

DDC-SVC-MAN-0081

# DD Platform Workshop Manual

## EPA07/10 Engine



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**CALIFORNIA  
Proposition 65 Warning**

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.

**CALIFORNIA  
Engine Idle Limiting Standard Notice**

Vehicles with engines certified by the State of California are equipped with software features making them compliant with the California Engine Idle Regulations. In order to meet this regulation, the engine control strategy is generally configured to automatically shut down the engine after five minutes of continuous idle operation. This shutdown feature is not an engine malfunction and is required to meet the California emission regulations.

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# TABLE OF CONTENTS

<b>1</b>	<b>ROCKER COVER</b>	
1.1	DESCRIPTION AND OPERATION OF ROCKER COVER AND RELATED PARTS .....	1-3
1.2	REMOVAL OF THE ROCKER COVER .....	1-4
1.3	CLEANING AND INSPECTION OF THE ROCKER COVER .....	1-6
1.4	INSTALLATION OF THE ROCKER COVER .....	1-7
<b>2</b>	<b>CAMSHAFT AND ROCKER SHAFT/ENGINE BRAKE ASSEMBLY</b>	
2.1	DESCRIPTION AND OPERATION OF CAMSHAFT AND ROCKER SHAFT/ENGINE BRAKE ASSEMBLY AND RELATED PARTS .....	2-3
2.2	REMOVAL OF CAMSHAFT AND ROCKER SHAFT/ENGINE BRAKE ASSEMBLY .....	2-7
2.3	INSPECTION OF THE CAMSHAFT AND ROCKER SHAFT/ENGINE BRAKE ASSEMBLY .....	2-15
2.4	INSTALLATION OF THE CAMSHAFT AND ROCKER SHAFT/ENGINE BRAKE ASSEMBLY .....	2-16
2.5	DD13 EGR COOLER CLEANING PROCEDURE TO REMOVE EXCESS FUEL FROM COOLER AFTER ENGINE BRAKE SOLENOID FAILURE	2-26
2.6	DD15 EGR COOLER CLEANING PROCEDURE TO REMOVE EXCESS FUEL FROM COOLER AFTER ENGINE BRAKE SOLENOID FAILURE	2-31
<b>3</b>	<b>CAMSHAFT HOUSING</b>	
3.1	REMOVAL OF THE CAMSHAFT HOUSING .....	3-3
3.2	INSPECTION OF CAMSHAFT HOUSING .....	3-8
3.3	INSTALLATION OF THE CAMSHAFT HOUSING .....	3-9
<b>4</b>	<b>CAMSHAFT TIMING</b>	
4.1	CAMSHAFT TIMING VERIFICATION .....	4-3
4.2	TIMING THE CAMSHAFTS WITH THE GEAR TRAIN INSTALLED .....	4-6
<b>5</b>	<b>GEAR TRAIN AND ENGINE TIMING</b>	
5.1	DESCRIPTION AND OPERATION OF GEAR TRAIN AND RELATED PARTS .....	5-3
5.2	ENGINE GEAR TRAIN INSTALLATION AND TIMING .....	5-8
5.3	CHECKING AND ADJUSTING GEAR LASH WITH CAMSHAFT HOUSING REMOVED .....	5-16
<b>6</b>	<b>WATER MANIFOLD</b>	
6.1	DESCRIPTION AND OPERATION OF DD15 & DD16 WATER MANIFOLD AND RELATED COMPONENTS .....	6-3
6.2	REMOVAL OF THE DD15 & DD16 WATER MANIFOLD .....	6-5
6.3	CLEANING AND INSPECTION OF THE DD15 & DD16 WATER MANIFOLD .....	6-7
6.4	INSTALLATION OF THE DD15 & DD16 WATER MANIFOLD .....	6-8

