



OPERATOR'S MANUAL



DRAWBAR TRAILER
PLEASE READ THE MANUAL
BEFORE USE!

TRAILER DATA

Vehicle Type	BM / Agricultural trailers (rigid drawbar)	
Commercial Description	KÖKSAL54	
Agricultural trailer manufacturer	EKREM KÖKSAL TARIM MAKİNALARI İMALAT VE TİCARET ANONİM ŞİRKETİ MERKEZ MAHALLESİ SAKARYA CADDESİ NO:44/1 KAYNARCA / SAKARYA / TURKEY Tel. no.:+90 264 871 32 24 Fax.:+90 261 871 43 52	
Sold by	Adress	--
	Tel. /Fax	--
Date of delivery		--
Owner / User	Full name	--
	Adress	--
	Tel. /Fax	--

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1. INTRODUCTION

These Operating Instructions are intended to provide the product user with information concerning operation, servicing and maintenance of the machine. They contain operating performance data and the requirements for safe and professional operation of the machine which enable the best use of the product with the maximum operating life and reliability. They also contain information about ordering spare parts. Thorough understanding of the Operating Instructions will help the user prevent accidents, operate the machine efficiently and keep the warranty valid.

Unauthorised modification of the trailer design may release the manufacturer from liability for resulting damage and loss. **Ekrem KÖKSAL Tarım Makinaları İmalat ve Ticaret A.Ş. reserves the right to introduce changes without prior notice and without assuming any obligations resulting from those changes.**

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. Intended Uses

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 an 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.
- 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.
- 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.
- The manufacturer shall not be liable for damage from any unauthorised modifications of this trailer's design.

1.2. Equipment

- Operating Manual
- Warranty card with warranty conditions
- Bracket for the sign „slow-moving vehicle”
- Two-line pneumatic brakes with adjustable braking force (single- line system is available on request)
- Parking brake
- Lighting installation
- Semi-elliptic spring suspension

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

CE CE DECLARATION OF CONFORMITY **CE**
FOR THE MACHINE

Ekrem KÖKSAL Tarım Makinaları İmalat ve Ticaret A.Ş.
Mekrez Mah. Sakarya Cad. No:44/1
Kaynarca / Sakarya / Turkey
which acts as the manufacturer

declares under sole responsibility that the following machine:

Agriculture Trailer (Rigid Drawbar)

type/model:

Serial Number:

Year of manufacture:

This declaration concerns, meets the following requirements

- **Directive 2006/42/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL** dated May 17th 2006 on machines and the Resolution of the Minister of Economy of October 21st 2008 concerning general requirements for machinery (Journal of Laws, no. 199 item 1228); The following harmonised standards were used for compliance evaluation:

The following harmonised standarts were used for compliance evulation:

EN 1853+A1:2009E	EN ISO 13857:2010P
EN ISO 4254-1:2009E	EN ISO 12100:2012P

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 no. 32 item 262 as amended).

Unit responsible for engineering documentation: KÖKSAL TARIM 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.

2. GENERAL SAFETY RULES

2.1. Symbols and Nomenclature

 IMPORTANT!	Failure to comply with these guidelines may result in damage of equipment or its components.
 CAUTION!	This warning sign in the operating instructions means that special caution shall be exercised due to hazards to persons and potential damage to the product.
 WARNING!	It is important to carefully follow these notes or 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).

Pay attention to all other (specially highlighted) indications, such as:

- Transport;
- Assembly;
- Operation;
- Servicing;
- 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.

