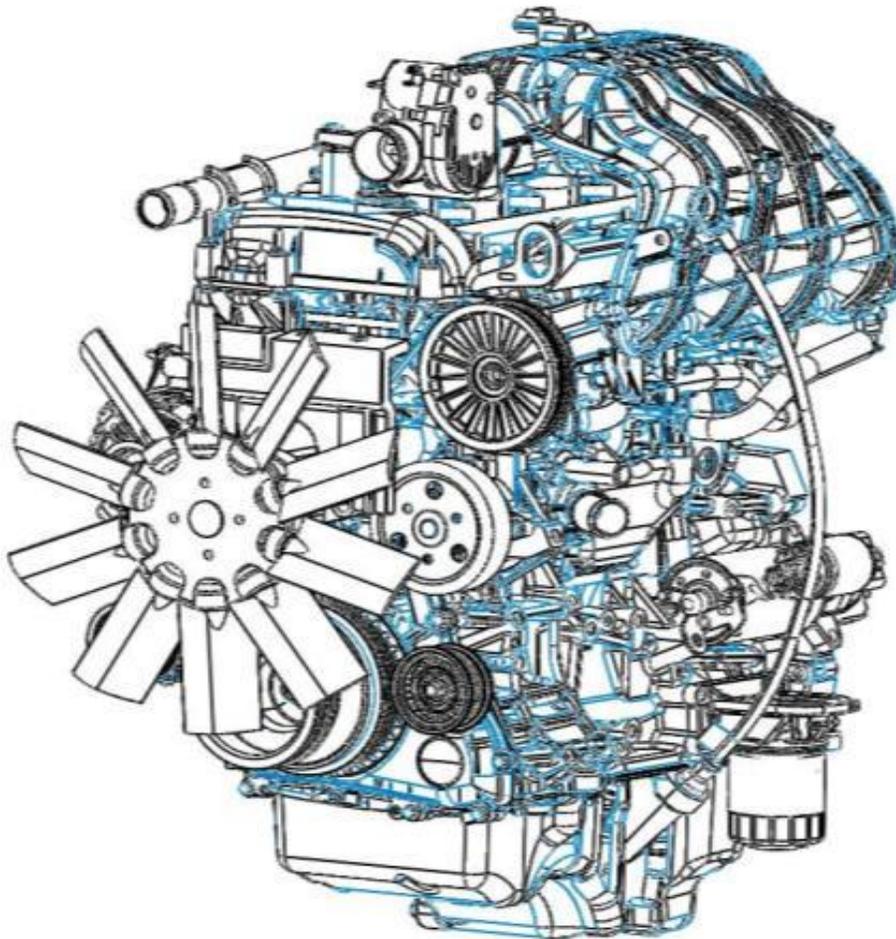




MSG425 Service Parts Manual



Part#: 1020040

Rev 20

1/10/2023

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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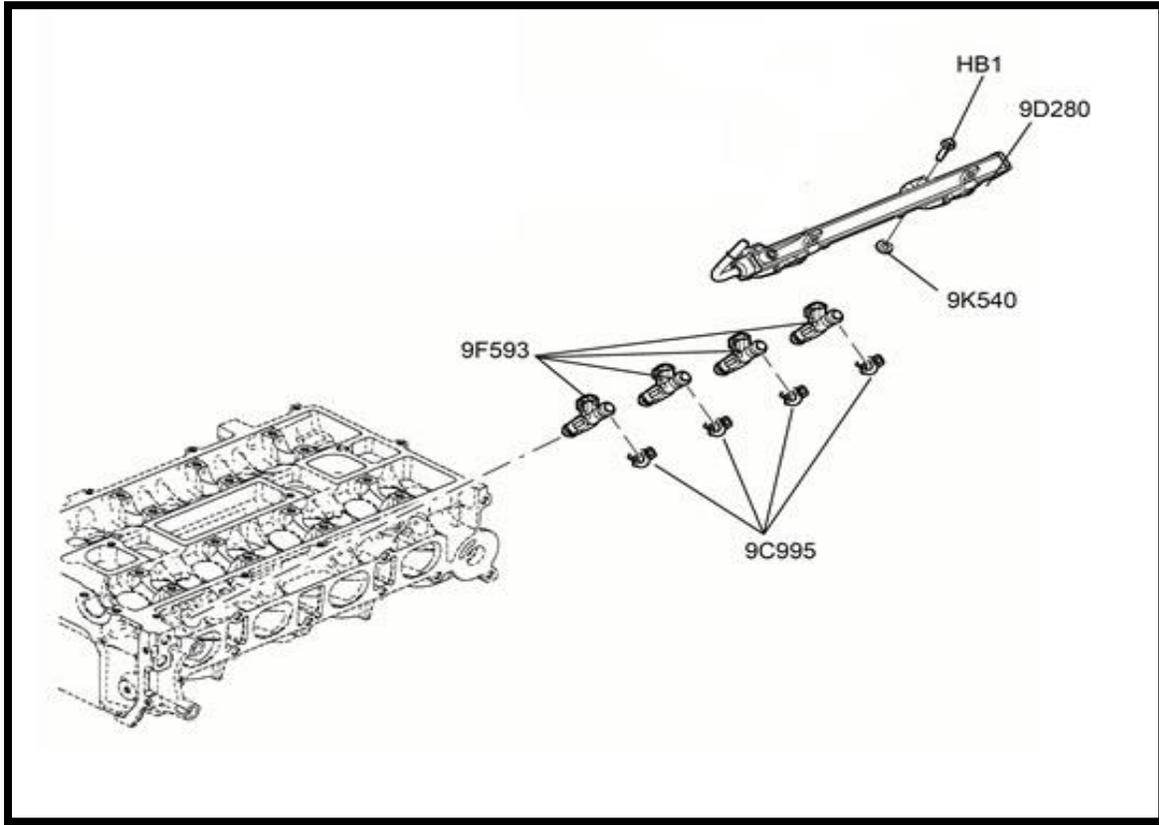


Engine Distributors Inc
400 University Ct.
Blackwood, NJ 08012
800-220-2700

INDEX

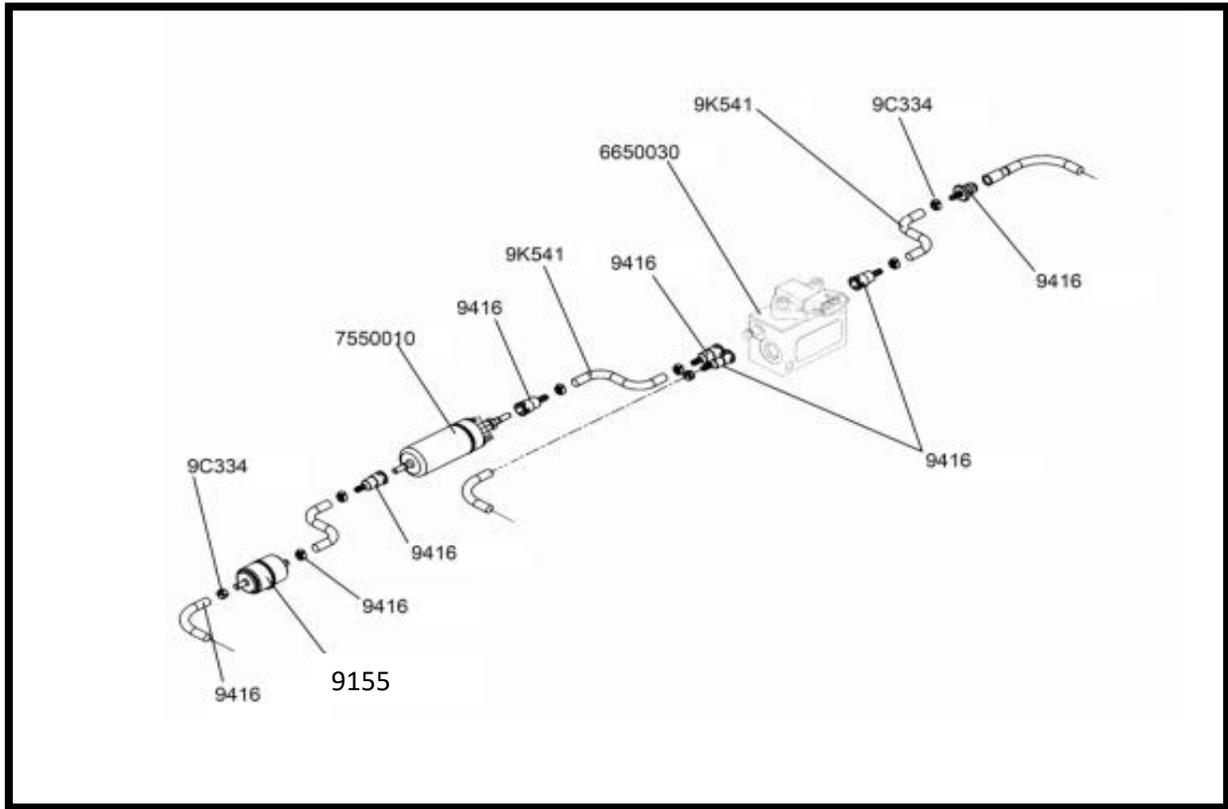
MSG425 Service Parts	Section	PAGE
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Gasoline Fuel Rail and Injectors



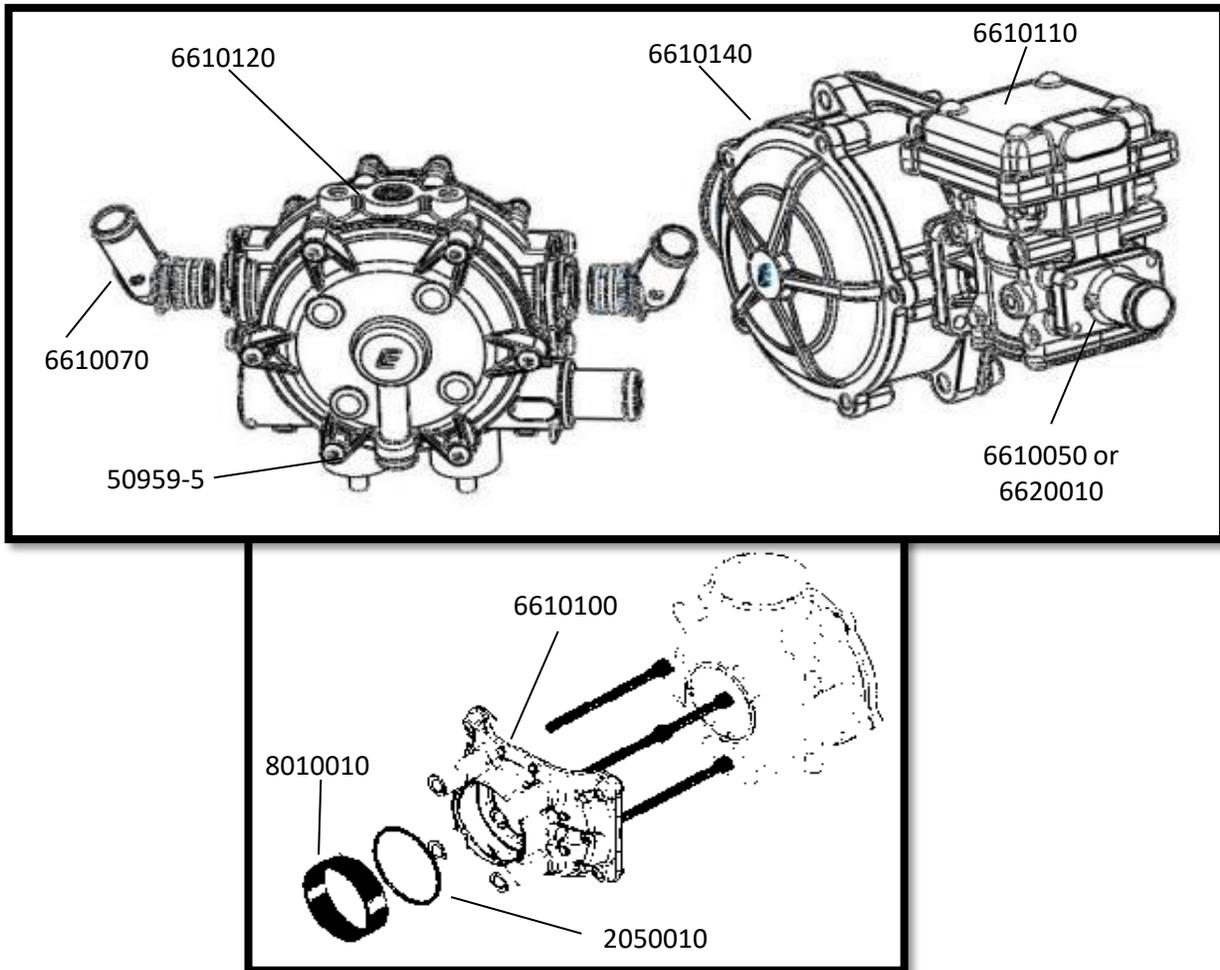
Quantity	Description	Part #
4	Fuel Injector	BB3Z-9F593-A
4	Fuel Injector Retainer	1S7Z-9C995-CA
1	Fuel Rail	BB3G-9D280-AA
1	Fuel Rail Retainer	HB1
1	INS FU/INJ NSE	CV6Z-9K540-B
4	Injector Plugs (LPG/NG Use)	XU1L-7N056-AA

Gasoline Fuel Pump, Block, and Lines



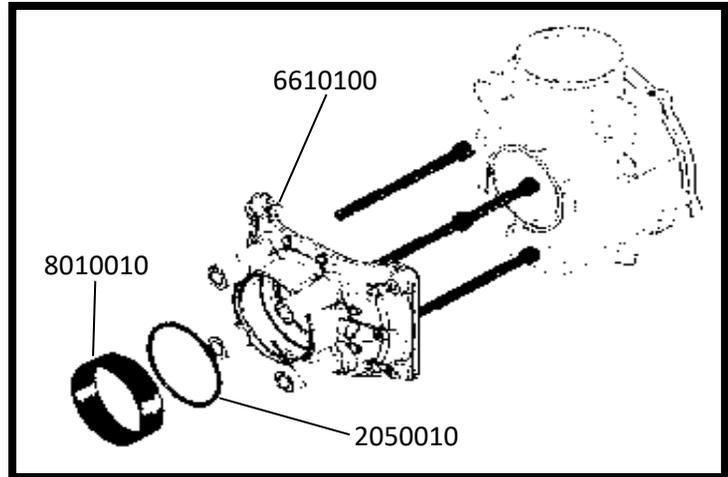
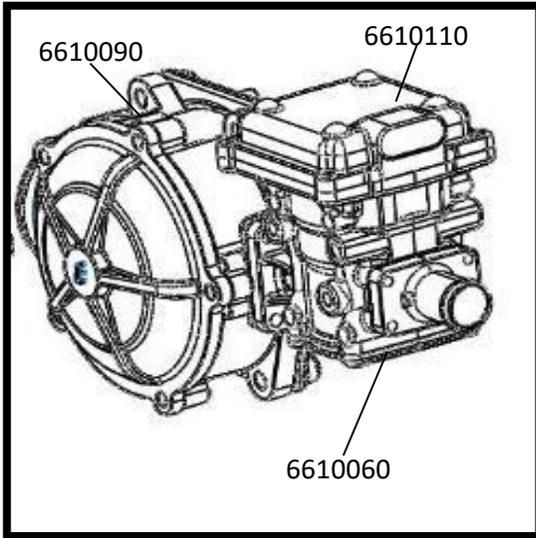
Quantity	Description	Part #
1	Gasoline Fuel Pump	7550010
1	Gasoline Fuel Block	6650030
2	Fuel Block Fitting - SAE 6	2050040
1	Fuel Block Fitting - SAE 3	2050050
1	Fuel Pump Fitting - M10	2050030
1	Fuel Pump Fitting Washer	1118659
1	Fuel Filter	F89Z-9155-A
1	Fuel Pump Mounting Clamp	6660020
8	Fuel Line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

LPG Fuel System; Mixer, DEPR, Vapor Regulator



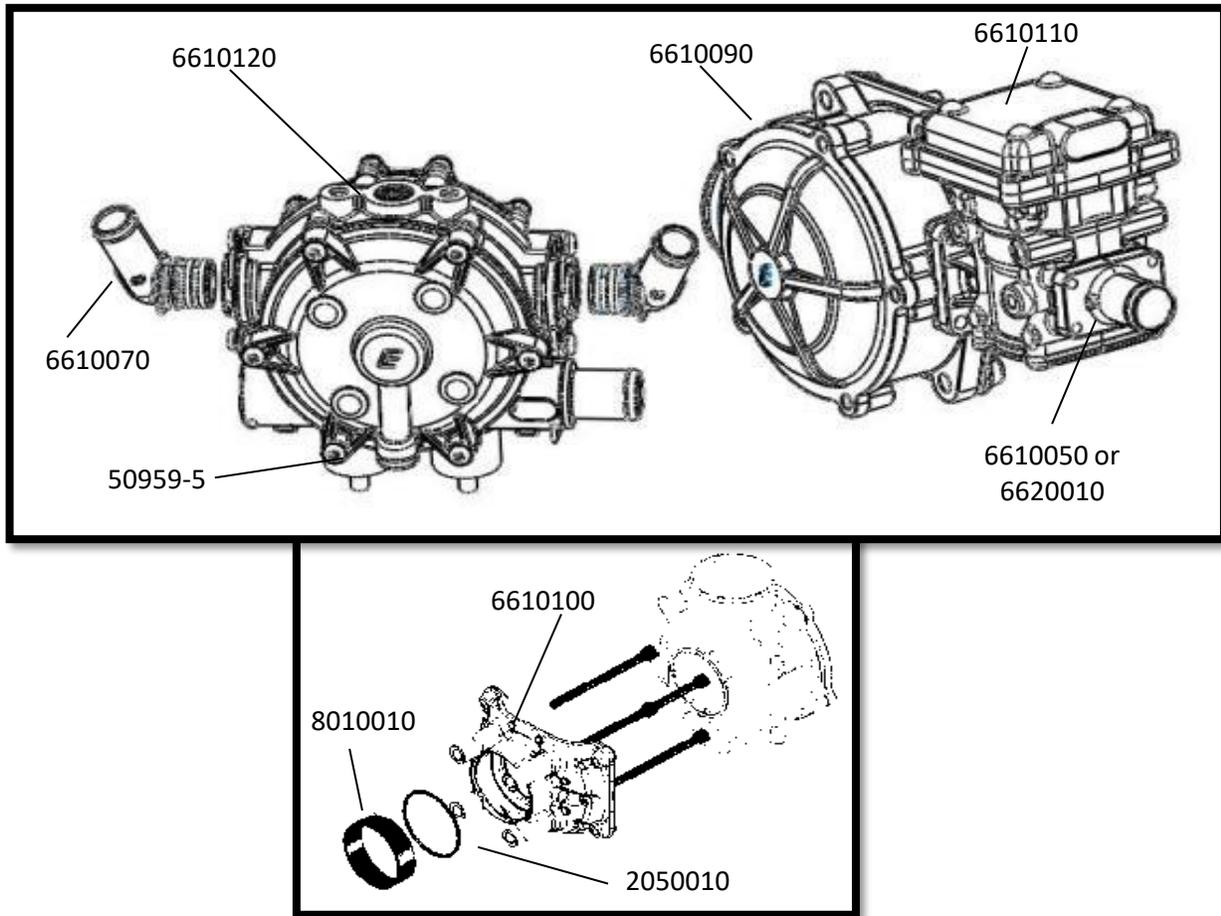
Quantity	Description	Part #
1	LPG Mixer	6610140
1	Mixer to Governor Adapter	6610100
1	Mixer to Governor Adapter Thin O-ring	2050010
1	Mixer to Governor Adapter Thick O-ring	8010010
1	LPG Vapor Regulator	6610120
1	Direct Electronic Pressure Regulator (DEPR)	6610110
1	DEPR LPG Fitting (pictured)	6610050
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



