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## Service Information Bulletin

SUBJECT	DATE
Description and Operation of the DD15 and DD16 Exhaust Gas Recirculation Cooler	January 2013

### Additions, Revisions, or Updates

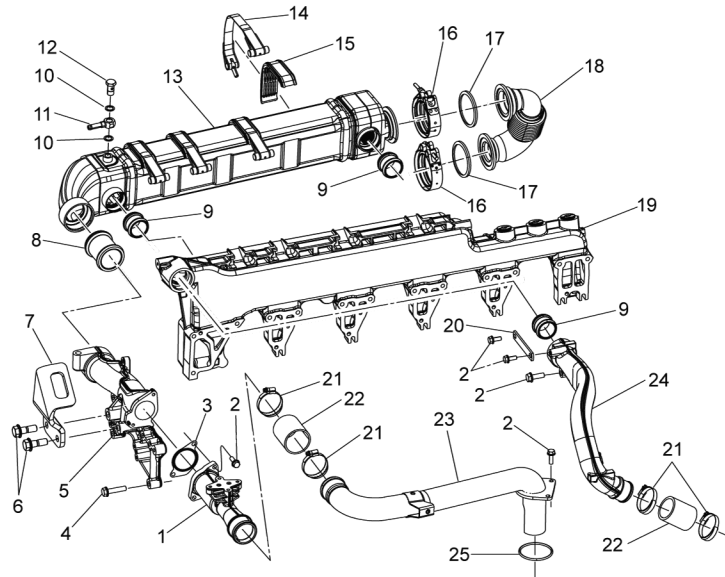
Publication Number / Title	Platform	Section Title	Change
DDC-SVC-MAN-0083	DD Platform	DD15 and DD16 Exhaust Gas Recirculation Cooler	Added details for the GHG14 DD15



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## 2 Description and Operation of the DD15 and DD16 Exhaust Gas Recirculation Cooler

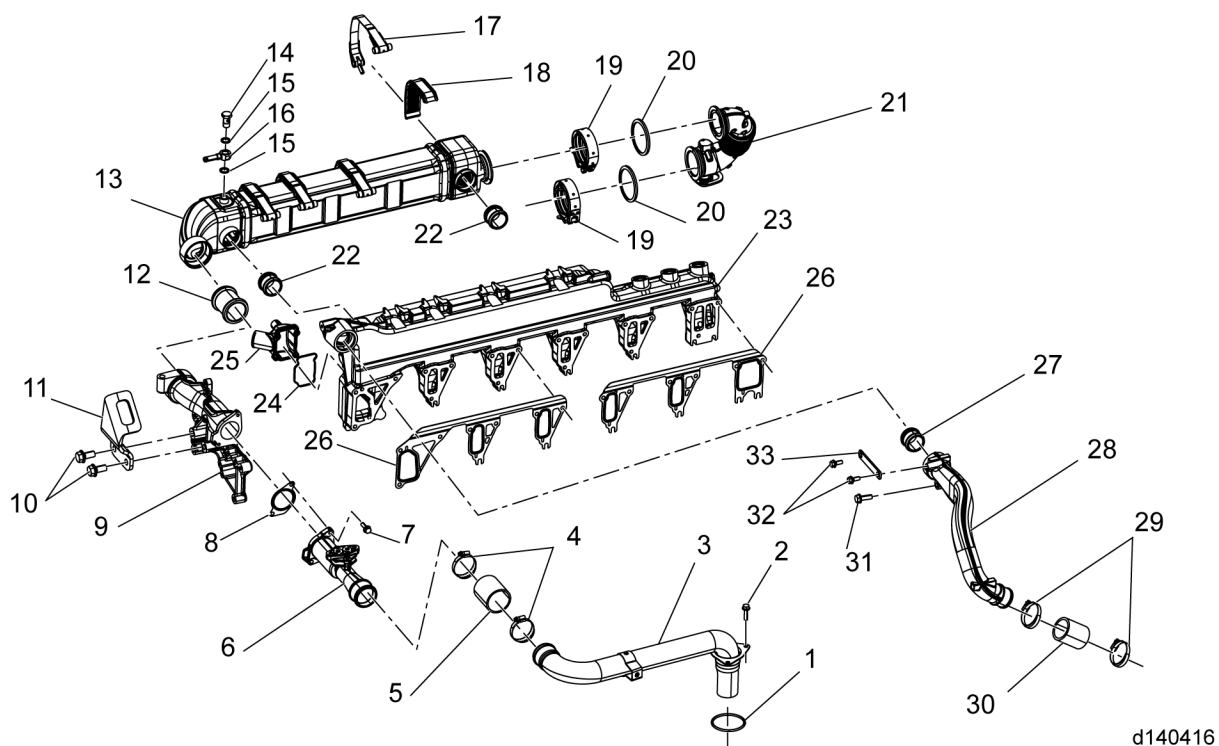
The primary purpose of the Exhaust Gas Recirculation (EGR) cooler is to cool the engine exhaust gases prior to entering the intake manifold. Exhaust gas cooling is accomplished by the flow of exhaust gases through the EGR cooler tubes. The EGR cooler core then transfers the heat removed from the exhaust gases to the engine coolant. The cooled exhaust gases are then mixed with incoming air from the Charge Air Cooler (CAC) before being sent to the intake manifold.



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- |                               |                                     |
|-------------------------------|-------------------------------------|
| 1. Venturi                    | 14. Strap                           |
| 2. Bolt                       | 15. Shim                            |
| 3. Gasket                     | 16. Marmon Clamp                    |
| 4. Bolt                       | 17. Metal Seal Ring (if applicable) |
| 5. Exhaust Gas Crossover Tube | 18. Exhaust Pipe                    |
| 6. Bolt                       | 19. Water Manifold                  |
| 7. Lifting Bracket            | 20. Support Bracket                 |
| 8. Connecting Tube            | 21. Clamps                          |
| 9. Connecting Tube            | 22. Connector Hose                  |
| 10. Seal Ring                 | 23. Mixer Pipe                      |
| 11. Banjo Union               | 24. Coolant Crossover Pipe          |
| 12. Banjo Bolt                | 25. Seal Ring                       |
| 13. Exhaust Gas Cooler        |                                     |

**Figure 1. DD15 and DD16 Exhaust Gas Recirculation Cooler and Related Parts**



- |                       |                            |
|-----------------------|----------------------------|
| 1. Seal Ring          | 18. Shim                   |
| 2. Bolt               | 19. Marmon Clamps          |
| 3. Mixer Pipe         | 20. Metal Seal Ring        |
| 4. Marmon Clamps      | 21. EGR Valve Hot Pipe     |
| 5. Connector Hose     | 22. Connecting Tube        |
| 6. Venturi Pipe       | 23. Water Manifold         |
| 7. Bolt               | 24. Seal                   |
| 8. Gasket             | 25. Coolant Outlet Pipe    |
| 9. EGR Crossover Pipe | 26. Water Manifold Gasket  |
| 10. Bolt              | 27. Connecting Tube        |
| 11. Lifting Bracket   | 28. Coolant Crossover Pipe |
| 12. Connecting Tube   | 29. Clamps                 |
| 13. EGR Cooler        | 30. Connector Hose         |
| 14. Banjo Bolt        | 31. Bolt                   |
| 15. Seal Ring         | 32. Bolts                  |
| 16. Banjo Union       | 33. Support Bracket        |
| 17. Strap             |                            |

**Figure 2. GHG14 DD15 AT Exhaust Gas Recirculation Cooler and Related Parts**