- Aside from the guidelines in these operating instructions, follow the general regulations for safety and accident prevention.
- The affixed information and warning signs and text indicate important guidance for safe operation. Follow it for your safety.
- 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.).
- Understand all equipment and controls, as well as their functions, before work. It is too late to learn that during work.
- 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

- All work safety information shall be given to all other users of the trailer.
- Check the direct environment (for children and bystanders) before start. Pay particular attention when visibility is poor.
- Do not remain on the trailer in motion, when coupling the trailer with a tractor and when loading or unloading the trailer.
- After unloading the trailer, lower the load body completely. Never leave the trailer unattended with its load body raised.
- Enter the trailer only when it has completely stopped and with the tractor engine stopped.
- Lift and lower the load body only from the driver's seat.
- Hitch the trailer according to regulations, couple only with recommended equipment and secure the tow bar hitch-ring to the tractor transport hitch.
- Exercise extreme caution when coupling/decoupling the trailer with/from the tractor.
- When installing and removing supports, security/safety equipment and ladders, these types of equipment must always be positioned to ensure safety to operators.
- Follow the maximum permissible axle loads, total weight and transport dimensions.
- Do the following checks: coupling and functional test of brakes and lights, inspect the slow-moving vehicle sign, and check other protective devices.
- Do a functional test of lights and brakes before driving. Also prepare the trailer as recommended in Section "Travelling on public roads".
- Mind the changes in vehicle behaviour, steerability and braking efficiency due to the hitched trailer and its load.
- When towing the trailer, mind the layout of loads and/or inertia, especially when the load is unevenly distributed.
- Do not remain within the range of discharged load.
- Start the hydraulic lift (tipping) of the load body only when:
 - * the trailer is coupled with the tractor,
 - * the trailer is parked on a hard and level ground,
 - * no persons remain in the unloading area,
 - * when the tractor's axis is aligned with the trailer,
 - * the machines are at a safe distance from all power lines,
 - * 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 parked 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.
- During all work with the load body raised, secure it against falling with the support delivered with the trailer. Turn off the tractor engine and remove the ignition key.
- Be careful to avoid crushing of fingers and hands during opening and closing of the load body walls.
- 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. 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.
- No person is allowed to remain between the trailer and the tractor if the vehicle is not secured against rolling with parking brake and/ or wheel chocks.
- When parked, secure the tractor and the trailer against rolling.
- Do not drive with the lifted load body.
- When raising the load body, maintain a safe distance from power

- 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
- Always adapt your driving speed to the conditions. Avoid rapid turns when driving uphill or downhill.
- Maintain a safe distance from the U-turn range of the tractor and trailer train.
- Ensure adequate visibility (with the help of a signalling person, if necessary) when driving in reverse.
- Mind the inertia of the trailer when cornering.
- Additional protection for the load transported on the trailer (chains, tarpaulin, plastic sheet, nets, transport straps, etc.) may be applied only with tractor engine off and the ignition key removed.
- Remove functional disturbances of attachments only with the engine turned off and the ignition key removed.
- Enter the load body surface only after turning off the drive and stopping the tractor engine. Remove the ignition key.
- 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.
- Prepare the trailer for work (connect the hydraulic and pneumatic lines, etc.) with the tractor engine off and the ignition key removed.
- The manufacturer delivers the trailer completely assembled.
- All hydraulic lines must be replaced every 6 (six) years.

2.3.2. Tyres

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

2.3.3. Pneumatic System

- The pneumatic system is under high pressure.
- When connecting the pneumatic lines with the pneumatic system of the tractor, ensure that the valves on the tractor and the trailer are depressurised.
- 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 5 (five) years unless damage is found earlier.
- Before attempting any work on the pneumatic system, depressurise it and turn off the tractor engine.
- All repair work on the pneumatic system may only be performed by specialist services of the trailer's manufacturer.

2.3.4. Periodic Maintenance

- 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.
- Inspect all bolts and nuts periodically and retighten if necessary. Replace regular bolts only with the bolts of the same quality and strength ratings.
- When servicing under the lifted and tipped but unloaded load body, always secure the body with the support supplied with the trailer.
- Use proper tools and safety gloves when replacing any parts.
- After completing your work, thoroughly clean the trailer to leave no remains of the load on the body.
- Isolate the continuous power supply before arc welding and/or working on the electrical system.
- The safety/protection equipment wears out, which requires periodic adjustments, inspection and replacement when necessary.
- Use only original spare parts recommended by Ekrem KÖKSAL Tarım Makinaları İmalat ve Ticaret A.Ş.
- Store the trailer in sheltered areas (preferably on level and hardened ground) and in a manner which prevents injuries of people and animals.
- 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.

