

DETERMINATION OF THE TERM OF TRANSIT TRANSPORTATION OF GOODS TO THE
CUSTOMS OF DESTINATION BY MOTOR TRANSPORT³

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Formulation of the problem in general. A term of the transit transportation of goods to the customs of destination must be established by officials of the customs of dispatch and determined based on the distance to the customs of destination, vehicle type, route and other transport conditions, and must not exceed the maximum legislated deadlines. It should be noted that incorrectly established term of delivery to the customs of destination leads to reduced efficiency of transportation in general: on one side, overstated time for delivery will be the basis for unproductive driver's traffic "in his own case", and on the other - ignoring some objective factors for the specific transportation and reduced delivery time will induce the driver to violations of the European Agreement concerning the work of crews of vehicles engaged in international road transportation (AETR) [1], and as a result, to payment of appropriate penalties. Thus for today relevant issue is a development of methodology for determination of the term of delivery of goods to the customs of destination considering a number of objective factors that affect it.

Analysis of the recent research and publications. There are no scientific researches and publications that directly relate to the topic. But it should be noted that there are some legislative acts governing the establishment of the term of delivery of goods to the customs of destination. However should pay attention to the fact that the legislative acts, which operate now, in general describe procedure of determination of the term of delivery of goods to the custom of destination and only set its maximum allowable value for the different modes of transport.

The main material. According to Procedure of fulfillment of customs formalities during transit movements the term of transit transportation of goods, transport vehicles of the commercial setting to the customs of destination must be established [2].

The term of transit transportation is set in the automatic mode during putting on control electronic copy of the document of control over the movement of goods. This term depends on the mode of transport and must not exceed the maximum allowable value specified in Article 95 of the Customs Code of Ukraine [3].

In 2010 the State Customs Service of Ukraine issued Letter No 11/6-10.19/1268-EP "As to the terms of delivery of goods by motor transport". According to this document customs officials at the local level were recommended to establish the terms of delivery of goods to the customs of destination based on the distances between settlements [4].

Despite the recommendatory nature of this document some customs departments set terms of delivery based exceptionally on its provisions.

In addition, this letter did not take into account a number of conditions that significantly affect the term of delivery, viz:

- 1) the length of byroads;
- 2) seasonal and daily restrictions on the entry of freight transport to the cities;
- 3) condition of road surface;
- 4) AETR requirements.

In view of numerous complaints of business entities and application of Ukrainian Association of International Road Carriers (AsMAP UA) the State Customs Service of Ukraine took note of the provided arguments and withdrew aforementioned recommendation letter [5].

Thus from November 2010 customs officials determined the term of delivery guided by the provisions of Resolution of the Cabinet of Ministers of Ukraine No 1908 dated December 13, 2002 [6] and Decree of the State Customs Service of Ukraine No 771 dated December 8, 1998 [7], and from October 9, 2012 – by Order of the Ministry of Finance of Ukraine No 1066 "On approval of Procedure of fulfillment of customs formalities during transit transportation".

During the importation of goods in Ukraine (excluding prefabricated goods which are unloaded in several customs) customs officials establish the following maximum terms of delivery to the customs of destination (including one day for customs clearance at the place of arrival of Motor Vehicles):

- at the distance from 1 to 250 km - no more than 1 day;
- at the distance from 250 to 500 km - up to 2 days;
- at the distance from 500 to 1000 km - no more than 3 days;
- at the distance from 1,000 to 1,500 km - no more than 4 days;
- at the distance from 1,500 to 2,000 km - no more than 5 days.

However, these terms are usually not optimal. Therefore, topical problem is the determination of the term of delivery to the customs of destination. And also it is necessary to develop appropriate algorithm to determine such terms, taking into account a number of conditions specific to the shipment.

Determining the term of transit transportation of goods as output data will be considered:

- 1) distance to the customs of destination, L , km;
- 2) season and weather conditions, k_{ct} ;
- 3) date and time of crossing the border, Date, time;
- 4) time before the period of driver's daily rest, t , hours.

Algorithm of determination of the term of transit transportation of goods is shown in Fig.1.

