Industry tips – Cattle transport

Eyes *on* Animals | Watching out for their welfare

CATTLE

Watering System

Adult cattle drink on average 60 liters per day. This can be up to 180 liters per day for pregnant or lactating dairy cows. Also if it is hot outside, cattle drink more. Cattle are very picky. They taste to see if the water is good before they drink it. Cattle prefer drinking from a large container placed as close to the ground as possible. When drinking, cows suck up the water.

Unweaned calves drink about 10 liters of milk per day spread over 5-7 feeds. A calf drinks up to about half a liter of milk per minute. After the colostrum period, unweaned calves on conventional dairy farms (physically separated from their mothers after just a few hours or days old but still dependent on milk) receive milk-replacement. Milk-replacement contains energy, protein, vitamins, minerals and trace elements necessary for the proper development of the calf. For it to be taken up well, it is important that the milk is brought to the right temperature. Calves need a liquid diet of milk and do not develop a rumen until around the age of 2 months.

Contaminated water

Drivers are required to regularly check and clean-out the water supply system in their truck. Therefore it is very important that the water bowls are easily accessible for the driver. During livestock-transport checks, Eyes on Animals regularly sees water bowls that are either not clean or not accessible to be cleaned. The bowls are full of manure or straw. The cattle cannot drink because of this. The consequences are drastic, especially during long distance journeys: cattle become dehydrated, stressed, weaken and even die.

Water troughs filled with manure and straw

Dirty drinking water trough, cattle will never drink from this

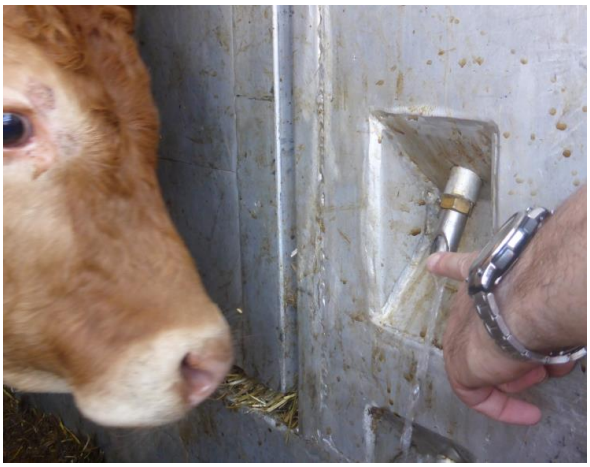
Access doors are essential to permit cleaning of water troughs

- ☑ Ensure that there are access doors so that water troughs can be easily accessed to be cleaned en route
- ☑ Ensure that there are access doors so that the quality of the water (temperature, contamination) and the functioning of the system can be checked.

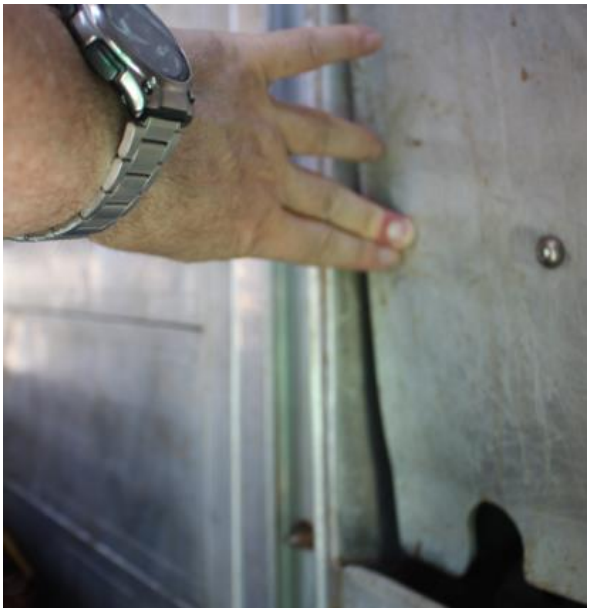
Unsuitable watering systems adult cattle

Cattle drink by sucking up water. It is important that the water bowl provides enough space for the head of the animal. Also, the water supply must be sufficient; a cow can drink up to 20 liters per minute.

In practice Eyes on Animals too often sees water systems which are totally unsuitable for cattle. The bowls are too small, not easily accessible, they are easily clogged or contaminated and not enough water comes out. The most common water systems are discussed and assessed below:



Drink nipples are totally inappropriate for cattle. They don't know the system and can't get enough water out of them.



