



Údarás Um Shábháilteacht Ar Bhóithre  
Road Safety Authority

## **Guidelines on Maximum Weights and Dimensions of Mechanically Propelled Vehicles and Trailers, Including Manoeuvrability Criteria**

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**DISCLAIMER: THIS LEAFLET IS INTENDED AS A GENERAL GUIDE FOR INDUSTRY, HAULIERS AND INTERESTED MEMBERS OF THE PUBLIC ON THE MAXIMUM PERMITTED WEIGHTS AND DIMENSIONS OF MECHANICALLY PROPELLED VEHICLES AND THEIR TRAILERS OPERATING IN IRELAND. IT IS NOT AN INTERPRETATION OF THE LAW.**

## **Terminology Used in Leaflet**

"**air suspension system**" means a system in which at least 75 per cent of the spring effect is caused by the elasticity of a confined gas.

"**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 a plate complying with the requirements of the Regulations of 2000.

"**appropriate semi-trailer**"<sup>1</sup> means a semi-trailer which has an air suspension or an equivalent suspension and ABS brakes. It must also be fitted with a plate complying with the requirements of the Regulations of 2000.

"**articulated bus**" means a large public service vehicle so constructed that -

- (a) 2 rigid intercommunicating passenger compartments are connected by an articulated section allowing free movement of passengers between the 2 compartments, and
- (b) connection and division of the 2 compartments is possible only in a workshop.

"**articulated vehicle**" means the combination of a mechanically propelled vehicle and a drawn vehicle attached by partial superimposition and so constructed and attached that not less than 20 per cent of the weight of the drawn vehicle is borne by the mechanically propelled vehicle.

"**combination of vehicles**" means a combination of a mechanically propelled vehicle and one trailer.

"**conditioned vehicle**" means a mechanically propelled vehicle, trailer or semi-trailer with a design gross vehicle weight in excess of 3,500 kilograms, whose fixed or movable superstructure is specially equipped for the carriage of goods at controlled temperatures and whose side walls, inclusive of insulation, are each at least 45 millimetres thick.

"**Council Directive**" means Council Directive 96/53/EC of 25 July 1996.

"**equivalent system**" means a suspension system which fulfils the conditions for equivalence to air suspension as set out in Annex II to the Council Directive.

"**four axle bogie**" means 4 successive axles the outermost of which are spaced at a distance apart of less than 4.3 metres.

"**intermodal journey**" means a journey to or from a rail terminal or a seaport in the State for onward transfer of goods, such that the goods themselves are not handled in changing modes.

"**large tractor**" means a mechanically propelled vehicle which is not constructed to carry any load itself and which has an un-laden weight in excess of 7.25 tonnes.

"**refrigerated vehicle**" means any mechanically propelled vehicle, trailer or semi-trailer specially designed and constructed for the carriage of goods at a temperature below the ambient temperature.

"**Regulations of 2000**" means the Road Traffic (Construction, Equipment and Use of Vehicles) (Amendment) Regulations 2000 (S.I. No. 224 of 2000).

"**semi-trailer**" means the drawn component of an articulated vehicle, or a vehicle constructed or adapted for use as such drawn component.

"**tandem axles**" means 2 successive axles, not being part of a triaxle or a four axle bogie which are spaced at a distance apart of not more than 2.5 metres.

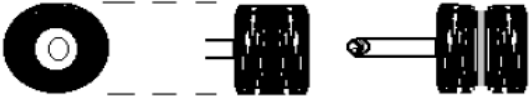
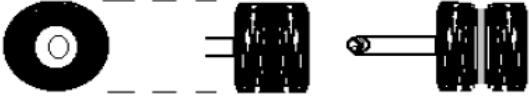


"**tractor unit**" means the drawing component of an articulated vehicle.

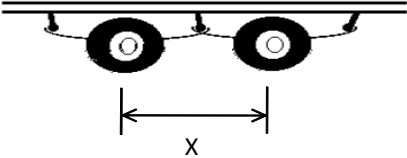
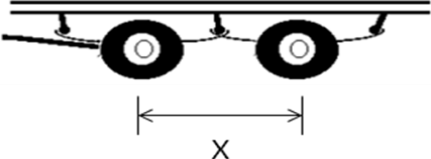
"**triaxle**" means 3 successive axles, not being part of a four axle bogie, the outermost of which are spaced at a distance apart of not more than 3.25 metres.

"**vehicle transporter**" means a vehicle constructed or adapted to carry 2 or more vehicles.

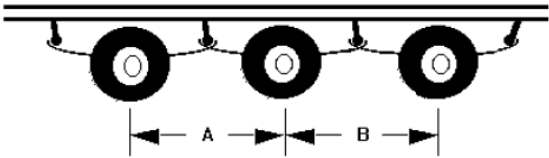
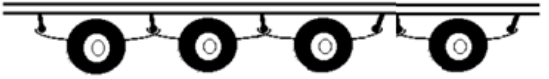
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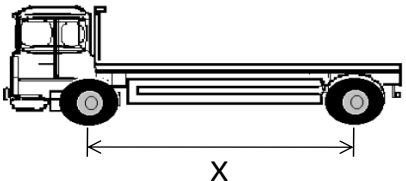
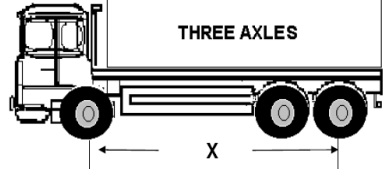
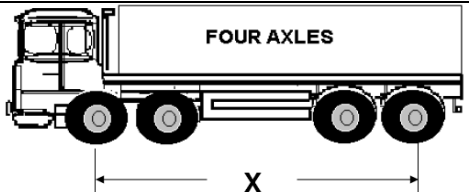
<sup>1</sup> The 'appropriate semi-trailer' concept comes into force on 1<sup>st</sup> April 2013 and applies to both new and existing semi-trailers operating as part of a combination of vehicles with a gross weight in excess of 40 tonnes.

MAXIMUM WEIGHTS FOR AXLES & WHEELS			
DESCRIPTION	COMMENT	MAXIMUM WEIGHT TRANSMITTED	IMAGE
WHEEL WHICH IS PART OF THE SOLE DRIVING AXLE	Whether with single or twin tyres.	5.75 tonnes	
WHEEL WHICH IS <u>NOT</u> PART OF THE SOLE DRIVING AXLE	Whether with single or twin tyres.	5.0 tonnes	
SINGLE AXLE	Whether with single or twin tyres.	10 tonnes	
SOLE DRIVING AXLE	Twin tyres.	10.5 tonnes or 11.5 tonnes with an air suspension or an equivalent system	

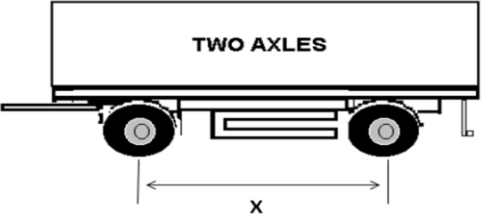
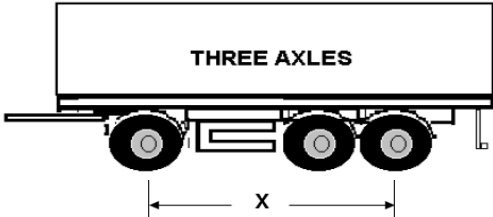
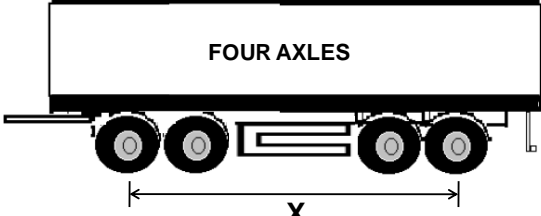

