

# Dorset IAM RoadSmart



April Newsletter - 2020 (edition 60)

## This month we start with a letter

The UK lock-down started on 23rd March, and the 22nd was when I last saw my family. We had all come together for the funeral of my only Uncle. My twin brother and his family traveling down from Lancashire, parents from Somerset and my sister from Cheltenham. Unfortunate timings you might say, but at least it wasn't a week later where the funeral would have most likely taken place with little or no friends and family present.

I returned to Weymouth on the 22nd, before the lock-down kicked into play and since then my car has pretty much remained in the garage. It has been out for a wash, and I have swapped the winter tyres (Nexen WinGuard Sport 2) over to my summer ones (Michelin Pilot Sport 4)... hopefully not wishful thinking! If it is lucky, it might get a polish or two before it gets back out on the road.

Unlike many people I don't normally carry out large shopping trips, but instead stroll to the supermarket with my rucksack and buy what I need for a few days. This approach was challenging at the start, but now that the panic-buying people have given up their new past time, it seems to work quite well. I normally aim to get to the shop shortly before closing and generally find it pretty empty and I can nip around quite quickly.

Otherwise, I have been busy filling my time by working. Fortunately, whilst being classed as a key worker (as they cover all services, rather than the obvious medial key workers which make the press), I have been able to exclusively work from home. Granted longer hours than normal; normally 12 hour days, but I've been saved from my normal office commute. There is talk of a "new normal" when this pandemic is over. I for one will be interested to see how this pans out. We make good use of technology, so it does make me wonder if a lot of our travel is nu-necessary. Don't get me wrong, there are always times for a face-to-face conversations when meeting and dealing with

new customers but a lot of the time we have physical meetings simply because that is the norm. Thankfully over the last few years at work we have cut down a lot of inter-site travel, instead favouring video conferencing and shorter more frequent team calls.

When I've not been working, I have tried to make best use of my daily exercise time; alternating between cycling, running and walking. My time outside, while the nicer weather has been with us has been controlled by how much sun I think my fair skin can handle!

For the many years which I have held the role of Newsletter Editor, we have tried various ways of encouraging our members to make contact with us - letters, comments, thoughts, feedback and as a general rule any form of feedback has been lacking, which is always slightly disappointing. Therefore, it was nice to receive an email the other day from one of our members.

The gentleman in question contacted us with a question, rather than a letter for publication, so I will preserve his privacy but I think the question is suitable valid for these times, and can be found on the below.

Stay at Home, Protect the NHS, save lives.  
#stayhomesavelives

*Matt Ames*  
Newsletter Editor

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## Diesels, DPFs and the lock-down

Sorry this is a long message but as we move into another and indeterminate period of lock-down I've become aware that many diesel car drivers have no idea that the lock-down itself presents a different and potentially highly expensive kind of risk to their cars.

Since 2009 all diesel cars have been fitted with a device called a diesel particulate filter (DPF). The DPF

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is mounted within the car's exhaust system and works by drawing off particulates into the filter and then burning them up when the system gets hot enough. It contains some valuable metals and as such is very pricey to replace / repair (which also makes them a prime target for overnight theft).

The problem I want to highlight is that if (like me) all the driving you are doing at the present time is a weekly trip to the local supermarket, you'll be building up a significant store of unburnt particulate in the system that could result in a breakdown. The first indication of a problem is usually a warning light but this isn't guaranteed as it relies on a number of components to be fully functional such as sensors and of course the lamp itself. The RAC advise that drivers regularly give their diesel vehicle a good 30 to 50 minute run at a sustained speed on an A road or motorway. This is the main reason that motor traders don't recommend diesels as city cars. However in the current regime of "stay home", regular lengthy driving is unlikely to be considered acceptable behaviour.

Therefore, you'll need to keep your trips in the car to an absolute minimum until this is all over. If you cannot, or you suspect that the DPF is beginning to clog up, at the very least you should try to drive for 10 minutes or so at a speed no less than 40mph. This is called active regeneration and if its working you should notice that the engine note changes, the cooling fan runs and possibly a hot acrid smell from the exhaust. My route to and from the supermarket is now a circuit that includes a couple of 60mph straights and gives the car a chance to get fully hot.

I am fully complying with all Government advice. I accept that some people may think that even trying to minimise the damage to my vehicle is not within the spirit of the lock-down.

Frankly I can ill afford the £2000 a replacement DPF for my car would cost. Does the IAM have a view on this please?

A suitably interesting question I am sure that our readers will agree, and a position for which many of us will find ourselves in. I myself, drive a diesel powered vehicle.

We have passed the question on to IAM via our Regional Service Delivery Team Manager, and will await an official IAM response in due course. However, my understanding is as below.

DPF filters go through a regeneration process which removes this soot and lowers the filter pressure. There are three types of regeneration: passive, active, and forced.

Passive regeneration takes place normally while driving, when engine load and vehicle drive-cycle create temperatures that are high enough to regenerate the soot buildup on the DPF walls.

Active regeneration happens while the vehicle is in use, when low engine load and lower exhaust gas temperatures inhibit the naturally occurring passive regeneration. Sensors upstream and downstream of the DPF (or a differential pressure sensor) provide readings that initiate a metered addition of fuel into the exhaust stream. There are two methods to inject fuel, either downstream injection directly into the exhaust stream, downstream of the turbo, or fuel injection into the engine cylinders on the exhaust stroke. This fuel and exhaust gas mixture passes through the Diesel Oxidation Catalyst (DOC) creating temperatures high enough to burn off the accumulated soot. Once the pressure drop across the DPF lowers to a calculated value, the process ends, until the soot accumulation builds up again. This works well for vehicles that drive longer distances with few stops compared to those that perform short trips with many starts and stops.

If the filter develops too much pressure then the last type of regeneration must be used - a forced regeneration, normally by connecting up to dealer or specific hardware to trigger.