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PRODUCT INFORMATION

Sales Engineering

Mack Trucks, Inc.
Allentown, PA 18103
United States

Phone: 800 868 6225
Fax: 610 351 8791

MackTrucks.com

PID Code/Condition: 293-0001

MSS Sales Code: 293AA2

Description: Mack Fuel Water Separator with Manual Drain Valve

Models: All with MP7 or MP8 Engines

Date: May 15, 2015

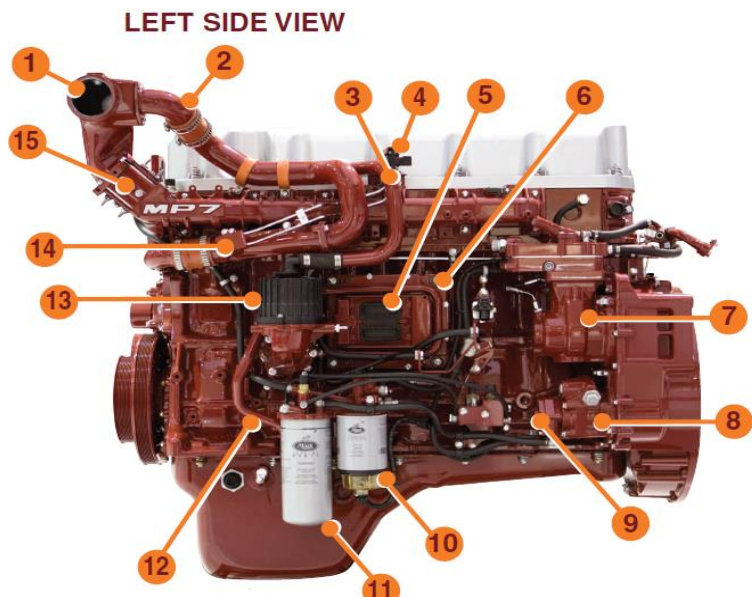
MP ENGINE FUEL SYSTEM

FUEL SYSTEM DELIVERY

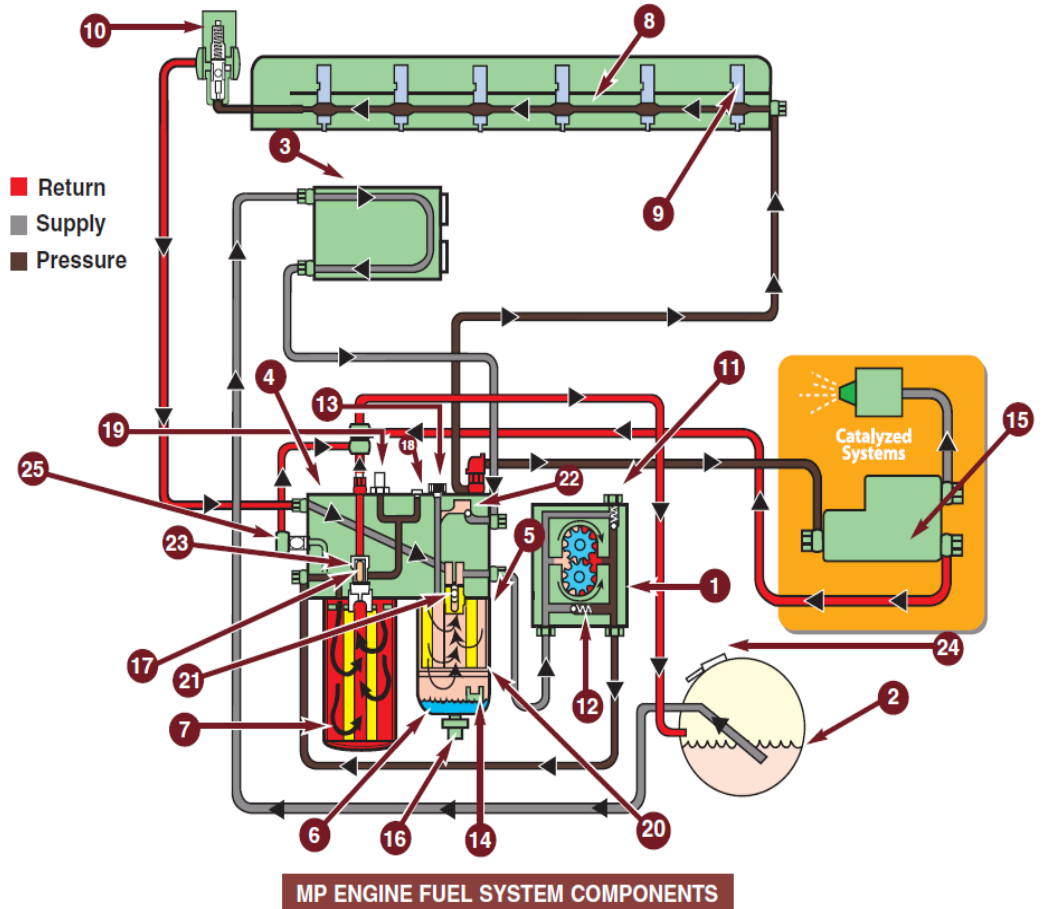
The MP engine's fuel delivery system provides a continuous supply of fuel from the fuel tank(s) to the Electronic Unit Injectors (EUI) and back to the tank(s). The supply pump is driven off of the rear geartrain and is located at the rear of the engine on the left hand side, along with the power steering pump. There is a hand primer pump integrated into the fuel filter housing. This allows the system to be primed, for

