RUTHZIL TRATOR COMERCIAL DE PEÇAS LTDA 11 97083-6812 ROLANDO

4372608-Rev A

JACOBSEN
A Textron Company

Engine Parts Manual

Kubota® Diesel Engine

V33307-CR-T-E4B

Jacobsen HR800™

⚠ WARNING

Warning: If incorrectly used, this machine can cause severe injury. Those who use and maintain this machine should be trained in its proper use, warned of its dangers, and must read the entire manual before attempting to set up, operate, adjust, or service the machine.

GB

FOREWORD

This manual contains a parts list for your Kubota Engine.

The Engine Serial Number for the Kubota engine is on a plate located on the valve cover.

Record the Engine Serial Number below for easy reference.

Engine Serial Number: _____

If additional information is needed, contact your Jacobsen Dealer.

Suggested Stocking Guide

To Keep your Equipment fully operational and productive, Jacobsen suggests you maintain a stock of the more commonly used maintenance items. We have included part numbers for additional support materials and training aids.

To order any of the following material:

1. Write your full name and complete address on your order form.
2. Explain where and how to make shipment:
   - ❑ UPS
   - ❑ Regular Mail
   - ❑ Overnight
   - ❑ 2nd Day
3. Order by the quantity desired, the part number, and the description of the part.
4. Send or bring the order to your authorized Jacobsen Dealer.

Service Parts

Qty.	Part No.	Description	Qty.	Part No.	Description
	4137894	Cartridge, Oil Filter		4297126	Water Separator Element
	4230980	Element, Fuel Filter		4352107	V-Belt
	4351487	Air Filter Inner Element			
	4351527	Air Filter Outer Element			

Proposition 65 Warning

This product contains or emits chemicals known to State of California to cause cancer and birth defects or other reproductive harm.

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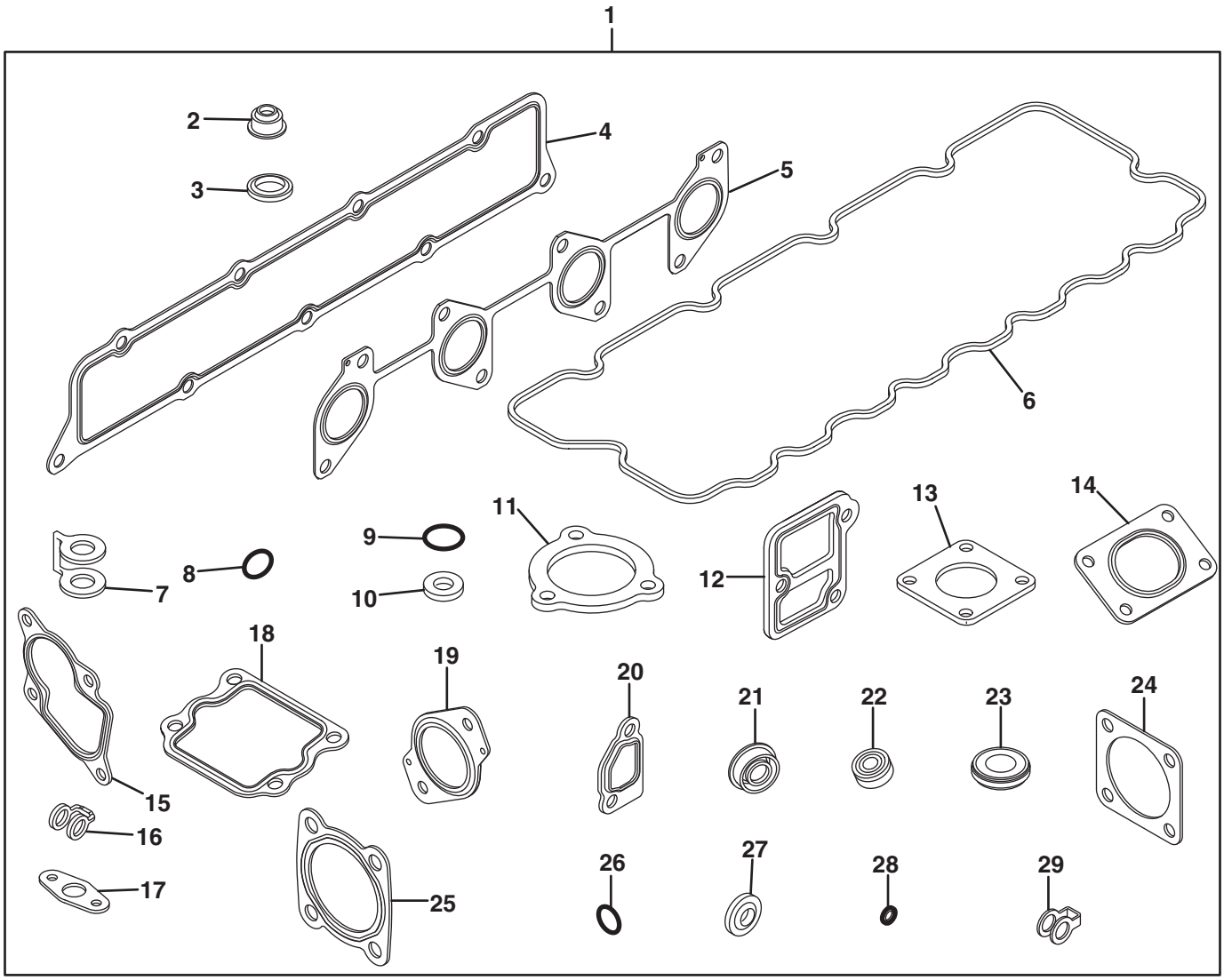
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1.1 Upper Gasket Kit

Serial No. All

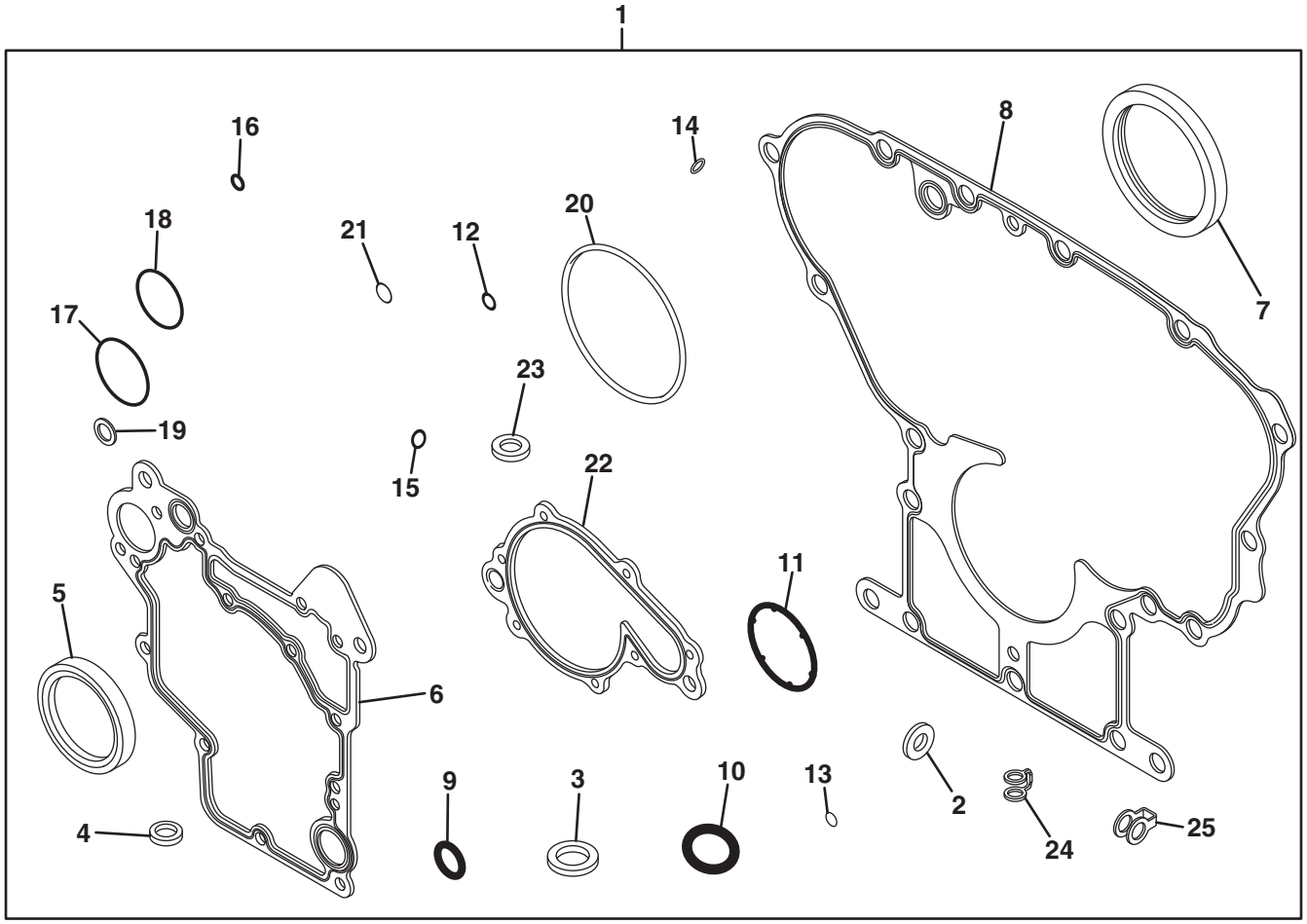


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4350998	1	Gasket, Kit Upper	
2	2500923	16	• Seal, Valve Stem	**See 5.1**
3	4251859	1	• Washer, Seal	**See 17.1**
4	4352187	1	• Gasket, In-manifold	**See 22.1**
5	4351746	1	• Gasket, Ex-manifold	**See 22.1**
6	4352326	1	• Gasket, Head Cover	**See 7.1**
7	4322585	5	• Gasket	**See 13.1**
8	4351333	4	• O-ring	**See 13.1**
9	4138026	4	• O Ring	**See 13.1**
10	4251732	4	• Packing	**See 13.1**
11	4351169	1	• Gasket	**See 21.1**
12	4351166	1	• Gasket, Water Flange	**See 21.1**
13	4134436	1	• Gasket, Muffler	
14	4251794	1	• Gasket	**See 22.1**
15	4350948	1	• Gasket	**See 22.1**
16	4251799	1	• Gasket	**See 30.1**
17	4134419	1	• Gasket, Oil Pipe Tc	**See 30.1**
18	4351766	1	• Gasket, EGR Valve	**See 23.1**
19	4351767	2	• Gasket, EGR Cooler	**See 23.1**
20	4351768	1	• Gasket	**See 23.1**
21	4137892	4	• Seal, Injection Pipe	**See 7.1**
22	4351146	4	• Seal, Glow Plug	**See 13.1**
23	4351335	4	• Seal, Injector	**See 7.1**
24	4351688	1	• Gasket, Muffler	**See 34.1**
25	4351686	2	• Gasket, Inlet Flange	**See 22.1**
26	4134211	1	• O Ring	**See 7.1**
27	556920	1	• Packing	**See 17.1**
28	4351310	1	• Packing	**See 13.1**
29	4350996	1	• Gasket, Fuel	**See 14.1**

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2.1 Lower Gasket Kit

Serial No. All

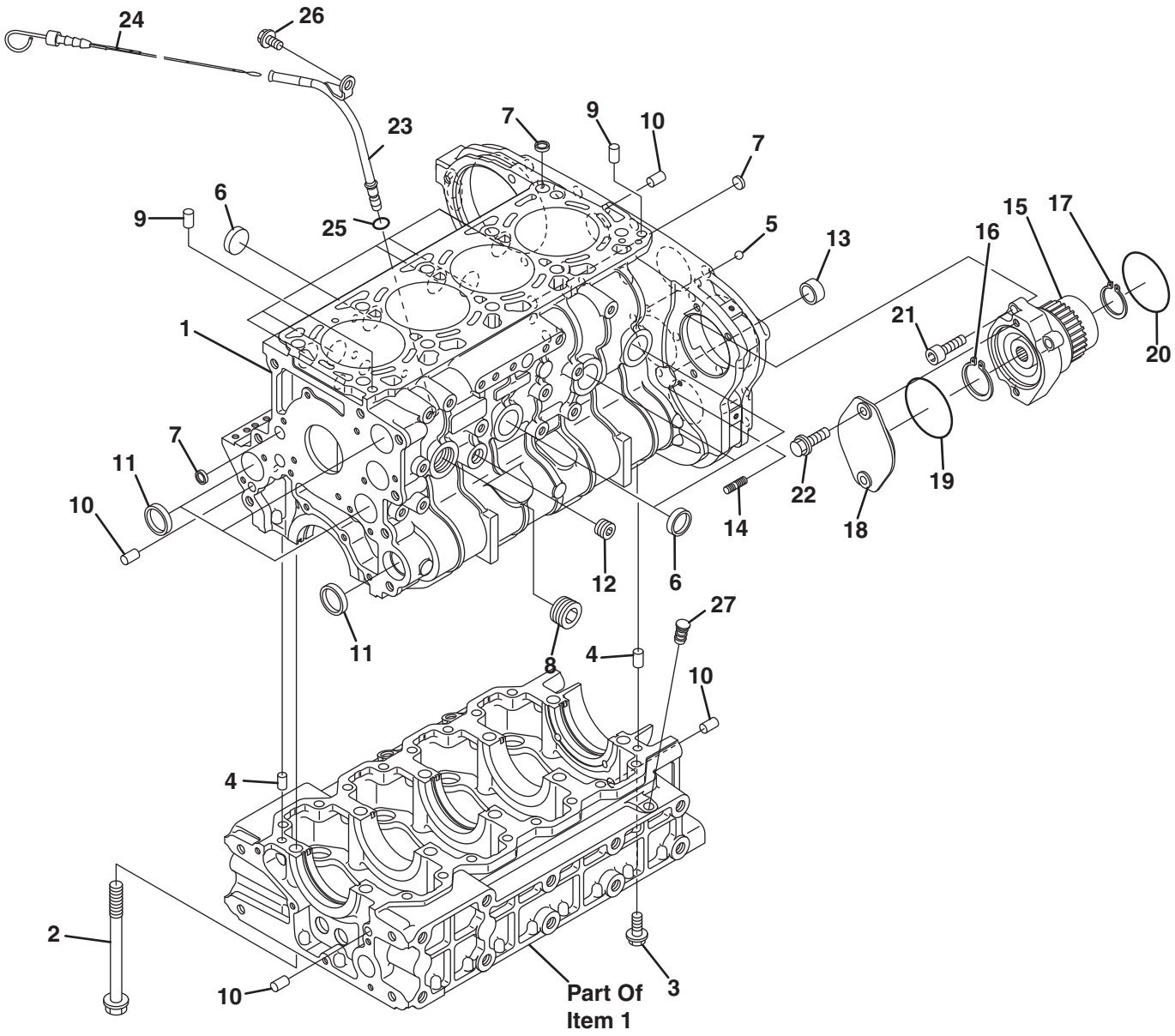


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4351466	1	Gasket, Kit Lower	
2	552958	1	• Packing	**See 17.1**
3	4183640	2	• Packing	Not Used
4	2500811	1	• Packing	**See 8.1**
5	4137821	1	• Seal, Oil	**See 8.1**
6	4352166	1	• Gasket, Front Cover	**See 2.1**
7	4352167	1	• Seal, Oil	**See 10.1**
8	4351194	1	• Gasket, Housing	**See 10.1**
9	4145686	1	• O Ring	**See 4.1**
10	4134211	2	• O Ring	**See 10.1** and **See 32.1**
11	4198437	1	• O Ring, 73. 5x3. 1	**See 32.1**
12	4352706	1	• O Ring	Not Used
13	4351669	2	• O-ring	**See 4.1** and **See 29.1**
14	4350949	1	• O Ring	**See 17.1**
15	4251851	1	• O Ring	**See 17.1**
16	4351188	1	• O Ring	**See 3.1**
17	4351187	1	• O Ring	**See 10.1**
18	4251718	1	• Gasket, Pump	**See 12.1**
19	4350957	1	• Gasket	**See 30.1**
20	4350926	1	• Gasket, Injection Pump	**See 12.1**
21	5002033	1	• O Ring	**See 3.1**
22	4351170	1	• Gasket, Water Pump	**See 21.1**
23	4352666	1	• Gasket	Not Used
24	4322576	2	• Gasket	**See 12.1**
25	4350996	1	• Gasket, Fuel	**See 14.1**

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3.1 Crankcase

Serial No. All

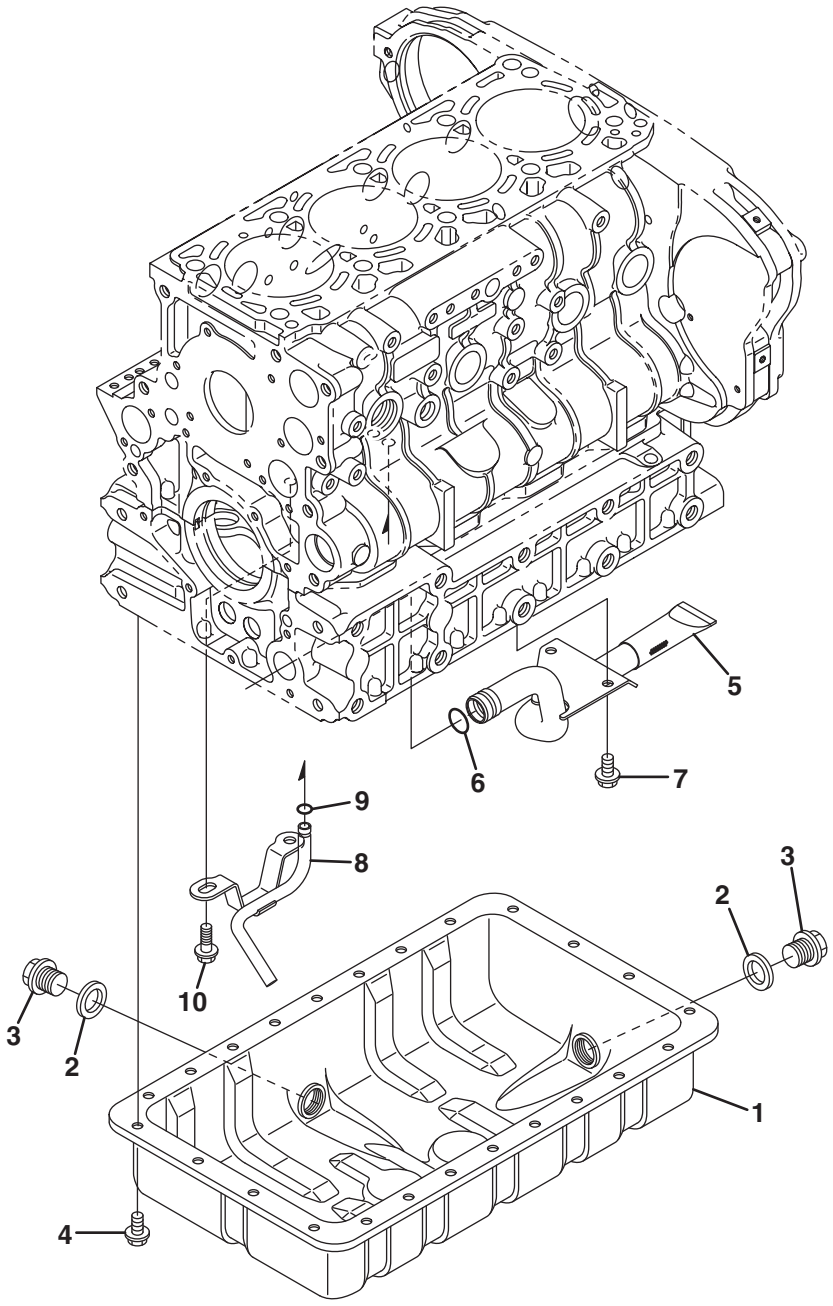


	Item	Part No.	Qty.	Description	Serial Numbers/Notes
	1	4353010	1	Crankcase	
	2	4352126	10	• Bolt	
	3	4351171	16	• Bolt, Flange	
	4	4137773	2	• Pin Straight	
	5	4352766	1	• Ball	
	6	550673	9	• Cap, Sealing	
	7		3	• Cap, Sealing	
	8	2500874	1	• Plug	
	9	4137773	2	Pin Straight	
	10	4351186	4	Pin, Straight	
	11	552977	4	Cap, Sealing	
	12	4198241	1	Plug	
	13	4350977	1	Bushing	
	14	4352806	1	Stud	
	15	4351243	1	Comp. Base Hyd. Pump	
	16	4352646	1	• Cir-Clip, External	
	17	4352626	1	• Cir-Clip, External	
	18	4351189	1	Cover	
	19	4351187	1	O Ring	
✤	20	4351188	1	O Ring	
	21	4352387	3	Bolt, Socket Head	
	22	4322573	2	Bolt, Flange	
	23	4351222	1	Guide, Oil Gauge	
	24	4351221	1	Gauge, Oil	
✤	25	5002033	1	O Ring	
	26	4198160	1	Bolt, Flange	
	27	2812014	1	Plug, Oil Gauge	
✤		Included in 4351466 Lower Gasket Kit, **See 2.1**			

