



Vehicle & Operator Services Agency

Vehicle safety: the dangers of overloading



Overloading a vehicle, whether a goods vehicle, Passenger Service Vehicle (PSV), or car, is illegal. This guidance sheet has been produced by the Fleet Safety Forum, a division of the road safety charity Brake, in partnership with VOSA (Vehicle Operators Services Agency). It includes generic information for all vehicle types and specific advice for operators of different vehicle types. Although you may feel that not all sections are relevant to you, please read the whole sheet to get a full picture of the dangers of overloading and what you should do to prevent it happening.

Extent of the problem

VOSA employees, trading standards officers, and police officers carry out random checks at the roadside to enforce overloading regulations. Between April 2002 and March 2003 more than 57,500 vehicles were stopped and weighed by VOSA. The results are as follows:

	Vehicles weighed	Vehicles found to be overloaded and prohibited	% prohibited
Heavy Goods Vehicles	50,223	3,770	7.51%
Passenger Service Vehicles	297	16	5.39%
Light Goods Vehicles	7,006	1,466	20.92%

Clearly the problem is extensive, most notably with Light Goods Vehicles, but also significantly with Heavy Goods Vehicles and Passenger Service Vehicles.

What will happen if I overload my vehicle?

An overloaded vehicle will not only cause damage to roads and to your vehicle but will also put your drivers and other road users at risk. Overloading a vehicle:

- **Makes the vehicle less stable, difficult to steer and take longer to stop.** Vehicles react differently when the maximum weights which they are designed to carry are exceeded. The consequences can be fatal;
- **Puts massive strain on vehicle tyres.** Overloading can cause the tyres to overheat and wear rapidly which increases the chance of premature, dangerous and expensive failure (such as blow outs);
- **Means insurance cover is void.** Overloading a vehicle is illegal and therefore insurance cover can be void if the vehicle is involved in a crash;
- **Causes excessive wear and damage to roads, bridges, and pavements** at the expense of the tax payer;
- **Is unfair on other operators.** Exceeding weight limits is unfair competition;
- **Increases fuel consumption,** which will increase your costs.

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Responsibility, legislation and guidelines

Ensuring a vehicle is not overloaded is the responsibility of both the operator and the driver. In addition to this, if anyone else causes or permits an overloaded vehicle they may also be charged with committing an offence.

All companies have a 'duty of care' under the **Health and Safety at Work Act 1999** for the safety of employees at work. If someone is driving on your behalf, they are as much 'at work' as if they were in a factory or an office. This means that an employer must do all they can to ensure the safety of that driver, including having policies in place to ensure that their vehicle is not overloaded. The Act also places a duty of care on the employer to carry out suitable risk assessments.

The operator has a moral and legal responsibility which is shared with the driver of the vehicle.

The Road Traffic Act 1988 requires "vehicle users" to ensure that vehicles are not overloaded. If a vehicle is found to be overloaded both the driver and operator could be prosecuted or cautioned. Legislation imposes fines of up to £5,000 for each offence. That means a fine for each overloaded axle plus any overloading on the total weight. Also, if a vehicle is dangerously overloaded the driver could face a charge of Dangerous Driving which carries a maximum penalty of two years in prison. Other offences within the Road Traffic Act include refusal to allow the vehicle to be weighed and obstruction of an officer which also carry a maximum fine of £5,000. If a vehicle is overloaded and results in someone being killed, both driver and operator could face going to jail 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."

Information on permitted gross weights of vehicles operating in the UK is contained in The Road Vehicles (Authorised Weight) Regulations 1998, Road Vehicles (Authorised Weight) (amendment) Regulations 2000 and Construction and Use Regulations 1986. These include the weights for different vehicle types, combinations and individual axles. Copies of regulations can be obtained from Her Majesty's Stationary Offices (HMSO) by calling 0870 600 5522.

Driver understanding

Companies need to have a "safety culture" in place which ensures that drivers understand weight legislation and immediately report any concerns that a vehicle is illegally overloaded to their manager. Their manager should investigate all concerns immediately to prevent overloading.