6.5	DD13 EXHAUST GAS RECIRCULATION COOLER WATER MANIFOLD ASSEMBLY .....	6-10
<b>7</b>	<b>COLD BOOST PIPE (CHARGE AIR PIPE)</b>	
7.1	DESCRIPTION AND OPERATION OF COLD BOOST PIPE (CHARGE AIR PIPE) AND RELATED COMPONENTS .....	7-3
7.2	REMOVAL OF THE COLD BOOST PIPE (CHARGE AIR PIPE) .....	7-4
7.3	INSPECTION OF COLD BOOST PIPE (CHARGE AIR PIPE) .....	7-5
7.4	INSTALLATION OF THE COLD BOOST PIPE (CHARGE AIR PIPE) ....	7-6
<b>8</b>	<b>AIR INTAKE MANIFOLD</b>	
8.1	DESCRIPTION AND OPERATION OF AIR INTAKE MANIFOLD AND RELATED PARTS .....	8-3
8.2	REMOVAL OF AIR INTAKE MANIFOLD .....	8-6
8.3	CLEANING OF THE AIR INTAKE MANIFOLD .....	8-7
8.4	INSPECTION OF THE AIR INTAKE MANIFOLD .....	8-8
8.5	INSTALLATION OF AIR INTAKE MANIFOLD .....	8-9
<b>9</b>	<b>DD13 TURBOCHARGER</b>	
9.1	DESCRIPTION AND OPERATION OF THE DD13 TURBOCHARGER AND RELATED PARTS .....	9-3
9.2	REMOVAL OF THE DD13 TURBOCHARGER .....	9-5
9.3	INSPECTION OF THE DD13 TURBOCHARGER .....	9-9
9.4	INSTALLATION OF THE DD13 TURBOCHARGER .....	9-10
9.5	EGR COOLER CLEANING PROCEDURE TO REMOVE EXCESS FUEL FROM COOLER AFTER DD13 TURBOCHARGER FAILURE .....	9-12
<b>10</b>	<b>DD13 WASTEGATE SOLENOID</b>	
10.1	DESCRIPTION AND OPERATION OF THE DD13 WASTEGATE SOLENOID .....	10-3
10.2	REMOVAL OF THE DD13 WASTEGATE SOLENOID .....	10-4
10.3	INSTALLATION OF THE DD13 WASTEGATE SOLENOID .....	10-6
<b>11</b>	<b>DD15 TURBOCHARGER</b>	
11.1	DESCRIPTION AND OPERATION OF TURBOCHARGER AND RELATED PARTS .....	11-3
11.2	REMOVAL OF DD15 TURBOCHARGER .....	11-5
11.3	INSPECTION OF DD15 TURBOCHARGER .....	11-7
11.4	INSTALLATION OF DD15 TURBOCHARGER .....	11-8
11.5	EGR COOLER CLEANING PROCEDURE TO REMOVE EXCESS OIL FROM EGR COOLER AFTER DD15 TURBOCHARGER FAILURE .....	11-10
<b>12</b>	<b>DD15 AXIAL POWER TURBINE</b>	
12.1	DESCRIPTION AND OPERATION OF DD15 AXIAL POWER TURBINE AND RELATED PARTS .....	12-3
12.2	REMOVAL OF DD15 AXIAL POWER TURBINE .....	12-5
12.3	INSPECTION OF THE DD15 AXIAL POWER TURBINE .....	12-6
12.4	INSTALLATION OF DD15 AXIAL POWER TURBINE .....	12-7

