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Journal for partners of
Transmashholding CJSC

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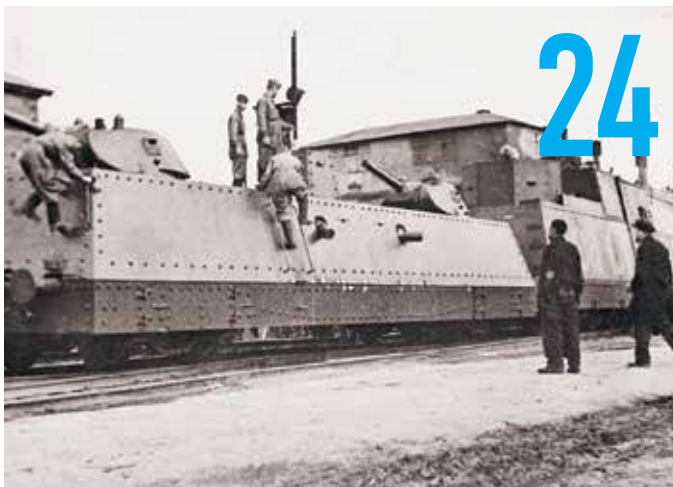
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Outlooks

Registered in St. Petersburg

Transmashholding has opened its representative office in St. Petersburg.

Opening of the representative office in the Northern Capital was announced at St. Petersburg International Economic Forum held this June. At the forum, Governor of St. Petersburg Georgy Poltavchenko and President of Transmashholding CJSC Andrey Bokarev signed an agreement on co-operation in improvement of the transport infrastructure of the Northern Capital. Viktor Ivanov, former Deputy Director General of Transmashholding for Service Maintenance was appointed the director of the representative office.

This was the first time that the holding set up a representative office in a region of Russia instead of a foreign country.

Its activities offer additional opportunities for promotion of the products made by holding's enterprises in the North-Western region of the Russian Federation and assurance of closer co-operation and methodical efforts targeted at promising customers and consumers and protection of holding's interests.

Transmashholding's representative offices operate in Belarus, Lithuania, Kazakhstan, Uzbekistan and Ukraine.

St. Petersburg hosts two enterprises of TMH – Oktyabrsky Electric Car Repair Plant that specializes in manufacture and repair of metro cars, overhaul and upgrade of electric trains, diesel trains and trams. KMT production company manufactures various transport components. The representative office will have its executive office at OEVRZ.



Co-operation



Overhaul agreement

Metrovagonmash and Budapest metropolitan entered into an agreement for overhaul of 222 cars.

Director General of Metrovagonmash JSC Andrey Andreev and President and Director General of Budapest Transport Closed Joint Stock Company (BKV) Tibor Bolla signed an agreement, pursuant to which the Russian enterprise undertook to conduct overhaul and upgrade of 222 metro cars owned by Budapest metropolitan.

185 cars of 81-717/714 type, 10 cars of 81-717/714-2M type and 27 metro cars of Ev3 type that were commissioned starting from 1970s will undergo deep upgrade. The project is expected to be implemented over 34 months with the first cars delivered to the customer already in 265 days. Work will be done at the production base of Metrovagonmash JSC.

Upgrading activities comprise complete renovation of the passenger compartment, cab and control panel and change of the interior. Cab masks, bogies will be replaced; body, control, video surveillance and security systems will be upgraded. Trains will be fitted with an air conditioning system in cabs and forced-air system in passenger compartments. Compressor system, braking equipment, traction drive system will be upgraded. Doors are planned to be fitted with electric drives. Based on diagnosis results, other required operations are also planned.

Production

Yet more spacious

Bryansk Machine Building Plant (BMZ) obtained a certificate of conformity for a hopper car with a bigger body, make 19-3058, used for transportation of grain and other bulky food cargoes that require protection against precipitation.

The car has a bigger body able to transport up to 118 m³ of cargo (112 m³ for the standard model).

Its capacity is similar to that of a basic model (70.5 t). Body of the new car is designed without a backframe, which enabled a change in design of bunkers, increase in the body space and improvement of car unloading conditions.

