



ZENITH

POWER PRODUCTS

Service Parts Manual NA416G

Availability & Shipping Information



- Part Availability is subject to change based on obsolescence from Original Part Manufacturer.
- Orders on in-stock parts normally ship within 1-2 business days. Please advise if needed sooner. Expedite charges may apply to rush orders.
 - ZPP utilizes UPS small package service (preferred carrier) on a 5-day-per-week basis with 12PM CST pick-up.
 - ZPP can also ship using FedEx Ground and Express services for small packages.
 - DHL is an option for international packages.
 - A \$25 service charge may be applied to orders under \$50.00.
- Customers have the option of using their own collect account or being invoiced for the freight charges.
- All shipments are FOB origin unless otherwise specified (this includes any drop-shipments made from ZPP's suppliers).

*Images are for illustrative purposes only and may differ from the actual product. Not all parts may be available for purchase.

Engine Sub-system Index



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Recommended Parts Stock List

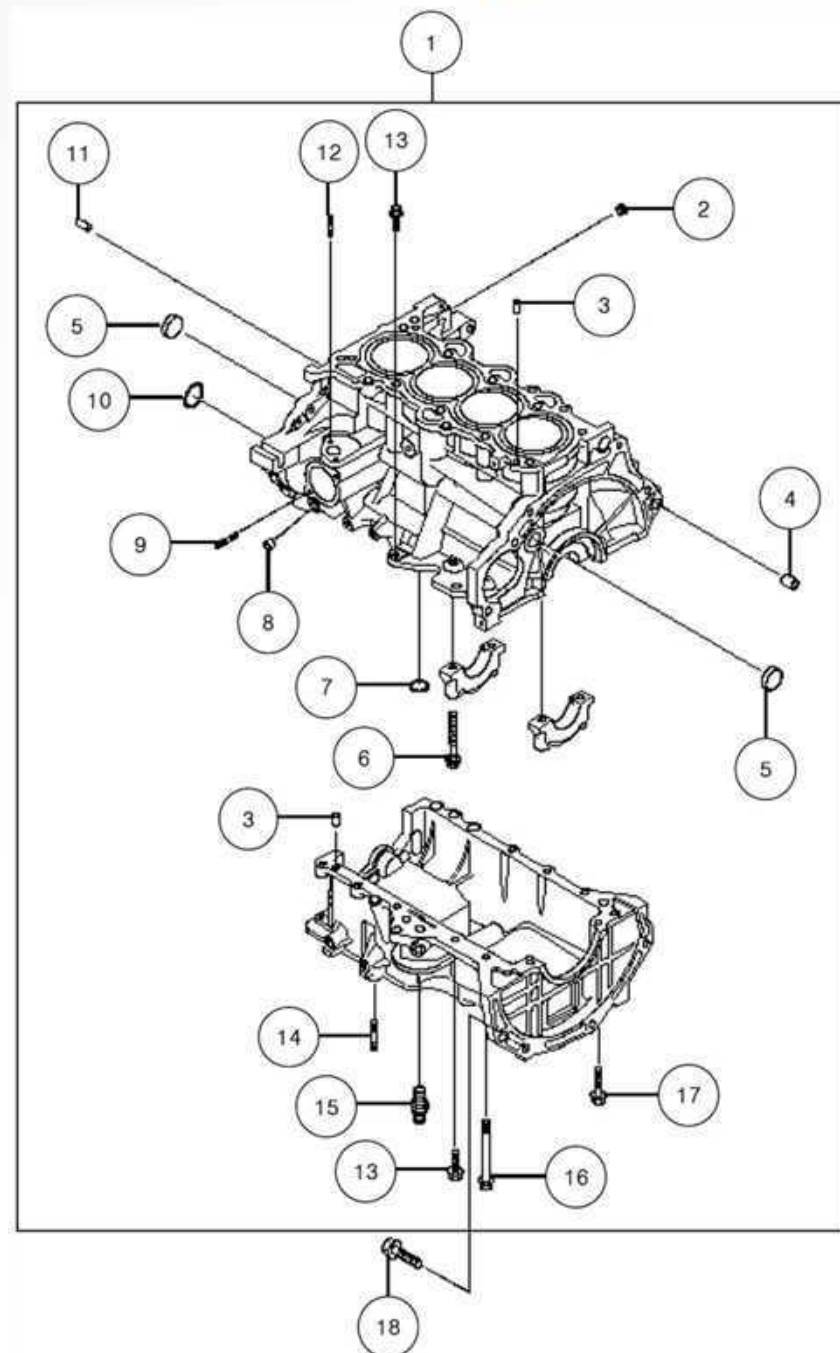


Part Number	Description
203515	FAN
203600	V-BELT
25212 2B030	SERPENTINE BELT
203522	RADIATOR
202580	ECM - 4G
201388	LOW COOLANT SWITCH
203501	E100 MIXER
202493	MASTER HARNESS
203415	NG & LP SUB-HARNESS
203414	GASOLINE SUB-HARNESS
201280	O2 SENSOR
200114	INTERMEDIA HARNESS: NEMA PANEL
201469	LOCK-OFF
201005	AIR CLEANER
202457	AIR FILTER
204075	UPPER COOLANT HOSE ASSEMBLY
204076	LOWER COOLANT HOSE
202163	ECM DATALINK DIAGNOSTIC KIT
20920 2BL00	UPPER GASKET KIT
18855 10060	SPARK PLUG – STANDARD
204079	SPARK PLUG – COLD WEATHER

Part Number	Description
25500-2B000	THERMOSTAT
27300-2B010	COIL & WIRE ASSEMBLY
39350-2B030	CAM SENSOR
39180-2B000	CRANK SENSOR
94750 37100	OIL PRESSURE SWITCH
39220-38030	TEMP SENSOR
26300-35504	OIL FILTER
36100-2B102	STARTER
37300 2B101	ALTERNATOR
25124-2B000	WATER PUMP GASKET
25100-2B700	WATER PUMP
22311 2B003	CYLINDER HEAD GASKET
21443 2B000	REAR OIL SEAL
22441 2B002	CYLINDER HEAD COVER GASKET
25635 2BF00	WATER INLET GASKET
28411 2B001	INTAKE MANIFOLD GASKET
28521 2B400	EXHAUST MANIFOLD GASKET
200870	CATALYST GASKET
39300 2B000	MAP SENSOR
24355 2B700	OIL CONTROL VALVE
39350-2B030	CAM POSITION SENSOR

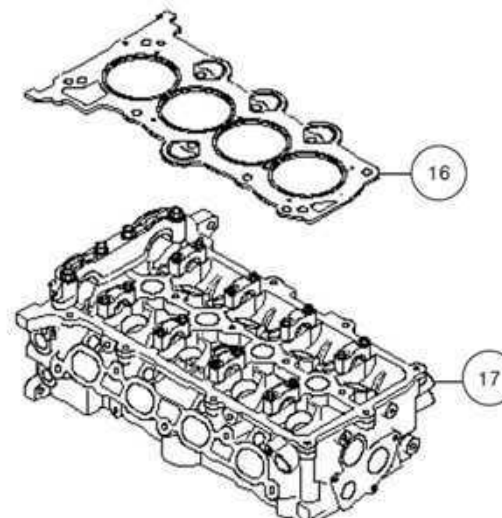
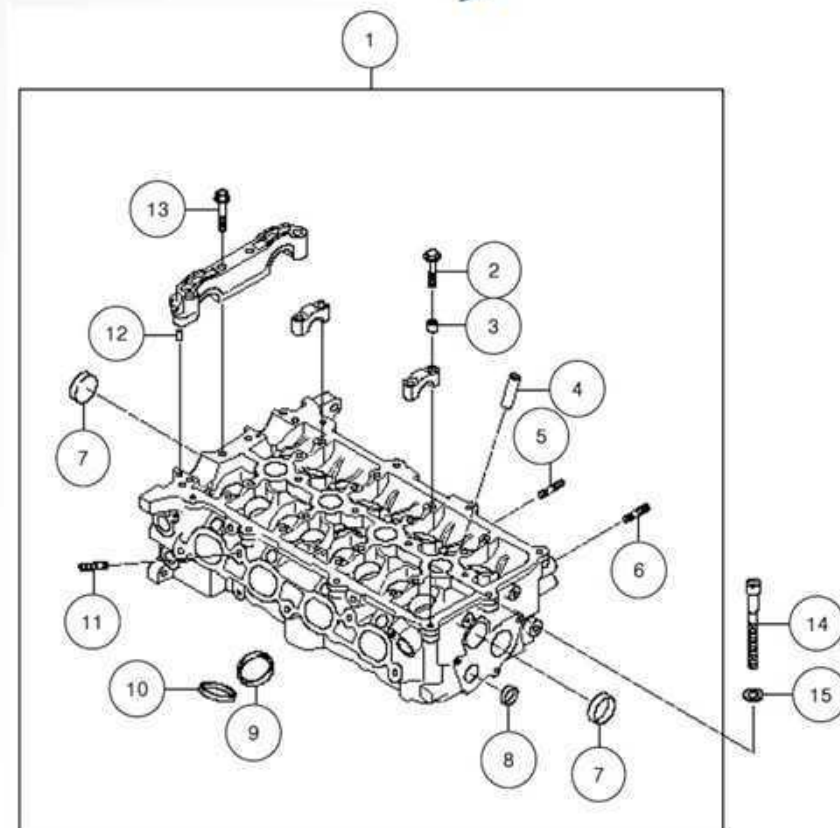
Cylinder Block Group

Item No	Part Number	Description	Qty
1	21100 2B600	CYLINDER BLOCK ASSEMBLY	1
2	15717 10083	TAPER PLUG	1
3	14303 08140	DOWEL PIN	4
4	21124 2B100	KNOCK BUSHING	2
5	15734 22000	SEALING CAP	2
6	21114 2B000	BEARING CAP BOLT	10
7	21144 2B001	O-RING	2
8	14331 08090	KNOCK BUSHING	1
9	11533 08256K	STUD	2
10	21142 2B000	O-RING	2
11	21103 2B000	DOWEL PIN	1
12	11533 06186K	STUD	2
13	11403 08306K	BOLT	6
14	11513 08226K	STUD	2
15	21136 2B000	OIL FILTER ADAPTER	1
16	11403 08806K	BOLT	4
17	11403 08406KA	BOLT	2
18	11404 10406P	BOLT	3



Cylinder Head Group

Item No	Part Number	Description	Qty
1	22100 2B003	CYLINDER HEAD ASSEMBLY	1
2	22126 2B000	BOLT	16
3	22124 37100	BUSHING	2
4	22114 2B000	VALVE GUIDE – INTAKE	16
5	22127 2B000	STUD	9
6	11533 08206K	STUD	2
7	15734 30000	SEALING CAP	1
8	15734 25000	SEALING CAP	1
9	22113 2B001	VALVE SEAT – EXHAUST	8
10	22112 2B000	VALVE SEAT – INTAKE	8
11	22125 22020	STUD	2
12	14303 05120	DOWEL PIN	2
13	11403 08453	BOLT	4
14	22321 2B700	CYLINDER HEAD BOLT	10
15	22322 2B700	WASHER	10
16	22311 2B003	GASKET – CYLINDER HEAD	1
17	408N4 2BU01	CYLINDER HEAD SUB ASSEMBLY	1

