WEIGHTS, DIMENSIONS & COUPLING RELATED FREQUENTLY ASKED QUESTIONS

(Click relevant question to display answer)

Weights, Dimensions and Coupling – Frequently Asked Questions

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Weights, Dimensions and Coupling – Frequently Asked Questions

1. What vehicle types do these revised weights, dimensions and coupling related standards apply to?

The revised requirements apply to agricultural tractors, agricultural trailers and combinations of such vehicles used for agricultural, fisheries, forestry or horticultural purposes. They do not apply to agricultural vehicle combinations being used for purposes outside of agricultural, fisheries, forestry or horticulture.

From a weights, dimensions and coupling perspective, the term ‘agricultural trailer’ does not include pieces of interchangeable towed equipment with a DGVW of more than three times the unladen weight. Therefore, the revised standards for agricultural trailers do not apply to interchangeable towed equipment intended to be drawn by an agricultural tractor where the DGVW of the towed equipment is more than three times its unladen weight as specified by the manufacturer.

For example, a slurry tanker with a maximum laden weight of 20 tonnes and an unladen weight of 6 tonnes does not have to comply with the revised weight, dimensions and coupling requirements even though its laden weight is more than three times the unladen weight. However, operators of towed equipment should not exceed the manufacturer’s rated towing capacity for their tractor displayed on the manufacturer’s plates.

2. What changes to weights are being introduced?

National weight limits are being introduced for two and three-axle agricultural tractors. The weight limit for a two-axle tractor is 18 tonnes; a three-axle tractor, 24 tonnes. Weight limits for rigid drawbar (unbalanced) trailers are also being introduced, i.e. 13 tonnes for single axle; 19 tonnes for tandem axle; and 22.5 tonnes for triaxle.

Higher limits of up to 24 tonnes for rigid (unbalanced) drawbar tandem trailers and 34 tonnes for triaxle trailers that meet certain additional requirements are being introduced. These requirements are:

- they must be plated,
- they must be fitted with a flexible suspension system,
- they must be fitted with flotation tyres suitable for operation at 10 tonnes per axle in the case of a tandem axle trailer or 9 tonnes per axle in the case of a triaxle trailer, and
- they must be fitted with a steered or steering axles if they have an axle spacing of 1.8 metres or greater.

Further details are available by clicking here.

Combinations of agricultural tractors and trailers, where either of them is un plated, will have their maximum towable mass capped at three times the tractors unladen weight.

3. Why are new weight limits for agricultural vehicles being introduced?

It is vitally important that agricultural tractor and trailer combinations do not present an unreasonable road safety risk on public roads. This includes making sure that vehicles are not overloaded, taking the design specification of the vehicle and the limits of the national road and bridge infrastructure into account.
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4. Are there any exemptions?
No. If you wish to use your tractor to draw a trailer with a heavier load than the new limits allow, you need a permit. Please visit the RSA website at www.rsa.ie for more information on the abnormal load permitting system.

5. I use my agricultural tractor to draw a trailer for a purpose other than agriculture, fisheries, forestry or horticulture. What requirements must I adhere to?
The axle weight limits for trailers being drawn by an agricultural tractor for a purpose outside of agricultural, fisheries, forestry or horticulture are outlined in the Weights and Dimensions Leaflet, a copy of which is available on the RSA website at www.rsa.ie
Also, the maximum imposed load that can be put on an agricultural tractor’s coupling by a trailer’s drawbar must not be more than the tractor manufacturer’s specifications as detailed on the plate affixed to the coupling device.

6. When are the revised weights, dimensions and coupling requirements coming into force?
From 1 January 2016 for all vehicles, both new and existing.

7. What is the penalty for breach of these revised Regulations on weights, dimensions and coupling?
A breach of the revised standards means you could receive a summons to court. If you’re convicted, you could be fined (up to €2,500), be given a prison sentence, or both. With the exception of where it can be shown that the use of the vehicle is unauthorised, both the owner of the vehicle and whoever is driving it when the offence is recorded can be fined.

8. I have a four-axle rigid drawbar agricultural trailer. What weight limits must I adhere to?
The same weight limits and technical requirements that apply to tri-axle rigid drawbar agricultural trailers also apply to four axle rigid drawbar trailers. If you want to exceed these limits you must get a permit from your Local Authority. Further details on the abnormal loads permit scheme is available on the RSA website at www.rsa.ie
Under no circumstances can you draw a trailer with a laden weight which exceeds the manufacturer’s rated towing capacity of your tractor as detailed on its manufactures plate. An example of a manufacturer’s plate is shown in Figure 1 below. This example shows that the vehicle has a towing capacity of 32,000kg provided the trailer is fitted with an assisted braking (that is, hydraulic or pneumatic) system.

