

**APPROVED by Order
of the General Director
No. 49/2 dated May 30, 2025**

**OPERATING RULES
FOR TENGRI TYRES
MOTOR TIRES**

Saran
2025

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1 Purpose, Scope, and General Provisions

1.1 "Operating Rules for Tengri Tyres" (hereinafter referred to as the "Rules") is the main document defining the procedure for the maintenance and operation of motor tires manufactured by Tengri Tyres LLP (hereinafter, the "tires" means exclusively tires manufactured by Tengri Tyres LLP)

1.2 The Rules are intended for a wide range of individuals and legal entities.

1.3 Compliance with the Operating Rules for Tires is mandatory for all tire owners.

1.4 The words "Driver," "Tire Owner," "Vehicle Owner," "Consumer," "Applicant," or "Tire Fitter" in this document are the same subjects in terms of responsibilities to comply with the requirements hereof, despite the fact that they may be different persons in reality related to each other by various forms of relationships or not directly related at all. At the moment when the tire owner transfers (entrusts) his/her tires or the rights thereto to someone else (the vehicle owner, driver, representative, tire fitter, or other persons), he (the tire owner) simultaneously transfers all duties to comply with these Rules and is responsible for properly informing the said persons and communicating these Rules.

1.5 The words "Vehicle" in this document and all associated statements apply to any type of vehicle, including trailers or other types of chassis or devices and units, for which tires have been used, are being used, or will be used.

1.6 Tengri Tyres LLP reserves the right to make changes to this document without the consent of third parties. The current version of this document is available on the www.attartyres.kz website

2 Definitions

The following terms and definitions will be used in this document:

Tire means an elastic jacket on the rim of a wheel designed to support the weight of a vehicle and carry a load, accompanied by fluctuations, providing comfort (cushioning from road bumps), contributing to traction, and setting the direction of movement of a car or other vehicle.

A tire usually consists of the following components (parts and elements):

Casing means the main power element of the tire, consisting of one or more layers of rubberized cord, usually fixed on the bead rings. Cord is a fabric consisting of thick warp threads and thin, low-count weft threads, made based on natural or synthetic fibers, or thin steel threads (metal cord).

Breaker means an internal part (component) of the tire located between the casing and the tread and consisting of several layers of rubberized metal or other cord. The breaker is designed to mitigate the impact loads on the tire that occur when the vehicle is moving on the road.

Nylon Bandage means a band of rubberized textile cord wound on the tire breaker to tighten the structure.

Tread means the outer rubber part of the tire, usually with a raised pattern, which provides traction and protects the casing from damage.

Sidewall means a layer of cover rubber located on the sidewall of the tire, protecting the casing from external damage.

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Tire Bead means a rigid part of the pneumatic tire, which ensures its attachment to the wheel rim. The bead consists of a bead core, which in turn is wrapped in a casing and covered with a sidewall.

Wheel means a rotating element of a vehicle that takes the load from the mass of the vehicle and transmits the torque. The wheel is located between the tire and the hub. The wheel usually consists of two main parts, a rim and a disc.

Rim means the part of the wheel, on which the tire is mounted and supported.

Disc means the part of the wheel that is a connecting element between the hub of the vehicle and the rim. The rim and disc may have either a structure detachable from each other, or a solid, non-separable design in the form of a monolith or welding.

Single Wheel means a wheel mounted on a hub and carrying a single tire.

Double Wheel means a wheel consisting of two single wheels mounted on one hub of a vehicle.

3 Tire Marking

3.1 The marking of the tire shall comply with the requirements of the regulatory document, according to which the tire is manufactured, or the terms of the supply agreement.

Typically, the following markings are applied to each tire:

3.1.1 tire designation, i.e. a symbol of its basic dimensions and casing structure. Tires may have a designation expressed in millimeters, inches, or mixed, in millimeters and inches, and for radial tires, the letter index is R. There is no letter index for diagonal tires. For low-section and ultra-low-section tires, the series is indicated in the designation (the height-to-width aspect ratio of the tire section) as a percentage;

3.1.2 load bearing capacity indexes for single and double wheels (LI – Load Index), i.e. a symbol for the strength of the casing, which determines the maximum permissible load on the tire. It is also possible to use "PR" or "Ply ratio" (a symbol for the strength of the casing) for truck tires, and the load capacity index for passenger cars. The load-bearing capacity indexes comply with ETRTO/ISO standards;

3.1.3 the speed category Index (SI - Speed Index), i.e. an alphabetic symbol indicating the maximum permissible steady-state speed, at which the tire can withstand the rated load. The speed index values comply with the ETRTO/ISO standards.

Example: "T" = 190 km/h; "Y" = 300 km/h;

3.1.4 inflation pressure "psi" or "kPa," i.e. an indication of the test pressure only for tires intended for light trucks and buses of particularly small capacity with the "C" index in the designation, as well as for truck tires;

3.1.5 approval mark "E" with the number of the country that issued the type tire approval notification for the tire No. 30, 54, 117, 164, or other UNECE Regulations;

3.2 country of origin;

3.2.1 trademark and/or name of the tire manufacturer;

3.2.2 make (tire model);

3.2.3 designation of the standard (without the year of approval), if available;

3.2.4 serial number of the tire, if available;

3.2.5 date of manufacture, consisting of four digits, of which the first two indicate the number of the week and the last two digits indicate the year of manufacture of the tire;

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- 3.2.6 technical control stamp;
- 3.2.7 the "Radial" label for radial tires;
- 3.2.8 direction of rotation sign (arrow or "ROTATION" label) on tires with directional tread pattern;
- 3.2.9 the "Tubeless" label for tubeless tires;
- 3.2.10 the "Steel" label for tires with a metal cord in the breaker;
- 3.2.11 the "Reinforced" or "Extra Load" or "XL" label for reinforced tires;
- 3.2.12 the "Run Flat" label or alternative designations ("RFT," "ZP," "Flat Run," and others) for tires with the possibility of operating in a flat state;
- 3.2.13 the "M+S" or "M(.)S" sign for tires with a winter tread pattern;
- 3.2.14 the "TWI" letters or another symbol indicating the location of the wear indicators in the shoulder area of the tread;
- 3.2.15 national conformity mark, if available; and
- 3.2.16 the letter "C" after the designation of the main dimensions and casing design only for tires of light trucks and buses of particularly small capacity.
- 3.3 Interpretation of the designation on the sidewall of the passenger car tire: 215/65 R16 Attar S02 Steel Radial 94T Tubeless 0225 Made in Kazakhstan, where:
 - 3.3.1 215 - designation of the nominal width of the tire section in millimeters;
 - 3.3.2 65 - series (the height-to-width aspect ratio of the tire section as a percentage);
 - 3.3.3 R - the letter index of the radial tire;
 - 3.3.4 16 - the designation of the tire's rim diameter, corresponding to the nominal rim diameter in inches;
 - 3.3.5 Attar – brand, trademark;
 - 3.3.6 S02 - tire model, make, trade name;
 - 3.3.7 Steel - metal cord in the breaker;
 - 3.3.8 Radial - radial tire;
 - 3.3.9 94 - load index;
 - 3.3.10 T - speed index;
 - 3.3.11 Tubeless - tubeless tire;
 - 3.3.12 0225 - the date of manufacture, where 02 is the number of the week from the beginning of the year when the tire was manufactured and 25 is the last two digits of the year of manufacture, i.e. 2025; and
 - 3.3.13 Made in Kazakhstan - the country where the tire is manufactured (Kazakhstan).
- 3.4 Other markings and designations may also be applied to the tire, both in the form of an impression on the rubber compound, as well as in the form of stickers (labels) and other forms of implementation.