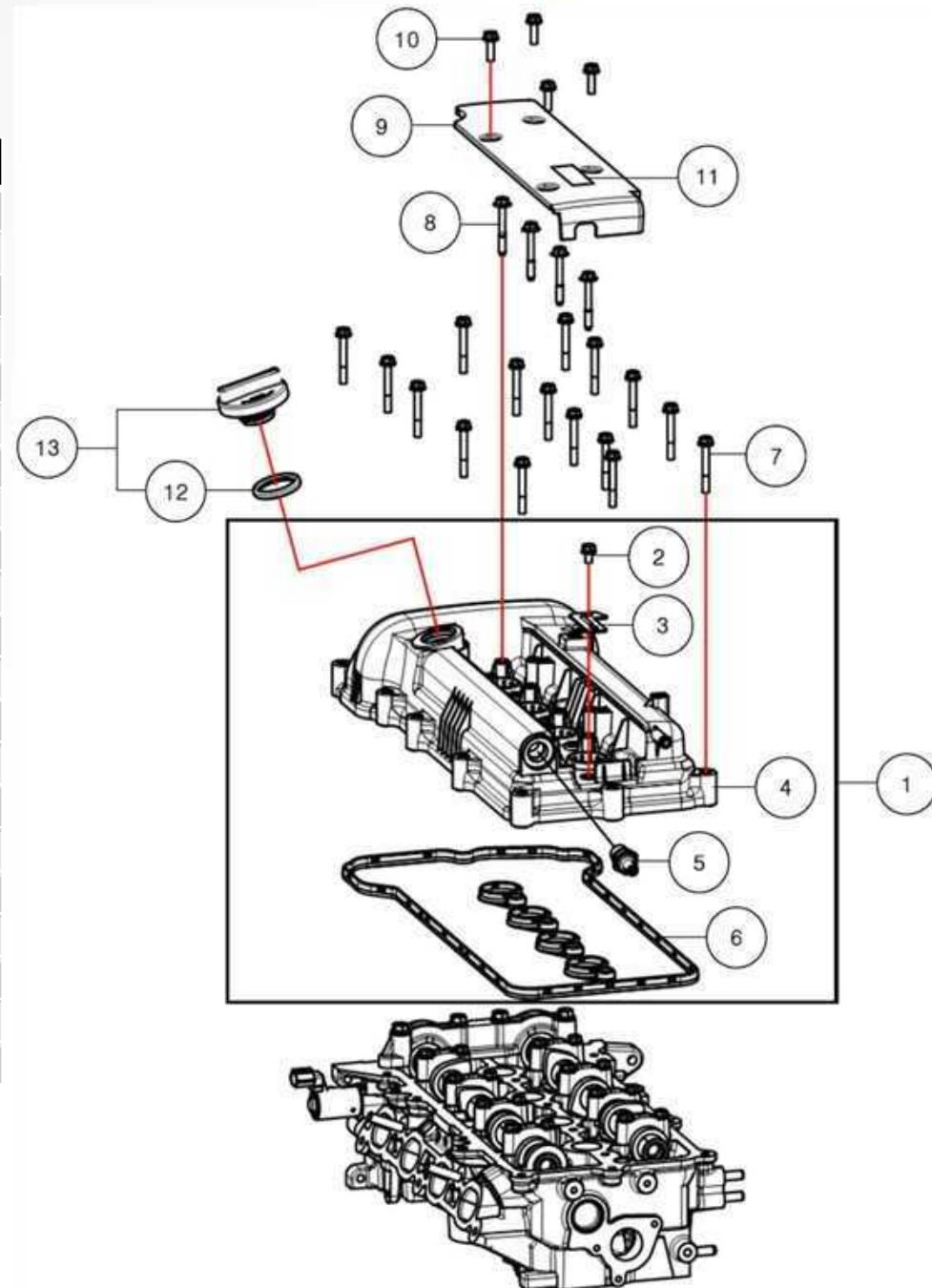


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This diagram shows an exploded view of a 6-cylinder engine. The main engine block is centrally located. To its left, a long, curved component (1) is shown with a small pin (2) at its top end. Below the engine block, there are several smaller components: a circular part (5), a curved pipe (6), and two small pins (7). To the right of the engine block, there is a circular component (4) and a small rectangular part (3). Below these, there is a large rectangular component (8) with several pins (9) around it. At the bottom left, there are two small components (10 and 11) and a small pin (12).

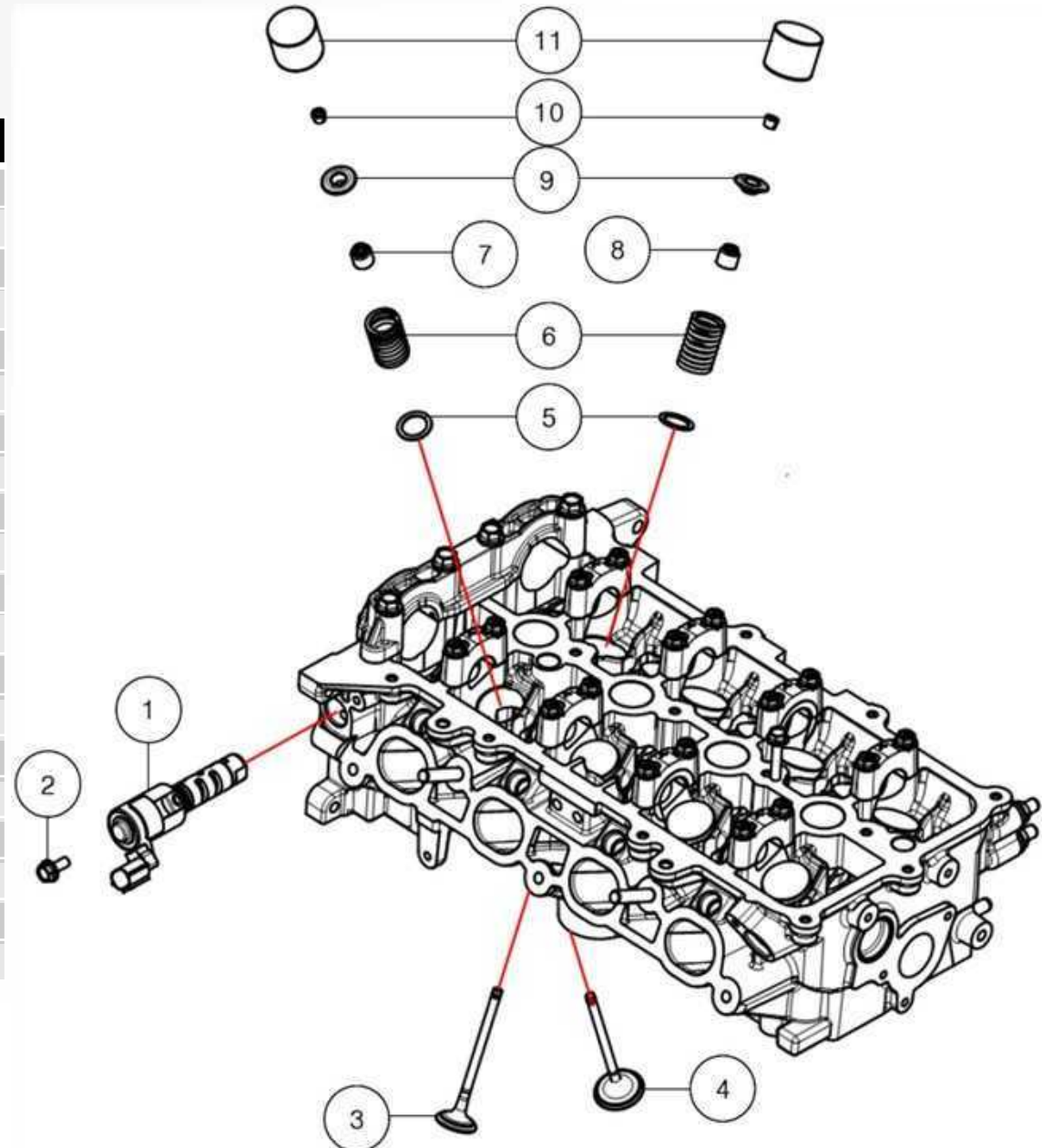
Cylinder Head Cover

Item No	Part Number	Description	Qty
1	22410 2B100	CYLINDER HEAD COVER ASSEMBLY	1
2	11293 06126K	BOLT W/ WASHER	1
3	27330 2B000	WIRE BRACKET	1
4	22411 2B100	CYLINDER HEAD COVER	1
5	26740 2G000	PCV VALVE	1
6	22441 2B002	CYLINDER HEAD COVER GASKET	1
7	22451 25000	BOLT	12
8	22452 2B000	BOLT	4
9	22405 2B000	CENTER COVER	1
10	11405 06206	BOLT	4
11	28881 2BF00	NAME PLATE	1
12	26502 22600	SEAL – OIL FILLER CAP	1
13	26510 26600	OIL FILLER CAP	1



Valve Stem Group

Item No	Part Number	Description	Qty
1	24355 2B700	OIL CONTROL VALVE ASSEMBLY	1
2	11945 06156	BOLT	1
3	22212 2B000	EXHAUST VALVE	8
4	22211 2B400	INTAKE VALVE	8
5	22225 02500	VALVE SPRING SEAT	16
6	22221 2B001	VALVE SPRING	8
7	22224 2B011	VALVE STEM SEAL – INTAKE	8
8	22224 2B001	VALVE STEM SEAL – EXHAUST	8
9	22222 2B400	VALVE SPRING RETAINER	16
10	22223 02500	VALVE SPRING RETAINER LOCK	32
11	22226 2B400	MECHANICAL TAPPET	16
		Tappet sizes continued on next page	



Valve Stem Group – cont.

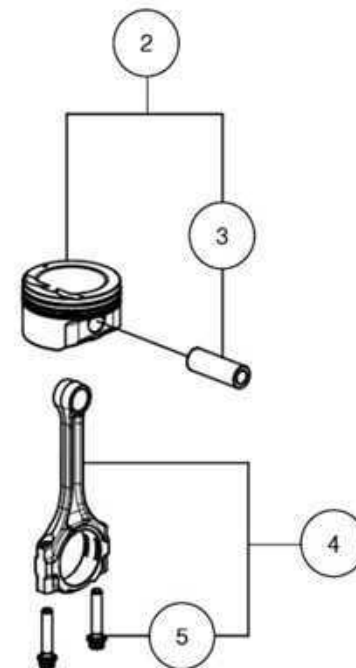
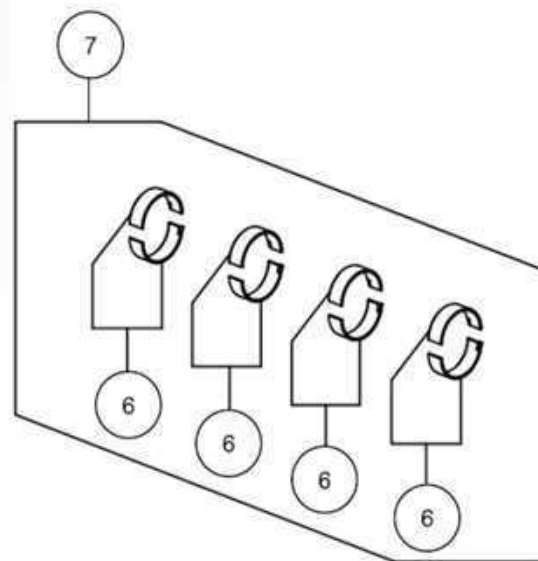
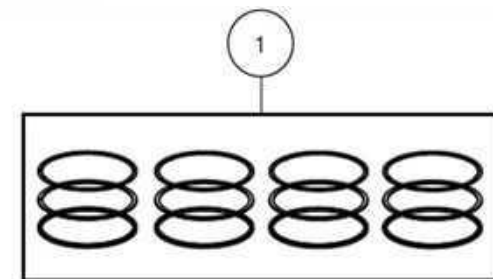