The car is fitted with a new vane unloading mechanism that helps not only protect the cargo against theft, but also enables load regulation. It enables suspension or termination of unloading. The new car has a smaller

height – 4 m 80 cm, which enables car loading at all available terminals.

For the first time, the new car was presented to the professional community at the V International Salon “Expo-

1520” in September 2015.

Customers both from Russia and CIS countries are already expressing their interest in the new car. This year, at least 100 new hoppers of 19-3058 model are scheduled for delivery.



Upgrading

Trains for the St. Petersburg underground

OEVZ signed a contract for the delivery of metro cars to the St. Petersburg Metropolitan.



Anton Kudelin / Shutterstock.com

Oktyabrsky Electric Car Repair Plant JSC (OEVZ) and St. Petersburg Metropolitan SUE signed a contract for the delivery of 160 metro cars. Until 2020, St. Petersburg metropolitan will receive 28 metro train sets with asynchronous traction drives.

“Transmashholding gives a high priority to the development of co-operation with the authorities of St. Petersburg”, – said Director General of Transmashholding Kirill Lipa. – “I am confident that with the experience of

metro car design and state-of-the-art technologies, we will be able to provide the metropolitan of the Northern Capital with a comfortable and modern rolling stock”.

In June 2015, Governor of St. Petersburg Georgy Poltavchenko and President of Transmashholding CJSC Andrey Bokarev signed an agreement on co-operation in improvement of the transport infrastructure of the Northern Capital at the St. Petersburg International Economic Forum.

Exhibition



New meeting in Moscow



IN EARLY SEPTEMBER, THE V INTERNATIONAL RAIL SALON ON ENGINEERING AND TECHNOLOGIES "EXPO-1520" WAS HELD IN SCHERBINKA. TRANSMASHHOLDING WAS A HIGHLIGHT OF THE EXPOSITION; THE COMPANY SHOWCASED 12 MODERN MACHINERY SPECIMENS DESIGNED AT THE COMPANY'S PLANTS.



region

As it has happened all the recent years, Transmashholding took part in the exhibition with its strategic partner – French Alstom Transport. The hit of the salon was EG2T urban electric train that was for the first time presented to the public at large. Professional railway workers from CIS countries showed much interest in 2TE25KM diesel freight locomotive completed at BMZ this year. This powerful and unpretentious machine is able to replace numerous diesel locomotives that operate in the commonwealth member states since the Soviet times and have already outlived their usefulness.



Two-floor stand of Transmashholding and Alstom was awarded a special distinction diploma from organizers

Exhibition visitors could also see new mail cars, hopper, guard's van and a platform for transportation of tanks and high-capacity containers.

Unique TEM19 diesel locomotive fired by liquefied gas and world's most powerful electric locomotive 2ES4K were again showcased at the salon.

Exhibition



Новое семейство Российских дизелей
Одни из стратегических направлений Трансмашхолдинга – разработка и производство дизельных двигателей.
Предприятие выпускает дизельные двигатели – турбодизели.
За последние 10 лет компания разработала дизели.
Среди них важная роль по созданию стратегически новых дизельных двигателей принадлежит группе «Ижора» холдинга «Трансмашхолдинг» – созданию и освоению производства и эксплуатации «Ижорских» дизельных двигателей в интересах Федеральной службы по техническому и экспортному контролю и других государственных органов.
Дизельные двигатели Трансмашхолдинга – это двигатели, которые работают в условиях жестких требований к надежности, ресурсу и экологичности.

New diesels from Kolomna – tomorrow of railways, fleet and power industry



- Магистральный грузовой тягач
 - Увеличение веса грузовых составов
 - Снижение эксплуатационных расходов
- КОНСТРУКЦИОННАЯ СКОРОСТЬ - 100 км/ч



SKOLKOVO IS TO SET UP A NEW R&D CENTER



EP20 PASSENGER ELECTRIC LOCOMOTIVE TOOK PART IN THE DYNAMIC EXPOSITION

The latest diesel engine was brought to the exhibition from Kolomna; it is a parent product of a new family of D500 Russian medium speed diesels. These engines with regard to further

upgrades are expected to become the basis of the Russian diesel building industry for the decades immediately ahead.

