

ABNORMAL ROAD TRANSPORT: HOW TO BEND THE TREND? SIMPLIFYING THE DUTCH REGULATIONS

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Abstract

Where the law ends, abnormal road transport begins. In the Netherlands the RDW, the agency for road transport, is responsible for issuing the exemptions for abnormal road transports. Keeping grip has led to over-regulation. The regulations in the Netherlands are now so complex that policemen often do not know what to look for. The exemptions are complex and difficult to control. This paper takes a closer look at the shortcomings of the current situation. A number of field studies were conducted to look for possible improvements. The paper presents potential solutions on four topics: knowledge, modal shift, the long term exemption and the short term exemption.

Keywords: abnormal road transport, exemption, regulation, road authority, transporter, agent, enforcement, RDW, complexity,

1. Introduction

Where the law ends, abnormal road transport begins. Abnormal road transport is about indivisible loads or special vehicles that do not meet the legal measures and weights. For all transports with cargo that is too high, too wide, too tall or too heavy, an exemption is mandatory. An exemption is a heavy measure and is used in exceptional cases only. Within an exemption, additional restrictions may be included. Think of time windows, a prescribed route, maximum size and mass and a cargo description. There also may be additional conditions. Such as the use of a flashing light, pilot car assistance, marking, notification to the road authority, etc. It can also be mandatory for a transporter to research the route prior to the application of the exemption. Although abnormal transports crosses the whole of Europe, each European country has its own regulations. In the Netherlands the RDW, the agency for road transport, is responsible for issuing the exemptions for abnormal road transports. The RDW has an overarching goal to hold grip on abnormal road transport: per transport a safe and sustainable route, with a maximal traffic flow.

Keeping grip however has led to over-regulation. The regulations in the Netherlands are now so complex that policemen often do not know what to look for. The exemptions are complex and difficult to control. What kind of restrictions are there? What conditions apply for the transporter? Are the right vehicles used? Where can a large transport be parked without endangering other traffic?

In this paper we try to find potential solutions.

2. Content of this paper

This paper is divided into several parts. First the research method is presented. Then we take a closer look at the shortcomings of the current situation. Followed by the field study results there are some potential solutions to bend the trend on over-regulation. Finally the conclusions roundup the paper. A list of references is given at the end of the paper.

3. Research method

As a basis, the exemption process (from client to customer) is used. Of each process step relevant shortcomings are examined. This by looking at relevant regulations, registered complaints, and by interviewing the road authorities (national, provincial, and municipal), transporters, agents (requests exemptions on behalf of transporters) and enforcement agencies (national and regional). From this, the shortcomings in the regulations will appear. With the interviewees possible solutions are drawn. During the HVTT these solutions will be presented, and the audience will be asked for further input.

4. Shortcomings of the current situation

To portray the size of the abnormal transport in the Netherlands, some numbers from the year 2011:

- Short term exemptions (two weeks valid): 19.314.
- Long term exemptions (one year valid): 6.848.
- Vehicle movements (journeys): 765.000.
- Applications rejected: 754.

On a short term exemption there is an average use of 4.2 journeys per exemption, on a long term exemption the average use is 100 journeys.

The majority of the abnormal transports are carried out for the construction sector, particularly the civil engineering sector (land, road and marine) and the utility sector. It mostly concerns transport of concrete and steel structures and machinery necessary for construction sites (e.g. mobile cranes, foundation machines, excavators, earthmovers). The largest category is transportation of industrial machinery and machine parts. The energy sector is with the transportation of transformers / generators and windmill parts also an important sector. The transport of mobile homes and chalets in the Netherlands is also noteworthy. Based on interviews with the industry associations and based on the cargo a conservative estimate is that the (semi-) governments themselves causes 70% of the abnormal transports.

The exemption process is as follows:



Figure 1 – The exemption process

For each process step, the shortcomings will be named.

4.1 Application

In the Netherlands the RDW, the Dutch Department of Road Transport, is responsible for the process of granting exemptions. Transport firms requests exemptions centrally from the RDW. In the application for a short term exemption, a lot of information is needed about route information, vehicle information, information on the load, and axle loads.

Transporters who know the system sometimes deal creatively with applications. A few examples:

- Above 100 tonnes, a structural safety test for bridges can be a part of the procedure. By lowering the overall weight on paper, this saves time.
- For height the RDW uses a safety margin of 15 cm. Transporters know this and regularly ‘shrink’ 10 to 15 centimeters. This then saves detours to avoid bridges.

Within a long term exemption the authorized roads are predefined. But a transporter gets this overview only after he has purchased the exemption. And sometimes to find out that these roads are not sufficient...