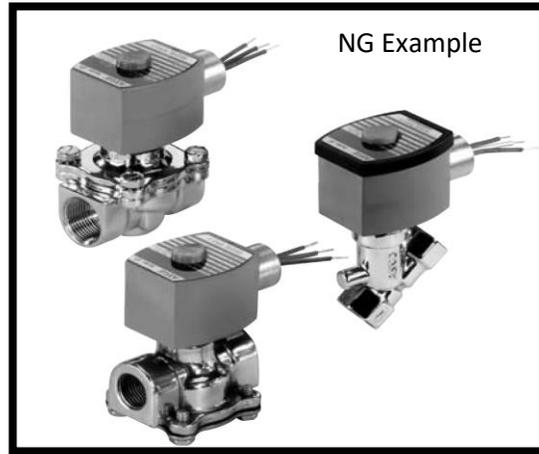
Quantity	Description	Part #
1	NG Mixer	6610090
1	Mixer to Governor Adapter	6610100
1	Mixer to Governor Adapter Thin O-ring	2050010
1	Mixer to Governor Adapter Thick O-ring	8010010
1	Direct Electronic Pressure Regulator (DEPR)	6610110
1	DEPR NG Fitting (threaded)	6610060
1	Mixer Diaphragm Replacement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

CNG Fuel System; Mixer, DEPR, Vapor Regulator



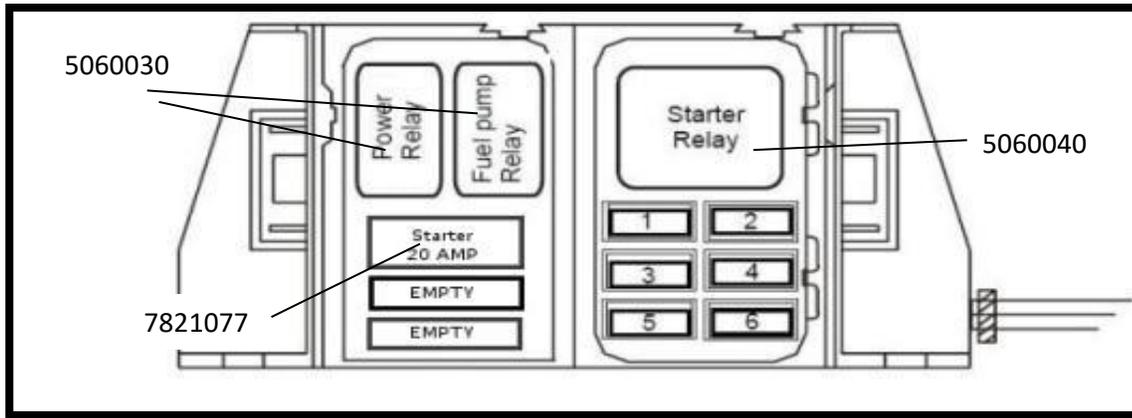
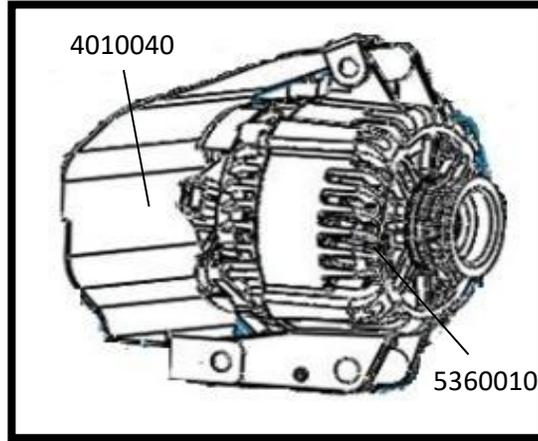
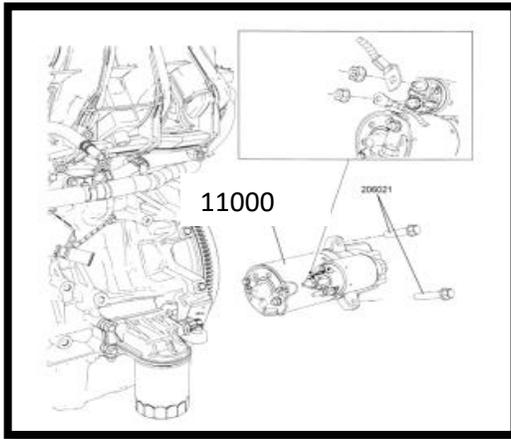
Quantity	Description	Part #
1	NG Mixer	6610090
1	Mixer to Governor Adapter	6610100
1	Mixer to Governor Adapter Thin O-ring	2050010
1	Mixer to Governor Adapter Thick O-ring	8010010
1	Vapor Regulator	6610120
1	Direct Electronic Pressure Regulator (DEPR)	6610110
1	DEPR Straight Fitting (pictured)	6610050
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



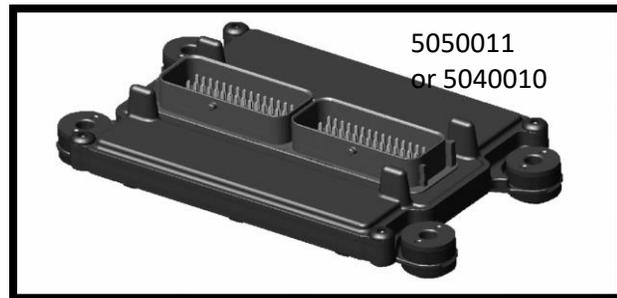
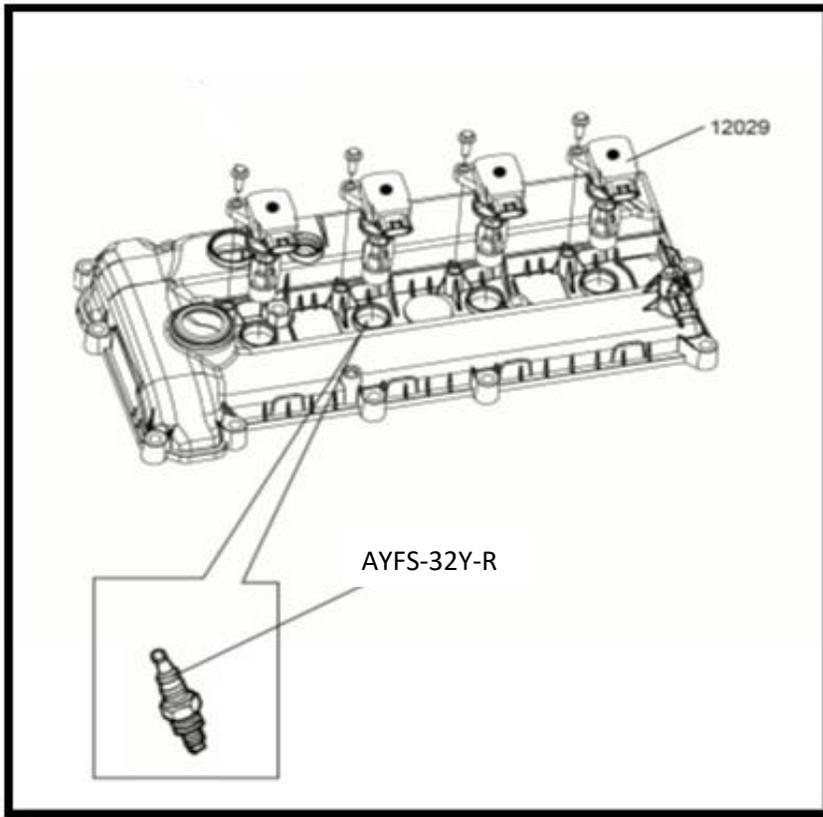
Quantity	Description	Part #
1	12V LPG/CNG Shutoff valve	N301652
1	12V LPG/CNG Shutoff Valve 90 deg	N301641
1	12V NG Shutoff valve	8215G030
1	12V LPG Shutoff Valve w/ filter	6690020
1	Replacement Filter for 6690020 (every 1.5 years)	6630030
1	Lockoff Valve w/filter (Econtrols)	6650070
1	Shutoff Valve Electrical Connector kit	5010030A

Starter, Charging System, and Relays



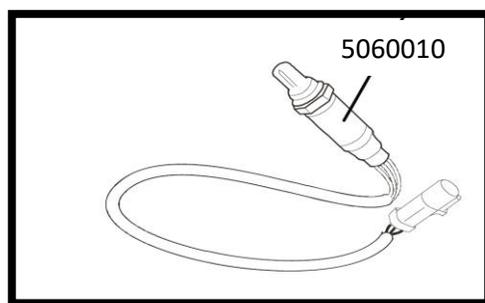
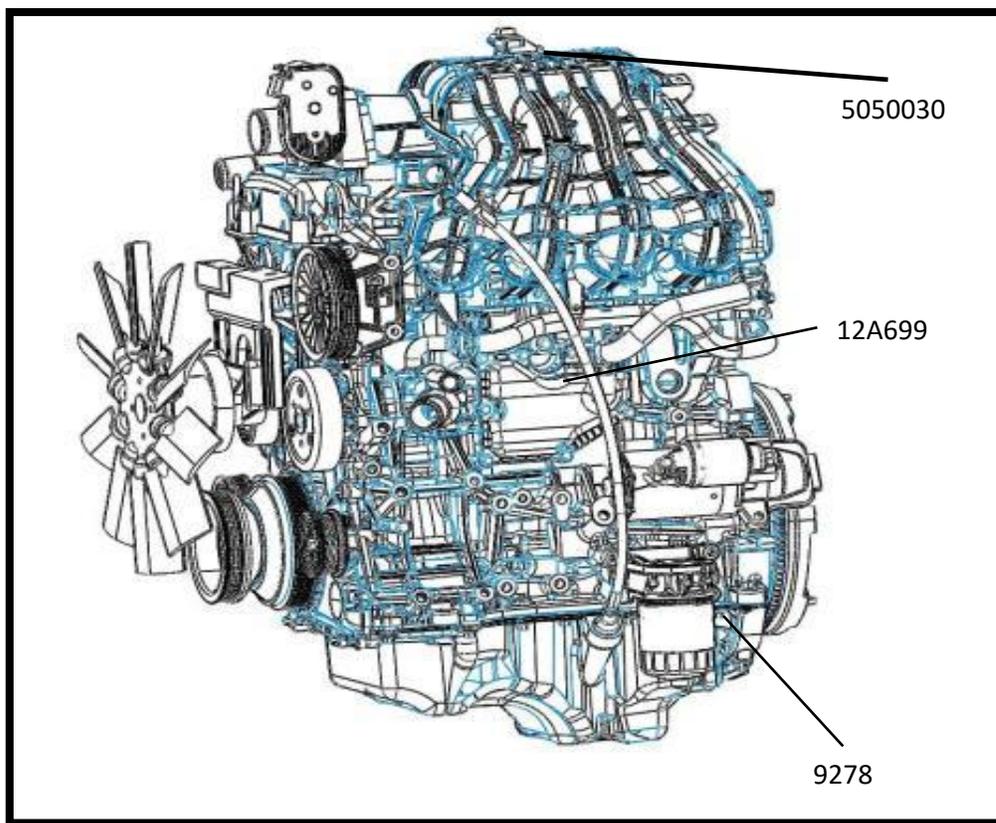
Quantity	Description	Part #
1	Bosch Starter (Starting with Serial # MGM06140)	DS7T-11000-GA
1	Ford Starter (Before serial # MGM06140 or gensets)	FJ5T-11000-AA
1	Starter Dowel Pins	W701350S437
1	Alternator (exhaust side)	5360010
1	Alternator Heat Shield (exhaust side)	4010040
3	Alternator Mounting Bolts (M10x80)	11115742
1	Alternator (Intake Side)	DS7Z10346H
1	Alternator Bracket (Intake Side)	CV6Z19D624C
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



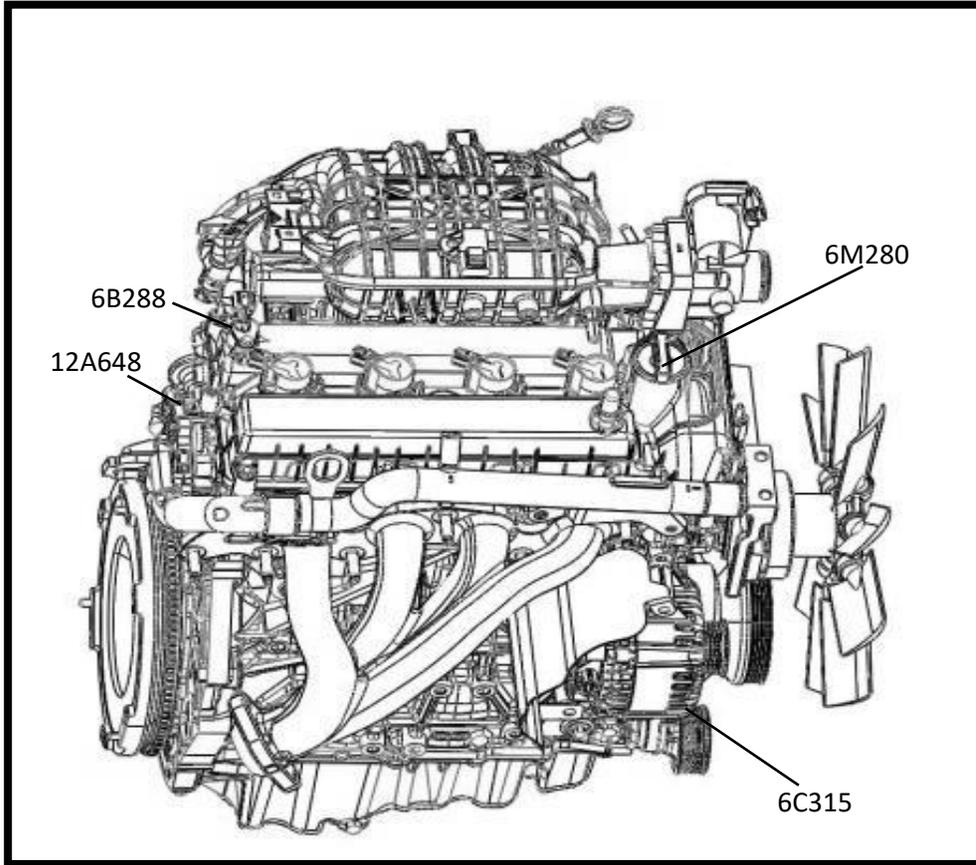
Quantity	Description	Part #
1	ECU (GCP) <= Serial # PDM14907	5050011
1	ECU (4G, JLG/Rayco) >= PDM14908	5040010
4	Coil and Boot Assy.	9E5Z-12029-A
4	Spark Plug	AYFS-32Y-R
A/R	Coil Pack Repai Connector	BU2Z-14S411-FA (WPT-1133)

Sensors - Page 1 and 2



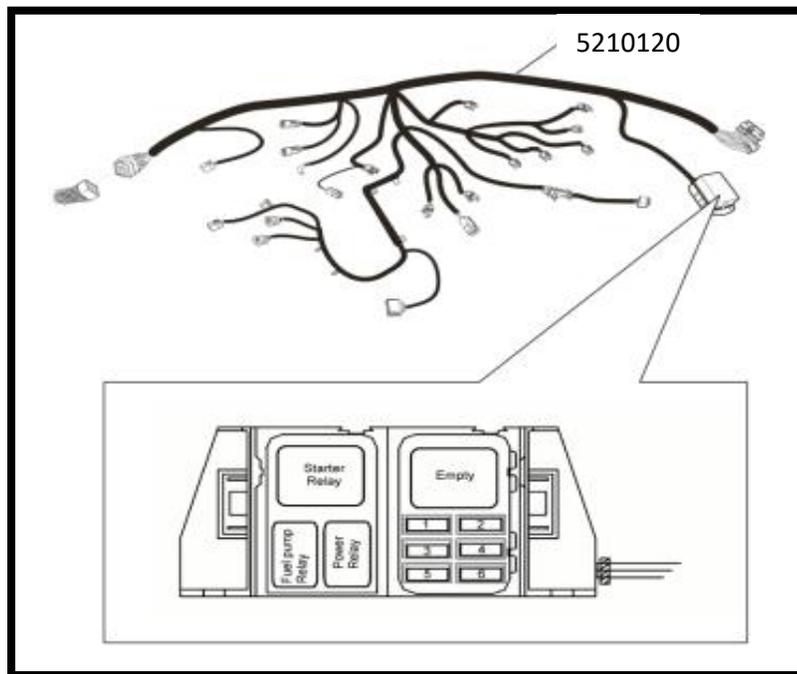
Quantity	Description	Part #
1	Oil Pressure Switch	6U5Z-9278-G
1	Knock sensor	1S7Z-12A699-BB
1	TMAP Sensor	5050030
2	Exhaust O2 Sensor (pre and post catayst)	5060010

