Piggyback traffic and their varieties

P.V. KURENKO, Doctor of Economics, Professor, PUT MIIT
A.V. ASTAFIEV, postgraduate
M.V. KIZIMIROV, SamGUPS
Z.A. ASPAYEVA, Chairperson of OSJD Commission on Freight Traffic
**Piggyback traffic** is a mixed railway-highway carriage of trailers and semitrailers and swap bodies or demountable bodies on a railway flat wagon. In Europe, this technology is called “rolling road” i.e. transportation of a lorry/truck with goods by train. In other words, part of the way is covered by lorries/trucks running caravan-like on the railway, and then another part of the way is covered by them under their own power.
**Piggyback track** is a train of an established length, being composed of specialized flat wagons designed to carry loaded and empty road-trains, lorries/trucks, truck trailers, semitrailers and swap or demountable automotive bodies (both loaded and empty), loaded by one consignor at the departure station to the address of one consignee for the one or a few stations of destination without handling in marshal yards when en-route.
Piggyback train is divided into:

accompanied – goods in a motor vehicle or a motor vehicle are accompanied by representatives from the owner of goods or the owner of the motor vehicle;

unaccompanied – goods in a motor vehicle or a motor vehicle are not accompanied by representatives from the owner of goods or the owner of the motor vehicle.
Integration into the European economic area forces the Russian carriers of motor vehicles and railway operators to combine efforts. The share of logistics costs in GDP of the Russian Federation exceeds 20%, at the same time this index number does not exceed 11% across the world. Introduction of the piggyback traffic system as an increase in the efficiency of logistics scheme is a global tendency.
The European countries intend to shift 30% of all existing road traffic flows to railway transport by the year 2030 and 50% by the year 2050.
The main advantage of piggyback traffic includes reduction of hazardous emission. In addition to it, road traffic load is reduced and the quality of transportation and services improves.
First of all, it is the railway operators who are interested in development of piggyback traffic. By the estimate of experts, transportation of goods for long distances by rail is more effective. The fact that high-capacity motor vehicles are used for this purpose in Russia is not quite positive. Sooner or later, it will result in highway congestion. And on top of that, there will appear costs of environmental impact.
Loading technology of a flat wagon of 13-9938 type

1. Погрузчик с опорой на вилах подходит к полуприцепу
2. Погрузка завершена, погрузчик отправляется для погрузки следующего полуприцепа
3. Погрузчик устанавливает полуприцеп с опорой на платформу
4. Погрузчик подводит опору под полуприцеп и соединяет полуприцеп и опору
Loading technology of flat wagons of different types
THANK YOU FOR YOUR ATTENTION!

Contact:
miitums@mail.ru
post-iuit@bk.ru
petrkurenkov@mail.ru