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4.1 Oil Pan

Serial No. All

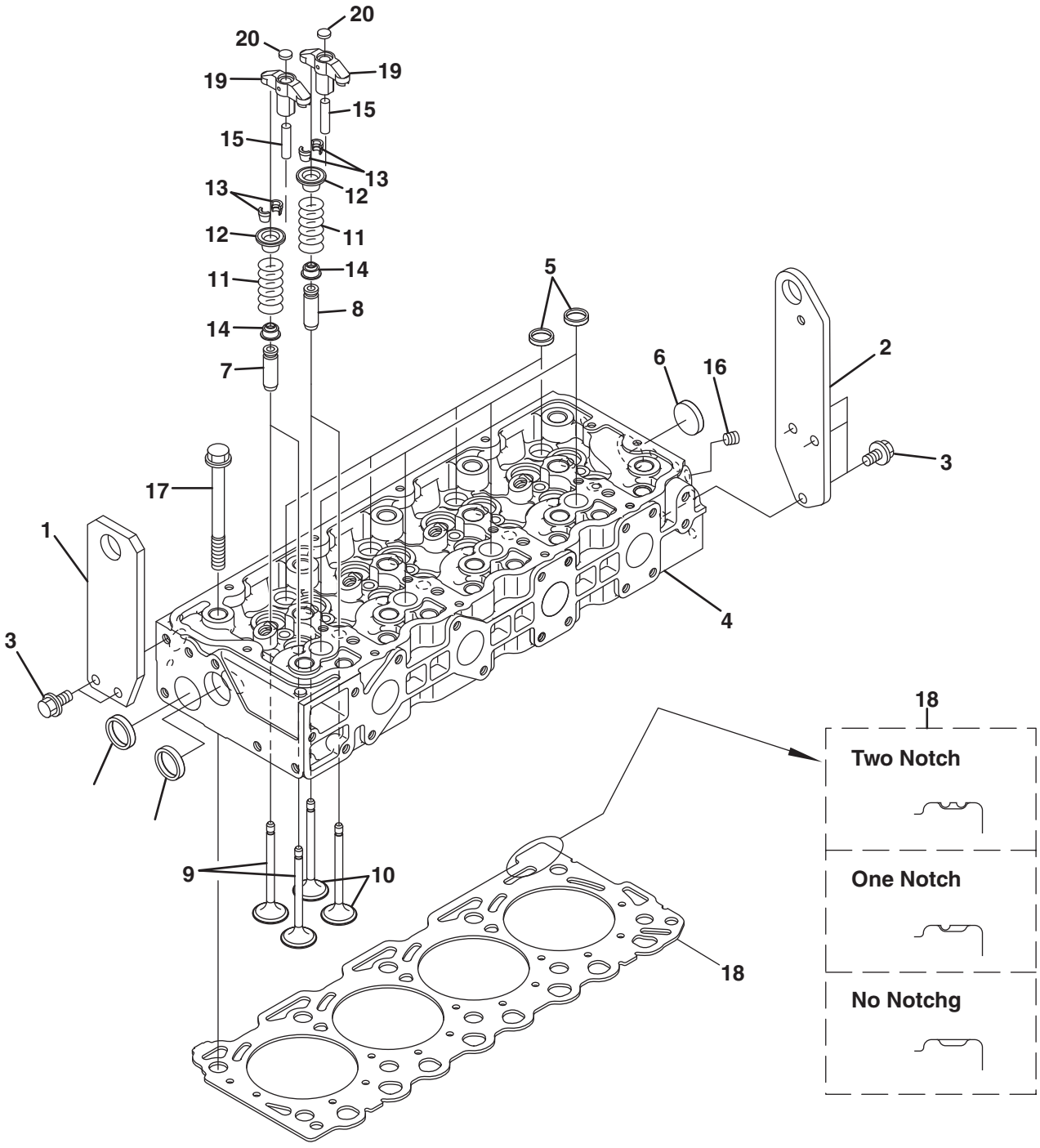


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4351193	1	Comp. Oil Pan	
2	4352686	2	Washer, Seal	
3	4251690	2	Plug, Drain	
4	4352593	24	Bolt, Flange	
5	4351218	1	Filter, Oil	
✤ 6	4145686	1	O Ring	
7	4352593	2	Bolt, Flange	
8	4351668	1	Pipe, Comp Oil Return, 2	
✤ 9	4351669	1	O-ring	
10	4198160	2	Bolt, Flange	
✤	Included in 4351466 Lower Gasket Kit, **See 2.1**			

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5.1 Cylinder Head

Serial No. All

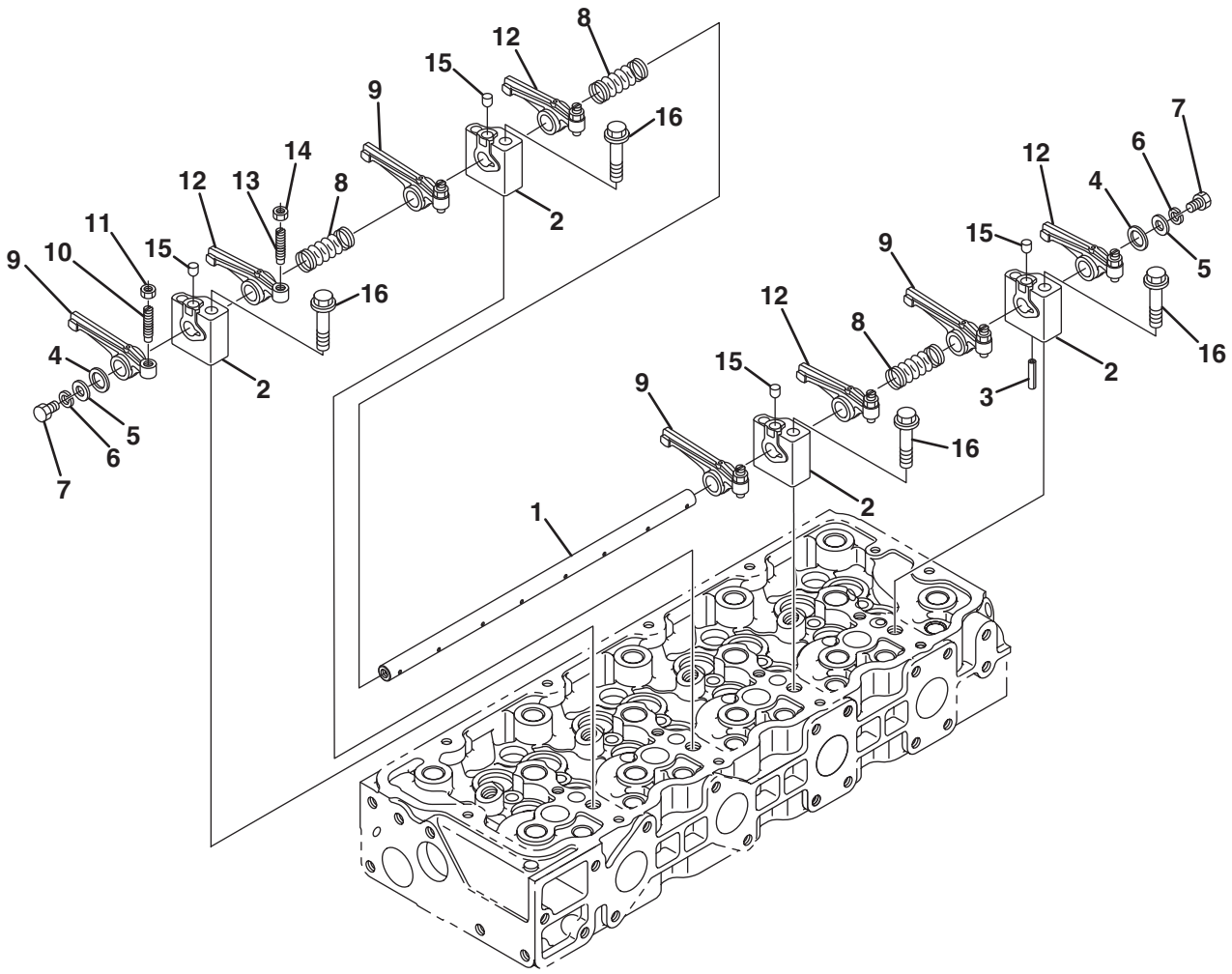


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4350959	1	Hook, Engine	
2	4350960	1	Hook, Engine	
3	4137820	5	Bolt, Flange	
4	4350961	1	Assy Cylinder Head	
5	5001861	8	• Cap, Sealing	
6	550673	3	• Cap, Sealing	
7	4145830	8	• Guide, Inlet Valve	
8	4145831	8	• Guide, Exhaust Valve	
9	4352189	8	• Valve, Inlet	
10	4352206	8	• Valve, Exhaust	
11	4138194	16	• Spring, Valve	
12	4165620	16	• Retainer, Valve Sp.	
13	4251682	16	• Collet, Valve Spring	Set
★ 14	2500923	16	• Seal, Valve Stem	
15	4138197	8	• Shaft, Valve	
16	552950	1	Plug	
17	4352126	10	Bolt	
18	4350962	1	Gasket (Cyl. Head)	Std / 2 Notch
18	4350963	1	Gasket (Cyl. Head)	Suitability/ 1 Notch
18	4350964	1	Gasket (Cyl. Head)	Suitability/ No Notch
19	4352226	8	Arm, Valve	
20	4350950	8	Pad	
★	Included in 4350998 Upper Gasket Kit, **See 1.1**			

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6.1 Rocker Arm Shaft

Serial No. All

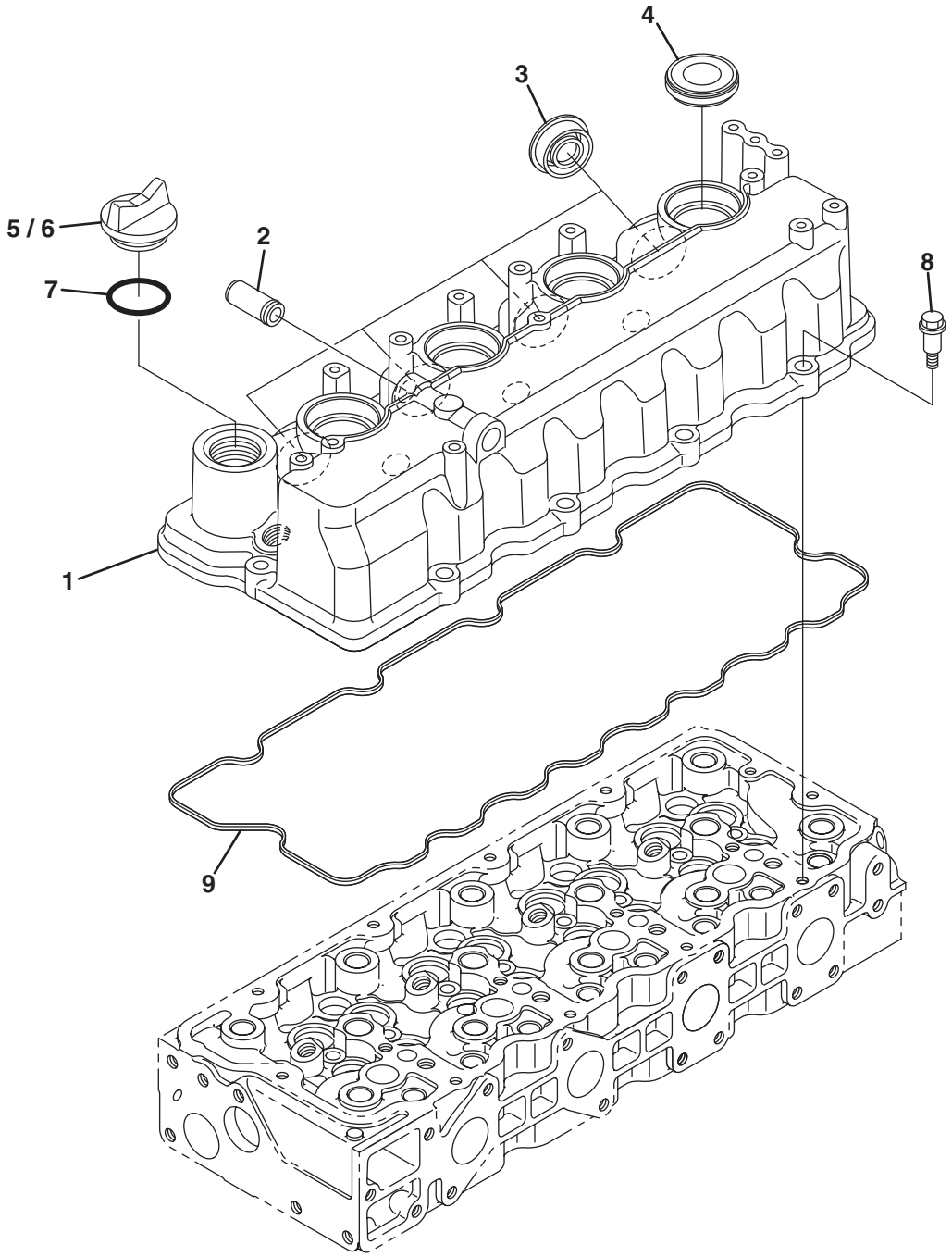


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4352286	1	Shaft, Rocker Arm	
2	4351747	4	Bracket, Rocker Arm	
3	4352746	1	Pin, Spring	
4	4352307	2	Washer	
5	4297105	2	Washer, Plain	
6	5002002	2	Washer, Spring Lock	
7	594338	2	Hex. Bolt	
8	4352306	3	Spring	
9	4352246	4	Assy Rocker Arm, Inlet	
10	4289853	4	• Screw	
11	4138207	4	• Nut	
12	4352266	4	Assy Rocker Arm, Exhaust	
13	4289853	4	• Screw	
14	4138207	4	• Nut	
15	4351334	4	Pin, Clamp	
16	4138211	4	Bolt, Flange	

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7.1 Head Cover

Serial No. All

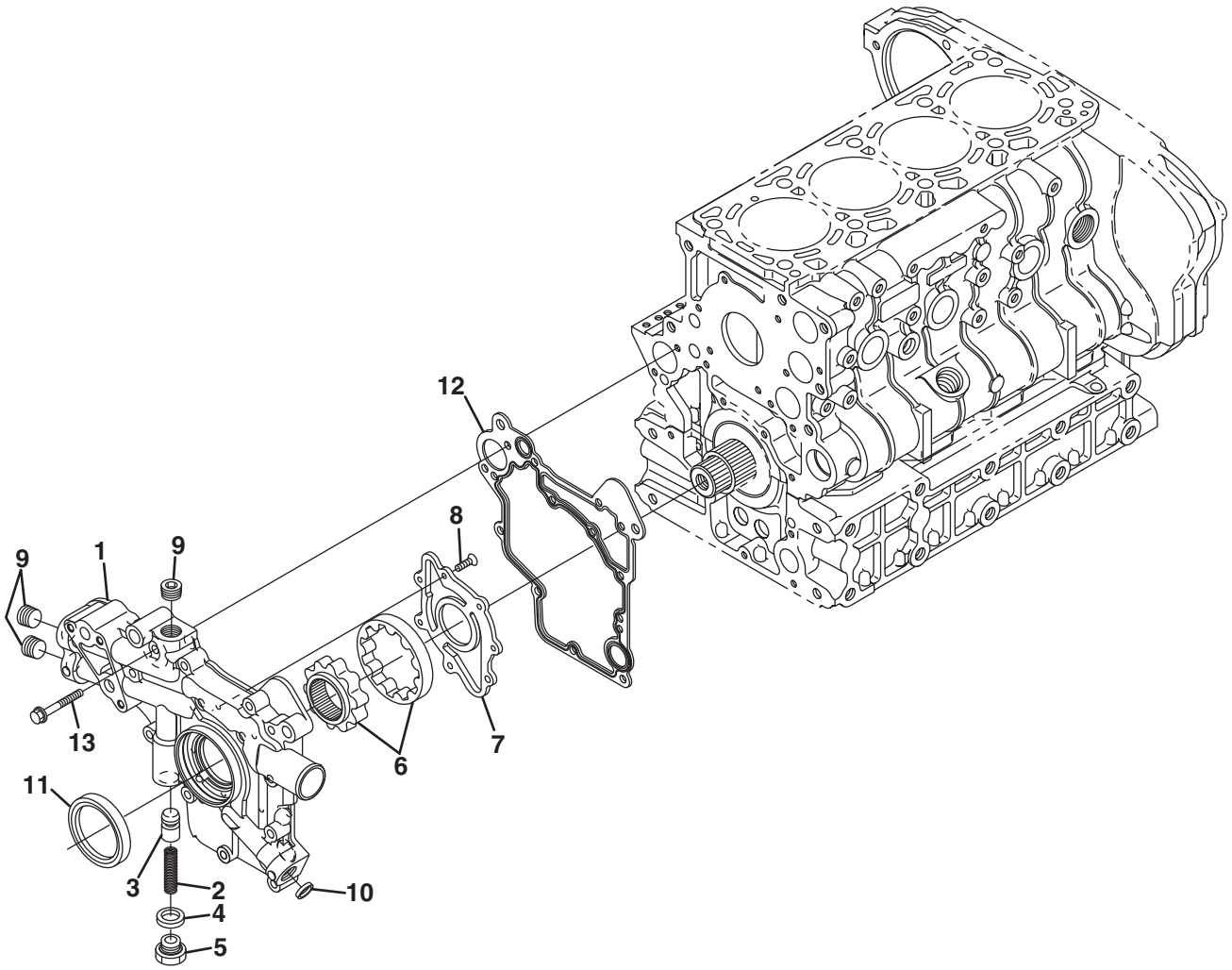


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4351748	1	Cover, Head, Assy	
2	2500911	1	• Joint, Breather Pipe	
★ 3	4137892	4	• Seal, Injection Pipe	
★ 4	4351335	4	• Seal, Injector	
5	4137888	1	• Assy Plug, Oil filler	
6	4145944	1	• • Plug, Oil Filler	
★ 7	4134211	1	• • O Ring	
8	4134209	10	Bolt	
★ 9	4352326	1	Gasket, Head Cover	
★	Included in 4350998 Upper Gasket Kit, **See 1.1**			

