

Department for Rural Affairs

Information about this publication and further copies are available from:

Farm Animal Welfare Team
Office of the Chief Veterinary Office
Welsh Assembly Government

Government Buildings
Hill House
Carmarthen
SA31 3BS

Telephone 01267 225300

E-mail: livestockwelfare@wales.gsi.gov.uk



Llywodraeth Cynulliad Cymru
Welsh Assembly Government

WELFARE OF ANIMALS DURING TRANSPORT – GUIDANCE NOTES

COUNCIL REGULATION (EC) No 1/2005 ON THE PROTECTION OF ANIMALS DURING TRANSPORT AND RELATED OPERATIONS AND THE WELFARE OF ANIMALS (TRANSPORT) (WALES) ORDER 2007

ROAD VEHICLE AND TRAILER SPECIFICATION AND GUIDANCE FOR CONSTRUCTION AND USE

LIVESTOCK (Farm Animals) (Domestic Cattle, Sheep, Goats and Pigs).

EU Regulation 1/2005 (Article 3 and Annex I).

NOTES

- Vehicles and trailers for use on all journeys must comply with PART 1 (Annex I, Chapter II).
- Vehicles and trailers for use on long journeys must additionally comply with the PART 2 (Annex I Chapter VI).
- Vehicles and trailers for use on long journeys require prior inspection and approval (valid for up to 5 years) by Competent Authority (Articles 7 & 18).
- Long Journey is defined (Article 2 (m)) as one that exceeds 8 hours from when the first animals is moved (i.e. loaded).
- Vehicle is defined (Article 2 (z)) as a means of transport fitted with wheels which is propelled or towed.
- Reg. 1/2005 requirements in the table below are a précis of the legal wording in the regulation which should always be consulted.
- Guidance for construction and use is given in order to assist with uniform and practical application of the Regulation.

- This guidance should be read in conjunction with part 1 of this guidance. Limited derogations from some requirements of the Regulation are detailed in Part 1.

PART 1 – ALL VEHICLES and TRAILERS

Item	Article 3 & Annex I	Reg. 1/2005 ‘Basic’ requirements	Guidance for Construction and use
General	Article 3	No person shall transport animals or cause animals to be transported in a way likely to cause injury or undue suffering to them.	General ‘animal welfare protection’ provision which also requires use of a suitable means of transport and loading and unloading facilities, and giving animals sufficient floor area and headroom.
Design Construction Maintenance	Article 3 (c) Ch.II 1.1 (a)	Designed, constructed, maintained and operated so as to avoid injury and suffering and ensure the safety of the animals.	Design to high standards using suitable materials and methods. Maintain in good structural and mechanical condition.
Strength	Ch.II 1.1 (d)	Withstand stress of movements	Floors, sides, partitions, roof and fittings must be of sufficient strength to ‘contain’ the animals to be carried, and to withstand load/unload, transport and handling stresses.
Safety	Ch.II 1.1 (a) Ch.II 1.1 (d) Ch.III 1.4 (b)	Ensure safety of animals. Prevent escape or falling. Barriers to prevent falling when loading/unloading.	Free of sharp edges, projections and gaps which could cause injury to animals. Secure and escape-proof animal compartment. Barriers to prevent animals falling when load-door is open.
Access	Ch.II 1.1 (f)	To animals for inspection and care.	Ability to enter compartment when vehicle is stationary in order to see each animal and to provide appropriate care to it. Access may be through the main loading door, but provision of

			a separate inspection door giving access to each floor or tier is recommended.
Roof	Ch.II 1.1 (b)	Protect from inclement weather, extreme temperatures, adverse changes in climatic conditions.	A solid roof, as such, is not specified but is considered necessary to protect animals against any adverse weather which might be encountered.
Floor	Ch.II 1.1 (g) Ch.II 1.1 (h)	Anti-slip surface. Minimise leakage of urine & faeces.	Strong enough for weight of animals. Floor must be free of 'dangers', obstructions etc. Anti-slip provision could be in the form of chequer-plate, footlocks, a sufficient covering of sand or similar material, or fixed or removable matting. Minimise leakage of urine and faeces does not mean that the floor has to be 'watertight'.
Drainage		No requirement.	Floors should be kept as dry as is possible. It is preferable for excess liquid to drain into a sump or holding tank.
Sides / Ends	Ch.II 1.1 (b)	Protect from inclement weather, extreme temperatures, adverse changes in climatic conditions.	Sufficiently enclosed to provide protection from the weather and to prevent escape. Strong enough for the weight of the animals.
Ventilation	Ch.II 1.1 (e) Ch.III 2.6	Maintain appropriate air quality and quantity. Provide sufficient ventilation for number of animals and weather.	Sufficient ventilation for 'worst case' situation – e.g. when vehicle is stationary in hot weather. Size, position and number of ventilation apertures in not specified. A proportion should be adjusted for differing climatic conditions.
Size / space / internal height	Article 3 (g) Ch.II 1.2	Sufficient floor area and height appropriate for animals and journey. Enough height for adequate ventilation above animals standing naturally, without hindering their natural	Space for animals to stand in a natural position with head raised. Sufficient space above the animals for airflow. Floor area – see 'Space allowances'.

