



## IMPACT OF DRIVERS' WORKING TIME REGULATIONS ON HAULIERS' OPERATIONAL ACTIVITY

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**ABSTRACT.** The article describes the meaning of drivers' working time regulations and their connection with transport companies' everyday activity. Attention was also paid to the fact that current regulations have an influence on the cost increase of the companies earning money from carrying goods.

**Key words:** drivers working time act, transport costs, competitiveness, competition level in the transport service sector, telematics.

### INTRODUCTION

Transport operations are not only about carrying loads from one place to another but also about continuous control and care about service quality and transfer of information to drivers and customers. Transport operators' activities must also be perceived in the context of procedures enforcing the law regulations and caring for saving and storing necessary data for the need of planning, organizing, executing, controlling and verifying transport operations, various analyses and formal issues. The goal of the article is to show the influence of drivers' working time standards on road operators' activities in terms of significant constraints imposed by the regulations.

The consciousness of many road users is predominated by the idea of a "truck - murderer", whereas, the whole truck transport is regarded as the main evil of Polish roads. It obviously is a stereotype, however, not necessarily based on reality. The social dislike towards it is additionally strengthened by rash statements and actions of authorities after spectacular truck or coach accidents. However, looking at the statistics, the number of truck-caused accidents is slowly but systematically decreasing and it, for the time being, accounts for ca. 10,4% of total truck-involved accidents [Ganiec 2007].

The amendment to the drivers' working time act of 11<sup>th</sup> April 2007 introduces new duties for forwarders, shippers and consigners. They will be equally responsible for drivers' working time violations. Changes in drivers' working time regulations (another attempt of making them more precise

and well ordered) results from the regulation no. 561/2006 of the European Parliament and of the Council on the harmonization of certain social legislation relating to road transport that came into force on 15<sup>th</sup> March 2006 [Trochymiak 2007]. However, there are few drivers being aware of the fact that a new control Directive no. 22/2006 which sets out clear rules for enforcing driver hours rules and the rules of using tachographs. Many Polish road hauliers learned it the hard way.

New regulations turn out to be significant constraints for road transport - at least this the way TSL specialists comment on it. First of all, order management will be more difficult due to shorter working time and restructuring of breaks. In specialists' opinion the truck utilization productivity or weekly transport effectiveness may decrease by 5 to 10 %. Thus, the shortage of trucks on the national and international freight transport market, which can be noticed since autumn 2005, will be bigger.

It would be logical to employ more people, however, business practice shows that this solution turns out to be the most difficult in effect. Many hauliers and forwarders already have problems with finding properly qualified and experienced staff. They, as a consequence, have problems with making their transport service reliable and their orders are not fulfilled on time. In the age of increased demand for Just-in-Time deliveries it is a dangerous trend which will have impact on transport service prices. Additionally, the obligation of fitting trucks with digital tachographs will "feature" the transport cost increase issue [Spedycja Transport Logistyka 2007].

The amended regulations limit the number of driving hours. Changes in time slots, obligatory breaks and weekly working time limit were implemented. The limit must not exceed 56 hours per week and 90 hours per fortnight. Additionally, regulations for urban communication drivers (local passenger transport) were implemented, as well as for self-employed drivers and drivers who are not employed by the entrepreneur but driving for him. Due to the fact that brand new trucks are now fitted with digital tachographs in the whole European Union, regulations of the act of 2005 on digital tachographs system were made more precise. The regulations concern subjects performing installation, calibration and checking of digital tachographs (workshops) as well as workshop technicians. The proposed amendments specify, put in order and simplify the regulations in a way they are unambiguous, more understandable and possible to be enforced in practice. A change in the road transport act that makes forwarder, shipper and consigner responsible for breaching road transport standards is a novelty in the amended regulations. Hauliers simply complain that they are forced to breach regulations since their employers do not take current standards into account. The ordered loading and reloading operations are often performed out of any driver working time schedule which results from customer's wish of dispatching their load at specific time. In case of oversupply of transport services on the market not fulfilling such an order may pose a risk of breaking the cooperation with the operator. On the other hand - transport operators have reservations about their customers not understanding the rules of freight and they are afraid to lose the order or even long-term agreements which give employment to people though.

