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FARM UNIAXIAL
THREE- SIDE TIPPER TRAILER

T671

INSTRUCTION FOR USE AND SERVICING

Edition III
Narew 2006

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THREE- SIDE TIPPER TRAILER
T671

INSTRUCTION FOR USE AND SERVICING

Identification of the machine:

Symbol /TypE .....
KTM symbol: .....
Factory No. .....

The factory No. is engraved on the data plate and on the front beam of the trailer frame. The name plate is riveted to the load carrying body.

While purchasing the trailer one must be checked conformity of factory numbers placed on the trailer with numbers written down in the guarantee certificate, in the sales documents and in the instruction for servicing.

The hydraulic system has been filled in with the HL32 hydraulic oil

Mark of quality control .....

Information contained in the publication is up-to-date for the day of the elaboration. As a result of improvements some sizes and figures contained in this publication may not correspond to the factual state of the machine delivered to the user.

The manufacturer reserves the right to introduce, in the manufactured machines, structural alterations facilitating servicing and improving quality of their operation without making current changes in the instruction and in the spare parts list.

Comments and remarks on the structure and action of the machine, please sent to the Manufacturer's address. This information will enable objective evaluation of the machine and will be helpful as guidelines in their further modernization.

Information on essential structural alterations are delivered to the user by means of informative supplements (annexes) attached to the instruction.

ATTENTION!

The instruction for use and service constitutes the Basic equipment of the machine

Before starting exploitation the user must get acquainted with contents of this instruction and observe all recommendations contained in it. It will guarantee failure-free operation of the machine.

The machine has been designed in accordance with binding standards, documents and currently binding legal provisions.

The trailer has the CERTIFICATE NO. ..., entitling to mark the product with security mark, valid in the period from ... to ..., issued by the Unit for Certification of Products, IBMER Warsaw.

TABEL OF CONTENTS

1 INTRODUCTION

The instruction describes basic rules of safe use and service of agricultural tipper trailers.

If information contained in the instruction appears not fully comprehensible, it should be turned for help to the sales point, in which the trailer has been purchased or to the manufacturer.

Particularly important information and recommendations, the observance of which is utterly necessary, are distinguished in the text through underlining or preceded with the word „ATTENTION".

Information, description of threats and precautions as well as recommendations and orders connected with safety of use, in contents of the instruction, are distinguished with the sign:

as well as mentioned in the chapter „Safety of use".

2 APPROPRIATION OF THE TRAILER

The trailer is designed for transport of agricultural crops and other loose and volumetric materials within the area of the farm and on public roads.

The braking system as well as the lighting and signaling system meets requirements resulting from provisions of road traffic.

The trailer is adapted to cooperation with farm tractors equipped with hydraulic external installation and catch for uniaxial trailers.

The trailer is adapted to cooperation with farm tractors equipped with hydraulic external installation and catch for uniaxial trailers.

Admissible speed of the trailer moving on public roads in Poland equals 30 km/h (according to the law dated June 20, 1997, „Law on road traffic", article 20). Restrictions connected with binding law on road traffic must be observed in countries in which the trailer is exploited. However the velocity of the trailer may not be higher than the admissible structural speed of 30 km/h.

ATTENTION!

THE TRAILER MUST NOT BE USED INCONSISTENTLY WITH ITS APPROPRIATION AND PARTICULARLY:

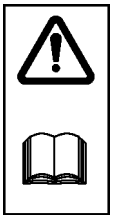
- **to transport people and animals**
- **to transport in bulk not protected toxic materials when there is possibility to cause environmental contamination.**
- **to transport machines and equipment when their location of centre of gravity negatively influences the stability of the trailer.**
- **to transport loads, machines which influence non-uniform loading and overload of running axes**
- **to transport non-fixed loads which may change their position on the platform of the load carrying body during traveling.**

3 SAFETY OF USE

- Before starting exploitation of the trailer the user must get acquainted thoroughly with the contents of this instruction. In the course of exploitation all recommendations contained in it must be observed.
- If information contained in the instruction is not comprehensible you must contact the seller conducting authorized technical service on behalf of the manufacturer or directly contact the manufacturer.
- Careless and improper use and service of the trailer as well as non-observance of recommendations contained in this instruction creates threat to health.
- Non-observance of rules of safe use creates threat to health of attending persons and strangers.
- It is warned of existence of residua risk of threats, therefore application of rules of safe use should be the basic principle of using the trailer.
- It is forbidden to use the machine by persons non-qualified to driver farm tractors including by children and intoxicated persons.
- It is forbidden to use the trailer inconsistently with its appropriation.
- Before each use of the trailer you must check its technical state. In particular you must check the technical state of the catch system, driving system, braking installation and light signalling.
- You must often check the state of hydraulic system of the machine, oil leaks are inadmissible.
- You must keep particular care during connecting of the trailer.
- In the course of connecting nobody may stay between the trailer and the tractor.
- Climbing up the trailer is possible only when there is absolute standstill of the trailer and switched off the motor of the tractor.
- Disconnecting of the trailer from the tractor is forbidden when the load carrying body is lifted with the telescopic servo-motor. You must keep particular care during disconnecting of the trailer.

- The trailer disconnected from the tractor must be braked. If the trailer is standing on a slope or height it must be additionally against rolling through putting wedges or other elements without sharp edges under the wheels.
- A load must be uniformly distributed on the trailer.
- It is forbidden to exceed the admissible load capacity.
- It is forbidden to drive with lifted load carrying body as well as to transport people and animals on the trailer.
- **Before starting of unloading through tripping of the load carrying body, the pins with grips connecting the load carrying body with the lower frame must be placed on the side of the planned direction of sliding.**
- It must be observed that nobody will stay near the load carrying body and the sliding load.
- During lifting of the load carrying body it must be kept safe distance from electricity lines.
- In case of ascertaining of any defects in action or damage the trailer must be taken out of use until the time of repair.
- It is forbidden to perform servicing and repair works under the loaded or lifted and unsupported load carrying body.
- During servicing of the trailer you must use protective gloves and appropriate tools.
- The above mentioned servicing and repair actions must be performed applying general rules of work safety and hygiene. In case of cut the wound must be washed out and disinfected immediately. In case of suffering of more serious injuries you must seek medical advice.
- The trailer is marked with information and warning inscriptions in form of labels mentioned in the table1. The user of the trailer is obliged to take care of readability of warning inscriptions and symbols placed on the machine during the whole period of use. In case of damage or destroying of them they must be replaced for new ones. Labels with inscriptions and symbols are to be purchased at the manufacturer of trailers.