Transmashholding's employees took part in the theoretical and practical

workshops held as part of the VIII International conference "Railway machine building. Outlooks, technologies, priorities" held in Scherbinka. Company's Director General Kirill Lipa spoke at the plenary meeting.



2TE25KM – the first Russian diesel freight locomotive to be put into mass production

Exhibition



Transmash plant from the Saratov Region brought to the exhibition a new platform that may be used for transportation of both tanks and containers



Director General of Transmashholding Kirill Lipa and President of Alstom Transport Henri Poupart-Lafarge presented the novelties to new CEO of Russian Railways Oleg Belozherov and Senior Vice President of the railway company Valentin Gapanovich



Visitors of the Scherbinka exhibition are already familiar with the freight train escort railcar designed at TVZ




Together with the diesel locomotive, Bryansk machine builders brought their new bulk grain carrier to Scherbinka



New mail cars guarantee not only cargo integrity, but also much more comfortable conditions of forwarders' work

At the railway salon, the stand of Transmashholding and Alstom was used as a platform to sign an agreement for setting up of a new R&D center within Skolkovo innovations center with participation of Research and Design Institute for Railway Transport Information Support, Automation and Communication. It will specialize in onboard integrated

control and railway traffic safety systems. The jubilee railway salon showed that the Russian transport machine building industry with Transmashholding as its standard-bearer has a strong research and production potential that helps perform the most complex tasks related to upgrading and increase in economic efficiency of railway transport operation in Russia. 



EG2T electric train is spacious and full of light

THE JUBILEE RAILWAY SALON
SHOWED THAT THE RUSSIAN
TRANSPORT MACHINE BUILDING
INDUSTRY WITH TRANSMASHHOLD-
ING AS ITS STANDARD-BEARER
HAS A STRONG RESEARCH AND
PRODUCTION POTENTIAL



EG2TV is to become
the basis for the
design of a large
series of various
trains

Production

NEW REALITY OF BMZ



BRYANSK MACHINE BUILDING PLANT (BMZ) IS CURRENTLY LAUNCHING LARGE-SCALE MANUFACTURE OF MAIN-LINE DIESEL LOCOMOTIVES. THE PROJECT PROVIDES FOR THE MANUFACTURE OF 300 SECTIONS OF MAIN-LINE DIESEL LOCOMOTIVES A YEAR STARTING FROM 2016. THIS IS A HUGE STEP FORWARD FOR THE ENTERPRISE CONSIDERING THAT IT PRODUCED ONLY 12 SECTIONS IN 2012.

To attain the targets set, the plant conducted large-scale operations to set up required capacities. Over the last four years, some 6 bln roubles have been invested in upgrade of the enterprise. First of all, production was restructured. It helped aggregate major shops and build up their processes in accordance with the Transmashholding's production system (including all

lean manufacturing tools – from work site arrangement with regard to 5S system requirements and logistic optimization to the establishment of standard lines). As a result, the production chain of main-line diesel locomotives comprises cold pressing, bogie, body and frame shops and shops of shunting and main-line diesel locomotives.



Production



Diesel locomotive assembly, testing and fit-out line

INTRODUCING MACHINES OF THE XXI CENTURY

An important, effective and paying off step was acquisition of high-precision processing equipment that enables manufacture of parts for any diesel locomotive modifications when a steering program is revised. Shops obtained software-controlled machines (portal processing centers with a gantry portal for bogie frame processing, HF1000 NC-controlled gear-milling machine for cutting teeth of gear wheels and gears, Navigator laser pattern cutting complex and Meser plasma cutting machine). Advanced equipment enhances its use capabilities, helps reduce part processing time, attain higher precision of operations and, eventually, better quality of the parts used for assembly. For example, use of Navigator laser pattern cutting complex and Meser thermal cutting machines considerably curtailed the volume of part machining, including faces on the flat steel parts used for welding.

AN IMPORTANT FACTOR IN PREPARATION FOR LARGE-SCALE PRODUCTION IS USE OF MODULAR STRUCTURES AT BMZ

The company purchased and commissioned new NC-controlled roll bending equipment by ENT and Bistronik with a force of 230 to 400 tons. This resulted not only in higher bending precision, but also decrease in a number of fitting operations during assembly.

