Fuel System Fuel Rail and Injectors, Fuel Pump, LPG and NG Mixers/Pressure Regulators, Lockoff Valves	1	3
Electrical System Starter, Alternator, Relays, Sensors and Wiring Harnesses	2	9
Exhaust Catalyst Muffler, Manifold	3	14
Intake Manifold, Bosch Governor, Throttle Adapter	4	15
FEAD Tensioner, Pulleys	5	16
Flywheel and Housings Flatface Flywheel, SAE Flywheel and Housing	6	18
Cooling System Thermostat, Water Pump, Coolant Outlet and Tube	7	19
Oil System Filter, Oil Pan, Pickup, Pump and Chain	8	21
Base Engine Camshafts, Valve Cover, Crankshaft and Bearings, Cylinder Head, Crankcase Ventilation, Pistons, Timing Chain and Gears, Front Cover	9	24
Manual & Labels	10	34

Gasoline Fuel Rail and Injectors



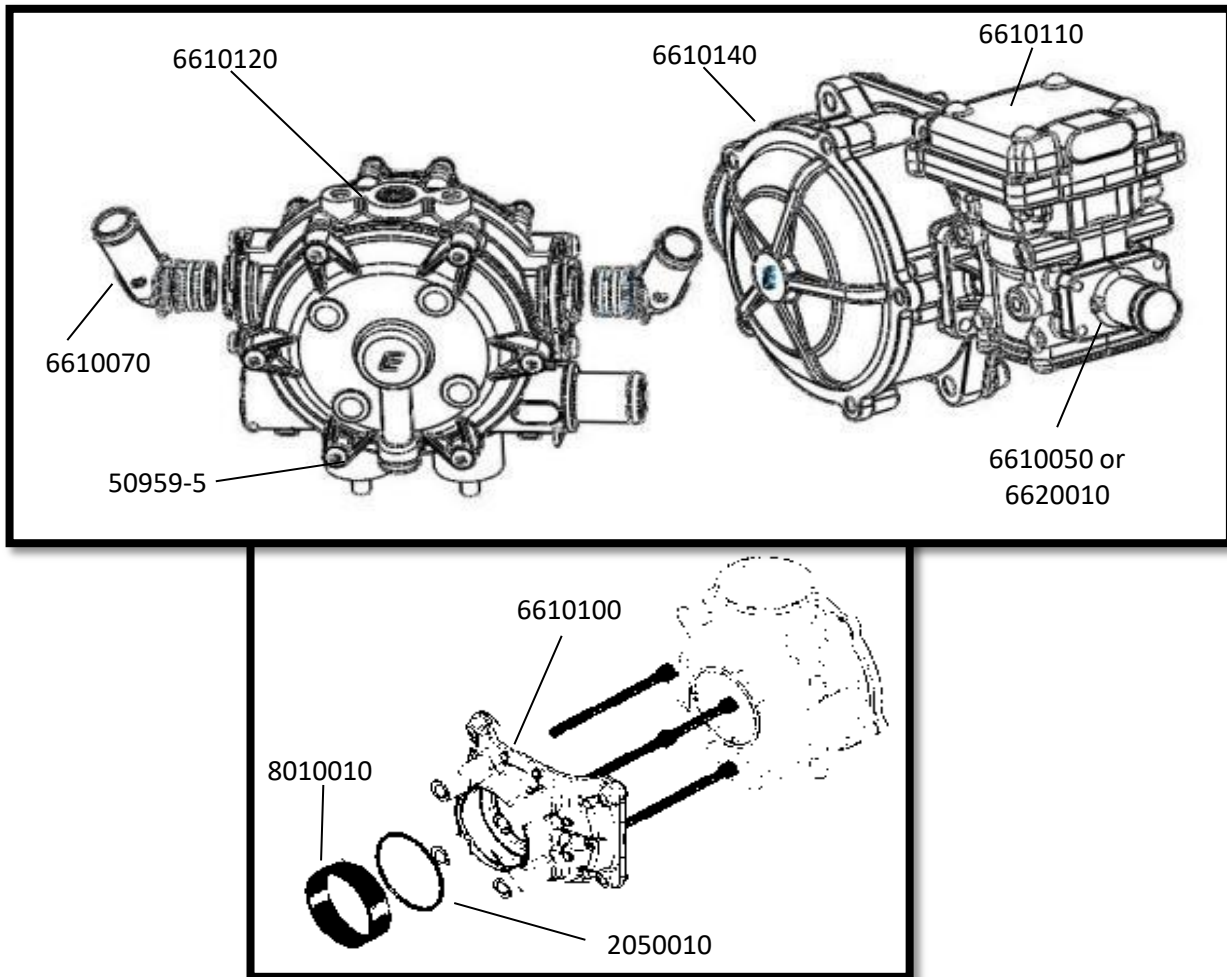
Quantity	Description	Part #
4	Fuel Injector	BB3Z-9F593-A
4	Fuel Injector Retainer	1S7Z-9C995-CA
1	Fuel Rail	BB3Z-9D280-AA
1	Fuel Rail Retainer	HB1
1	INS FU/INJ NSE	CV6Z-9K540-B

Gasoline Fuel Pump, Block, and Lines



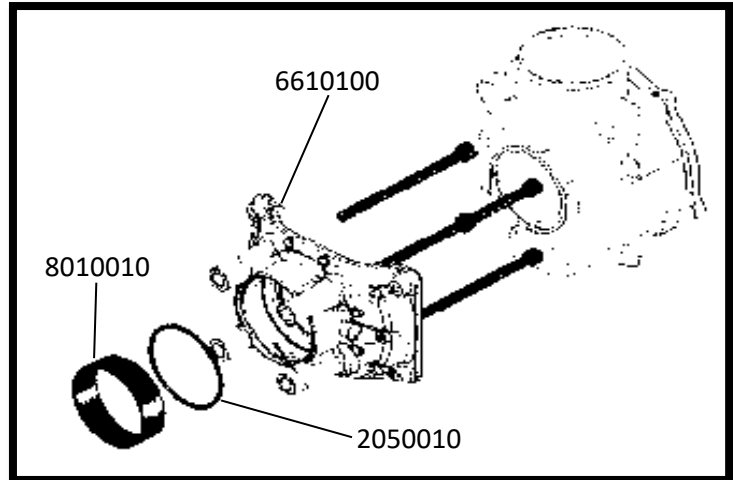
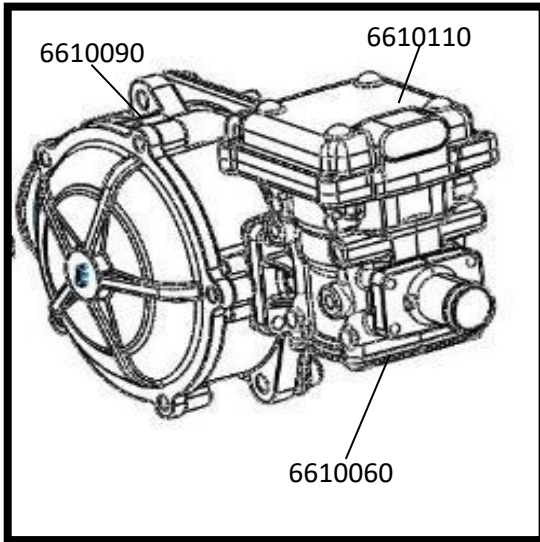
Quantity	Description	Part #
1	Gasoline Fuel Pump	7550010
1	Gasoline Fuel Block	6650030
2	Fuel Block Fitting - SAE 6	2050040
1	Fuel Block Fitting - SAE 3	2050050
1	Fuel Pump Fitting - M10	2050030
1	Fuel Pump Fitting Washer	1118659
1	Fuel Filter	F89Z-9155-A
1	Fuel Pump Mounting Clamp	6660020
8	Fuel Line Clamps	F8JL-9C334-AA
8	Fuel Clips (Quick Disconnects)	F68A-9416-BA
NA	Fuel Line	6590010

LPG Fuel System; Mixer, DEPR, Vapor Regulator



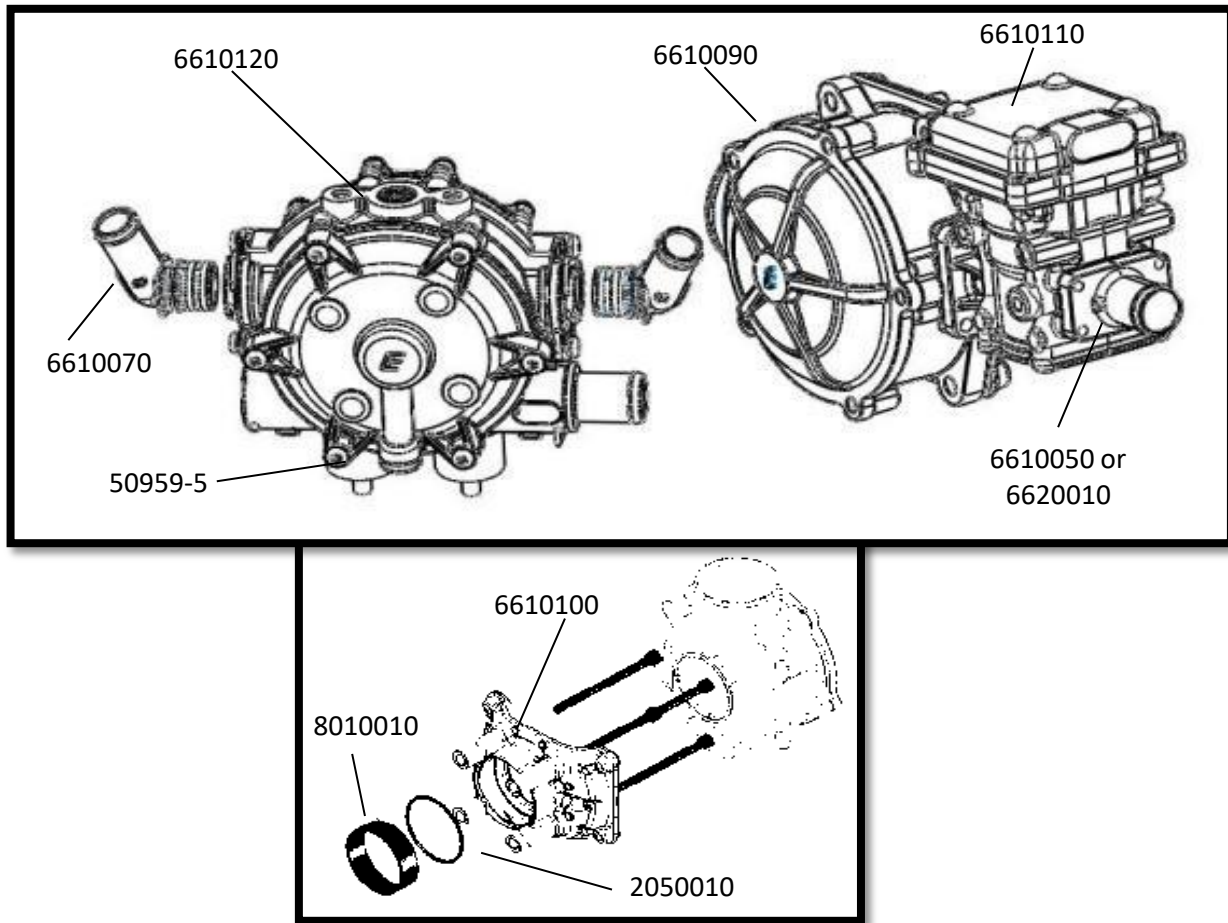
Quantity	Description	Part #
1	LPG Mixer	6610140
1	Mixer to Governor Adapter	6610100
1	Mixer to Governor Adapter Thin O-ring	2050010
1	Mixer to Governor Adapter Thick O-ring	8010010
1	LPG Vapor Regulator	6610120
1	Direct Electronic Pressure Regulator (DEPR)	6610110
1	DEPR LPG Fitting (pictured)	6610050
1	90 [degree] DEPR LPG Fitting (Genie)	6620010
2	LPG Vapor Regulator Rubber Isolators	50959-5
2	LPG Vapor Regulator Coolant Fitting (straight)	6610080
2	LPG Vapor Regulator Coolant Fitting (70 degree)	6610070
1	LPG Vapor Regulator Fuel Outlet Fitting	6650050
NA	LP Vapor Hose	VH34
1	Mixer Diaphragm Replacement Kit	6630020
3	Vapor Regulator Locking Pins	1060230

NG Fuel System



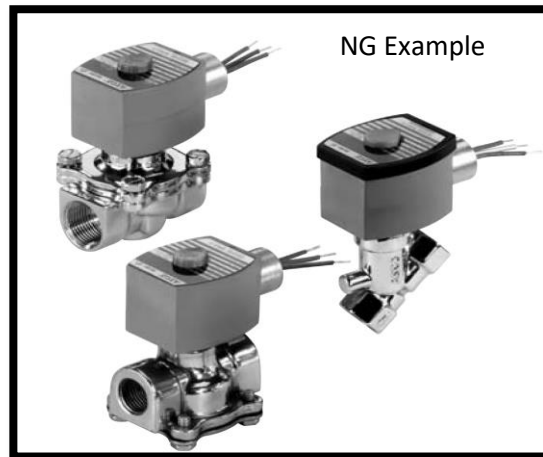
Quantity	Description	Part #
1	NG Mixer	6610090
1	Mixer to Governor Adapter	6610100
1	Mixer to Governor Adapter Thin O-ring	2050010
1	Mixer to Governor Adapter Thick O-ring	8010010
1	Direct Electronic Pressure Regulator (DEPR)	6610110
1	DEPR NG Fitting (threaded)	6610060
1	Mixer Diaphragm Replacement Kit	6630020