Table 1. Information and warning labels

The symbol (sign) of safety or contents of the inscription.	Meaning of the symbol (sign)	Place of location on the machine
	Read the instruction for use	Front wall
	Switch off the motor and take out the key before starting servicing and repair actions	Front wall
	Secure the load carrying body before starting the service actions	Front wall
„It is forbidden to perform servicing and repair works under the loaded or lifted and unsupported load carrying body”		Front wall
„Unlock two pins connecting the load carrying body, on the opposite side of sliding, before unloading the trailer. The lifted load carrying body, keep safe distance. ”		Front wall
„Connecting only with the lower transport catch of the tractor.”		Front Wall
„1”, „2” (relates to the hydraulic circuits I and II of the trailer)		Cut-off valve
„350 kPa”	Tyre pressure 400/60-15.5 14PR	Over wheels, right and left wall

3.1 RULES OF MOVEMENT ON PUBLIC ROADS

- During driving on public roads you must adapt to the road traffic provisions.
- Exceeding of the admissible load capacity of the trailer may cause its damage and also may a threat to safety of road traffic.
- You should not exceed the admissible speed. Adapt speed to road conditions.
- The trailer is adapted to operation on slopes up to 8°. Dumps of the load carrying body must be made on horizontal subsoil.
- For the time of driving on public roads the trailer should be equipped with the attested and officially certified caution reflective triangle.
- On the back wall there must be placed triangular board distinguishing slow-speed vehicles if the trailer is the last vehicle in the group (fig. 1).

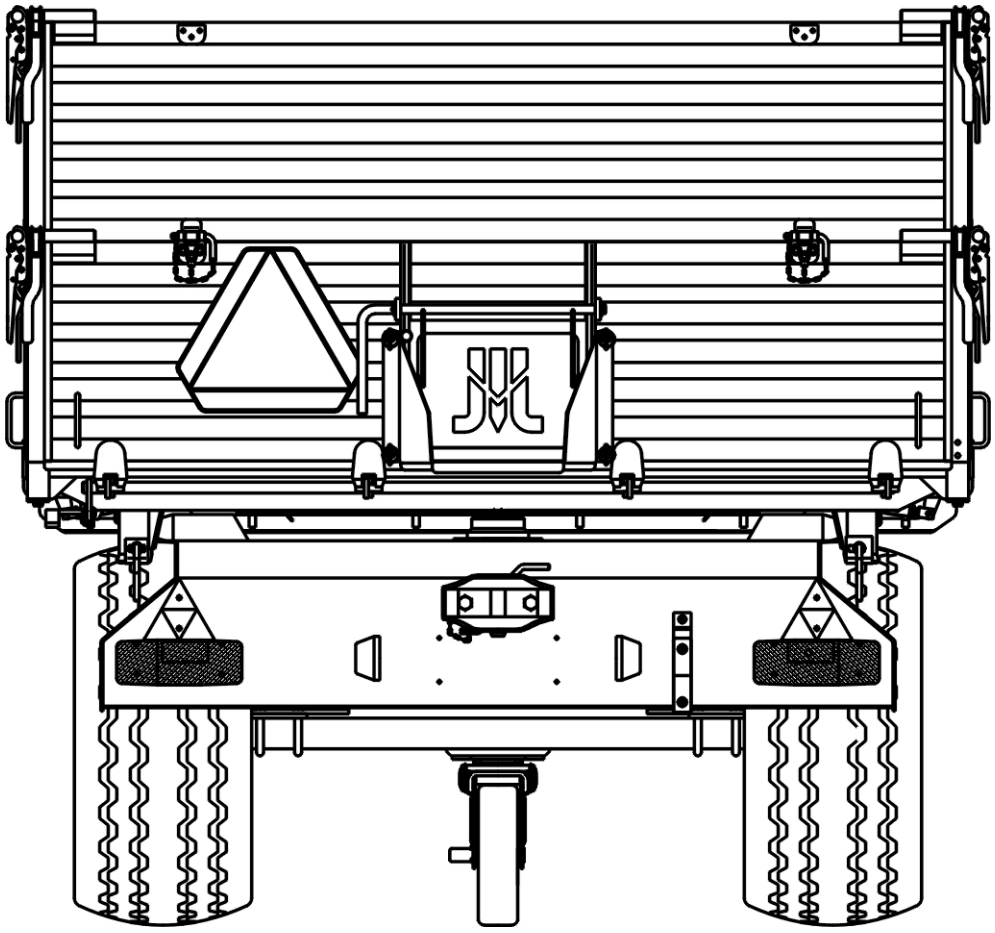


Fig. 1 Placing of the triangular board for slow-speed vehicles

It is forbidden to leave non-protected trailer. The protection consists in braking with the parking brake.

4 INFORMATION RELATING TO USE

4.1 TECHNICAL SPECIFICATION

Table 2. Basic technical data of the trailer T671

Item	Contents	Unit of measure	T671
1	Overall length	mm	5630
2	Overall width	mm	2240
3	Overall height	mm	2076
4	Wheel track	mm	1530
5	Int. dimensions of the load carrying body:		
	- length	mm	4010
	- width (front/rear)	mm	2010/2060
	- height	mm	500+500
6	Loading capacity	m^3	8,1
7	Loading surface	m^2	8,1
8	Loading surface height	mm	1060
9	Vehicle own mass	kg	1855
10	Admissible total mass	kg	6855
11	Load capacity*	kg	5000
12	Admissible structural load capacity**	kg	5500
13	Angle of inclination of the load carrying body		
	- sideways	(°)	$50 - 6^0$
	- backwards	(°)	50 ± 6^0
13	Wheel rims size		13.00x15.5
14	Tyre size and number of PR		400/60-15.5
15	Tyre pressure	kPa	14PR
16	Rated voltage	V	350
17	Admissible structural speed	km/h	12
			30

* - load capacity resulting from licensing for road traffic in Poland (official certification No. PL*2689*00 dated 31.12.2003); do not exceed in transport on public roads

** - load capacity resulting from the strength of the structure for use in the area of a farm, working place, etc.; it is admitted to use the parameter of admissible structural load capacity in applying for licensing for load traffic or official certification;

ATTENTION!

Angles of inclination of the load carrying body have been regulated in the factory. During use of the trailer it is not admitted to regulate and change of factory settings.

