 **WARNING:** Cancer and Reproductive Harm - www.P65warnings.ca.gov

Operating manual

Translated from the original instruction manual

| | |
|-----------------|------------|
| Revision | 01 |
| Date printed | 06.2018 |
| Language | EN-US |
| Machine number | KT475034 |
| Document number | A151645140 |
| Index | 2018-04 |

Machine identification

In order for your dealer to assist you as efficiently as possible, you will need to provide some information about your machine. Please enter the details here.

| | |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Designation | DMC 6332T - 6332R - 6336T - 6336T Vario |
| Operating width | 6332T/R: 3.2m (126") 6336T / Vario: 3.6m (142") |
| Weight | 6332T: 1397kg (3080lb) // 6332R: 1460kg (3220lb) 6336T: 1497kg (3300lb) // 6336T Vario: 1547kg (3410lb) |
| Machine number | |
| Accessories | |
| Address of supplier | |
| Address of manufacturer | Kverneland Group Kerteminde AS Taarupstrandvej 25 DK -5300 Kerteminde - Denmark Tel./fax: +45 65 19 19 00 / +45 65 19 19 99 web: www.kvernelandgroup.com |

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Preface

Target group for the Instruction Manual



NOTICE

Simplified illustrations to improve understanding

All of the illustrations of the machine in this instruction manual show it without the guards or with the protective equipment open to improve understanding.

Ensure that the safety instructions are complied with and the instructions in the instruction manual are followed.

Failure to do so can endanger lives.

This manual is intended for trained farmers and others who are qualified to work in agriculture and who are familiar with assembling equipment.

Minimum age

Children under the age of 16 are not permitted to operate the machine.

For your own safety

Read this instruction manual thoroughly prior to assembly and use of the machine. This will allow you to work under optimal conditions and in safety.

For the employer

Every employee must be trained in how to use this machinery at regular intervals (at least once a year) in accordance with the employer's insurance guidelines. Untrained or unauthorized persons must not use this machine.

Instructions

Your dealer will assist you with the instructions on how to use and maintain this machinery.

The meaning of the symbols

We have used different symbols to make the text clear. An explanation follows:

- A dot symbol marks a list of instructions or information.
- ▶ A triangle marks an action you must carry out.
- An arrow refers you to other parts of the text.

We have also used pictograms to help you find relevant places in the text.



Denotes tips or instructions on use.



Denotes information that requires particular attention.



A spanner indicates tips for assembling and settings.



This pictogram indicates that the tractor can be started.



This pictogram indicates that the tractor must be stopped, the handbrake applied and the ignition key removed.

California Proposition 65

WARNING

Operating, servicing and maintaining off road equipment or off road vehicles can expose you to inhalation of or contact with chemicals including engine exhaust, carbon monoxide, phthalates, and lead which are known to the state of California to cause cancer and birth defects or other reproductive harm. To minimize exposure:

- Avoid breathing exhaust.
- Always start and operate the engine in a well ventilated area.
- If in an enclosed area, vent the exhaust to the outside.
- Do not modify or tamper with the exhaust system.
- Do not idle the engine except as necessary.
- Service your equipment or vehicle in a well ventilated area.
- Wear gloves or wash your hands frequently when servicing your equipment or vehicle.

For more information go to: www.P65warnings.ca.gov

SAFETY FIRST

This symbol, the industry's "Safety Alert Symbol", is used throughout this manual and on labels on the machine itself to warn of the possibility of personal injury. Read these instructions carefully. It is essential that you read the instructions and safety regulations before you attempt to assemble or use this unit.

DANGER:

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

WARNING:

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION:

Indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury.



For your own safety

Know your equipment and its limitations. Read this entire manual before attempting to start and operate the unit.

This chapter includes general safety instructions. In addition, each chapter in the instruction manual includes specific safety instructions not set out here. The safety instructions must be followed

- For your own safety.
- For the safety of others.
- To ensure the safety of the machine.

When working with agricultural machinery, incorrect handling can pose a number of dangers. Therefore, you should always be very careful and never rush your work under pressure.

The operator must receive regular training

Periodically inform those working with the machine about these safety instructions.

The safety instructions should be followed in accordance with local statutes concerning agricultural machines.

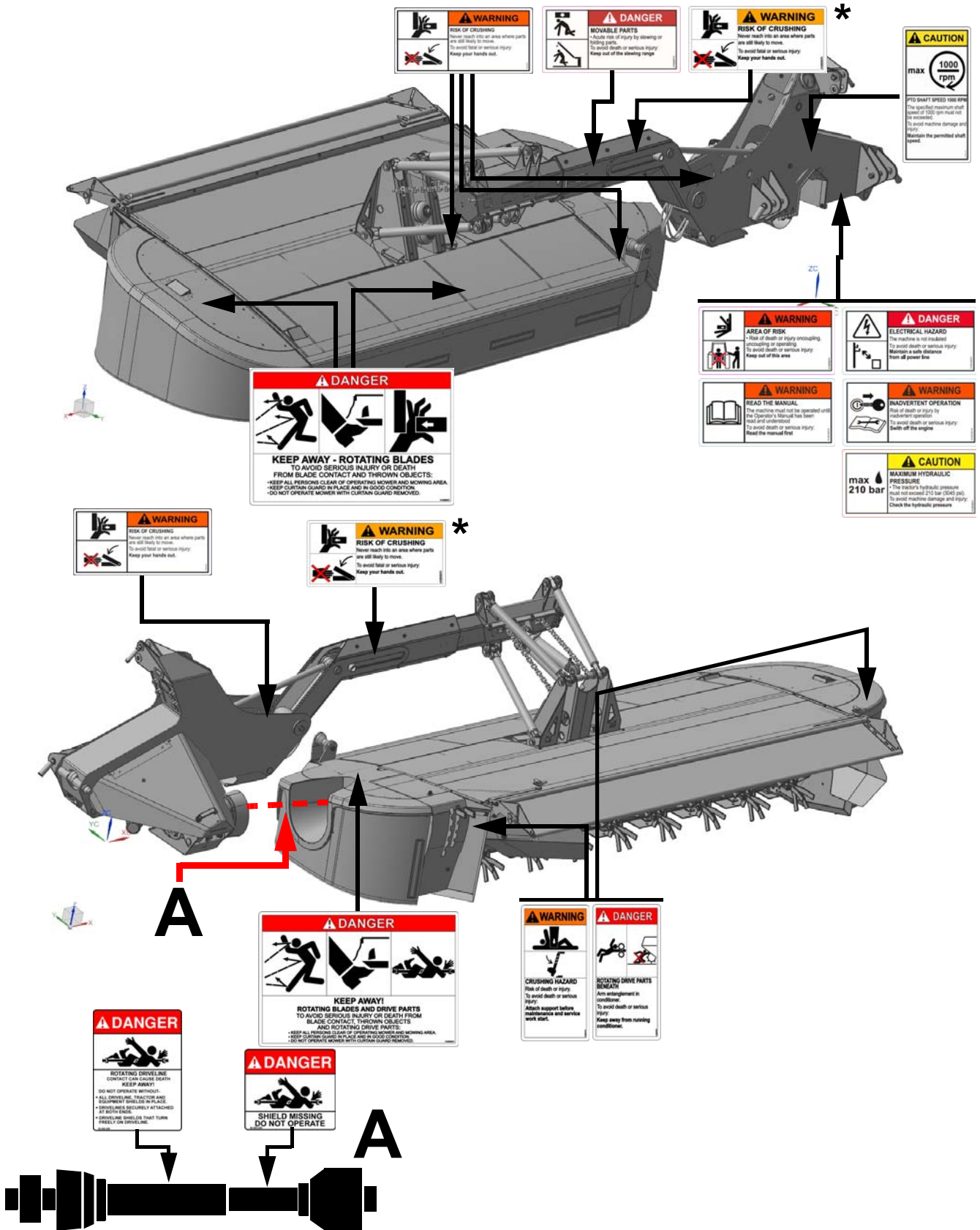
Safety



Safety labels

On the machine, you will find labels relating to your safety. These labels must not be removed. If the labels become illegible or detached, new labels can be ordered and affixed in the appropriate areas.

* Only Vario





⚠ DANGER

KEEP AWAY - ROTATING BLADES
TO AVOID SERIOUS INJURY OR DEATH FROM BLADE CONTACT AND THROWN OBJECTS:

- KEEP ALL PERSONS CLEAR OF OPERATING MOWER AND MOWING AREA.
- KEEP CURTAIN GUARD IN PLACE AND IN GOOD CONDITION.
- DO NOT OPERATE MOWER WITH CURTAIN GUARD REMOVED.

⚠ DANGER

KEEP AWAY!
ROTATING BLADES AND DRIVE PARTS
TO AVOID SERIOUS INJURY OR DEATH FROM BLADE CONTACT, THROWN OBJECTS AND ROTATING DRIVE PARTS:

- KEEP ALL PERSONS CLEAR OF OPERATING MOWER AND MOWING AREA.
- KEEP CURTAIN GUARD IN PLACE AND IN GOOD CONDITION.
- DO NOT OPERATE MOWER WITH CURTAIN GUARD REMOVED.

⚠ DANGER

ROTATING DRIVELINE CONTACT CAN CAUSE DEATH KEEP AWAY!

DO NOT OPERATE WITHOUT-

- ALL DRIVELINE, TRACTOR AND EQUIPMENT SHIELDS IN PLACE.
- DRIVELINES SECURELY ATTACHED AT BOTH ENDS.
- DRIVELINE SHIELDS THAT TURN FREELY ON DRIVELINE.

56.966.000

⚠ DANGER

SHIELD MISSING DO NOT OPERATE

56.969.000

⚠ DANGER

ROTATING DRIVE PARTS BENEATH
Arm entanglement in conditioner.
To avoid death or serious injury:
Keep away from running conditioner.

⚠ DANGER

MOVABLE PARTS
• Acute risk of injury by slewing or folding parts.
To avoid death or serious injury:
Keep out of the slewing range

⚠ DANGER

ELECTRICAL HAZARD
The machine is not insulated
To avoid death or serious injury:
Maintain a safe distance from all power line



| | |
|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | WARNING |
| | <p>AREA OF RISK</p> <ul style="list-style-type: none"> • Risk of death or injury oncoupling, uncoupling or operating. <p>To avoid death or serious injury: Keep out of this area</p> |

| | |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | WARNING |
| | <p>READ THE MANUAL</p> <p>The machine must not be operated until the Operator's Manual has been read and understood</p> <p>To avoid death or serious injury: Read the manual first</p> |

| | |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | WARNING |
| | <p>INADVERTENT OPERATION</p> <p>Risk of death or injury by inadvertent operation</p> <p>To avoid death or serious injury: Swith off the engine</p> |

| | |
|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | WARNING |
| | <p>RISK OF CRUSHING</p> <p>Never reach into an area where parts are still likely to move.</p> <p>To avoid fatal or serious injury: Keep your hands out.</p> |

| | |
|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | WARNING |
| | <p>ROTATING DRIVE PARTS BENEATH</p> <p>Entanglement with rotating drive parts can cause injury or death. Do not operate without this and all other shields in place and in good condition.</p> |

| |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WARNING |
| |
| <p>CRUSHING HAZARD</p> <p>Risk of death or injury.</p> <p>To avoid death or serious injury: Attach support before maintenance and service work start.</p> |

| | |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>max 210 bar</p> | CAUTION |
| | <p>MAXIMUM HYDRAULIC PRESSURE</p> <ul style="list-style-type: none"> • The tractor's hydraulic pressure must not exceed 210 bar (3045 psi). <p>To avoid machine damage and injury: Check the hydraulic pressure</p> |

| |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CAUTION |
| <p>max </p> |
| <p>PTO SHAFT SPEED 1000 RPM</p> <p>The specified maximum shaft speed of 1000 rpm must not be exceeded.</p> <p>To avoid machine damage and injury: Maintain the permitted shaft speed.</p> |



Markings and reflectors – USA

Lighting and reflectors on the tractor shall be in good and sound condition at all times.



Reflective equipment for slow-moving vehicles – SMV

This triangular sign must be placed in the center at the rear of the tractor or machine, so that it is clearly visible at all times when the machine is in the transport position. This sign is compulsory for machines that are being transported at speeds of less than 40 km/h (25 mph) on public roads.

Transport on public roads



This machine must be transported on public roads **at speeds of less than 40 km/h (25 mph) only.**

→ »Speed when driving on public roads« Page 55



Who can operate the machine?

Qualified machine operators

Children under 16 years of age must not operate the machine. The machine may only be operated, maintained and repaired by persons with the required qualifications and who are informed of the risks associated with the handling of the machinery.

The necessary knowledge is conveyed within the framework of an agricultural education, a professional education or through intensive instruction.

General safety directions

The operator must receive regular training

Periodically inform those working with the machine about these safety instructions.

The safety instructions should be followed in accordance with local statutes concerning agricultural machines.



Stop the tractor and make sure to secure it

Before you get out:

- Stop the tractor.
- Remove the ignition key.
- Secure the tractor to prevent it from rolling.

If a tractor is not secured, it can roll on top of up or squeeze you. In this case, you may be seriously injured and these injuries can be deadly!

The operator should receive careful instructions before using the machine

The machine should only be used if the operator has been given thorough instructions. Thorough machine instruction allows safe usage.

Insufficient training may lead to incorrect usage of the machine and thus to accidents.

Safety is your responsibility

Observe the safety directives. You must insist that the safety directives be maintained. Complying with the safety directives will help to avoid serious or fatal accidents.

Carrying passengers on the machine is prohibited

It is dangerous and illegal to carry passengers on the machine.

The machine is not approved for personal transportation. Transporting persons on the machine may result in serious injuries and death.

Recommended work clothing

Do not wear loose-fitting clothing. Wide or loose-fitting clothing can get caught by rotating parts.

Wear the kind of work and protective clothing that industry and professional organizations recommend.

In this case, you may be seriously injured and these injuries can be deadly.

**Check and clear the surrounding area before starting to use the machine**

Before driving and using the machine the surrounding area should be checked and cleared. This prevents persons and animals in the vicinity from being harmed. If the surrounding area is not checked, it may result in serious injuries to persons or animals.

Keep away from the machine

No bystanders should be close to the machine when active. This will ensure that no dangerous situations can arise. Persons close to the machine during operation are at risk of being severely injured.

Never perform any service and maintenance work to the machinery while it is running

One must not perform service and maintenance work of any kind to the machinery while it is running. People or objects can be carried away and dragged into the machine, or can get crushed. In this case, you may be seriously injured and these injuries can be deadly.

Safety for children

Never assume that children will remain where you last saw them. Be alert and shut your machine down if children are in the work area. Never allow children to play on or operate the machine.

Comply with the service and maintenance intervals given in the instructions

Comply with the intervals for service and maintenance as given in the instructions. By complying with the maintenance intervals, you ensure that the machine will operate without malfunctions and provide maximum protection for the environment. Poorly maintained machinery poses a danger to the surroundings.



Attachment

Correct attachment of the machine

The machine must be correctly attached according to the instructions. The machine can become detached from the tractor if the attachment is not done properly. Incorrect attachment can lead to accidents.

When attaching the machine to the tractor you must therefore:

- Make sure that the tractor can not roll.
- Make sure that the tractor and the machine belong to the same category.
- Never stand between the tractor and the machine during attachment.
- Use the hydraulic three/point suspension slowly and carefully.

Adherence to the above instructions will ensure your own safety and that of others. Failure to follow the above instructions may result in serious injury.

Make the electrical connection after attachment

When you connect the lighting equipment, the tractor must be stopped, the ignition key removed and all the lights turned off. This will prevent short circuits and damage to the electric circuit. There may be a danger of short circuiting of the electrical circuitry.

PTO shaft check

Refer to the manufacturer's user manual included with the P.T.O. shaft. Here you will find instructions on the correct RPM for the P.T.O. shaft. If you ignore this information, it may result in damage to the P.T.O. shaft and to the machinery.

Be careful when working around the P.T.O shaft

When working on the PTO shaft, the tractor's PTO outlet must be disconnected, the tractor must be stopped and the ignition key removed. This prevents the PTO shaft from suddenly starting to rotate. If the tractor and the PTO shaft have not been connected in accordance with the instructions, serious accidents causing injury to limbs can occur.

Use the recommended P.T.O. shaft

Only use the P.T.O. shaft that the manufacturer has recommended.

- Read the accompanying operating guidelines carefully. Failure to do so may result in damage to the machinery or serious or fatal injuries.
- If necessary, adjust the lengths of the P.T.O. shaft. A wrong length on a P.T.O. shaft can result in damages to the machinery and injuries to persons.
- Other PTO shafts with deactivation couplings can allow higher disconnection torques. Higher disconnection torques can cause damage to the machinery.

Checking and fastening the screens to the P.T.O. shaft

The rotating P.T.O. shaft is protected by the screen. Make sure that the screens are intact. Attach the screens for the P.T.O. shaft to both tractors and equipment with chains. An unprotected P.T.O. shaft can cause life-threatening injuries.



Hydraulics

Only connect the hydraulics when the system is depressurized

You should only connect the hydraulic hoses to the tractor's hydraulics when the hydraulic system on both the tractor and the machine is depressurized. There is a risk that the machine will move accidentally. Unintentional movement of the machine may result in serious injuries.

Hydraulic oil under pressure can cause serious injuries

Before connecting hydraulic connections, the excess pressure must always be released. Hydraulic oil under pressure can penetrate the skin and result in serious injuries. Before connecting the hydraulic system, you must ensure that all connections are tight and that all pipes and hoses are not damaged.

Increased pressure in the hydraulic system

The hydraulic system is under high pressure. Regularly check all conduits, hoses and fittings for visible damage. Only use appropriate aids when searching for leaks. Rectify damages with the same. Leaking oil can cause injuries or fire. Immediately contact a physician in case of accidents.

Never use your fingers or hands to check for leaks

Never use your fingers or hands to check the hydraulic system for leaks. Use a piece of paper or cardboard to check the hydraulic system for leaks. Leaking pressurized oil can cause serious injuries to skin and cause gangrene.

Replacing the hydraulic hoses

Replace the hydraulic hoses at least once every 6 years. Hydraulic hoses also wear without any visible damage. Only use hydraulic hoses with the same technical specifications. The necessary data are printed on the hydraulic hose. Defective hydraulic hoses may cause serious injury or death.

Avoid physical contact with hydraulic oil

Hydraulic oil contains additives that under certain circumstances can have serious consequences for your health. Therefore, when handling hydraulic oil be aware of the following:

- Avoid direct contact with hydraulic oil. It can damage the skin.
- Protect your skin with barrier cream or protective gloves.
- Never use oil or lubricants to clean your hands.
- Clothes contaminated with oil should be changed immediately.
- Oily cloths should not be kept in your pockets.
- Seek medical help for skin injuries or if you come into contact with hydraulic oil under pressure, as such injuries can cause gangrene.



Load capacity

Compliance with total weight, axle pressure, carrying capacity of the tires and minimum weight on the tractor

Neither the tractor's total weight, axle pressure or the carrying capacity of the tires may be exceeded on front/mounted and rear-mounted machines. To ensure the maneuverability of the tractor, the load on the front axle must be at least 20% of the tractor's weight. Failure to do so can result in a loss of control and cause accidents.

→ »Permissible total weight of the tractor« Page 31

Weight/power ratio between machine and tractor

The machine may only be connected to a tractor of the correct size and power.

The tractor's size and PTO outlet must correspond to the power consumption of the machine and its weight. Wrong weight/power ratio can result in damage to both machine and tractor.



Transport on public roads

Make sure that the machinery complies with all national and local requirements for transport on public roads

When driving on public roads, the machine must comply with the Road Traffic Act's current requirements. This ensures your safety and that of other road users. Failure to meet the requirements can result in accidents.

Compliance with the Road Traffic Act's current requirements includes, for example:

- Installation of lights, warning and safety equipment.
- Compliance with permitted transport width, weight, axle pressure, tire carrying capacity and total weight.
- Keep to the maximum allowable transport speed.
- Secure the machine

The tractor's dead weight must be greater than the machine's weight. Violations can result in the driver and the owner of the vehicle being held responsible.

Carrying passengers on the machine is prohibited

It is dangerous and illegal to carry passengers on the machine. The machine is not approved for personal transportation. Transporting persons on the machine may result in serious injuries and death.

Attached machines change the driving and braking abilities of the tractor

Be aware of the changed driving and braking abilities when driving with machines attached. You should be especially aware of the machine's width and length when driving around bends and turns. Serious accidents and a loss of control may result if this is not taken into account.

Adjust the speed according to the road conditions

Adjust driving speed according to the conditions on the road. Poor road conditions and high speeds can lead to parts of the tractor and machine being overloaded. Driving too fast can lead to accidents and damage both the machine and the tractor.



Use

Check that the machine has no technical faults

Only use the machine if it has no technical faults. This ensures that the machine is operating correctly and safely. A machine with technical faults and defects can be dangerous and inappropriate to use.

Check the safety devices

Check that all protective devices are in place before use. This ensures that the machine will give maximum protection to the operator. If the safety devices are removed or not used, it may result in serious injuries and accidents.

Carrying passengers on the machine is prohibited

It is dangerous and illegal to carry passengers on the machine. The machine is not approved for personal transportation. Transporting persons on the machine may result in serious injuries and death.

Check and clear the surrounding area before starting to use the machine

Before driving and using the machine the surrounding area should be checked and cleared. This prevents persons and animals in the vicinity from being harmed. If the surrounding area is not checked, it may result in serious injuries to persons or animals.

Never perform any service and maintenance work to the machinery while it is running

One must not perform service and maintenance work of any kind to the machinery while it is running. People or objects can be carried away and dragged into the machine, or can get crushed. In this case, you may be seriously injured and these injuries can be deadly.

Keep away from the machine

No bystanders should be close to the machine when active. This will ensure that no dangerous situations can arise. Persons close to the machine during operation are at risk of being severely injured.

Safety for children

Never assume that children will remain where you last saw them. Be alert and shut your machine down if children are in the work area. Never allow children to play on or operate the machine.

**Checking bolts on moving parts**

Check that all bolts on moving parts are correctly tightened. Tightening parts prevents moving parts from jarring. Parts which are not correctly tightened can work themselves loose and damage the machine.

Maintain the rotational speed on the tractor's PTO outlet

The recommended RPM on the P.T.O. shaft must not be exceeded. It can result in damage to the machine and be dangerous to any persons in the vicinity.

Check the transmission oil level regularly

Check that the transmission is filled with oil and that the oil level is correct. A correct oil level ensures the transmission a long and trouble-free service life. An incorrect oil level will damage the transmission.

Stop the machine immediately in case of malfunction

In case of malfunction, the machine should be stopped immediately. A mechanical malfunction can endanger persons and animals in the vicinity. Malfunctioning machines can give rise to dangerous situations.

Make sure that the tractor and the machinery stand on a level surface

Make sure that the machinery stands evenly before switching it from transport to working position (and vice versa). There is a particular risk of the machine falling on slopes. Otherwise, serious damage can occur to the machine and fatal injuries to the operator.

Check the tire pressure regularly

Check the tire pressure on the tractor and machine regularly. This will ensure optimal driving conditions and prevent the accidental lifting of the tractor and the machine. Abnormal and uncontrollable lifting of the tractor and machine can result in accidents.



Disconnection

Increased risk of injury when disconnecting

There is an increased risk of injury when disconnecting the machine from the tractor. Adherence to the above instructions will ensure your own safety and that of others. Failure to follow the above instructions may result in serious injury.

Therefore, when disconnecting:

- Make sure that the tractor can not roll.
- Never stand between the tractor and the machine during disconnection.
- Use the hydraulic three/point suspension slowly and carefully.
- Make sure that the machine is standing on a safe, level surface.
- When depressurizing the hydraulic system for both tractor and machine, first disconnect the hydraulic hoses.

If you do not follow these instructions, it can result in serious injury or death.



Maintenance

Comply with the service and maintenance intervals given in the instructions

Comply with the intervals for service and maintenance as given in the instructions. By complying with the maintenance intervals, you ensure that the machine will operate without malfunctions and provide maximum protection for the environment. Poorly maintained machinery poses a danger to the surroundings.

Maintenance of the P.T.O. shaft

Keep to the recommended intervals for service and maintenance of the P.T.O. shaft. Refer to the manufacturer's user manual included with the P.T.O. shaft. Here you will find instructions on the correct maintenance of the P.T.O. shaft. If you ignore this information, it may result in damage to the P.T.O. shaft and to the machinery.

Always use original spare parts on the machine

Always use original spare parts. Original spare parts should be used for safety reasons. The manufacturer's warranty becomes void if non-original spare parts are used.

Never perform any service and maintenance work to the machinery while it is running

One must not perform service and maintenance work of any kind to the machinery while it is running. People or objects can be carried away and dragged into the machine, or can get crushed. In this case, you may be seriously injured and these injuries can be deadly.

High risk when performing service and maintenance work

When performing service or maintenance work, there is a higher risk of injury. Paying full attention to the aforementioned point ensures your safety and that of others. Failure to pay attention to the aforementioned point may result in serious injuries.

Therefore, when you perform maintenance work:

- Disconnect the P.T.O shaft.
- Depressurize the hydraulic system.
- Stop or disconnect the tractor.
- Check that the machine is parked safely; support it if necessary.
- Do not use parts of the machine to climb onto it; the correct climbing devices must be used.
- Make sure that the machine can not start rolling.

Disconnect the power source when working on the electrical systems

Always disconnect the negative terminal to the battery before working with the electrical system. This will prevent short circuits and damage to the electric circuit.

**Be careful when cleaning with high pressure cleaning equipment**

Only use low-pressure cleaning equipment to clean bearings, hydraulic hoses, plastic components, electrical control boxes and electrical equipment. Using low water pressure to clean will protect the sensitive equipment on the machine. Using high water pressure to clean could damage vital parts of the machine.

No harsh cleaning agents

Do not use harsh cleaning agents when cleaning. Bare metal surfaces may be damaged.

Disconnect the battery, ECU and the alternator before welding

The tractor battery and alternator should be disconnected before performing welding work on the machine. This will protect the tractor alternator during welding work. The tractor alternator could be damaged or destroyed if the electric connections are not disconnected before performing welding work.

Tighten all fittings on moving parts

Check that bolts on moving parts are tightened after performing maintenance work. Tightening parts prevents moving parts from jarring. Parts which are not correctly tightened can work loose and damage the machine.

Do not alter the machine construction

The technical construction of the machine should not be altered and machine maintenance should be performed. A well maintained machine will offer maximum protection.

Poorly maintained machinery will not provide optimum protection and can be dangerous.



Further safety instructions

Follow the instructions when working on the machine

The machine safety instructions should always be complied with. This will protect you and others from injury. Failure to follow the safety instructions may result in serious injuries.

In addition to the safety instructions, the following should be followed:

- Environmental legislation.
- The general technical, medical and road act regulations.
- Instructions in this instruction manual.
- Instructions for use, maintenance and service.

Blank page

This chapter includes general information about your machine. Furthermore, following information are included:

- The machine's field of application.
- The machine characteristics.
- View of the machine.
- Technical data.

The machine's field of application

6332T/R - 6336T - 6336T Vario is a trailed mower conditioner intended for the harvesting of commonly occurring grass and grain crops. The instructions for use are given in the following chapters.

Correct usage of the machine

The machine can be used in fields for mowing the following crops:

- All types of grass
- All types of clover
- Whole crop
- Alfalfa
- Sorghum

Incorrect use of the machine

The machine must not, under any circumstances, be used for the following:

- Cutting grass in park facilities and lawns
- Cutting grass on the boulevard strips of public roads
- Harvesting corn
- Clearing forest floors or other densely wooded areas

Similar use is outside the intended applications of the machine. The manufacturer is not liable for any damages caused by incorrect usage of the machine. The user is wholly liable for the machine.

Machine characteristics

Description of the machine

6332T/R - 6336T - 6336T Vario is a swather which operates on the tractor's right-hand side and is connected to the tractor's lift arms.

The machine's cutting unit is connected to a powerful arm that can be lifted and lowered using the tractor's hydraulic system. On some models, the machine's arm can be shifted 400 mm* when using the tractor's hydraulic system and can thus be used together with a forward-mounted swather with different cutting widths.

The cutting unit is hydraulically balanced using a strong hydraulic cylinder connected to the accumulators that ensure that the machine's cutter bar follows the ground precisely and cutting the crop uniformly. The machine's cutting discs are equipped with durable, reversible knives, which have a high capacity when used at a high speed of rotation, even for difficult crops.

Even at high mowing speeds, the machine is able to mow the crop cleanly and uniformly. For safety reasons, it is recommended that the speed not exceed 9 mph (15 km/h).

The R model is fitted with powerful rollers that provide effective conditioning of the crop.

