

Bottleneck Weights and Dimensions of vehicles

First of all we would like to thank again the Commission for having launched this "bottleneck exercise", which is very useful for finding concrete solutions to the different bottlenecks that industry faces every day and that hamper sustainable development and sometimes fair competition.

ECG took the lead on the part concerning the weights and dimensions of vehicles issues. The document below is the compilation of the contributions of the different stakeholders on this particular "bottleneck".

Two main issues came out of the contributions:

1/ The necessity to re-open the Weights and Dimensions Directive, which is ten years old, and to harmonise maximum length for loaded vehicles at 20,75 meters for international traffic.

2/ The necessity to deregulate the maximum length of trailers provided the maximum length of vehicles and safety obligations are respected.

General

Weights and dimensions of a vehicle are stipulated in Directive 96/53/EG of July 25, 1996. The directive makes a difference between maximum weight ("for use of a **laden** vehicle") and maximum dimensions ('for use of the vehicle') of road trains (article 2). Consequently, no general prescription is laid down regarding maximum loading dimensions. Only removable superstructures and standardized freight items (and not the carriage itself) are included in the dimensions specified in the annex I (1.4) of the directive.

The bottlenecks with weights and dimensions occur when load is longer than the permitted length of vehicle. Such load then exceeds the truck at the back, at the front or at the top. The rules on maximum dimensions are extremely complicated and different from one Member State to another. Moreover, their enforcement is often subject to local interpretation, and unjust penalties are sometimes imposed. In some member states longer load is permitted, in some member states transporters need a license for it and some member states fine transporters for longer and higher load.

Indivisible or divisible load?

An important question is whether load is divisible or indivisible. Indivisible load, such as lamp posts, is permitted to exceed the truck dimensions. Divisible load not. The reason is that divisible load can be dismantled. This, however, causes a lot of problems to transporters as the examples mentioned below will show.

There are various criteria for indivisible load exceeding the back of a truck: some EU member states allow a maximum additional length of 1 m calculated from the bumper, whereas other member states allow a maximum additional length of 3 m, calculated from the last axle.

Load or part of a vehicle?

Another question is whether containers and swap bodies are treated as load (permitted to exceed the truck dimensions) or as part of the vehicle (not permitted to exceed the dimensions of the truck).

Examples of bottlenecks

1. Car transporters

Car transporters' loaded and unloaded dimensions significantly differ. Cars can be loaded not only on the transporter itself (up to a height depending on the size of the cars and the way they are loaded), but also on extendable overhangs above the driver's cabin and behind the trailer. Thus, Council directive 96/53/EC, that, among other provisions, sets the maximum height of a road train at 4 m and its maximum length at 18,75 m, doesn't concern loaded transporters. It has been left to the discretion of the Member States to decide on the maximum authorized dimensions of the latter.

As a consequence each Member State developed its own legislation in the field. There are now, across Europe, **10 different maximum lengths** ranging from 18,75 m to 25,25 m and **5 maximum heights** ranging from 4 m to no limit. Overhangs are also strongly regulated with 4 different front and 12 different back overhangs. Moreover, Member States have their own complicated and obviously different ways of measuring the maximum dimensions. For example, front overhang, depending on the country, can be measured either from the steering wheel or from the edge of the cabin, and up to the end of the extension or to the end of the transported car. Finally, in some countries, exceptional authorizations are granted on a case by case basis, and subject to much discretion.

Complexity

As a result, the regulations on the authorized dimensions of a car transporter have grown so complex, that they have largely become difficult to understand not only for transport professionals, but also for enforcement bodies. On some occasions, the police may interpret the law erroneously and impose unjustified penalties.

Recent developments

The Directive 96/53 is now over 10 years old. As a consequence it does not take an account of two major recent developments which reduce the loading capacity of car carriers and which are beyond the control of car transporters:

1. Two major EU enlargements took place, that substantially **shifted car production towards the East, changed and lengthened the routes from manufacturers to end users**. Currently, a car produced in Trnava (the new PSA plant in Slovakia), for example, might have to cross as many as seven countries before it reaches a final consumer in Portugal. Currently due to different maximum dimensions laws in each country, the Slovak transport company has to run inefficiently with 7 cars, although it could transport 9 should the legislation be harmonized.