4.2 STRUCTURE AND PRINCIPLE OF OPERATION

4.2.1 Chassis

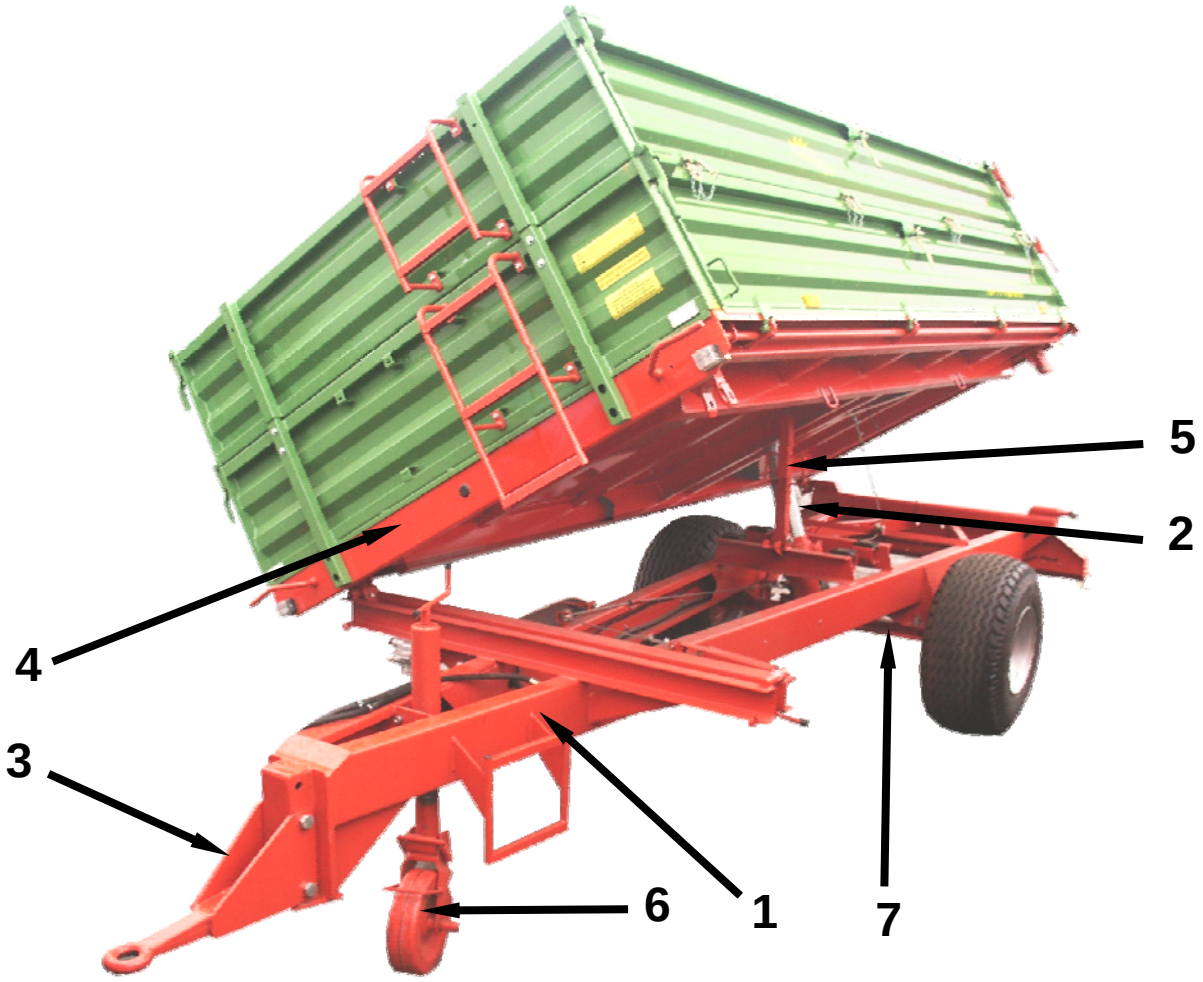


Fig. 2 Chassis and upper frame

1 – lower frame, 2 – hydraulic servomotor, 3 – draught bar, 4 – upper frame, 5 – support of the load carrying body, 6 – supporting wheel, 7 – traveling axis.

The chassis of the trailer is composed of assemblies specified on the fig.2. The lower frame (1) is a welded structure of steel sections. Two longitudinal members connected with cross-bars are the basic bearing elements. In corners of the frame there are situated journals for seating of the upper frame and in the middle part there are sockets for seating of the hydraulic servomotor (2). In the rear part of the frame there are elements for fastening of the traveling axis and elements of the rear lighting assembly.

The traveling axis (7) is made of quadratic bar ended with journals on which, on cone bearings, there are seated hubs of ground wheels. The ground wheels are single wheels equipped with shoe brakes actuated with mechanical cam expanders.

4.2.2 Load carrying body

The load carrying body is composed of: the upper frame with welded steel floor and walls A, B, C.

The upper frame is seated on the lower frame in joint sockets, secured with pins, being pivoting points during inclining of the load carrying body.

Locks of walls and added top walls as well as damper of the sliding window are secured against self-acting, undesirable opening.

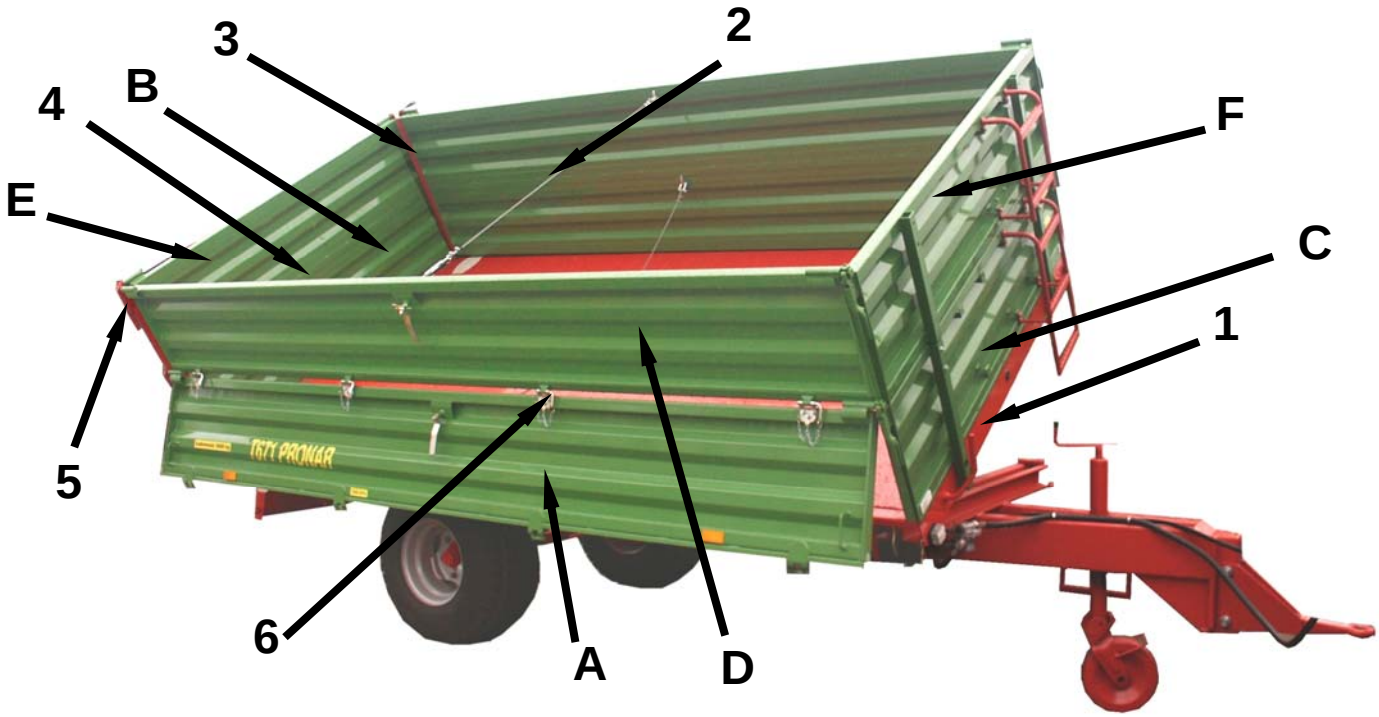


Fig. 3 Elements of the load carrying body

A – side walls, B – back wall, C – front wall, D – side added top wall, E – rear added top wall, F – front added top wall, 1 – upper frame, 2 – lines coupling the walls, 3 – rear post, 4 – pouring window, 5 – lock of the wall, 6 – hinge

4.2.3 Hydraulic dump system

Hydraulic dump system serves for self-acting unloading of the trailer through inclining the load carrying body backwards or sideways. The hydraulic system of the unloading mechanism is fed with oil from the hydraulic system of the tractor. The oil divider from the external hydraulic system of the tractor serves to steer lifting of the load carrying body.

