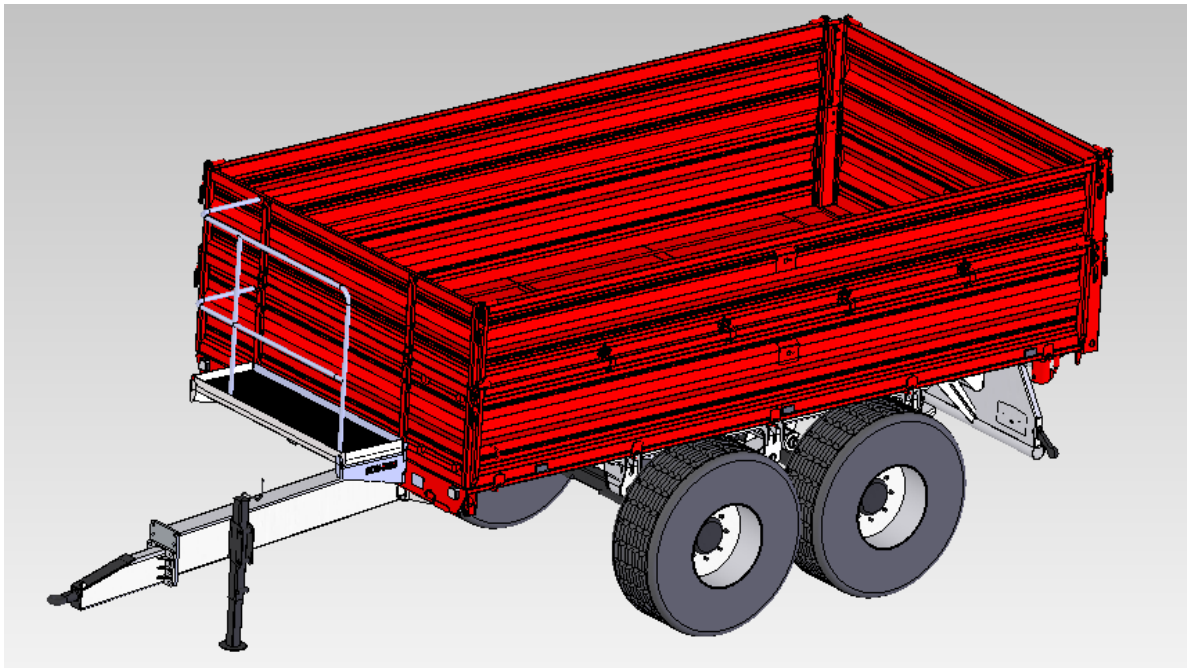




METAL-FACH Sp. z o.o.
16-100 Sokółka, ul. Kresowa 62
Tel. no. +48 85 711 98 40
Fax: +48 85 711 90 65

OPERATING MANUAL FARMING TRUCK TRAILER

Type T730/1-00 – 8 T
Type T730/2-00 – 10 T
Type T730/3-00 – 12 T



ORIGINAL INSTRUCTIONS
Edition I – year 2012

Trailer data

Vehicle type:	farming truck trailer
Type designation:	T730
Trade name:	T730/1, T730/2 , T730/3 *
Trailer identification number ^{1/} :	_____
Trailer manufacturer:	METAL-FACH Sp. z o.o. 16-100 Sokółka ul. Kresowa 62 Tel. no. +48 85 711 .. Fax: +48 85 711 98 40
Sold by:	_____
Address:	_____ _____
Tel./Fax:	_____ _____
Date of delivery:	_____
Owner / User:	Name: _____
Address:	_____ _____
Tel./Fax:	_____ _____

^{1/} The data is found on the trailer nameplate located on the trailer chassis front crosspiece
* - delete as appropriate



CE DECLARATION OF CONFORMITY



FOR THE MACHINE

„METAL-FACH” Sp. z o.o.
ul. Kresowa 62
16-100 SOKÓŁKA

which acts as the manufacturer

declares under sole responsibility that the following machine:

Farming truck trailer

T730-

year of manufacture:

serial number:

this declaration concerns, meets the following requirements:

- **Directive 2006/42/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL** dated 17 May 2006 on machines and the Resolution of the Minister of Economy of 21 October 2008 concerning general requirements for machinery (Journal of Laws, No. 199, item 1228);

The following harmonised standards were used for compliance evaluation:

PN-EN ISO 1853+A1: 2009	PN-EN ISO 4254-1:2009
PN-EN ISO 13857:2010	PN-EN ISO 12100:2011

- and the following standards: PN-ISO 3600:1998, PN-ISO 11684:1998; and the Resolution of the Ministry of Infrastructure of 31 December 2002 on technical requirements for vehicles and the scope of their necessary equipment (Journal of Laws 2003, issue 32 item 262 as amended).

Safety Test Report no. MF/2/2012

Unit responsible for engineering documentation: METAL-FACH Engineering Department

This Declaration of Conformity becomes void and null if the machine design is changed or modified in any manner without prior consent from the manufacturer.

Sokolka, 23.10.2010

President of the Management Board

Jacek Marek Kucharewicz

Table of Contents

1. INTRODUCTION	5
1.1. Machine identification	6
1.2. Intended use	7
2. GENERAL SAFETY RULES	8
2.1. Symbols and nomenclature	8
2.2. Obligatory notification	9
2.3. General safety regulations of work and use	9
2.3.1. <i>Safety of operation</i>	9
2.3.2. <i>Tyres</i>	12
2.3.3. <i>Pneumatic system</i>	12
2.3.4. <i>Periodic maintenance</i>	12
2.3.5. <i>Travelling on public roads</i>	13
2.4. Warning/information signs and text on the trailer	14
3. TECHNICAL CHARACTERISTICS. GENERAL DATA	17
4. GENERAL DESCRIPTION OF DESIGN AND FUNCTION	19
4.1. Chassis	19
4.2. Load surface	19
4.3. Load body hydraulic tipping mechanism	20
4.4. Electrical system (signalling and warning)	21
4.5. Braking system	21
5. STORAGE, SALE AND SHIPPING TO USER	23
6. OPERATION INFORMATION	24
6.1. Commissioning the trailer	24
6.2. Loading the body	25
6.3. Travelling on public roads	26
6.4. Unloading	27
6.5. Decoupling from the tractor	28
7. SERVICING	29
7.1. Servicing instruction for adjusted trailer components	29
7.1.1. <i>Wheels – bearing clearance adjustment</i>	29
7.2. Brakes	30
7.2.1. <i>Brakes – servicing the brake pneumatic system</i>	30
7.2.2. <i>Brakes – servicing the brake hydraulic system</i>	30
7.2.3. <i>Brakes – adjustment of the braking system components</i>	30
7.2.4. <i>Hydraulic brakes – operating principle</i>	33
7.3. Wheels – tyres	34
7.4. Hydraulic system	34
7.4.1. <i>Hydraulic system – servicing of the load body hydraulic tipping system</i>	34
7.4.2. <i>Hydraulic system – adjustment of the load body hydraulic tipping mechanism</i>	34
8. TROUBLESHOOTING	35
9. PERIODIC MAINTENANCE	36
9.1. Lubrication	36
9.2. Maintenance and servicing	37
10. DISPOSAL OF THE TRAILER	39
11. RESIDUAL RISKS	39

1. INTRODUCTION

This manual describes operation and servicing of the **T730** trailer. The operating instructions contain the information necessary.

If you require further information or particular problems arise which were not discussed in detail in the operating instructions, the customer should request the information from the manufacturer or the dealer. The crucial obligations of the manufacturer are stated in the warranty document which specifies the complete and current regulations for warranty services.

METAL-FACH Sp. z o. o. reserves the right to introduce changes without prior notice and without assuming any obligations resulting from those changes.