- Exceeding the permissible payload and driving speed may damage the trailer and compromise traffic safety.
- 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).
- Do not leave the loaded trailer on slopes and when it is not secured against rolling. Secure the trailer by engaging the parking brake and chocking the wheels. Also bind the transported load with transport straps.
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2.4. Warning / information sign and text on the trailer

The warning sign messages 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 from service agents or the trailer manufacturer.

Item	Safety symbol (sign)	Meaning of the symbol (sign) or text
1.		Read the manual
2.		Turn of the engine and remove the ignition key before servicing or repairs.
3.		Keep a safe distance from power lines
4		Do not reach into the crushing area if the parts may move.
5.		Install the support before entering the hazardous area
6.		Keep a safe distance from the machine

7.		Do not stand on ladders and platforms while the tractor is moving the tractor is moving	
8.		Feet (toes) crushing hazard. Force applied from above.	
9.		Lubricate periodically!	
10.		Jacking point label	
11.		<p>DANGER</p> <p>USE SECURITY POST WHEN SERVICING</p>	
12.		<p>DANGER</p> <p>VEHICLE FREQUENTLY REVERSING</p>	
13.		<p>DANGER</p> <p>KEEP CLEAR OF TIPPING AREA</p>	

14.



Always use the safety stick in the tilting position when servicing. Always use the safety function in the open position when carrying out service work. There must be no load on the trailer during service work.

3. GENERAL DESCRIPTION OF DESIGN AND UNCTION

3.1. Chassis

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

3.2. Loading Space

The loading space of the trailer is composed of:

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 independently 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.

3.3. Loading 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.



NOTE! * 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.

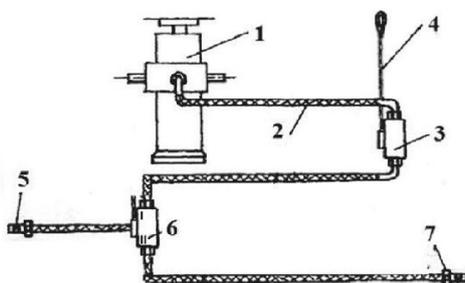


Fig. 1 Diagram of the load body hydraulic tipping system:

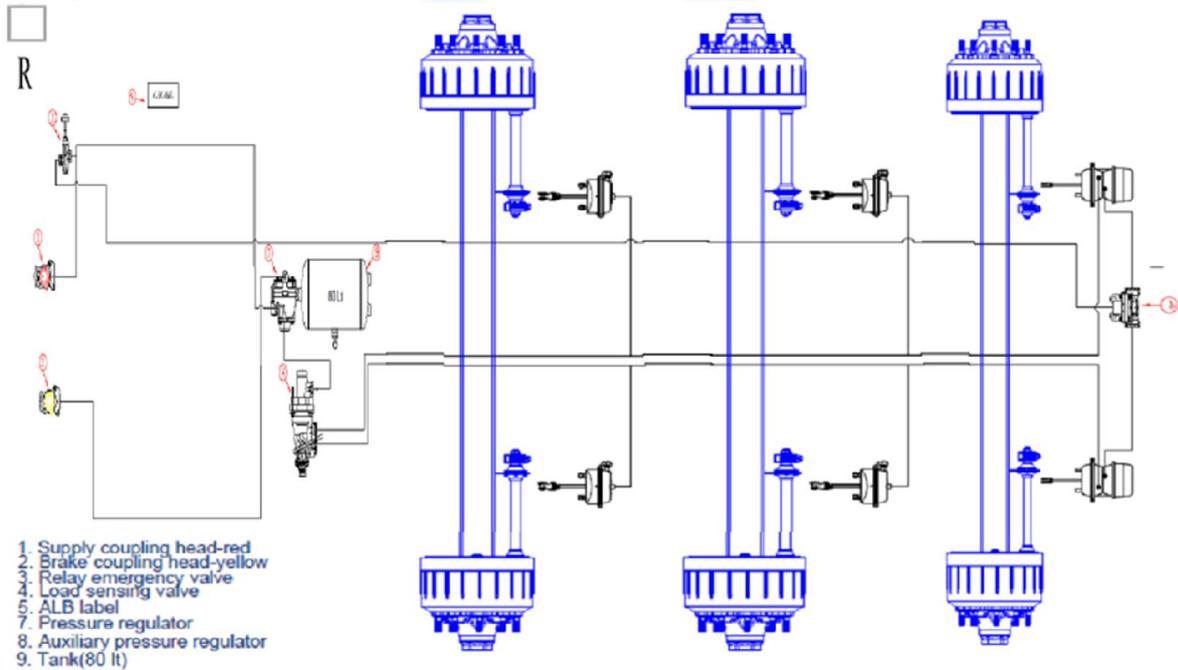
- 1 - hydraulic actuator;
- 2 - hydraulic lines;
- 3 - cut-off valve;