Figure 1: Image of a manufacturer’s plate fitted to an agricultural tractor. (RSA Library Image)
9. Why are there a range of weights shown in Figure 1 above for the total permissible mass and permissible axle loadings?

The variations in values are displayed to allow for different tyre and wheel assemblies which may be fitted. If you are unsure as to which limits apply to your vehicle or vehicles, you should consult with the vehicle manufacturer, one of their authorised distributors, or a supplier of agricultural tyres in your area for guidance.

10. My agricultural tractor is fitted with tracks instead of wheels and tyres. Do the revised weight limits apply to me?

No. The weight limits being introduced for tractors only apply to wheeled tractors. However, if your tractor is fitted with tracks, you must adhere to the manufacturer’s specifications. If you are drawing a trailer, you must adhere to the lower of the weights declared on the manufacturer’s plate fixed to the tractor, or the weights declared on the authorisation plate fixed to the trailer under the heading ‘Weights Not to Be Exceeded in Ireland’.

11. My agricultural tractor is plated, but not with a manufacturer’s plate like the one shown in Figure 1 above indicating its ‘Permissible Towable Masses’. What rules must I follow regarding the maximum laden weight of a trailer or piece of interchangeable towed equipment that I can legally tow?

If your tractor does not have a manufacturer’s plate fitted, you are limited to towing a trailer with a DGVW of not more than three times the tractor’s unladen weight (as specified by the manufacturer). Alternatively, you can contact the tractor manufacturer or their authorised distributor to have a manufacturer’s plate fitted. If you get a manufacturer’s plate fitted, you must adhere to the lower weights declared on the manufacturer’s plate fixed to the tractor, or the weights declared on the authorisation plate fixed to the trailer under the heading ‘Weights Not to Be Exceeded in Ireland’.

12. My agricultural trailer is not fitted with an authorisation plate showing a figure for its maximum permitted laden weight in Ireland. However, it has a manufacturer’s plate. My tractor is also plated. What rules must I adhere to as regards the maximum laden weight I can operate at?

If your trailer is not fitted with an authorisation plate, you are limited to a laden weight of not more than three times the unladen weight of the tractor being used to tow it. You are also subject to the following restrictions:

   i. 13 tonnes for a rigid drawbar single axle trailer, 19 tonnes for a tandem axle or 22.5 tonnes or a tri-axle; or
   ii. 16 tonnes for a drawbar or centre-axle trailer if the axles are less than three metres apart, or 18 tonnes if the axles are more than 3.0 metres apart; or
   iii. 25 tonnes in the case of a drawbar or centre-axle trailer equipped with three axles; or
   iv. 30 tonnes for a drawbar or centre-axle trailer equipped with four axles.

You could, if you wish, contact the original trailer manufacturer or authorised distributor to have an authorisation plate retrofitted which may allow you to exceed the limits in (i) to (iv) above.

A trailer which has been fitted by the original manufacturer or their authorised distributor with a manufacturer’s plate is regarded as being un-plated, as it does not carry the required information that an authorisation plate contains.

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13. My tractor is fitted with a manufacturer’s plate and my trailer is fitted with an authorisation plate. However the manufacturer’s plate fitted to the tractor indicates that it has a ‘Permissible Towable Mass’ more than the figure for the trailer’s maximum permitted laden weight as detailed on its authorisation plate in the column ‘Weights Not To Be Exceeded in Ireland’. What rules must I adhere to?

Where both an agricultural tractor and trailer are plated, you must adhere to the lesser of the weights declared on the manufacturer’s plate affixed to the tractor under the heading ‘Permissible Towable Masses’ or the figure for the trailer’s maximum permitted laden weight as detailed on the its authorisation plate in the column ‘Weights Not To Be Exceeded in Ireland’.

14. I have no means of weighing my trailers when they are laden. What can I do to ensure that I comply with the new national weight limits for agricultural tractors and trailers?