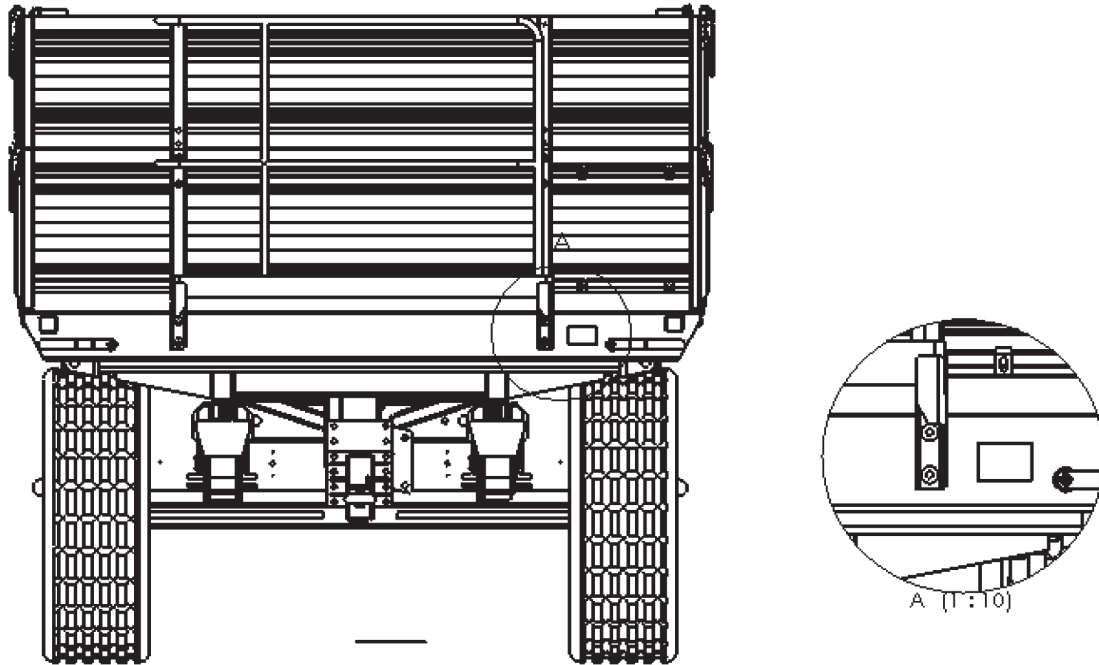
The **T730** trailer has been designed for reliable and safe operation if used in accordance with the operating instructions. Therefore before starting the machine we request that the users read the following manual for thorough understanding of specific issues.

All operators of this trailer must understand the contents of the operating instructions before commencing work.

This is intended to maintain proper operation of the trailer, safety of use and maximum operating life. This is also the condition which ensures that your warranty rights are maintained.

1.1. Machine identification

In all correspondence, questions, and warranty issues, please state the type and identification number of the trailer.



	100	
70	METAL -FACH	
5	Typ/Wariant <input type="text" value="1"/> Masa własna <input type="text" value="4"/> kg	
6,50	Data prod. <input type="text" value="2"/> Nacisk na zaczep <input type="text" value="5"/> kN	
1,5	Nr fabr. <input type="text" value="3"/> KJ <input type="text" value="6"/>	
	Nr świadectwa homologacji <input type="text" value="7"/>	
	Dopuszczalna masa całkowita <input type="text" value="8"/> kg	
	Dopuszczalne obciążenie osi <input type="text" value="9"/> kN	

Trailer version	1	2	3	4	5	6	7	8	9
T730/1	T730/1	2012	730112xxxxx	3500	15	KJ..	PL*xxxx*xx	11500	51/51
T730/2	T730/2	2012	730212xxxxx	3540	17.64	KJ..	PL*xxxx*xx	13540	60.1/60.1
T730/3	T730/3	2012	730312xxxxx	3600	17.64	KJ..	PL*xxxx*xx	15600	69.2/69.2

The identification data is found on the trailer nameplate located on the trailer chassis front crosspiece. The trailer serial number is stamped on the nameplate and under the plate, directly on the machine frame.

The manual is a part of the trailer's essential equipment.

Hint: Note down the type and serial number of your trailer. Please give this number every time you contact your supplier.

The manual constitutes a part of the machine's equipment.

1.2. Intended use

The trailer is intended for transport of crops and other bulk or loose materials within a farm and on public roads.

The trailer is unloaded manually or by tipping the load body to the rear or to the sides. The trailer is designed for coupling with farming tractors of varying power ratings, equipped with a external power hydraulic system, a power outlet for the electrical lighting and warning systems and the braking system of hitched machines, and a transport hitch.

Do not use this trailer to carry fuel, gas cylinders and similar due to the compliance requirements for transport of hazardous materials.

- Do not use the trailer to transport: fuel, gas cylinders, or toxic materials that may cause environmental pollution. The manufacturer shall not be liable for any resulting damage as it is solely incurred by the owner.
- The trailer shall only be used by persons who have understood the operating manual and who have been trained in hazards and first aid for accident victims.
- Follow all applicable laws for accident prevention and any other recognised rules of engineering safety, work medicine and road traffic safety.
- The manufacturer shall not be liable for damage from any unauthorised modifications of this trailer's design.

1.3 Equipment

The basic equipment of each trailer includes:

- the operating instructions manual;
- the warranty card with warranty conditions;
- the bracket for the sign "slow-moving vehicle";
- the two-line pneumatic brakes with adjustable braking force;
- the parking brake;
- the lighting installation;
- semi-elliptic spring suspension
- folded walls, front and rear

On customer's request (additional costs incurred), the manufacturer may equip the trailer with the slow-moving vehicle sign and a reflective warning triangle.

2. GENERAL SAFETY RULES

2.1. Symbols and nomenclature

WARNING!



This warning sign in the operating instructions means that special caution shall be exercised due to hazards to persons and potential damage.

IMPORTANT!

Failure to comply with these guidelines may result in damage of equipment or its components.

INFORMATION!

It is important to carefully follow these notes and guidelines.

Qualified persons are persons who perform the required tasks by always using their education, experience and training, as well as their understanding of standards, definitions, accident prevention regulations and operating conditions; hence they are also capable of identifying and avoiding potential hazards.

Among others, these persons are also required to understand first aid measures for the injured (e.g. by wounding).

The term "operation" includes settings, starting (preparation for use) and operation (starting, commissioning, powering off, etc.).

The term "maintenance of proper condition" includes checks and care (control, adjustments), servicing and repairs (troubleshooting).

Note all other (specially highlighted) indications for transport, assembly, operation, servicing and technical data (in the operating instructions, production records and on the trailer itself). It

is all the same essential due to the potential (direct and indirect) hazards and their consequences being severe damage of human health and property.

2.2. Obligatory notification

When the trailer is transferred to another user, the operating instructions shall be transferred as well, whereas the receiving user must undergo training according to the instructions.

2.3. General safety regulations of work and use

Before each start of work, inspect the trailer for work safety.

1. Aside from the guidelines in these operating instructions, follow the general regulations for safety and accident prevention.
2. The affixed information and warning signs and text indicate important guidance for safe operation. Follow it for your safety.
3. Start the trailer only when all required equipment is connected and secured against unintended release or opening (e.g. the hitch and tow bar system, couplings, etc.).
4. Understand all equipment and controls, as well as their functions, before work. It is too late to learn that during work.
5. The trailer must not be used by persons who are under the influence of alcohol and/or other substances, and/or not trained or suitably licensed to operate motor vehicles.

2.3.1. Safety of operation

1. All work safety information shall be given to all other users of the trailer.
2. Check the direct environment (for children and bystanders) before start. Pay particular attention when visibility is poor.
3. Do not remain on the trailer in motion, when coupling the trailer with a tractor and when loading or unloading the trailer.
4. After unloading the trailer, lower the load body completely. Never leave the trailer unattended with its load body raised.
5. Enter the trailer only when it has completely stopped and with the tractor engine stopped.
6. Lift and lower the load body only from the driver's seat.
7. Hitch the trailer according to regulations, couple only with recommended equipment and secure the tow bar hitch-ring to the tractor transport hitch.
8. Exercise extreme caution when coupling/decoupling the trailer with/from the tractor.
9. When installing and removing supports, security/safety equipment and ladders, these types of equipment must always be positioned to ensure safety to operators.
10. Follow the maximum permissible axle loads, total weight and transport dimensions.
11. Do the following checks: coupling and functional test of brakes and lights, inspect the slow-moving vehicle sign, and check other protective devices.

12. Do a functional test of lights and brakes before driving. Also prepare the trailer as recommended in Section "Travelling on public roads".
13. Mind the changes in vehicle behaviour, steerability and braking efficiency
 1. due to the hitched trailer and its load.
14. When towing the trailer, mind the layout of loads and/or inertia, especially when the load is unevenly distributed.
15. Do not remain within the range of discharged load.
16. Start the hydraulic lift (tipping) of the load body only when:
 - the trailer is coupled with the tractor, AND
 - the trailer is parked on a hard and level ground, AND
 - when no persons remain in the unloading area, AND
 - when the tractor's axis is aligned with the trailer, AND
 - when the machines are at a safe distance from all power lines, AND
 - there are no strong gusts of wind.