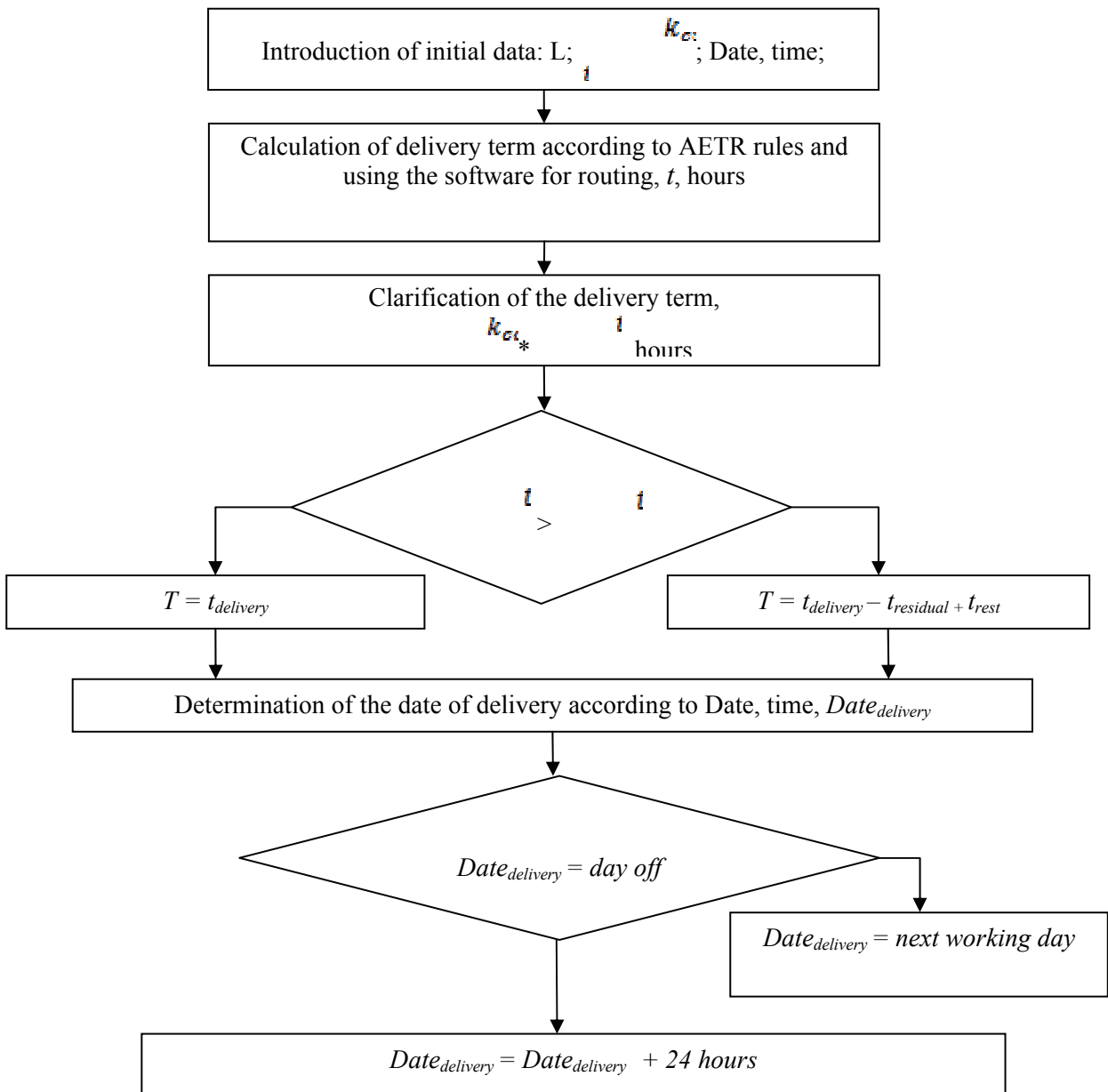


Figure 1. - Algorithm of determination of the term of transit transportation of goods

Using aforementioned algorithm, we will define the term of cargo delivery to the customs of destination, provided that the distance to the customs of destination will be 525 km.

According to existing norms of the State Customs Service of Ukraine the term of cargo delivery to the customs of destination will be no more than 3 days.

Calculate the term of cargo delivery according to the developed provided that transportation will be performed by 1 and 2 drivers. Present the results in tables 1 and 2, respectively.

TABLE 1. – Calculation of terms of arrival at customs of destination for 1 driver

Date of arrival at point of admission	Time of arrival	Residual time for traffic (accordance with the AETR rules)	Date of arrival at customs of destination	Date of delivery (+24 hours for customs clearance)	Term of delivery, days
01.04.12	12:00	22,4 hours	02.04.12	03.04.12	2 days
01.04.12	22:00	22,4 hours	03.04.12	04.04.12	3 days
Considering holidays and weekends					
13.04.12 (Friday)	15:00	22,4 hours	14.05.12	17.05.12 (2 next days are weekend)	4 days
14.04.12 (Saturday)	15:00	22,4 hours	15.05.12	17.05.12 (next day is day off)	3 days

TABLE 2. – Calculation of terms of arrival at customs of destination for 2 drivers