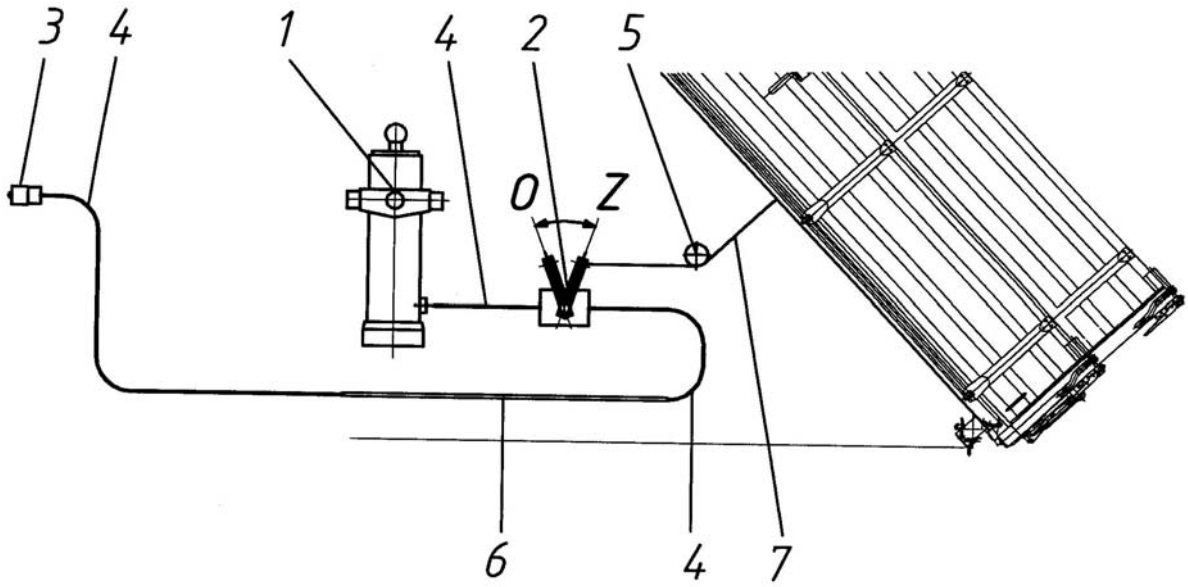


Fig. 4 Hydraulic system of the unloading mechanism of the load carrying body schematic diagram

1 – hydraulic servomotor, 2 – cut-off valve, 3 – plug of coupling valve, 4 – flexible conduits, 5 - roller, 6 – rigid hydraulic conduits, 7 – cut-off valve steering cord

ATTENTION!

The cut-off valve 2 limits and angle of inclination of the load carrying body during inclining it sideways. Length of line steering this valve is regulated by the manufacturer and it should not be regulated in the course of use of the trailer.

4.2.4 Braking system

The trailer is equipped with braking system which includes:

- working brake steered pneumatically
- parking brake steered manually by means of crank mechanism

The working brake (pneumatic) is actuated from the tractor driver's working place through pressing of the tractor brake pedal. The structure of this pedal ensures self-acting actuation of the trailer brake during unforeseen disconnection of the pneumatic system of the trailer and tractor.

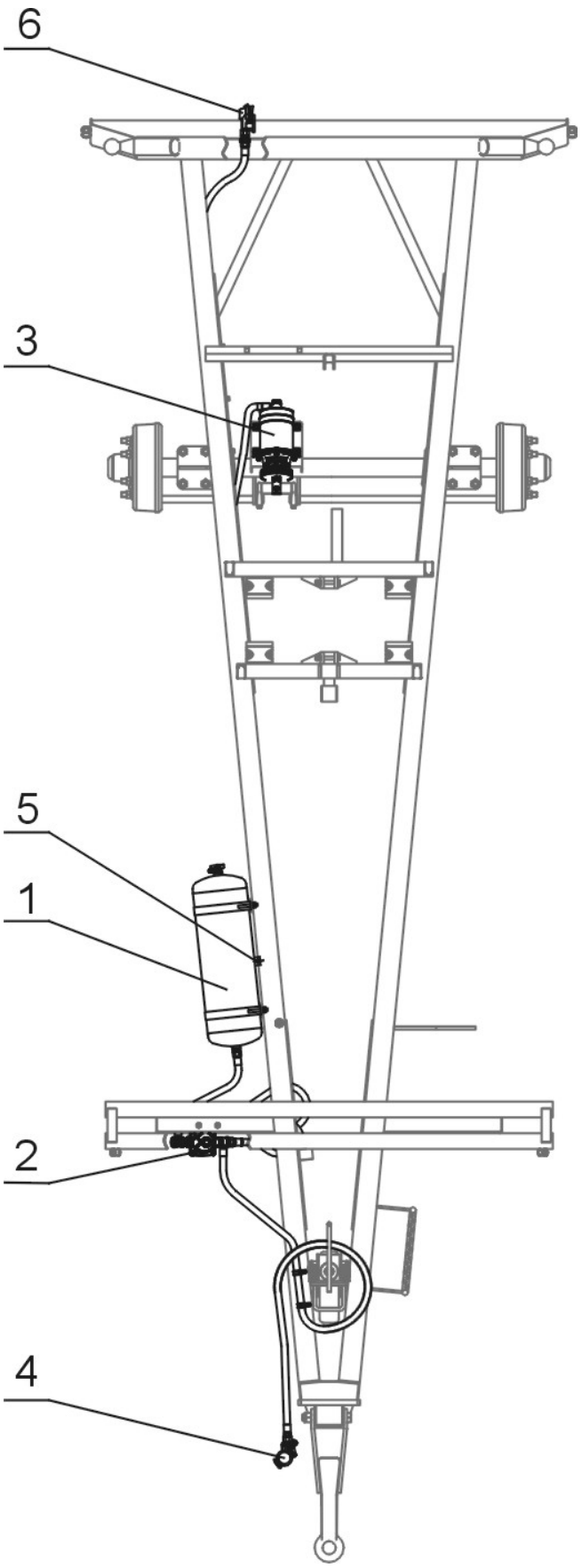


Fig. 5 Pneumatic braking installation schematic diagram

1 – air tank, 2 – steering valve, 3 - pneumatic servomotor, 4 – joint for connection with the tractor, 5 – drainage valve, 6 – joint for connection of the second trailer

4.2.5 Wiring system, lighting, signalling

The wiring system of the trailer is adapted for feeding from the direct current source 12 V. Connection of the wiring system of the trailer must be made by means of an appropriate jointing conductor.