If it is necessary to unload to the rear while parking on a slope, the trailer with the tractor must be in the uphill direction. If unloading to the side on a slope, tilt the load body in the opposite to the trailer's direction of gradient.

17. During all work with the raised load body, secure it from falling with the support that has been delivered with the trailer. Turn off the tractor engine and remove the ignition key.
18. Be careful to avoid crushing of fingers and hands during opening and closing of the load body walls.
19. Mind the warnings of crush and cut hazard areas when starting the work with trailer. There is a risk of injury when coupling/decoupling the trailer with/from the tractor. Hence when coupling/decoupling, do not enter between the trailer and the tractor or stand behind the trailer if the trailer is not secured with wheel chocks or the parking brake.
20. No person is allowed to remain between the trailer and the tractor if the vehicle is not secured against rolling with the parking brake and/or wheel chocks.
21. When parked, secure the tractor and the trailer against rolling.
22. Do not drive with the lifted load body.
23. When raising the load body, maintain a safe distance from power lines. The C.2.30. sign acc. to PN-ISO 11684:1998 on the front wall of the trailer warns of power lines.
24. During all servicing or repair works which require lifting the load body, the body must be empty and secured with the mechanical support against accidental falling.
25. Always adapt your driving speed to the conditions. Avoid rapid turns when driving uphill or downhill.
26. Maintain a safe distance from the U-turn range of the tractor and trailer train.
27. Ensure adequate visibility (with the help of a signalling person, if necessary) when driving in reverse.
28. When cornering, mind the inertia of the trailer.

29. Additional protection for the transported load on the trailer (chains, tarpaulin, plastic sheet, nets, transport straps, etc.) may be applied only with tractor engine off and the ignition key removed.
30. Remove functional disturbances of attachments only with the engine turned off and the ignition key removed.
31. Enter the load body surface only after turning off the drive and stopping the tractor engine. Remove the ignition key.
32. Always turn off the engine and remove the ignition key before exiting the tractor. Engage the parking brake and secure the trailer with the wheel chock.
33. **When travelling on public roads, the permissible axle set load of the T730/1 trailer must not exceed 102 kN, the permissible axle set load of the T730/2 trailer must not exceed 120.1 kN each, and the permissible axle set load of the T730/3 trailer must not exceed 138.4 kN.**
34. The maximum permissible pressure of the hydraulic system is 16 MPa.
35. The maximum permissible pneumatic pressure of the single-line system is 0.63 MPa or 0.8 MPa for the two-line system.
36. Prepare the trailer for work (connect the pneumatic and hydraulic hoses, etc.) with the tractor engine off and the ignition key removed.
37. The manufacturer delivers the trailer completely assembled.
38. All hydraulic lines must be replaced every 6 years.
39. Noise – the equivalent sound pressure emission corrected by A characteristics (LpA) does not exceed 70 dB.

2.3.2. Tyres

1. Make sure to secure the trailer against accidental movement when servicing the tyres.
2. The wheels and tyres shall be repaired by trained personnel with adequate tools.
3. Regularly check the tyre pressure. Maintain the recommended pressure values.
4. Protect the tyres against sunlight during prolonged parking of the trailer.
5. Replace the wheels with the trailer empty, if possible.

2.3.3. Pneumatic system

1. The pneumatic system is under high pressure.
2. When connecting the pneumatic lines with the pneumatic system of the tractor, ensure that the valves on the tractor and the trailer are depressurised.
3. Periodically inspect the pneumatic connections. Replace all damaged and aged parts immediately. Replace the lines as recommended in the manufacturer technical requirements. Replace hoses every five years unless damage is found earlier.
4. Before attempting any work on the pneumatic system, depressurise it and turn off the tractor engine.
5. All repair work on the pneumatic system may only be performed by specialist services of the trailer's manufacturer.

2.3.4. Periodic maintenance

1. All maintenance, repair and cleaning operations, as well as troubleshooting must be performed after turning the drive and the tractor engine off. Remove the ignition key.
2. Inspect all bolts and nuts periodically and retighten if necessary. Replace regular bolts only with the bolts of the same quality and strength ratings.
3. When servicing under the lifted and tipped AND unloaded load body, always secure the body with the support supplied with the trailer.
4. Use proper tools and safety gloves when replacing any parts.
5. After completing your work, thoroughly clean the trailer to leave no remains of the load on the body.
6. Isolate the continuous power supply before arc welding and/or working on the electrical system.
7. The safety/protection equipment wears out, which requires periodic adjustments, inspection and replacement when necessary.
8. Use only the original spare parts recommended by METAL-FACH Sokółka.
9. Store the trailer in sheltered areas (preferably on level and hardened ground) and in a manner which prevents injuries of people and animals.
10. Release all worn out parts to authorised recycling points while following all applicable environmental protection requirements.

2.3.5. Travelling on public roads

Before departing, check that the trailer lighting is working and that the trailer identification is complete.


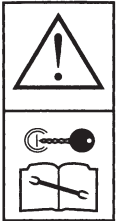



Follow the traffic code regulations when travelling on public roads.






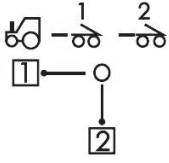
1. Exceeding the permissible payload and driving speed may damage the trailer and compromise traffic safety.
2. Do not exceed the permissible driving speed of 40 km/h.
3. The trailer is designed for operation at grades of 8° maximum.
4. When travelling on public roads, the trailer must feature a reflective warning triangle, and the slow-moving vehicle sign in the trailer bracket located on the chassis frame rear crosspiece (included with the trailer).
5. Do not leave the loaded trailer on slopes and when it is not secured from rolling. Secure the trailer by engaging the parking brake and chocking the wheels. Also bind the transported load with transport straps.
6. The maximum transport (transit) speed is 30 km/h.

2.4. Warning/information signs and text on the trailer

The warning signs and text on the trailer must not be removed. They are intended for safe handling of the trailer. If any information label is damaged or removed, order a spare one. Text and symbol label stickers are available at service agents or at the trailer manufacturer.

Table 1

Item	Safety Symbol	Meaning of the symbol (sign) or text	Location on the machine
1	2	3	4
1		Read the operating instructions	On the load body frame front crosspiece
2		Turn off the engine and remove the ignition key before servicing or repairs	On the load body front crosspiece
3		Keep a safe distance from power lines	On the load body front crosspiece
4		Do not reach into the crushing area if the parts may move	On side walls/ panels
5		Install the support before entering the hazardous area	On the chassis side frame member, at the support

6		Do not ride on the machine – use the passenger seat only	On the load body front wall
7		Keep a safe distance from the machine	On the load body front wall
8		Do not stand on ladders and platforms while the tractor is moving	At the ladder
9		Feet (toes) crushing hazard. Force applied from above	On the tow bar
10		Lifting point	On the chassis frame side members
11		DCV lever setting	At the directional control valve
12		Caution! Do not perform any checks or servicing under the loaded or tilted load body without the support	At the support
13		Caution! Do not remain within the range of discharged loads Do not enter the trailer when it is hauled	On the load body front wall
14		"Load capacity 8 t"	On the load body left and right wall

15		"Load capacity 10 t"	On the load body left and right wall
16		"Load capacity 12 t"	On the load body left and right wall
17		Maximum hydraulic system pressure: 16 MPa	On the floor frame front crosspiece
18		Maximum pneumatic system pressure: 0.6 MPa, single-line system; 0.8 MPa, two-line system	On the load body front wall
19		- "550 kPa" – 385/65 R22.5 tyres (BANDEMARKT)	Over the wheels
20		- "425 kPa" – 14.5/80-18 12PR tyres (MITAS)	Over the wheels
21		15 kN max	On the hitch
22		17.64 kN max	On the hitch

NOTE!* **The trailer user is required to keep the warning symbols and text on the trailer legible during its entire operating life. If damaged or destroyed, replace with new ones.**

