

## ANALYSIS OF THE TECHNICAL CONDITION OF FREIGHT CARS AT INTERSTATE CHECKPOINTS

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### ANNOTATION

This article examines the process of processing freight cars at interstate railway crossings. The issue of accepting freight cars at interstate checkpoints and handing them over to the neighboring railway administration was considered. Measures to eliminate the identified faults are cracked.

**Keywords:** interstate checkpoints, car, cargo, train, consignee, consignor.

### INTRODUCTION

Interstate Crossing Point (ICC) is one of the two border crossing points where both trains and cars pass (receive and hand over) under a bilateral agreement between the railways of neighboring countries. The interstate crossing point is the only one for two neighboring railways, regardless of its territorial location. The ICC list is defined in the "Rules for the operation, numerical accounting and settlements for the use of cars owned by other countries." According to the agreement between the railway administrations, the work of transferring (handing over) cars is carried out by the brigades of the parties handing over and receiving at the car transfer station, which is unique for both railways, or at each neighboring railway. Cars specially allocated for 1 can be arranged separately at the transmission station.

### MATERIAL AND METHODS

The problem of non-acceptance of freight cars at interstate checkpoints is exacerbated by the "1520 mm width", but the problem is gradually being resolved. The main reason for the breakdown of cars has been the human factor for many years [1].

There are accepted requirements for the fleet of cars, storage of goods, as well as the formation of trains. Most of the car interruptions are due to the fact that these requirements were incorrectly met - somewhere the staff of the commodity office was not ignored, somewhere they did not provide timely information about the cargo. However, it should be noted that the situation is flattening, and the workers responsible for handing over the machines are taking their duties more seriously.

The organization of the operation of the railway network was carried out in the context of significant changes aimed at reforming the transport sector and increasing the share of private cars in the freight car fleet, which affected the ability to operate and control. The volume and

quality of work of the railway network has been improved in accordance with agreed standards and adopted plans.

By the end of 2020, the freight rate among the members of the Railway Council was 104%[1]. In particular, the following railways of the country showed high performance: the Republic of Azerbaijan (+ 8.3%), Armenia (+ 18.3%), Belarus (+ 3.2%), Kazakhstan (+ 1%), the Kyrgyz Republic (+ 12.9%), Moldova (+ 4.5%), the Russian Federation (+ 0.5%), Turkmenistan (+ 6%), Georgia (+ 12.1%), Latvia The Republic of Lithuania (+ 7.9%) and the Republic of Lithuania (+ 9.2%), as well as those with the lowest scores: Tajikistan (-14.6%), Uzbekistan (-1%), Ukraine (- 1.7%) and the Republic of Estonia (-9.7%).

## RESULTS

The number of freight car interruptions at the interstate checkpoints of the railway administrations of the CIS countries and Georgia, the Republic of Latvia, the Republic of Latvia, the Republic of Estonia in 2020 amounted to 86071 cars, including:

- for commercial reasons - 28834 cars (+ 4%);
- for customs reasons - 12701 cars (+ 13%);
- for technical reasons - 36,275 cars (+ 4%).

