

No.: 05 TS - 22  
July 6, 2005

TO: DDC Distributors, FLLC Dealers

FROM: Technical Service

SUBJECT: **MBE 4000 Main Fuel Filter Installation Procedure**

**ISSUE**

Hard starting of MBE 4000 engine after changing the main fuel filter

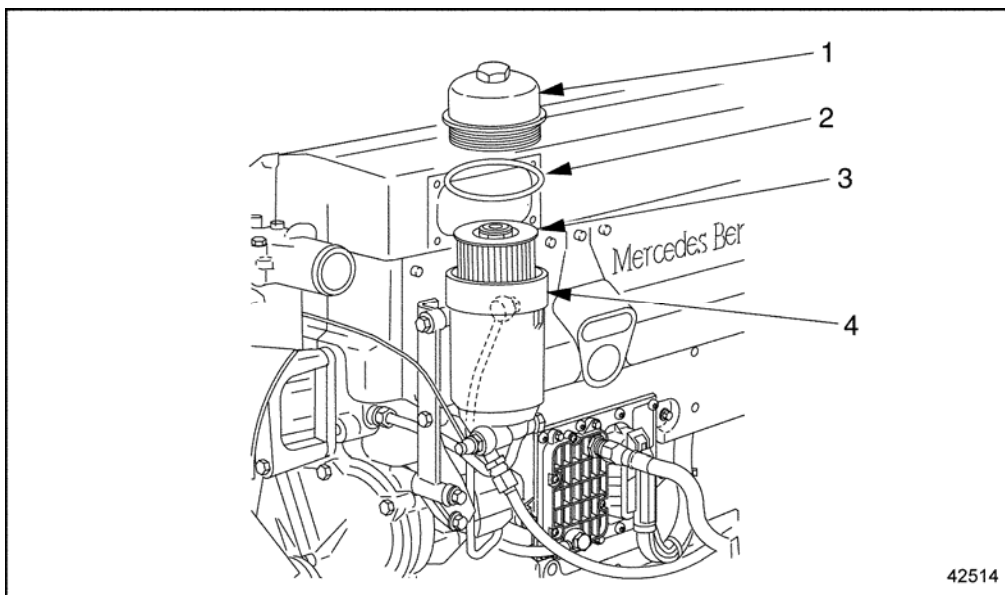
**CAUSE**

The accumulation of excessive air in the fuel system when changing the main fuel filter

**REQUIRED ACTION**

Change the main fuel filter element as follows:

1. Open the fuel tank fill cap to release pressure in the fuel system. Replace and tighten the cap.
2. Clean the outside of the main fuel filter housing.



1. Fuel Filter

2. O-ring

3. Filter Element

4. Filter Housing

**Figure 1 Fuel Filter Components**

3. Using a 36-mm socket, unscrew the cap on the main fuel filter housing. Remove the cap and lift filter element enough within the filter housing to allow the fuel to drain off the filter.
4. Remove and discard the filter element.
5. Clean the filter housing cap.
6. Replace the O-ring on the cap with the new O-ring.
7. Lubricate the filter element rubber seal with a light coating of fuel oil and insert it into the filter housing. Push down and rotate the filter element while installing to ensure it is properly seated at the base of the housing.
8. Fill fuel filter housing with clean fuel.
  - a. A properly seated filter element will hold the fuel in the filter housing and prevent it from draining back to the tank. If the fuel does not stay in the housing the element is not seated properly, repeat steps 7 and 8.
9. Screw the cap onto the filter housing. Tighten the cap to 25 N•m (18 lb•ft).
10. If equipped with a hand pump on the fuel/water separator, work the hand pump until resistance is felt.
  - a. There should be a strong resistance in the hand pump, caused by the pressure build-up within the fuel system.
11. Crank the engine for 30 seconds at a time, but no longer. Before cranking the engine again, wait at least two minutes. The engine should start within four 30-second attempts.
12. Once the engine starts allow it to idle for at least one minute or until idle is smooth before applying the throttle. Check the fuel filter housing for leaks.

**ADDITIONAL INFORMATION**

The installation instructions will be packaged with the fuel filter element.

**CONTACT INFORMATION**

Please contact the DDC Customer Support Center at 313-592-5800 if you have any questions.