This guidance sheet includes a page which can be photocopied and distributed to drivers to help educate them on preventing overloading.

What will happen if one of my vehicles is overloaded?

If one of your vehicles is found to be overloaded by an enforcement officer it can result in a prohibition notice which will prevent the driver from continuing their journey until the weight is corrected. This may involve the goods being unloaded to bring the weight down or redistributed (in axle overload cases). Your driver will then be issued with a 'removal of prohibition notice' to continue their journey.

In some cases, the driver may be issued with a 'direction to drive notice' which allows them to travel to a specified place to off-load.

If your vehicle is overloaded on the road, you have committed an offence under the Road Traffic Act 1988. See the 'responsibility, legislation and guidelines' section above for further information.

Load restraint and distribution

It is important to ensure that loads are restrained and distributed safely, as well as being within weight limits. The Fleet Safety Forum has produced another guidance sheet which offers advice on the distribution and restraint of loads for all types of vehicle. For a free copy, call Brake on 01484 559909 or email fleetsafetyforum@brake.org.uk.



What precautions should I take when towing a trailer?

Towing a trailer puts greater demand on the vehicle and the driver. Information on acceptable trailer towing weights can be found in vehicle handbooks. You should ensure that:

- **The vehicle does not exceed either the Gross Vehicle Weight (GVW) or the Gross Train Weight (GTW).** The GVW is the maximum permitted weight of the vehicle (plus any load it is carrying), while the GTW is the maximum permitted weight of the vehicle plus any trailer being towed (plus any load being carried in the vehicle and trailer);
- **Any vehicle that has a chassis plate which is towing a trailer has the maximum GTW added to its chassis plate.** Otherwise, if the vehicle is weighed at a check point, the total weight could appear to exceed the maximum gross weight;
- **Any load being carried in the trailer is kept as low as possible and near to the axle.**

Information on weighbridges, including finding your nearest public weighbridge

Vehicle weights (before and after loading) should be checked using a weighbridge. Companies that do not have their own in-house weighbridge can use one belonging to a client or a company nearby, or a public weighbridge. Use a weighbridge as close to your depot as possible to check every load your vehicles carry.

To find your nearest public weighbridge, go to the Trading Standards website, www.tradingstandards.gov.uk, which can be searched to find your local Trading Standards office. On your local office's website you will find a list of weighbridges in your area.

Most public weighbridges are open at least 8am to 4pm on week days and 8am to 12pm on Saturdays and some are open 24 hours a day.

Individual axle weights can also be checked on most weighbridges, although in some cases the approach and exit paths on public weighbridges are not sufficiently flat or level to give accurate results. This is particularly true of the surface-mounted type of weighbridge, which has mounting ramps at each end of the loading plate.

For this reason, it is recommended that companies with a fleet of articulated trucks or a very high volume of traffic should install a fixed axle weighbridge. These give rapid axle and total weight checks on all types of commercial vehicle. Companies that run fleets of two-axled rigid chassis vehicles could consider purchasing one of the several types of portable axle weighing systems that are now available. These weighing systems are suitable for smaller fleets composed of two-axled rigid chassis vehicles. See the 'Sources of further information' section on page 6 for suppliers of vehicle weighing equipment.

ADVICE FOR TRUCK OPERATORS

How do you know the weight that is allowed?

You should:

- **Find the maximum permitted axle weight and Gross Vehicle Weight (GVW).** These can be found on 'plates' which must be fitted to all vehicles and certain trailers. This could be a manufacturer's plate or a Department for Transport plate which is usually located in the vehicle cabin, under the bonnet or on the chassis of trailers;
- **Be careful not to mix up the Gross Vehicle Weight (GVW) with the Gross Train Weight (GTW).** The GVW is the maximum permitted weight of the vehicle (plus any load it is carrying), while the GTW is the maximum permitted weight of the vehicle plus any trailer being towed (plus any load being carried in the vehicle and trailer);
- **Remember that the GVW includes the weight of the vehicle, load, driver and any passengers.** Also allow for the weights of any pallets or packing cases;
- **Remember that weights are given in metric units of kilograms;**
- **Look at regulations governing vehicle weights.** See the 'Responsibility, legislation and guidelines' section on page 2 for further information.