The T model is fitted with a powerful rotor that provides effective conditioning of the crop.

The cutting unit is fitted with a guard, which protects it against moving objects. The guard, or parts of the guard, must never be removed from the machine and must always be kept in good condition.

* Only Vario

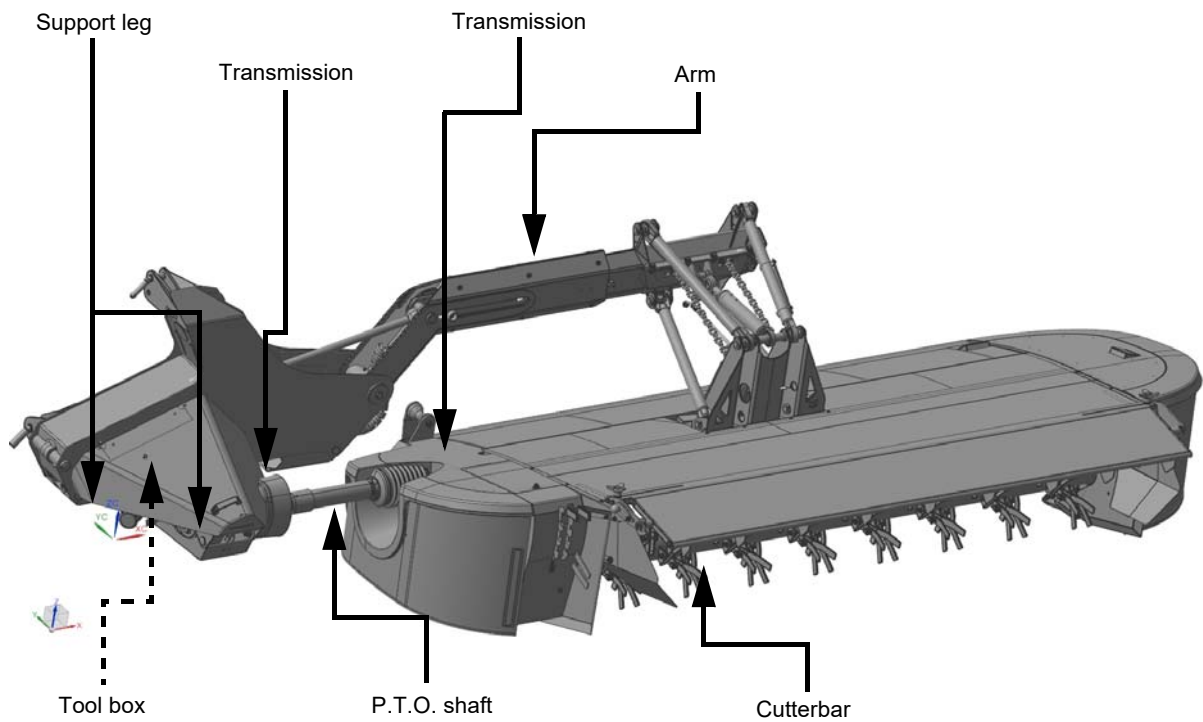
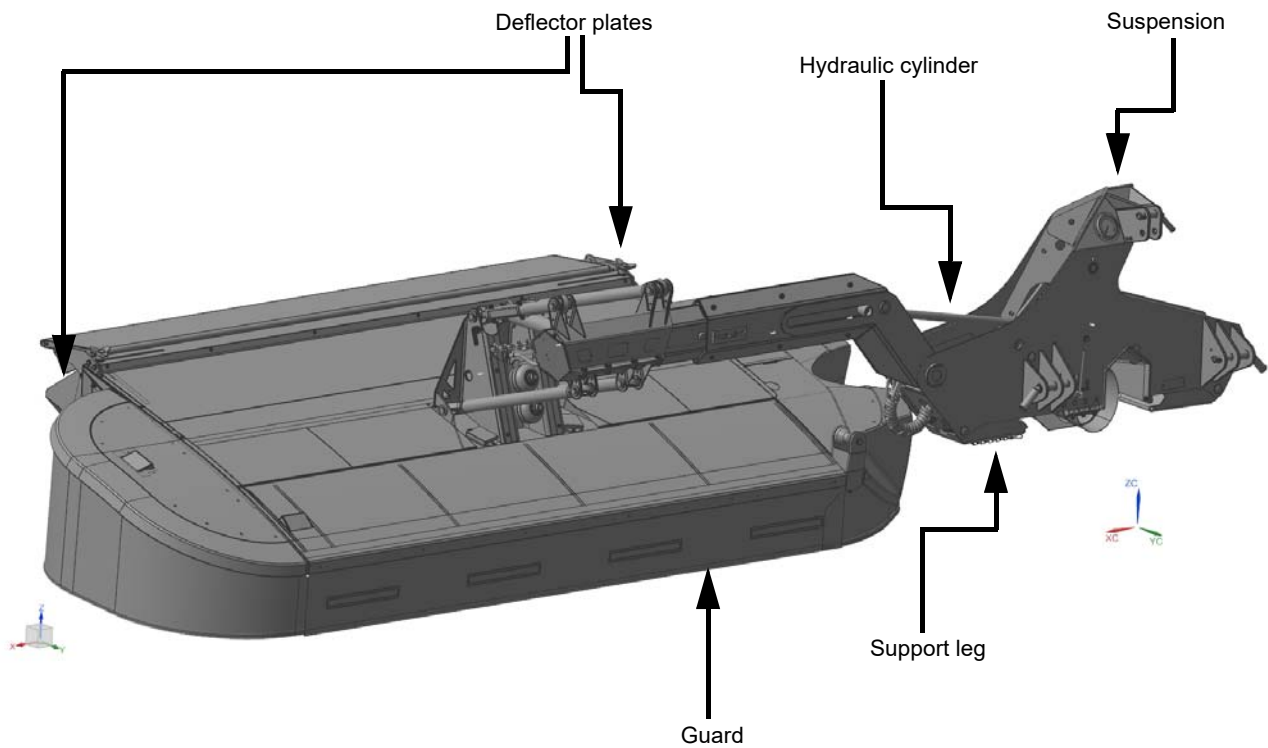
Solid construction

Thanks to its solid construction and flexibility, the machine is both strong and reliable.

Your safety when using the machine

To make working with the machine as safe as possible the machine complies with EC regulations. The machine is CE labeled.

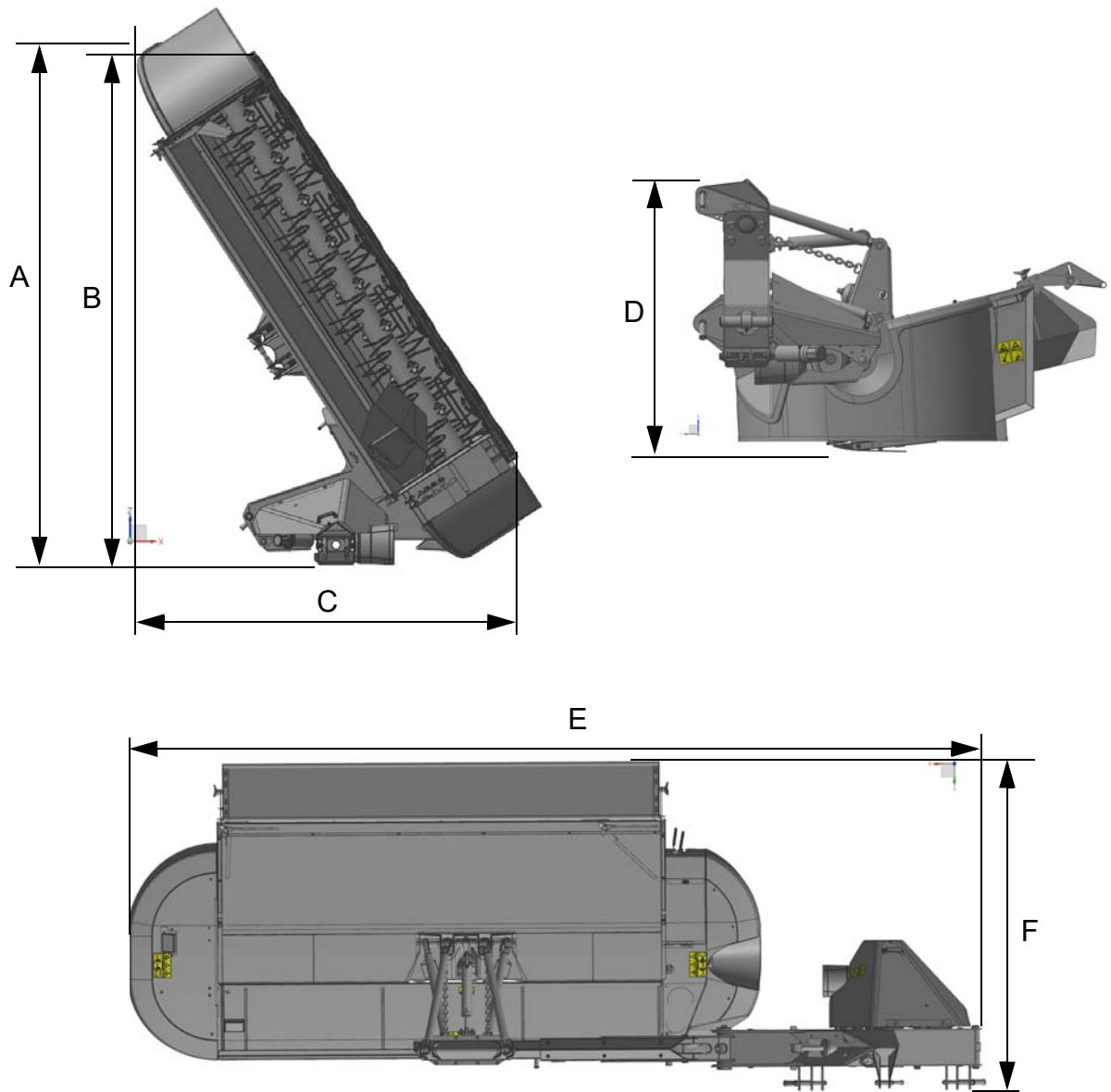
Synopsis



About the machine

Technical data

Machine dimensions



| Dim. | Unit | 6332T 6332R | 6336T 6336T Vario |
|-------------|-------------|------------------------|------------------------------|
| A | mm | 3500/3565* | 3600/3665* |
| | inch | 138/140* | 142/144* |
| B | mm | 3450/3515* | 3525/3590* |
| | inch | 136/138* | 139/141* |
| C | mm | 2280 | 2530 |
| | inch | 90 | 99,5 |
| D | mm | 1450 | |
| | inch | 57 | |
| E | mm | 5250 | 5600 |
| | inch | 207 | 220 |
| F | mm | 2160 | |
| | inch | 85 | |

* Incl. support legs

About the machine

Machine specifications

| | Unit | 6332T | 6332R | 6336T | 6336T Vario |
|--------------------------------|-------|-------------|-------|-------|-------------|
| Unladen weight | kg | 1397 | 1460 | 1497 | 1547 |
| | lb | 3080 | 3220 | 3300 | 3410 |
| PTO (power take off) | RPM | 1000 | | | |
| Power requirement, minimum | kW | 66 | | 74 | |
| | HP | 90 | | 100 | |
| Number of cutting discs | parts | 8 | | 10 | |
| Number of blades | parts | 24 | | 30 | |
| RPM, cutting discs | RPM | 3000 | | | |
| RPM, rotors | RPM | 550 / 1000 | | | |
| RPM, rollers | RPM | - | 1000 | - | |
| Stubble height | mm | 35 - 50 | | | |
| | inch | 1,4 - 2 | | | |
| Cutting width | m | 3.2 | | 3,6 | |
| | inch | 126 | | 142 | |
| Hydraulic pressure min. - max. | bar | 180 - 220 | | | |
| | PSI | 2610 - 3190 | | | |
| Noise level | dB(A) | 85 | | | |
| Cutting speed | km/h | 6 - 15 | | | |
| | mph | 4 - 9 | | | |

Tractor requirements



WARNING

Tractor weight and size

The tractor must have a proper weight. Local legislation governing this ratio must be observed.

The correct ratio between tractor and machine ensures correct braking functions and maneuverability.

An incorrect ratio between tractor and machine can be dangerous.

Permissible total weight of the tractor



WARNING

Compliance with total weight, axle pressure, carrying capacity of the tires and minimum weight

Neither the tractor's total weight, axle pressure or the carrying capacity of the tires may be exceeded on front/mounted and rear-mounted machines.

To ensure the maneuverability of the tractor, the load on the front axle must be at least 20% of the tractor's weight.

Failure to do so can result in a loss of control and cause accidents.

The maximum permissible unladen weight of the tractor including static axle and tire pressures must be checked before the machine is used.

When coupling machines to the tractor's lift, you must ensure that:

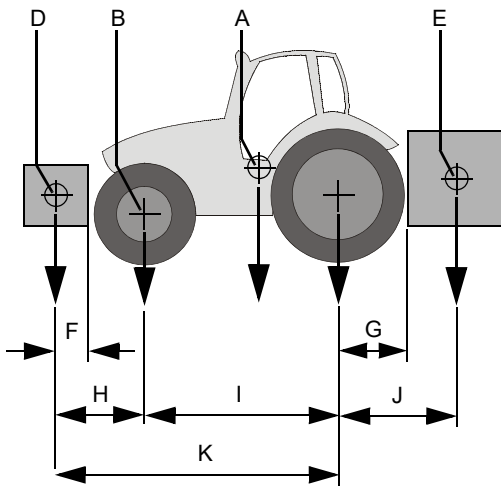
- The tractor's permissible total weight is not exceeded.
- The permissible loads on the front or rear axle are not exceeded.
- The permissible tire pressure is not exceeded.
- The permissible carrying capacity of the tires is not exceeded.
- The minimum load on the tractor's front axle must not be less than that stated by the tractor manufacturer.
- The minimum load on the tractor's rear axle must not be less than that stated by the tractor manufacturer.



Also take the weight of water in the tires, optional equipment etc., into account.

Before starting to use the machine, the tractor must be checked for compliance with the above conditions.

About the machine



Most of the measurements and weight specifications in the diagram can be found in the tractor's instruction manual. If, however, this is not the case, you should contact the relevant tractor dealer to obtain the missing information.

| | Specification | Unit |
|----------|-------------------------------------------------------------------------------|-----------|
| A | Tractor unladen weight (see instruction manual for the tractor) | kg / lb |
| B | Weight, front axle (see instruction manual for the tractor) | kg / lb |
| C | Weight, rear axle (see instruction manual for the tractor) | kg / lb |
| D | Unladen weight on front-mounted machine (see "Machine specifications") | kg / lb |
| E | Unladen weight on rear-mounted machine (see "Machine specifications") | kg / lb |
| F | Distance from lifting eyes to the center of the front-mounted machine | cm / inch |
| G | Distance from center of the rear axle to lifting eyes/hitch on tractor | cm / inch |
| H | Distance from center of the front axle to center of the front-mounted machine | cm / inch |
| I | Distance between front and rear axle | cm / inch |
| J | Distance from center of the rear axle to center of the rear-mounted machine | cm / inch |
| K | Distance from center of the rear axle to center of the front-mounted machine | cm / inch |

Calculation

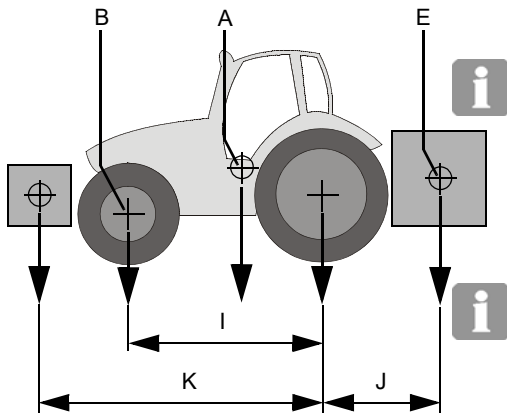
The values "A" to "K" can be inserted in formulae.

Front ballast for rear-mounted machine

Calculation of the front ballast for rear-mounted machine.

Front ballast [kg/lb]:

$$\frac{(E \times J) - (B \times I) + ((A \times 0,2) \times I)}{K}$$



It is recommended that the smallest permissible load [kg] on the tractor's front axle is at least 20% of the tractor's unladen weight [A]. Information can be found in the instruction manual for the tractor.

→ »Estimation« Page 35

→ »Carrying capacity of the tires« Page 35



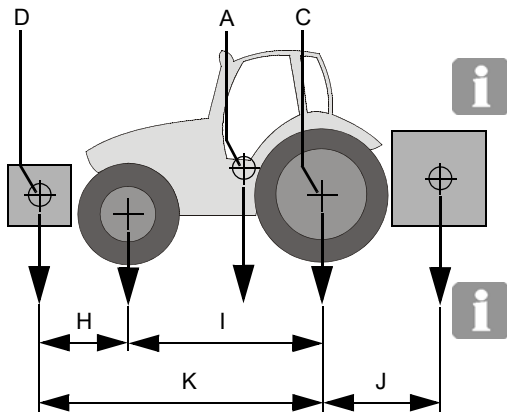
The calculation is only a guide.

Rear ballast for front-mounted machine

Calculation of the rear ballast for front-mounted machine.

Rear ballast [kg/lb]:

$$\frac{(D \times H) - (C \times I) + ((A \times 0,45) \times I)}{I + J}$$



It is recommended that the smallest permissible load [kg] on the tractor's rear axle is at least 45% of the tractor's unladen weight [A]. Information can be found in the instruction manual for the tractor.

→ »Estimation« Page 35

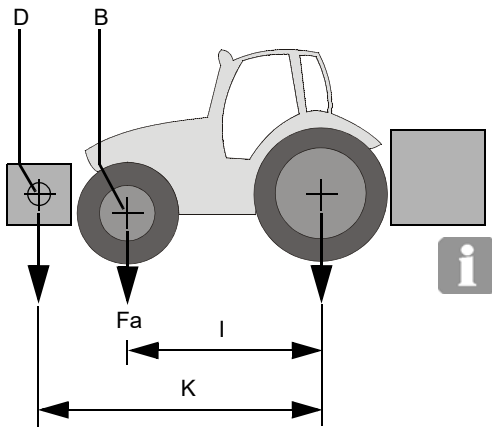
→ »Carrying capacity of the tires« Page 35



The calculation is only a guide.

About the machine

Load on the front axle



Calculation of the actual load on the front axle (Fa).

Actual load on the front axle (Fa) [kg/lb]:

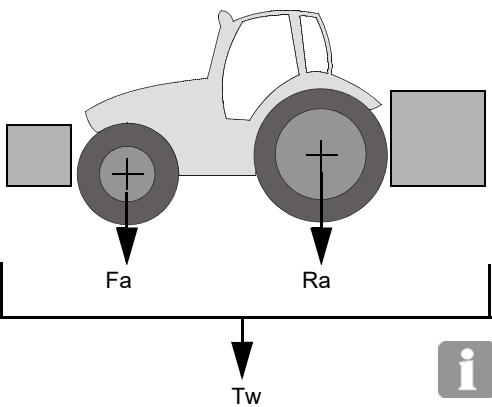
$$F_a = \frac{B + D \times K}{I} - \frac{D \times K}{I}$$

- »Estimation« Page 35
- »Carrying capacity of the tires« Page 35



The calculation is only a guide.

Load on the rear axle



Calculation of the actual load on the rear axle (Ra).

Actual load on the rear axle (Ra) [kg/lb]:

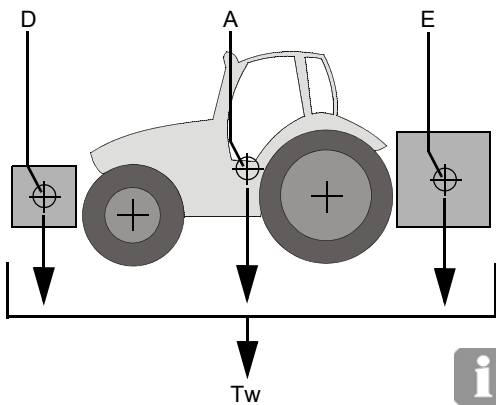
$$R_a = T_w - F_a$$

- »Estimation« Page 35
- »Carrying capacity of the tires« Page 35



The calculation is only a guide.

Total weight



Calculation of the vehicle total all-up weight (Tw).

Total all-up weight (Tw) [kg/lb]:

$$T_w = D + A + E$$

- »Estimation« Page 35
- »Carrying capacity of the tires« Page 35



The calculation is only a guide.

Carrying capacity of the tires

Information on the carrying capacity for front and rear tires respectively can be found in the tire manufacturer documentation.



- The carrying capacity for front tires gives the maximum permissible load for one front tire.
 - With a normal wheel configuration on the tractor's front axle (2 wheels in total), the maximum permissible carrying capacity of the tire is multiplied by 2.
 - If dual wheels are fitted on the tractor's front axle (4 wheels in total), the maximum permissible carrying capacity of the tire is multiplied by 4.



- The carrying capacity for rear tires gives the maximum permissible load for one rear tire.
 - With a normal wheel configuration on the tractor's rear axle (2 wheels in total), the maximum permissible carrying capacity of the tire is multiplied by 2.
 - If dual wheels are fitted on the tractor's rear axle (4 wheels in total), the maximum permissible carrying capacity of the tire is multiplied by 4.

Estimation

- The actual load [kg/lb] on both front and rear axle must not exceed the maximum permissible loads given in the instruction manual for the tractor.
- The tire carrying capacity [kg/lb] (front and rear) must be higher than the maximum permissible loads on the front and rear axle given in the instruction manual for the tractor.
- The actual total weight [kg/lb] must not exceed the maximum permissible total weight given in the instruction manual for the tractor.



If this requirement is not observed, machines must not be fitted to this tractor.

Preparation

Preparing the machine

The machine is divided into its main components for transport to the user. The machine must be assembled in accordance with the specific assembly instructions delivered with each machine.



CAUTION

Do not attempt to assemble the machine alone

Personnel must be trained before assembling the machine. Do not carry out assembly work alone. The following must be observed to ensure that the machine is in good working order:

- Adhere to the sequence of the work steps.
- Adhere to the tolerances and tightening torques of bolts, screws and component parts of the machine.
- Knowledge of occupational safety when assembling the machine.

Incorrect assembly can cause accidents or damage to the machine.



If any parts are missing or were damaged during transport, kindly contact the distributor, importer or manufacturer without delay.

| Parts checklist | Number |
|--------------------|------------------|
| P.T.O. shaft | 2 |
| Instruction manual | 1 |
| Spare parts book | 1 |
| Additional parts | See packing list |

Instruction manual

The instruction manual is a part of the machine and must always be kept on or at the machine.

Length of PTO shaft



WARNING

Stop the tractor and secure it

Before uncoupling:

- ▶ Disengage the P.T.O. on the tractor.
- ▶ Lower the implement to the ground.
- ▶ Place the hydraulic controls in neutral.
- ▶ Stop the tractor.
- ▶ Remove the ignition key.
- ▶ Set the parking brake.
- ▶ Secure the tractor to prevent it from rolling.

Failure to secure the tractor to prevent it from rolling could endanger lives.



Checking the angle of the lock

The PTO shaft has a wide hinged joint which gives the tractor a steering angle of up to 80°. Ensure that the PTO shaft is not damaged when performing sharp turns. This can result in damage to the machine.

Correct length

If the PTO shaft is too long, it must not be used. It will damage the tractor and the machine.



The length of the PTO shaft is factory-set, and is suitable for virtually all types of tractor. Only in exceptional cases is it necessary to adjust the P.T.O. shaft in order to get the correct length for the particular tractor. Check the length of the P.T.O. shaft on each tractor before using it for the first time.

Check the length of the PTO shaft



- ▶ Connect the machine to the tractor without the PTO shaft.
- ▶ Stop the tractor, remove the ignition key and secure the tractor to prevent it from rolling.

Refer to the manufacturer's user manual included with the P.T.O. shaft.

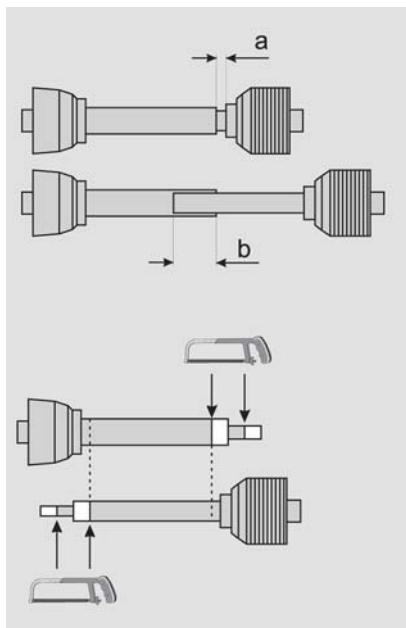
User manual for the P.T.O. shaft

The P.T.O. shaft comes with a user manual from the manufacturer. The user manual contains detailed information on the version of the P.T.O. shaft in question, maintenance and a description of how the length of the P.T.O. shaft can be adjusted to the tractor.

The description and information in the user handbook must be observed.

Preparation

Shorten the PTO shaft

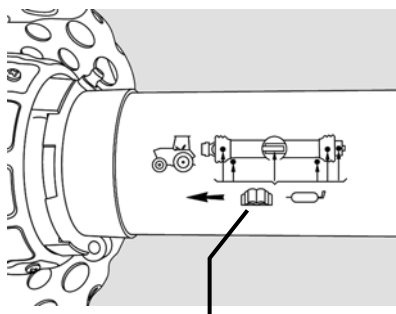


Refer to the manufacturer's user manual included with the P.T.O. shaft.

→ »User manual for the P.T.O. shaft« Page 37

| | |
|----------|----------------------|
| a | Minimum 20 mm (0.8") |
| b | Minimum 200 mm (8") |

Installing the PTO shaft



Marking of protective tubes

WARNING

Initial connection of the machine

Exercise caution when a new machine is connected for the first time. Make sure that all safety instructions are complied with.

Following the safety instructions will increase your personal safety.

Failure to follow the safety instructions may result in serious injuries and accidents.

Ensure that the PTO shaft is fitted in the correct position. This is indicated by a marking on the PTO shaft's protective tube.

- ▶ Attach the P.T.O. shaft to the machine's P.T.O. input shaft.
- ▶ Attach the P.T.O. shaft to the tractor's P.T.O. outlet.
- ▶ Secure the PTO shaft with a locking pin and safety chain.

Crane lifting safety

WARNING

Only use approved lifting devices

Only use approved lifting devices which is properly affixed to the machine.

This increases your personal security.

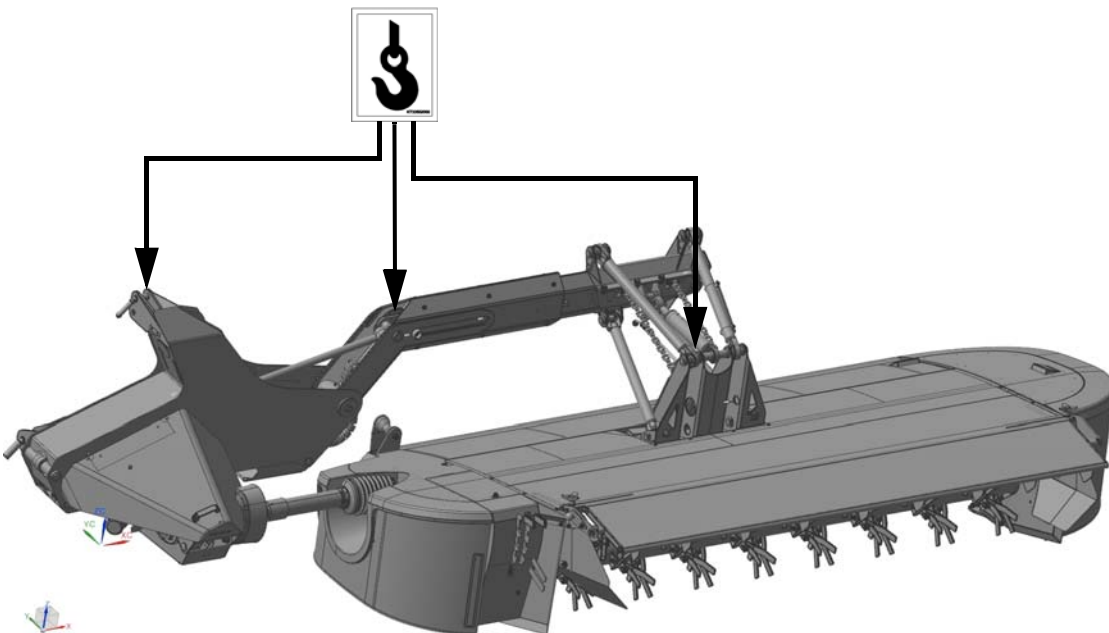
Failure to follow the safety instructions may result in serious injuries and accidents.

