

Vehicle Overloading Regulations

Overloading vehicles is illegal and carries severe penalties for drivers and operators. This fact sheet will explain what that means to you and what you have to do.

What the rules mean to you

The responsibility for ensuring that a vehicle is not overloaded rests with both the driver and the vehicle operator. Furthermore, anyone else who causes or permits overloading is also committing an offence. As an operator you should do everything in your power to ensure that vehicles are not overloaded.

It is a fundamental requirement that a vehicle must comply with the weight limits of individual axles and the maximum gross vehicle weight.

What the law says

According to The Road Traffic Act 1988, “vehicle users” must ensure that vehicles are not overloaded. Legislation imposes fines of up to £5,000 for each offence. That means a fine for each overloaded axle plus any overloading of the total weight. Drivers may also face a charge of Dangerous Driving, with a maximum penalty of two years in prison. If overloading results in someone being killed, the driver and operator may face imprisonment for Manslaughter or Death by Dangerous Driving.

The Road Vehicles (Construction and Use) Regulations 1986 require that “all parts and accessories and the weight distribution, packing and adjustment of their loads shall be such that no danger is likely to be caused to any person in or on the vehicle or trailer or on the road”.

Additionally, “no motor vehicle or trailer must be used for any purpose for which it is unsuited as to cause or be likely to cause danger or nuisance to any person”.

How are the rules enforced?

Random roadside checks are carried out by VOSA, trading standards officers and the police to enforce overloading regulations. Between April 2002 and March 2003 more than 57,500 vehicles were stopped and weighed by VOSA. During that period 7.51% of HGVs, 5.39% of PSVs and 20.92% of LGVs were found to be overloaded.

What happens if the vehicle is found to be overloaded?

The driver may be issued with a prohibition notice that prevents him or her from continuing their journey until the weight is corrected - either the goods have been unloaded to bring the weight down, or redistributed in axle overload cases. In some cases the driver may be issued with a ‘direction to drive notice’ allowing them to drive to a specific place to offload.

As an operator, if your vehicle is overloaded on the road, you have committed an offence under the Road Traffic Act 1988.

What do you need to do?

It's important to have a 'safety culture' in place that ensures your drivers understand weight legislation and a simple guide to load capacity and weight distribution should be available in every vehicle. Your drivers should immediately report concerns that a vehicle is illegally overloaded to their manager, who should investigate all concerns straightaway to prevent overloading.

How to be sure the weight is correct

- The Gross Vehicle Weight (GVW) and axle weight can be found on 'plates' fitted to the vehicle in heavy goods vehicles, and in the driver's handbook in vans
- Be careful not to mix up the GVW (maximum permitted weight of the vehicle) and the Gross Train Weight (GTW) (maximum permitted weight of the vehicle plus any trailer being towed, plus any loads in the vehicle or trailer)
- Remember that the GVW includes the weight of the vehicle, load, driver and passengers
- Remember that the weights are metric units of kilograms

Why prevent overloading

- It makes the vehicle less stable, difficult to steer and takes longer to stop
- It increases the wear rate of the brake components and puts additional strain on suspension and steering components reducing service life
- It puts massive strain on the tyres causing them to overheat and increases the risk of premature, dangerous and expensive failure

- It can mean your insurance cover is void
- It increases fuel consumption

To ensure your vehicles are never overloaded you should:

- Know the unladen weights of your vehicles and the carrying capacity of each axle
- Know what you are carrying and the weight of the load
- Know how to distribute the load appropriately
- If possible check your GVW on weighbridge before setting out
- Do not automatically trust declared weights, invoices and delivery notes given to you by customers or passengers
- If operating a PSV, give a weight allowance for each passenger
- If towing a trailer, ensure that the maximum GTW is not exceeded, and ensure any load carried on the trailer is kept low and evenly distributed over the axle

Calculation of axle loads

Gross vehicle weights are easy to calculate and check, axle weights are more difficult. Although a gross plated weight may not be exceeded, a load incorrectly distributed on the vehicle often results in axle weights being exceeded.

If a vehicle is uniformly loaded the weight imposed on axles can be ascertained by the use of a simple formula. The only information required is the total weight of the payload, the distance of the centre of the load to the rear axle, and the wheelbase of the vehicle.

The formula is:

PAYLOAD x DISTANCE OF CENTRE OF LOAD TO REAR AXLE = FRONT AXLE LOAD WHEELBASE

It must be remembered all weights and dimensions must be either in kilograms and millimetres or pounds and inches. To mix metric and imperial measurements would necessitate further conversion.

Example:

Payload of 6 tonnes

Centre of load from rear axle 4m

Vehicle wheelbase 10m

6 (tonnes) x 4 (m) = 2.4 tonnes on front axle 10 (m)

Payload = 6 tonnes

Weight on front axle = 2.4 tonnes

Weight on rear axle = 3.6 tonnes

The amount of payload imposed on any axle must be added to the axle kerbside weight to ascertain if the axle plated weight has been exceeded.

Multi-drop drivers must be aware of the diminishing load effect where, if the load is removed from behind the rear axle, the load on the front axle will increase as the counterbalance effect is reduced.

Calculations for articulated vehicles are the same, except that there must now be two calculations, one for the trailer and one for the vehicle.

For the trailer, the kingpin replaces the front axle and the trailer wheelbase is the distance from the kingpin to the rear axle.

The formula will give the amount of payload being imposed through the kingpin onto the drawing unit. Add this to the kerbside weight to obtain the weight being imposed.

For the tractive unit, the centre of the payload to the rear axle is replaced by the distance of the centre of the coupling to the rear axle.

Further reading

For permitted gross weights of vehicles operating in the UK, contact **HMSO** on **0870 600 5522**.

For advice on the distribution and restraint of loads, call **The Fleet Safety Forum** on **01484 559909** or email **fleetsafetyforum@brake.org.uk**

For other information, visit **www.vosa.gov.org** **www.fta.co.uk** and **www.rha.net**