

1. GENERAL INFORMATION

1.1.General Description

KE 320 Disc Mower Conditioner is designed to be used for harvesting of field crops, alfalfa, vetch, sainfoin and other feed plants or other crops that can be used as animal feed in winter. The machine with 7 discs, which can control cutting height, uniformity of cutting, determinate the way of laying the cutout material, can quickly and efficiently harvest feed plants with a smooth cutting. In this respect, it helps our farmers in the process of meeting of their needs in rough food, which is an important expense in animal husbandry. Our pull-type machine is designed to be operated with 80-100 HP tractors.

1.2.Desired Usage

Disc Mower Conditioner equipped with 7 discs, it is aimed to shorten drying time in the field by means of compressing the cut mill with the help of crushing rolls. Alongside the adjustment of the height of the mowing, the spreading width of the mowing field can be adjusted between 1.3 m and 2 m.

The KE 320 Disc Mower Conditioners are designed for standard agricultural use only.

It is not compatible with any other intended use. The manufacturer is not responsible for any damage caused by a use that is at the operator's own risk.

1.3.General Information

1.3.1. General Information

This manual is valid for Disc Mower Conditioners with serial number starting as KE 320.

KE 320 Disc Mower Conditioners are guaranteed for 2 years.

KE 320 Disc Mower Conditioners have economic life span of 10 years.<t1/>

1.3.2. Manufacturer's Address

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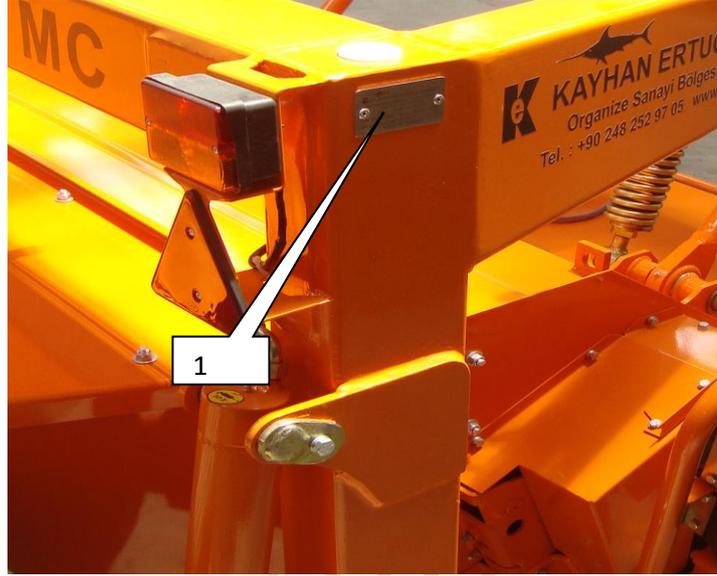
e-mail : export@kayhanertugrul.com.tr

1.3.3. Certification

Certified with Quality management system K-Q TSE-ISO-EN 9001-2008.

1.3.4. Identification

The chassis number of the machine is located on the upper side of the chassis on the right side of the machine, shown with 1 number in Figure 1.



Picture 1. Chassis number :

1.3.5. Questions and Information required for orders

Do not forget to add the machine type, the machine identification number (chassis number) and the production year when asking about the machine or when requesting a part change.

1.3.6. Appropriate Operation for Correct Usage

The KE 320 Disc Mower Conditioner should be used only for standard agricultural products on the ground. It is not compatible with any other intended use. The manufacturer is not responsible for any damage caused by a use that is at the operator's own risk.

Meadow and Pasture Plants: Grass, grassy plants, alfalfa, canola, wheat, barley and other green grass type plants which stem thickness are 8 mm in diameter.

1.4.General Elements from the viewpoint of Environmental Science

Earth, air, and water are the essential elements of agriculture and life in general. If the local legislation does not control the increasing of chemical substances as required by advanced technologies or remains incapable in the use and disposal of products derived from chemical and petrochemical substances you need to be discreet in its usage and disposal.

- Earth, air, and water are the essential elements of agriculture and life in general. If the local legislation does not control the increasing of chemical substances as required by advanced technologies or remains incapable in the use and disposal of products derived from chemical and petrochemical substances you need to be discreet in its usage and disposal.
- **Useful suggestions.**
- Learn and determine the relevant laws.
- If there is no law in force concerning waste management ; learn about the effects of oils, filters, liquids, fuels, antifreeze, cleaning agents, etc. on humans and the environment and how to safely store, use and dispose of these substances.

Some Useful Tips

- Avoid filling the warehouse using unsuitable containers or pressurized filling systems as they may spill into large areas and cause fluid leaks.
- Avoid exposing the used radiator water, engine, transmission and hydraulic oils, brake fluid and other fluids to the surrounding area.
- As a rule, prevent contact of all fuels, oils, acids, solvents etc. Most of them contain chemical substances, which may be harmful to your health.
- Never mix used brake fluid or fuels with lubricants. Store them securely in accordance with the law or local regulations until a suitable disposal path is found.
- Modern lubricants contain additives. Do not burn polluted fuels and / or used fuels in conventional heating systems, don't allow to use it for different purposes.
- Modern radiator fluids, such as antifreeze and other additives, must be changed every two years. They should not be allowed to mix with the soil, but must be collected and disposed of properly.

2. TECHNICAL INFORMATION

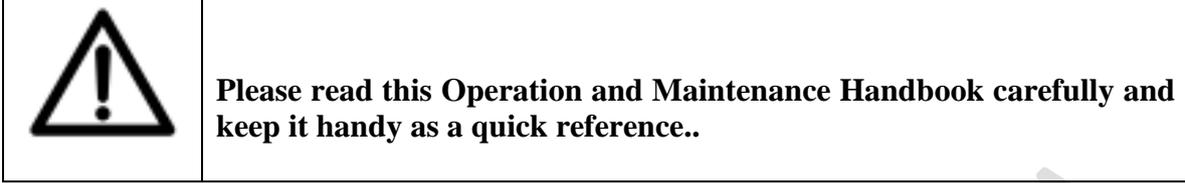
2.1. Tractor Requirements

- Maximum allowed speed: 20 km/h
- Follow the conditions specified for machines with operating permission.
- Before using the machine, be sure to read the Operation manual and follow the safety rules.
- The required safety rules and technical warnings must be observed during both working and road driving. The blades should never be run in the road position.
- The machine must be operated after passing the necessary training and learning technical information .
- Kayhan Ertuğrul Makine San. A.S. has the right to make any changes on the machine without notice.

Minimum Power Requirement 80 HP

Tail axle rotation :540 1/d -1000 1/d max.

❖ **Tractor tail axle rotation should not exceed max.1000 rpm.**



2.2.KE 320 Technical Specifications

Table 2.2.1 shows technical specifications of KE 320.

NOTE: Our company reserves the right to change the measurements without prior notice.

Table 2.2.1: KE 320 Technical Details

SPECIFICATIONS	KE 320
Number of discs (pcs.)	7
Number of blades (pcs.)	14
Roller type	V Type Rubber
Tire Sizes	15.0/55-17-14 PLY
Approx. harvested area (ha/h)	3.5 - 4.0
Minimum Power Requirement (HP)	80
PTO cycle (rpm)	540 / 750 /1000
Cylinder Diameter (mm)	2x250
Roller(Conditioner)Speed (rpm)	850
Roller (Conditioning System) Width (mm)	2.500
Weight (Kg)	2100
Width in road position (mm)	3150
Length in road position (mm)	5100
Length in work position (mm)	5.600
Number of Hydraulic Connections Required	1 x Double-action 1xSingle-action
Maximum allowed speed (km/h)	20

3. SAFETY

3.1.Specifying Safety Precautions in the Operational Manual

Before using the machine, be sure to read the Operation manual and follow the safety rules.

It is assumed that the consumer has read all the rules specified in the Operation manual.

3.2.Security Statements and Accident Prevention Regulations

Personal Security

In this Operation and Maintenance book and on the stickers on the machine you will find warnings that follow special instructions ("DANGER - DANGER", "WARNING - WARNING" and "CAUTION"). These warnings are for the personal safety of you and personnel working with you. Please take the time to read this warnings.

	<p>The word "DANGER" indicates a dangerous situation which, if not avoided, could result in death or serious injury . RED color is associated with hazard.</p>
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	<p>The word "WARNING" indicates a potentially dangerous situation which, if not avoided, could result in death or serious injury. ORANGE color is associated with the warning.</p>
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	<p>The word "CAUTION" indicates a potentially dangerous situation which, if not avoided, could result in minor or moderate injury. YELLOW color is associated with the warning.</p>
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“Failure to follow the instructions starting with the words "DANGER", "WARNING " and "CAUTION" can result in severe injury or death.

3.3.Warnings and Precautions

The best user is careful user. Most accidents can be avoided by taking into account certain precautions. To help prevent accidents, read the following warning before using this equipment. The equipment must be used only by persons responsible for their use and trained.

Review this operation and maintenance manual with all users. It is important for all users to learn and follow safety warnings.



In this manual the safety precautions, which may lead to personal injury, if not observed, are indicated by the general hazard symbol. The instructions attached to the machine must be observed and readable and understandable.

Most agricultural equipment accidents can be avoided by taking a few simple safety precautions.

1. Do not perform cleaning, lubrication or any other adjustments on the machine while the Disc Mower Conditioner is in motion (moving) or when the tractor's engine is running. Listen and see if there are any rotating parts.
2. Do not engage the coupling unless everyone is away from your machine and you are sure that there are no repair kits on the machine.
3. Do not work around the Disc Mower Conditioner with loose-fitting dress that can be jammed in moving parts.
4. Do not try to pull the grass from any part of the working Disc mower conditioner.
5. Do not put fuel in the fuel tank while the engine of the tractor that drives the machine is running.
6. Do not use the Disc mower machine without all the guards in place.
7. Do not allow anyone to be on the machine.
8. Do not disconnect any connections to the machine while it is running.
9. After stopping the machine, do not approach for at least 2 minutes.

3.4. Staff Qualification and Training

Those who use, care for, or repair machinery should be warned against the risks they may encounter during machine operation and must be trained first. The operator should be responsible and observe the personnel. If the staff lacks the necessary knowledge, they should immediately take the necessary training and explanation. The operator must ensure that the contents of this manual are fully understood by the personnel.

Repair work not specified in this manual should only be performed by authorized service.