<b>13</b>	<b>DD15 AXIAL POWER TURBINE GEAR BOX</b>	
13.1	DESCRIPTION AND OPERATION OF DD15 AXIAL POWER TURBINE GEAR BOX AND RELATED PARTS .....	13-3
13.2	REMOVAL OF THE DD15 AXIAL POWER TURBINE GEAR BOX .....	13-5
13.3	INSPECTION OF DD15 AXIAL POWER TURBINE GEAR BOX .....	13-6
13.4	INSTALLATION OF THE AXIAL POWER TURBINE GEAR BOX .....	13-7
<b>14</b>	<b>CYLINDER HEAD</b>	
14.1	DESCRIPTION AND OPERATION OF CYLINDER HEAD AND RELATED PARTS .....	14-3
14.2	REMOVAL OF THE DD13 CYLINDER HEAD .....	14-10
14.3	INSTALLATION OF THE DD13 CYLINDER HEAD .....	14-12
14.4	REMOVAL OF THE DD15 CYLINDER HEAD .....	14-15
14.5	CLEANING OF THE CYLINDER HEAD .....	14-17
14.6	ASSEMBLY OF CYLINDER HEAD .....	14-18
14.7	INSTALLATION OF THE DD15 CYLINDER HEAD .....	14-19
14.8	REMOVAL OF VALVE SPRING (CYLINDER HEAD INSTALLED) .....	14-22
14.9	REMOVAL OF THE VALVE SPRING (CYLINDER HEAD REMOVED) ...	14-24
14.10	REMOVAL OF INTAKE AND EXHAUST VALVES .....	14-25
14.11	CLEANING OF VALVES AND RELATED PARTS .....	14-26
14.12	INSPECTION OF VALVE SPRINGS .....	14-27
14.13	INSPECTION OF VALVE .....	14-28
14.14	INSTALLATION OF VALVE, SPRING, SEAL AND VALVE CAP .....	14-29
14.15	VALVE LASH ADJUSTMENTS .....	14-31
14.16	SETTING THE ENGINE BRAKE LASH .....	14-33
<b>15</b>	<b>PISTON AND CONNECTING ROD ASSEMBLY</b>	
15.1	DESCRIPTION AND OPERATION OF PISTON AND CONNECTING ROD AND RELATED PARTS .....	15-3
15.2	REMOVAL OF PISTON AND CONNECTING ROD ASSEMBLY .....	15-5
15.3	DISASSEMBLY OF PISTON AND CONNECTING ROD ASSEMBLY .....	15-7
15.4	INSPECTION OF PISTON AND CONNECTING ROD ASSEMBLY .....	15-8
15.5	ASSEMBLY OF PISTON AND CONNECTING ROD ASSEMBLY .....	15-9
15.6	INSTALLATION OF PISTON AND CONNECTING ROD ASSEMBLY .....	15-11
<b>16</b>	<b>CYLINDER LINER</b>	
16.1	DESCRIPTION AND OPERATION OF CYLINDER LINER AND RELATED PARTS .....	16-3
16.2	REMOVAL OF CYLINDER LINER .....	16-4
16.3	INSPECTION OF CYLINDER LINER .....	16-5
16.4	CLEANING OF THE CYLINDER LINER .....	16-7
16.5	INSTALLATION OF THE CYLINDER LINER .....	16-8
<b>17</b>	<b>CRANKSHAFT</b>	
17.1	DESCRIPTION AND OPERATION OF CRANKSHAFT AND RELATED PARTS .....	17-3
17.2	REMOVAL OF CRANKSHAFT .....	17-6
17.3	INSPECTION OF THE CRANKSHAFT AND RELATED PARTS .....	17-9
17.4	INSTALLATION OF CRANKSHAFT .....	17-10

17.5	REMOVAL OF CRANKSHAFT REAR OIL SEAL .....	17-14
17.6	INSTALLATION OF THE REAR OIL SEAL .....	17-15
17.7	REMOVAL OF THE CRANKSHAFT FRONT OIL SEAL .....	17-17
17.8	INSTALLATION OF THE CRANKSHAFT FRONT OIL SEAL .....	17-18
<b>18</b>	<b>LUBRICATION SYSTEM</b>	
18.1	DESCRIPTION AND OPERATION OF THE LUBRICATION SYSTEM AND RELATED COMPONENTS .....	18-3
<b>19</b>	<b>OIL PAN</b>	
19.1	DESCRIPTION AND OPERATION OF OIL PAN AND RELATED COMPONENTS .....	19-3
19.2	REMOVAL OF OIL PAN .....	19-4
19.3	CLEANING OF OIL PAN .....	19-5
19.4	INSPECTION OF OIL PAN .....	19-6
19.5	REMOVAL OF THREADED INSERT — PLASTIC OIL PAN ONLY .....	19-7
19.6	INSTALLATION OF THREADED INSERT — PLASTIC OIL PAN ONLY ..	19-8
19.7	INSTALLATION OF OIL PAN .....	19-9
<b>20</b>	<b>OIL DIPSTICK TUBE</b>	
20.1	DESCRIPTION AND OPERATION OF OIL DIPSTICK TUBE AND RELATED COMPONENTS .....	20-3
20.2	REMOVAL OF THE OIL DIPSTICK TUBE .....	20-4
20.3	INSTALLATION OF THE OIL DIPSTICK TUBE .....	20-5
<b>21</b>	<b>OIL PUMP</b>	
21.1	DESCRIPTION AND OPERATION OF OIL PUMP AND RELATED COMPONENTS .....	21-3
21.2	REMOVAL OF THE OIL PUMP, OIL SUCTION MANIFOLD, AND OIL LINES .....	21-4
21.3	INSPECTION OF THE OIL PUMP, OIL SUCTION MANIFOLD, AND OIL LINES .....	21-5
21.4	INSTALLATION OF THE OIL PUMP, OIL SUCTION MANIFOLD, AND OIL LINES .....	21-6
<b>22</b>	<b>CRANKCASE BREATHER</b>	
22.1	DESCRIPTION AND OPERATION OF CRANKCASE BREATHER .....	22-3
22.2	REMOVAL OF THE CRANKCASE BREATHER .....	22-5
22.3	INSPECTION OF THE CRANKCASE BREATHER .....	22-6
22.4	INSTALLATION OF THE CRANKCASE BREATHER .....	22-7
<b>23</b>	<b>OIL FILTER</b>	
23.1	REPLACEMENT OF THE OIL FILTER .....	23-3
<b>24</b>	<b>OIL SAMPLE VALVE</b>	
24.1	REPLACING OIL PLUG WITH OIL SAMPLE VALVE .....	24-3
24.2	REMOVAL OF OIL SAMPLE VALVE .....	24-4
24.3	INSTALLATION OF OIL SAMPLE VALVE .....	24-5
<b>25</b>	<b>OIL FILLER NECK</b>	
25.1	REMOVAL OF THE OIL FILLER NECK .....	25-3