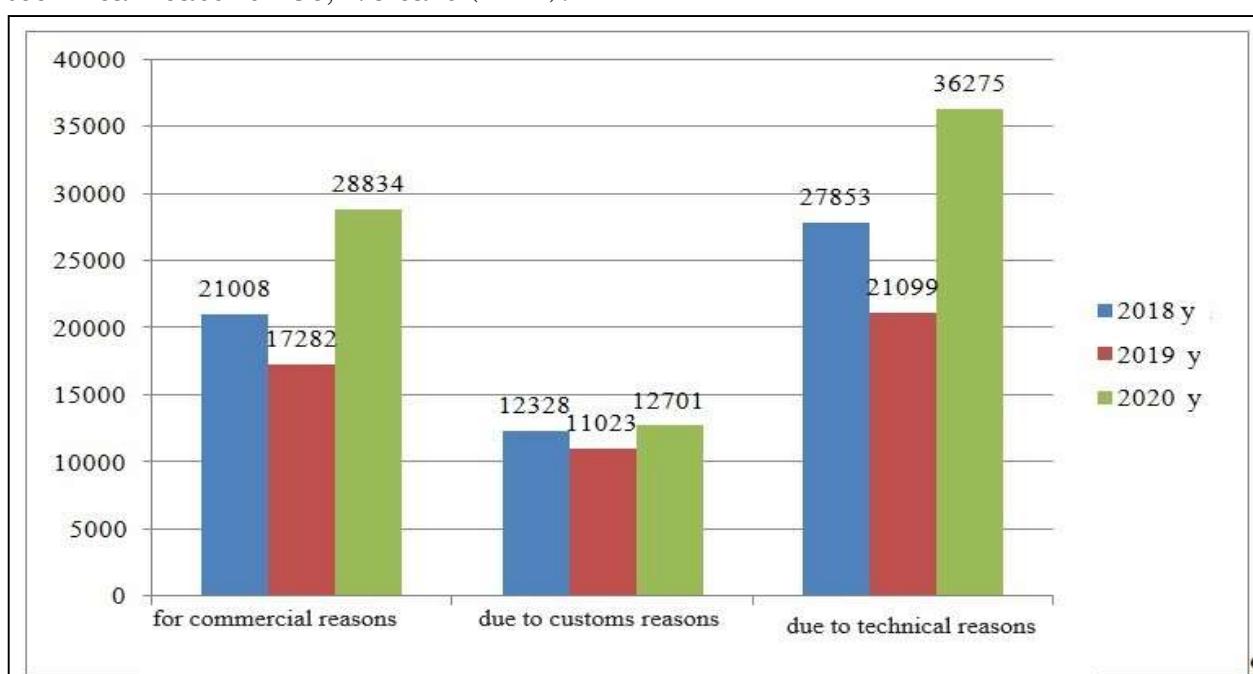


Figure 1. Dynamics of the number of freight car breaks at interstate checkpoints (in cars) The graph shows that in recent years the number of problems with the processing of cars at interstate checkpoints has increased. For this reason, it is necessary to reconsider the technology of commercial and technical inspection of cars.

Another uncertainty that needs to be considered in determining car deliveries is the breakdown of cars at interstate points for technical, commercial, and commercial reasons (Figures 2, 3, and 4) and methods of identifying them. No information is available on how these standards are defined.

Railway administrations are increasing the number of car deliveries at ICC, including:

- for commercial reasons: in the railway administration of Uzbekistan (+ 45%), Kazakhstan (+ 31%), Belarus (+ 11%), the Russian Federation (+ 7%), the Republic of Estonia 2 increased from 24 cars per car (as of 2020);
- for customs reasons: in Kazakhstan (98%), Belarus (+ 74%), Ukraine (+ 18%), Lithuania (+ 4%), in the railway administration of Georgia from 3 cars to 30 cars increased (as of 2020);
- For technical reasons: Rossiyskoy Federatsii (+ 25%), Tajikistan (+ 6%), Turkmenistan (+ 7%), Lithuania (+ 7%).

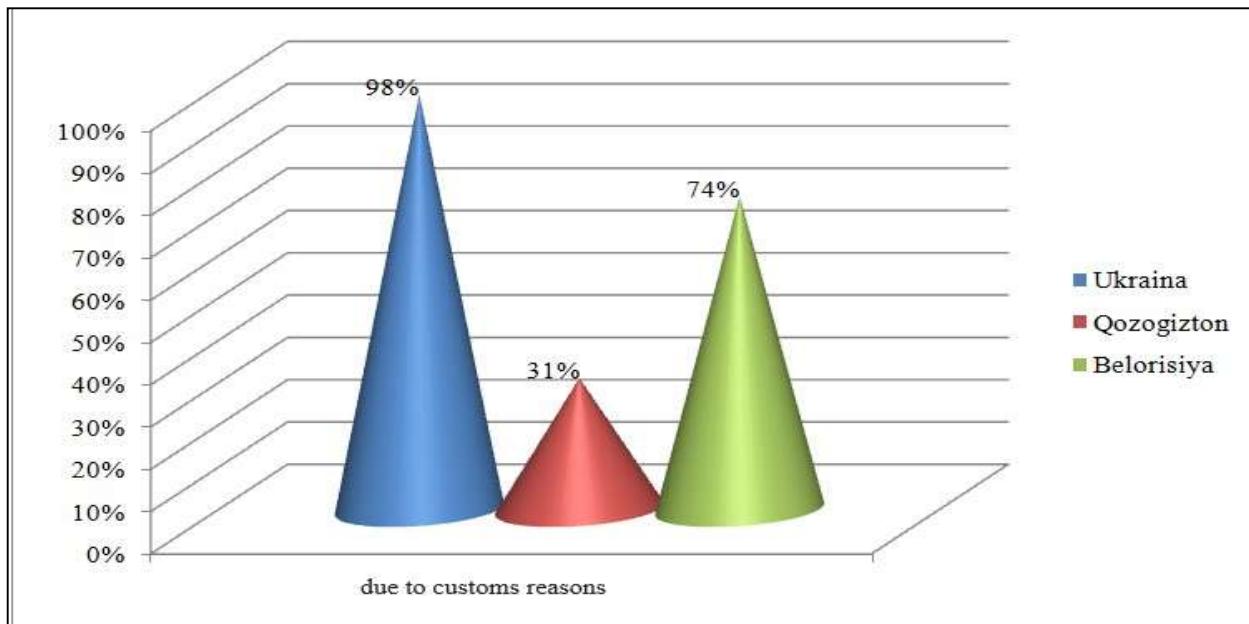


Figure 2. Dynamics of increase in the number of interruptions in the delivery of cars by railway administrations ICC (for commercial reasons)