		movement.	
Space allowances	Ch.III 2.1 Ch.VII	<p>Provide as a minimum floor areas per animal below.</p> <p><u>Cattle and calves</u></p> <ul style="list-style-type: none"> - Small calves (50kg) - 0.30m² to 0.40m² - Medium calves (110kg) - 0.40m² to 0.70m² - Heavy calves (200kg) - 0.70m² to 0.95m² - Medium cattle (325kg) - 0.95m² to 1.30m² - Heavy cattle (550kg) - 1.30m² to 1.60m² - Very heavy cattle (>700kg) - >1.60m² <p><u>Sheep and goats</u></p> <p>Shorn sheep and lambs of 26kg and over - <55kg 0.20m² to 0.30m²</p> <ul style="list-style-type: none"> - >55kg > to 0.30m² <p>Unshorn sheep - <55kg 0.30m² to 0.40m²</p> <ul style="list-style-type: none"> - >55kg > to 0.40m² <p>Heavily pregnant ewes - <55kg 0.40m² to 0.50m²</p> <ul style="list-style-type: none"> - > 55kg > to 0.50m² <p>Goats - <35kg 0.20m² to 0.30m²</p> <ul style="list-style-type: none"> - 35kg to 55kg 0.30m² to 0.40m² - >55kg >0.40m² to 0.75m² <p>Heavily pregnant goats - <55kg 0.40m² to 0.50m²</p> <p><u>Pigs</u></p> <p>No table given.</p>	<p>Minimum floor area is specified in m² per animal. But the regulation allows variation in the figures by the following statements:</p> <p><u>Cattle and calves</u> – These figures may vary, depending not only on the animals' weight and size but also on their physical condition, the meteorological conditions and the likely journey time.</p> <p><u>Sheep and Goats</u> – The area indicated may vary depending on the breed, the size, the physical condition and the length of fleece of the animals, as well as on the meteorological conditions and the journey time. As an indication: for small lambs, an area of under 0.20m² per animal may be provided.</p> <p><u>Pigs</u> – All pigs must at least be able to lie down and stand up in their natural position. In order to comply with these minimum requirements, the loading density for pigs of around 100kg should not exceed 235kg/m². The breed, size and physical condition of the pigs may mean that the minimum required surface area has to be increased; a maximum increase of 20% may also be required depending on the meteorological conditions and the journey time.</p>

Pen size		No maximum and minimum dimensions given.	Length of pen should be limited in order to reduce the effects of sudden change of road speed and to control the number of animals in a group. The long established (since 1975) maximum pen length are recommended – 2.5m for calves, 3.1m for sheep goats and pigs and 3.7m for adult cattle.
Partitions	Ch.II 1.4	Strong enough to withstand weight of animals. Fittings designed for quick and easy operation.	Partitions of sufficient height, depth and strength should be used as necessary to separate individual or groups of animals. They should provide support and prevent excess movement. Partitions should prevent animals in adjacent pens from biting, kicking or otherwise harming each other. Partition design should also permit adequate airflow and ventilation through the vehicle.
Load/unload facilities (Ramp)	Ch.II 2.2 Ch.III 1.3 (a) Ch.III 1.4 (a)	Carry suitable equipment to load and unload animals. Non-slip surfaces. Foot battens, or similar, if ramp steeper than 10°00.	In most cases the vehicle should be fitted with a ramp or lift platform and this equipment must be suitable for the purpose. However it is acceptable in the case of small vehicles carrying limited numbers of small animals which can readily be loaded and unloaded by manual lifting, to use this method provided the welfare of the animals is not compromised.
Ramp angles (vehicles built after January 2007)	Ch.III 1.4 (a)	Ramp not steeper than: 20°00 (36.4% to horizontal) for pigs and calves. This is equivalent to a vertical rise of 4 in 11. 26° 34' (50.0% to horizontal) for sheep and	Step (20cm max) may be incorporated at the floor or head of a ramp in order to reduce the slope angle – but is not recommended, especially for young animals. It is recognised that it is difficult to accurately measure the