An important component of the process was the use of new stands and accessories intended to reduce the assembly time of major assemblies.

For example, a stand for main frame assembly with air stop bars and clamps was introduced. This will help reduce the assembly time at least by 30%. The company acquired, installed and commissioned two lift-and-turn tilters. Diesel locomotives are assembled using scaffolding and jacking rig. Washing and painting chambers are used to paint body assemblies.

New equipment, mechanization and process streamlining helped build up assembly flows and eliminate a host of overheads. One of examples of assembly time reduction is machining of the diesel locomotive's main frame. Once the adjusting device was fine tuned and main frame machining over one run was introduced, machining time decreased from 32 to 16 hours.



Refrigerator being designed. It will take its place on the diesel locomotive's frame



ANDREY TUKACHEV,
main-line diesel locomotive
shop manager:



— It used to take us half the shift to fill a diesel locomotive with oil. The same concerned fuelling – it took us 10 minutes to fill a ton. The new stand fitted with air clamps that eliminate a need for marking off helps us decrease labor intensity of main frame laying operations. New equipment, stands, reallocation of operators, installation of the lift-and-turn tilters that simplify welders' work help up be more effective in building up processes and attain better results. This is why we produce a section each day, whereas only a year and a half ago we produced three sections a month.



Check measurements of binding bands are taken by highly qualified specialists – inspector foremen

Production



The driver's cab as one of the main assemblies of a locomotive is among the first ones to be installed onto the frame



Bogie manufacture is coming to an end. Workers are getting ready to lower the frame onto wheel and engine units

CHANGING THE TECHNOLOGY

An important factor in preparation for large-scale production is use of modular structures at BMZ. For example, a possibility to install the driver's cab and refrigerator onto the main frame in the assembled condition is being considered.

Besides, this year, position assembly method has been used at the frame shop. For the first time, it was tried at the shunting diesel locomotive shop with positions closed from main frame assembly to the final stage of diesel locomotive assembly. They used to be separate, i.e. the frame and diesel locomotive were assembled at separate lines. Now, they are made through. This practice was borrowed for the flow of main frames that was combined with the body assembly flow in the main-line diesel locomotive shop.

One of major achievements in building up production of main-line diesel locomotives was arrangement of the diesel locomotive assembly, testing and fit-out line. An entire aisle 12,500 m² in area was reconstructed to accommodate this line. This is where the diesel locomotive assembly flow from the first to the tenth position is arranged.

The tenth position now has a shorter bogie replacement time that used to be performed by two shops.

Now, everything is consolidated in one shop – main-line diesel locomotive shop. There is a special plant to fill a diesel locomotive with water, fuel and oil. This helped avoid time losses.

RAMPING UP PRODUCTION

Today, Bryansk Machine Building Plant is ready to manufacture a target number of sections of main-line diesel locomotives. Over a short period, the team attained the output rate of a diesel locomotive section a day. This ensures fulfillment of the business plan for 2015 and increase in locomotive output the next year.

However, activities for expanding capacities continue. The enterprise is soon to acquire one more base-type milling machine to process bogie frames. It will purchase two laser metal pattern

cutting complexes and a sheet steel straightening unit. Laser profile iron cutting complex is intended to be used for pipe cutting and cutting holes for hole fittings.

A project of a painting complex is currently being implemented. Preparation for installation of costly equipment is under way. A painting and drying complex

comprises three painting and drying chambers, paint preparation department, transfer gantry and three sets of scaffolding. Foundations for chambers, transfer gantry and scaffolding have already been made ready. The complex will meet demands for the output of main-line and shunting diesel locomotives and will help improve the machine coating quality. ☺

BRYANSK MACHINE BUILDING PLANT IS READY TO MANUFACTURE A TARGET NUMBER OF SECTIONS OF MAIN-LINE DIESEL LOCOMOTIVES. OVER A SHORT PERIOD, THE TEAM ATTAINED THE OUTPUT RATE OF A DIESEL LOCOMOTIVE SECTION A DAY



Replacement of handling bogies with standard ones

Products

DOUBLE-DECK PASSENGER TRAINS TRAVELLING TO THE DISTANCES OF 200-600 KILOMETERS HAVE LONG AGO BECOME COMMON IN EUROPE. NOW, THESE CARS – ATTRACTIVE, SPACIOUS AND SAFE – CAN BE SEEN AT RUSSIAN RAILWAYS.