Part Number	Description	Note
22226 2B401	MECHANICAL TAPPET	T=3.000
22226 2B402	MECHANICAL TAPPET	T=3.015
22226 2B403	MECHANICAL TAPPET	T=3.030
22226 2B404	MECHANICAL TAPPET	T=3.045
22226 2B405	MECHANICAL TAPPET	T=3.060
22226 2B406	MECHANICAL TAPPET	T=3.075
22226 2B407	MECHANICAL TAPPET	T=3.090
22226 2B408	MECHANICAL TAPPET	T=3.105
22226 2B409	MECHANICAL TAPPET	T=3.120
22226 2B410	MECHANICAL TAPPET	T=3.135
22226 2B411	MECHANICAL TAPPET	T=3.150
22226 2B412	MECHANICAL TAPPET	T=3.165
22226 2B413	MECHANICAL TAPPET	T=3.180
22226 2B414	MECHANICAL TAPPET	T=3.195
22226 2B415	MECHANICAL TAPPET	T=3.210
22226 2B416	MECHANICAL TAPPET	T=3.225
22226 2B417	MECHANICAL TAPPET	T=3.240
22226 2B418	MECHANICAL TAPPET	T=3.255
22226 2B419	MECHANICAL TAPPET	T=3.270
22226 2B420	MECHANICAL TAPPET	T=3.285
22226 2B421	MECHANICAL TAPPET	T=3.300

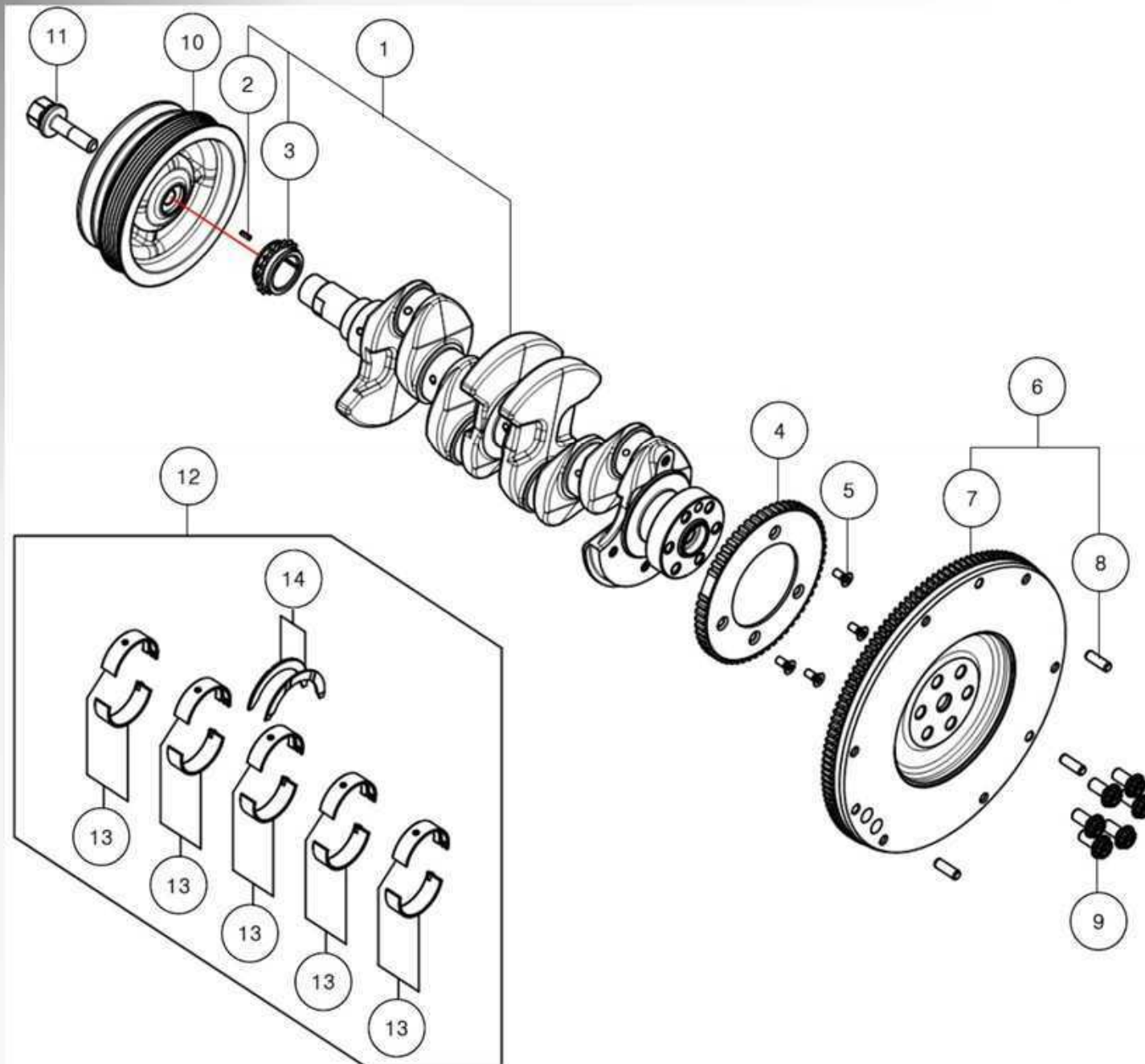
Part Number	Description	Note
22226 2B422	MECHANICAL TAPPET	T=3.315
22226 2B422	MECHANICAL TAPPET	T=3.315
22226 2B423	MECHANICAL TAPPET	T=3.330
22226 2B424	MECHANICAL TAPPET	T=3.345
22226 2B425	MECHANICAL TAPPET	T=3.360
22226 2B426	MECHANICAL TAPPET	T=3.375
22226 2B427	MECHANICAL TAPPET	T=3.390
22226 2B428	MECHANICAL TAPPET	T=3.405
22226 2B429	MECHANICAL TAPPET	T=3.420
22226 2B430	MECHANICAL TAPPET	T=3.435
22226 2B431	MECHANICAL TAPPET	T=3.450
22226 2B432	MECHANICAL TAPPET	T=3.465
22226 2B433	MECHANICAL TAPPET	T=3.480
22226 2B434	MECHANICAL TAPPET	T=3.495
22226 2B435	MECHANICAL TAPPET	T=3.510
22226 2B436	MECHANICAL TAPPET	T=3.525
22226 2B437	MECHANICAL TAPPET	T=3.540
22226 2B438	MECHANICAL TAPPET	T=3.555
22226 2B439	MECHANICAL TAPPET	T=3.570
22226 2B440	MECHANICAL TAPPET	T=3.585
22226 2B441	MECHANICAL TAPPET	T=3.600

Piston / Con Rod Group

Item No	Part Number	Description	Qty
1	23040 2B001	PISTON RING SET	1
2	23410 2B012	PISTON SUB ASSEMBLY – STD B	1
2	23410 2B002	PISTON SUB ASSEMBLY – STD A	1
2	23410 2B022	PISTON SUB ASSEMBLY – STD C	1
3	23412 2B000	PISTON PIN	4
4	23510 2B010	CONNECTING ROD ASSEMBLY	4
5	23513 2B000	CONNECTING ROD BOLT	8
6	23060-2B002	CON ROD BEARING SET (STD A – BLUE)	4
6	23060-2B012	CON ROD BEARING SET (STD B – BLACK)	4
6	23060-2B022	CON ROD BEARING SET (STD C)	4
6	23060-2B032	CON ROD BEARING SET (STD D – GREEN)	4
6	23060-2B042	CON ROD BEARING SET (STD E – RED)	4
7	23060 2B913	CON ROD BEARING SET (US -0.25)	1



Crankshaft / Flywheel Group

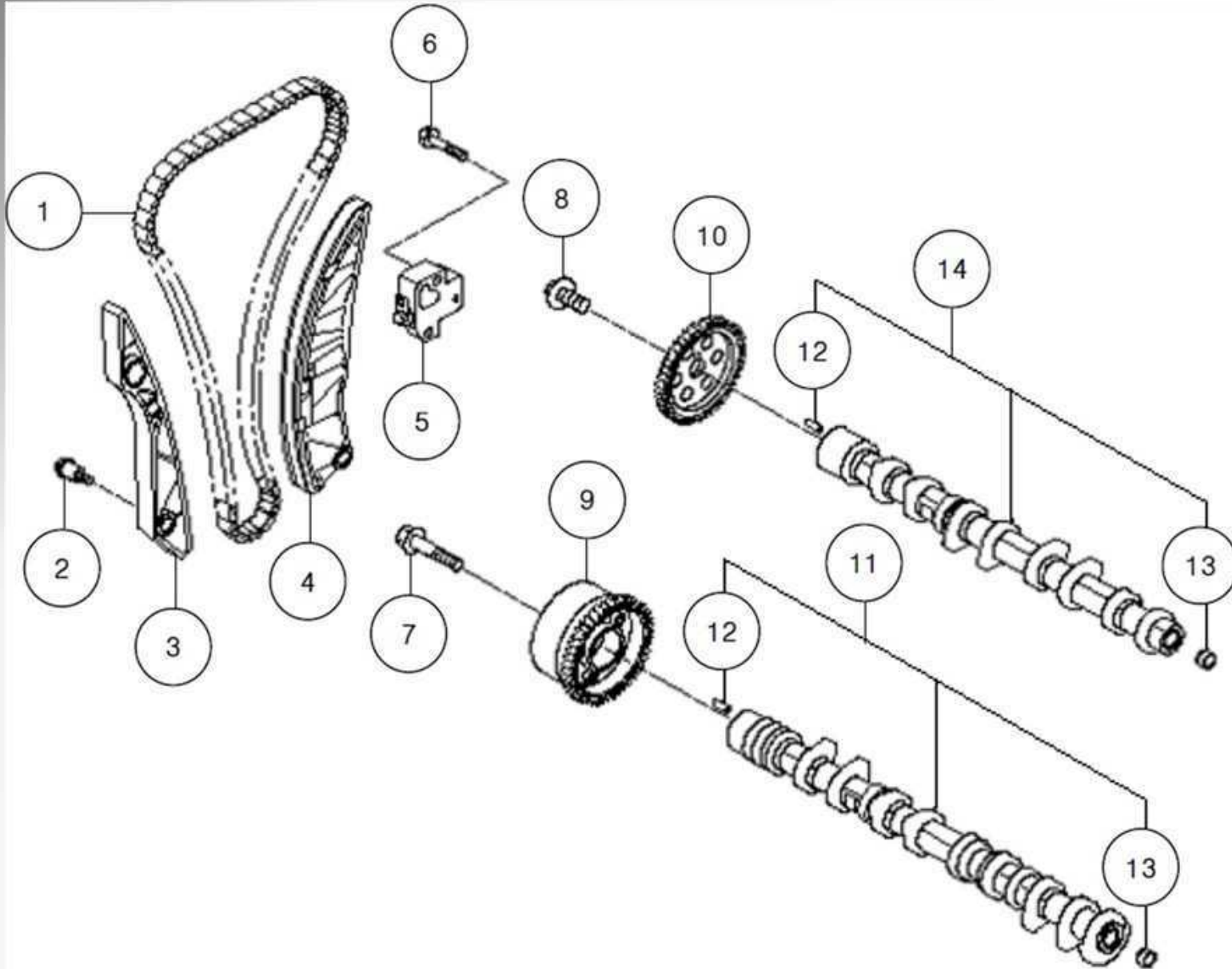


Crankshaft / Flywheel Group



Item No	Part Number	Description	Qty
1	23110 2B000	CRANKSHAFT	1
2	23121 2B000	CRANKSHAFT SPROCKET	1
3	23128 2B000	DOWEL PIN	1
4	23141 2B000	WHEEL	1
5	39191 37100	SCREW	4
6	23200 2B020	FLYWHEEL ASSEMBLY	1
7	23210 2B020	FLYWHEEL	1
8	14303 08240	DOWEL PIN	3
9	23311 2B000	FLYWHEEL BOLT	6
10	23124 2BF00	PULLEY	1
11	23127 2B700	BOLT	1
12	21020 2B911	BEARING SET (U/S-0.25>0.25)	1
13	21020 2B000	BEARING SET (STD A – BLUE)	5
13	21020 2B000	BEARING SET (STD B – BLACK)	5
13	21020 2B000	BEARING SET (STD C)	5
13	21020 2B000	BEARING SET (STD D – GREEN)	5
13	21020 2B000	BEARING SET (STD E – RED)	5
14	21030 2B000	THRUST BEARING SET	1