3. TECHNICAL CHARACTERISTICS. GENERAL DATA

Table 2

Item	Contents			
I General data				
1	Vehicle type – farming trailer Manufacturer – METAL-FACH Sp. z o.o. 16-100 Sokółka, ul. Kresowa 62			
2	Type (model) – T730			
4	Body type – platform			
5	Nameplate location – chassis frame front crosspiece			
6	S/N stamping location – on the nameplate and underneath			
II Dimensions and weight				
		T730/1 – 8T	T730/2 – 10T	T730/3 – 12T
7.	Length, mm	6565	6565	6565
8.	Width, mm	2550	2550	2550
9.	Height, mm (with top section)	1750 (2250)	1850 (2350)	1850 (2650)
10.	Number of axles, pcs.	2	2	2
11.	Wheel base, mm	1200	1200	1200
12.	Wheel track, mm	1900	1900	1900
13.	Loading room size			
	- length, mm	4505	4505	4505
	- width, mm	2402	2402	2402
	- height (with top section), mm	500 (1000)	600 (1100)	600 (1400)
14.	Loading surface height, mm	1300	1300	1300
15.	Tow bar oscillation height, mm	430-850	430-850	430-850
16.	Tow bar hitching ring diameter, mm	45	45	45
17.	Vehicle ramp clearance, mm	480	480	480
18.	Vehicle kerb weight, kg	3500	3540	3600
19.	Permissible vehicle overall weight, kg:	11500	13540	15600
	- on axle set, kg	10200	12010	13840
20.	Maximum axle load, kN			
	- on axle set, kN	102	120.1	138.4

21.	Permissible vehicle load capacity, kg	8000		10000		12000	
IV Suspension							
22.	Suspension type	dependent, with springs		dependent, with springs		dependent, with springs	
23.	Spring component type and style	longitudinal 2-leaf parabolic springs		longitudinal 2-leaf parabolic springs		longitudinal 2-leaf parabolic springs	
V Wheels and tyres							
24.	Number of wheels, pcs.	4		4		4	
25.	Wheel disk size	11.75x22.5	11x18	11.75x22.5	11x18	11.75x22.5	11x18
26.	Tyre size and PR number	385/65R22.5	14.5/80-18 12 PR	385/65 R22.5	14.5/80-18 12 PR	385/65 R22.5	14.5/80-18 12 PR
	- tyre manufacturer	Bandemart	Mitas	Bandemart	Mitas	Bandemart	Mitas
27.	Tyre pressure, bar	5.5	4.25	5.5	4.25	5.5	4.25
VI Braking system							
28.	Service brake;						
	- type	mechanical, drum-type		mechanical, drum-type		mechanical, drum-type	
	- control	pneumatic, positive pressure, two-line brake system; hydraulic		pneumatic, positive pressure, two-line brake system; hydraulic		pneumatic, positive pressure, two-line brake system; hydraulic	
	- no. of wheels operated	4		4		4	
29.	Parking brake						
	- type	mechanical, drum-type		mechanical, drum-type		mechanical, drum-type	
	- control	manual, by a screw gear		manual, by a screw gear		manual, by a screw gear	
	- operated components	2 front axle wheels		2 front axle wheels		2 front axle wheels	
VII Electrical system							
30.	Voltage rating, V	12, feed by the driving tractor		12, feed by the driving tractor		12, feed by the driving tractor	
VIII Operating data							
31.	Maximum transport speed, km/h	30		30		30	
32.	Maximum speed, km/h	40		40		40	
IX Additional information							
33.	Other information:						
	- driving tractor	45 kW minimum		55 kW minimum		65 kW minimum	

4. GENERAL DESCRIPTION OF DESIGN AND FUNCTION

The **T730** is a metal design with open load surface. The trailer features a pneumatic or hydraulic service brake and a parking brake that is manually operated via a screw gear, actuating the friction components of the rear axle service brake.

The trailer features a complete signalling and warning system (an electrical system and reflective lights).

The trailer is also suitable for transport on public roads.

The trailer is manufactured in accordance with Directive 2006/42/EC and the following standards: PN-EN ISO 4254-1:2009, PN-EN ISO 1853+A1:2009, PN-EN ISO 13857:2010, PN-EN ISO 12100:2011.

4.1. Chassis

The trailer chassis is composed of the following subassemblies: bottom frame, tow bar, wheel sets and suspension components. The bottom frame and the tow bar are welded structures made of steel sheet and profiles.

The trailer wheel sets are composed of: the axles (tandem style), land wheels and wheel brakes.

The axles are made of thick-wall pipes terminated with plugs on which land wheel hubs are set by cone bearings. They are single wheels equipped with drum brakes with the jaws actuated by mechanical expander cams.

The trailer axle suspension consists of steel semi-elliptic leaf springs attached to the turntable frame and the bottom frame by pins and sliders. The wheel sets are attached to the springs by bolts.

4.2. Load surface

The loading space of the trailer is made of the following:

The top frame (box frame) that is set on the bottom frame (chassis frame) in articulated seats secured by pins which serve as pivots during tilting (tipping) of the top frame (load body/box).

The side walls/boards and their top sections are singular components. Each component features a separate set of locks for closing and opening of individual wall and top sections independent of each other and in any order. These design solutions increase functionality and facilitate operation of the trailer.

The wall and top section locks are secured against accidental release.

4.3. Load body hydraulic tipping mechanism

The hydraulic mechanism is designed for automatic unloading of the trailer by tipping the load body backwards or sideways. The hydraulic tipping system is fed with oil from the tractor hydraulic system.

The hydraulic system includes: the coupling valve plug, hydraulic lines, the single-action hydraulic actuator, the cut-off valve, and connecting and fastening components. Figure 1 shows the diagram of the load body hydraulic tipping system. The lifting and lowering of the load body is controlled by the DCV in the tractor hydraulic system.

INFORMATION! • **The cut-off valve limits the load body tilt angle during tipping to the sides. The valve is pre-adjusted by the trailer manufacturer. Do not adjust it on your own.**

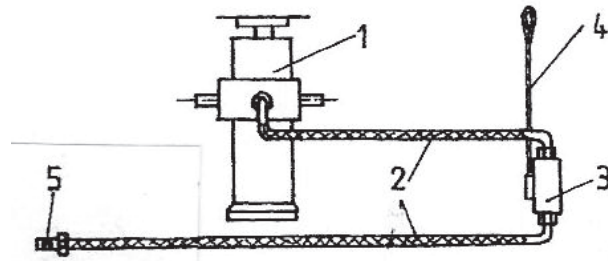


Fig. 1 Diagram of the load body hydraulic tipping system

1 - hydraulic actuator; 2 - hydraulic lines; 3 - cut-off valve;
4 - cut-off valve control cable; 5 - coupling valve plug.

4.4. Electrical system (signalling and warning)

The trailer electrical system is designed for 12 V DC supply from the driving tractor system. The diagram of the electrical system and the trailer lights layout are shown in fig. 1.

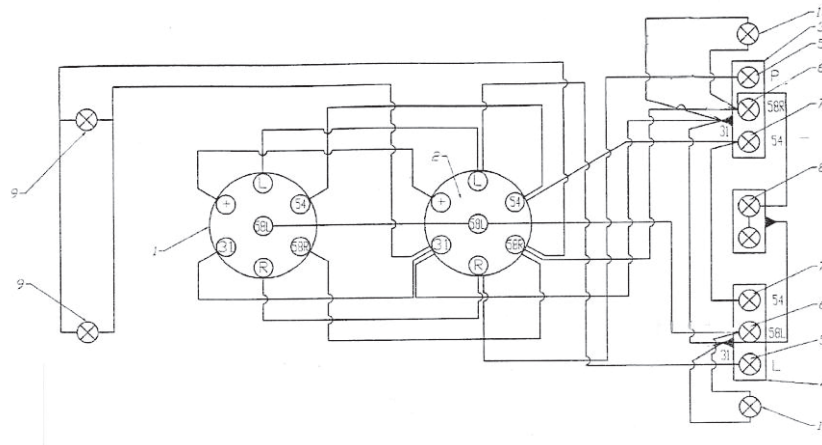


Fig. 2 Trailer electrical system diagram

1 - 7-pin plug; 2 - 7-pin socket; 3 - right tail cluster lamp; 4 - left tail cluster lamp; 5 - turn indicator light bulbs; 6 - tail parking light bulbs; 7 - stop light bulbs; 8 - registration plate light bulbs; 9 - front parking light bulb; 10 - clearance light bulb.