The Ministry of Transport takes the position that the regulations will be beneficial for both sides and above all they will improve transport safety and reduce the number of violations connected with road transport paid work. However, the legislator does not specify one important issue - the way of calculating the working and driving time on non-public roads. The act itself refers to public roads. For example, a closed company area where the loading was performed and the access to it is limited cannot be called a public road. As it may be observed it is the place where one of logistics processes' "bottlenecks" derives from. So, how to calculate the waiting time? Is it from the moment of entering the closed company area? Or is it the whole period of the driver and truck being within the area of the company of unloading or loading [Walczak 2007]?

Due to the ambiguities, not only connected with the interpretation but also with the working time registry, companies providing working time registry and proper law interpretation services are being established. Ogólnopolskie Centrum Rozliczenia Kierowców (Polish Driver Accounting Centre - OCRK) was established in September last year. It was created by the Association of International Road Transport Carriers which is one of the most important consultative road carrier associations. Polish carriers suffer the consequences of improper driver time registration more and more often. As many as 63% of violations detected by the Road Transport Inspection (RTI) are connected with

drivers' working time. From the 1<sup>st</sup> July to the 31<sup>st</sup> March 2005 the inspectors carried out 40 323 road inspections, out of which 23 766 referred to domestic hauliers and the remaining 16 557 to foreign ones. In terms of hauliers' costs, 11 349 administrative decisions about financial penalties of ca. 16 084 thou PLN were taken. Out of the total number of decisions - 6 641 administrative penalties of 10 600 thou PLN referred to domestic carriers and 4 708 penalties of 5 484 thou PLN - to foreign ones. The inspections resulted in revealing more than 30 thou violations of the regulations of the appendix to the road transport act of 6<sup>th</sup> September 2001 (unified text Journal of Laws of 2004, No. 204, item 2088). More than 83% of detected violations referred to driving time and obligatory breaks and rests [www.gitd.gov.pl]. Financial results - particularly for transport SMEs - are very painful in this case.

Out of 25 thou drivers' working time violations, the most frequent one is not presenting tachograph recordings or presenting only some parts of them (almost 9 thou violations). It very often happens that the control device is not used properly. In terms of obligatory breaks and rests - as it results from the Inspection's control - drivers most often shorten the rest time, lengthen the driving time without breaks and the daytime drive.

Main task of OCRK is providing companies with an accurate analysis of drivers working time based on tachographs as well as files from digital cards and settling it. All analyses are described - in a way that their results reduce the number of violations, carriers' costs of financial penalties imposed by the RTI and improve work conditions and safety [Mitraszewska 2007].

All changes in economy and law that have been made in the last few years have impact on transport companies. However, organizational, quantitative or qualitative changes result strictly from economic aspects and they aim at acquiring a particular market segment, changes in the law refer to all from the business equally. Most companies operate in such conditions. These are companies providing services for both big contract-bound customers and single customers which need occasional service. Transport operators, in order to find their feet in the new situation, must organize staff properly and meet customers' growing expectations. All of these actions must be taken in compliance with the law.

The driving time issue has been evolving for a few years, however, the problem is now much more serious than it used to be. A long-distance transport company may be an example. Great Britain is the leading destination of the company. The trucks often cover over 1 700 km per one order and there are many unfavourable events that may happen on the way. Moreover, a ferry must be used which makes the transport longer. To sum up - one order route may take about 3 days to cover. Transport operators must fulfill as many orders as possible, taking return orders either. However, the problem with arriving on time emerges here. It is commonly known that drivers are constrained with a 6-day (cyclical) working time. Customer making the return order wants the load to be transported within particular, usually short time. As far as before Poland joined the European Union the problem was not so serious, because the waiting time at the western border of Poland was unforeseeable, since we joined the Union and the Schengen zone the driving time has been easy to calculate. Customer is not convinced by the fact that driver has only e.g. 1-2 days per work week to use. They are convinced, though, by the fact that when ordering transport e.g. for Tuesday morning, the delivery must be fulfilled by Friday the same week. Moreover, company that wants to survive on the market must meet customers' expectations. The above-mentioned company has been providing services for Benelux and northern France for one year and a half. With this distance transport order for customers both from Poland and to Poland may be fulfilled properly and in compliance with the driving time standards. However, what about the regular market and customers that have been served for years? It turned out to be obvious that single routes may be covered by one driver, yet, the other routes must be covered with the help of another driver. The situation of two drivers should be skipped due to additional costs that are generated then. Usually, every customer expects their delivery to be fulfilled in assumed time and they will not pay for making it quicker by 1 day if there is no such a need. Hence, hiring another driver could be unprofitable, although they would fulfill the order without any problem and in compliance with the law. However, this situation may be compared to the one when one driver "completes" a transport task started by someone else.