Sensors - Page 2 and 2



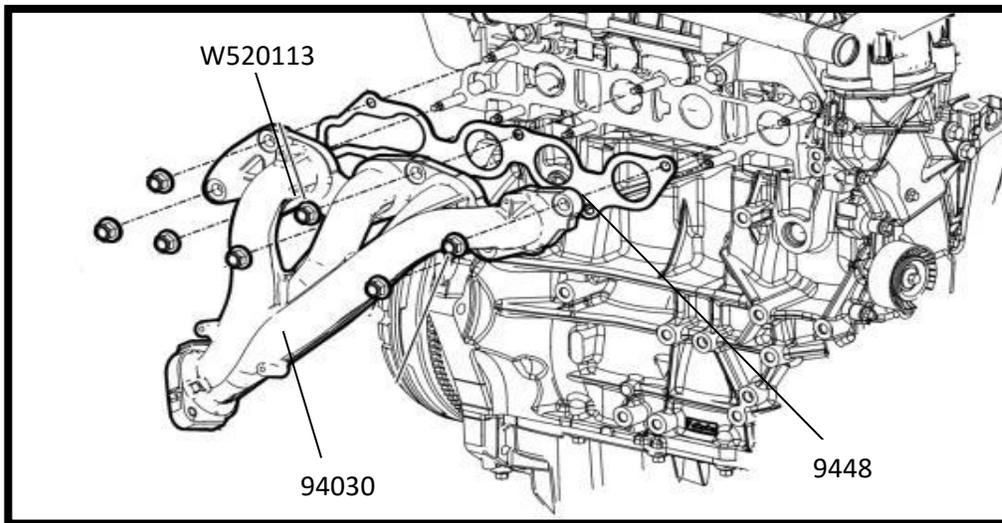
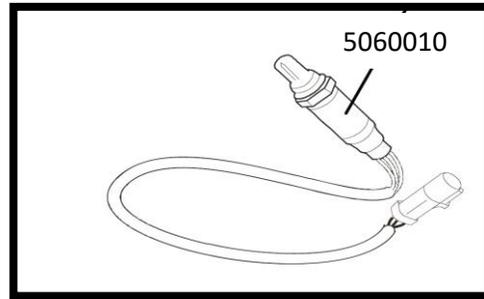
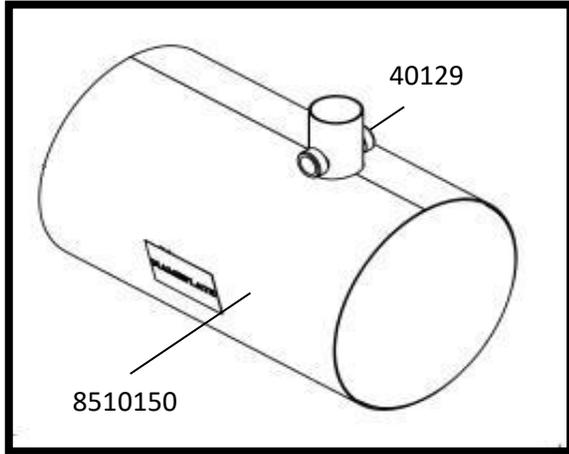
Quantity	Description	Part #
1	Coolant Temp Sensor	F8CZ-12A648-B
1	Crank Position Sensor	5M6Z-6C315-A
1	CAM Position Sensor	6M8Z-6B288-C
1	Solenoid - Variable Valve Timing	CJ5Z-6M280-A
1	VVT Rubber Grommet	BR3Z6C535B

Harnesses and Misc.



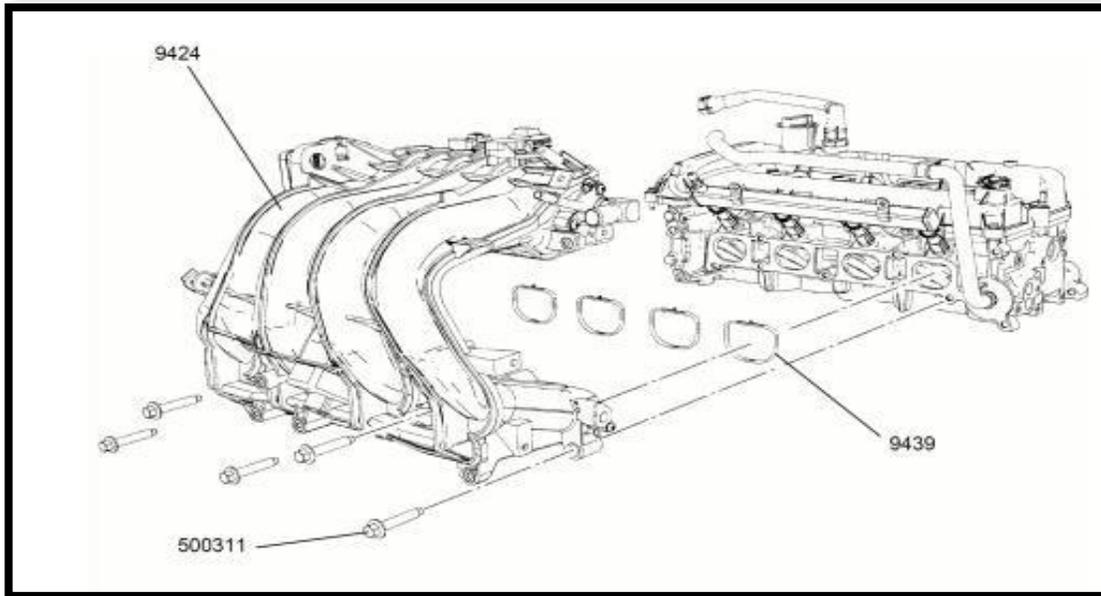
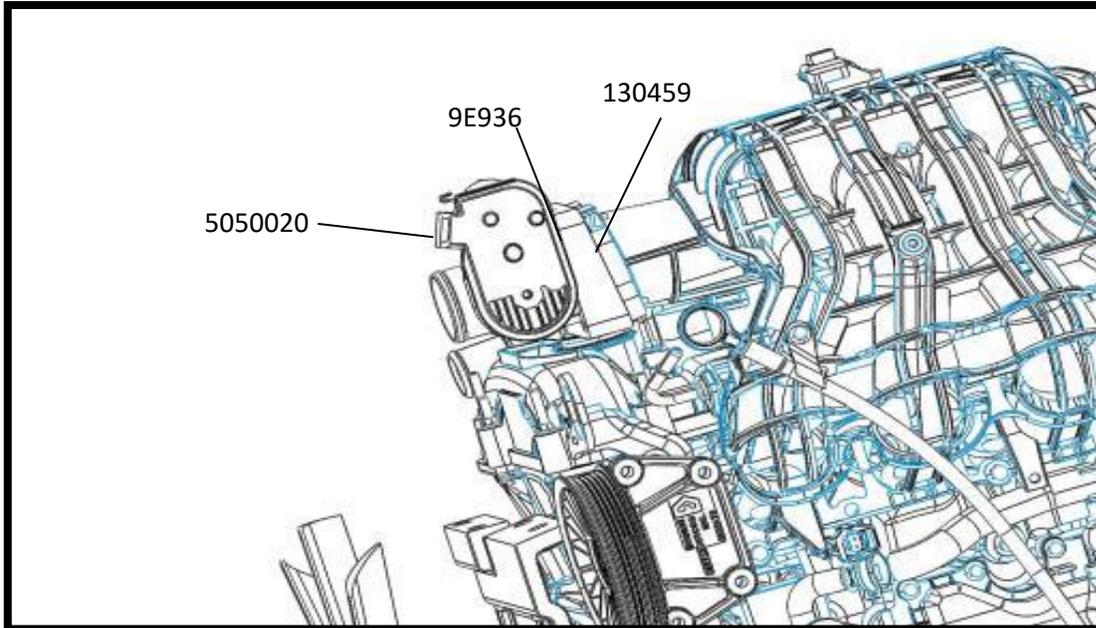
Quantity	Description	Part #
1	Engine Harness (Alternator on Exhaust Side)	5210120
1	Engine Harness (JLG, Alternator Under Intake)	5270070
1	Alternator to Starter Charge Wire	5260040
1	Gasoline Fuel Block Harness	5260010
2	Fuse box isolators	50959-5
1	Engine Bracket for GCP and Fuse Box	4020050
1	Diagnostic Software and Cable	5080050
1	GCP Connector Slide Lock	5240030
1	GCP Connector Cover	5240020

Exhaust System Components



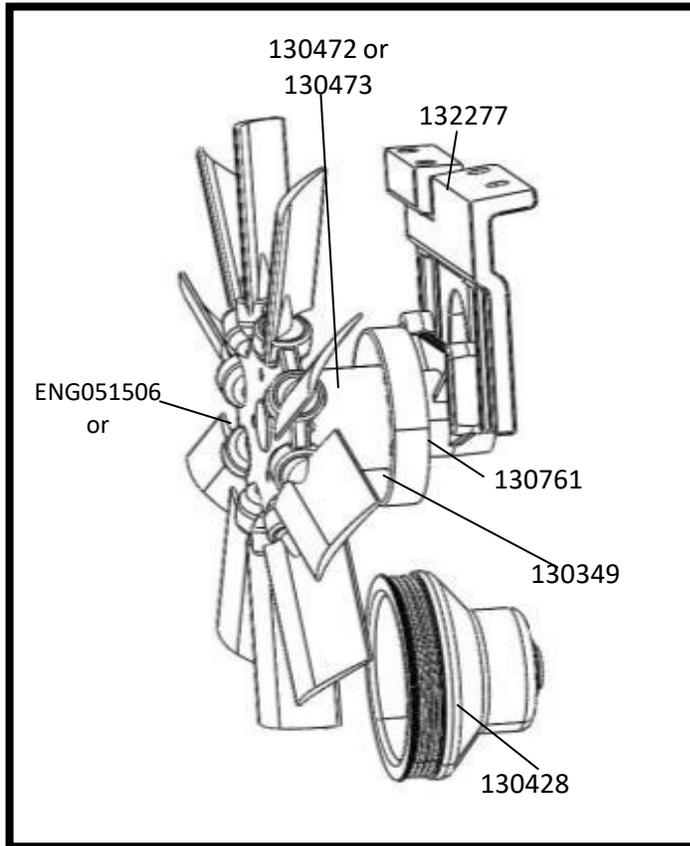
Quantity	Description	Part #
1	Catalyst Muffler	8510150
1	Cat Muffler O2 Plug (M18)	40129
1	Exhaust Manifold (bottom rear outlet)	AB39-9430-AB
1	Exhaust Manifold (Top middle outlet)	1001214827
1	Exhaust Manifold gasket	IL5Z-9448-AB
7	Manifold Mounting Nuts	W520113
1	Manifold Outlet Gasket	AB39-9451-AA
2	Exhaust O2 Sensor (pre and post catalyst)	5060010
1	Pre-Cat Sensor Pipe Bung	F5AC9J467CA
1	Exhaust Manifold Heat Shield	AB39-9N454-AC
A/R	Exh Manifold Heat Shield Bolts	161817

Intake Air System



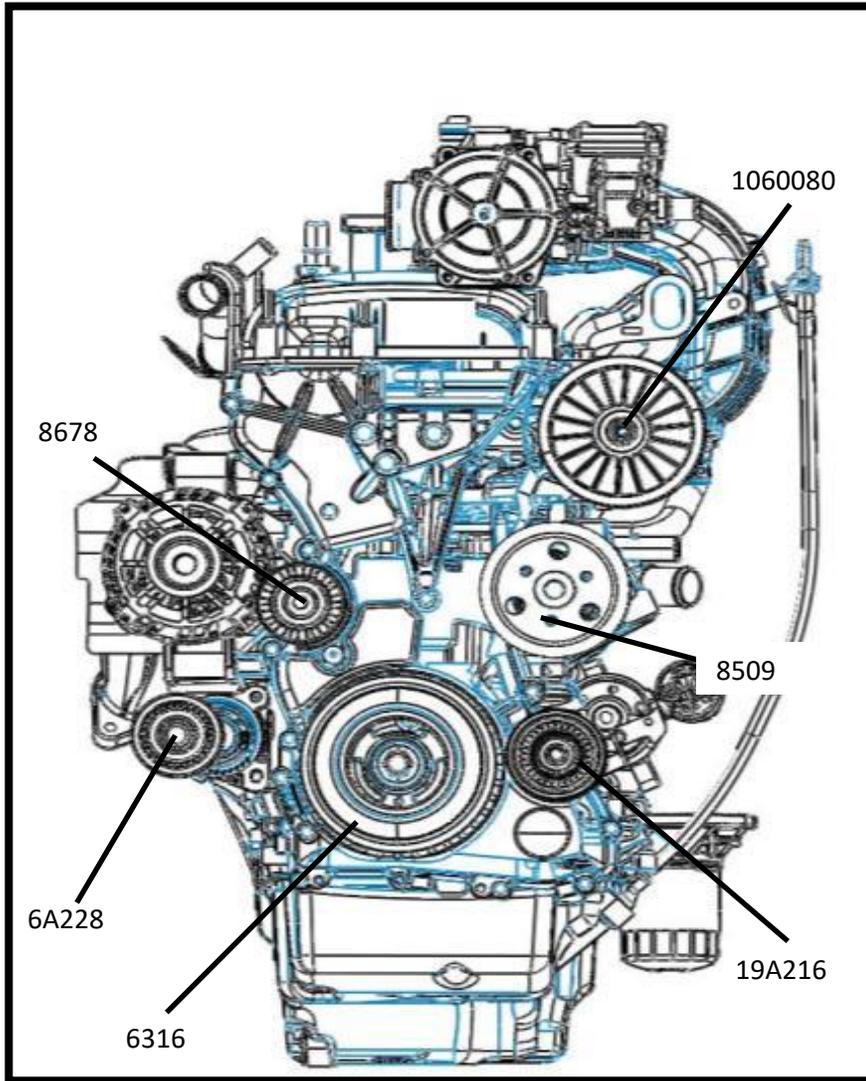
Quantity	Description	Part #
1	Bosch Governor	5050020
1	Bosch Governor Gasket	1U1L-9E936-AA
1	Governor to Intake Manifold Adapter	130459
1	Intake Manifold	BB3G-9424-AG
4	Gasket intake manifold to cylinder head	8E5Z-9439-A
5	Intake to Cylinder Head Bolts	W500311
1	Intake manifold to throttle adapter gasket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

Cooling Fan Drive and Pulleys



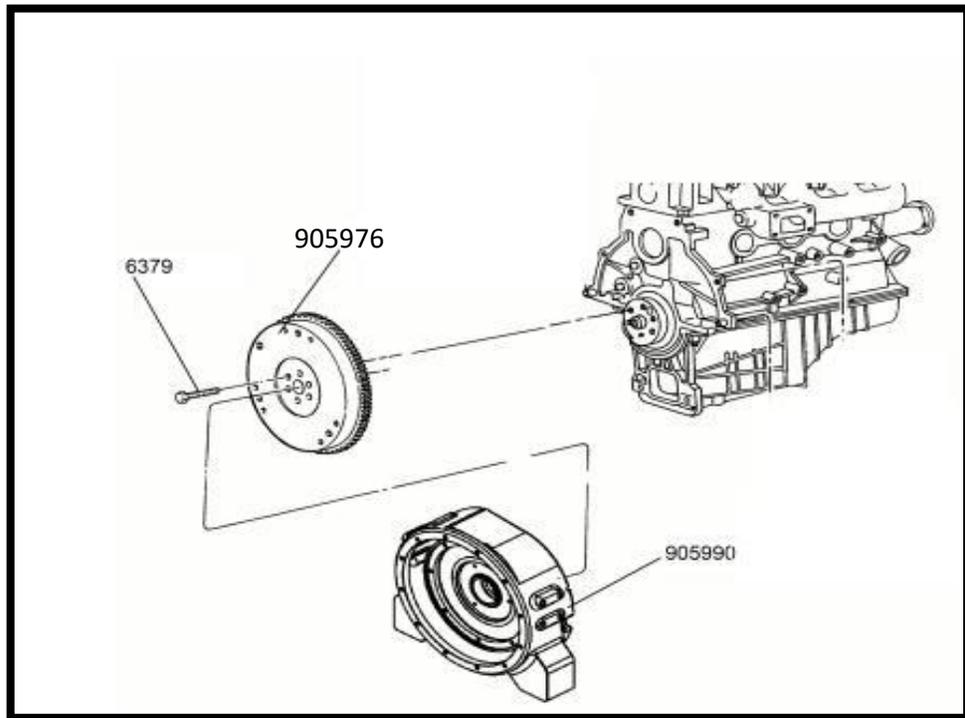
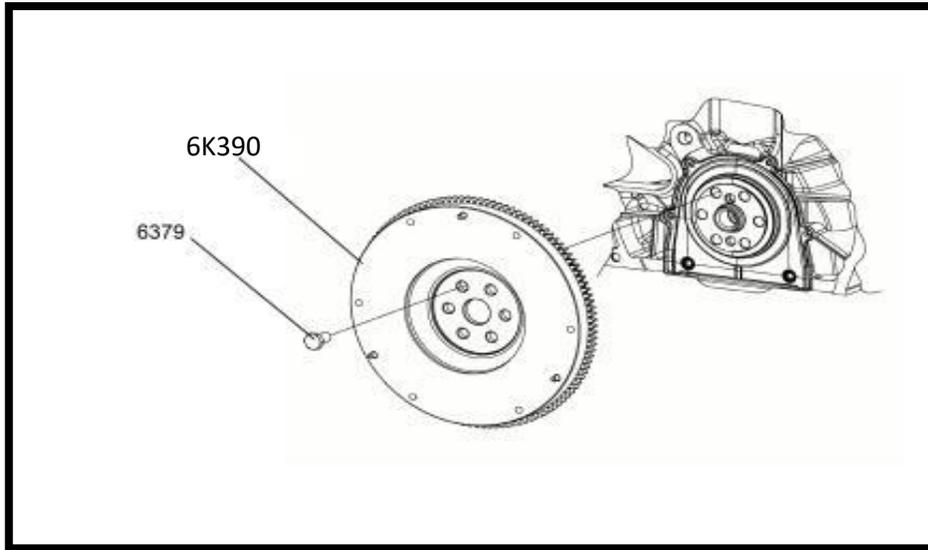
Quantity	Description	Part #
1	Fan Spacer - 60mm	130472
1	Fan Spacer - 39mm (Genie)	130473
1	Fan Pulley (4 groove)	130349
1	Fan Pulley (6 groove, JLG)	132014
1	Fan Belt - 4 Groove	1010130
1	Fan Bearing and bracket	130761
1	Fan Mounting Bracket	132277
1	Fan Mounting Bracket (JLG)	1001216071
1	Fan Bracket Support (through idler)	4060170
1	Fan Drive Pulley (4 grooves, standard)	130428
1	Fan Drive Pulley (6 grooves, JLG)	132013
1	Fan Drive Pulley (4 grooves, Bandit)	133298
1	Fan Drive Pulley (4 grooves, Tymco)	133750
1	Crank Pulley (JLG)	133511
1	Suction Cooling Fan - 15"	ENG051506
1	Pusher Cooling Fan - 15"	ENG051507
1	Pusher Cooling Fan - 16"	9070010
1	Pusher Cooling Fan - 16" (1800RPM Genset)	9090040
1	Suction Cooling Fan - 16"	9070020