4 Tire Acceptance

- 4.1 Tires are accepted in accordance with the existing regulations and instructions for the supply of industrial and technical products, the requirements of national standards and specifications, and the terms of the tire supply agreement.
- 4.2 The accepting party shall provide the necessary conditions for the acceptance of tires and a proper inspection of the condition of the accepted tires for flaws in quality and quantity.

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5 Transportation and Storage of Tires

5.1 During storage and transportation, tires should not be exposed to the following factors: oxygen, ozone, light, heat, petroleum products, organic solvents, mineral oils, lubricants, fuels, acids, alkalis, prolonged contact with copper or corrosive substances, prolonged unilateral loading, kinks, compression, and piling of products on top of each other, and leaning products on sharply protruding surface irregularities.

5.2 When transported on open vehicles and open rolling stock, tires should be protected from exposure to the sun and moisture (by tarpaulin, plastic wrap, or other covering material ensuring protection from the said effects). The packaging method used (when used) should not cause condensation.

5.3 Tire handling should be ensured in such a way as to avoid deformation of the beads and sidewalls of the tires. When transporting packages of tires, i.e. tires assembled in piles, the tires should be in an upright position.

5.4 Tires transported at temperatures below -30°C should be especially protected from impacts and deformations.

6 Loading and Unloading of Tires in the Warehouse

6.1 During loading and unloading, it is not allowed to throw tires from a height of more than 1.5 meters. Falling tires from such a height may cause damage and bending of the bead rings. Tires with such damage should not be installed or used for their intended purpose.

6.2 Loading and unloading processes should be organized in such a way as to avoid contact of tires with dirty, rough surfaces and devices capable of leaving marks on tires.

6.3 Lifting, tilting, and moving tires using a hook/rope/chains over the bead of the tire is prohibited.

6.4 When transporting and loading and unloading operations at very low ambient temperatures (below -30°C), special care should be taken, and operations that cause severe deformation of the tire (throws, compressions, storage in high piles, impacts on sharp objects, etc.) should be avoided, as this may cause damage to the tires.

7 Storage of Tires

7.1 Tires should be stored in closed, dry, cool, and well-ventilated premises. Storage premises should be free of foreign objects, darkened, comply with fire safety requirements, and ensure the possibility of using lifting mechanisms.

7.2 Tires that are not mounted on rims should optimally be stored in an upright position on racks, pallets, or a flat floor. It is allowed to stack in metal crates vertically or in a herringbone pattern. For any type of stacking in a crate, the tire storage height should not exceed the upper size of the crate in order to avoid deformations when placing the crate on top of the crate.

7.3 Tires mounted on rims may be stored horizontally in a stack on pallets with a maximum stack height of 1.6 meters.

7.4 It is allowed to store unmounted tires in stacks with a height of not more than 1.6 m vertically. At the same time, it is necessary to exclude the overhang of tires beyond the pallet

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dimensions of over 10 cm. When storing tires in stacks, stacks of 4 or more tires in height should be secured with plastic wrap.

7.5 The load-bearing surface for storing tires (the bottom of the crate, pallet, rack, depending on the type of storage) should be clean, level, free of sharp edges, broken elements, chips, protruding nails, loose elements, sharp edges, and other defects that may lead to mechanical damage to tires during storage; it also should be free of dirt, rust, and other foreign substances. After the tire comes into contact with the surface, no traces or foreign substances should remain thereon.

7.6 Shelving systems, crates, pallets, and other structures used for storing and transporting tires should be stable, securely fastened, and sound. The stacking should ensure the stability of the tire position during storage and prevent accidental loss or slipping.

7.7 The use of forklifts should be carried out in accordance with the applicable national legislation in this field of activity.

7.8 Used tires and tires suitable for future use should be thoroughly cleaned of dirt before storage, as well as inspected for foreign objects (stones, nails, and other items) that may damage the casing or tread. All detected items should be removed before storing the tires.

7.9 Storing tires outdoors is prohibited. Direct impact of precipitation, sunlight, dust, moisture, and dirt on tires should be excluded. The packaging method used (when used) should not cause condensation.

7.10 The temperature in the tire storage area should be maintained no higher than +35°C, preferably 5 to 25°C. It is optimal to store tires in a dark place at a temperature of about +15°C. The properties of rubber may change and affect the functional characteristics of tires during prolonged storage at temperatures beyond the established limits.

7.11 Humidity. High humidity and condensation should be avoided when storing tires. Humidity should not exceed 80%.

7.12 Tire storage premises should be equipped with devices for recording temperature and humidity. Regular monitoring and recording of climatic parameters should be ensured. Temperature and humidity control is performed by a calibrated registration system capable of covering the entire warehouse area with automatic data collection at least once a week. In the absence of automatic temperature registration, the temperature should be recorded in the checklist once a week for each warehouse. In the case of temperature deviations from the established norms, it is required to take immediate measures to normalize it, including, but not limited to, adjusting heating, ventilation, or air conditioning systems, as well as monitoring the tightness of the premises. It is important to ensure that the temperature does not exceed the permissible range in order to prevent a negative impact on tire storage quality.

7.13 Tires should be located no closer than 1 m from the heating devices during storage. Heating devices located in storage premises should be shielded. It is forbidden to direct a stream of hot air to the tires when heating the premises with heat guns.

7.14 Illumination. Tires should be protected from direct sunlight, as well as intense artificial lighting, especially with a high ultraviolet component.

7.15 Oxygen and ozone. Ozone has a strong destructive effect on tires. There should be no ozone-emitting equipment in the warehouse, such as fluorescent or mercury lamps, high-voltage electrical equipment, electric motors, or any other electrical devices that may cause sparks or electrical discharges. Welding operations in tire storage areas should be strictly limited and used only in exceptional situations. The tires should be protected from welding splashes. It is

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forbidden to ventilate warehouses during a thunderstorm and for 2-3 hours after it due to a sharp increase in the ozone content in the air.

7.16 Deformation. If possible, the tires should be stored freely, i.e. with no external impact of any other objects on them. The external deformation caused by prolonged storage may disappear after inflating the tires with air.

7.17 Solvents, fuels, lubricants, chemicals, acid-containing, disinfectants, and other aggressive substances should not be stored in a warehouse together with tires. Tires should be protected from any, even short-term, exposure to any solvents, oils, and lubricants.

