



COMMON DIESEL FUEL PROBLEMS NUMBER 2

This is a guide designed to help in resolving customer's fuel related problems.

It is important to remember that if a problem is fuel related then a number of vehicles from the same source will be affected.

DIESEL ENGINES - LACK OF POWER AND HARD STARTING

This indicates that not enough mass of fuel is going into the combustion chamber to provide enough charge to generate the required energy.

The fuel related causes of this are: -

- 1) The fuel filter is blocked and is restricting the flow of fuel to the engine.
- 2) The fuel is of low density due to adulteration with another fuel like kerosine. The low density means that for a constant volume of fuel injected less mass of fuel goes into the combustion chamber.

Resolution of the problem.

- 1) Check fuel filters for evidence of blockage, replace filter.
- 2) If blockage is found then check the fuel from the supply tank for dirty or hazy fuel.
- 3) Check that the customer is following proper fuel management practices, e.g. first in first out, regular water draining, storage tanks have a water drain at the lowest point.
- 4) Take a 1 litre sample and send to the lab, with a filter if filter blockage is found. Only send a sample if visual examination does not clearly identify the cause.
- 5) If filter blockage is not found then send a sample of the fuel to the lab for checking against the specification.
- 6) Once the cause is established the corrective treatment may be one or more of the following: -

Drain water and sediment and hazy fuel
Replace fuel

Treat with biocide
Train customer in housekeeping practices.

OTHER CAUSES

Mechanical causes of loss of power apart from fuel filter blockage are: -

Faulty or incorrectly adjusted fuel injection system.

Improper sealing of combustion chamber by piston rings or exhaust valves which allows the combustion gases to leak out.

**For further information, please call the
BP Lubricants and Fuels Technical Helpline
1800 033 558
freecall**

or visit www.bp.com.au/fuelnews