If you wish to move the machine, this can be done through the use of crane equipment. The machine is lifted in the following way:
The machine must be in working position as shown.

- ▶ 3 Install approved lifting devices/straps at the locations shown on the machine.
- ▶ Lift the machine carefully free from the ground and move it to the desired location.

Unladen weight of the machine:

→ »Machine specifications« Page 30



Attachment of the tractor



WARNING

Coupling a tractor and a machine together

When connecting the machine and the tractor there is an increased risk of personal injury.

Attention to the task will ensure your safety and that of others. Failure to follow the safety instructions may result in serious injuries.

Therefore, when connecting the machine and the tractor you should:

- Make sure that the tractor can not roll.
- Make sure that the tractor and the machine belong to the same category.
- Never stand between the tractor and the machine during attachment.
- Use the hydraulic three/point suspension slowly and carefully.

Attachment of the machine

When connecting the machine on the tractor there is an increased risk of personal injuries.

Attention to the task will ensure your safety and that of others. Failure to follow the safety instructions may result in serious injuries.

When carrying out an attachment you must make sure that:

- The machine is placed on an even surface.
- The machine is secured with a sturdy support.

WARNING

Connecting the machine

When connecting the machine there is an increased risk of injury. Attention to the task will ensure your safety and that of others. Failure to follow the safety instructions may result in serious injuries.

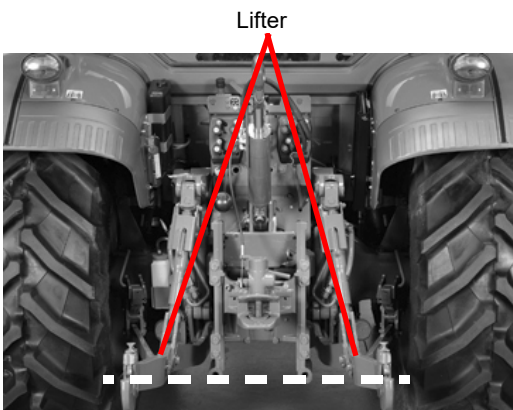
Lock the tractor's lift arms

Lock the tractor's lift arms at the correct height. If the lift arms are at the correct height, it will prevent damage to the PTO shaft and injury to persons in the vicinity. Lowering or raising the lift arms can lead to injury and can damage the PTO shaft.

Only connect the hydraulics when the system is depressurized

You should only connect the hydraulic hoses to the tractor when the hydraulic systems on both the tractor and the machine are depressurized.

There is a risk that the machine will move accidentally. Unintentional movement of the machine may result in serious injuries.

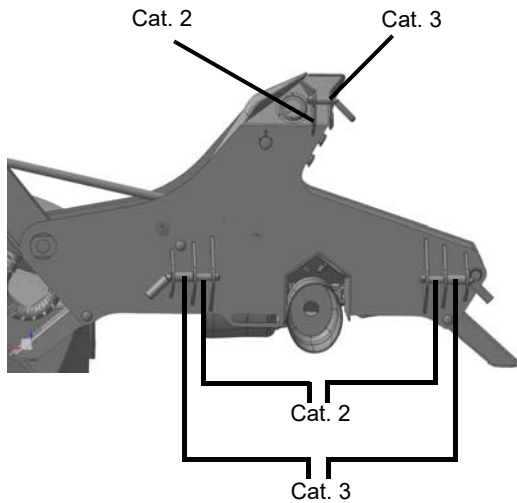


- ▶ Check to see that the tire pressure on the tractor's rear wheel is correct.
- »Check the tire pressure regularly« Page 19
- »Permissible total weight of the tractor« Page 31
- As a starting point:
 - ▶ Adjust the right and left lift arm so they are at the same height.

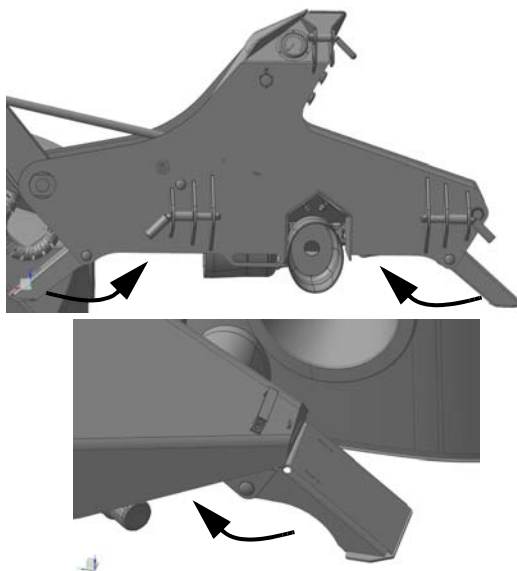
If a pivoting drawbar is mounted on the tractor:

- ▶ Swing the drawbar out to the side or remove the drawbar.
- ▶ Raise or lower the tractor's lift arms until the machine's lifting pins can be attached to the tractor's lift arms.

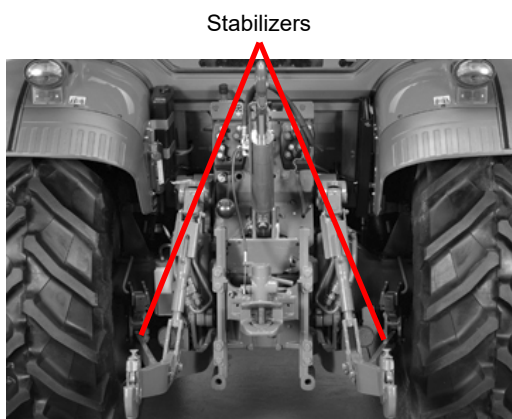
Assembly - attachment



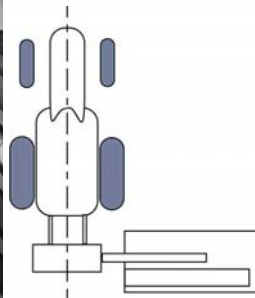
- ▶ The machine is equipped with connection points for both category 2 and 3.
- ▶ Install the machine on the tractor's lifting arms.
- ▶ Lift the machine's mounts up off the ground.
- ▶ Make sure that the tractor's lifting arms are at the same height.
- If not, lower the machine's mounts to the ground again and adjust the tractor's lifting arms.



- ▶ Turn the support leg up as shown.

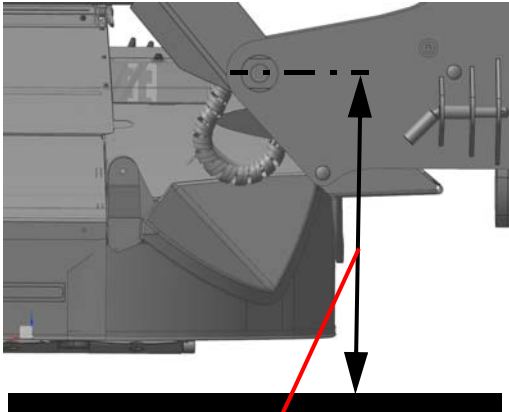


- ▶ Lift the machine well up off the ground.
- ▶ Tighten the tractor's stabilizer so that the machine's upper bar follows the tractor's center line.



Setting the mounting bracket

Working height on the machine



Approx. 800 mm (31.5")

It is important that the machine's mounting bracket is at the correct height above the ground. The correct height is set as follows:

- ▶ Activate the tractor's hydraulics.
- ▶ Lift or lower the machine's mounting bracket until the specified height is shown.



Chain

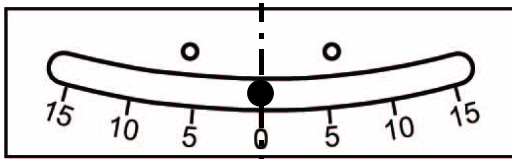
- ▶ Lock and lift arms with a chain between the lifting arm and the highest point.

* Optional equipment.

→ »Optional equipment« Page 133

Assembly - attachment

Angle of the machine



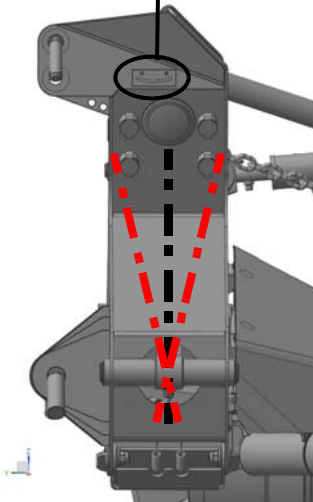
Henceforth, the machine's angle shall be checked. The settings are made as follows:

- ▶ Place the machine at the correct working height
→ »Working height on the machine« Page 43



Initially, the linkage shall be placed in an upright position.

- ▶ Adjust the upper bar so that the linkage is in the position shown.



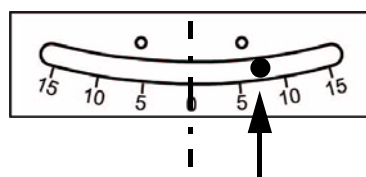
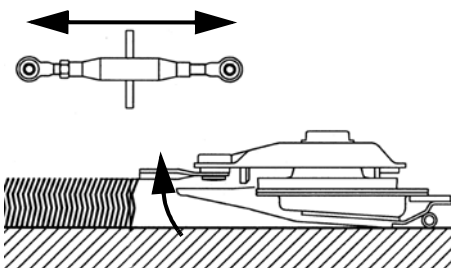
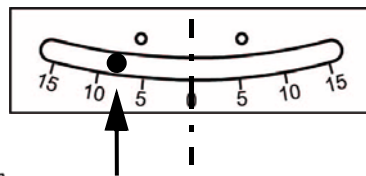
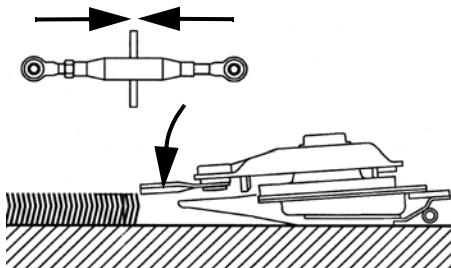
Stubble height

The stubble height is adjusted in the following way:

- ▶ Adjust the upper bar to the desired stubble height.



- If the upper bar is made shorter, the stubble height is reduced
- ▶ If the upper bar is made longer, the stubble height is increased.



Hydraulics

Safety



WARNING

Only connect the hydraulics when the system is depressurized

You should only connect the hydraulic hoses to the tractor's hydraulics when the hydraulic system on both the tractor and the machine is depressurized.

There is a risk that the machine will move accidentally.

Unintentional movement of the machine may result in serious injuries.

Avoid mixing oil

Avoid using different tractors for the same machine.

It can lead to various oil types being improbable mixed.

Improbable mixing of various oil types can damage the hydraulic system of the tractor.

The hydraulic system should be checked regularly

All hoses and fittings should be checked regularly for visible damage.

Hydraulic hoses also wear without any visible damage.

Defective hydraulic hoses can cause injury or fire.

Color markings of the hydraulic connections

The hydraulic connections between the tractor and the machine must be color marked.

By marking the hydraulic connections, you prevent the machine from being incorrectly operated.

Incorrect operation or unintentional movement of the machine may result in serious injuries.

Connecting hydraulics

When connecting the hydraulics there is an increased risk of personal injuries. Paying full attention to the aforementioned point ensures your safety and that of others.

Failure to follow the above instructions may result in serious injuries.

Securing the hydraulics in transport position

The tractor hydraulic system must not be activated unintentionally in transport position.

Accidental activation of the tractor hydraulic system can result in unexpected movement.

Unexpected movement can result in injuries.

Assembly - attachment

Hydraulic connection

WARNING

Checking that the hydraulic system is correctly connected
Ensure that the hydraulic system is correctly connected. Otherwise, this can cause injuries, and damage to the machine.

- ▶ Stop the tractor and remove the ignition key.



Stop the tractor and remove the ignition key.

The tractor shall be equipped with 2 sets of double-action outlets:

| Hydraulic outlet on the tractor | | | Function |
|----------------------------------|---|------|-----------------------------------|
| Double-action hydraulic outlet 1 | A | Red | Raise/lower (turning on headland) |
| | | | Working- / Transport position* |
| Double-action hydraulic outlet 2 | B | Blue | Adjustment of balancing pressure |

* Combined with pulling the cord / activating electrical contact**.
→ See page 48

Only Vario

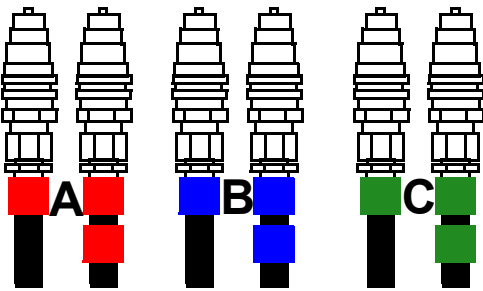
| Hydraulic outlet on the tractor | | | Function |
|----------------------------------|---|-------|-----------------------------------|
| Double-action hydraulic outlet 1 | A | Red | Raise/lower (turning on headland) |
| | | | Working- / Transport position* |
| Double-action hydraulic outlet 2 | B | Blue | Adjustment of balancing pressure |
| Double-action hydraulic outlet 3 | C | Green | Side shift |

* Combined with pulling the cord / activating electrical contact**.
→ See page 48

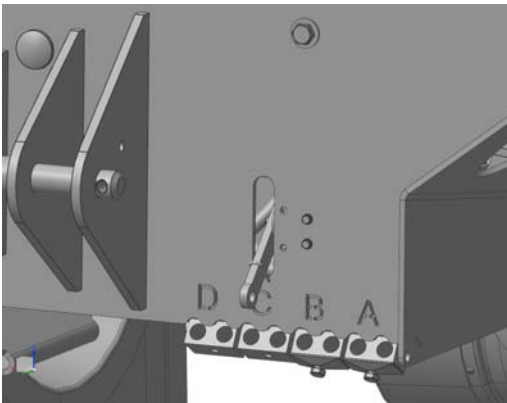
** Optional equipment
→ »Optional equipment« See page 133

Assembly - attachment

► Connect the machine's hydraulic system to the tractor.



| No. | Color | Hydraulic outlet Tractor |
|-----|-------|--------------------------|
| A | Red | Double-action outlet 1 |
| B | Blue | Double-action outlet 2 |
| C* | Green | Double-action outlet 3 |



* Only Vario

Assembly - attachment

Initial startup of machine

WARNING

The initial test drive of the machine is important

When the machine is connected to the tractor for the first time it must be test driven.

Attention to the task will ensure your safety and that of others. Failure to follow the safety instructions may result in serious injuries.

Do not remove the protective guards

Check that all protective guards are in place before use.

This ensures that the machine will offer maximum protection to the operator.

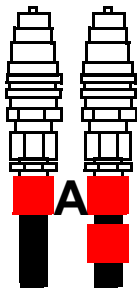
If the safety guards are removed or not used, it may result in serious injuries and accidents.

The guard for the harvester must be correctly positioned before start up

The guard for the harvester must be folded down and correctly positioned before the machine is started.

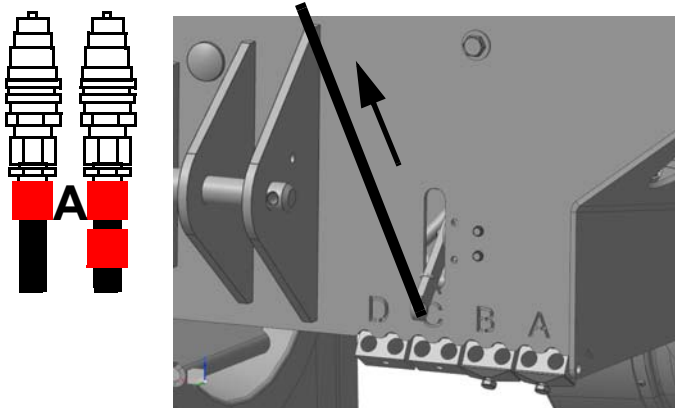
This ensures that the machine will give maximum protection to the operator from thrown objects.

Thrown objects may cause serious injuries and accidents.

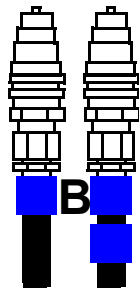
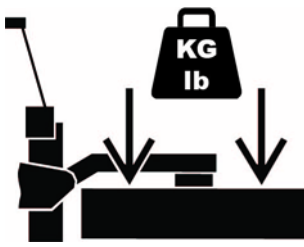


- ▶ Activates hydraulic outlet A (red) on the tractor.
- The machine is raised/lowered for turning on the headland.
- ▶ Carefully connect the tractor's PTO shaft.
- ▶ Carefully increase the speed on the PTO shaft to 1000 RPM.
- ▶ Check that the machine runs smoothly without any vibrations.
- ▶ Reduce the PTO shaft to idle speed.
- ▶ Disconnect the tractor's PTO shaft.
- ▶ Check to see that the tractor's PTO socket has stopped rotating.

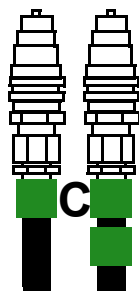
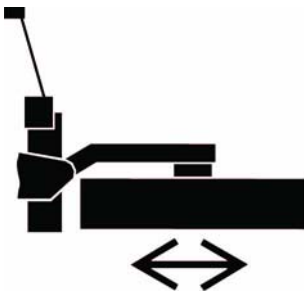
- ▶ Pull cord.
 - ▶ Activate hydraulic outlet A (red) on the tractor.
 - The machine is raised into transport position.
- »Machine in transport position« Page 52



Assembly - attachment



- ▶ Activate hydraulic outlet B (blue) on the tractor.
- The cutter unit's balancing pressure is increased / decreased.



- ▶ Activate hydraulic outlet C (green) on the tractor.
- The machine's cutter unit is shifted 400 mm to the right / left.

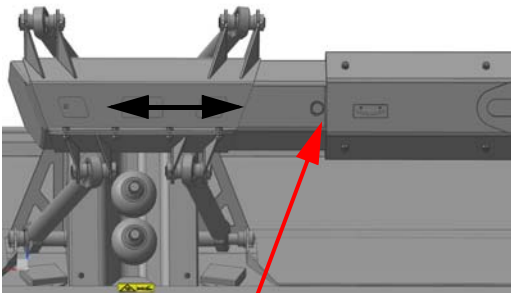
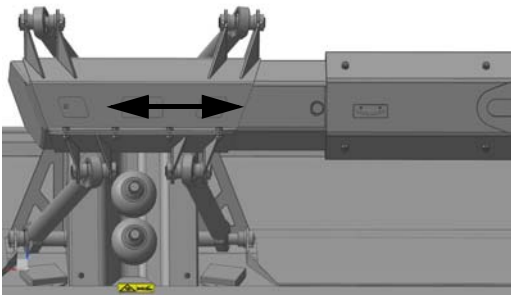
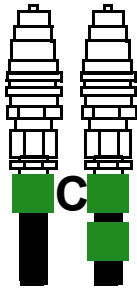
Assembly - attachment

Applies only to Vario

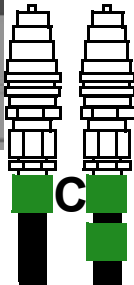
The machine's cutter can be moved up to 400 mm (157") in relation to the tractor by using the tractor's hydraulic system. This provides a better adjustment for a narrow mower installed on the front of the tractor.

How to change the cutting width:

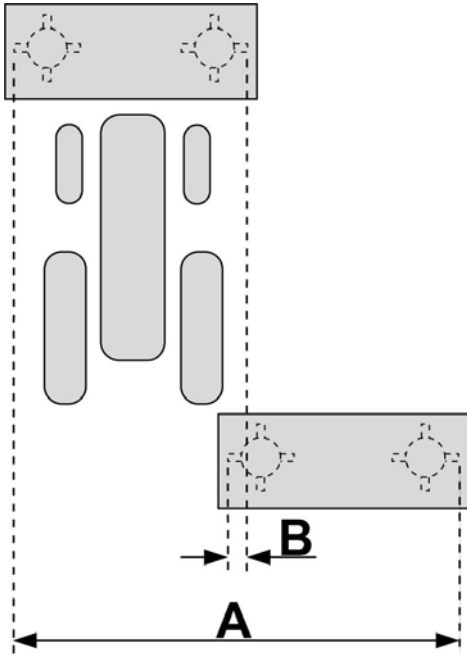
- ▶ Activate the tractor's hydraulic outlet C (green).
- ▶ Slid the arm out into the desired position.



On the arm there is a scale indicating how far the arm is extended. The scale can be read from the tractor's cabin.



Overlap



Upon the operation of a front-mounted machine, one can adjust the machine's overlap via the following table and thereby make optimal use of the total cutting width.

| | | | | Front unit | | |
|-----------|---------------------------|---|----|---------------|---------------|---------------|
| | | | | 2.8 m 110" | 3.2 m 126" | 3.6 m 142" |
| rear unit | 3.2 m 126" | A | cm | 580*-595 | 595*-610 | 615*-630 |
| | | | " | 228*-274 | 234*-240 | 242*-248 |
| | | B | cm | 20*-5 | 38*-23 | 55*-40 |
| | | | " | 8*-2 | 15*-9 | 22*-16 |
| | 3.6 m 142" | A | cm | 615*-630 | 630*-645 | 650*-665 |
| | | | " | 242*-248 | 248*-254 | 256*-262 |
| | | B | cm | 20*-5 | 38*-23 | 55*-40 |
| | | | " | 8*-2 | 15*-9 | 22*-16 |
| | 3.6 m Vario 142" Vario | A | cm | 615-655 | 630-670 | 650-690 |
| | | | " | 242-258 | 248-264 | 256-272 |
| | | B | cm | 20-0 | 38-0 | 50-10 |
| | | | " | 8-0 | 15-0 | 20-4 |

* Factory setting.

Assembly - attachment

Machine in transport position

WARNING

Check the surrounding area before starting to use the machine

Before driving and using the machine the surrounding area should be checked and cleared.

This prevents persons and animals in the vicinity from being harmed.

If the surrounding area is not checked, it may result in serious injuries to persons or animals.

Disconnection of the P.T.O. shaft socket

The tractor's PTO outlet shall be interrupted when the machine is lifted into transport position.

The universal joints on the machine's PTO shafts are forced out over its maximum working angle.

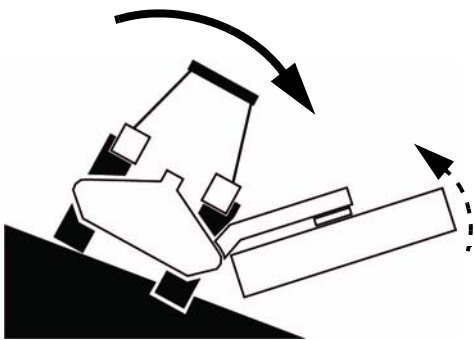
Widespread damage may occur to the machine's main gear and the PTO shaft.

Pay attention to the machine's total height during transport

The machine's total height must not exceed 4 meters (13' 1.5") during transport on public roads.

This ensures that the machine will fit under viaducts, overhead electrical wires and such.

Exceeding the total maximum height can result in serious damage to the machine and injury to the driver of the tractor.



WARNING

Risk of tractor tipping

Never fold the machine into transport position/working position on sloped or soft surfaces.

This places the tractor at risk of tipping.

This may result in serious injury and death.

Risk of tractor tipping

Never drive on sharp curves with a raised cutter at a high speed on sloping and / or soft surfaces.

This places the tractor at risk of tipping.

This may result in serious injury and death.

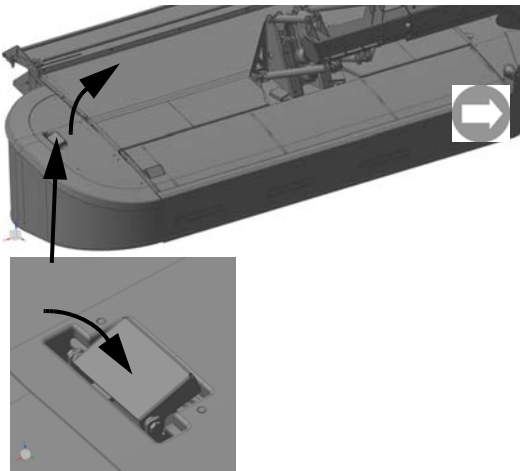
→ »Tractor requirements« Page 30

→ »Permissible total weight of the tractor« Page 31

Assembly - attachment

The machine is placed in its transport mode in the following way:

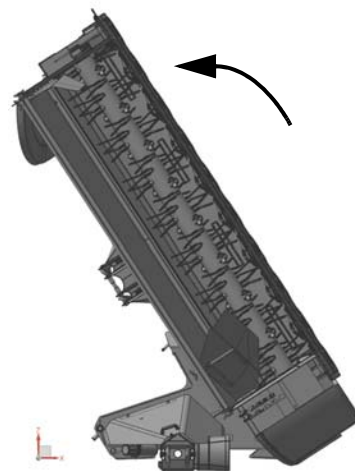
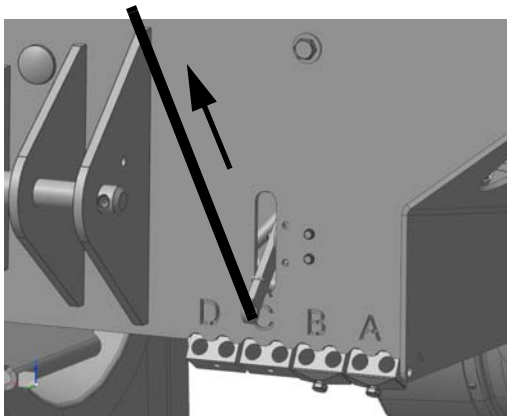
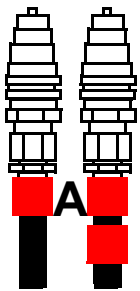
- ▶ Check that the tractor's P.T.O. socket is disengaged and that the machine has stopped rotating.
- ▶ Push the lever down.
- ▶ Open the guard.



In order to reduce the height of the machine during transport, it is recommended that the left guard should be open.

- ▶ Pull cord..
- ▶ Activate hydraulic outlet A (red) on the tractor.
- The machine is raised into transport position.

If the tractor's lifting arms are equipped with shock-absorbing dampers, they should be used during transport; see the tractor's Instruction manual.



Transport on public roads

Safety



WARNING

Read the safety instructions carefully before driving on public road

Before driving on public road, you must read the safety instructions carefully.

This will ensure that dangerous situations and accidents are avoided.

Lack of information can cause accidents.

Pay attention to the machine's total height during transport

The machine's total height must not exceed 4 meters (13' 1.5") during transport on public roads.

This ensures that the machine will fit under viaducts, overhead electrical wires and such.

Severe damage can occur to the machine and injury can be suffered by the driver of the tractor if the total height is exceeded.

General



WARNING

- Comply with the local laws concerning lights, warning reflective requirements.
- The driver and/or the owner of the machine has the responsibility of complying with local requirements for use on public roads.
- The tractor's maneuverability should not be adversely affected. The tractor's steering shaft should bear at least 20% of the tractor's net weight.
- The tractor's braking distance should not be reduced. At least 50% of the vehicle's total weight must rest on the braked wheel.
- Carrying passengers on the machine is strictly prohibited.

Before traveling on public roads

- The machine's hydraulic function must be in neutral and locked.
- Check the surrounding area before starting the machine.

Checking the machine

Before traveling on the road the machine should be checked according to this check list:

Is the outermost guard on the harvester opens to minimize the transport height of the machine?

→ »Machine in transport position« Page 52

Is the machine in the transport mode?

Are the machine's transport safety mechanisms locked?

Are the machine attachment points secured by a pin?

Does the lighting kit of the machine work correctly?

Traveling on public roads



WARNING

- Check the area around the machine before you start. Make sure there are no children or unauthorized persons in the machine's hazard area.
- Do not exceed the maximum permitted speed.
- Adjust the speed according to the road conditions.
- Avoid sudden sideways movement of the machine.
- Make sure that steering and braking ability is sufficient.

Speed when driving on public roads



When driving on public roads with this machine, the speed must be less than 40 km/h (25 mph).



WARNING

The operator should receive careful instructions before using the machine

The machine should only be used if the operator has been given thorough instructions.

Thorough machine instruction allows safe usage.

Insufficient training may lead to incorrect usage of the machine and accidents.

Read the safety instructions before using the machine

Before using the machine, the operator should read the safety instructions carefully.

→ »Safety« Page 7

Attention to the task will ensure your safety and that of others.

Failure to follow the instructions may result in serious injuries.

The guard for the cutting unit must be correctly positioned before start up

The guard for the cutting unit must be folded down and correctly positioned before the machine is started.