7.18 In the case of long-term storage of passenger or light truck tires in crates in a herringbone pattern or in stacks, either in crates or on pallets, it is necessary to organize a selective visual inspection of tires stored for more than 12 months at least once every 6 months, with the involvement of specialists with the required competencies to assess the condition of tires. Based on the conclusion of the said specialists, if necessary, a decision on tire replacement should be made.

7.19 Tires should be kept clean and with undamaged labels during all storage operations.

8 Equipping Vehicles with Tires

8.1 The selection and completing a vehicle with pneumatic tires according to size, model, load bearing capacity (load index, ply rating), speed, type of tread pattern for each specific make and model of the vehicle or trailer for production vehicles should be carried out in accordance with the manual (instruction) for the operation of the vehicle.

8.2 The tires installed on the vehicle should correspond to the rim width recommended by the tire manufacturer.

Using tires with an inappropriate rim width may lead to changes in the vehicle's steerability, uneven tread wear, increased load on suspension elements, and premature tire failure.

Tire manufacturers and suppliers do not accept claims for tires that have been operated in violation of these Rules.

8.2.1 Rim and minimum distance (Dmin) for double installation:

The rim width should be within the range specified by the tire manufacturer or the ETRTO standard (usually $\pm \frac{1}{2}$ inch of the recommended one). For a pair of tires on the same hub, the minimum distance, D, between the inner sidewalls is determined by the following formula

$D \geq S + 2 \times T + 10 \text{ mm}$, where:

S is the actual width of the tire on the recommended rim, mm;

T is the standard "sidewall operation clearance" (6-8 mm for passenger cars, 10-13 mm for trucks);

10 mm is the margin for dynamic runout.

Example: for a 295/80 R22.5 tire: $S \approx 298 \text{ mm}$, $T = 13 \text{ mm} \rightarrow D_{\min} \approx 298 + 2 \cdot 13 + 10 \approx 334 \text{ mm}$.

When using snow chains, $\geq 25 \text{ mm}$ is added to the D value.

8.3 It is not allowed to install tires with different characteristics on one axle of a vehicle, including dimension, design (radial, diagonal, tubed, tubeless), speed index, load index, type of tread pattern, seasonality (winter and non-winter), as well as origin (new, refurbished, with deepened tread pattern).

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8.4 In order to ensure the normal operation of tires on double wheels of a vehicle, it is recommended to select tires so that the difference in the degree of tread wear and the outer diameter is minimal in order to avoid uneven load distribution and accelerated wear.

8.5 When vehicles are equipped with tires with an off-road tread pattern and a directional tread pattern, it is necessary to ensure that the wheel rotates following the arrow located on the sidewall of the tire. When equipping a vehicle with tires with an asymmetric non-directional tread pattern, it is necessary to ensure their installation with the outside facing out of the vehicle, while the direction of rotation does not matter.

8.6 For better traction on snowy and icy roads, it is recommended to use winter tires equipped with anti-skid studs.

8.7 Tires with anti-skid studs are installed on all wheels (including spare ones) of the vehicle during use. The rearrangement of the studded tires, if technically necessary, is performed without changing the direction of rotation of the wheel.

8.8 Vehicles operated on soft ground and off-road should be equipped with tires with an off-road tread pattern. Long-term use of these tires on paved roads is not recommended.

8.9 Tires installed on vehicles of legal entities should be assigned to these vehicles, and this fact should be recorded in tire operation records in accordance with **Appendix No. 5** or in other types of records according to the internal requirements of such legal entities. At the same time, the tire owner sets the operating mileage standards independently based on the average mileage of tires that have been decommissioned.

8.10 When using tires, the manufacturer's restrictions on maximum load, speed, or scrub radius should be observed. Exceeding the set parameters may lead to overheating of the tire, a decrease in the strength of the casing, and a deterioration in traction characteristics.

The responsibility for compliance with these restrictions lies with the owner of the vehicle.

9 Rules for Installation and Dismantling of Tires

9.1 Installation and dismantling of tires should be carried out in the tire fitting premises using special equipment, fixtures, and tools, as well as instructions specified in **Appendix No. 7** of these Rules.

9.2 Only serviceable, clean, and dry tires, tubes, and tire flaps, as well as rims and their elements, which are suitable in size and type, are subject to installation.

9.3 Tires stored at temperatures below freezing should be kept under normal conditions at room temperature for 3-4 hours before installation.

9.4 Before installation, tires are inspected from the outside and inside using a bead expander or other devices. If manufacturing or operational flaws are found in the tires, they are not allowed to be used for installation. Foreign objects (stones, nails, etc.) should be removed from the tire.

9.5 Before installation of the tire on the rim, it is necessary to lubricate the tire bead and the rim seat with tire paste (grease).

9.6 Rims and their elements are not allowed to be installed if flaws, i.e. bends, deformations, cracks, sharp edges and burrs, or rust at the points of contact with the tire, are found on them. The surface of the rims in the tire contact area should be cleaned of dirt, foreign substances, and rust and painted with varnish or metal paint.

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9.7 It is necessary to balance the complete wheels after each tire installation, and it is also recommended for every second maintenance. Balancing is performed by removing the wheels from the vehicle or directly on the vehicle using stationary or mobile machines. Tires should be washed and cleaned of dirt and foreign objects before balancing.

9.8 To protect the valves from contamination and damage, all valves should be equipped with metal, plastic, or rubber caps.

9.9 Requirements for valves (operating pressure > 6 bar). Tubeless tires designed for operating pressures above 6.0 bar should be equipped with either metal valves or rubber valves of the HP class with a declared limit of at least 10 bar. The use of standard rubber valves (type TR413/TR414) is allowed only at a pressure of under 4.5 bar. For the intermediate range of 4.5-6.0 bar, a TR600HP rubber valve or its equivalent with a rated limit of ≥ 8 bar is allowed (see the ETRTO Valve-04 standard).

9.10 When installing double wheels on the vehicle axle, it is necessary to align the windows of the discs of both wheels to allow access to the inner wheel tire valve when measuring or pumping the internal tire pressure without removing the outer wheel.

