

DIESEL PARTICULATE FILTERS

On Jaguar diesel models from 2006 onwards a **diesel particulate filter** is fitted to the car.

These have been fitted in order to conform to the current emission regulations. The filter catches soot particles from the exhaust and this reduces carbon emissions from entering the atmosphere. When the filter is almost full it goes through a process called regeneration to remove the soot. This is automatically carried out by the Jaguar's engine management system. Once the DPF reaches approx. 550 degrees centigrade the process starts. Hot diesel is injected in, this intense heat turns the soot to ash and this then escapes harmlessly out of the exhaust. In order for the regeneration process to take place all the optimum conditions have to be achieved, everything has to be in good working order and the appropriate driving conditions performed (achieved by travelling at 40mph continuously for about 15mins). Regeneration can occur without the driver even being aware of it, sometimes a crackling/popping sound can be heard and/or a burning smell can be noticed. If conditions are not met and the DPF becomes too full and unable to regenerate then the Jaguar's performance will become reduced and in some cases the engine can stop altogether. If the hot diesel is not used in the regeneration process because of failure then it begins to dilute the engine oil causing an overfill, very dangerous for the engine. The only options at this point are the renewal of the DPF (approx. £800-£1000) or cleaning (a fraction of the price). The cleaning method uses an insertion tool that sprays a special chemical into the filter that has the effect of allowing the clogged soot to regenerate and exit the exhaust as ash.

Prevention is better than cure! If you have a diesel with a DPF fitted then here are some recommendations:

1. Optimum conditions for regeneration are achieved by travelling at 40mph with engine revs above 2000rpm for about 15mins. So continually driving short distances or just city driving is not beneficial to the diesel engine.
2. Use good quality fuel.
3. Use an approved diesel fuel additive, this helps to clean the fuel system.
Regular servicing. During every diesel service that we carry out we check the DPF to see how full it is. We also carry out checks on the engine to ensure that optimum conditions are available to enable regeneration to take place.
4. Regular oil changes are very important for these diesel engines as the oil becomes diluted during the regeneration process.
5. We strongly recommend an oil change in between the regular services.