This ensures that the machine will give maximum protection to the operator from thrown objects.

Thrown objects may cause serious injuries and accidents.

Do not remove the protective guards

Check that all protective guards are in place before use.

This ensures that the machine will offer maximum protection to the operator.

If the safety guards are removed or not used, it may result in serious injuries and accidents.

Limitation of the tractor's hydraulic flow

Limit the tractor's hydraulic flow.

This avoids any unnecessary overheating and overloading of the hydraulic system.

Overloading of the hydraulic system can result in serious injuries.

Before operating

**WARNING****Make sure that the initial start of the machine is unhindered**

Pay attention to the area around the machine and ensure make sure that it is clear prior to starting.

Paying attention to the area around the machine will prevent injury to persons or animals.

Insufficient attention to the area around the machine can result in serious injuries.

Safety for children

Never assume that children will remain where you last saw them. Be alert and shut your machine down if children are in the work area.

Never allow children to play on or operate the machine.

**WARNING**

The following instructions should be complied with:

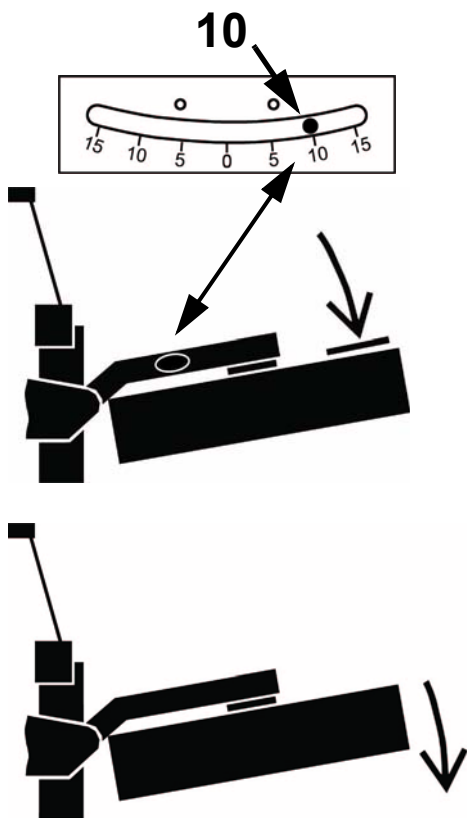
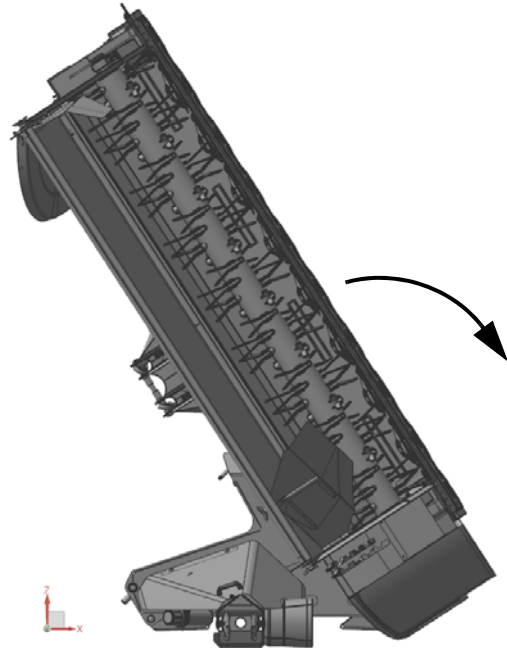
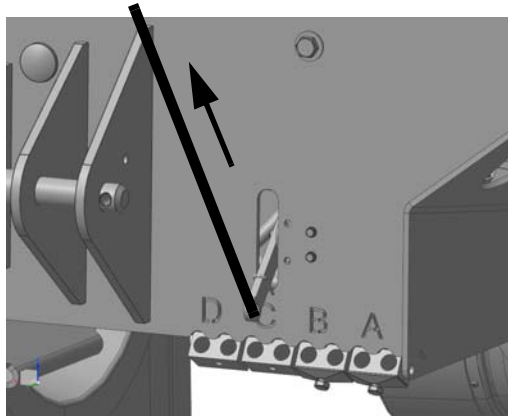
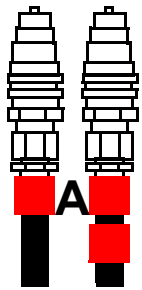
- Check all points mentioned in the “maintenance” section.
 - »Specific safety information« Page 86
 - »Lubrication safety and use of oil« Page 86
- Check blades are not worn down. The blades can be turned so that they get a new cutting edge, as the blades can be used on both sides.
 - »Blades« Page 92

Operation

Machine in Working Position

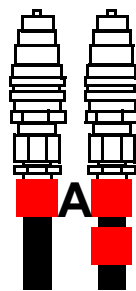
The machine is operated in the following way:

- ▶ The tractor must be placed on a horizontal plane.
- ▶ Make sure that there are no persons in the surrounding area.
- ▶ Pull cord..
- ▶ Activate hydraulic outlet A (red) on the tractor.
- The machine's cutter swings down.

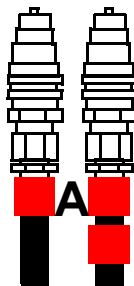


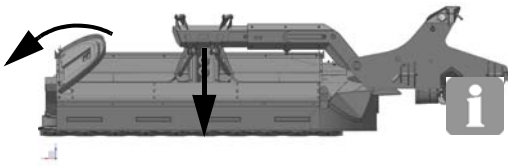
Once the protractor is in the position shown:

- ▶ Stop the activation of the hydraulic outlet!
- ▶ Release the cord.



- ▶ Activate hydraulic outlet A (red) again and allow the machine's cutter unit to swing down into working position.





- ▶ Close the left guard.
- ▶ Make sure that all the machine's guards are closed and in position.
- ▶ Carefully connect the tractor's PTO shaft.
- ▶ Carefully increase the speed of the PTO shaft to 1000 rpm.

If none of the machine's functions are working:

- ▶ Stop the tractor's forward drive.
- ▶ Disconnect the tractor's P.T.O. shaft.
- ▶ Stop the tractor.



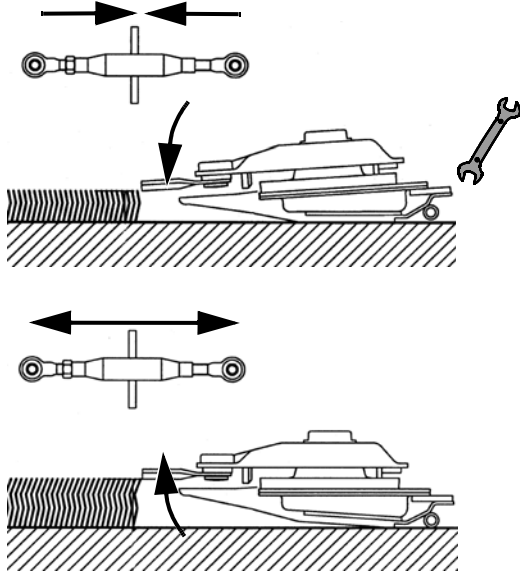
If the machine is too noisy or vibrates too much, stop the machine immediately.

→ »Troubleshooting« Page 137.

Operation

Setting

Stubble height



The stubble height is set as follows:

- ▶ Lower the harvester to the ground.
- ▶ Set the stubble height by adjusting the upper bar.
- If the upper bar is made shorter, the stubble height is reduced
- If the upper bar is made longer, the stubble height is increased.

→ »Stubble height« Page 44

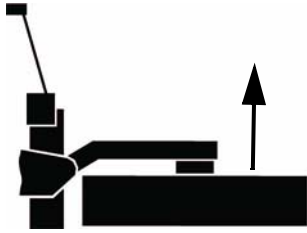
The stubble height can be combined with the installation of high skids, which allows the stubble height to be adjusted as follows:

| Stubble height | Note |
|---------------------------|-----------------------------|
| 20 - -45 mm (0.8 - 1.8") | No skids attached |
| 35 - -65 mm (1.4 - 2.6") | 20 mm (0.8") skids attached |
| 45 - -80 mm (1.8 - 3.1") | 40 mm (1.6") skids attached |
| 65 - -105 mm (2.6 - 4.1") | 60 mm (2.4") skids attached |
| 85 - -130 mm (3.3 - 5.1") | 80 mm (3.1") skids attached |

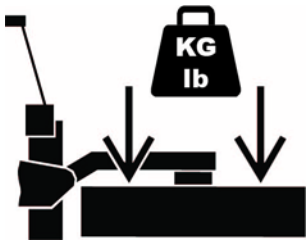
* Optional equipment

→ »Optional equipment« Page 133

Balancing pressure

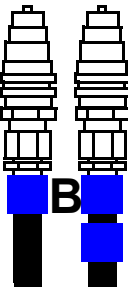


- ▶ Make sure that the machine's mounting bracket is at the correct height.
- »Setting the mounting bracket« Page 43
- ▶ Check that the machine's hydraulic cylinder at the machine's cutter unit is in the outermost position.

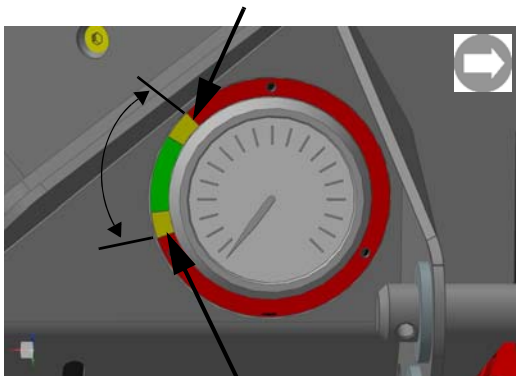


Setting the balancing pressure is done in the following way:

- ▶ Activate hydraulic outlet B (blue) on the tractor.
- The cutter unit's pressure against the ground can now be adjusted.



Low balancing pressure

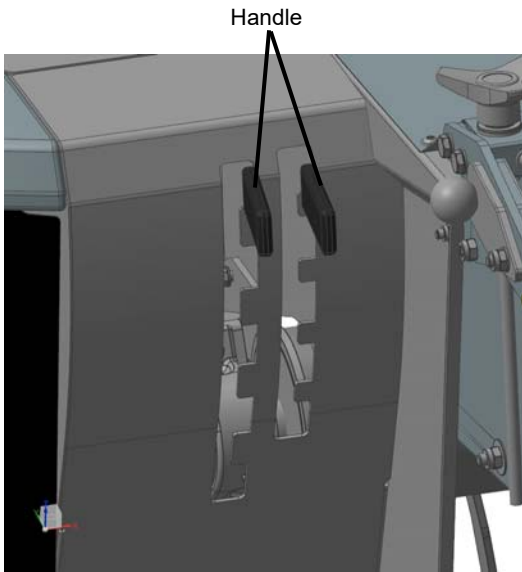


High balancing pressure

It is recommended that the hydraulic pressure should be within the specified range.

Operation

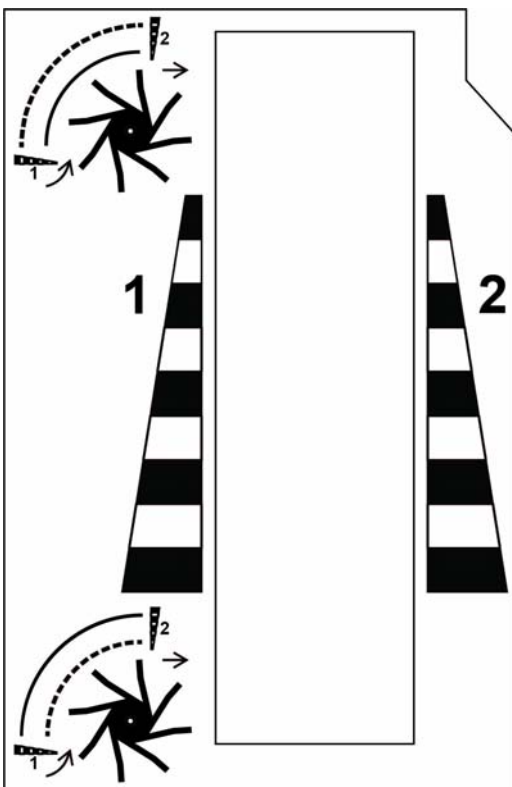
Conditioner plate Only T model



The distance of the conditioner plate to the rotor can be adjusted with two levers.

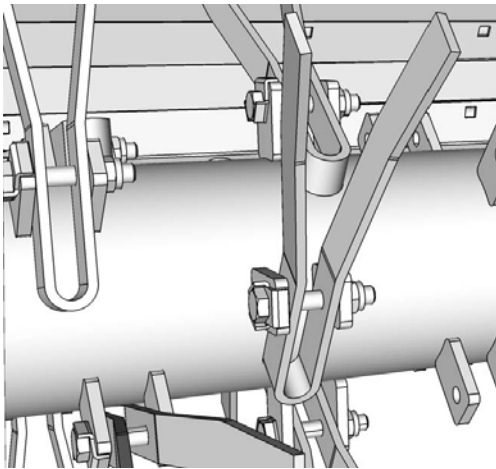
The conditioner plate is set as follows:

- ▶ Pull the lever away from the lock.
- ▶ Set the lever to the desired position.
- ▶ Release the lever.
- ▶ Check that the lever is locked correctly.



- Lever 1 adjusts the front part of the conditioner plate.
 - Lever 1 at the top: the front part of the conditioner plate is completely closed.
 - Lever 1 at the bottom: the front part of the conditioner plate is completely open.
- Lever 2 adjusts the rear part of the conditioner plate.
 - Lever 2 at the top: the rear part of the conditioner plate is completely closed.
 - Lever 2 at the bottom: the rear part of the conditioner plate is completely open.

Rotor Only T model



The rotor can be set to 2 speeds: 1000 RPM or 550 RPM.
The recommended RPM for the rotor should be as follows:

| Type of crop | Rotor RPM |
|------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| <ul style="list-style-type: none"> • Normal crops • Crops with moderate amounts of foliage • Whole crop | 1000 |
| <ul style="list-style-type: none"> • Delicate spring crops • Alfalfa • Clover | 550 |

To ensure the correct conditioning and length of the crop, it is recommended you check the conditioner plate's setting.

→ »Conditioner plate« Page 62



Due to good setting options on conditioner plates, the different crop types can be adjusted without changing the rotor speed.

→ »Conditioner plate« Page 62

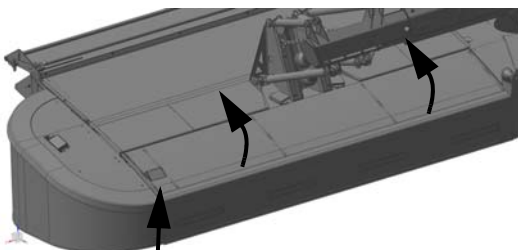
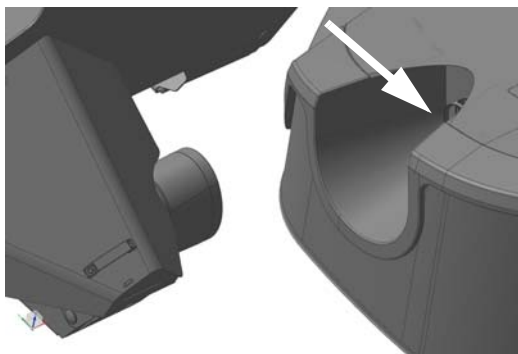
Operation

Rotor RPM

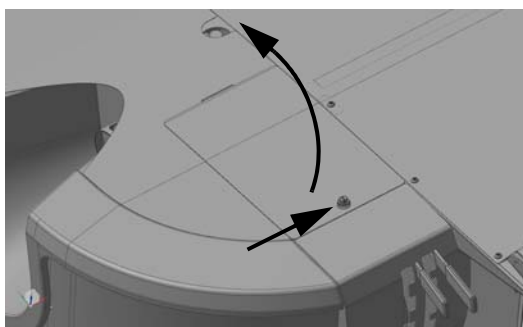
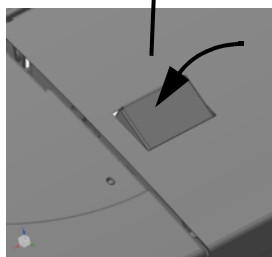
From 1000 RPM to 550 RPM.

The RPM for the rotor can be changed as follows:

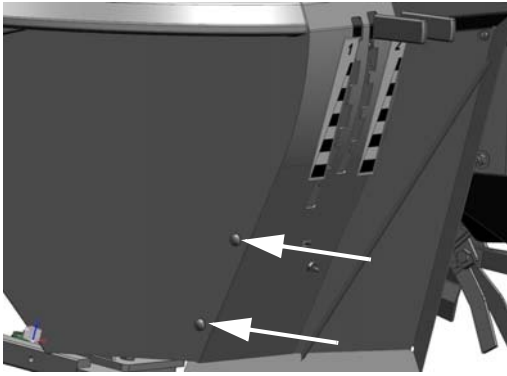
- ▶ Remove the PTO shaft.



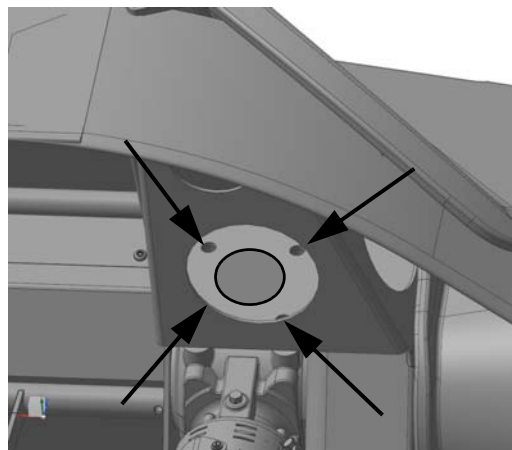
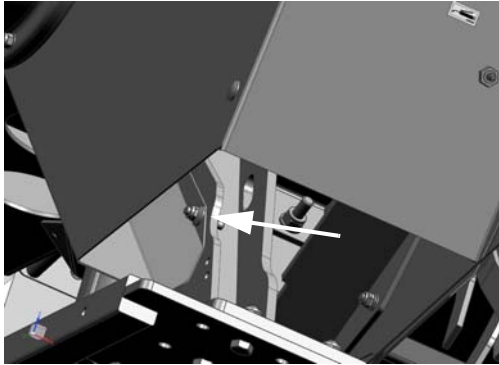
- ▶ Push the lever down.
- ▶ Open the guard.



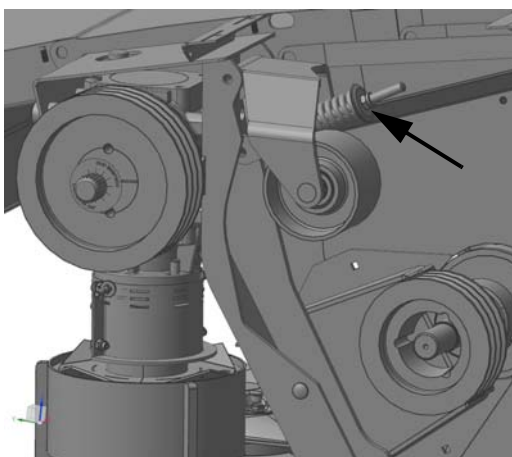
- ▶ Open the cover.



- ▶ Remove the side guard.

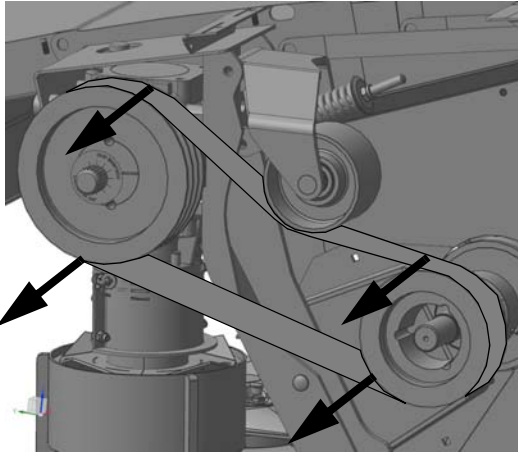


- ▶ Remove the bolts.
- ▶ Disassemble the guard.

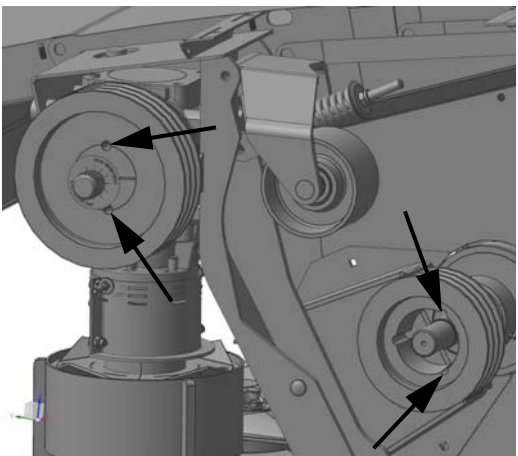


- ▶ Loosen the nut at the spring until all the V-belts are relieved.

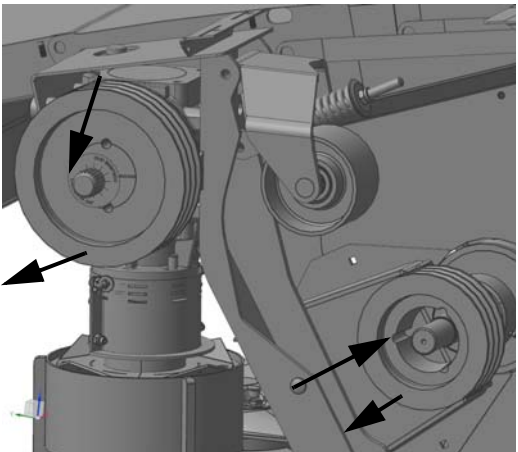
Operation



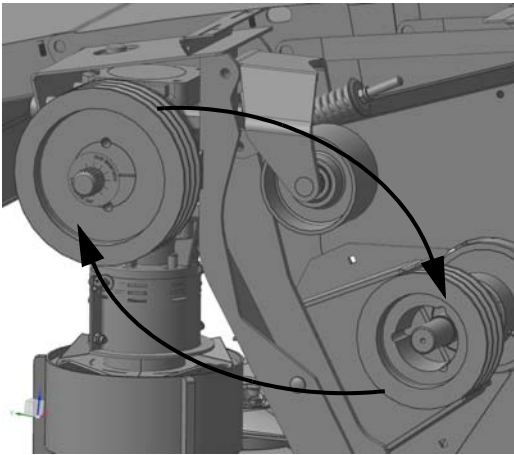
- ▶ Remove the V-belt.



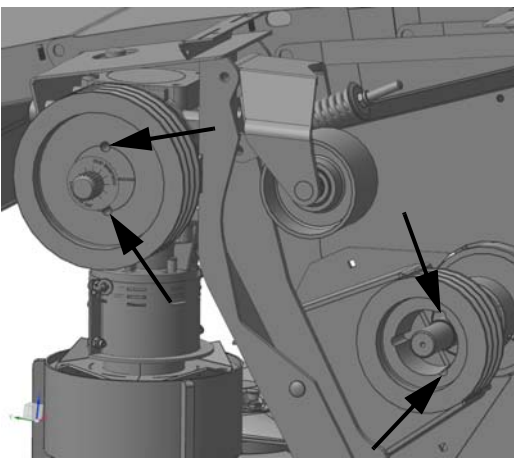
- ▶ Remove all bolts at the V-belt pulleys.



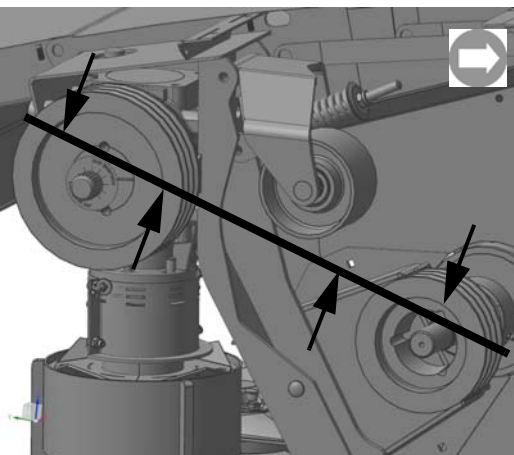
- ▶ Install a bolt in the V-belt pulley as shown and tighten the bolt until the V-belt pulley loosens from the hub.
- ▶ Loosen and remove the bolt.
- This procedure is carried out on both V-belt pulleys.



- ▶ Replace both V-belt pulleys as shown.
- ▶ Attach the V-belt pulleys at the hub.




- ▶ Fasten the bolts in the V-belt pulley as shown.
- ▶ This procedure is carried out on both V-belt pulleys.



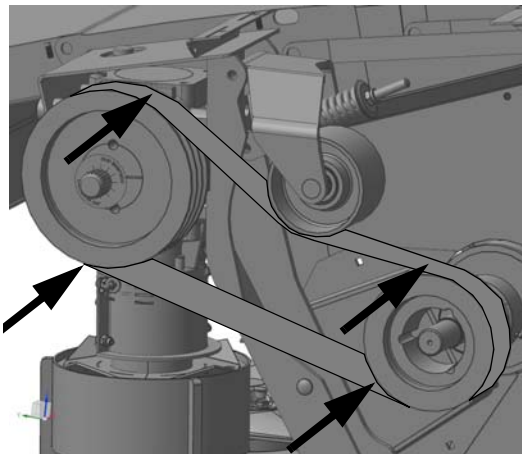
- ▶ Make sure that both pulleys are aligned with each other. Use a straight edge or a ruler.

- ▶ Alternately tighten the bolts on one pulley and make sure that both pulleys are in place.
- ▶ Alternately tighten the bolts on the other pulley and make sure that both pulleys are in place.
- ▶ Make sure that the bolts on the pulleys are tightened to the indicated torque.

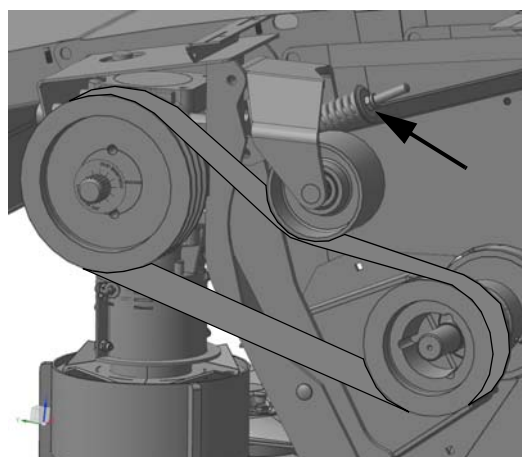
50 Nm
37 ft lb



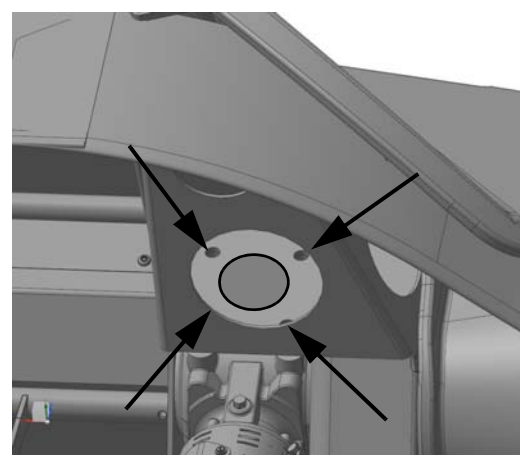
Operation



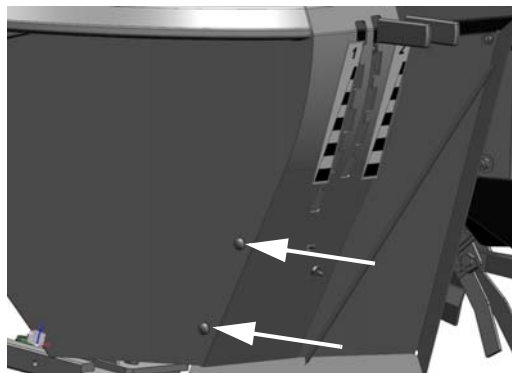
▶ Install the V-belt.



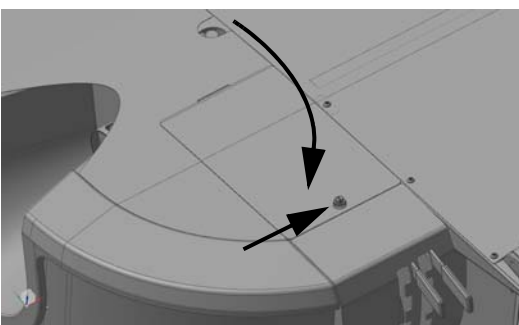
▶ Screw the bolt until the spring is tightened up to the stop.