Transport operator is a specific company that must be profitable and maintain service quality at appropriate level (satisfactory for customers). There are many factors that have impact on transport

operators. Drivers' working time is one of the most important legal aspects that must not be set aside. Yet, there are other factors influencing optimization decisions. In order to take proper decisions - you need to have particular data which will help foresee the results.

Poland is still a country where decisions on transport technology investments (IT) are considered fairly long and computerization is treated very superficially. After all, the better the quality, the higher the price. Navigational systems are still the most popular ones. Apart from many transport management functions they most often help set the route and monitor the truck. They may be used to manage transport orders, drivers' working time and fuel purchases though [Trochymiak 2007].

Main advantage of transport management systems (TMS) is supporting the dispatcher in order management. The tool allows to set the optimum route and propose a vehicle referring to: delivery date, quantity or type of dispatch. In connection with vehicle on-line tracking systems they manage vehicles on way, improve driver's and load's safety, monitor driver's working time, measure and control fuel consumption. Data acquired as reports help determine new cost optimization and performance improvement solutions. However, a fully integrated system is expensive, both in the installation stage and satellite communication. Computer transport management systems allow to use company resources more effectively, reduce costs (also in terms of constraints connected with drivers' working time) and improve information transfer.

Transport is a specific and organizationally difficult activity. There are non-linear dependencies between decisions and transport process effectiveness that are difficult to describe as mathematical models. However, optimization systems cannot function without such models, mathematical formulas or algorithms. And this is the use of new decision optimization technologies which is one of the most important goals of the methods. This is the reason why intuitional methods (based on smaller or bigger experience) are used in practice (particularly for drivers' working time management). It allows to find the best solution or, at least, the most satisfactory one in the short period.

Taking time into account is significant since the capability of fulfilling the order and the effectiveness must be considered. Due to constraints such as drivers' working time standards and customers' expectations not only the driving time between unloading and loading points but also the time before arriving at the loading point and the driving time to the destination point to which the load is dispatched from the next loading point must be taken into consideration when looking for optimum routes. For example, if a driver arrives at the next loading point and his working time is about to finish he will have to wait for 11 hours. The effect will be that the delivery time will be longer even if the destination point is very close. In this case it seems to be better to dispatch a truck that can fulfill the order within legally set period even if it is farther from the place. These problems are common for both domestic and international transport, however, they may affect international transport more due to the fact that driver has more than one break on longer routes. Apart from working time constraints there are also traffic constraints on certain days in different countries - for example on Sundays and Holidays. If no trucks are allowed e.g. from 05.00 to 22.00 driver arriving at the border at 15.00 - has another 7-hour break. If he is inside the country the break stretches out to 17 hours. Therefore, driving time is not a simple function of distance and velocity on certain roads. It means that the optimization algorithm should take non-linear parameter changes into account, which may turn out to be a very hard task. In spite of all, operational planning in transport company is a complex and often problematic process. The regulations not only concern 24-hour driving time but also longer periods. Furthermore, there are strictly technical factors such as repairs and inspections of vehicles. Optimization is a complex issue which requires the following elements to be considered: operating area, distances between loading and unloading points and time - both driving time and the 24-hour working time constraining all activities. It is possible that a vehicle is close to the loading point, however, it is so early that the driver will need to wait for a long time. Then, it may be more profitable to dispatch another vehicle which is farther but unloads at a more suitable time. However, in order to properly assess such a decision the value of time should be calculated.

However, before an optimum route plan is scheduled, it should be checked whether the driver is able to fulfill the delivery in due time. The real delivery time is more or less different from the nominal driving time calculated based on the distance and velocity. It should also be noticed that the

differences are not proportional to the nominal time which means that the rule of calculating the real time is difficult to set. Driving time on each route depends on many factors i.a. whether it starts at the beginning or at the end of the week. So, the changes are non-linear, which makes planning more difficult. It is similar about the drivers' working time. Taking time and obligatory breaks into consideration makes the relationship between working time and distance non-linear. The break time does not have to be considered within certain distance. As soon as the distance is exceeded 11 hours are added. The border distance also depends on infrastructure (the linear one mainly) capacity on certain route. The differences result from work breaks and traffic bans on Holidays.