9.11 When carrying out installation and dismantling work, the following safety regulations should be observed:

9.11.1 tire maintenance specialists and the driver's staff (if involved) should be instructed on installation and dismantling work;

9.11.2 the installation of a rim with a tire should be only of the specified size for the required vehicle make;

9.11.3 before removing the tire from the rim, the air should be completely released from the tire;

9.11.4 before inflating tires on collapsible rims with bolted connections, it is necessary to make sure that all nuts are tightened equally, in accordance with the vehicle maintenance instructions; rims that do not have at least one nut are not allowed to operate; and

9.11.5 the tire and rim assembly in the tire fitting premises should be inflated in several stages, with monitoring of the condition of the wheel assembly at the end of each pumping stage. **ATTENTION!** Inflating tires to a pressure above 3.5 bar should only be carried out in a special metal enclosure (crate) capable of protecting maintenance personnel during the spontaneous disassembly of the wheel;

9.11.6 when inflating the tire, it is necessary to use special tips connecting the valve of the tube (tire) to the hose from the air outlet point and ensuring the passage of air through the valve;

9.11.7 in the case of loose fitting of the tire beads on the rim seat, after inflating the air, it is necessary to release the air from the tire, dismantle it and eliminate the cause of loose fitting of the tire beads, after which the tire should be re-installed on the rim, inflated, and inspected for the tightness of the bead fitting;

9.11.8 in order to reduce the axial and radial runout of the wheel, the bolted joints of the rim and wheel should be tightened in the following sequence: first, tighten the upper nut, then the diametrically opposite nut, after that tighten the remaining nuts in pairs (criss-crosswise), gradually in the same sequence, tighten all nuts in accordance with the vehicle maintenance instructions;

9.11.9 before elevating the wheel being removed using a jack, it is necessary to brake the vehicle with a hand brake, turn on the first gear in the gearbox (in the case of a manual transmission), put stops under the other wheels to prevent the vehicle from rolling off when

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climbing on the jack, and loosen the wheel nuts, then elevate the wheel with a jack, unscrew the nuts, and remove the wheel.

9.12 When carrying out tire work, the following is prohibited:

9.12.1 removing tires under pressure from the rim;

9.12.2 correction of the position of the bead and lock rings if the tire is under pressure;

9.12.3 dismantling of one of the double wheels from the vehicle without using a jack, by driving the second double wheel on a protruding object;

9.12.4 it is not allowed to use during installation and disassembly work sledgehammers and similar objects capable of deforming wheel parts; and

9.12.5 replacing the valves with various kinds of plugs.

10 Tire Care for Vehicle Owners

10.1 Upon receipt of a new vehicle or a complete or partial tire change on the vehicle, the driver should:

10.1.1 check the correct tire configuration of the vehicle in accordance with **Section 8 of the Rules**;

10.1.2 in the case of partial replacement of tires, select them and install them on the axles based on the technical condition of the tires;

10.1.3 check the compliance of the entries in the tire operation records (**Appendix No. 5**) and sign the records (for legal entities);

10.1.4 check the tire pressure and, if necessary, bring it up to the recommended standard and to the maximum allowable for this tire model in the spare tire;

10.1.5. refrain from sudden starts, emergency braking, and dynamic maneuvers during the first three days after the tire work (this time is necessary to dry the tire paste and prevent the rim from slipping relative to the tire).

10.2 When installing the spare tire on the travelling wheel of a vehicle, it is necessary to check its compliance with the tires on the same axis, record the odometer reading to account the mileage of the spare tire in the tire operation records (for legal entities), and, if necessary, bring the pressure in the spare tire to normal.

10.3 Before starting the trip, the driver should:

10.3.1 visually inspect the tires;

10.3.2 check the mounting of the rims and wheels;

10.3.3 in the case of air leakage from the tire, identify and eliminate the cause of the leak; and

10.3.4 check the internal pressure in the cooled tires at least once a week.

10.4 Overcoming obstacles.

When driving on uneven roads, crossing obstacles (rails, curbs, or potholes), it is recommended to slow down and overcome them smoothly, without sudden bumps and slippage.

Sharp overcoming of obstacles may lead to tire damage, decreased traction, and loss of steerability.

The driver should take into account the weight of the vehicle, the road conditions, and the type of tires to select a safe speed.

10.5 During the use of the vehicle, the driver should:

10.5.1 start the vehicle smoothly to avoid wheel slip;

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10.5.2 when the vehicle is being drifted aside, stop it immediately, identify and eliminate the cause of drifting;

10.5.3 do not allow driving on tires with incorrect internal pressure;

10.5.4 monitor the condition of the road in difficult sections (deep track, railway crossing, obstacles on the road, etc.) and reduce the speed of movement;

10.5.5. avoid sudden braking when approaching a stop, near traffic lights, barriers, and other obstacles, and gradually reduce and gain speed when maneuvering;

10.5.6 avoid sudden impacts of the wheels on sharp metal and other protruding objects, do not drive close to the edge of the sidewalk or other protruding objects, so as not to damage the tires;

10.5.7 inspect tires in parking lots in order to remove foreign objects (stones, glass, etc.) stuck in the tread, buttress, between the twin tires;

10.5.8. do not overload the vehicle in excess of the specified load capacity and ensure that the load is evenly distributed and secured (Appendix No. 3); heavy, small-sized cargo should be arranged in the body, taking into account the uniform load on all tires; and

10.5.9 monitor and arrange timely tire changes according to the season and the current situation on the road. Winter tires should be installed on the vehicle in autumn as low positive temperatures approach before the possibility of frost and ice formation on the road. Summer tires should be installed in the spring after the temperature is stable in the positive zone and the possibility of ice formation on the road is eliminated. Regardless of the seasonality of the tires installed on the vehicle during the transition periods, the driver should pay attention and adapt the driving style to the situation on the road.

10.6 Every day after using the vehicle, the driver should:

10.6.1 inspect the tires, rims, and valves for the presence of caps; remove foreign objects from the tread, buttresses, and between the twin tires;

10.6.2 remove the tires to be repaired and disposed of; and

10.6.3 in the case of uneven wear of the tread, find out and eliminate the cause thereof. The suitability of tires with uneven wear for further use is determined by the commission in the case of legal entities or the driver independently in the case of individuals, or by the decision of the organization.

10.7 In order to maximize the use of tire life, the driver should comply with the Operating and Care Rules for Tires:

10.7.1 storage, completing, and installation and dismantling work should be performed in accordance with the instructions in Sections **7**, **8**, and **9** of these Rules, as well as recommendations from vehicle manufacturers;

10.7.2 areas for regular parking should be cleaned of dirt, petroleum products, oils, chemicals, and other substances that destroy rubber. The possibility of tires freezing on the road surface due to the accumulation of water near the vehicle should be excluded. There should be no sharp objects or damage to the road surface at the place for regular parking. The gaps between the road surface elements (if any) should be minimal in terms of distance from each other and height differences;

10.7.3 when using covered parking lots, vehicles should not be located closer than one meter from the heating system;

10.7.4. do not allow prolonged parking of the vehicle in one place for more than two days with a full load and for more than 10 days while being unloaded. If you need to park your vehicle

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for a longer period of time, release the load from the tires with the help of stands or move the vehicle;

10.7.5 vehicles subject to conservation (long-term storage for more than 6 months) should be placed on stands with tires fully unloaded; tires should be protected from direct sunlight and precipitation;

10.7.6 it is forbidden to park vehicles on tires with internal pressure below the prescribed standard;

10.7.7 the air pressure in the tires should correspond to the values set by the vehicle's operating manual (instruction) or other regulatory document approved within the established procedure, since an incorrect pressure leads to a decrease in tire life (**Appendix No. 4** Effect of Violation of Pressure Standards On the Use of Tire Life);

10.7.8 a table of internal tire pressure standards for all vehicles operated by the motor transport company should be posted at the tire fitting sector, maintenance sectors, and checkpoint; and

10.7.9 tires should be operated exclusively on a technically sound vehicle.