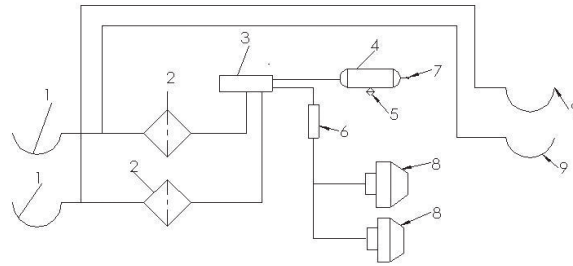
4.5. Braking system

The T730 trailer is equipped with the following braking systems:

- Service brake: pneumatically actuated two-line system or all-wheel hydraulic brake; controlled from the driver's seat by pressing the tractor's brake lever;
- Parking brake: hand mechanical control via a crank lever mechanism and a screw gear, located on the left side of the trailer and operating the rear tandem axle wheels.

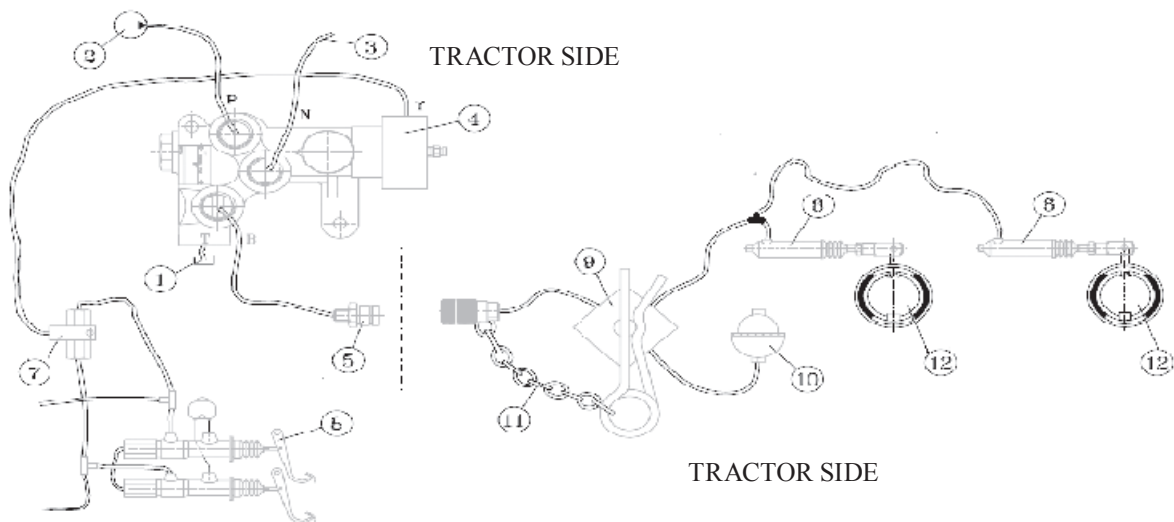
The service brake design ensures automatic braking of trailer land wheels if the systems are accidentally decoupled between the trailer and the tractor.

The two-line pneumatic system and hydraulic braking system diagrams are shown in the following figures.



- 1 - 1st trailer pneumatic connector
- 2 - air filter
- 3 - control valve
- 4 - air tank
- 5 - water drain valve
- 6 - manual braking force controller
- 7 - check connector
- 8 - pneumatic membrane actuator
- 9 - 2nd trailer pneumatic connector

Fig. 3a Two-line pneumatic system diagram



Tractor side:

- 1 - oil return tank
- 2 - hydraulic system feed pump
- 3 - oil return line to the tractor circulation
- 4 - pressure signal from the brake pump
- 5 - hydraulic quick-release coupling
- 6 - tractor brake lever
- 7 - manifold tee

Trailer side:

- 8 - hydraulic brake actuator, French type 303061_P35
- 9 - safety valve, Ro 1 5508
- 10 - hydraulic accumulator, 0.75 11800064
- 11 - chain
- 12 - drum brake

Fig. 3b. Diagram of the hydraulic braking system

5. STORAGE, SALE AND SHIPPING TO USER

STORAGE

- Protect the trailer against direct exposure to sunlight and rain. Park it with its land wheels chocked on a hard-paved ground (reduce tyre pressure and cover the tyres if there is a risk of exposure to sunlight).
- If the trailer is exposed to weather, periodically check for rainwater accumulation in the trailer. Note all damage to the paint coat. Clean and degrease spots of damaged paint. Next, repaint with the same colour and coat thickness.
- Long-term storage is allowed in sheltered rooms only.

SALE

- The buyer picks the trailer from the manufacturer or the sales representative on their own, or arranges the delivery with the manufacturer.
- The trailer is sold as fully assembled and ready for operation, complete with the basic equipment listed in section 1.2 of this manual. Optional equipment is available for extra charge.
- The sales representative personnel is required to introduce the buyer to the design and operation of the trailer, along with safety requirements and warranty conditions.
- The buyer shall verify the following:
 - the trailer is complete, undamaged and with all basic equipment;
 - the nameplate located on the chassis front crosspiece has the serial number stamped that matches the data in the warranty card;
 - the warranty card has been properly filled out with the identification data on the nameplate.

SHIPPING TO USER

The trailer shall be transported from the sales representative on wheels as coupled with a tractor or on a low-bed trailer. Before loading on a low-bed trailer, connect the farming trailer to the transport hitch and the braking lines of the tractor. Drive the farming trailer to the low-bed trailer with the extended ramps. Next, secure the farm trailer with wheel chocks. Afterwards, disconnect the braking system and decouple from the tractor. Secure the farming trailer with special transport straps. Before unloading the transported trailer, first extend the low-bed trailer ramps and release the transport straps used to secure the farming trailer from falling down in transit. Approach with a tractor and connect the trailer braking system. Next, remove the wheel chocks from the trailer. When all of the above has been completed, drive the trailer from the low-bed.

6. OPERATION INFORMATION

6.1. Commissioning the trailer

- IMPORTANT!**
- **Use only tractors that are fit for service (with the transport hitch, the hydraulic and pneumatic systems, and the signalling/warning system working)**

Do the following before commissioning the trailer:

- Understand the names and locations of individual assemblies/components of the trailer
- check the tyre pressure
- couple the trailer with the tractor:
 - set the tow bar hitch-ring of the trailer at the trailer transport hitch height;
 - couple the hitch-ring with the trailer hitch;
 - secure the hitch pin from falling out;
 - turn off the tractor engine;
 - engage the tractor parking brake;
 - connect the appropriate sockets and plugs of the following systems: pneumatic and electrical;
- do the functional checks of the electrical, pneumatic and hydraulic systems of the tractor and of the trailer, and check leak tightness of the hydraulic and pneumatic systems on both vehicles;
- check all equipment, their connections and safety from accidental release or misalignment;
- release the trailer parking brake;

Do all these actions each time you start the trailer.

6.2. Loading the body

Load the body only when the trailer is coupled with the tractor, parked on level ground and with the tow bar in the forward driving direction.

Use mechanical loading equipment (cranes, loaders, conveyors, etc.) to load the trailer.

Make sure that all wall and top section locks are engaged before loading the trailer.

Spread the load evenly across the entire load body surface. If materials are to be transported that exert focused (topical) pressure on the load body (e.g. large rocks), line the floor with thick planks first. This will reduce the surface load of the floor and protect it from damage.

When transporting large volume materials, install the top sections of the load body walls. If the transported materials protrude from the trailer, follow the applicable traffic code regulations for proper marking of protruding loads.

- INFORMATION!**
- **Do not exceed the permissible payload and permissible axle loads, otherwise the trailer can be damaged and the traffic safety compromised.**
 - **The transported load must be secured from shifting, generating excessive noise and falling down on the road.**

Approximate weight values of certain goods	
1 m³ = kg	
Soil	1600–1800
Wheat	710–820
Rape	700–750
Potatoes	625–725
Sugar beets	650–700
Legumes	760–820
Construction rubble/aggregate	1400–1850
Lime	900–1500
Hard coal	1200–1600

6.3. Travelling on public roads

Before entering a public road, do the actions listed in section 6.1 and the following:

- install the slow-moving vehicle sign on the trailer;
- ensure that the transported load is secured with straps from falling down on the road;
- check that the load does not exceed the permissible capacity or axle load;

INFORMATION! * Follow the traffic code regulations.

* In the first operating hours of the brakes, the drum brake shoes align themselves with the drums. The full braking effectiveness is achieved once the friction parts have run in.