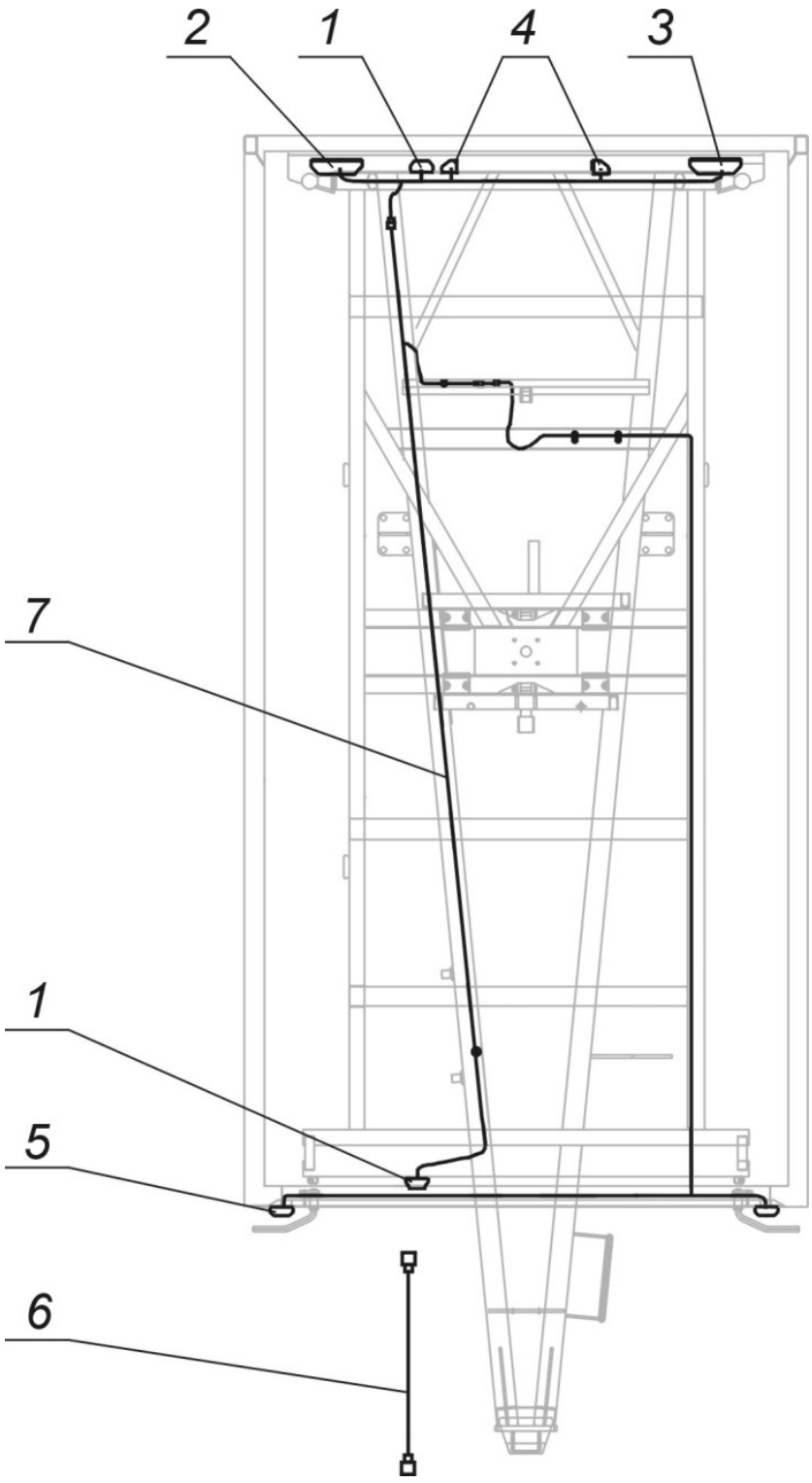


Fig. 6 Wiring system of the trailer schematic diagram

1 – socket of plug joint, 2 – right rear combined lamp, 3 - left rear combined lamp, 4 – number plate lamp, 5 – front parking lamp, 6 – jointing conductor, 7 – electrical bundles

4.3 RULES OF USE OF TRAILERS

4.3.1 Connecting with the tractor

Before start of connecting the trailer with the tractor you must check if the trailer is braked with the manual parking brake.

In order to connect the trailer with the tractor you must perform the following actions:

Set the eye of the draught bar at the proper height.

Precise setting of height of the draught bar eye can be achieved by steering the supporting wheel by means of bolt knob.

Moving back the tractor, connect the draught bar eye **with the catch for uniaxial trailers** of the tractor and check its protection.

By means of supporting knob, lift the wheel of the support upwards and deflect to the transport position.

Connect conduits of electric, hydraulic and braking installation with the tractor.

Switch off the manual parking brake of the trailer.

ATTENTION!

During connection strangers must not stay between the trailer and the tractor.

4.3.2 Preparation for operation

In preparation of the trailer for operation you must check:

- **state of road wheels and pressure in tyres**
- **tightening of nuts fastening the road wheels, draught bar and possibly the rear catch**
- **state of remaining screw connections**
- **efficiency of the lighting and signalling system of the trailer**
- **action of braking system of the trailer**
- **state and action of locks of walls, hinges of walls, pins of dump**
- **correctness of action of the hydraulic unloading system**

4.3.3 Loading of the load carrying body of the trailer

The loading of the load carrying body may take place only when the trailer is connected with the tractor and positioned on horizontal subsoil. You must aim at uniform distribution of the loading in the load carrying body.

During loading it is recommended to use crane, leader or conveyor. Before starting of loading you must check if locks and hinges of walls and sliding window in the back wall are closed.

During transport of materials exerting point pressure on the floor of the load carrying body you must underlay thick boards. In table 3 there have been specified admissible heights of loading layers of various materials. **As it results from the table, in many cases it is not admitted to use total capacity of the trailer because it leads to exceeding of nominal load capacity.** Therefore during loading you must take care in order not to cause overloading of the trailer.

Light materials of large volume may be loaded even above the added top walls of the load carrying body with paying special attention to stability of the trailer and protection of roads against littering. During transport of light materials it is admitted not to mount lines coupling the walls.