DOUBLE-DECK TRAINS: SAFETY AND COMFORT



**Sergey Gorin,
Technology Director
of Tver Wagon Works JSC**

These are 61-4492 passenger cars designed in two versions – with improved and standard interior made by Tver Wagon Works (TVZ forms a part of Transmashholding CJSC).

NICE AND COMFORTABLE

Application of a new body shape with a rounded top of side walls blended in the roof, new color solution of external painting, use (for the first time in the home car building industry) of radial windows of the second floor helped significantly improve visual perception of the double-deck train's exterior.

61-4492 interregional cars represent further development of a double-deck passenger rolling stock. When designing the body, undercarriage and equipment of double-deck cars with seats, TVZ designers used experience

of operation of 61-4465, 61-4472, 61-4473 double-deck cars in real conditions of Russian railways and the latest developments of Russian enterprises in air conditioning and ventilation, electric equipment, information technologies. All the materials and component parts used in car manufacture underwent rigorous check for compliance with environmental, sanitary and hygiene and fire safety standards. Car's interior has been designed in co-operation with the Italian leader in industrial design – It-alDesign-Giugiaro.

A car is fitted with many pieces of the advanced equipment intended to ensure utmost riding comfort of passengers and easy train service for trainmen. These are environmentally clean toilet complexes manufactured





Exhibition

IN THE CONTEST OF THE BEST INNOVATIVE DEVELOPMENT HELD IN 2015 AMONG MEMBERS OF UNION OF INDUSTRIES OF RAILWAY EQUIPMENT NP, 4492 CAR WAS ONE OF THE WINNERS; IT RANKED SECOND (FOR REFERENCE: THE FIRST PLACE WAS NOT AWARDED IN THE CONTEST)

by Promtekhmontazh LLC (Tver) that have already become common to the cars made by Tver Wagon Works.

Sanitary and hygiene indicators are ensured by water and air decontaminating agents. A car offers economical and long-lasting LED illumination. Enhanced comfort of the passengers of the car with the improved interior is ensured by the ceiling with “starry sky” diffuse illumination, individual sockets for connection and charging of various electronic devices located in the seats’ bottom part. Leather seats with formed to shape backs made by German company GRAMMER (Amberg), cars with the improved interior offer rotation by 180° and installation in line with the direction of motion.

Luggage racks and a wardrobe unit are arranged to store luggage and overclothes. For passengers’ catering, cars with the improved interior are fitted with a kitchen (coffee point zone) on the first and second floors of the passenger compartment. Cars with the standard interior offer space to install vending machines. The most demanding passengers on the look-out for privacy may stay in an individual double-berth compartment with a TV in the car with the improved interior.

SAFE AND RELIABLE

All 61-4492 cars are fitted with automatic footboards with alarms and sensors that prevent the footboard from opening or closing when a passenger or luggage is in the danger zone. These footboards are made by St. Petersburg company KMT (forms





Exhibition



VLADIMIR KALYAPIN,
First Deputy
Director General
of FPC JSC:

— Federal Passenger Company will do its best to make sure that there are as many trains like this as possible.



part of Transmashholding CJSC). This design helps a trainman quickly disembark passengers in line with safety regulations. Double curtains are intended to protect passengers against bright sunlight at day and ensure their comfort when traveling at night.

61-4492 cars are intended for operation as part of regular trains.

The cars are designed using BCY-3 slack-free hitches produced by VNIITransmash JSC combined with pressurized inter-car walkways by HUBNER, which has helped avoid jerking when the train is in motion, ensured comfort when passengers are walking from car to car and decrease in

the intercar connection wear rate. The cars have centralized power supply from the locomotive. Enhanced reliability of the equipment used in operation of the double-deck train is ensured thanks to application of a 3,000V standby main, sealing cham-

bers with enhanced breakdown resistance and a number of other engineering solutions.