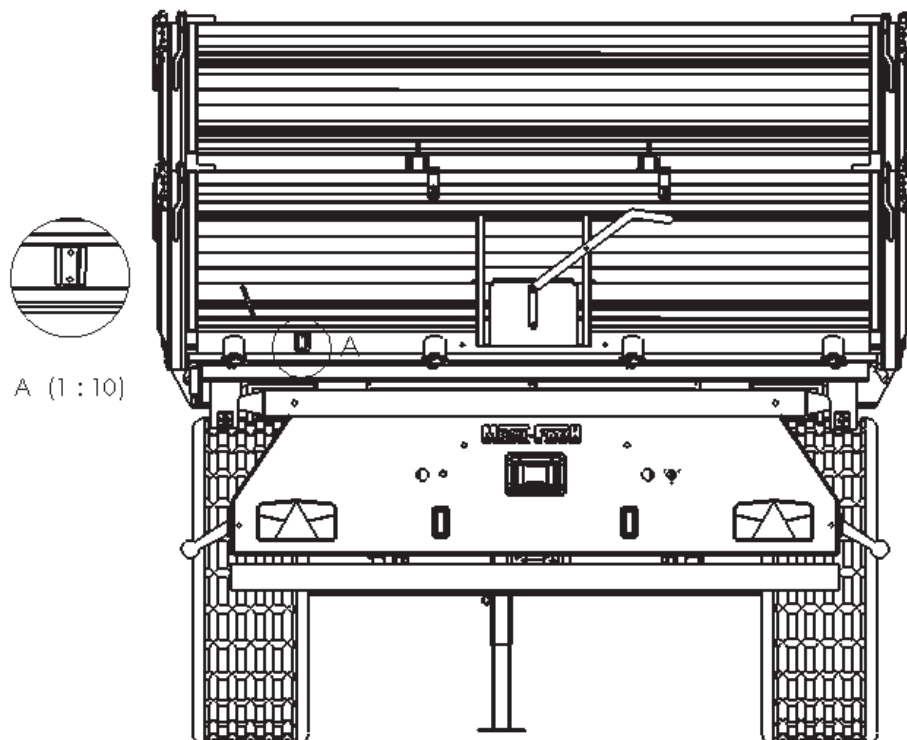


Fig. 4 Location of the bracket for the slow-moving vehicle sign

6.4. Unloading

The load body can be unloaded manually, with mechanical equipment or by tipping the box with the hydraulic mechanism.

Unload by tipping the load body by following these actions in the order presented below:

- align the tractor with the trailer's axis;
- engage the tractor's parking brake;
- remove the safety pin that couples the load body with the chassis frame (fig. 5):
 - a) unloading to the back – the pins (fig. 5) must remain in the rear bells of the load body;
 - b) unloading to the left – the pins must be installed in the left hand bells;
 - c) unloading to the right – the pins must be installed in the right hand bells;
- make sure that the pins on the side to which the trailer is to be unloaded have been properly installed;
- open the body wall locks on the unloading side;
- tip the load body by operating the hydraulic actuator;
- after the load has been discharged, lower the body and secure the wall(s) with the locks.

- INFORMATION!**
- **If it is necessary to unload the trailer on a slope, it is allowed to tip the trailer body upwards (with the tractor and the trailer parked in the uphill direction).**
 - **No person is allowed to remain near the tipped trailer body and within the range of discharged load.**
 - **Do not decouple the trailer from the tractor when the load body is lifted.**
 - **Before unloading by tipping the trailer load body, you must always verify that the pins have been removed on the correct side of the trailer. Failure to remove the pins may destroy the trailer!**
 - **Do not transport any persons on the trailer.**

Open the top lock of the load body by moving the handle up and depressing the button under the handle at the same time. Open the bottom locks of wall segments by operating the central lock handle:



Fig. 5. Load body wall locks

1 - lever safety stop pin; 2 - central bottom lock handle; 3 - lock adjustment mechanism;
4 - central lock shaft.

Having discharged the load from the trailer, do the following:

- lower the load body and remove all remains of the transported material;
- install and secure the pins that connect the load body with the chassis frame;
- lock and secure the wall(s) against accidental opening.

6.5. Decoupling from the tractor

Do the following actions to decouple the trailer from the tractor:

- stop the tractor with the trailer where the latter will be left, and engage the tractor parking brake;
- engage the trailer parking brake;
- if the trailer stands on uneven or sloping ground, secure it against rolling down by chocking the wheels;
- disconnect the electrical, hydraulic and pneumatic lines from the tractor;
- remove the safety from the hitch pin and then remove the pin – this will decouple the tow bar from the hitch. Drive away with the tractor and reinstall the pin in the hitch.

INFORMATION! Do not decouple the trailer from the tractor when:

- **the load body is lifted;**
- **the trailer is not secured against rolling away.**

7. SERVICING

7.1. Servicing instruction for adjusted trailer components.

In order to maintain proper performance, the T730 trailer requires the following adjustments:

- a) Adjustment of the wheel bearing slackness;
- b) Adjustment of the braking system components.

7.1.1. Wheels – bearing clearance adjustment

During the first operating hours of a newly purchased trailer (i.e. after approximately 100 km of mileage) and further operation (i.e. after the next 1500 or 2000 km), check the wheel bearing clearance and adjust if necessary.

To do so:

1. Couple the trailer with the tractor and engage the tractor parking brake.
2. Jack up one side of the trailer to lift the wheel from the ground on this side and secure it against falling.
3. If the wheel has excessive clearance, remove the hub cap and remove the crown nut clevis pin.
4. Rotate the wheel and tighten the crown nut at the same time until the wheel stops turning.
5. Loosen the crown nut by 1/6 to 1/3 of the full turn, i.e. until the nearest clevis pin groove is aligned with the hub pivot hole.
6. Secure the nut with a new clevis pin, and reinstall and retighten the hub cap.

After a correct adjustment of bearing clearance, the wheel should rotate smoothly, without cogging or evident resistance (not caused by rubbing of the brake shoes against the drum). Slight rubbing of the shoes against the drum, especially on a brand new trailer or following replacement of the shoes is normal. Do the final check of proper bearing clearance adjustment by travelling several kilometres and inspecting the hub heating by hand. Apart from incorrect clearance adjustment, significant rolling resistance of the wheels and heating of the hubs can also be caused by contaminants in the grease or damage of bearings. If found, these symptoms require removing the wheel hub to be corrected.

- INFORMATION!**
- **Follow these rules when jacking up the trailer wheel:**
 - **couple the trailer with the tractor, move to level ground and engage the tractor parking brake;**
 - **chock the wheel that is not being jacked up;**
 - **place the jack under the axis and near the jacked up wheel, and lift the wheel so that it clears the ground;**
 - **secure the wheel from falling by putting a prop of suitable height under the axis.**

7.2. Brakes

7.2.1. Brakes – servicing the brake pneumatic system

When servicing the trailer, check the tightness and the condition of parts and connections of the braking system, and periodically drain the water condensate from the air tank.

Check the leak tightness of the system at the rated pressure of approx. 800 kPa for the two-line system. Leaks are detected by a distinct hiss or air bubbles (after coating with soap water) at the points of air escape from the system. If the leaks are caused by damaged seals, lines or other parts (valves, actuators, etc.), replace them with new parts.

Drain the water from the air tank by tilting the drain valve stem to the side when the tank is pressurised; the drain valve must also be unscrewed from the tank and cleaned of accumulated dirt once a year, before the winter season.

7.2.2. Brakes – servicing the brake hydraulic system

When servicing the trailer, check the tightness and the condition of parts and connections of the braking system.

Check the leak-tightness of the system at the rated pressure of approx. 140 bar. Test the leak-tightness of the system by actuating the hydraulic cylinders to fully extend and hold them for approximately 30 seconds. Leaks are detected by the oil that escapes from the system; if found at line connections, retighten the connections and repeat the test. If the leaks are caused by damaged seals, lines or other parts (valves, actuators, etc.), replace them with new parts. Proceed with a similar test when charging the hydraulic accumulator: press down and hold the brake pedal for approximately 5 seconds.

7.2.3. Brakes – adjustment of the braking system components

When servicing the trailer, check the condition of parts and connections of the braking system, and periodically inspect the lubrication of control elements.

Adjust the brakes when the following occurs:

- there is excessive clearance between the shoes and the drum from the brake shoe wear, resulting in decreased braking performance;

- the wheel brakes work unevenly and out of sync.