Not suitable for cattle. You often see this flap-door in dual-purpose vehicles (trucks designed in the hope to be suitable for different species). The flap keeps dirt out and stops legs from getting stuck (when loading on multiple floors). This flap however renders it too difficult for cattle to get their heads far enough into the trough to drink properly. When the bovine pushes it, the flap blocks part of the animals´ head. This system is only suitable for use if the metal flap can be completely removed (automatically or manually) during water breaks.

To partly solve this problem above, Pezzaioli has adjusted the design of their flaps so that they can be folded inwards, providing a bit more room for the head of the bovine to enter.

The metal nipple system is made for pigs, not cattle. It's of no use for cattle of any age. They don't know how to use metal nipples and cannot get enough water from them.

This waterbowl is nice and big but the metal knob is too short. Not enough water comes out. Also the bowl is not deep enough.

This bowl is on the small side and juts out, risking injury. The cattle however can access it easily. The bowls must be cleaned every 4.5 hours. Good access to these water bowls is essential in order to keep them clean during the journey.

This bowl is a bit on the small side because it has been placed inside a narrow trough. An adult cow cannot easily get to it as the room for the head is a bit tight. In addition, these bowls must be cleaned out at least every 4.5 hours.

This is an excellent watersystem for cattle. It's big (high, deep and a bit bigger than other ones) and has a great water pressure (a lot of water comes out of it). The valve is easy for the cow to operate.

This is a nice tongue valve water bowl. However the entrance to the bowl is a bit narrow.

- ☑ Ensure that the water bowl is big enough. The head of the bovine, large and small, must fit in easily.
- ☑ The water bowl must be easy and logical to use
- ☑ The water bowl must be positioned so that the cow can drink from it in a natural position.

Unsuitable watering systems for unweaned calves

During the transport of calves water is offered through metal drink nipples. Because calves don't understand how to drink from these nipples, nor do they have the physiology to be able to press a nipple but are instead made to suckle, young calves actually cannot drink at all during transport. These metal nipples are just a pretty accessory but do not eurve their purpose. Young calves need to be offered feed via a teat or a bucket. Above all, young calves need milk and not water or electrolyte solution.

That calves cannot drink during long distance transport is against the law. Moreover, the fact that calves are going for hours and hours without milk is a major drain on the health and welfare of the calf. Young calves under 2-months are, in fact, already weak because their immune system is not fully developed, they encounter transport stress, are suddenly in a new environment and are exposed to germs from other calves. Many young calves therefore arrive in poor condition at their final destination and need antibiotics to get back in form after long transport journeys.

In order to provide calves with nutrients, it's best to use a teat and offer them warm milk. However, because young calves have a tremendous need to suck, they will be at risk of drinking too much. This has a negative effect on their digestion. To prevent calves from drinking too much and to ensure that each calf gets sufficient and warm milk, it is necessary to manually feed each individual calf. Fully automatic is, in fact, not (yet) possible. In the Netherlands, the export of unweaned calves over long distances is, for this reason, prohibited. Every eight hours they must be unloaded and individually given something to drink.

Drink nipples are unsuitable for calves. They don't know the system and cannot use them.

Eyes on Animals has never seen this teat system in practice. At first, it seems potentially promising, but the chances are that the milk yield cannot be individually adjusted, resulting in some calves drinking far too much and others nothing. Unweaned calves must be fed manually so one can be sure each one drank the right amount and at the right temperature.

- ☑ Drink nipples are not suitable for calves and are thus against the law.
- ☑ Drinking systems for calves are only suitable if they can guarantee that each calf is drinking enough and not drinking too much as well.
- ☑ Drinking systems are only suitable if they can provide warm milk.
- ☑ Conclusion is that the calves must be manually fed by bottle or bucket with teat with warm milk. This can only be done outside of the truck. Therefore, calves cannot be transported for longer than 8 hours at a time.

Noisy watering systems

Calf transports usually use drink nipples. Drink nipples are not suitable for calves, see the chapter 'Unsuitable watering systems for unweaned calves" above. Apart from this, Eyes on Animals noticed that when pressed the nipples regularly makes a hissing sound, which scares off the calves. Also sometimes the water sprays out in all directions.

- ☑ Watering systems should be virtually silent otherwise it scares the calves.

Water quality in hot weather

During inspections in the summer Eyes on Animals often observes that the water in the water bowls or coming from the nipples is extremely warm or smelly. If the water is hot and smelly the animals will not drink it and can become ill.

- ☑ Design the water tank and pipes in such a way that the water stays cool and clean. Even under extreme conditions such as a long wait in full sun. Also, the water must easily be able to be refreshed.

Water quality in cold weather

That water freezes in winter, is no surprise. Eyes on Animals regularly sees animal transports where the drinking systems do not work because the water is frozen.