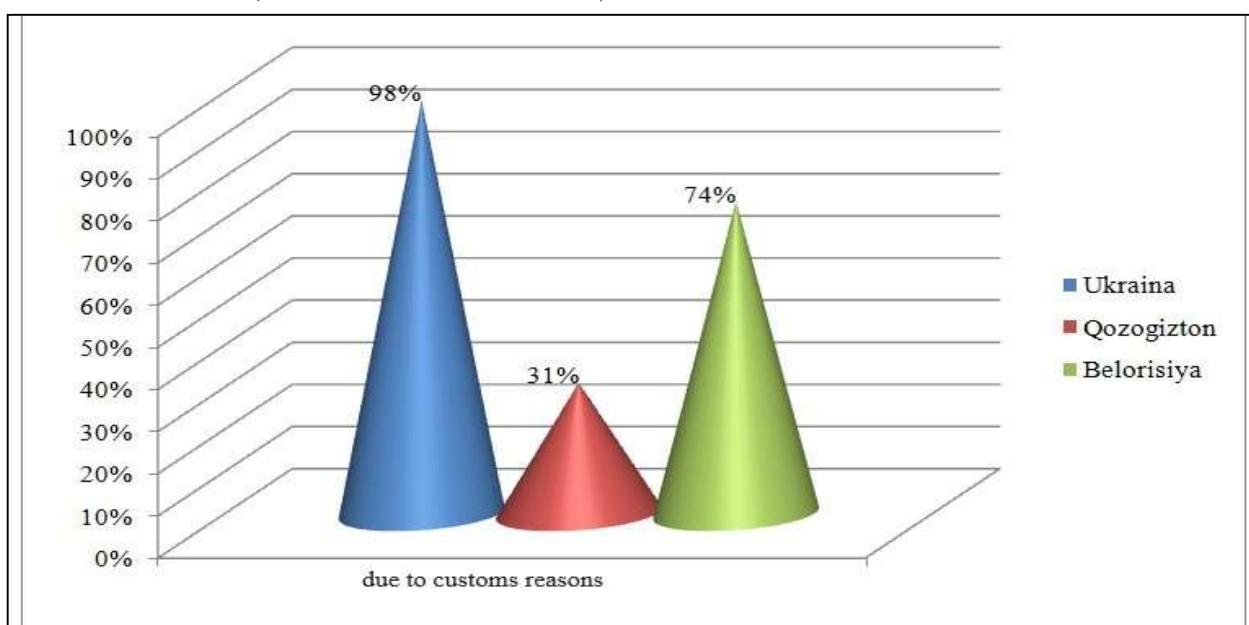


Figure 3. Dynamics of increase in the number of interruptions in the delivery of cars by railway administrations ICC (due to customs reasons)