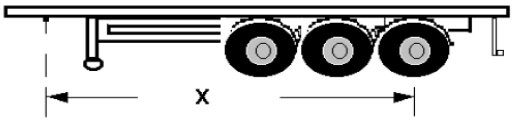
MAXIMUM WEIGHTS FOR TANDEM AXLES			
TANDEM AXLES OF A VEHICLE OR TRAILER	AXLE SPACING (X)	MAX WEIGHT TRANSMITTED	IMAGE
	Less than 1.0m 1.0m or greater 1.3m or greater 1.8m or greater	11.5 tonnes 16 tonnes 18 tonnes 20 tonnes (For trailer or semi trailer only)	 <p>Distance measured from centre of front to centre of rearmost axle</p>
TANDEM AXLES OF A VEHICLE NOT INCLUDING A TRAILER <sup>2</sup>	Between 1.3m & 1.8m inclusive	19 tonnes	 <p>Distance measured from centre of front to centre of rearmost axle</p>

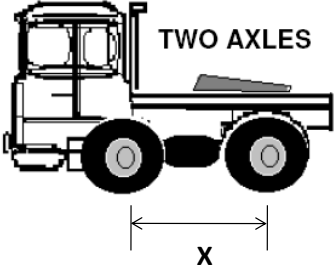
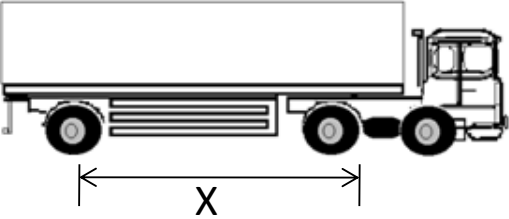
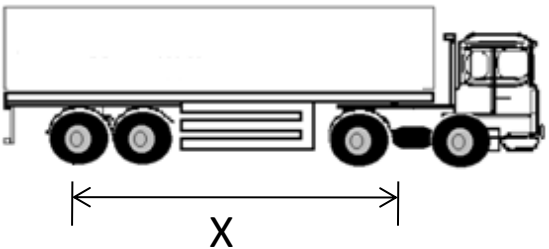
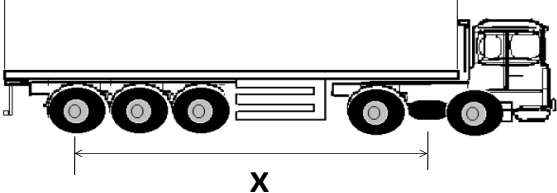
<sup>2</sup> Provided that the vehicle is equipped with twin tyres and an air suspension system or an equivalent system on each driving axle, OR is equipped with twin tyres and 2 driving axles neither of which transmits to the surface of a road a weight in excess of 9.5 tonnes.

MAXIMUM WEIGHT OF A TRIAXLE			
<b>TRIAXLE</b>	<b>AXLE SPACING</b>	<b>MAXIMUM TOTAL WEIGHT TRANSMITTED BY THE TRIAXLE (SUM OF 3 AXLES)</b>	 <p>Distance measured from centre of front to centre of rearmost axle</p>
	Less than 1.3m 1.3m or greater <sup>3</sup>	21 tonnes 24 tonnes	
MAXIMUM WEIGHT OF A FOUR AXLE BOGIE			
<b>FOUR AXLE BOGIE</b>		<b>(SUM OF 4 AXLES)</b>	
		24 tonnes	

MAXIMUM WEIGHTS FOR RIGID VEHICLES			
<b>2 AXLE RIGID TRUCKS</b>	<b>AXLE SPACING (X)</b>	<b>MAXIMUM WEIGHT LADEN</b>	 <p>Distance measured from centre of front to centre of rearmost axle</p>
	Less than 3m 3m or greater	16 tonnes 18 tonnes	
<b>3 AXLE RIGID TRUCKS</b>	<b>TONNES PER METRE (X)</b>	<b>MAXIMUM WEIGHT LADEN</b>	 <p>Distance measured from centre of front to centre of rearmost axle</p>
	5.5 tonnes 5.5 tonnes	25 tonnes 26 tonnes <sup>2</sup>	
<b>4 AXLE RIGID TRUCKS</b>	<b>TONNES PER METRE (X)</b>	<b>MAXIMUM WEIGHT LADEN</b>	 <p>Distance measured from centre of front to centre of rearmost axle</p>
	5 tonnes	30 tonnes 32 tonnes <sup>2</sup>	

<sup>3</sup> If A equals B then this is the control dimension. If A does not equal B then the lesser of the two is the control dimension, i.e. if A = 1.2m & B = 1.5m, the max weight transmitted = 21 tonnes.

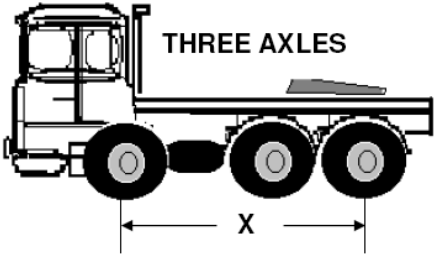
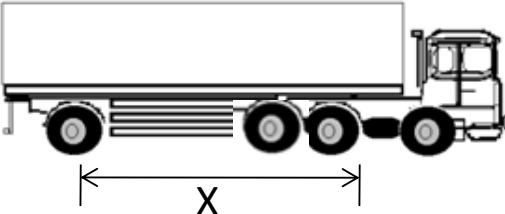
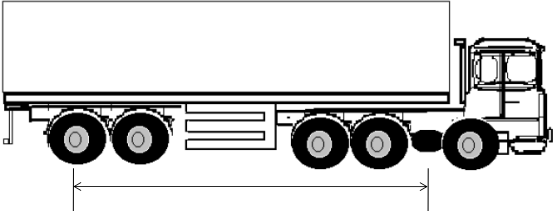
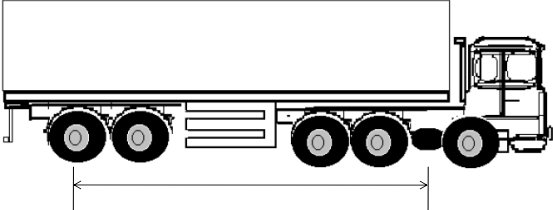
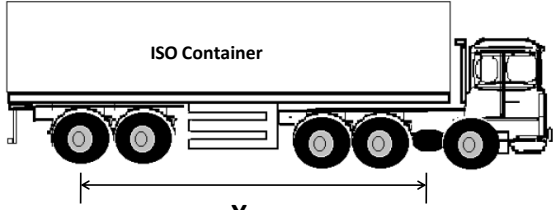
<b>MAXIMUM WEIGHTS FOR TRAILERS NOT FORMING PART OF A COMBINATION OF VEHICLES</b>			
<b>TWO AXLE TRAILER</b>	<b>AXLE SPACING (X)</b>  Less than 3.0m 3.0m or greater	<b>MAXIMUM WEIGHT LADEN</b>  16 tonnes 18 tonnes	 <p style="text-align: center;"><b>TWO AXLES</b></p> <p style="text-align: center;">Distance measured from centre of front to centre of rearmost axle</p>
<b>THREE AXLE TRAILER</b>	<b>TONNES PER METRE (X)</b>  5.5 tonnes	<b>MAXIMUM WEIGHT LADEN</b>  25 tonnes	 <p style="text-align: center;"><b>THREE AXLES</b></p> <p style="text-align: center;">Distance measured from centre of front to centre of rearmost axle</p>
<b>FOUR AXLE TRAILER</b>	<b>TONNES PER METRE (X)</b>  5 tonnes	<b>MAXIMUM WEIGHT LADEN</b>  30 tonnes	 <p style="text-align: center;"><b>FOUR AXLES</b></p> <p style="text-align: center;">Distance measured from centre of front to centre of rearmost axle</p>
<b>SEMI TRAILER COMPONENT OF AN ARTICULATED VEHICLE COMBINATION</b>	<b>TONNES PER METRE (X)</b>  5.5 tonnes		 <p style="text-align: center;">Distance measured from kingpin to centre of rearmost axle</p>
<b>TRIAXLE SEMI TRAILER COMPONENT OF A 46 TONNE SIX AXLE ARTICULATED VEHICLE COMBINATION</b>	<b>TONNES PER METRE (X)</b>  5.75 tonnes		 <p style="text-align: center;">Distance measured from kingpin to centre of rearmost axle</p>