Table 3. Height of load layer

Type of material	Height of load layer [m]
wet gravel, wet soil, clinker, stone	0,30
cement, dry gravel, soil, brick	0,40
cow dung, full brick, mineral fertilizer	0,65
rye, potatoes, maize, rape, wheat	0,80
barley, oat, peat, coke	0,95

ATTENTION!

- **It is forbidden to exceed admissible load capacity of the trailer because it threatens the security of road traffic and may cause damage of the machine.**
- **Before start of the traveling of the trailer you should check if :**
  - **pins joining the load carrying body with the lower frame are protected against self-acting falling-out**
  - **pins of hinges of walls are protected against falling-out**

4.3.4 Transport

- During driving on public roads you must adapt to the road traffic provisions.
- You should not exceed the admissible speed. Always adapt speed to road conditions.
- The trailer is adapted to operation on slopes up to 8°.
- . For the time of driving on public roads the trailer should be equipped with the attested and officially certified caution reflective triangle.
- On the back wall there must be placed triangular board distinguishing slow-moving vehicles if the trailer is the last vehicle in the group.

4.3.5 Unloading of the load carrying body

Unloading of the trailer takes place through inclination of the load carrying body backwards or sideways. Self-acting unloading must be conducted performing the following actions with keeping their sequence:

1. Position the trailer on flat ground and stop the tractor and the trailer.
2. Pins with grip joining the load carrying body with the lower frame must be placed on the side of planned direction of sliding.

ATTENTION!

Only original pins with grip must be applied. Application of non-original pins of dump threatens damage of the trailer.

3. Open lower closings and locks of walls appropriate for the direction of unloading.

ATTENTION!

During opening of closings and locks of walls you must pay special attention due to pressing of the load on the walls

4. Cause inclination of the load carrying body through its lifting by means of the hydraulic servomotor.

ATTENTION!

Unloading of volumetric materials which have been loaded at the height over 1 m may be performed through inclination of the load carrying body backwards.

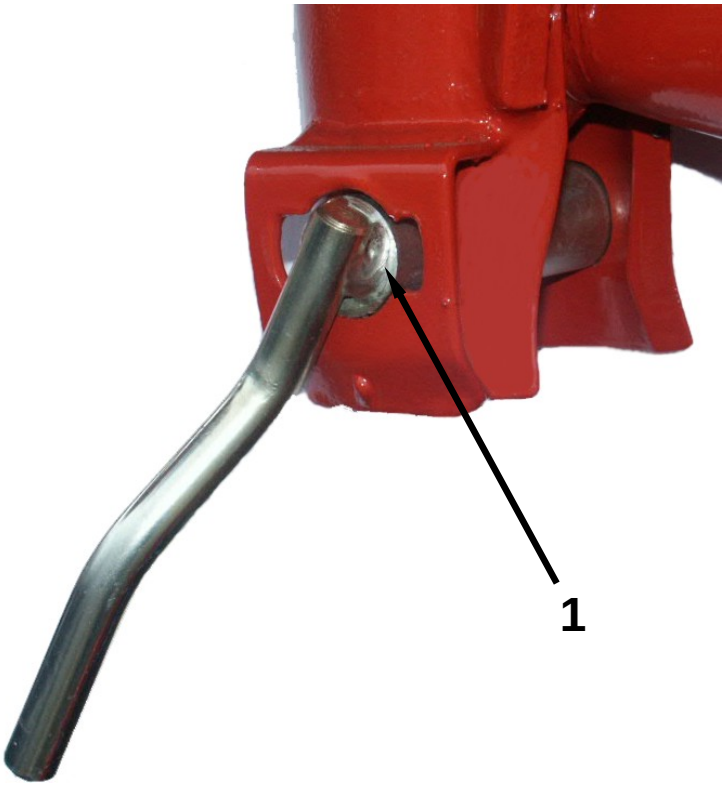


Fig. 7 Connection of the load carrying body with the lower frame

1 – pin with grip joining the load carrying body with the lower frame,

ATTENTION!

It must be observed that during unloading nobody will stay near the inclined load carrying body

The back wall of the load carrying body is equipped with the sliding window which may be opened gaining gaps of various sizes. It allows regulating the stream of loose materials such as mineral fertilizers or grain unloaded from the load carrying body. Opening of damper of the window requires earlier loosening of the nut of the securing clamp. In case of use of the sliding window you should not open locks of the back wall. After sliding load of the trailer you must:

1. Leave the load carrying body.
2. Insert and secure pins joining the load carrying body with the lower frame.

3. Clean edges of walls, added top walls and the floor off residua of materials and contaminations. Close walls and added top walls. Locks place in position precluding self-acting opening.
4. During unloading of the trailer located on inclined subsoil it is admissible inclination of the load carrying body to the side of the trailer which is located higher.

ATTENTION!

It is forbidden to drive with the lifted load carrying body.

4.3.6 Disconnecting from the tractor

In order to disconnect the trailer from the tractor you must perform the following actions:

1. Stop the trailer with the manual parking brake after stopping of the tractor.
2. Disconnect, from the tractor, conduits of the electrical, hydraulic and braking installation and secure endings of these conduits against contamination.
3. Deflect the supporting wheel to the supporting position and lower the wheel by means of the supporting handwheel so that the wheel will rest on the subsoil.
4. Disconnect the flexible connector of the draught bar of the trailer from the catch of the tractor and drive away with the tractor.

4.3.7 Defects and inefficiencies of action

The most often occurring following defects and inefficiencies and ways of their removal have been specified in the chapter „INSTRUCTIONS OF SERVICING"

5 EQUIPMENT AND FITTINGS

Equipment of each trailer is composed of:

- instruction for use and service and catalogue of spare parts - 1
- guarantee card - 1
- jointing conductor of the electric installation - 1
- support of the load carrying body - 1

At buyer's desire the manufacturer may equip the trailer with the following elements of the additional equipment:

- the warning reflective triangle
- the table distinguishing slow-moving vehicles

ATTENTION!

Assembling and disassembling of added top walls must be conducted with use of landings, ladders or ramp of proper height. These works should be performed by two persons, and at the same time you must take particular precautions and secure working persons against fall.

6 INSTRUCTIONS OF SERVICING

ATTENTION!

- **In case of ascertaining of any incorrectness in action or damage of systems and subassemblies of the trailer, the machine must be taken out of use until the time of repair and removal of defect.**
- **It is forbidden to perform servicing and repair works under the loaded or lifted and unsupported load carrying body.**
- **Servicing and repair actions must be performed applying general rules of work safety and hygiene. In case of cut the wound must be washed out and disinfected immediately. In case of suffering of more serious injuries you must seek medical advice.**
- **In case of necessity of performance of servicing works and repairs under lifted load carrying body (e.g. replacement of telescopic cylinder) the trailer must be delivered to repair in the specialist repair plant.**

6.1 WHEELS' BEARINGS ADJUSTMENT PROCEDURE

In the newly purchased trailer, after driving of the first 500 km, and in the course of further use – after driving of the next 1500-2000 km – you must check and in case of necessity regulate play of bearings of road wheels. To this aim you must:

1. Connect the trailer with the tractor, brake the tractor, put blocking wedges under the wheels of the trailer, subsequently lift the wheels, check the play;
2. If the wheel shows excessive play, dismantle the cover of the hub and take out the cotter pin of the castellated nut.
3. Rotating the wheel, simultaneously tighten the castellated nut until total braking.
4. Unscrew the nut by 1/3 of revolution, until the nearest groove for the cotter pin is in line with opening in the journal.
5. Secure the nut with the cotter pin and mount the cover of the hub.