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8.1 Front Cover

Serial No. All

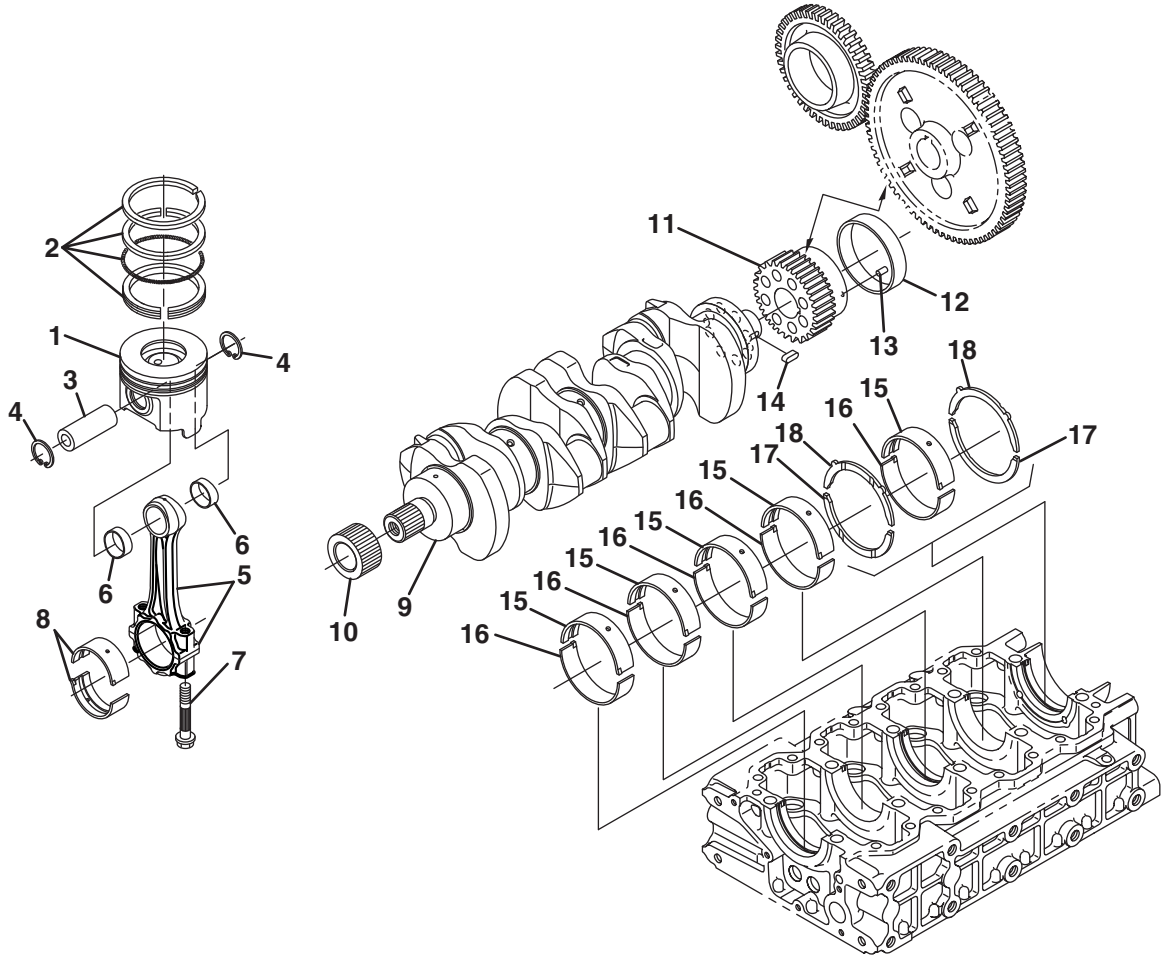


	Item	Part No.	Qty.	Description	Serial Numbers/Notes
	1	4352146	1	Assy Cover, Front	
	2	4137811	1	• Spring	
	3	4137812	1	• Valve, Relief	
✤	4	2500811	1	• Packing	
	5	4137813	1	• Plug	
	6	4352586	1	• Assy Rotor, Oil Pump	
	7	4352588	1	• Cover, Oil Pump	
	8	4137816	7	• Screw, Flat Head(Phillips)	
	9	4137817	3	• Plug	
	10	5001861	1	• Cap, Sealing	
✤	11	4137821	1	Seal, Oil	
✤	12	4352166	1	Gasket(Front Cover)	
	13	4352108	13	Bolt, Flange	
✤		Included in 4351466 Lower Gasket Kit, **See 2.1**			

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9.1 Piston and Crankshaft

Serial No. All

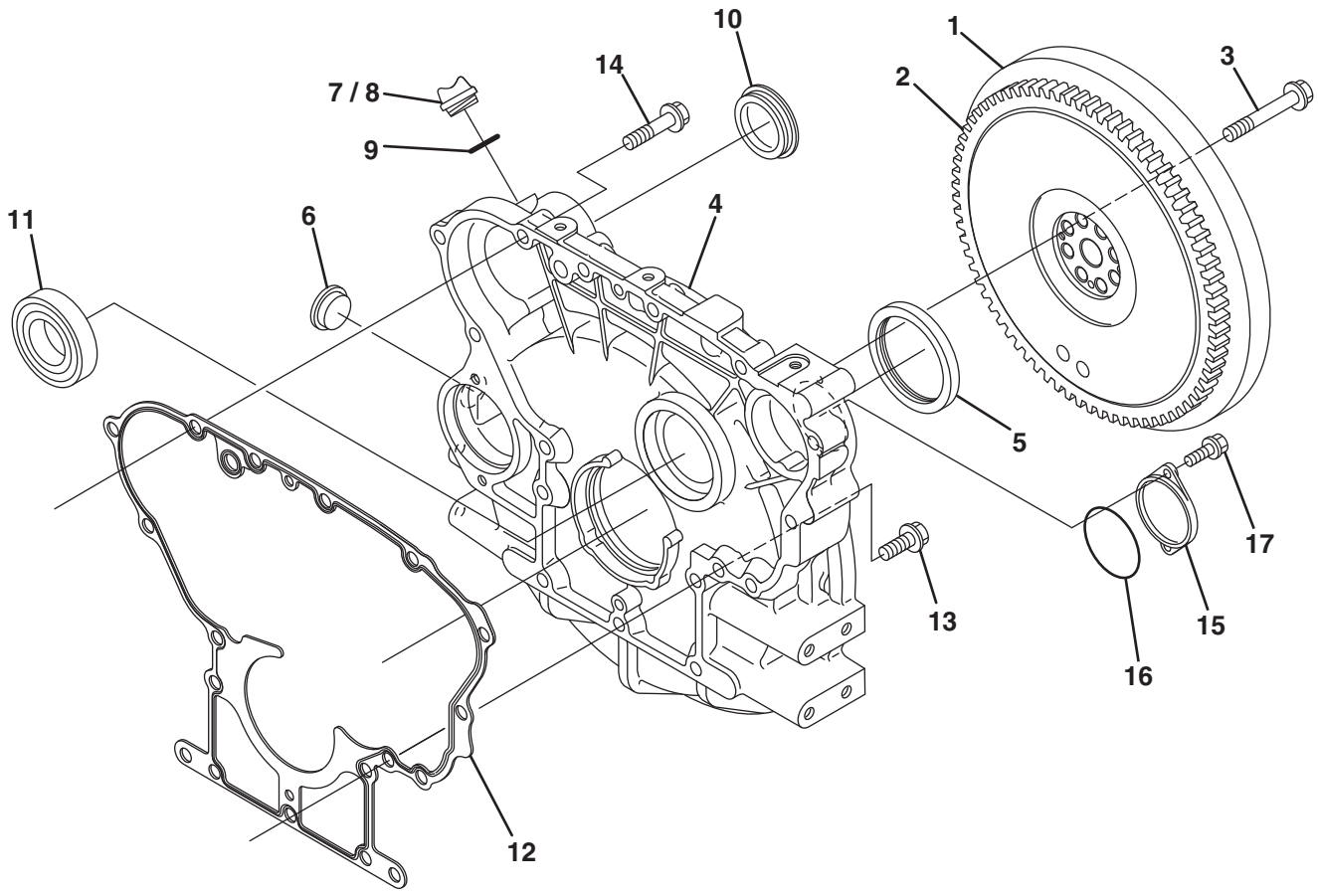


Item		Part No.	Qty.	Description	Serial Numbers/Notes
■	1	4351269	4	Piston	STD
❖	1	4351271	4	Piston(05)	+0. 50mm
■	2	4352386	4	Assy Piston Ring	STD
❖	2	4352388	4	Assy Piston Ring	+0. 50mm
■❖	3	4351209	4	Pin, Piston	
■❖	4	594357	8	Cir-clip, Internal	
	5	4352426	4	Assy Rod, Connecting	
■❖	6	4352406	8	• Bush, Piston Pin	
	7	4352427	8	• Bolt, Connecting Rod	
●	8	4352428	4	Metal, Crankpin	STD/Blue/Set
▲	8	4352446	4	Metal, Crankpin	-0. 20mm/Green/Set
◆	8	4352486	4	Metal, Crankpin	-0. 40mm/Red/Set
	9	4351210	1	Comp. Crankshaft	
	10	4352590	1	• Gear, Oil Pump Drive	
	11	4351217	1	Assy Gear, Crankshaft	
	12	4352947	1	• Sleeve, Crankshaft	
	13	594369	1	• Pin, Straight	
	14	4350953	1	Key, Straight	
●	15	#N/A	5	Metal, Crankshaft	STD
▲	15	#N/A	5	Metal, Crankshaft	-0. 20mm
◆	15	#N/A	5	Metal, Crankshaft	-0. 40mm
●	16	#N/A	5	Metal, Crankshaft	STD
▲	16	#N/A	5	Metal, Crankshaft	-0. 20mm
◆	16	#N/A	5	Metal, Crankshaft	-0. 40mm
●	17	4352506	2	Metal, Side	STD
▲	17	4352546	2	Metal, Side	+0. 20mm
◆	17	4352548	2	Metal, Side	+0. 40mm
●	18	4352527	2	Metal, Side	STD
▲	18	4352549	2	Metal, Side	+0. 20mm
◆	18	4352550	2	Metal, Side	+0. 40mm
■		4351270	4	Piston, Kit Std	STD
❖		4351270	4	Piston, Kit +0.05 mm	+0. 50mm
●		4351211	5	Kit Metal, Crankshaft	STD/Set
▲		4351215	5	Kit Metal, Crankshaft	-0. 20mm/Set
◆		4351216	5	Kit Metal, Crankshaft	-0. 40mm/Set

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10.1 Flywheel

Serial No. All

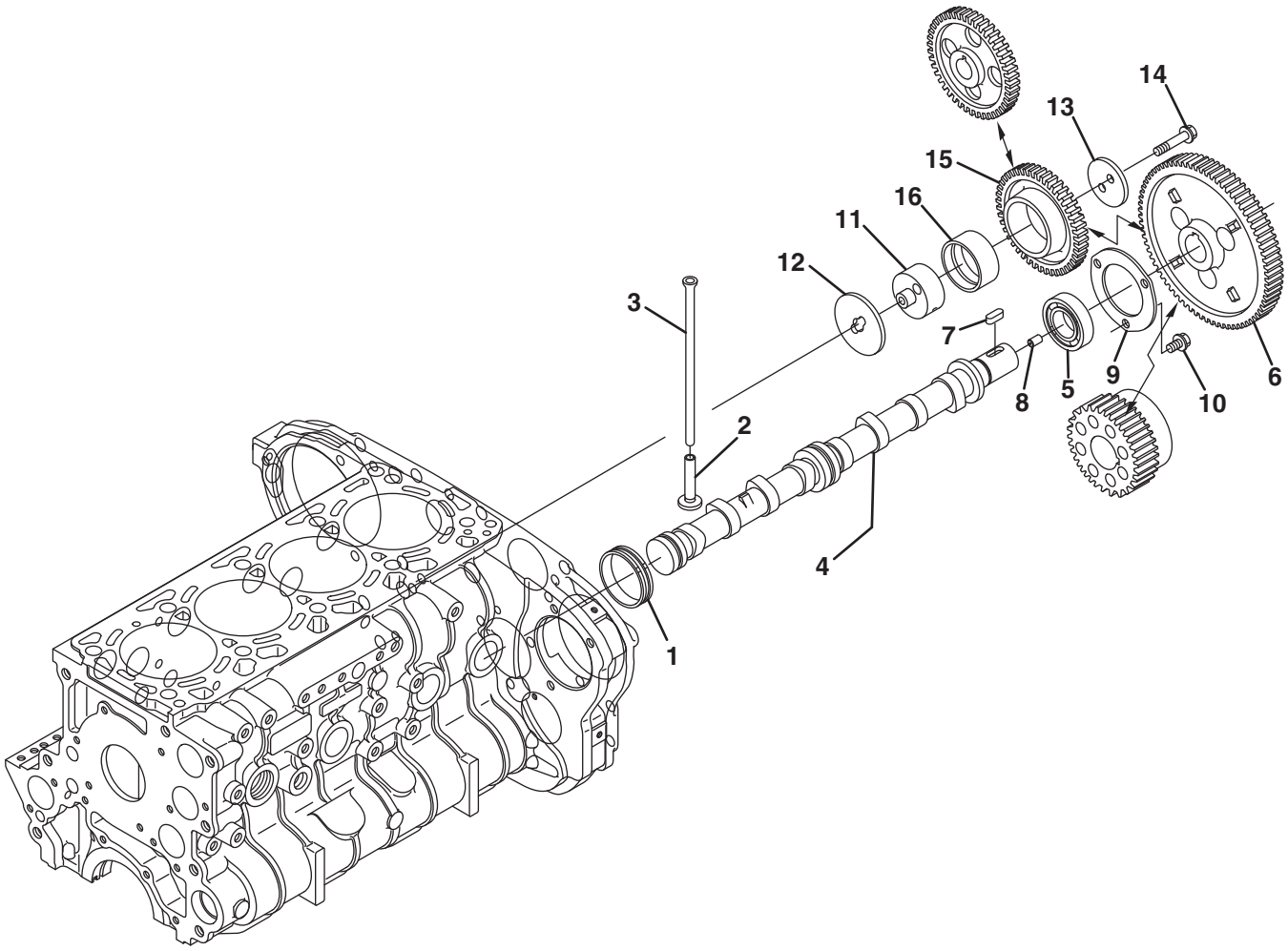


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4351246	1	Comp. Flywheel	
2	4351235	1	• Gear, Ring	
3	4352566	8	Bolt, Flywheel	
4	4350965	1	Housing, Flywheel	
✤ 5	4352167	1	Seal, Oil	
6	4137982	1	Cover	
7	4137888	1	Assy Plug, Oil filler	
8	4145944	1	• Plug, Oil Filler	
✤ 9	4134211	1	• O Ring	
10	4351528	1	Plug	
11	4351207	1	Bearing, Roller	
✤ 12	4351194	1	Gasket, Housing	
13	4251713	8	Bolt, Flange	
14	4351172	8	Bolt, Flange	
15	4351189	1	Cover	
✤ 16	4351187	1	O Ring	
17	4322573	2	Bolt, Flange	
✤	Included in 4351466 Lower Gasket Kit, **See 2.1**			

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11.1 Camshaft and Idle Gear Shaft

Serial No. All

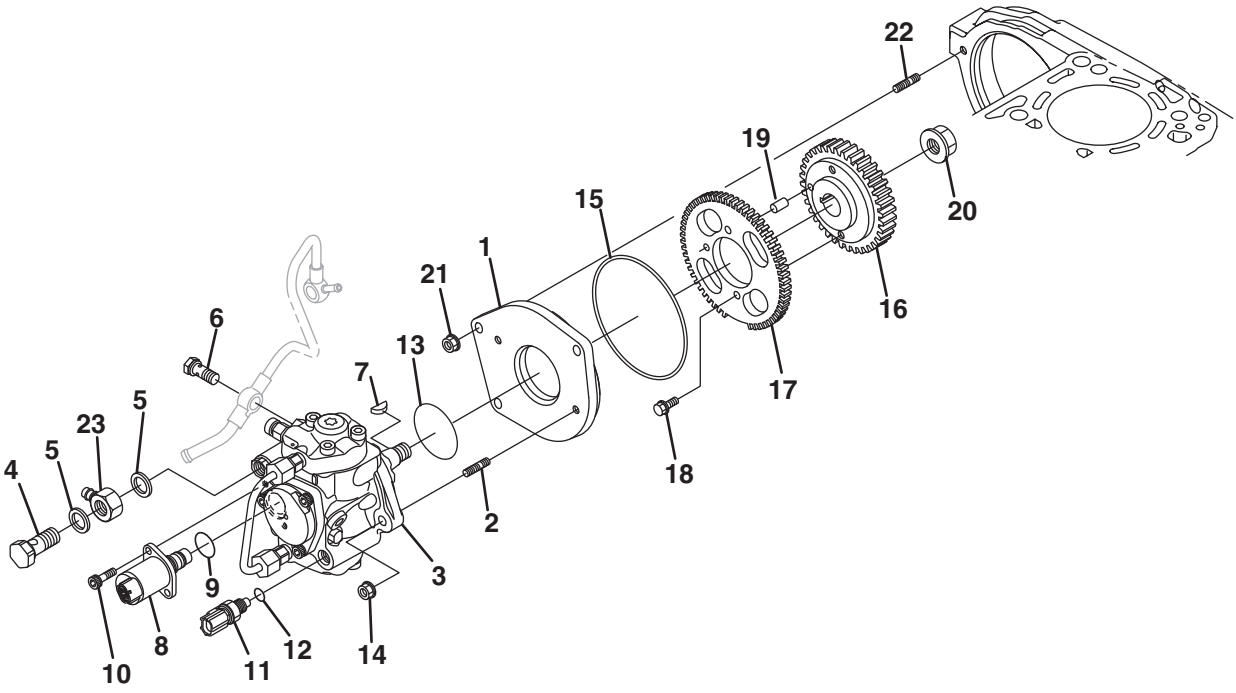


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4352368	1	Cover, Camshaft	
2	4352366	8	Tappet	
3	4352346	8	Push Rod	
4	4351749	1	Camshaft, Assy	
5	4351208	1	• Bearing, Roller	
6	4351750	1	• Gear, Cam	
7	594374	1	• Key, Feather	
8	4351220	1	• Pin, Pipe	
9	4352367	1	• Stopper, Camshaft	
10	2811976	3	Bolt, Flange	
11	4351287	1	Shaft,Idle Gear	
12	4351289	1	Collar	
13	4351306	1	Collar	
14	4352595	2	Bolt, Flange	
15	4351286	1	Gear, Comp Idle	
16	4351288	1	• Bushing, Idle Gear	