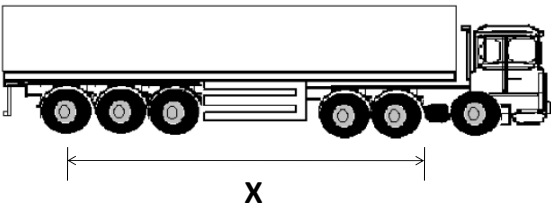
TWO AXLE TRACTOR UNIT WITH VARIOUS TRAILER COMBINATIONS			
<b>TWO AXLE TRACTOR UNIT ON ITS OWN; I.E. NOT TOWING A TRAILER</b>	<b>AXLE SPACING (X)</b>  Less than 3m 3m or greater	<b>MAXIMUM WEIGHT LADEN</b>  16 tonnes 18 tonnes	 <p>Distance measured from centre of front to centre of rearmost axle</p>
<b>A COMBINATION OF A TWO AXLE TRACTOR UNIT WITH A SINGLE AXLE SEMI-TRAILER</b>	<b>TONNES PER METRE (X)</b>  5.5 tonnes 5.5 tonnes	<b>MAXIMUM WEIGHT LADEN</b>  22 tonnes 26 tonnes <sup>4</sup>	 <p>Distance measured from kingpin to centre of rearmost axle</p>
<b>A COMBINATION OF A TWO AXLE TRACTOR UNIT WITH A TWO AXLE SEMI-TRAILER</b>  <b>A COMBINATION OF A TWO AXLE TRACTOR UNIT WITH A TWO AXLE SEMI-TRAILER</b>	<b>TONNES PER METRE (X)</b>  5.5 tonnes 5.5 tonnes	<b>MAXIMUM WEIGHT LADEN</b>  35 tonnes 38 tonnes <sup>5</sup>	 <p>Distance measured from kingpin to centre of rearmost axle</p>
<b>A COMBINATION OF A TWO AXLE TRACTOR UNIT WITH A THREE AXLE APPROPRIATE SEMI-TRAILER</b>	<b>TONNES PER METRE (X)</b>  5.5 tonnes	<b>MAXIMUM WEIGHT LADEN</b>  40 tonnes (42 tonnes until 30 <sup>th</sup> June 2016)	 <p>Distance measured from kingpin to centre of rearmost axle</p>

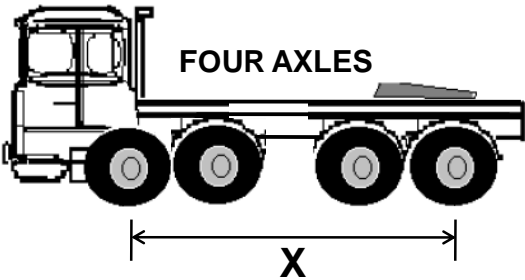
<sup>4</sup> Provided the distance between the rearmost axle of the vehicle and the axle of the trailer is greater than 3 metres.

<sup>5</sup> Provided that the tractor unit is equipped with an air suspension system or an equivalent system on each driving axle, ABS brakes and a plate complying with the requirements of the Regulations of 2000.

**THREE AXLE TRACTOR UNIT WITH VARIOUS TRAILER COMBINATIONS**

<p><b>THREE AXLE TRACTOR UNIT ON ITS OWN; I.E. NOT TOWING A TRAILER</b></p>	<p><b>TONNES PER METRE (X)</b></p> <p>6 tonnes 6 tonnes</p>	<p><b>MAXIMUM WEIGHT LADEN</b></p> <p>25 tonnes 26 tonnes<sup>2</sup></p>	 <p>Distance measured from centre of front to centre of rearmost axle</p>
<p><b>A COMBINATION OF A THREE AXLE TRACTOR UNIT WITH A SINGLE AXLE SEMI-TRAILER</b></p>	<p><b>TONNES PER METRE (X)</b></p> <p>5.5 tonnes</p>	<p><b>MAXIMUM WEIGHT LADEN</b></p> <p>35 tonnes</p>	 <p>Distance measured from centre of front to centre of rearmost axle</p>
<p><b>A COMBINATION OF A THREE AXLE TRACTOR UNIT WITH A TWO AXLE SEMI-TRAILER</b></p>	<p><b>TONNES PER METRE (X)</b></p> <p>5.5 tonnes</p>	<p><b>MAXIMUM WEIGHT LADEN</b></p> <p>40 tonnes</p>	 <p>Distance measured from kingpin to centre of rearmost axle</p>
<p><b>A COMBINATION OF AN APPROPRIATE MOTOR VEHICLE WITH A TWO AXLE APPROPRIATE SEMI-TRAILER</b></p>	<p><b>TONNES PER METRE (X)</b></p> <p>5.5 tonnes</p>	<p><b>MAXIMUM WEIGHT LADEN</b></p> <p>42 tonnes</p>	 <p>Distance measured from kingpin to centre of rearmost axle</p>
<p><b>A COMBINATION OF AN APPROPRIATE MOTOR VEHICLE WITH A TWO AXLE APPROPRIATE SEMI-TRAILER THAT IS CARRYING A 40 FOOT ISO CONTAINER ON AN INTERMODAL JOURNEY</b></p>	<p><b>TONNES PER METRE (X)</b></p> <p>5.5 tonnes</p>	<p><b>MAXIMUM WEIGHT LADEN</b></p> <p>44 tonnes</p>	 <p>Distance measured from kingpin to centre of rearmost axle</p>

THREE AXLE TRACTOR UNIT WITH VARIOUS TRAILER COMBINATIONS CONTINUED			
	TONNES PER METRE (X)	MAXIMUM WEIGHT LADEN	
A COMBINATION OF A THREE AXLE TRACTOR UNIT WITH A THREE AXLE SEMI TRAILER	5.5 tonnes	40 tonnes	 <p>Distance measured from kingpin to centre of rearmost axle</p>
A COMBINATION OF AN APPROPRIATE MOTOR VEHICLE WITH A THREE AXLE APPROPRIATE SEMI-TRAILER	5.5 tonnes	44 tonnes	
A COMBINATION OF AN APPROPRIATE MOTOR VEHICLE WITH A THREE AXLE APPROPRIATE SEMI-TRAILER <sup>6</sup>	5.75 tonnes	46 tonnes	