3.5. Failure in Implementing Safety Measures

If safety precautions are not taken into account, personal injuries and environmental hazards as well as damage to the machine may occur. Failure to observe safety precautions may result in the failure to consider the entire claims for damages.

For example, if the safety precautions are not followed, the following hazards may arise:

- Risk of human error due to faulty work area protection
- Loss of important features of the machine
- Failure to implement recommended methods for repair and maintenance

- Risks due to mechanical and chemical effects
- Environmental damage due to hydraulic oil leakage

3.6. Working Safely and Consciously

- Comply with the safety precautions in this manual, existing accident prevention rules and any internal work, as well as the operating and safety rules set by the operator.
- Safety precautions and accidents prevention regulations of responsible professional connections must be observed.
- Safety precautions provided by the vehicle manufacturer should also be observed.
- Applicable traffic rules must be observed on public roads.

3.7. Safety Precautions and Accident Prevention Regulations

1. In addition to the safety precautions in this manual, please follow all general applicable safety and accident prevention regulations.
2. The warning and safety signs attached to the machines provide important information for safe operation. Pay attention to these issues for your own safety!
3. When approaching public areas, be careful to obey traffic rules!
4. Before starting to work with the machine, make sure you know all the functions as well as the whole equipment. Its too late to learn during operating!
5. Users should wear tight clothing. Don't wear large and loose clothing!
6. Leave the machine clean in case of fire hazard!
7. Make sure no one is around the machine before running or moving the machine (pay attention to the kids!). Make sure you have a clear view!
8. Passenger transportation, operation and transportation are not permitted.
9. Attach tools to the machine correctly! Attach tools only to specified devices and protect!
10. When inserting and removing tools, place support devices in the correct places.
11. Be very careful when removing or attaching tools from the tractor.
12. Always attach the balance weights properly to the fixed locations shown.
13. Observe the permissible axle loads, product weight and transport dimensions!
14. Plug in and check the transport equipment such as lighting, warning devices and any protective equipment!
15. Start-up mechanisms (cables, chains, connections, etc.) for remote control devices must be arranged such that no movement can be inadvertently activated during transportation or operation.
16. Make sure the tools are in the way they are needed for the road and close them in the places specified by the manufacturer!
17. Never leave the driver's seat when the vehicle is running!
18. Always drive at the correct speed for the required driving situations! Avoid sudden changes of direction as you travel on ramp, downhill or on a slope road!
19. Attached tools or ballast weights affect steering and the reaction of the machine to the brake. Make sure you can use the brake and steering wheel as needed!
20. Keep in mind the skidding when you are turning radius and / or corners!

21. Start the tools, only when all protective devices are attached and installed in the right places!
22. Always keep the machine's work areas open!
23. Don't stand in the area of tool's rotation!
24. Parts operated by external forces can cause overwhelming and damaging injuries!
25. Before leaving the tractor, land the tools, turn off the engine and take the ignition key!
26. No one should be between the tractor and the machine without the guarantee that the vehicle is definitely stopped.

3.7.1. Protection of mechanical systems

It is necessary to check the mechanical systems of the machine before and after the machine is started to prevent blockage or foreign object.

3.7.2. Shaft connections

1. Make the shaft connection to the machine tractor tail axle.
2. Be sure that these shaft protection caps are in place for the tail axle and the working position in the field of transport!
3. After installing or removing the PTO shafts, disconnect the PTO shafts, turn off the engine and remove the ignition key!
4. When PTO shafts are used with self-propelled couples that are not protected by overload safety or by the guard in the tractor, hang the self-propelled pair or self-operated couples on the tool!
5. Make sure that the PTO shaft is properly installed and protected!
6. Add chains to prevent the PTO shaft protector from rotating with the shaft.
7. Before installing the PTO shaft, ensure that the selected PTO shafts tractor speed matches the permissible tool speed!
8. Before attaching the PTO shaft, make sure no one around the tool is in danger!
9. Never connect the PTO shaft while the engine is running!
10. If the PTO shafts are working, nobody should be around the circle!
11. If the PTO shafts are not needed or the angle is too large, always turn off the PTO shaft!
12. **ATTENTION! The engine flywheel will continue to rotate until after the moment the PTO shafts connection is disconnected.** Keep your tools clean during this time! Do not do anything with tools until the machine is completely shut down and the engine flywheel secured using hand brake!
13. Remove the PTO shaft, stop the engine and remove the ignition key before cleaning and lubrication and connecting PTO shaft to vehicles or PTO! Protect the engine flywheel with the handbrake!
14. Place the disconnected PTO shaft on the recommended connecting stand!
15. After removing the PTO shaft, add a protective cover at the end of the PTO shaft!
16. If damage occurs, correct the fault immediately before using the tool again!

3.7.3. Hydraulic System

1. The hydraulic system is pressurized, please be careful.
2. When making connections with hydraulic cylinders and motors, make sure hydraulic hoses are properly connected.
3. When connecting the hydraulic hoses to the tractor hydraulics, make sure both tractors and vehicle hydraulics are not compressed!
4. In the hydraulic connections between the tractor and the vehicle, the connecting sleeves and cables must be taken into account to ensure a proper connection. If the links will be reversed, the function will also be flipped. (eg. increase / decrease) - risk of accident!
5. Check the hydraulic hose lines regularly and replace if damaged or worn. The new hoses must meet the technical requirements of the vehicle manufacturer!
6. When looking for leakage, use appropriate tools to avoid the risk of injury!
7. Fluids leaking because of high pressure (hydraulic oil) can damage the body and cause some serious injuries! If you get injured, get medical help immediately! Risk of infection!

3.7.4. Tyres

1. When working on tires, be sure to protect the vehicle against landing and rolling hazard! If it is in a sloping place, block the machine by putting the wedge in front of the wheels on the side where it is inclined.
2. Attaching tires and wheels requires adequate knowledge and appropriate tools.
3. Repair work on tires and wheels must be carried out only by specially trained personnel using suitable installation tools.
4. Check tire pressure regularly! Bring the tires pressure to recommended level!

3.7.5. Maintenance

1. Always make sure that the motor and energy are off before performing any repairs, maintenance or cleaning!
2. Check regularly if the bolts and belts are properly seated and tighten if necessary!
3. Always take appropriate precautions against the danger of falling when performing maintenance work with high equipment!
4. Always wear suitable gloves and tools when replacing tools with cutting inserts!
5. Disposal of oil, grease and filters according to regulations!
6. Always disconnect the power supply before starting the electrical system!
7. In case of wearing of protective devices and protectors, check them regularly and replace with new ones on time!
8. When welding the tractor and attached vehicles, remove the alternator and battery cables!
9. Renewed sections must meet the technical requirements of the manufacturer. This can be realized by using original spare parts of the Kayhan Ertugrul Makine Sanayi.

3.8. Making Unauthorized Changes and Manufacturing Replaced Parts

Changes in the machine are only permitted with the manufacturer's approval. Original spare parts and additional units supplied by the manufacturer guarantee a safe use.

3.9. Prohibited Operation

Operational safety of the machine is available only if it used according to the intended use in the General Information section of the user manual. The value limits written in the information charts should never be exceeded.

3.10. Starting of KE 320

Kayhan Ertugrul Disc Mower Conditioner is equipped with all necessary security devices. However, it is not possible to remove all potential hazards, as the protective equipment and equipment will damage the function and ability of the machine.

Appropriate warning signs on the machine warn of any danger!

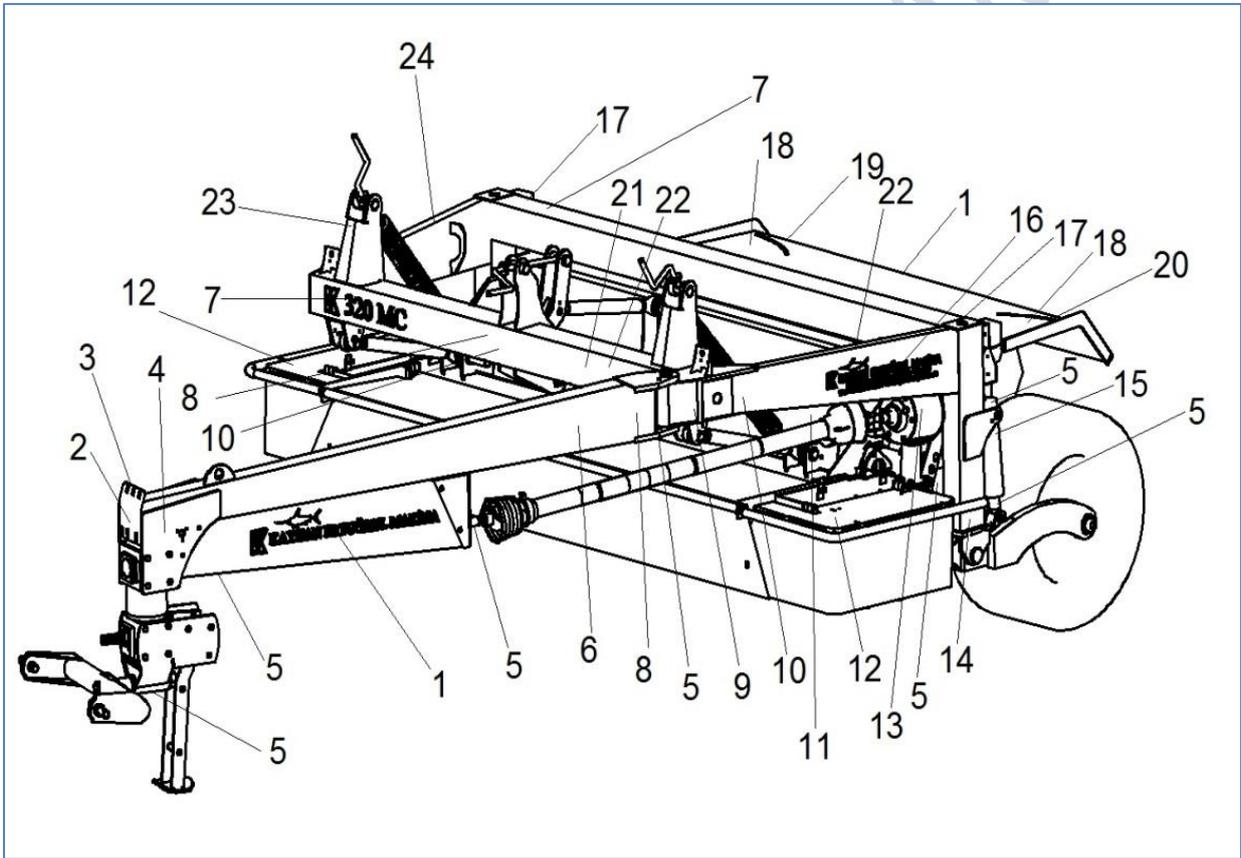
	Safety precautions are given as pictorial diagrams. Important information about the locations of these safety signs and their mean is stated below!
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3.11. Labels and Security Warnings on the Machine