10.8 Tire maintenance should be performed at every vehicle maintenance. During vehicle maintenance, the following tire and rim work is performed simultaneously:

10.8.1 inspection of tires to determine their suitability for further use: any foreign objects stuck in the tread, buttress, or between the twin wheels should be removed;

10.8.2 identification of tires with mechanical damage;

10.8.3 check of the serviceability of breathers, valves, and the presence of caps is checked;

10.8.4 determination of the suitability of the tires by the wear of the tread and the selection of tires for the axles of the vehicles; inspection of the rims to determine further serviceability; checking the fastening of the wheels and their elements;

10.8.5 measurement of the internal pressure in all tires of the vehicle, including the spare one; if necessary, the tire pressure should be adjusted to normal. The internal pressure is measured in completely cooled tires with a pressure gauge, the readings of which should be compared to the readings of the control pressure gauge.

10.8.6 in the case of any flaws found in the tires and rims, measures to eliminate them; and

10.8.7 checking the alignment of the wheels and their balancing.

10.9 It is recommended to switch the wheels on one axle and between the axles of the vehicle when a technical need is identified. Possible tire rearrangement schemes are shown in Figures 1, 2, and 3 of **Appendix No. 1**.

10.10 The cause for the rearrangement of tires may be:

10.10.1 the need to select tires for axles and twin wheels;

10.10.2 the need to install more reliable tires on the front axle (without mechanical damage, etc.);

10.10.3 detected uneven or intense wear of the tread pattern; or

10.10.4 mileage of more than 15,000 km since the last rearrangement or initial installation.

10.11 If intensive or uneven wear of the tread pattern is identified, operation should be discontinued, the causes of uneven wear should be established, and measures should be taken to eliminate such causes, regardless of the intervals of vehicle maintenance. At the same time, the driver should determine the possibility of further operation of such tires.

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10.12 In motor transport enterprises, in order to prevent premature tire failure and ensure safety, it is necessary to monitor the condition of tires and wheels and the air pressure in them (keep a pressure monitoring log).

10.13 It is prohibited to use the vehicle and release it on the road (for motor transport organizations) if the following is detected:

10.13.1 installation of tires according to size, permissible load, and speed index that do not correspond to the vehicle model;

10.13.2 installation on one axle, as well as on double wheels, of tires of mixed diagonal and radial design, tires with various types of tread patterns;

10.13.3 air pressure that does not meet the established standards;

10.13.4 replacement of valve caps with plugs and other attachments;

10.13.5 the tread pattern height is less than the maximum permissible;

10.13.6 local tire damage (punctures, through and blind cuts, etc.) that expose the cord, as well as delaminations in the casing, breaker, bead (bulges), local detachment of the tread, buttress, and sealing layer.

10.13.7 absence of caps on the tire breathers;

10.13.8 foreign objects (stones, glass, etc.) stuck in the buttress, tread, and between the twin wheels;

10.13.9 absence of at least one bolt or nut for fixing discs and wheel rims, as well as loosening of bolts;

10.13.10 visible irregularities in the shape and size of the holes in the wheel discs for mounting parts;

10.13.11 deformed rims;

10.13.12 discrepancy between tire seasonality and the current season (or traffic situation);

or

10.13.13 the fact of air leakage from the tire through the valve, as a result of damage to the tire or for other reasons.

10.14 If any flaws are found in the tires, the driver should take measures to eliminate them.

10.15 The maximum wear of the tread pattern (for previously manufactured tires with no wear indicators) is considered to be such wear when the residual height of the protrusions of the tread pattern has the minimum allowable value on the area of a rectangle, the width of which is equal to half the width of the tread cap, and the length of which is equal to 1/6 of the circumference of the tire in the middle of the tread cap if wear is uniform, and in several areas with different wear on a total area of the same size if wear is uneven (Fig. 2 of **Appendix No. 2**).

10.16 The minimum allowable residual tread pattern height, at which the tire should be removed from service, is set at:

10.16.1 for non-winter tires of passenger cars, 1.6 mm; for winter tires of passenger cars, 4.0 mm;

10.16.2 for tires on trailers and semi-trailers, the same as for the tires of the vehicles, to which they are attached.

10.17. The residual height of the tread pattern is measured in the places of greatest wear outside the area of the tie-bars, tread bars, or steps at the base of the tread pattern (Fig. 1, 2, and 3 of **Appendix No. 2**):

10.17.1 for tires with a solid tread rib in the center of the tread cap, the height of the tread pattern is measured along the edges of such rib.

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10.17.2 for off-road tires, the tread pattern height is measured between the lugs in the center or in places least remote from the center of the tread cap, but not along the ledges at the base of the lugs and not along the tie-bars.

10.17.3 on tires with wear indicators, the maximum allowable tread pattern height is determined by the appearance of the indicators (protrusions along the bottom of the tread cap grooves, the height of which is equal to the minimum allowable tread pattern height).

10.17.4 for tires with wear indicators, the maximum wear is determined by the appearance of one indicator in the case of uniform wear of the tread pattern and by the appearance of two indicators in each of the two sections in the case of uneven wear.

10.18 When preparing vehicles for winter or summer operation, the full scope of maintenance work on the vehicle should be performed.

10.19 When installing studded tires on a vehicle, it is necessary to run tires within 0.8-1.0 thousand km, during which the driver should refrain from sudden starts, emergency braking, and dynamic maneuvers.

10.20 It is prohibited to install tires of different seasonality on one vehicle, as well as the same seasonality, but studded and non-studded at the same time.

10.21 The composition of the rubber compound of the summer tire tread is designed to ensure an optimal level of traction at plus temperatures (Celsius), and it is very sensitive to temperature. The use of summer tires at very low temperatures may lead to damage due to a decrease in the elasticity of the rubber compound; that is, the rubber compound of the tread may become brittle at low temperatures (reaching the so-called vitrification point). If the tire is stressed and deformed in such conditions, the rubber compound may crack. Therefore, it is not recommended to use summer tires at very low ambient temperatures.

10.22 Restrictions on the operation of Run Flat tires:

10.22.1 Run Flat tires are allowed to operate only if there is a functioning tire pressure monitoring system (TPMS) that gives a pressure loss signal no later than 10 minutes or 5 km from the start of the leak. Using such tires without TPMS may lead to an imperceptible loss of pressure and damage to the tire casing;

10.22.2 after a puncture, Run Flat tires are allowed to continue driving only within the recommended mileage specified by the manufacturer (usually no more than 80 km at speeds up to 80 km/h);

10.22.3 after a flat operation, the tire should be diagnosed or replaced, as hidden damage to the internal structure of the casing is possible, which is not visible during visual inspection; and

10.22.4 the installation of Run Flat tires is allowed only on vehicles, the design of which allows their use (determined by the recommendations of the car manufacturer).