- ☑ Trucks with pipes which are not resistant to extreme cold cannot be used if the temperature during the trip falls below 0 ° C.

This cattle truck was stuck in snow for 2.5 days, and the water was frozen.

- ☑ Design the water tank and pipes in such a way that the water does not freeze. Even under extreme conditions such as a long wait and at temperatures well below zero the water should keep flowing.

Too-low water pressure

It is a common problem that water systems have too low a water pressure. Especially on the top floor, the water pressure is often insufficient. Cattle can drink up to 20 liters per minute.[i] So there should be plenty of water coming from the valve or the lever.

- ☑ Ensure there is sufficient water pressure by testing out the levers, knobs and valves.

Insufficient number of water bowls

Cattle have a strong hierarchy. This means that dominant animals can block cattle that are lower in rank from the water bowls. To ensure that all animals can drink, it is important that there be enough water bowls. At least two per compartment and placed on both sides of the truck. Pay particular attention to ensure that the cattle next to the partitions can easily get to the water too. Provide a minimum of two water tanks on both sides of the compartment.

- ☑ Ensure that the cattle that are on the side of the partition can access the water bowls. For example, by attaching foldable water bowls to the partitions
- ☑ Provide a minimum of two water bowls on both sides of the compartment.

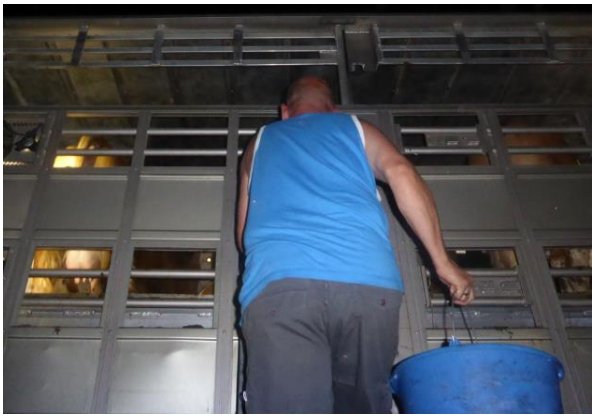
Foldable water bowls on the partitions

Manual water supplies

After 14 hours of transport the cattle should rest for one hour and receive water on board. To ensure that all animals receive adequate and clean drinking water, manual water supplies are indispensable . With automated systems, there is a great risk that only dominant animals get to drink . Also, manual water supplies must be available in case the automatic water systems break down, do not provide sufficient water, are unsuitable or whenever animals

require additional water, such as in extreme heat. A manual water-bowl that is flexible and fits through the vents can be very useful. A ladder is indispensable in order to give the animals on the second floor water.

During transport checks Eyes on Animals often sees that manual water supplies are not present, with stress, dehydration and sometimes even death as a result. We sometimes also see drivers watering cattle with small buckets, but this an impossible task. Buckets fall over easily and only one cow (often the most dominant) can drink out of it at a time.



It takes too much effort to water dozens of cattle in an hour with just a bucket of water. Especially as the dominant cattle will push the lower ranked ones away.

This is a nice manual water trough. More than one cow can drink out of it at a time. Social facilitation prevents fighting during the water break.

This water trough is flexible and can be fitted through the vents and hooked on from the outside of the truck. This one is a little bit small but is a good addition to the bigger water troughs. Vital that there be many of these flexible troughs placed all along the side of the truck. One is not enough!

Manual water systems are of essential importance for long transport journeys of cattle

- ☑ Ensure that every truck is equipped with at least 2 long plastic or rubber water troughs and six flexible ones that fit through the vents. Ensure that there is a ladder so that water can be given manually also to the animals on the second level
- ☑ Ensure that there are access doors in each compartment so that manual water troughs can be placed in each compartment.