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12.1 Supply Pump

Serial No. All

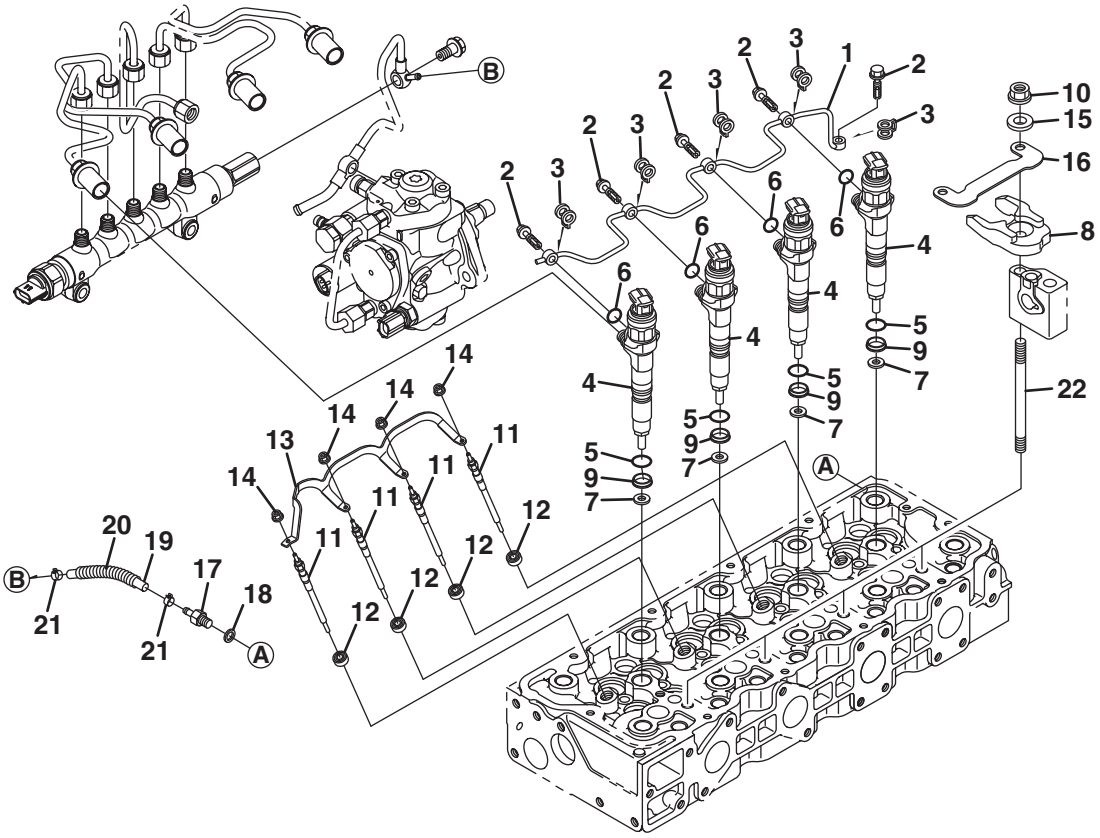


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4351326	1	Base, Supply Pump	
2	4350952	2	Stud	
3	4351315	1	Pump, Assy Supply	
4	4137996	1	• Screw, Follow	
✤ 5	4322576	2	• Gasket	
6	4322577	1	• Screw, Hollow	
7	4322579	1	• Key, Woodruff	
8	4322580	1	• Valve, Kit Scv	
9	4322581	1	• • O-ring	
10	4322582	2	• • Screw, Hex Soc. Cap	
11	4322583	1	• Sensor, Kit Fuel Temp.	
12	4322584	1	• • O-ring	
✤ 13	4251718	1	Gasket, Pump	
14	4137803	2	Nut, Flange	
✤ 15	4350926	1	Gasket, Injection Pump	
16	4351317	1	Gear, Supply Pump	
17	4351307	1	Gear	
18	4138249	2	Bolt, Flange	
19	594369	1	Pin, Straight	
20	4138068	1	Nut, Ubs	
21	4137803	3	Nut, Flange	
22	4350952	3	Stud	
23	2501172	1	Joint, Eye	
✤	Included in 4351466 Lower Gasket Kit, **See 2.1**			

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13.1 Injection Pipe

Serial No. All

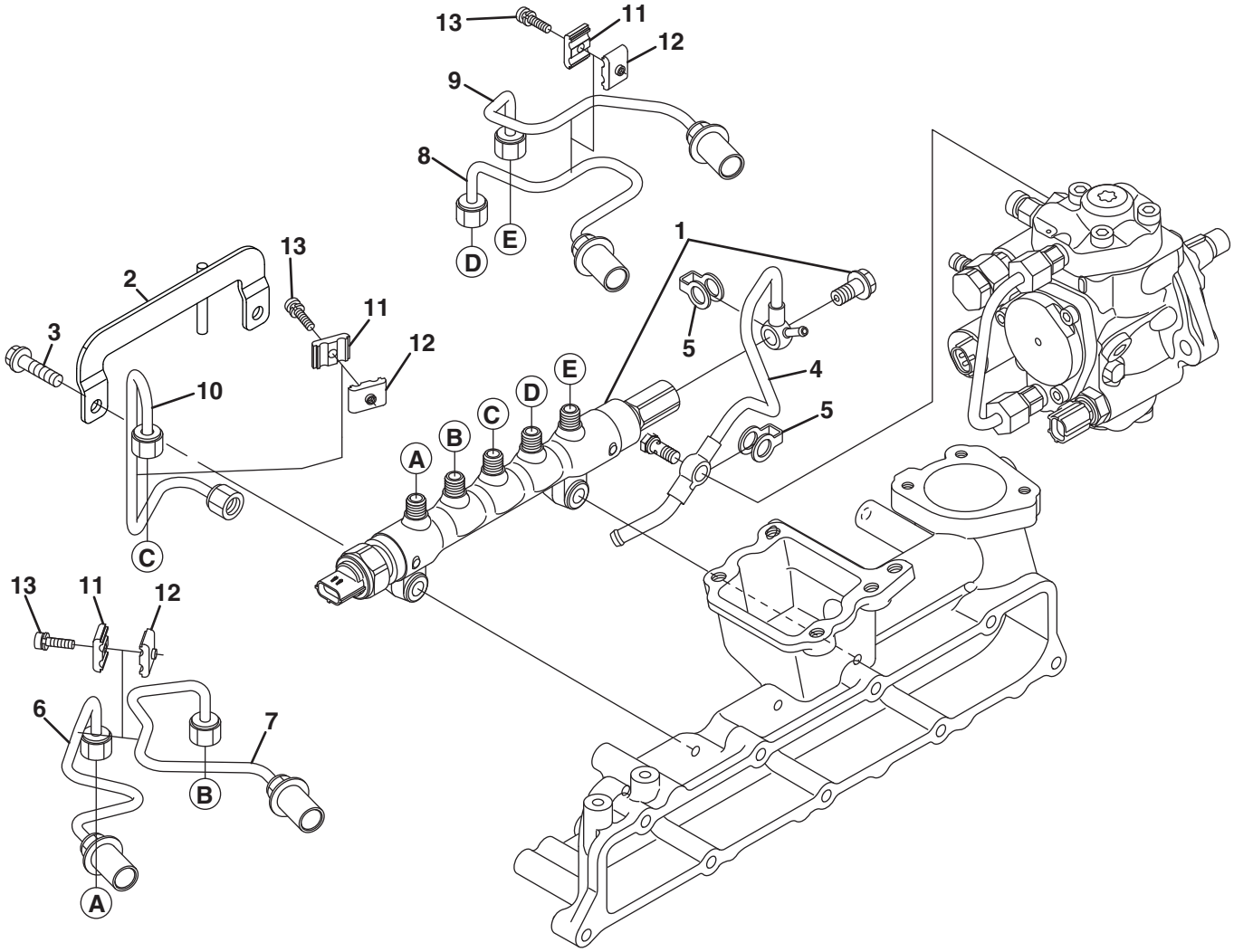


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4351313	1	Pipe, Assy Water Over Flow	
2	4138036	5	Bolt Joint, Swv Pipe	
★ 3	4322585	5	Gasket	
4	4351328	4	Injector, Assy	
★ 5	4351333	4	O-ring	
★ 6	4138026	4	O Ring	
★ 7	4251732	4	Packing	
8	4351329	4	Clamp Injector	
9	4351331	4	Bushing Injector	
10	4137803	4	Nut, Flange	
11	4351238	4	Glow Plug	
★ 12	4351146	4	Seal, Glow Plug	
13	4350990	1	Cord Glow Plug	
14	5001152	4	Nut, Flange	
15	4351330	4	Washer, Clamp, 1	
16	4351332	2	Washer, Clamp, 2	
17	4351327	1	Screw, Air Breather	
★ 18	4351310	1	Packing	
19	4351311	1	Tube, Fuel	
20	4351312	1	Protector, Tube	
21	4352807	2	Band, Pipe	
22	4351336	4	Stud, Clamp	
★	Included in 4350998 Upper Gasket Kit, **See 1.1**			

> Change from previous revision

14.1 Common Rail

Serial No. All

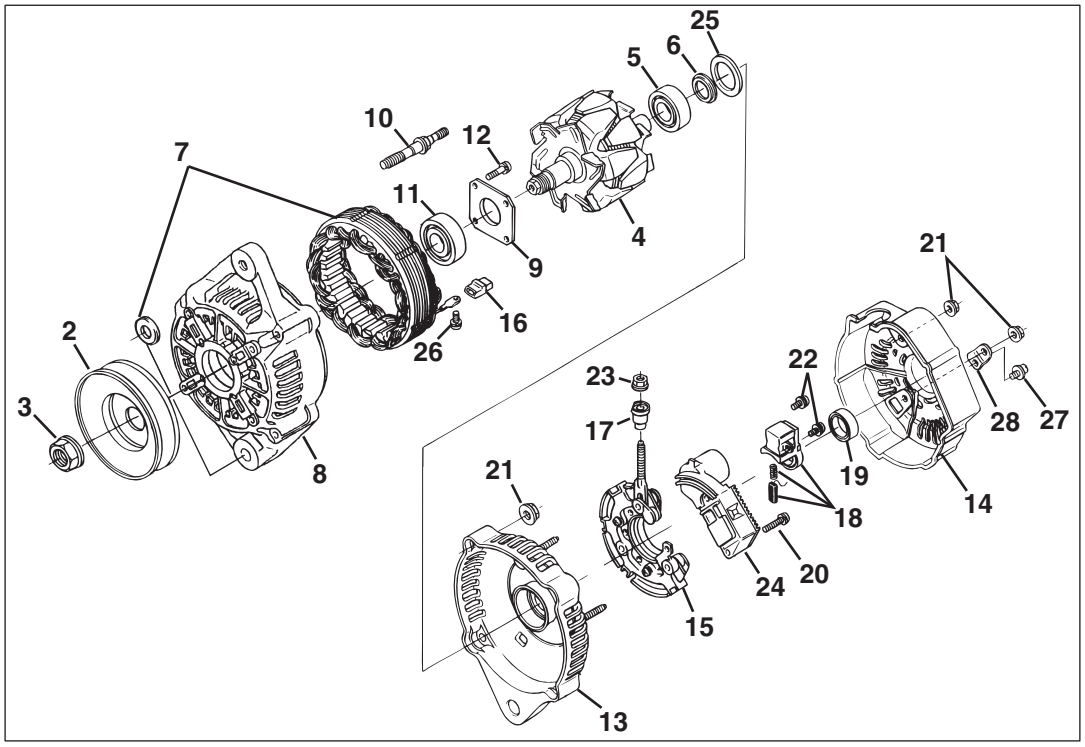


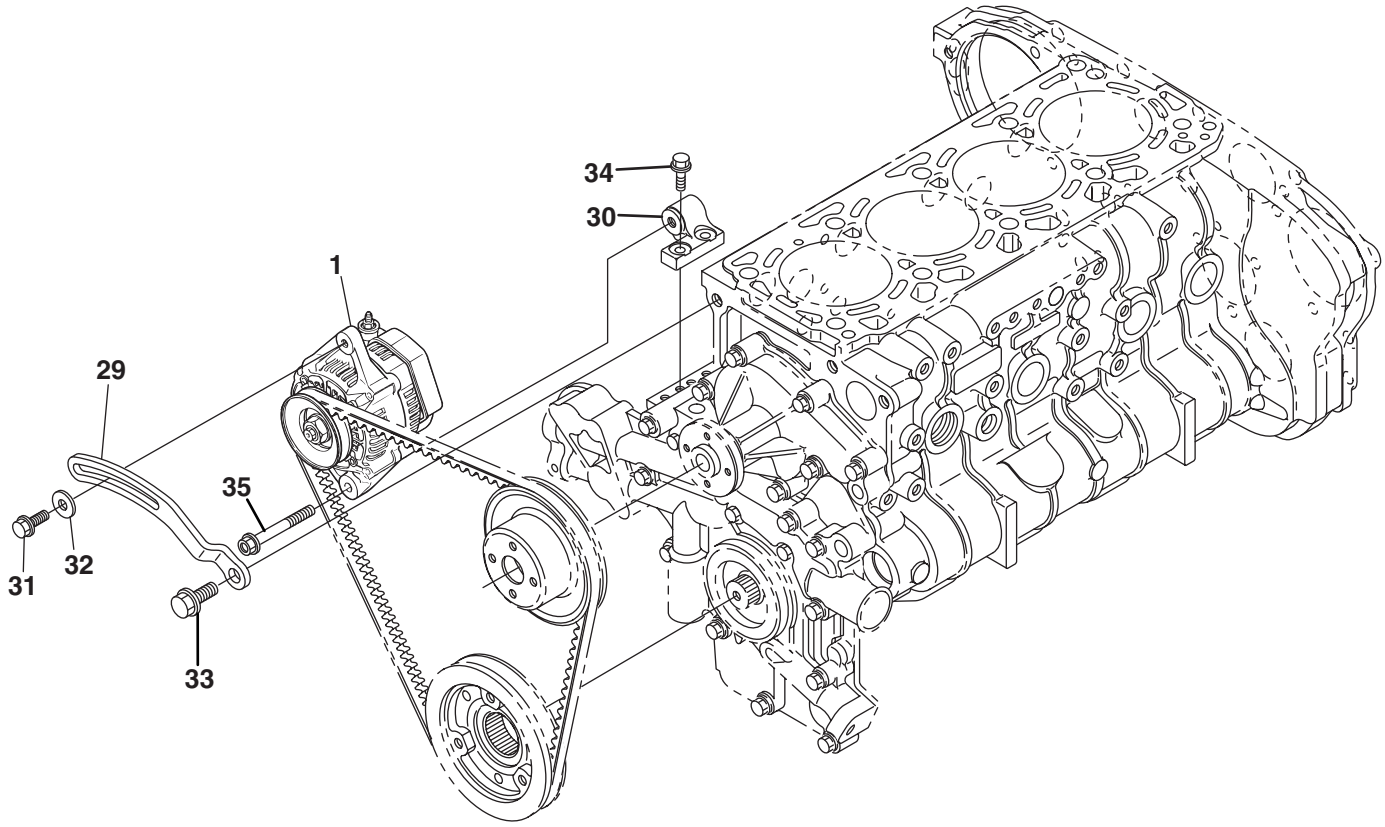
Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4351316	1	Assy Rail, Common	
2	4350973	1	Stay, Injection Pipe	
3	4136245	2	Bolt, Flange	
4	4351314	1	Pipe, Comp Water Over Flow	
★ ✤ 5	4350996	2	Gasket(Fuel)	
6	4351337	1	Pipe, Injection	
7	4351338	1	Pipe, Injection	
8	4350970	1	Pipe, Injection	
9	4350971	1	Pipe, Injection	
10	4350972	1	Pipe	
11	554054	3	Clamp, Pipe	
12	554055	3	Clamp, Pipe	
13	550401	3	Screw, Sems Pan Head	
✤	Included in 4351466 Lower Gasket Kit, **See 2.1**			
★	Included in 4350998 Upper Gasket Kit, **See 1.1**			

> Change from previous revision

15.1 Alternator

Serial No. All



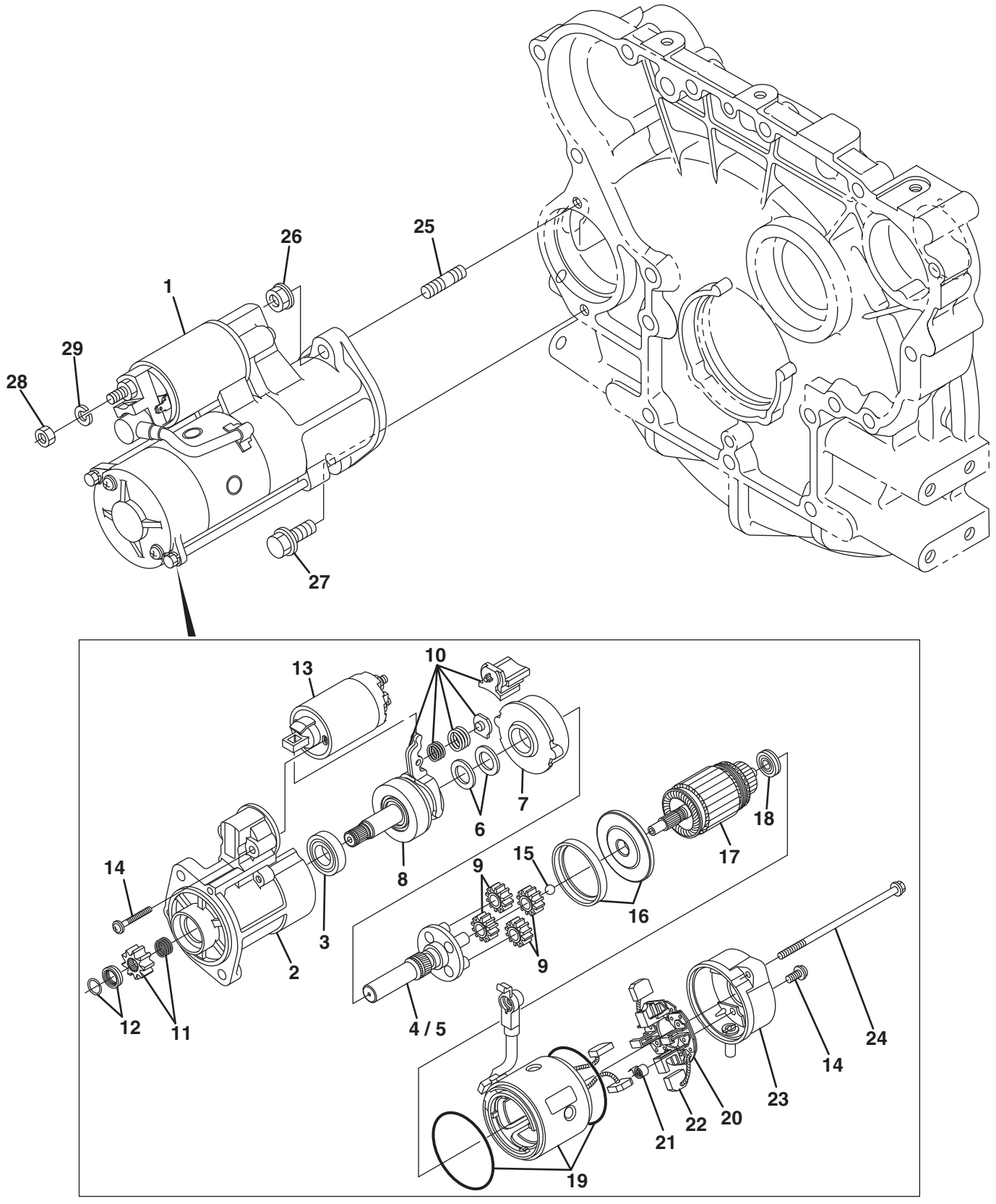


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4352948	1	Assy Alternator	12V90A
2	4352966	1	• Pulley, Alternator	
3	5001694	1	• Nut	
4	4352967	1	• Assy Rotor	
5	4351486	1	• • Bearing, Ball	
6	4352813	1	• • Ring, Seal	
7	4352949	1	• Assy Frame, Drive End	
8	557951	1	• • Cover, Bearing	
9	4352814	1	• • Plate, Retainer	
10	4352808	4	• • Bolt, Through	
11	4352815	1	• • Bearing, Ball	
12	4352926	4	• • Bolt	
13	4352809	1	• Frame, End	
14	4352986	1	• Cover, Rear End	
15	4353006	1	• Assy Rectifier	
16	4352826	4	• Bush, Insulation	
17	4353007	1	• Bush, Insulation	
18	4352810	1	• Holder, Brush	
19	4352811	1	• Ring, Seal	
20	4352908	2	• Screw, Round Head	
21	557970	7	• Nut	
22	557967	3	• Screw, Round Head	
23	4352906	1	• Nut	
24	4353008	1	• Assy Regulator	
25	4352886	1	• Washer	
26	4352928	4	• Screw, Round Head	
27	4352946	1	• Screw, Round Head	
28	4352867	1	• Plate, Terminal	
29	4351252	1	Stay, Dynamo	
30	4351250	1	Support, Dynamo	
31	4137992	1	Bolt, Flange	
32	594354	1	Washer, Plain	
33	4352606	1	Bolt, Flange	
34	4137992	2	Bolt, Flange	
35	4251867	1	Bolt, Flange	