CNG Fuel System; Mixer, DEPR, Vapor Regulator



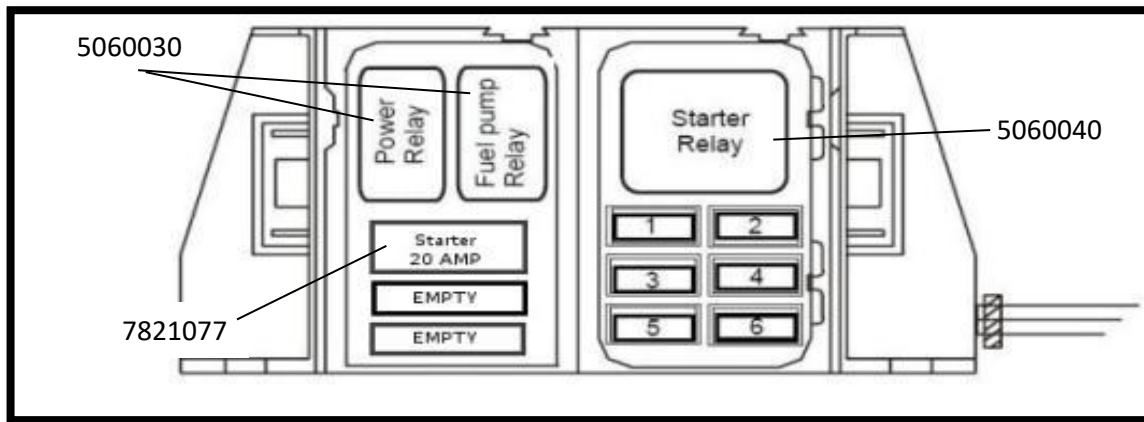
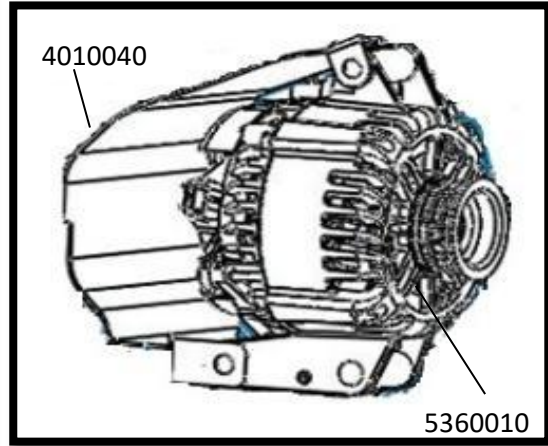
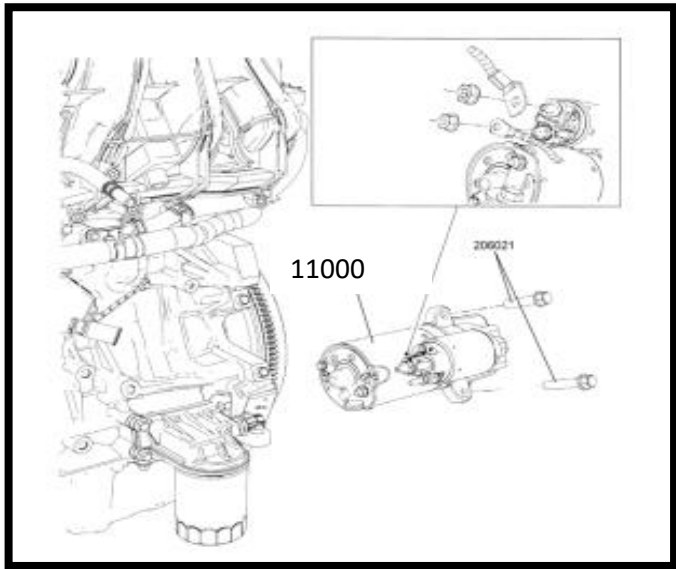
Quantity	Description	Part #
1	NG Mixer	6610090
1	Mixer to Governor Adapter	6610100
1	Mixer to Governor Adapter Thin O-ring	2050010
1	Mixer to Governor Adapter Thick O-ring	8010010
1	Vapor Regulator	6610120
1	Direct Electronic Pressure Regulator (DEPR)	6610110
1	DEPR Straight Fitting (pictured)	6610050
1	90 [degree] DEPR Fitting	6620010
2	Vapor Regulator Rubber Isolators	50959-5
2	Vapor Regulator Coolant Fitting (straight)	6610080
2	Vapor Regulator Coolant Fitting (70 degree)	6610070
1	LPG Vapor Regulator Fuel Outlet Fitting	6650050
NA	Vapor Hose	VH34
1	Mixer Diaphragm Replacement Kit	6630020
3	Vapor Regulator Locking Pins	1060230

Lockoff Valves



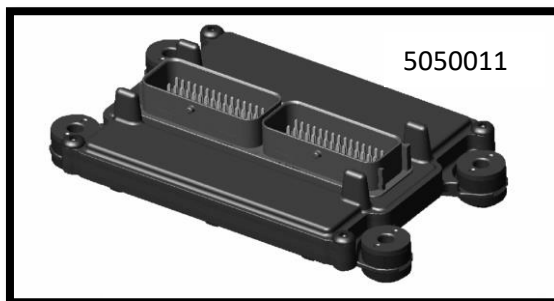
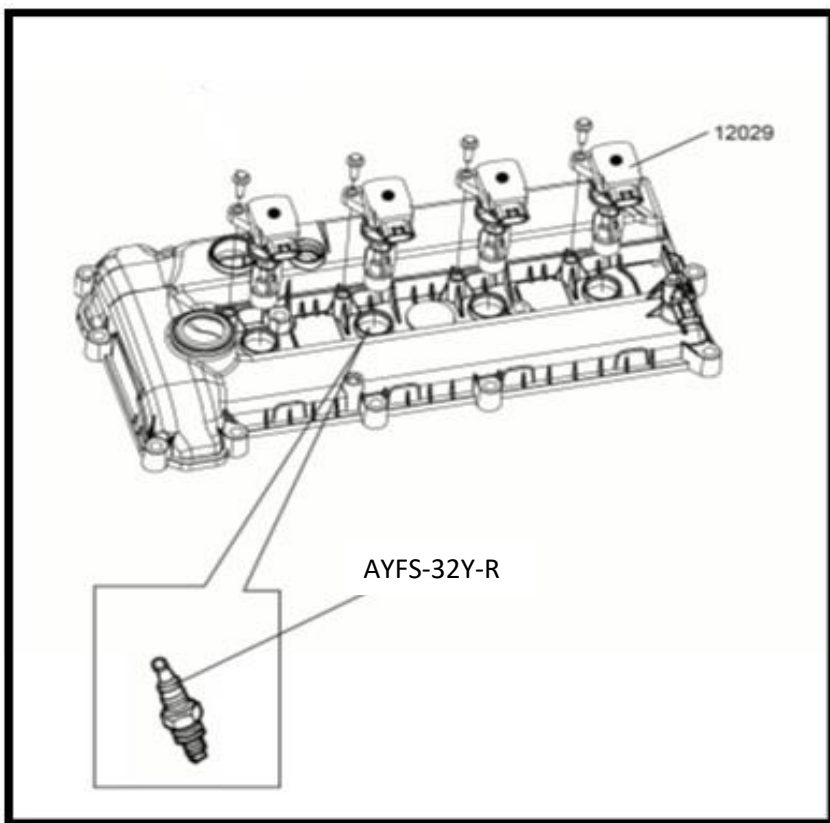
Quantity	Description	Part #
1	12V LPG Shutoff valve	N301652
1	12V LPG Shutoff Valve 90 deg	N301641
1	12V NG Shutoff valve	8215G030
1	12V LPG Shutoff Valve w/ filter	6690020
1	Shutoff Valve Connector kit	5010030A

Starter, Charging System, and Relays



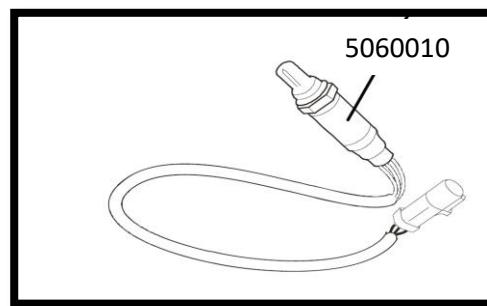
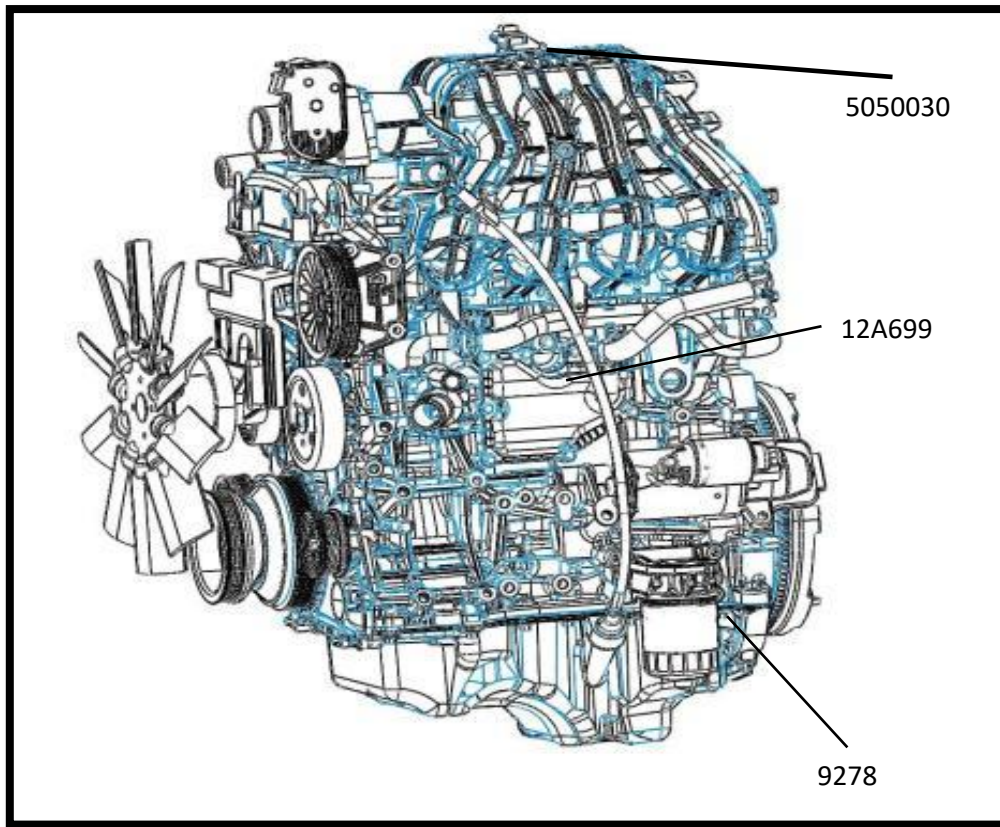
Quantity	Description	Part #
1	Starter	DS7T-11000-GA
1	Starter Dowel Pins	W701350S437
1	Alternator	5360010
1	Alternator Heat Shield	4010040
2	Fuel Pump and Power Relays	5060030
1	Starter Relay	5060040
1	Relay Box Top	5210010
1	Relay Box Top Sticker	5210020
1	Fuse Box Mount, right	5210040
1	Fuse box mount, left	5210050
1	Starter Fuse 20 AMP	7821077