Car's undercarriage is designed using bogies of own manufacture, disk brakes by Knorr-Bremse and torsional stabilizers. Torsional stabilizers by VNIITrans-



mash JSC underwent inspection at 61-4465, 61-4472 and 61-4473 cars and confirmed target design characteristics; they ensured safety and riding comfort of a double-deck passenger train.

For the purpose of their installation at 61-4492 cars, the design of stabiliz-

ers was modified so as to enhance reliability and durability of the assembly. Car bogies were debugged.

Thus, the main focus of effort of designers, manufacturing technicians and production staff of TVZ was utmost satisfaction of passengers' wishes and

use of latest technologies, equipment and materials made in Russia.

ALREADY IN RUSSIA

A train made up of double-deck cars with seats has been in operation since July 31, 2015 at the Moscow-Voronezh route.

It has already received some good feedback from passengers. High demand for this rolling stock is confirmed, among others, by the fact that on August 14, 2015, double-deck train No. 46/45 with seats plying along the Moscow-Voronezh route and made up by Federal Passenger Company JSC set up a Russian record in the category "Year-round regular long-distance train with the biggest number of passenger seats".

In the nearest future, these trains will ply along other routes of the Russian Railways. 🌐



SWITCHING OVER TO THE HOME PLATFORM

IN RUSSIA, RAILWAY CARGOES ARE BEING INCREASINGLY TRANSPORTED IN TANK CONTAINERS. TRANSPORTATION OF CHEMICAL CARGOES IN TANK CONTAINERS IS ACTIVELY DEVELOPING. IN THE NEAREST FUTURE, THESE CONTAINERS WILL REPLACE TANK CARS THANKS TO THEIR MOBILITY, SAFETY AND VERSATILITY. TRANSMASH PLANT MAKES SPECIAL-PURPOSE PLATFORMS THAT ARE IDEAL FOR THIS TYPE OF TRANSPORTATION.



Sergey Marinoshenko,
Chief Designer of Transmash JSC

International (for example, Procter & Gamble, Henkel, Tefal) and home (SIBUR, MNPZ, Zavod Sintanolov) companies that use tank containers actively operate in Russia.

This country's railways transport all types of tank containers, but the most common ones are IMO No. 1, 2 and 5 as this type of transportation is mostly developing in the oil and gas industry.

According to estimates of the International Tank Container Organization (ITCO), globally, there are some 397 th. units of tank containers of various modifications and their number in Russia is comparatively small so far: according to the different estimates, there are some 10 thousand of them. It is worthy of note that the rate of cargo transportation in tank containers is ever-increasing; it reaches up to 10% globally and 25-30% a year in Russia.

OUR PLATFORM IS BETTER...

Based on these outlooks, Transmash plant located in Engels, Saratov Region, has designed and manufactures 13-9744-06 platform that enables transportation of tank containers in addition to high-capacity containers.

Capacity of the platform is 73 tons, which enables transportation of two 1CC, 1C and 1CX GOST 31314.3-2006

tank containers with the maximum gross weight of up to 36 tons each.

To speed up design and production launch and save money, the platform has been based on 13-9744-01 basic model with regard to the requirements to capacity and safety of transportation of hazardous and highly hazardous load cargoes in tank containers.

Design of the platform enables arrangement of tank containers 20 feet long that comply with the requirements of ISO standards to series 1 containers, including tank containers with tanks 7,150-8,100 mm long that stand proud of elbow fittings in the center of the platform.

Automatic coupler equipment of the platform are fitted with power-consuming draft gears of TZ class, which guarantees safety in transportation of hazardous and highly hazardous cargoes allowed to be transported in tank containers.

If there is a need to secure a tank container with highly hazardous cargoes, side rails of the platform are fitted with brackets for tank container binding with a load binder. At the customer's request, the platform may





Types of tank containers*

- IMO 0 – fit for transportation of non-hazardous food goods that require no unloading under pressure;
- IMO 1 – fit for transportation of all types of bulk chemical cargoes. Its capacity is 14 to 30 thousand liters; tank wall thickness is 4 to 7 mm;
- IMO 2 – fit for transportation of a broad range of food products that have a hazard class and chemical products;
- IMO 5 – for gas transportation.