Cam Shaft / Sprocket Group



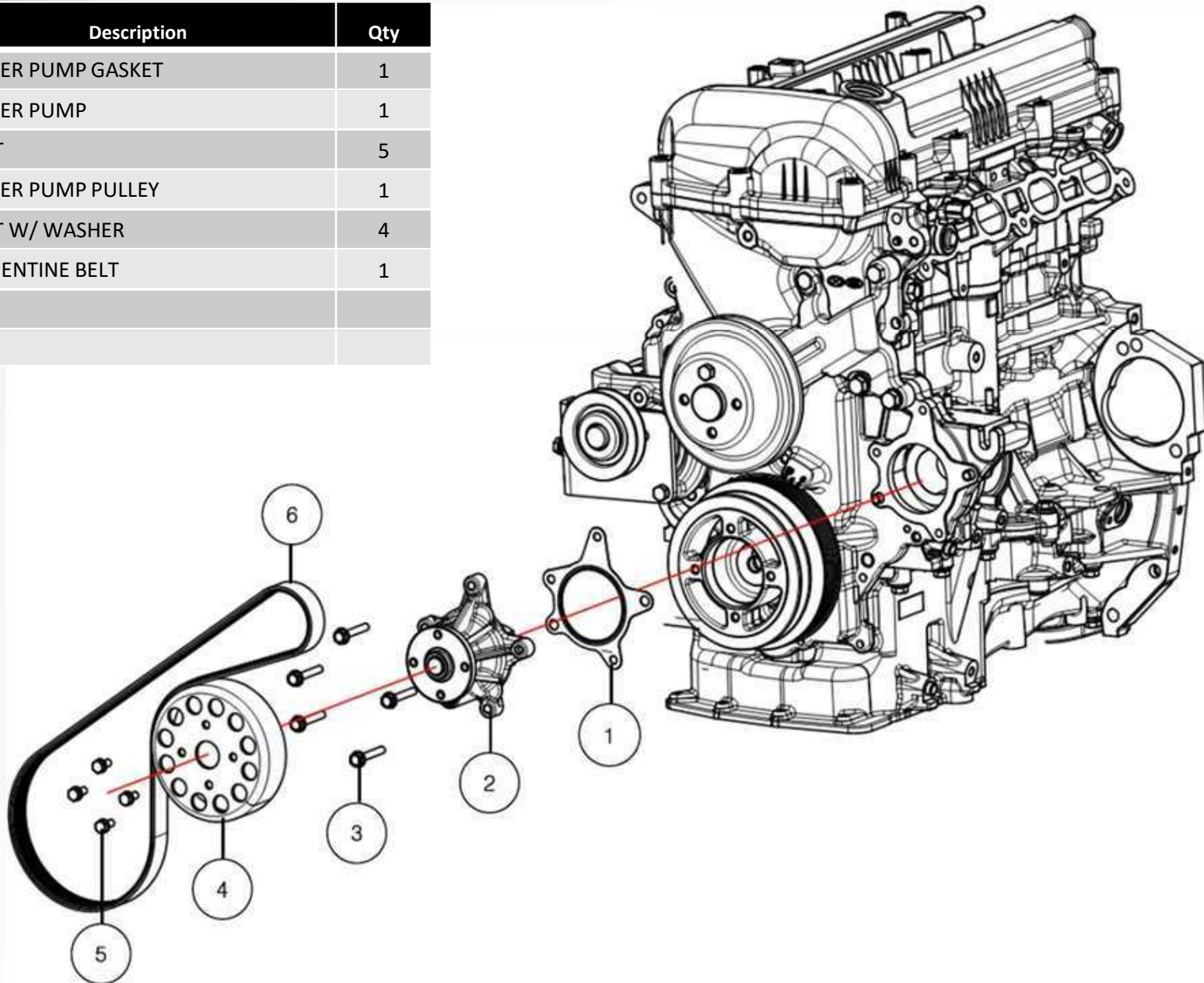
Cam Shaft / Sprocket Group



Item No	Part Number	Description	Qty
1	24321 2B000	TIMING CHAIN	1
2	24349 2B000	BOLT	3
3	24431 2B000	GUIDE	1
4	24420 2B000	TENSIONER ARM	1
5	24410 25001	TENSIONER	1
6	11403 06253	BOLT	2
7	24361 25000	BOLT	1
8	24360 2B000	BOLT W/ WASHER	1
9	24350 2B010	CVVT	1
10	24221 2B000	CAMSHAFT SPROCKET	1
11	24100 2B000	CAMSHAFT – INTAKE	1
12	14303 05120	DOWEL PIN	1
13	15732 16003	CAP	1
14	24200 2B000	CAMSHAFT - EXHAUST	1

Water Pump Group

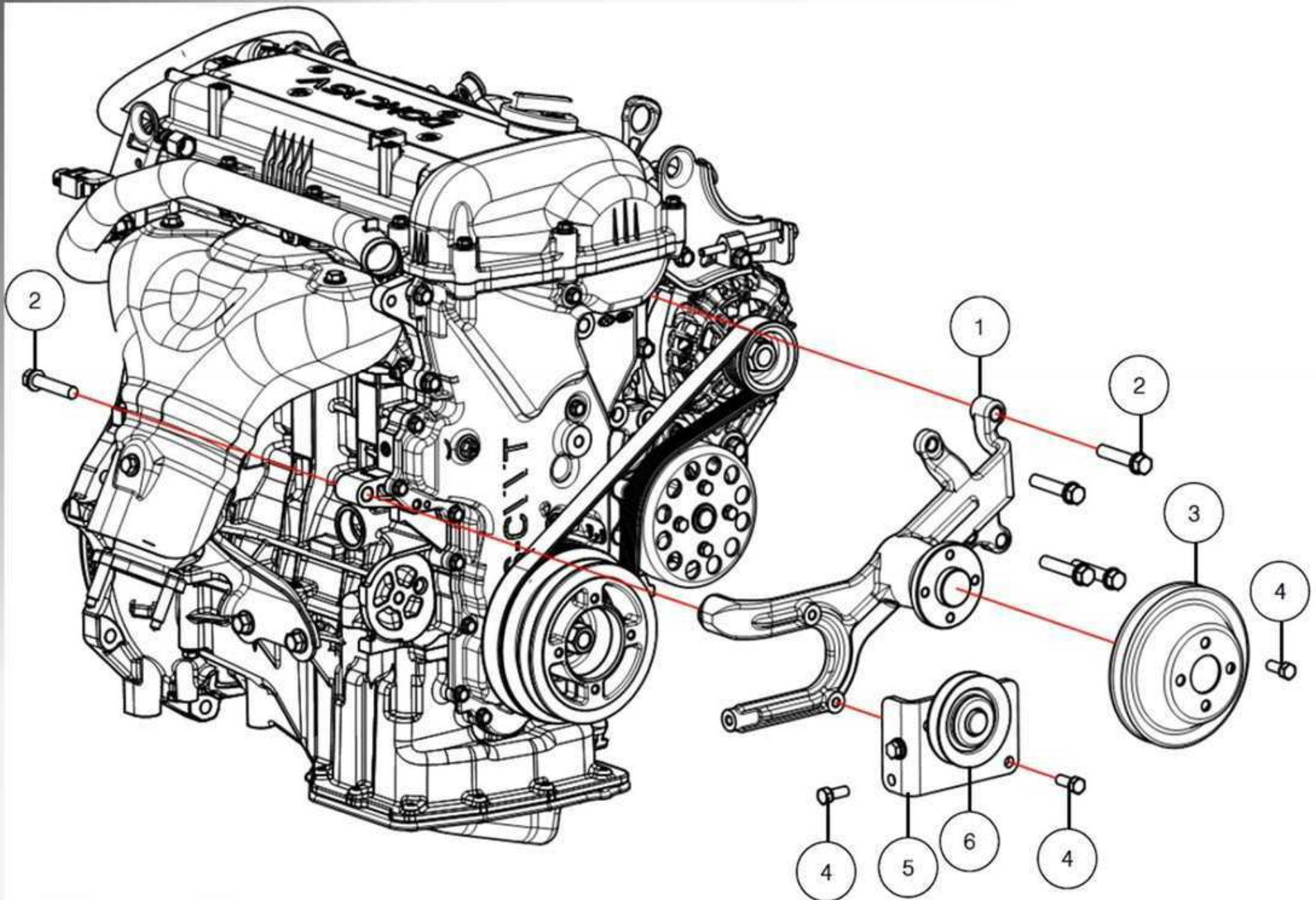
Item No	Part Number	Description	Qty
1	25124 2B000	WATER PUMP GASKET	1
2	25100 2B700	WATER PUMP	1
3	11403 06386	BOLT	5
4	25221 2B700	WATER PUMP PULLEY	1
5	11233 06146	BOLT W/ WASHER	4
6	25212 2B030	SERPENTINE BELT	1