11 List of Flaws That Prohibit the Use of Tires

11.1 The operation of the tires should be stopped, and the tires should be taken out of service for the following reasons:

11.1.1 the wear of the tread pattern is higher than the maximum permissible;

11.1.2 premature uneven tread wear;

11.1.3 mechanical damage (through punctures, cuts to the cord, damage exposing the internal threads of the tire structure);

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11.1.4 separation and detachment of the sealing layer on the inner surface of the casing and on the beads;

11.1.5 destruction or fracture of the casing for any reason, including due to driving with reduced or completely absent tire pressure.

11.1.6 intensive wear of the middle part of the tread cap due to driving with high tire pressure, rupture of the casing due to overloading of the vehicle or wheels due to improper cargo arrangement in the vehicle body, as well as due to impact on road obstacles when driving at high speed;

11.1.7 loss of tire tightness for any reason;

11.1.8 overlap along the bead toe and bead heel with the emergence of the casing;

11.1.9 delaminations in the casing, breaker, and bead; delamination of the tread and buttress, and sealing layer;

11.1.10 pressing of foreign inclusions into the tire;

11.1.11 emergence of the structural elements of the tire in the tread base;

11.1.12 cracks or deep scratches on the cover rubbers;

11.1.13 emergence or detachment threads;

11.1.14 corrugations along the bead base and bead toe from pressing the rim strip, exposing the edges of the rim strip, tearing and separation of the sealing rubber layer on the inner surface of the casing and on the beads;

11.1.15 tread ridge with fabric pressing;

11.1.16 pressing of solid inclusions on the inner surface of the casing with damage to the first layer; or

11.2 The need for tire disposal, the possibility of repair, or further operation of tires is determined by the tire owner. In this decision, the tire owner bears his/her own responsibility and assumes all associated risks.

12 Complaints (Claims)

12.1 The order of relations arising between buyers, consumers, and manufacturers of products (contractors, sellers) is regulated by the terms of agreements and national legislation. In the Republic of Kazakhstan, this procedure is regulated mainly, but not exclusively, by the "Civil Code of the Republic of Kazakhstan" and the Law of the Republic of Kazakhstan "On Consumer Rights Protection."

12.2 Complaints about new tires can be considered within the service life and/or warranty period (if stated).

12.3 Procedure for filing complaints:

12.3.1 in the case of premature tire failure for reasons that, in the opinion of the tire owner, are the responsibility of the manufacturer or its affiliated persons, within the service life and/or warranty period (if any), tire owners may file a claim (complaint, statement of claim, or other document with requirements related to product quality) under applicable regulations. The claim (complaint, statement of claim) form may be arbitrary; however, the submitted claim (or other document) should contain the information specified in **Appendix No. 6**.

12.3.2 Together with the claim, upon request from the recipient of the claim, the applicant should provide the tires that are the grounds for filing the complaint. The absence of tires and/or

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the inability to provide or refuse to provide tires preclude the possibility of considering the claim on its merits.

12.3.3 Moreover, along with the claim, the applicant should present the purchase documents (cash or commodity receipt, universal transfer document, or other document or information confirming ownership).

12.4 The recipient of the claim should:

12.4.1 accept the claim and tires (if any) for consideration. Upon receipt of the tires, provide the applicant with a confirmation of receipt of the tires;

12.4.2 review the tire complaint in accordance with the terms of the agreement or national legislation and provide the results of the review upon expiration of the time limits specified therein;

12.4.3 if the requirements of the complaint are satisfied, either replace the tires with new ones, or satisfy the stated requirements in another way envisaged by law and/or agreed with the applicant of the complaint within the time limits established by national legislation, the terms of the agreement, or other arrangement between the parties; and

12.5 If necessary, when resolving disputes, the method of calculating the physical wear of the tire can be used to transfer to the residual value.

13 Methodology for Assessing the Physical Wear of Tires.

13.1 Physical wear of tires is assessed by the following parameters:

13.1.1 date of manufacture (established by marking on the sidewall);

13.1.2 tread pattern depth; and

13.1.3 mechanical damage, including damage to the cord with a change in the geometric parameters of the tire.

13.2 In the general approach, physical wear is defined as follows:

Wear = $(TD_{\text{new}} - TD) / (TD - TD_{\text{min}}) * 100\%$,

where

TD is the tread depth of the tire being assessed

TD_{new} is the tread depth of the tire being assessed in the new condition

TD_{min} is the minimum allowable tread depth for the operation of the tire being assessed according to its seasonality

13.3 The wear value increases as the following circumstances are present:

13.3.1 For tires 1 to 3 years from the date of manufacture, by 10%

13.3.2 For tires 4 to 5 years from the date of manufacture, by 25%

13.3.3 For tires over 5 years from the date of manufacture, by 50%

13.3.4 By 25% for tires with any external flaws or structural integrity violations related to the presence of punctures, cuts, breakdowns, ruptures, blisters, uneven wear, separation of tire elements, wear (damage) of the sealing layer, signs of other mechanical damage and natural impacts during operation, and other circumstances. At the same time, the presence, degree, and quality of the repair do not matter.

13.3.5 Tire wear is calculated as the sum of the values in Clauses 13.2 and 13.3. When a value of 100% or more is obtained, it can be stated that the tire has fully exhausted its life, and the tire manufacturer's responsibility has been exhausted.

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14 Responsibility of the Manufacturer

14.1 The manufacturer is responsible for ensuring that the tires comply with the requirements of national and other standards and other regulatory documents applicable to tires, subject to the conditions of operation, transportation, and storage envisaged by these Rules.

14.2 The manufacturer is responsible for the absence of manufacturing flaws and the operability of the tires up to the maximum wear of the tread pattern corresponding to the height of the wear indicator, within the service life.

14.3 The service life of tires, i.e. the period, during which the manufacturer undertakes to ensure that the product can be used for its intended purpose and is responsible for significant flaws caused by the manufacturer's fault or manufacturer's actions in compliance with these rules of operation, storage, and transportation, is 5 (five) years from the date of tire manufacture (starting from the first day of the week following the week of its manufacture, as indicated on the sidewall of the tire).

14.4 The possibility of further operation (after the expiration of the service life) is determined by the consumer (owner) on his/her own responsibility and in accordance with the technical condition of the tire.

14.5 Responsibility during tire repair:

14.5.1 after the repair, the responsibility for the serviceability of the tire and the possible consequences of its operation lies with the tire owner or the organization that carried out the repair;

14.5.2 the manufacturer is not responsible for the consequences of repairs if they are carried out in violation of technology, without certified materials, or without proper qualifications.

14.6 Responsibility in the case of repeated pin-studding:

14.6.1 repeated pin-studding is a modification of the tire that is not envisaged by the factory conditions;

14.6.2 the manufacturer is not responsible for the consequences of repeated pin-studding, as it may change the characteristics of the tire and lead to uneven wear and deterioration of traction properties.

15 Tire Disposal

15.1 Enterprises, institutions, organizations, and drivers who use motor tires for industrial and/or personal purposes are required to perform all required actions in the field of correct tire disposal: transfer them for recycling to licensed enterprises engaged in the centralized collection and/or disposal of motor tires, as well as comply with other requirements envisaged by local or national legislation in waste management fields.