2. The other major development is **the growing size of vehicles**. The growing size of most car models makes it impossible to load as many cars on a transporter as before. Till now, however, not many Member States have changed their legislation so as to take account of this development. The transport business had to adapt itself to the changing economic environment by increasing the number of transporters used, the alternative being a shortage on transport capacity with a detrimental impact on the whole automobile industry.

According to estimations the possible loss of capacity in the vehicle logistics sector during the last 10 years is about **10%**.

2. Trailer and the 'coupling device'

There are differences among Member States in the measurement (way of calculation) of trailer maximum length (in particular whether drawbar must be included in the measurement of the maximum length allowed or not). These differences hamper free circulation of road trains in the single market.

The directive 96/53/EC, annex I, point 1.1, lays down the maximum length applicable to road train (18,75m), and the maximum length applicable to trailer as part of road train (12m).

Vehicle length is measured according to the prescriptions of the directive 97/27/CE, annex I, point 2.4.1, which refers to the ISO 612-1978 norm (point 6.1) and gives a list of exceptions to it. The devices mentioned as exceptions are not to be included in vehicle length. One of these exceptions is the "coupling device for motor vehicles".

The coupling device (drawbar) of a trailer can in some cases be several meters long. Whether its size has to be included in the measurement of trailer length is therefore critical. Because Member States have different interpretations of its terms, the directive fails to harmonise national legislations. For example, Germany considers that drawbar must be included in length measured whereas France and Great Britain consider it must not. As a consequence, German authorities accept to register only combinations of trailer + coupling device shorter than 12m, and France and Great Britain register 12m-long trailers without drawbar, which means 13-14m-long combinations including coupling device.

3. Truck mounted fork lifts

Truck mounted fork lifts are often "hanged"/mounted behind the truck. The question is whether truck mounted fork lifts are treated as (divisible/indivisible) load or part of the vehicle. In case that these fork lifts are divisible load or part of the vehicle, it is not allowed to exceed the maximum length of a truck (16.5 m for a trailer; 18.75 m for a truck with hanger). With the disadvantage that the fork lifts have to be transported in the truck reducing the available load space. Only in case that these fork lifts are seen as indivisible load, it is allowed to transport them mounted behind the truck.

4. Width of load

It is not clear what is allowed by the member states with regard to the maximum width of load exceeding the permitted truck dimensions (with truck 2.55 m ; refrigerated trailer 2.6 m). This causes a problem for machines, agriculture vehicles and so on. These vehicles often are wider than 2.55 m. In case that these vehicles are treated as indivisible load, there is no problem. In case that they are divisible load, then the wheels have to be dismantled what means a lot of (unnecessary) difficult work. Furthermore, it is not clear for which dimensions exceeding the permitted width of a truck, a license is needed to carry out the transport.

Solutions

A clear description of what is permitted and what not, is needed. Uniformity within the EU must be achieved. The current Directive leaves too much room for member states' own interpretation.

1. Car transporters

Modification of **Directive 96/53** (annex I) to lay down specific maximum loading length for vehicle transporters. A specific legislation is required because vehicles do not fit in the category 'indivisible goods' that benefit from exceptional derogations. Vehicles are too big to be treated as standard cargo.

Revision of the directive should allow for harmonization of maximum dimensions in all EU member states. However harmonization in international traffic only. Each individual member state should be free to decide on its national dimensions.

The following changes should be included in the revised European legislation:

- **Length:** abandon of all restrictions on front and rear overhangs; instead, the length of the overhangs should be included in the total authorized length of the vehicle; the total maximum authorized length for loaded vehicles in international transport should be set at, **at least, 20,75** m including front and rear overhang; the 18,75 m maximum length should continue to apply to the registration of vehicles.

Simplification and harmonization of legislation on maximum length of loaded vehicles should be relatively easy and cost effective, mainly because technical parameters of the current road infrastructure in Europe allows for their use by longer vehicles.

An analysis of the national legislations in Europe shows that only 8 out of 29 States (EU + Norway and Switzerland) still keep 18,75 m as the upper limit for the length of a loaded car transporter. A majority of the others have adopted maxima between 20 m and 20,75 m. The security conditions for roads traffic are totally respected, in particular the swept turning circle. It should be noted that the turning circle is not an issue, as it is harmonized at the European level under the provisions of Annex I to the Directive 96/53/EC.

This will allow for a more efficient use of the existing fleet of car transporters and for greater transparency of the rules, as the enforcement bodies will be left much less discretion on as how to measure the trucks.