As it may be noticed, transport operational activity planning should consider various factors. The factors' variety and complex connections between them may seem to be a barrier of making optimum transport decisions and using scientific methods to take them [Milewski 2007]. However, it is worth highlighting that business oriented persons simplify some things because the speed of taking decisions is prior to calculations accuracy. What happens, though, if there are more vehicles than needed? The number of orders increases and not every order can be reasonably matched to currently available vehicles. Such situations are many transport and forwarding companies' daily bread.

We may take a risk and say that transport planning is the least "measurable" field of the TSL business. As far as some standards of calculating inventory, market demand or production forecasting methods have been developed, in terms of transport many calculations can be made only in certain environment or in specific transport activity. It is yet the easiest to manage vehicles and drivers' working time in the "linear" transport, with fixed delivery points and fixed long-time delivery schedule. In the context of the above-described issues such a situation is nearly comfortable for this type of transport operators.

Lack of information on demand for transport services is an important issue from the transport planning's point of view. Drivers' working time planning could be considered to be of secondary importance under these circumstances. However, it turns out to be an essential aspect of both order and delivery schedule planning process. Furthermore, the awareness of being obliged to comply with the law (under threat of financial penalties) forces the planning process to be faster. It also concerns the alternative one with insufficiently foreseeable/known demand for transport services.

## REFERENCES

Ganiec M., 2007, "Czy polski transport jest bezpieczny? [Is Polish transport safe?]" *Spedycja, transport, logistyka* 09, pp. 77.

"Jak radzić sobie z nowymi wymogami czasu pracy kierowców [How to cope with new drivers' working time regulations]" *Spedycja, transport, logistyka* 05/2007, pp. 82.

Milewski D., 2007, "Problematyka optymalizacji przewozów całopojazdowych [The transport optimization issue]" *Logistyka* 3, pp. 37.

Walczak R., 2007 "Droga niepubliczna a czas pracy kierowców [Non-public road vs. driver's working time]" *Spedycja, transport, logistyka* 06, pp. 86.

Mitraszewska I., 2007, "Ogólnopolskie Centrum Rozliczania Kierowców [Polish Drivers Accounting Centre]" *Spedycja, transport, logistyka* 09, pp.72.

Trochymiak B., 2007, "Nie tylko przewoźnik odpowiada za czas pracy kierowcy [This is not only the carrier that is responsible for the driver's working time]" *Gazeta Prawna* no. 57, pp.31.

Trochymiak B., 2007, "System zarządzania transportem przyspieszy rozwój przedsiębiorstwa [Transport management system will make company develop faster]" *Gazeta Prawna* no. 212, pp. 24.

[www.gitd.gov.pl](http://www.gitd.gov.pl), 2005, Komunikat prasowy rzecznika prasowego Głównego Inspektoratu Transportu Drogowego [Main Road Transport Inspectorate's spokesman's press release] ..

## WPLYW PRZEPISÓW DOTYCZĄCYCH CZASU PRACY KIEROWCÓW NA OPERACYJNĄ DZIAŁALNOŚĆ PRZEWOŹNIKÓW

**STRESZCZENIE.** W artykule omówiono znaczenie aktów normatywnych dotyczących obowiązujących zasad przestrzegania czasu pracy przez kierowców oraz wykazano związek rozporządzeń w tym zakresie z codzienną, operacyjną działalnością firm transportowych. Zwrócono także uwagę na wpływ obowiązujących przepisów na wzrost kosztów przedsiębiorstw świadczących zarobkowo usługi związane z fizycznym przemieszczaniem ładunków.

**Słowa kluczowe:** ustawa o czasie pracy kierowców, koszty transportu, konkurencyjność, poziom rywalizacji w sektorze usług transportowych, telematyka.

## EINFLUSS DER GESETZGEBUNG ZUR ARBEITSZEIT DER KRAFTFAHRER AUF DIE OPERATIONELLE TÄTIGKEIT DER FRACHFÜHERER

**ZUSAMMENFASSUNG.** In dem Beitrag wurde die Bedeutung der Gesetzgebung zur Arbeitszeit der Kraftfahrer dargestellt und der Zusammenhang der Verordnungen mit dem Tagesgeschäft der Transportunternehmen aufgezeigt. Der Autor weist auf den Einfluss der geltenden Vorschriften auf die Erhöhung der Kosten für Transportunternehmen hin.

**Codewörter:** Gesetz zur Kraftfahrer-Arbeitszeit, Transportkosten, Wettbewerb im Transportgewerbe, Telematik.

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