FEAD



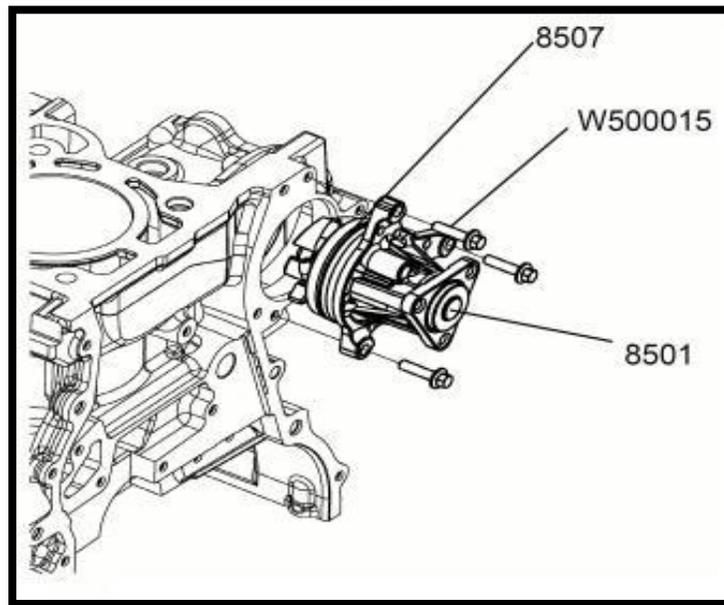
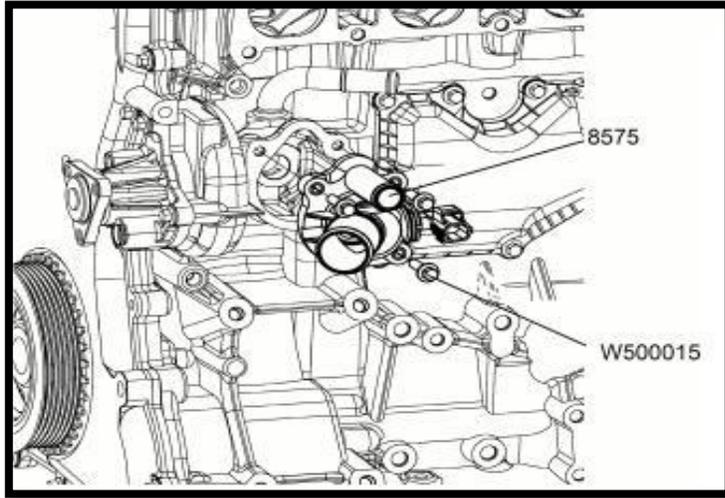
Quantity	Description	Part #
1	Upper Idler Pulley	1060080
1	Upper Idler Bracket for 1060080	4060070
1	Upper Idler Dist Cover	206036
1	Lower Idler Pulley	AB39-19A216-AA
1	Bolt for 19A216 Pulley	W500320-S437
1	Pulley and Tensioner	AB39-6A228-AA
1	Smooth Idler	4S7Z-8678-A
1	Water Pump Pulley	5M6Z-8509-AE
1	Main FEAD Belt (6 Groove)	1010100
1	Main FEAD Belt (4 Groove, JLG)	1050170
1	Crank Pulley	9E5Z-6312-B
1	OptionaI Upper Idler Tensioner (JLG)	DS7Z6A228A

Flywheel and Housings



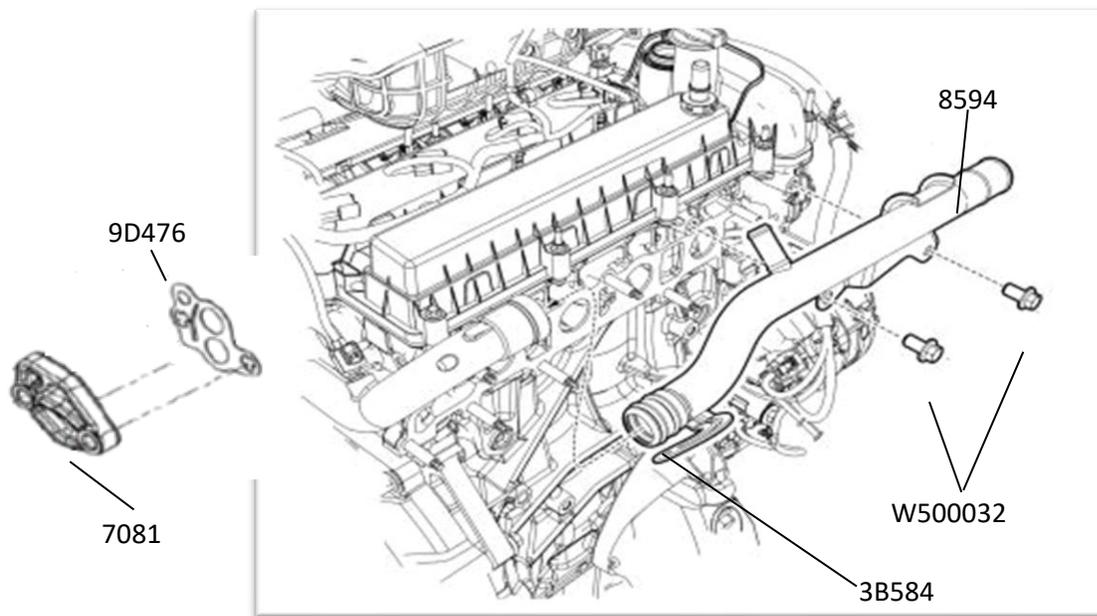
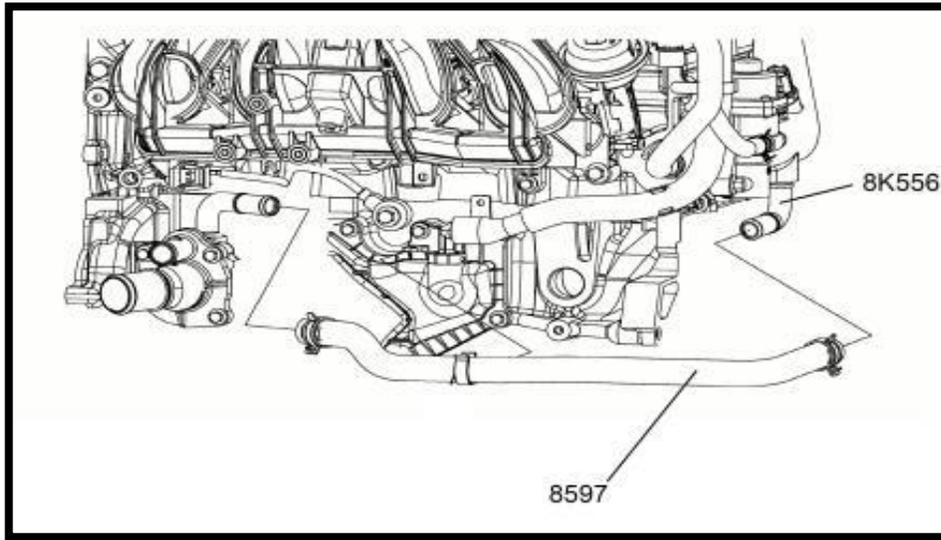
Quantity	Description	Part #
1	Flat Face Flywheel Assy.	6C1G-6K390-AB
6	Flywheel bolts to crank shaft	1S7Z-6379-AA
1	SAE 10" Flywheel	905976
1	SAE 4 Housing	905990
1	SAE 4 Housing - No Feet	905961
1	Ring Gear	3540020
1	Pilot Bearing	D4ZZ-7600-A

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

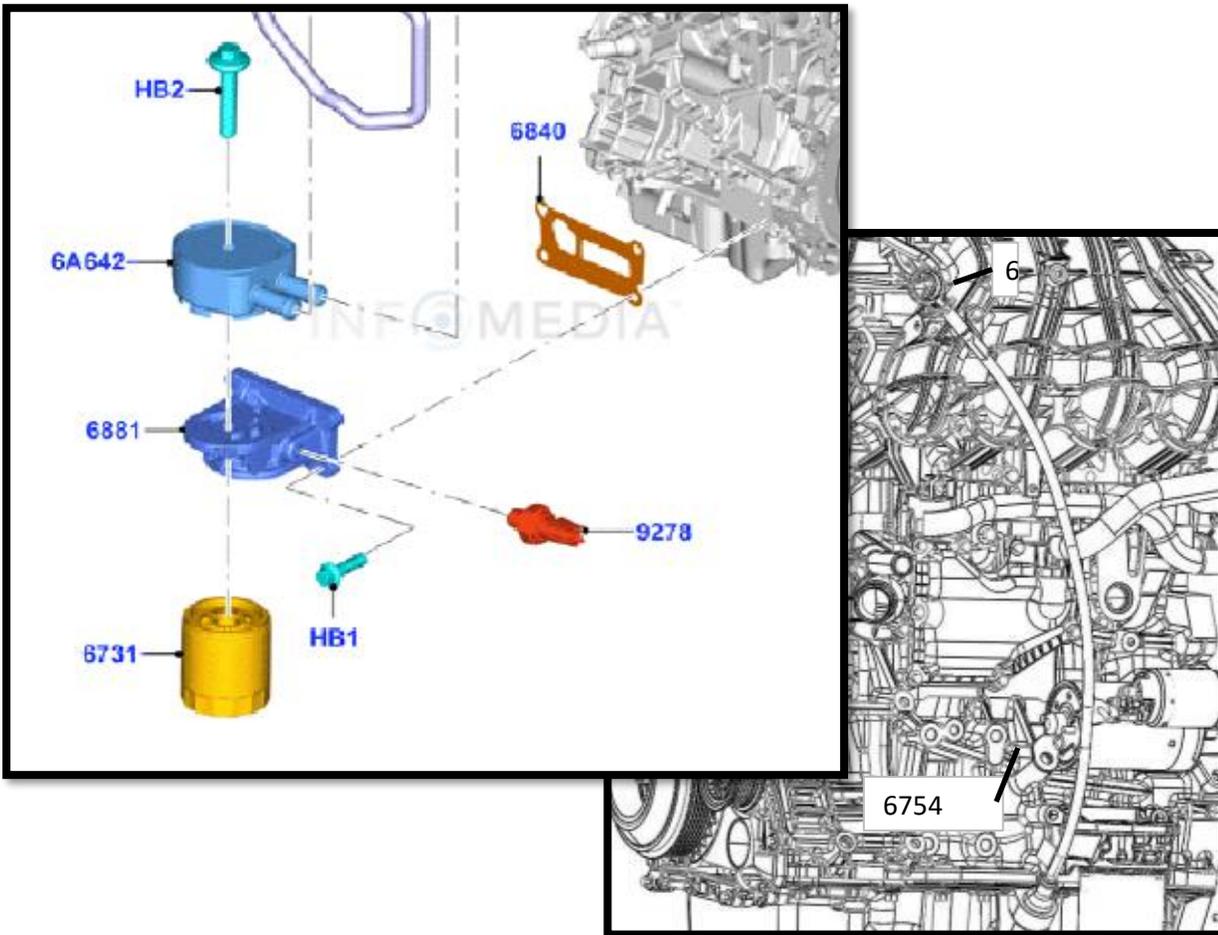
Cooling System



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

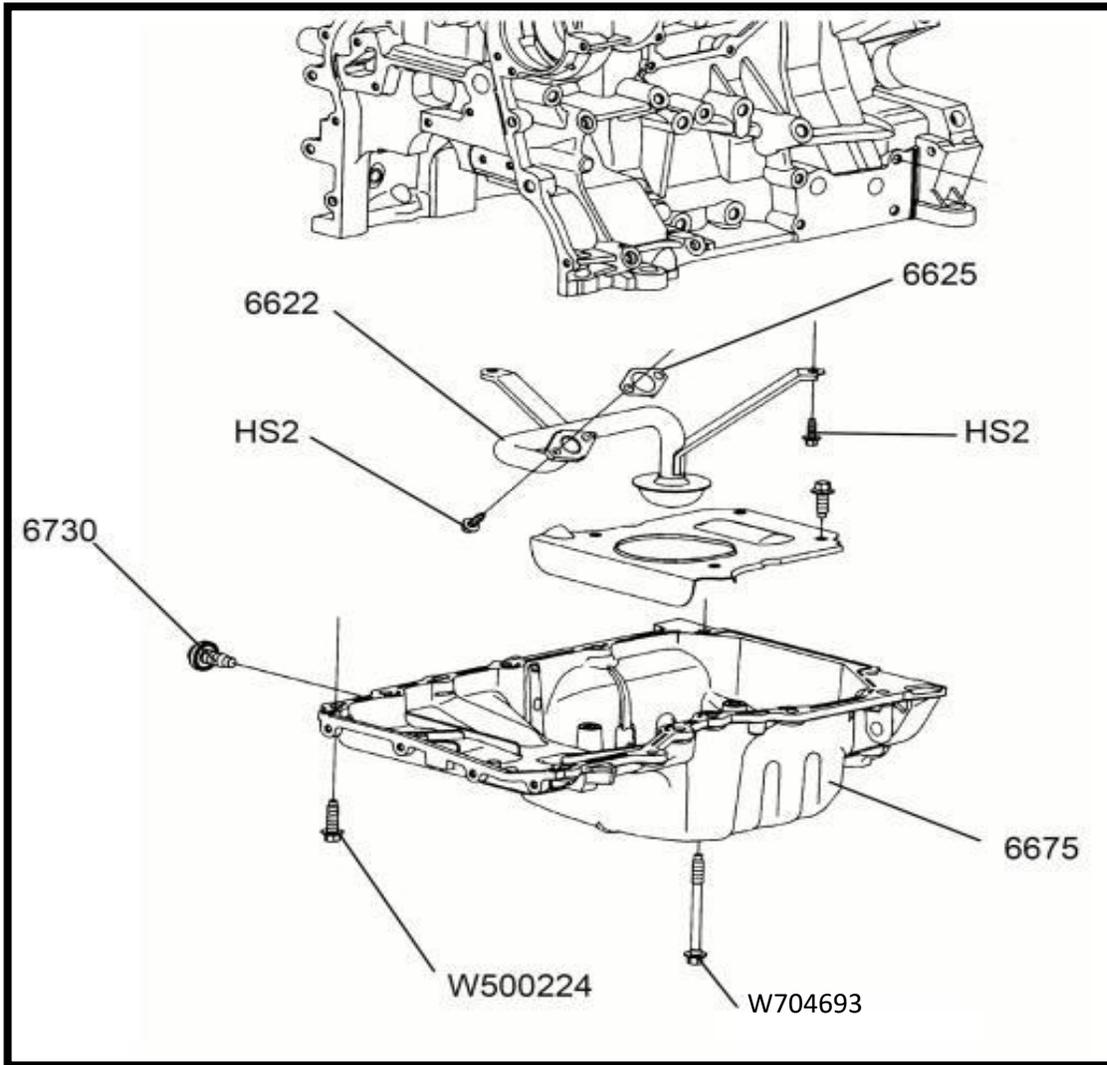
2	Coolant outlet tube "o-rings"	1L5Z-3B584-AA
1	EGR Blanking Plate	1S7G-7081-BA
1	EGR Gasket	1S7G-9D476-AG

Oil Filter, Plug and Dipstick



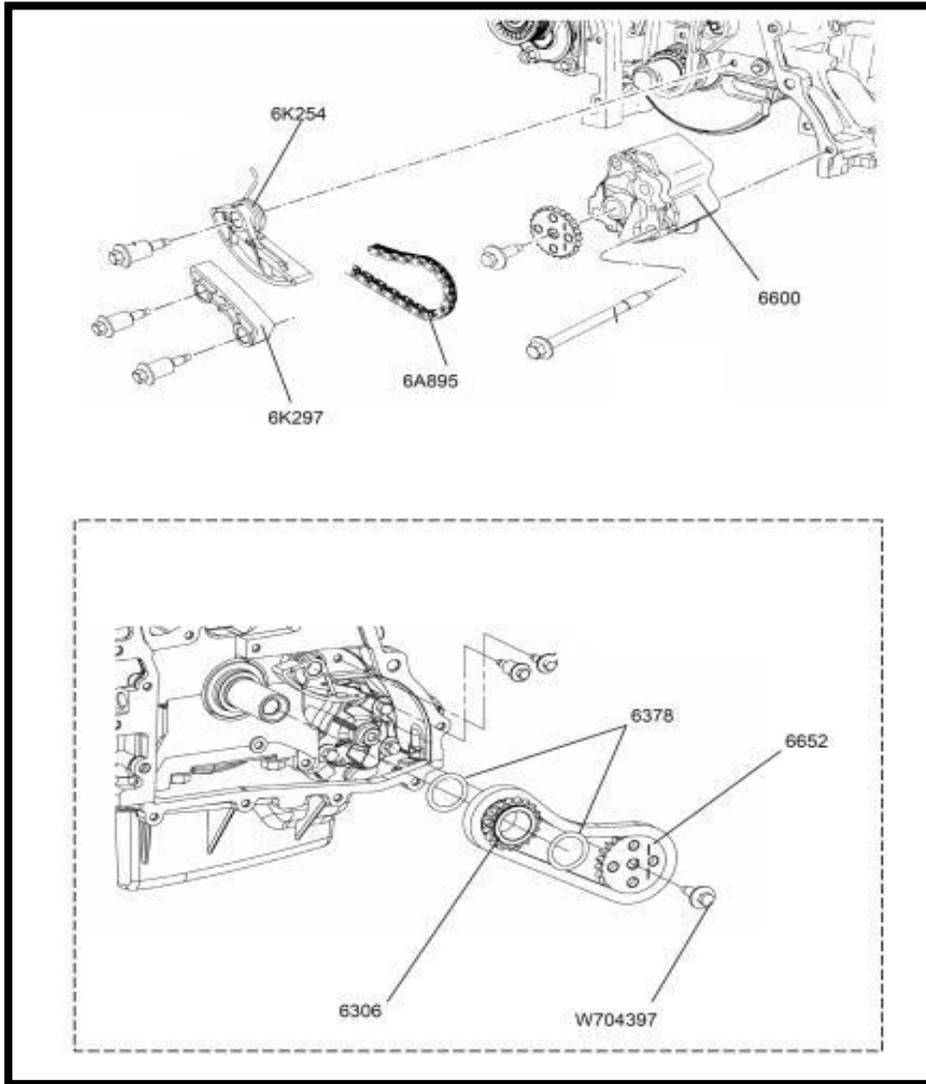
Quantity	Description	Part #	
1	Oil Filter	BE8Z-6731-AB; FL-910S	
1	Oil Filter Adapter	BB5Z-6881-A	
1	Gasket Oil Filter Adapter	1S7Z-6840-AA	
4	Bolts Oil filter adapter (HB1)	W500225-S437	Size
1	Oil drain plug (<MEM; Prior to March 2016)	F6TZ- 6730-BA	M14x1.5
1	Oil drain plug (>MEM; After March 2016)	9L8Z-6730-A	M12x1.75
1	Oil indicator Standard	BB3G-6750-AC	
1	Oil Indicator Tube	BB3G-6754-AD	
1	Oil Pressure Switch	6U5Z-9278-G	
1	Oil Cooler	AG9Z-6A642-A	
2	Oil Cooler Rubber Caps	F8JL8A500BA	
2	Oil Cooler Cap Clamps	206040	
1	Oil Cooler Mounting Bolt (HB2)	W706487-S437	
1	Optional Short Dipstick and Tube	62500700	
1	Optional Short Dipstick and Tube (JLG)	1050220	
1	Short Dipstick Bracket	4020120	
***7 Quarts refill of 5W-20 to 5W-30			