- 1) Kayhan Ertugrul Makina Logo&Name Label
- 2) Appropriate Tail Axle Rotation Label
- 3) Lower Connection Arm Connection Warning Label
- 4) Read This User's Guide Warning Label
- 5) Lubrication Point Label
- 6) Rectangular Reflector
- 7) KE 320 Label
- 8) Possible Jam Label
- 9) Shaft Lubrication Label
- 10) Stay away from moving rotating parts Label
- 11) Protect yourself from running pieces Close the guards General Label
- 12) Keep guards closed Label
- 13) Label Requiring Opening of Balata
- 14) Compress Rubber Wheel Nuts After Work Label
- 15) Close the Hydraulic Valve in Road position Label

- 16) Kayhan Ertugrul Address & Logo Label
- 17) Don't climb on the machine Label
- 18) Protect Yourself From Running Machine Label
- 19) Triangle Reflector
- 20) 20 Km Speed Limit Label
- 21) Blade Connection Clarity Label
- 22) Appropriate Blade Sizes Label
- 23) Mowing Height Adjustment Lever
- 24) Lifting Point

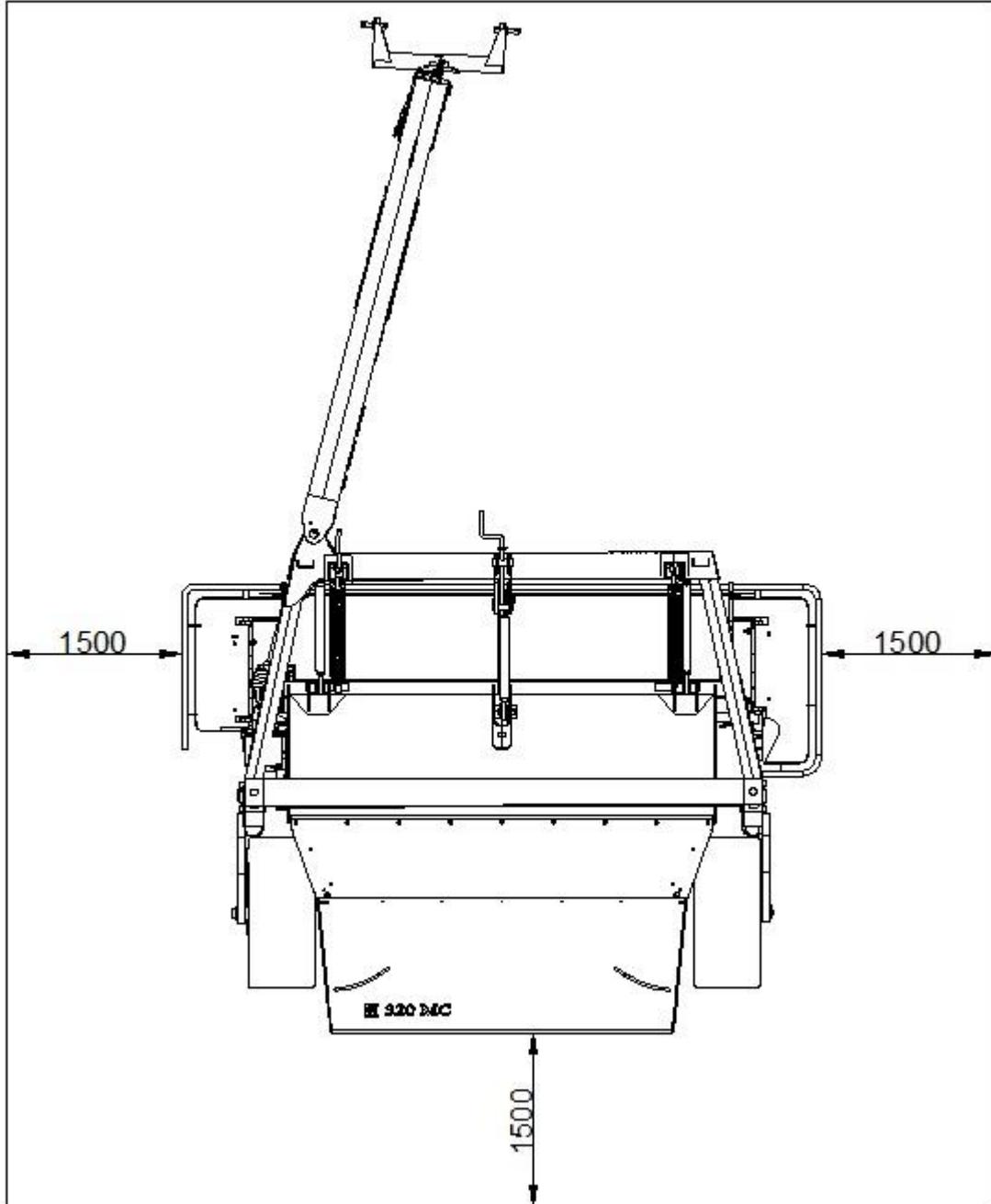
Figure 3.11.1: Labels and Security Warnings on the Machine



3.12. Danger zone

While the machine is in operation, do not approach the machine more than the distances given in Figure 3.12.1 below. Otherwise you can cause serious business accidents.

Figure 3.12.1: Hazardous Area Measures



4. MACHINE OPERATING INSTRUCTIONS

4.1. Commissioning

Before commissioning, the mower must be fully installed and connected to the tractor.

If a different traction vehicle is used, the following must be checked, adjusted and connected if necessary:

- Height of drawbolt
- PTO shaft length

Special safety precautions

In addition to general safety precautions, other special safety precautions are also necessary for disc mower.

	<p>The general safety precautions described apply to all maintenance, collection, repair and connection operations:</p> <ul style="list-style-type: none"> • Make the machine completely immobilized. • Turn engine off • Pull the ignition key. • Protect your tractor and disc mower against rolling danger. If the road is inclined, place a support wedge in front of the wheels that are inclined. <p>During operation, leave a suitable safe distance on all moving parts of the disc mower. Remove cables only when PTO is off and engine is stationary. Stop the engine and remove the ignition key. If dangerous situations arise, close PTO immediately and immobilize the disc mower.</p> <p>Never let the disc mower run unless there's someone on the tractor!</p>
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4.2. Connection to Tractor Bar

The machine must be connected to tractor by the three-point connection lower arms. For this, the lower connection is installed on the left side of the arm first. Then the right side arm is attached and the required tension is released. After fixing, the appropriate shaft is fitted and machine - tractor connection is made.

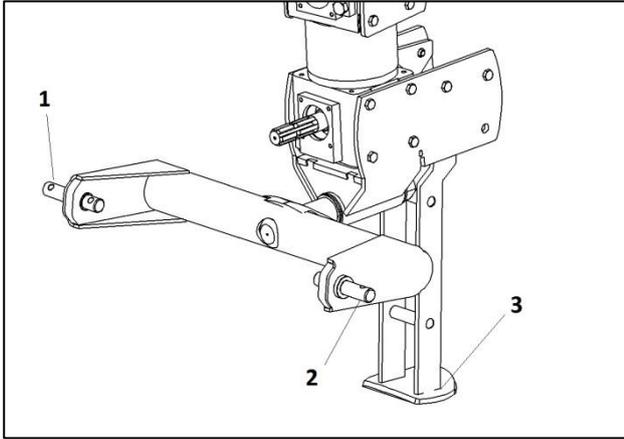
The tail axle must remain within the spring and the chain of the shaft guard must be fixed so that the housing is not allowed to rotate with the shaft.

While it may be necessary to use a tractor adapter plate to obtain the correct distance on some tractors, it may be necessary to install a tractor axle shaft conversion kit when it does not conform to the ASAE standard.

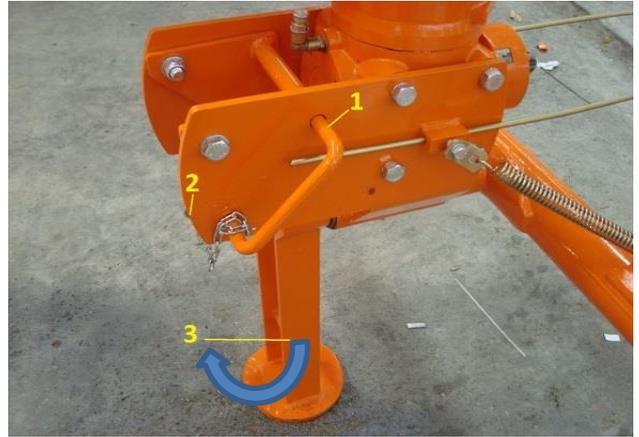
Our disc mower is designed to be used with the tractor pull system conforming to the ASAE standard. Since the incorrectly lower link arms position and the unstable tail axle, accidents may occur and the most appropriate connection must be made in accordance with the safety regulations.

When the machine is parked, the tractor lower linkages are connected to the machine using the connecting pins 1 and 2 shown in Figure 2.

After being connected to the machine, the support stand 3 needs to be folded backwards and the machine is taken to the road position.



Picture 2. Traction Group



Picture 3. Traction Group

After the machine has been connected to the tractor, the parking stand must be completely closed (indicated by number 3 in Figure 3) and the safety pin (indicated by number 1) must be properly secured by removing the connection lock (indicated by number 2).

4.3. Tail axle and Hydraulic Connection

The shaft must be attached first to the machine, then to the tractor, while the tail axle connects the shaft with your disc mower and the tractor. The lock pins on the shaft must be checked in the housings and the shafts must be equipped with the guards. The lubricators on the shaft must be lubricated before each operation. The connections 1 and 2 shown in Figures 4 and 5 should be connected to the tractor for adjustment of the medium-actuated piston and the hydraulic hose No. 3 can be used for height adjustment..