Starter, Charging System, and Relays



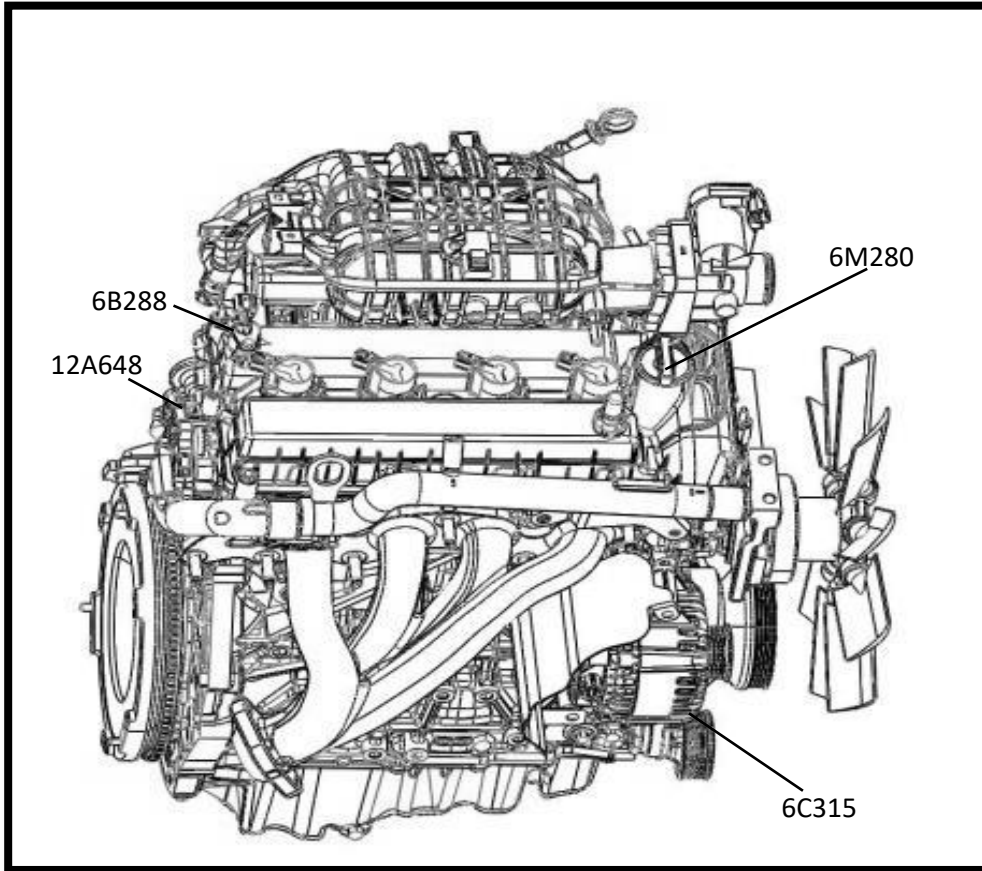
Quantity	Description	Part #
1	ECU (GCP)	5050011
1	ECU (4G, JLG only)	5040010
4	Coil and Boot Assy.	9E5Z-12029-A
4	Spark Plug	AYFS-32Y-R

Sensors - Page 1 and 2



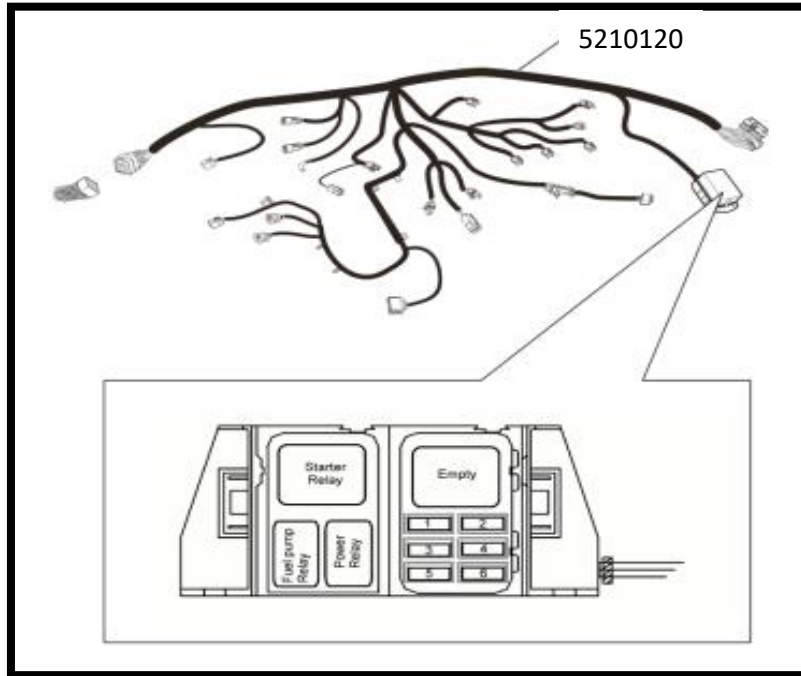
Quantity	Description	Part #
1	Oil Pressure Switch	6U5Z-9278-G
1	Knock sensor	1S7Z-12A699-BB
1	TMAP Sensor	5050030
2	Exhaust O2 Sensor (pre and post catayst)	5060010

Sensors - Page 2 and 2



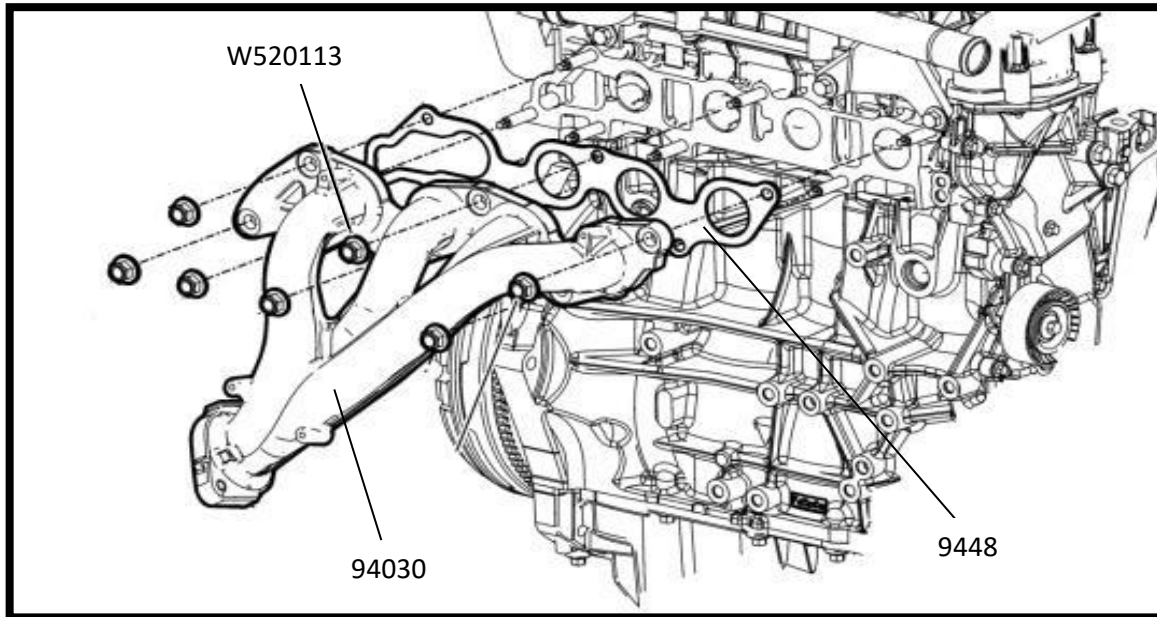
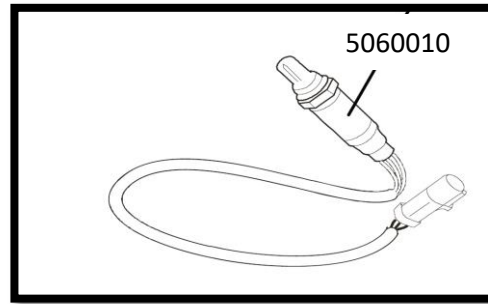
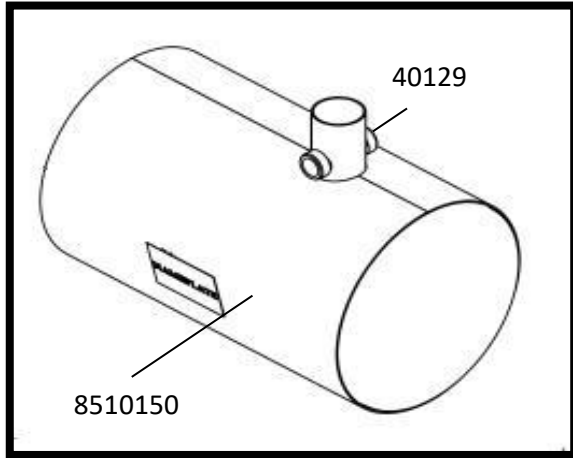
Quantity	Description	Part #
1	Coolant Temp Sensor	F8CZ-12A648-B
1	Crank Position Sensor	5M6Z-6C315-A
1	CAM Position Sensor	6M8Z-6B288-C
1	Solenoid - Variable Valve Timing	CJ5Z-6M280-A
1	VVT Rubber Grommet	BR3Z6C535B

Harnesses and Misc.



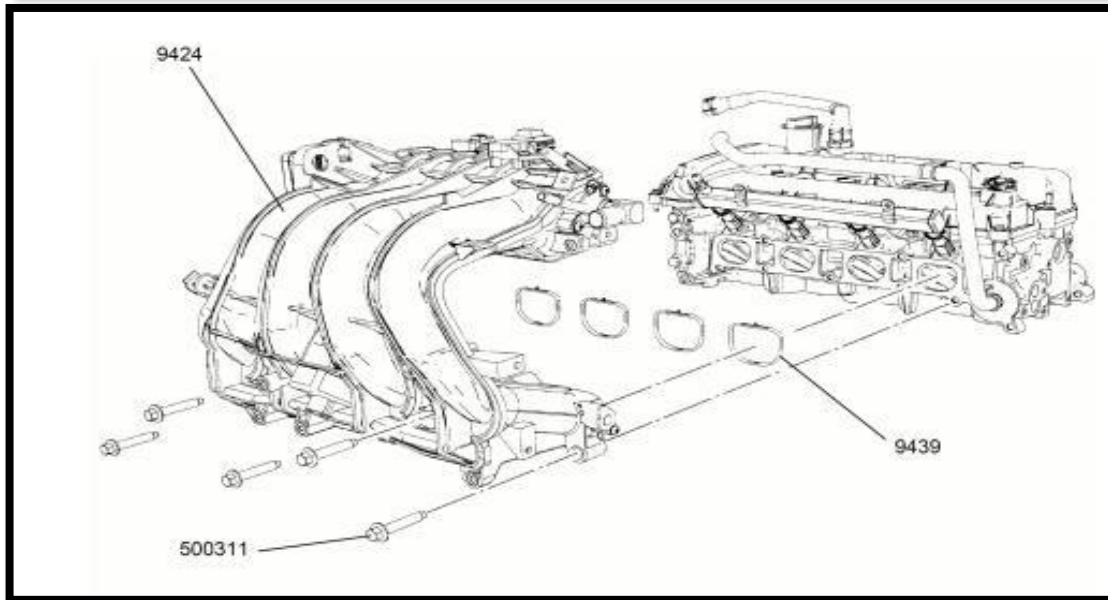
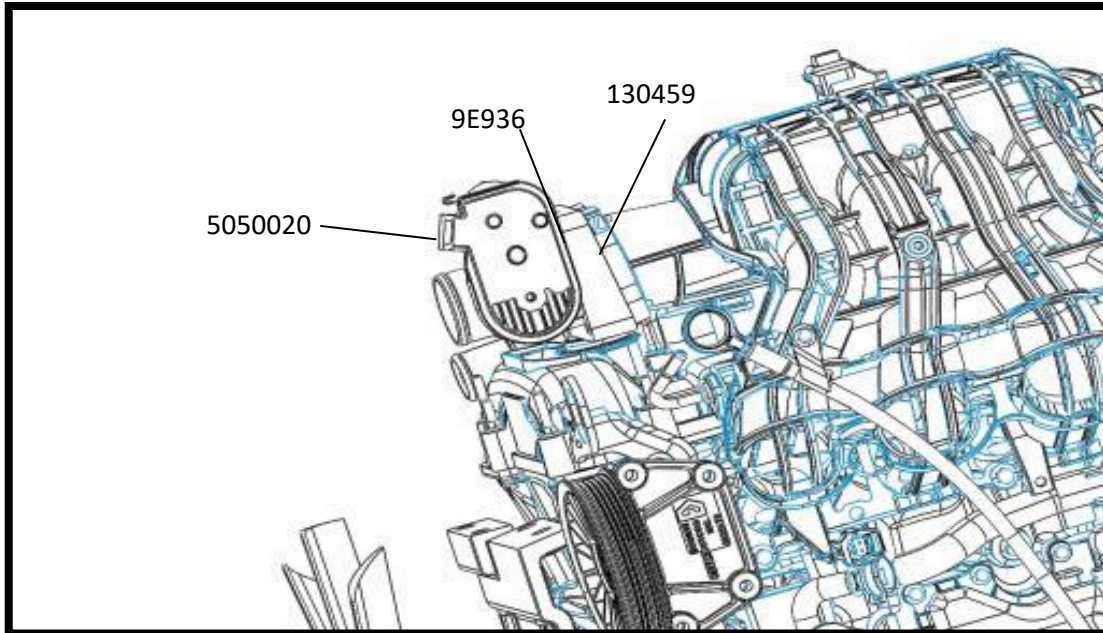
Quantity	Description	Part #
1	Engine Harness	5210120
1	Alternator to Starter Charge Wire	5260040
1	Gasoline Fuel Block Harness	5260010
2	Fuse box isolators	50959-5
1	Engine Bracket for GCP and Fuse Box	4020050
1	Diagnostic Software and Cable	5080050
1	GCP Connector Slide Lock	5240030
1	GCP Connector Cover	5240020