Most farms don’t have weigh bridges, and very few agricultural trailers have on-board weighing systems. Therefore, in order to comply with the new weight limits, you should find out both the unladen weight of your trailer (either from the manufacturer, their authorised distributor or have it weighed) and its volumetric carrying capacity. To get the volumetric carrying capacity figure, multiply the length by the width by the height of the goods-carrying area of the trailer. Measure these distances in metres. This will give you a figure which is the volumetric carrying capacity of your trailer expressed in cubic metres.

You then need to multiply the volumetric carrying capacity by the indicative density of the crop being carried. (Your local agricultural advisor should be able to help you with various crop densities.)

Add the figure you get from this calculation to the figure for the trailer’s unladen weight. This will give you an estimate of the laden weight of the trailer in kgs.

For example, a 20ft (6.096 metre) tandem axle grain trailer with a volumetric capacity of 23 cubic metres (m³) and an unladen weight of 5,200kg would weigh 22,450kg when level-loaded with wheat:

- **Unladen weight**: 5,200kg
- **Volumetric capacity**: 23 cubic metres (m³)
- **Crop density**: 750 kilogrammes per cubic metre (kg/m³) for wheat
- **The calculation therefore is**: Unladen weight + (volumetric carrying capacity x crop density) = loaded weight.
  
  \[5,200 + (23 \times 750) = 22,450kg.\]

In order for this trailer to comply with the new weight limits (click here for further details), it would need to have an axle spacing of 1.3 metres or more, and be equipped with both a flexible suspension system and flotation tyres. It would also need to be fitted with an authorisation plate.

15. What changes to dimensions are being introduced?

The following dimensional limits will apply to agricultural vehicles from 1st January 2016.

- **Length** = 12 metres (or 18.75 metres when combined – for example – with a tractor and trailer or other interchangeable towed equipment).
- **Height** = 4.65 metres. However, trailers used to transport loads of baled agricultural produce such as hay or straw, and so on are exempt from this height limitation.
• **Widths**
  
  o **Agricultural tractors and trailers**
    
    Width = 2.55 metres
  
  o **Large tractors – tractors whose unladen weight exceeds 7.25 tonnes**
    
    Width = 2.75 metres
  
  o **Tractors with flotation tyres or dual wheel systems**
    
    Width = 3.5 metres
  
  o **Fully mounted equipment and interchangeable towed equipment**
    
    Width = 3.0 metres
  
  o **Self-propelled agricultural machinery**
    
    Width = 3.5 metres

*However*, self-propelled agricultural machinery can be wider than 3.5 metres so long as when travelling on public roads it has an escort vehicle. This escort vehicle must drive in front, use dipped headlights and carry working flashing amber beacons and a “CAUTION – WIDE LOAD FOLLOWING” sign.

The machinery being escorted **must also** carry flashing amber beacons, one of which must be visible to the rear and display a “WIDE LOAD” sign to the rear.

**Note that the following items don’t count when measuring the overall width of an agricultural trailer:**

- the part of flotation tyres and mudguards protruding beyond the bodywork, up to a maximum of 100 millimetres on each side of the vehicle, and
- devices associated with hydraulic rear door opening mechanisms.

16. **What are the specifications for the “CAUTION – WIDE LOAD FOLLOWING” and “WIDE LOAD” signs must be displayed when escorting self-propelled machinery exceeding 3.5 metres in width?**

The specifications for the ‘CAUTION — WIDE LOAD FOLLOWING’ and ‘WIDE LOAD’ signs are as follows:

**Materials**

- They shall be made of retro reflective material of at least Class RA1 as specified in I.S. EN 12899-1:2007.

**Formatting of text**

- Lettering shall be at least 100 mm in height and 50 mm in width.
- Lettering must be black on a yellow retro reflective background with a red border.
- The font type must be normal, clearly legible and upright.
- Italic are not permitted.

**Chevron signalling panels**

- Chevron signalling panels satisfying set requirements must be fitted to each end of the “CAUTION – WIDE LOAD FOLLOWING” sign. The **dimensional requirements** are shown in figure 2 below, and the **colouring and photometric** (reflective properties) **requirements** are set out in Appendix 3 to Annex XII to Commission Regulation 2015/208.
Chevron signalling panels satisfying the **fitment, colouring and photometric requirements** in Appendix 3 to Annex XII to Commission Regulation 2015/208 must be fitted either:

- on each end of the ‘WIDE LOAD’ sign on the rear of the self-propelled agricultural machine, or
- at points that are not greater than 100 mm from the extreme outer edges of the vehicle. The points must be the same distance from the vehicle’s “median longitudinal plane” – the centre line of the vehicle when viewed from the rear.