Picture 4. Traction Group



Picture 5. Traction Group



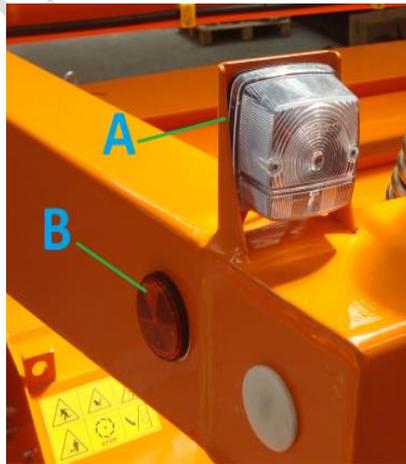
- When the Disc Mower is in the road position (transport etc.), never engage the tractor tail axle.
- Use Disc Mower Conditioner with tail axle rotation written on gearbox.

4.4. Electric system connection

- ❖ Install the cable supplied with the machine to the cable connection socket at the entrance of the machine (indicated by number 1 in Figure 6). Plug the other end into the electrical outlet on the tractor.
- ❖ Ensure that the connectors are clean and free from moisture during connection. The cables and sockets must not be damaged in order to avoid short circuits.
- ❖ Since the electrical outputs of the tractors are not the same, it is absolutely necessary to request from specialist for connecting the vehicle.
- ❖ Ensure that no contact with the wheels and contact with moving organs is made after the connection of the installed electric wire has been made.
- ❖ Since errors and defects that may occur in signaling and lighting can cause serious danger, the signaling and lighting system should be taken into consideration in case of operation.
- ❖ All signals and lights must be checked for operation and visibility prior to departing on open roads.(Picture 7).
- ❖ Lamps and reflectors should always be checked for clean, visible and undamaged.
- ❖ The broken lamp and reflectors should be replaced immediately.
- ❖ In the open area, the machine must be in the transport position and the tail axle connection must be removed.



Picture6. Electrical Connection



Picture7. Lighting



Picture8. Reflector and Lamp



- All signals and lights must be checked for operation and visibility prior to departing on open roads.
- In the open area, the machine must be in the transport position and the tail axle connection must be removed.

4.5. Machine Main Connection Shaft

The rear shaft is used when the movement from the tail axle is transmitted to the tray input gearbox. The protective shaft guard (indicated by number 1 in Figure 9) must be closed. The shaft guard should be fixed so that it does not rotate with the shaft. The shaft (indicated by number 2) on the shaft of the gearbox must be loosened and re-tightened at the beginning of each year and at the beginning of the work to prevent sticking.



Picture 9. Machine Main Connection Shaft



- Before starting the main transmission shaft, it is absolutely ensured that the front protective brand is closed and locked (indicated by number 4 in figure 8).
- The brake lining should be loosened and re-tightened at the beginning of each work to ensure that it does not stick and stretch. If there are springs that have lost their flexibility, they need to be replaced.

4.6. Driving and Transportation

The safety rules must be followed during the transportation and driving of the machine.

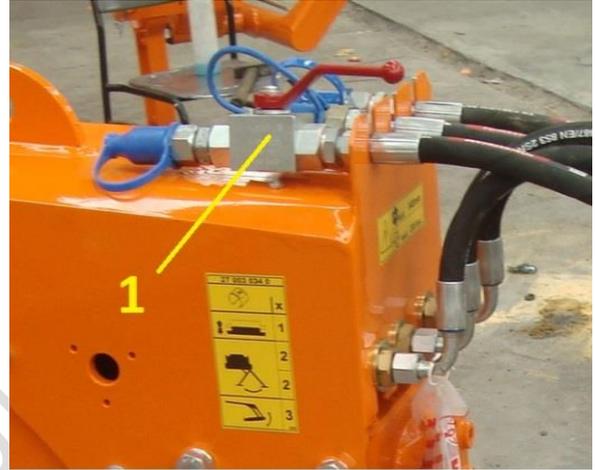
- Vehicle safeguards must be taken in accordance with the applicable rules in open roads.
- The cutting unit must be lifted up absolutely during transportation on the road.

- The signaling and security measures used on the road must be activated and made sure they are working. Inoperative systems should be repaired or replaced.
- The machine should not be operated in transportation mode.
- All valves must be closed after the mower has been removed during the move on the road. The wheel piston and middle motion piston should be closed (Picture 10 and Picture 11) .

THE MACHINE SHOULD BE HEIGHTEN DURING MOVEMENT ON THE ROAD AND WHEN MOVING IS NOT DONE.



Picture10. Valve



Picture 11. Wheel and Middle Motion Piston Valve

DURING TRANSPORTATION;

- PTO (TAIL AXLE) SHOULD BE STOPPED.
- WHEEL PISTON VALVE AND MEDIUM HYDRAULIC ARM VALVE SHOULD BE SHUT OFF.

	<ul style="list-style-type: none"> ➤ Ensure that no person, animal, or object is present in front of, behind, under, or above the machine when it is taken to the working position from the road position. It can cause serious injuries. ➤ When the machine is in the working position, the tail axle must only be connected after the machine shaft has been lowered. ➤ When the machine is moving from the road position to the work position, the connecting valves of the hydraulic lifting and positioning pistons of the machine must be opened.
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4.7. Closing the protective covers

The covers which are open in road position must be completely closed and fixed before operation. The transportation width should be reduced by opening the covers in the road position. For this purpose, the working width is reduced to the width of the road by fitting the lock case (indicated by number 1 in Figure 12) to the housing in the plastic wedge (indicated by number 2)..



Picture 12. Protective Covers Road Position



Picture 13. Protective Covers Working Position

4.8. What to do before putting the machine in working position

- The lower plate must be parallel to the ground before the machine is started.
- Leave a safe distance between the cutter blades and the machine before starting the machine for the first time.
- Even when the machine is working properly and healthy, some dangerous objects may throw up. In such cases in order to avoid damage, the machine must be outside the hazard zone.
- Maximum attention must be given when operating machines in places where people are present.
- Do not perform any repairs, alterations, corrections, etc. on any part of the machine, especially on the cutting units, without disconnecting the tail axle. No action should be taken until the tractor is off and the motion system stops.
- When the machine is lifted up and operated, it must be absolutely supported and the force from above must not be applied.
- Before running, it is absolutely necessary to check the protective systems. Damaged, broken system must be renewed absolutely.
- Ensure that the blades to be used for safe operation are at the proper dimensions and are fitted correctly.
- Do not work with broken, damaged, cracked blunt blades.
- Inspect for unscrewed bolts and replace them.
- Our machine should not be operated on slopes and inclined places.
- The tractor must not enter the space between the tractor and the machine for whatever purpose while the tractor is running or moving.

- The machine should not be stopped at any point in the areas of the machine specified as dangerous because the stone can be thrown.
- The machine is designed to be operated by pulling forward. Therefore, backward movements should be avoided, if the machine is to be moved back, it should be lifted first.
- Protective covers of the machine must be completely closed and locked before operation. There are 3 protective covers on the front, left and right sides of the machine. The machine must not be moved until all three covers are closed.

4.9.Removing Machine from Tractor

- Failure to comply with the rules during removal of the machine from the tractor can cause serious injury.
- Machine's speed should not exceed maximum speed when it connected to tractor.
- The place where the machine will be parked should be a flat and solid ground.
- The parking stand connection pin is removed and the safety pin is fitted and closed to the parking position..
- Tractor hydraulics are used to lower the machine.
- When the tractor is running, don't try to separate the machine from the tractor. The tractor should be parked properly and smoothly.
- After taking security precautions against the rolling of the machine, it has to be removed from the tractor.
- When the tail axle connection between the machine and the tractor is removed, the tractor must be off and the tail shaft must be completely stopped.
- First, the protective housing chain of the tail axle connection is removed, then the tail axle is removed by pressing the lock. First, the tail axle connection on the tractor must be removed.
- The three-point linkage lower arms is removed from its place. Then the electrical connection cable between the machine and the tractor is removed.
- When removing the hydraulic connection between the machine and the tractor, the hydraulic hoses must be completely depressurized and the valves should be closed appropriately.

5. MACHINE SETTING GUIDE

5.1. Setting of Cutting Height

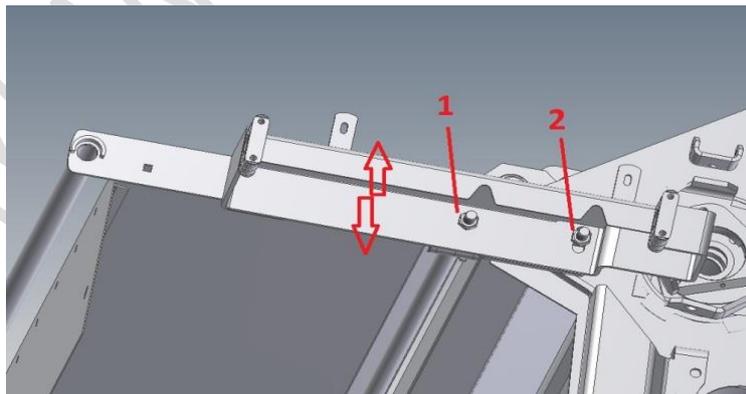
Cutting height can be adjusted to different soil conditions, plant type and density.. Cutting is done by turning the height adjustment lever clockwise and counterclockwise.



Picture 14. Adjustment Lever

5.2. Setting of Left and Right Guards

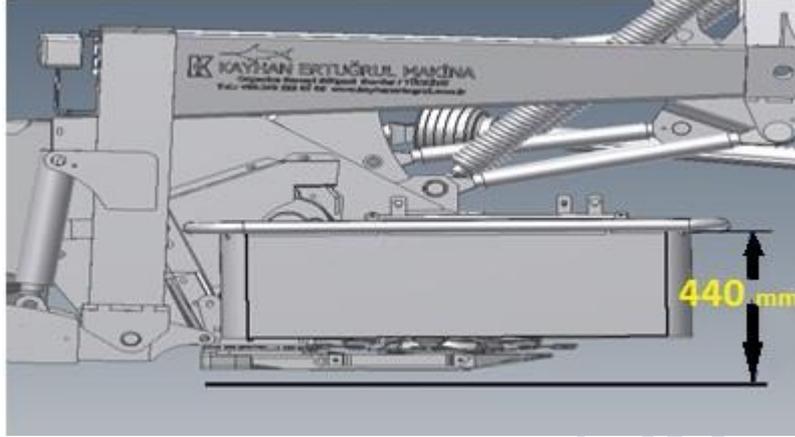
The guards must be closed in order not to damage the rotating parts and to prevent damage due to the ejection of the material, such as stone, moving by the rotating parts. In Figure 15, the height adjustment of the right and left guards fins should be made from bolts 1 and 2. To do this, the fin should be lifted up to loosen the bolts and retightened after the parallelism is adjusted.