Exhaust System Components



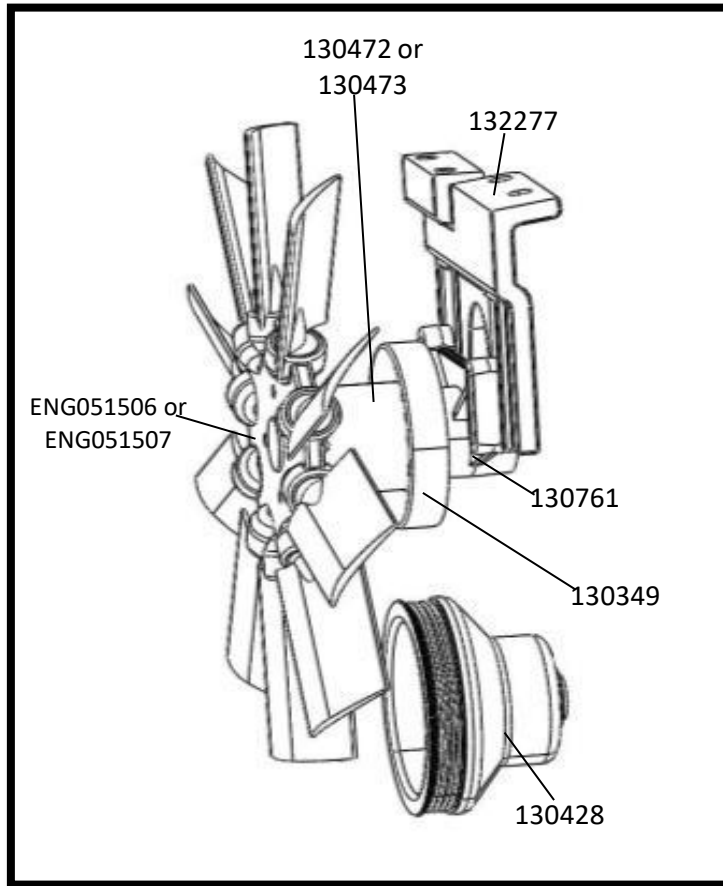
Quantity	Description	Part #
1	Catalyst Muffler	8510150
1	Cat Muffler O2 Plug (M18)	40129
1	Exhaust Manifold	AB39-9430-AB
1	Exhaust Manifold gasket	IL5Z-9448-AB
7	Manifold Mounting Nuts	W520113
1	Manifold Outlet Gasket	AB39-9451-AA
2	Exhaust O2 Sensor (pre and post catalyst)	5060010
1	Pre-Cat Sensor Pipe Bung	F5AC9J467CA

Intake Air System



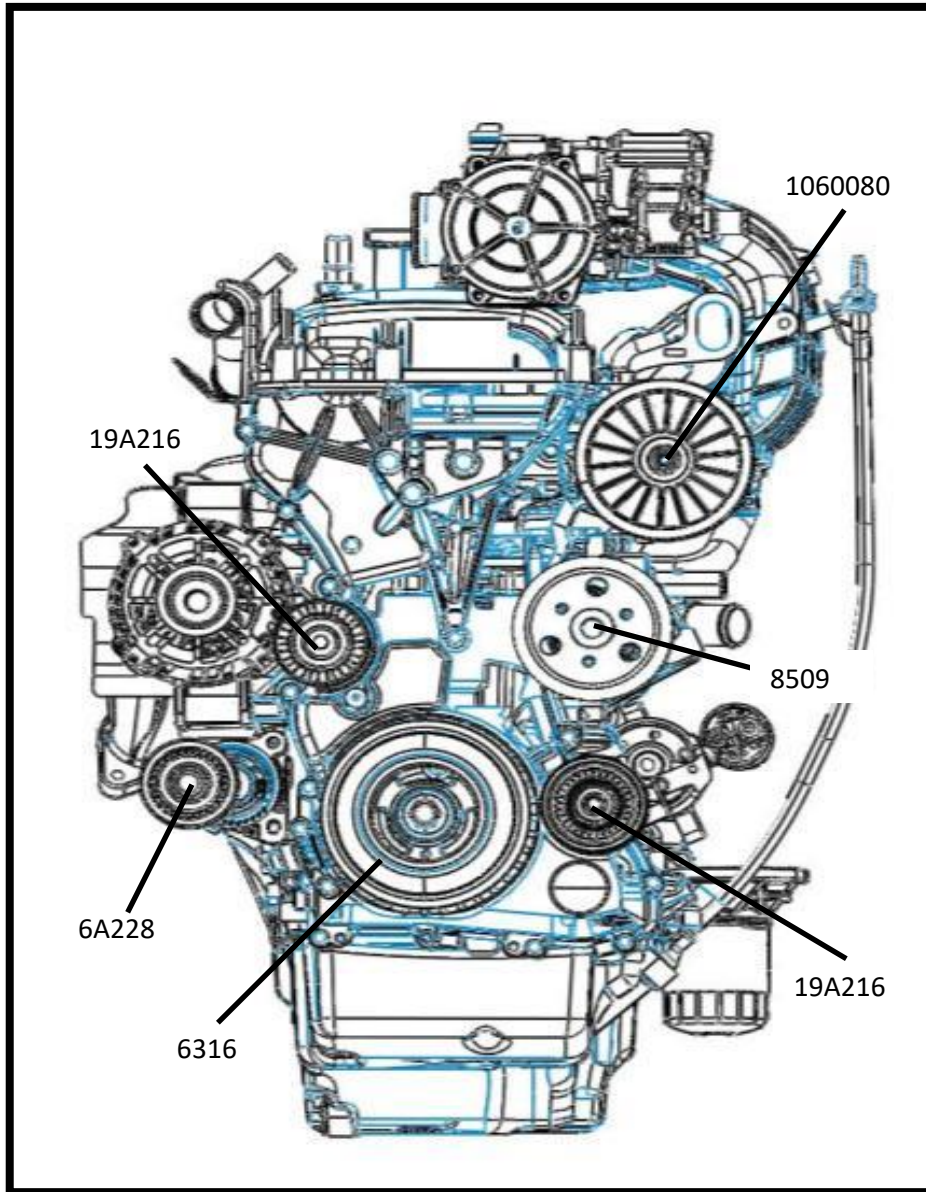
Quantity	Description	Part #
1	Bosch Governor	5050020
1	Bosch Governor Gasket	1U1L-9E936-AA
1	Governor to Intake Manifold Adapter	130459
1	Intake Manifold	BB3G-9424-AG
4	Gasket intake manifold to cylinder head	8E5Z-9439-A
5	Intake to Cylinder Head Bolts	W500311
1	Intake manifold to throttle adapter gasket	8E5Z-9E936-A

Cooling Fan Drive and Pulleys



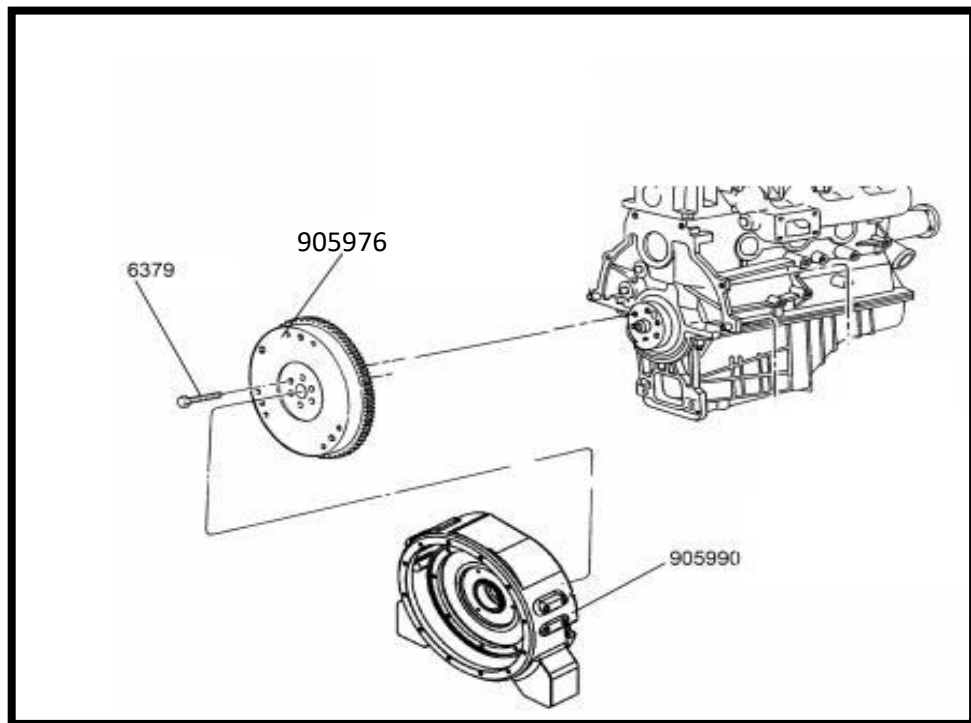
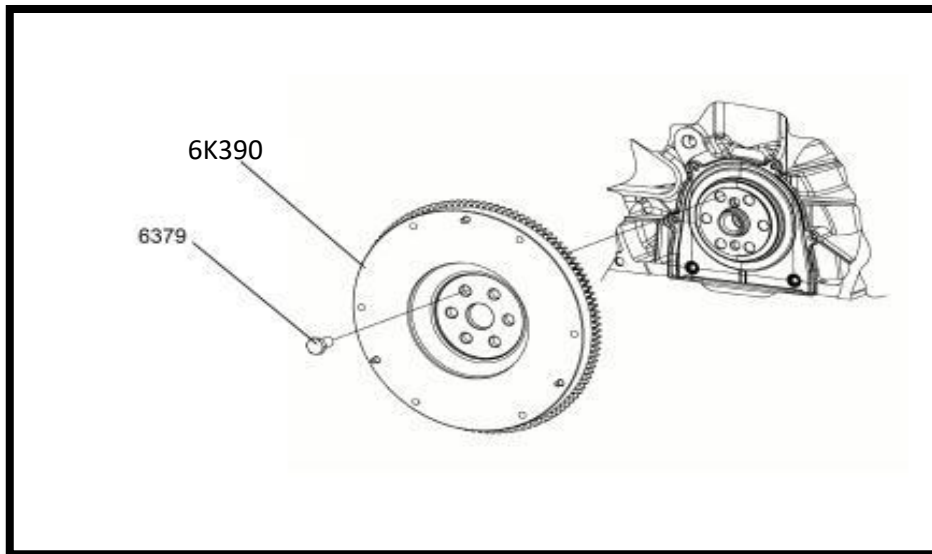
Quantity	Description	Part #
1	Fan Spacer - 60mm	130472
1	Fan Spacer - 39mm (Genie)	130473
1	Fan Pulley	130349
1	Fan Belt	1010130
1	Fan Bearing and bracket	130761
1	Fan Mounting Bracket	132277
1	Fan Bracket Support (through idler)	4060170
1	Fan Drive Pulley	130428
1	Suction Cooling Fan	ENG051506
1	Pusher Cooling Fan	ENG051507

FEAD



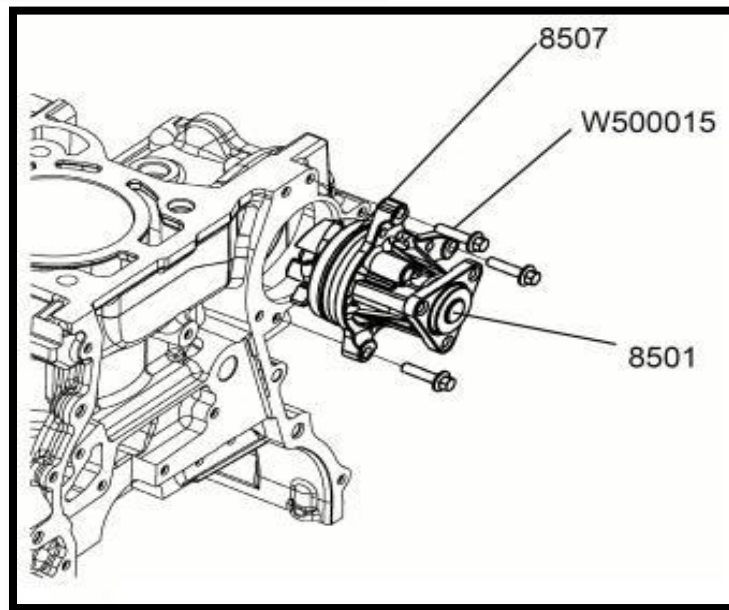
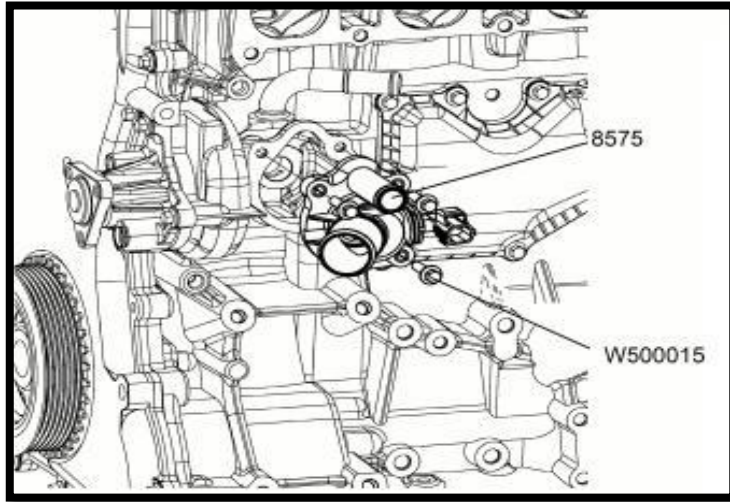
Quantity	Description	Part #
1	Upper Idler Pulley	1060080
1	Upper Idler Bracket for 1060080	4060070
1	Upper Idler Dist Cover	206036
1	Lower Idler Pulley	AB39-19A216-AA
1	Pulley and Tensioner	AB39-6A228-AA
1	Smooth Idler	4S7Z-8678-A
1	Water Pump Pulley	5M6Z-8509-AE
1	Belt - FEAD	1010100
1	Crank Pulley	9E5Z-6312-B