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Fan Drive / Pulley Group



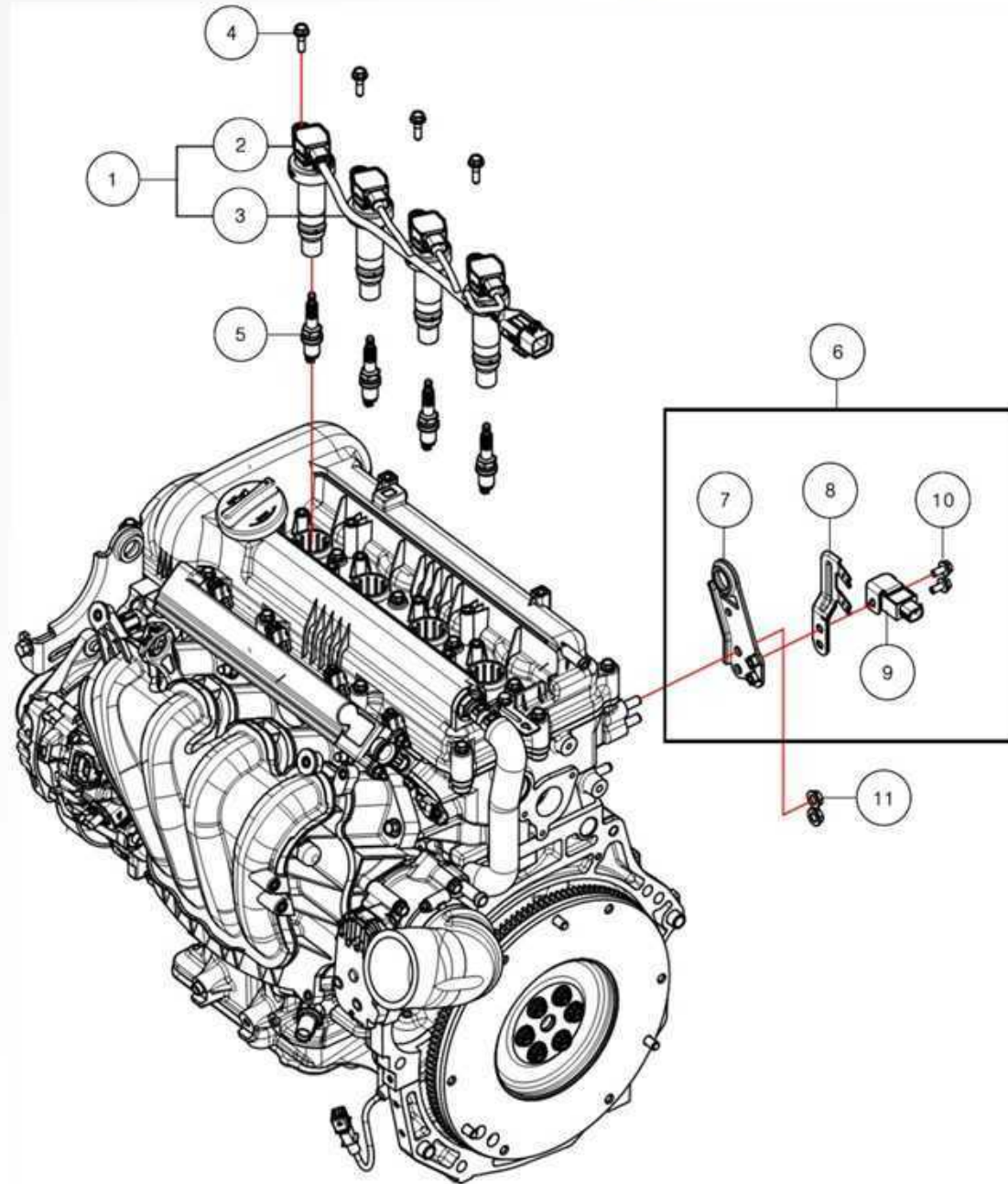
Fan Drive / Pulley Group



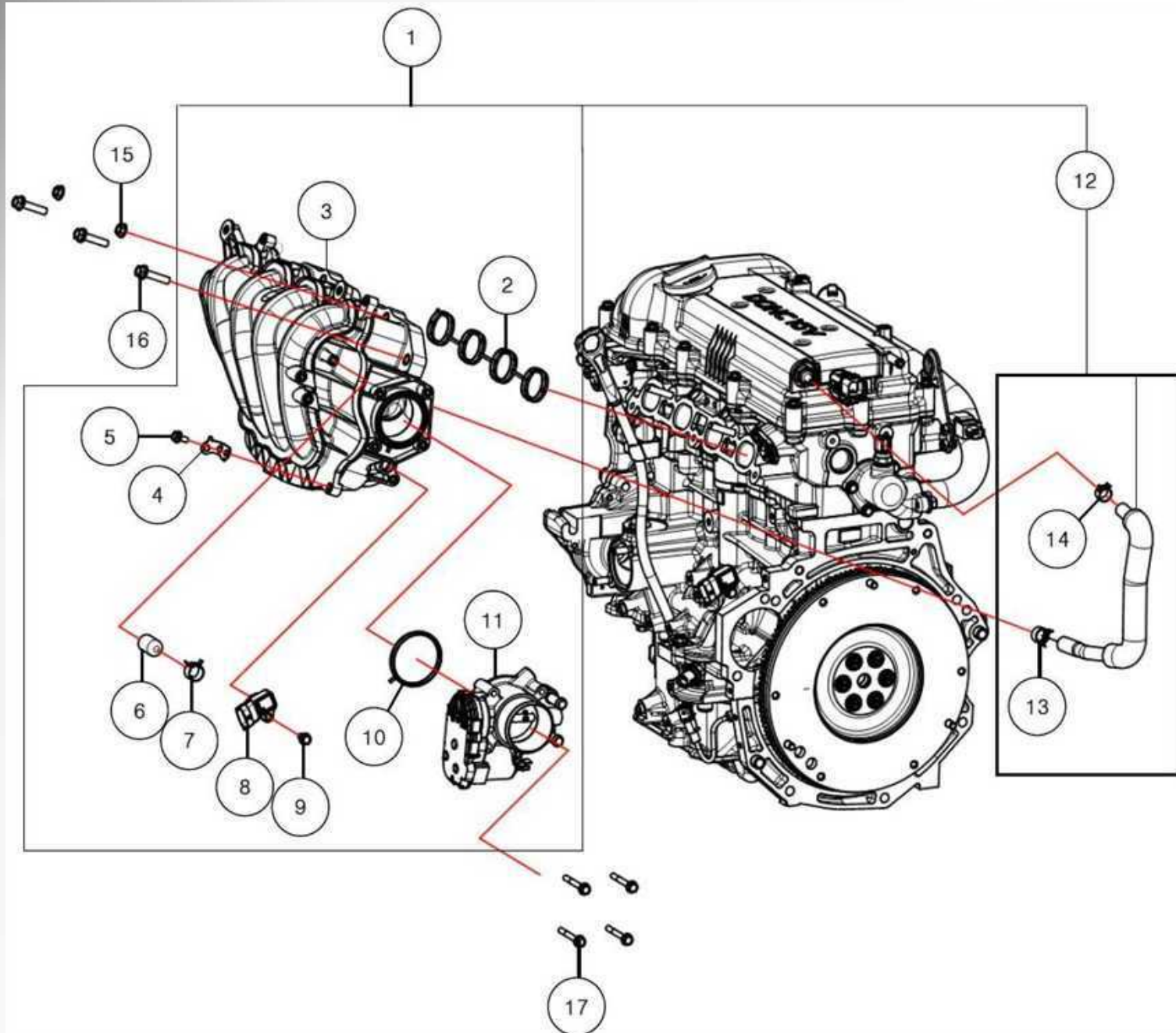
Item No	Part Number	Description	Qty
1	25210 2BF01	COOLING FAN BRACKET	1
2	11234 10506	BOLT W/ WASHER	5
3	25213 23C00	FAN PULLEY	1
4	11233 08203	BOLT W/ WASHER	3
5	24920 2CC00	TENSION BRACKET	1
6	23129 4A001	PULLEY	1

Spark Plug / Ignition Group

Item No	Part Number	Description	Qty
1	27300 2B010	IGNITION COIL & WIRE ASSEMBLY	1
2	27301 2B010	IGNITION COIL ASSEMBLY	4
3	27350 2B000	IGNITION WIRE EXTENSION	1
4	35301 2B100	BOLT	4
5	18855 10060	SPARK PLUG	4
	204079	SPARK PLUG – OPTIONAL: COLD WEATHER APPLICATIONS ONLY	4
6	27320 2B200	CONDENSOR MODULE	1
7	22342 2B000	ENGINE HANGER	1
8	39211 2B050	CONNECTOR BRACKET	1
9	27325 2B200	CONDENSER ASSEMBLY-IGNITION COIL	1
10	11403 06126	BOLT	2
11	13396 08007	NUT	2



Inlet Manifold Group

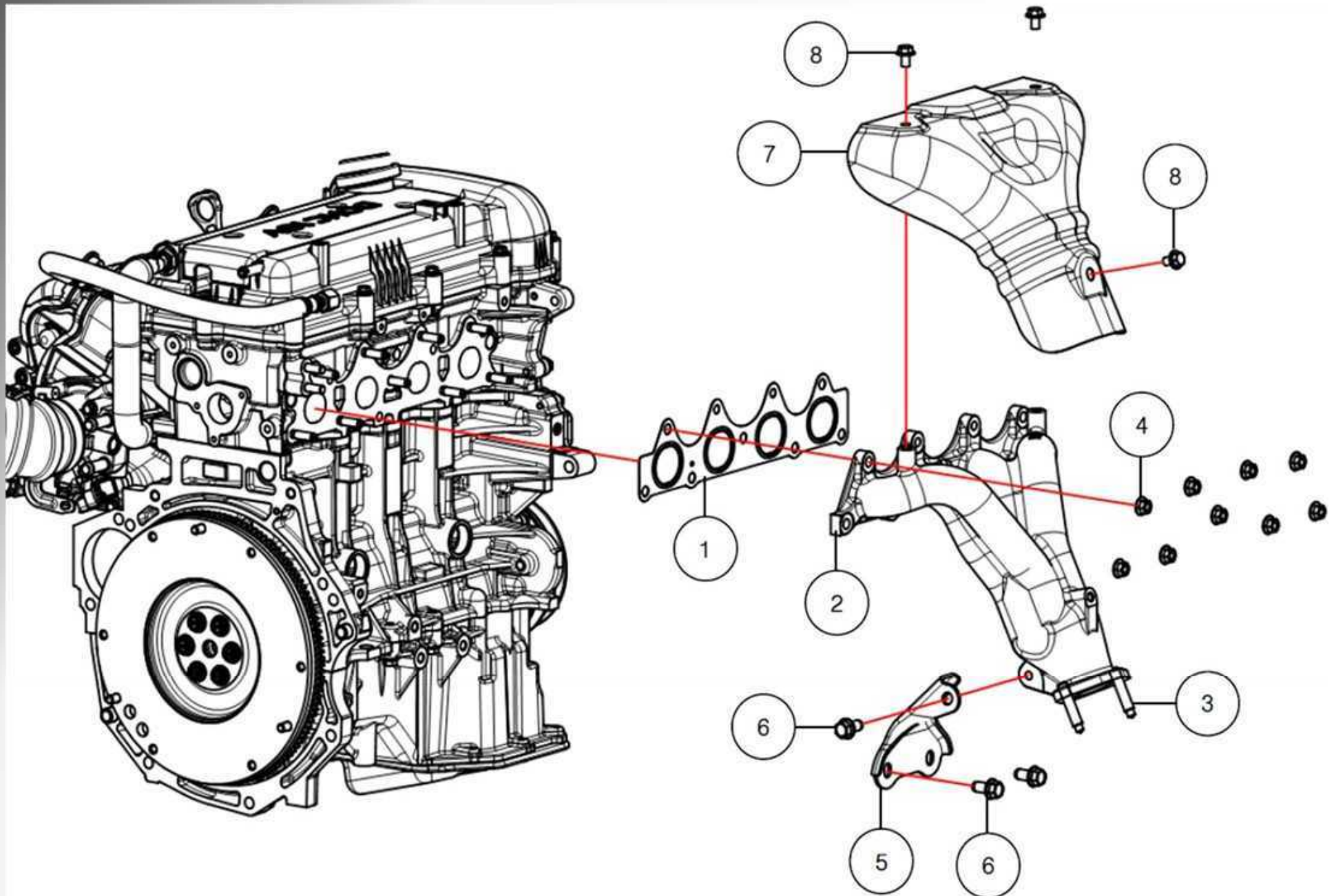


Inlet Manifold Group



Item No	Part Number	Description	Qty
1	28310 2BF10	INTAKE MANIFOLD ASSEMBLY	1
2	28411 2B001	INTAKE MANIFOLD GASKET	1
3	28311 2B300	INTAKE MANIFOLD	1
4	91931 2H030	MANIFOLD BRACKET	1
5	11403 06126	BOLT	1
6	21531 42P00	CAP	1
7	14720 18006	HOSE CLIP	1
8	39300 2B000	MAP SENSOR	1
9	39322 26300	BOLT	1
10	28313 2B300	THROTTLE BODY GASKET	1
11	35100 2B140	THROTTLE BODY	1
12	26720 2B001	PCV HOSE	1
13	14720 17006S	HOSE CLIP	1
14	14720 15006	HOSE CLIP	1
15	11403 06506	BOLT	4
16	11403 08356	BOLT	3
17	13396 08007	NUT	2