What can I do to prevent my vehicles being overloaded?

To ensure that your vehicles are never overloaded you should:

- **Know the weights of your vehicles (as above).** Ensure that you weigh any new vehicles and vehicles that have been repaired. This should be done when the vehicle is empty so that you can calculate the load that can be carried. Also, if possible, weigh the vehicle to establish individual axle weights. See the 'Information on weighbridges' section above;
- **Distribute your load appropriately** to avoid overloading axles. After any drop-offs, re-check the distribution of the remaining load, as load shifting could cause an axle overload or cause the load to become insecure, which also constitutes an offence (please refer to the Fleet Safety Forum's guidance sheet on load safety);
- **Check the Gross Vehicle Weight before setting out,** either using your own weighbridge, or one nearby. Your drivers are allowed to drive to the nearest available weighbridge to check their load and then go to a place where they can take off some of the load if the vehicle is overloaded. See the 'Information on weighbridges' section above for further information, and guidance on finding your nearest public weighbridge;
- **Do not automatically trust declared weights, invoices or delivery notes given to you by customers.** Remember that you and your driver hold the responsibility for not overloading, not the customer.



Case study – van and truck company policy on preventing vehicle overloading

A leading van and truck operator, which has more than 16,500 vehicles ranging from 3.5 tonne vans to 44 tonne artics (including rental vehicles) and more than 1,000 drivers, has a comprehensive policy in place to prevent the overloading of vehicles.

When drivers start working for the company they have an induction which includes training on loading vehicles, including preventing overloading. The company policy is also included in the driver handbook and new drivers are also accompanied by an “on-the-job trainer” for up to a week.

Drivers are told the weight of their vehicles and also the weight of their load. The company often carries identical loads for regular clients. Every time the company carries a new load it is weighed and the company also carries out spot checks to ensure that the loads carried stay at the same weight. The drivers understand that it is also their responsibility to ensure that their vehicle is not overloaded or incorrectly loaded and are trained to pass on any concerns about the load to their manager. The company ensures that the drivers are given time to check their vehicle and its load before they set off on their journey.

ADVICE FOR VAN OPERATORS

Vans have the highest prohibition rate of overloaded vehicles with 1,466 out of 7,006 vans weighed by VOSA between April 2002 and March 2003 being prohibited. That's 20.92%, or just over one in five vehicles.

How do you know the weight that is allowed?

You should:

- **Find the maximum permitted axle weight and Gross Vehicle Weight (GVW).** For vehicles under 3.5 tonnes this can be found in the driver handbook and possibly on a manufacturer's plate. All vehicles over this weight must have a plate fitted which includes the maximum permissible weight. The plate should be found by the bulkhead or by the driver or passenger door;
- **Be careful not to mix up the Gross Vehicle Weight (GVW) with the Gross Train Weight (GTW).** The GVW is the maximum permitted weight of the vehicle (plus any load it is carrying), while the GTW is the maximum permitted weight of the vehicle plus any trailer being towed (plus any load being carried in the vehicle and trailer);
- **Remember that the GVW includes the weight of the vehicle, load, driver and any passengers.** Also allow for the weights of any pallets or packing cases;
- **Remember that weights are given in metric units of kilograms;**
- **Look at regulations governing vehicle weights.** See the 'Responsibility, legislation and guidelines' section on page 2 for further information.

What can I do to prevent my vehicles being overloaded?

