



**No.: 04 TS - 04**  
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TO: All Distributors/Dealers and Their Branches  
U.S., Canada and Mexico

ATTN.: Service Managers

FROM: Evandro Silva

SUBJECT: **MBE4000 – Fuel System Schematics**

Based upon our service experience over the past year on the MBE4000, it has been determined that additional material should be released to assist technicians servicing this engine.

Attached to this letter you can find the 2 schematics of the MBE4000 Fuel System for reference.

The MBE4000 engine has unique vehicle fuel system requirements; the fuel spill return line must include a standpipe in the vehicle fuel tank.

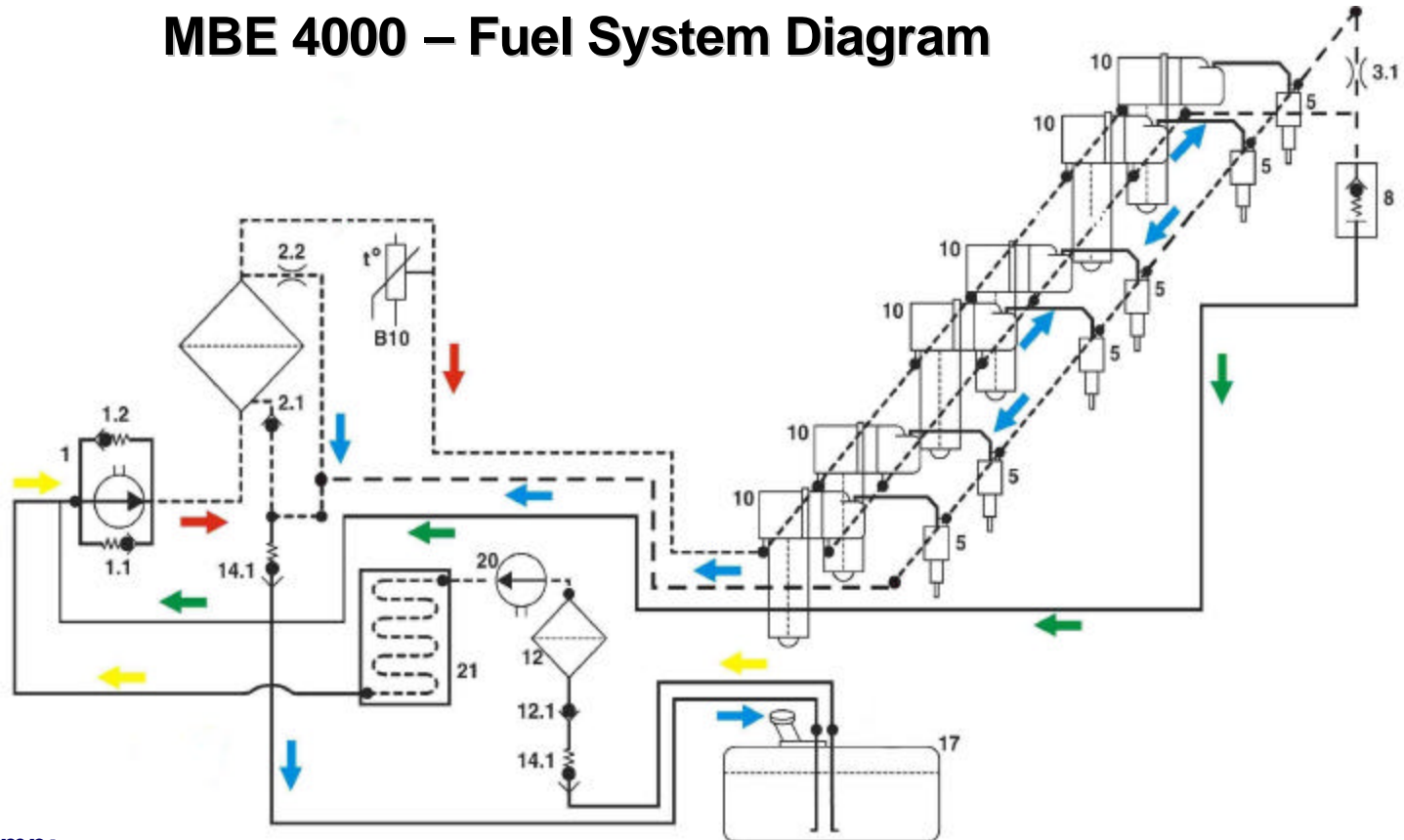
This fuel tank design is required in order to maintain fuel prime and properly service the engine-mounted secondary fuel filter. A check valve should not be fitted to the fuel spill return, as this will not allow for draining of the secondary canister type fuel filter during fuel filter element service. When the secondary filter cannot drain, unfiltered fuel may enter the engine.

If you have any questions, please feel free to contact the Technical Support Team

Evandro Silva  
MBE4000 Technical Support



## MBE 4000 – Fuel System Diagram



### 1 - Fuel pump:

1.1 - Pressure relief valve 130 to 174 PSI (9 - 12 bar)

1.2 - By pass valve

### 2 - Main fuel filter (secondary filter):

2.1 - Fuel filter drain valve

2.2 - Continuous ventilation in fuel filter (0,7 mm)

3.1 - Continuous ventilation (0,7 mm)

5.0 - Nozzle holder

8.0 - Overflow valve – 29 PSI

10.0 - Unit pumps

12.0 – Primary Filter:

12.1 - One way valve

14.1 Assembly valve (opened by contact)

17 - Fuel tank

20 - Hand pump (preferred installation position – not standard on the engine)

## MBE 4000 – Fuel System Schematic

- II-) Exchange heater
- III-) Fuel pump
- IV-) Main fuel filter
- V-) Unit pump
- VI-) Nozzle pump
- VII-) Overflow valve
- 1-) From fuel tank to fuel cooler
- 2-) To fuel pump
- 3-) To fuel filter
- 4-) To unit pumps
- 5-) From unit pumps
- 6-) To injection nozzle
- 7-) Leak fuel line
- 8-) From pressure holding valve to fuel pump
- 9-) Fuel filter drain line (when replacing filter)
- 10-) To fuel tank
- A - Suction line
- B - Return flow line
- C - Low pressure line
- D - High pressure line