> Change from previous revision

16.1 Starter

Serial No. All

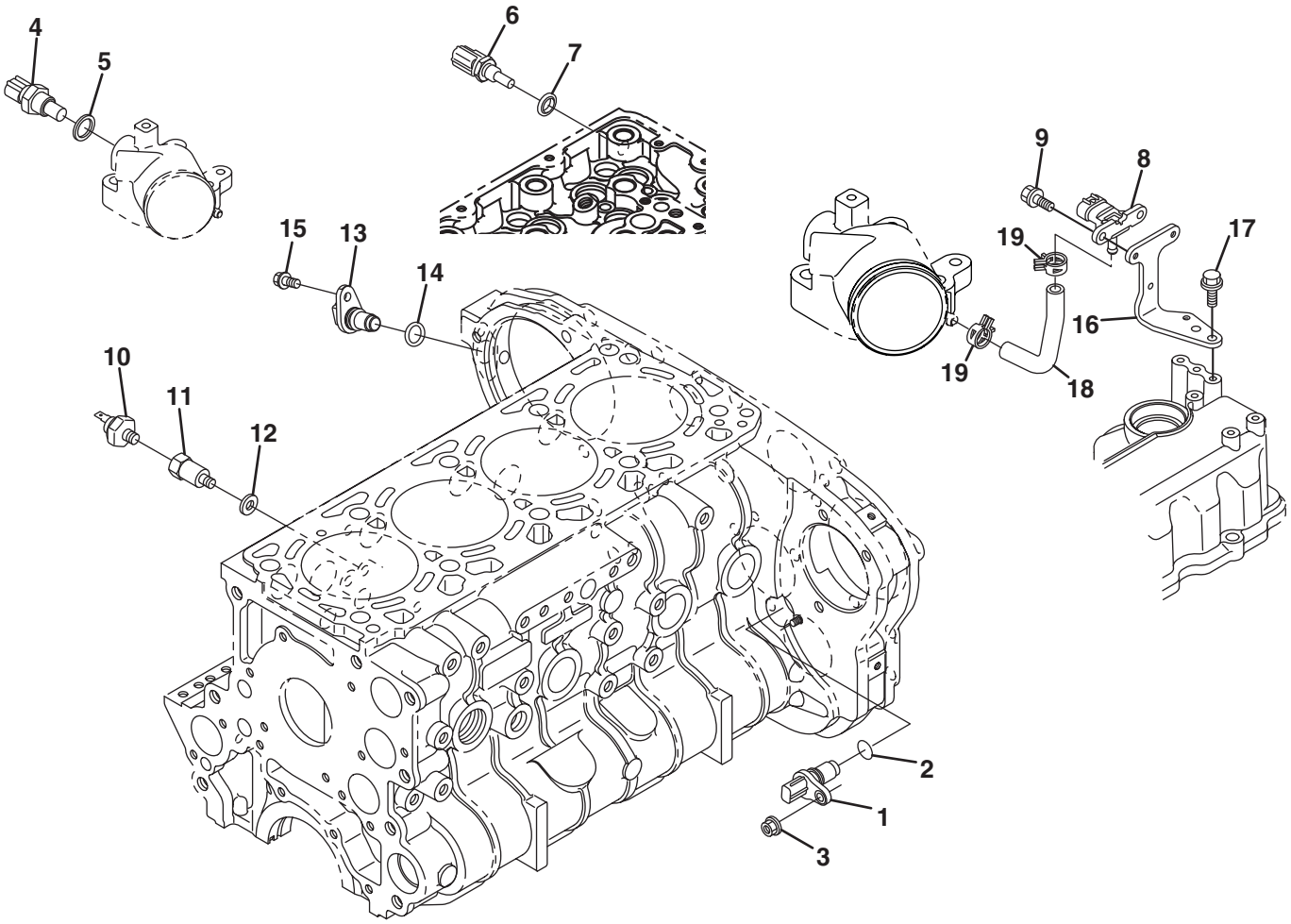


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4351225	1	Assy Starter	12V 3.0 KW
2	4351227	1	• Assy Bracket, Front	
3	4138143	1	• Set Bearing	
4	4251749	1	• Assy Shaft, Clutch	
5	4251750	1	• • Assy Shaft, Gear	
6	4138146	1	• • Set Washer	
7	4138147	1	• • Set Gear	
8	4138148	1	• • Clutch, Over Running	
9	4138149	4	• • Assy Gear	
10	4251751	1	• Assy Lever, Set	
11	4251752	1	• Set Pinion	
12	4138152	1	• Set Stopper	
13	4138153	1	• Assy Switch, Magnetic	
14	4251753	1	• Set Screw	
15	4138157	1	• Ball	
16	4138158	1	• Set, Packing	
17	4251754	1	• Assy Armature	
18	4138160	1	• Bearing	
19	4351228	1	• Assy Yoke	
20	4251756	1	• Assy Holder, Brush	
21	4251757	4	• Brush, Spring	
22	4251758	2	• Brush	
23	4351232	1	• Assy Bracket, Rear	
24	4251760	1	• Set, Bolt	
25	4297100	1	Bolt, Stud	
26	4251684	1	Nut, Flange	
27	4138138	1	Bolt, Flange	
28	553851	1	Hex. Nut	
29	5002002	1	Washer, Spring Lock	

> Change from previous revision

17.1 Switches and Sensors

Serial No. All

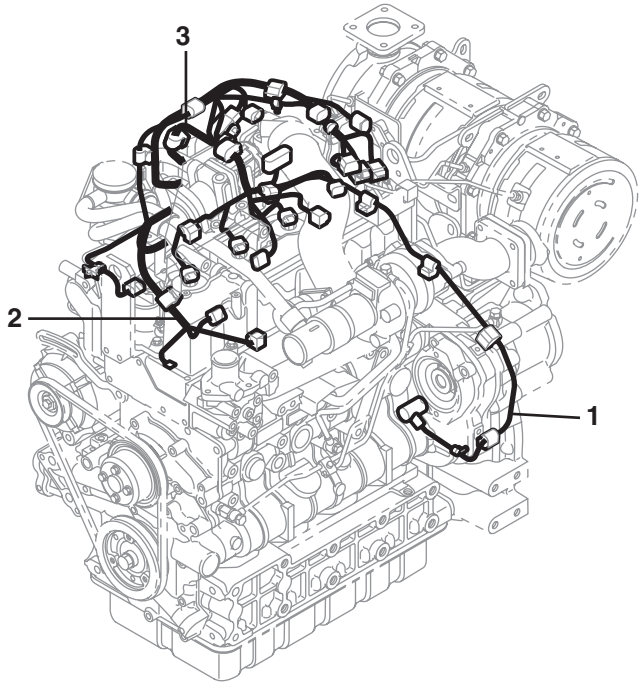


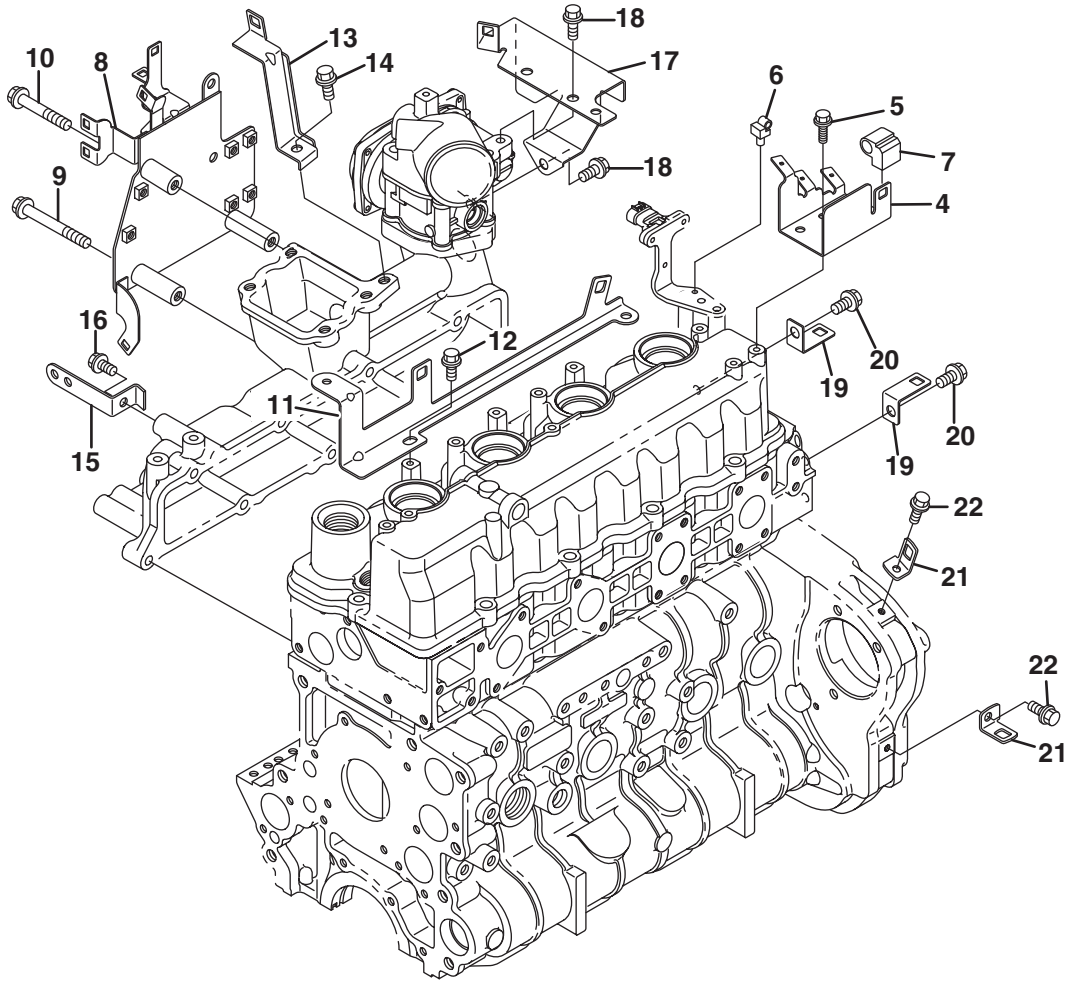
Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4251850	1	Sensor G	Cam Position Sensor
✤ 2	4251851	1	O Ring	
3	2810647	1	Nut, Flange	
4	4251855	1	Sensor, Thermo	
★ 5	556920	1	Packing	
6	4251858	1	Sensor, Water Temp.	
★ 7	4251859	1	Washer, Seal	
8	4322611	1	Sensor, Boost	
9	4138249	2	Bolt, Flange	
10	4318374	1	Switch, Oil	
11	4351467	1	Bolt, Connect.	
✤ 12	552958	1	Packing	
13	4350975	1	Sensor, Ne	Crank Position Sensor
✤ 14	4350949	1	O Ring	
15	557366	1	Bolt, Flange	
16	4350976	1	Bracket, Boost	
17	557366	2	Bolt, Flange	
18	4350974	1	Tube, Boost	
19	4297110	2	Clamp, Hose	
✤	Included in 4351466 Lower Gasket Kit, **See 2.1**			
★	Included in 4350998 Upper Gasket Kit, **See 1.1**			

> Change from previous revision

18.1 Wire Harnesses and Brackets

Serial No. All



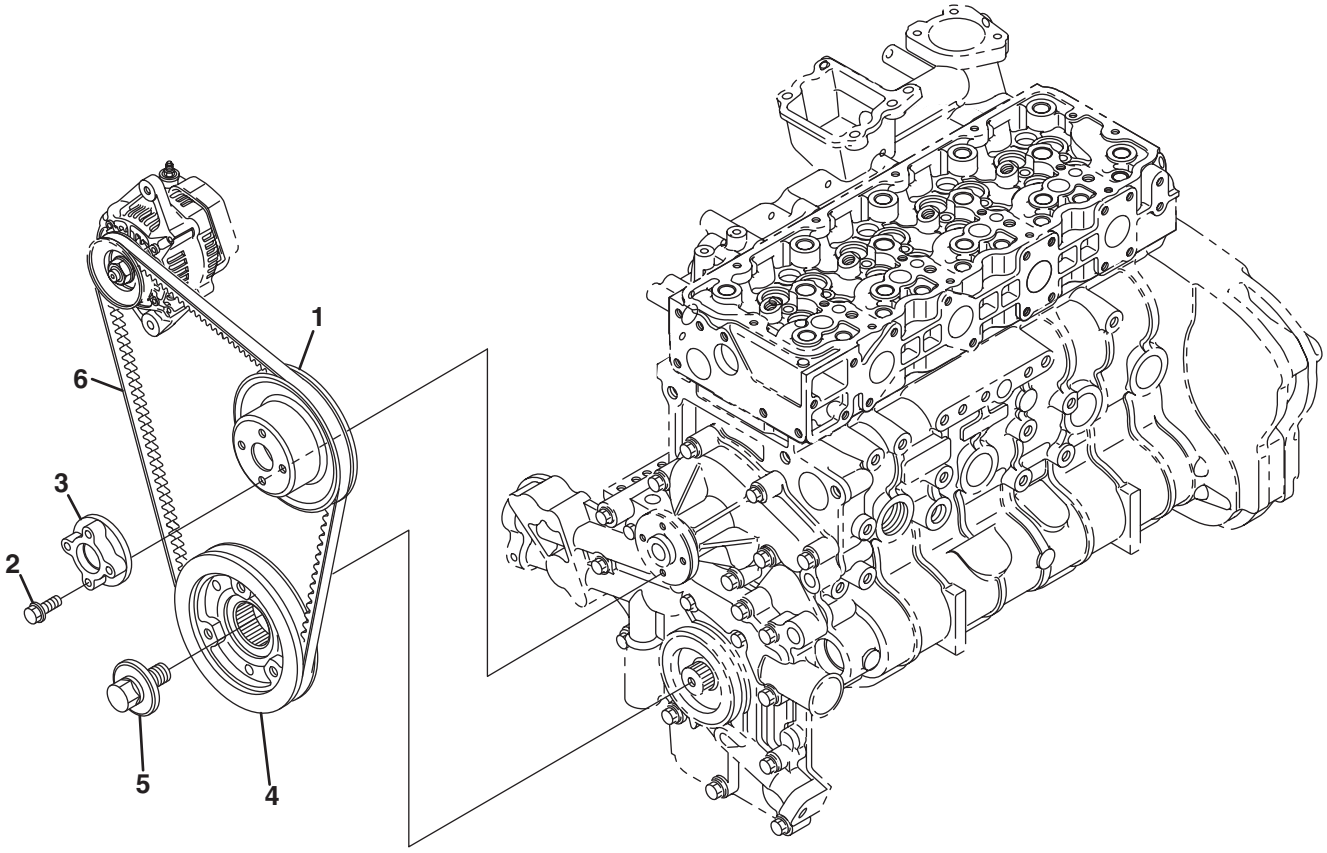


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4350979	1	Harness, Wire, Assy CRS	
2	4350980	1	Harness, Wire, Assy Injector	
3	4350981	1	Harness, Wire, Assy DPF	
4	4350982	1	Bracket, Wh, 7	
5	4297102	2	Bolt, Flange	
6	4351606	1	Clamp	
7	4322620	1	Clamp	
8	4350983	1	Comp. Bracket, Harness	
9	4138264	2	Bolt, Flange	
10	4138175	1	Bolt, Flange	
11	4350984	1	Bracket, Comp, Wh, 2	
12	4297102	2	Bolt, Flange	
13	4350986	1	Bracket, Harness, Wire	
14	4198160	1	Bolt, Flange	
15	4350987	1	Bracket, Wh, 4	
16	4198160	1	Bolt, Flange	
17	4350988	1	Bracket, Wh, 5	
18	4198160	3	Bolt, Flange	
19	4350989	2	Bracket, Wh, 6	
20	4198160	2	Bolt, Flange	
21	4351587	2	Plate, Clamp	
22	557943	2	Bolt, Flange	

> Change from previous revision

19.1 Pulley and Belt

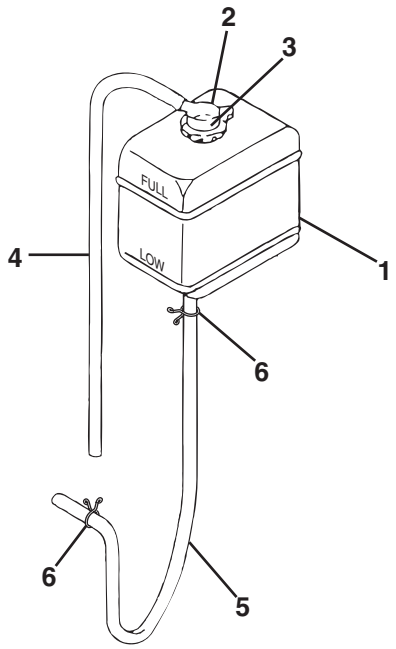
Serial No. All



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4202320	1	Pulley, Fan	
2	4334458	4	Bolt, Flange	
3	4351253	1	Collar, Fan	
4	4351192	1	Pulley, Fan Drive	
5	4322610	1	Bolt	
6	4352107	1	Belt, Fan	

> Change from previous revision

20.1 Reserve Tank

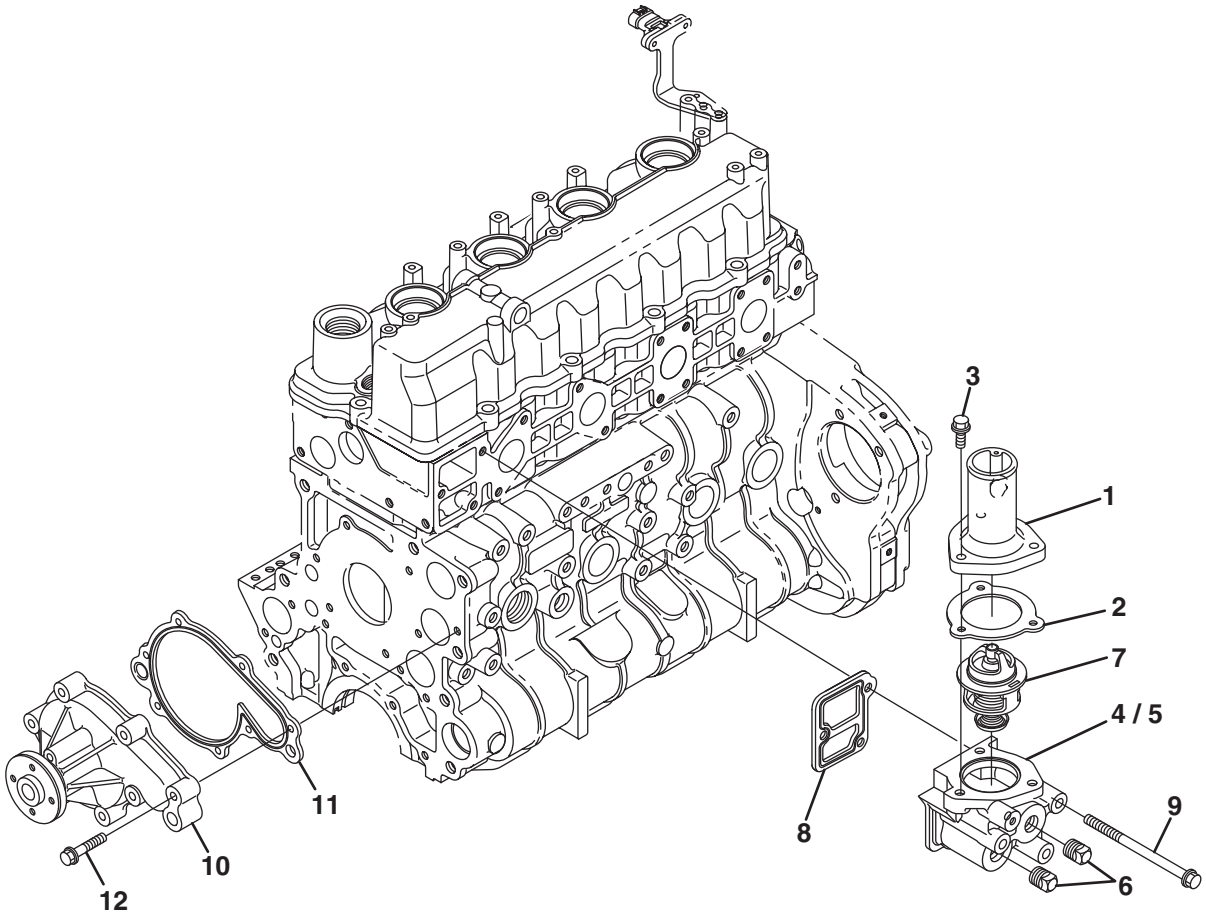


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	557367	1	Tank, Assy(Reserve)	
2	557984	1	Cap	
3	2500815	1	Packing	
4	557370	1	Pipe, Water Over Flow	
5	557371	1	Pipe, Water Over Flow	
6	553914	2	Clip, Pipe	