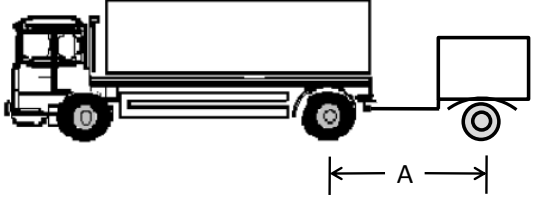
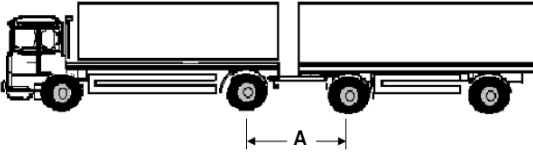
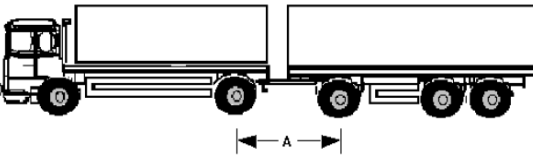
FOUR AXLE TRACTOR UNIT WITH VARIOUS TRAILER COMBINATIONS			
	TONNES PER METRE (X)	MAXIMUM WEIGHT LADEN	
FOUR AXLE TRACTOR UNIT ON ITS OWN; I.E. NOT TOWING A TRAILER	6 tonnes	30 tonnes	 <p>Distance measured from centre of front to centre of rearmost axle</p>
A COMBINATION OF A FOUR AXLE TRACTOR UNIT AND AN APPROPRIATE SEMI TRAILER	6 tonnes	See manufacturer's specifications. Vehicle will require a Local Authority permit if combination exceeds 46 tonnes.	

<sup>6</sup> From 1<sup>st</sup> April 2013 triaxle tractor units towing triaxle semi-trailers may operate at a gross combination weight of 46 tonnes. However, in addition to satisfying the requirements of an 'appropriate motor vehicle' and 'appropriate semi-trailer respectively'; they must also satisfy the following additional criteria in order to be allowed to operate as part of a 46 tonne combination:


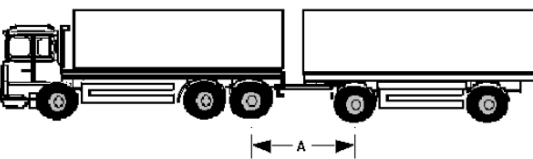
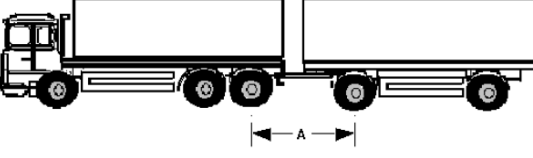
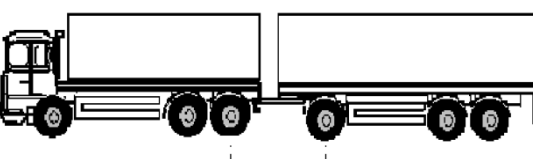
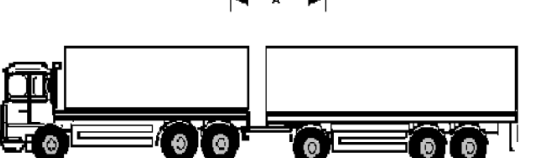
Tractor units and semi-trailers **already in service on** 1<sup>st</sup> April 2013 will require Electronic Braking Systems (EBS). Anti-lock Braking Systems (ABS) are not sufficient. **New tractor units first registered** on or after 1<sup>st</sup> April 2013 (in addition to requiring EBS) will also need Vehicle Stability Function (VSF) which is more commonly known as Electronic Stability Control (ESC); and **semi-trailers first licensed** on or after 1<sup>st</sup> April 2013 (in addition to requiring EBS) will also require roll stability control.



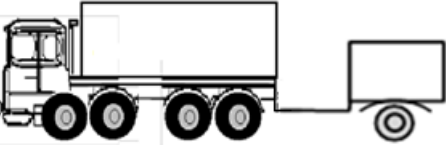
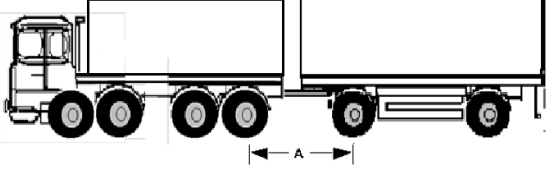
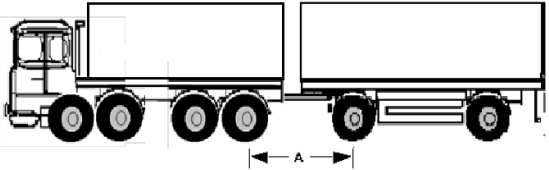
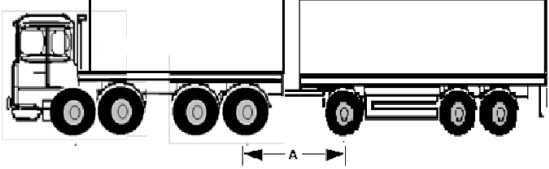
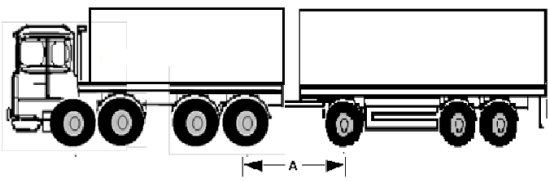
**TWO AXLE RIGID TRUCK WITH VARIOUS TRAILER COMBINATIONS**

	<b>AXLE SPACING (A)</b>	<b>MAXIMUM WEIGHT LADEN</b>	A = Distance between rearmost axle of the vehicle and the foremost axle of the trailer.
<b>TWO AXLE RIGID TRUCK DRAWING A SINGLE AXLE TRAILER</b>	Less than 3m 3m or greater	22 tonnes 26 tonnes	
<b>TWO AXLE TRUCK DRAWING A TWO AXLE TRAILER</b>	Less than 3m 3m or greater	30 tonnes 36 tonnes	
<b>TWO AXLE TRUCK DRAWING A THREE AXLE TRAILER</b>	Less than 3m 3m or greater	34 tonnes 40 tonnes	

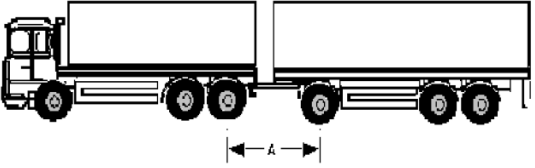
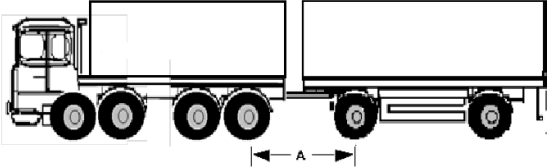
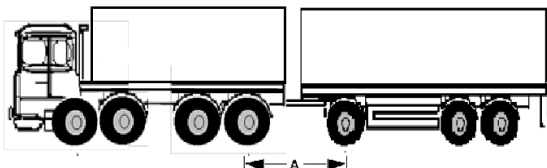
**THREE AXLE RIGID TRUCK WITH VARIOUS TRAILER COMBINATIONS**

	<b>AXLE SPACING (A)</b>	<b>MAXIMUM WEIGHT LADEN</b>	A = Distance between rearmost axle of the vehicle and the foremost axle of the trailer.
<b>THREE AXLE TRUCK DRAWING A SINGLE AXLE TRAILER</b>	Less than 3m 3m or greater	30 tonnes 36 tonnes	
<b>THREE AXLE TRUCK DRAWING A TWO AXLE TRAILER</b>	Less than 3m 3m or greater	34 tonnes 40 tonnes	
<b>THREE AXLE APPROPRIATE MOTOR VEHICLE DRAWING A TWO AXLE TRAILER</b>	Less than 3m 3m or greater	34 tonnes 42 tonnes	
<b>THREE AXLE TRUCK DRAWING A THREE AXLE TRAILER</b>	Less than 3m 3m or greater	34 tonnes 40 tonnes	
<b>THREE AXLE APPROPRIATE MOTOR VEHICLE DRAWING A THREE AXLE TRAILER</b>	Less than 3m 3m or greater	34 tonnes 44 tonnes	