		cattle. This is equivalent to a vertical rise of 4 in 8.	slope angle of a ramp, particularly when the vehicle is on uneven ground therefore a tolerance of +/- 5° should be allowed.
Ramp angles (vehicles in use before January 2007)		Ramp not steeper than 29° 4' (57%). This is equivalent to a vertical rise of 4 in 7. It is recommended that the slope be no more than: 25° for cattle; 20° for pigs.	If it is impractical or uneconomic in relation to welfare benefits to convert vehicles and trailers built and in use before 5 January 2007 and they comply with The Welfare of Animals (Transport) Order 1997 as amended they may continue in use within the UK until 4 January 2012.
Ramp side gates	Ch.III 1.3 (a)	Lateral protections to prevent escape.	Ramp side gates should be sufficiently high to prevent animals falling or jumping off whilst being loaded and unloaded.
Lift platform	Ch.III 1.4 (b)	If fitted, must have safety barriers.	Barriers should be sufficiently high to prevent animals being injured or falling or jumping off whilst being loaded and unloaded.
Lighting	Ch.II 1.1 (i) Ch.III 1.6	For inspection and care during transport. During loading and unloading.	Preferably fixed lighting, but may be portable. Fitting, cables etc should be positioned or shielded so that animals cannot interfere with them.
Tying	Ch.III 1.11	If animals are tied ropes/tethers etc must be strong enough, and be quick release and if necessary permit animals to lie down and eat and drink. Animals must not be tied by the horns, antlers, nose rings.	
Bedding	Ch.II 1.5	Appropriate bedding or equivalent material to guarantee comfort & ensure adequate absorption of urine and faeces.	Required only for piglets of less than 10kg, lambs of less than 20kgs, and calves of less than 6 months. Appropriate litter is recommended over bare flooring if bedding is

			not used for older animals.
Notice	Ch.II 2.1	Vehicle clearly and visibly marked to indicate the presence of live animals.	Company names such as 'Fred Bloggs Livestock Transport' would be sufficient.
C & D	Ch.II 1.1 (c) Ch.III 1.3 (b)	Vehicle, equipment and load/unload facilities – able to be cleaned & disinfected.	Animal Health Rules may require cleansing and/or disinfection prior to loading animals, and after unloading them.
RO-RO use	Ch.II 3.2	Fitted with sufficient and adequate securing points. Vehicle must be secured to vessel to prevent displacement.	Only required if vehicle is to be carried on a RO-RO vessel. Securing points must be of adequate strength and suitable design to accept ship's equipment.

PART 2 – ADDITIONAL REQUIREMENTS for VEHICLES and TRAILERS on JOURNEYS of MORE THAN 8 HOURS

Item	Annex I	Reg. 1/2005 – ‘Additional’ requirements	Guidance for Construction and use
Roof	Ch.VI 1.1	Equipped with roof of light colour, and be properly insulated.	Intention is to reduce heating of animal compartment by sun’s rays and to insulate against significant changes in external temperature. No thermal value is given for insulation, nor specification of ‘light colour’.
Partitions	Ch.VI 1.6 Ch.II 1.7 Ch.II 1.8	Partitions to form ‘separate compartments’ which provide all animals’ free access to water. Partitions capable of being placed in different positions to enable compartment size to be adapted as necessary.	Partitions of sufficient height, depth and strength must be used, as necessary to form pens and to separate animals. There must be provision to adjust pen length by moving or removing at least one partition to suit the species, size and number of animals carried. There must be arrangements which could be portable, to enable water to be offered to each animal as necessary.
*Ventilation & fans	Ch.VI 3.1 Ch.VI 3.2	Designed to maintain 5°C – 30°C (+/-5°C) inside when moving and stationary. Min. nominal capacity 60m³/h/KN of payload. Able to operate for min. 4 hours without engine.	Airflow through and effective ventilation of a livestock vehicle is a complex subject. It is recommended that specialist advice is obtained. Fan ventilation will be needed to achieve the required airflow capability. But there should also be the possibility to provide sufficient emergency ventilation through apertures in the event of fan or power failure. Fan(s) supplying or exhausting air should be suitably positioned in conjunction if appropriate

