

Technical Regulations TR CU 001/2011

TECHNICAL REGULATION of the Customs Union "On Safety of Railway Rolling Stock" (TR CU 001/2011)

Footnote. The Technical Regulation is as amended by Decision of the Council of the Eurasian Economic Commission No. 90 of 14.09.2021 (enters into force upon expiry of 180 calendar days from the date of its official publication).

I. Scope of Application

1. This Technical Regulation applies to newly developed (modernized) and manufactured railway rolling stock with a design speed of up to and including 200 km/h and its components (hereinafter referred to as products) placed on the market in the customs territory of the Eurasian Economic Union (hereinafter referred to as the Union) for use on public and non-public railway tracks with a track gauge of 1 520 mm.

Railway rolling stock includes:

locomotives;

multiple-unit rolling stock and its cars;

locomotive-hauled passenger cars;

freight cars;

special railway rolling stock.

The list of objects of technical regulation to which the requirements of this Technical Regulation apply is given in Annex No. 1.

2. This Technical Regulation does not apply to sanitary cars, cars of medical and diagnostic trains, traction railway rolling stock operated on non-public railway tracks without access to public railway tracks, or railway rolling stock of organizations' technological railway transport intended for moving people and material assets within the premises of organizations and for performing initial and final operations with railway rolling stock for the organizations' own needs.

3. This Technical Regulation establishes requirements for products that are mandatory for application and compliance in the customs territory of the Union and that apply to their design and manufacture, rules for product identification, labelling requirements and rules for applying labelling, as well as the forms, schemes and procedures for the conformity assessment of products.

Requirements for the operation of railway rolling stock with regard to ensuring traffic safety are established by the railway transport legislation of the Member States of the Union (hereinafter referred to as the Member States).

This Technical Regulation has been developed for the purposes of protecting human life and health, animals and plants, and property, and of preventing actions that mislead consumers (users) regarding its purpose and safety.

II. Basic Concepts

4. For the purposes of applying this Technical Regulation, the concepts established by the Protocol on Technical Regulation within the Eurasian Economic Union (Annex No. 9 to the Treaty on the Eurasian Economic Union of 29 May 2014) and by the standard conformity assessment

schemes approved by Decision of the Council of the Eurasian Economic Commission No. 44 of 18 April 2018 (hereinafter – the standard schemes) are used, as well as concepts that mean the following:

"automatic locomotive signalling" – a set of devices for transmitting to the driver's cab the indications of the wayside signals being approached by the railway rolling stock;

"automatic brake" – a device ensuring automatic stopping of the train in the event of separation or rupture of the air line and (or) opening of the emergency brake valve (stop valve);

"similar products", "similar product sample" – an item (sample) of the same type as the item (sample) under consideration, having identical technical characteristics and being the closest to it in design and manufacturing technology;

"safety of railway rolling stock" – the state of railway rolling stock in which there is no unacceptable risk associated with causing harm to the life or health of citizens, to the property of natural persons or legal entities, to state or municipal property, as well as to the environment and to the life or health of animals and plants;

"radiation safety" – safety of railway rolling stock in which there is no possibility of ionizing, optical and other radiation having a harmful effect on humans and environmental objects;

"biological safety" – safety of railway rolling stock in which there is no possibility of a hazardous biological effect occurring;

"explosion safety" – safety of railway rolling stock in which there is no possibility of an explosion of an explosive atmosphere occurring or of exposure to the hazardous and harmful factors of an explosion;

"railway rolling stock gauge" – the transverse outline, perpendicular to the axis of the railway track, within which railway rolling stock positioned on straight level track (in the most unfavourable position in the track and in the absence of lateral inclinations on the springs and of dynamic oscillations) must fit, both in the empty and in the loaded condition, including rolling stock having the maximum standardized wear;

"freight wagons" – wagons intended for the carriage of goods;

"acceptable risk" – a value of risk associated with the use of products, determined on the basis of the technical and economic capabilities of the manufacturer and corresponding to the level of safety that must be ensured at all stages of the product life cycle;

"unit of railway rolling stock" – an individual item of railway rolling stock, such as a locomotive, a freight wagon or passenger car, multiple-unit rolling stock (or its sections, cars), or special railway rolling stock;

"non-public railway tracks" – railway sidings adjoining public railway tracks directly or via other railway sidings and intended for the provision of railway transport services to specific users on a contractual basis or for the performance of work for their own needs;

"public railway tracks" – railway tracks within the territories of railway stations open for operations of receiving and dispatching trains, receiving and delivering cargo, baggage and cargo-baggage, serving passengers and performing sorting and shunting work, as well as railway tracks connecting such stations;

"isothermal wagons" – covered wagons with thermal insulation intended for the carriage of goods that require a certain temperature range to be maintained throughout their delivery time;

"driver's cab" – a part of the body of railway rolling stock, separated by partitions, in which the workplaces of the locomotive crew and the

instruments and devices for controlling the locomotive, multiple-unit rolling stock or special railway rolling stock are located;

"design documentation" – a set of design documents containing the data necessary for the design (development), manufacture, inspection, acceptance, delivery, operation, repair, modernization and disposal of an item;

"design speed" – the maximum running speed of railway rolling stock declared in the technical documentation;

"emergency brake valve (stop valve)" – a brake valve serving to release air from the brake pipe of railway rolling stock and to actuate the automatic brakes when an emergency stop is necessary;

"locomotive" – railway rolling stock intended for moving trains or individual wagons along railway tracks;

"magnetic track brake" – a device producing a braking force by electromagnetic attraction of the brake shoe to the rail;

"machine room" – a compartment of locomotives with an autonomous power unit, diesel trains, diesel-electric trains, railcars, rail buses, isothermal wagons with an autonomous power unit, or special self-propelled railway rolling stock, in which the power unit (main and (or) auxiliary) and the auxiliary equipment ensuring the functioning of the unit of railway rolling stock are installed, providing for the presence of service personnel therein;

"mechanical safety" – safety of railway rolling stock in which there is no possibility of hazardous mechanical effects occurring;

"modernization of railway rolling stock" – a set of works to improve the technical and economic characteristics of railway rolling stock by replacing its components with more advanced ones;

"modernization of railway rolling stock with service life extension" – a set of works to improve the technical and economic characteristics of railway rolling stock by introducing changes to the basic design for the purpose of extending the service life;

"multiple-unit rolling stock" – motor and non-motor cars from which electric trains, diesel trains, railcars, rail buses, diesel-electric trains and electric railcars are formed, intended for the carriage of passengers and (or) baggage, mail;

"assigned resource" – the total operating time of products upon reaching which the operation of the products shall be terminated regardless of their technical condition;

"assigned service life" – the calendar duration of operation of products upon reaching which the operation of the products shall be terminated regardless of their technical condition;

"assigned storage life" – the calendar duration of storage of products upon reaching which the storage of the products shall be terminated regardless of their technical condition;

"safety assessment" – a document containing a risk analysis, as well as information from the design, operational and process documentation on the minimum necessary safety measures, which accompanies the products at all stages of their life cycle and is supplemented with information on the results of risk assessment at the operation stage after repairs have been carried out;

"passport" – an operational document containing basic information about the products and technical data, information on completeness, assigned resources, service and storage lives, the manufacturer's warranties, the acceptance certificate, information on conformity assessment and the procedure for disposal of the products;

"passenger cars" – cars intended for the carriage of passengers, baggage and postal items, including mail cars, baggage cars, dining cars, service and technical cars, service cars, club cars, sanitary cars and laboratory cars;

"pneumatic brake" – a brake with pneumatic control;

"supervised operation" – regular operation of railway rolling stock accompanied by additional monitoring and recording of the technical condition of the railway rolling stock;

"train" – a made-up and coupled set of cars with one or more operating locomotives or motor cars, bearing the prescribed signals, as well as locomotives without cars and special self-propelled railway rolling stock dispatched onto or running on a line section between stations;

"fire safety" – safety of railway rolling stock under which there is no possibility of a fire occurring or of exposure to fire hazards (flame, sparks, heat flux, elevated ambient temperature, toxic products of combustion and thermal decomposition, smoke, reduced oxygen concentration, explosion, consequences of destruction);

"limit state" – a state of products in which their further operation is unacceptable or inexpedient, or the restoration of their operable state is impossible or inexpedient;

"regenerative braking" – braking of railway rolling stock that is performed by means of an electric brake and in which the electrical energy released when the traction motors are switched to generator mode is transferred to the contact network;

"operating manual" – a document containing information on the design, operating principle and characteristics (properties) of the products and the instructions necessary for their correct and safe operation (intended use, maintenance, current repair, storage and transportation) and for the

assessment of their technical condition when determining the need to send them for repair, as well as information on the disposal of the products;

"high-speed railway rolling stock" – locomotives, passenger cars and multiple-unit rolling stock intended to provide carriage at speeds from 141 to 200 km/h inclusive;

"component of railway rolling stock" – a part, assembly unit, complex or set thereof, or software, forming part of the design of railway rolling stock and ensuring its safe operation and the safety of maintenance personnel and (or) passengers;

"special railway rolling stock" – railway rolling stock intended to support the construction and functioning of railway transport infrastructure and non-public railway tracks and the performance of work on the upkeep, servicing and repair of railway structures and devices, and comprising non-removable self-propelled mobile units on rail running gear (motor locomotives, draisines, special railcars, railway construction machines with an autonomous engine and a traction drive unit), as well as transporters, non-self-propelled mobile units on rail running gear (railway construction machines without a traction drive unit, trailers and special railway rolling stock included in work trains and intended for the performance of work on the upkeep, servicing and repair of railway transport structures and devices);

"satellite navigation" – a method of navigation determination consisting in solving navigation tasks by processing data obtained by navigation equipment on navigation objects as a result of receiving radio signals emitted from spacecraft;

"parking brake" – a device with a manual or automatic drive unit, located on a unit of railway rolling stock and intended to secure it when stationary against uncontrolled movement, as well as for forced emergency stopping

where a manual or automatic drive unit is provided inside the railway rolling stock;

"thermal safety" – safety of railway rolling stock under which there is no possibility of hazardous exposure to high and low temperatures;

"technical compatibility" – a characteristic of units of railway rolling stock providing for the possibility of their interaction with one another and with railway transport infrastructure facilities in accordance with the requirements of this Technical Regulation;

"technological railway transport" – railway transport intended for moving goods on the premises of organizations and performing initial and final operations with railway rolling stock that has no right of access to public and non-public railway tracks, for the own needs of the said organizations;

"braking" – action on the devices and apparatus for controlling the brake system for the purpose of reducing the speed of, or stopping, a moving train or unit of railway rolling stock;

"braking distance" – the distance covered by a train from the moment of action on the devices and apparatus for controlling the brake system, including actuation of the emergency brake valve (emergency stop valve), until it comes to a complete stop;

"pilot batch" – the first industrial batch of products manufactured in accordance with technological documentation bearing the letter "O1" and design documentation bearing a letter not lower than "O1" in the course of production start-up, for the purpose of confirming that production is ready to manufacture products that meet the established requirements in the specified volumes;

"devices, complexes and systems for control, monitoring and safety of railway rolling stock, and their software" – hardware, hardware-and-software and software means intended to ensure the safety functions of

railway rolling stock;

"logbook" – an operational document containing the basic information on the product and technical data, information on completeness, assigned resources, service lives and storage lives, manufacturer's warranties, the certificate of acceptance, information on conformity assessment and on the procedure for disposal of the product, as well as on the operation of the item during service, maintenance and repair;

"chemical safety" – safety of railway rolling stock under which there is no possibility of exposure to hazardous chemical substances;

"operational document" – a design document (operating manual, logbook, passport, label, etc.) which, separately or in combination with other documents, determines the rules for operation of the product and (or) contains information certifying the values of the main parameters and characteristics (properties) of the product guaranteed by the manufacturer, as well as warranties and information on its operation during the established service life;

"emergency braking" – braking used in cases requiring an immediate stop of the train, by applying the maximum braking force;

"electrical safety" – safety of railway rolling stock under which there is no possibility of hazardous and harmful effects of electric current, electric arc, electromagnetic field and static electricity;

"electric brake" – a device in which the braking force is generated by converting the kinetic energy of the train into electrical energy by switching the traction motors to generator mode;

"electromagnetic compatibility" – the ability of railway rolling stock to operate with the specified quality in the specified electromagnetic environment and not to cause unacceptable electromagnetic interference to railway transport infrastructure facilities and to the railway rolling stock

operated on that infrastructure;

"electro-pneumatic brake" – a braking device with electrical control of pneumatic brakes;

"label" – an operational document containing the basic information on the product and technical data, information on resources, service lives and storage lives, the manufacturer's warranty, the certificate of acceptance and information on conformity assessment.

III. Rules for Product Identification

5. Products are subject to identification in order to classify them as objects of technical regulation of this Technical Regulation.

Product identification is carried out:

by an accredited certification body included in the unified register of conformity assessment bodies of the Union (hereinafter referred to as the certification body) – in the case of product certification;

by the applicant or, on the applicant's instructions, by a certification body, or an accredited testing laboratory (center), or the manufacturer's own testing laboratory – in the case of product declaration;

by an authorized body of a Member State – when exercising state control (supervision) over compliance with the requirements of this Technical Regulation.

6. Product identification is carried out by:

a) establishing the conformity of the name, description and intended purpose of the products with the name and characteristics of the products that are an object of technical regulation of this Technical Regulation;

b) comparing the requirements imposed on the products based on their intended purpose with the requirements of this Technical Regulation.

IV. Rules for the Circulation of Products on the Union Market

7. Products shall be placed on the Union market provided that they comply with the requirements of this Technical Regulation and of other Technical Regulations of the Union (Customs Union) that apply to them.

8. Products whose compliance with the requirements of this Technical Regulation has not been confirmed shall not be marked with the single mark of circulation of products on the Union market and shall not be permitted to be placed on the Union market.

V. Safety Requirements

9. This Technical Regulation establishes the minimum necessary requirements for products, compliance with which ensures:

- a) radiation safety;
- b) biological safety;
- c) explosion safety;
- d) mechanical safety;
- e) fire safety;
- f) thermal safety;
- g) chemical safety;
- h) electrical safety;

- i) electromagnetic compatibility in terms of ensuring the safe operation of instruments and equipment;
- j) uniformity of measurements;
- k) sanitary-epidemiological and environmental safety.

10. When designing railway rolling stock and its components, the degree of risk shall be assessed by calculation, experimental and expert methods, including on the basis of data obtained from the operation of similar products.

11. Product safety shall be ensured by:

- a) carrying out a set of research and development work when designing the products;
- b) applying proven technical solutions;
- c) carrying out maintenance and repair at the required intervals.

The need to establish assigned service lives and (or) assigned operating lives for elements of components of railway transport infrastructure subsystems is determined by the designer (developer); the values of these indicators are established in the design documentation;

- d) performing a set of calculations based on proven methods;
- e) selecting materials and substances during design and also during the production of the products (depending on the parameters and operating conditions);
- f) establishing criteria for the limit states of the products;
- g) determining the conditions and methods for the disposal of the products.

Footnote. Paragraph 11 as amended by Decision of the Council of the Eurasian Economic Commission No. 31 of 30.03.2023 (enters into force upon the expiry of 10 calendar days from the date of its official publication).

12. The strength, stability and technical condition of railway rolling stock and its components shall ensure the safe movement of trains at maximum speeds within permissible values.