**FOUR AXLE RIGID TRUCK WITH VARIOUS TRAILER COMBINATIONS**

	<b>AXLE SPACING (A)</b>	<b>MAXIMUM WEIGHT LADEN</b>	A = Distance between rearmost axle of the vehicle and the foremost axle of the trailer.
<b>FOUR AXLE TRUCK DRAWING A SINGLE AXLE TRAILER</b>	Less than 3m 3m or greater	34 tonnes 40 tonnes	
<b>FOUR AXLE TRUCK DRAWING A TWO AXLE TRAILER</b>	Less than 3m 3m or greater	34 tonnes 40 tonnes	
<b>FOUR AXLE APPROPRIATE MOTOR VEHICLE DRAWING A TWO AXLE TRAILER</b>	Less than 3m 3m or greater	34 tonnes 42 tonnes	
<b>FOUR AXLE TRUCK DRAWING A THREE AXLE TRAILER</b>	Less than 3m 3m or greater	34 tonnes 40 tonnes	
<b>FOUR AXLE APPROPRIATE MOTOR VEHICLE DRAWING A THREE AXLE TRAILER</b>	Less than 3m 3m or greater	34 tonnes 44 tonnes	

**SIX (OR MORE) AXLE RIGID TRUCK AND DRAWBAR TRAILER COMBINATIONS**

	<b>AXLE SPACING (A)</b>	<b>MAXIMUM WEIGHT LADEN</b>	<b>A = Distance between rearmost axle of the vehicle and the foremost axle of the trailer.</b>
<b>THREE AXLE APPROPRIATE MOTOR VEHICLE DRAWING A THREE (OR MORE) AXLE TRAILER</b>	3m or greater	46 tonnes <sup>7</sup>	
<b>FOUR AXLE APPROPRIATE MOTOR VEHICLE DRAWING A TWO (OR MORE) AXLE TRAILER</b>	3m or greater	46 tonnes <sup>7</sup>	
<b>FOUR (OR MORE) AXLE APPROPRIATE MOTOR VEHICLE DRAWING A THREE (OR MORE) AXLE TRAILER</b>	3m or greater	46 tonnes <sup>7</sup>	

**MAXIMUM WEIGHT FOR A LARGE PUBLIC SERVICE VEHICLE**

**LARGE PUBLIC SERVICE VEHICLE = A VEHICLE WHICH IS USED FOR THE CARRIAGE OF PASSENGERS FOR REWARD WHICH HAS SEATING PASSENGER ACCOMMODATION FOR MORE THAN EIGHT PERSONS EXCLUSIVE OF THE DRIVER.**



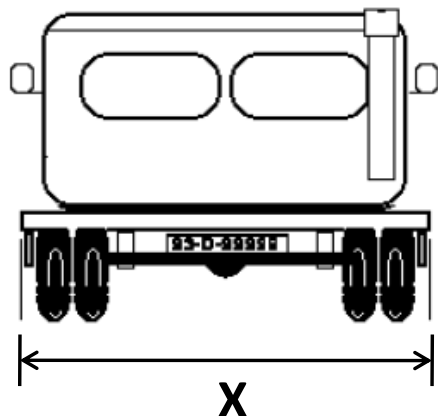
**IN CALCULATING THE WEIGHT LADEN OF A LARGE PUBLIC SERVICE VEHICLE OR THE WEIGHT TRANSMITTED TO THE SURFACE OF THE ROAD BY AN AXLE OR A WHEEL THEREOF, THE VEHICLE IS DEEMED TO BE CARRYING ITS FULL COMPLEMENT OF STANDING AND SITTING PASSENGERS IF WEIGHTS OF 65 KILOGRAMS EACH ARE TO BE PLACED IN THE CORRECT RELATIVE POSITIONS FOR THE DRIVER AND EACH PASSENGER.**

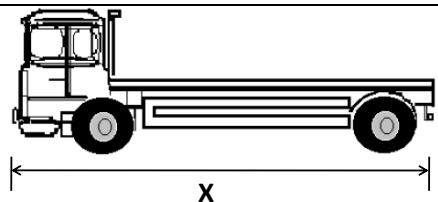
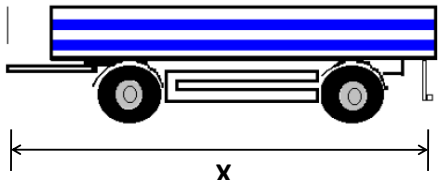
<sup>7</sup> From 1<sup>st</sup> June 2015 six (or more) axle rigid truck and drawbar trailer combinations may operate at a gross combination weight of 46 tonnes. However, in addition to satisfying the requirements of an 'appropriate motor vehicle' they must also satisfy the following additional safety criteria:

3 or more axle rigid trucks and 2 (or more) axle drawbar trailers **already in service on 1<sup>st</sup> June 2015** will require Electronic Braking Systems (EBS). Anti-lock Braking Systems (ABS) are not sufficient. **New three axle rigid trucks first registered on or after 1<sup>st</sup> June 2015** (in addition to requiring EBS) will also need Vehicle Stability Function (VSF) which is more commonly known as Electronic Stability Control (ESC). **New drawbar trailers first licensed on or after 1<sup>st</sup> June 2015** (in addition to requiring EBS) will also require roll stability control. **Note that new four (or more) axle rigid trucks first registered on or after 1<sup>st</sup> June 2015 will not require ESC to operate as part of a 46 tonne combination.**

**MAXIMUM WIDTH**

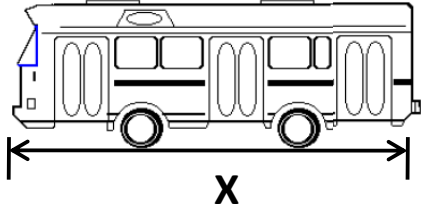
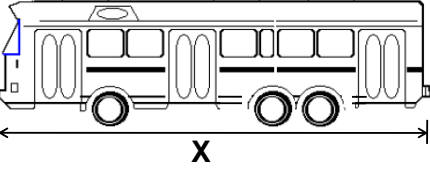
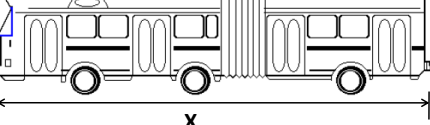
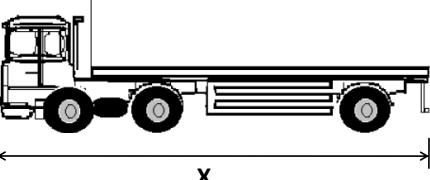
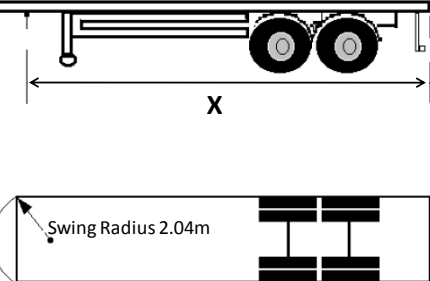
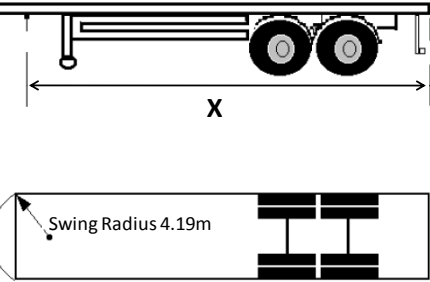
**THESE DIMENSIONS DO NOT APPLY TO A LAND IMPLEMENT OR VEHICLE FOR GRASS CUTTING, HEDGE-TRIMMING OR FORESTRY OPERATIONS WHILE USED IN THE DAY TIME, OR A LAND IMPLEMENT USED DURING LIGHTING UP HOURS FROM JULY TO AUGUST INCLUSIVE, PROVIDED THAT THE VEHICLE COMPLIES WITH THE ROAD TRAFFIC (LIGHTING OF VEHICLES) REGULATIONS 1963 (S.I. NO. 189 OF 1963).**