25.2	INSTALLATION OF THE OIL FILLER NECK .....	25-4
<b>26</b>	<b>OIL COOLANT MODULE</b>	
26.1	DESCRIPTION AND OPERATION OF THE OIL COOLANT MODULE ..	26-3
26.2	REMOVAL OF THE OIL COOLANT MODULE .....	26-5
26.3	INSTALLATION OF THE OIL COOLANT MODULE .....	26-7
26.4	REMOVAL OF THE OIL THERMOSTAT .....	26-9
26.5	INSTALLATION OF THE OIL THERMOSTAT .....	26-11
<b>27</b>	<b>PRIMING THE LUBRICATION SYSTEM</b>	
27.1	PRIMING THE ENGINE LUBRICATION SYSTEM .....	27-3
<b>28</b>	<b>COOLING SYSTEM</b>	
28.1	DESCRIPTION AND OPERATION OF COOLING SYSTEM AND RELATED COMPONENTS .....	28-3
<b>29</b>	<b>ENGINE WATER PUMP</b>	
29.1	DESCRIPTION AND OPERATION OF ENGINE WATER PUMP .....	29-3
29.2	REMOVAL OF THE WATER PUMP .....	29-4
29.3	INSPECTION OF THE WATER PUMP .....	29-5
29.4	INSTALLATION OF THE WATER PUMP .....	29-6
<b>30</b>	<b>COOLANT THERMOSTAT</b>	
30.1	DESCRIPTION AND OPERATION OF COOLANT THERMOSTAT .....	30-3
30.2	REMOVAL OF COOLANT THERMOSTAT AND SEAL .....	30-5
30.3	INSPECTION OF COOLANT THERMOSTAT AND SEAL .....	30-6
30.4	INSTALLATION OF COOLANT THERMOSTAT AND SEAL .....	30-7
<b>31</b>	<b>COOLANT FILTER</b>	
31.1	DESCRIPTION AND OPERATION OF COOLANT FILTER .....	31-3
31.2	REMOVAL OF THE COOLANT FILTER .....	31-4
31.3	INSTALLATION OF THE COOLANT FILTER .....	31-5
<b>32</b>	<b>COOLANT FILTER SERVICE MODULE</b>	
32.1	REMOVAL OF COOLANT FILTER SERVICE MODULE .....	32-3
32.2	INSTALLATION OF COOLANT FILTER SERVICE MODULE .....	32-4
<b>33</b>	<b>COOLANT INLET ELBOW</b>	
33.1	REMOVAL OF THE COOLANT INLET ELBOW .....	33-3
33.2	INSTALLATION OF THE COOLANT INLET ELBOW .....	33-4
<b>34</b>	<b>FLYWHEEL AND FLYWHEEL HOUSING</b>	
34.1	DESCRIPTION AND OPERATION OF FLYWHEEL, FLYWHEEL HOUSING AND RELATED PARTS .....	34-3
34.2	REMOVAL OF FLYWHEEL HOUSING .....	34-6
34.3	INSTALLATION OF FLYWHEEL HOUSING .....	34-7
34.4	REMOVAL OF THE FLYWHEEL .....	34-9
34.5	INSPECTION OF FLYWHEEL .....	34-10
34.6	INSTALLATION OF FLYWHEEL .....	34-11
34.7	INSPECTION OF FLYWHEEL HOUSING AND REAR OIL SEAL AREA OF CRANKSHAFT .....	34-12
34.8	REMOVAL OF RING GEAR .....	34-13