Exhaust Manifold Group



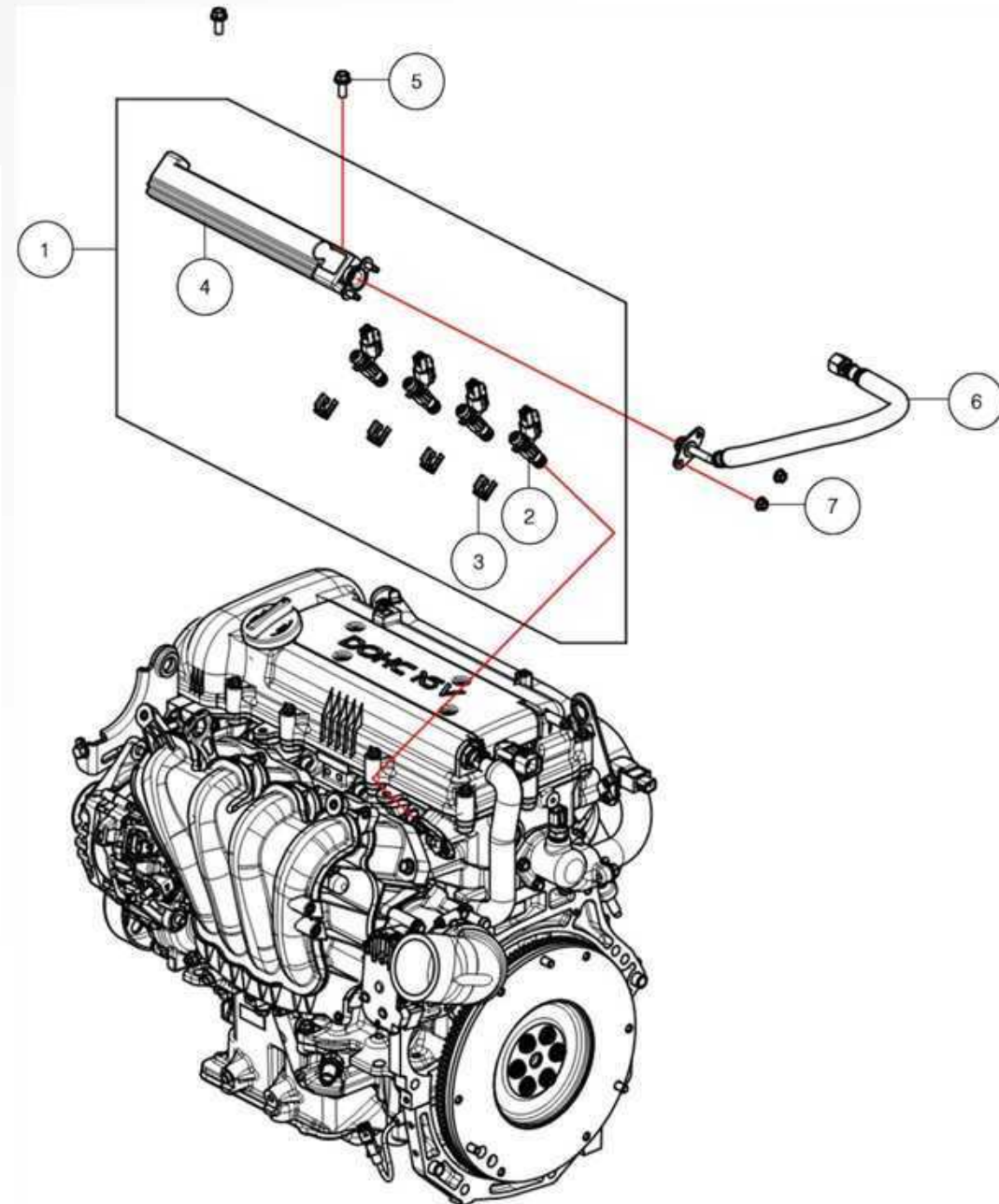
Exhaust Manifold Group



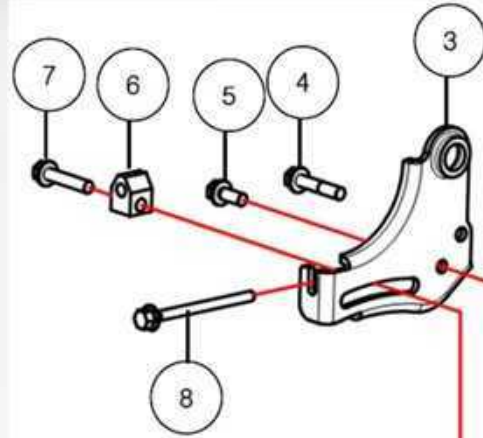
Item No	Part Number	Description	Qty
1	28521 2B400	EXHAUST MANIFOLD GASKET	1
2	28510 2BF00	EXHAUST MANIFOLD	1
3	28532 22030	STUD	2
4	10226 08007	NUT	9
5	28961 2B050	STAY	1
6	11406 10206	BOLT	3
7	28525 2B060	HEAT SHIELD	1
8	28528 23300	BOLT W/ WASHER	3

Injector Group

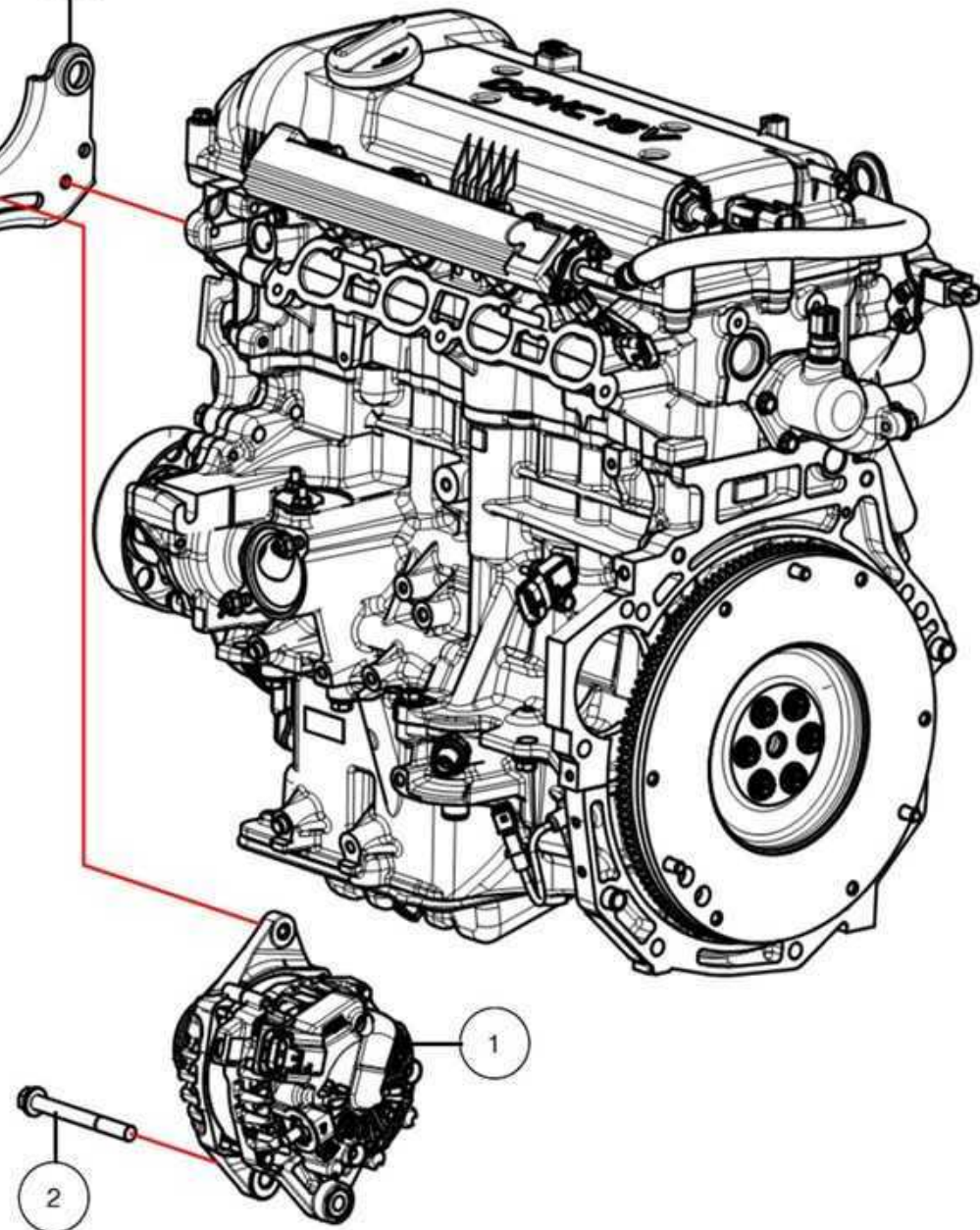
Item No	Part Number	Description	Qty
1	35350 2B030	FUEL INJECTOR RAIL ASSEMBLY	1
2	35310 2B020	FUEL INJECTOR	4
3	35309 25000	CLIP	4
4	35340 2B010	FUEL INJECTOR RAIL	1
5	11403 08186	BOLT	2
6	31320 2C600	FUEL FEED TUBE	1
7	13270 06007	NUT	2
	201003	INJECTOR PORT PLUG: FOR MULTI-FUEL, REPLACES ITEM #1 – FUEL RAIL ASSEMBLY	4
	204182	FUEL RAIL AND FEED TUBE ASSEMBLY – ITEMS 1, 6 & 7	1



Alternator Group



Item No	Part Number	Description	Qty
1	37300 2B101	ALTERNATOR	1
2	37451 2B000	BOLT	1
3	37461 2B006	ALTERNATOR BRACE	1
4	11403 08407	BOLT	1
5	11403 08207	BOLT	1
6	37463 33000	NUT	1
7	11405 08406	BOLT	1
8	37462 22000	BOLT	1



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39220-38030
SENSOR & G/UNIT-WATER TEMP