			<p>with natural apertures to enable a uniform airflow through the animal compartment that effectively removes heat and moisture produced by the animals.</p> <p>Minimum capacity of $60\text{m}^3/\text{h}/\text{KN} = 600\text{M}^3/\text{h}/\text{tonne}$.</p> <p>'Payload' should be assumed to be the maximum weight of animal which the vehicle could legally carry, taking both Gross Vehicle Weight and Space Allowances into consideration.</p>
*Temperature monitor	Ch.VI 3.3	Equipped with temperature monitoring system with sensors positioned where poorest environment is experienced, temperature recorded with date and time.	<p><u>Sensors</u></p> <p>High temperature is more of a welfare challenge to animals than low temperature. High temperature is more likely when the vehicle is stationary than when moving. Generally the highest temperature will be close to the roof and towards the front of the vehicle when it is moving. The number and position of sensors appropriate to each vehicle will depend upon its design and size and the number of animals carried. 'Continuous' temperature monitoring is recommended but should be at intervals of no more than 15 minutes.</p> <p><u>Data Recorder</u></p> <p>Implication is that the sensors should transmit temperature readings to the Data Recorder, which should preferably be carried on the vehicle. It should record the temperature, the</p>

			identity or position of the sensor and the date and time for each reading. Recorded data must be made available to the Competent Authority (Inspector) when requested. The implication is that this may be either at any time during transport, or after a journey has been completed. But there is no provision which requires retention of Data Records once a journey has been completed. It is recommended that records should be retained for at least 3 years after completion of the journey if a journey log is a requirement.
*Temperature warning	Ch.VI 3.4	Equipped with warning system to alert driver when temperature reaches upper/lower limits.	Sensors should transmit any temperature reading outside the permitted range to a warning device. Implication is that the 'warning' should be visible or audible at the driving position.
*Navigation system	Ch.VI 4.1	<p>System able to provide and record information as required by Journey Log + open/close of loading flap.</p> <p>Required for all 'new in service' vehicles from 01/01/07 onwards.</p> <p>Required for all vehicles from 01/01/2009.</p>	<p>Navigation System is defined (article 2 (o)) as 'satellite-based infrastructures providing global, continuous, accurate and guaranteed timing and positioning services or any technology providing services deemed equivalent.'</p> <p>EU Commission and Council have yet to determine a full specification for the Navigation System with the detail of what it must achieve and this is unlikely before 2010. In the meantime transporters need only install basic equipment which will:</p>

			<ul style="list-style-type: none"> - Identify the vehicle being monitored. - Establish the vehicle's position at any time from the point of loading, in transit (perhaps on at 15 or 30 or 60 minute intervals) and at intermediate stops, up to point of unloading. - Enable limited manual input of certain other data such as opening and closing of the loading flap. - Record the data either in an on board unit and/or by transmission to a base unit and store the data electronically for 3 years.
--	--	--	---

*Temperature ranges and requirements for recording temperature data and interpretation of navigation systems have yet to be finalised by the EU Commission and may be subject to some variation in the future.

Water and water system	Ch.VI 2.1 Ch.VI 2.2 Ch.VI 2.3	Equipped with a water supply from which the attendant can provide water instantly when needed. Watering devices must be of suitable design and positioned for access to water by each animal. Carry water supply of capacity 1.5% of max payload. Ability to check water level of tank and drain and clean it after journey.	Where it is not practical for a permanent connection to be maintained between the water tank and the drinking devices, it must be possible for the attendant to easily provide water to the animals whenever necessary. To avoid wastage/spillage of water and consequent 'wet-standing', it is recommended that the water supply should normally be turned off whilst the vehicle is in motion. 'Payload' should be assumed to be the maximum weight of animal which the vehicle could legally carry taking both Gross Vehicle Weight and Space Allowances into consideration.
------------------------	-------------------------------------	--	---

Specific water requirements for pigs on long distance journeys	Ch.V 1.4 (b)	Pigs may be transported for a maximum period of 24 hours. During the journey they must have continuous access to water.	This is not considered to offer welfare benefits. Can lead to wastage, 'wet-standing' and risk of slipping.
Feed	Ch.VI 1.3	Carry sufficient appropriate feed for journey. Protect feed from weather and contaminants	Sufficient feed for the whole journey should be available. If necessary feed may be restocked at appropriate pre-arranged points during the journey.
Feeding Equipment	Ch.VI 1.4 Ch.VI 1.5	Carry suitable feeding equipment in vehicle when necessary. Attached if necessary to prevent overturning. Store separately from animals when vehicle is moving, and equipment is not in use.	
Bedding	Ch.VI 1.2	Bedding or equivalent material appropriate for the animals – which must absorb urine and faeces adequately.	
Space allowances	Ch.III 2.1 Ch.VII A	At least comply with figures in chapter VII. See part 1 above.	
Restrictions	Ch.VI 1.9	On long journeys except when accompanied by their mother, calves must be older than 14 days and pigs heavier than 10kg.	