DETROIT DIESEL

A DaimlerChrysler Company

No.: 05 TS – 04
May 4, 2005

TO: DDC Distributors and FLLC Dealers

FROM: Technical Service

ATTN: General Manager, Service Manager

SUBJECT: **New Fuel Pump & Regulator for Series 60 EGR DDEC V Engines**

ISSUE
Detroit Diesel Corporation has introduced a new fuel pump and combination pressure regulator/check valve for use on Series 60 EGR engines equipped with DDEC V. These changes will improve the reliability of the N3 fuel injectors used on these engines.

REQUIRED ACTION
The changes are effective with engine unit serial number 06R0814266 built on December 21, 2004. For fuel pump repairs on earlier DDEC V engines, the new fuel pump and combination pressure regulator/check valve MUST be installed together.

Details of Change

- New fuel pump (P/N: 23535207) replaces former fuel pump (P/N: 23532874). Visually, the two pumps differ only by the part number. See Figure 1 below.

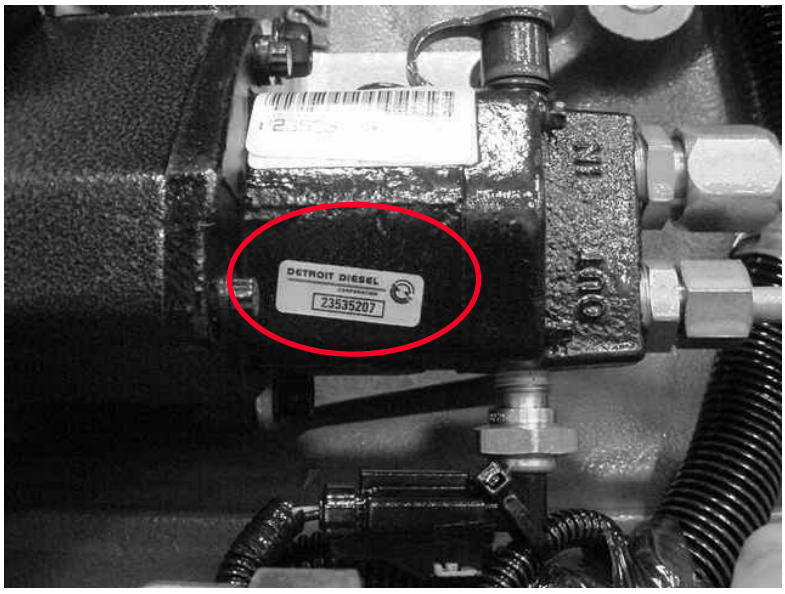

Figure 1 - New Fuel Pump (P/N: 23535207)

- New combination pressure regulator/check valve (P/N: 23535129) replaces former check valve (P/N: 23516993).
- New plain 90 degree elbow (P/N: 23535130) replaces former R80 90 degree elbow (P/N: 8929725).
- Former nipple pipe (P/N: 23530009) is no longer used.