> Change from previous revision

21.1 Water Pump and Thermostat

Serial No. All

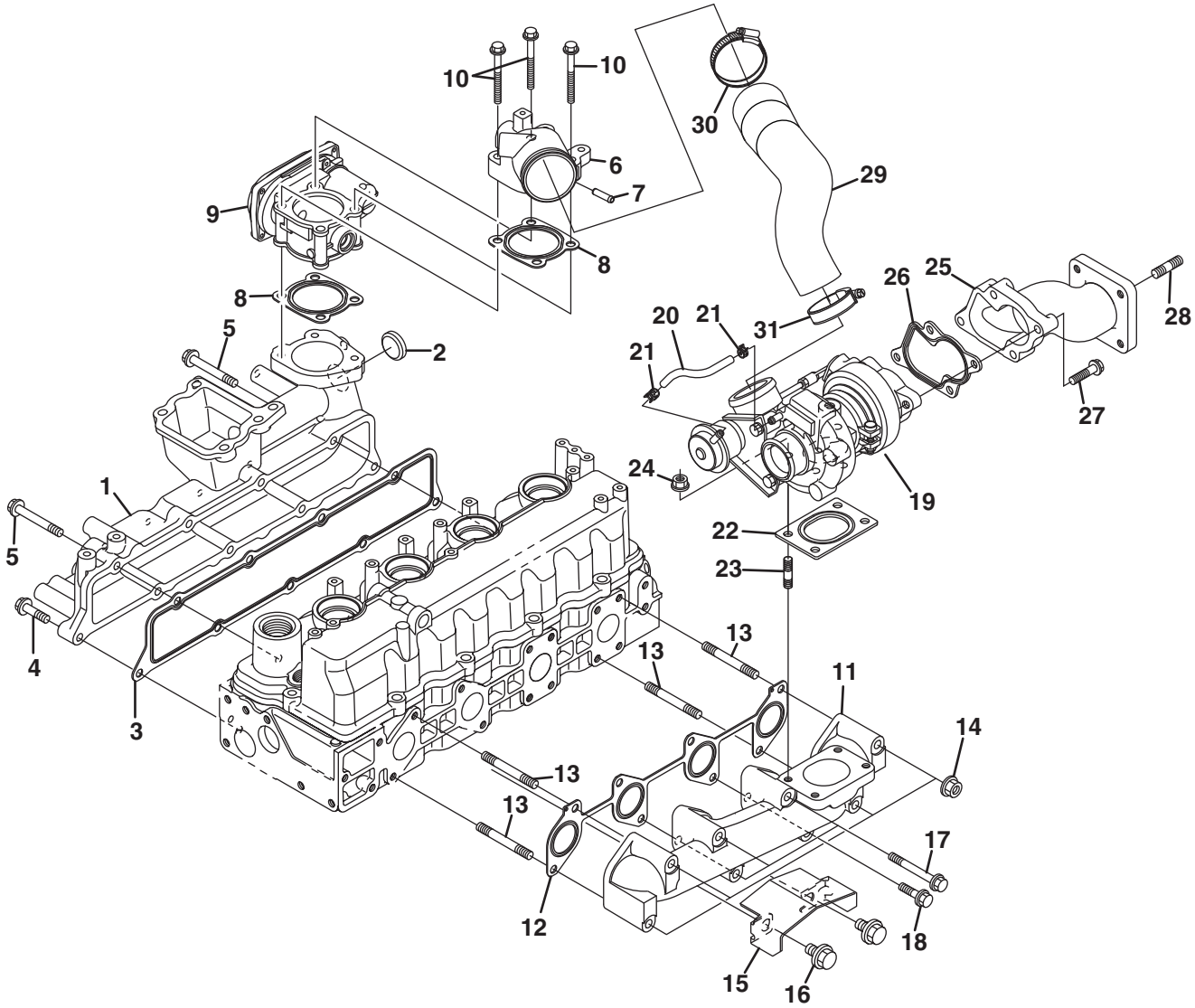


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4352106	1	Cover, Thermostat	
★ 2	4351169	1	Gasket	
3	4137992	3	Bolt, Flange	
4	4351190	1	Comp. Flange, Water	
5	4351167	1	Flange, Water	
6	4351566	2	Plug	
7	4138178	1	Thermostat, Assy	
★ 8	4351166	1	Gasket, Water Flange	
9	4138222	3	Bolt, Flange	
10	4351168	1	Assy Pump, Water	
✤ 11	4351170	1	Gasket, Water Pump	
12	4136245	7	Bolt, Flange	
✤	Included in 4351466 Lower Gasket Kit, **See 2.1**			
★	Included in 4350998 Upper Gasket Kit, **See 1.1**			

> Change from previous revision

22.1 Intake and Exhaust Manifold

Serial No. All

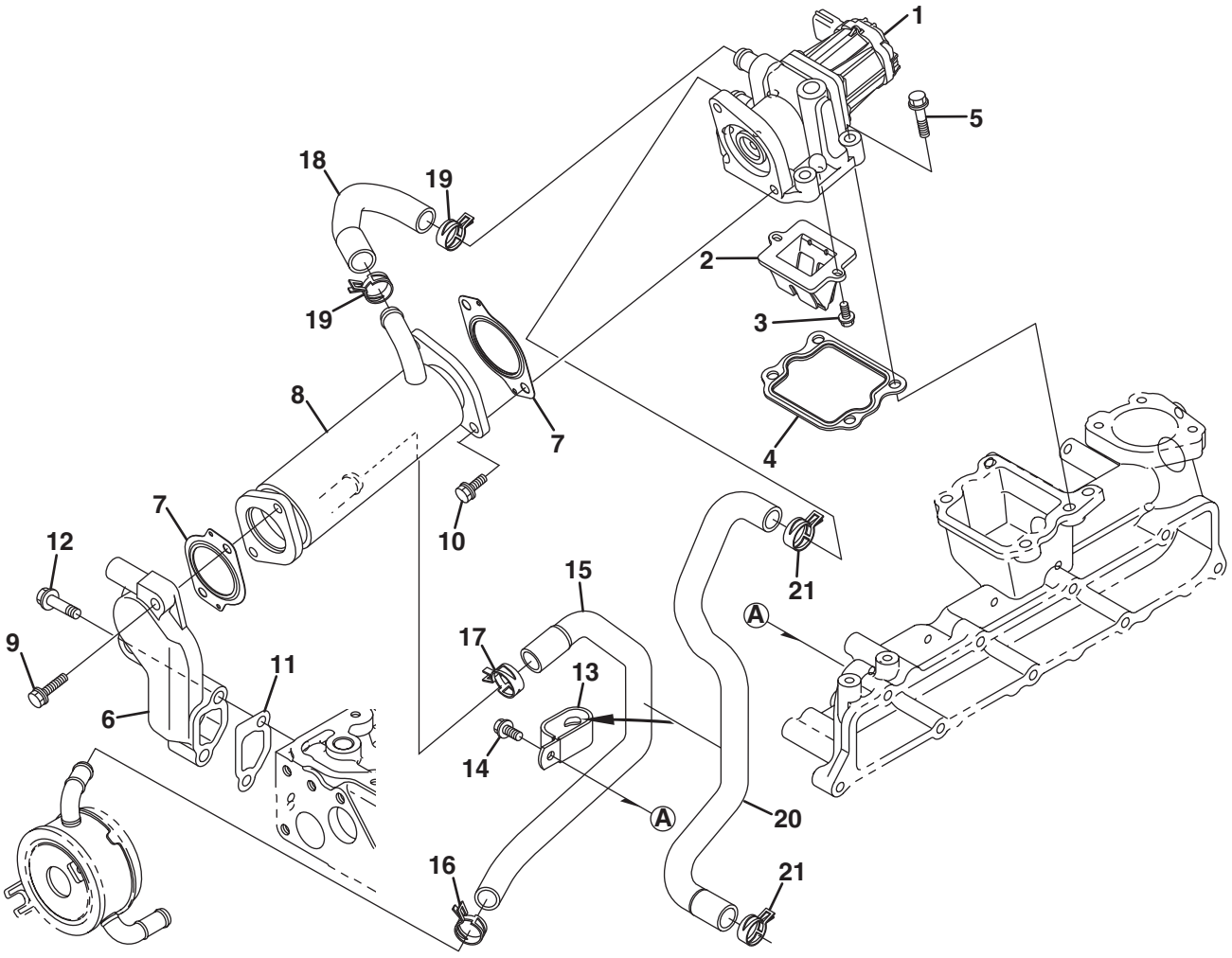


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4351687	1	Manifold, Assy Inlet	
2	550673	1	• Cap, Sealing	
★ 3	4352187	1	Gasket, In-manifold	
4	4138240	7	Bolt, Flange	
5	4138186	2	Bolt, Flange	
6	4350966	1	Flange, Comp Inlet	
7	4251773	1	• Pipe, Boost	
★ 8	4351686	2	Gasket, Inlet Flange	
9	4351670	1	Valve, Throttle, Assy	
10	4138186	3	Bolt, Flange	
11	4351706	1	Manifold, Exhaust	
★ 12	4351746	1	Gasket, Ex-manifold	
13	4351240	4	Bolt, Stud	
14	4297135	4	Nut, Flange	
15	4350958	1	Shield, Exhaust Manifold	
16	4352594	1	Bolt, Flange	
17	4351586	3	Bolt, Flange	
18	4350995	1	Bolt, Flange	
19	4351751	1	Turbocharger, Assy	
20	4353009	1	• Assy Hose	
21	4177247	2	• • Clamp, Hose	
★ 22	4251794	1	Gasket	
23	4297134	4	Bolt, Stud	
24	4297135	4	Nut, Flange	
25	4351727	1	Flange, Muffler	
★ 26	4350948	1	Gasket	
27	4350947	4	Bolt, Flange	
28	4352526	4	Bolt, Stud	
29	4351672	1	Hose, Inlet	
30	4323281	1	Clamp, Hose	
31	4297263	1	Clamp, Hose	
★	Included in 4350998 Upper Gasket Kit, **See 1.1**			

> Change from previous revision

23.1 EGR Valve

Serial No. All

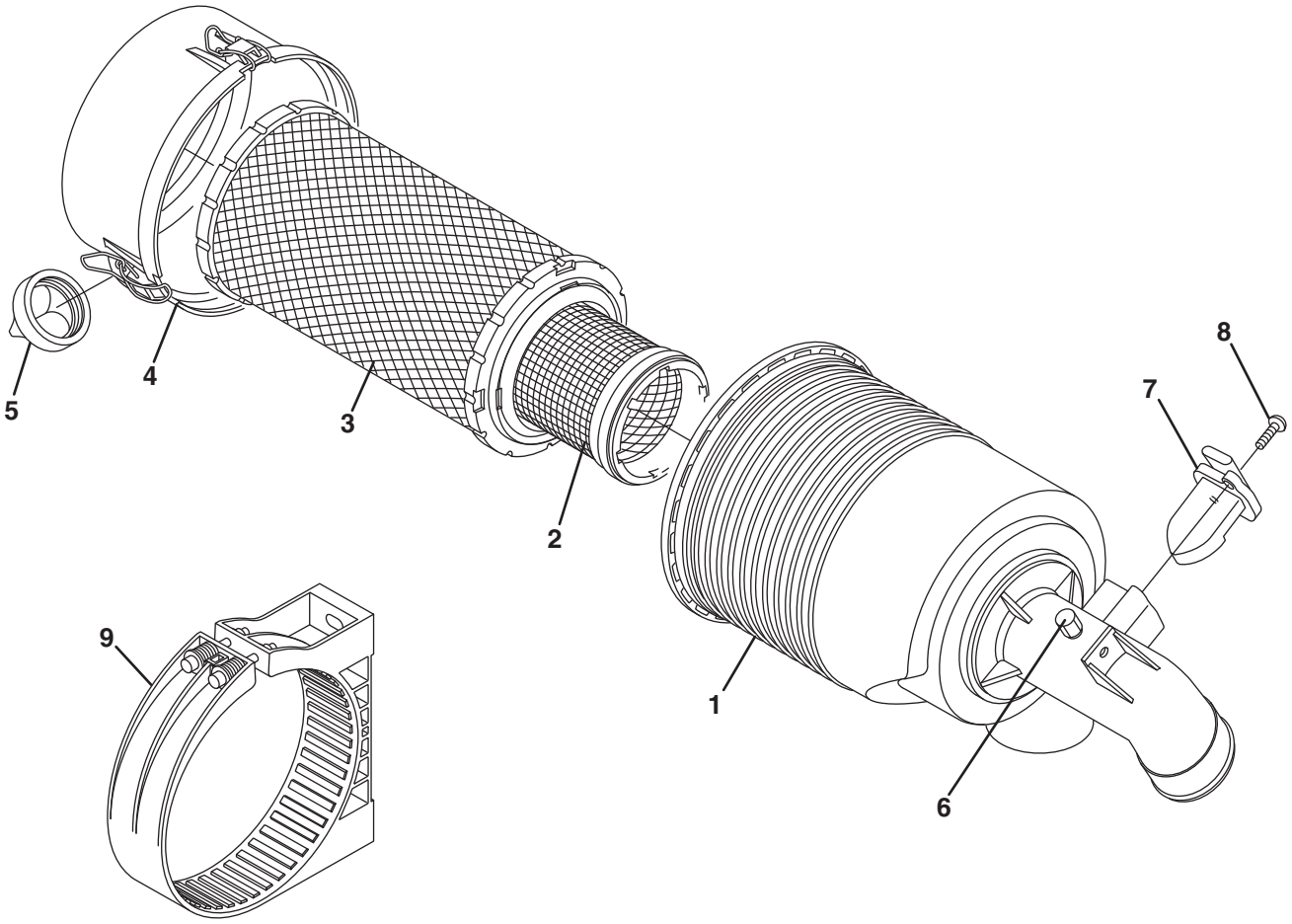


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4350978	1	Valve, Assy EGR	
2	4251778	1	Valve, Lead	
3	4138249	2	Bolt, Flange	
★ 4	4351766	1	Gasket, EGR Valve	
5	4138240	4	Bolt, Flange	
6	4351752	1	Base, EGR Cooler	
★ 7	4351767	2	Gasket, EGR Cooler	
8	4350991	1	Cooler, Comp EGR	
9	4137992	2	Bolt, Flange	
10	4137820	2	Bolt, Flange	
★ 11	4351768	1	Gasket	
12	4136245	2	Bolt, Flange	
13	4350951	1	Clamp, Hose	
14	4352589	1	Bolt, Flange	
15	4350992	1	Pipe, Water	
16	4134368	1	Band, Hose	
17	4198233	1	Clamp, Hose	
18	4350993	1	Pipe, Water	
19	4198233	2	Clamp, Hose	
20	4350994	1	Pipe, Water	
21	4198233	2	Clamp, Hose	
★	Included in 4350998 Upper Gasket Kit, **See 1.1**			

> Change from previous revision

24.1 Air Cleaner

Serial No. All



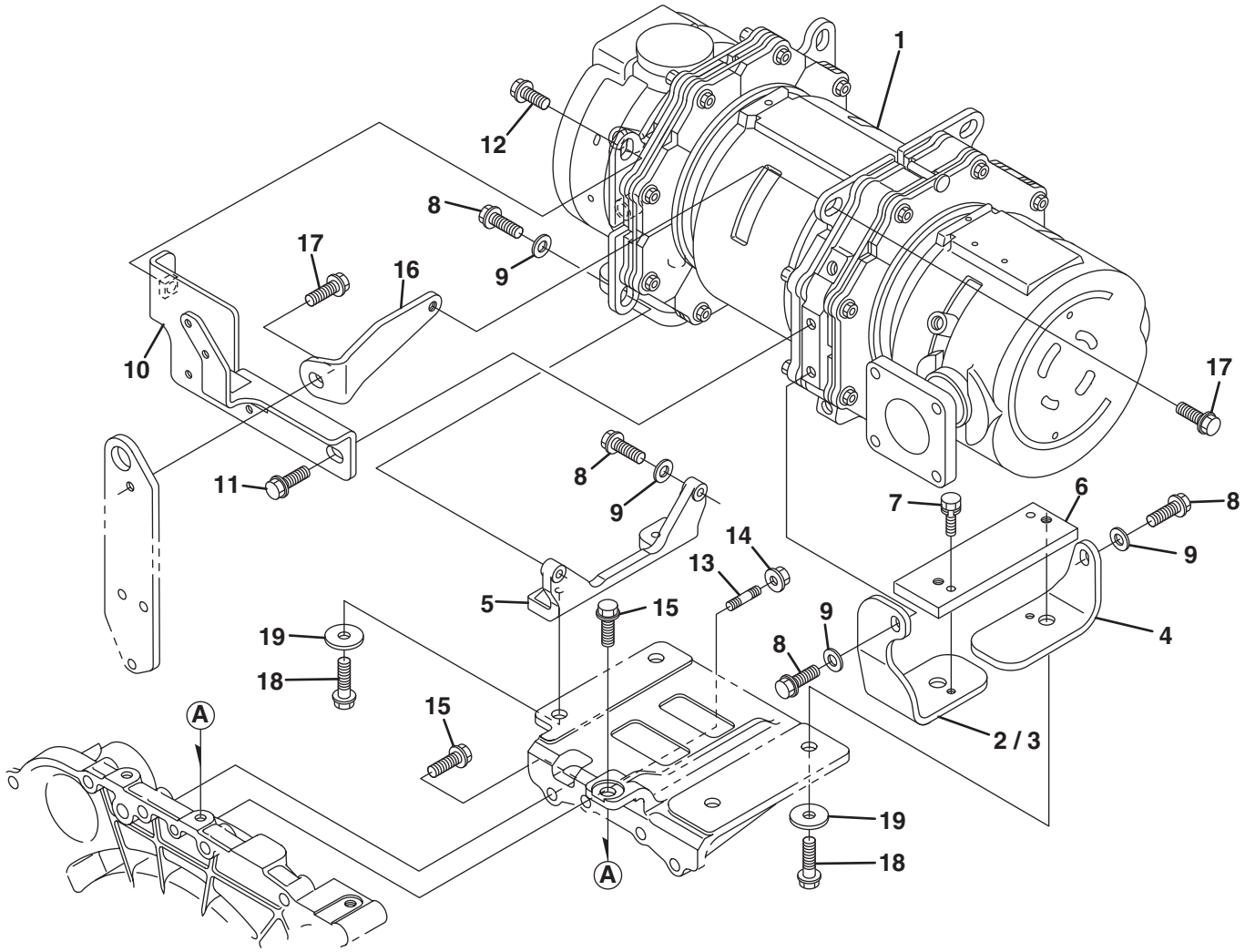
Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4330048	1	Cleaner, Air, Assy	
2	4351487	1	Element, Inner	
3	4351527	1	Assy Element, A/c	
4	4351488	1	Assy Cover	
5	4323567	1	Valve	
6	4351526	1	Cap, Nipple	
7	4297131	1	Sensor, Air Flow	
8	4297103	2	Screw, Pan Head Phillips	
9	4330049	1	Bracket	