- 4 - cut-off valve control cable;
- 5 - coupling valve plug;
- 6 - control valve;
- 7 - coupling valve socket.

3.5. Braking System

The trailer is equipped with the following braking systems:

- Service brake: pneumatically actuated, two-line system operates all wheels, controlled from the driver's seat by pressing the tractor's brake pedal;



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Parking brake: mechanical control by hand via a crank lever mechanism and a screw gear, located on the left side of the trailer and operating the rear single axle, tandem axle and tridem axle wheels. The service brake design ensures automatic braking of trailer land wheels if the pneumatic system is accidentally decoupled between the trailer and the tractor.

4. STORAGE, SALE AND SHIPPING TO USER

4.1. 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.

4.2. 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.

4.3. 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 with 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.

5. OPERATION INFORMATION

5.1. Commissioning the trailer

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 against falling out.
 - * Turn off the tractor's engine.
 - * Engage the tractor's 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's parking brake.

Do all these actions each time you start the trailer.

 NOTE!	Couple the trailer with the tractor upper hitch only. No bystanders shall remain between the trailer and the tractor when the two are being coupled.
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5.2. 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. When transporting materials 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 on the floor and protect it against 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.

 NOTE!	<ul style="list-style-type: none">• 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.
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5.3. 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
 - * Unloading to the back – the pins must remain in the rear bells of the load body;
 - * Unloading to the left – the pins must be installed in the left hand bells
 - * 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.

 <p>NOTE!</p>	<ul style="list-style-type: none">• 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.
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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:

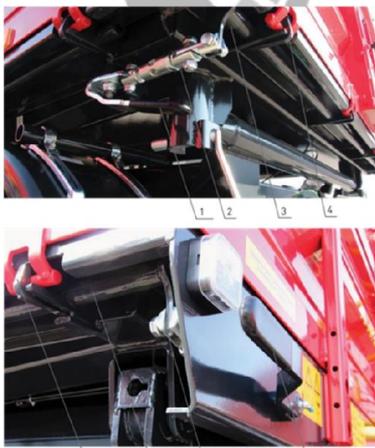


Fig. 5 Load body wall locks
1- Central bottom lock handle; 2- lock adjustment mechanism; 3 -Central lock shaft; 4-lock

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.

5.4. 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.

	<p>Do not decouple the trailer from the tractor when:</p> <ul style="list-style-type: none">• the load body is lifted;• the trailer is not secured against rolling away.
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6. SERVICE

6.1. Servicing Instruction For Adjustable Trailer Components

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

- Adjustment of the wheel bearing clearance;
- Adjustment of the braking system components.