34.9	INSTALLATION OF RING GEAR .....	34-14
<b>35</b>	<b>FRONT ENGINE MOUNT/RADIATOR SUPPORT</b>	
35.1	DESCRIPTION AND OPERATION OF FRONT ENGINE MOUNT/RADIATOR SUPPORT AND RELATED PARTS .....	35-3
35.2	REMOVAL OF THE FRONT ENGINE MOUNT/RADIATOR SUPPORT ..	35-4
35.3	INSPECTION OF THE FRONT ENGINE MOUNT/RADIATOR SUPPORT .....	35-5
35.4	INSTALLATION OF THE FRONT ENGINE MOUNT/RADIATOR SUPPORT .....	35-6
<b>36</b>	<b>VIBRATION DAMPER</b>	
36.1	REMOVAL OF THE VIBRATION DAMPER .....	36-3
36.2	INSTALLATION OF THE VIBRATION DAMPER .....	36-4
<b>37</b>	<b>FRONT ENGINE COVER</b>	
37.1	DESCRIPTION AND OPERATION OF THE FRONT ENGINE COVER ..	37-3
37.2	REMOVAL OF THE FRONT ENGINE COVER .....	37-4
37.3	INSPECTION OF THE FRONT ENGINE COVER .....	37-5
37.4	INSTALLATION OF THE FRONT ENGINE COVER .....	37-6
<b>38</b>	<b>ENGINE LIFTER BRACKETS</b>	
38.1	DESCRIPTION AND OPERATION OF ENGINE LIFTER BRACKETS AND RELATED PARTS .....	38-3
38.2	REMOVAL OF THE FRONT ENGINE LIFTER BRACKET WITHOUT FRONT ENGINE POWER TAKE-OFF .....	38-8
38.3	REMOVAL OF THE FRONT ENGINE LIFTER BRACKET WITH FRONT ENGINE POWER TAKE-OFF .....	38-9
38.4	REMOVAL OF THE REAR ENGINE LIFTER BRACKETS .....	38-10
38.5	INSPECTION OF THE ENGINE LIFTER BRACKETS .....	38-11
38.6	INSTALLATION OF THE REAR ENGINE LIFTER BRACKETS .....	38-12
38.7	INSTALLATION OF THE FRONT ENGINE LIFTER BRACKET WITHOUT FRONT ENGINE POWER TAKE-OFF .....	38-13
38.8	INSTALLATION OF THE FRONT ENGINE LIFTER BRACKET WITH FRONT ENGINE POWER TAKE-OFF .....	38-14
<b>39</b>	<b>BELT DRIVE TENSIONER SYSTEM</b>	
39.1	DESCRIPTION AND OPERATION OF BELT DRIVE TENSIONER AND RELATED PARTS .....	39-3
39.2	REMOVAL OF THE BELT TENSIONER .....	39-5
39.3	INSTALLATION OF THE BELT TENSIONER .....	39-6
39.4	REMOVAL OF THE IDLER PULLEY AND IDLER PULLEY BRACKET ..	39-7
39.5	INSTALLATION OF THE IDLER PULLEY AND IDLER PULLEY BRACKET .....	39-8
39.6	REMOVAL OF NON-BRACKETED IDLER PULLEY .....	39-9
39.7	INSTALLATION OF NON-BRACKETED IDLER PULLEY .....	39-10
39.8	REMOVAL OF THE ACCESSORY MOUNTING BRACKET .....	39-11
39.9	INSTALLATION OF THE ACCESSORY MOUNTING BRACKET .....	39-12



<b>40</b>	<b>POLY-V-BELTS</b>	
40.1	REMOVAL OF THE POLY-V-BELTS .....	40-3
40.2	INSPECTION OF THE POLY-V-BELTS .....	40-6
40.3	INSTALLATION OF THE POLY-V-BELTS .....	40-9
<b>41</b>	<b>AIR COMPRESSOR</b>	
41.1	DESCRIPTION AND OPERATION OF THE AIR COMPRESSOR .....	41-3
41.2	REMOVAL OF THE AIR COMPRESSOR .....	41-5
41.3	INSPECTION OF THE AIR COMPRESSOR .....	41-6
41.4	INSTALLATION OF THE AIR COMPRESSOR .....	41-8
<b>42</b>	<b>CYLINDER BLOCK</b>	
42.1	DESCRIPTION AND OPERATION OF CYLINDER BLOCK AND RELATED PARTS .....	42-3
42.2	REMOVAL AND DISASSEMBLY OF ENGINE FROM THE VEHICLE ....	42-9
42.3	CLEANING THE CYLINDER BLOCK .....	42-12
42.4	REASSEMBLY AND INSTALLATION OF CYLINDER BLOCK .....	42-16