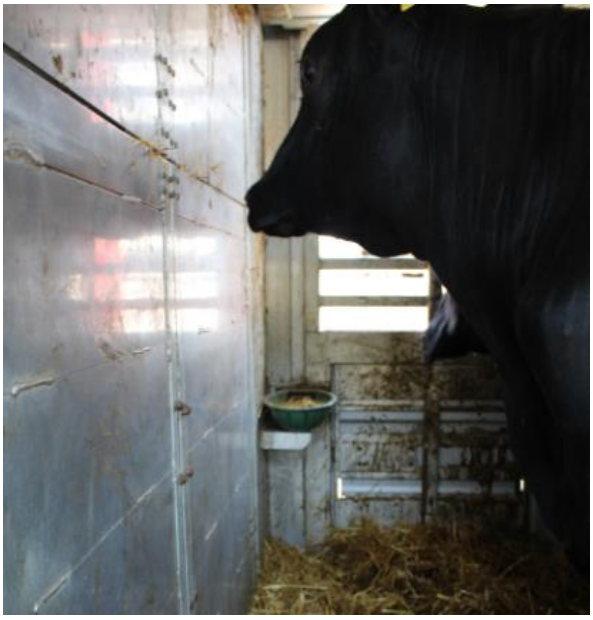
Partitions

Partitions prevent animals from falling against each other when the driver brakes. Partitions can also be used to help separate aggressive or dominant animals from picking on others. If partitions are not built solid all the way to the floor or are not built high enough this can cause serious injuries. Animals can get stuck under them, or they can jump over the partition and get stuck. Unfortunately Eyes on Animals sees many partitions that are not solid to the ground or are not high enough, or have wire cable or chains on them. This is particularly often the case with trucks that have been built for several animal species such as cattle and pigs (known as dual-purpose vehicles). Because these trucks are used with multiple levels, the size of the partitions is set. For pigs on three levels, the partitions are alright, but for cattle on two levels, a huge gap of space is left beneath the partitions. Real Cattle Cruisers, however, are specially designed just for adult cattle and the partitions are solid and high enough for cattle. However, there are also Cattle cruiser look-alikes on the market, but which are inadequate for cattle. Also, cables and chains hanging from partitions can be dangerous as they risk animals getting their legs caught in them.

If there is a space under the partition, animals can get stuck and become injured. They also can no longer get to the water bowls or feed, and will be trampled to death.

This open gap on the side of the partition creates a large risk: cattle can put their legs through it, fall over and seriously hurt themselves.

This wire cable is dangerous. Cattle can get a leg caught behind it and fall over.



This is a good partition. It is completely solid and there is nothing that the cattle can hurt themselves on.

If the partition is to low there is a risk that a bovine will attempt to jump over it and get injured.

This transport company had an extra metal sheet constructed so as to close the gap underneath the partition.

- ☑ Ensure that the partition is solid all the way down to the floor when the truck is set at its various levels. If the partitions can only be set solid to the ground when the truck is used with three levels, forbid its use with just 2 levels.
- ☑ Ensure that the partition is high enough so that the animals can't jump over it.
- ☑ Avoid rods, chains, protrusions and holes in the partition.

Access doors

When transporting animals access doors are essential. Doors ensure that:

- Sick, injured, weakened or trapped animals can be separated, unloaded and /or be given help.

- Animals can be given (extra) water and food manually. Giving feed and water manually is vital during long distance journeys and in particular during extreme heat or long waiting times, for example at border crossings.
- Water bowls for cattle can be cleaned so they do not become clogged or the water becomes undrinkable.

Access doors are also indispensable in emergency situations: for example when the water fails or a calf dies and must be unloaded, or when a cow gives birth. Access to the animals is a legal requirement. Access doors must therefore be large enough for a person to go in.

Eyes on Animals see access doors often used in practice, especially for watering and feeding the animals and assisting animals to get back on their feet. But we are seeing more and more new livestock trucks on the road, both regular and air-conditioned, without access doors. In the summer of July 2015 Eyes on Animals saw several trucks without access doors parked for hours and even several days at the Bulgarian-Turkish border in the direct sun. Because there were no access doors, the automatic water bowls could not be cleaned and the animals could not be given water manually effectively and weak ones could not be given assistance. Drivers can often only look on helplessly.

This cow died during transport. There was an access door, but it was too small to be able to unload the dead cow from. The truck had to drive to a place where the all the animals could be unloaded in order to remove the carcass. This cost hours to organize causing further suffering to the rest on board. Ideally, access doors are large enough to be able to unload an injured, ill or dead animal directly and quickly without the rest on board also having to be unloaded.

Access doors are necessary to be able to give cattle water manually. Manually watering is essential for long distance transport.

Thanks to the access doors a veterinarian can give medication to this calf with severe breathing difficulties.

Thanks to the access door the veterinarian could give the seriously ill and pregnant cow an infusion to recuperate.

Because of a lack of access the driver can't give water to this exhausted and dehydrated young bull.

Thanks to the access doors, the water bowls can be regularly cleaned out so animals can drink.

Thanks to the access doors this calf that was born during the journey can be kept to one side. Otherwise it would have been trampled. In this case waiting until an (un)loading place was reached would have been too late.

Cattle Cruiser with good access doors.

- ☑ Ensure that there are access doors in <u>each</u> compartment
- ☑ The access doors should be big enough to allow the driver or vet to pass through.
- ☑ Ideally the access doors should be big enough to allow an animal to pass through.
- ☑ It should be possible to easily clean the water bowls via the access doors. Therefore put them close to each other.

