Changes to Articulated Vehicle Weight Limits

Frequently Asked Questions

The Introduction of the 46 tonne national weight limit for 3+3 articulated vehicle combinations

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1. What is a (3+3) axle articulated vehicle combination?

A 3+3 articulated vehicle combination has a total of six axles and consists of a triaxle articulated tractor unit towing a three axle semi-trailer.

2. What does “Design Gross Vehicle Weight” (DGVW) mean?

Design Gross Vehicle Weight (DGVW) means the gross weight of a vehicle laden with the heaviest load which it can reasonably carry. This must take into consideration; the engine, brakes, tyres and general construction of such vehicle and shall, until the contrary is shown, be taken to be its design gross weight as specified by its manufacturer or an automotive engineer.

3. What does “Gross Combination Weight” mean?

Gross Combination Weight is the weight of the tractor unit, semi-trailer and the load being carried.

4. What does the “National Weight Limit” mean?

Goods vehicles (and their trailers) with a DGVW exceeding 3,500kg and passenger vehicles with passenger accommodation for more than eight passengers must adhere to predefined maximum permitted weights and dimensions for use on roads in Ireland. These are outlined in a leaflet that we have prepared for the guidance of industry, hauliers and interested members of the public, a copy of which can be downloaded here.

5. What does “Appropriate Motor Vehicle” mean?

"Appropriate motor vehicle" means a mechanically propelled vehicle having at least three axles, twin tyres, air suspension or an equivalent suspension on each driving axle and ABS brakes. The vehicle must also be fitted with an authorisation plate (i.e. a national weights & dimensions plate) in the format illustrated on page 18 of the HGV Manual.

6. What does “Appropriate Semi-Trailer” mean?

An “Appropriate Semi Trailer” means a semi-trailer which has an air suspension or an equivalent suspension and ABS brakes. The vehicle must also be fitted with an authorisation plate (i.e. a national weights & dimensions plate) in the format illustrated on page 19 of the HGV Manual.

Note that the ‘appropriate semi-trailer’ concept comes into force on 1st April 2013 and applies to both new and existing semi-trailers (irrespective of the number of axles fitted) operating as part of a combination of vehicles which are permitted to operate at gross combination weights in excess of 40 tonnes. Semi-trailers operating at gross combination weights between 40 and 44 tonnes inclusive require ABS and those operating as part of a 46 tonne combination require EBS.

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7. What are the new regulations?

The new regulations are titled the Road Traffic (Construction and Use of Vehicles) (Amendment) Regulations 2013 (S.I. No. 43 of 2013), amending the Road Traffic (Construction and Use of Vehicles) Regulations 2003 (S.I. No. 5 of 2003), otherwise known as the ‘C&U’ Regulations. Double click on the embedded links to open.

A summary of the content of these new regulations is as follows:

1. Six axle articulated vehicle combinations are allowed operate at a gross combination weight of 46 tonnes, which represents a 2 tonne increase over the pre-existing 44 tonne national limit. However, in addition to satisfying the requirements of an ‘appropriate motor vehicle’ and ‘appropriate semi-trailer’ respectively; these must also satisfy the following additional criteria in order to be allowed to operate as part of a 46 tonne combination:

   In order to be allowed to operate as part of a 46 tonne combination since 1st April 2013, triaxle tractor units and triaxle semi-trailers already in service require Electronic Braking Systems (EBS). Anti-lock Braking Systems (ABS) are not sufficient.

   New triaxle tractor units first registered on or after 1st April 2013 (in addition to requiring EBS) require Vehicle Stability Function (VSF) which is more commonly known as Electronic Stability Control (ESC). Triaxle semi-trailers first licensed in Ireland on or after 1st April 2013 (in addition to requiring EBS) require Roll Stability Control (RSC).

2. In addition to introducing the 46 tonne limit for six-axle (3+3) articulated vehicle combinations, since 1st April 2013 the new Regulations will include the following:

   **Tonne/Metre Requirement**

   The “5.5 tonnes/metre requirement” is increased to 5.75 tonnes/metre for semi-trailers operating as part of a 46 tonne combination to allow those already in service to now operate without the need for wheelbase modifications or trailer replacement. This applies to 46 tonne six axle articulated vehicle combinations only. Vehicle owners/operators running six axle articulated vehicle combinations at 44 tonnes must continue to meet the original 5.5 tonnes/metre requirement.

   Further information on the “tonnes/metre requirement” is available below.

   **Semi-Trailers**

   The updated Regulations require that all semi-trailers operating as part of a combination of vehicles with a gross weight in excess of 40 tonnes must meet the requirements of an ‘appropriate semi-trailer’. This means that they (whether new or existing and irrespective of the number of axles fitted) must have anti-lock braking systems (ABS), a road friendly or equivalent suspension system and be fitted with an authorisation plate (i.e. a national weights & dimensions plate).