Picture 15. Right and Left Guards Parallelism Setting

5.3. Front Guard Setting

The height adjustment must be made from the side guard. The height of the front guard should be set as 440 mm from ground. From the front view, the lock on the right side can be unlocked to remove the front guard. Once the horizontal adjustment is made, the height value should be checked.



Picture 16. Front Guard Setting

5.4. Cutting Table Pressing Adjustment by Product Density

To adjust the system pressure, it is necessary to adjust the springs on both sides of the chassis. These springs must be adjusted evenly so that the machine can run parallel to the sides.

Adjustment of the prints is done by adjusting the spring tension. This pressure can be increased by rotating the adjustment arm clockwise or reduced by rotating counter-clockwise.

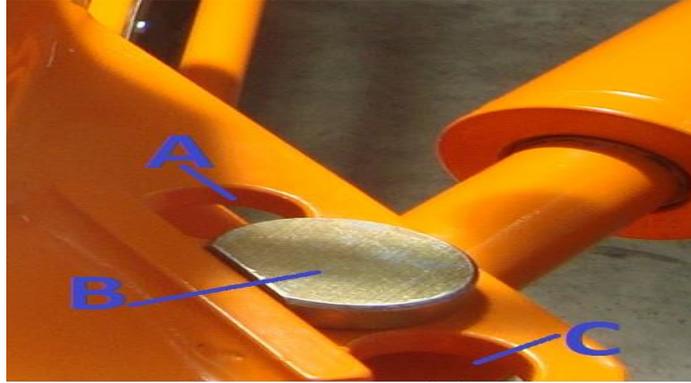
Increasing the pressure everywhere will make a sensitive mowing of the ground. In this way during the cutting in every place, the machine can not jump, so deep cutting is provided. However, this pressure must be reduced for the plant material to suffer less damage. However, if this pressure is reduced, the machine is observed to be jumped during cutting.



Picture 16. Front Guard Setting

5.5. Front Hydraulic Piston Adjustment Per Tractor Size

By opening and closing the double action piston, the Disc Mower is taken from the road position to the work position, from the work position to the road position. There are 3 position holes (A, B, C shown in Figure 17) for this setting to be made. The recommended way is to use piston in the center hole.



Picture 17. Front Hydraulic Piston Setting

5.6. Cut Stack Width Setting

Two adjustment caps are used when the cut product is laid on the field surface at the desired width. The covers adjusted according to the desired width are then fixed by tightening. (Picture 18)

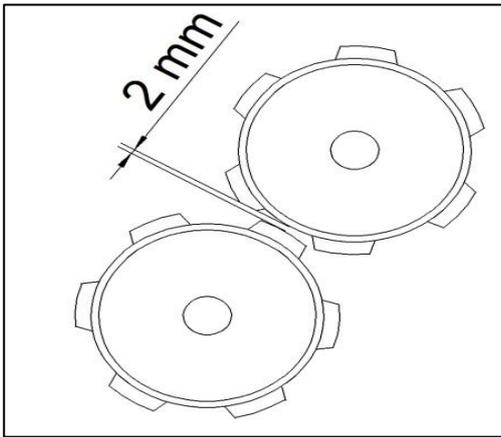


Picture 18. Cut Stack Width Setting

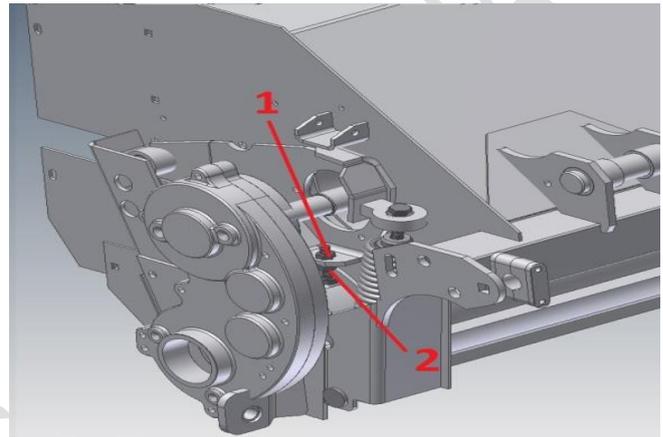
5.7. Crushing Roller Setting

Compressor rolls are a mechanism that allows the stem that is harder to dry than the leaves to be squeezed out to extract the juice and allows the stem to dry at the same time as the leaves. The distance between the two rollers must be set to be at least 2 mm (Picture 19).

The spacing between the compression rolls is made by adjusting the rollers nuts on both sides. While the distance between the two rollers opens with the opening of the nut 1, the distance between the two rollers is closed by opening nut 2. (Picture20).



Picture 19. Roller Clearance Size



Picture 20. Distance Between Rollers Adjustment Bolt

6. MAINTENANCE

- Ensure that the machine and its components are not in operation in any case of maintenance, cleaning, refurbishment or other use. These operations must never be carried out before the machine and its components have been completely stopped and the tractor is running.
- The tail axle connection must be stopped. And the tail axle must be deactivated.
- Close the tractor engine and remove the ignition key.
- Take precautions so that the tractor does not move by itself (To prevent the slippage of machine put the wedge).
- Make sure that the hydraulic valve that is open in the road condition is closed when you take your machine to work position.
- Always check the machine's cutting unit, and replace missing, broken, damaged parts. Check the blade bolts for wear and replace the old ones.

- Replace broken blades that have fallen with new ones. Do not work with the missing blade as it will create balance during rotation.
- Do not work with worn blades as the discs may be damaged when working with a worn knife.
- When changing blades, always check the bolts and replace if necessary.

6.1. Testing the machine

- The cutter unit must be in the work position when testing the machine after maintenance, repair or cleaning.
- Never operate the machine not on the ground.
- Make sure that the mower is on the ground and absence in the working area of any human, animal or other object and only after this start the machine.
- Machine must be operated only by the person in the driver's seat.

6.2. Wheels Maintenance

- Wheels should be checked and repaired by qualified personnel with appropriate tools and knowledge.
- In case of crushing, tearing and explosion on the wheels, they should be repaired by specialist person or authorized dealer with appropriate equipments.
- If the wheels do not match the rim, the wheel must be taken down and re-inflated.
- As a result of the first two hours of operation, the wheel bolts must be re-tightened.
- After 50 hours of operation, the wheel bolts should be checked for loosening and other defects.
- **15.0/55-17 14 FOR PLY TIRES TIRES PRESSURE MUST BE ADJUSTED FOR 2 BARS.**
- **TIRE WHEEL NUT MEASUREMENTS: M 18X1.5 TO BE STAPLE AND NUT.**

6.3. Machine Gear Boxes Required Oil Quantity and Lubrication Oil Properties

❖ GEARBOX TYPE	❖ OIL QUANTITY	❖ OIL TYPE
❖ Front Upper Gearbox	❖ 0,65 L	❖ 85W140
❖ Tail Axle Inlet Gearbox	❖ 0.75 L	❖ 85W140
❖ Mowing Table Input Gearbox	❖ 0,5 L	❖ 85W140
❖ Mowing Table Input Gearbox	❖ 0,5 L	❖ 85W140
❖ Upper Roller Input Gearbox	❖ 0,3 L	❖ 85W140
❖ Mowing Table	❖ 7 L	❖ 85W140

6.4. Time for an Oil Change

- For smooth and trouble-free operation, the first oil change should be done after 50 hours of machine operation.
- Subsequent oil changes should be made every 200 hours.
- Oil change must be done once a year.
- Before starting to operate the machine, oil control of the gearbox must be done.

6.5. Gearbox Lubrication Points

6.5.1. Front Upper Gear Lubrication Points

The lubrication pattern of the front upper gearbox is described in Figure 21 below;

1. Top Oil Tap (Vent Tap)
2. Oil Control Tap (Oil should be seen here)
3. Old Oil Discharge Tap
4. Front Upper Gearbox

After opening the upper plug, the old oil is removed from the oil drain plug on the bottom. After the drain plug is turned off, oil is added in the top plug until the oil level reaches the control plug.



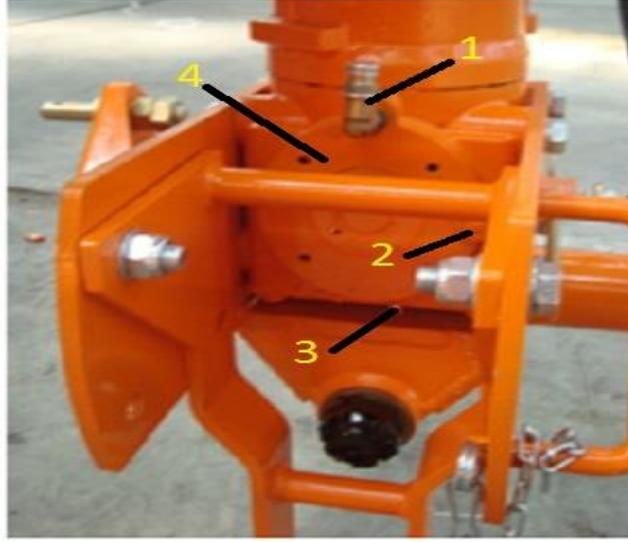
Picture 21. Front Upper Gear Lubrication Points

6.5.2. Tail Axle Inlet Gearbox (Loose Gearbox)

The lubrication pattern of the tail axle input gear box is described in Figure 22 below;

1. Gear Box Ventilation Tap
- Oil Control Tap (Oil should be seen here)
3. Oil Discharge Tap (Old Oil Location)
4. Tail Axle Inlet Gearbox

After performing the oil check from the oil control plug, the old oil is removed from the oil drain plug on the bottom side. The new oil is filled from the vent plug after the bottom plug is closed. When the oil level reaches the oil control plug, the oil is filled in sufficient quantity.



Picture 22. Tail Axle Inlet Gearbox Lubrication

6.5.3. Mowing Table Input Gearbox

The lubrication pattern of the mowing table input gear box is described below in figure 23.;

1. Oil Discharge Tap
2. Oil Control Tap (The amount of oil must be up to this point)
3. Oil Filling (Air Tap)

After performing the oil check from the oil control plug, the old oil is removed from the oil drain plug on the bottom side. The new oil is filled from the vent plug after the bottom plug is closed. When the oil level reaches the oil control plug, the oil is filled in sufficient quantity.