Date of arrival at point of admission	Time of arrival	Residual time for traffic (accordance with the AETR rules)	Date of arrival at customs of destination	Date of delivery (+24 hours for customs clearance)	Term of delivery, days
01.04.12	12:00	11,2 hours	02.04.12	03.04.12	2 days
01.04.12	22:00	11,2 hours	02.04.12	03.04.12	2 days
Considering holidays and weekends					
13.04.12 (Friday)	15:00	11,2 hours	14.05.12	17.05.12 (2 next days are weekend)	4 days
14.04.12 (Saturday)	15:00	11,2 hours	15.05.12	17.05.12 (next day is day off)	3 days

Moreover, the results indicate that an important factor is also the time of arrival at the point of admission and the number of drivers who perform the transportation.

Figure 2 shows how the time, needed for the transit transportation of goods, changes under the influence of several factors, viz: the number of drivers, day of week and time of day of arrival at point of admission.

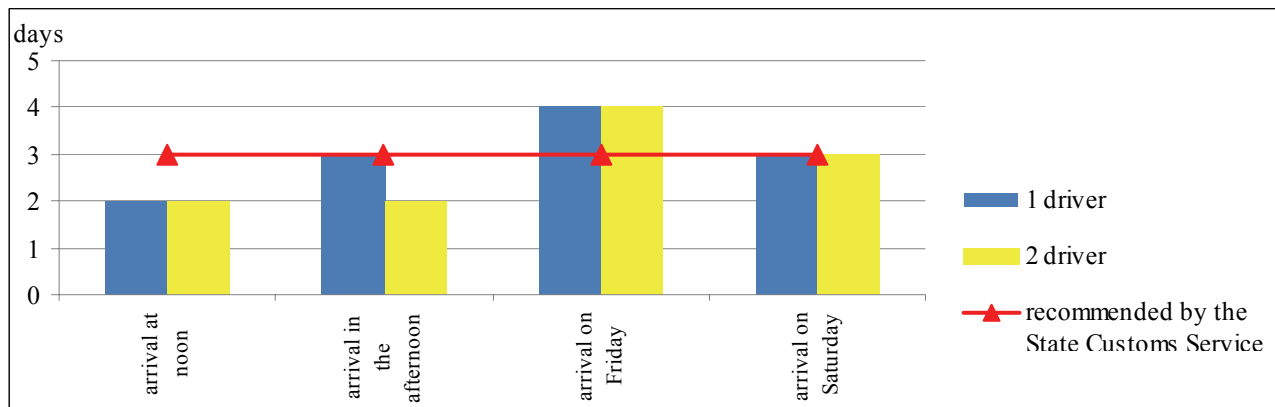


Figure 2. - Change of the term of transit transportation of goods to the customs of destination under the influence of several factors

Analyzing the obtained results of calculations, it should be noted that the term of delivery, which is defined by this methodology, is more correct, because it takes into account individual peculiarities of a particular shipment. Thus we can say that the developed technique is important and necessary, and It can be the basis for creating of the software for Customs.

LIST OF REFERENCES

1. European Agreement concerning the work of crews of vehicles engaged in international road transportation (AETR) dated July 1, 1970.
2. Order of the Ministry of Finance of Ukraine No 1066 On approval of Procedure of fulfillment of customs formalities during transit transportation dated October 9, 2012 (in Ukrainian).
3. Law of Ukraine No 4495-VI Customs Code of Ukraine; March 13, 2012 (in Ukrainian).
4. Letter of the State Customs Service of Ukraine No 11/6-10.19/1268-EP As to the terms of delivery of goods by motor transport; February 11, 2010 (in Ukrainian).
5. Letter of the State Customs Service of Ukraine No 11/7-10.19/14666-EP; November 24, 2010 (in Ukrainian).
6. Resolution of the Cabinet of Ministers of Ukraine No 1908 On establishment of deadlines of passing customs transit of goods dated December 13, 2002 (in Ukrainian).
7. Decree of the State Customs Service of Ukraine No 771 On approval of Application of procedure of control over the delivery of goods to the customs of destination dated December 8, 1998 (in Ukrainian).

ABSTRACT

Guzhevska L.A., Verovska L.T. Determination of the term of transit transportation of goods to the customs of destination by motor transport / Lyubov Guzhevska, Lylya Verovska // Bulletin of National Transport University. - K.: NTU . – 2012. – Vol. 26.

The paper proposes a methodology for the determination of term of transit transportation of goods to the customs of destination by motor transport.

Object of study - a term of transit transportation of goods to the customs of destination by motor transport.

Purpose - to develop a methodology for determination of term of transit transportation of goods to the customs of destination by motor transport.