   Drawbar trailers with a Design Gross Vehicle Weight (DGVW) exceeding 3,500kg, (i.e. those towed behind rigid vehicles) cannot be considered as ‘appropriate semi-trailers’ and therefore do not need ABS and a road friendly suspension or equivalent suspension system. However please note that all Category O3 & O4 trailers, i.e. goods trailers with Design Gross Vehicle Weight (DGVW) exceeding 3,500kg first licensed in Ireland since 1st June 2011 require ABS.

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1 Note that since 1st April 2013 semi-trailers operating as part of a 46 tonne combination require Electronic Braking Systems (EBS), i.e. ABS is **not** sufficient for the semi-trailer component of a 46 tonne combination.

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8. When do the terms ‘already in service’, ‘first registered’ & ‘first licensed’ mean?

‘Already in service’ means a tractor unit that has been registered with the Revenue Commissioners or a semi-trailer that has been licensed with the Local Authority Motor Tax Office before 1st April 2013.

‘First registered’ means the date when the vehicle was first registered with the Revenue Commissioners or the date when first registered in accordance with the laws of another country.

‘First licensed in Ireland’ means the date a semi-trailer is first licensed with the Local Authority in whose functional area it is normally kept, irrespective of the original date of manufacture and irrespective of whether or not the semi-trailer was previously registered/licensed in another country.

9. I purchased a second hand semi-trailer (which I plan on running as part of a 46 tonne combination) in another country but have not yet licensed it with my local motor tax office. How will the new regulations affect me?

It is a legal requirement that all goods trailers with a Design Gross Vehicle Weight (DGVW) exceeding 3,500kg (3.5 tonnes) are licensed with the Local Authority in whose functional area they are normally kept.

Owners/operators of triaxle semi-trailers must ensure that if their trailer was first licensed with their Local Authority prior to 1st April 2013 (and they plan running it as part of a 46 tonne combination) that an Electronic Braking System (EBS) is fitted; and if licensed on after 1st April 2013 (and again they plan running it as part of a 46 tonne combination) that both EBS and Roll Stability Control (RSC) are fitted.

The Penalty under Section 102 of the 1961 Road Traffic Act for breach of the C&U Regulations (i.e. for not having the appropriate vehicle safety features such as EBS, ESC or RSC fitted where required) would lead to a Class C fine whereby on conviction, courts can impose a fine up to €2,500, a prison sentence or both.

10. When did these new regulations come into force?

The new Regulations took effect from 1st April 2013.

11. Do they apply in Northern Ireland & the UK?

No. The introduction of the 46 tonne limit is a national measure only. The European Union, via Directive 96/53/EC, sets the maximum authorised weights in international traffic. This ensures that no obstacles are created which would prevent the circulation of commercial vehicles between Member States. However Member States are entitled to set their own maximum authorised weights for domestic journeys.

12. Are rigid truck and drawbar trailer combinations included in this national weight limit increase?

No. Rigid truck and drawbar trailer combinations are not within scope of this weight limit increase. It only applies to articulated vehicle (i.e. tractor unit and semi-trailer) combinations.

13. Explain more about what the ‘5.5 tonnes/metre’ requirement means?

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When the distance between the kingpin and the centre of the rear axle (expressed in metres) of a semi-trailer is multiplied by 5.5, the laden weight (expressed in tonnes) of the vehicle combination must not exceed the number obtained.

This is illustrated below.

<table>
<thead>
<tr>
<th>SEMI TRAILER COMPONENT OF AN ARTICULATED VEHICLE COMBINATION</th>
<th>TONNES PER METRE (x)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5.5 tonnes</td>
</tr>
</tbody>
</table>

Distance measured from kingpin to centre of rearmost axle

14. Explain more about what the ‘5.75 tonnes/metre’ requirement means?

Since 1st April 2013, when the distance between the kingpin and the centre of the rear axle (expressed in metres) of a semi-trailer is multiplied by 5.75 (instead of 5.5), the laden weight (expressed in tonnes) of a 46 tonne six-axle articulated vehicle combination must not exceed this number.

This is illustrated below.

<table>
<thead>
<tr>
<th>TRIAXLE SEMI TRAILER COMPONENT OF A 46 TONNE SIX AXLE ARTICULATED VEHICLE COMBINATION</th>
<th>TONNES PER METRE (x)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5.75 tonnes</td>
</tr>
</tbody>
</table>

Distance measured from kingpin to centre of rearmost axle

15. Why is the ‘5.5 tonnes/metre’ requirement being increased to ‘5.75 tonnes/metre’ for six axle articulated vehicle combinations operating at 46 tonnes?

