**Electric Vehicle Inspection Toolbox Talk**

Electric and hybrid vehicles require less maintenance than petrol and diesel vehicles and are more reliable so they don’t need as many repairs. The drive train for an electric vehicle only has around 20 parts and maintenance costs are lower than traditional internal combustion engine vehicles.

The AA has found that electric vehicle breakdowns normally involve a puncture or a problem with the 12-volt battery that powers the car control systems.

There is less wear and tear on the braking system due to regenerative braking and there are fewer fluids to monitor too but checks to see if the battery coolant is leaking should be carried out regularly. However, the coolant system is sealed so checks on the fluid level should be carried out by a trained technician. Another issue with electric vehicles is that their battery packs make them heavier. This means they need specific tyres that can cope with the extra weight and torque.

**Pre Journey Inspections**

If you’re using your electric vehicle for a work related journey, it’s important to carry out a pre journey inspection. A record of the inspection needs to be made to ensure that there is evidence that your vehicle is roadworthy and suitable for use. The frequency of the checks will be confirmed by your fleet manager.

These checks should include:

* The charging cable, coupler and charging port
* A check for fluid leaks
* Lights and mirrors
* Tyre pressure, tread depth and tyre damage
* Damage to the vehicle bodywork
* Internal controls
* Windscreen and wiper blades
* Brake pads and discs
* Seat belts

**Tyres and Care**

EV’s are heavier than combustion vehicles due to their battery packs. You should be aware of the following issues affecting your EV vehicle tyres:

* They put more wear and tear on tyres due to their weight
* Heavy load tyres which can withstand the weight and extra torque created due to faster acceleration are fitted to electric vehicles
* These tyres are more durable than conventional tyres due to their design features that help absorb the strain of carrying extra weight
* Ensure tyres are rotated by following the manufacturer guidance
* It is important to check tyre pressure regularly and keep your tyre pressure in line with manufacturers recommendations
* Legal tread depths are the same for EV tyres as for conventional vehicle tyres

**Battery maintenance**

Most EVs have a battery guarantee of around 100,000 miles which is around 12 years for the average driver. Battery technology differs from the batteries in your laptop or mobile phone meaning deterioration is much slower. The battery management systems in EVs are designed to protect battery life too.

**Recording vehicle inspections**

There is a form for recording vehicle checks, please ask your line manager if you have queries as to how to access and use the form. Your line manager will also provide you with basic training on how to carry out a vehicle condition check.

# Key Points to Remember

# Electric vehicle checks should focus on the same issues as a check on a traditional combustion engine vehicle.

# Heavy duty tyres are required for EVs and checking tyre pressure regularly is important for your safety

# You should undertake weekly vehicle checks or at least before you undertake a journey if you use the vehicle irregularly - if you need training speak with your Manager

**Driver’s discussion questions**

1. Were you aware of the different maintenance needs of EVs?
2. Do feel confident in carrying out a vehicle inspection or do you require more training?
3. What do the AA suggest are the most common causes of breakdown for electric vehicles?

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**Attendees**

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