Flywheel and Housings



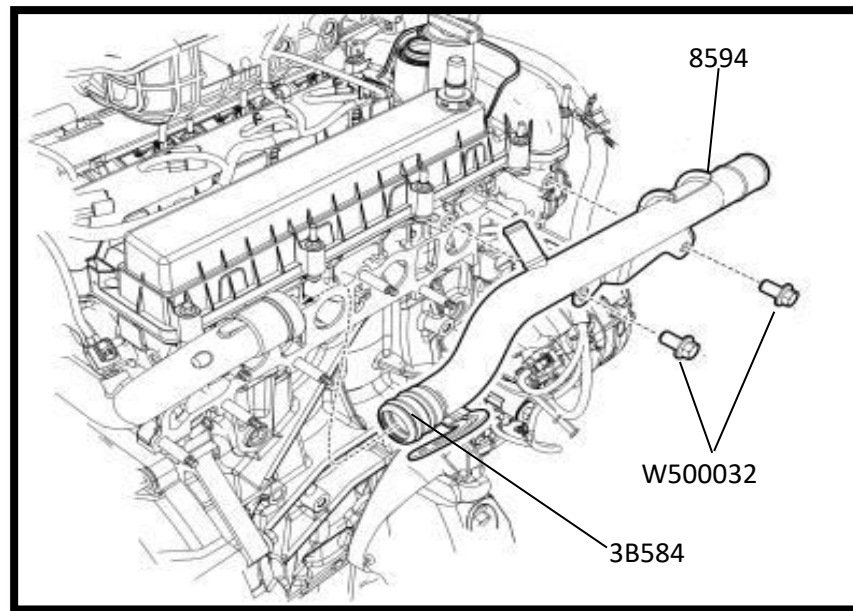
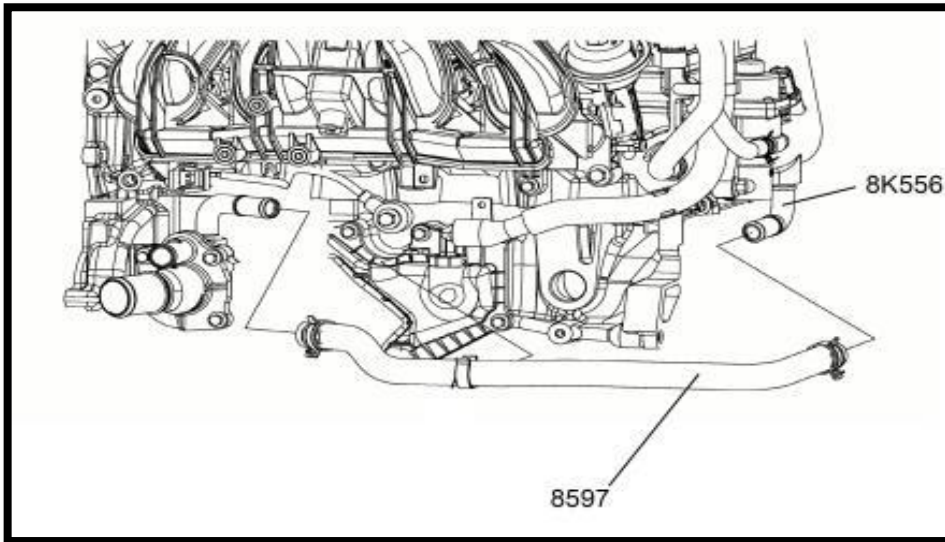
Quantity	Description	Part #
1	Flat Face Flywheel Assy.	6C1G-6K390-AB
6	Flywheel bolts to crank shaft	1S7Z-6379-AA
1	SAE 10" Flywheel	905976
1	SAE 4 Housing	905990
1	SAE 4 Housing - No Feet	905961
1	Ring Gear	3540020

Cooling System



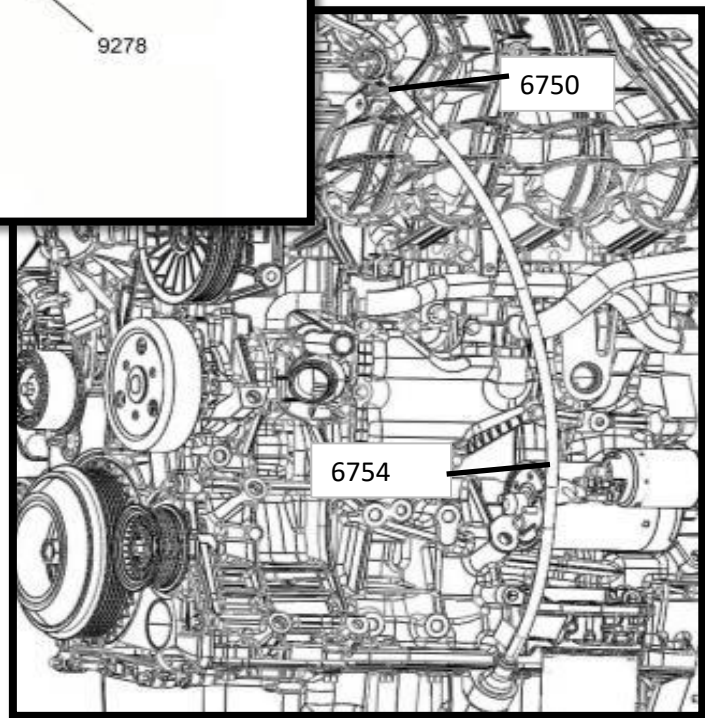
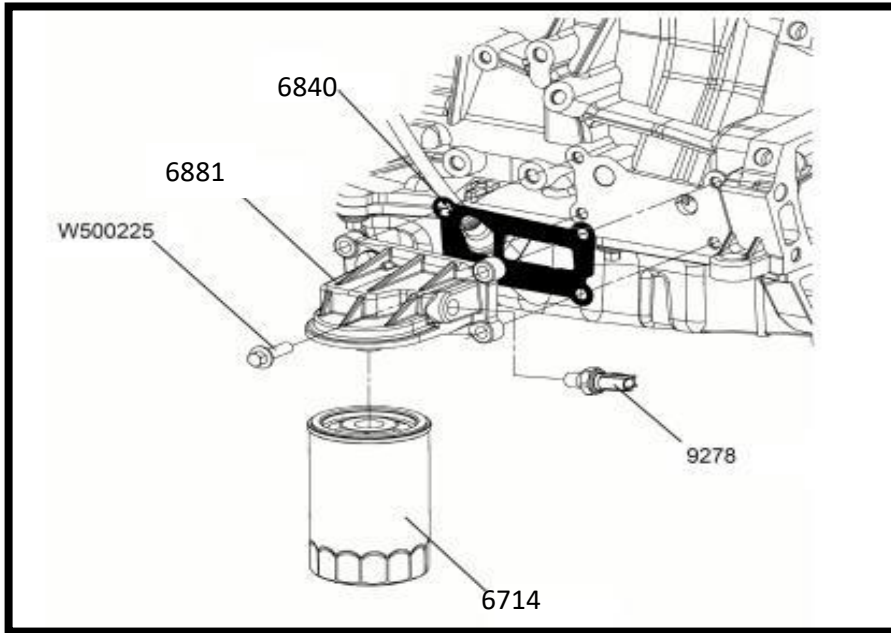
Quantity	Description	Part #
1	Thermostat with housing	3M4Z-8575-B
1	Gasket water inlet connection	1S7G-8255-BD
3	Thermostat Bolts	W500015
1	Water Pump	4S4Z- 8501-AA
1	Water Pump O-ring	1S7Z-8507-AE
3	Thermostat Bolts	W500015

Cooling System



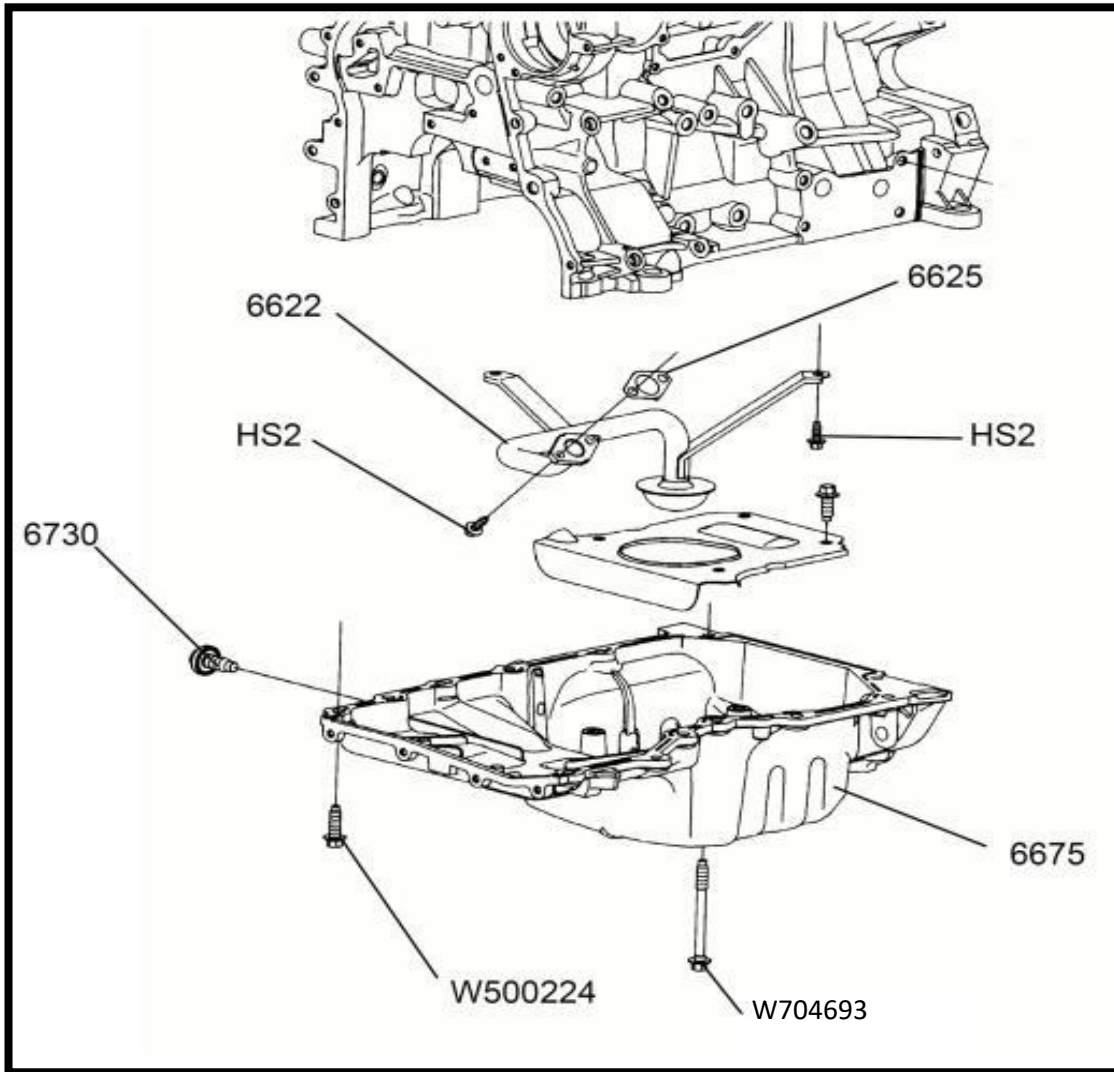
Quantity	Description	Part #
1	Adapter Assembly - Water Outlet Con.	6C1G-8K556-AC
1	Gasket water outlet connection	1S7G-8255-BD
1	Coolant Outlet Tube w/ "o-rings"	AB39-8594-AB
1	Hose - Coolant bypass	3M4Z-8597-AA
2	Coolant outlet tube "o-rings"	1L5Z-3B584-AA