* In accordance with the IMO international classification, which, in its turn, means fitness for transportation of one or another cargo.

be fitted with either threaded or slip joints of the braking system pipe.

...AND CHEAPER

When the platform was designed, the enterprise followed a task to create a product that would be competitive in terms of its price. Design was based on peculiarities of transportation of tank containers, including with

hazardous cargoes. The platform designed in Russia has no market analogues – competitors' products comprise additional elements, the use of which brings about increase in the cost of production and, as a result, price.

Economic feasibility and convenience of tank containers are particularly evident when there is a need for cargo

transshipment in case of combined transportation. Considering a trend of development of the segment both in the mid- and long term, one can predict growth of chemical cargo transportation in tank containers.

Transmash is willing to improve its products and do its best to ensure utmost satisfaction of carriers' demands. ☺

Traditions

ARMORED TRAINS

OF THE GREAT PATRIOTIC WAR

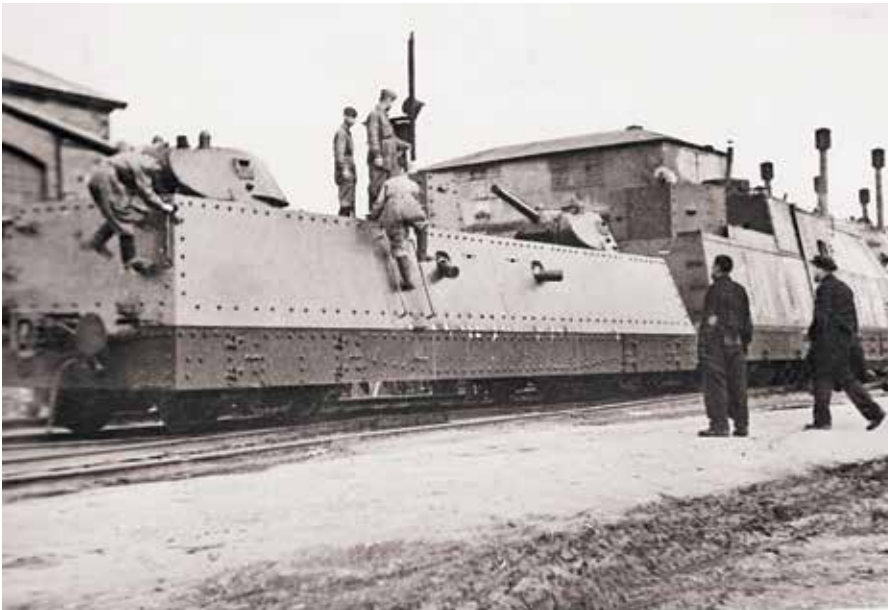
BY THE BEGINNING OF THE GREAT PATRIOTIC WAR, KUIBYSHEV'S KOLOMNA PLANT (KZ) WAS THE LARGEST ENTERPRISE IN KOLOMNA (OVER 20,000 EMPLOYEES), THE COUNTRY'S LEADING PLANT ENGAGED IN THE DESIGN AND MANUFACTURE OF LOCOMOTIVES, ELECTRIC LOCOMOTIVES, DIESEL LOCOMOTIVES, the main manufacturer of diesels for submarines. Employees of the enterprise built the legendary armored trains.



9P locomotive with a tender after armoring

ARMORED TRAIN NO. 1

A few armored trains were used in the battle for Moscow. One of them, special-purpose armored train No. 1 "For Stalin!" was built at KZ. It comprised a locomotive, two gun platforms, two air defence platforms and auxiliary set. On October 9, 1941, the entire plant saw off the armored train and its crew. Virtually the next day after farewell, special-purpose armored train No. 1 "For Stalin!" got into action close to Gzhatsk (presently – Gagarin) and used its weapon to attack the enemy's armada and troops



Combat platform with an armored locomotive



having thus delayed their advance along Minsk highway to the capital.