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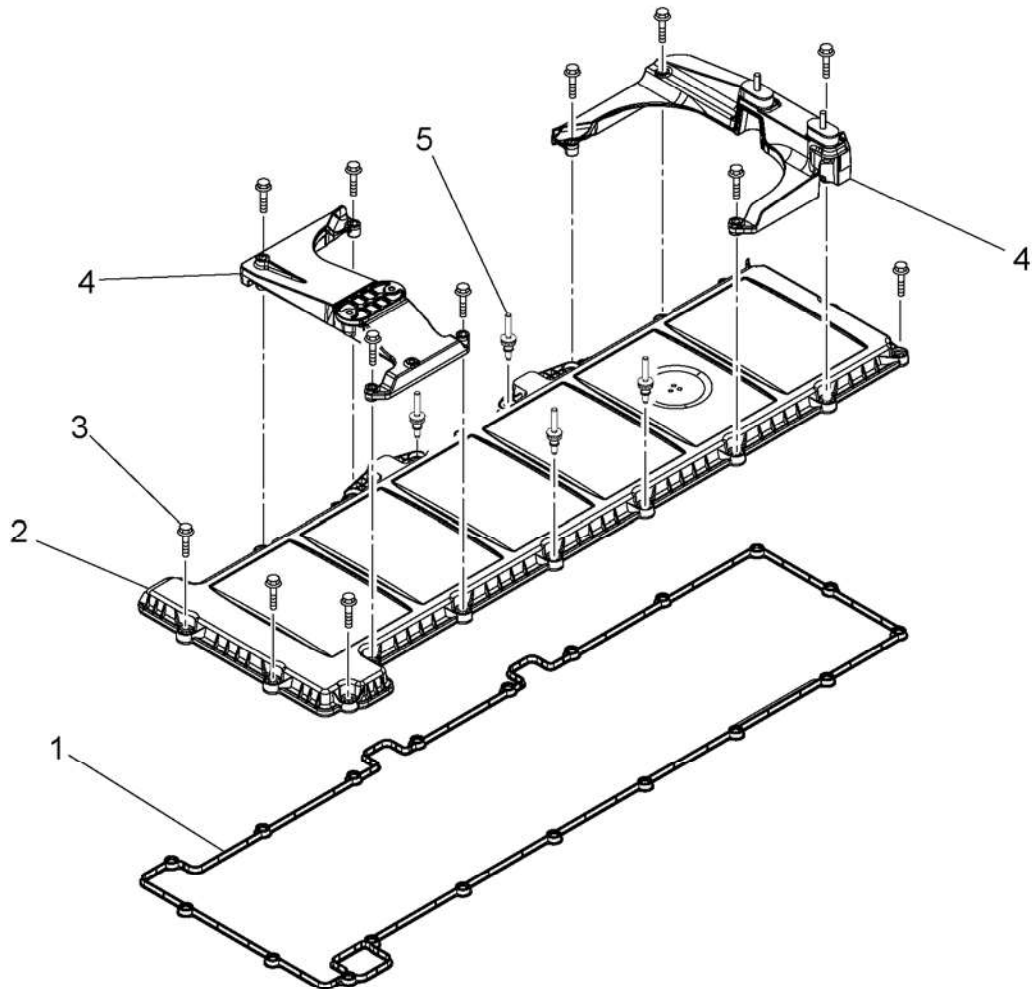
# 1 ROCKER COVER

Section		Page
1.1	DESCRIPTION AND OPERATION OF ROCKER COVER AND RELATED PARTS .....	1-3
1.2	REMOVAL OF THE ROCKER COVER .....	1-4
1.3	CLEANING AND INSPECTION OF THE ROCKER COVER .....	1-6
1.4	INSTALLATION OF THE ROCKER COVER .....	1-7



## 1.1 DESCRIPTION AND OPERATION OF ROCKER COVER AND RELATED PARTS

The rocker cover (2) is made of an aluminum or plastic material and uses an elastomer seal (1) which completely encloses the valve operating mechanism including the overhead camshafts, brake assemblies and the injector harness.



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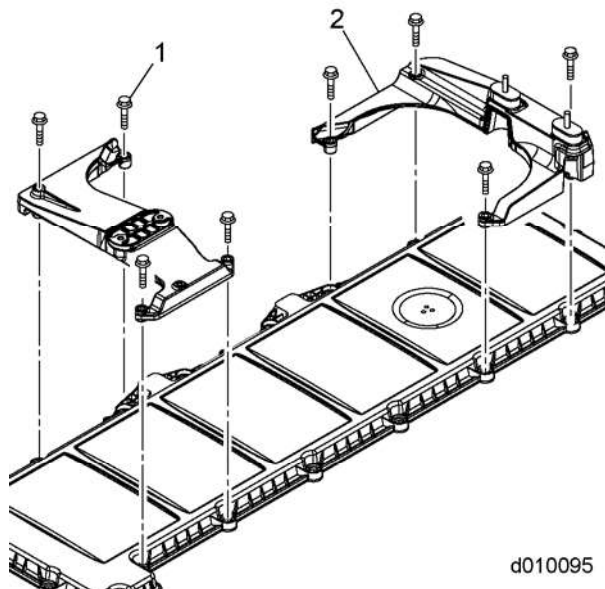
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|-----------------|------------------------|
| 1. Gasket       | 4. Air Cleaner Bracket |
| 2. Rocker Cover | 5. Stud (Bolt)         |
| 3. Bolt         |                        |