![Figure 2: Wide Load Signage to be used when transporting self-propelled equipment over 3.5 metres wide on public roads.](image)

**17. What coupling-related changes are being introduced?**

Requirements are being introduced whereby the maximum imposed load that can be put on an agricultural tractor’s coupling by a trailer’s drawbar cannot be more than the lower of:

(a) the manufacturer’s specifications as detailed on the plate affixed to the coupling device,
(b) 3,000kg, or
(c) 4,000kg in the case of a coupling which complies with ISO 24347 and is approved under Directive 94/20/EEC, 97/173/EEC, or 2009/144/EEC, or UN/ECE Regulation 55.

**18. Where can I obtain a copy of the Weights, Dimensions & Coupling Regulations?**

Double click the following link to open: [S.I. No. 253 of 2014](#) and [S.I. No. 354 of 2015](#).

If you have further queries in relation to the new Regulations, please contact the RSA Vehicle Standards Division on 096 25014 from 8am to 6pm Monday to Friday or by email at: agvehicles@rsa.ie

Alternatively, you can write to:

Vehicle Standards
Road Safety Authority
Moy Valley Business Park
Primrose Hill
Dublin Road
Ballina
Co Mayo

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Glossary of Terms

General Terminology

An agricultural tractor:
- has at least two axles,
- has a design speed of 6 km/h or more (this figure is the vehicle’s maximum design speed as specified by the manufacturer),
- has been designed especially to draw and work with other equipment attachments,
- has been designed for and is used for agricultural, fisheries, forestry or horticultural work, or to draw agricultural trailers or other equipment,

An agricultural tractor could also be a tractor that has been adapted for agricultural, fisheries, forestry or horticultural work, or a tractor that is equipped with one or more passenger seats.

Agricultural trailer:
A trailer intended mainly to be drawn by an agricultural tractor and intended mainly to carry loads or to process materials used in connection with agriculture, fisheries, forestry or horticulture work. To be classified as an ‘agricultural’ trailer, it should be able to carry a load of at least three times its own weight.

Other pieces of interchangeable towed equipment – for example, slurry tankers, manure or fertiliser spreaders, grain chaser bins and so on – can also be called agricultural trailers. However, these pieces of interchangeable towed equipment do not have to comply with the new requirements for weights, dimensions, couplings, plating and speed discs. They also don’t need to be fitted with side and rear reflective markings or a rear ‘LONG VEHICLE’ sign.

Axle:
An axle is a bar or shaft on which a wheel or pair of wheels rotates. See Figure 3 below.

Figure 3: Axle (Image Courtesy of Granning Axles)
Axle spacing:

Axle spacing is the distance from the centre of one axle to the centre of the next axle. See Figure 4 below where ‘X’ is the axle spacing. If a trailer is fitted with more than two axles and the spacing between them is not equal, the spacing between the two axles closest together is taken to be the axle spacing.

![Axle Spacing Image](image)

*Figure 4: Axle Spacing (Image Courtesy of Granning Axles)*

Centre-axle trailer:

A trailer where the axle (or group of axles) is positioned close to the centre of gravity of the trailer. This means that when the trailer’s load is spread evenly, the load imposed on the vehicle drawing it is no more than 10% of the maximum weight of the load or 1000kg – whichever is less. See Figure 5 below.

![Centre Axle Trailer Image](image)

*Figure 5: Drawing of a centre axle trailer*

Design Gross Vehicle Weight - DGVW:

The DGVW of a vehicle is its gross weight laden with the heaviest load it can carry according to the design specifications. The manufacturer or their authorised distributor usually state what the DGVW of a vehicle is.
Drawbar trailer:

A trailer that has at least two axles and a towing device that can move up and down with the trailer which keeps the load imposed on the towing vehicle at less than 100kg. See Figure 6 below.

![Figure 6: Drawing of a drawbar or balanced trailer](image)

Fully mounted agricultural equipment:

Interchangeable machinery that is mounted on the tractor’s three-point linkage and that is fully raised from the ground. Fully mounted equipment can’t move in a different direction to the tractor. A small plough, a power harrow or a fertiliser spreader are examples of fully mounted agricultural equipment.

Interchangeable towed equipment:

Any piece of equipment that is used in agriculture, fisheries, forestry or horticulture and which is designed to be drawn by an agricultural tractor. This equipment is attached by a drawbar or lift arms – that is, it is not mounted on the three-point linkage. If it is equipment that can carry a load, its DGVW as specified by the manufacturer should be no more than three times the weight of the equipment itself.