▶ Install the guard.
▶ Install the bolts.

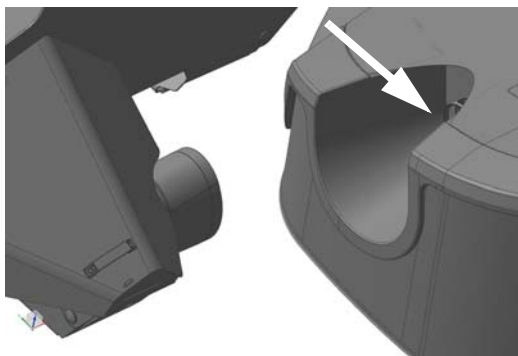


▶ Attach the side guards.

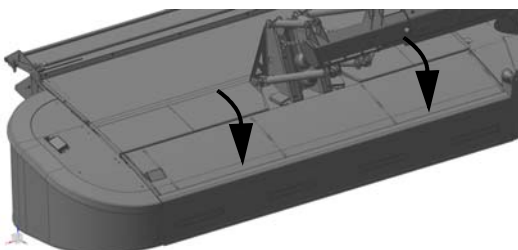


▶ Close the cover.

Operation



▶ Install the P.T.O. shaft.



- ▶ Close the guard.
- ▶ Make sure that the guard is in place and locked.

Rollers
Only R model

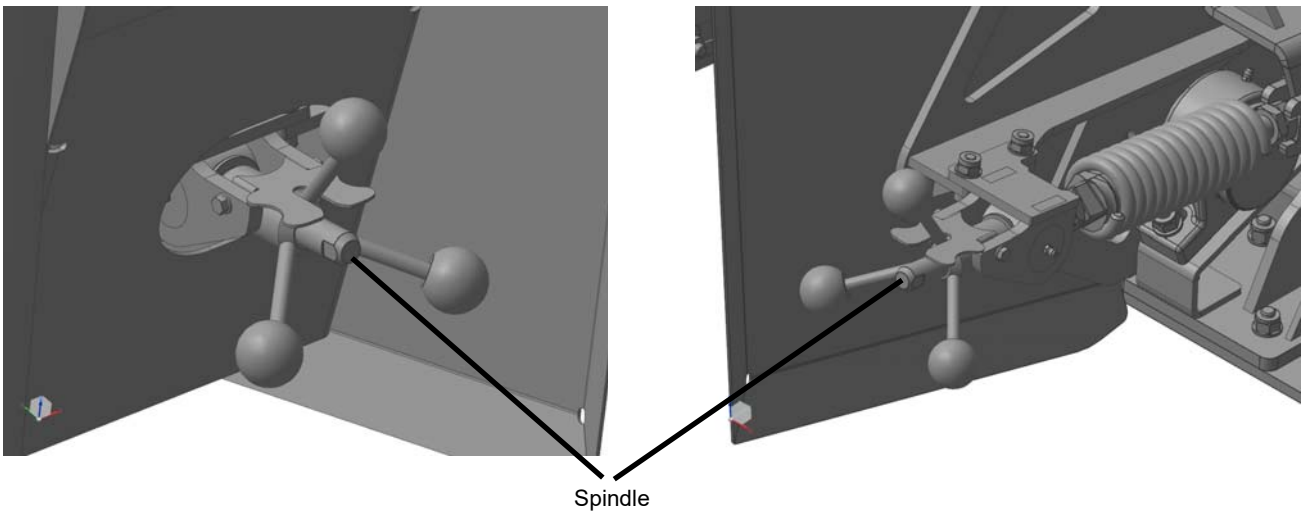
Roller RPM is 1000 RPM.

Roller pressure

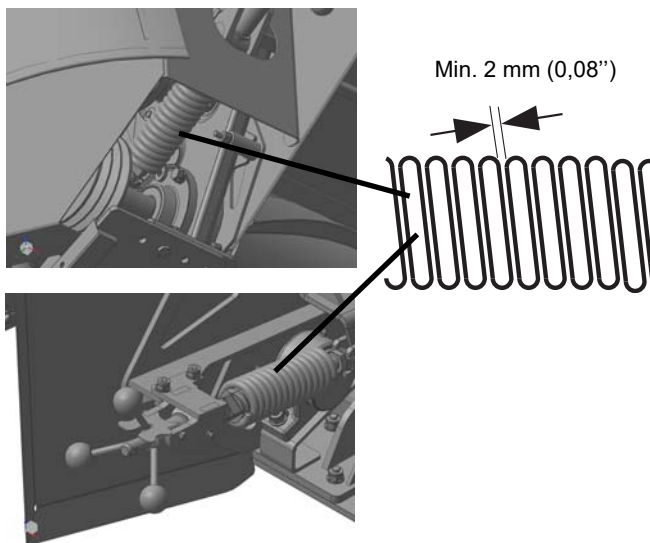
The pressure of the rollers against the crop depends on the type of crop and its characteristics:

- When harvesting a rich crop, the roller pressure must be increased.
- When harvesting clover or other leafy crop, the pressure on the rollers must be decreased.

The roller pressure against the crop is adjusted by means of a handle on either side of the machine.



Coming from the factory, the spring have a standard setting between the springs' coils as shown.



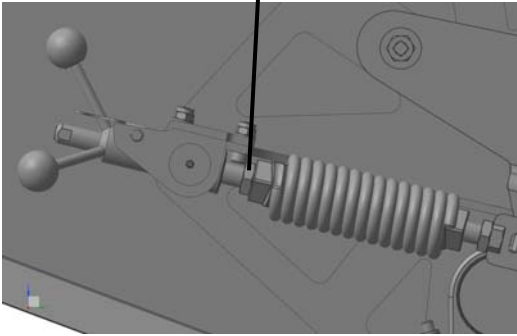
Operation



Changing the roller pressure

The springs' tension shall be the same on both sides of the machine.

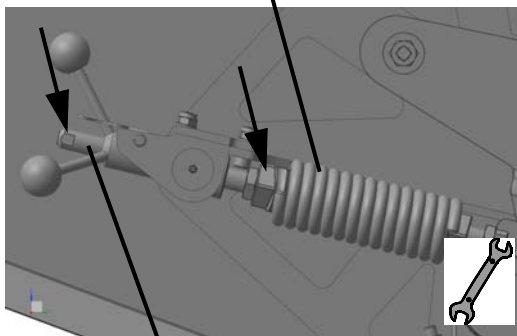
Lock nut



How to adjust the roller pressure:

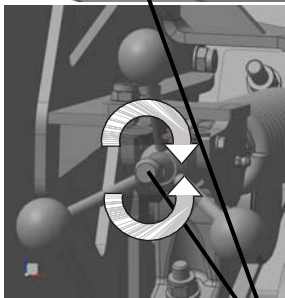
- ▶ Loosen the counter nut.

Spring



- ▶ Place a tool on the spring as shown.
- ▶ Place a tool on the spindle as shown.
- ▶ Turn the spindle with the help of the tool.

- If the spindle is turned clockwise, the roller pressure against the crop increases.
- If the spindle is turned counterclockwise, the roller pressure against the crop decreases.



Spindle

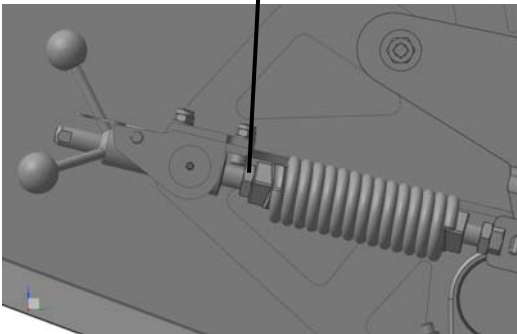


We recommend that you adjust the springs approximately 5 mm (0.2") at a time, after which the roller pressure against the crop is checked.



The springs' tension shall be the same on both sides of the machine.

Lock nut

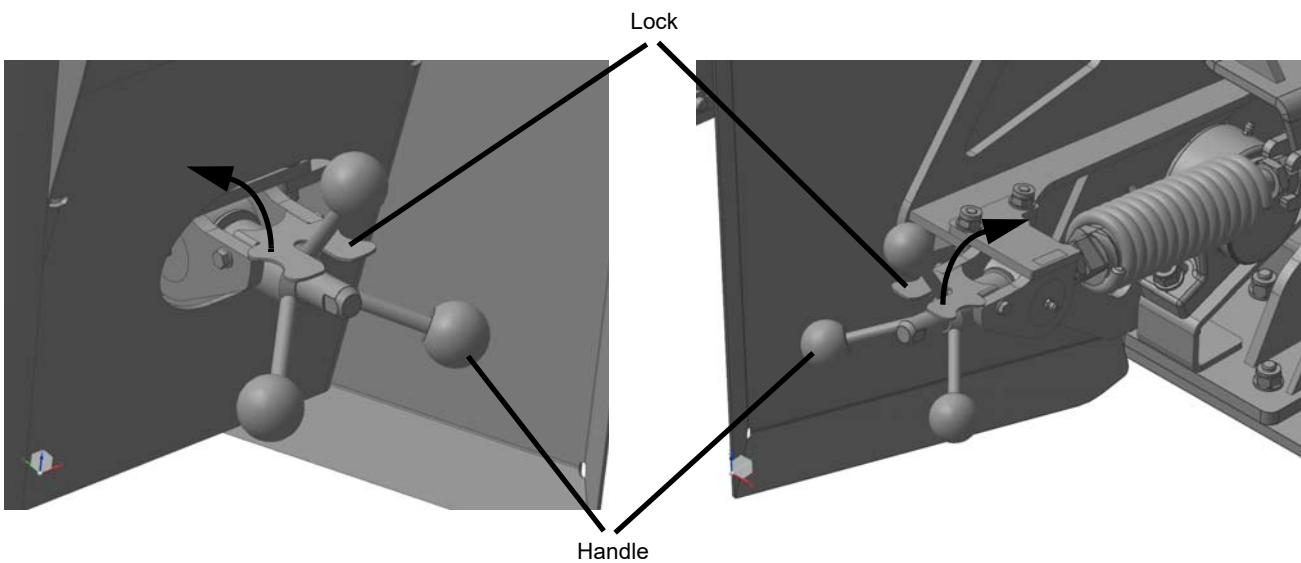


- ▶ Fasten counter-nut.

Distance between rollers

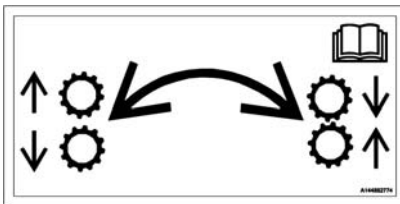
The distance between the rollers is adjusted as follows:

- ▶ Turn and unlock.

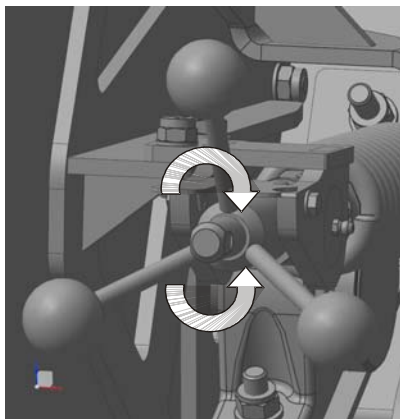


- ▶ Turn the handle.

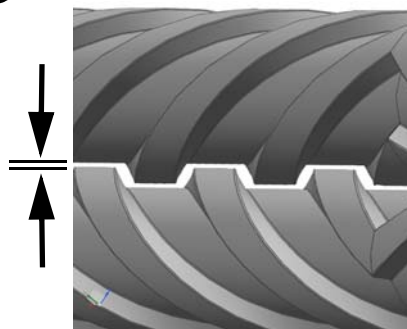
- If the handle is turned clockwise, the distance between the rollers is reduced.
- If the handle is turned counterclockwise, the distance between the rollers is increased.



- ▶ When the handle is turned 1 turn, the distance between the rollers changes by 3 mm (0.1").

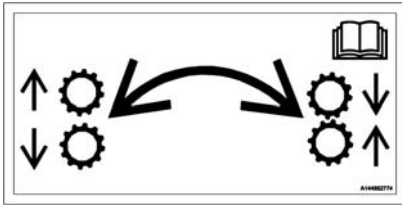


$$\text{⌚} \times 1 = 3 \text{ mm} / 0.1''$$



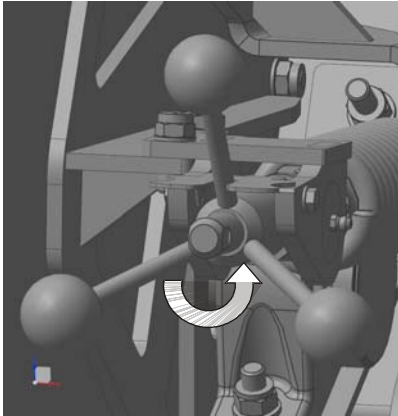
- ▶ Turn the lock downward right after you have finished adjusting.

Operation



The recommended distance between the rollers must be 5-6 mm (0.2-0.24").

- ▶ Turn both handles clockwise until you sense the resistance.
- ▶ Then turn both handles counter-clockwise until the desired distance is obtained.




Examples:

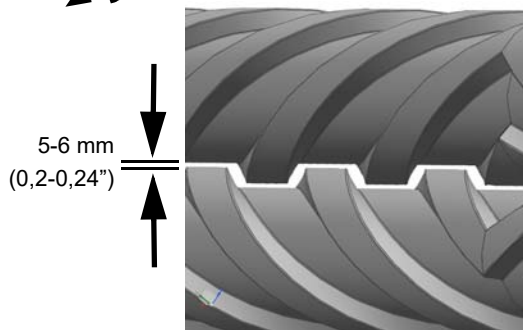
6 mm between rollers is desired:

- ▶ Turn both handles twice counter-clockwise.

If the distance between the rollers wrong::

- ▶ Repeat the procedure.

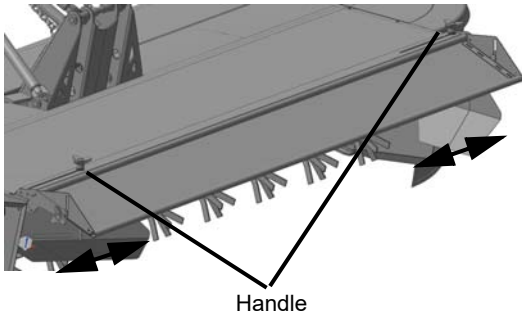
 **x 2 = 6 mm / 0.24"**



Deflector plates

The machine is fitted with 2 deflector plates, making it possible to adjust the cutting swath to suit the following chopper. The cutting width should be as even as possible. The deflector plates are equipped with adjustable plates as shown.

- ▶ Loosen the handle.
- ▶ Adjust the deflector plates to the desired cutting swath.
- ▶ Tighten the handle.



Operation

Spreading device

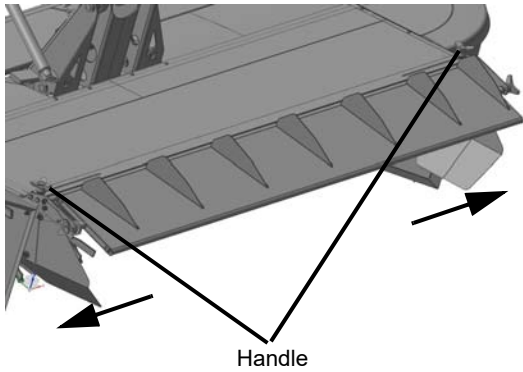
* Only T Vario

The machine is equipped with a spreading device that provides a perfect spread of the crop.

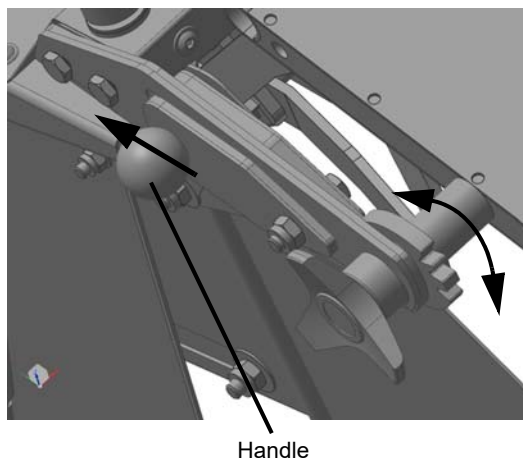
The spreading device is easy to operate and can be swung as desired whether the spreading device is to be used or not.



When the spreading device is used, deflector plates must be adjusted as shown.



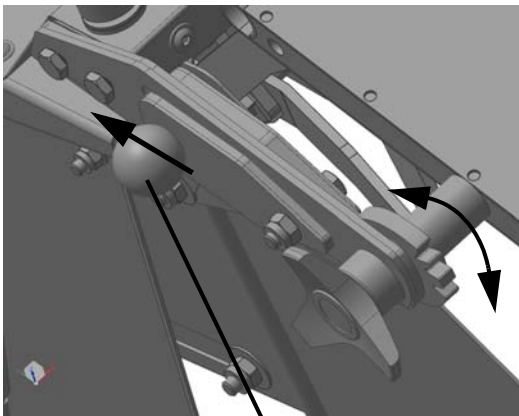
- ▶ Loosen the handle.
- ▶ Move the deflector plates to the widest possible position.
- ▶ Tighten the handle.



- ▶ Push the handle as shown..
- ▶ Turn the equipment around as shown.
- ▶ Release the lever.

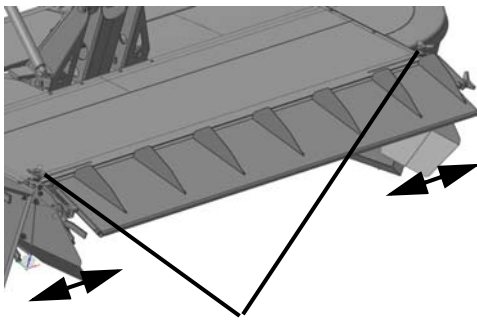
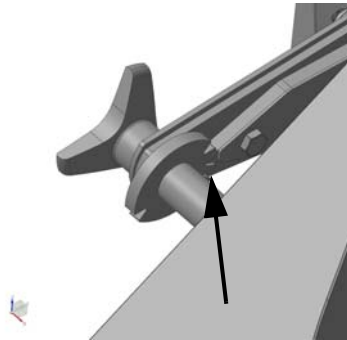
When the spreading device is not to be used, do the following:

- ▶ Push the handle as shown..
- ▶ Turn the equipment around as shown.
- ▶ Release the lever.



Handle

The rear end can be set into 3 different positions.



Handle

- ▶ Loosen the handle.
- ▶ Adjust the deflector plates to the desired cutting swath.
- ▶ Tighten the handle.

Working in the field

WARNING

Check and clear the surrounding area before starting to use the machine

Before driving and using the machine the surrounding area should be checked and cleared.

This prevents persons and animals in the vicinity from being harmed.

If the surrounding area is not checked, it may result in serious injuries to persons or animals.

Keep away from the machine

No unauthorized persons should be close to the machine when active.

This will ensure that no dangerous situations can arise.

Persons close to the machine during operation are at risk of being severely injured.

Do not remove the protective guards

Check that all protective guards are in place before use.

This ensures that the machine will offer maximum protection to the operator from the cutting blades.

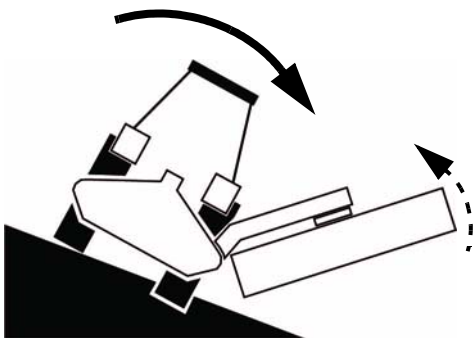
If the safety guards are removed or not used, it may result in serious injuries and accidents.

The guard for the cutting unit must be correctly positioned before start up

The guard for the cutting unit must be folded down and correctly positioned before the machine is started.

This ensures that the machine will give maximum protection to the operator from thrown objects.

Thrown objects may cause serious injuries and accidents.



WARNING

Risk of tractor tipping

Never fold the machine into transport position/working position on sloped or soft surfaces.

This places the tractor at risk of tipping.

This may result in serious injury and death.

Risk of tractor tipping

Never drive on sharp curves with a raised cutter at a high speed on sloping and / or soft surfaces.

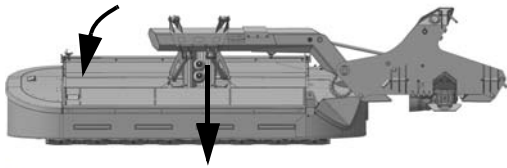
This places the tractor at risk of tipping.

This may result in serious injury and death.

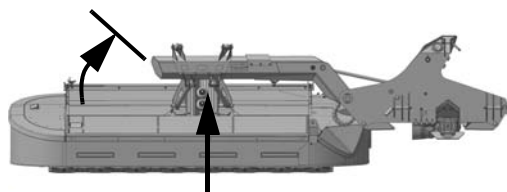
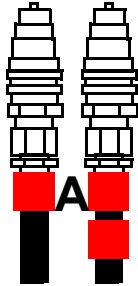
→ »Tractor requirements« Page 30

→ »Permissible total weight of the tractor« Page 31

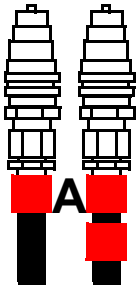
The machine is operated as follows:



- ▶ Activate hydraulic outlet A (red) on the tractor and allow the machine's cutter unit to swing down into working position.
- ▶ Check that all guards on the machine are folded out and correctly positioned.
- ▶ Activate hydraulic outlet A (red) on the tractor and lift the machine's cutter unit until it stops.
- ▶ Connect the tractor's P.T.O. outlet.
- ▶ Carefully increase the speed on the P.T.O. shaft to 1000 RPM.
- ▶ Activate hydraulic outlet A (red) on the tractor and allow the machine's cutter unit to swing down into working position.
- ▶ Find a suitable speed for the tractor and begin to harvest.



- ▶ Activate hydraulic outlet A (red) on the tractor and lift the machine's cutter unit until it stops and then make the turn on the headland.
- ▶ Activate hydraulic outlet A (red) on the tractor and allow the machine's cutter unit to swing down into working position.



Before cleaning



WARNING

Higher risk when cleaning the equipment

When cleaning, there is an increased risk of injury.

Attention when carrying out cleaning work protects your own and others safety.

Failure to follow the safety instructions may result in serious injuries.

Therefore, do the following before cleaning:

- ▶ Disengage the P.T.O. on the tractor.
- ▶ Lower the implement to the ground.
- ▶ Place the hydraulic controls in neutral.
- ▶ Stop the tractor.
- ▶ Remove the ignition key.
- ▶ Set the parking brake.
- ▶ Secure the tractor to prevent it from rolling.

Failure to secure the tractor to prevent it from rolling could endanger lives.

Disconnect the power when cleaning the machine

Always disconnect the power before you start cleaning the machine.

This will prevent short circuits and damage to the electric circuit.

There is a risk of burns and other serious injuries if the electrical systems short circuit.

Protect your body and face when cleaning the machine

Wear the correct protective gear for body and face when cleaning the machine.

This will protect your body and face from dirt and oil splashes.

Insufficient protection of body and face can lead to severe skin and eye injuries.

Before starting to clean the machine do the following:

- Open the guard around the cutting unit.
- Remove all loose material from the machine.

Cleaning



Use the correct cleaning agents

Use only pH neutral cleaning agents when cleaning the machine. pH neutral cleaning agents give your machine maximum protection.

Cleaning agents with either high or low pH value can corrode plastic, rubber and varnished surfaces.

- High pressure cleaning equipment may be used to clean. However, the area around the bearings should be cleaned using gentle squirts of water.
- Hydraulic components should only be cleaned with gentle squirts of water to protect the gaskets.

After cleaning

- Let the remaining water run off for about 1 hour.
- Remove any water which has collected behind the guards.

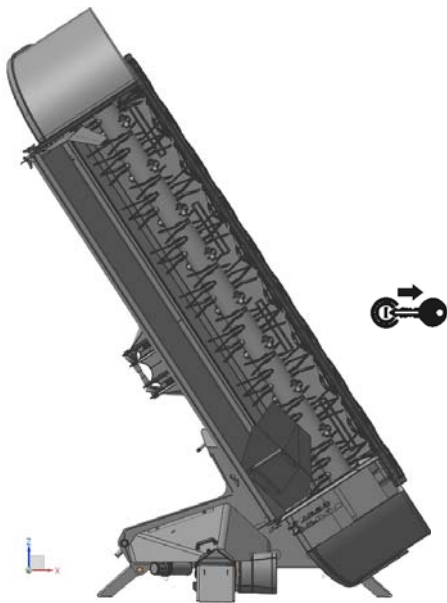
Parking and Storage

Before storage

At the end of the season, the machine should be prepared for storage:

- ▶ Check and tighten all bolts.
- »Torque moment« Page 144
- ▶ Repair any damaged components.
- ▶ Replace any defective components.
- ▶ Repair any damage to the paint work.
- ▶ Lubricate the machine according to the lubrication schedule.
- »Maintenance intervals« Page 88

Parking/ disconnection of the machine



WARNING

Disconnection between the machine and the tractor

There is an increased risk of injury from crushing when disconnecting the machine from the tractor.

Paying full attention when disconnecting ensures your safety and that of others.

Failure to follow the safety instructions may result in serious injuries.

Therefore, when disconnecting make sure that:

- The machine is placed upon a horizontal and level surface.
- The PTO is disengaged.
- all support legs are turned downward.
- Lower the implement to the ground.
- The hydraulic controls is in neutral.
- The tractor is stopped.
- The ignition key is removed.
- The parking brake is set.
- The tractor can not roll after being disconnected.
- Children and unauthorized persons must never be allowed near the machine.

Failure to secure the tractor to prevent it from rolling could endanger lives.

Hydraulics

WARNING

Only disconnect the hydraulics when system is depressurized

You should only disconnect the hydraulic hoses from the tractor's hydraulics if the hydraulic systems on both tractor and machine are depressurized.

There is a risk that the machine will move accidentally.

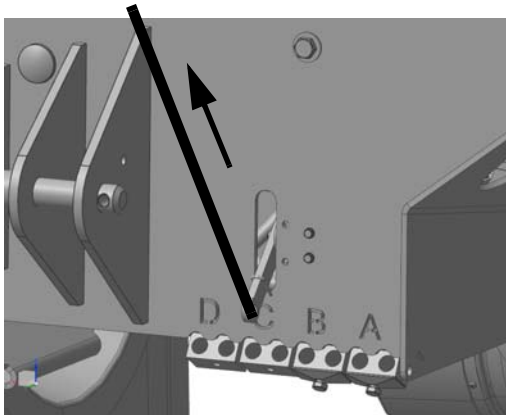
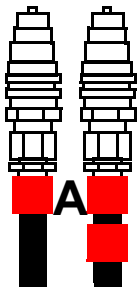
Unintentional movement of the machine may result in serious injuries.

Avoid physical contact with hydraulic oil

Hydraulic oil contains additives that under certain circumstances can have serious consequences for your health. Therefore, when handling hydraulic oil be aware of the following:

- Avoid direct contact with hydraulic oil. It can damage the skin.
- Protect your skin with barrier cream or protective gloves.
- Never use oil or lubricants to clean your hands.
- Clothes contaminated with oil should be changed immediately.
- Oily cloths should not be kept in your pockets.
- Seek medical help for skin injuries or if you come into contact with hydraulic oil under pressure, as such injuries can cause gangrene.

- ▶ Pull cord.
- ▶ Activate hydraulic outlet A (red) on the tractor.
- The machine is raised into transport position / lowered into working position.