Observing the animals

Closed trucks

There are more and more air-conditioned or cross ventilated trucks on the roads. Eyes on Animals expects that these trucks as such will not be permitted much longer (without additional requirements), because they seriously impede the ability to visually inspect and care for the animals. There is much discussion on closed trucks by the inspection authorities in the Netherlands and other EU member states. Legal requirements in terms of load, the functioning of the water system and the condition of the animals, cannot be properly monitored and implemented. Moreover, there is often no access to the animals, while this is a legal requirement. See also the section 'access doors'.

Air conditioned and closed trucks often hamper the inspection of- and access to the animals.

Lighting

The driver should regularly monitor the welfare of the animals. Inspection must also be possible at night. Therefore there must be sufficient lighting installed in each compartment. Lamps must be placed above the animals, in order to prevent them standing in front of them.

- ☑ Ensure that there is good lighting in every compartment so that monitoring of the animals' welfare is also possible at night.

Ladder

When cattle are loaded on two-levels, a ladder is essential to be able to monitor the welfare of the animals at the top and to manually provide water. These trucks should, therefore, be equipped with a ladder.

A ladder is essential for trucks with more than one level. Warning: some member states give fines if a ladder is missing!

- ☑ Ensure that there is a ladder on board at all times so that water can be provided to animals on the second level and all animals can be inspected.

Protection against heat

If it is very hot outside and a truck is parked right in the sun, the temperature rises rapidly to dangerous levels. Sadly, Eyes on Animals has seen thousands of animals suffering from the extreme heat, such as at the Turkish-Bulgarian border, in the queue for Dutch slaughterhouses in the summer or during traffic jams.

Signs of heat stress: exhaustion, weakness, and panting

To avoid heat stress the temperature in the truck should not exceed 25 ° C. At temperatures above 25 °C bovines can no longer lose their body heat well, causing heat stress. As the temperature rises, the heat stress becomes worse. In combination with high humidity, temperatures above 30 ° C are often fatal. Realize that the humidity in a truck is often higher than outside, because the animals are ruminating, breathing and sweating. Cattle will pant when extremely heat-stressed, breathe rapidly and be restless, or even listless. To prevent serious animal-welfare problems, livestock trucks need to be equipped with an alarm system which is activated when the temperature and humidity together reach dangerous levels in the truck. For this purpose temperature sensors should be placed in the truck. Every compartment needs two sensors. Install the sensors in a good location: not near a fan or directly in the sun. Make sure that the sensor is not affected by the wall to which it is attached. The alarm must be linked to a mobile phone, in the event that the driver is not in the truck.

Table 1. Livestock Temperature Humidity Index* (THI) at specific temperatures and relative humidity levels.

Ambient air		Relative Humidity (%)					
Temp. °F	Temp. °C	20	30	40	50	60	70
100	37.8	26	29	30	31	33	34
98	36.7	26	28	29	31	32	33
96	35.6	26	27	28	30	31	32
94	34.4	26	27	28	29	31	32
92	33.3	25	26	27	28	29	30
90	32.2	25	26	26	27	28	29
88	31.1	24	24	26	27	27	28
86	30	23	24	25	26	27	27
84	28.9	22	23	24	25	26	27
82	27.8	22	23	23	24	25	26
80	26.7	21	22	23	23	24	24
78	25.6	20	21	22	23	23	24
76	24.4	19	21	21	22	22	23
Livestock Safety Index (°C)		Normal <23		Alert 24-25.5	Danger 26-28		Emergency >29

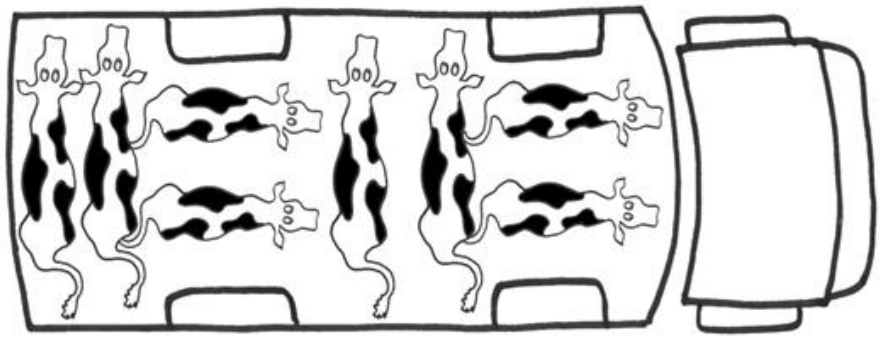
* The Livestock THI was adapted from the human Humidex Chart, which can be found at : http://www.ccohs.ca/oshanswers/phys_agents/humidex.html.