Picture 23. Mowing Table Inlet Gearbox Lubrication

6.5.4. Mowing Table Lower Gearbox

The lubrication pattern of the mowing table lower gear box is described below in figure 24;

1. Ventilation Tap
2. Oil Control Tap (The amount of oil must be up to this point)
3. Oil Discharge Tap

After performing the oil check from the oil control plug, the old oil is removed from the oil drain plug on the bottom side. The new oil is filled from the vent plug after the bottom plug is closed. When the oil level reaches the oil control plug, the oil is filled in sufficient quantity.



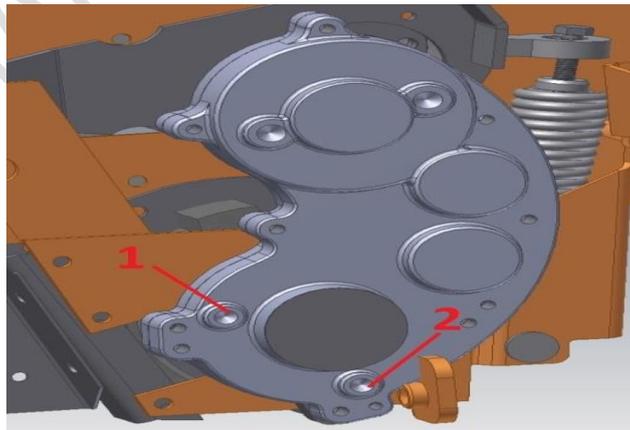
Picture 24. Mowing Table Lower Gearbox Lubrication

6.5.5. Upper Roller Input Gearbox

The lubrication pattern of the mowing table input gear box is described below in figure 25.;

1. Oil Control Tap (The amount of oil must be up to this point)
2. Oil Discharge Tap

After performing the oil check from the oil control plug, the old oil is removed from the oil drain plug on the bottom side. After the new oil bottom plug is closed, oil is added from the control tap.



Picture 25. Top Roller Inlet Gearbox Lubrication

6.5.6. Mowing Table Oil Control and Refill

Before filling the oil, it should be observed that the shaft of the machine is completely stopped and the tail axle is separated from the tractor. Otherwise it can cause serious injuries. As shown in Figure 26 below;

1. Oil control and ventilation tap
2. Oil filling and discharge cap



After performing the oil check from the oil control plug, the old oil is removed from the oil drain plug on the bottom side. New oil is filled after vent plug is closed and the filling cap is removed. When the oil level reaches the oil control plug, the oil is filled in sufficient quantity.

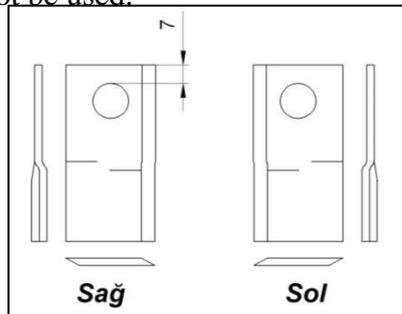
6.6. Blades and Blades Bolts Maintenance

6.6.1. Maintenance and Replacing of Blades

When the distance between the edge and the hole in the blade is 7 mm (L) as shown in Figure 27, the blade must be replaced. This value should be checked before every mowing and replaced with a new blade immediately when it is necessary.

The missing blade must be replaced with both blades on the same disc when the blades are completed. In this way, improper balancing losses are prevented.

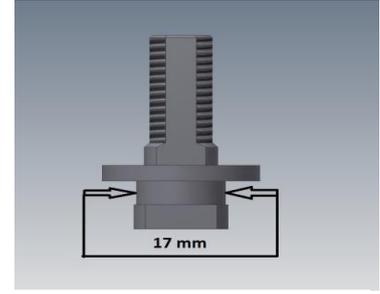
The types of blades to be used must be the same in length and thickness. Different length, thickness and type of blade should not be used.



Picture 27. Blades

6.6.2. Blade Bolts Maintenance and Replacing

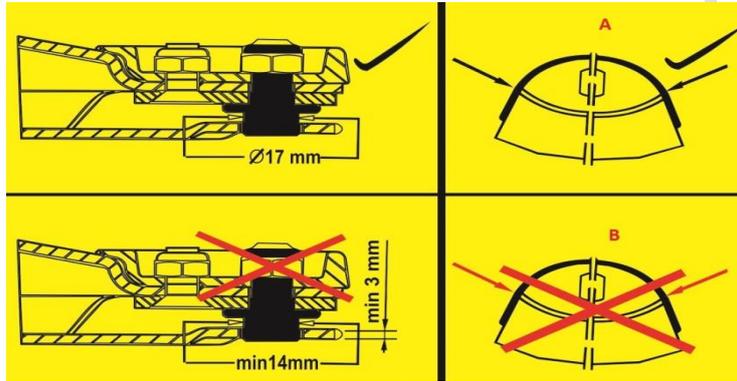
The blade retaining bolt should be checked every time the blade is changed. The diameter of the blade is 17 mm. If this diameter falls below 14 mm, the blade bolt must be replaced (Picture 28).



Picture 28. Blade Bolt

6.6.3. Renovation of blade retainer plates

The thickness of the plates to which the blade bolts are attached is 4 mm. If this thickness falls below 3 mm, it is necessary to replace the old blade. The end portion of the blade attachment sheets is specially hardened (Picture 29).

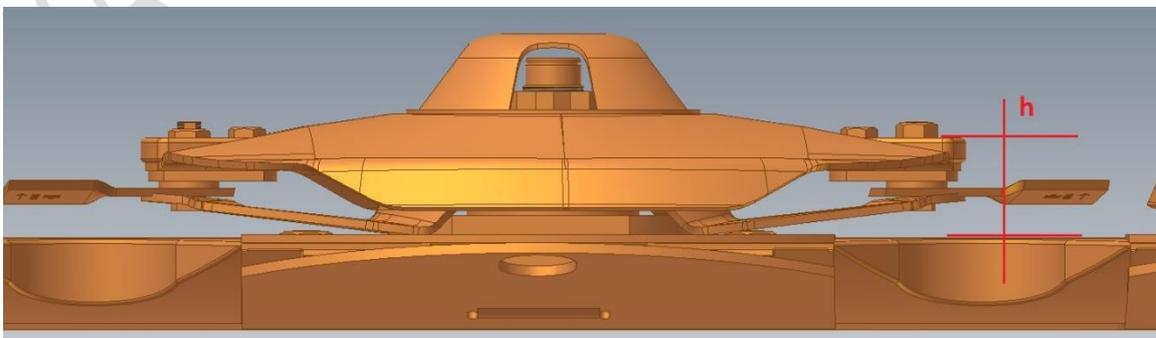


Picture 29. Blade Plate End Wear

For this reason, when a decrease is seen in this part, the blade connection plate must be replaced. Example of not worn blade plate shown in Figure 29 and indicated as 'A', worn blade plate (which must be replaced) example is indicated as 'B'.

6.6.4. Blade Holder Upper Plate

The blade holder top plate has a flexibility that pushes the blade down and keeps it between the lower blade plate and the upper blade plate. This plate can cause an accident due to excessive stretching because the blades can not be kept in sufficient strength. In this respect, if the blade holder upper plate is stretched or deformed, it must be replaced immediately. 'h' value must be smaller than 48 mm. If h value is more than 48 mm, the plate must be replaced, the new one must be installed (Figure 30).



Picture 30. Blade Holder Upper Plate Height Adjustment

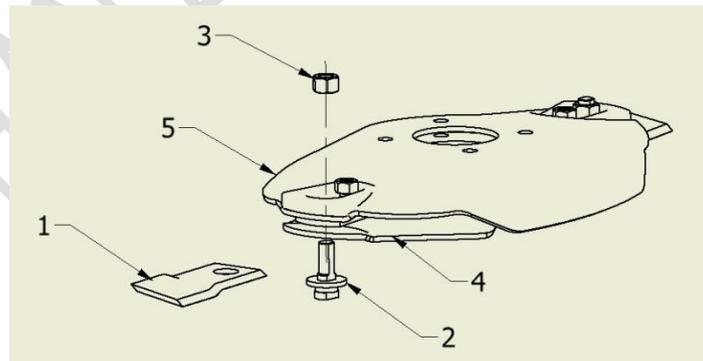
6.6.5. Changing the Blades on the Cutting Disk

- In order to change the blades on the cutting disk, the machine must first be stopped. For this, the tractor must be completely closed and ignition key must be removed.
- Since the rotation of the discs will continue for a while, it is absolutely necessary to wait until it stops.
- After the blades have been replaced, the blades should be checked and freely rotatable.
- During replacement of the blades, if necessary, parts such as plate, bolt and blade plate must also be replaced.
- Change the blades that have been damaged or missing blades to set, which prevents unwanted balanced rotations.
- Never install wear, broken, cracked, damaged, used blades.

6.6.6. Easy Replacement of Blades

The following sequence should be followed when replacing the blade.

- ❖ The tractor and the machine is safely shut down and discs are expected to stop.
- ❖ The mower table is cleaned,
- ❖ Cutting blade is removed from the chassis, install and pressed between the upper blade plate (item 5 shown in figure 31) and lower blade plate (indicated by 4). Remove the broken, damaged blades from the opening gap, the new blade (indicated by 1) is inserted between the blade bolt (indicated by 2) and the blade lower plate (indicated by 4).
- ❖ If necessary, loosen blade bolt on top and replace blade bolt too.
- ❖ When the blades are installed to the right and left, the disc turn direction should be determined and appropriate blade should be installed.