Parking and Storage



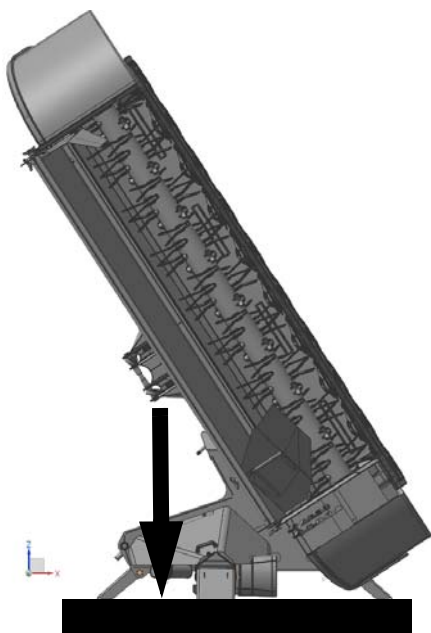
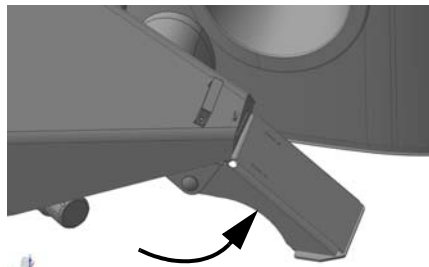
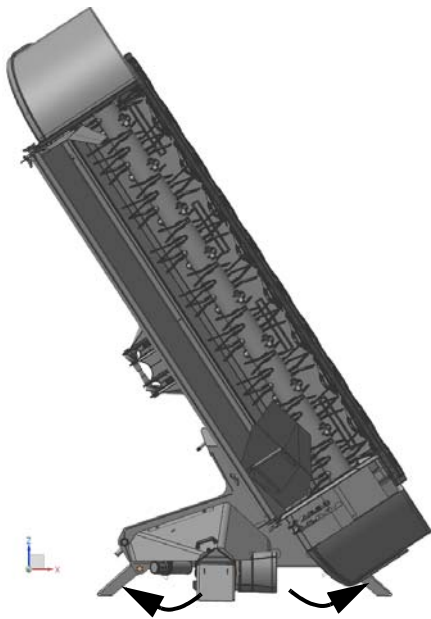
Chain

- ▶ Raise the tractor's lift arm a little bit and remove the chain* between the top point and the lift arm.

* Optional equipment.

→ »Optional equipment« Page 133

- ▶ Turn out all support legs.



- ▶ Activate the tractor's hydraulics and lower the machine down to the ground.
- ▶ Check that the machine's hydraulic system is depressurized.
- ▶ Disconnect the hydraulic connections.
- ▶ Disconnect the upper bar and both lifting arms.

Storage

At the end of the season, the machine is prepared for winter storage. Do the following:

- Clean the machine thoroughly.
→ »Cleaning« Page 80
- Change the oil on the gear.
→ »Lubricants« Page 143
- The hydraulic quick coupling should either be covered with a dust cap or placed in a small plastic bag.
- The PTO shaft is cleaned, lubricated and placed in storage in a dry location in order to prevent damage and breakdown.
- Always check that the machine's safety equipment is not worn or damaged.
- Release as much excess hydraulic pressure from the cylinders, accumulators and hoses as possible.
- Place the machine in a ventilated machine room.

Safety

WARNING

The machine shall be secured when parked

The machine must be correctly secured when parked in storage. A correctly secured machine prevents persons from being run over and other serious accidents.

If the machine is not properly secured when parked it can result in serious injuries and death.

Therefore, when disconnecting make sure that:

- The machine is in working position.
- The machine is placed upon a horizontal and level surface.
- The PTO is disengaged.
- Lower the implement to the ground.
- The hydraulic controls is in neutral.
- The tractor is stopped.
- The ignition key is removed.
- The parking brake is set.
- The tractor can not roll after being disconnected.
- Children and unauthorized persons must never be allowed near the machine.

Failure to secure the tractor to prevent it from rolling could endanger lives.



Maintenance

For your own safety

WARNING

Comply with the service and maintenance intervals given in the instructions

Comply with the intervals for service and maintenance as given in the instructions.

By complying with the maintenance intervals you assure that the machine will operate without malfunctions and give maximum protection to the surroundings.

An incorrectly maintained machine is a danger to personnel and environment.

Specific safety information

WARNING

- Repair and maintenance work should only be carried out by persons with the necessary professional knowledge and the correct tools.
- The PTO on the tractor should be disconnected, and the motor should be stopped.
- Make sure that the hand brake is applied and the ignition key has been removed from the tractor.
- Make sure the machine is secured with the correct support before starting work.
- No one should be in between the tractor and the machine if the machine has not been secured.
- Always use original spare parts on the machine.
- Never use a pressurized grease gun spray to lubricate the machine bearings.

Lubrication safety and use of oil

WARNING

Oils and lubricants contain additives that under certain circumstances can have serious consequences for your health. Therefore, when using oil and lubricants be aware of the following:

- Avoid direct contact with these agents. It can damage the skin.
- Protect your skin with barrier cream or protective gloves.
- Never use oil or lubricants to clean your hands.
- Clothes contaminated with oil should be changed immediately.
- Oily cloths should not be kept in your pockets.
- Used oil must be collected and be delivered to a disposal company, where the oil will be processed according to the governing regulations.
- Seek medical help if skin is injured by oil or lubricants.



General instructions

These instructions concern general maintenance work. Specific maintenance work procedures for each machine will be described later. When performing any maintenance work the machine must be secured in the transport mode. If the work position is necessary for performing maintenance work, you will find appropriate instructions to cover this.



Working with the grease gun

One or two pumps of the grease gun is sufficient for lubrication. If you feel resistance after just one pump with the grease gun do not apply more grease to the bearings. When too much grease is applied, bearings drift apart. In this case dust and dirt can enter the bearings and cause an early wear and tear.

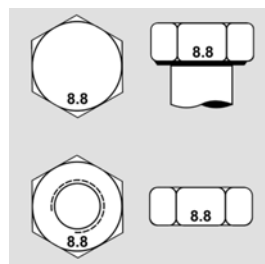
Basic

This table contains explanations of the most important maintenance terms.

| Work | Performance |
|------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lubricating with oil can | Apply oil to the moving parts. Use only authentic products. → »Technical information« Page 143 |
| Lubricating with grease gun | Use only authentic products. → »Technical information« Page 143 |
| Oil change | Use only authorized oil products. Using used oil is dangerous for your health and is strictly prohibited. → »Technical information« Page 143 |
| Replace | Replace the part in question according to the instructions. |
| Check | Check the part in question according to the instructions. The check is sometimes related to the replacement of the part in question |
| Complying with the maintenance intervals | All specifications are based on an average usage of the machine. If heavily loaded, e.g. machine pools, maintenance should be carried out on a more regular basis. In work conditions producing high levels of dust, maintenance should also be carried out on a more regular basis. |

Torque for screw connections

→ »Torque moment« Page 144



Maintenance

Maintenance intervals

| | | Daily | Every 200 hours of operation / once annually | As required | Oil change | Lubrication | Check | Replacement | Page |
|------------------------|-------------------------------|-------|----------------------------------------------|-------------|------------|-------------|-------|-------------|------|
| | Hydraulic hoses every 6 years | | | | | | | • | 15 |
| Cutter | Blades | • | | | | | • | | 92 |
| | | | | • | | | | • | 118 |
| | Cutting disc | • | | | | | • | | 93 |
| | | | | • | | | | • | 120 |
| | Stone guard and counter blade | • | | | | | • | | 96 |
| | | | | • | | | | • | 122 |
| | Tarpaulin | • | | | | | • | | 98 |
| | | | | • | | | • | 131 | |
| Transmission Cutterbar | After 50 working hours | | | | • | | | | 90 |
| | Cutterbar | | • | | • | | | | 100 |
| | Main gear | | • | | • | | | | 102 |
| | Bevel gear | | • | | • | | | | 104 |
| | Roller gear | | • | | • | | | | 106 |
| Lubrication | Drive shaft | | • | | | • | | | 114 |
| | Bearings | | • | | | • | | | 115 |
| | Moving joints | | • | | | • | | | 116 |
| Cone | External | • | | | | | • | | 94 |
| | Internal | | • | | | | • | | 109 |
| Rotor / Roller | Y - fingers | • | | | | | • | | 95 |
| | | | | • | | | | • | 124 |
| | Rollers | • | | | | | • | | 96 |
| | V-belt | • | | | | | • | | 97 |
| | | | | • | | | • | 125 | |
| Other | Drive shaft | | • | | | | • | | 111 |
| | | | | • | | | | • | 128 |

WARNING

Safety in connection with maintenance work on the machine
When working on the machine the tractor must be stopped and secured.

This prevents the PTO shaft from suddenly starting to rotate. Failure to follow the safety instructions may result in serious injuries.

When working on the transmission:

- The P.T.O. is disengaged.
- Lower the implement to the ground.
- The hydraulic controls is in neutral.
- The tractor engine must be stopped.
- The ignition key is removed.
- The parking brake is set.
- Secure the tractor to prevent it from rolling.

Failure to secure the tractor to prevent it from rolling could endanger lives.

Always use original spare parts on the machine

Always use original spare parts.

Original spare parts should be used for safety reasons.

The manufacturer's warranty becomes void if non-original spare parts are used.

Make sure that all protective guards are in place

Check that all protection guards are in place.

This ensures that the machine will offer maximum protection to the operator.

If the safety guards are removed or not used it may result in serious injuries and accidents.



PTO shaft check



Refer to the manufacturer's user manual included with the P.T.O. shaft.

→ »User manual for the P.T.O. shaft« Page 37

After 50 working hours



WARNING

Safety concerning maintenance work on the cutterbar

When working on the cutterbar, the tractor must be stopped and secured.

This prevents the machine parts from suddenly starting to rotate. Failure to follow the safety instructions may result in serious injuries.

When working on the cutterbar:

- The P.T.O. is disengaged.
- Lower the implement to the ground.
- The hydraulic controls is in neutral.
- The tractor engine must be stopped.
- The ignition key is removed.
- The parking brake is set.
- Secure the tractor to prevent it from rolling.

Failure to secure the tractor to prevent it from rolling could endanger lives.

Be careful when using oil

Use barrier cream or protective gloves when handling oil.

It will protect your hands against skin injuries.

Direct contact with the oil could lead to serious skin injuries.

Use the correct oil type

Always use the correct oil type for the transmission.

This will ensure the transmission has a long service life.

Using the incorrect oil type may damage the transmission.

Maintain correct oil level

The max. and min. oil level indicators on the transmission must not be exceeded.

Correct transmission oil level will ensure a long service life.

Incorrect oil levels can cause the transmission to overheat, resulting in serious damage.

After 50 hours of operation, the oil in the machine needs to be changed:

- Cutterbar
→ »Cutterbar« Page 100
- Main gear
→ »Main gear« Page 102
- Bevel gear
→ »Bevel gear« Page 104
- Roller gear
→ »Roller gear« Page 106

Daily

WARNING

Safety in connection with maintenance work on the machine
When working on the machine the tractor must be stopped and secured.

This prevents the PTO shaft from suddenly starting to rotate.
Failure to follow the safety instructions may result in serious injuries.

When working on the transmission:

- The PTO is disengaged.
- Lower the implement to the ground.
- The tractor engine must be stopped.
- The ignition key is removed.
- The parking brake is set.
- Secure the tractor to prevent it from rolling.

Failure to secure the tractor to prevent it from rolling could endanger lives.



Blades

CAUTION

Check the machine knives on a regular basis

The machine's knives must be regularly inspected. Worn or damaged knives can unbalance the rotating parts. Vibrations can cause damage to the machine.

→ »Maintenance intervals« Page 88

The knives are checked in the following way:

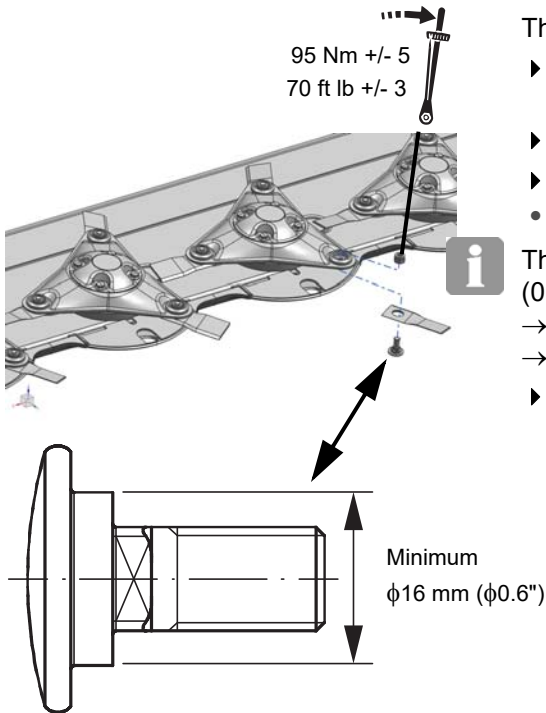
- ▶ Turn the cutting discs by hand until the damaged blade is in the position shown.
- ▶ Inspect the condition of the bolts and blades for wear.
- ▶ Inspect the bolt for damage or wear.
- If the bolt is damaged or worn, it must be changed.


The minimum diameter of the bolt must not be less than $\phi 16$ mm (0.6").

→ »Blades« Page 118

→ »Synopsis« Page 27

- ▶ Retighten the bolts to the specified torque.

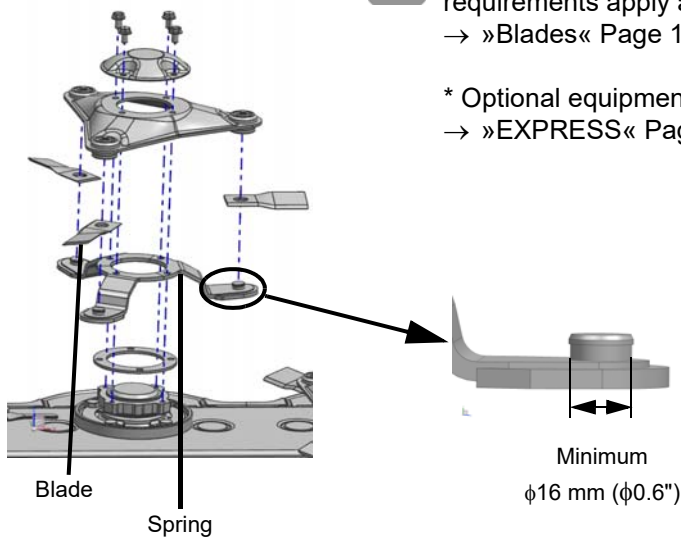


 If the machine is equipped with quick-changing blades*, the same requirements apply as with the wearing of bolts.

→ »Blades« Page 118

* Optional equipment

→ »EXPRESS« Page 135



Cutting disc

→ »Maintenance intervals« Page 88

▶ Inspect the condition of the cutting discs for deformities and cracks.

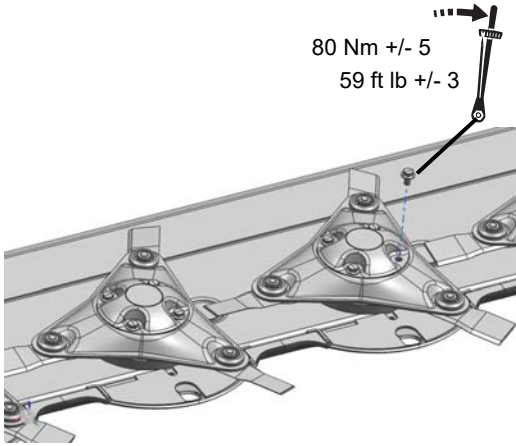


Damaged and/or deformed cutting discs must be replaced immediately.

→ »Cutting disc« Page 120

▶ Tighten the cutting disc to the indicated torque.

80 Nm +/- 5
59 ft lb +/- 3



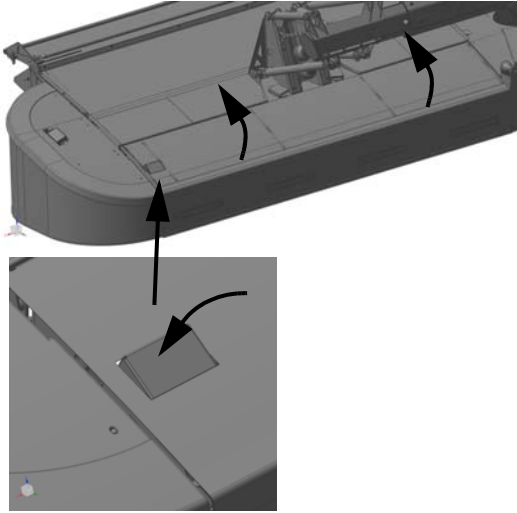
Cones

CAUTION

Check the machine's cones on a regular basis

The machine's cones must be inspected and cleaned regularly. The accumulation of residual grain can cause an imbalance in the rotating parts.

Vibrations can cause damage to the machine.



An external check of the cones is carried out in the following way:
→ »Maintenance intervals« Page 88

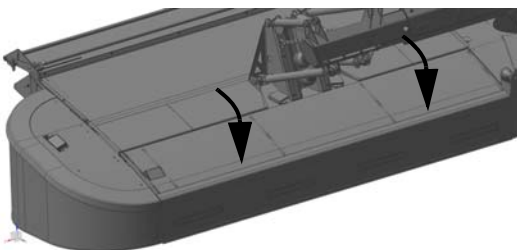
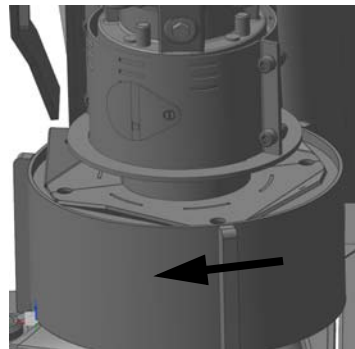
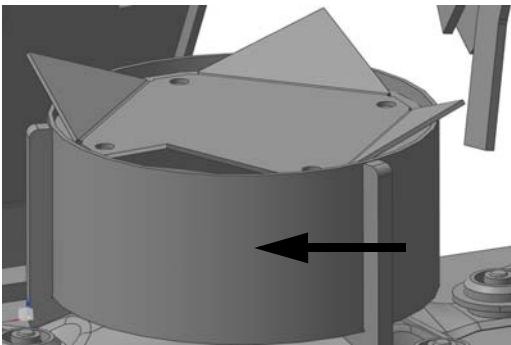
- ▶ Push the lever down.
- ▶ Open the guard.

- ▶ Conduct an external inspection of the cones on the right and left sides for dirt.



Damaged and/or deformed cones must be replaced immediately.

- ▶ Clean the cone as necessary.

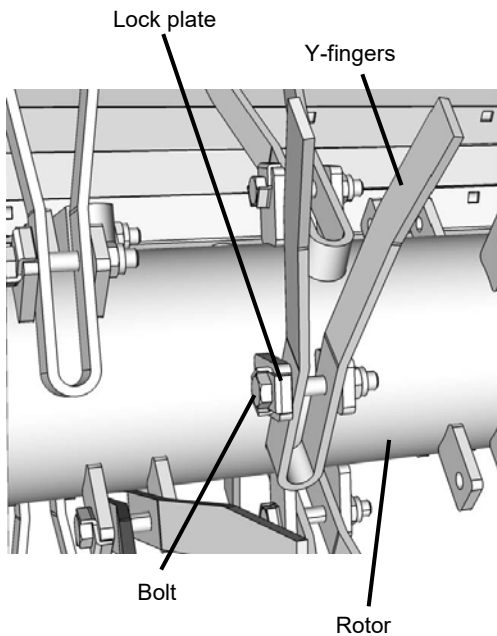


- ▶ Close the guard.

Y - fingers

Only T model

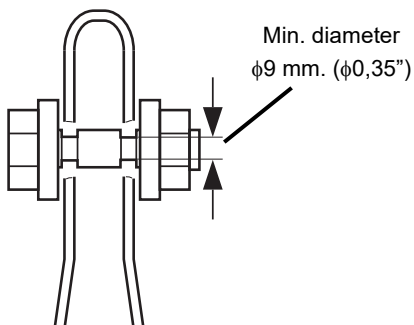
→ »Maintenance intervals« Page 88



How to check steel Y-fingers:

- ▶ Check the rotor for loose fingers.
- ▶ Check the lock plate by the bolt.
- If the lock plate is damaged or cracked, it must be changed.

→ »Y - fingers« Page 124



- ▶ Inspect the bolt for damage or wear.
- If the bolt is damaged or worn, it must be changed.

i The minimum diameter of the bolt must not be less than $\phi 9$ mm ($\phi 0.35$ ").

→ »Y - fingers« Page 124

- ▶ Check that the bolt is fully tightened.
- ▶ If not, tighten the bolt some more.
- i** ▶ The Y-fingers should be able to move freely.

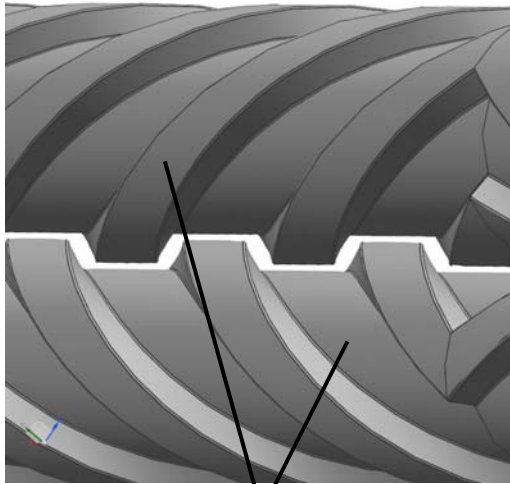
Rollers

Only R model

→ »Maintenance intervals« Page 88

The rollers are checked as follows:

- ▶ Inspect the rollers for jammed foreign objects.



Rollers

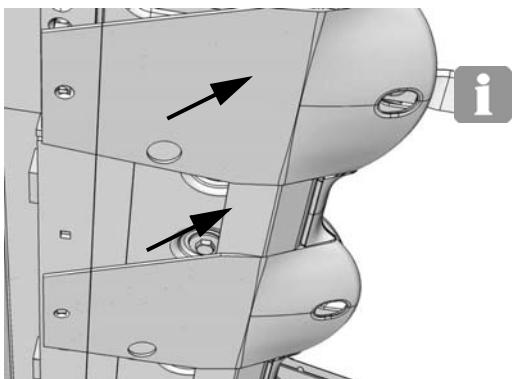
Stone guard and counter blade

→ »Maintenance intervals« Page 88

- ▶ Carry out a visual inspection of the machine's stone guard and counter blade for wear.

i Stone guards and counter blades with visible holes caused by heavy wear must be replaced immediately.

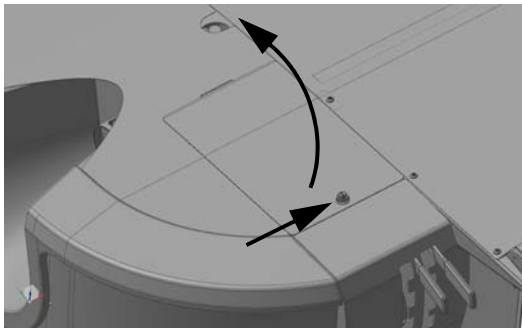
→ »Stone guard and counter blade« Page 122



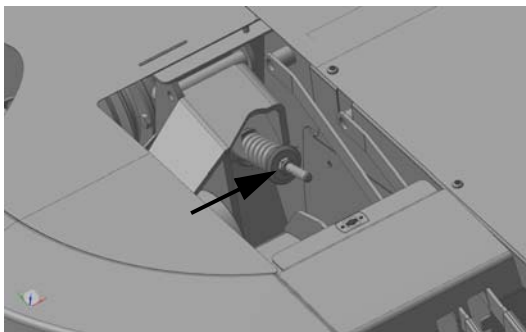
V-belt

→ »Maintenance intervals« Page 88

The V-belts are checked in the following way:

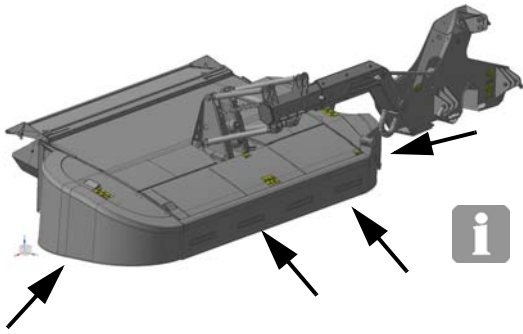


- ▶ Open the cover.



- ▶ Check the spring at the V-belt transmission.
- ▶ Check to see that the nut is tightened until it stops.

Tarpaulin



The tarpaulin and auxiliary protection around the cutter bar must be charged regularly.

The tarpaulin and auxiliary protection are inspected as follows:

- ▶ Do a visual inspection of machine protection for holes and other damage.



Guards with visible holes and other damage must be replaced immediately.

→ »Tarpaulin« Page 131

Every 200 hours of operation

or once annually



WARNING

Safety concerning maintenance work on the cutterbar

When working on the cutterbar, the tractor must be stopped and secured.

This prevents the machine parts from suddenly starting to rotate. Failure to follow the safety instructions may result in serious injuries.

When working on the cutterbar:

- The P.T.O. is disengaged.
- Lower the implement to the ground.
- The hydraulic controls is in neutral.
- The tractor engine must be stopped.
- The ignition key is removed.
- The parking brake is set.
- Secure the tractor to prevent it from rolling.

Failure to secure the tractor to prevent it from rolling could endanger lives.

Be careful when using oil

Use barrier cream or protective gloves when handling oil.

It will protect your hands against skin injuries.

Direct contact with the oil could lead to serious skin injuries.

Use the correct oil type

Always use the correct oil type for the transmission.

This will ensure the transmission has a long service life.

Using the incorrect oil type may damage the transmission.

Maintain correct oil level

The max. and min. oil level indicators on the transmission must not be exceeded.

Correct transmission oil level will ensure a long service life.

Incorrect oil levels can cause the transmission to overheat, resulting in serious damage.

WARNING

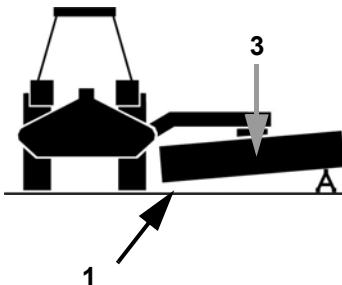
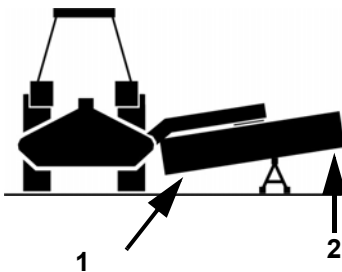
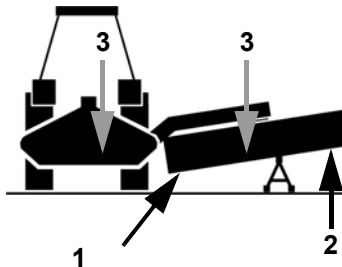
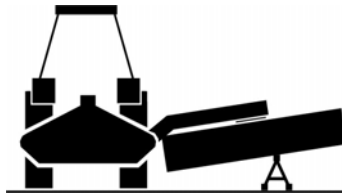
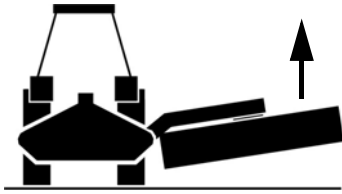
Proper support for the machine is vitally important

When working under the machine, the machine must be properly supported.

If the machine is not properly supported, there is a serious risk that the machine will turn over onto people.

Insufficient support of the machine may result in serious injuries and death.

Cutterbar



The oil in the cutterbar is changed as follows:

- ▶ Place the machine in working position.
→ »Machine in Working Position« Page 58
- ▶ Raise the cutter unit..
- ▶ Connect the tractor's P.T.O. shaft and allow the machine to run for about 5 minutes.
- ▶ Turn off the tractor's P.T.O. shaft
- ▶ Stop the tractor and remove the ignition key.



- ▶ Place the proper support under the cutterbar as shown.

- ▶ Locate oil plugs 1, 2 and 3 on the cutterbar and clean the area.

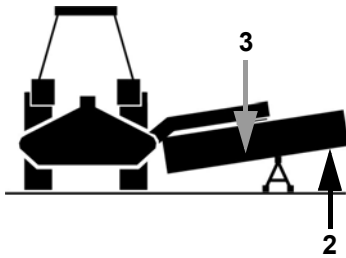
- ▶ Remove oil plug 1 and 2.
- ▶ Let the oil flow into a suitable container.
- ▶ Allow the last of the oil to drip out of the cutter bar for approx. 10 - 15 minutes.

- ▶ Insert the oil plug [1].
- ▶ Remove oil plug [3].

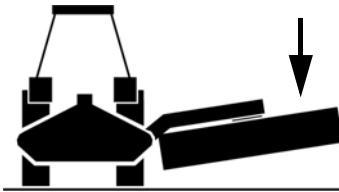


Always fill with the correct amount of oil.

| Model | Liter (approx.) | Pints (US) (approx.) | Pints (Imp.) (Approx.) |
|-----------------|-----------------|----------------------|------------------------|
| 6332T / R | 3,1 | 6,6 | 5,5 |
| 6336T / R-Vario | 3,5 | 7,4 | 6,2 |



- »Lubricants« Page 143
- »Maintenance intervals« Page 88
- ▶ Fit oil plug 2 and 3.