Examples of interchangeable towed equipment include grass mowers, balers and trailed soil cultivation equipment.

Laden weight:

The weight of a vehicle or trailer when carrying a load.

**Rigid drawbar trailer:**

Has one axle or a group of axles positioned off centre. The ‘rigid’ drawbar doesn’t move or swivel which imposes extra load on the drawing vehicle. See Figure 7 below.
Secondary coupling:

An additional coupling to the primary hook and ring, pin and eye, or ball and spoon coupling. The secondary coupling usually consists of a safety chain or wire rope or other similar connection which ensures that a trailer remains attached to its towing vehicle if the primary coupling fails or becomes detached. It prevents a trailer’s drawbar from touching the ground and provides some level of steering. A secondary coupling is not needed if a trailer has been equipped with a breakaway brake.

Self-propelled agricultural machine:

A machine that can be driven under its own power and which is designed specifically to perform agricultural, fisheries, forestry or horticultural work. For example, a combine harvester or silage harvester.

Tandem axle trailer:

A trailer that has two axles which are spaced no more than 2.5 metres apart.

Tri-axle trailer:

A trailer that has three axles with the first and third spaced no more than 3.7 metres apart.

Unladen weight:

In the case of an agricultural tractor, unladen weight means the weight of the tractor without the driver or optional accessories such as front or rear weights, tyre ballast, mounted implements and so on. However, the weight of fluids such as oil, fuel and coolants is included, as is the weight of the roll-over cage or cab.

In the case of an agricultural trailer, the unladen weight is the weight of the trailer itself with no load.

Vintage agricultural tractor:

A vintage tractor is a tractor over 30 years old.
Weights, Dimensions and Coupling Specific Terminology

**Air suspension:** a suspension system that uses pressurised air instead of metal springs. A system is considered to be air suspended if at least 75% of the spring effect is caused by pressurised air.

**Authorisation Plate:** a plate attached to an agricultural trailer which contains information such as: manufacturer’s name, Vehicle Identification Number (VIN), maximum design speed and permitted laden weight, maximum drawbar loading, vehicle length and width. It may also contain information on design weights, if these are higher than the national limits permitted in Ireland. An authorisation plate is sometimes referred to as a ‘national weights and dimensions plate’.

**Coupling:** a device used to connect an agricultural tractor to a trailer or piece of interchangeable towed equipment. Typically, these are ‘hook and ring’ or ‘pin and eye’ type devices. However, the ‘ball and spoon’ type couplings are becoming more popular because they are stronger and wear well. Further details on each type are included below, including in Figures 8, 9 and 10.

‘**Hook and ring** coupling:’ Figure 8 below contains an image of a ‘hook and ring’ coupling. This is the most common coupling used on agricultural vehicles in Ireland and is (subject to the tractor manufacturer’s specifications) usually limited to vertical loads of 3,000kg or less. A vertical load is the downward force placed on the hitch by the coupling at the point of connection.

You should check the tractor manufacturer’s specifications regarding coupling devices.

![Image of 'hook and ring' type coupling](image_url)

**Figure 8:** Image of ‘hook and ring’ type coupling. (Image Courtesy of Dromone Engineering)
‘Pin and eye’ coupling: Figure 9 below contains an image of a ‘pin and eye’ type coupling. Usually, these couplings are used when drawing pieces of interchangeable towed equipment. Again, they are usually limited to vertical loads under of 3,000kg or less. You should check the tractor manufacturer’s specifications regarding coupling devices.

‘Ball and spoon’ coupling: Figure 10 contains an image of a ‘ball and spoon’ coupling. These couplings are a more recent design. They wear better than ‘hook and ring’ couplings and are, therefore, a safer connection type as there is no risk of ‘decoupling’ – where worn trailer tow rings come away from the keeper plate mounted on the rear of the tractor.

The ‘ball and spoon’ coupling is also an ideal system for use on trailers and interchangeable towed equipment fitted with steering functionality. Whereas they are usually limited to vertical loads of 3,000kg or less, these couplings may be approved for a 4,000kg load if they comply with ISO 24347 and are approved under Directive
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94/20/EEC, 89/173/EEC, 2009/144/EEC or UN/ECE Regulation 55. For more information consult the vehicle manufacturer or their authorised distributor.