Oil Pan and Pickup



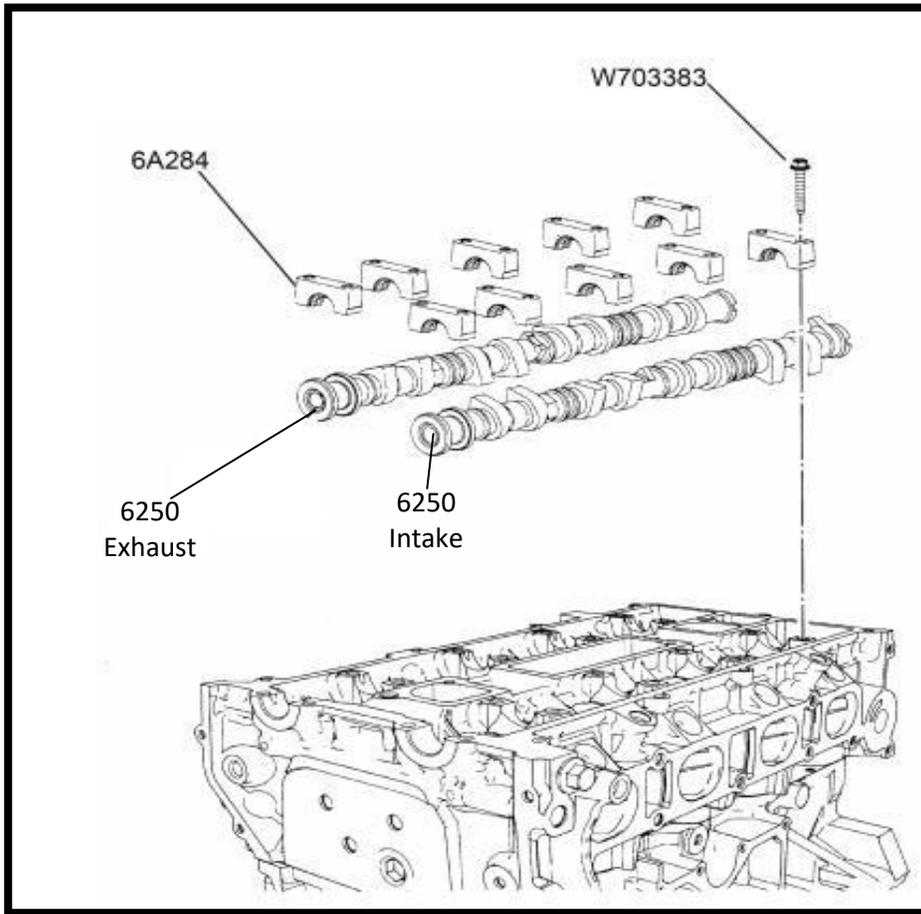
Quantity	Description	Part #	
1	Oil pump screen and cover assembly	BB3Z-6622-AC	
1	Gasket oil pump tube	BB3Z-6625-AA	
1	Oil Pan (<MEM; March 2016)	BB3Z-6675-AC	
11	Oil Pan Bolts	W500224	Size
1	Oil drain plug (<MEM; Prior to March 2016)	F6TZ- 6730-BA	M14x1.5
1	Oil drain plug (>MEM; After March 2016)	9L8Z-6730-A	M12x1.75
1	Gasket oil pan drain plug	F5TZ-6734-BA	
1	Oil Fill Cap (5W/30)	F2GZ-6766-A	
1	Oil Fill Cap (5W/20)	F2GZ-6766-B	

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

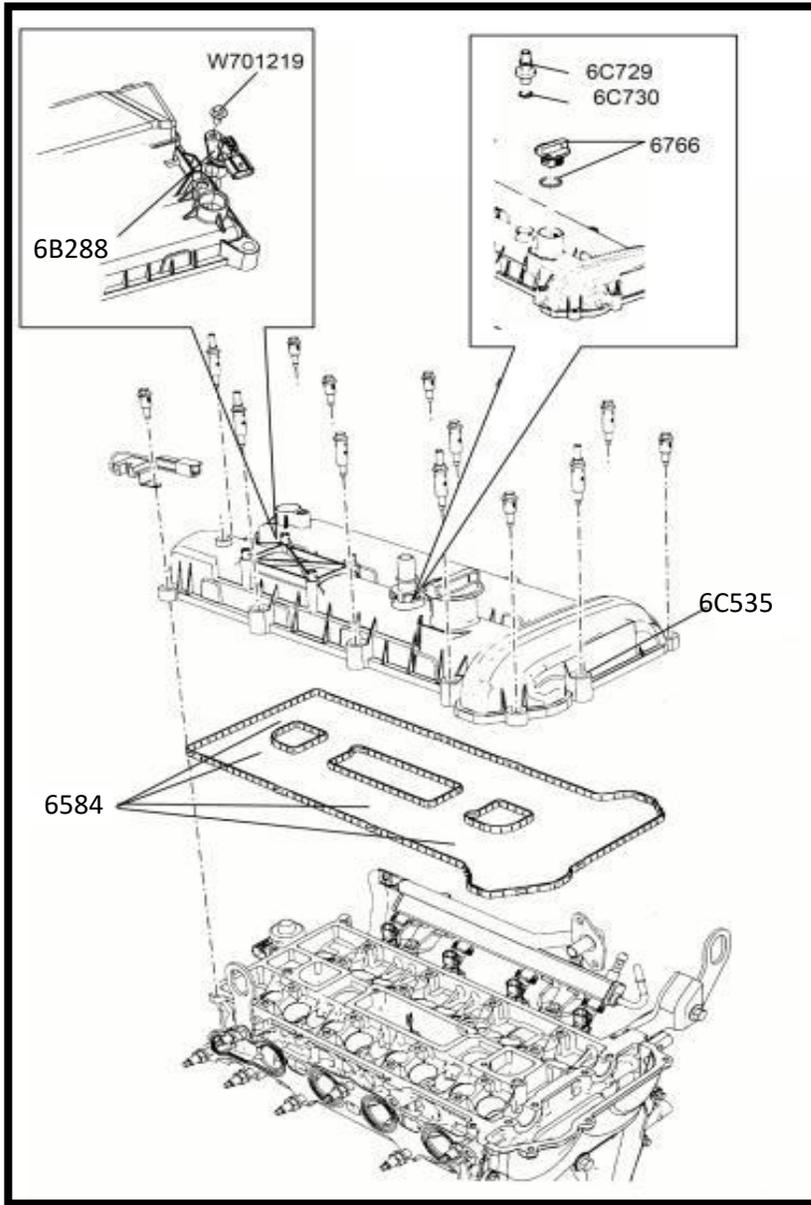
CAMSHAFT and Bearing CAPS



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
	Intake Compensator	6M8Z-6C525-D

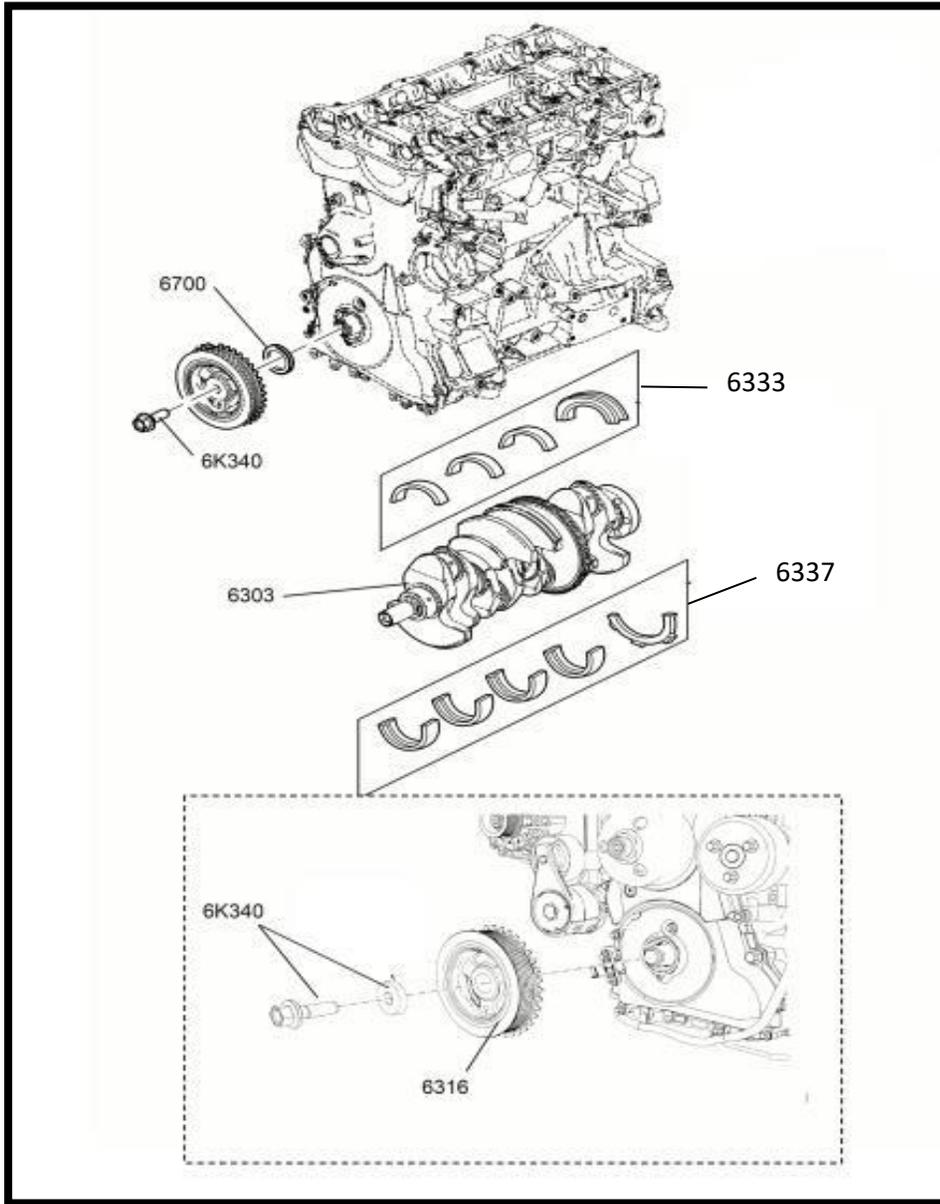
Caps are not service - Come part of head assembly

CAMSHAFT COVER



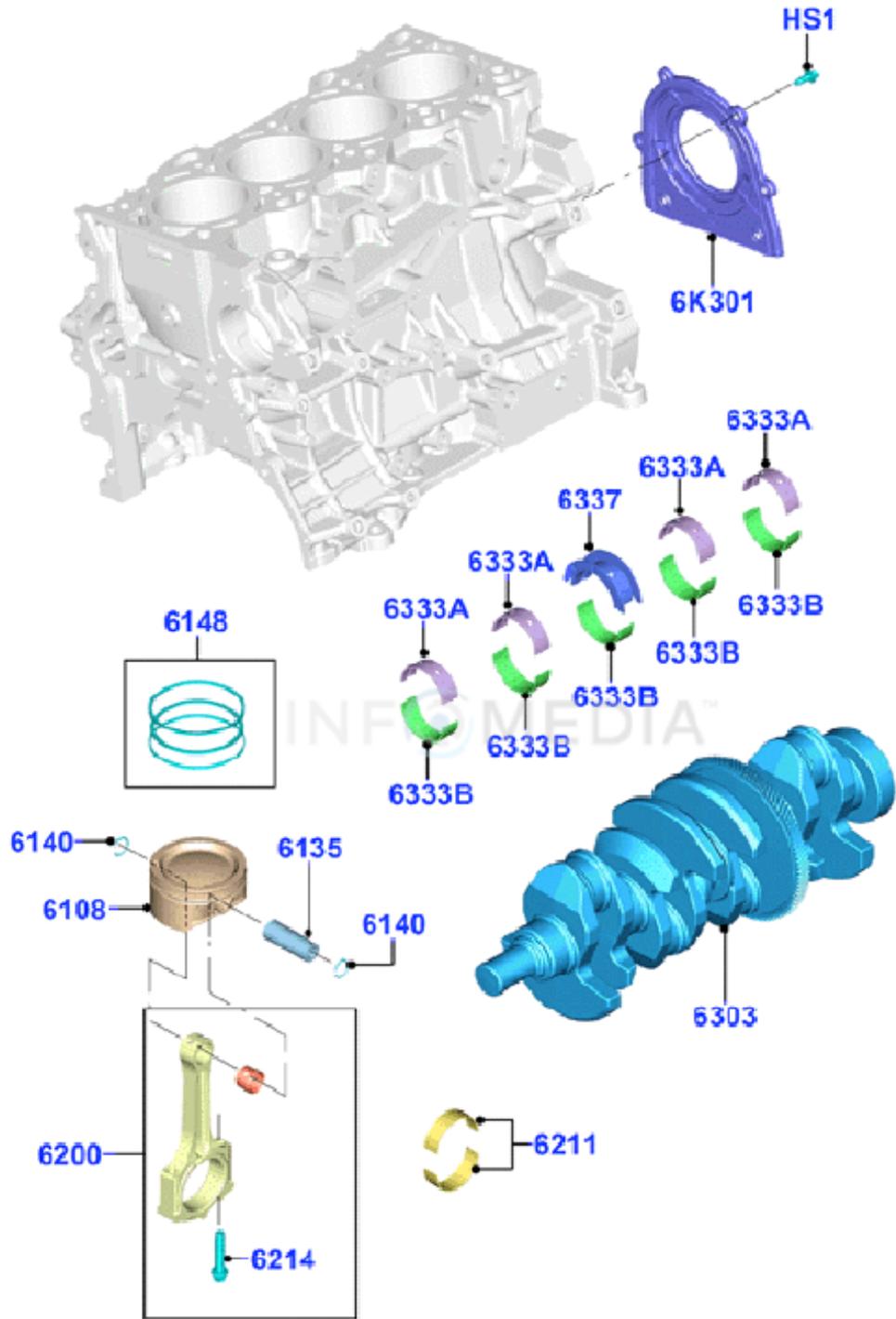
Quantity	Description	Part #
1	Camshaft Cover	BB3G-6M293-BA
1	Gasket CAMSHAFT Cover	1S7Z-6584-BA
1	CAM Position Sensor	6M8Z-6B288-B
1	CAM Position Sensor Bolt	W701219
1	Oil Fill Cap (5W/30)	F2GZ-6766-A
1	Oil Fill Cap (5W/20)	F2GZ-6766-B
1	Tube Outlet - Breather	4L5Z-6C730-AA
1	O-ring - Breather	4M5Z-6C730-AA
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	See Next Page
4	Center Bearing	See Next Page