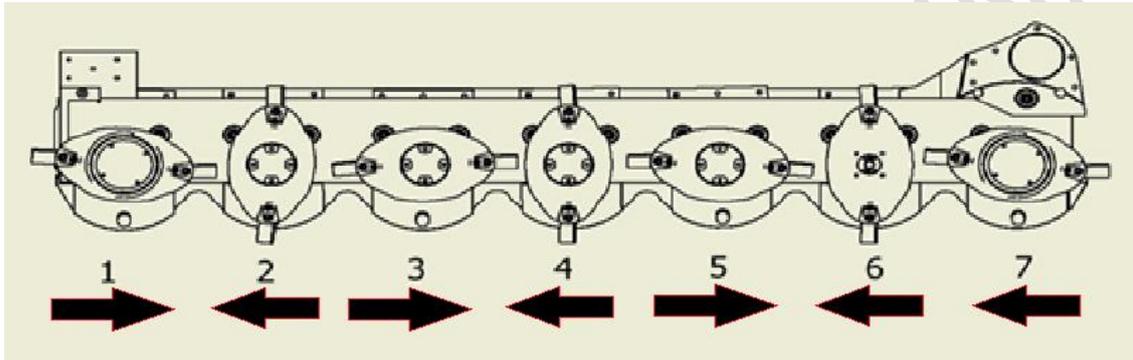


Picture 31. Changing of blades

6.6.7. Blades Arrangement

Since the blades are right and left, each blade must be attached to its own disc. **The machine uses 8 PCS -41973- (LEFT) and 6 PCS -41974- (RIGHT) blades.** The arrangement of the blades according to the disks (Figure 32)

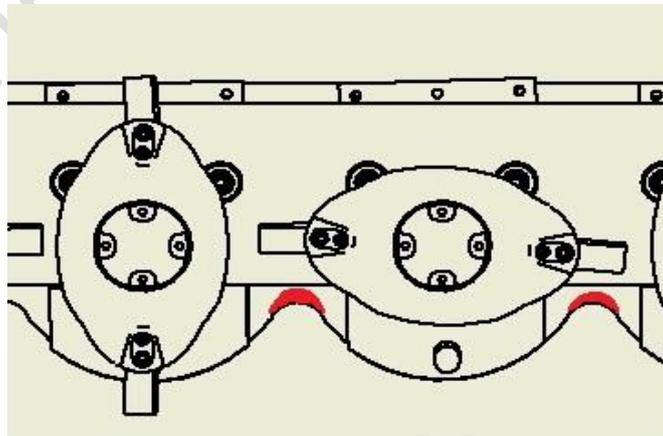
- | | |
|---------------|--------------|
| 1.Right Blade | 2.Left Blade |
| 3.Right Blade | 4.Left Blade |
| 5.Right Blade | 6.Left Blade |
| 7.Left Blade | |



Picture 32.Arrangement of blades

6.7.Replacement of Mowing Table Casting Portion Separator

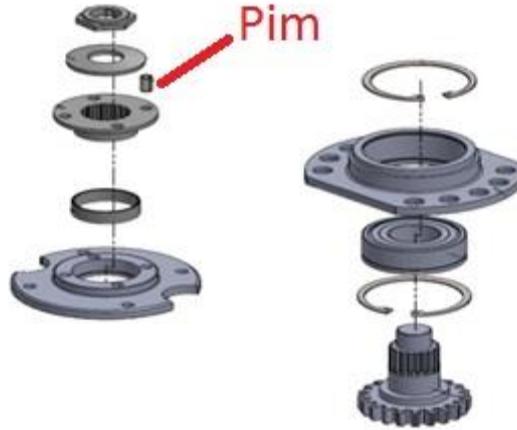
- The castings on the front of the machine's cutting table may wear out over time. In this case it is necessary to replace these parts.
- The machine needs to be cut and welded in the replacement work, so the machine must be taken to a suitable workshop.
- When welding the parts, two small welds should be done to the upper side when all the welding is done on the side coming to the bottom of the machine (Figure 33)



Picture 33. Cutting Table Casting Portion Separator Deformation

6.8.Replacement of Disk Hubs in Case of Pin Cut or Failure

- If the pin break or changing of the defective part , it should first be observed that the machine is stopped and the discs are stationary.
- The tail axle connection must be removed from the tractor and the tractor must be shut off.
- In the case of pin cut, the safety pin shown by the arrow is removed by removing 4 pins and the new ones are attached.



Picture 33. Pin Cut

6.9.Lubrication Periods

Lubrication points are indicated on the machine. The point to note here is that the machine has absolutely been stopped before it is lubricated. The mower must be laid on the ground. Attention should be paid to lubrication of the shaft, gear, gearbox and other bodies. Lubrication times are indicated on the labels on the machine.

6.10. Usage of Friction Lining on Shaft.

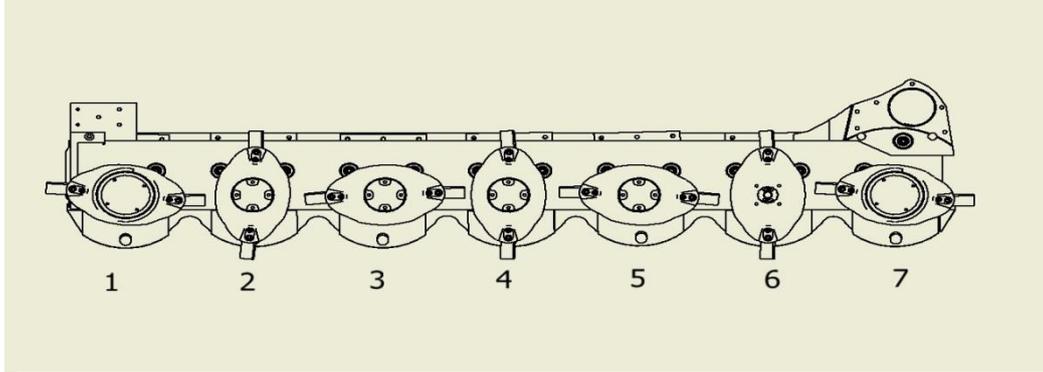
If the friction lining is old and defective, it must be replaced with original parts. Failure of this system can cause major damage.

The friction lining should always be tightened after loosening the spring connections before each working season and after months of waiting. In this case, it is necessary to ensure that the springs are continuously operated.

6.11. Special Equipments

Two thick slideways are used for elevation of the mowing table when high mowing is required or in stony areas.

To do this, the slideways are installed on both sides of the 2nd and 6th slideways (2nd and 6th cutting Arrangements) and connected with the rear bolts..



Picture 34. Thick Slideway Layout

6.12. Storage of Machine

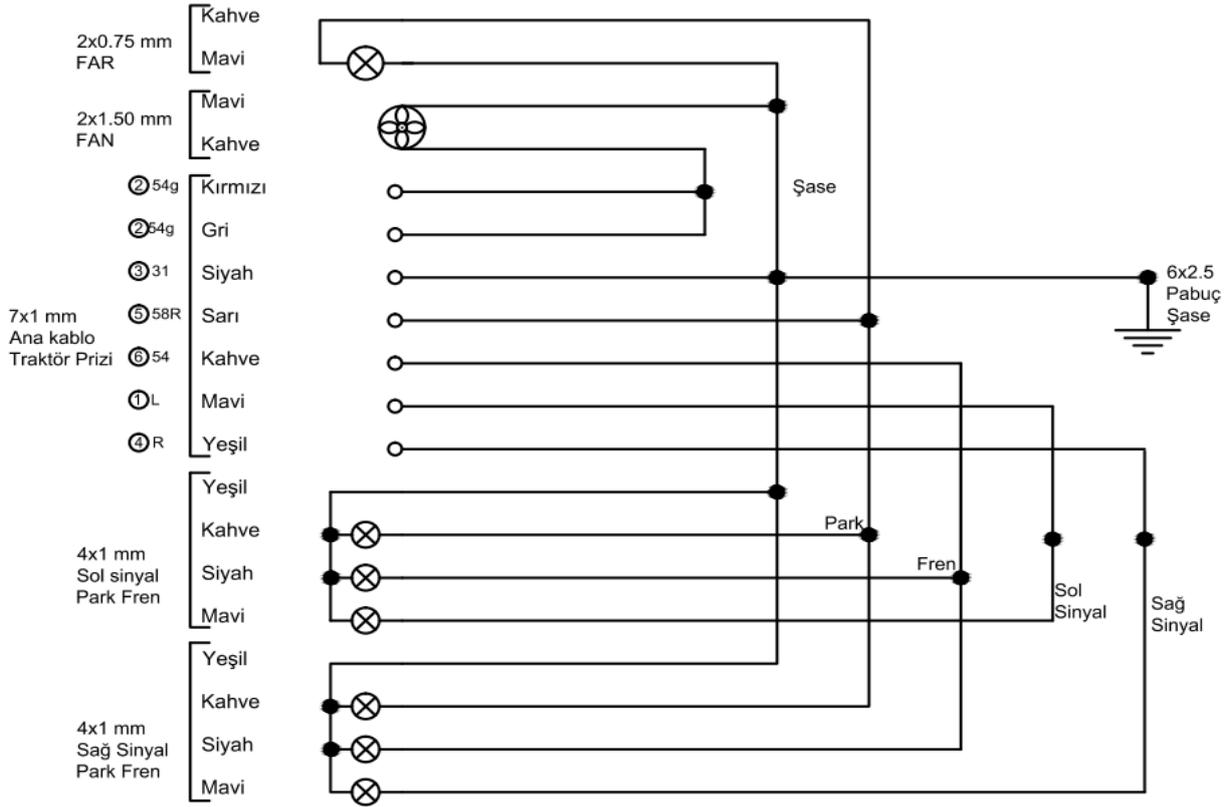
- The machine must be stored in a dry environment free of moisture. However, the environment in which they are located should not be a poultry, barn and other animal shelters, and should not be kept in chemical fertilizer deposits.
- During the winter maintenance of the machine, especially the bodies working inside and outside of the machine must be washed and dried. Care should be taken not to leave places with accumulated moisture and water. If pressure wash is to be done, pressure water and pressurized steam should not be kept where the bearings are located.
- After cleaning, the entire machine must be lubricated.
- During the lubrication, don't let oil out of the bearings and gearboxes.
- The tail axle must be lubricated by removing the shafts and lubricating all the moving parts.
- All the moving parts should be lubricated.
- Broken damaged areas should be renovated, painted places should be painted absolutely, rust should not be allowed.
- Spring, reflector, drum, connecting pins, chains etc. missing, broken or damaged parts must be renovated or replaced.
- Machine tires should be put on wedge and oil, grease and other chemicals should not be on the tires. It should be kept away from direct sunlight.
- Care must be taken when put the machine on wedge and the machine should be fixed in a position that will not allow rolling.
- The materials which are broken, the materials to be renewed should be replaced with the original KAYHAN ERTUGRUL spare parts.

7. TROUBLESHOOTING

7.1. Electrical Circuit Diagram

KE 320 electrical circuit diagram is shown on the Table 7.1.1 .