The “5.5 tonnes/metre requirement” increase to 5.75 tonnes/metre for semi-trailers operating as part of a 46 tonne combination allows those already in service to now operate without the need for wheelbase modifications or trailer replacement.

Note that this increase applies to 46 tonne six axle articulated vehicle combinations only.

16. Can I use the 5.75 tonnes/metre requirement if I’m operating at 44 tonnes?

No. Vehicle owners/operators running six axle articulated vehicle combinations at 44 tonnes must continue to meet the original 5.5 tonnes/metre requirement.

17. How do I calculate the “5.5 tonnes/metre requirement”?

The gross weight must not exceed the number obtained when the distance between the kingpin and the centre of the rear axle is multiplied by 5.5.

For example, a six axle (3+3) combination with an 8 metre distance between the king-pin and the centre of the rear axle can legally operate at 44 tonnes (i.e. 5.5 x 8 = 44), whereas the same tractor unit towing a semi-trailer with a 7.5 metre distance from the kingpin to the centre of the rearmost axle would be limited to 41.25 tonnes (i.e. 5.5 x 7.5 = 41.25).
18. How does the higher 5.75 tonne/metre requirement affect the calculation?

If you are operating at 46 tonnes, instead of multiplying the the distance (between the king-pin and the centre of the rear axle) by 5.5, you multiply it by 5.75.

For example; a six axle (3+3) combination with an 8 metre distance between the king-pin and the centre of the rear axle can now legally operate at 46 tonnes (i.e. $5.75 \times 8.0 = 46$), whereas before, with the 5.5 tonne/metre requirement, the same road tractor unit and semi-trailer would have been limited to 44 tonnes gross weight (i.e. $5.5 \times 8.0 = 44$).

19. Is there a penalty for breach of national vehicle weight limits?

The penalties for breach of the prescribed national weight limits are outlined in detail [here](#).

20. I have a 6 axle articulated vehicle combination. What do I have to do to operate at 46 tonnes?

Before you can operate at 46 tonnes you must obtain a completed “46 tonne Declaration of Conformity” (DOC) form which confirms that the vehicle is technically capable and is fitted with the necessary features for operation as part of a 46 tonne combination. A sample of this form is available [here](#).

This form must be stamped and signed by the original vehicle manufacturer (or his authorised Irish distributor). Only then can a vehicle be plated by an NSAI authorised appointed plating centre for operation at 46 tonnes.

Note that this declaration is not required for semi-trailers operating as part of a 46 tonne combination and furthermore [it is not necessary to have semi-trailers re-plated](#) by National Standards Authority of Ireland (NSAI) appointed plating centres.

21. The manufacturer has declared that by design, the gross combined weight of my vehicle is 44 tonnes. Can I operate at 46 tonnes?

No. If by design your vehicle’s gross combination weight is 44 tonnes, then it cannot exceed 44 tonnes, regardless of the new legislation. In order for it to do so would require that the manufacturer’s plate affixed to the vehicle [must](#) show that the gross combined weight by design is equal to or greater than 46,000kg.

Vehicles operating at 46 tonnes which were not originally designed to run as part of any combination in excess of 44 tonnes pose a road safety risk if overloaded. As a result the manufacturer will not sign a declaration of conformity form to enable you to operate at 46 tonnes.

22. The gross combination weight of my vehicle is 44 tonnes by design. Can I get my vehicle re-plated?

No. If by design your vehicle’s gross combination weight is 44 tonnes, then it cannot exceed 44 tonnes, regardless of the new legislation. In order for your vehicle to be re-plated, the original manufacturer (or authorised distributor) must sign a declaration of conformity form and they will not do this if the vehicle was...
not originally designed (and plated by the original vehicle manufacturer) to run as part of a combination with a gross combined weight by design of equal to or greater than 46,000kg.

23. A haulage firm carries out delivery for my company. What assurance do I need that the operator’s vehicles are fitted with the necessary features to operate at 46 tonnes?

If your contracted operator/haulage company intends to operate at the higher weight, we would suggest that you ask for proof that their vehicles have the appropriate authorisation plate (i.e. national weights and dimensions plate) fitted. This confirms that the vehicle is technically capable and fitted with the necessary features (e.g. EBS, ESC, RSC etc.) to operate at 46 tonnes.

24. Where can I find contact details for the responsible people at the original vehicle manufacturers / their authorised Irish distributors who will stamp and sign the ‘46 tonne Declaration of Conformity’?

Contact details for the people responsible for issuing such certification at the Irish distributors are available here.