Crankshaft and Bearings

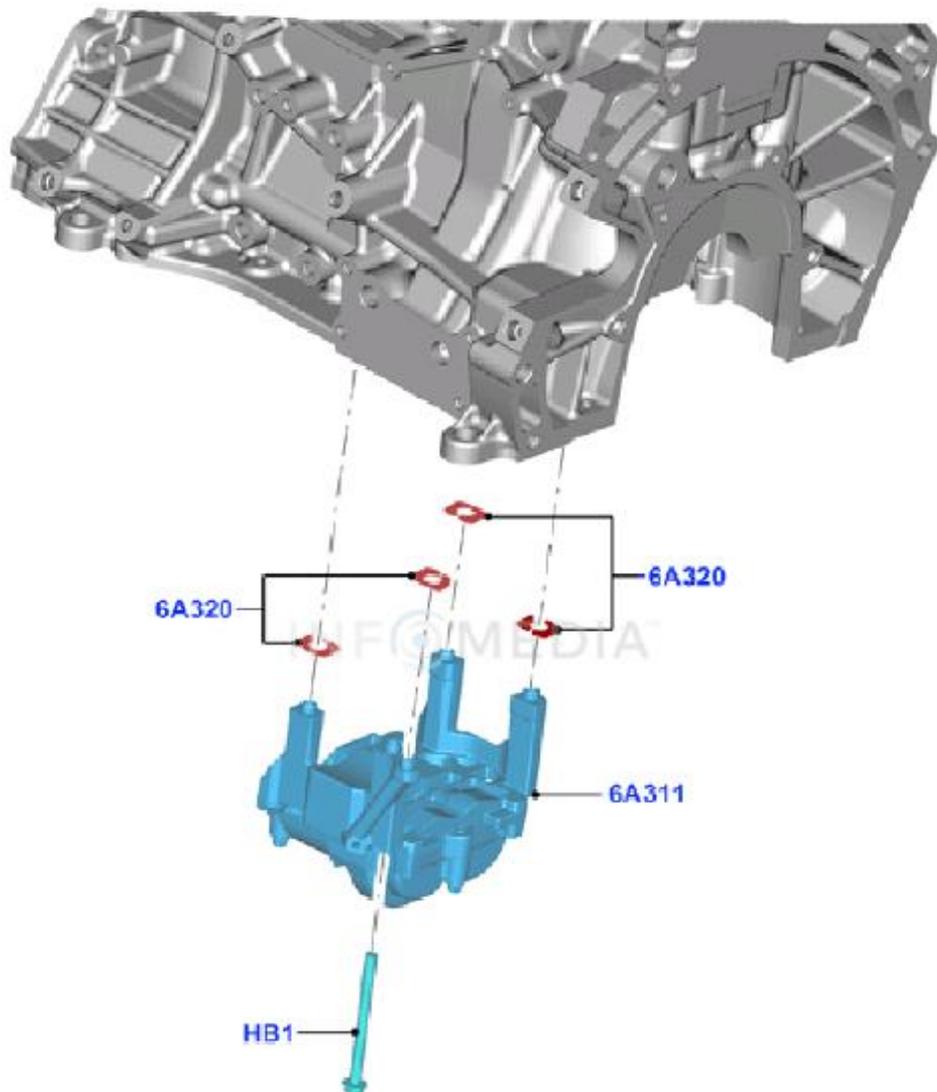


See Next Page for Parts

Crankshaft and Bearings

Quantity	Description	Part #
AR	(6108) PISTON, GRADE 1, PISTON ONLY; WRIST PIN AND RETAINERS MUST BE PURCHASED SEPARATELY, REFER TO WORKSHOP MANUAL FOR PROPER GRADE SELECTION	8E5Z-6108-AA
AR	(6108) PISTON, GRADE 2, PISTON ONLY; WRIST PIN AND RETAINERS MUST BE PURCHASED SEPARATELY, REFER TO WORKSHOP MANUAL FOR PROPER GRADE SELECTION	8E5Z-6108-BA
AR	(6108) PISTON, GRADE 3, PISTON ONLY; WRIST PIN AND RETAINERS MUST BE PURCHASED SEPARATELY, REFER TO WORKSHOP MANUAL FOR PROPER GRADE SELECTION	8E5Z-6108-AC
4	(6135) Pin - Piston	DV6Z-6135-A
8	(6140) Retainer	8E5Z-6140-A
AR	(6148) Kit - Piston Ring, Kit Contains Piston Rings for 1 cylinder	9E5Z-6148-A
4	(6200) Connecting Rod Assembly	8E5Z-6211-A
AR	(6211) Bearing - Connecting Rod Grade 1, Green ID, refer to WSM for proper grade selection	8E5Z-6211-A
AR	(6211) Bearing - Connecting Rod Grade 2, Blue ID, refer to WSM for proper grade selection	8E5Z-6211-B
AR	(6211) Bearing - Connecting Rod Grade 3, Red ID, refer to WSM for proper grade selection	8E5Z-6211-C
8	Connecting Rod Bolt, 2 per package	1S7Z-6214-A
1	Crankshaft Assembly	8E5Z-6303-A
AR	(6333A) Crankshaft Main Bearing - Green ID, Mark 1, Upper	6M8Z-6333-AAA
AR	(6333A) Crankshaft Main Bearing - Blue ID, Mark 2, Upper	6M8Z-6333-BAA
AR	(6333A) Crankshaft Main Bearing - Red ID, Mark 3, Upper	6M8Z-6333-CB
AR	(6333A) Crankshaft Main Bearing - Brown ID, Mark 4, Upper	6M8Z-6333-DB
AR	(6333A) Crankshaft Main Bearing - Yellow ID, Mark 5, Upper	6M8Z-6333-EB
AR	(6333A) Crankshaft Main Bearing - Black ID, Mark 6, Upper	6M8Z-6333-FB
AR	(6333A) Crankshaft Main Bearing - Blue/Green ID, Mark 7, Upper	6M8Z-6333-GB
AR	(6333B) Crankshaft Main Bearing - Green ID, Mark 1, Lower	6M8Z-6333-AA
AR	(6333B) Crankshaft Main Bearing - Blue/Green ID, Mark 7, Lower	6M8Z-6333-B
AR	(6333B) Crankshaft Main Bearing - Blue ID, Mark 2, Lower	6M8Z-6333-BA
AR	(6333B) Crankshaft Main Bearing - Red ID, Mark 3, Lower	6M8Z-6333-CA
AR	(6333B) Crankshaft Main Bearing - Brown ID, Mark 4, Lower	6M8Z-6333-DA
AR	(6333B) Crankshaft Main Bearing - Yellow ID, Mark 5, Lower	6M8Z-6333-EA
AR	(6333B) Crankshaft Main Bearing - Black ID, Mark 6, Lower	6M8Z-6333-FA
AR	(6337) Main Crankshaft Thrust Bearing, Green Upper	6M8Z-6337-AB
AR	(6337) Main Crankshaft Thrust Bearing, Blue Upper	6M8Z-6337-BB
AR	(6337) Main Crankshaft Thrust Bearing, Red Upper	6M8Z-6337-CB
AR	(6337) Main Crankshaft Thrust Bearing, Brown Upper	6M8Z-6337-DB
AR	(6337) Main Crankshaft Thrust Bearing, Yellow Upper	6M8Z-6337-EB
AR	(6337) Main Crankshaft Thrust Bearing, Black Upper	6M8Z-6337-FB
AR	(6337) Main Crankshaft Thrust Bearing, Blue/Green Upper	6M8Z-6337-GB
1	Rear Main Seal;retainer, seal and installation tool	1S7Z-6K301-BA
AR	Rear Seal Screws (HS1)	W500212-S437

Balance Shaft



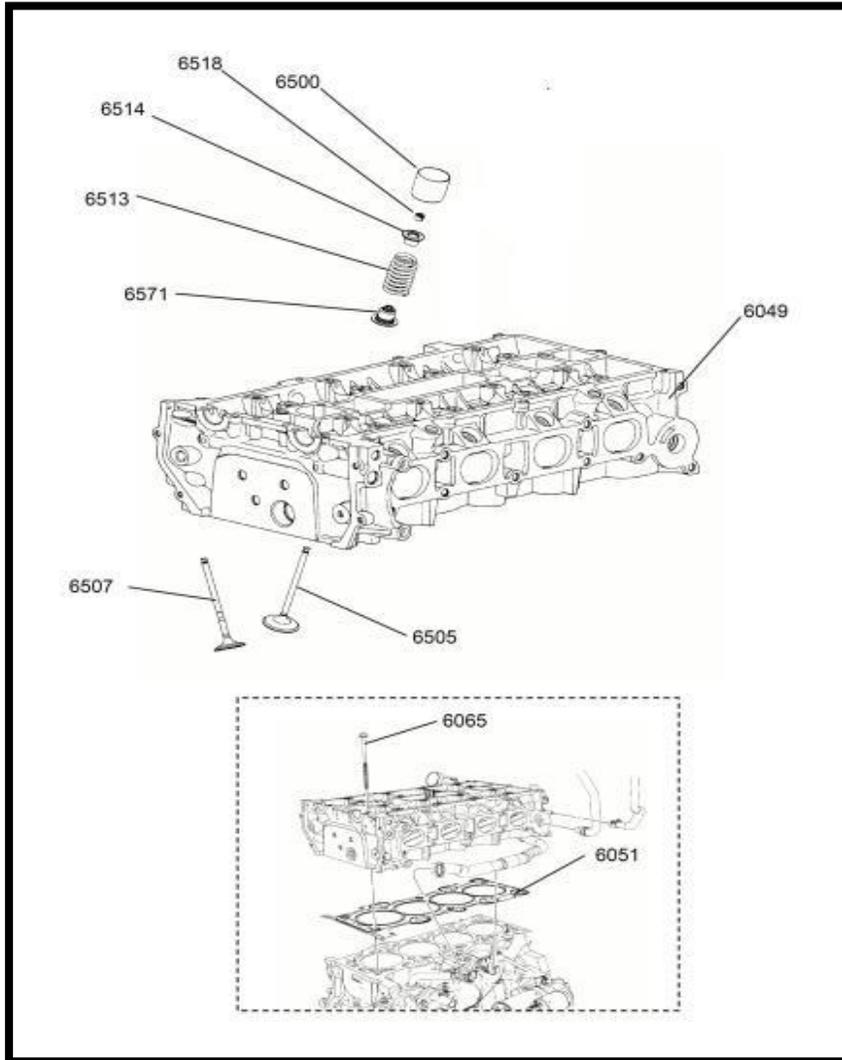
Quantity	Description	Part #
1	Balance Shaft (6A311)	BB3Z-6A311-A
AR	Bolt, M10 x 120mm (HB1)	9E5Z-00812-C

See Next Page for Shims

Balance Shaft Shims

Quantity	Description	Part #
AR	SHIM, 1.15MM (6A320)	3L5Z-6A320-CCB
AR	SHIM, 1.16MM (6A320)	3L5Z-6A320-CDB
AR	SHIM, 1.17MM (6A320)	3L5Z-6A320-DAB
AR	SHIM, 1.18MM (6A320)	3L5Z-6A320-DAB
AR	SHIM, 1.19MM (6A320)	3L5Z-6A320-DCB
AR	SHIM, 1.20MM (6A320)	3L5Z-6A320-DCB
AR	SHIM, 1.21MM (6A320)	3L5Z-6A320-DCB
AR	SHIM, 1.22MM (6A320)	3L5Z-6A320-DCB
AR	SHIM, 1.23MM (6A320)	3L5Z-6A320-DCB
AR	SHIM, 1.24MM (6A320)	3L5Z-6A320-DCB
AR	SHIM, 1.25MM (6A320)	3L5Z-6A320-DCB
AR	SHIM, 1.26MM (6A320)	3L5Z-6A320-DCB
AR	SHIM, 1.27MM (6A320)	3L5Z-6A320-DCB
AR	SHIM, 1.28MM (6A320)	3L5Z-6A320-DCB
AR	SHIM, 1.29MM (6A320)	3L5Z-6A320-DCB
AR	SHIM, 1.30MM (6A320)	3L5Z-6A320-DCB
AR	SHIM, 1.31MM (6A320)	3L5Z-6A320-DCB
AR	SHIM, 1.32MM (6A320)	3L5Z-6A320-DCB
AR	SHIM, 1.33MM (6A320)	3L5Z-6A320-DCB
AR	SHIM, 1.34MM (6A320)	3L5Z-6A320-DCB
AR	SHIM, 1.35MM (6A320)	3L5Z-6A320-DCB
AR	SHIM, 1.36MM (6A320)	3L5Z-6A320-DCB
AR	SHIM, 1.37MM (6A320)	3L5Z-6A320-DCB
AR	SHIM, 1.38MM (6A320)	3L5Z-6A320-DCB
AR	SHIM, 1.39MM (6A320)	3L5Z-6A320-DCB
AR	SHIM, 1.40MM (6A320)	3L5Z-6A320-DCB
AR	SHIM, 1.41MM (6A320)	3L5Z-6A320-DCB
AR	SHIM, 1.42MM (6A320)	3L5Z-6A320-DCB
AR	SHIM, 1.43MM (6A320)	3L5Z-6A320-DCB
AR	SHIM, 1.44MM (6A320)	3L5Z-6A320-DCB
AR	SHIM, 1.45MM (6A320)	3L5Z-6A320-DCB
AR	SHIM, 1.46MM (6A320)	3L5Z-6A320-DCB
AR	SHIM, 1.47MM (6A320)	3L5Z-6A320-DCB
AR	SHIM, 1.48MM (6A320)	3L5Z-6A320-DCB
AR	SHIM, 1.49MM (6A320)	3L5Z-6A320-DCB
AR	SHIM, 1.50MM (6A320)	3L5Z-6A320-DCB
AR	SHIM, 1.51MM (6A320)	3L5Z-6A320-DCB
AR	SHIM, 1.52MM (6A320)	3L5Z-6A320-DCB
AR	SHIM, 1.53MM (6A320)	3L5Z-6A320-DCB
AR	SHIM, 1.54MM (6A320)	3L5Z-6A320-DCB

Cylinder Head

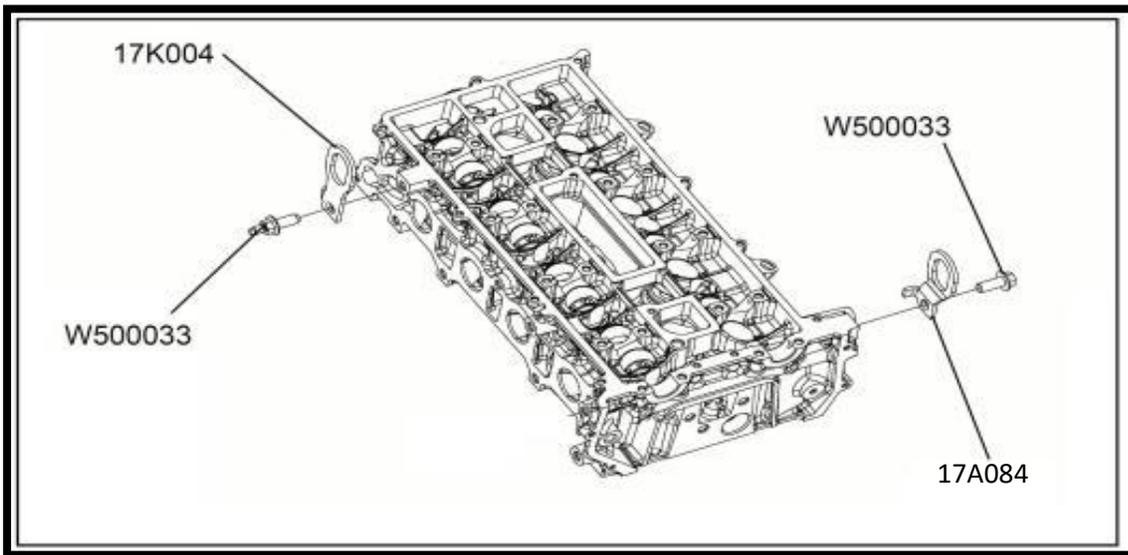


Quantity	Description	Part #
1	Cylinder Head Assembly with Valves	CV6Z-6049-A
1	Cylinder Head Gasket	8E5Z-6051-C
8	Exhaust Valve	9S4Z-6505-A
8	Intake Valves	9S4Z-6507-C
16	Valve Springs	CJ5Z-6513-A
16	Valve Spring Retention	1S7Z-6514-AA
32	Valve spring retention key	1S7Z-6518-AA
8	Seal - Valve Stem, Exhaust (brown or gray)	1S7Z-6571-EA
8	Seal - Valve Stem, Intake (green)	3S4Z-6571-AA
16	Tapet Valve Assembly	See Next Page
10	Bolt Cylinder Head	CP9Z-6065-A
1	Head Set	9E5Z-6079-D
1	Lower Gasket Set	9E5Z-6781-A

Valve Tappets

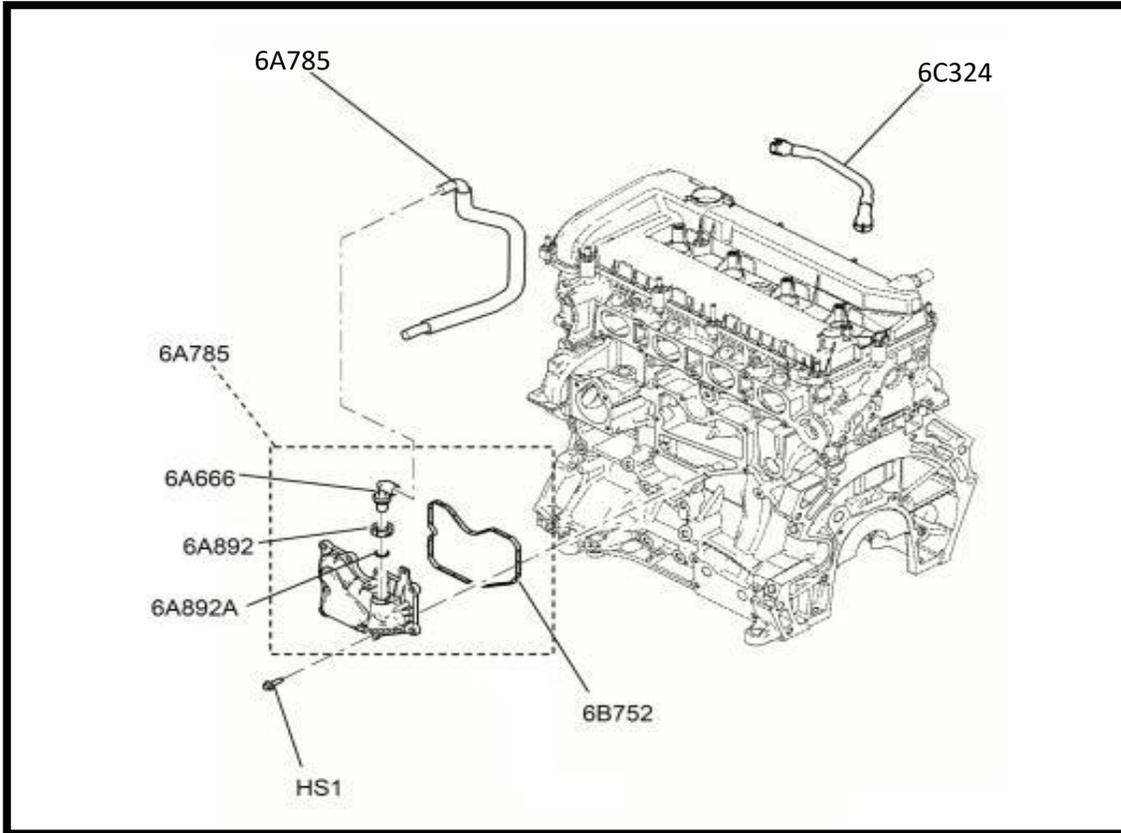
Tappets (Qty 16 Per Engine)	
Part #	Size [MM]
CP9Z-6500-AAB	3.000
CP9Z-6500-ABB	3.025
CP9Z-6500-ACB	3.050
CP9Z-6500-ADB	3.075
CP9Z-6500-BAB	3.100
CP9Z-6500-BBB	3.122
CP9Z-6500-BCB	3.142
CP9Z-6500-BDB	3.162
CP9Z-6500-CAB	3.182
CP9Z-6500-CBB	3.202
CP9Z-6500-CCB	3.222
CP9Z-6500-CDB	3.242
CP9Z-6500-DAB	3.262
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