Oil Filter, Plug and Dipstick



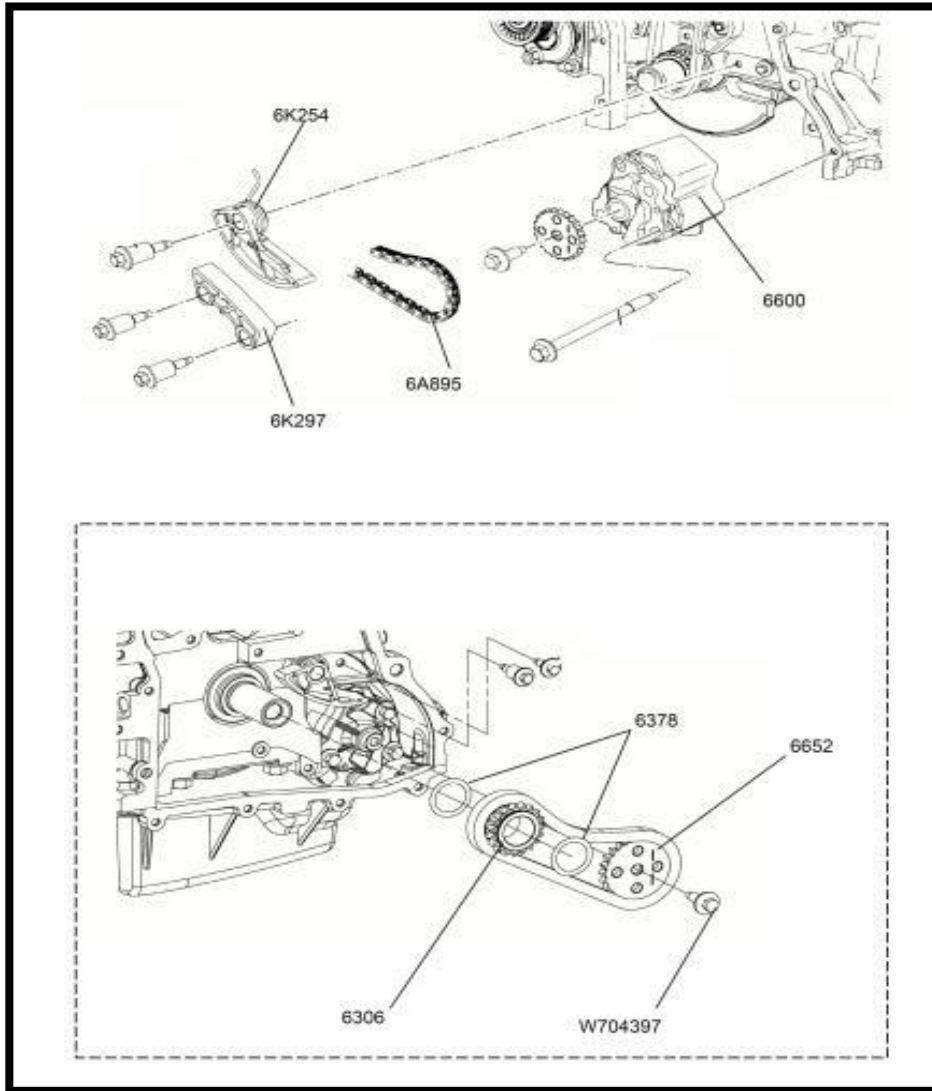
Quantity	Description	Part #
1	Oil Filter	BE8Z-6731-AB; FL-910S
1	Oil Filter Adapter	BB5Z-6881-A
1	Gasket Oil Filter Adapter	1S7Z-6840-AA
4	Bolts Oil filter adapter	W500225
1	Oil drain plug	F6TZ- 6730-BA
1	Oil indicator Standard	BB3G-6750-AC
1	Oil Indicator Tube	BB3G-6754-AD
1	Oil Pressure Switch	6U5Z-9278-G
1	Oil Cooler	BB3Z-6A642-A
1	Oil Cooler Mounting Bolt	W706487-S437
1	Optional Short Dipstick and Tube	62500700
***7 Quarts refill of 5W-20 to 5W-30		

Oil Pan and Pickup



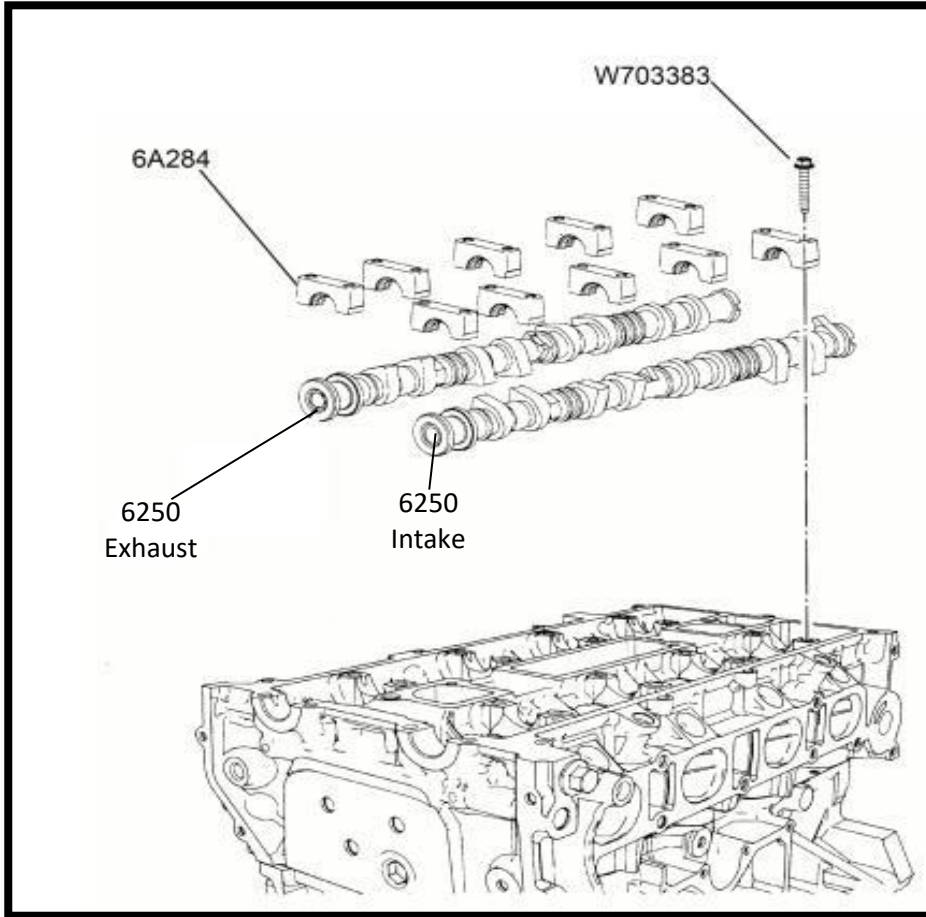
Quantity	Description	Part #
1	Oil pump screen and cover assembly	BB3Z-6622-AC
1	Gasket oil pump tube	BB3Z-6625-AA
1	Oil Pan	BB3Z-6675-AC
11	Oil Pan Bolts	W500224
1	Oil drain plug	F6TZ-6730-BA
1	Gasket oil pan drain plug	F5TZ-6734-BA
1	Oil Fill Cap	YS4G-6766-AA

Oil Pump, Chain and Sprockets



Quantity	Description	Part #
1	Oil Pump Assembly	8E5Z-6600-A
1	Aux Oil Pump Chain	6M8Z-6A895-BA
1	Tensioner - Timing Chain	8E5Z-6K254-A
1	Guide Timing Chain	6M8Z-6K297-BA
1	Grommet Oil Pump Driven	8E5Z-6652-A
2	Washer Crankshaft Dampener	1S7Z-6378-AA
1	Grommet Crank Shaft	1S7Z-6306-DA
1	Bolt M8X20	W704397

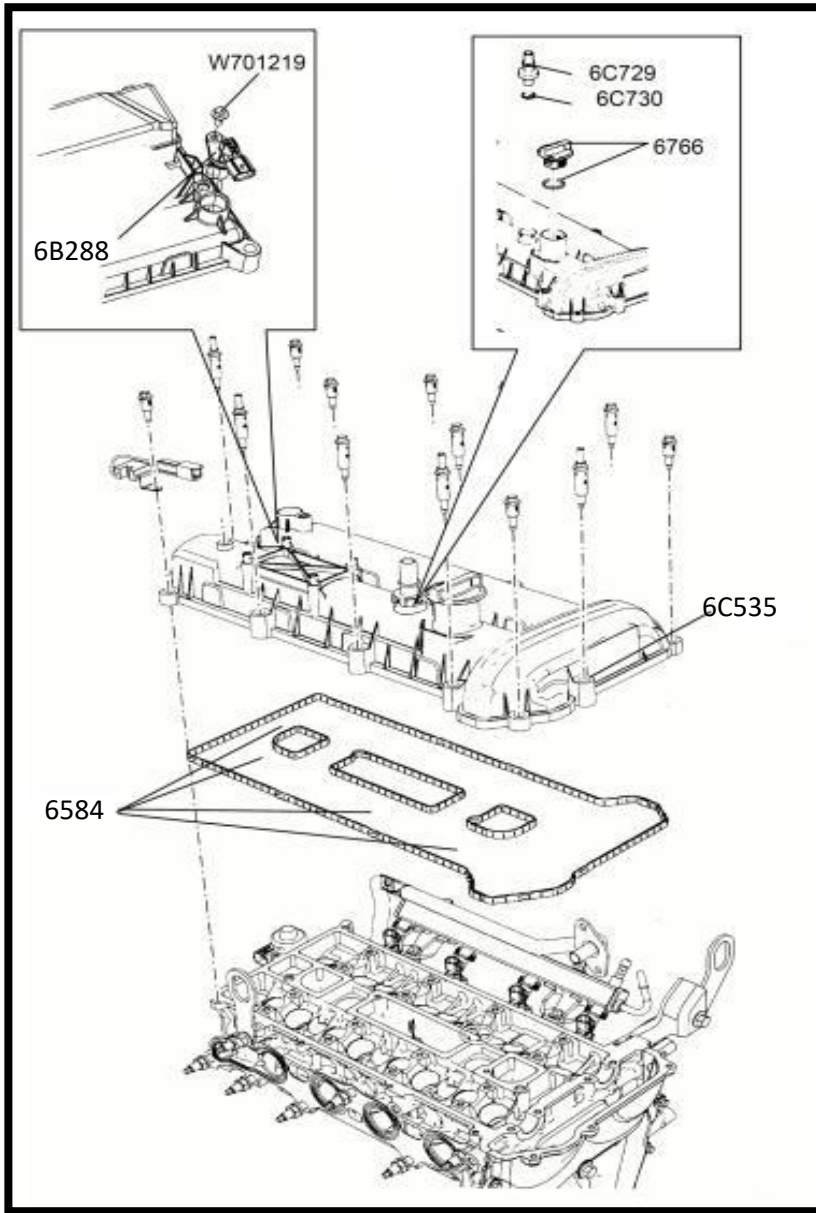
CAMSHAFT and Bearing CAPS



Quantity	Description	Part #
8	Cap CAMSHAFT Bearing	1S7Z-6510-AC
1	Cap CAMSHAFT Bearing No. 2.4.5	1S7Z-6A284-AA
1	Cap CAMSHAFT Bearing Front RH	RF1S7Z-6A284-AA
20	Bolt CAMSHAFT bearing CAP	W703383
1	CAMSHAFT Intake	7G9Z-6250-B
1	CAMSHAFT Exhaust	3M4Z-6250-AAA

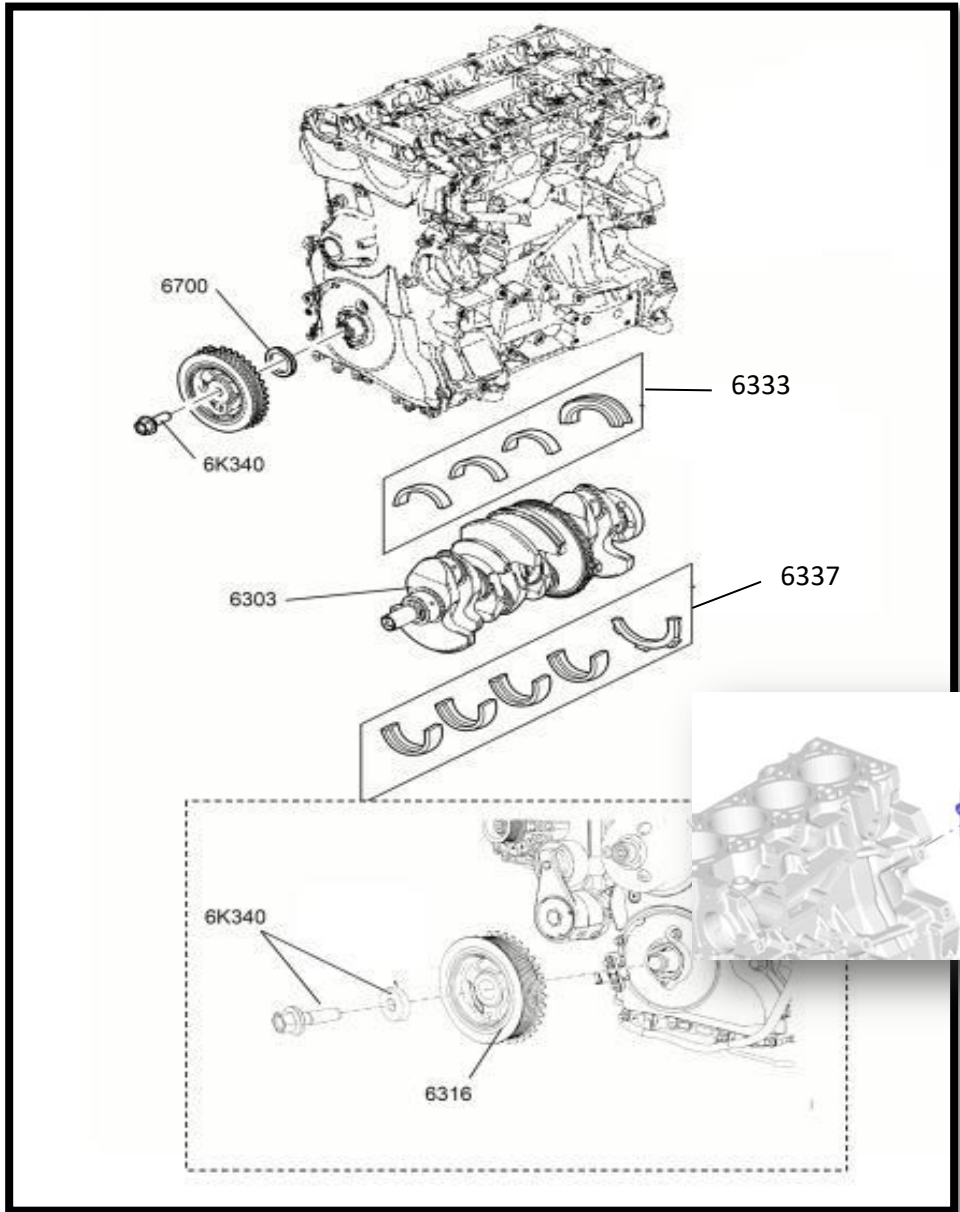
Caps are not service - Come part of head assembly