- ▶ Start tractor.
- ▶ Remove the support.
- ▶ Lower the cutter unit.

- »Lubricants« Page 143
- »Maintenance intervals« Page 88



Always maintain the correct oil level.
→ »Maintain correct oil level« Page 99

Maintenance

Main gear

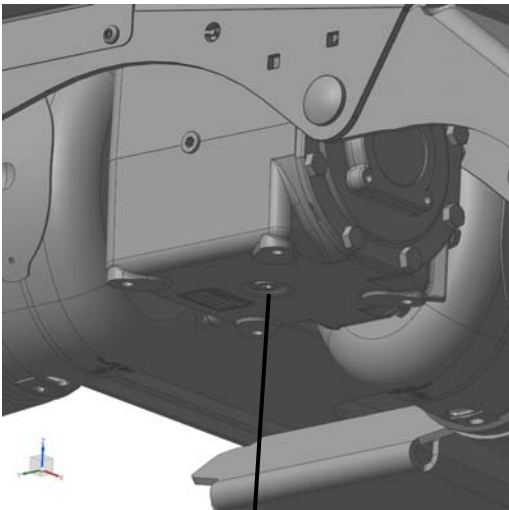
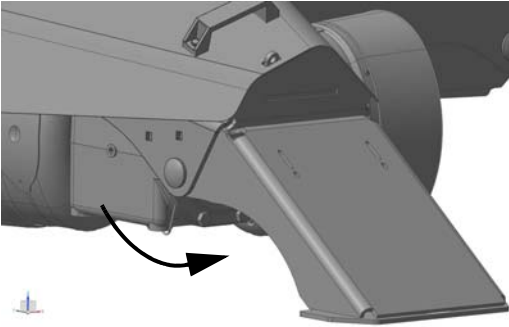
→ »Maintenance intervals« Page 88

Oil amount when changing oil:

| Liter (approx.) | Pints (US) (approx.) | Pints (imp) (approx.) |
|-----------------|----------------------|-----------------------|
| 2,3 | 4,9 | 4,0 |

The oil is changed as follows:

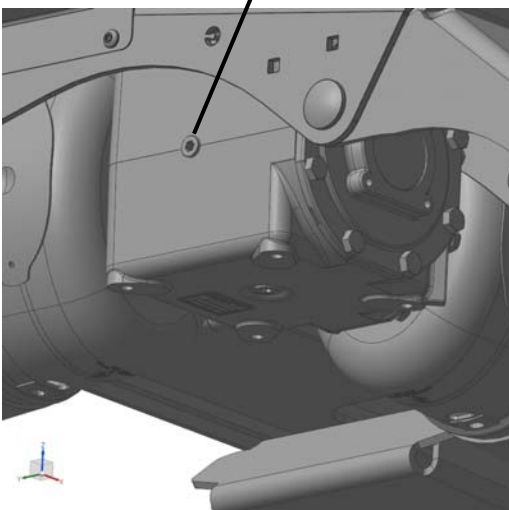
- ▶ Turn out support legs.



Oil plug 3

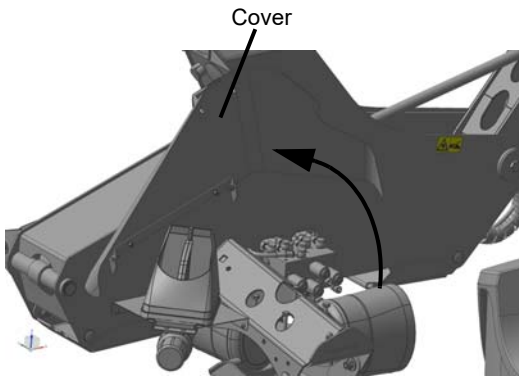
- ▶ Remove oil plug 3.
- ▶ Let the oil flow into a suitable container.
- ▶ Allow the last of the oil to drip out of the transmission for approx. 10 - 15 minutes.
- ▶ Plug the oil plug 3 back in place.

Oil plug 2

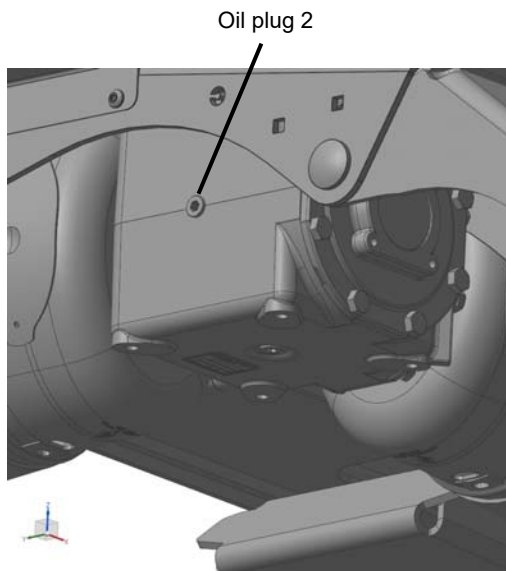
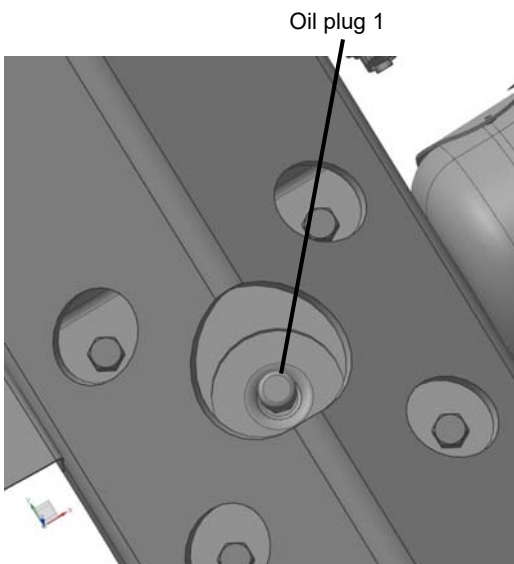


- ▶ Remove oil plug 2.

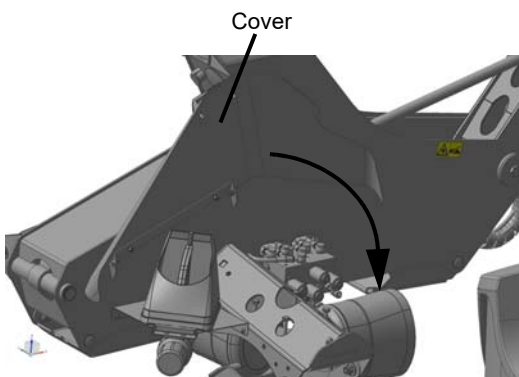
- ▶ Open the cover.



- ▶ Remove oil plug 1.
- ▶ Fill up with new oil until it oil level reaches the hole (oil plug 2).
- »Lubricants« Page 143
- ▶ Affix oil plugs 1 and 2, and then tighten them.



- ▶ Close the cover.



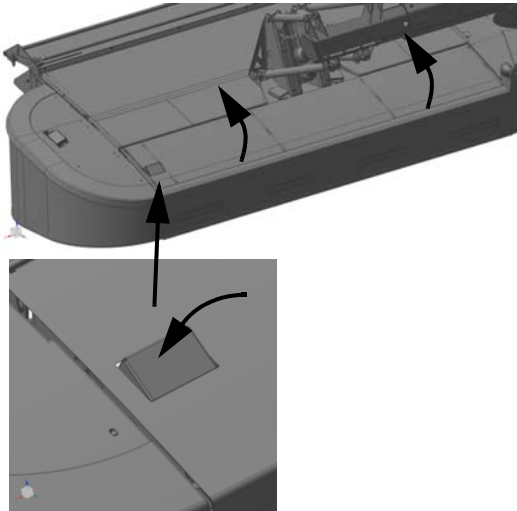
Maintenance

Bevel gear

→ »Maintenance intervals« Page 88

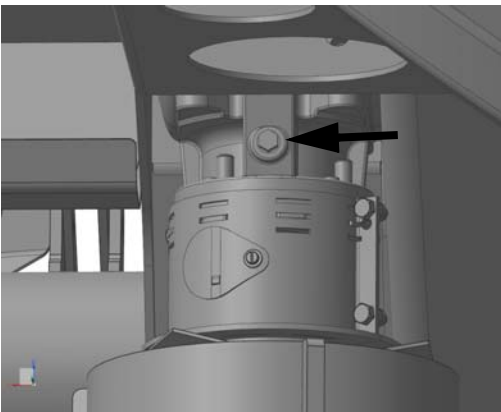
Oil amount when changing oil:

| Liter (approx.) | Pints (US) (approx.) | Pints (imp) (approx.) |
|--------------------|-------------------------|--------------------------|
| 1,0 | 2,1 | 1,8 |

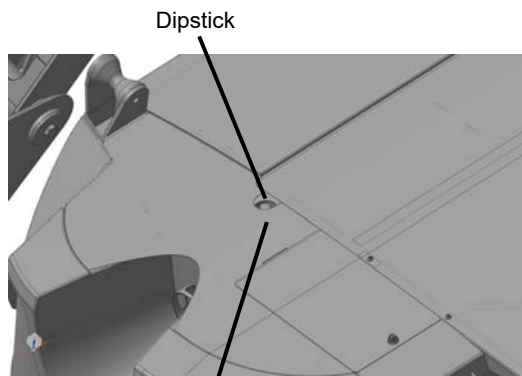


The oil is changed as follows:

- ▶ Push the lever down.
- ▶ Open the guard.

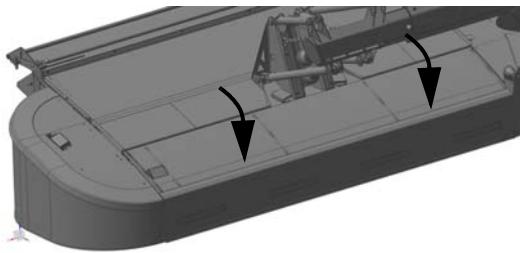
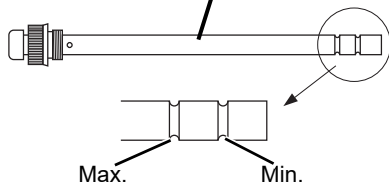


- ▶ Remove the oil plug.
- ▶ Let the oil flow into a suitable container.
- ▶ Allow the last of the oil to drip out of the transmission for approx. 10 - 15 minutes.
- ▶ Plug the oil plug back in place.



- ▶ Remove the dipstick.
- ▶ Pour the oil through the hole where the dipstick is fitted.
- ▶ Check that the oil level is up to the "max" indication on the dipstick.
- ▶ Repeat the procedure until the correct oil level is reached.
- ▶ Place and fasten the dip stick.

→ »Lubricants« Page 143



- ▶ Close the guard.
- ▶ Make sure that the guard is in place and locked.

Maintenance

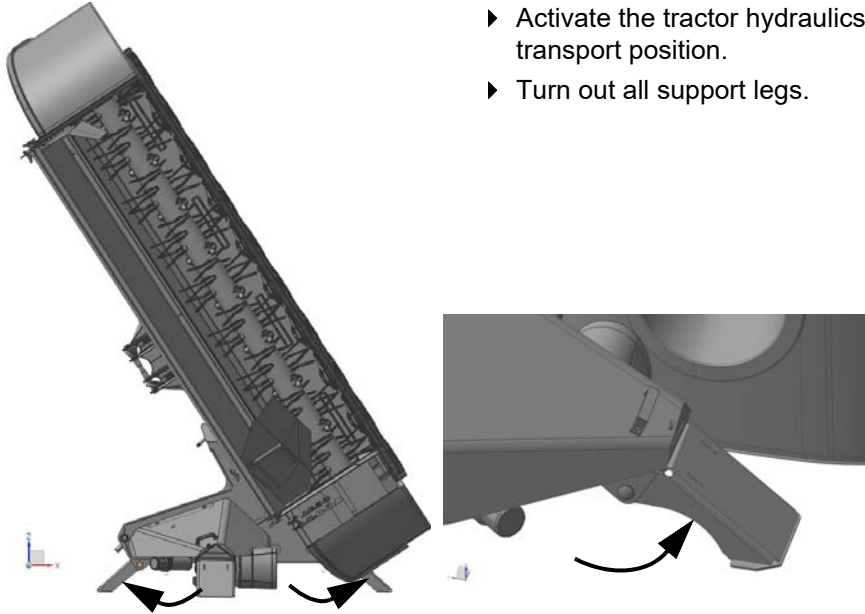
Roller gear

Only R model

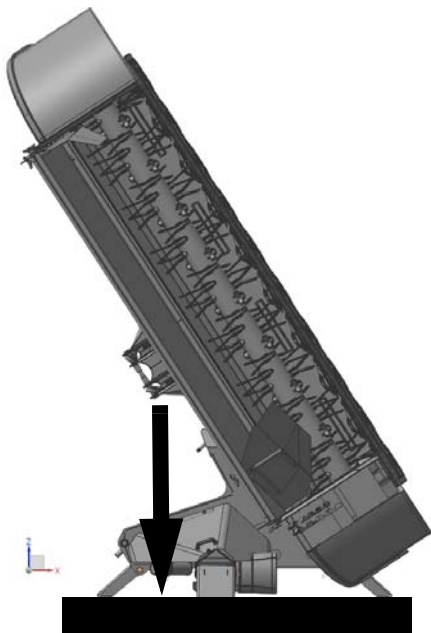
Main gear

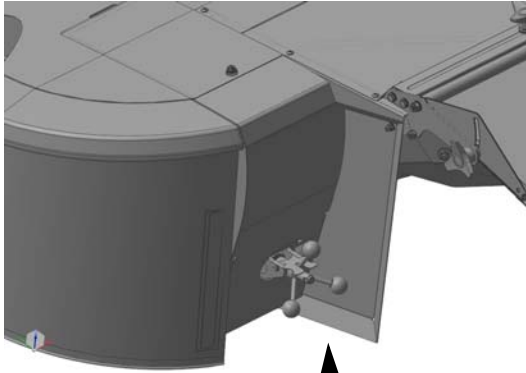
How to change the oil:

- ▶ Activate the tractor hydraulics and raise the machine up into its transport position.
- ▶ Turn out all support legs.

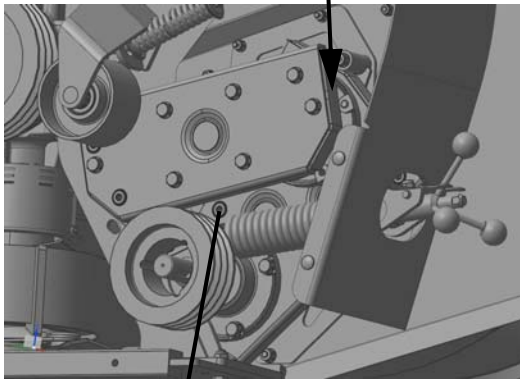


- ▶ Carefully lower the machine down onto the support legs.
- ▶ Stop the tractor.



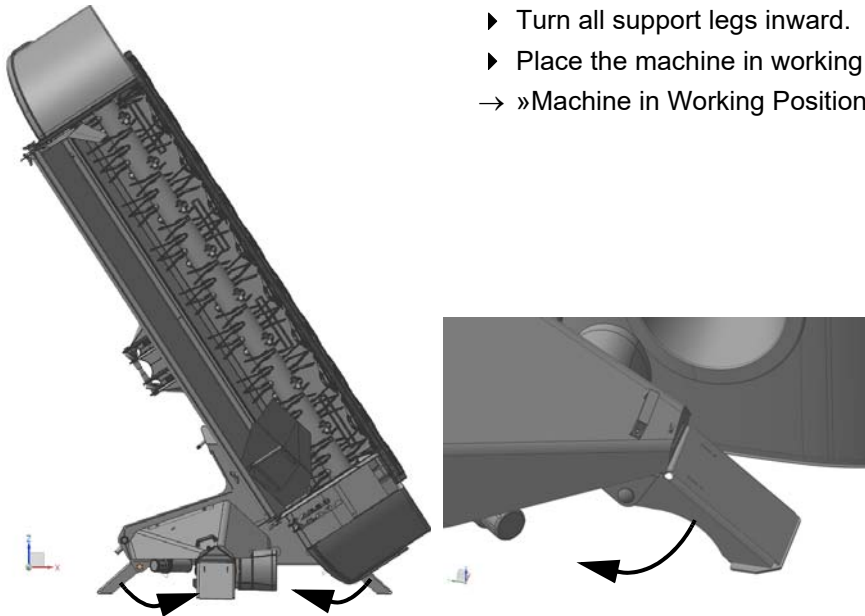


- ▶ Remove oil plug 1.
- ▶ Let the oil flow into a suitable container.
- ▶ Allow the last of the oil to drip out of the cutter bar for approx. 10 - 15 minutes.

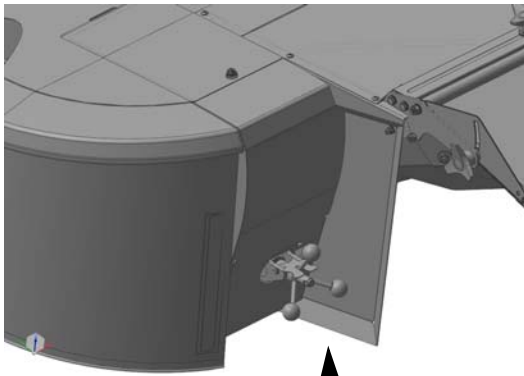


Oil plug 1

- ▶ Start the tractor.
 - ▶ Activate the tractor's lifting arms and lift the machine free from the ground.
 - ▶ Turn all support legs inward.
 - ▶ Place the machine in working position.
- »Machine in Working Position« Page 58



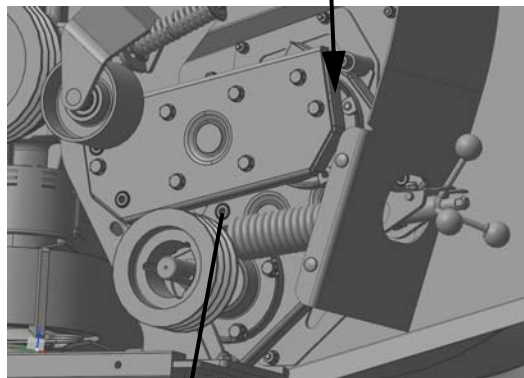
Maintenance



- ▶ Fill oil through the hole for oil plug 1.
- The correct oil level is reached once the oil level reaches the edge of the hole for oil plug 1.

Oil amount when changing oil:

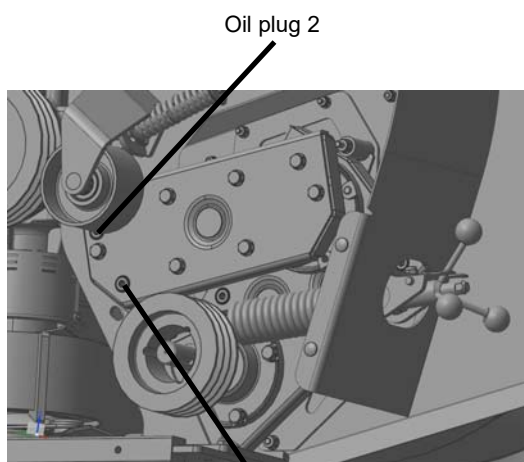
| Liter (approx.) | Pints (US) (approx.) | Pints (imp) (approx.) |
|-----------------|----------------------|-----------------------|
| 0,8 | 1,7 | 1,4 |



Oil plug 1

- ▶ Attach and secure the oil plug 1.
- »Lubricants« Page 143
- »Maintenance intervals« Page 88

Arm



Oil plug 2

Oil plug 3

How to change the oil:

- ▶ Remove oil plug 3.
- ▶ Let the oil flow into a suitable container.
- ▶ Allow the last of the oil to drip out of the cutter bar for approx. 10 - 15 minutes.
- ▶ Attach and secure the oil plug 3.
- ▶ Remove oil plug 2.
- ▶ Fill oil through the hole for oil plug 2.
- The correct oil level is reached when the oil reaches the edge of the hole for oil plug 2.

Oil amount when changing oil:

| Liter (approx.) | Pints (US) (approx.) | Pints (imp) (approx.) |
|-----------------|----------------------|-----------------------|
| 0,75 | 1,6 | 1,3 |

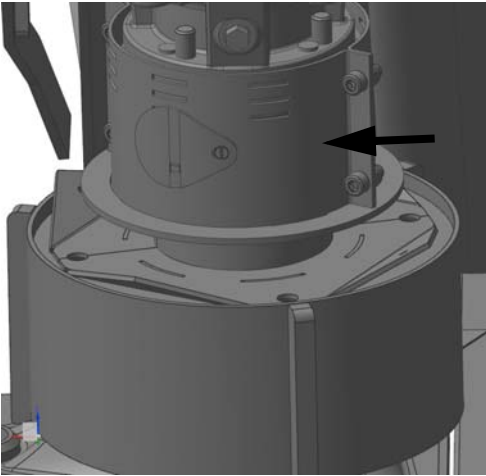
- ▶ Attach and secure the oil plug 2.
- »Lubricants« Page 143
- »Maintenance intervals« Page 88

Cone

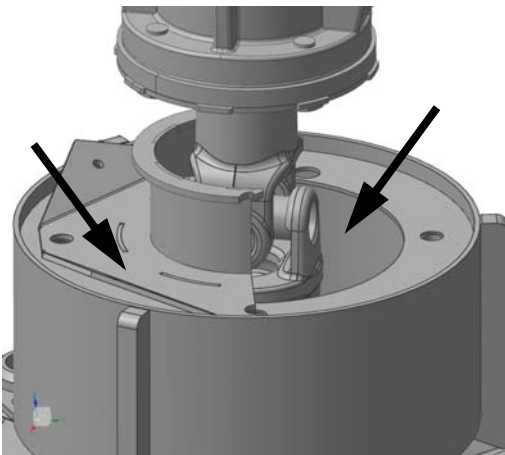
Internal inspection

An internal check of the cones is carried out in the following way:
→ »Maintenance intervals« Page 88

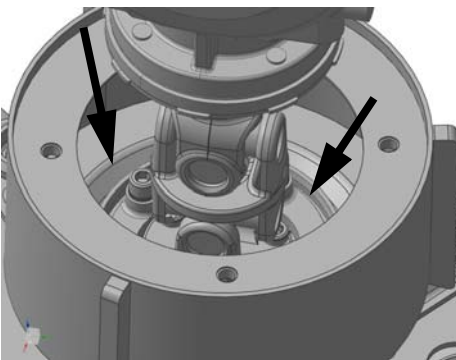
- ▶ Remove the guard around the cutterbar transmission on the left side of the cutterbar.



- ▶ Remove the top cover from the cone.

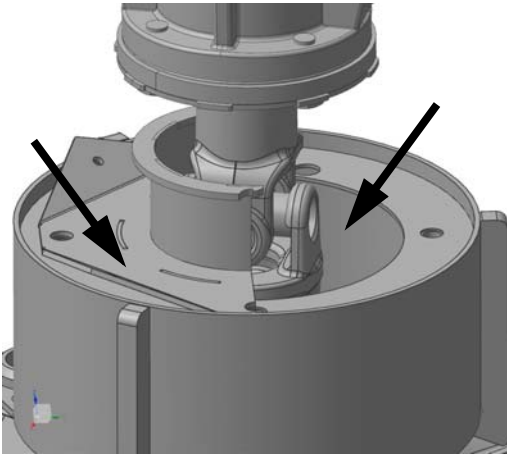


- ▶ Do an internal inspection of the cones for dirt.
- ▶ Clean the cone if necessary.

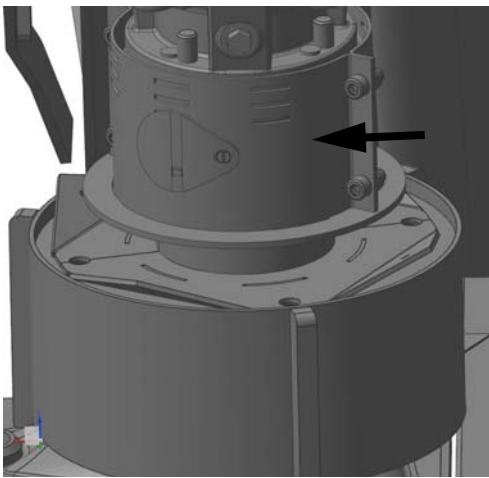


Maintenance

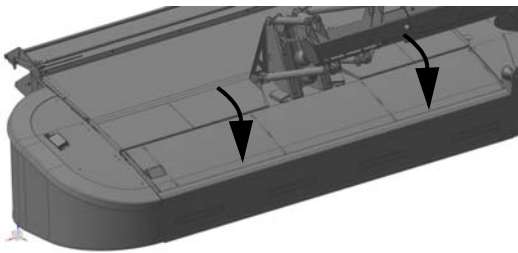
- ▶ Fit the cone's top cover.



- ▶ Fit the guard around the cutterbar's transmission.



- ▶ Close the guard.
- ▶ Make sure that the guard is in place and locked.



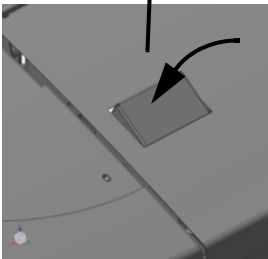
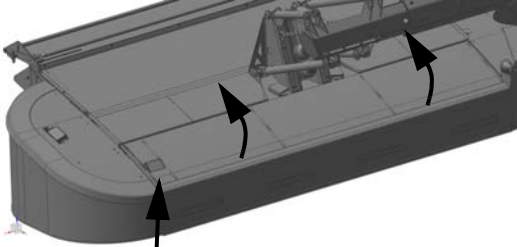
Drive shaft

Check

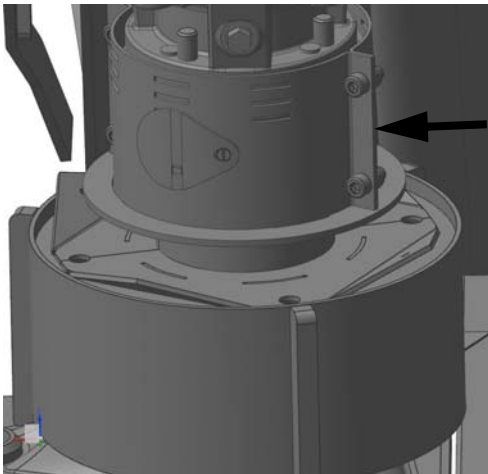
The drive shaft between the transmission and the cutterbar is checked in the following way:

→ »Maintenance intervals« Page 88

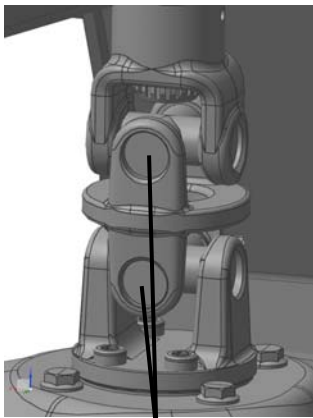
- ▶ Push the lever down.
- ▶ Open the guard.



- ▶ Remove the guard on the left side.

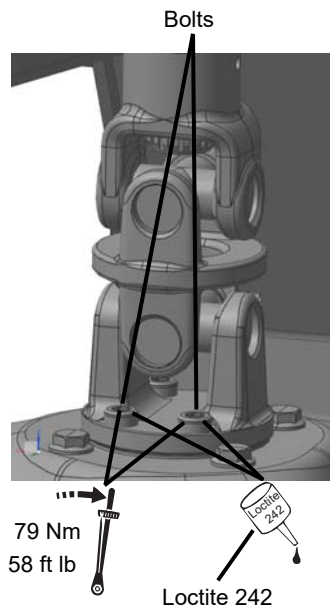


- ▶ Check both universal joints on the drive shaft for wear and tear.