4.2 Intake

The applications are checked for correctness. Much attention is paid to the calculation of the vehicles. Not only the axle loads, but also the weight travelling through the kingpin/tractor unit. See figure:

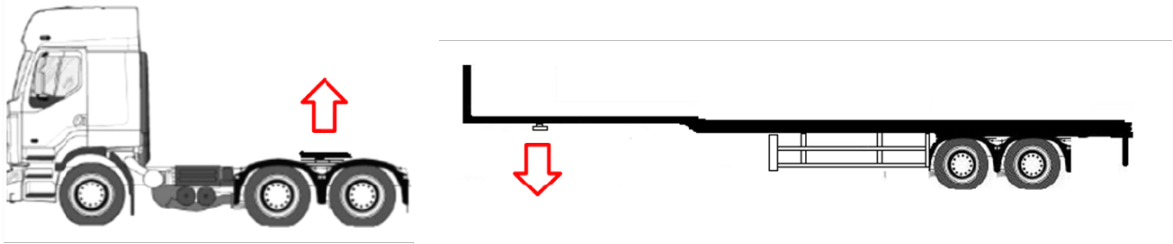


Figure 2 – Travelling weight

The RDW does this on behalf of the road authorities. Its assuring for the road authorities that the vehicles meet the requirements. Currently, the RDW is too theoretical and too strict. If the weight travelling through the kingpin/tractor unit deviates more than one kilogram the application is rejected. And this while in practice the center of gravity of the load is not always known.

Secondly, the transporter is allowed to register more then one vehicle, for flexibility reasons. The transporter does not know beforehand which vehicle is available at the time of transport. Downside of this measure is that all vehicles have to be checked for correctness.

4.3 Routing

In recent years transport dimensions and masses continue to grow. And with this growth more complexity in granting exemptions. It is becoming increasingly difficult to find a suitable, safe route. The RDW therefore rejects more than 750 exemption requests per year, because for their size or mass a suitable route cannot be found.

A sample on our data shows the following:

Table 1 – Growth in dimensions and mass

Sample in the month April of each year	2007	2008	2009	2010
Width ≥ 4 meter	100%	134%	132%	136%
Heigth ≥ 4,5 meter	100%	102%	120%	139%
Length ≥ 35 meter	100%	99%	115%	128%
Mass ≥ 100 ton	100%	140%	174%	198%

There is no upper limit for dimensions and mass for abnormal transport in the Netherlands. Manufacturers thus have the freedom to build as large as possible. Nowadays many products are produced in low wage countries, so it is efficient – if possible – to carry it in a single transport. This is enhanced by clients that prefer to work with prefabricated structures. This is

cheaper, more efficient and produces less risk during assembly. There is also no policy or guidance in the Netherlands on the use of other modalities. The road is almost always used, even if the water or rail appears to be a better alternative. Transporters are often only specialized in road transport, and do not think of intermodal possibilities. Prestige and image also plays a role.

4.4 Issuing

Basically a short term exemption is a static document, and valid for two weeks. But the world of traffic and transport is very dynamic: road works, incidents, adverse weather conditions, changing planning and/or wishes of the client. In two weeks time a lot can change, but the route in the exemption can't.

4.5 Aligning

Aligning is the communication with the road authority at which time the exemption is going to be used. This is one day in advance. It gives the road authority and the transporter the opportunity to discuss the optimal passage time.

Research conducted on 163 orders showed that barely 13% of the transporters aligns. Many road authorities on the other hand do not respond. The current procedure is complicated. Many road authorities claim additional conditions (other time windows, more pilot cars). Road workers complain about dangerous situations from unexpected transports. They now threaten with strict traffic measures, such as the complete closure of the road. Another problem are foreign transporters. They are unfamiliar with aligning, or they can not read the exemption (because these exemptions are often applied by agents). The Netherlands is one of the few countries where one must align.

Transporters and road authorities do attach great importance to this aligning. It is designed for the transporter so that the free passage is guaranteed.

4.6 Transportation

Besides the growth in complexity, road authorities are increasingly confronted with damage and obstructions from abnormal road transport. Infrastructural damage due to accidents, high axle loads and high total weight, and the temporary removal of street lights, road signs, etc. Obstructions come from, among others, the lower speeds, the required space to manoeuvre, and the transport width.

There is no structural enforcement in abnormal transport. The priority of the police lies with the public order and safety¹. And therefore the number of transporters that knowingly drive

¹ Source: Evaluation Exemption Granting Process (Ministry of Infrastructure and Environment)

without exemptions increases. It is estimated that 30% of the transports on highways do not comply with the exemptions restrictions or conditions, or does not have an exemption at all². This corresponds to more than 24,000 vehicle movements per year. Clients can force transporters to deliver fast (sometimes even the same day), or they lose the job. Some transporters tend to drive without an exemption after they get a rejection. Contract obligations outweigh the risks.