13. When designing and manufacturing railway rolling stock and its components, the following shall be ensured:

- a) compliance with the railway rolling stock clearance gauge;
- b) safe operation taking into account external climatic and mechanical influences;
- c) technical compatibility with the railway transport infrastructure and with other railway rolling stock operated within this infrastructure;
- d) stability against wheel derailment;
- e) stability against overturning on curved sections of railway track;
- f) prevention of unintended movement from the parking position;
- g) coupling of railway rolling stock units for the transmission of forces in traction and braking modes;
- h) permissible braking distance during emergency braking;
- i) non-exceedance of linear dynamic loads and maximum permissible forces acting on the railway track;
- j) prevention of components of railway rolling stock falling onto the railway track;

- k) non-exceedance of the maximum permissible traction and braking forces and acceleration value;
- l) sanitary-epidemiological and environmental safety;
- m) electromagnetic compatibility of electrical equipment in terms of ensuring the safe operation of instruments and equipment;
- n) electromagnetic compatibility of electrical equipment with railway automation and remote control devices and railway telecommunications of the railway transport infrastructure;
- o) fulfilment of fire safety requirements;
- p) strength under permissible loading modes and actions;
- q) absence of plastic deformations under longitudinal and vertical limit dynamic loads;
- r) fatigue resistance under low-cycle and high-cycle loading modes;
- s) safety and reliability of electrical equipment operation under nominal and limit power supply modes;
- t) safety of the design of freight, mail and baggage cars during loading and unloading using mechanised equipment;
- u) passage of coupled railway rolling stock over hump yards and (or) exit ramps (except for railway rolling stock whose design does not permit (does not provide for) passage over hump yards and (or) passage over exit ramps);
- v) absence of contacts between components of a railway rolling stock unit not provided for by the design documentation that may lead to their damage;

w) coupling of railway rolling stock on curved sections of railway track, and the possibility of movement of coupled cars and single cars on non-public railway tracks.

14. When designing railway rolling stock and its components, the designer (developer) makes decisions ensuring the permissible level of harmful and (or) hazardous effects on human life and health, animals and plants established by the legislation of the Member States.

15. The designs of railway rolling stock and its components selected by the designer (developer) shall be safe throughout the assigned service life and (or) until the assigned operating life is reached, throughout the assigned storage period, and shall also withstand the actions and loads to which they may be subjected during operation.

16. When designing railway rolling stock and its components, the designer (developer) shall provide for systems to protect operating personnel and (or) passengers in the event of a collision and (or) derailment of railway rolling stock.

17. When designing railway rolling stock, the designer (developer) shall provide for software ensuring the safe functioning of the products.

18. When changes are made to the design documentation or to the manufacturing technology of railway rolling stock and its components, the safety requirements established by this Technical Regulation shall be complied with.

19. If changes affecting safety are made to the design or manufacturing technology of railway rolling stock and (or) its components, and also in the event of modernisation with extension of the service life, a conformity assessment of the products shall be carried out in the manner established by Section VII of this Technical Regulation.

20. Measuring Instruments installed on railway rolling stock that fall within the scope of state regulation of ensuring the uniformity of measurements shall comply with the requirements of the legislation of the Member States and of the acts of the Union bodies in the field of ensuring the uniformity of measurements.

21. During operation, inspection, maintenance and repair of railway rolling stock, the arrangement and mounting of its equipment shall ensure the safety of the operating personnel; in particular, special footsteps, handrails or devices shall be provided.

22. Control, monitoring and safety devices, complexes and systems of railway rolling stock, and their software, shall ensure its operable condition in all intended operating modes and under any external influences provided for by the climatic version of the given product.

Control, monitoring and safety devices, complexes and systems of railway rolling stock, and their software, shall prevent the occurrence of hazardous situations in the event of possible logical errors made by the operating personnel.

23. Control, monitoring and safety devices, complexes and systems of railway rolling stock, and their software, shall include signalling and information means for warning of violations of the serviceable condition of railway rolling stock and its components that may lead to situations threatening safety.

24. Software of control, monitoring and safety devices, complexes and systems of railway rolling stock (both embedded and supplied on physical media) shall ensure:

a) operability after reboots caused by malfunctions and (or) failures of hardware, and integrity in the event of its own malfunctions;

6) protection against computer viruses, unauthorized access, and the consequences of failures, errors and malfunctions during storage, input, processing and output of information, as well as against the possibility of accidental alteration of information;

в) conformity with the properties and characteristics described in the software documents, as well as in the documentation supplied with the equipment and containing information for the assembly, installation and operation of that equipment.

25. Software of control, monitoring and safety devices, complexes and systems of railway rolling stock (implementing safety functions) shall have the version specified in the declaration of conformity with the requirements of this Technical Regulation (hereinafter – the declaration of conformity) of that software.

26. Control, monitoring and safety devices, complexes and systems of railway rolling stock, and their software, when the traction drive and other equipment operate in the event of faults in apparatus of the electrical, hydraulic and (or) pneumatic parts or a software malfunction, shall not permit changes in characteristics and operating modes that may lead to a violation of the safe condition of railway rolling stock.

A malfunction of the control system while the on-board safety devices are operating properly shall not lead to a violation of the safe condition of railway rolling stock.

27. Instruments and devices for controlling railway rolling stock shall be:

a) provided with inscriptions and (or) symbols in accordance with the design documentation;

6) designed and arranged so as to prevent their unintentional switching on, switching off or changeover;

в) arranged taking into account the importance of the functions performed and the sequence and frequency of use.

28. Freight locomotives and special self-propelled railway rolling stock shall be equipped with the following devices:

- а) train radio communication;
- б) speed monitoring devices;
- в) running parameter recorders;
- г) automatic locomotive signalling;
- д) pneumatic brake pipe tightness monitoring device.

29. Freight locomotives intended for operation on high-traffic sections and (or) for hauling coupled trains shall, in addition to the devices specified in paragraph 28 of this Technical Regulation, be equipped with the following devices:

- а) an automated control system ensuring speed monitoring and the ability to receive (transmit) voice information when approaching entry and exit signals, level crossings and stations;
- б) automatic fire alarm;
- в) a fire extinguishing installation to protect the zones provided for in paragraph 74 of this Technical Regulation.

30. Freight locomotives operated by a single driver shall, in addition to the devices specified in paragraphs 28 and 29 of this Technical Regulation, be equipped with the following devices:

- а) an automatic train braking control system or an integrated locomotive safety device;

6) driver vigilance monitoring system;

в) rear-view mirrors or other similar devices;

г) brake interlock.

31. Shunting locomotives shall be equipped with shunting radio communication and a remote wagon uncoupling device.

32. Shunting locomotives intended for operation by a single driver shall, in addition to the devices specified in paragraph 31 of this Technical Regulation, be equipped with the following devices:

a) a second control desk;

6) rear-view mirrors or other similar devices;

в) devices ensuring automatic stopping in the event the driver loses the ability to drive the locomotive.

33. Passenger locomotives shall be equipped with the following devices:

a) train radio communication;

6) an automated control system ensuring speed monitoring and the ability to receive (transmit) voice information when approaching entry and exit signals, level crossings and stations;

в) automatic fire alarm;

г) running parameter recorders;

д) automatic locomotive signalling;

е) electro-pneumatic brake;

ж) a fire extinguishing installation to protect the zones provided for in paragraph 74 of this Technical Regulation.

34. Passenger locomotives operated by a single driver shall, in addition to the devices specified in paragraph 33 of this Technical Regulation, be equipped with the following devices:

- a) an automatic train braking control system or an integrated locomotive safety device;
- b) driver wakefulness monitoring system;
- c) rear-view mirrors or other similar devices;
- d) brake interlock.

35. Multiple-unit rolling stock shall be equipped with the following devices:

- a) train radio communication;
- b) automated control system providing control of the running speed and of the receipt (transmission) of voice information when approaching entry and exit signals, level crossings and stations;
- c) motion parameter recorders;
- d) automatic cab signalling;
- e) electro-pneumatic brake;
- f) "passenger – driver" communication;
- g) door closure monitoring signalling;
- h) automatic fire alarm system.

36. Locomotives used for the carriage of passengers, special and dangerous goods, and the leading cars of multiple-unit rolling stock shall be fitted with satellite navigation equipment contributing to ensuring traffic safety.

The need to fit other types of railway rolling stock with satellite navigation equipment shall be established by the legislation of the Member States.

37. Automatic cab signalling on a locomotive, multiple-unit rolling stock and special self-propelled railway rolling stock shall be supplemented by safety devices providing control of the established running speeds and periodic checking of the driver's vigilance, and preventing the train from moving off spontaneously from its stopping place. If the driver loses the ability to operate the locomotive, multiple-unit rolling stock or special self-propelled railway rolling stock, or the draisine operator loses the ability to operate the draisine, these devices shall ensure the automatic stopping of the train (draisine).

38. The design of the driver's cab of a locomotive, multiple-unit rolling stock and special self-propelled railway rolling stock, the layout of the locomotive crew's workstation, the arrangement of control instruments and devices and of information display systems, and the design of the driver's seat shall ensure:

an unobstructed view for the locomotive crew, in the "seated" and "standing" positions, of the route, wayside signals, adjacent tracks, trains and the overhead contact line;

visibility, for one of the members of the locomotive crew in the "standing" position, of the working area of the personnel involved in shunting when approaching a rake of wagons.

The design and arrangement of control instruments and devices, measuring instruments and indicator lights on the control desk shall

ensure the visibility of the readings of these instruments and indicators in daytime and at night and shall exclude glare from direct or reflected light reaching the eyes of the driver and the assistant driver when operating the rolling stock in the "seated" and "standing" positions.

39. The layout of the driver's cab of a locomotive, multiple-unit rolling stock and special self-propelled railway rolling stock, the layout of the locomotive crew's workstation, the arrangement of control instruments and devices and of information display systems, and the design of the driver's seat shall meet ergonomic requirements and ensure convenient operation from the "seated" and "standing" positions.

Instruments and devices for controlling railway rolling stock shall be arranged taking into account the importance of the functions performed and the sequence and frequency of their use.

40. Locomotives, multiple-unit rolling stock, passenger coaches, insulated wagons with service and auxiliary compartments and special railway rolling stock shall be equipped with general, local and emergency lighting systems.

The emergency lighting system shall automatically switch over to an independent power source (storage battery) in the absence of voltage in the main power source. Provision shall also be made for switching on the emergency lighting manually.

41. Emergency exit from the driver's cab of a locomotive, multiple-unit rolling stock and special self-propelled railway rolling stock shall be provided through the side windows using auxiliary aids.

Multiple-unit rolling stock, passenger coaches, insulated wagons with service and auxiliary compartments and special railway rolling stock shall be equipped with emergency exits on each side of the car and, where necessary, have means for the emergency evacuation of service personnel

and (or) passengers.

The effort of one person shall be sufficient to open an emergency exit.

42. The glazing of the interior compartments of railway rolling stock intended for service personnel and (or) passengers shall ensure the safety of service personnel and (or) passengers in the event of impacts on the railway rolling stock while it is stationary or en route.

43. Interior parts of railway rolling stock requiring inspection, adjustment and maintenance, and, where necessary, exterior operating equipment shall have additional lighting.

44. Railway rolling stock shall be equipped with automatic brakes ensuring that, when braked, it stops within the permissible braking distance.

The automatic brakes of railway rolling stock shall have the necessary functionality under various operating conditions and shall ensure that the train stops in the event of a breach of the integrity of the brake pipe, a break in the electrical safety circuit or unauthorised uncoupling of units of railway rolling stock.

45. Automatic brakes shall allow the use of different braking modes depending on the loading of the railway rolling stock, the length of the train and the track profile.

46. Emergency brake valves in passenger coaches and multiple-unit rolling stock shall be installed in the vestibules (where there are no vestibules, at the entrance doors to the passenger saloon) and in the middle part of passenger coaches (except for cars of multiple-unit rolling stock), with provision for sealing.

Emergency brake valves in insulated wagons with service and auxiliary compartments shall be installed in the service compartments and sealed.

Emergency brake valves in special railway rolling stock shall be installed where necessary.

47. Railway rolling stock shall be equipped with a parking brake.

The parking brake of a unit of railway rolling stock shall ensure that the unit is held on the specified gradient.

The manual parking brake mechanism shall be fitted with a device that prevents unintended release of the parking brake.

The use of automatic parking brakes is permitted.

48. Components of railway rolling stock whose separation or fracture may cause them to fall onto the railway track or to project beyond the clearance gauge of the railway rolling stock shall have safety devices that withstand the weight of the equipment they protect within permissible values and prevent assemblies from coming into contact with the surface of the railway track bed.

49. Main air reservoirs and storage batteries of railway rolling stock shall be installed outside the driver's cab, passenger saloons and service personnel compartments.

50. The action of the electric brake of locomotives and multiple-unit rolling stock (if fitted) shall be coordinated with the operation of the pneumatic and electro-pneumatic brakes during service or emergency braking. If the electric brake fails, its automatic substitution by the electro-pneumatic or pneumatic brake shall be ensured.

51. Additional measures shall be provided to improve the braking efficiency and traffic safety of high-speed passenger coaches with running speeds of 161 km/h and above (for example, the use of disc brakes and magnetic track brakes).

52. Components of railway rolling stock whose characteristics are subject to change as a result of temperature effects shall remain operable at ambient air temperatures within permissible values, and also after short-term exposure to limit operating temperature values.

53. Railway rolling stock shall be equipped with a coupling or automatic coupling device. The design of such a device shall not cause unintended separation of units of railway rolling stock and shall ensure the evacuation of railway rolling stock in emergencies.

The automatic coupling device of railway rolling stock shall include a draft gear.

54. Passenger coaches and multiple-unit rolling stock equipped with a coupling or automatic coupling device shall be equipped with buffer devices.

Where passenger coaches and multiple-unit rolling stock are equipped with slack-free coupling devices, buffer devices need not be installed, provided that ride smoothness is ensured.

55. The static strength margin and the fatigue resistance safety factor shall prevent the formation of cracks in wheels of wheelsets, wheel centres, axles and tyres of wheelsets of railway rolling stock, and in side frames and bolsters of freight wagon bogies, throughout the assigned service life and (or) until the assigned operating life is reached.

The mechanical properties, impact toughness and residual stress state of wheels of wheelsets, wheel centres, axles and tyres shall ensure their mechanical safety.

The mechanical properties and impact toughness of side frames and bolsters of freight wagon bogies shall ensure their mechanical safety.

56. Materials and substances used in the manufacture of railway rolling stock and its components shall be safe for people and the environment.

57. The characteristics (microclimate parameters, composition of the air environment, levels of noise (including infrasound), vibration, electromagnetic radiation, lighting) of the life-support systems (air-conditioning systems (heating, ventilation, cooling), lighting systems, noise and vibration protection, air purification, protection against electromagnetic radiation) of the driver's cabs of locomotives, multiple-unit rolling stock and special self-propelled railway rolling stock, of the interior compartments of passenger coaches and multiple-unit rolling stock, of the service and domestic compartments of special railway rolling stock, and of insulated wagons with service and auxiliary compartments shall comply with the permissible values.

The level of external noise from railway rolling stock shall not exceed the permissible values.

58. The use of liquids (acids, alkalis, liquefied gases) and fuels and lubricants in the course of manufacture, operation, maintenance and repair of railway rolling stock and its components shall not give rise to the possibility of a hazardous effect on the life and health of humans, animals and plants.

59. Footboards and handrails of railway rolling stock shall be securely fastened. The surface of steps, platforms, footboards and decking shall prevent slipping.

On wagons, near the ladders for climbing onto the roof of wagons, locomotives and special railway rolling stock, danger warning signs shall be applied.

Ladders for climbing onto the roof of locomotives and motor cars of electric trains shall be locked in the closed position and shall be opened by

means of a special device.

60. The design of railway rolling stock shall provide points for lifting it with jacks. The surface intended for contact with the jack heads shall prevent them from slipping.

Provision shall be made for the possibility of lifting each unit of railway rolling stock by means of cranes and (or) jacks in the event of wheelsets derailing, and for the possibility of moving it by means of technological equipment in the event of a wheelset jamming.

61. Protruding parts of the structure and equipment of railway rolling stock and its components shall not have sharp ribs, edges or corners capable of injuring service personnel and (or) passengers.

62. Materials and substances used for finishing the interior surfaces of the saloons of passenger coaches and of multiple-unit rolling stock cars, of the driver's cabs of locomotives, of multiple-unit rolling stock, of special railway rolling stock, and of the service and auxiliary compartments of insulated wagons shall not exceed the permissible values of the degree of risk of the occurrence and spread of fire and of the exposure of people to fire hazards.