To ensure that your vehicles are never overloaded you should:

- **Know the weights of your vehicles (as above).** Ensure that you weigh any new vehicles and vehicles that have been repaired. This should be done when the vehicle is empty so that you can calculate

the load that can be carried. Also, if possible, weigh the vehicle to establish individual axle weights. See the 'Information on weigh bridges' section on page 2 for further information, and guidance on finding your nearest public weighbridge;

- **Know what you are carrying and the weight of the load.** Depending on what you are carrying, you may or may not have a consignment with a declared weight. For consignments with declared weights, add this to the weight of your vehicle and ensure that the total is not over the weight limit. However...
- **Do not automatically trust declared weights, invoices or delivery notes given to you by customers.** It is advisable to double check the final weight by weighing the loaded vehicle as declared consignment weights may not always be correct. It is the responsibility of the driver and employer to ensure the vehicle is not overloaded, not the customer. For vehicles without consignment notes you should weigh the vehicle to be certain of the final load;
- **Distribute your load appropriately to avoid overloading axles.** After any drop-off, re-check the distribution of the remaining load, as load shifting could cause an axle overload or cause the load to become insecure, which also constitutes an offence (please refer to the Fleet Safety Forum's guidance sheet on load safety);
- **Check the Gross Vehicle Weight before setting out,** either using your own weighbridge, or one nearby. Your drivers are allowed to drive to the nearest available weighbridge to check their load and then go to a place where they can take off some of the load if the vehicle is overloaded. See the 'Information on weighbridges' section on page 2 for further information, and guidance on finding your nearest public weighbridge.

ADVICE FOR PSV OPERATORS

Although you may think that opportunities to overload PSVs (buses, coaches or minibuses) are much less than for other types of vehicle, overloading offences among PSV operators are increasing. From April 2002 - March 2003 there was a 5.39% prohibition rate during roadside enforcement checks, compared to a 4.98% prohibition rate from April 2001 – March 2002. PSVs mainly become overloaded due to the amount of luggage being carried. For example, coaches that pick up shoppers from a trip to a French hypermarket or holidaymakers taking lots of luggage on holiday.

How do you know the weight that is allowed?

To ensure that your vehicles are not overloaded you should:

- **Find the maximum permitted axle weight and Gross Vehicle Weight (GVW).** These can be found on 'plates' which are fitted to all buses and coaches. These are normally fixed to the chassis, often in the engine bay. It may alternatively be fixed to the bodywork on the inside of the vehicle, usually by the entrance or emergency door. On minibuses, the weight can be found in the manufacturer's handbook;
- **Be careful not to mix up the Gross Vehicle Weight (GVW) with the Gross Train Weight (GTW).** The GVW is the maximum permitted weight of the vehicle (plus any load it is carrying), while the GTW is the maximum permitted weight of the vehicle plus any trailer being towed (plus any load being carried in the vehicle and trailer);
- **Remember that the GVW includes the weight of the vehicle, load, driver and any passengers.** Also allow for the weights of any pallets or packing cases;

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- **Remember that weights are given in metric units of kilograms;**
- **Look at regulations governing vehicle weights.** See the 'Responsibility, legislation and guidelines' section on page 2 for further information.

What can I do to prevent my vehicles being overloaded?

To ensure that your vehicles are never overloaded you should:

- **Know the weights of your vehicles (as above).** Ensure that you weigh any new vehicles and vehicles that have been repaired. This should be done when the vehicle is empty so that you can calculate the load that can be carried. Also, if possible, weigh the vehicle to establish individual axle weights. See the 'Information on weigh bridges' section on page 2 for further information, and guidance on finding your nearest public weighbridge;
- **Find out the purpose of the trip.** The purpose of the trip can tell you a lot about the luggage that passengers are likely to be carrying or plan to pick up on route. For example, if you are taking shoppers on a day trip to Calais to shop in a hypermarket, the weight of your vehicle could increase dramatically on your return trip. If your passengers are going skiing or somewhere else where they need lots of heavy equipment the load weight will be high;
- **Give a weight limit to each passenger for their luggage.** Work out how much extra weight you can carry in addition to the weight of the passengers and then divide this by the number of passengers. You may want to set the luggage weight limit per passenger to below this figure to allow for any passengers that may break this limit;
- **Do not automatically trust declared luggage weights from your passengers.** Remember the responsibility for ensuring your vehicle is not overloaded lies with the driver and you the employer and not the passengers. Make sure you have appropriate equipment to be able to weigh luggage yourself;
- **Distribute your load appropriately to avoid overloading axles.** After any passengers are dropped off re-check the distribution of the remaining load, as load shifting could cause an axle overload or cause the load to become insecure, which also constitutes an offence (please refer to the Fleet Safety Forum's guidance sheet on load safety);
- **Check the Gross Vehicle Weight before setting out,** either using your own weighbridge, or one nearby. Your drivers are allowed to drive to the nearest available weighbridge to check their load and then go to a place where they can take off some of the load if the vehicle is overloaded. See the 'Information on weighbridges' section on page 2 for further information, and guidance on finding your nearest public weighbridge.

ADVICE FOR CAR OPERATORS

Exceeding weight restrictions can cause a car to become unroadworthy and also constitutes a legal offence. The police can identify overloaded cars visually due to the car's rear being close to the ground or the tyres looking strained or flat.

How do you know the weight that is allowed?

To ensure that your vehicles are not overloaded you should:

- **Find the maximum permitted axle weight and Gross Vehicle Weight (GVW).** Weight restrictions can be found in the vehicle handbook. Different car manufacturers and models of cars have varying weight restrictions, which include gross weight and axle load limits, so ensure that all vehicle handbooks are checked before loading a vehicle;
- **Be careful not to mix up the Gross Vehicle Weight (GVW) with the Gross Train Weight (GTW).** The GVW is the maximum permitted weight of the vehicle (plus any load it is carrying), while the GTW is the maximum permitted weight of the vehicle plus any trailer being towed (plus any load being carried in the vehicle and trailer);
- **Remember that the GVW includes the weight of the vehicle, driver, load and any passengers.** Also allow for the weights of any pallets or packing cases and anything on a roof rack;
- **Remember that weights are given in metric units of kilograms;**
- **Look at regulations governing vehicle weights.** See the 'Responsibility, legislation and guidelines' section on page 2 for further information.

What can I do to prevent my vehicles being overloaded?

To ensure that your vehicles are never overloaded you should:

- **Know the weights of your vehicles (as above).** Ensure that you weigh any new vehicles and vehicles that have been repaired. This should be done when the vehicle is empty so that you can calculate the load that can be carried. Also, if possible, weigh the vehicle to establish individual axle weights. See the 'Information on weighbridges' section on page 2 for further information, and guidance on finding your nearest public weighbridge;
- **Ensure the load is checked before setting out.** When cars are carrying consignments check the consignment weight before loading and add this to the weight of the car. Ensure that you are not exceeding the Gross Vehicle Weight (GVW) limit;
- **Ensure the load is distributed evenly to avoid overloading axles.** Ensure heavy loads are placed lower in the car. After any drop-offs, make sure the distribution of the remaining load is re-checked, as load shifting could cause an axle overload or cause the load to become insecure, which also constitutes an offence (please refer to the Fleet Safety Forum's guidance sheet on load safety);
- **Never automatically trust declared weights, invoices or delivery notes given to you by customers.** Remember that you and your driver hold the responsibility for overloading, not the customer;
- **Check the Gross Vehicle Weight before setting out,** either using your own weighbridge, or one nearby. Your drivers are allowed to drive to the nearest available weighbridge to check their load and then go to a place where they can take off some of the load if the vehicle is overloaded. See the 'Information on weighbridges' section on page 2 for further information, and guidance on finding your nearest public weighbridge;
- **Adjust tyre pressure accordingly.** Depending on what weight you are carrying you may need to increase or decrease the car's tyre pressure. Guidance on tyre pressure can be found in the vehicle handbook.