With the properly adjusted brakes, the braking force (i.e. the total of braking forces at the circumference of the wheels) shall be at least 27% of the permissible total weight of the trailer when decelerating with the service brake; the braking force (i.e. the total of braking forces at the circumference of the wheels) when actuating the parking brake shall be at least 16% of the permissible total weight of the trailer. Both wheels of the same axle should be braked evenly; the brake force differential between the left and right trailer side shall not exceed 30%, with 100% being the higher force.

Park the trailer so that the rear wheels freely rotate. Loosen the nut (4) so that the arm (2) can move against the shaft (1). Retighten the nut (4) when the position of the shaft (1) against the arm (2) results in a slight rubbing of the brake shoes against the drum while turning the wheel. Repeat for the other wheel.

After a correct adjustment of friction components, the wheel should rotate smoothly, without cogging or evident resistance (not caused by rubbing of the brake shoes against the drum). Slight rub of the shoes against the drum, especially on a brand new trailer or following replacement of the shoes is normal.

After completing the adjustment, check and adjust the parking brake. The parking brake is adjusted by setting the cable length that couples the expander shaft lever with the engaging mechanism. The required sum of braking forces should be produced at the maximum force applied to the hand crank of 40 daN (at the right angle between the cable and the expander shaft lever).

INFORMATION! • Before driving, periodically inspect all braking components for proper operation, tightness and clearance. Adjust or repair as necessary.

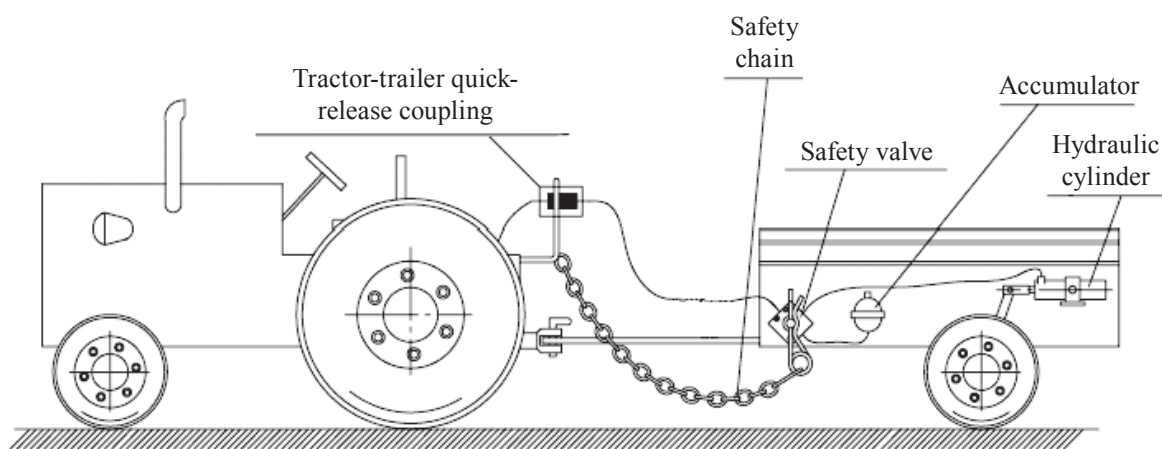
IMPORTANT! • Inspect the brake shoes at least each year. Replace worn shoes.
• In order to achieve the required braking performance after replacement of friction components, remember to run them in (by driving with frequent braking), which should be followed by readjustment.



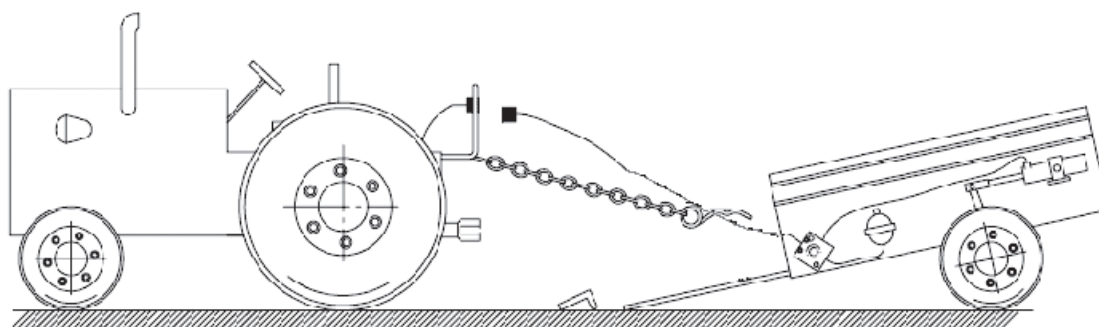
Fig. 6. Braking system components

1 - brake shoe expander shaft; 2 - expander shaft lever (arm); 3 - arm adjusting comb on the expander shaft; 4 - lever adjustment nut on the expander shaft; 5 - the link (follower) that couples the pneumatic actuator rod with the expander shaft lever; 6 - parking brake cable.

7.2.4. Hydraulic brakes – operating principle

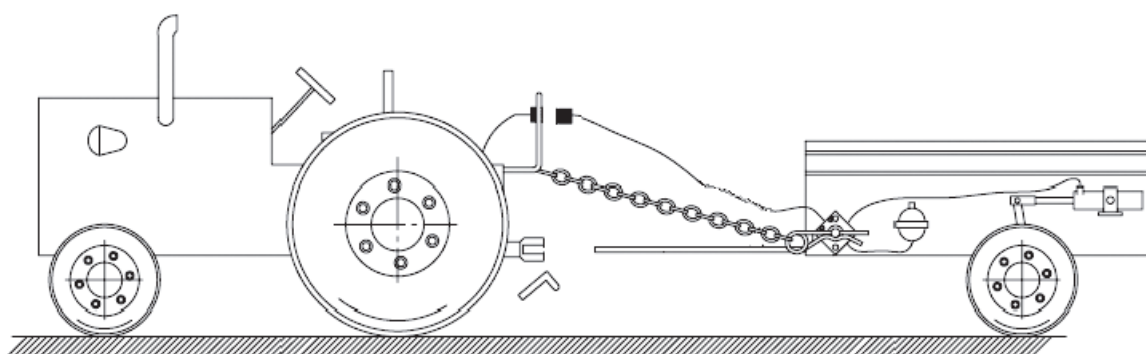


1. The hydraulic system can be decoupled at the quick-release coupling without any damage.
2. When the safety chain is tensioned, it switches over the safety valve to the braking system engaged mode.



The trailer brake is engaged by the pressure in the accumulator.

The tractor is decoupled from the trailer and the quick-release coupling prevents the oil from escaping. The braking system does not suffer from any damage and it can be recoupled with full functionality at any time.



7.3. Wheels – tyres

Servicing of the tyres involves checking their condition by visual inspection and checking the tyre pressure. It is also essential to check that the tyres have no cracks that expose or damage the carcass, and that the hubs, wheel disks and their fastening in good condition.

INFORMATION! • **Regularly inspect the wheel nuts (i.e. the condition and tightness before each use of the trailer); retighten if necessary.**

INFORMATION! • **Regularly inspect the wheel nuts (i.e. the condition and tightness before each use of the trailer); retighten if necessary.**

• **Nut tightening torque for thread sizes:**

- M18x1.5 = 270 Nm, M20x1.5 = 350 Nm, M22x1.5 = 475 Nm.

IMPORTANT! • **After the first travels with loads and after each 100 km, inspect the tightness of wheel nuts and retighten if necessary.**

• **Check the tyre pressure. The tyre pressure rating displayed near the trailer wheels applies to transport at the maximum permissible speed (at the maximum payload).**

7.4. Hydraulic system

7.4.1. Hydraulic system – servicing of the load body hydraulic tipping system

The hydraulic oil of the trailer and the external hydraulic system oil (tractor) must always be of the same grade and type. DO NOT use different oil grades.

The trailer hydraulic system must be absolutely leak-tight. Check the leak tightness of the hydraulic system by tipping the load body backwards and overloading the hydraulic system for a few seconds. If there are oil leaks at the hydraulic connections, retighten them. If the problem persists, replace the hose or the connection fittings. If the hydraulic leak does not occur on any connector, replace the leaking hydraulic system component. Any and all mechanical damage to a component requires its replacement with the new one. The condition of the hydraulic system must be monitored continuously throughout the operating life of the trailer. When coupling the hydraulic systems of the tractor and of the trailer together, keep the couplings as clean as required.