As well as temperature, attention must be paid to the relative humidity

- ☑ Provide good temperature sensors. Install them in a reliable place.
- ☑ Provide an alarm system that goes off if the temperature and humidity in the truck are too high. The alarm system should be linked to the mobile telephone of the driver.
- ☑ Make sure that the roof and side walls of the truck are light colored and made of insulating material such as Styropor (plastic material)..
- ☑ Provide adequate number of good fans. At least one fan per compartment. The ventilation capacity should comply with the EC 1/2005 Transport Regulations at the very least.
- ☑ Put a canopy/awning on the truck to prevent the sun shining directly into the truck if there is a lack of shade.

Cattle Cruisers and look-a-likes

In many EU countries, trucks cannot be higher than 4 meters. However, there should be enough space above the withers of the cattle for proper ventilation and to allow them to stand, and arch their back during urination, without interference. In order to still load cattle on two levels without going past the 4-metre height maximum, so-called "Cattle cruisers" were designed. Cattle Cruisers are built lower to the ground and incorporate the wheel axels into the floor. In some Cattle Cruiser look-a-likes (the variants often used also for transporting other species too), we see that the wheel axels protrude drastically above the deck, reducing surface area. Some of the cattle have to be between the protruding wheel axels, which is only possible if they are facing in the direction of travel because there is not enough width anymore for them to stand perpendicular to the direction of travel, as they normally like to. Cattle actually like looking outside, and breathing in fresh air, so they stand sideways. Also lying down is difficult between the protruding wheel axels. There is less ventilation in the space between the wheel axels because there are fewer vents. Cattle Cruiser look-a-likes with wheel axels that protrude above the floor are, therefore, only suitable for small cattle or calves. These young or small bovines can still fit comfortably between the protruding wheel axels, but adults cannot.



There is less ventilation between the wheel arches and cattle can't easily stand and lie down.

With Cattle Cruiser look-a-likes there is limited space between the wheel arches. This load area is really only suitable for calves.

- ☑ Ensure that the wheel arches do not protrude above the floor, so that all the cattle can stand comfortably.
- ☑ With Cattle Cruiser look-a-likes with high wheel arches specify in the Certificate of Approval of Means of Transport that only calves and small cattle can be transported in it. Ensure that this is clearly told to the client.

Uneven floor

In practice, we regularly see trucks where the floor is uneven, for example, by the wheel axels which protrude slightly. This can result in dangerous situations, such as cattle losing their balance and falling over. It also causes serious discomfort to stand on uneven surface area. In practice, this can be solved by, for example, placing a very thick layer of straw bedding. However, with time straw gets compacted and protruded floor areas stick out. The best is perfectly even floors.

Sudden increases in the height of the floor can cause the cattle to stumble, lose balance or injure themselves.

- ☑ The wheel axels must not count as “surface load area” if it sticks up higher than the rest of the floor. This should be specified in the authorization, just like the obligatory use of a thick layer of straw.

Headspace

During our livestock truck inspections, we see that cattle sometimes do not have enough space above their withers, in particular in double-deck trucks (that are not real Cattle Cruisers). Limited headspace means the animals can hit the ceiling and seriously injure themselves during the trip. It takes at least 25cm of space above the shoulder to prevent this kind of injury. Keep in mind that female animals also need to be able to arch their back when urinating.

If there is insufficient space above the withers it can lead to serious injuries.

- ☑ Provide at least 25 cm of space above the withers. 30 cm is optimal

Ventilation

Good ventilation is essential In order to remove the heat and moisture originating from the animals. The Transport Regulation requires a uniform distribution of the air at a minimum nominal airflow of 60 m3 / h / KN payload. The ventilation must be able to work independently for at least 4 hours (even when the engine is turned off). Manufacturers of livestock trucks must be able to demonstrate compliance with these requirements. In addition, it is important that fans or air vents - especially in cold weather - sit at the height of the head of the animal and not lower. If the fans are too low, the animals get the air on the stomach. This can cause discomfort and stress. Make sure that movable floors do not block the fans.

- ☑ Ensure that the ventilation capacity conforms with the Transport Regulation 1/2005.
- ☑ Be sure to set fans and vents at the height of the head of the animal, to prevent drafts and air on their stomach.
- ☑ Make sure that movable floors do not get in the way of the fans.