Passenger coaches shall be equipped with a fire-retardant partition between the conductors' compartment and the passenger saloon (where a conductors' compartment is present), and in compartment coaches also between the compartments. The space above the ceiling in non-compartment coaches and above the large (main) corridor of a compartment coach shall be divided into no fewer than 3 zones by installing fire-retardant transoms.

The driver's cabs of locomotives with a car-type body and of multiple-unit rolling stock shall be separated by a fire-retardant partition from the rest of the locomotive with a car-type body or of the multiple-unit rolling stock.

63. In passenger coaches and multiple-unit rolling stock, safe passage of service personnel and passengers from car to car via gangway platforms shall be ensured. Gangway platforms shall be of the enclosed type, that is, they shall preclude the possibility of accidental contact of service personnel and passengers with external elements of railway rolling stock and with elements of railway transport infrastructure, such as the overhead contact line, the track superstructure, etc., and shall also minimise the impact of possible adverse environmental factors on service personnel and passengers while they are on the gangway platform.

64. The design and fastening of the upper sleeping berths of passenger coaches and of insulated wagons with service and auxiliary compartments shall ensure their sufficient strength and preclude the possibility of their falling or tilting resulting in injury to service personnel and (or) passengers.

Upper sleeping berths shall be equipped with restraining straps, side guards or handrails (safety brackets) preventing service personnel and passengers from falling.

65. Seats and sofas of passenger coaches and multiple-unit rolling stock shall be firmly fastened to the floor, and (or) the side wall, and (or) a partition, and shall be of a design precluding the possibility of their overturning, including during emergency braking.

The layout of passenger coaches, multiple-unit rolling stock cars and insulated wagons with service and auxiliary compartments, and the arrangement of places for passengers and service personnel, shall meet ergonomic requirements.

Places for stowing and securing the personal luggage of passengers and service personnel shall be designed so as not to injure passengers and service personnel during emergency braking.

66. Multi-section locomotives shall be equipped with enclosed-type gangway platforms to ensure safe passage of the locomotive crew from one section to another.

67. Rotating parts of the diesel engine, electrical machines, fans, compressors and other equipment of railway rolling stock shall be enclosed by special guards precluding accidental contact of service personnel and passengers with the moving parts of the equipment of railway rolling stock.

68. Locomotives with a hood-type body shall have side and end platforms. Handrails (barriers) with intermediate guarding shall be installed on the outer side of the side and end platforms. Restraining strips shall be installed along the outer perimeter of the platform floor.

69. Locomotives, multiple-unit rolling stock, passenger cars and isothermal cars shall be protected against overvoltages, overloads, short circuits in traction and auxiliary electrical equipment circuits and in control circuits, earth faults, loss of voltage in the overhead contact line, including during regenerative braking, against rise and drop of voltage in the overhead contact line, and against wheel slip and wheel slide of wheelsets. For all types of protection, except overvoltage protection, signalling of protection tripping shall be provided. Assemblies and parts of a rolling stock unit shall not be damaged by short circuits in the overhead contact line or in the high-voltage circuits of railway rolling stock. Protected assemblies and parts shall be manufactured taking into account the effect of protective devices on them.

70. Unprotected (uninsulated) live parts of the electrical equipment of railway rolling stock shall be protected against accidental access by operating personnel and (or) passengers.

Metal enclosures of electrical equipment, as well as all guards (including pipes) and structures for fastening current-carrying parts which, in the

event of a fault, may become energized at a voltage exceeding the permissible values, shall be earthed to the body of the railway rolling stock.

71. Locomotives, multiple-unit rolling stock, passenger cars, special railway rolling stock and isothermal cars with an autonomous power plant shall be equipped with dedicated places for storing a set of electrical protective equipment, as well as other special equipment required for the maintenance and safe operation of the said railway rolling stock.

72. The level of electromagnetic interference generated by railway rolling stock and its components shall not exceed the values within which such interference does not affect the operability of railway transport infrastructure facilities and of railway rolling stock in operation.

73. The battery box shall be explosion-proof.

74. Locomotives, multiple-unit rolling stock, special railway rolling stock, passenger cars and isothermal cars shall be equipped with fire alarm systems and dedicated places for fire extinguishers and fire-fighting equipment. Machine rooms (compartments), distribution cabinets and underframe boxes containing electrical equipment with a voltage of more than 1 000 V, as well as rooms in which internal combustion engines for dedicated purposes are installed, shall be protected by fire-extinguishing installations.

Fire alarm systems shall provide acoustic and (or) optical information indicating the location of the fire outbreak and shall automatically detect faults (short circuit, open circuit) in the communication lines between detectors and the control and indicating equipment. It shall be possible to periodically check the serviceability of fire alarm systems.

75. Locomotives and isothermal cars with an autonomous power plant, diesel multiple units, diesel-electric multiple units, rail buses and special

self-propelled railway rolling stock shall be equipped with spark arresters.

76. Locomotives with a carbody-type body shall have light and sound signalling for calling the assistant driver from the machine room to the driver's cab.

77. The ventilation system of locomotives with an autonomous power plant, diesel multiple units, railcars, rail buses, diesel-electric multiple units, isothermal cars with an autonomous power plant and special self-propelled rolling stock shall prevent exhaust gases and dust from entering the driver's (operator's) cab, rooms for operating personnel and passenger saloons.

The air environment characteristics in the machine room of locomotives with an autonomous power plant (except locomotives with a hood-type body), diesel multiple units, railcars, rail buses, diesel-electric multiple units, isothermal cars with an autonomous power plant and special self-propelled railway rolling stock shall not exceed the permissible values.

78. The design of the diesel engine cooling system of diesel locomotives with a carbody-type body and of isothermal cars with an autonomous power plant shall allow the cooling system to be topped up without operating personnel having to be on the roof of the diesel locomotive or isothermal car.

79. Passenger cars shall be equipped with the following devices:

- a) an air-conditioning (ventilation, heating, cooling) system, an air disinfection unit (for rooms with passenger seats), and a separate ventilation system for smoking areas (where provided) that exhausts air outside the room without recirculation;
- b) a domestic and drinking water supply system;
- c) environmentally friendly toilet systems;

- d) on-train telephone communication;
- e) an axle box heating monitoring system;
- f) on-train public address system;
- g) spark arresters on smoke exhaust pipes where autonomous heating systems are used.

80. High-speed passenger cars with a running speed of 161 km/h and above shall, in addition to the devices specified in paragraph 79 of this Technical Regulation, be equipped with a centralized power supply.

81. Multiple-unit rolling stock shall be equipped with the following devices:

- a) an air-conditioning (heating, cooling, ventilation, disinfection) system;
- b) on-train telephone communication;
- c) a domestic and drinking water supply system;
- d) environmentally friendly toilet systems.

82. High-speed multiple-unit rolling stock shall, in addition to the devices specified in paragraph 81 of this Technical Regulation, be equipped with an axle box heating monitoring system.

83. Isothermal cars with service and auxiliary rooms shall be equipped with the following devices:

- a) an air-conditioning (ventilation, heating, cooling) system;
- b) a domestic and drinking water supply system;
- c) environmentally friendly toilet systems;
- d) an axle box heating monitoring system.

84. Cars intended for the carriage of food raw materials and food products shall ensure temperature, humidity and air exchange parameters within the permissible values for each type of food raw material and food product.

85. Passenger cars and multiple-unit rolling stock cars operated without car attendants shall be equipped with devices, located directly in the passenger saloon, for communication between passengers and the locomotive crew or train crew.

86. Automatic entrance doors of passenger cars and multiple-unit rolling stock cars shall be fitted with opening (closing) systems (devices) and a closure monitoring system ensuring the safety of the operating personnel and (or) passengers.

Entrance doors of passenger cars shall be equipped with locking devices that prevent their opening by passengers or unauthorized persons while the rolling stock is in motion.

87. Emergency opening of entrance doors of passenger cars and multiple-unit rolling stock cars shall be performed according to the standard arrangement, with the doors locked in the open position. Emergency opening of plug-type entrance doors shall be performed in manual mode at a train speed within the permissible values.

88. Multiple-unit rolling stock shall include a car (cars) equipped with places intended for the travel of disabled persons and passengers with children.

89. Passenger cars and multiple-unit rolling stock cars intended for the travel of persons with reduced mobility, as well as persons with persistent visual impairments, shall be equipped with:

a) devices for lifting a disabled person in a wheelchair into the car and lowering them onto the platform (when operating passenger cars and

multiple-unit rolling stock cars intended for boarding passengers from low platforms);

б) devices for boarding and alighting of a disabled person in a wheelchair (when operating passenger cars and multiple-unit rolling stock cars intended for boarding passengers from high platforms);

в) devices for securely fastening wheelchairs in the car;

г) special toilet rooms with an area sufficient to accommodate a wheelchair and perform the necessary manoeuvres;

д) passageways of a width sufficient for a disabled person in a wheelchair to move to their place and to the special toilet room;

е) devices ensuring duplication of visual and audio information provided to passengers in a form accessible to disabled persons with visual or hearing impairments (voice announcements, visual information, signs in Braille).

90. Railway rolling stock shall be equipped with visual and audible signalling devices.

91. The front ends of locomotives with a car-type body, of leading cars of multiple-unit rolling stock and of special self-propelled railway rolling stock, as well as the end parts of locomotives with a hood-type body, shall be equipped with a headlight and buffer lamps in accordance with the established rolling stock marking schemes.

Signal lamps shall also be installed on the rear end wall of each locomotive section that can be used as an independent unit.

The headlight shall be installed on the longitudinal axis of symmetry of the locomotive, the leading car of multiple-unit rolling stock and special self-propelled railway rolling stock. The axial beam of the headlight shall be directed parallel to the horizontal plane of the railway track. The headlight

switching circuit shall provide for the possibility of switching on a bright light ensuring the nominal axial luminous intensity, and a dim light.

It shall be possible to replace the headlight lamp (or, where an LED headlight is fitted, to provide redundancy of light and power sources) from the driver's cab, and to adjust the direction of the light beam while the train is in motion.

Passenger cars shall be equipped with three signal lamps installed on both end walls of the cars.

92. Freight cars shall be equipped with brackets for mounting protection signals.

93. Locomotives, multiple-unit rolling stock and special self-propelled railway rolling stock shall be equipped with high-volume audible signalling devices (typhons) and low-volume audible signalling devices (whistles). The device for activating the typhon and the whistle shall be located within the optimal reach zone of the driver and the assistant driver. The audible signal control system of locomotives and multiple-unit rolling stock shall be duplicated (include devices for direct control of the typhon air valve by mechanical action).

94. The engine room on locomotives with an autonomous power plant (with a car-type body), diesel trains, railcars, rail buses, diesel-electric trains, isothermal cars with an autonomous power plant, and special self-propelled railway rolling stock shall be separated from the driver's cab or the rooms for operating personnel.

95. Side doors of covered freight, isothermal, mail and baggage cars shall be equipped with devices limiting door movement when fully opened. Doors, hatch covers and their locks shall be openable by the force of one person. Covered freight cars with side doors shall be equipped with non-removable fittings for installing bunks, window frames, door boards, rifle

racks and stove kits.

Covered freight cars with roof hatches for loading bulk cargo shall be equipped with walkways on the car roof and ladders for climbing onto these walkways.

96. Tank cars shall be equipped on both sides of the outside of the tank shell with ladders with ribbed steps and handrails. Depending on their purpose, tank shells and tank car frames shall be equipped with earthing systems of the appropriate design.

The tank car shell shall be equipped with a bottom or top discharge device or with loading and unloading fittings depending on the purpose of the tank, with safety valves and other necessary fittings, as well as with an internal ladder (depending on the purpose of the tank) and safety diaphragms (depending on the purpose of the tank), and shall ensure the tightness of the shells.

Shells of special types of tank cars shall be equipped with shut-off and shut-off/control fittings and shall allow for the installation of monitoring instruments.

The design of the discharge-and-filling, safety and control-and-measuring fittings shall withstand damage without leakage of the cargo or shall be protected against damage that may cause leakage of the cargo from the tank shell in the event of a derailment of the tank car.

97. The operational documents for railway rolling stock and its components (for rolling stock, the operating manual) shall contain recommendations on the safe disposal of railway rolling stock and its components, as well as of the materials and substances used in them, upon expiry of the assigned service life (upon reaching the assigned resource).

98. The design of the coupler (automatic coupler) shall prevent spontaneous uncoupling of railway rolling stock units.

99. The necessary (clearly distinguishable) identification and warning inscriptions and marking shall be applied to railway rolling stock and its components; the information they contain is duplicated and explained in the operational documents.

100. Railway rolling stock shall bear marking that ensures its identification and contains the following information:

the single mark of product circulation on the market of the Union;

the name of the manufacturer and (or) its trademark (if any);

the name of the item and (or) the series or type designation, number;

date of manufacture;

tare mass (car tare mass – for multiple-unit rolling stock, service mass – for locomotives and special self-propelled rolling stock);

design speed;

a plate or inscription containing information on repairs performed (a place for the plate or inscription – for newly manufactured railway rolling stock);

carrying capacity (for freight, mail and baggage cars);

number of passenger seats (for railway rolling stock intended for the carriage of passengers or operational and repair personnel), number of seats in the car (for multiple-unit rolling stock).

The marking of railway rolling stock shall be preserved throughout the entire life cycle of the railway rolling stock.

101. Components of railway rolling stock shall bear marking that ensures their identification and contains, among other things:

the single mark of product circulation on the market of the Union;

the name of the manufacturer and (or) its trademark (if any), the product name and (or) designation in accordance with the design documentation;

the date of manufacture.

It is permitted to apply the marking only to the packaging, provided that the operational documents accompanying the components of railway rolling stock state that it is impossible or impractical to apply the marking directly to the components of railway rolling stock owing to the specific features of their design or operating conditions.

The marking of components of railway rolling stock shall be preserved throughout the entire life cycle of the components of railway rolling stock.

Where it is impossible to ensure that the marking on the packaging is preserved throughout the entire life cycle of the product, it is permitted to indicate the information contained in the marking only in the operational documents.

102. Wheelsets of railway rolling stock shall bear marking and stamping marks.

103. Side frames and bolsters of freight car bogies shall bear the following cast marking symbols:

the manufacturer's code number;

the last two digits of the year of manufacture;

the serial number of the frames and bolsters according to the manufacturer's numbering system;

the code designation of the steel grade.

Where frames and bolsters are manufactured by welding, it is permitted to apply the marking symbols by another method that ensures preservation of the marking during the assigned service life and (or) the assigned resource.

104. Side frames and bolsters of freight car bogies shall bear the stamp of the manufacturer's technical control service and, where a defect in the frames and bolsters has been corrected by welding, also the welder's stamp.

105. The following marking shall be applied to glazing items of railway rolling stock (driver's cabs of traction, multiple-unit and special self-propelled railway rolling stock) and to side glazing items of locomotive-hauled passenger cars and multiple-unit rolling stock:

a) the single mark of product circulation on the market of the Union;

б) the name of the manufacturer and (or) its trademark (if any);

в) the designation of the glass type.

106. The requirements provided for in paragraphs 100 – 105 of this Technical Regulation shall be specified in the design documentation for the relevant products.

107. The text contained in the marking and in the operational documents shall be drawn up in Russian and, where the legislation of a Member State contains a corresponding requirement, in the state language (state languages) of the Member State in whose territory the products are sold.

VI. Ensuring Compliance with Safety Requirements

108. Conformity of products with the requirements of this Technical Regulation shall be ensured either by fulfilling its requirements directly or by fulfilling the requirements of standards included in the list of international and regional (interstate) standards or, in their absence, national (state) standards, the voluntary application of which ensures compliance with the requirements of this Technical Regulation (hereinafter, the list of standards the application of which ensures compliance with the requirements of this Technical Regulation).

109. Methods of research (testing) and measurement of products shall be established in the standards included in the list of international and regional (interstate) standards or, in their absence, national (state) standards containing rules and methods of research (testing) and measurement, including sampling rules, necessary for the application and fulfilment of the requirements of this Technical Regulation and for the Conformity Assessment of the objects of technical regulation.