Sources of further information

Resources on vehicle loading

Fleet Safety Forum

The Fleet Safety Forum produces an information sheet on load safety, which offers guidance on loading and load restraint. For a free copy, contact Brake.

Tel: 01484 559909 Email: fleetsafetyforum@brake.org.uk

Department for Transport guidance

Safety of Loads on Vehicles code of practice

Available from HMSO Tel: 0870 600 5522 or can be downloaded from the DfT website.

Website:

www.roads.dft.gov.uk/vehicle/standards/loadsonvehicles/index.htm

RoSPA guidance

Minibus safety code of practice

Guide including information on preventing the overloading of minibuses.

Code: RSGEN146. Sold in packs of 10. £5.15 per guide for RoSPA members, £6.18 per guide for non-members.

Tel: 0121 248 2000 Fax: 0121 248 2001

European Commission

For information on the latest developments on type approval for commercial vehicles and trailers, see the website below.

Website: www.europa.eu.int

VOSA (Vehicle and Operator Services Agency)

VOSA can be contacted for further information on complying with commercial operator licensing requirements.

Tel: 0870 6060440 Website: www.vosa.gov.uk

Email: enquiries@vosa.gov.uk

Weighbridge manufacturers

On the website below you can in type your location and to find your nearest supplier of vehicle weighing devices.

Website: www.kellysearch.com

Resources on carrying dangerous goods

Department for Transport guidance

Transport of Dangerous Goods Regulations

Available from HMSO Tel: 0870 600 5522 or can be downloaded from the DfT website.

Website: www.roads.dft.gov.uk/roadnetwork/dangoods/index.htm

Health & Safety Executive guidance

Are you involved in the carriage of dangerous goods by road or rail? booklet
Order number: INDG234. ISBN: 0 7176 1676 2. Cost: £5 each (reductions for bulk orders).

Carriage of dangerous goods by road CD-Rom

ISBN: 0 7176 1572 3. Cost £50 + VAT

The carriage of dangerous goods explained, Parts 1-3

ISBN: 0 7176 1255 4, 0 7176 1253 8, 0 7176 1256 2.

To order: Tel: 01787 881165

Website: www.hsebooks.co.uk

Local traffic area offices

North Eastern, Tel: 0113 254 3291

North Western, Tel: 0113 254 3292

West Midlands, Tel: 0121 609 6806

Welsh, Tel: 0121 609 6839

Eastern, Tel: 01223 531060

Western, Tel: 0117 9008577

South Eastern and Metropolitan, Tel: 01323 451400

Scottish, Tel: 0131 200 4974

Trade associations

ALREM, the trade association for manufacturers of load restraint materials.

There is a list of load restraint manufacturers on the ALREM website.

Tel: 01827 52337 Email: info@muta.org.uk Website: www.alrem.org.uk

The Despatch Association, the trade association for courier companies.

Tel/fax: 01553 813479 Email: phil@despatch.co.uk

Website: www.despatch.co.uk

Freight Transport Association

Tel: 01892 526171 Email: info@fta.co.uk Website: www.fta.co.uk

Road Haulage Association

See the Road Haulage Association's website for contact details of your regional office.

Website: www.rha.net

Community Transport Association

Tel: 0870 774 3586 Email: ctauk@communitytransport.com

Website: www.communitytransport.com

Confederation of Passenger Transport

Tel: 0207 240 3131

The enclosed page has been designed for you to photocopy and distribute to your drivers.

This information sheet is produced by the Fleet Safety Forum, a division of Brake, the national road safety charity, in partnership with VOSA (Vehicle Operators Services Agency). Brake works to stop death and injuries on UK roads and help those bereaved and traumatised by road crashes. The Fleet Safety Forum is dedicated to producing independent, up-to-date information on how to manage your road risk. Subscribers to the Fleet Safety Forum receive monthly mailings including a newsletter, information sheets, posters and leaflets and discounted invitations to conferences and workshops. For further information, or to subscribe to the Fleet Safety Forum, contact Brake.

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