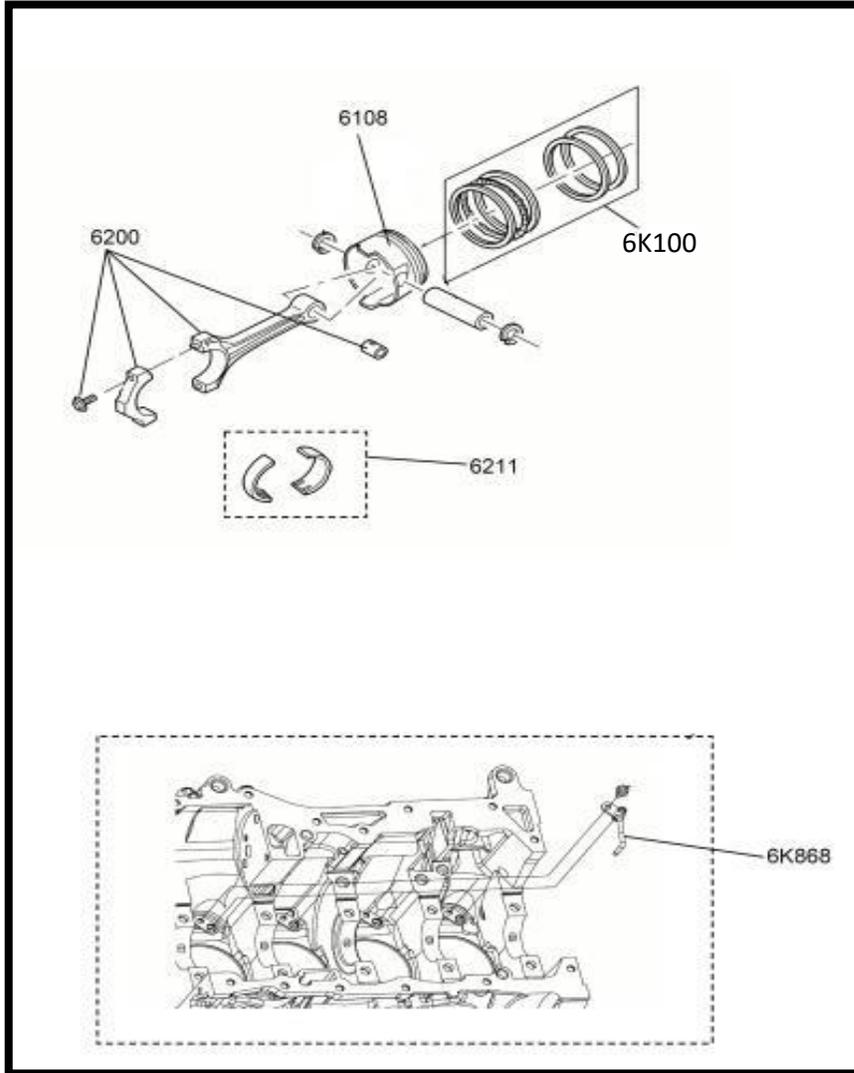
Quantity	Description	Part #
1	Front Engine Lifting Eye	BB3Z-17A084-AA
1	Rear Engine Lifting Eye	1S7G-17K004-AF
2	Lifting Eye Bolts	W500033

Crankcase Ventilation



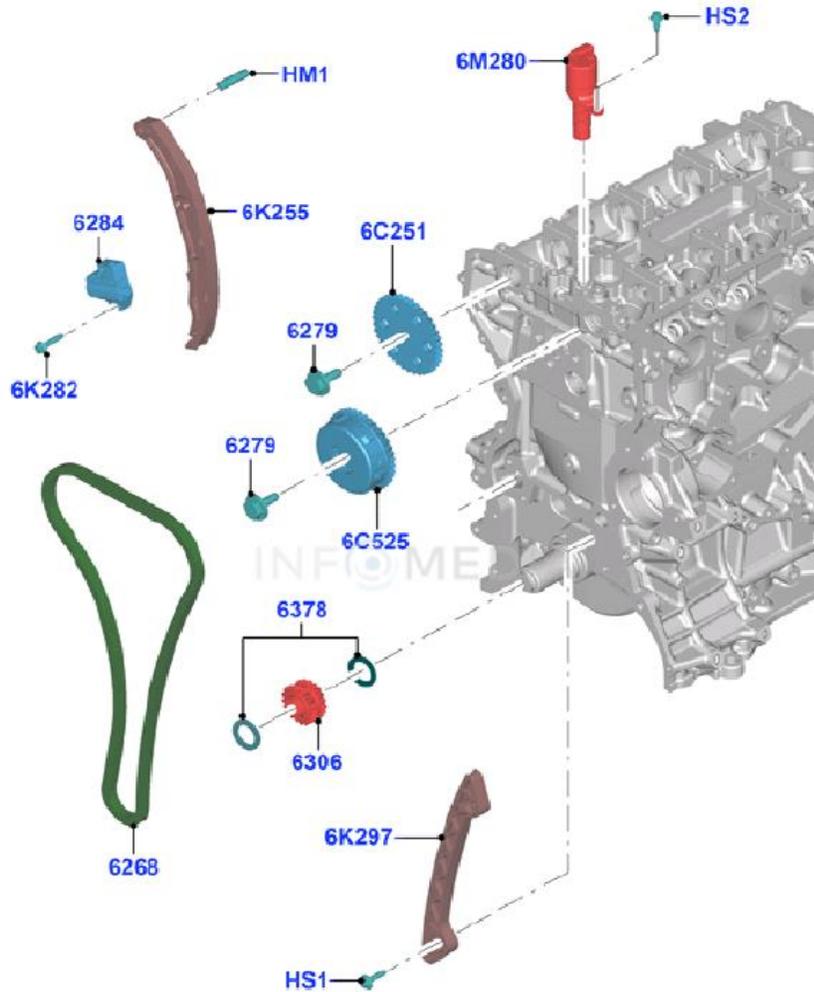
Quantity	Description	Part #
1	Crankcase vent. Assembly	BB3G-6A785-AB
1	Gasket CRKC Assembly	1S7Z-6B752-AA
1	Valve Assembly - Regulating	8S4Z-6A666-A
1	Valve Retention	1S7Z-6A892-A
1	O-ring valve retention	3S4Z-6A892-AA
1	Connection and Hose Ass. CRKC	BB3Z-6C324-AA

Pistons



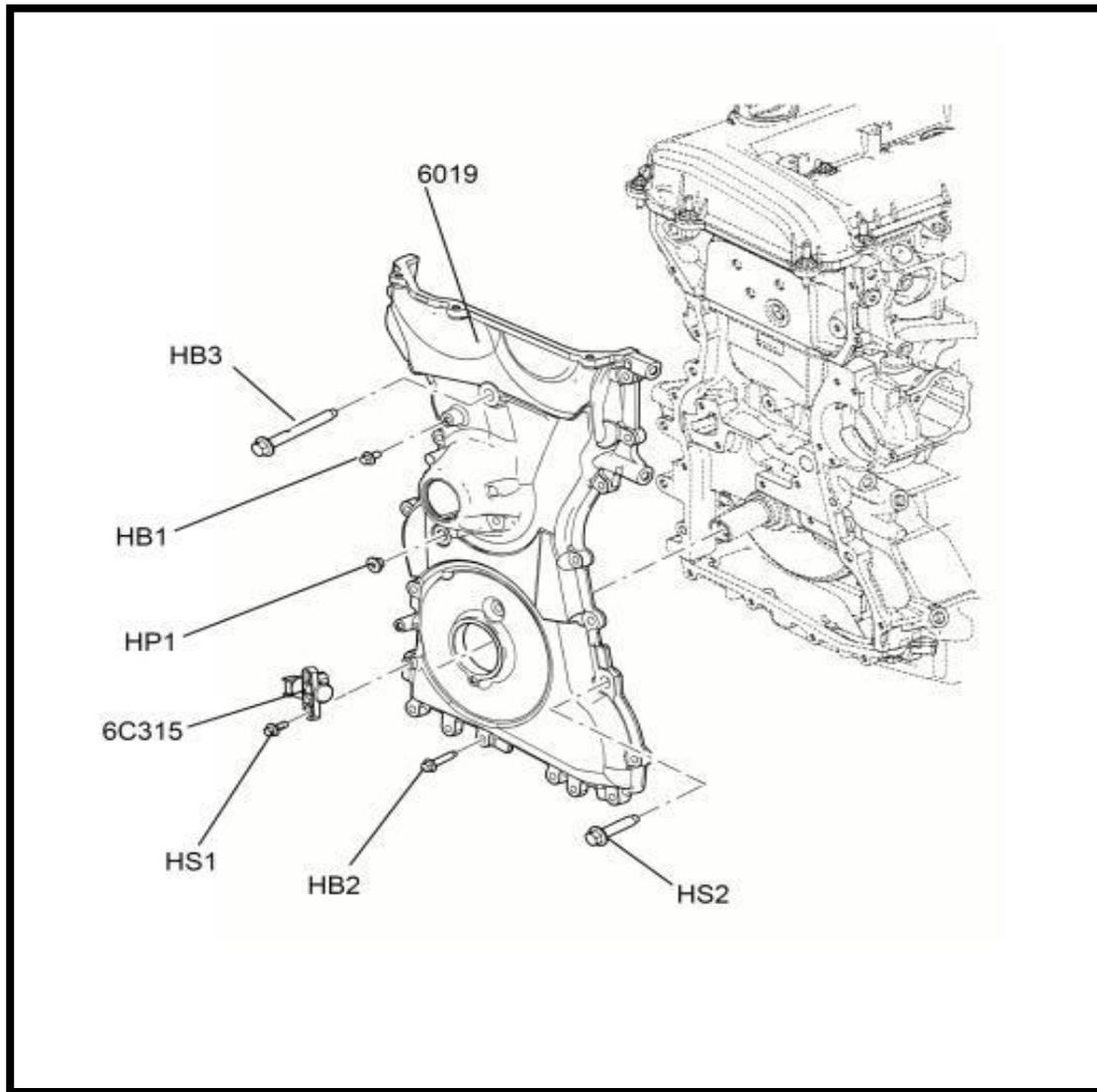
Quantity	Description	Part #
4	Connecting Rod Assembly	8E5Z-6200-A
4	Pistons	8E5Z-6108-AA
4	Piston Pins	8E5Z-6135-A
4	Retention Piston Pin	8E5Z-6140-A
8	Bearing Connecting Rod (Green)	8E5Z-6211-A
8	Bearing Connecting Rod (Blue)	8E5Z-6211-B
8	Bearing Connecting Rod (Red)	8E5Z-6211-C
4	Piston Ring Kit	9E5Z-6148-A
4	Engine Piston Cooling	1S7Z-6K868-A

Timing Chain and Gears



Quantity	Description	Part #
1	Timing Chain (6282)	1L5Z-6268-AA
1	Sprocket - CAM, 38 Tooth (6C251)	1S7Z-6256-AA
1	CAM, 38 tooth (6C525)	6M8Z-6C525-A
1	ARM - Timing Chain Tensioner (6K255)	6M8Z-6K255-A
2	Bolt, M10 x 1.5 x 30 (6279)	CV6Z-6279-A
1	Solenoid Assembly (6M280)	CJ5V-6M280-A
1	Bolt, M6 x 27mm (6K282)	1S7Z-6K282-AA
1	Tensioner - Timing Chain (6284)	1S7Z-6K254-AA
1	Guide (6K297)	6M8Z-6K297-BA
1	Gear- Crankshaft, 19 Tooth (6306)	1S7Z-6306-CF
2	Washer, Diamond (6378)	1S7Z-6378-AA
AR	Hardware- Misc., 10 x 40mm pin (HM1)	W703649-S300
AR	Screw, M6 x 23.0 (HS1)	W703643-S430
AR	Screw, M6 x 12mm (HS2)	W500211-S437

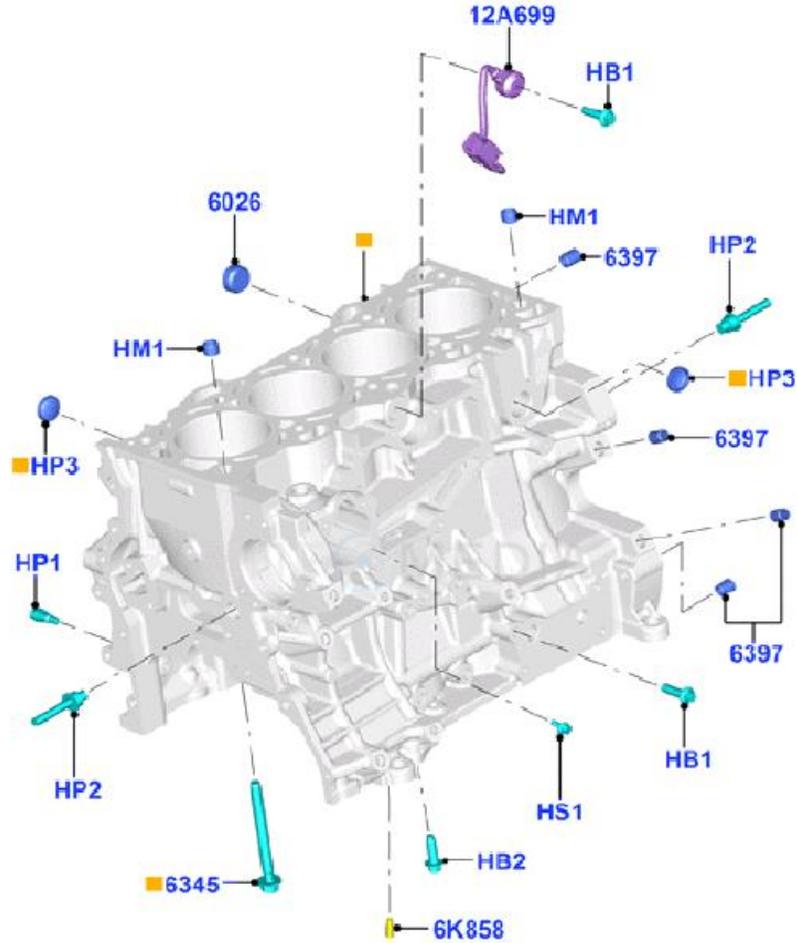
Timing Chain Cover



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

Cylinder Block and Plugs

■ = 6010



Quantity	Description	Part #
1	Cylinder Block (6010)	8E5Z-6010-A
1	Plug (3/4 x 14mm, 3/4" x 14 NPTF (6026)	W701548-S437
10	Bearing Cap Bolt, Hex Head (6345)	AG9Z-6345-A
4	Dowel Pin, 12.7mm (6397)	7OHM-6397-AA
4	Down Pin, 12.7mm (6397)	E7RY-6397-A
4	Nozzle, Piston Cooling (6K868)	1S7Z-6K868-AB
1	Knock Sensor (12A699)	1S7Z-12A699-BB
AR	Bolt M8 x 30mm (HB1)	W500025-S437
AR	Bolt M8 x 35mm (HB2)	W500310-S437
AR	Hardware Misc, Hollow Type, 12mm (HM1)	W701183-S300
AR	Plug, M10x11.5, Threaded Timing Plug (HP1)	W700115-S437
AR	Plug, 16mm (HP2)	W711692-S900
AR	Plug, 25mm (HP3)	W712143-S900
AR	Screw, M6 x 12mm (HS1)	W500211-S437

Description	Part #
Head Gasket	8E5Z-6051-C
Water Outlet Gasket	1S7G-8255-BD
Exhaust manifold to head gasket	1L5Z-9448-AB
Exhaust manifold to pipe gasket	AB39-9451-AA
VVT solenoid Grommet	BR3Z-6C535-B
Intake Manifold to Head Gasket	8E5Z-9439-A
Throttle adapter to intake manifold	8E5Z-9E936-A
Throttle Body adapter to throttle gasket	1U1L-9E936-AA