110. Measuring Instruments used in research (testing) and measurement shall comply with the requirements of the legislation of the Member State or of acts of the Union bodies on ensuring the uniformity of measurements.

111. In order to fulfil the requirements of this Technical Regulation, the standards given in the list of standards the application of which ensures compliance with the requirements of this Technical Regulation shall be applied.

Where the standards included in the list of standards the application of which ensures compliance with the requirements of this Technical Regulation are not applied, Conformity Assessment shall be carried out on the basis of risk analysis.

Non-application of the standards included in the said list may not be regarded as non-compliance with the requirements of this Technical Regulation.

VII. Conformity Assessment

112. Products covered by this Technical Regulation shall, before being placed on the market in the customs territory of the Union, be subject to assessment of conformity with the requirements of this Technical Regulation.

113. Conformity assessment shall be carried out in the form of proof of conformity of products with the requirements of this Technical Regulation (hereinafter referred to as proof of conformity) according to standard schemes, taking into account the specific features established by this Technical Regulation.

114. Proof of conformity shall be carried out in the form of:

- a) certification by a certification body (schemes 1c, 3c, 4c and 10c);
- b) declaration of conformity of products with the requirements of this Technical Regulation (hereinafter referred to as declaration of conformity) on the basis of own evidence and (or) evidence obtained with the participation of a certification body and (or) an accredited testing laboratory (center) included in the unified register of conformity assessment bodies of the Union (hereinafter referred to as accredited testing laboratory (center)), or of the manufacturer's own testing laboratory (schemes 1д, 2д, 3д, 4д and 6д).

115. Proof of conformity may be carried out in the form of certification instead of declaration of conformity upon the applicant's written application to a certification body.

116. Identification of product samples received for testing and the necessary studies (tests) and measurements of products during certification shall be carried out by accredited testing laboratories (centers).

An accredited testing laboratory (center) shall carry out studies (tests) and measurements of products within its scope of accreditation under the terms of a contract concluded with the certification body (except where the testing laboratory (center) and the certification body are combined in a single entity).

117. The annexes to this Technical Regulation contain the following lists:

list of railway rolling stock subject to certification, in accordance with Annex No. 2;

list of railway rolling stock components subject to certification, in accordance with Annex No. 3;

list of railway rolling stock components subject to declaration of conformity on the basis of the applicant's own evidence (if any) and evidence obtained with the participation of a certification body and (or) an accredited testing laboratory (center), or to declaration of conformity on the basis of the applicant's own evidence (if any) and evidence obtained, among others, with the participation of a management system certification body and an accredited testing laboratory (center), in accordance with Annex No. 4;

list of railway rolling stock components subject to declaration of conformity on the basis of the applicant's own evidence, in accordance with Annex No. 5;

list of provisions of the Technical Regulation of the Customs Union "On Safety of Railway Rolling Stock" (TR CU 001/2011) applied in the certification of railway rolling stock, in accordance with Annex No. 6;

list of provisions of the Technical Regulation of the Customs Union "On Safety of Railway Rolling Stock" (TR CU 001/2011) applied in the proof of conformity of railway rolling stock components, in accordance with Annex No. 7.

118. Products under development specified in Annexes No. 2 and 3 to this Technical Regulation whose design documentation has been assigned the letter "O" shall not be subject to certification.

For other products specified in Annexes No. 2 and 3 to this Technical Regulation, a certificate of conformity with the requirements of this Technical Regulation (hereinafter referred to as certificate of conformity) is mandatory.

119. Prototypes of products whose individual components do not have a certificate of conformity or a declaration of conformity may be released into supervised operation pending receipt of the certificate of conformity or declaration of conformity for those components.

120. In conformity assessment, the applicant shall be a legal entity or a natural person acting as an individual entrepreneur, registered in the territory of a Member State in accordance with its legislation:

a) for serially manufactured products – the manufacturer (a person authorized by the manufacturer);

b) for a batch of products or a single item – the manufacturer (a person authorized by the manufacturer) or the seller (importer).

121. Products that have undergone modernization with extension of service life shall be subject to the same conformity assessment procedures as newly manufactured products.

122. The time frames for conformity assessment work shall be determined by the contract between the certification body and the applicant.

123. In conformity assessment, use may be made of the results of work carried out during the assessment of conformity of the given products with the requirements of the Technical Regulation of the Customs Union "On Safety of High-Speed Railway Transport" (TR CU 002/2011), adopted by Decision of the Customs Union Commission No. 710 of 15 July 2011 (test reports, expert opinions, technical opinions, visual inspection reports, safety assessments and other documents obtained in the course of work on assessment of conformity of products with the requirements of the said Technical Regulation), not more than 5 years ago.

1. Procedure for Declaration of Conformity

124. The conformity declaration schemes applied in accordance with this Technical Regulation include the following procedures:

- a) selection of the conformity declaration scheme by the applicant adopting the declaration of conformity;
- b) compilation and analysis by the applicant of the set of documents that served as the basis for adopting the declaration of conformity;
- c) identification of the products and (or) selection of product samples, if provided for by the conformity declaration scheme;
- d) performance of production control by the manufacturer of the declared products and taking of all necessary measures to ensure that the production process ensures the conformity of the products with the requirements of this Technical Regulation (for schemes 1d, 3d and 6d);
- e) selection by the applicant of an accredited testing laboratory (centre), where conformity declaration schemes providing for the participation of an accredited testing laboratory (centre) are applied;
- f) identification of product samples received for testing, and studies (tests) and measurements of product samples, depending on the conformity

declaration scheme, in an accredited testing laboratory (centre) or in the manufacturer's own testing laboratory;

g) adoption and registration of the declaration of conformity in accordance with the procedure approved by the Eurasian Economic Commission (hereinafter – the Commission);

h) ensuring by the applicant that the products are marked with the single mark of product circulation on the Union market in accordance with the procedure approved by the Commission;

i) compilation by the applicant of a set of evidentiary materials that served as the basis for adopting the declaration of conformity and that confirm the conformity of the products with the requirements of this Technical Regulation, after completion of the conformity assessment procedures in the form of declaration of conformity, and their storage.

125. The following schemes are applied for declaration of conformity:

a) scheme 1d – applied to serially manufactured products for declaration of conformity on the basis of the applicant's own evidence.

The applicant for declaration of conformity under scheme 1d is the manufacturer (person authorized by the manufacturer).

The applicant, or (on behalf of the applicant) the certification body, or an accredited testing laboratory (centre), or the manufacturer's own testing laboratory carries out identification of the products and selection of product samples.

Studies (tests) and measurements of product samples are carried out, at the applicant's choice, in an accredited testing laboratory (centre) or in the manufacturer's own testing laboratory;

b) scheme 2d – applied to a batch of products or a single item for declaration of conformity on the basis of the applicant's own evidence.

The applicant for declaration of conformity under scheme 2d is the manufacturer (person authorized by the manufacturer) or the seller (importer).

The applicant, or (on behalf of the applicant) the certification body, or an accredited testing laboratory (centre), or the manufacturer's own testing laboratory carries out identification of the products and selection of product samples.

Studies (tests) and measurements of product samples are carried out, at the applicant's choice, in an accredited testing laboratory (centre) or in the manufacturer's own testing laboratory;

c) scheme 3d – applied to serially manufactured products for declaration of conformity on the basis of evidence obtained with the participation of an accredited testing laboratory (centre) and the applicant's own evidence (if any).

The applicant for declaration of conformity under scheme 3d is the manufacturer (person authorized by the manufacturer).

The applicant, or (on behalf of the applicant) the certification body, or an accredited testing laboratory (centre) carries out identification of the products and selection of product samples.

Studies (tests) and measurements of product samples are carried out in an accredited testing laboratory (centre);

d) scheme 4d – applied to a batch of products or a single item for declaration of conformity on the basis of evidence obtained with the participation of an accredited testing laboratory (centre) and the applicant's own evidence (if any).

The applicant for declaration of conformity under scheme 4d is the manufacturer (person authorized by the manufacturer) or the seller (importer).

The applicant, or (on behalf of the applicant) the certification body, or an accredited testing laboratory (centre) carries out identification of the products and selection of product samples.

Studies (tests) and measurements of product samples are carried out in an accredited testing laboratory (centre);

e) scheme 6d – applied to serially manufactured products where the manufacturer has an implemented management system certified by a management system certification body that is registered as a legal entity in the territory of a Member State in accordance with the procedure established by the legislation of that Member State and accredited by the accreditation body of that Member State as a body performing management system certification.

Scheme 6d is applied on the basis of the applicant's own evidence (if any) and evidence obtained, inter alia, with the participation of the said management system certification body and an accredited testing laboratory (centre).

The applicant for declaration of conformity under scheme 6d is the manufacturer (person authorized by the manufacturer).

The applicant, or (on behalf of the applicant) the certification body, or an accredited testing laboratory (centre) carries out identification of the products and selection of product samples.

Studies (tests) and measurements of product samples are carried out in an accredited testing laboratory (centre).

126. The set of documents that served as the basis for adopting the declaration of conformity includes, depending on the conformity declaration scheme applied by the applicant, the following documents:

a) for serially manufactured products:

a document containing information on the applicant's registration or record (individual, identification) number assigned upon state registration of a legal entity or of an individual as an individual entrepreneur in accordance with the legislation of the Member States;

copies of the technical documentation (design, technological and repair documentation (draft repair documentation), operational documentation and (or) technical specifications (descriptions)) for the products, containing the main parameters and characteristics of the products, as well as their description, for the purposes of conformity assessment;

a list of standards (indicating their designations and titles, as well as sections (clauses, subclauses), if compliance with the requirements of this Technical Regulation can be ensured by applying individual sections (clauses, subclauses) of these standards rather than the standards as a whole) included in the list of standards whose application ensures compliance with the requirements of this Technical Regulation (if applied by the applicant);

a safety assessment for the purposes of proof of conformity of the products in the event of non-application or partial application of the standards included in the list of standards whose application ensures compliance with the requirements of this Technical Regulation;

an agreement with the manufacturer (including a foreign manufacturer) providing for ensuring the conformity of the products supplied to the customs territory of the Union with the requirements of this Technical Regulation and liability for non-conformity of such products with the said

requirements (for a person authorized by the manufacturer);

a document containing information on the existing certificates of conformity and declarations of conformity for the products whose components are subject to proof of conformity (indicating the number and date of registration);

the certificate (a copy of the certificate) of the manufacturer's management system (for scheme 6d);

other documents at the applicant's discretion (results of calculations, expert examinations, reports of studies (tests) and measurements of product samples (specimens), etc.) that served as the basis for adopting the declaration of conformity (if any);

b) for a batch of products or a single item:

a document containing information on the registration or record (individual, identification) number of the applicant assigned upon state registration of a legal entity or an individual as an individual entrepreneur in accordance with the legislation of the Member States;

a copy of the contract (supply agreement) and shipping documents identifying the single item or batch of products (including its size);

a copy of the operational documents, copies of the repair documentation (draft repair documentation);

a list of standards (indicating their designations and titles, as well as sections (clauses, subclauses), if compliance with the requirements of this Technical Regulation can be ensured by applying individual sections (clauses, subclauses) of these standards rather than the standards as a whole) included in the list of standards whose application ensures compliance with the requirements of this Technical Regulation (if applied by the applicant);

a safety assessment for the purposes of proof of conformity in the event of non-application or partial application of the standards included in the list of standards whose application ensures compliance with the requirements of this Technical Regulation;

reports of studies (tests) and measurements of product samples (if any);

a document containing information on the existing certificates of conformity and declarations of conformity for the products whose components are subject to proof of conformity (indicating the number and date of registration);

other documents at the applicant's discretion that served as the basis for adopting the declaration of conformity (if any).

127. The set of documents specified in clause 126 of this Technical Regulation shall be compiled on paper or electronic media.

Documents submitted to the certification body in electronic form shall be signed using an electronic digital signature (electronic signature) obtained by the applicant in accordance with the legislation of the Member State.

128. Documents specified in clause 126 of this Technical Regulation that are drawn up in a foreign language shall be accompanied by a translation into Russian and, where so required by the legislation of the Member State, into the state language (state languages) of the Member State in which the declaration of conformity is registered.

129. Product samples selected for studies (tests) and measurements shall be identical in design, composition and manufacturing technology to the products supplied to the consumer (customer).

130. When declaring conformity on the basis of own evidence and evidence obtained with the participation of a certification body and (or) an accredited testing laboratory (centre), the applicant shall arrange for

testing, after which the applicant shall supplement the set of documents compiled in accordance with clause 126 of this Technical Regulation with the sample selection record and the report (reports) of studies (tests) and measurements carried out, depending on the declaration of conformity scheme applied, at an accredited testing laboratory (centre) or the manufacturer's own testing laboratory.

131. When declaring conformity, the results of studies (tests) and measurements of product samples obtained no more than 5 years ago may be used.

132. A declaration of conformity for products whose components are subject to proof of conformity may be registered only if certificates of conformity or declarations of conformity for these components are available.

133. The declaration of conformity shall be drawn up according to the uniform form and rules approved by the Commission.

Declarations of conformity for software shall contain information on the program documents supplied with the products that contain information for the assembly, installation and operation of these products and that were used in conducting the conformity assessment.

134. Registration, suspension, resumption and termination of the declaration of conformity shall be carried out in the manner approved by the Commission.

To register a declaration of conformity, the applicant shall submit the documents provided for by the procedure approved by the Commission, as well as:

the set of documents provided for by clause 126 of this Technical Regulation;

the sample selection record;

a copy of the report (copies of the reports) on studies (tests) and measurements performed, depending on the applied declaration of conformity scheme, in an accredited testing laboratory (centre) or in the manufacturer's own testing laboratory.

135. After completion of the procedures for proof of conformity in the form of declaration of conformity, the applicant compiles and retains a set of evidentiary materials that served as the basis for the adoption of the declaration of conformity and confirm the conformity of the products with the requirements of this Technical Regulation, which includes:

a) the documents provided for in clause 126 of this Technical Regulation;

b) the sample selection record;

c) the report (reports) on studies (tests) and measurements performed, depending on the applied declaration of conformity scheme, in an accredited testing laboratory (centre) or in the manufacturer's own testing laboratory;

d) the registered declaration of conformity.

136. The validity period of the declaration of conformity:

for serially manufactured products, is not more than 5 years;

for a batch of products or a single item, is not established.

137. The period of retention by the applicant of the declaration of conformity and the set of evidentiary materials is:

for serially manufactured products – not less than 10 years from the date of withdrawal from production (discontinuation of production) of such products;

for a batch of products or a single item – not less than 10 years from the date of sale of the last item of the batch.

138. The period of retention by the certification body of copies of the declaration of conformity and the set of evidentiary materials is:

not less than 5 years from the date of expiry of the validity period of the declaration of conformity;

not less than 10 years from the date of registration of the declaration of conformity, if the validity period of the declaration of conformity is not limited.

139. When changes are made to the design (composition) of the products or to their manufacturing technology, the applicant shall ensure the conformity of the products with the requirements of this Technical Regulation. To this end, the applicant carries out a set of measures (tests, expert examination, calculation, etc.) and, within 30 calendar days from the date the changes were made, submits evidentiary materials on the results of the measures carried out to the body that registered the declaration of conformity, for their inclusion in the declaration file.

140. The operational documents accompanying the declared products, as well as the shipping documentation, shall contain the single mark of product circulation on the market of the Union and information on the declaration of conformity (registration number of the declaration, date of issue and validity period (if any)).

141. The documents that served as the basis for the adoption of the declaration of conformity and that confirm the conformity of the products with the requirements of this Technical Regulation shall be submitted by the applicant and (or) the certification body (upon request) to the state control (supervision) authorities of the Member States responsible for exercising state control (supervision) over compliance with the

requirements of this Technical Regulation, and also, in cases established by the legislation of the Member States, to other interested parties.