CAMSHAFT COVER



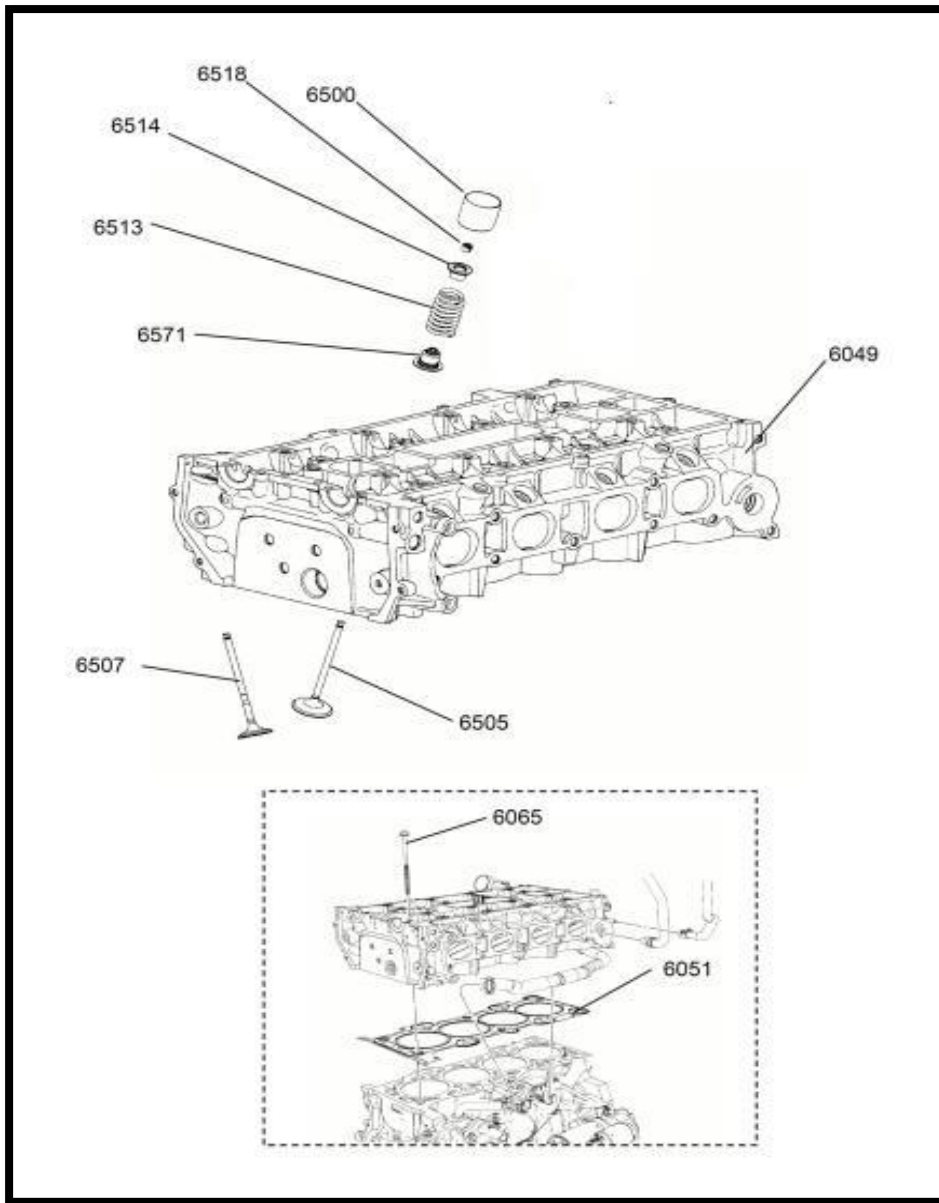
Quantity	Description	Part #
1	Camshaft Cover	BB3G-6M293-BA
1	Gasket CAMSHAFT Cover	1S7Z-6584-BA
1	CAM Position Sensor	6M8Z-6B288-B
1	CAM Position Sensor Bolt	W701219
1	Oil Filler Cap	YS4G-6766-AA
1	Tube Outlet - Breather	4L5Z-6C730-AA
1	O-ring - Breather	4M5Z-6C730-AA
1	90 Degree Adapter	7T4E-9E499-EA

Crankshaft and Bearings



Quantity	Description	Part #
1	Bolt Crankshaft pulley	1S7Z-6A340-AA
1	Crank Pulley (dampener)	9E5G-6316-A
1	Crankshaft	8E5Z-6303-A
1	Crank shaft front oil seal	9E5Z-6700-A
4	Upper Bearing	6M8Z-6333-AAA
4	Center Bearing	6M8Z-6337-AB
1	Rear Main Seal; retainer, seal and installation tool	1S7Z-6K301-AA
AR	Rear Seal Screws (HS1)	W500212-S437

Cylinder Head

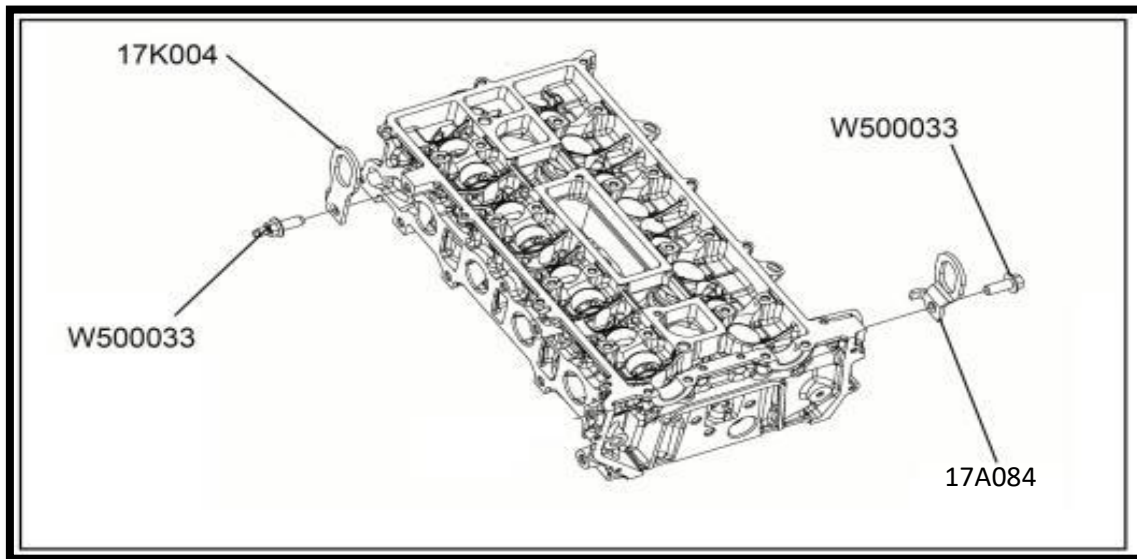


Quantity	Description	Part #
1	Cylinder Head Assembly with Valves	CV6Z-6049-A
1	Cylinder Head Gasket	8E5Z-6051-C
8	Exhaust Valve	9E5Z-6505-A
8	Intake Valves	9E5Z-6507-A
16	Valve Springs	CJ5Z-6513-A
16	Valve Spring Retention	1S7Z-6514-AA
32	Valve spring retention key	1S7Z-6518-AA
16	Tapet Valve Assembly	See Next Page
10	Bolt Cylinder Head	CP9Z-6065-A

Valve Tappets

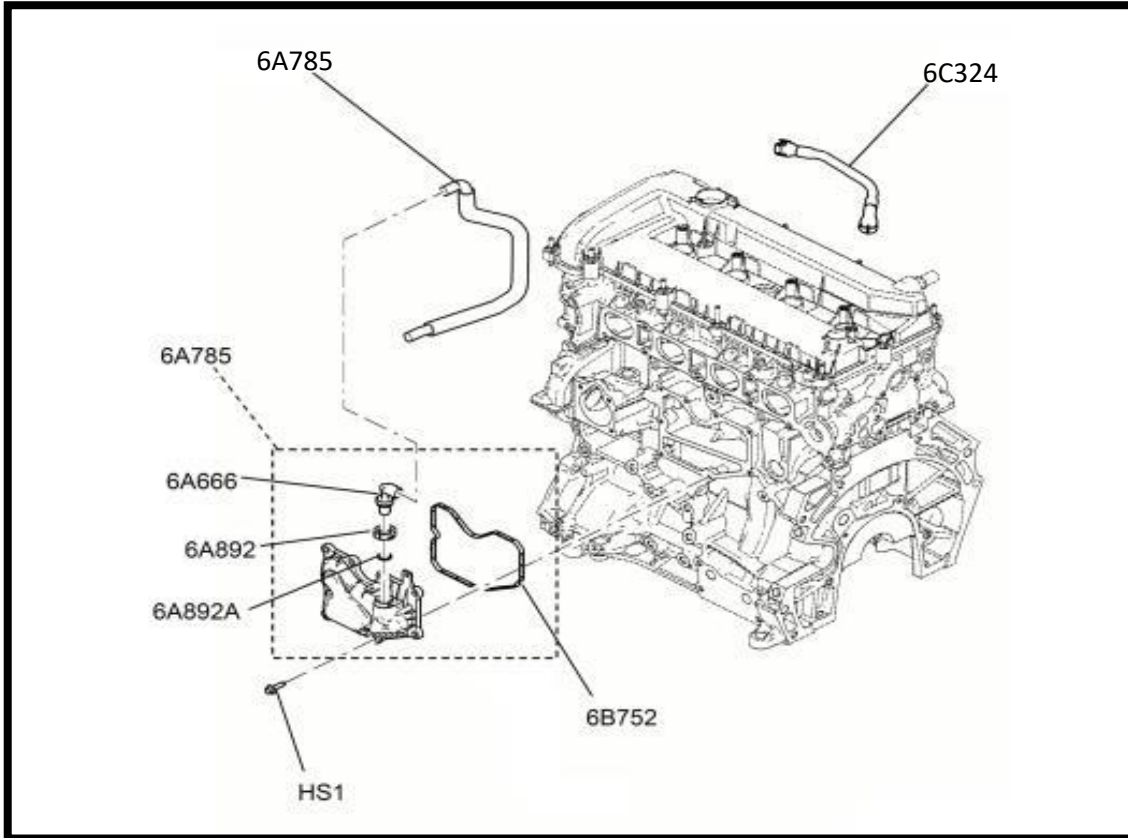
Tappets (Qty 16 Per Engine)	
Part #	Size [MM]
CP9Z-6500-AAB	3.000
CP9Z-6500-ABB	3.025
CP9Z-6500-ACB	3.050
CP9Z-6500-ADB	3.075
CP9Z-6500-BAB	3.100
CP9Z-6500-BBB	3.122
CP9Z-6500-BCB	3.142
CP9Z-6500-BDB	3.162
CP9Z-6500-CAB	3.182
CP9Z-6500-CBB	3.202
CP9Z-6500-CCB	3.222
CP9Z-6500-CDB	3.242
CP9Z-6500-DAB	3.262
CP9Z-6500-DBB	3.282
CP9Z-6500-DCB	3.302
CP9Z-6500-DDB	3.322
CP9Z-6500-EAB	3.342
CP9Z-6500-EBB	3.362
CP9Z-6500-ECB	3.382
CP9Z-6500-EDB	3.402
CP9Z-6500-FAB	3.422
CP9Z-6500-FBB	3.442
CP9Z-6500-FCB	3.462
CP9Z-6500-FDB	3.482
CP9Z-6500-GAB	3.502
CP9Z-6500-GBB	3.522
CP9Z-6500-GCB	3.542
CP9Z-6500-GDB	3.562
CP9Z-6500-HAB	3.582
CP9Z-6500-HBB	3.602
CP9Z-6500-HCB	3.625
CP9Z-6500-HDB	3.650
CP9Z-6500-JAB	3.675
CP9Z-6500-JBB	3.700
CP9Z-6500-JCB	3.725