27325-2B200
CONDENSER ASSY

11403-06126K
BOLT-FLANGE

39300-2B000
MAP & AT SENSOR

39322-26300
BOLT(+)

11945-06156K
BOLT-FLANGE(6*15)

24355-2B700 /24355 2B710
VALVE ASSY-OIL CONTROL

39350-2B030 /39350-2B010
SENSOR-CMP

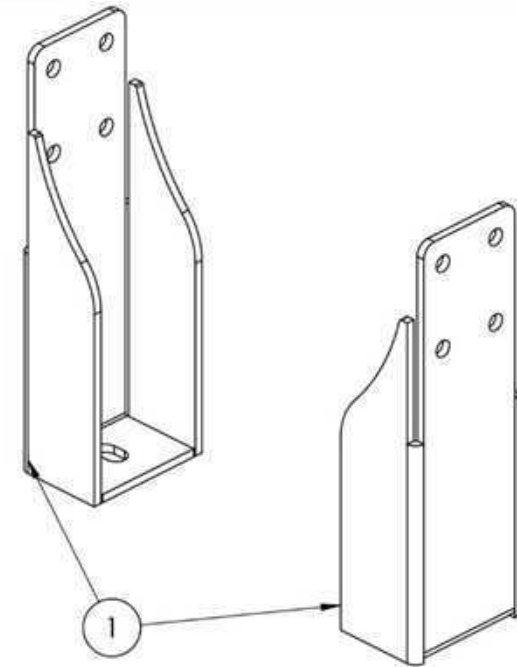
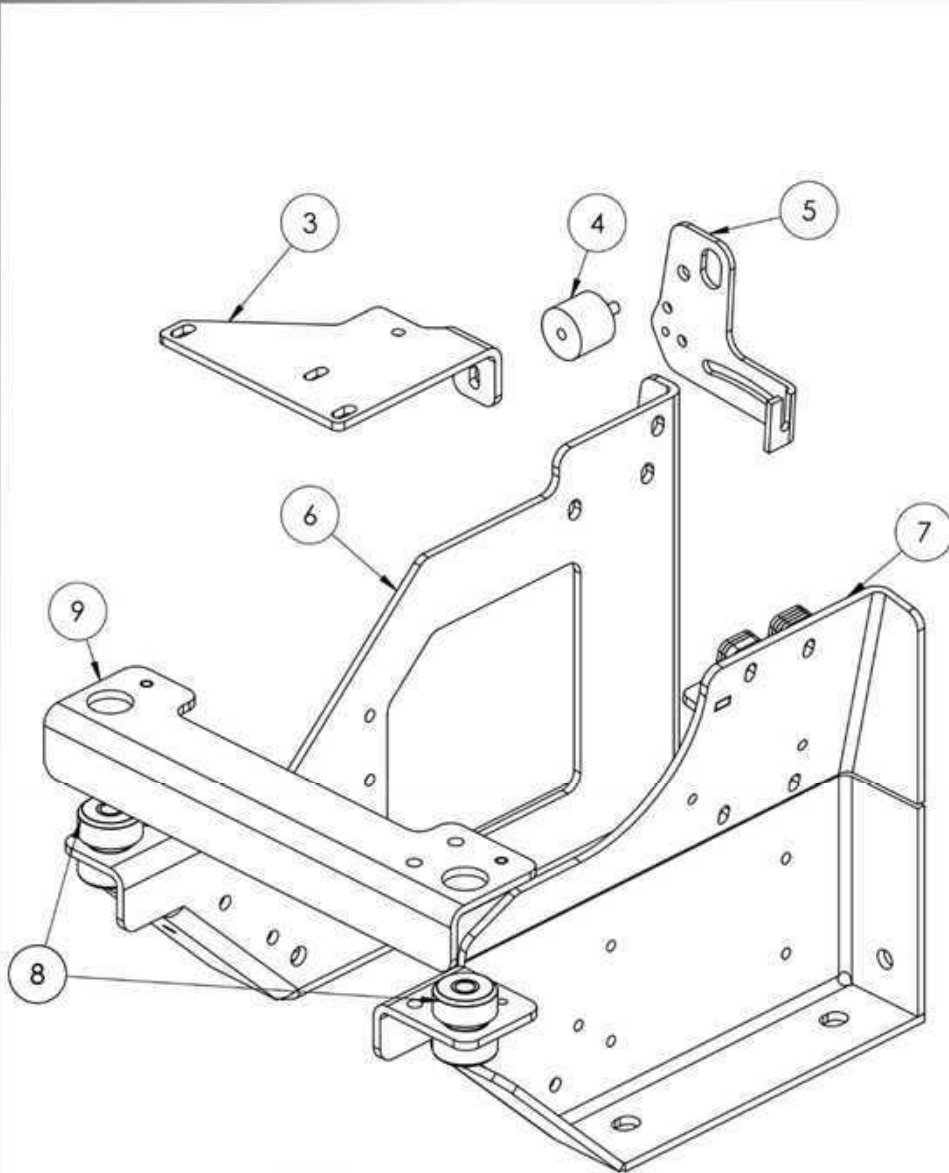
39181-2B000 /BOLT-SEAL
11403-06146K/BOLT-FLANGE

39180-2B000
SENSOR-CRANKSHAFT POSITION

39181-2B000 /BOLT-SEAL
11403-06146K/BOLT-FLANGE

94750-37000/37100
S/W-OIL PRESSURE

Support Group

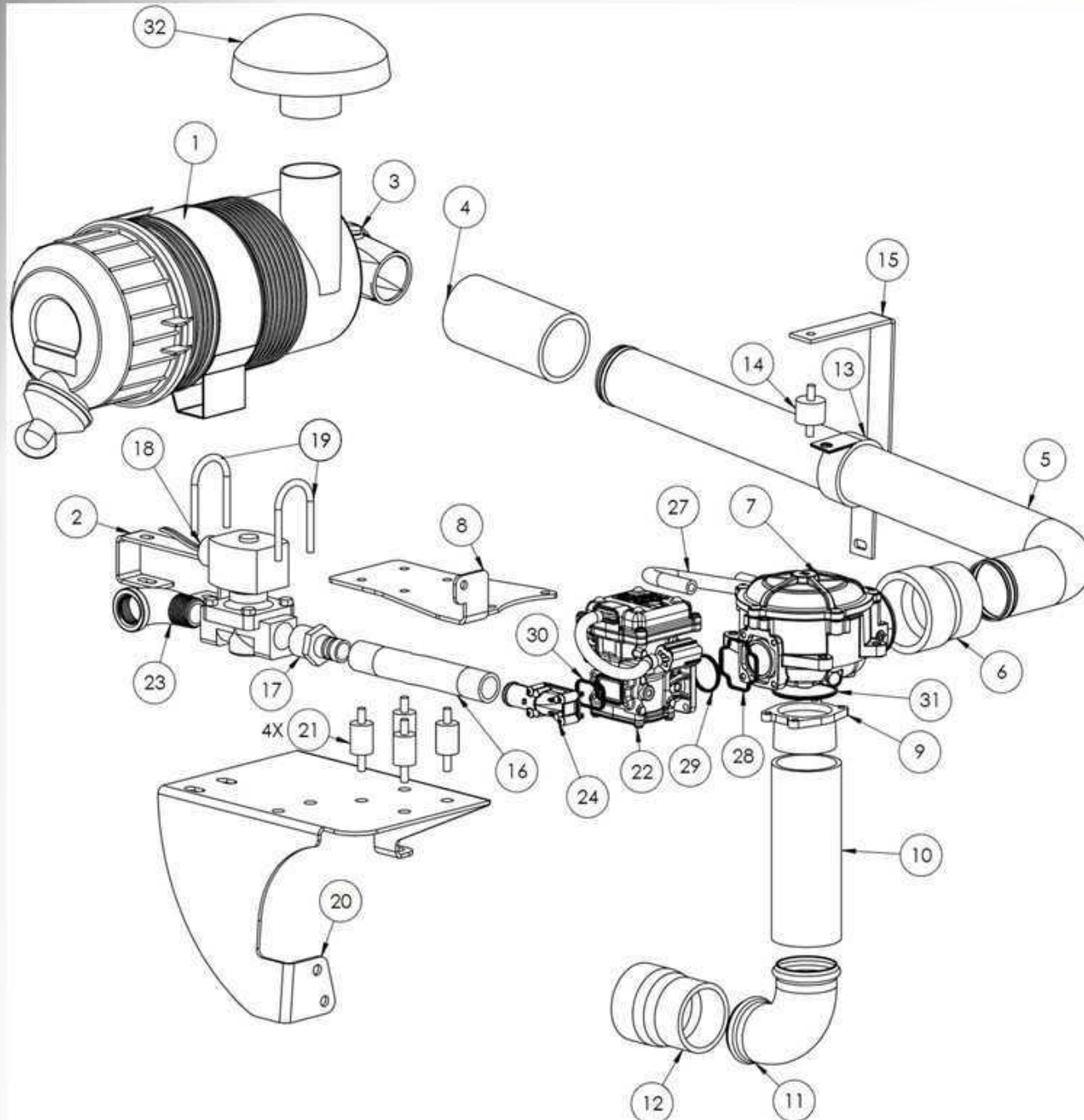


Support Group



Item No	Part Number	Description	Qty
1	204142	REAR LEG – UNIVERSAL	2
3	204412	UPPER RADIATOR BRACKET	1
4	201488	ISOLATOR – RADIATOR UPPER MOUNT	1
5	N/A	ALTERNATOR BRACKET	1
6	204408	PASSENGER LEG	1
7	204400	DRIVER LEG	1
8	200345	ISOLATOR – RADIATOR LOWER MOUNT	2
9	204411	LOWER RADIATOR BRACKET	1