2. Certification Procedure

142. The certification schemes applied in accordance with this technical regulation include the following procedures:

- a) submission by the applicant to the certification body of an application for product certification (hereinafter – the application), stating the information provided for in paragraph 144 of this technical regulation, with the documents specified in paragraph 145 of this technical regulation attached;
- б) review and analysis by the certification body of the application and the attached documents, identification of the product by the certification body to determine whether the product falls within the scope of application of this technical regulation, adoption of a decision on the said application and sending of the decision to the applicant;
- в) selection of product samples by the certification body (if provided for by the certification scheme);
- г) performance of research (tests) and measurements of product samples in an accredited testing laboratory (centre) under a contract concluded with the certification body (except where the testing laboratory (centre) and the certification body are combined in a single entity);
- д) analysis of the state of production of the product by the certification body (for scheme 1c);
- е) consolidation and analysis by the certification body of the documents submitted by the applicant, the results of research (tests) and measurements of product samples and the results of the analysis of the state of production of the product (if any);

- ж) adoption by the certification body of a decision to issue or to refuse to issue a certificate of conformity;
- з) execution and issue of the certificate of conformity by the certification body, or sending to the applicant of the decision to refuse to issue the certificate of conformity;
- и) entry of information on the issued certificate of conformity into the unified register of issued certificates of conformity and registered declarations of conformity;
- к) ensuring by the applicant that the product is marked with the single mark of product circulation on the market of the Union in the manner approved by the Commission;
- л) periodic assessment of the certified product by the certification body (for scheme 1c).

143. The following schemes are applied in product certification:

- a) scheme 1c – applied to serially manufactured products and to a pilot (installation) series.

The applicant in certification under scheme 1c is the manufacturer (the person authorized by the manufacturer).

The certification body performs:

identification of the product and selection of product samples for their research (tests) and measurements;

analysis of the state of production of the product;

periodic assessment of the certified product during the validity period of the certificate of conformity 1 time per year by means of identification of the product samples received for testing, research (tests) and

measurements of samples of the certified product in an accredited testing laboratory (centre), and analysis of the state of production of the product.

The certificate of conformity is issued for a period of not more than 5 years;

6) scheme 3c – applied to a batch of products.

The applicant in certification under scheme 3c is the manufacturer (the person authorized by the manufacturer) or the seller (importer).

In addition to the information provided for in paragraph 144 of this technical regulation, the application shall state the identifying features of the batch of products, including its composition and size (the number of product units in the batch, the serial numbers of the products).

The certification body performs identification of the batch of products and selection of product samples from the batch of products submitted for certification for their research (tests) and measurements.

The validity period of the certificate of conformity is not established;

в) scheme 4c – applied to a single item where the research (tests) and measurements for that item are non-destructive.

The applicant in certification under scheme 4c is the manufacturer (the person authorized by the manufacturer) or the seller (importer).

In addition to the information provided for in paragraph 144 of this technical regulation, the application shall state the identifying features of the single item.

The certification body performs identification of the product and selection of the single item for its research (tests) and measurements.

The validity period of the certificate of conformity is not established;

r) scheme 10c – applied in the case of a limited, predetermined volume of sales of a product that will be supplied (sold) within a short period of time in separate batches as they are serially produced (for products imported into the territory of the Union – under short-term contracts; for products manufactured in the territory of the Union – where the production volume is limited).

The applicant in certification under scheme 10c is the manufacturer (the person authorized by the manufacturer).

The certification body performs identification of the product and selection of product samples for their research (tests) and measurements.

The certificate of conformity is issued for a predetermined limited series of products manufactured within a limited time, for a period not exceeding 1 year.

144. The application is drawn up by the applicant in Russian and, where the legislation of the Member State so requires, in the state language (state languages) of the Member State in which the product certification is carried out, and shall contain:

a) the full name of the certification body and its location (address of the legal entity);

6) the full name of the applicant, its location (address of the legal entity) and the address (addresses) of the place of business (if the addresses differ) – for a legal entity, or the surname, first name and patronymic (if any), place of residence and the address (addresses) of the place of business (if the addresses differ) – for an individual registered as an individual entrepreneur, as well as the registration or record (individual, identification) number of the applicant assigned upon state registration of the legal entity or of the individual registered as an individual entrepreneur in accordance with the legislation of the Member States,

bank details, telephone number and e-mail address;

в) the position, surname, first name and patronymic (if any) of the head of the legal entity or of the representative of the applicant organization authorized in accordance with the legislation of the Member State to apply to the certification body with the application (stating the name and details of the authorizing document);

д) full name of the manufacturer, its location (address of the legal entity) and address(es) of the place(s) where product manufacturing activities are carried out (if the addresses differ) – for a legal entity and its branches that manufacture the products, or surname, first name and patronymic (if any), place of residence and address(es) of the place(s) where product manufacturing activities are carried out (if the addresses differ) – for an individual registered as an individual entrepreneur, if the applicant is not the manufacturer of the products being certified;

е) the following information about the products that ensures their identification, and about their identifying features:

name, type, model and modification of the products, product code(s) according to the unified Commodity Nomenclature of Foreign Economic Activity of the Eurasian Economic Union, technical description of the products, designation and name of the document(s) according to which the products have been manufactured (standard, organization standard, technical specifications or other document) (if any);

description of the products corresponding to the instructions for use (operation) of the products and other technical documentation according to paragraphs 145 and 146 of this Technical Regulation, the product description, as well as the type of production (serial production, pilot series, batch or single product (number of units in the batch, identifying features of a product unit), information on the contract (supply agreement) and shipping documents identifying the single item or the

batch of products, including its size);

f) reference to the provisions of this Technical Regulation with whose requirements the products being certified comply;

g) the certification scheme selected by the applicant;

h) additional information at the applicant's discretion;

i) list of documents attached to the application;

j) indication of the application of standards whose application on a voluntary basis ensures compliance with the requirements of this Technical Regulation.

145. The following documents shall be attached to the application:

a) for serially produced products:

a document containing information on the registration or record (individual, identification) number of the applicant assigned upon state registration of a legal entity or of an individual as an individual entrepreneur in accordance with the legislation of the Member States;

a copy of the document(s) according to which the products are manufactured (technical specifications and (or) organization standards (a document replacing them));

copies of technical documentation (design, process and repair documentation (draft repair documentation)), a set of operational documents (to the extent agreed with the certification body);

list of standards (indicating their designations and names, as well as sections (paragraphs, subparagraphs), if compliance with the requirements of this Technical Regulation can be ensured by applying individual sections (paragraphs, subparagraphs) of these standards rather

than the standards as a whole) included in the list of standards whose application ensures compliance with the requirements of this Technical Regulation (if applied by the applicant);

safety assessment for the purpose of conformity confirmation in the event of non-application or partial application of standards included in the list of standards whose application ensures compliance with the requirements of this Technical Regulation;

a copy of the contract with the manufacturer (including a foreign manufacturer) providing for ensuring the conformity of products imported into the customs territory of the Union with the requirements of this Technical Regulation and liability for non-conformity of such products with the said requirements (for a person authorized by the manufacturer);

copies of reports of studies (tests) and measurements of the products (if any);

a document containing information on existing certificates of conformity and declarations of conformity of products whose component parts are subject to conformity confirmation (indicating the number and date of registration);

a copy of the report of acceptance (qualification) tests (submitted at initial certification);

a copy of the act of the qualification commission and, in the case of initial certification, also of the act of the acceptance commission (if any);

a copy of the action plan for eliminating deficiencies identified by the acceptance (qualification) commission (if any) and documents confirming its implementation;

information on claims;

a proposal on the method and place of applying the unified mark of product circulation on the Union market;

other documents at the applicant's choice (if any).

Documentation may be submitted as it is prepared and approved, but in any case must be submitted before a decision is taken on the possibility of issuing the certificate of conformity;

b) for a batch of products or a single item:

information on the registration or record (individual, identification) number of the applicant assigned upon state registration of a legal entity or of an individual as an individual entrepreneur in accordance with the legislation of the Member States;

a copy of the contract (supply agreement) and shipping documents identifying the single item or the batch of products (including its size);

a copy of operational documents, copies of repair documentation (draft repair documentation);

list of standards (indicating their designations and names, as well as sections (paragraphs, subparagraphs), if compliance with the requirements of this Technical Regulation can be ensured by applying individual sections (paragraphs, subparagraphs) of these standards rather than the standards as a whole) included in the list of standards whose application ensures compliance with the requirements of this Technical Regulation (if applied by the applicant);

safety assessment for the purpose of conformity confirmation in the event of non-application or partial application of standards included in the list of standards whose application ensures compliance with the requirements of this Technical Regulation;

reports of studies (tests) and measurements of product samples (if any);

a document containing information on existing certificates of conformity and declarations of conformity of products whose component parts are subject to conformity confirmation (indicating the number and date of registration);

other documents at the applicant's choice (if any).

By decision of the certification body, product testing may be replaced by the results of an expert examination on extending the results of tests of similar product samples, as given in certification test reports not more than 5 years old. The expert examination is carried out by the certification body or by another organization by decision of the certification body.

146. Documents attached to the application that are drawn up in a foreign language shall be accompanied by a translation into Russian and, where the legislation of the Member State so requires, into the state language (state languages) of the Member State in which the product certification is carried out.

Copies of documents attached to the application shall be certified by the signature and seal of the applicant (unless otherwise established by the legislation of the Member State).

Documents submitted to the certification body in electronic form shall be signed using an electronic digital signature (electronic signature) obtained by the applicant in accordance with the legislation of the Member State.

147. In product certification, the results of acceptance and other tests of the product being certified or of similar product samples may be taken into account, provided that they were carried out in accredited testing laboratories (centres) under programmes agreed with the certification body.

In this case, the applicant shall submit an application for certification before the start of the acceptance and other tests and submit to the certification body a schedule for such tests. The accredited testing laboratory (centre) shall inform the certification body of the start and progress of the tests. These tests may be taken into account in certification only if, based on their results, no significant changes requiring repeated research (tests) and measurements were made to the product design and its manufacturing technology.

148. The certification body shall review the application and, within a period not exceeding 30 calendar days after its receipt, send the applicant a positive decision on the application or a decision to refuse certification.

149. The positive decision on the application shall specify the main conditions of certification, including:

- a) information on the certification scheme;
- b) the time frame for certification;
- c) information on the regulatory documents on the basis of which product certification will be carried out;
- d) conditions for the analysis of the state of production of the product, if this is provided for by the certification scheme;
- e) conditions for the selection of product samples;
- f) information on the scope of research (tests) and measurements and other methods of conformity assessment;
- g) conditions for the periodic assessment of the product being certified.

150. The grounds for the certification body to decide to refuse certification are:

- a) failure to submit, or incomplete submission of, the documents specified in paragraph 145 of this Technical Regulation;
- b) incompleteness and (or) unreliability of the information contained in the submitted documents;
- c) impossibility of classifying the product as falling within the field of application of this Technical Regulation;
- d) non-compliance of the applicant with the requirements of this Technical Regulation that establish the range of applicants for certification.

151. In certification, product identification and the selection of product samples are carried out by the certification body.

By agreement with the applicant, the selection of product samples may be carried out by a person authorized by the certification body, which may be another certification body or an accredited testing laboratory (centre) whose scope of accreditation covers the product.

The selection of product samples for research (tests) and measurements is carried out in accordance with the requirements established by the standards included in the list of international and regional (interstate) standards and, in their absence, national (state) standards containing the rules and methods of research (tests) and measurements, including sampling rules, necessary for the application and fulfilment of the requirements of this Technical Regulation and for the conformity assessment of the objects of technical regulation.

The selected product samples shall be identical in design, composition and manufacturing technology to the product intended for supply to the consumer (customer).

The selected product samples are marked and sent for research (tests) and measurements. If necessary, sealing may be performed, as well as

marking of individual components of the selected product.

152. The sample selection report shall contain:

- a) the number and date of drawing up the sample selection report;
- b) the name and address of the manufacturer and the applicant;
- c) the name, type, model and modification of the product;
- d) the size (volume) of the batch from which the samples were selected;
- e) the result of the external inspection of the batch (appearance, condition of packaging and marking);
- f) the date of manufacture and the date of acceptance of the product;
- g) the designation and name of the regulatory document in accordance with which the samples were selected;
- h) the quantity and numbers of the selected samples;
- i) the place of sample selection;
- j) the details and signatures of the representatives of the certification body and the applicant (manufacturer).

153. The sample selection report for products whose components are subject to conformity confirmation shall be accompanied by a list of those components, indicating the manufacturer and the design documentation according to which they are manufactured.

154. The results of the assessment of certification indicators determined by visual inspection may be recorded in the sample selection report, the report on the results of the analysis of the state of production of the product, the visual inspection report or another document drawn up by the certification body in the course of certification work.

155. During product identification, the basic characteristics of the product specified in the application are compared with the following actual characteristics given in the marking and in the accompanying documentation:

- a) name, type, model and modification;
- b) name of the manufacturer or data on the origin of the product;
- c) the document in accordance with which the product is produced;
- d) information on belonging to the relevant batch;
- e) information on belonging to the relevant technological process (if necessary).

156. In the case of repeated certification of railway rolling stock specified in Annex No. 2 to this Technical Regulation by the certification body that previously certified such products, that body may decide to carry out an examination of the evidentiary documentation instead of research (tests) and measurements of products that have results of research (tests) and measurements with respect to indicators of impact on the railway track, as well as indicators associated with dynamic and fatigue tests, not older than 10 years.

In that case, such results of research (tests) and measurements may be accepted during repeated certification only if there have been no changes to the design and (or) process documentation affecting these indicators, and no changes to the standards included in the list of standards whose application ensures compliance with the requirements of this Technical Regulation and which establish the indicators of impact on the railway track and the indicators associated with dynamic and fatigue tests.

In all other cases, results of research (tests) and measurements older than 5 years shall not be considered for the purposes of product certification.

157. The report on research (tests) and measurements shall contain:

- a) the name and designation of the report on research (tests) and measurements, with the document designation repeated on each page;
- b) the name and address of the accredited testing laboratory (centre) and information on its accreditation (name of the accreditation body, number of the accreditation certificate, date of issue of the accreditation certificate (or the details of the accreditation order, or the unique number of the accreditation entry in the register of accredited persons) and the validity period of the accreditation certificate (if any));
- c) information on the certification body that commissioned the research (tests) and measurements (for a certification test report);
- d) the details of the identification record for the product samples received for testing, information on the manufacturer and the date of manufacture of the products;
- e) the date on which the products were received for research (tests) and measurements;
- f) information on the indicators checked and the requirements for them, as well as information on the regulatory documents containing these requirements;
- g) the date (period) of the research (tests) and measurements;
- h) information on the methods and procedures of research (tests) and measurements used;
- i) information on the storage of the products before the research (tests) and measurements and on the preparation of the products for research (tests) and measurements, as well as information on the place where the research (tests) and measurements were carried out and on the

environmental conditions during the research (tests) and measurements;

j) information on the owned and leased test equipment and measuring instruments used;

k) information on research (tests) and measurements performed by another accredited testing laboratory (centre) (if any);

l) the results of the research (tests) and measurements, supported, where necessary, by tables, graphs, photographs and other materials;

m) a statement that the report on research (tests) and measurements relates only to the samples subjected to research (tests) and measurements;

n) the signature of the head of the accredited testing laboratory (centre), certified by the organisation's seal (if any);

o) the positions and signatures of the responsible persons who carried out the research (tests) and measurements;

p) the position and signature of the person (persons) responsible for preparing the report on research (tests) and measurements on behalf of the accredited testing laboratory (centre) (where necessary);

q) the date of issue of the report on research (tests) and measurements;

r) information that amendments to the research (test) and measurement report are made by a separate document (a new report that cancels and replaces the previous one);

y) a statement excluding the possibility of partial reproduction of the research (test) and measurement report.

158. The following shall be attached to the research (test) and measurement report:

a) a certified copy of the product sampling report containing the information specified in paragraph 152 of this Technical Regulation;

б) a certified copy of the product readiness report drawn up by the applicant (manufacturer);

в) a certified copy of the identification report for the product sample received for testing, drawn up by the testing laboratory (centre).

159. The research (test) and measurement report shall not contain recommendations or proposals formulated on the basis of the test results.