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Appendix No. 1

Possible Schemes for Rearranging Tires on Vehicles

Figure 1. Rearranging tires with a directional tread pattern

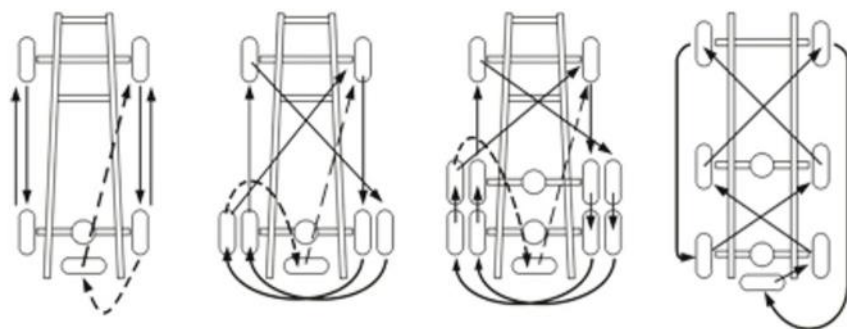


Fig. 2. Rearranging tires with a non-directional tread pattern

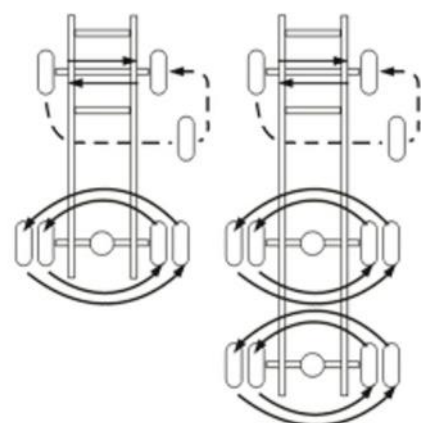
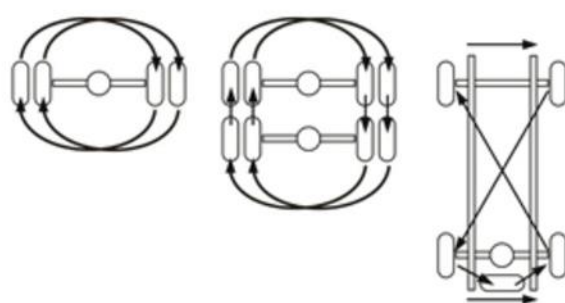


Fig. 3. Changing tires on trailers and semi-trailers



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Appendix No. 2

Determination of the Area of Maximum Wear of the Tread Pattern and the Place of Its Measurement

Fig. 1 The area of extreme wear of the tread pattern (shaded).

The width of zone c should be equal to half the width of the treadmill b, i.e. $c = 0.56b$. The length of area b should be equal to 1/6 of the circumference, i.e. $a = 2\pi R/6$, where R is the free radius of the tire (1/6 of the circumference is equal to the length of the arc, the chord of which is equal to the radius).

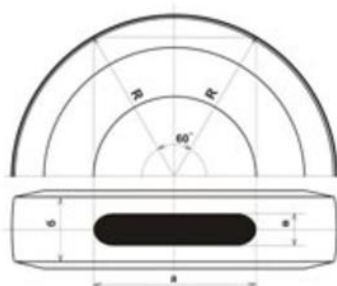


Fig. 2 Tread pattern with ledges at the base of the blocks in the central belt of the tread cap

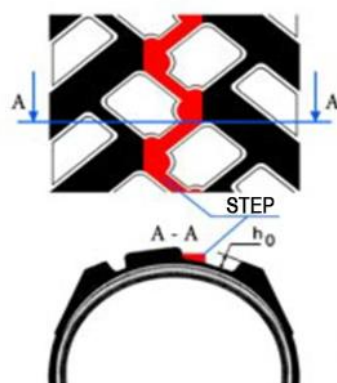
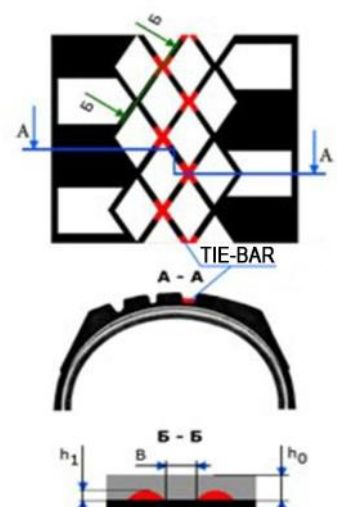


Fig. 3 Universal tread pattern with tie-bars at the intersections of the grooves.



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Appendix No. 3

The Placement of Goods on Vehicles and the Impact of Overloading on Tire Service Life

Fig. 1. Cargo placement on vehicles.

A - correct placement of small-sized heavy loads; Б - incorrect placement of small-sized heavy loads; В - correct placement of long loads; Г - incorrect placement of long loads.

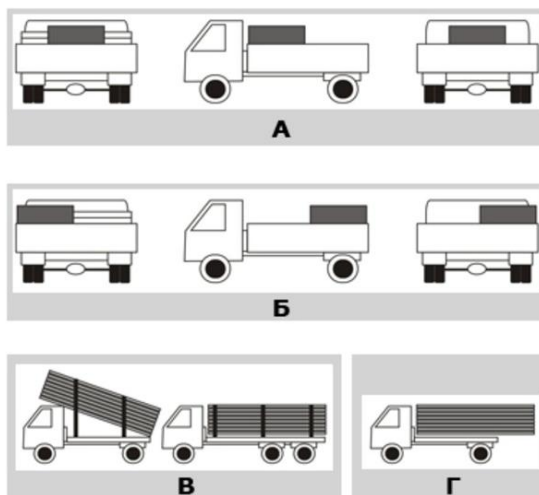
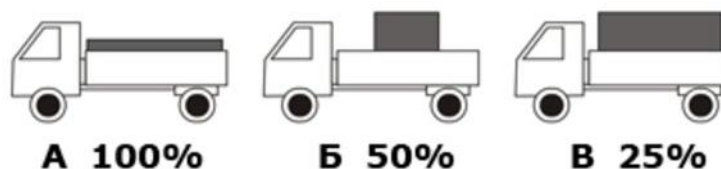


Fig. 2. Usage of the tire life (in %).

A - at normal load; Б - at 40% overload; В - at 100% overload



Appendix No. 4

The Impact of Pressure Violations on Tire Resource Utilization

		
at normal air pressure	at a pressure increased by 20%	at a pressure reduced by 20%

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Appendix No. 5

Motor Tire Operation Record

New, used (please underline)

Tire serial number or tire production date: _____
(in the case of its loss, the number assigned at the enterprise is indicated)

Tire size and model: _____

Brand, make, or manufacturing plant: _____

State registration mark, make, and model of the vehicle:

Company name and address:

Date		Tire mileage, thousand km (accurate to 0.1 km)		Technical condition of the tire: flaws, the nature and size of the damage, the depth of the tread pattern in mm (with date)	The reason for removing the tire: repair, transfer to another vehicle or stock, storage, write-off	Driver's signature
Installations on a vehicle	Removing a tire from a vehicle	Per month	since the beginning of operation			

Responsible for recording the tire operation: _____

Conclusion on tire write-off _____

Members of the commission: _____
(position, signature, surname)

(position, signature, surname)

" __ " _____ 202_

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Appendix No. 6

Information for the Complaint

A list of basic details required to be provided when filing a claim (complaints).