6.1.1. 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:

- Couple the trailer with the tractor and engage the tractor parking brake.
- Jack up one side of the trailer to lift the wheel from the ground on this side and secure it against falling.
- If the wheel has excessive clearance, remove the hub cap and remove the crown nut clevis pin.
- Rotate the wheel and tighten the crown nut at the same time until the wheel stops turning.
- 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.
- 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 (other than 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. These symptoms require removal of the wheel hub to be corrected, if found.



NOTE!

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 against falling by putting a prop of suitable height under the axis.



6.2. Brakes

6.2.1. 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 approximately 800 kPa for the two-line system. Leaks are detected by a distinct hiss or air bubbles (after coating with soapy 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.

6.2.2. Adjustment of 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.

Park the trailer so that the rear wheels rotate freely. 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 the correct adjustment of friction components, the wheel should rotate smoothly, without cogging or evident resistance (other than caused by rubbing of the brake shoes against the drum). Slight rub of the shoes against the drum,

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).

	Before driving, periodically inspect all braking components for: • Proper operation;
NOTE!	<ul style="list-style-type: none">• Tightness (seal);• Play; and readjust or repair as necessary.



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.

 IMPORTANT!	<ul style="list-style-type: none"> • 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.
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6.3. 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.

 NOTE!	<ul style="list-style-type: none"> • Regularly inspect the wheel nuts (i.e. the condition and tightness before each use of the trailer); retighten if necessary. • 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: <ul style="list-style-type: none"> * M18x1.5 = 270 Nm, * M20x1.5 = 350 Nm, • M22x1.5 = 475 Nm.
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 IMPORTANT!	<p>After the first travels with loads and after each 100 km, inspect the following:</p> <ul style="list-style-type: none"> • The tightness of wheel nuts; retighten if necessary. • Tyre pressure. The tyre pressure rating displayed near the trailer wheels. • The tyre pressure applies to transport at the maximum permissible speed (at the maximum payload).
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6.4. Hydraulic System

6.4.1. 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.

The hydraulic system features a safety cable (which acts as 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 persons are 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 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.

 NOTE!	<p>Do not remove or disconnect the safety cable / load body tipping limiter. Unauthorised persons must not adjust the cut-off valve.</p>
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7. PERIODIC MAINTENANCE

7.1. 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 play.

 IMPORTANT!	<p>* Use only quality bearing lubricants. * Never drive without the hub cap; otherwise penetration by dirt (sand) will damage the wheel bearings.</p>
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Lubrication point	Lubricant grade	Lubrication frequency
Wheel hub bearings	LT 43	Every 6 months
Hydraulic actuator head sockets	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.

7.2. 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.
- Inspect the hoses and connection once every 500 hours and, if required, replace.

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.

8. 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 after repairs or have become obsolete.

9. RESIDUAL RISKS

9.1. Description of residual risk

Ekrem KÖKSAL Tarım Makinaları İmalat ve Ticaret A.Ş. 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:

- The trailer is operated by minors or persons who are not licensed for tractor driving, or who are unfamiliar with the operating instructions.
- The trailer is operated by persons who are ill or under the influence of alcohol or other intoxicants.
- The trailer is used for purposes other than specified in the operating instructions.
- A person is present between the tractor and the trailer with the tractor's engine running.
- By standers, especially children are present near the working trailer.
- The trailer is cleaned while working.
- Manipulation of the driving unit on the tractor and the moving elements of the trailer while the machines are working.
- 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 at the year of manufacture and maintaining the basic OH&S rules.

9.2. Evaluation of the residual risk

Follow these guidelines:

- Always follow the safety regulations described in the operating The proof of disposal issued by the collection point is essential for de- instructions.
- Read and fully understand the operating instructions. or have become obsolete.
- Keep your hands out of hazardous spaces.
- It is forbidden to operate the trailer in the presence of bystanders and in particular children.
- Maintenance and repairs of the trailer shall only be performed by trained personnel.
- The trailer shall only be operated by persons who have been trained in its operation and have familiarised themselves with the operating instructions.
- 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.