See Figures 2 and 3 below

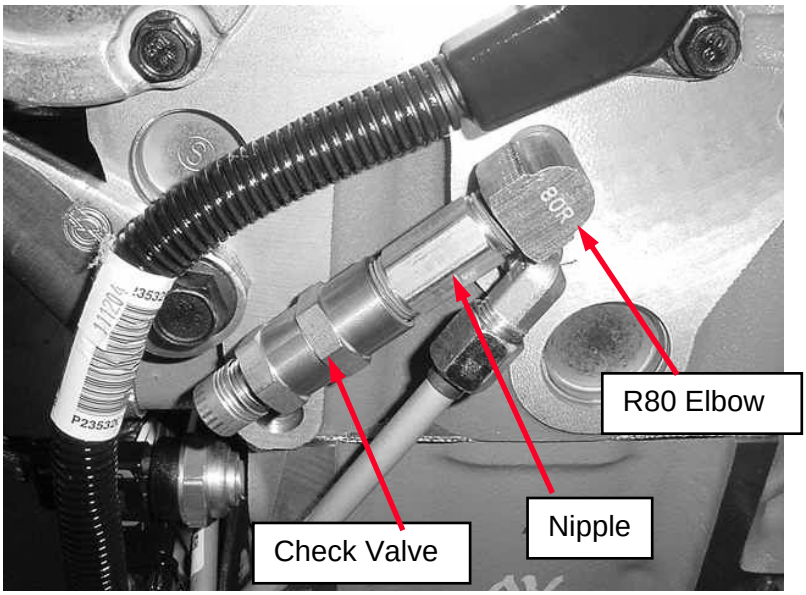

Figure 2 - Former Check Valve, R80 Elbow, & Nipple

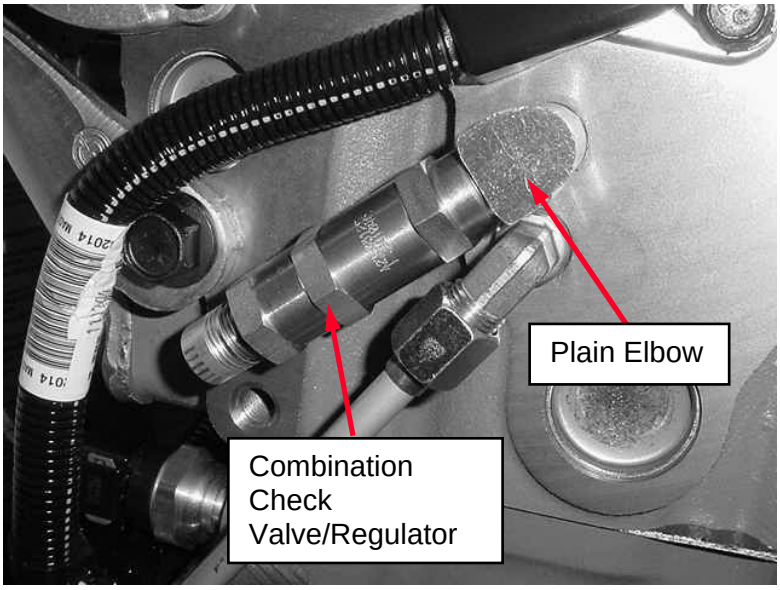

Figure 3 - New Combination Pressure Regulator/Check Valve & Plain Elbow

REPAIR PROCEDURES

The new fuel pump and combination pressure regulator/check valve MUST NOT be mixed with the old components.

Installing a new combination pressure regulator/check valve with the former fuel pump can cause:

- High fuel inlet restriction
- Reduced fuel filter life
- Performance issues

Installing a new fuel pump with the former R80 elbow and check valve can cause the failure of N3 injectors.

For the small number of engines with a DDC-installed primary fuel filter, the fuel tube connecting the primary filter to the fuel pump MUST be replaced with a larger diameter tube.

- On single cylinder air compressor applications, new tube (P/N: 23535197) replaces former tube (P/N: 23530108).
- On twin cylinder air compressor applications, new tube (P/N: 23535198) replaces former tube (P/N: 23531052).
- New fuel tube support clip (P/N: 02236474) replaces former support clip (P/N: 23534169).
- New primary fuel filter outlet fitting (P/N: 23530394) replaces former fitting (P/N: 5244760424).

See Figure 4

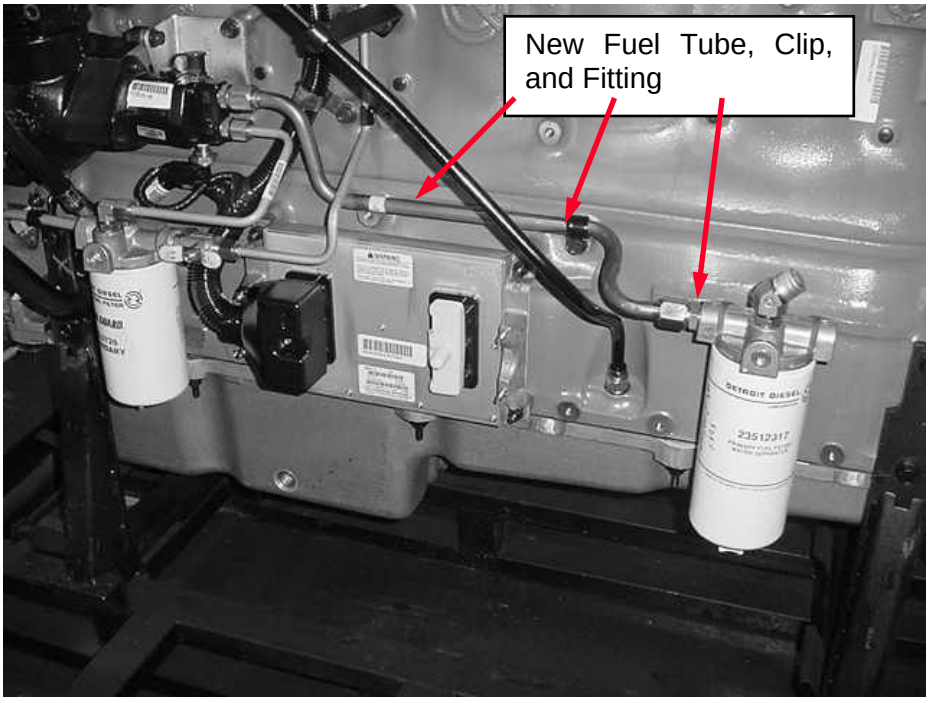

Figure 4 - New Fuel Tube for Engines with DDC- Installed Primary Fuel Filter

Fuel pressure measured at the fuel pump outlet has changed dramatically. See table 1 below for some BASIC guidelines on the former and new pressures. These are nominal values and will be subject to variation based on vehicle differences such as fuel tank level and fuel filter configuration.

RPM	Former Fuel Pump Outlet Pressure (psig)	New Fuel Pump Outlet Pressure (psig)	Former Fuel Spill Flow (gpm)	New Fuel Spill Flow (gpm)
2200	79	28	1.1	1.7
2100	79	27	1.1	1.6
1800	78	24	1.1	1.4
1500	76	22	1.1	1.2
1200	65	21	1.0	1.0
900	40	19	0.8	0.7
600	20	18	0.6	NA

Table 1 – Guidelines for Former and New Fuel Pump Outlet Pressures/Fuel Spill Flows

CONTACT INFORMATION

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