- 1 Applicant's contact details (full name)
- 2 Date and place of birth
- 3 Registration address
- 4 Details of the main identity document
- 5 Region, as well as the city of residence and operation of the tires
- 6 Trade name of the model of the tire(s)
- 7 Standard size, speed index, and load index of the tire(s)
- 8 Reason for the appeal (the stated flaw)
- 9 Requirements in connection with the appeal
- 10 Place of purchase of the tire(s) and date of purchase (number and date of the purchase document)
- 11 Date and place of initial installation of the tire(s)
- 12 Make, model, year of manufacture, and state number of the vehicle, on which the tires were operated
- 13 Tire mileage at the time of the appeal
- 14 Photographic materials that will clearly show the details specified in Clause 21.7, the general appearance of the tire(s), the tread of the tire(s) with a wear indicator, the DOT code with the production date of the tire(s), as well as the flaw under claim.

The list is not exhaustive; the current set of necessary details will be clarified when considering the appeal.

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Appendix No. 7

Instructions for Tire Fitting Operations

- 1 Tire work should be carried out in strict accordance with safety and health requirements, under the legislation of the region of work.
- 2 The installation and dismantling of vehicle wheels should be carried out in a sector established at the enterprise, equipped with the required equipment, fixtures, and tools, on a clean floor, and using safety barriers.
- 3 Before carrying out the work, it is necessary to ensure the operating temperature on the premises; it should not be below +15°C. If work is carried out in winter, the tire should be kept on warm premises for at least 3 (three) hours.
- 4 Before carrying out work, it is necessary to inspect the tire to be installed for the presence/absence of operational damage.
- 5 The tire should not have signs of violations of the rules of operation, such as deep cuts and punctures, blisters, including fixed ones, signs of use at low or zero pressure, or uneven wear of the tread pattern;
- 6 The tire should not show signs of violations of the rules of storage/transportation, such as jams and creases in the area of the bead ring.
- 7 The tire should be clean, free of dirt, dust, stones, and other foreign objects stuck in the tread.
- 8 Before carrying out the work, it is necessary to prepare and inspect the wheel, on which the tire will be installed in the future.
- 9 The test wheel should match the size of the tire being tested. It is necessary to pay attention to the fitting width of the wheel rim and select it in accordance with the standard size of the tire under study (tabular tolerance values), as well as select the appropriate bore diameter.
- 10 The wheel rim (especially on the rim edge, bead seat, hump, and near it) should have no signs of corrosion, dirt, and other foreign substances. If there is any contamination, it should be eliminated; if the contamination is unavoidable, the wheel should be replaced.
- 11 It is necessary to check the condition of the wheel rim for damage: there should be no dents, cracks, welding or repair marks, or geometry corrections. If one of the listed signs is identified, the wheel should be replaced.
- 12 It is necessary to check the condition of the central hub hole of the wheel disc; it should be smooth, free from damage, dirt, signs of corrosion, paint, and varnish deposits, as well as other substances. In the case of damage, the wheel should be replaced. If there is any contamination, it should be eliminated; if the contamination is unavoidable, the wheel should be replaced.
- 13 It is necessary to make sure that the wheel does not have any adjustment weights installed thereon. If there are correction weights installed on the surface of the wheel, they should be dismantled.
- 14 Before carrying out the work, it is necessary to make sure that all the equipment used for tire fitting operations is in sound condition, serviced, and has passed all calibration procedures, if so implied by the equipment operating instructions.
- 15 After inspecting the wheel and the tire to be installed, you may start tire fitting operations:
- 16 it is necessary to place the wheel on the tire fitting machine;

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- 17 apply the mounting paste to both beads of the tire and the rim edges, the hump, and the part of the wheel rim well adjacent to the hump; and
- 18 after applying the mounting paste, it is necessary to install the tire on the wheel, taking into account all the operating instructions of the tire fitting machine.
- 19 After the tire has been successfully installed on the wheel, it is necessary to ensure complete shrinkage of the tire bead area relative to the bead seat and the rim edge. To do this, it is required to inflate the tire in two stages:
- 20 inflate the tire without a valve, up to 3.5 bar of overpressure, which will ensure complete shrinkage of the tire on the rim. **ATTENTION!** Inflating tires to a pressure above 3.5 bar should only be carried out in a special metal enclosure (crate) capable of protecting maintenance personnel during the spontaneous disassembly of the wheel;
- 21 then release the overpressure, tighten the valve, and bring the tire pressure to the target set in the vehicle configuration instructions.
- 22 After removing the wheel assembly from the tire fitting table, it is additionally recommended to tap it on the floor for better shrinkage of the tire bead on the wheel rim.
- 23 Next, the wheel assembly should be properly installed on the balancing stand. The installation process and procedure should be performed as follows:
- 24 First, a centering cone is placed on the shaft of the balancing stand in such a way that the cone is on the inside of the central hole of the wheel assembly.
- 25 Next, the wheel assembly is mounted on the shaft of the balancing stand, with the centering cone already installed.
- 26 After installing the wheel assembly and aligning the hub hole to the cone, a clamping nut is installed on the shaft, after which everything is tightened according to the operating instructions of the balancing stand.
- 27 The process of checking the wheel assembly for the need to use corrective weights, as well as their installation, should be carried out in accordance with the operating instructions of the balancing stand.
- 28 It is necessary to assess the amount of weights required by the stand for installation; if necessary, it is required to implement a "fit" (optimization) of the tire position relative to the rim.
- 29 Before installing the weights to be glued (according to the type of fastening), they should be shaped like the reverse side of the rim. The weight installation site should be additionally cleaned and degreased. Install the weights. After installation, the weights should be additionally fixed with a few hammer blows.
- 30 Before installing the wheel on the vehicle, it is necessary to check and, if necessary, clean the hub plane, to which the wheel assembly will fit.
- 31 Additionally, make sure that the actual direction of rotation and the specified tread pattern match.
- 32 Install the wheel assembly on the vehicle.
- 33 When fastening, it is necessary to check the fasteners: nuts or bolts should match: the size of the thread to the vehicle; the type of mounting surface (cone, sphere, plane) to wheels; in their length, nuts or bolts should be tightened at least 6 to 8 turns until fully tightened; the thread should be clean, free of dirt, thread helixes should have no dents or burrs.
- 34 Tighten the bolts. The bolts should be tightened sequentially by tightening the opposite bolts from the central hole.

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- 35 The final tightening of the fasteners should be done using a torque wrench with the required force specified in the operating instructions for the specific vehicle.