The wheel should rotate fluently, without jams and perceptible resistances non-coming from rubbing of brake shoes against the drum.

6.2 BRAKES ADJUSTMENT PROCEDURE

Brakes adjustment must be conducted when:

- in consequence of wear and tear of lining of brake shoes, excessive play appears between the lining and the drum and the efficiency of braking decreases

- brakes of wheels brake non-uniformly and non-simultaneously.

In case of correctly adjusted brakes, braking of road wheels of the trailer must take place at the same time.

Brakes adjustment consists in changing of position of the arm of the expander (1) (fig.8) against the shaft of the expander (2). To this aim you must, loose the nut (4), and next shift the arm of the expander on the multi-grooved ending of the shaft (2) in the proper direction, that means:

- backwards – if the brake brakes too late
- forwards - if braking takes place too early

Adjustment must be conducted separately for each wheel. After correct brake adjustment, during full braking, arms of expanders should create the angle of 90^0 with the piston rod of the pneumatic servomotor. Adjustment of the parking brake must be conducted in case of stretch of the line or loosening of clamps of the line of the parking brake. The length of the line of the parking brake should be so selected that during total release of the working and parking brake the link will be loose and hang down1 ÷ 2 cm.

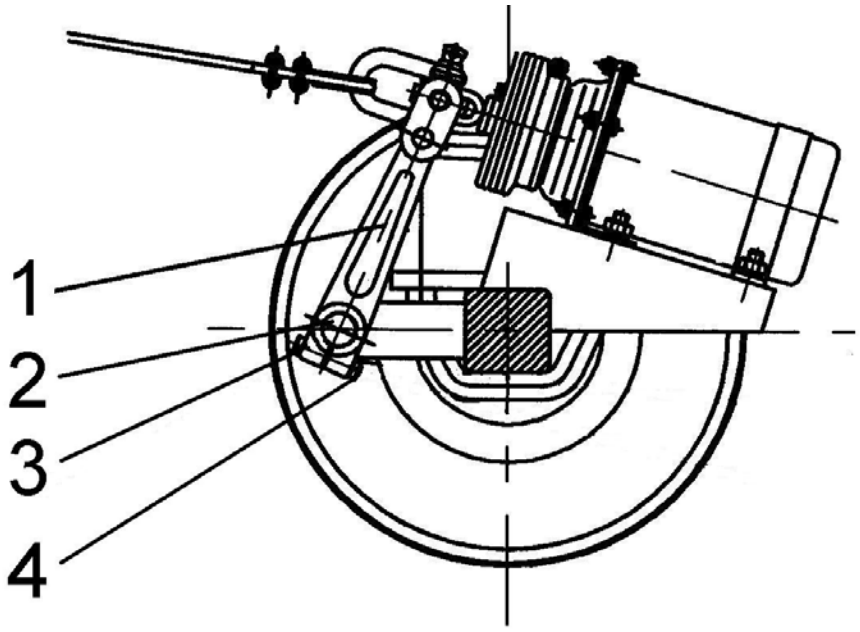


Fig. 8 Elements of brakes adjustment

1 – expander arm, 2 – expander shaft, 3 - screw, 4 - nut

ATTENTION!

In case of properly adjusted brakes, the braking force of the trailer should achieve values not lower than those specified in the table 4

Table 4. Braking force

Type of the trailer	Braking force with the main brake (kN)	Braking force with the parking (kN)
T671	20,2	12,1

The difference of braking forces of the left and right wheel may not be greater than 30% considering that the greater force constitutes 100%.

ATTENTION!

Braking force of the trailer is the sum of braking forces of the wheel of the trailer.

6.3 PNEUMATIC SYSTEM SERVICING

Within the framework of servicing of the trailer, you must conduct control of tightness of the pneumatic system, paying special attention to places of all connections. Tightness of the system must be checked at nominal pressure in the system of about 600 kPa (6,0 kg/cm2).

If conduits, gaskets and other elements of the system are damaged, compressed air will get outside in places of damages with characteristic hissing or in case of small leaks in form of air bubbles. Small leaks can be detected through coating checked elements with washing fluid. Then the damaged gaskets or conduits causing leaks must be replaced for new ones. If the cause of leakage is outflow of air from the servomotor – the servomotor must be replaced for a new one.

Periodically condensate of water gathering in the air tank must be removed from this tank. To this aim you must deflect the stem of the drainage valve placed in the lower part of the tank. Compressed air being in the air will cause removing water outside. After release of the stem the valve should close automatically and break outflow of air from the tank.

Once a year before winter period you must screw out the drainage valve and clean from gathered dirt.

6.4 HYDRAULIC SYSTEM SERVICING

You must absolutely observe the rule that the oil in the hydraulic system of the trailer and the oil in the external hydraulic system of the tractor will be of the same type. Use of different grades of oil is inadmissible.

In the new trailer the installation is filled with the gear oil Hipol 15 or Hipol EP - 4 80W/90 or GL4 80W/90 or HL32 hydraulic oil.

The hydraulic system of the trailer should be tight totally. Checking of tightness of the hydraulic system consists in connection of the trailer with the tractor, actuation of the hydraulic cylinder, keeping in the position of maximum sliding-out of cylinders for 30 sec.

In case of ascertaining of oil leak on connections of hydraulic conduits, the coupling must be tightened, if this does not cause removal of defect – you must replace the conduit or elements of coupling for new ones. If leak of oil occurs beyond the joint, then untight conduit of the installation must be replaced for a new one. Each damage of mechanical nature, of a subassembly requires replacement of it for a new one.

In case of ascertaining of oiling up on the housing of the hydraulic servomotor you must check the nature leakage.

During total sliding-out of cylinder of the servomotor you must check places of seals. Small leaks with symptoms of "sweating", and in case of noticing of leaks of the “droplet” type you must stop exploitation of the trailer until the time removal of the defect.

ATTENTION!

It is inadmissible to use the trailer with untight hydraulic system of dump.

It is forbidden to use the trailer with lengthened, in proportion to the factory setting, length of the line steering the cut-off valve (2) (fig. 4)

ATTENTION!

State of the hydraulic system should be controlled currently during use of the trailer.

In case of intensive exploitation of the hydraulic system (great number of performer dumps) you must replace hydraulic conduits for new ones every 4 years.

6.5 LUBRICATION

Lubrication of the trailer must be conducted in places given on the figure 9 and specified in the table 5.