25. Where can I find an NSAI Authorised Plating Centre?

A list of authorised vehicle plating centres can be obtained from the NSAI website (www.nsai.ie) or by contacting them directly on 01 807 3800.

26. What types of vehicles need to be fitted with an authorisation plate (i.e. a national weights and dimensions plate)?

Goods vehicles (and their trailers) which have a design gross vehicle weight (DGVW) exceeding 3,500 kilograms and passenger vehicles with passenger accommodation for more than eight passengers must be fitted with an authorisation plate (i.e. a national weights and dimensions plate) in the absence of an equivalent manufacturer’s plate. These plates are fitted by National Standards Authority of Ireland (NSAI) appointed plating centres and must contain the information illustrated on pages 18 & 19 of the HGV Manual. These plates must be displayed at all times when the vehicle is used in a public place.

27. If my vehicle is modified or altered, do I have to change the weights and dimensions plate?

Yes. The plating regulations state that when goods vehicles (and their trailers) with a DGVW exceeding 3,500 kilograms, and passenger vehicles with accommodation for more than eight passengers are used in a public place, the information on their plate must be correct. Therefore if these vehicle types have been modified or altered in any way which would cause any of the information on the plate to be incorrect, this is illegal.

28. What if I’m taking my modified vehicle to a plating centre?

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An exception is made for modified vehicles which are being taken to a place where an authorisation plate is to be fitted or changed.

29. What is the penalty for operating a vehicle in a public without an authorisation plate fitted where required?

The Penalty under Section 102 of the 1961 Road Traffic Act for breach of the plating Regulations (i.e. for having an incorrect or no plate fitted) would lead to a Class C fine whereby on conviction, courts can impose a fine up to €2,500, a prison sentence or both.

30. I want to fit an additional axle to an existing two axle tractor unit to be able to operate at 46 tonnes, is this possible?

Since 1st April 2013 axles fitted subsequent to date of manufacture for operation as part of a 46 tonne combination must be certified by the original vehicle manufacturer or his authorised distributor. This can be done by completing the ‘46 Tonne Declaration of Conformity’, a sample of which is available here.

31. I had my vehicle re-plated for 46 tonne operation but now need some of the data contained on my Vehicle’s Registration Certificate (VRC) updated, what should I do?

In some instances it may be necessary to have information on a VRC updated, i.e. where the weights recorded on the VRC do not match with what’s on the manufacturer’s plate, or in instances where an additional axle has been added to enable 46 tonne operation.

In order for Driver and Vehicle Computer Services Division (DVCSD) officials in Shannon to update either ‘weights related data’ (or data relating to the number of axles following retrofitting of an additional axle); it will be necessary for them to receive a paper copy of the vehicle’s plating record from the NSAI authorised vehicle plating centre.

Following re-plating, plating centre personnel will forward copies of these forms directly to DVCSD, who will then amend the vehicle’s record on the National Vehicle & Driver File (NVDF) if necessary. If an additional axle has been added, DVCSD will then write to the registered owner (copying the relevant Motor Tax Office) noting that the axle particulars have been changed and requesting that the vehicle be reweighed to establish its new combination unladen weight for motor tax purposes.

32. I have retrofitted a third axle to my tractor unit and its unladen weight has increased? Do I need to notify my local Motor Tax office?

Yes. When the vehicle has been re-weighed at an approved weigh bridge, the weigh docket and the original Vehicle Registration Certificate are to be surrendered by the registered owner to the local Motor Tax Office accompanied by a completed RF111 Form. Each Local Authority Motor Tax office has a list of approved weigh bridges in their area.

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2 Entry ‘F1’ on Permissible Mass (DGW), Entry ‘G’ on Mass in Service (Un-laden Mass) & ‘N1-N5’ on axle weights ,or entry ‘L’ on number of axles.
The local Motor Tax Official will then update the unladen weight details on their system and an updated VRC will issue to the registered owner showing the correct number of axles and the appropriate weights for each.

33. Where can I find more information if I need it?

If you have further queries in relation to the new regulations please contact the RSA on 096 25014 from 8am to 6pm Monday to Friday or by email at vehiclestandards@rsa.ie

The contact details for the people responsible for issuing the 46 Tonne Declaration of Conformity at the Irish distributors for the main tractor unit brands can be found here.

For a list of authorised vehicle plating centres, please visit the NSAI website www.nsai.ie or contact them directly on 01 807 3800.

Queries regarding updating data contained on a Vehicle’s Registration Certificate (VRC) should be directed to the Driver & Vehicle Computer Services Division (DVCSD) on +353 61 365000 or Lo-Call 1890 411 412.

Finally the contact details of each Local Authority Motor Tax in the country are available at http://www.environ.ie/en/LocalGovernment/MotorTax/