example, after a unit injector has been serviced. There is always a spin-on type secondary fuel filter mounted to the fuel filter housing on the left hand side of the engine. For all the MP engines, the primary fuel filter is 25 micron and the secondary is 5-7 micron, at 99% efficiency. As an option, vendor primary fuel filter/water separators may be specified to replace the standard Mack unit.

1. EGR Mixer
2. EGR Mixer Inlet Tube
3. Crankcase CCV Tube
4. Delta P Sensors
5. EMS Module
6. EMS Module Cooler
7. Air Compressor
8. Power Steering Pump
9. Fuel Pump
10. Primary Fuel Filter/Water Separator
11. Secondary Fuel Filter
12. Crankcase Ventilation Tube
13. CCV Separator
14. Mass Flow Venturi
15. Inlet Air Heater (Optional)



The information in this document was accurate as of the date of release and pertains to the current version of Mack's Sales Tool. Mack Trucks, Inc. reserves the right to make changes in specifications, equipment or design, or to discontinue models or options without notice.



- 1. Fuel Feed Pump
- 2. Fuel Tank/Strainer
- 3. EECU Cooler
- 4. Fuel Filter Housing
- 5. Fuel Pre-Filter
- 6. Water Separator
- 7. Secondary (Main) Fuel Filter
- 8. Cylinder Head Fuel Rail

- 9. Unit Injector
- 10. Pressure Regulator Valve
- 11. Pump Safety Valve
- 12. Non-Return Valve
- 13. Manual Fuel Pump
- 14. Water Level Sensor
- 15. After-Treatment Fuel Shutoff Valve
- 16. Water Drain Valve
- 17. Filter Valve

- 18. Service Port
- 19. Fuel Pressure Sensor
- 20. Fuel Heater
- 21. Filter Shut-Off Valve
- 22. Hand-Priming One-Way Valve
- 23. Automatic Air-Bleed Valve
- 24. Fuel Tank Breather
- 25. Deaeration Valve

One significant difference in the fuel delivery systems for the MP engines and previous Mack designs is the much lower rate of fuel return to the tanks. On the MP engines, the fuel is circulated within the cylinder head where it is cooled by the engine coolant, therefore maintaining a constant temperature. This provides internal cooling for the EUIs. The engine EMS is cooled by fuel as it is drawn from the tanks before it enters the engine. Due to lower fuel return rates, a fuel tank heater should be considered in colder climates.