Table 7.1.1. KE 320 Electrical Diagram

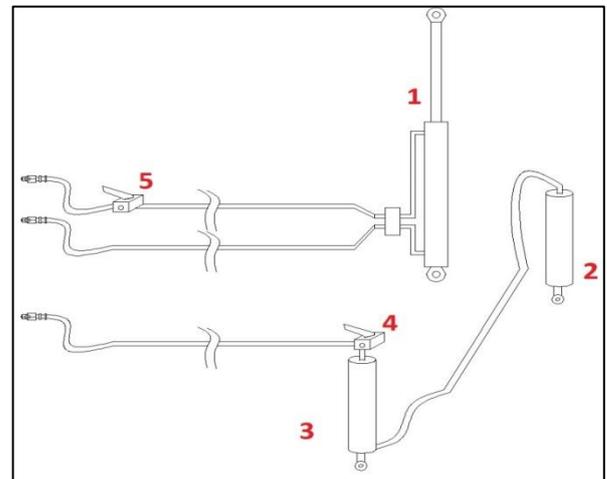


7.2. Hydraulic Circuit Diagram

KE 320 hydraulic circuit diagram is shown on the Table 7.2.1 .

1. Double action traction piston
2. Single action Wheel Piston
3. Double action wheel piston
4. Double action wheel piston locking valve
5. Double action traction piston locking valve

Table 7.2.1. KE 320 Hydraulic Diagram



7.3.Problems During Operation

PROBLEM	SOLUTION
Sludge accumulation in lower table and casting;	The lower table setting, the lower table parallelism and the height setting should be done (the humidity of the cropped area is an effective factor, the high humidity ratio will affect the performance of the machine).
The imbalance in mowing (difference in height between the right and left sides of the table);	The right and left heights of the tables should be made equal from the side chains of the table. Structural malformation of the mowed land (land improvement is not proper). Adjust the suspension springs evenly (according to the structure of the land)..
Rodding of the mowed crop;	Replace blade with deformed disc blades. Clean mud in castings between blades.
In mowed crop the crushing process is less or more.	Adjust both sides of the upper roller equally so that the spacing of the rolls will be 2 mm. (Crushing is reduced if the mowed crop is weak compared to a normal product)

7.4.Daily Controls of Machine

- Gearbox oil checks should be done.
- Lower table oil check should be done.
- Control of mowing discs, gap checks due to stiff impacts on discs.
- Deferring on the edges (if the discs are wrapped with foreign materials as the bale, rope etc. they should be cleaned, otherwise the disc will fail)).
- The sludge that forms on the mower table and conditioner rolls must be cleaned.
- In general loose nuts and bolts should be checked.
- Shaft control.

8. SITUATIONS AND EQUIPMENT NOT COVERED BY THE GUARANTEE

If your machine is used in products that are not suitable for production (such as corn, groundnut etc.), defects arising from damage that may occur are covered by the warranty.

The warranty does not cover any malfunction or damage that may occur due to adjustments and maintenance that the customer must make.

Failure and damage caused by repair and maintenance other than original spare parts and authorized service are not covered by the warranty.

1- **TYRE:** Damage and failures arising from the use of missing or excess air from the recommended air pressure and the shape of the working ground (stony, rocky and marsh, etc.) are not covered by the warranty..

2- **SHAFT:** Failures caused by run of the machine out of recommended rotation , such as bending of the shaft caused by running the hydraulic system up or down outside of the parallelism during operation of the tailwheel while the machine is attached to the tractor are not covered by the warranty.

3- **BLADE:** Damage and malfunctions that may arise from defects of the shape of the land on which the machine is operated (stony, rocky, marsh, etc.), that may occur as a result of foreign matter being jammed inside the machine are not covered by the warranty.

4- **ELECTRIC AND MOTOR FAILURE:** If the voltage of the tractor power is high or low, malfunctions which is caused by faulty connections to the end or incompetent persons are not covered by the warranty.

5- **RULMAN, GEAR, BELT AND CHAIN:** The warranty does not cover any errors or failures which may result from operating the machine at the lower or higher speed than specified in daily, seasonal grease and oil maintenance or in the manual of the machine.

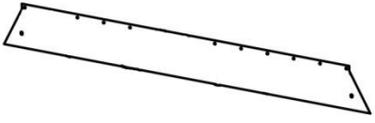
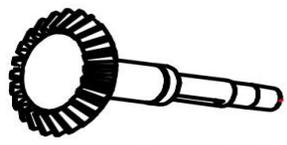
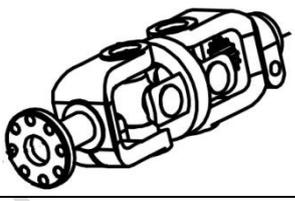
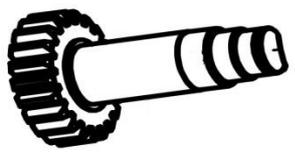
9. SPARE PARTS LIST

Spare parts list is shown in the Table 9.1 below:

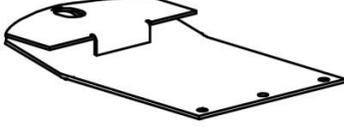
Table 9.1 Spare Parts List

NO:	Part picture	Spare part No.	Statement	Annual Aver. Usage Pcs.
1		710402000008	FIXED SHAFT	-
2		710402000014	CONICAL BEARING U 207	1
3		710402000015	BEARING HOUSING	1
4		710406000022	COUPLING PLASTIC HOUSING	1
5		710406000012	CONICAL SPHERICAL BEARING (Ø 40)	1
6		710406000021	RADIAL BEARING (Ø 30 mm)	1
7		710406000016	PLASTIC ROLLER	2

8		710407000005	FRONT PROTECTITIVE CANVAS	2
9		710410000014	CONICAL GEAR Z 23	1
10		710410000029	BEARING (30207)	1
11		710410000004	BEARING (6207)	1
12		710410000011	UPPER SHAFT	1
13		710410000010	CONICAL GEAR Z 17	1
14		710410000018	SHAFT	-
15		710410000020	BEARING (32019)	1
16		710411000042	SEAL 60 X 110 X 10	2

17		710411000058	CASTING COUPLING PLASTIC WEDGE	-
18		710406000002	M12 WASHER	2
19		710407000005	FRONT PROTECTIVE CANVAS	1
20		710409000015	PRESSURE SPRING SETTING	1
21		710409000008	SPRING JOINT LEVER	1
22		710411000047	CONICAL ROLLER GEAR Z26	-
23		710412000001	DOUBLE HEAD UNIVERSAL SHAFT	-
24		710413000008	BEARING 6207 2RS	1
25		710413000014	STRAIGHT PINION SHAFT	-

26		710414000003	BUTTON BLADE UPPER PLATE	1
27		710414000016	BLADE HOLDER UPPER PLATE	1
28		710414000019	BLADE HOLDER LOWER PLATE	1
29		710414000014	BLADE	14
30		710414000015	BLADE SUPPORT PLATE	5
31		710414000017	CASTING CONNECTION PART	5
32		710414000018	MOWING TABLE COVER	1
33		710414000025	FLAT GEAR Z 66	-
34		710414000022	BEARING (6209)	1

35		710414000039	GUIDEWAY	2
36		710416000008	LEFT WHEEL PISTON (SINGLE ACTION)	-
37		710416000012	RIGHT WHEEL PISTON (DOUBLE- ACTION)	-

KAYHAN ERTÜĞRUL MAKİNA

FIRST RUNNING SAFETY INFORMATION FORM

SAFETY

Most agricultural equipment accidents can be avoided by taking a few simple safety precautions.

- Do not perform cleaning, lubrication or any other adjustments on the machine while the Disc Mower Conditioner is in motion (moving) or when the tractor's engine is running. Listen and see if there are any rotating parts.
- Do not engage the coupling unless everyone is away from your machine and you are sure that there are no repair kits on the machine.
- Do not work around the Disc Mower Conditioner with loose-fitting dress that can be jammed in moving parts.
- Do not try to pull the grass from any part of the working Disc mower conditioner.
- Do not put fuel in the fuel tank while the engine of the tractor that drives the machine is running.
- Do not use the machine without all the guardes in place.
- Do not allow anyone to be on the machine.
- Do not disconnect any connections to the machine while it is running.
- After stopping the machine, do not approach for at least 2 minutes.

Staff Qualification and Training

Those who use, care for, or repair machinery should be warned against the risks they may encounter during machine operation and must be trained first. The operator should be responsible and observe the personnel. If the staff lacks the necessary knowledge, they should immediately take the necessary training and explanation. The operator must ensure that the contents of this manual are fully understood by the personnel. Repair work not described in this manual should be performed only by authorized service personnel.

Failure in Implementing Safety Measures

If safety precautions are not taken into account, personal injuries and environmental hazards as well as damage to the machine may occur . Failure to observe safety precautions may result in the failure to consider the entire claims for damages.

For example, if the safety precautions are not followed, the following hazards may arise:

- Risk of human error due to faulty work area protection
- Loss of important features of the machine
- Failure to implement recommended methods for repair and maintenance
- Risks due to mechanical and chemical effects
- Environmental damage due to hydraulic oil leakage

Work safely and consciously

- Comply with the safety precautions in this manual, existing accident prevention rules and any internal work, as well as the operating and safety rules set by the operator.
- Safety precautions and accidents prevention regulations of responsible professional connections must be observed.
- Safety precautions provided by the vehicle manufacturer should also be observed.
- Applicable traffic rules must be observed on public roads.

PROPER USE

The KE 320 Disc Mower Conditioners are designed for standard agricultural use only. It is not compatible with any other intended use. The manufacturer is not responsible for any damage caused by a use that is at the operator's own risk.

Warranty Terms

The warranty is not cover the faults caused by the customer's failure of the settings and maintenance that should be done and in case of malfunctioning due to the settings to be made.

It is assumed that the consumer has read all the rules specified in the Operation manual.

General Technical Information

- Driving is allowed only when the machine is up.
- Maximum allowed speed: 20 km/h
- For non-brake machines, the tractor's empty weight should match the allowed specifications.

Minimum Power Requirement :5980 HP
Tail axle rotation 540/1000 rpm

Tail axle rotations should not exceed 1000 rpm.

MACHINE INFORMATION			
Machine Name:			
Year of production :			
Chassis number :			
AUTHORIZED SERVICE INFORMATION		CUSTOMER INFORMATION	
Service Name:		TR Identity No. :	
		Name &Surname :	
Contact No :		Contact No :	
Address :		Address :	
Statement		Statement	
SEAL AND SIGN:		SIGN :	



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