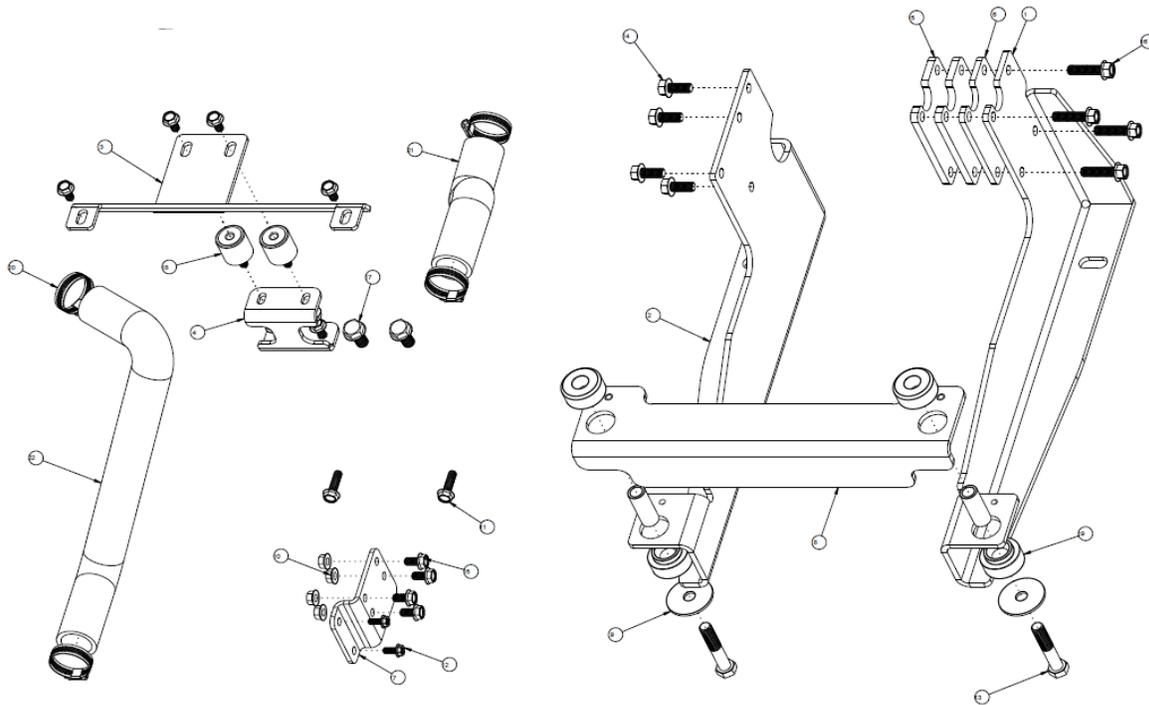
Manuals and Labels



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

Copper Solder/Plate and Bar Bracket and Hose Kit 23000292

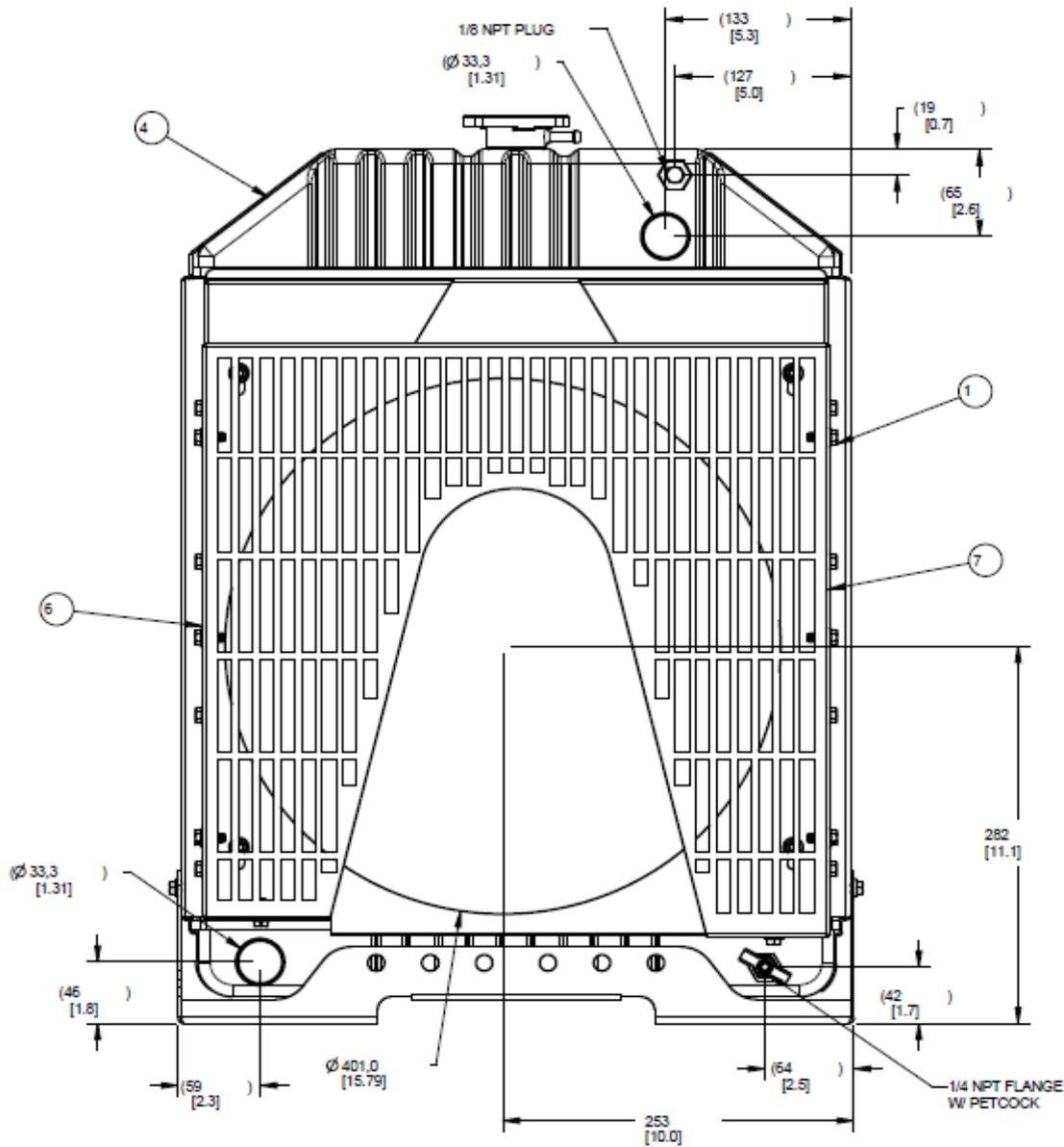
Mating Radiator 79000784 and 39000306



BILL OF MATERIALS FOR RCP ASSY: 23000292CD				
ITEM	RCP PRT NUMBER	REV	QTY	DESCRIPTION
1	20200374	1	1	Leg, Left Front 23000292
2	20200375	1	1	Leg, Right Front 23000292
3	20600203	2	1	Support, Upper, 22900292
4	20800147	2	1	Mount, Upper, 22900292
5	21000079	2	2	Bracket, Misc, Spacer, 121.0 x 89.0 x 7.94
6	21000167	1	1	Bracket, Misc, Spacer, 22900127
7	21000289	2	1	Bracket, Overflow Bottle
8	22000157	1	1	Bracket, Assy, Cross, 22900127
9	64700096	3	2	Large OD Plain Washer, 0.500 x 2.00 x 0.125
10	64800159	2	6	Hex Serrated Flange Nut, M8-1.25
11	64900028	1	2	Hex Serrated Flange Screw, M8-1.25 x 30
12	64900029	1	2	Hex Serrated Flange Screw, M6-1 x 16
13	64900093	4	2	Hex Cap Screw, 1/2-13 x 2.75
14	64900173	1	4	Hex Serrated Flange Screw, M10-1.5 x 25
15	64900174	3	10	Hex Serrated Flange Screw, M8-1.25 x 16
16	64900199	1	4	Hex Serrated Flange Screw, M10-1.5 x 40
17	64900201	1	2	Hex Serrated Flange Screw, M12-1.75 x 25
18	65500001	5	2	Isolator, 32 x 32, M8-1.25
19	65500002	4	2	Isolator, 46.4mm,51.21mm, 1/2-13
20	68800001	1	4	Clamp, Hose, Worm-Drive, 21-44 OD
21	68900996	1	1	Hose, 33.34 ID, 20R4, 23000292T
22	68900997	1	1	Hose, 33.34 ID, 20R4, 23000292B

Copper Brass Radiator 79000784 - 15" Fan

Mating Bracket Kit - 23000292

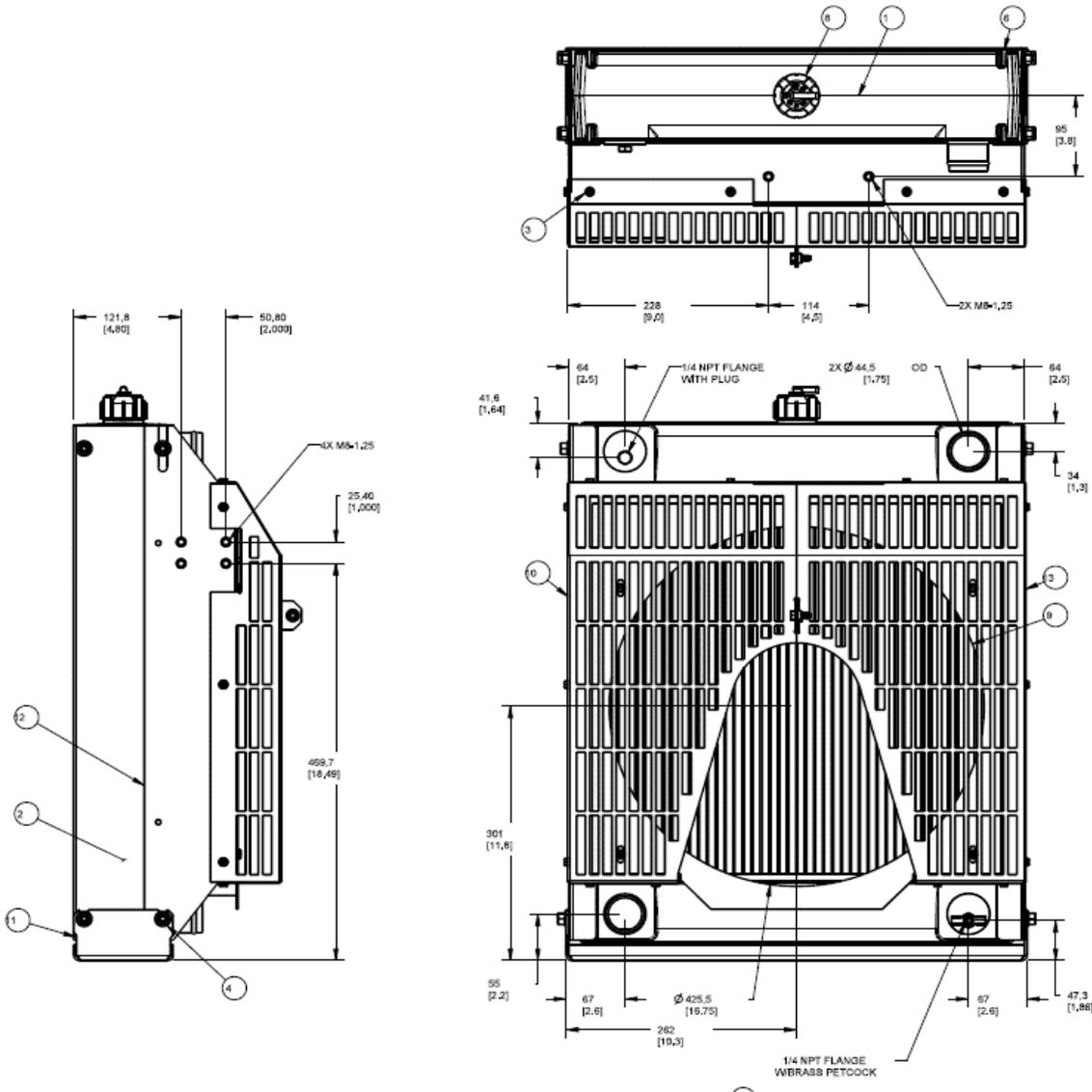


BILL OF MATERIALS FOR RCP ASSY: 79000784

ITEM	RCP PRT NUMBER	REV	QTY	DESCRIPTION
1	64900029	1	8	Hex Serrated Flange Screw, M6-1 x 16
2	64900096	4	8	Hex Serrated Flange Screw, 1/4-20 x .5
3	68000075	2	1	Box, Plain, Kraft 797 x 533 x 251
4	69000784	1	1	Subassembly, Radiator
5	69300001	3	1	Cap, Rad, G/M, 13 psi
6	79600579	2	1	Guard, Fan, 79000784
7	99100507	2	1	Shroud, Fan, Assy, Complete, 79000784

Aluminum Radiator 39000266 - 16" Fan

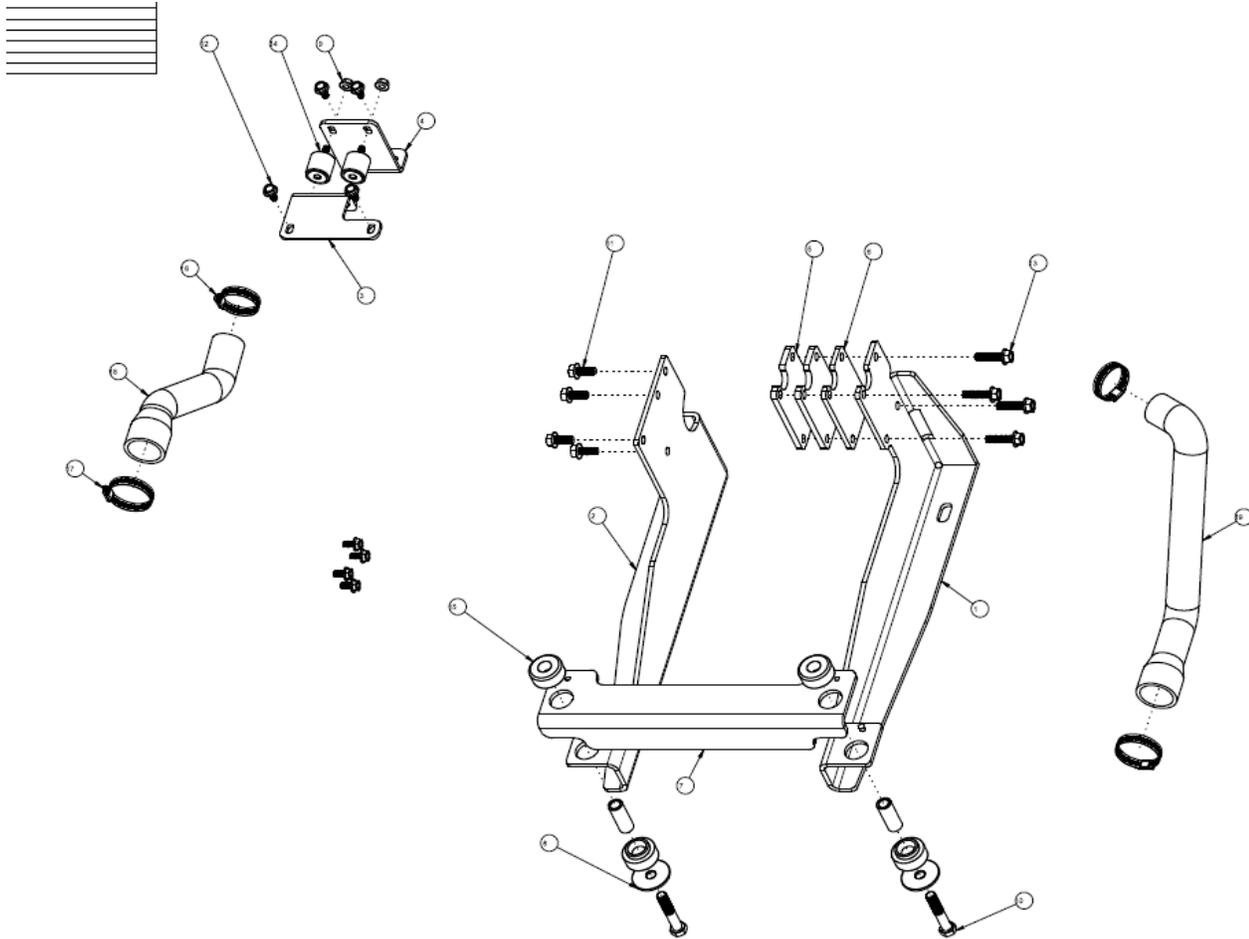
Mating Bracket Kit 23000488



BILL OF MATERIALS FOR RCP ASSY: 39000266				
ITEM	RCP PRT NUMBER	REV	QTY	DESCRIPTION
1	36000093	1	1	WELDMENT, AL4-60-495, LOUVERED, RL
2	44300030	1	2	BRACKET, SIDE, AL4, 415
3	64600127	5	18	Slotted Hex Washer Head Tapping Screw, #10-16 x .500
4	64800163	1	8	M8-1,25, Nut, Lock, Flange, Prevailing Torque
5	64900029	2	1	Hex Serrated Flange Screw, M6-1 x 16
6	65500016	6	8	Isolator Assembly
7	68000072	1	1	Box, Plain, Kraft 729 x 702 x 313
8	69300011	1	1	CAP, RADIATOR, IMPORT, 1.00 BAR
9	70501156	1	1	Plate, Shroud, Fan Adjustment
10	79600990	1	1	Guard, Fan
11	88501014	1	1	ASSY, BRACKET, BOTTOM, RADIATOR MOUNT, AL4
12	89100752	1	1	ASSY, SHROUD, FAN, AL4, 615, 39000266
13	89600991	1	1	Assy, Fan Guard

Aluminum Radiator Bracket and Hose Kit 23000488

Mating Radiator 39000266



Sheet 1 of 1

BILL OF MATERIALS FOR RCP ASSY: 23000488CD				
ITEM	RCP PRT NUMBER	REV	QTY	DESCRIPTION
1	20200610	2	1	Leg, Front
2	20200611	2	1	Leg, Front
3	20600317	1	1	Support, Upper
4	20800316	1	1	Mount, Upper
5	21000079	2	2	Bracket, Misc, Spacer, 121,0 x 89,0 x 7,94
6	21000167	1	1	Bracket, Misc, Spacer, 22900127
7	22000415	1	1	Bracket, Assy, Cross
8	64700096	4	2	Large OD Plain Washer, 0,500 x 2,00 x 0,125
9	64800159	2	2	Hex Serrated Flange Nut, M8-1,25
10	64900093	4	2	Hex Cap Screw, 1/2-13 x 2,75
11	64900173	1	4	Hex Serrated Flange Screw, M10-1.5 x 25
12	64900174	3	10	Hex Serrated Flange Screw, M8-1,25 x 16
13	64900199	1	4	Hex Serrated Flange Screw, M10-1.5 x 40
14	65500001	5	2	Isolator, 32 x 32, M8-1,25
15	65500002	4	2	Isolator, 46,4mm,51,21mm, 1/2-13
16	68800053	1	2	Clamp, Hose, Worm-Drive, 27-51 OD
17	68800059	1	2	CLAMP, HOSE, WORM-DRIVE, 33-57 OD
18	68901589	1	1	Hose, 20R4, Upper, 44,5 x 33mm
19	68901590	1	1	Hose, 20R4, 44,45 x 33mm

Hydraulic Pump

Mounting and Pulley Kit		
Quantity	Description	Part #
1	Hydraulic Pump Bracket	905985
1	Hydraulic Pump Pulley (5.618" OD)	128940
1	Hydraulic Pump FEAD Belt	1030010
3	Bolt; Bracket to bolck	161826*
2	Bolt; Pump to bracket	19707*

Hydraulic Pump Options	
26001-RAP	Hydraulic Pump (001 Version)
26003-RZV	Hydraulic Pump (003 Version)
26005-RZV	Hydraulic Pump (005 Version)
66043508	Hydraulic Pump (007 Version, TUG 660)

Power Steering

Quantity	Description	Part #
1	Power steering pump (pulley included, mounts to block)	AB31-3A696-BC
1	Power steering FEAD Belt	1020070
1	Reservoir Bottle	AB313R700BB
1	Banjo Bolt for PS Pump	AB31861899AA
2	Crush Washers for PS Pump/Banjo Bolt	1118693

Air Conditioning

Quantity	Description	Part #
1	Compressor	AB3919D629AD
1	Compressor Hoses	AB3919C700AB
1	Belt	5060925
3	M8x100 Bolts	W710260-S437
1	Electrical Pigtail (WPT-984)	3U2Z-14S411-BXAB