160. Research (test) and measurement reports drawn up in accordance with the requirements of paragraphs 157 and 158 of this Technical Regulation shall be submitted to the certification body in 2 copies (the first is placed in the certification file, the second is sent to the applicant).

161. By agreement with the certification body, research (test) and measurement reports may be submitted in the form of an electronic document signed using an electronic digital signature (electronic signature) obtained in accordance with the legislation of the Member State.

162. The analysis of the state of production is carried out in order to establish that the conditions necessary for manufacturing products with stable characteristics verified during certification are in place.

163. The analysis of the state of production shall be performed no earlier than 12 months before the date of issue of the Certificate of Conformity, if the analysis of the state of production is provided for by the certification scheme.

164. The analysis of the state of production is carried out with respect to:

a) technological processes;

- б) technological and design documentation (including its management);
- в) process equipment and tooling;
- г) process modes;
- д) management of process equipment and tooling;
- е) management of metrological equipment;
- ж) research (test) and measurement methods;
- з) the procedure for inspecting raw materials and components;
- и) the procedure for inspecting products during their manufacture;
- к) management of nonconforming products;
- л) the procedure for handling complaints;
- м) personnel management;
- н) management of regulatory documentation for the products.

165. Based on the results of the analysis of the state of production, a report on the results of the analysis of the state of production of the products being certified is drawn up, which shall state:

- а) the results of the analysis of the state of production;
- б) additional materials used in the analysis of the state of production;
- в) the overall assessment of the state of production;
- г) the need for and time frames of corrective actions.

166. After analysing the research (test) and measurement report, the results of the analysis of the state of production (if this is established by

the certification scheme) and the results of the examination of the set of documents submitted by the applicant in accordance with paragraph 145 of this Technical Regulation, the certification body prepares a decision to issue (to refuse to issue) the Certificate of Conformity.

167. The period for issuing the Certificate of Conformity shall not exceed 15 working days from the date on which the certification body receives the research (test) and measurement reports and (if necessary) the documents on the elimination of nonconformities identified during certification.

168. The grounds for a decision by the certification body to refuse to issue a Certificate of Conformity are:

a) nonconformity of the products with the requirements of this Technical Regulation (including a negative result of certification tests);

б) a negative result of the analysis of the state of production (if this is established by the certification scheme);

в) the presence of inaccurate information in the documents obtained in the course of the certification work.

169. On the basis of the decision to issue a Certificate of Conformity, the certification body draws up the Certificate of Conformity in accordance with the uniform form and rules approved by the Commission, registers it in the unified register of issued certificates of conformity and registered declarations of conformity, and issues it to the applicant.

The Certificate of Conformity may be signed by the experts (expert auditors) who, in the course of considering the relevant application, signed the report on the results of the analysis of the state of production.

A Certificate of Conformity is valid only if it has a registration number.

170. Certificates of Conformity are valid from the date of their registration in the unified register of issued certificates of conformity and registered declarations of conformity.

171. The Certificate of Conformity shall contain a list of the specific kinds and types of products to which it applies.

172. A Certificate of Conformity for products whose components are subject to confirmation of conformity with the requirements of this Technical Regulation may be issued provided that these components have undergone the procedure for assessing conformity with the requirements of this Technical Regulation.

Footnote. Paragraph 172 as amended by Decision of the Council of the Eurasian Economic Commission No. 177 of 25.11.2022 (enters into force upon expiry of 10 calendar days from the date of its official publication).

173. When changes are made to the design (composition) of the products or to their production technology that may affect the conformity of the products with the requirements of this Technical Regulation, the applicant shall notify the certification body thereof in advance, and the certification body shall decide whether additional research (tests) and measurements of the products and (or) an analysis of the state of production of these products are necessary.

174. After the additional research (tests) and measurements and (or) the analysis of the state of production have been carried out, the certification body decides whether the Certificate of Conformity may remain valid in view of the changes made to the design of the certified item and (or) its manufacturing technology.

All evidentiary materials obtained in the course of conformity assessment that demonstrate the conformity of the modified design of the certified item and (or) its manufacturing technology with the requirements of this Technical Regulation shall be attached to the certification file containing

the primary evidence of the product's conformity with the requirements of this Technical Regulation.

175. The operational documents accompanying certified products and the shipping documentation shall bear the single mark of product circulation on the Union market and contain a record of the certification performed, as well as the record number of the Certificate of Conformity form, its registration number, date of issue and validity period.

176. Replacement of a Certificate of Conformity or issuance of its duplicate shall be carried out in accordance with the procedure provided for by the standard schemes.

177. Periodic assessment of certified products, where provided for by the certification scheme, shall be carried out by the certification body that performed the certification of the products. Periodic assessment of certified products may be scheduled or unscheduled and ensures that information on the certified products is obtained in the form of results of research (tests) and measurements and (or) analysis of the state of production of the products (by decision of the certification body) in order to establish that the products continue to comply with the requirements of this Technical Regulation confirmed during certification.

178. The certification body shall carry out scheduled periodic assessment of certified products during the validity period of the Certificate of Conformity 1 time per year in accordance with a schedule drawn up by the certification body.

179. The criteria for determining the frequency and scope of periodic assessment of certified products are:

- a) the degree of potential hazard of the products;
- 6) the results of the certification of the products performed;

- в) the stability of production of the products;
- г) the production volume of the products;
- д) the existence of a certified management system.

180. The time frame for carrying out the first scheduled periodic assessment of certified products shall be established in the decision of the certification body on issuing the Certificate of Conformity. The frequency of subsequent periodic assessments may be established in the reports on the periodic assessment of certified products.

181. Unscheduled periodic assessment of certified products shall be carried out in the following cases:

- а) where there is information (supporting documents) on claims regarding the safety of the products.

Such information may be received from consumers, as well as from bodies exercising state control (supervision) over the safety of products for which a Certificate of Conformity has been issued. The scope of work during an unscheduled periodic assessment of certified products shall be determined by the need to verify the technological processes associated with the identified deficiencies in ensuring product safety;

- б) if the manufacturer has not produced the certified products for a period exceeding 1 calendar year.

In this case, the products may be placed on the market in the customs territory of the Union only after an unscheduled periodic assessment has been carried out.

182. Periodic assessment of certified products includes:

- а) analysis of the materials obtained in the course of product certification;

- б) analysis of incoming information on the certified products (including analysis of the results of controlled operation, if provided for);
- в) verification of the conformity of the documents for the certified products with the requirements of this Technical Regulation;
- г) selection of product samples, identification of product samples received for testing, performance of research (tests) and measurements of product samples in an accredited testing laboratory (centre) and analysis of the results obtained in accordance with the certification schemes;
- д) verification that no changes affecting the safety indicators of the products have been made to the design and manufacturing technology of the products as recorded during certification;
- е) analysis of the state of production of the products, if provided for by the certification scheme;
- ж) verification of corrective actions to eliminate previously identified nonconformities;
- з) verification of the correctness of marking the products with the single mark of product circulation on the Union market;
- и) analysis of complaints concerning the certified products.

183. The scope (certification indicators), the number of samples for research (tests) and measurements and the procedure for carrying out research (tests) and measurements during periodic assessment of certified products shall be determined by the certification body carrying out the periodic assessment of certified products.

184. The results of periodic assessment of certified products shall be documented in a report on the periodic assessment of certified products.

In the report on the periodic assessment of certified products, on the basis of the results of the work performed in accordance with paragraph 182 of this Technical Regulation, a conclusion shall be made on the conformity of the products with the requirements of this Technical Regulation, the stability of their fulfilment and the possibility of maintaining the issued Certificate of Conformity, or on the suspension (termination) of the Certificate of Conformity; the report may also specify the time frame for the next scheduled periodic assessment of certified products, the scope (certification indicators) of tests and the number of samples for research (tests) and measurements during the next periodic assessment of certified products.

185. The deadline for submitting the results of research (tests) and measurements of product samples selected during the periodic assessment of certified products shall be set by the certification body, taking into account the scope of research (tests) and measurements.

186. In the absence of samples of certified products during the period of periodic assessment of certified products and (or) where it is impossible to select them for research (tests) and measurements (of which the applicant officially informs the certification body), the periodic assessment shall be carried out in accordance with paragraph 182 of this Technical Regulation, except for the selection and identification of product samples received for testing, the performance of research (tests) and measurements of product samples in an accredited testing laboratory (centre) and the analysis of the results obtained.

When production of the certified products is resumed, the applicant shall inform the certification body that product samples can be selected and identified, and that research (tests) and measurements can be carried out in an accredited testing laboratory (centre). In that case, further work shall take into account the work already performed and shall also be carried out in accordance with subparagraph "6" of paragraph 181 of this Technical

Regulation.

187. If no results of research (tests) and measurements are available within 6 months from the date of the analysis of the state of production of the products carried out in accordance with subparagraph "e" of paragraph 182 of this Technical Regulation, the Certificate of Conformity shall be suspended.

188. In the case specified in paragraph 187 of this Technical Regulation, the Certificate of Conformity may be reinstated after research (tests) and measurements of product samples have been carried out in an accredited testing laboratory (centre) and the results obtained have been analysed, provided that no more than 12 months have passed since the analysis of the state of production of the products carried out in accordance with subparagraph "e" of paragraph 182 of this Technical Regulation. After 12 months have passed since the date of the analysis of the state of production of the products carried out in accordance with subparagraph "e" of paragraph 182 of this Technical Regulation, the Certificate of Conformity may be reinstated only after the analysis of the state of production of the products has been carried out and the results of research (tests) and measurements have been submitted, with the established frequency of periodic assessment of the certified products being maintained.

189. Based on the results of the periodic assessment of the certified products, one of the following decisions may be taken:

a) the Certificate of Conformity remains valid if the products comply with the requirements of this Technical Regulation;

6) the Certificate of Conformity is suspended if the applicant can eliminate the identified causes of the products' non-compliance with the requirements of this Technical Regulation by means of corrective measures;

в) the Certificate of Conformity is terminated if the applicant cannot eliminate the identified causes of the products' non-compliance with the requirements of this Technical Regulation by means of corrective measures.

190. A decision to suspend or terminate the Certificate of Conformity may be taken by the certification body at the request of the applicant.

191. The Certificate of Conformity shall be terminated from the date on which the corresponding entry is made in the unified register of issued certificates of conformity and registered declarations of conformity.

192. The Certificate of Conformity shall be suspended or terminated in accordance with the procedure established by the standard schemes.

193. Products in respect of which the Certificate of Conformity has been terminated may be submitted for certification again after the applicant has taken the necessary corrective measures.

VIII. Marking with the Single Mark of Product Circulation on the Union Market

194. Products that meet the safety requirements and have undergone the conformity confirmation procedure in accordance with Section VII of this Technical Regulation shall be marked with the single mark of product circulation on the Union market.

195. Marking with the single mark of product circulation on the Union market shall be carried out before the products are placed on the Union market.

196. The single mark of product circulation on the Union market shall be applied to each unit of the products.

The single mark of product circulation on the Union market shall be applied to the item itself and shall also be shown in the operational documents accompanying it.

The single mark of product circulation on the Union market shall be applied by any method that ensures a clear and distinct image throughout the entire service life of the products.

197. Where the single mark of product circulation on the Union market cannot be applied directly to the products owing to the features of their design, it may be applied to the packaging only, with a corresponding indication in the accompanying operational documents.

198. Marking of products with the single mark of product circulation on the Union market indicates their conformity with the requirements of all Technical Regulations of the Union (Customs Union) that apply to them.

ANNEX No. 1
to the Technical Regulation
of the Customs Union "On the Safety
of Railway Rolling
Stock" (TR CU 001/2011)
(as amended by Decision of the Council
of the Eurasian Economic Commission
No. 90 of 14 September 2021)

LIST

of objects of technical regulation subject to the requirements of the Technical Regulation of the Customs Union "On Safety of Railway Rolling Stock" (TR CU 001/2011)

I. Railway rolling stock

1. Hopper wagons

2. Insulated wagons
3. Covered wagons
4. Main-line locomotive-hauled passenger coaches
5. Flat wagons
6. Dump wagons
7. Tank wagons
8. Broad-gauge wagons for industry
9. Diesel trains, railcars, rail buses, their cars
10. Diesel-electric trains, their cars
11. Gondola wagons
12. Special non-self-propelled railway rolling stock
13. Special self-propelled railway rolling stock
14. Diesel locomotives, gas turbine locomotives: main-line, shunting and industrial
15. Railway transporter wagons
16. Main-line electric locomotives: direct current, alternating current, dual-system (alternating and direct current), other
17. Shunting electric locomotives
18. Electric trains, electric railcars: direct current, alternating current, dual-system (direct and alternating current), their cars

II. Components of Railway Rolling Stock

Note. Part II as amended by Decision of the Council of the Eurasian Economic Commission No. 90 of 14.09.2021 (enters into force upon expiry of 18 months from the date of official publication).

19. Automatic brake rigging slack adjuster (auto-adjuster)
20. Automatic parking brake of railway rolling stock
21. Wheelset adapters of freight car bogies
22. High-voltage devices for protection and monitoring of railway rolling stock against short-circuit currents
23. Equalizer of a three-axle freight car bogie
24. Freight car bolster
25. Span bolster of a four-axle freight car bogie
26. Center-pin bolster of a three-axle freight car bogie
27. Wheel tires for railway rolling stock
28. Magnetic track brake shoes
29. Brake block holders of railway rolling stock
30. Brake pad holders of disc brakes of railway rolling stock
31. Brake interlock
32. Side glazing units of locomotive-hauled passenger cars and multiple-unit rolling stock
33. Valve-type surge arresters and overvoltage limiters for electric rolling stock

34. Air distributors

35. Auxiliary electrical machines for railway rolling stock (with a power of more than 1 kW):

machines for locomotives and multiple-unit rolling stock that are separate structural products;

under-car generators for locomotive-hauled passenger cars and special rolling stock;

electrical machines of the brake compressor unit of special rolling stock

36. High-speed automatic circuit breakers and main circuit breakers for electric rolling stock

37. High-voltage equipment boxes for passenger cars

38. High-voltage inter-car connections (socket and plug together)

39. Hydraulic dampers of railway rolling stock

40. Brake discs for railway rolling stock

41. Glazing units of railway rolling stock (driver's cabs of traction, multiple-unit and special self-propelled railway rolling stock)

42. Rubber sealing products for pneumatic brake systems of railway rolling stock (diaphragms, cups, collars, seals, gaskets)

43. Cardan shafts of the main drive of locomotives and multiple-unit rolling stock

44. Automatic coupler draft yoke key

45. Friction wedges of freight car bogies

46. Cylindrical gear wheels of traction gears of railway rolling stock
47. Wheels (except composite wheels) of wheelsets of railway rolling stock
48. Car wheelsets (wheel units) without axle box assemblies
49. Wheelsets for special railway rolling stock
50. Locomotive and multiple-unit rolling stock wheelsets without axle box assemblies
51. Composite brake blocks for railway rolling stock
52. Compound (cast iron-composite) brake blocks for railway rolling stock
53. Cast iron brake blocks for railway rolling stock
54. Compressors for railway rolling stock
55. High-voltage electropneumatic and electromagnetic contactors
56. Automatic coupler body
57. Axle box housing of freight car bogie wheelsets
58. Driver's seats for locomotives, multiple-unit rolling stock and special railway rolling stock
59. Passenger seats and sofas of multiple-unit rolling stock, passenger seats of locomotive-hauled passenger cars
60. Disc brake caliper mechanism
61. Disc brake pads
62. Finished car axles
63. Finished locomotive and multiple-unit rolling stock axles