> Change from previous revision

25.1 DPF Muffler

Serial No. All

Diesel Particulate Filter



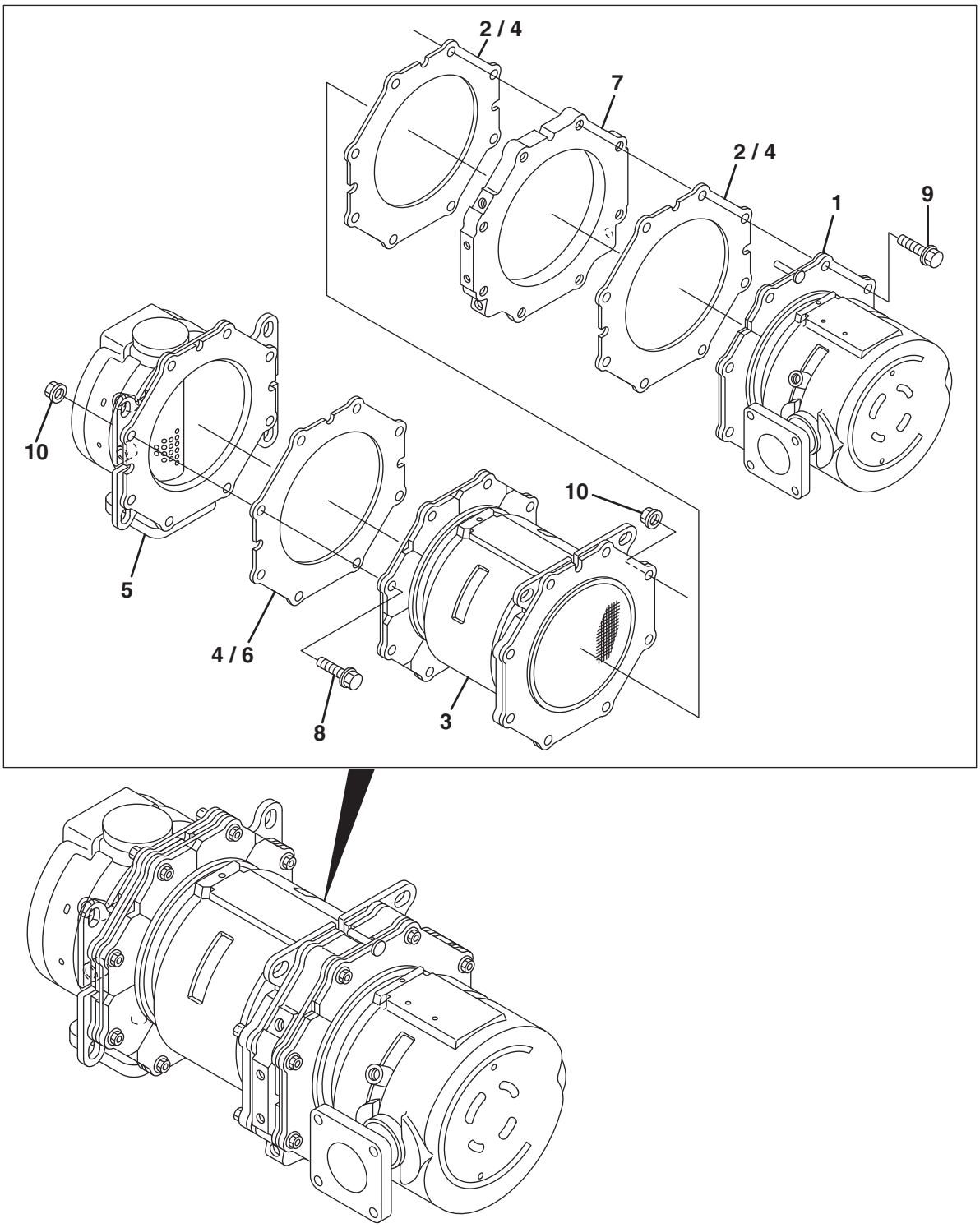
Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	N/S	1	Muffler, Assy DPF	**See 25.1**
2	4351247	1	Bracket, Assy DPF, 1	
3	4351249	1	Bracket, DPF, F	
4	4351251	1	Bracket, DPF, R	
5	4352066	1	Bracket, DPF, 2	
6	4351244	1	Plate	
7	550362	2	Bolt, Sems	
8	4323573	4	Bolt, Flange	
9	4323574	4	Washer, Plain	
10	4352086	1	Bracket, Pressure Sensor	
11	4251688	1	Bolt, Flange	
12	4322573	1	Bolt, Flange	
13	4352587	2	Bolt, Stud	
14	4138000	2	Nut, Flange	
15	4352606	3	Bolt, Flange	
16	4351245	1	Stay, DPF	
17	4322573	2	Bolt, Flange	
18	4137790	4	Bolt, Flange	
19	4352607	4	Washer, Plain	

> Change from previous revision

26.1 Illustration Description

Serial No. All

Illustration Description 2

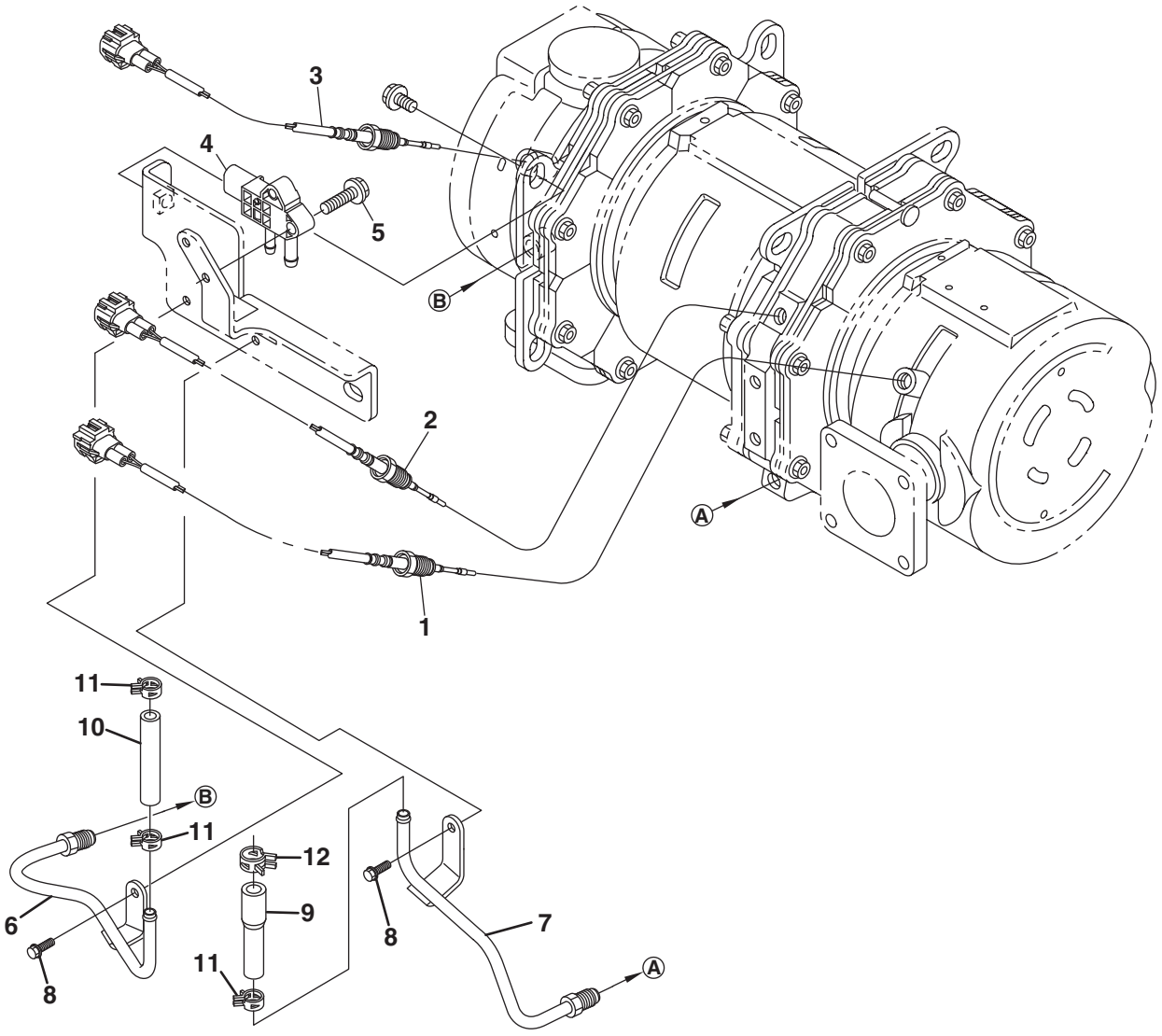


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4351268	1	Catalyst, Kit Doc	
2	4351223	2	• Gasket, DPF	
3	4351267	1	Filter, Kit DPF	
3	4351266	1	Filter, Kit DPF, Ex	Remanufactured
4	4351223	3	• Gasket, DPF	
5	4352067	1	Body, Kit	
6	4351223	2	• Gasket, DPF	
7	4351769	1	Collar, DPF	
8	4137790	8	Bolt, Flange	
9	4323582	8	Bolt, Flange	
10	4323583	16	Nut, Flange	

> Change from previous revision

27.1 DPF Sensor

Serial No. All

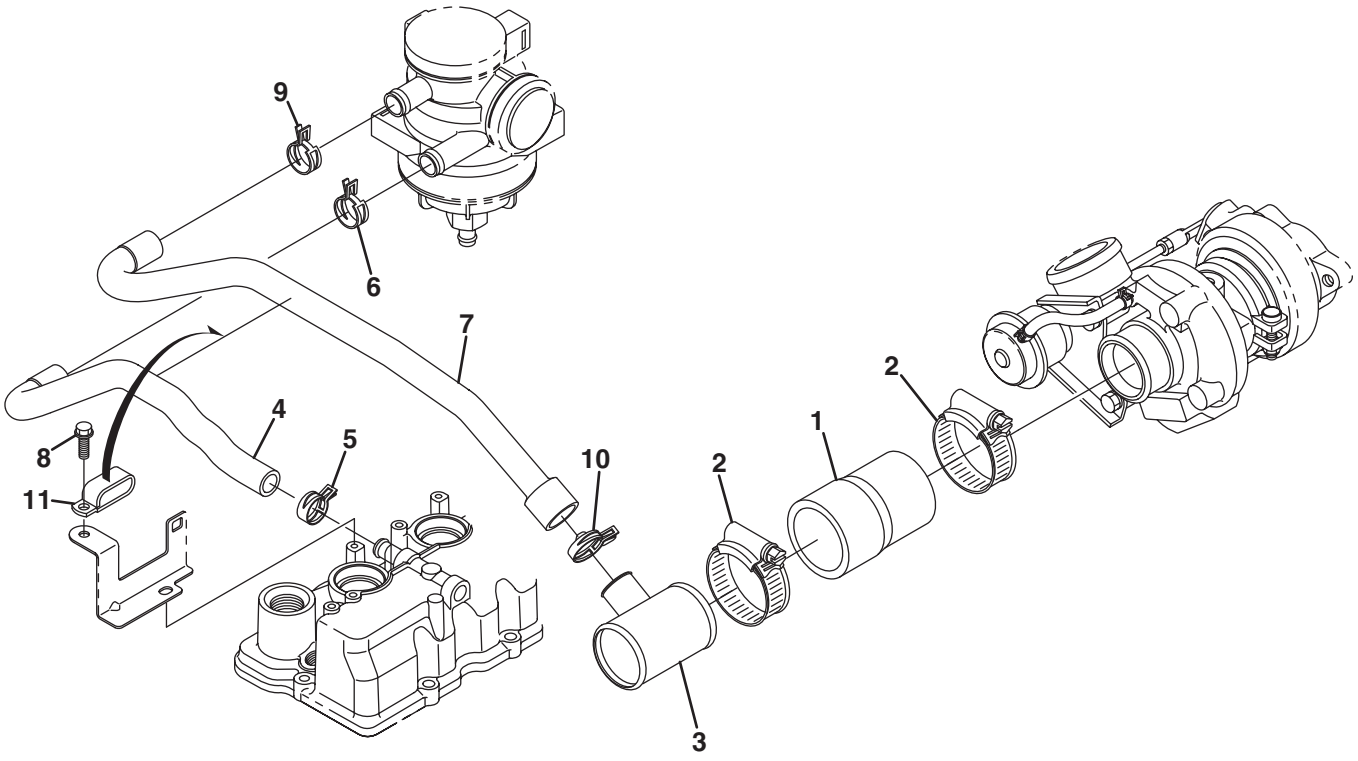


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4351226	1	Sensor, Thermo, 0	
2	4351229	1	Sensor, Thermo, 1	
3	4351231	1	Sensor, Thermo, 2	
4	4297132	1	Sensor	
5	4134384	2	Bolt, Flange	
6	4351233	1	Pipe, Comp Pressure, 1	
7	4351236	1	Pipe, Comp Pressure, 2	
8	4138249	2	Bolt, Flange	
9	4351239	1	Tube Pressure, In	
10	4351242	1	Tube Pressure, Ex	
11	4306361	3	Clamp, Hose	
12	4297111	1	Clamp, Hose	

> Change from previous revision

28.1 Breather and Separator Pipes

Serial No. All

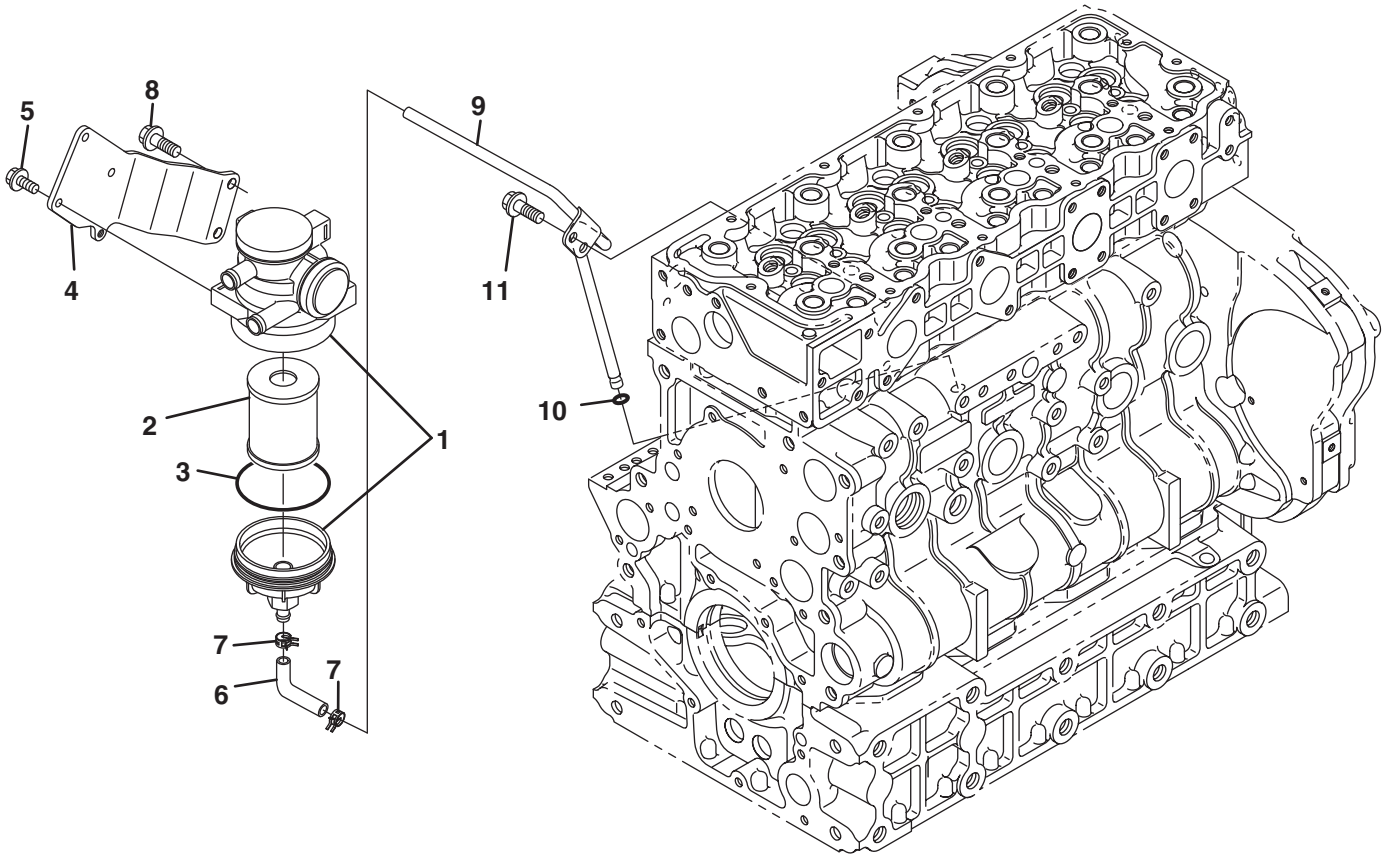


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4351671	1	Hose, Breather, Turbo	
2	4297263	2	Clamp, Hose	
3	4297120	1	Pipe, Breather	
4	4351646	1	Tube 1, Separator	
5	4352786	1	Clamp, Hose	
6	5003612	1	Clamp, Hose	
7	4351666	1	Tube, Separator	
8	4138249	1	Bolt, Flange	
9	5003612	1	Clamp, Hose	
10	4297113	1	Clamp, Hose	
11	4350951	1	Clamp, Hose	