**Figure 1-1      Rocker Cover**

## 1.2 REMOVAL OF THE ROCKER COVER

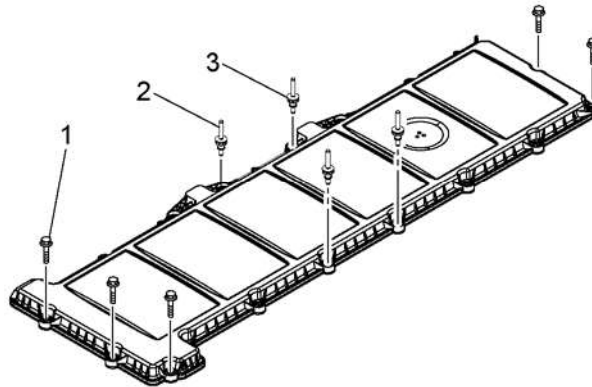
Remove as follows:

1. Steam clean the engine.
2. Remove bolts (1) or nuts (if equipped) from the two air filter housing brackets (2) and remove housings from the rocker cover.



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3. Loosen the bolts (1) or stud bolts (2) (if equipped) and isolators (3); remove rocker cover.

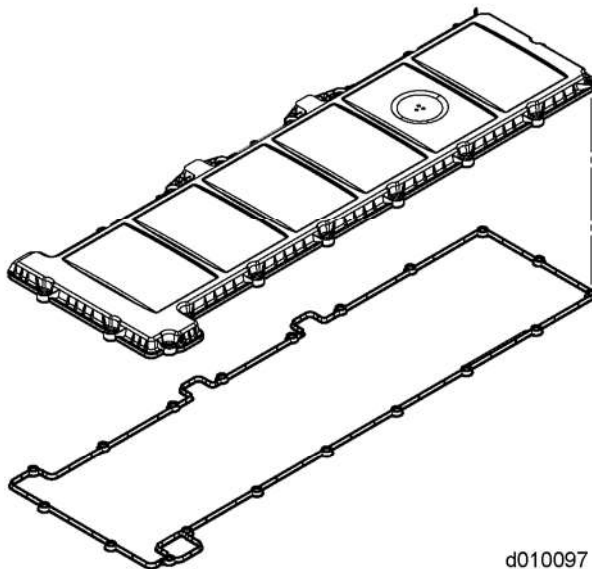


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**NOTE:**

Mark the location of the stud bolts. The stud bolts must be replaced in their original location during installation.

4. Remove rocker cover gasket from the rocker cover.




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## 1.3 CLEANING AND INSPECTION OF THE ROCKER COVER

Clean as follows:

1. Clean cover in clean solvent or fuel.

 <b>WARNING:</b>
<b>EYE INJURY</b>
<b>To avoid injury from flying debris when using compressed air, wear adequate eye protection (face shield or safety goggles) and do not exceed 276 kPa (40 psi) air pressure.</b>

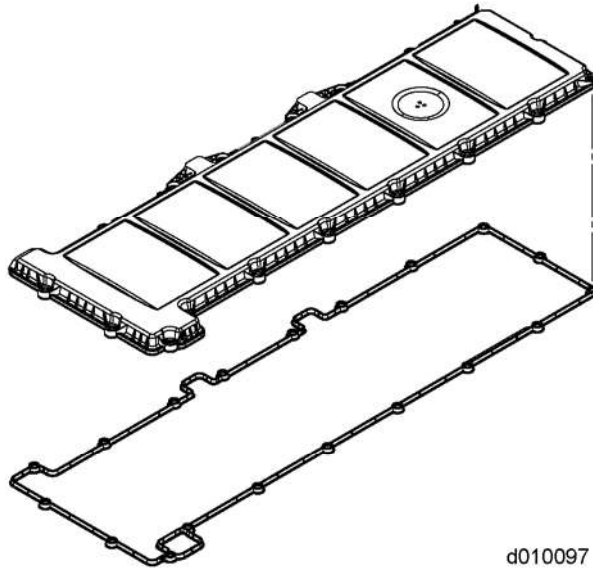
2. Blow dry with compressed air.
3. Check the rocker cover, breather passage and seal for damage. Replace as necessary.
4. Inspect the bolts. Replace if damaged.