Sometimes the rules makes it difficult for transporters. For example, 12 tonne axle loads is allowed on highways, but only 10 tons on secondary roads. With this, we bring the transporter into trouble.

4.7 Overall

Between the various Dutch public and private parties there is a frequent coordination on an operational level. The exemption granting process is properly secured with regard to regulations and solving operational problems. At the tactical and strategic level however, this coordination and decision-making hardly takes place. One major reason is that there is no deliberate policy discussion taking place about the desirability and feasibility of the increase in the size and masses of exceptional transports.

As stated in the introduction, trying to keep grip has led to this over-regulation. The increase in complexity is reflected in the number of complaints. See the table below:

Table 2 – Growth in complaints³

Year	Number of complaints	about short term exemptions	caused bij complexity
2006	454	365	49
2007	534	373	42
2008	537	331	34
2009	355	209	44
2010	342	231	60
2011	352	244	77

The reduction in the number of complaints (2008-2009) is due to a new application module that went into service. The number of complaints however kept growing.

² Source: Enforcement agency (Politie regio Rijnmond)

³ Source: Database RDW

How can we improve this? Are there ways to simplify the rules, while preserving the level playing field for transporters and clients? Are there possible solutions to redirect this trend towards a more desirable situation for all chain partners? Time for some field studies.

5. Field studies

A number of field studies were conducted. Some had already started, and are connected with this research: the evaluation of the exemption granting process, and interviews with the chain partners following this evaluation. For this study, the aligning process is looked into more deeply. We also investigated possibilities for sharing knowledge via the EasyWay platform. Finally, we also looked at an adjacent domain, the LHV's⁴.

Below, the studies are discussed, including the main results.

5.1 Evaluation exemption granting process

The Dutch Ministry of Infrastructure and Environment conducted an evaluation in 2011/2012 of the exemption granting process over the years 2006-2011.

The evaluation supports the above described shortcomings, and comes with a number of recommendations:

- Make the circle Enforcement-Policy-Implementation conclusive.
- Improve knowledge in the chain.
- Make use of transport corridors.
- Make more use of ICT.
- Judge in advance on modal shift.

The evaluation showed, after analysis of the cargo and a check with trade associations, it is estimated that the government is responsible for 70% of the abnormal road transport.

Following the evaluation, a working group was set up. Representatives of road authorities, transporters, and enforcement agencies came together to discuss the recommendations of the evaluation. With the following results:

- Rearrange the roads. Instead of No-unless to a Yes-unless policy. All roads are free for abnormal road transport, unless there is a reason.
- Long term exemptions: instead of a written list of roads, use a digital map.

⁴ LHV: longer and heavier vehicles. In the Netherlands, trucks 25,25m long and 60 tons heavy are allowed on specific roads carrying divisible loads, with an exemption.

- Make more use of the knowledge of transporters and pilot car operators. They are on the road daily.
- Set a limit on the sizes and masses for on the road. Shift to transport over water above these dimensions. Manufacturers can be forced to build smaller instead of larger. These limits can also be taken into account in road design (for example roundabouts are then always suitable).
- Connect the Dutch policy to the policy of the surrounding countries.

5.2 The aligning process

As indicated, aligning is difficult. For this an investigation is started. We have spoken with road authorities and transporters. The first results (research is ongoing):

- Align from 4 meters width instead of 3.50 meters. This reduces the amount of aligning.
- Couple aligning with the requirement of the use of pilot cars. With this the agent can align on behalf of the foreign transporter. This increases the amount of aligning.
- Don't provide vehicle information in the application, but when aligning. This saves time in checking for correctness, and only the right information is stated in the exemption. This makes enforcement easier.
- Simplify the aligning form and make it fully digital. Indicate only the route which is relevant for the road authority.

5.3 EasyWay

EasyWay is a project for Europe-wide ITS deployment on main corridors driven by national road authorities and operators with associated partners including the automotive industry, telecom operators and public transport stakeholders. (See: www.easyway-its.eu).

