

UPGRADING THE ROLLING STOCK

FPC is constantly working to improve passenger carriage design with a particular focus on the comfort and functionality of a passenger seat. In 2018, an upgraded third-class open sleeping carriage concept was developed together with Vaгонremmash. The main feature of the concept is the ability to provide each traveller with a comfortable level of privacy using partitions and personal screens.

The upgraded carriage has more comfortable seats with headrests, individual lights, power sockets, and USB ports. Upholstery is made of materials that meet fire safety regulations, resistant to abrasion and other fabrics dyeing. The passengers of the upper berths now have an extra table.

The next-generation third-class open sleeping carriage provides for a modular replacement of damaged interior elements, which will help in reducing repair time and costs. The Vaгонremmash concept is under consideration as one of the internal layout options for both building new carriages and overhauls with service life extension (KVR) of existing rolling stock.

Another version of the third-class open sleeping carriage is planned to be produced at TVZ. The interior, designed by TVZ, differs markedly from the one offered by Vaгонremmash, but both represent a step forward in the development of third-class open sleeping carriages.

In accordance with the approved technical specifications, TVZ is developing the model range for the Carriage-2019 project.

A specific feature of Carriage-2019 is the adoption of semi-automated passenger service technologies with a single service compartment for two carriages and without redundant vestibules, which allows to create additional areas providing passenger comfort during travels (shower, multifunctional service area with vending machines, purifier for distribution of drinking water, and other equipment).

In addition to a single-vestibule body and two-coupled carriages, the design features of the new model range carriages also include:

- pressure-proof gangways
- full LED lighting
- power sockets (220 V) and USB ports at each berth; sensor taps
- hand driers and baby changing tables in toilets
- convertible tables and individual safes for each passenger in compartment carriages
- automated sliding interior doors
- refreshed interior design.

Key features of Carriage-2019

The delivery of new models is planned as part of a long-term contract starting from 2019. Requirements for the carriage design consider the most advanced functions popular with passengers.

Carriage-2019

Passenger

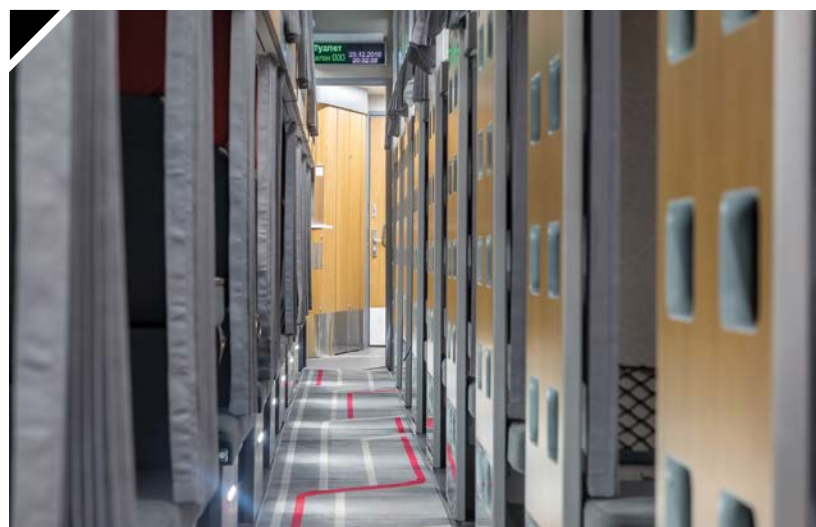


- Modern ergonomic design
- Individual temperature control
- Pressure-proof gangways
- Hand driers
- Sensor taps
- Baby changing table
- USB ports
- Safes
- Shower

Technical



- Two-coupled carriages



From 2020, the Company plans to introduce the following features to the Carriage-2019 model range:

- bolsterless bogies with air suspension of the carriage body
- individual temperature control at each compartment
- central power supply with a two-wire high-voltage line.

The next development area is the double-decker Carriage-2020.

Key features of Carriage-2020

The following features are planned for Carriage-2020:

- two-coupled carriages
- increased double-decker height improving the passenger comfort on the upper berth of the second deck by increasing the distance between the berth and the ceiling
- updated interior and modern design
- bogies with air suspension system (improved smoothness and passenger comfort)
- a next-generation system for detecting potential failures (mechanical parameters monitoring, real-time data transmission to the situation centre, intervals for the first maintenance increased to 10,000 km)
- semi-automated passenger service technologies with a single service compartment for two carriages (improving labour productivity of the train crew).

Features to provide additional comfort for passengers in the carriage:

- a modern design, developed using foreign experience, high-quality finishing materials
- an improved soundproofing and vibration insulation
- Wi-Fi
- intercoms for communication with train attendant
- a full-fledged self-service area with vending machines and a purifier
- convertible tables and personal safes in compartments
- automated sliding interior doors
- individual temperature control at each compartment
- a shower in each carriage.

Planned production time of the prototype – 2020.

Carriage-2020 >

Passenger



- Service area with vending machines
- Increased free space at the upper berth of the second deck compartments

Technical



- Modular carriage design (fast replacement of damaged interior parts during scheduled repairs)



Company Profile

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