7.4.2. Hydraulic system – adjustment of the load body hydraulic tipping mechanism

The hydraulic system features a safety cable (which is a tipping angle limiter of the load body) and the cut-off valve that isolates the oil flow to the hydraulic actuator when the body is tipped. No unauthorised person is allowed to make adjustments or remove the limiters due to

safety concerns. The cut-off valve is intended to isolate the oil feed from the actuator before the maximum (permissible) tipping angle of the body is reached. Changing the length or breaking of the cable between the load body frame and the cut-off valve may result in damage of the trailer or a risk of turning over the trailer.

- INFORMATION!**
- **Do not remove or disconnect the safety cable / load body tipping limiter.**
 - **Unauthorised persons must not adjust the cut-off valve.**

8. TROUBLESHOOTING

Table 3 lists the faults, their causes (symptoms) and solutions.

Table 3

Item	Fault type	Possible cause	Remedy
1	2	3	4
1.	Excessive heating of brake drums	Brake shoes are out of adjustment	Adjust per section 6.2.2.
2.	Excessive heating of wheel hubs	Insufficient clearing of bearings. Contamination in bearing grease.	Adjust per section 6.1.1. Remove the hub, replace the grease and adjust the bearings as indicated above.
3.	The grease flows out on the brake shoes	Damaged, worn out or improperly installed hub seal	Remove the hub, replace the worn/damaged seal and reinstall properly. Remove the grease from the shoes and the brakes, clean the friction components with extraction naphtha, reinstall the hub and adjust the bearings as indicated above.
4.	Uneven braking of wheels	Contamination or excessive wear of shoe pads, or the brake shoes are out of adjustment.	Check the brake shoe pads, remove contaminants, replace worn out pads and readjust as in section 6.2.2.
5.	Insufficient wheel braking performance.	Incorrect adjustment of the shoes and brake controls.	Adjust the brake shoes and control components per section 6.2.2.
6.	Oil leak at the hydraulic connections.	The connectors are made too loose or damage of connector seals.	Retighten and/or replace the line parts as necessary.
7.	Oil leak from the cut-off valve or the actuator.	Worn out or damaged seals, or mechanical damage of devices.	Replace the seals of the entire devices (units).

8.	The load body locking pin does not engage the seat.	The pin is bent or there is fouling between the pin and the casing.	Replace the pin or clean it and the casing, apply a thin coat of grease on the pin, install it in the seat and secure the pin.
9.	The load body support seat is misaligned with the chassis frame plug.	The chassis frame or the load body frame is bent, or there is mechanical damage of the mating components.	Notify the manufacturer to replace the damaged components

9. PERIODIC MAINTENANCE

9.1. Lubrication

Proper lubrication is one of the most critical factors that condition good performance of individual assemblies and mechanisms of the trailer.

Compliance to the manufacturer's guidelines for lubrication significantly reduces the risk of damage or premature wearing of individual parts.

- Follow these rules when lubricating:
- clean the grease nipple before feeding the grease;
- feed the lubricant until fresh lubricant comes out of the gaps (through which the used lubricant is pushed out first);
- when finishing the lubrication, leave some lubricant on the nipple head;
- use oil to lubricate threaded joints, lever joints and similar parts of the trailer;
- inspect the lubrication of wheel hub bearings each year; add or replace the bearing lubricant;
- when replacing the lubricant, remove the hub, remove the used lubricant, inspect the bearings' condition (replace with new ones if necessary); after applying the fresh lubricant, adjust the bearing slackness.

- IMPORTANT!**
- **Use only quality bearing lubricants.**
 - **Never drive without the hub cap; otherwise penetration by dirt (sand) will damage the wheel bearings.**

Lubrication point.	Lubricant grade	Lubrication frequency
Wheel hub bearings	LT 43	Every 6 months
Hydraulic actuator head socket	Graphite grease	Once a year
Load body tipping system parts	LT 43	Every 6 months
Eye catch	LT 43	Every 6 months

Other lubrication points

- Regularly lubricate movable parts of locks, hinges and articulated joints;
- Pressure-feed the lubricant with a grease gun through clean nipples;
- Regularly lubricate movable parts of brakes (levers and pins);
- Lubricate the brake shoe axes only when necessary and only with a small amount of lubricant

9.2. Maintenance and servicing

The transport capacity and long operating life of the farming trailer can only be assured if the machine is properly and reasonably operated within its design and functional capacities.

Even a slight negligence in operation may result in severe consequences. A timely discovered fault is easy to remove at a minimum cost and effort, while producing the maximum effect.

Faults of the trailer can only be discovered soon if regular, periodic cleaning and thorough inspection is carried out.

Hence clean the trailer frequently to observe any damage and faults.

Also carry out periodic technical inspection of the trailer. Lubricate the trailer according the guidelines for lubrication.

Store the trailer in a sheltered area to protect it from weather conditions and deterioration.

In order to preserve its proper performance, the trailer must be maintained, readily repaired and thoroughly supervised during its operating life.

Daily servicing (before work) of the trailer includes a certain minimum of actions, i.e.:

- check the screwed components and their safeguards from accidental release;
- check the play of mechanisms and articulated joints;
- check the tightness of the hydraulic system and remove all leaks;
- check the tightness of the pneumatic system;
- functional checks of mechanisms;
- check and perform lubrication according to the instructions;
- check the tyre pressure;
- check the wall locks for proper engagement and security;
- wall top sections in use: do functional tests and check that the parts do not pose risk to traffic safety and operator's safety;
- functional check of the brake system and the warning and signalling system.

Repair instructions

Small repairs required by accidental faults must be carried out with care for cleanliness, installation of all parts at their locations and adjustments essential to proper performance of the trailer.

Small repairs during operation (in the field) shall be done on site by service personnel.

All parts removed during repairs shall be stored in conditions that protect from dust and other contaminants. Pay particular attention to protection and cleanliness of bearings.

During field repairs, keep the area clean when reassembling the parts (the parts which fell to the ground shall be washed or at least cleaned of dirt to an extent that permits proper functioning).

During running and general repairs, follow the engineering rules for disassembly and (re) assembly of parts and subassemblies to ensure proper quality and performance of work.

Do functional tests of trailer mechanisms after each repair.

10. DISPOSAL OF THE TRAILER

If the user decides to dispose of the trailer, hand over the entire vehicle to the nearest scrap collection point approved by local authorities. The proof of disposal issued by the collection point is essential for de-registration of the trailer. Recycle the parts which remain from repairs or have become obsolete.

11. RESIDUAL RISKS

Description of residual risks

METAL-FACH of Sokółka is liable for the design and build in order to eliminate all hazards, some partial risk is unavoidable in operation of the trailer.

The residual risk stems mostly from improper behaviour of the operator caused by lack of knowledge or attention. The greatest hazards occur during the following forbidden actions:

1. The trailer is operated by minors or persons who are not licensed for tractor driving, or who are unfamiliar with the operating instructions.
2. The trailer is operated by persons who are ill or under the influence of alcohol or other intoxicants.
3. The trailer is used for purposes other than specified in the operating instructions.
4. A person is present between the tractor and the trailer with the tractor's engine running.
5. Bystanders, especially children are present near the working trailer.
6. The trailer is cleaned while working.
7. Manipulation of the driving unit on the tractor and the moving elements of the trailer while the machines are working.
8. Checking the trailer's technical condition when it is running.

While presenting the residual risk the trailer is treated as designed according to the state of knowledge in the year of its manufacture and maintaining the basic OH&S rules.

Assessment of residual risks

Follow these guidelines:

1. Always follow the safety regulations described in the operating instructions.
2. Read and fully understand the operating instructions.
3. Keep your hands out of hazardous spaces.
4. It is forbidden to operate the trailer in the presence of bystanders and in particular children.
5. Maintenance and repairs of the trailer shall only be performed by trained personnel.
6. The trailer shall only be operated by persons who have been trained in its operation and have familiarised themselves with the operating instructions.
7. The trailer is protected against access by children.

Only then can you eliminate the residual risks to people and the environment when using this trailer.

INFORMATION!

The residual risks are present when the listed rules and indications are not followed.

METAL-FACH

16-100 SOKÓŁKA, POLAND

UL. KRESOWA 62

WARRANTY CARD OF THE FARMING TIPPER TRAILER

T730/1-00,
T730/2-00,
T730/3-00*

The warranty service is provided on behalf of the manufacturer by:

.....
filled out by the seller

Date of manufacture..... Date of sale

Serial number..... Signature of the Seller

Customer's name and surname

Address

* - delete as appropriate

Item	Service call date	Date of completion	Description of completed service actions and replaced parts	Service technician name	Service stamp