Problems related specifically to “dual purpose” trucks

Unsuitable watering systems

Trucks are often built in the hope to be able to transport many different species of animals, such as cattle, sheep and pigs. In practice, we see many problems with these “multi-specie” trucks. Their design is not ideal for any specie, and may compromises are made. Eyes on Animals often sees cattle on board trucks that just have a nipple system. Nipples are only suitable for pigs and sheep and never for cattle. Cattle cannot drink from a nipple. The consequences can be significant: animals become dehydrated, suffer from thirst, weak and will eventually die.

Trucks with drink nipples are made for pigs, not for cattle.

- ☑ Manufacturers of livestock trucks need to indicate clearly which specie of animal that can or cannot be transported in the truck
- ☑ Authorities set clear specie-limitations in the Certificate of Approval of the Means of Transport as to which species can and cannot be transported.
- ☑ Or provide a suitable watering system for each species of animal (nipples and troughs) on board.

Risky partitions

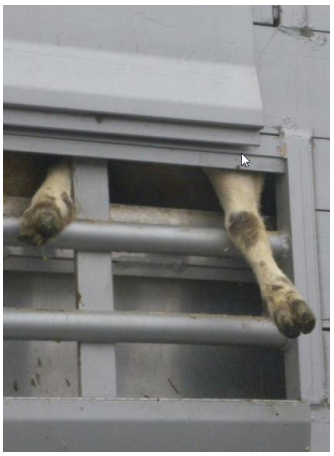
Dual-purpose trucks can be loaded on two to five levels. Three-five levels for pigs, for example, and two levels for cattle. The partitions (often attached to the ceiling of the floor) are often sufficient when 3-5 floors are loaded with pigs but not when only two levels are loaded as in the case with adult for cattle. If only two levels are loaded, there will be a gap under the partition. This gap can lead to injury when cattle are caught underneath.

The partitions of dual-purpose-trucks are often too short for the transportation of cattle. This creates a risk of injury.

- ☑ Tell the buyer about the limitations and risks of dual-purpose trucks, such as the partitions having a limited size and therefore risking injury if only two levels are used.
- ☑ Or make sure that the partitions are precisely adjusted for the species being carried.
- ☑ Ensure that additional metal sheets are provided, which can be attached to the bottom of the partitions so that there is no gap under the partition when cattle are being transported on two levels.

Injuries caused by hydraulic floor

Eyes on Animals often sees leg injuries because cattle or other animals get stuck in the ventilation vents. This often happens when the first floor is raised. The animal suffers this pain, which is exacerbated by each movement of the truck, sometimes for hours. This kind of problem can and must be prevented as well. For example by placing grids in front of the ventilation openings.



Grids can prevent animals from getting stuck in ventilation vents.

Sick or injured animals

Access doors are essential for caring for animals that may become sick or injured during the journey. Access to the animals is also legally required. See also the section 'access doors'. It is also an obligation to keep animals that become sick or injured apart from the other animals during transport. The experience of Eyes on Animals is that many newer vehicles do not offer this possibility. Sick or weak animals transported on trucks without access doors are often left to be trampled and die a horrible death.

Calves that are tired or sick, lie down and risk being trampled during transport



Sick, dehydrated or exhausted animals will lie down and be at risk of being trampled.

- ☑ Make sure that animals that are ill or are injured during transportat can be separated from the rest of the group, by, for example, allowing fitting of an extra partition.
- ☑ Provide in each compartment good access doors which are sufficiently large for the unloading of animals if necessary and for a driver of veterinarian to enter to treat an animal.

Loading ramp

Noise

Cattle are sensitive to noise. Their hearing range is greater than that of human beings. Unnecessary noise like men shouting, the banging of metal or the loading ramp hitting the ground, causes stress and anxiety among cattle. The cattle will act restless and their heart rate increases. It is therefore important to prevent noise as much as possible. This can be achieved simply by attaching rubber or other cushioning material at different places, such as to the bottom and sides of the loading ramp. As a result, the sound is muted when opening and lowering the loading flap.

By putting rubber on the side walls, the sound of metal hitting metal is prevented.

A rope or a stick attached to the loading ramp's side allows it to be gently lowered.

Putting rubber on the hydraulic loading ramp stops a loud bang.

- ☑ Put rubber on the bottom and sides of the loading ramp and side walls to reduce noise
- ☑ Attach a rope or stick to the side of the loading ramp, so that it can be lowered quietly

No lateral protection

It is mandatory to have lateral protection on a loading ramp. This stops animals from falling or jumping off from the loading ramp. Nevertheless, some trucks lack this lateral protection, or the side walls are not fit well leaving an open gap. This increases the risk of injury.

If sidewalls are missing or do not fit properly, cattle can fall off the loading ramp or injury themselves.

- ☑ Provide lateral protection that fit well to prevent cattle being injured or falling off.