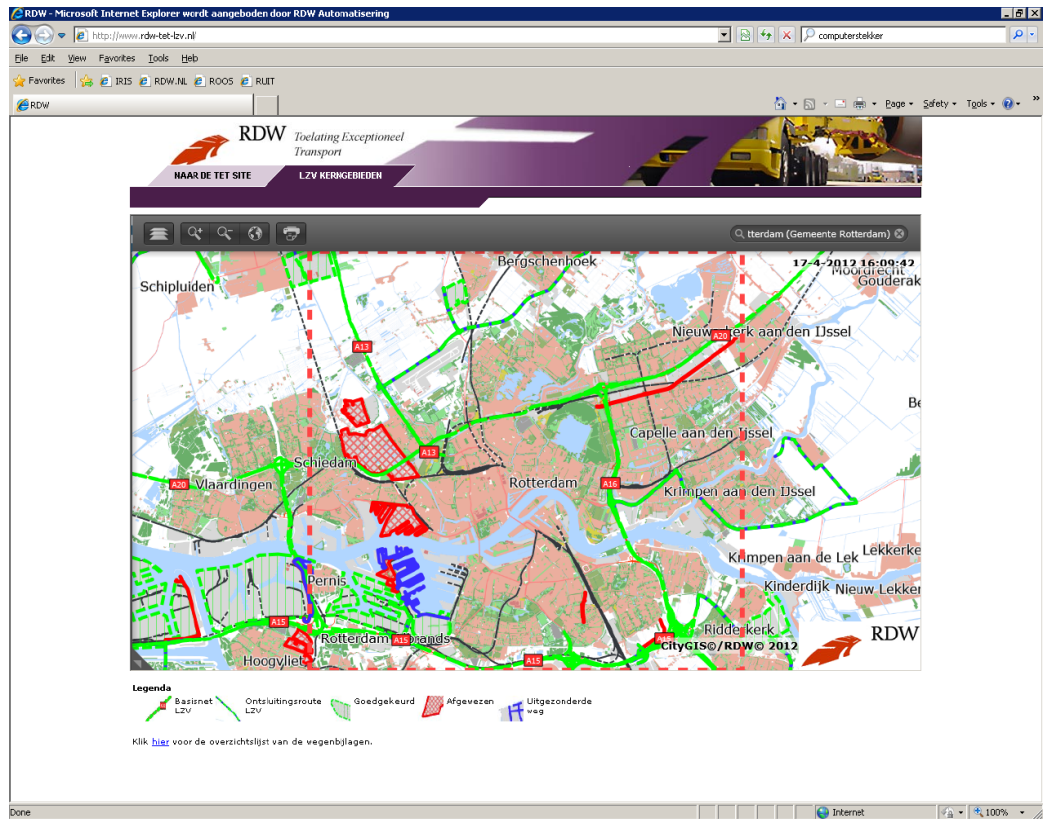
On 08-05-2012 the RDW attended the workshop “Abnormal Transports in Europe – Services for Road Authority and transport Industry”. During this workshop the site www.transportxxl.eu was presented as a platform for sharing knowledge about abnormal road transport in Europe.

5.4 An adjacent domain, the LHV's

We also investigated past experience in adjacent domains. The RDW also issues exemptions for LHV's, (Longer and Heavier Vehicles). In the Netherlands, trucks 25,25m long and 60 tons heavy are allowed on specific roads carrying divisible loads, with an exemption. For this type of transport, a nation wide map is created, which shows all permitted roads that may be used by anyone. The idea is to make the same map for long term exemptions.

See the figure below for an example of the LHV map.

Figure 3 – LHV map



6. Potential solutions

The pitfall has been that we tried to make a rule for every exception. We have been overshoot in the attempt to prevent misuse. A solution is to establish a framework, within everyone's takes their own responsibility. With this, the paper presents potential solutions on four topics:

On knowledge:

Make more use of the knowledge of transporters and pilot car operators. They are on the road daily. Also put the Dutch policy on the Transporxxl.eu site so foreign transporters know the rules beforehand.

On modal shift:

Judge in advance on modal shift. Because the government is responsible for 70% of the abnormal road transports, they can make it a policy or guidance to use other modalities when they are the clients themselves.

On the long term exemption:

The long term exemption is the most used exemption in the Netherlands. Making this exemption better will improve the whole process. The first step is to make a digital map, instead of a written list of roads. With this, the Netherlands could go to another method for granting exemptions. Not the cargo is the basis, but the available space on the road. Corridors indicate what size can be driven. For these sizes of loads, a long term exemption can be given. For sections where the limits are unknown, an additional short term exemption must be requested. It is needed to rearrange the policy. From a No-unless to a Yes-unless policy. All roads are free for abnormal road transport, unless there is a reason.

On the short term exemption:

Set a limit on the maximum sizes and masses for road transport. Shift to transport over water above these dimensions. Manufacturers can now be forced to build smaller instead of larger. These limits can also be taken into account in road design (for example roundabouts are then always suitable). Secondly, don't provide vehicle information in the application, but when aligning. This saves time in checking for correctness, and only the right information is stated in the exemption. This makes enforcement easier.

7. Conclusions

Keeping grip has led to over-regulation. The regulations in the Netherlands are so complex that policemen often do not know what to look for. The exemptions are complex and difficult to control. Field studies have shown that there is room for improvement. This paper gives potential solutions on four topics: knowledge, modal shift, the long term exemption and the short term exemption.

This paper is a start, and the RDW will work with its chain partners in the elaboration of these solutions. Two solutions are already dealt with today: the modal shift and the long term exemption.

We also look further, what does the future hold? Is tracking and tracing for instance a mean to further simplify regulations? Enough to think about...

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