

# Warranty Process and DPF Explained

# **DPF and Combined:-**

DPF is a serviceable item.

The DPF unit can be severely damaged if the vehicle is not maintained and/or an issue arises from external items related directly to the DPF, this can occur any time whilst in service.

The DPF is designed to capture particle matters generated by the engine, if the particulate matter deviates from standard emissions produced by the engine this can irreversibly damage/block the DPF unit, this can prevent the initiation of a regeneration process which is controlled by the vehicles Electronic Control Unit (ECU) and not the DPF.

# **Installation Procedure Checks**

When changing a DPF unit the following components must be checked and replaced if necessary to validate any warranty claims:

- 1. DPF pressure pipes and sensors check to make sure all pipes are free from damage or blockages and all sensors are operating correctly.
- 2. Oil level if oil level is high this could be a sign it's been contaminated with fuel from failed regeneration attempts, if this is present an oil and filter is required.
- 3. Oil specification check the correct low ash oil has been used
- 4. Fuel additive (where applicable) check the level of additive, if required fill up the tank. Normally a manufacture's procedure must be followed to reprogram the ECU.
- 5. Sensor checks check all sensors to ensure they are operating correctly, replace if necessary.
- 6. EGR system check the exhaust gas recirculation valve is working correctly and that the EGR pipe is free from damage or blockages.
- 7. MAF sensor check for fault codes as this can cause over-fuelling issues and the engine to create a higher soot volume and can lead to premature DPF failure
- 8. Engine and turbo wear Build up of carbon or soot present? Clean where applicable
- 9. Injectors (In case they are leaking) check diagnostic report to ensure no faults present
- 10. Glow plug condition change if required
- 11. ECU should also be checked for any malfunctions/ Fault codes and ECU needs to be reset to the new DPF parameters print outs should be made available upon request



# **Regeneration Terms of DPF**

The information below is a brief explanation of the three types of regeneration cycles that a DPF can undergo. The regeneration cycle is initiated by the ECU and the control gear of the vehicle not the DPF.

#### **Passive Regeneration**

Passive Regeneration needs no engine management intervention and occurs during normal engine operation. This form of regeneration activates when the DPF temperature reaches 250°C and continues while the vehicle is being driven at higher speeds. During the passive regeneration cycle only a portion of the DPF's soot content is converted to carbon dioxide.

#### **Active Regeneration**

An active regeneration is initiated by the Electronic Control Unit (ECU) and the control software. The point of regeneration is calculated based on distance travelled, style of driving and back pressure signals from differential pressure sensor. This form of regeneration normally occurs between 500-600miles (driving style dependant) for example, a car driven at high speeds for long distances will have passive regenerations, if a vehicle is driven for short start stop journeys the soot loading will increase meaning an active regeneration will occur more often. Usually you will notice a decrease in fuel efficiency and the exhaust temperatures will rise to above 600°C at the DPF inlet.

#### Forced Regeneration

A forced regeneration is applicable when the DPF has reached a soot loading threshold, once the threshold has been reached passive and active regenerations will no longer occur and a forced regeneration is to be completed by a trained professional with the correct and necessary equipment.

#### **DPF Warning Lights**

The DPF warning light could illuminate between regenerations and distances up to 1000 miles, this doesn't necessarily indicate a fault.

If the DPF warning lamp is illuminated <u>RED</u> the DPF requires immediate regeneration. If the DPF is not regenerated the check engine or service light will also illuminate and the vehicle may enter 'Limp' mode. This can only be resolved by means a forced regeneration provided that vehicles DPF hasn't become damaged or blocked beyond the point of regeneration. If the DPF becomes blocked beyond the normal parameters of regeneration the DPF will need to be replaced. If the DPF warning lamp is illuminated <u>AMBER</u> this means a regeneration is required which is automatically initiated during normal driving.

If the DPF warning lamp is illuminated <u>GREEN</u> this means the vehicle is in a regeneration process. (Please note not all manufactures use colour coded lamps and the above is for reference and example only)



### **Direct Fit Units:**

12 months / 28,000Km (whichever occurs first) on all Non-Approved product, subject to warranty form completed

24 months / 50,000km (whichever occurs first) on Approved products, subject to warranty form completed

# Front / Intermediate Pipes:

12 months / 28,000km, (whichever occurs first) subject to terms and condition

# Our warranty is as follows and limited to:

12 months / 28,000km (whichever occurs first) for non-approved products and front / Intermediate pipes.

24 months / 50,000km (whichever occurs first) on Approved products, subject to warranty form completed

# What is covered?:-

All items are covered prior to fitment including substrates.

### When fitted what is covered?:

External metal work, (Brackets / Welding)

#### When fitted what is excluded?:

DPF substrate and substrate support External damage caused by negligence.

#### In order to submit a warranty claim:

The following evidence may be requested in order to support the claim, failure to provide any requested information may result in the claim being rejected due to lack of supporting evidence.

- 1. Full diagnostic report of faults upon removal of the OE DPF unit
- 2. Invoice for any repairs related to the OE DPF failure
- 3. Invoice of Direct Fit Ltd DPF unit being installed
- 4. Proof of the required ECU resets and adjustments
- 5. Full diagnostic report of Direct Fit Ltd unit failure
- 6. Invoice for removal of Direct Fit Ltd DPF unit.
- 7. Evidence of install date / removal date
- 8. Evidence of mileage whilst Direct Fit Ltd DPF unit fitted. Fitted mileage/Return mileage

We reserve the right to alter or amend the above without prior notice. ©2016 directfit Itd