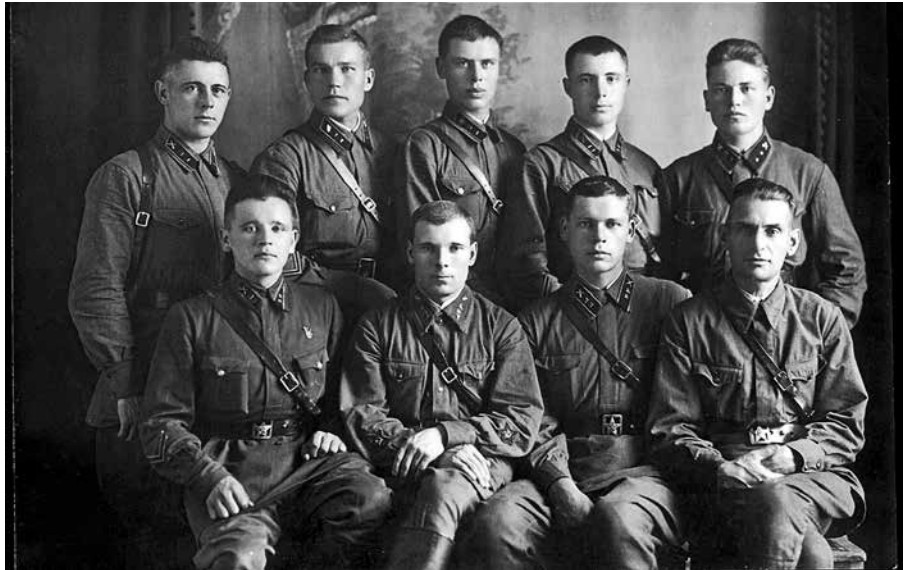
During the same combat, the armored train was put out of action and most its fighters died.

Destiny of special-purpose armored train No. 1 "For Stalin!" and its crew (very few survived) was for many years enveloped with rumors and legends.

During the first 20 years after the war, it was not customary to think of old times in the USSR. In 1987, the site of downfall of the armored train was commemorated with a monument maintained by Kolomna and Gagarin dwellers.

ARMORED TRAIN NO. 2

In early December 1941, Kolomna Plant obtained an important assignment from the State Defence Committee (SDC): to shortly equip a 60-ton loading platform for artillery armored platforms and build a new armored train. It had to be fitted with shipboard cannons that were stored at the siding track of Golutvin station. Despite extremely difficult conditions, lack of equipment and qualified specialists (in October 1942, the primary equipment and virtually the entire personnel were evacuated to Kirov), plant employees built an armored train. Moreover, they manufactured a



Officers of arms of armored train No. 1 "For Stalin!"

loading platform with artillery armored platforms. The second armored train built at Kolomna Plant was named "Kolomna Worker". A part of crew of the new machine comprised plant employees. The armored train got into action at the Moscow-Ryazan Railway. "Kolomna Employee" took part in combats at railways from Tula to Poznan, returned to its home plant for repair and finished its operational record in Germany. ©



Forming-up of the crew of the armored train "For Stalin!" before going up the line at Kolomna Plant



Armored train No. 2 "Kolomna Worker" going up the line



TRANSMASHHOLDING

HOLDING'S PRODUCTS AND SERVICES:

- mainline and industrial electric locomotives;
- mainline and shunting diesel locomotives;
- freight and passenger cars;
- electric train and metro cars;
- road-rail buses and diesel trains;
- car casting;
- diesel locomotive and marine diesel engines;
- diesel generators and turbine-driven compressors;
- components for transport;
- spare parts;
- repairs and maintenance.

IN THE PAST FIVE YEARS, THE COMPANY HAS MANUFACTURED

over
3000
locomotives

more than
4000
passenger cars

more than
3000
electric train cars

over
230
cars of
road-rail
buses

more than
1500
metro cars

over
2700
diesels

EG2Tv electric train
TVER

- Transmashholding – No. 1 IN CIS COUNTRIES in rolling stock output and sales
- Transmashholding is ranked among THE WORLD'S TOP TEN MANUFACTURERS of railroad machinery
- Transmashholding – RUSSIA'S ONLY COMPANY, with experience in developing and manufacturing technical equipment for arctic conditions
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