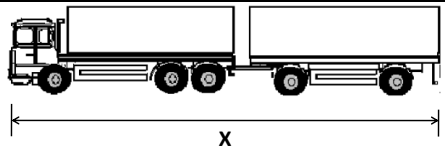
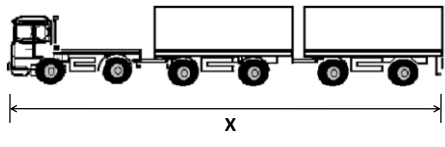
DESCRIPTION	WIDTH (X)	IMAGE
<b>AGRICULTURAL TRAILER / PIECE OF INTERCHANGEABLE TOWED EQUIPMENT</b>	2.55m <sup>8</sup>	
<b>CONDITIONED VEHICLE</b>	2.6m	
<b>LARGE TRACTOR</b>	2.75m	
<b>PASSENGER VEHICLE WITH SEATING CAPACITY FOR MORE THAN EIGHT PASSENGERS</b>	2.55m	
<b>REFRIDGERATED VEHICLE, TRAILER OR SEMI-TRAILER</b>	2.55m (For vehicles first registered or trailers first licensed on or before 31 <sup>st</sup> Dec 1997 the limit was 2.6m but this expired on 31 <sup>st</sup> Dec 2006)	
<b>RIGID TRUCK, TRACTOR UNIT OF AN ARTICULATED VEHICLE, TRAILER OR A SEMI-TRAILER</b>	2.55m (Provided that the vehicle's DGWW exceeds 3.5 tonnes)	
<b>VEHICLE OR TRAILER</b>	2.5m	
<b>VEHICLE TOGETHER WITH ITS LOAD</b> (Apart from loose agricultural produce which is not in bales or crates)	2.9m	

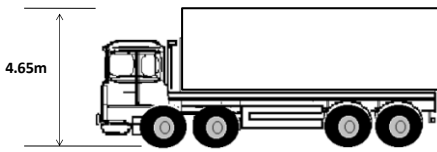
MAXIMUM LENGTH		
DESCRIPTION	LENGTH (X)	IMAGE
<b>RIGID TRUCK</b>	12m	
<b>TRAILER</b>	12m	

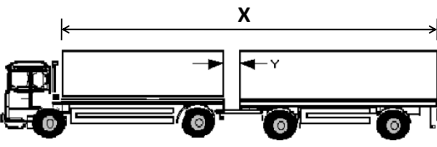
<sup>8</sup> Applicable from 1<sup>st</sup> January 2016. Note that the 2.55 metre dimension excludes the projecting part of flotation tyres and mudguards protruding beyond the bodywork, up to a maximum of 100 millimetres on each side of the vehicle, and also devices associated with hydraulic rear door opening mechanisms.

**MAXIMUM LENGTH (X) CONTINUED**

<p><b>TWO AXLE BUS</b></p>	<p align="center">13.50m</p>	
<p><b>BUS HAVING MORE THAN TWO AXLES</b></p>	<p align="center">15.00</p>	
<p><b>ARTICULATED BUS</b></p>	<p align="center">18.75m</p>	
<p><b>ARTICULATED VEHICLE</b></p>	<p align="center">16.5m</p>	
<p><b>SEMI-TRAILER</b></p> <p><b>Note: These provisions do not apply to articulated vehicles first registered before 1<sup>st</sup> January 1991 which do not exceed 15.5m in length.</b></p>	<p align="center">12.0m (Distance measured from the axis of the kingpin to the rear of the trailer)</p> <p align="center">2.04m (Distance measured from the axis of the kingpin to any point on the front of the semi trailer)</p>	
<p><b>VEHICLE TRANSPORTER</b></p> <p><b>Note: These provisions do not apply to articulated vehicles first registered before 1<sup>st</sup> January 1991 which do not exceed 15.5m in length.</b></p>	<p align="center">12.5m (Distance measured from the axis of the kingpin to the rear of the trailer)</p> <p align="center">4.19m (Distance measured from the axis of the kingpin to any point on the front of the semi trailer)</p>	

MAXIMUM LENGTH (X) CONTINUED		
<p><b>COMBINATION OF VEHICLES INCLUDING A LARGE TRACTOR DRAWING TWO TRAILERS</b></p>	18.75m	
<p><b>LARGE TRACTOR DRAWING TWO TRAILERS</b>  <u>Note:</u> A Large Tractor is permitted to tow two trailers and exceed 18.75m in overall length, but NOT in any town with a population exceeding 10,000 people. The limit for this combination is 22m.</p>	22m	

MAXIMUM HEIGHT		
DESCRIPTION	HEIGHT	IMAGE
<p><b>ALL VEHICLES</b>  <u>Note:</u> The 4.65m limit does not apply to vehicles/combinations of vehicles and trailers transporting agricultural produce (i.e. hay, silage straw or other animal fodder) which is baled.</p>	<p>4.65m  (Includes the load being carried)</p>	

MAXIMUM LOADING SPACE		
DESCRIPTION	LENGTH	IMAGE
<p><b>MAXIMUM LOADING SPACE OF A TRUCK AND TRAILER COMBINATION</b>  Distance measured from the foremost external point of the loading area behind the cabin to the rearmost point of the trailer.  Distance from the foremost external point of the loading area behind the cabin to the rearmost point of the trailer, less the distance between the rear of the drawing vehicle and the front of the trailer.</p>	<p>X = 16.40m   X-Y = 15.65m</p>	

MAXIMUM LOAD OVERHANG		
DESCRIPTION	SIDE OVERHANG	IMAGE
<p><b>VEHICLE OR TRAILER</b></p> <p>A load must not project by more than 300mm (1 foot) beyond the extreme projecting points on either / both sides of the vehicle or trailer.</p> <p>The overall width of a vehicle or trailer together with its load (except loose agricultural produce) must not exceed 2.9m (9 feet and 6 inches)</p>	<p>300mm (1 foot) on either / both sides</p>	
DESCRIPTION	REAR OVERHANG	IMAGE
<p><b>VEHICLE OR TRAILER</b></p> <p>A load on a vehicle or trailer must not project more than 3 metres beyond the rearmost point of the vehicle or trailer. An exception is made for electricity and telephone poles.</p>	<p>X = 3m</p> <p>Note: If the overhang exceeds 1m, a warning device must be carried at the rear of the load during the day time</p>	

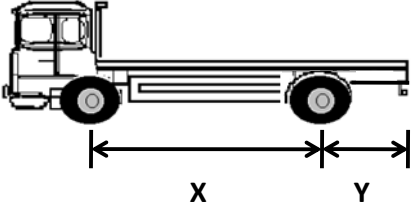
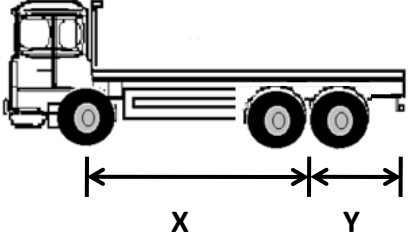
MANOEUVRABILITY CRITERIA - TURNING CIRCLE REQUIREMENTS	
DESCRIPTION	IMAGE
<p><b>ALL VEHICLE COMBINATIONS</b></p> <p>A mechanically propelled vehicle, an articulated vehicle and a combination of vehicles must be capable of being driven within an area contained between concentric circles with radii of 12.50 metres and 5.30 metres such that no part of the vehicle or the combination of vehicles projects outside the area contained between these two circles.</p>	