Lifting Eyes



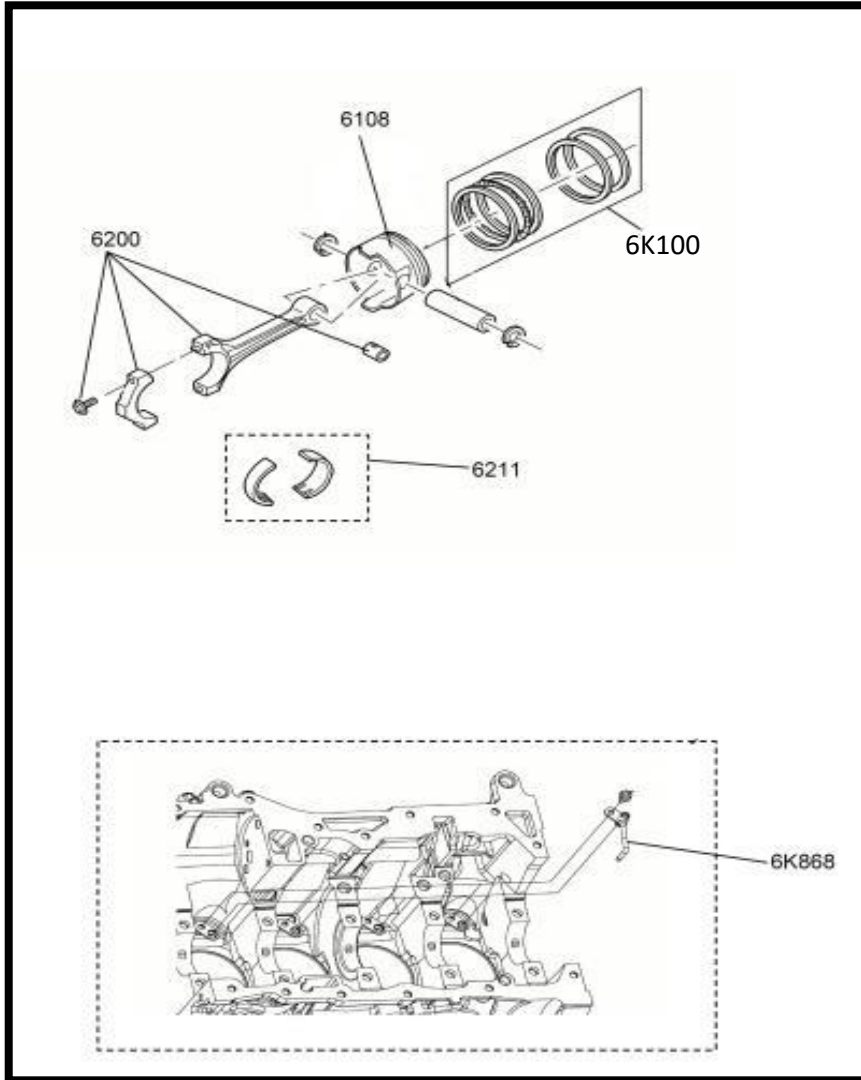
Quantity	Description	Part #
1	Front Engine Lifting Eye	BB3Z-17A084-AA
1	Rear Engine Lifting Eye	1S7G-17K004-AF
2	Lifting Eye Bolts	W500033

Crankcase Ventilation



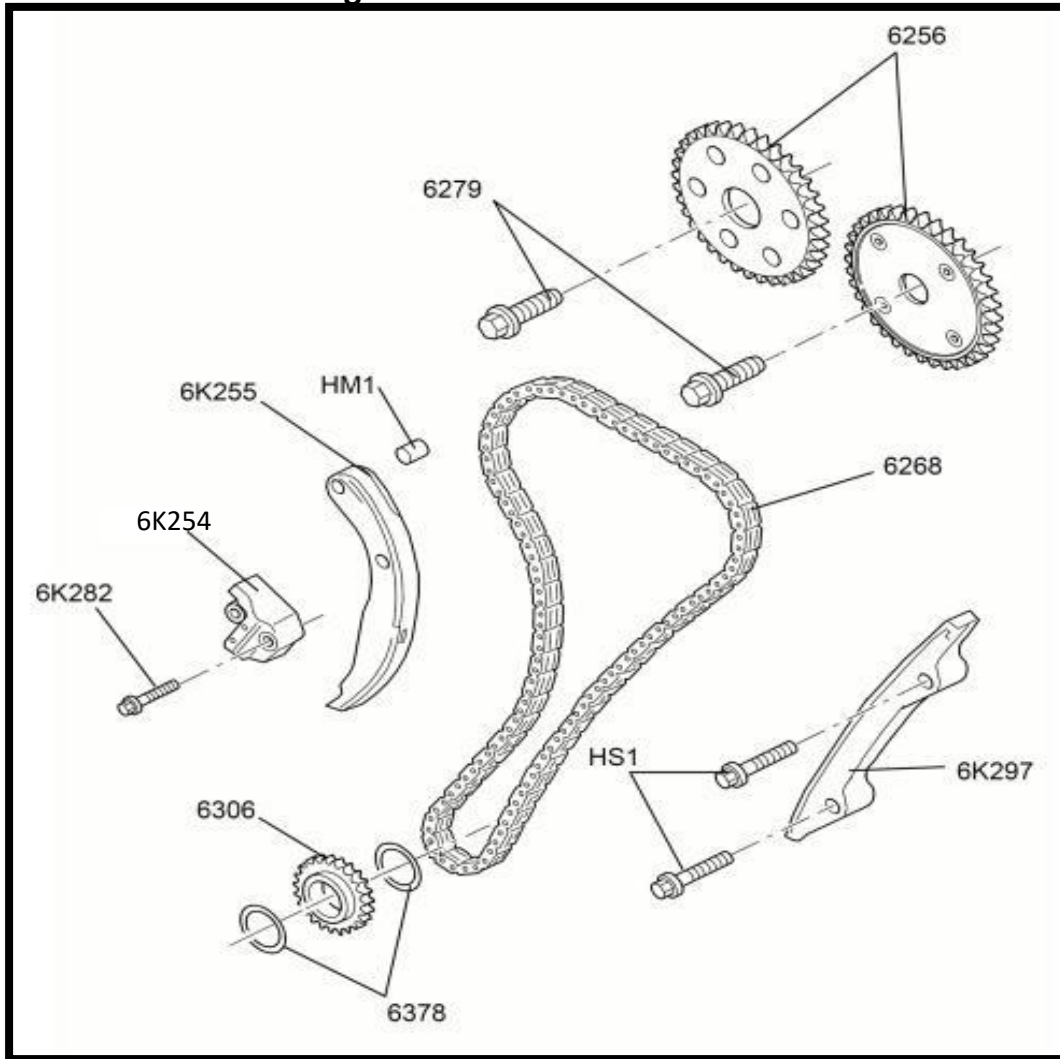
Quantity	Description	Part #
1	Crankcase vent. Assembly	BB3G-6A785-AB
1	Gasket CRKC Assembly	1S7Z-6B752-AA
1	Valve Assembly - Regulating	8S4Z-6A666-A
1	Valve Retention	1S7Z-6A892-A
1	O-ring valve retention	3S4Z-6A892-AA
1	Connection and Hose Ass. CRKC	BB3Z-6C324-AA

Pistons



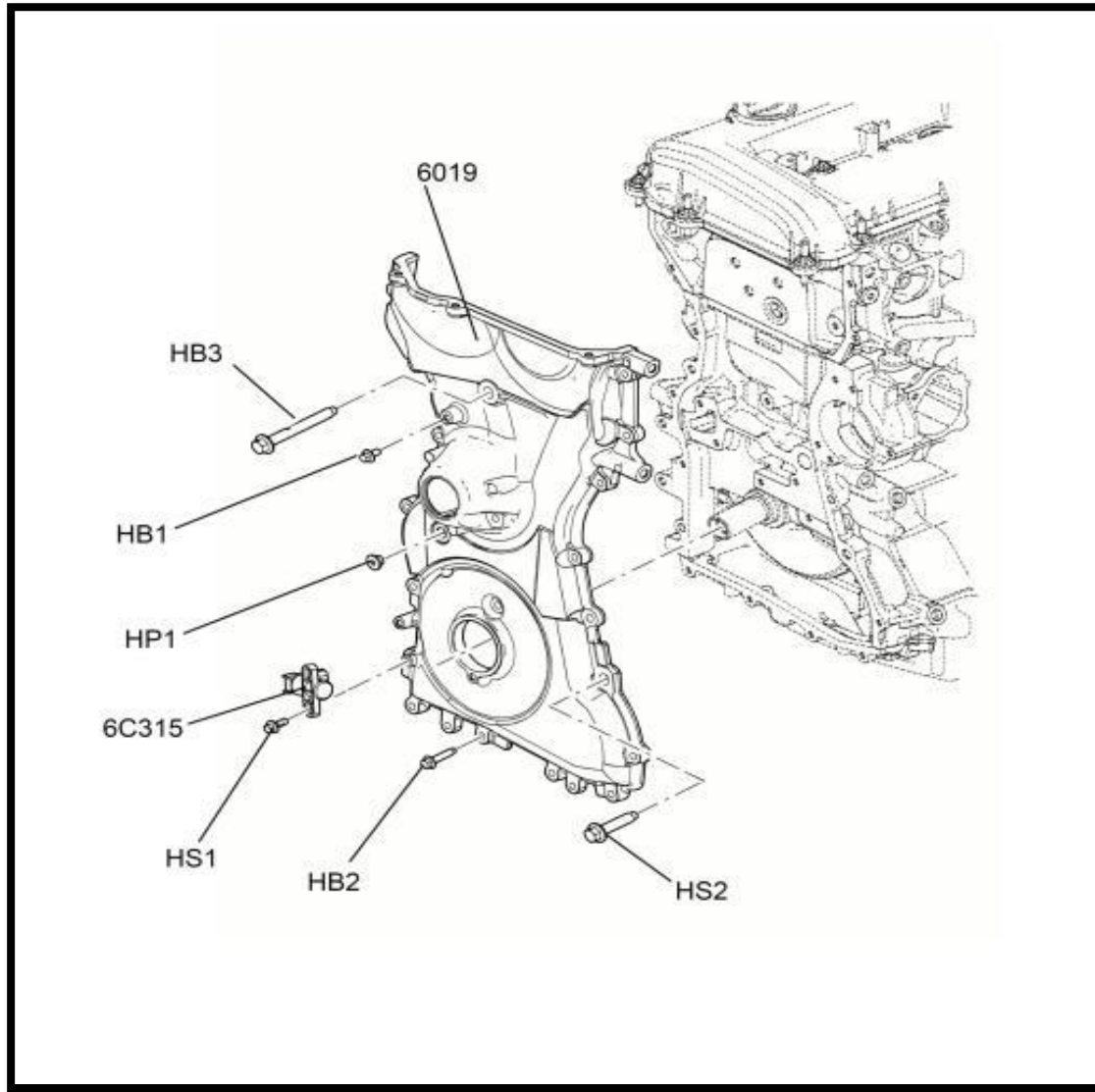
Quantity	Description	Part #
4	Connecting Rod Assembly	8E5Z-6200-A
4	Pistons	8E5Z-6108-AA
4	Piston Pins	8E5Z-6135-A
4	Retention Piston Pin	8E5Z-6140-A
8	Bearing Connecting Rod (Green)	8E5Z-6211-A
8	Bearing Connecting Rod (Blue)	8E5Z-6211-B
8	Bearing Connecting Rod (Red)	8E5Z-6211-C
4	Piston Ring Kit	8E5Z-6K100-AL3
4	Engine Piston Cooling	1S7Z-6K868-A

Timing Chain and Gears



Quantity	Description	Part #
1	Timing Chain	1L5Z-6268-AA
2	Sprocket CAMSHAFT	1S7Z-6256-AA
1	Guide Timing Chain	6M8Z-6A340-A
1	Timing Chain Tensioner	6M8Z-6K255-A
1	Gear Crankshaft	1S7Z-6306-DA
2	Bolt Camshaft Sprocket	CV6Z-6279-A
2	Washer crankshaft	1S7Z-6378-AA
1	Tensioner Assembly-timing chain	1S7Z-6K254-A
2	Bolt Timing Chain Tensioner Retention	1S7Z-6K282-A

Timing Chain Cover



Quantity	Description	Part #
1	Front Cover	6M8Z-6019-B
1	Crank Position Sensor	3M6G-6C315-BA

Manuals and Labels



Quantity	Description	Part #
1	Operators Manual	1020010
1	Emission Install Instructions	1020020
1	Parts Manual	1020040
1	Service Manual	1020050
1	Emission Label	1020030
1	Model & Serial # Label	1020060
1	Specification Sheet	1020070