64. Rough axles for railway rolling stock
65. Finished axles for special railway rolling stock
66. Hydraulic transmissions for diesel locomotives and diesel trains
67. Front and rear automatic coupler draft stops
68. High-voltage change-over switches and cut-out switches for railway rolling stock
69. Draft gear
70. Rolling-element roller bearings for axle boxes of railway rolling stock
71. High-voltage fuses for railway rolling stock
72. Power semiconductor converters (with a power of more than 5 kW)
73. Rotary (electric machine) converters for railway rolling stock
74. Magnetic track brake actuator
75. Wheel slide protection device of railway rolling stock
76. Suspension springs of railway rolling stock
77. Center plates of freight cars
78. High-voltage disconnectors, short-circuiters, isolators and earthing switches for locomotives and multiple-unit rolling stock
79. Freight car bogie side frame
80. Bogie frames of locomotive-hauled passenger cars and multiple-unit rolling stock
81. Reactors for electric locomotives and electric trains

- 82. Air reservoirs for automatic brakes of railway cars
- 83. Air reservoirs for traction, multiple-unit and special self-propelled rolling stock
- 84. Rubber-cord shells of traction drive couplings of multiple-unit rolling stock
- 85. Starting, electric brake and damping resistors
- 86. High-voltage electromagnetic and electronic relays (protection, intermediate, time and differential relays)
- 87. Leaf springs for railway rolling stock
- 88. Brake coupling hoses for railway rolling stock
- 89. Windscreen wipers for locomotives, multiple-unit and special self-propelled railway rolling stock
- 90. Coupling, including automatic coupler
- 91. Two-axle bogies for freight cars
- 92. Bogies of passenger cars and trailer cars of multiple-unit rolling stock
- 93. Three-axle bogies for freight cars
- 94. Four-axle bogies for freight cars
- 95. Air horns for locomotives and multiple-unit rolling stock
- 96. Driver's brake valves
- 97. Brake rigging triangles of freight car bogies of main-line railways
- 98. Traction units and main drive generators of locomotives and multiple-unit rolling stock

- 99. Traction motors of locomotives and multiple-unit rolling stock
- 100. Automatic coupler draft yoke
- 101. Electric heating devices for heating systems of railway rolling stock
- 102. Control, monitoring and safety devices, complexes and systems of railway rolling stock, and their software
- 103. Device for automatic regulation of braking force depending on load (automatic load-sensing device)
- 104. Articulated connecting device for freight wagons of the articulated type
- 105. Rolled disc wheel centres for railway rolling stock
- 106. Cast wheel centres for railway rolling stock (castings)
- 107. Brake cylinders for railway rolling stock
- 108. Brake shoe keys for main-line railway wagons
- 109. Low-voltage electrical equipment for railway rolling stock: low-voltage controllers, automatic circuit breakers, electromagnetic and electronic relays (protective, intermediate, time and differential)

**ANNEX No. 2
to the Technical Regulation
of the Customs Union "On Safety
of Railway Rolling
Stock" (TR CU 001/2011)
(as amended by Decision of the Council
of the Eurasian Economic Commission
of 14 September 2021 No. 90)**

LIST

of railway rolling stock subject to certification

1. Hopper cars
2. Insulated cars
3. Covered cars
4. Main-line locomotive-hauled passenger cars
5. Flat cars
6. Dump cars
7. Tank cars
8. Broad-gauge cars for industrial use
9. Diesel multiple units, self-propelled railcars, rail buses, and their cars
10. Diesel-electric multiple units, and their cars
11. Gondola cars
12. Special non-self-propelled railway rolling stock
13. Special self-propelled railway rolling stock
14. Diesel locomotives, gas turbine locomotives: main-line, shunting and industrial
15. Railway transporter cars
16. Main-line electric locomotives: direct current, alternating current, dual-system (alternating and direct current), other
17. Shunting electric locomotives

18. Electric multiple units, electric railcars: direct current, alternating current, dual-system (direct and alternating current), and their cars

ANNEX No. 3
to the Technical Regulation
of the Customs Union "On Safety
of Railway Rolling
Stock" (TR CU 001/2011)
(as amended by Decision of the Council
of the Eurasian Economic Commission
of 14 September 2021 No. 90)

LIST

of components of railway rolling stock subject to certification

Footnote. The list as amended by Decision of the Council of the Eurasian Economic Commission No. 90 of 14.09.2021 (enters into force upon expiry of 18 months from the date of official publication).

1. High-voltage devices for protection and monitoring of railway rolling stock against short-circuit currents
2. Wheelset adapters of freight car bogies
3. Equalizer of the three-axle bogie of freight cars
4. Bolster of a freight car
5. Span bolster of the four-axle bogie of freight cars
6. Center-pin bolster of the three-axle bogie of freight cars
7. Tyres for railway rolling stock
8. Side glazing units for locomotive-hauled passenger cars and multiple-unit rolling stock

9. Valve-type surge arresters and overvoltage limiters for electric rolling stock
10. Air distributors
11. High-speed automatic circuit breakers and main circuit breakers for electric rolling stock
12. Brake discs for railway rolling stock
13. Glazing units for railway rolling stock (driver's cabs of traction, multiple-unit and special self-propelled railway rolling stock)
14. Friction wedges of freight car bogies
15. Cylindrical gear wheels of traction transmissions of railway rolling stock
16. Wheels (except composite wheels) of railway rolling stock wheelsets
17. Car wheelsets (wheel units) without axle-box units
18. Wheelsets for special railway rolling stock
19. Wheelsets of locomotives and multiple-unit rolling stock without axle-box units
20. Composite brake shoes for railway rolling stock
21. Combined (cast-iron and composite) brake shoes for railway rolling stock
22. Cast-iron brake shoes for railway rolling stock
23. Compressors for railway rolling stock
24. High-voltage electropneumatic and electromagnetic contactors

25. Automatic coupler body
26. Axle-box housing of wheelsets of freight car bogies
27. Disc brake caliper mechanism
28. Disc brake pads
29. Finished car axles
30. Finished axles of locomotives and multiple-unit rolling stock
31. Rough axles for railway rolling stock
32. Finished axles for special railway rolling stock
33. Draft gear
34. Rolling-contact roller bearings for axle boxes of railway rolling stock
35. Power semiconductor converters (with a power rating exceeding 5 kW)
36. Suspension springs of railway rolling stock
37. Side frame of a freight car bogie
38. Rubber-cord shells of traction drive couplings of multiple-unit rolling stock
39. Coupling, including automatic coupler
40. Two-axle bogies for freight cars
41. Bogies of passenger cars and of trailer cars of multiple-unit rolling stock
42. Three-axle bogies for freight cars

- 43. Four-axle bogies for freight cars
- 44. Driver's brake valves
- 45. Brake beams (triangles) of the brake rigging of freight car bogies of main-line railways
- 46. Traction units and main drive generators of locomotives and multiple-unit rolling stock
- 47. Traction electric motors of locomotives and multiple-unit rolling stock
- 48. Automatic coupler draft yoke
- 49. Electric heating devices for heating systems of railway rolling stock
- 50. Articulated connecting device of articulated freight cars
- 51. Rolled disc wheel centres for railway rolling stock
- 52. Cast wheel centres for railway rolling stock (castings)

ANNEX No. 4
to the Technical Regulation
of the Customs Union "On Safety
of Railway Rolling
Stock" (TR CU 001/2011)
(as amended by Decision of the Council
of the Eurasian Economic Commission
No. 90 of 14 September 2021)

LIST

of components of railway rolling stock subject to declaration of conformity on the basis of the applicant's own evidence (if any) and evidence obtained with the participation of a certification body and (or) an accredited testing laboratory (centre), or to declaration of conformity on the basis of the applicant's own evidence (if any) and

evidence obtained, inter alia, with the participation of a management system certification body and an accredited testing laboratory (centre)

Footnote. List as amended by Decision of the Council of the Eurasian Economic Commission No. 90 of 14.09.2021 (enters into force upon expiry of 18 months from the date of its official publication).

1. Automatic parking brake of railway rolling stock
2. Magnetic rail brake shoes
3. Auxiliary electrical machines for railway rolling stock (with a power of more than 1 kW):

machines for locomotives and multiple-unit rolling stock that are separate structural products;

underframe generators for locomotive-hauled passenger coaches and special rolling stock;

electrical machines of the brake compressor unit of special rolling stock
4. High-voltage inter-car connections (socket and plug together)
5. Hydraulic dampers of railway rolling stock
6. Rubber sealing products for pneumatic brake systems of railway rolling stock (diaphragms, cups, collars, seals, gaskets)
7. Cardan shafts of the main drive of locomotives and multiple-unit rolling stock
8. Automatic coupler draft yoke wedge
9. Driver's seats for locomotives, multiple-unit rolling stock and special railway rolling stock

10. Passenger seats and sofas of multiple-unit rolling stock, passenger seats of locomotive-hauled passenger coaches
11. Hydraulic transmissions for diesel locomotives and diesel trains
12. High-voltage change-over switches and cut-out switches for railway rolling stock
13. High-voltage fuses for railway rolling stock
14. Electric machine converters for railway rolling stock
15. Magnetic rail brake actuator
16. Centre plates of freight wagons
17. High-voltage disconnectors, short-circuiters, isolating switches and earthing switches for locomotives and multiple-unit rolling stock
18. Bogie frames of locomotive-hauled passenger coaches and multiple-unit rolling stock
19. Reactors for electric locomotives and electric trains
20. Air reservoirs for automatic brakes of railway cars
21. Air reservoirs for traction, multiple-unit and special self-propelled rolling stock
22. Starting, electric brake and damping resistors
23. High-voltage electromagnetic and electronic relays (protective, intermediate, time and differential)
24. Leaf springs for railway rolling stock
25. Brake connecting hoses for railway rolling stock

26. Air horns (typhons) for locomotives and multiple-unit rolling stock
27. Control, monitoring and safety devices, complexes and systems of railway rolling stock, and their software
28. Brake cylinders for railway rolling stock
29. Low-voltage electrical equipment for railway rolling stock: low-voltage controllers, automatic circuit breakers, electromagnetic and electronic relays (protective, intermediate, time and differential)

ANNEX No. 5
to the Technical Regulation
of the Customs Union "On Safety
of Railway Rolling
Stock" (TR CU 001/2011)
(as amended by Decision of the Council
of the Eurasian Economic Commission
No. 90 of 14 September 2021)

LIST

of railway rolling stock components subject to declaration of conformity on the basis of the applicant's own evidence

1. Automatic brake rigging slack adjuster (auto-adjuster)
2. Brake shoe holders (brake heads) of railway rolling stock
3. Brake pad holders of disc brakes of railway rolling stock
4. Brake interlocking device
5. High-voltage equipment boxes for passenger coaches
6. Front and rear automatic coupler draft stops
7. Wheel slide protection device of railway rolling stock

8. Windscreen wipers for locomotives, multiple-unit and special self-propelled railway rolling stock
9. Device for automatic load-dependent regulation of braking force (empty-load device)
10. Brake shoe keys for main-line railway cars

**ANNEX No. 6
to the Technical Regulation
of the Customs Union "On Safety
of Railway Rolling
Stock" (TR CU 001/2011)
(as amended by Decision of the Council
of the Eurasian Economic Commission
of 14 September 2021 No. 90)**

LIST of provisions of the Technical Regulation of the Customs Union "On Safety of Railway Rolling Stock" (TR CU 001/2011) applied in the certification of railway rolling stock

Railway rolling stock	Designation of the paragraph (subparagraph) of the Technical Regulation
1. Hopper wagons	subparagraphs "а" – "и", "м", "р", "т", "х" – "ч" of paragraph 13, paragraphs 15, 21, 44, 47*, 48, 53, 59, 60, 61*, 92, 97, 99, 100, 106
2. Isothermal wagons	subparagraphs "а" – "и", "м" – "р", "т", "у", "х" – "ч" of paragraph 13, paragraphs 15, 20, 21, 23, 40*, 41*, 42*, 43, 44, 46*, 47*, 48, 49*, 53, 57, 59, 60, 61*, 62*, 64*, 67, 69, 70, 71*, 72, 73*, 74*, 75*, 77*, 83, 84, 92, 94, 97, 99, 100, 106
3. Covered wagons	subparagraphs "а" – "и", "м", "р", "т", "ф" – "ч" of paragraph 13, paragraphs 15, 21, 44, 47*, 48, 53, 59, 60, 61*, 92, 95, 97, 99, 100, 106

4. Main-line locomotive-hauled passenger cars	subparagraphs "а" – "и", "м" – "р", "т" – "х" of paragraph 13, paragraphs 15, 17, 20 – 24, 26, 27, 40 – 49, 51, 53, 54, 57 – 65, 67, 69 – 74, 79, 80*, 85 – 87, 89, 91, 97, 99, 100, 106
5. Flat wagons	subparagraphs "а" – "и", "м", "р", "т", "ф" – "ч" of paragraph 13, paragraphs 15, 21, 44, 47 □ , 48, 53, 59, 60, 61*, 92, 97, 99, 100, 106
6. Dump wagons	subparagraphs "а" – "и", "м", "р", "т", "х" – "ч" of paragraph 13, paragraphs 15, 21, 44, 47*, 48, 53, 59, 60, 61*, 92, 97, 99, 100, 106
7. Tank wagons	subparagraphs "а" – "и", "м", "р", "т", "х" – "ч" of paragraph 13, paragraphs 15, 21, 44, 47*, 48, 53, 59, 60, 61*, 92, 96, 97, 99, 100, 106
8. Broad-gauge wagons for industry	subparagraphs "а", "б", "г" – "и", "м", "р", "т", "х" and "ч" of paragraph 13, paragraphs 15, 47*, 48, 53, 59, 60, 92, 97, 100, 106

9. Diesel trains, railcars, rail buses, and their cars	subparagraphs "a" - "y", "ц" of paragraph 13, paragraphs 15 - 17, 20 - 24, 26, 27, 35 - 49, 50*, 53, 54, 56, 57, 59 - 63, 65, 67, 69 - 75, 77, 81*, 82, 85 - 91, 93, 94, 97, 99, 100, 106
10. Diesel-electric trains, and their cars	subparagraphs "a" - "y", "ц" of paragraph 13, paragraphs 15 - 17, 20 - 24, 26, 27, 35 - 49, 50*, 53, 54, 56, 57, 59 - 63, 65, 67, 69 - 75, 77, 81, 82, 85 - 91, 93, 94, 97, 99, 100, 106
11. Gondola wagons	subparagraphs "a" - "и", "м", "р", "т", "ф" - "ч" of paragraph 13, paragraphs 15, 21, 44, 47 □ , 48, 53, 59, 60, 61*, 92, 97, 99, 100, 106
12. Special non-self-propelled railway rolling stock	subparagraphs "a" - "м", "р" - "т", "ц" of paragraph 13, paragraphs 15, 20, 21, 43*, 44*, 45, 47*, 48, 49*, 53, 56 - 60, 62, 67*, 70*, 71*, 72*, 74, 97, 99, 100, 106
13. Special self-propelled railway rolling stock	subparagraphs "a" - "y", "ц" of paragraph 13, paragraphs 15, 20, 21, 28, 37 - 41, 43, 44, 46*, 47 - 49, 53, 56 - 60, 62, 67, 70 - 72, 74, 75, 77, 90, 91, 93, 97, 99, 100, 106

14. Diesel locomotives, gas turbine locomotives: main-line, shunting and industrial	subparagraphs "a" – "y", "x" and "ц" of paragraph 13, paragraphs 15, 17, 20 – 24, 26 – 34, 36 – 45, 47 – 49, 50*, 53, 56, 57, 59 – 62, 66*, 67, 68*, 69 – 75, 76*, 77, 78, 90, 91, 93, 94, 97, 99, 100, 106
15. Railway transporters	subparagraphs "a", "б", "г" – "и", "м", "р", "т", "у"*, "х" and "ч" of paragraph 13, paragraphs 15, 44, 47 □ , 48, 53, 59, 60, 92, 97, 100, 106
16. Main-line electric locomotives: direct current, alternating current, dual-system (alternating and direct current), other	subparagraphs "a" – "y" and "ц" of paragraph 13, paragraphs 15, 17, 20 – 24, 26 – 28, 29*, 30*, 31*, 32*, 33*, 34*, 36 – 45, 47 – 49, 50*, 53, 56, 57, 59 – 62, 66*, 67, 68*, 69 – 74, 76*, 90, 91, 93, 97, 99, 100 and 106
17. Shunting electric locomotives	subparagraphs "a" – "y", "x" and "ц" of paragraph 13, paragraphs 15, 17, 20 – 24, 26, 27, 30*, 31, 32, 36 – 45, 47 – 49, 50*, 53, 56, 57, 59 – 62, 66*, 67, 68*, 69 – 74, 90, 93, 97, 99, 100
18. Electric trains, electric railcars: direct current, alternating current, dual-system (direct and alternating current), and their cars	subparagraphs "a" – "y", "ц" and "ч" of paragraph 13, paragraphs 15 – 17, 20 – 24, 26, 27, 35 – 49, 50*, 53, 54, 56 – 63, 65, 67, 69 – 74, 81, 82, 85 – 91, 93, 97, 99, 100, 106

* The indicator is checked if the equipment concerned is installed on the railway rolling stock.