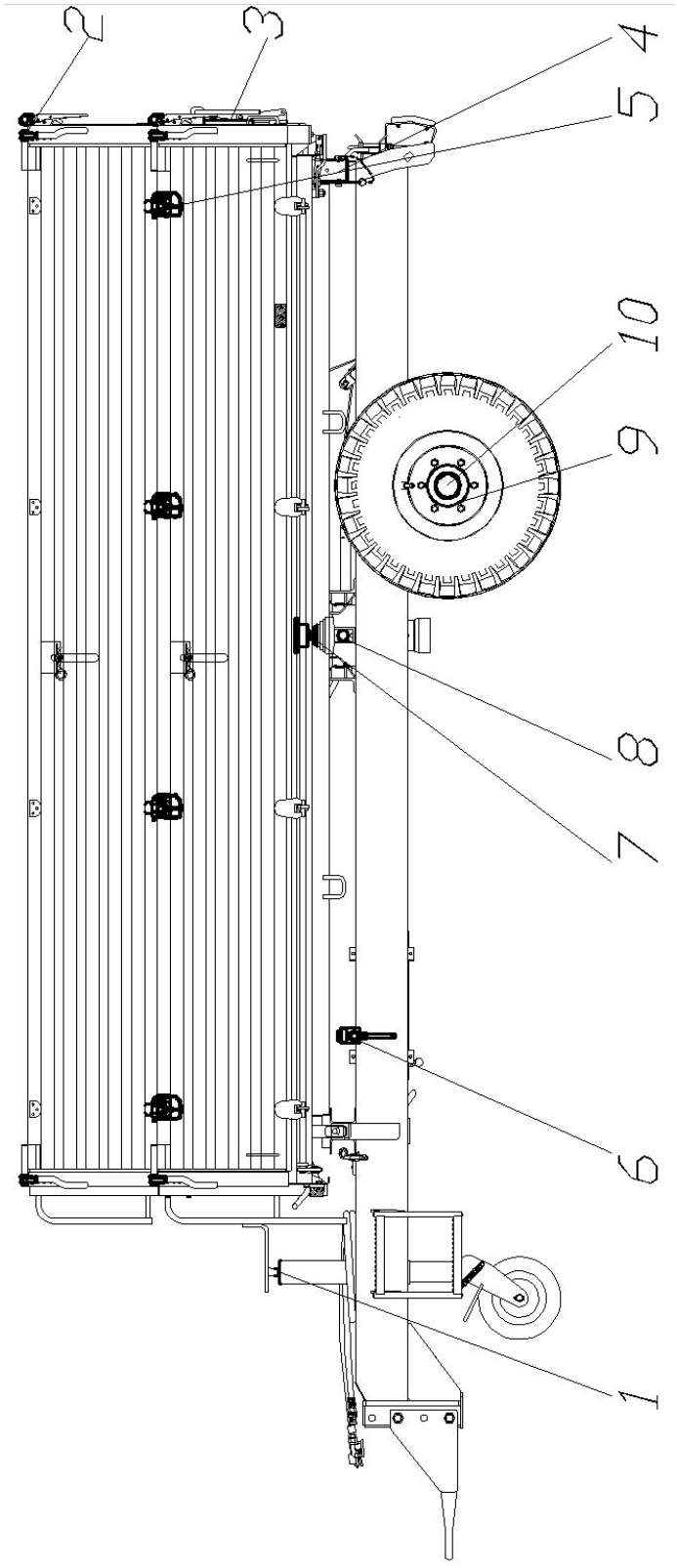


Fig. 9 Lubricating points of the trailer

Table 5.

No. on fig. 9	Place of lubrication	Number of lubricating points	Type of grease	Frequency and way of lubrication
1	Screw of the support		solid	every 3 - 4 months
2	Lock of walls of the load carrying body		oil	1 – once a month
3	Guide of the sliding window		solid	cover with very thin layer of grease every 3 –4 months
4	Sockets for seating of load carrying body		solid	surfaces cover with fresh grease every 2 months
5	Hinges of addend top walls		solid	pins cover with grease 1 – once a month
6	Screw of parking brake		solid	every 3 – 4 months
7	Upper ball land socket joint of the servomotor		solid	every 6 months
8	Pins of lower suspension of the hydraulic servomotor		solid	pins cover with fresh grease every 6 months
9	Sleeves of the shaft of expanders		solid	every 6 months
10	Bearings of road wheels		solid	change the grease every 2 years

6.6 STORAGE AND MAINTENANCE

After finishing of operation the trailer must be cleaned thoroughly and washed with water jet. In case of damage of lacquer coating the damaged places must be cleaned from rust and dust, fat must be removed from them and next they must be colored with paint maintaining homogeneous and uniform thickness of protective coating. Until the time of painting the damaged places must be covered with thin layer of grease or anti-corrosion preparation.

It is recommended to store the trailer in closed or roofed space. In case of storage of the trailer outside the space the trailer must necessarily be protected against influence of weather conditions especially factors causing corrosion of steel and accelerating ageing of tyres.

7 TRANSPORT

The trailer is prepared for sale in the complete mounted state and it does not require packaging. Only technical and operating documentation of the trailer, jointing conductor of electric installation and possibly the warning triangle are subject to packaging.

Delivery of the trailer to the user takes place by means of truck transport or by means of independent transport in connection with the tractor.

ATTENTION!

In case of independent transport the operator of the tractor should get acquainted with contents of this service instruction and observe recommendations contained in it. In case of truck transport the trailer is fastened on the platform of the transporting vehicle according to the safety requirements during transportation. Driver of the truck, during transportation of the trailer, should maintain particular care. It results from the fact of shifting upwards of the centre of gravity of the vehicle with loaded machine.

8 WITHDRAWAL OF THE TRAILER FROM USE

In case of taking decision by the user on withdrawal of the machine from use, the whole trailer must be delivered to the scrap depot designated by the District Head. Dismounted parts remained after repair must be delivered to a purchasing centre of secondary materials.

The certificate obtained from the scrap depot is the basis for removal of the trailer from the registration.

9 GUARANTEE

The company "PRONAR" Sp. z o.o. (Ltd.) in Narew guarantees efficient operation of the machine during use of it according to the technical and exploitation conditions described in the service instruction.

GUARANTEE CONDITIONS:

Defects disclosed within the guarantee period will be remedied by Guarantee Service within the time limit not longer than 14 working days from the date of receipt of machine for repair by the guarantee service or within the other agreed term.

Parts and subassemblies of machines which undergo wear under normal exploitation conditions before lapsing of the guarantee period: tyres and brake linings worn due to exploitation, mechanical damages and damages resulted from inappropriate exploitation, regulation and maintenance.

Detailed conditions of guarantee are given in the guarantee card attached to the newly purchased trailer.

ATTENTION!

You must request from the seller to fill in the guarantee card and claim coupons. Lack of e.g. date of sale or the seal of the selling point expose the user to non-recognition of possible claims.