It will probably not be possible to retrofit this type of coupling to an existing tractor which is capable of taking a 4,000kg load. Nevertheless, you could contact the tractor manufacturer or their authorised distributor for further advice.

Most tractors will be fitted with a plate near the coupling device detailing the maximum load the coupling can take. An example of this is shown in Figure 11 below. The figure illustrates that this particular coupling, when the towing hook is used, has been rated for a maximum load of 3,000daN – decanewtons – which is 3,059kg; and 2300daN (2,345kg) when the drawbar is used at speeds under 40km/h.

Figure 11: Image of typical plate mounted near to a coupling device fitted to the rear of a tractor. (ImageCourtesy of Dromone Engineering)

Equivalent system: means a suspension system which fulfils the conditions to make it equivalent to air suspension as set out in Annex II to Council Directive 96/53/EC. For more information, consult the vehicle manufacturer or their authorised distributor.

Flexible suspension: means, in relation to a trailer, an air suspension system, an equivalent system or a suspension system that incorporates a spring or a shock-absorbing device or both between the axle or axles and the trailer chassis. A ‘rocking bogie’ system (as shown in Figure 12. B below) does not constitute a flexible suspension system.

Figure 12: Images of a trailers equipped with/without flexible suspension systems. (Image Courtesy of NC Engineering)

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**Flotation tyres:** pneumatic tyres with an inflation pressure of not more than 4 bar. A flotation tyre’s area of contact with the road surface is not less than 500 millimetres in width when measured at a right angle to the vehicle.

**Manufacturer’s Plate:** sometimes referred to as a statutory plate) and contains information such as: manufacturer’s name, Vehicle Identification Number (VIN), total permissible mass, permissible axle loads and permissible towable masses.

**Plating:** is when a vehicle manufacturer or their authorised distributor attaches an information plate to a vehicle. This plate contains information such as the manufacturer’s name, a Vehicle Identification Number (VIN), design weights and so on.

**Secondary coupling:** an additional coupling to the primary hook and ring, pin and eye, or ball and spoon coupling. The secondary coupling usually consists of a safety chain or wire rope or other similar connection which ensures that a trailer remains attached its towing vehicle if the primary coupling fails or becomes detached. It prevents a trailer’s drawbar from touching the ground and provides some level of steering. A secondary coupling is not needed if a trailer has been equipped with a breakaway brake.

**When a secondary coupling is fitted correctly as shown in Figure 13 below, it helps to prevent:**

- damage to the tractor’s cab, especially when tipping trailers;
- injury to tractor drivers caused by the trailer’s drawbar entering the tractor cab through the back window;
- breakages to the back of the tractor, including tyre damage;
- handling difficulties, especially if the trailer’s drawbar impacts a wheel on the tractor’s rear axle;
- the trailer’s drawbar from digging into the ground;
- the tractor rearing up at the front.

![Correctly Fitted Safety Chain](image)

*Figure 13: Correctly Fitted Safety Chain. (Image Courtesy of Dromone Engineering)*
Despite the fact that many older trailers may be equipped with a safety chain following the arrangement shown in Figure 14 below, the RSA advice is that, if possible, this type of secondary coupling chain should not be used in future. The chain is too long and too high on the rear of the tractor. This could cause:

- the trailer’s drawbar to come through the back window of the tractor and seriously injure the driver;
- the trailer’s drawbar to damage the components fitted to the rear of the tractor, i.e. the pick-up hitch or three-point linkage components, including hydraulic, braking and lighting connections;
- the tractor to rear up at the front;
- the trailer’s drawbar to dig into ground.

**Figure 14: Incorrectly Fitted Safety Chain. (Image Courtesy of Dromone Engineering)**

Other points worth noting in respect of the use of safety chains include:

- The minimum strength of the chain must be equal to the gross weight of the trailer being drawn. Consult the vehicle manufacturer or chain supplier for advice on the type of chain you need.
- Safety chains must be securely attached to both the tractor’s hitch and the trailer drawbar.
- Safety chains must not be damaged, e.g. worn from dragging on the ground, stretched or kinked, and so on.
- The slack in the chain should only be enough to allow the trailer to turn.

**Steering axle:** controls the direction of a vehicle’s wheels. The steering mechanism can be powered or non-powered. These axles (where required on trailers with axle centres of 1.8 metres or greater) must comply with the technical provisions of UN/ECE Regulation 79 on steering equipment. For more information consult the vehicle manufacturer or their authorised distributor.