- **Height:** consideration of flexibility on height

The issue of increased height from the current 4 meters raises the question of road and infrastructure safety as well as the issue of intermodal competitiveness. However if the European Commission was considering increasing the allowable height for all other modes of transport, than the car transport sector possesses the technical capability to increase the height up to 4,20 meters; this would very much increase the loading capacity of car transporters.

Possible benefits to be attained by amending current legislation

Should the length of loaded vehicles be fixed in clear and relatively uniform terms in all Member States, trucks running on transcontinental routes could be loaded in a much more efficient way. This would result in fewer runs being necessary to ship the same number of cars to their final destination. It is currently estimated that the average number of cars per car transporter has gone down to 8 cars, and that the number of transporters in Europe has gone up to ca. 20 000.

A degree of harmonization that would allow the transporters to be loaded back again with 9 cars on average would mean a **10%** increase in capacity and the reduction in the number of truck loads by approximately **200 000**.

The expected benefits from such a change can be divided into five groups.

First, they are of an environmental nature: The reduction of truck loads by 200 000 would mean fewer trucks on the roads and hence less fuel consumption. Less fuel consumption in turn means a significant contribution to CO2 emissions reduction. This reduction is very much in line with European Commission's overall objective of reducing CO2 emissions by 20% by 2020.

Second, as the European statistics show there will a 50% increase of freight transport growth until 2020. Also according to J.D. Power data in the next years to come a big increase in car movements between Eastern and Western Europe is expected. Both road and rail transport sectors are already overstretched and find it hard to cope with the current work load. An additional growth in transport will strain the situation even further. Harmonized maximum dimensions through the improved loading capacity will help to contain the further increase in transport and sort out the capacity constraints challenging the transport sector.

Third, road wear is an inevitable effect of traffic. Therefore removing trucks from the road would have a beneficial effect on the efficient use of road infrastructure and less damage done to it.

Fourth, fewer trucks mean less congestion. This will have a beneficial effect on the society. Less congestion means more positive public health impact and less stress related complaints, which in turn signifies annual savings for the European economy.

Fifth, fewer trucks on the roads will improve the road safety. All traffic safety experts agree that reduced number of vehicles reduce the number of accidents.

As this bottlenecks exercise deals with the maximum dimensions of the existing fleet, the most optimal solution is to harmonise the length of vehicles at the 20.75 meters across Europe. However it should be noted that the 25,25 meters long trucks could increase the loading capacity by further 20% and therefore could provide a very good solution to the future mobility problems in Europe.

2. Trailer and a 'coupling device':

In order to solve the bottleneck, avoid any misinterpretation of the European legislation and apply the decision of the Commission to simplify the legislation when it is possible, we think that the trailer length should **not be regulated** anymore. Safety is already guaranteed by the other regulations concerning road train maximum length, swept turning circle and maximum load weight per axle.

This would guarantee the fundamental principles of the Treaty, in particular the free movement of goods and fair competition between European players. Giving more flexibility to the transporters and keeping at the same time the necessary safety rules, this would not have any impact on the environment and would definitely allow a better optimisation of the loading capacity.

3. Truck mounted fork lifts and width of load

As far as the width bottlenecks are concerned, a solution could be to allow transport of load with a maximum of 3 m width without license.

A stipulation is needed that containers and swap bodies are indivisible load thus allowing exceeding the truck to a maximum of 3 m behind the truck.

Truck mounted fork lifts must likewise be determined as indivisible load so that they are allowed to exceed the truck up to 2 m behind the truck.

The following suggestion is not really a solution, but more to facilitate companies:
A request for the European Commission to make a clear overview per member state what is allowed and what not, so that fines and lots of (unnecessary) extra work can be avoided.

Conclusion:

Solutions provided in this paper should considerably improve the situation in the transport sector. In the sector of vehicle logistics only, the capacity could be increased by 10%, leading to the reduction of 200 000 truck loads and considerable reduction in the CO₂, NO_x and particulates emissions.

Therefore we hope that these solutions and recommendations will be taken into account by the European Commission i.e.

- 1/ Maximum length of loaded vehicles harmonised at 20,75meters for international traffic
- 2/ No limitation of length of trailers as long as the maximum length of vehicles and safety rules are respected

We of course stay at the disposal of the Commission to develop further any part which might appear unclear or need more details.