Method study - analytical and systemic approaches, mathematical modeling.

A term of transit transportation of goods to the customs of destination must be established by customs officials. It is determined based on the distance to the customs of destination, vehicle type, route and other transport conditions, and must not exceed the maximum legislated deadlines. The term, determined incorrectly, leads to decline of shipping efficiency in general. To determine a term of transit transportation of goods, a method is developed. It can be the basis for creating of the software for Customs.

The results of the article can be used as the basis for creating of the software for Customs to determine the optimal term of transit transportation of goods to the customs of destination.

Forecast assumptions about the object of study - the development of software to determine the optimal term of transit transportation of goods to the customs of destination.

KEY WORDS: TRANSIT TRANSPORTATION, CUSTOMS OF DESTINATION, CUSTOMS OF DISPATCH, TERM OF DELIVERY, METHODOLOGY

РЕФЕРАТ

Гужевська Л.А., Веровська Л.Т. Визначення строку транзитного перевезення товарів до митниці призначення автомобільним транспортом. / Любов Анатоліївна Гужевська, Лілія Тімурівна Веровська // Вісник Національного транспортного університету. — К.: НТУ. – 2012. – Вип. 26.

У статті запропоновано методику для визначення терміну транзитного перевезення товарів до митниці призначення автомобільним транспортом.

Об'єкт дослідження – строк транзитного перевезення товарів до митниці призначення автомобільним транспортом.

Мета роботи – розробка методики для розрахунку строку транзитного перевезення товарів до митниці призначення автомобільним транспортом.

Метод дослідження – аналітичний і системний підходи, математичне моделювання.

Строк транзитного перевезення товарів до митниці призначення обов'язково встановлюється посадовими особами митниці відправлення та визначається виходячи з відстані до митниці призначення, виду транспортного засобу, маршруту та інших умов перевезення, і не повинен перевищувати законодавчо закріплені максимальні граничні строки. Некоректно встановлений строк доставки до митниці призначення призводить до зниження ефективності перевезення вантажу в цілому. Для визначення оптимального строку транзитного перевезення товарів до митниці призначення розроблено методику, яка може стати основою для створення програмного забезпечення митної служби.

Результати статті, а саме запропонована методика, може стати основою для створення програмного забезпечення митної служби для визначення оптимальних строків транзитного перевезення товарів до митниці призначення.

Прогнозовані припущення щодо розвитку об'єкта дослідження – розробка програмного забезпечення для визначення оптимальних строків транзитного перевезення товарів до митниці призначення.

КЛЮЧОВІ СЛОВА: ТРАНЗИТНЕ ПЕРЕВЕЗЕННЯ, МИТНИЦЯ ПРИЗНАЧЕННЯ, МИТНИЦЯ ВІДПРАВЛЕННЯ, СТРОК ДОСТАВКИ, МЕТОДИКА

РЕФЕРАТ

Гужевская Л.А., Веровская Л.Т. Определение срока транзита товаров в таможенно назначения автомобильным транспортом. / Любовь Анатольевна Гужевская, Лилия Тимуровна Веровская // Вестник Национального транспортного университета. - К.: НТУ. – 2012. – Вып. 26.

В статье предложена методика для определения срока транзита товаров в таможенно назначения автомобильным транспортом.

Объект исследования - срок транзита товаров в таможенно назначения автомобильным транспортом.

Цель работы - разработка методики для расчета срока транзита товаров в таможенно назначения автомобильным транспортом.

Метод исследования - аналитический и системный подходы, математическое моделирование.

Срок транзита товаров в таможенно назначения обязательно устанавливается должностными лицами таможенно отправления и определяется исходя из расстояния до таможенно назначения, вида транспортного средства, маршрута и других условий перевозки, и не должен превышать максимальные предельные сроки, которые закреплены законодательно. Некоректно установленный срок доставки в таможенно назначения приводит к снижению эффективности перевозки груза в целом. Для определения оптимального срока транзита товаров в таможенно назначения разработана методика, которая может стать основой для создания программного обеспечения таможенно службы.

Результаты статьи, а именно предложенная методика, могут стать основой для создания программного обеспечения таможенно службы для определения оптимальных сроков транзита товаров в таможенно назначения.

Прогнозируемые предположения относительно развития объекта исследования - разработка программного обеспечения для определения оптимальных сроков транзита товаров в таможенно назначения.

КЛЮЧЕВЫЕ СЛОВА: ТРАНЗИТ, ТАМОЖНЯ НАЗНАЧЕНИЯ, ТАМОЖНЯ ОТПРАВЛЕНИЯ, СРОК ДОСТАВКИ, МЕТОДИКА