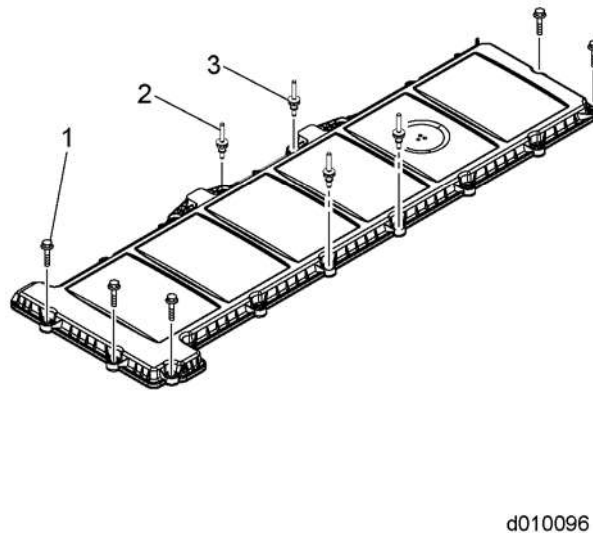
## 1.4 INSTALLATION OF THE ROCKER COVER

Install as follows:

1. Install rocker cover gasket into groove in rocker cover.

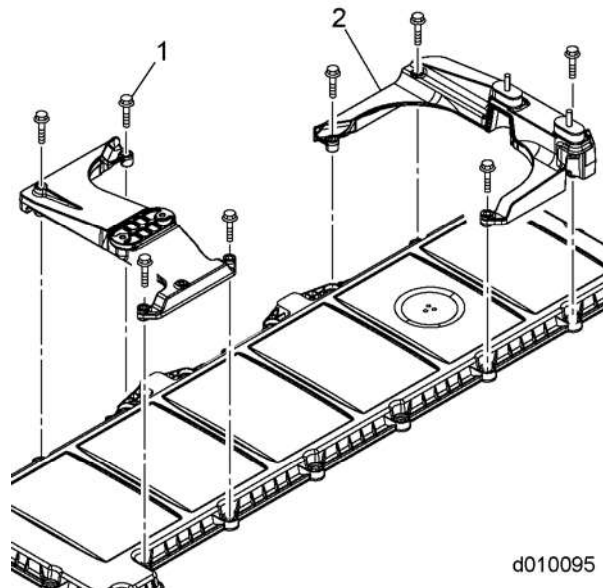



2. Install bolts (1) or stud bolts (2) (if removed) and isolators (3) into rocker cover.



3. Install rocker cover onto camshaft housing.
4. Finger tighten all bolts (1) and stud bolts; then torque to 20 N·m (14 lb·ft).

5. Install the two air filter brackets (2) (if equipped), onto the rocker cover and torque the eight nuts to 20 N·m (14 lb·ft).



 <b>WARNING:</b>
<b>ENGINE EXHAUST</b>
<b>To avoid injury from inhaling engine exhaust, always operate the engine in a well-ventilated area. Engine exhaust is toxic.</b>

6. Start the engine and check for leaks.

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## 2 CAMSHAFT AND ROCKER SHAFT/ENGINE BRAKE ASSEMBLY

Section	Page
2.1 DESCRIPTION AND OPERATION OF CAMSHAFT AND ROCKER SHAFT/ENGINE BRAKE ASSEMBLY AND RELATED PARTS .....	2-3
2.2 REMOVAL OF CAMSHAFT AND ROCKER SHAFT/ENGINE BRAKE ASSEMBLY .....	2-7
2.3 INSPECTION OF THE CAMSHAFT AND ROCKER SHAFT/ENGINE BRAKE ASSEMBLY .....	2-15
2.4 INSTALLATION OF THE CAMSHAFT AND ROCKER SHAFT/ENGINE BRAKE ASSEMBLY .....	2-16
2.5 DD13 EGR COOLER CLEANING PROCEDURE TO REMOVE EXCESS FUEL FROM COOLER AFTER ENGINE BRAKE SOLENOID FAILURE	2-26
2.6 DD15 EGR COOLER CLEANING PROCEDURE TO REMOVE EXCESS FUEL FROM COOLER AFTER ENGINE BRAKE SOLENOID FAILURE	2-31

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