ANNEX No. 7
to the Technical Regulation
of the Customs Union "On Safety
of Railway Rolling
Stock" (TR CU 001/2011)
(as amended by Decision of the Council
of the Eurasian Economic Commission
No. 90 of 14 September 2021)

LIST

of provisions of the Technical Regulation of the Customs Union "On Safety of Railway Rolling Stock" (TR CU 001/2011) applied in the confirmation of conformity of components of railway rolling stock

Components of railway rolling stock	Designation of the paragraph (subparagraph) of the Technical Regulation
1. Automatic brake rigging adjuster (slack adjuster)	subparagraph "6" of paragraph 13, paragraphs 15, 97, 101, 106
2. Automatic parking brake of railway rolling stock	subparagraph "6" of paragraph 13, paragraphs 15, 97, 101, 106
3. Wheelset adapters of freight wagon bogies	subparagraphs "6" and "c" of paragraph 13, paragraphs 15, 99, 101, 106, 97
4. High-voltage devices for protection and monitoring of railway rolling stock against short-circuit currents	subparagraph "y" of paragraph 13, paragraphs 15, 97, 99, 101, 106
5. Equalizer of three-axle bogies of freight wagons	subparagraphs "6", "p" and "c" of paragraph 13, paragraphs 15, 97, 101

6. Bolster of a freight wagon	subparagraphs "б", "п" – "т" of paragraph 13, paragraphs 15, 97, 99, 101, 103, 104, 106
7. Span bolster of four-axle bogies of freight wagons	subparagraphs "б", "п" – "т" of paragraph 13, paragraphs 15, 97, 99, 101, 103, 104, 106
8. Pivot beam of three-axle bogies of freight wagons	subparagraphs "б", "п" – "т" of paragraph 13, paragraphs 15, 97, 99, 101, 103, 104, 106
9. Wheel tyres for railway rolling stock	subparagraphs "б", "п" – "т" of paragraph 13, paragraphs 15, 55, 97, 99, 101, 106
10. Magnetic track brake shoes	subparagraph "б" of paragraph 13, paragraphs 15, 97, 99, 101, 106
11. Brake block holders of railway rolling stock	subparagraph "б" of paragraph 13, paragraphs 15, 97, 99, 101, 106

12. Brake pad holders of disc brakes of railway rolling stock	subparagraph "6" of paragraph 13, paragraphs 15, 97, 99, 101, 106
13. Brake interlock	subparagraph "6" of paragraph 13, paragraphs 15, 97, 99, 101, 106
14. Side glazing units of locomotive-hauled passenger cars and multiple-unit rolling stock	subparagraph "6" of paragraph 13, paragraphs 15, 97, 99, 101, 105, 106
15. Valve-type arresters and surge arresters for electric rolling stock	subparagraph "y" of paragraph 13, paragraphs 15, 97, 99, 101, 106
16. Air distributors	subparagraph "6" of paragraph 13, paragraphs 15, 97, 101, 106

17. Auxiliary electrical machines for railway rolling stock (with a power of more than 1 kW): machines for locomotives and multiple-unit rolling stock that are separate structural products; underframe generators for locomotive-hauled passenger cars and special rolling stock; electrical machines of the brake compressor unit of special rolling stock	subparagraphs "б", "в", "г", "о" and "у" of paragraph 13, paragraphs 15, 72, 97, 99, 101, 106
18. High-speed automatic circuit breakers and main circuit breakers for electric rolling stock	subparagraph "у" of paragraph 13, paragraphs 15, 97, 99, 101, 106
19. High-voltage equipment boxes for passenger cars	subparagraph "у" of paragraph 13, paragraphs 15, 97, 99, 101, 106
20. High-voltage inter-car connections (socket and plug together)	subparagraph "у" of paragraph 13, paragraphs 15, 97, 99, 101, 106
21. Hydraulic dampers of railway rolling stock	subparagraphs "б", "м" and "п" of paragraph 13, paragraphs 15, 97, 99, 101, 106

22. Brake discs for railway rolling stock	subparagraph "6" of paragraph 13, paragraphs 15, 97, 99, 101, 106
23. Glazing units of railway rolling stock (driver's cabs of traction, multiple-unit and special self-propelled railway rolling stock)	subparagraph "6" of paragraph 13, paragraphs 15, 97, 99, 101, 105, 106
24. Rubber sealing products for pneumatic brake systems of railway rolling stock (diaphragms, cups, collars, seals, gaskets)	subparagraph "6" of paragraph 13, paragraphs 15, 52, 97, 101, 106
25. Cardan shafts of the main drive of locomotives and multiple-unit rolling stock	subparagraphs "6", "p" - "т" of paragraph 13, paragraphs 15, 97, 99, 101, 106
26. Automatic coupler yoke key	subparagraph "6" of paragraph 13, paragraphs 15, 97, 101, 106
27. Friction wedges of freight wagon bogies	subparagraph "6" of paragraph 13, paragraphs 15, 97, 99, 101, 106

28. Cylindrical gear wheels of traction gears of railway rolling stock	subparagraphs "б", "п" – "т" of paragraph 13, paragraphs 15, 97, 99, 101, 106
29. Wheels (other than built-up wheels) of wheelsets of railway rolling stock	subparagraphs "б", "в", "п" – "т" of paragraph 13, paragraphs 15, 55, 97, 99, 101, 106
30. Car wheelsets (wheel assemblies) without axlebox assemblies	subparagraphs "а" – "в", "п" and "т" of paragraph 13, paragraphs 15, 97, 99, 101, 102, 106
31. Wheelsets for special railway rolling stock	subparagraphs "а" – "в", "п" – "т" of paragraph 13, paragraphs 15, 97, 99, 101, 102, 106
32. Wheelsets of locomotives and multiple-unit rolling stock without axlebox assemblies	subparagraphs "а" – "в", "п" – "т" of paragraph 13, paragraphs 15, 97, 99, 101, 102, 106
33. Composite brake blocks for railway rolling stock	subparagraph "б" of paragraph 13, paragraphs 15, 97, 101, 106

34. Combined (cast iron-composite) brake blocks for railway rolling stock	subparagraph "6" of paragraph 13, paragraphs 15, 97, 101, 106
35. Cast-iron brake blocks for railway rolling stock	subparagraph "6" of paragraph 13, paragraphs 15, 97, 101, 106
36. Compressors for railway rolling stock	subparagraph "6" of paragraph 13, paragraphs 15, 97, 99, 101, 106
37. High-voltage electropneumatic and electromagnetic contactors	subparagraph "y" of paragraph 13, paragraphs 15, 97, 99, 101, 106
38. Automatic coupler body	subparagraph "6" of paragraph 13, paragraphs 15, 97, 101, 106
39. Axlebox housing of wheelsets of freight wagon bogies	subparagraphs "6" and "c" of paragraph 13, paragraphs 15, 97, 99, 101, 106
40. Driver's seats for locomotives, multiple-unit rolling stock and special railway rolling stock	subparagraphs "6", "м" and "п" of paragraph 13, paragraphs 15, 65, 97, 99, 101, 106

41. Passenger seats and benches of multiple-unit rolling stock, passenger seats of locomotive-hauled passenger cars	subparagraphs "б", "м" and "п" of paragraph 13, paragraphs 15, 65, 97, 99, 101, 106
42. Disc brake caliper mechanism	subparagraph "б" of paragraph 13, paragraphs 15, 97, 99, 101, 106
43. Disc brake pads	subparagraph "б" of paragraph 13, paragraphs 15, 97, 101, 106
44. Finished wagon axles	subparagraphs "б", "п" - "т" of paragraph 13, paragraphs 15, 55, 97, 99, 101, 106
45. Finished axles for locomotives and multiple-unit rolling stock	subparagraphs "б", "п" - "т" of paragraph 13, paragraphs 15, 55, 97, 99, 101, 106
46. Rough axles for railway rolling stock	subparagraphs "б", "п" - "т" of paragraph 13, paragraphs 15, 97, 99, 101, 102, 106

47. Finished axles for special railway rolling stock	subparagraphs "б", "п" – "т" of paragraph 13, paragraphs 15, 55, 97, 99, 101, 106
48. Hydraulic transmissions for diesel locomotives and diesel trains	subparagraph "б" of paragraph 13, paragraphs 15, 97, 99, 101, 106
49. Front and rear automatic coupler stops	subparagraph "б" of paragraph 13, paragraphs 15, 97, 101, 106
50. High-voltage change-over switches and disconnecting switches for railway rolling stock	subparagraph "у" of paragraph 13, paragraphs 15, 97, 99, 101, 106
51. Draft gear	subparagraph "б" of paragraph 13, paragraphs 15, 97, 99, 101, 106
52. Rolling-element roller bearings for axle boxes of railway rolling stock	subparagraphs "б", "п" – "т" of paragraph 13, paragraphs 15, 97, 99, 101, 106
53. High-voltage fuses for railway rolling stock	subparagraph "у" of paragraph 13, paragraphs 15, 97, 99, 101, 106

54. Power semiconductor converters (with a power rating of more than 5 kW)	subparagraphs "б", "в", "г", "о" and "у" of paragraph 13, paragraphs 15, 72, 97, 99, 101, 106
55. Rotary electric machine converters for railway rolling stock	subparagraphs "б", "в", "г", "о" and "у" of paragraph 13, paragraphs 15, 72, 97, 99, 101, 106
56. Magnetic rail brake actuator	subparagraph "у" of paragraph 13, paragraphs 15, 97, 99, 101, 106
57. Wheel slide protection device of railway rolling stock	subparagraph "б" of paragraph 13, paragraphs 15, 97, 99, 101, 106
58. Suspension springs of railway rolling stock	subparagraphs "б", "п" – "т" of paragraph 13, paragraphs 15, 97, 99, 101, 106
59. Centre plates of freight wagons	subparagraph "б" of paragraph 13, paragraphs 15, 97, 99, 101, 106

60. High-voltage disconnectors, short-circuiters, isolating switches and earthing switches for locomotives and multiple-unit rolling stock	subparagraph "y" of paragraph 13, paragraphs 15, 97, 99, 101, 106
61. Freight wagon bogie side frame	subparagraphs "б", "п" - "т" of paragraph 13, paragraphs 15, 97, 99, 101, 103, 104, 106
62. Bogie frames of locomotive-hauled passenger coaches and multiple-unit rolling stock	subparagraphs "п" - "т" of paragraph 13, paragraphs 15, 97, 101, 106
63. Reactors for electric locomotives and electric trains	subparagraph "y" of paragraph 13, paragraphs 15, 97, 99, 101, 106
64. Air reservoirs for automatic brakes of railway wagons	subparagraph "б" of paragraph 13, paragraphs 15, 97, 99, 101, 106
65. Air reservoirs for traction, multiple-unit and special self-propelled rolling stock	subparagraph "б" of paragraph 13, paragraphs 15, 97, 99, 101, 106
66. Rubber-cord shells of traction drive couplings of multiple-unit rolling stock	subparagraph "б" of paragraph 13, paragraphs 15, 97, 99, 101, 106

67. Starting, electric braking and damping resistors	subparagraph "y" of paragraph 13, paragraphs 15, 97, 99, 101, 106
68. High-voltage electromagnetic and electronic relays (protective, intermediate, time and differential)	subparagraph "y" of paragraph 13, paragraphs 15, 97, 99, 101, 106
69. Leaf springs for railway rolling stock	subparagraphs "б", "п" – "т" of paragraph 13, paragraphs 15, 97, 99, 101, 106
70. Brake connecting hoses for railway rolling stock	subparagraph "б" of paragraph 13, paragraphs 15, 97, 101, 106
71. Windscreen wipers for locomotives, multiple-unit and special self-propelled railway rolling stock	subparagraph "б" of paragraph 13, paragraphs 15, 97, 99, 101, 106
72. Coupling, including automatic coupler	subparagraphs "б" and "ж" of paragraph 13, paragraphs 15, 97, 98, 99, 101, 106

73. Two-axle bogies for freight wagons	subparagraphs "a", "6", "p" – "т" of paragraph 13, paragraphs 15, 97, 99, 101, 106
74. Bogies of passenger coaches and trailer cars of multiple-unit rolling stock	subparagraphs "a", "6", "p" – "т" of paragraph 13, paragraphs 15, 97, 99, 101, 106
75. Three-axle bogies for freight wagons	subparagraphs "a", "6", "p" – "т" of paragraph 13, paragraphs 15, 97, 99, 101, 106
76. Four-axle bogies for freight wagons	subparagraphs "a", "6", "p" – "т" of paragraph 13, paragraphs 15, 97, 99, 101, 106
77. Air horns for locomotives and multiple-unit rolling stock	subparagraph "6" of paragraph 13, paragraphs 15, 57, 97, 99, 101, 106
78. Driver's brake valves	subparagraph "6" of paragraph 13, paragraphs 15, 97, 99, 101, 106

79. Brake rigging triangles of freight wagon bogies for main-line railways	subparagraph "6" of paragraph 13, paragraphs 15, 97, 101, 106
80. Traction units and main drive generators of locomotives and multiple-unit rolling stock	subparagraphs "6", "B", "H", "o" and "y" of paragraph 13, paragraphs 15, 72, 97, 99, 101, 106
81. Traction motors of locomotives and multiple-unit rolling stock	subparagraphs "6", "B", "H", "o" and "y" of paragraph 13, paragraphs 15, 72, 97, 99, 101, 106
82. Automatic coupler draft yoke	subparagraph "6" of paragraph 13, paragraphs 15, 97, 101, 106
83. Electric heating devices for heating systems of railway rolling stock	subparagraphs "п" and "y" of paragraph 13, paragraphs 15, 97, 99, 101, 106
84. Control, monitoring and safety devices, complexes and systems of railway rolling stock, and their software	subparagraphs "6", "B" and "y" of paragraph 13, paragraphs 15, 99, 101, 106, 22 – 24, 26, 27, 72, 97

85. Device for automatic load-dependent regulation of braking force (automatic load regulator)	subparagraph "6" of paragraph 13, paragraphs 15, 97, 101, 106
86. Articulated connecting device of articulated freight wagons	subparagraphs "6", "p" - "T" of paragraph 13, paragraphs 15, 97, 99, 101, 106
87. Rolled disc wheel centres for railway rolling stock	subparagraphs "6", "p" - "T" of paragraph 13, paragraphs 15, 55, 97, 99, 101, 106
88. Cast wheel centres for railway rolling stock (castings)	subparagraphs "6", "p" - "T" of paragraph 13, paragraphs 15, 55, 97, 99, 101, 106
89. Brake cylinders for railway rolling stock	subparagraph "6" of paragraph 13, paragraphs 15, 97, 99, 101, 106
90. Brake shoe keys for main-line railway wagons	subparagraph "6" of paragraph 13, paragraphs 15, 97, 101, 106

91. Low-voltage electrical equipment for railway rolling stock: low-voltage controllers, circuit breakers, electromagnetic and electronic relays (protective, intermediate, time and differential)

subparagraph "y" of paragraph 13, paragraphs 15, 97, 99, 101, 106".

ADOPTED

**by Decision of the Commission
of the Customs Union**

of 15 July 2011 No. 710

**(as amended by Decision of the Council
of the Eurasian Economic Commission
of 14 September 2021 No. 90)**

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