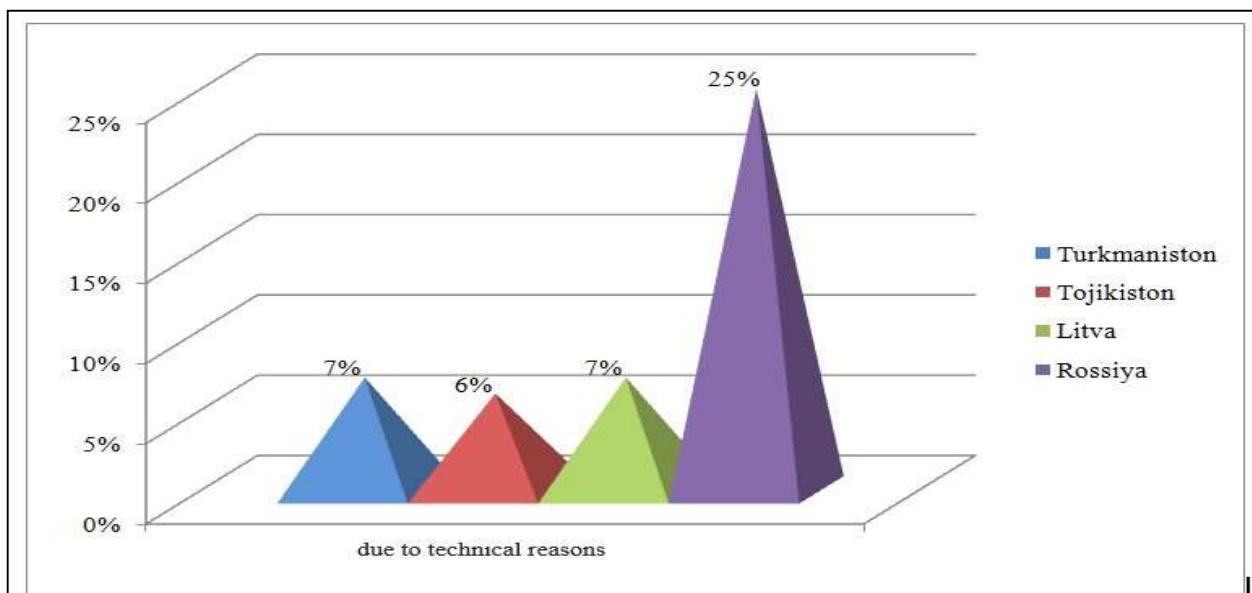


Figure 4. Dynamics of increasing the number of interruptions in the delivery of cars by railway administrations DOP (due to technical reasons).

## DISCUSSION

At present, cars at interstate checkpoints are processed in the following order:

Cars that are fully compliant with technical, technological and other similar requirements by the delivering railway, which have been initially inspected and recognized as technically fit for use on international flights, must be submitted for delivery.

If it is necessary to transfer wagons from one railway administration in the prescribed form, it is carried out by subscription of the designated persons of the sending and receiving parties (recipients of the wagons) to the account of the transfer of the train in the prescribed form and wagons and trains, cars, calendar stamps in at least four copies containing card information and a certificate on form 204. The number of copies of Form 204 must correspond to the number of copies of the transfer train account. Transmission trains and Form 204 must be numbered continuously from the beginning of the calendar year.

According to the documents of the transfer train account, the cars going to the planned types of repairs on the train, as well as cars of the form VU-25, as well as cars of the form INU-53 on the non-acceptance of cars, and cars going to countries not parties to the Agreement must have information indicating the car number. Form 204 contains information on the presence of repaired cars on the train according to the "distance traveled", indicating the value of the distance traveled at the time of transfer, must be.

The time of handing over the cars is the time of submission of the transfer train account and Form 204 certificate to the agents of the receiving party [3].

Prior to the inspection of train cars, the PTO operator of the receiving party (if this position is not available - station attendant) received information from the AHM (IVS) on each car with information about the types of repairs performed by the car. Form 2731 with information about the complete set of freight cars in the train, wheelsets, side frames, spring beams, connecting beams (8-axle cars) asks.

## CONCLUSION

From the point of view of compliance of the technical condition of cars with the technical requirements to the fleet of freight cars on interstate routes, normative and technical documents determining the procedure for joint use of freight cars adopted by the Railway Transport Council examines. During the inspection, the stencil data on the repair times and the repair system data used are compared with the Form 204 reference data. In addition to the technical inspection operations, the Car Inspector of the receiving Party shall refer to the reference data 2731 with the actual data on the interaction of stamps and markings on the wheel pairs, side frames, spring top and connecting beams. compares in terms of compatibility and checks the thickness of the wheel pairs. In addition, the repair stencils (traversed road) are checked for the possibility of participating in the interstate flight (the period of repair must not have expired). The inspection data is transmitted to the PTO operator (if there is no such position, to the station attendant), who in turn transmits this information to the station staff [5].

Upon receipt of the cars, the transfer shall be signed by the agents of the sending and receiving parties upon completion of the inspection of the presented cars and the certificate No. 204, certified by the calendar stamps of both parties.

Cars shall be deemed to have been technically accepted after the transfer train account and certificate No. 204 have been signed and stamped by the representatives of the receiving party. The receiving Party shall notify the transferring Party of any cars not accepted within the time limits specified in the Border Railway Agreement.

In the event of a dispute, the receiving party shall give priority. Disputes are resolved by car workers by arriving at a nearby transfer station if necessary.

## ACKNOWLEDGEMENT

Deletion of unaccepted cars from the transfer roof, indicating the reason for non-acceptance, transfer from the train train account and transfer of the new transfer train account form INU-53, two copies for each party, at least four copies must be returned to the station within one day.

It is not allowed to detach the cars from the train for any reason for their return after the documents have been received and handed over. Any identified reasons that impede the further movement of the car must be remedied by the forces and means of the railway administration, which have documented and formalized the acceptance of the car.

In the absence of claims for reciprocal settlements, the transfer account shall be kept for the period specified in the internal regulations of the railway administration, but for at least two years.

Transmission train account information is received from the checkpoint through the national information system of the railway administration to the Information Computing Center of the railway administration (TM Computing) in the form of notification 531 confirming the fact of receipt from TM Computing.

In the absence of an automated workstation (ARM SPV) of the station car transfer agent at the transfer (transfer) points, the primary document of numerical registration is the in-kind form

of the DU-1 train. It must be signed and stamped by the agents (receivers) of the sending and receiving parties on the reverse side.

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