**MANOEUVRABILITY CRITERIA - MAXIMUM VEHICLE OVERHANG**

**THESE DIMENSIONS DO NOT APPLY TO AN ARTICULATED VEHICLE, A TRACTOR, A WORKS TRUCK, A CYCLE, A VEHICLE WHICH IS STEERED BY THE MOVEMENT OF THE REAR WHEELS, AND A VEHICLE REGISTERED BEFORE 1<sup>ST</sup> JULY 1964.**

**NOTE ON TRAILERS: THE REAR OVERHANG REQUIREMENTS OUTLINED BELOW DO NOT APPLY TO TRAILERS, HOWEVER ALL VEHICLE AND TRAILER COMBINATIONS USED ON A PUBLIC ROAD IN IRELAND MUST SATISFY THE TURNING CIRCLE REQUIREMENTS OUTLINED ABOVE.**

**TYPE APPROVAL REQUIREMENTS: COMMISSION REGULATION (EU) No 1230/2012 GOVERNS THE MANOEUVRABILITY REQUIREMENTS FOR NEW VEHICLES AT TYPE APPROVAL. NEW VEHICLE/VEHICLE COMBINATIONS MUST ALSO MEET THE TURNING CIRCLE REQUIREMENTS OUTLINED ABOVE; HOWEVER THERE ARE ADDITIONAL REAR SWING OUT<sup>9</sup> REQUIREMENTS STIPULATED FOR HGV's & BUSES. FURTHER INFORMATION IS AVAILABLE [HERE](#).**

DESCRIPTION	REAR OVERHANG	IMAGE
<p><b>VEHICLE HAVING TWO AXLES</b></p> <p>X = Distance between the centre of the front wheel and the centre of the rear axle.</p> <p>Y = Distance between the centre of the rear axle and the rearmost point of the vehicle.</p>	<p>Dimension 'Y' must not exceed 60% of dimension 'X'</p>	
<p><b>VEHICLE HAVING THREE OR MORE AXLES</b></p> <p>X = Distance between the centre or centres of the front wheel or wheels and the centre point of a straight line joining the centre points of the rear and second rearmost axles.</p> <p>Y = Distance between the centre point of a straight line joining the centre points of the rear and second rearmost axle and the rearmost point of the vehicle.</p>	<p>Dimension 'Y' must not exceed 60% of dimension 'X'</p>	

<sup>9</sup> Rear swing out (more commonly known as tail swing) is the amount that the rear of a vehicle moves to the left if the vehicle turns to the right.



# Weight Limits Applicable to Agricultural Tractors/Trailers from 1<sup>st</sup> January 2016

## Ag Vehicle Related Terminology

“an agricultural tractor”: 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**”: an agricultural trailer is 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 weights limits detailed below.

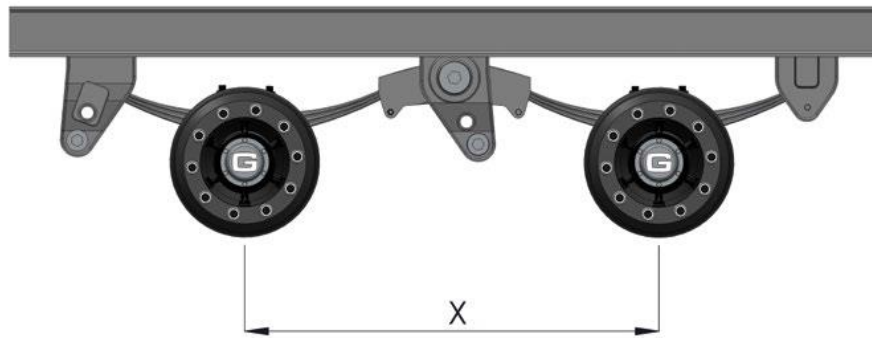
“**air suspension**”: a suspension system that uses pressurised air instead of metal springs. A system is considered to be air suspended if at least 75% of the spring effect is caused by pressurised air.

“**axle**”: an axle is a bar or shaft on which a wheel or pair of wheels rotates. See Figure 1 below.



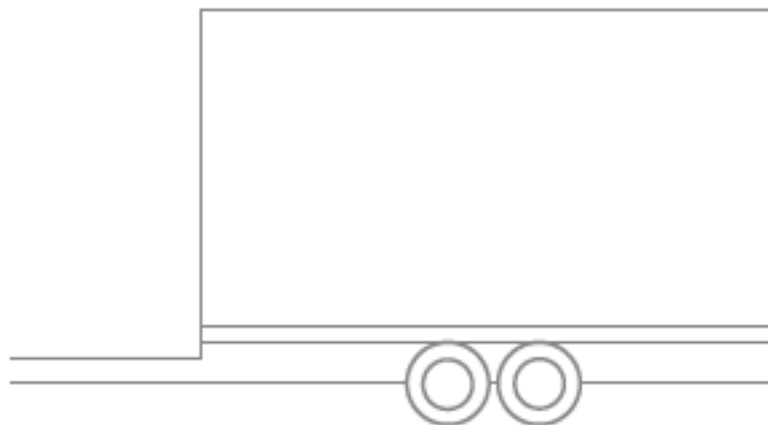
**Figure 1:** Axle (Image Courtesy of Granning Axles).

**“axle spacing”**: axle spacing is the distance from the centre of one axle to the centre of the next axle. See Figure 2 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.



**Figure 2:** 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.



**Figure 3:** Illustration of a centre axle trailer.

**“coupling”**: a coupling is a device used to connect a vehicle to a trailer. In the case of agricultural vehicles they are used to connect an agricultural tractor to a trailer or piece of interchangeable towed equipment. Typically, these are ‘hook and ring’, ‘pin and eye’ or ‘ball and spoon’ type devices. Further details on each type are included below.

**“hook and ring’ coupling”**: Figure 4 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.



**Figure 4:** Image of 'hook and ring' type coupling. (Image courtesy of Dromone Engineering).

**“pin and eye’ coupling”**: Figure 5 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.



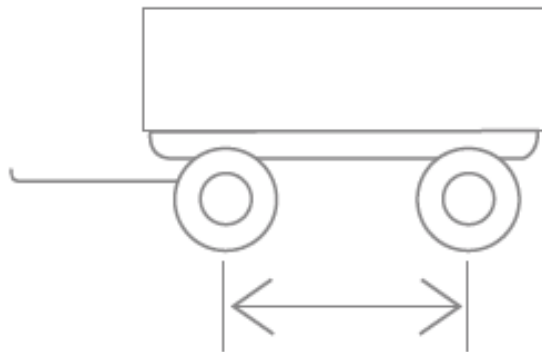
**Figure 5:** Image of 'pin and eye' type coupling. (Image courtesy of Dromone Engineering).

**“ball and spoon’ coupling”**: Figure 6 below contains an image of a ‘ball and spoon’ coupling. These couplings are a more recent design and exhibit superior wear characteristics in comparison to both the ‘hook and ring” and “pin and eye” type couplings.