Slippery loading ramp

In order to prevent cattle slipping during loading and unloading, it is important that there be steps on the ramp and the floor is of non-slip material , such as, for example, rubber or tread plate.

Steps reduce the risk of cattle slipping

- ☑ Provide steps on the loading ramp and a nonslip surface.

Steep loading ramp

Loading ramps should not be steeper than 20 °. Loading ramps with a slope should have steps. On a slope above 10 ° this is mandatory. To make a loading ramp less steep manufactures can built a foldable back ramp that can be pulled out twice its length to make the slope much less steep.

- ☑ Loading ramps should not be steeper than 20 °
- ☑ Loading ramps with a slope need steps to prevent slipping and injuries.

A foldable back-ramp made by Cuppers to make the slope less steep

Reflective loading ramp

If loading ramps reflect sunlight, animals may be distracted or frightened by the glare. A black loading ramp prevents reflection of sunlight and startling animals. Also, for example, straw can be put down on it.

Reflections can be prevented by making the loading ramp black.

- ☑ Ensure that the loading ramp is made from a non-reflective material.

Transport Log - tips and tricks

- ☑ To prevent companies messing around with the journey log, it is recommended that official veterinarians fold all the corners of section 1-5 and then stamp the corner, so that each section receives a part of the stamp at the top corner. In this way documents cannot be easily changed.

Photo of a stamp on the transport log

Certificate of approval - tips and tricks

Partitions

- ☑ If the partitions do not touch the floor when levels are loaded and no additional metal sheets are available for attachment to the bottom of the partitions, then indicate on the permit that the transport of cattle is not allowed.

Watering system

- ☑ If there are only drinking nipples then the truck is not suitable for cattle. Therefore specify which species and possibly age groups are permitted for the truck.

CERTIFICATE OF APPROVAL OF MEANS OF TRANSPORT BY ROAD FOR LONG JOURNEYS

(pursuant to art 18(2) of Reg. 1/2005/EC)

Številka SPIS	*Reference number*	U34402-39/2014
Številka prometnega dovoljenja	*Immatriculation licence number*	095099510
Registrska označba vozila	*Number of registration plates*	BP250AA
Številka šasije	*Number of frame*	W09000218CBF62249
Opremljen z navigacijskim sistemom	*Equipped with a navigation system*	DA(YES)
Vrste živali, ki jih je dovoljeno prevažati	*Types of animals allowed to be transported*	
Govedo (Razen sesnih telet, ki so še vedno na mlecni prehrani) **Cattle (Except Unweaned calves, which are still on a milk diet)**		
Površina [m2] na etažo	*Area[m2] per deck*	1: 16.4m2 2: 17.79m2
Datum poteka potrdila	*Expiry date*	14.4.2020
Potrdilo je izdala	*This certificate is issued by:*	
Uprava RS za varno hrano, veterinarstvo in varstvo rastlin /*The Administration of the Republic of Slovenia for food safety, veterinary sector and plant protection*		
Območni urad /*Regional office*		
Dunajska cesta 22, 1000 Ljubljana, Slovenia		

Example of certificate of approval that indicates this truck is not appropriate for unweaned calves

- ☑ Check drinking water pipes and tanks. Are they not suitable for sub-zero temperatures? Then put on the certificate of approval that the truck may only be used at temperatures above zero.
- ☑ Is it possible to clean the watering units, e.g. by means of an access door? If not, then the truck is not suitable for long distances. Please specify this in the certificate of approval.

Load area

- ☑ Only measure the area that the animals can actually use. With dual-purpose trucks, there is often a limited space between the wheel axels where adult cattle cannot turn around and there is inadequate ventilation. Do not count this area, nor uneven areas of the floor, such as where wheel axels protrude.
- ☑ Specify clearly in which compartment fewer or no animals can be loaded because of uneven floors, limited turning space or inadequate ventilation.
- ☑ If wheel axels protrude slightly above the floor, specify that the truck may only be used when there is a thick layer of straw at all times, so that injuries and serious discomfort can be prevented.

In general

- ☑ Specify how much surface area may be considered in the case of small animals (pigs, calves, goats and sheep) and in the case of cattle. Please note that small animals can become injured during loading and raising the floors, namely because legs may get stuck. Also specify if the truck cannot be used with certain number of floors (for eg. when three floors are set, sometimes the bottom of the middle floor is level with the open vents causing legs to slip out or water systems and fans to be blocked. Specify in the permit which species and how many levels are authorized in the truck.

[i] http://web.altagenetics.com/netherlands/DairyBasics/Details/1884_Helft-van-de-koeien-drinkt-vuil-water.html