 <p>NOTE!</p>	<p>The residual risks are present when the listed rules and indications are not followed.</p>
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10. WARRANTY CONDITIONS

- The manufacturer provides a trailer designed and built in compliance with the current standards. The manufacturer guarantees that the supplied trailer is free of manufacturing defects.
- Ekrem KÖKSAL Tarım Makinaları İmalat ve Ticaret A.Ş. provides 12-month warranty service for the trailer starting from the date of first sale, provided the trailer is used for its intended purpose and the recommendations contained in the manual are followed.
- The warranty card properly filled in at the Dealership is the confirmation of the manufacturer's warranty; the acceptance of the warranty conditions must be confirmed by the customer's signature.
- The quality warranty covers the machine defects caused by defective manufacturing, material defects and latent defects.
- The warranty does not cover the assemblies and parts which are subject to normal wear and tear.
- The warranty does not cover any mechanical damage or other damage resulting from improper use, improper maintenance or improper adjustment of the trailer.
- The warranty does not cover any damage resulting from improper storage of the machine.
- Any unauthorised modifications in the construction of the machine introduced by the user will result in automatic termination of the warranty.

- The manufacturer shall not be held responsible for any loss, damage or destruction of a product resulting from causes other than defects of the supplied machine.
- During the warranty period the manufacturer will repair any defects which occurred as a result of the manufacturer's negligence.
- The warranty repair shall be made within 14 working days of the notification/supply of the trailer to the designated service station or at another time agreed upon by the parties.
- The warranty is extended by the time required to complete the repair.
- All repairs which are not covered by the warranty performed by authorised service stations are made at a full cost payable by the user. Before such repairs, the service station will inform the user of the suggested cost, time and scope of the repair.
- The Customer makes the decision whether to commence a payable repair of the trailer with a warranty valid at the time of repair.



Current information about the products is available at <https://www.koksaltarim.com/>



11.WARRANTY CARD OF THE AGRICULTURE TRAILER



Sakarya Cad. No:44/1
Kaynarca/SAKARYA, TURKEY

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

Date of manufacture

Date of sale

Serial number

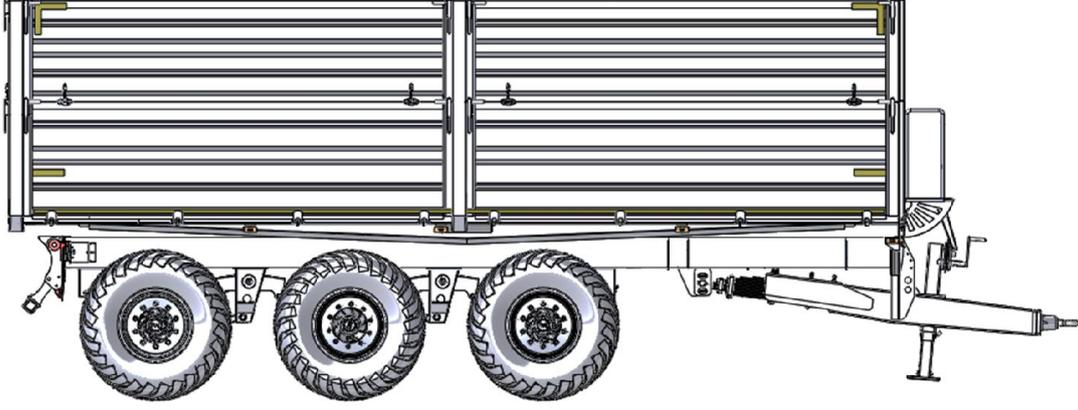
Dealer's signature

Customer's name and surname

Modification of the trailer without the written consent of the Manufacturer is forbidden. In particular, do NOT weld, drill holes in, cut or heat the main structural elements of the trailer, which have a direct impact on the machine operation safety.



12. AUTHORIZED SERVICE CENTERS:



EKREM KÖKSAL TARIM MAKİNALARI İMALAT VE TİCARET A.Ş

Adres : Merkez Mh. Sakarya Cd. No:44/1
Kaynarca/SAKARYA/TÜRKİYE

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