Intake / Fuel Group



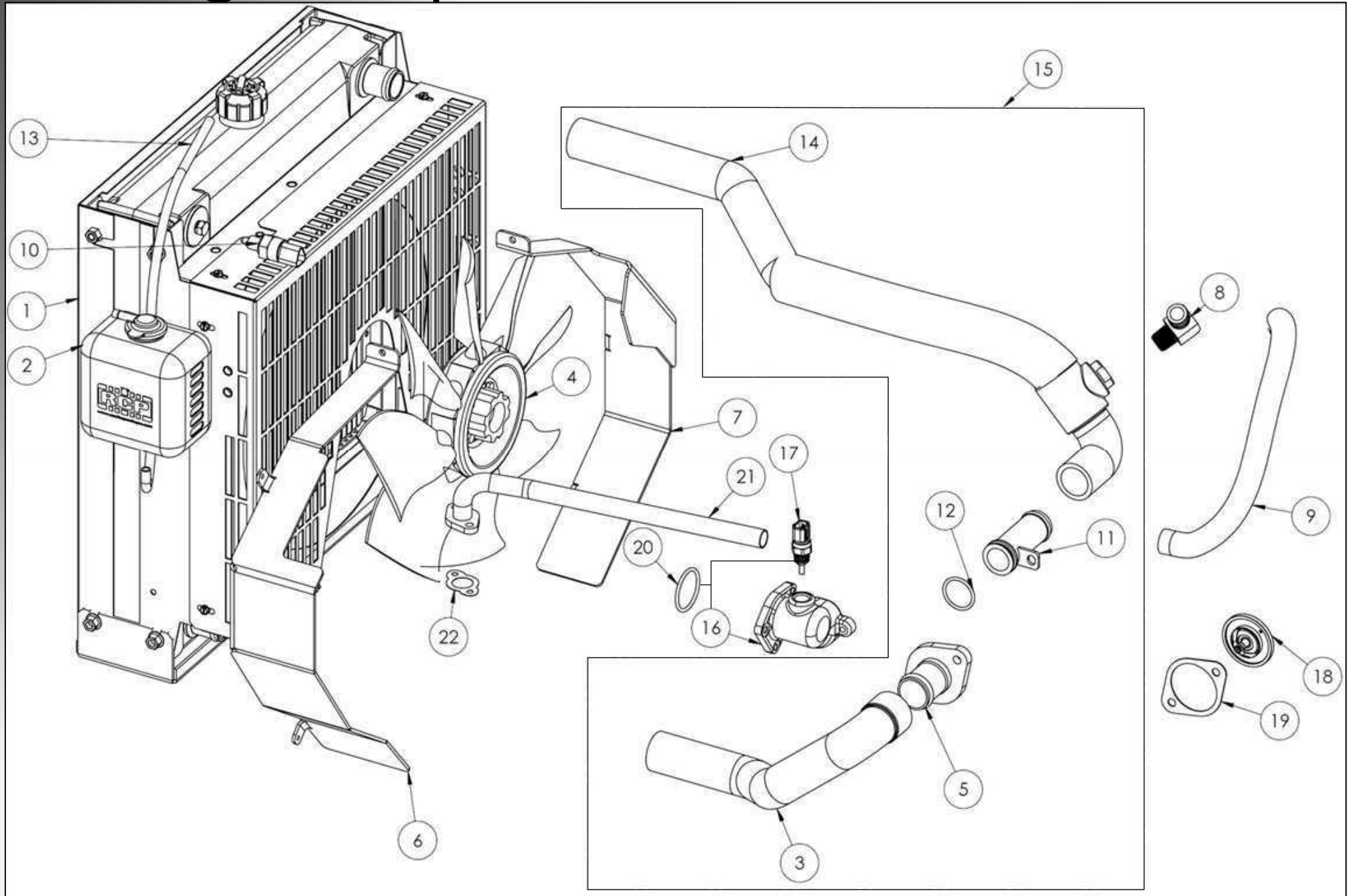
Intake / Fuel Group



Item No	Part Number	Description	Qty
1	201005	AIR CLEANER	1
2	203573	BRACKET – AIR CLEANER	1
3	201006	ELBOW – AIR CLEANER	1
4	204361	STICK HOSE	4.5"
5	203527	INTAKE PIPE	1
6	200974	REDUCER	1
7	203501	BI-FUEL MIXER	1
8	203581	MIXER BRACKET	1
9	203617	MIXER ADAPTER	1
10	203576	NITRILE FUEL HOSE	6"
11	203819	INTAKE ELBOW - MIXER	1
12	201064	REDUCER	1
13	200907	CLAMP	1
14	202272	ISOLATOR	1
15	203528	INTAKE PIPE SUPPORT BRACKET	1
16	200676	VAPOR HOSE: 3/4	10 ½"

Item No	Part Number	Description	Qty
17	201507	FITTING: 3/4 NPT X ¾ HOSE STRAIGHT	1
18	201469	FUEL LOCK-OFF	1
19	200855	U-BOLT	2
20	203520	FUEL BRACKET	1
21	201484	ISOLATOR	4
22	203413	DEPR	1
23	201676	STREET ELL: 3/4	1
24	203503	FITTING: 3/4 HOSE TO DEPR	1
25	201739	FITTING: 3/8 BARB X 1/8 NPT	1
26	201956	PIPE PLUG: 1/8	1
27	202111	VACUUM HOSE: 3/8 – MULTI-FUEL	10 ½"
	202111	VACUUM HOSE: 3/8 – GASOLINE	24"
28	201954	O-RING	1
29	201953	O-RING	1
30	203502	SEAL RING	1
31	204398	O-RING	1
32	201021	RAIN HAT	

Cooling Group



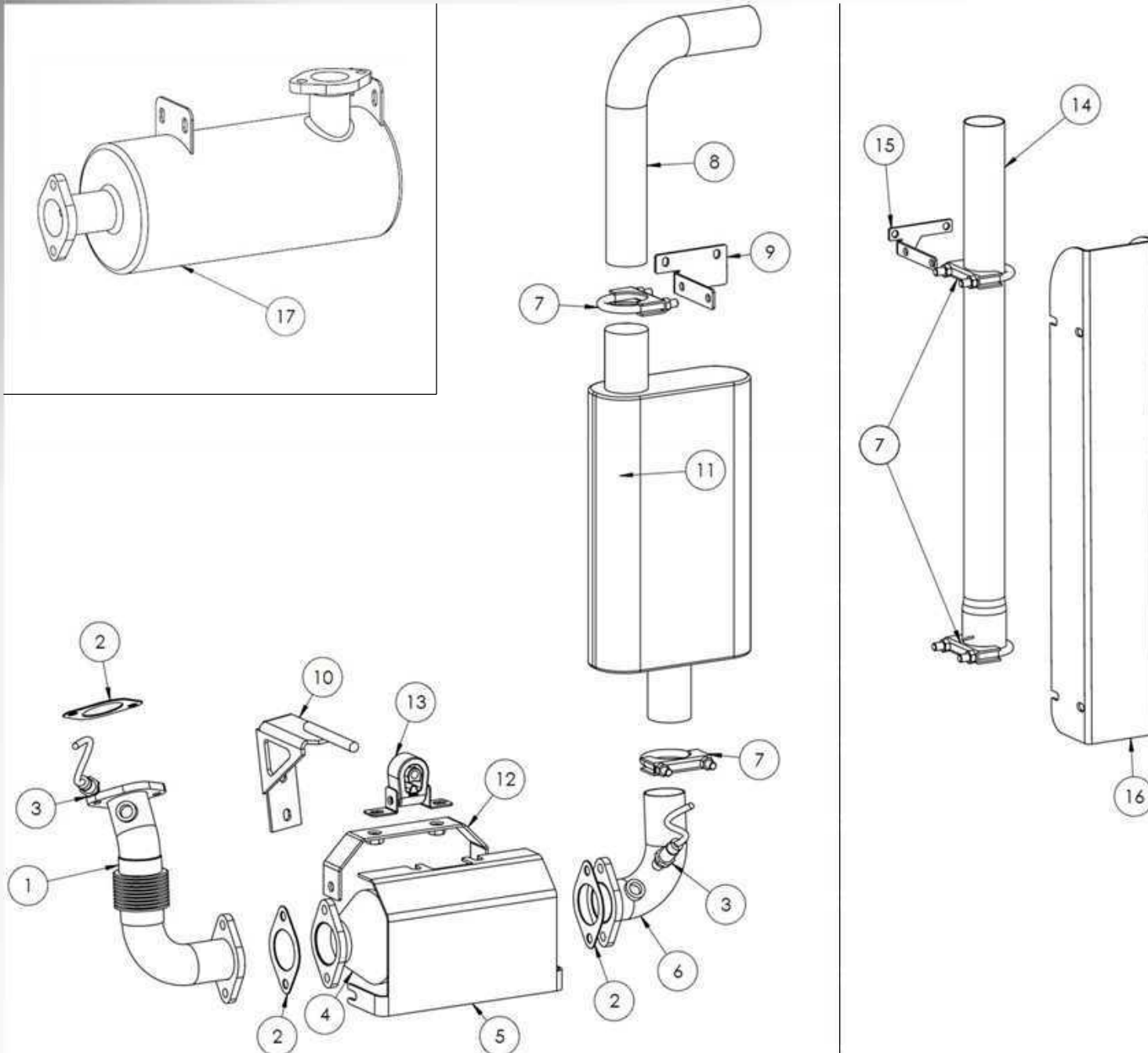
Cooling Group



Item No	Part Number	Description	Qty
1	203522	RADIATOR	1
2	200921	OVERFLOW TANK	1
3	204076	LOWER COOLANT HOSE	1
4	203515	FAN - PUSHER	1
5	204222	LOWER COOLANT FITTING	1
6	203831	BELT GUARD – LEFT	1
7	203832	BELT GUARD – RIGHT	1
8	201505	FITTING – 1/2 NPT X 3/4 HOSE ELBOW	1
9	202118	HEATER HOSE – 3/4	1.5'
10	201388	LOW COOLANT SWITCH	1
11	204328	UPPER COOLANT FITTING	1
12	203594	O-RING	1
13	200666	VACUUM HOSE – 1/4	2'
14	204075	UPPER COOLANT HOSE	1
15	203524	COOLANT HOSE AND FITTING KIT	1

Item No	Part Number	Description	Qty
16	25600-2BF00	WATER TEMP CONTROL ASSEMBLY - *INCLUDES ITEMS 17 AND 20	1
17	39220-38030	COOLANT TEMP SENSOR	1
18	25500-2B000	THERMOSTAT	1
19	25635-2BF00	GASKET - THERMOSTAT	1
20	25623-2B000	ORING	1
21	204057	COOLANT BYPASS PIPE	1
22	25452-2B000	GASKET – COOLANT BYPASS PIPE	1

Exhaust Group



Exhaust Group



Item No	Part Number	Description	Qty
1	203462	PRE-CAT EXHAUST PIPE	1
2	200870	CATALYST GASKET	3
3	201280	O2 SENSOR	2
4	201379	CATALYST	1
5	203499	HEATSHIELD - CATALYST	1
6	203463	POST-CAT EXHAUST PIPE	1
7	201528	EXHAUST CLAMP	2
8	201439	TAIL PIPE – 90	1
9	203633	MUFFLER BRACKET	1
10	203485	EXHAUST ISOLATOR HANGER	1
11	201381	MUFFLER	1
12	203464	CATALYST HANGER BRACKET	1
13	203567	CATALYST HANGER	1
14	203824	TAIL PIPE – STRAIGHT	1
15	203833	BRACKET – VERTICAL TAIL PIPE	1
16	203826	HEATSHIELD – VERTICAL EXHAUST	1
17	200450	CATALYST-MUFFLER	1

Miscellaneous Parts



Part Number	Description	Qty
203494	SAE #5 BELL HOUSING WITH FLYWHEEL ADAPTER	
204082	TACHOMETER AND CONNECTOR KIT	
201284	FUEL PUMP	
201287	FUEL FILTER	
201341	FUEL PRESSURE REGULATOR	
203592	CUSTOMER INTERFACE PIGTAIL - 4 FT	
39250-2B000	KNOCK SENSOR	
200915	OIL DRAIN VALVE	
203852	EXTENSION - OIL DRAIN VALVE	

Part Number	Description	Qty
204413	GASKET KIT – INCLUDES THE FOLLOWING:	
22410-2B100	VALVE COVER WITH GASKET	1
22311-2B003	CYLINDER HEAD GASKET	1
28411-2B001	INTAKE MANIFOLD GASKET	1
28521-2B400	EXHAUST MANIFOLD GASKET	1
25600-2BF00	WATER TEMP CONTROL ASSEMBLY WITH O-RING	1
25124-2B000	WATER PUMP GASKET	1
25635-2BF00	WATER INLET GASKET	1
25452-2B000	COOLANT BYPASS PIPE GASKET	1
21443-2B000	REAR OIL SEAL	1
26510-26600	OIL FILL CAP WITH SEAL	1
21421-2B030	FRONT OIL SEAL	1
203594	O-RING – UPPER COOLANT FITTING	1