> Change from previous revision

29.1 Oil Separator

Serial No. All

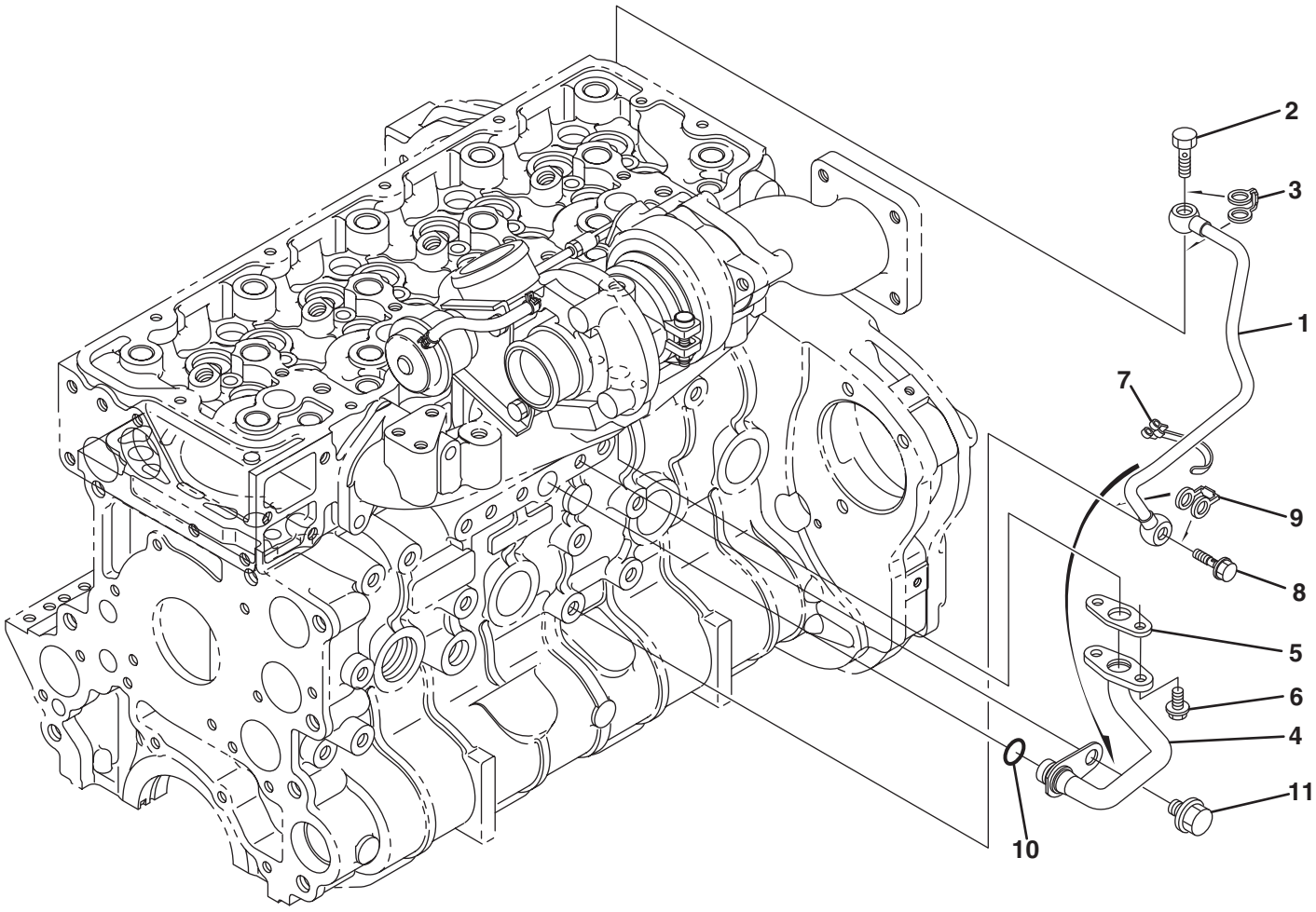


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4318327	1	Assy Separator	
2	4297137	1	• Element, Kit	
3	4297136	1	• O-ring	
4	4350967	1	Bracket, Separator	
5	4138249	3	Bolt, Flange	
6	4350969	1	Tube, Oil Return	
7	4297112	2	Clamp, Hose	
8	4137820	2	Bolt, Flange	
9	4351667	1	Pipe, Comp Oil Return, 1	
✤ 10	4351669	1	O-ring	
11	4198160	2	Bolt, Flange	
✤	Included in 4351466 Lower Gasket Kit, **See 2.1**			

> Change from previous revision

30.1 Turbocharger Oil Pipe

Serial No. All

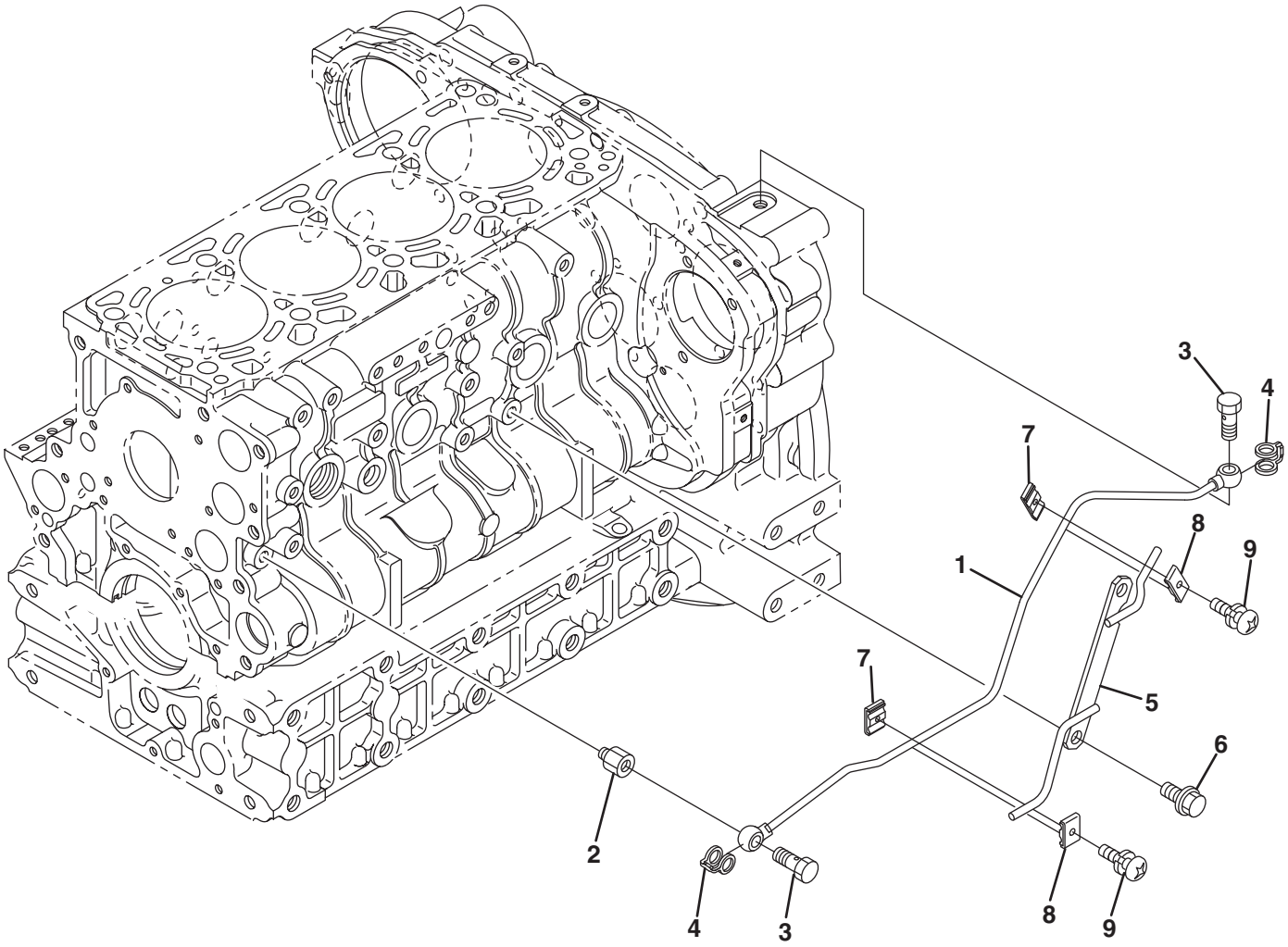


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4351308	1	Pipe, Comp	
2	4138243	1	Bolt, Eye Joint	
★ 3	4251799	1	Gasket	
4	4351309	1	Pipe, Comp Oil	
★ 5	4134419	1	Gasket, Oil Pipe Tc	
6	4138249	2	Bolt, Flange	
7	4351219	1	Clamp, Pipe	
8	4351806	1	Bolt, Eye Joint	
✤ 9	4350957	1	Gasket	
10	4352726	1	Ring	
11	4352594	1	Bolt, Flange	
✤	Included in 4351466 Lower Gasket Kit, **See 2.1**			
★	Included in 4350998 Upper Gasket Kit, **See 1.1**			

> Change from previous revision

31.1 Side PTO Oil Pipe

Serial No. All

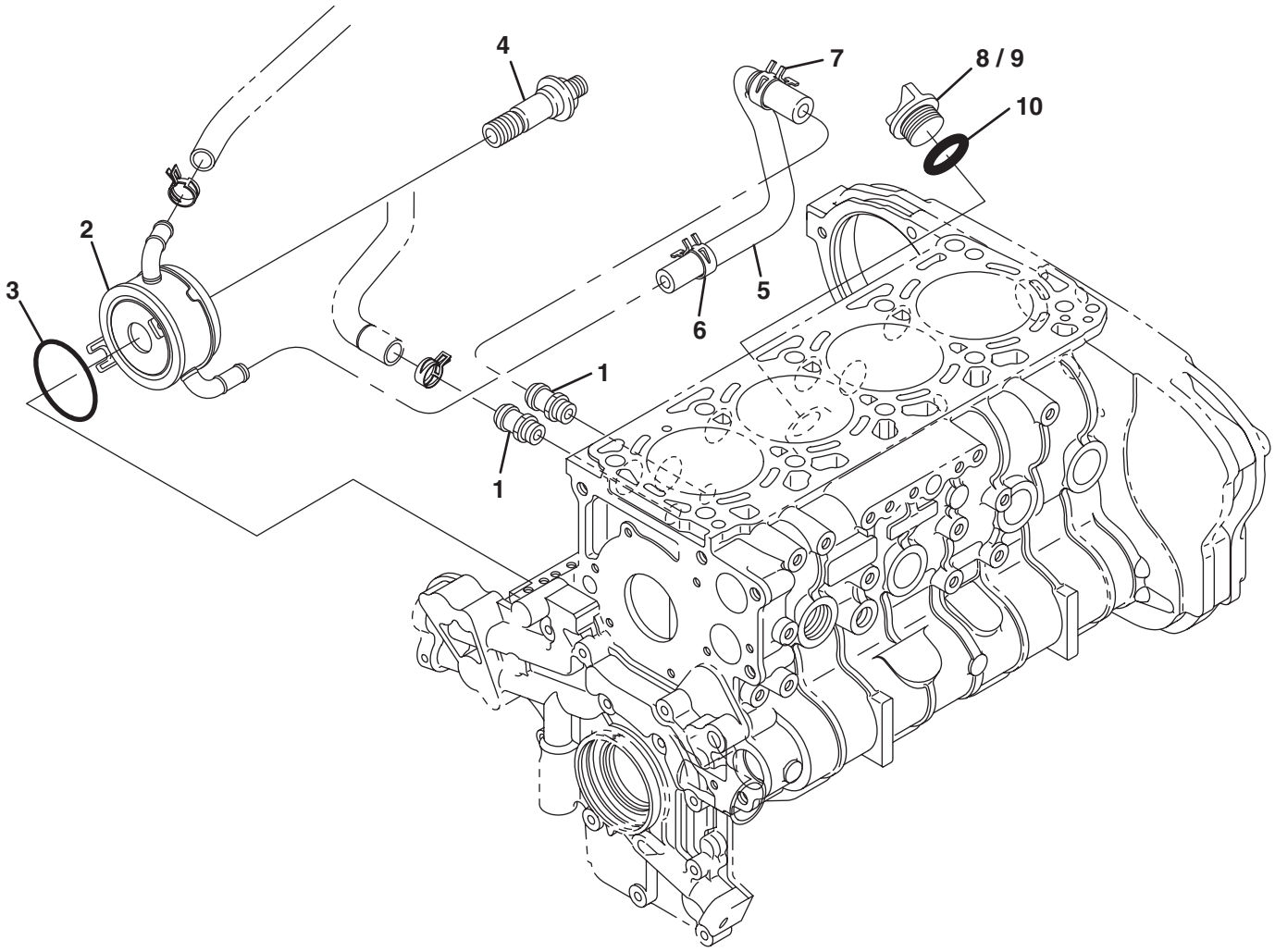


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4351986	1	Pipe, Comp Lubrication	
2	4351248	1	Joint, Pipe	
3	4138243	2	Bolt, Eye Joint	
4	4138244	2	Packing	
5	4352006	1	Stay, Oil Pipe	
6	4251688	2	Bolt, Flange	
7	554054	2	Clamp, Pipe	
8	554055	2	Clamp, Pipe	
9	550401	2	Screw, Sems Pan Head	

> Change from previous revision

32.1 Oil Cooler

Serial No. All

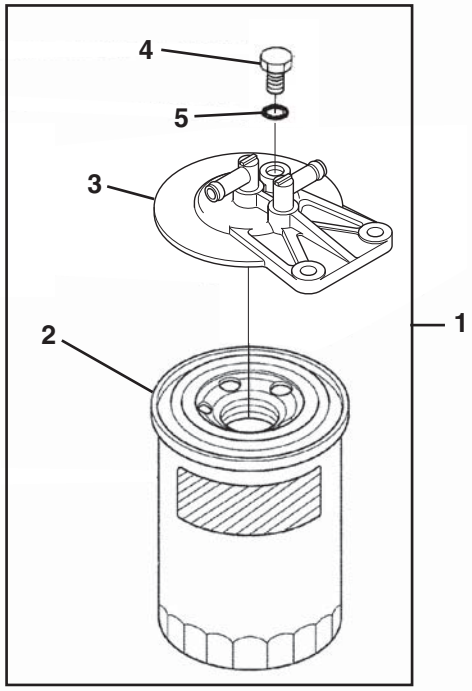


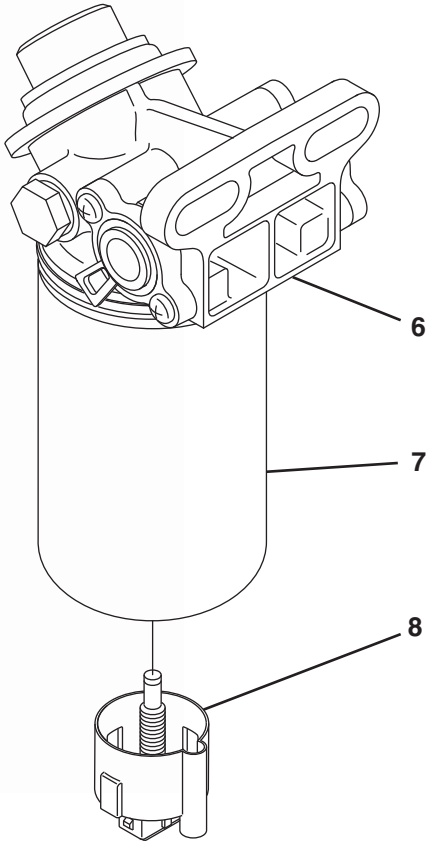
Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4137777	2	Joint, Water Pipe	
2	4351224	1	Assy Cooler, Oil	
✤ 3	4198437	1	O Ring, 73. 5x3. 1	
4	4251804	1	Joint	
5	4352592	1	Pipe, Oil Cooler 1	
6	4134368	1	Band, Hose	
7	5003612	1	Clamp, Hose	
8	4137888	1	Assy Plug, Oil Filler	
9	4145944	1	• Plug, Oil Filler	
✤ 10	4134211	1	• O Ring	
✤	Included in 4351466 Lower Gasket Kit, **See 2.1**			

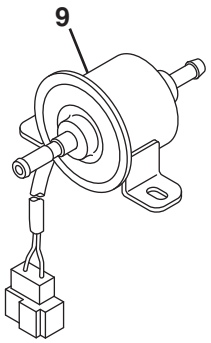
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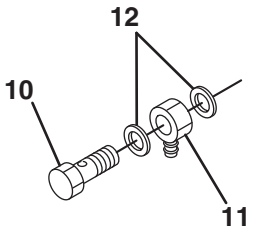
33.1 Loose Fuel Components

Serial No. All







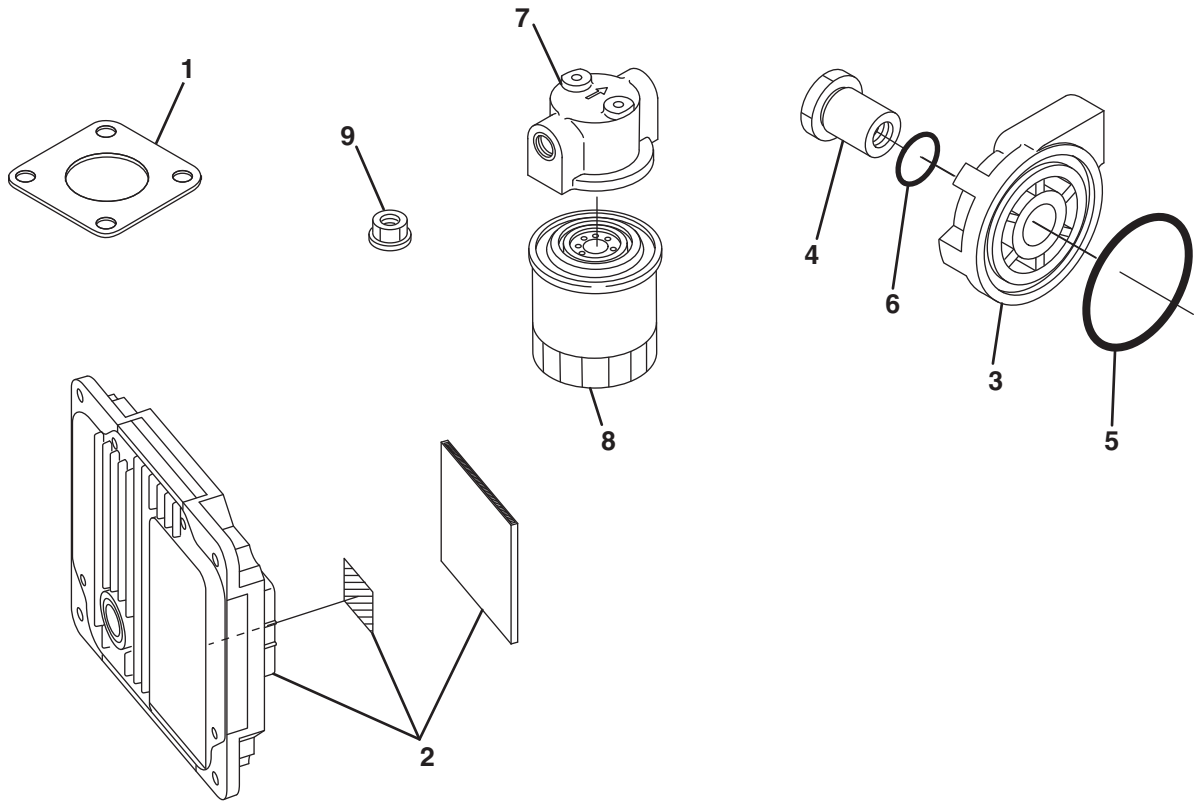


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	4230960	1	Assy Filter, Fuel	
2	4230980	1	Cartridge, Filter	
3	4251722	1	Base, Filter	
4	4233780	1	Plug M8x1. 25	
5	4233781	1	Gasket	
6	4280212	1	Filter, Assy W, Separator	
7	4297126	1	Filter	
8	4297128	1	Switch, Assy	
9	4135918	1	Assy Pump, Fuel	
10	4138103	2	Bolt, Joint	
11	2501172	2	Joint, Eye	
12	4138107	4	Gasket	

> Change from previous revision

34.1 Loose Components

Serial No. All



Item	Part No.	Qty.	Description	Serial Numbers/Notes
★ 1	4351688	1	Gasket, Muffler	
2	4351241	1	Ecu, Sub-Assy	
3	4136120	1	Adapter, Oil Filter	
4	4133240	1	Plug, Oil Filter	
5	4133241	1	O-ring	
6	4133242	1	O Ring	
7	4133243	1	Base, Oil Filter	
8	4137894	1	Cartridge, Oil Filter	
9	4350946	4	Nut, Flange	
★	Included in 4350998 Upper Gasket Kit, **See 1.1**			

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