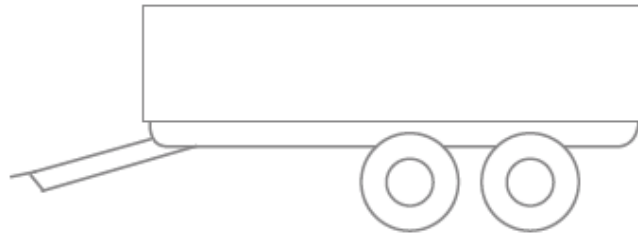
**Figure 6:** Image of 'ball and spoon' type coupling. (Image courtesy of Dromone Engineering).

**“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 7 below



**Figure 7:** Illustration of a drawbar or balanced trailer.

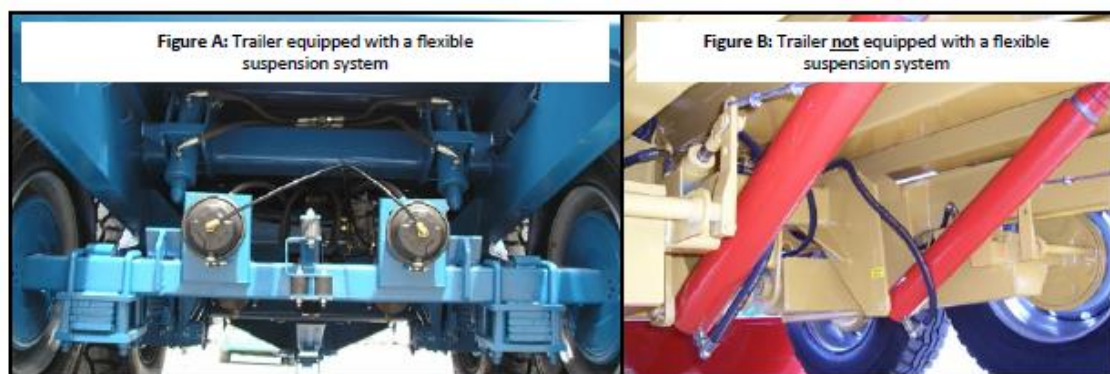
**“rigid drawbar trailer”**: has one axle or a group of axles positioned off centre. The ‘rigid’ drawbar doesn’t move or swivel which imposes extra load on the drawing vehicle. See figure 8 below



**Figure 8:** Drawing of a typical rigid drawbar or unbalanced trailer.

**“equivalent system”**: an ‘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”**: a ‘flexible suspension system’ 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 B on the right-hand side of Figure 9 below) does not constitute a flexible suspension system.



**Figure 4:** Images of trailers equipped with or without flexible suspension systems. (Image courtesy of NC Engineering).


**“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.

**“steering axle”**: a 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.

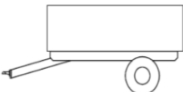
**“tandem axle trailer”**: a trailer that has two axles which are spaced no more than 2.5 metres apart.

**“triaxle trailer”**: a trailer that has three axles with the first and third spaced no more than 3.7 metres apart.


## Summary of Agricultural Tractor Weight Limits Applicable from 1<sup>st</sup> January 2016

<u>Weight Limits – Agricultural Tractors</u>		
		
No of Axles	Axle Spacing	National Weight Limit
2	N/A	18 tonnes
3	N/A	24 tonnes

## Summary of Agricultural Trailer Weight Limits Applicable from 1<sup>st</sup> January 2016

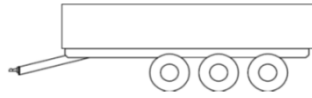
<u>Weight Limits – Rigid Drawbar (i.e. Unbalanced) Single Axle Agricultural Trailers</u>			
			
Axle spacing	National Weight Limit Hook/Pin & Eye Type Coupling	National Weight Limit 80mm Ball & Spoon Type Coupling	Technical Requirements
N/A	<b>13 tonnes</b>  (10 tonnes on axle & 3 on drawbar)	<b>14 tonnes</b>  (10 tonnes on axle & 4 on drawbar)	No Suspension  Required

## Agricultural Trailer Weight Limits Continued

<u>Weight Limits – Rigid Drawbar (i.e. Unbalanced) Tandem Axle Agricultural Trailers</u>			
			
Axle spacing	National Weight Limit Hook/Pin & Eye Type Coupling	National Weight Limit 80mm Ball & Spoon Type Coupling	Technical Requirements
<b>Less than 1.3 metres</b>	<b>19 tonnes</b> (8 tonnes per axle & 3 on drawbar)	<b>20 tonnes</b> (8 tonnes per axle & 4 on drawbar)	No Suspension Required
<b>1.3 metres or greater</b>	<b>21 tonnes</b> (9 tonnes per axle & 3 on drawbar)	<b>22 tonnes</b> (9 tonnes per axle & 4 on drawbar)	Flexible Suspension Required
<b>1.3 metres or greater</b>	<b>23 tonnes</b> (10 tonnes per axle & 3 on drawbar)	<b>24 tonnes</b> (10 tonnes per axle & 4 on drawbar)	Flexible Suspension & Flotation Tyres (≥500mm wide) Required
<b>1.8 metres or greater</b>	<b>23 tonnes</b> (10 tonnes per axle & 3 on drawbar)	<b>24 tonnes</b> (10 tonnes per axle & 4 on drawbar)	Flexible Suspension & Steering Axle Required

## Agricultural Trailer Weight Limits Continued

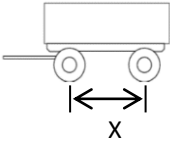
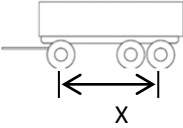
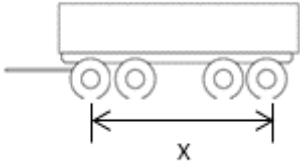
Weight Limits – Rigid Drawbar (i.e. Unbalanced) Triaxle Agricultural Trailers



Axle spacing	National Weight Limit Hook/Pin & Eye Type Coupling	National Weight Limit 80mm Ball & Spoon Type Coupling	Technical Requirements
Less than 1.3 metres	<b>24 tonnes</b> (7 tonnes per axle & 3 on drawbar)	<b>25 tonnes</b> (7 tonnes per axle & 4 on drawbar)	No Suspension Required
1.3 metres or greater	<b>27 tonnes</b> (8 tonnes per axle & 3 on drawbar)	<b>28 tonnes</b> (8 tonnes per axle & 4 on drawbar)	Flexible Suspension Required
1.3 metres or greater	<b>30 tonnes</b> (9 tonnes per axle & 3 on drawbar)	<b>31 tonnes</b> (9 tonnes per axle & 4 on drawbar)	Flexible Suspension & Flotation Tyres (≥500mm wide) Required
1.8 metres or greater	<b>33 tonnes</b> (10 tonnes per axle & 3 on drawbar)	<b>34 tonnes</b> (10 tonnes per axle & 4 on drawbar)	Flexible Suspension, Flotation tyres (>500mm wide) and Steering Axles (i.e. Both Foremost & Rearmost Axles) Required



## Agricultural Trailer Weight Limits Continued

<u>Weight Limits - Drawbar/Centre Axle (i.e. Balanced) Agricultural Trailers</u>		
<u>Double axle</u>	<u>Axle spacing (X)</u>	<u>National Weight Limit</u>
	Less than 3.0 metres	<b>16 tonnes</b>  (8 tonnes per axle)
	3.0 metres or greater	<b>18 tonnes</b>  (9 tonnes per axle)
<u>Triaxle</u>  	<u>Tonnes/Metre (X)</u>	<b>25 tonnes</b>
	5.5 tonnes	
<u>Four axle</u>  	<u>Tonnes/Metre (X)</u>	<b>30 tonnes</b>
	5 tonnes	