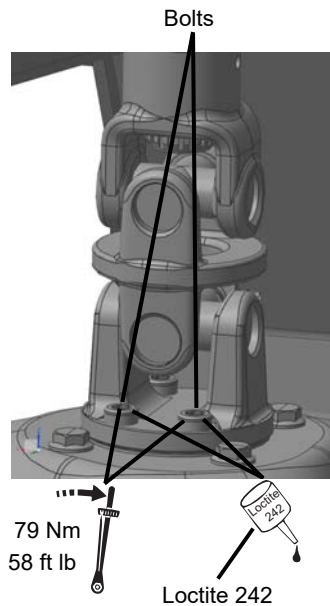


Universal joint

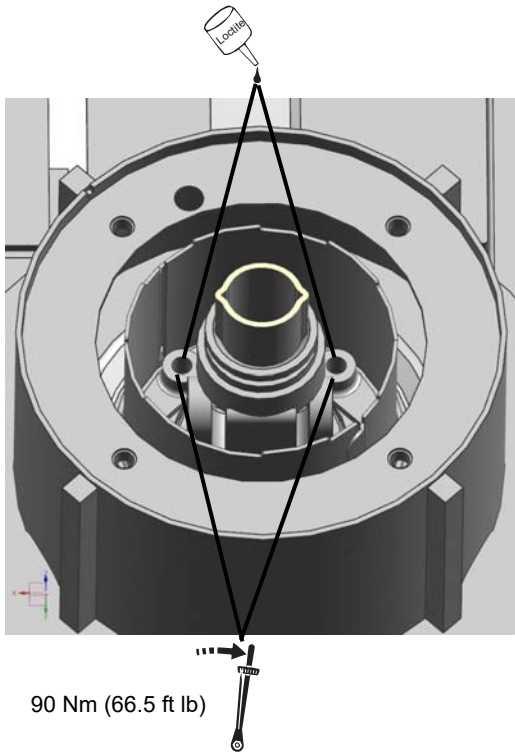
Maintenance



- ▶ Check the drive shaft for broken or loose bolts.
- ▶ Replace the broken bolts.
- ▶ Apply Loctite 242 or a similar product to all bolts.
- ▶ Fit the bolts and tighten to the indicated torque.

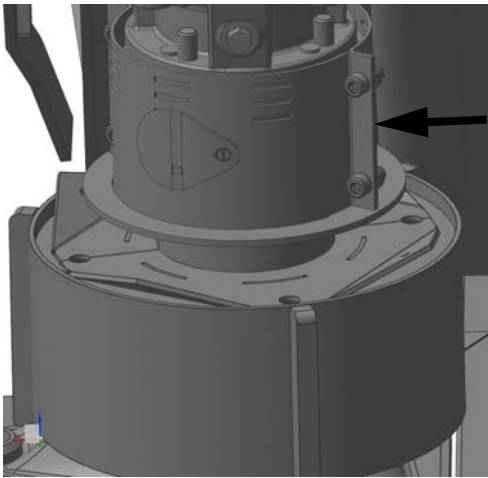


- ▶ If there are loose bolts, the following procedure should be followed:
- ▶ Remove and clean the bolts.
- ▶ Apply Loctite 242 or a similar product to all bolts.
- ▶ Fit the bolts and tighten to the indicated torque.
- ▶ Fit the cone's top cover.



If the cone has been dismantled:

- ▶ Clean all the bolts to the cone.
- ▶ Apply Loctite 242 or a similar product to all bolts.
- ▶ Secure the cone with the indicated tightening torque.

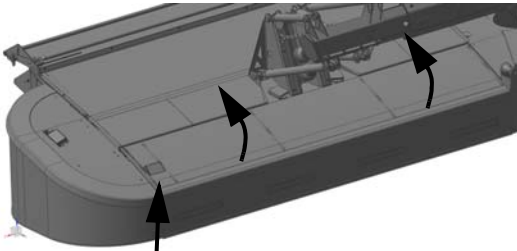


- ▶ Disassemble the protection around the PTO shaft between the transmission and the cutter bar.

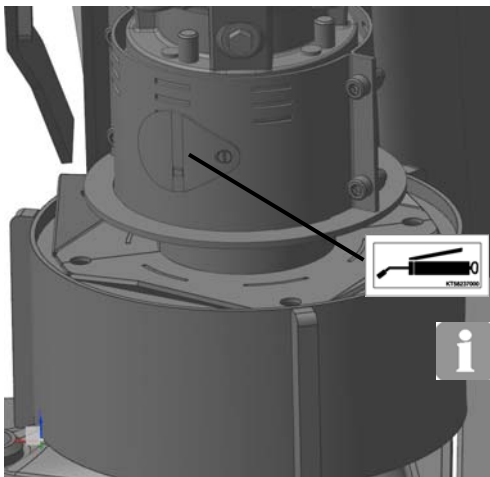
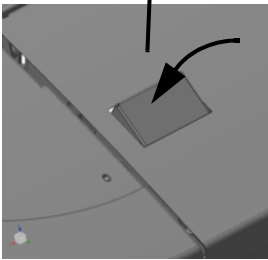
Maintenance

Drive shaft

Lubrication



- ▶ Push the lever down.
- ▶ Open the guard.



- ▶ Turn the cone on the left side of the machine until the grease nipple is visible in the hole shown.
- ▶ Press the nozzle of the grease gun over the grease nipple.
- ▶ Pump the grease gun once or twice (max.).
- ▶ Remove the grease gun from the grease nipple.

→ »Maintenance intervals« Page 88

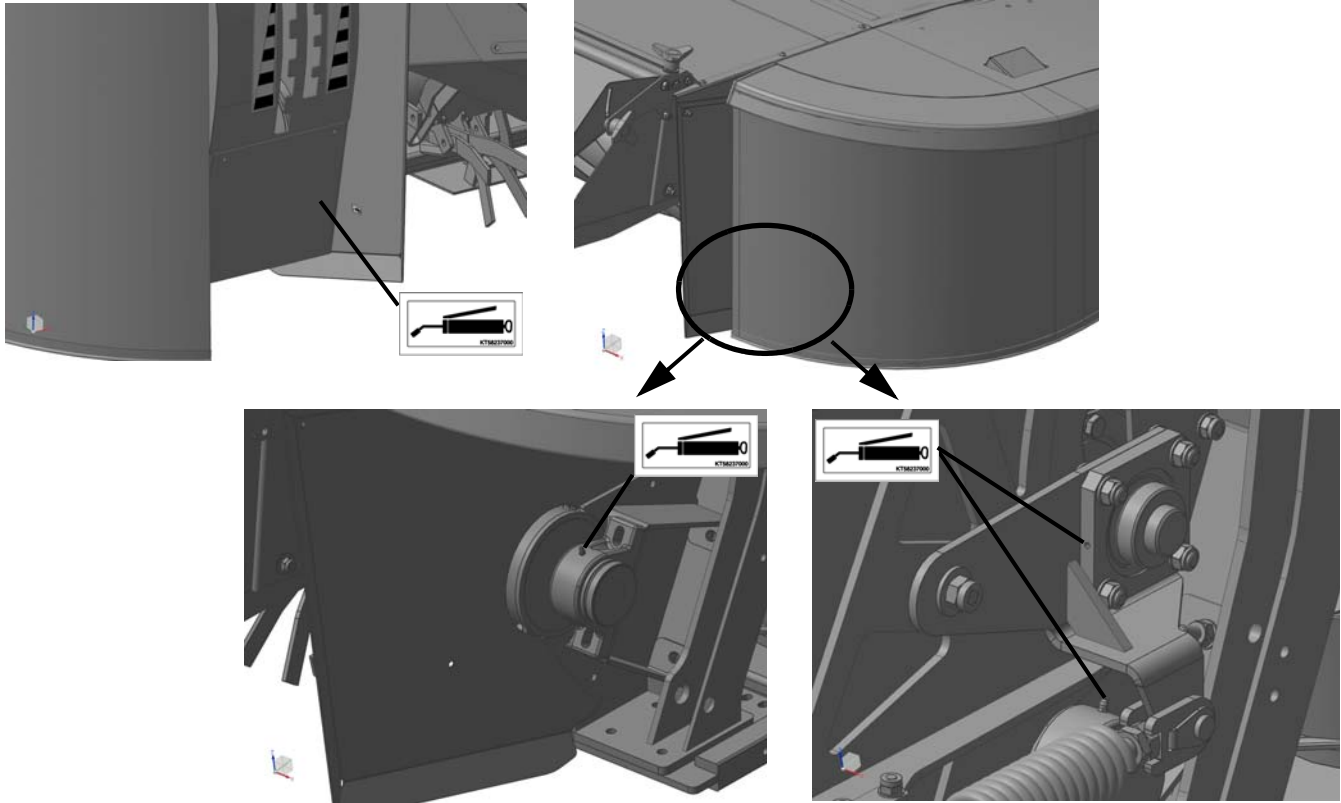
→ »Lubricants« Page 143



Watch out for blades and sharp edges.

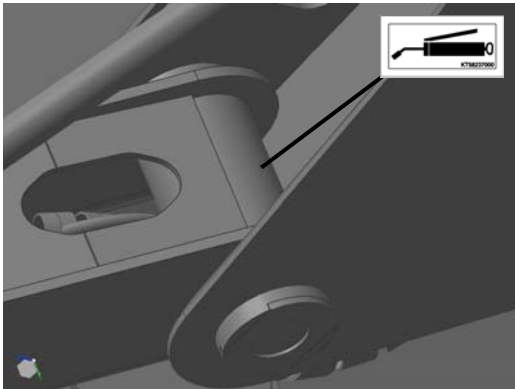
Bearings

- ▶ Localize the grease nipples on the right and left side of the machine
 - ▶ Press the nozzle of the grease gun over the grease nipple.
 - ▶ Pump the grease gun once or twice (max.).
- »Maintenance intervals« Page 88
→ »Lubricants« Page 143

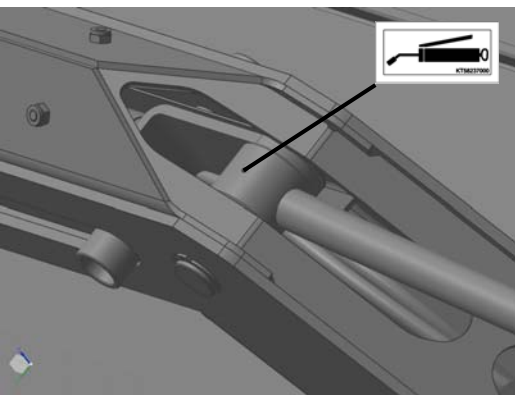


Maintenance

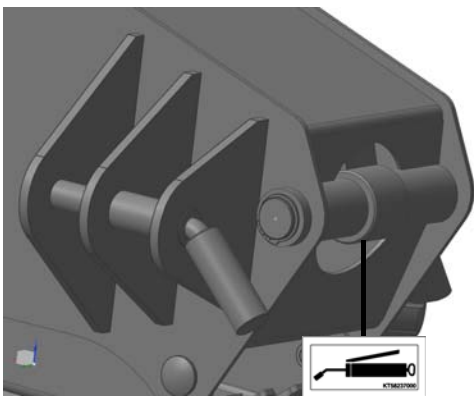
Moving joints



- ▶ Press the nozzle of the grease gun over the grease nipple.
 - ▶ Pump the grease gun once or twice (max.).
- »Maintenance intervals« Page 88
→ »Lubricants« Page 143



- ▶ Press the nozzle of the grease gun over the grease nipple.
 - ▶ Pump the grease gun once or twice (max.).
- »Maintenance intervals« Page 88
→ »Lubricants« Page 143



- ▶ Press the nozzle of the grease gun over the grease nipple.
 - ▶ Pump the grease gun once or twice (max.).
- »Maintenance intervals« Page 88
→ »Lubricants« Page 143

As required

WARNING

Safety in connection with maintenance work on the machine
When working on the machine the tractor must be stopped and secured.

This prevents the PTO shaft from suddenly starting to rotate. Failure to follow the safety instructions may result in serious injuries.

When working on the transmission:

- The PTO is disengaged.
- Lower the implement to the ground.
- The tractor engine must be stopped.
- The ignition key is removed.
- The parking brake is set.
- Secure the tractor to prevent it from rolling.



Failure to secure the tractor to prevent it from rolling could endanger lives.

Always use original spare parts on the machine

Always use original spare parts.

Original spare parts should be used for safety reasons.

The manufacturer's warranty becomes void if non-original spare parts are used.

Make sure that all protective guards are in place

Check that all protection guards are in place.

This ensures that the machine will offer maximum protection to the operator.

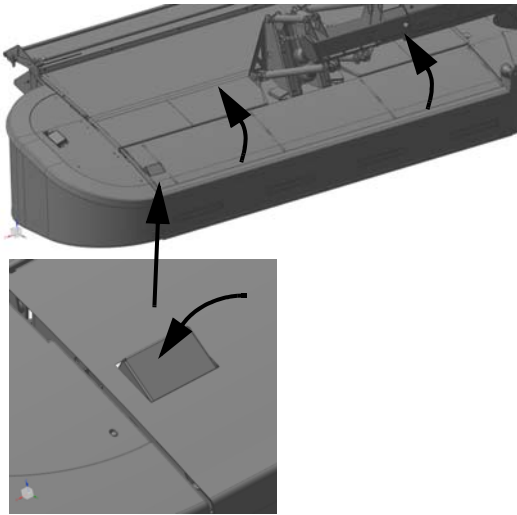
If the safety guards are removed or not used it may result in serious injuries and accidents.

Blades

CAUTION

Check the machine knives on a regular basis

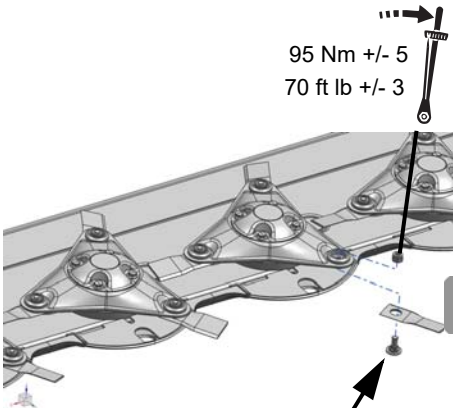
The machine's knives must be regularly inspected. Worn or damaged knives can unbalance the rotating parts. Vibrations can cause damage to the machine.



Replace the blades as follows:


→ »Maintenance intervals« Page 88

- ▶ Push the lever down.
- ▶ Open the guard.

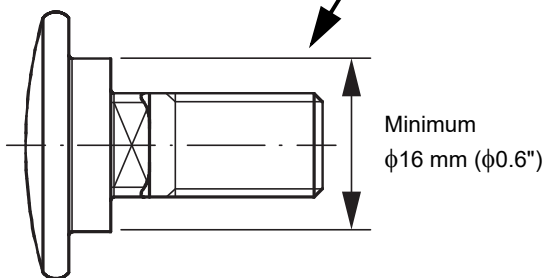


95 Nm +/- 5
70 ft lb +/- 3

- ▶ Turn the cutting discs by hand until the damaged blade is in the position shown.
- ▶ Remove the bolt.
- ▶ Replace the knife.
- ▶ Inspect the bolt for wear.
 - If the bolt is damaged or worn, it must be changed.

 The minimum diameter of the bolt must not be less than $\phi 16$ mm (0.6").

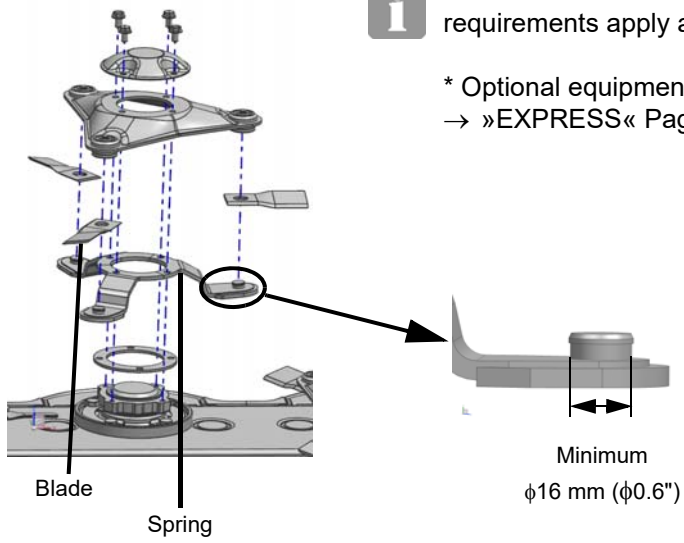
- ▶ Mount the knife and bolt.
- ▶ Tighten the bolts and nuts to the specified torque.



Minimum
 $\phi 16$ mm ($\phi 0.6$ ")

i If the machine is equipped with quick-changing blades*, the same requirements apply as with the wearing of bolts.

* Optional equipment
→ »EXPRESS« Page 135



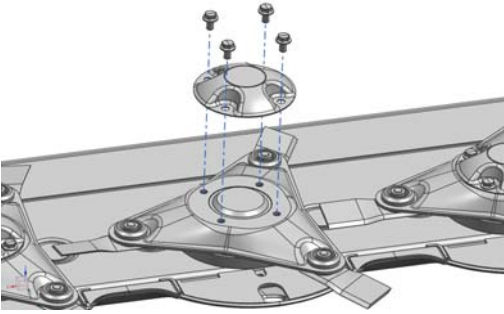
Maintenance

Cutting disc

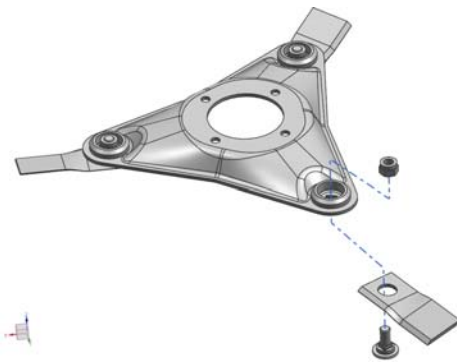
The cutting discs are replaced in the following way:

→ »Maintenance intervals« Page 88

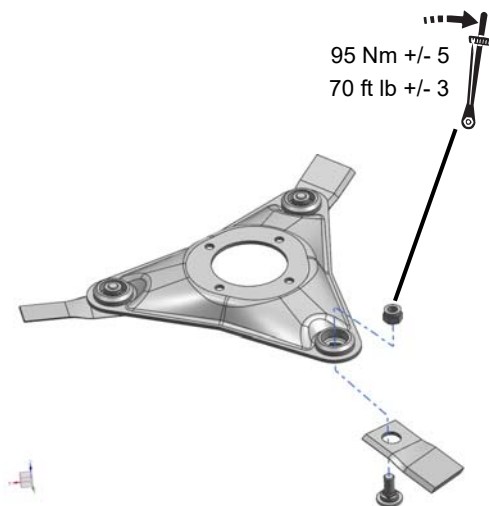
- ▶ Dismantle the cutting disc.

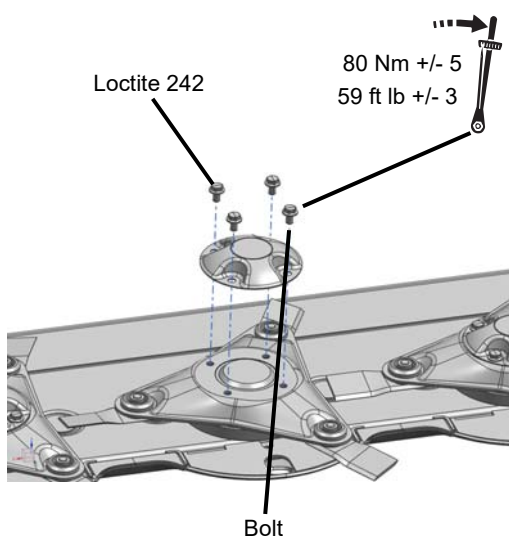


- ▶ Remove the bolt and blade from the cutting disc.



- ▶ Fit the knife and bolt on the new cutting disc.
- ▶ Tighten the bolts and nuts to the specified torque.





- ▶ Apply Loctite 242 or a similar product to all bolts.
- ▶ Fit the cutting disc on the cutter bar.
- ▶ Tighten the bolts to the given torque.

Stone guard and counter blade

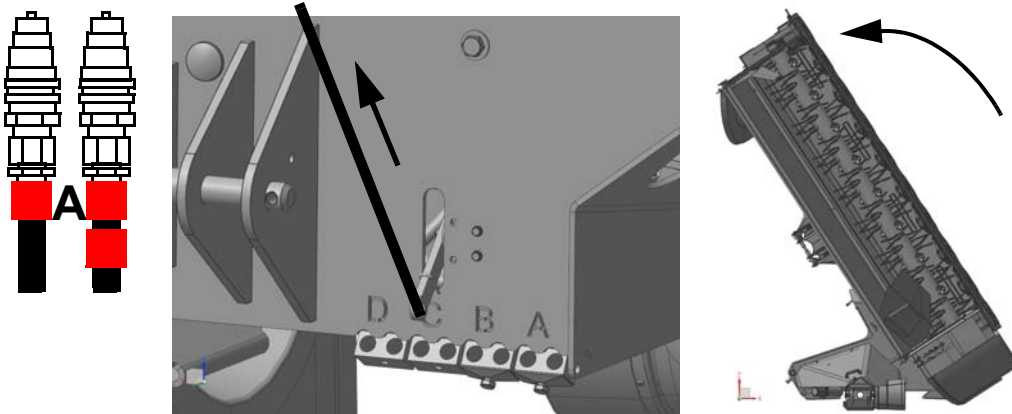
→ »Maintenance intervals« Page 88



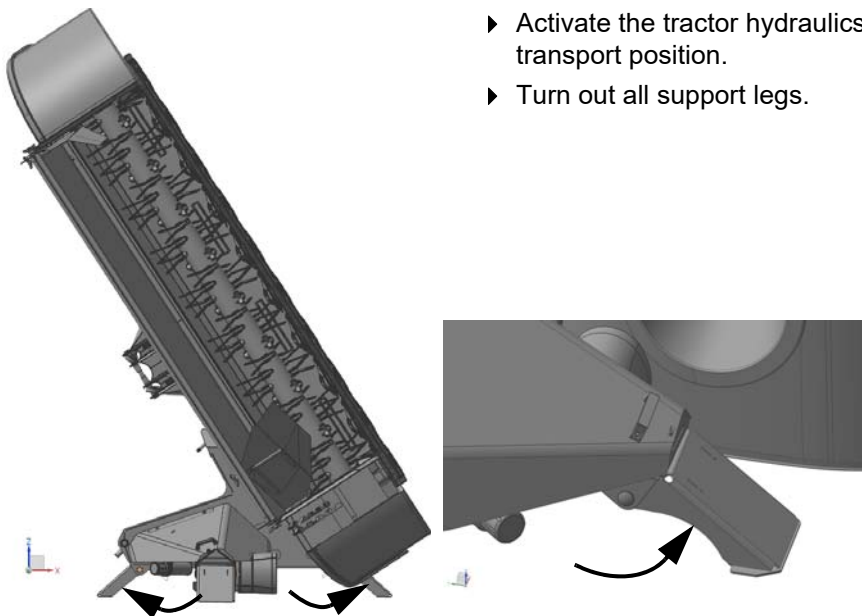
The stone guard and counter blade are changed as follows:
The machine shall be installed onto the tractor.

- ▶ Pull cord..
- ▶ Activate hydraulic outlet A (red) on the tractor.
- ▶ The machine is raised into transport position.

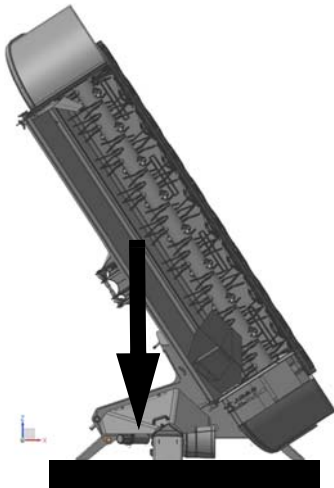
→ »Machine in transport position« Page 52



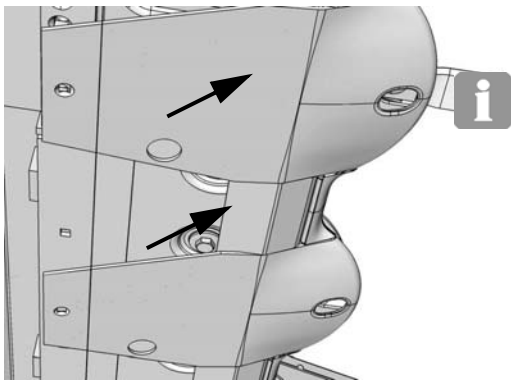
- ▶ Activate the tractor hydraulics and raise the machine up into its transport position.
- ▶ Turn out all support legs.



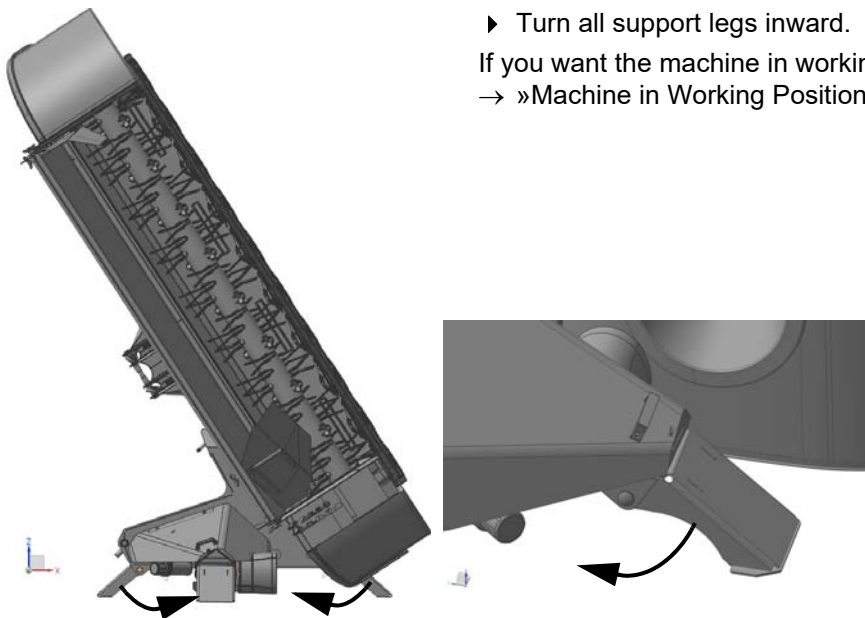
- ▶ Carefully lower the machine down onto the support legs.
- ▶ Stop the tractor.



- ▶ Remove the worn stone guard and counter blade.
 - ▶ Fit the new stone guard and counter blade.
- i** Stone guards and counter blades with visible holes caused by heavy wear must be replaced immediately.



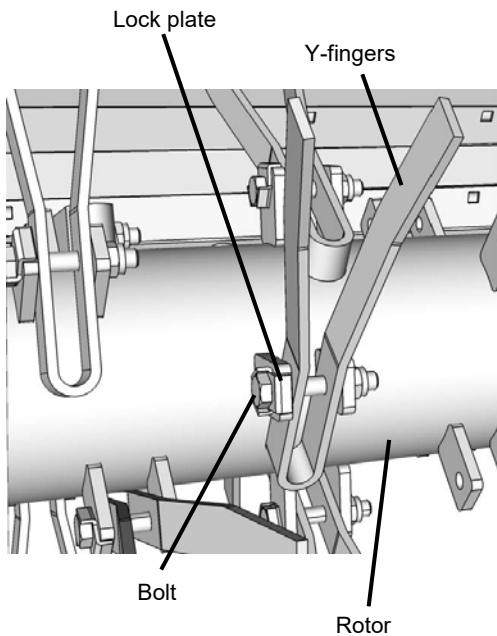
- ▶ Turn all support legs inward.
- If you want the machine in working position:
→ »Machine in Working Position« Page 58



Y - fingers

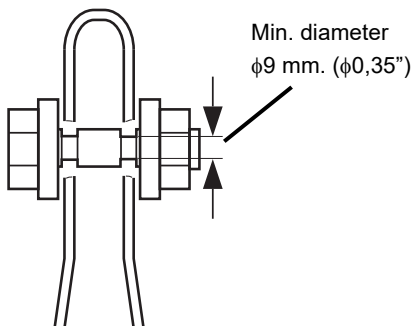
Only T model

→ »Maintenance intervals« Page 88



How to replace steel Y-fingers:

- ▶ Remove the nut on the bolt.
- ▶ Remove the bolt and the lock plate and replace the damaged Y-finger.



- ▶ Inspect the bolt for wear.

i The minimum diameter of the bolt must not be less than $\phi 9$ mm ($\phi 0.35$ ").

If the diameter of the bolt is less than $\phi 9$ mm ($\phi 0.35$ ") in the worn areas, it must be replaced.

- ▶ Fit the bolt with the lock plate and Y-fingers.
- ▶ Attach the bolts.

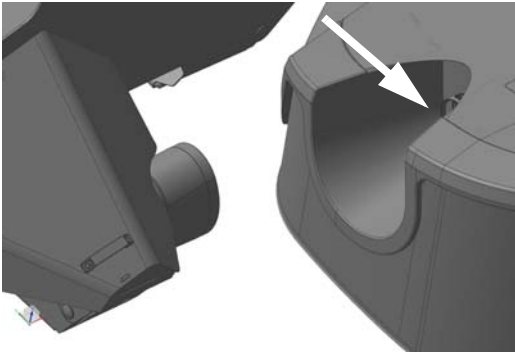
i ▶ The Y-fingers should be able to move freely.

V-belt

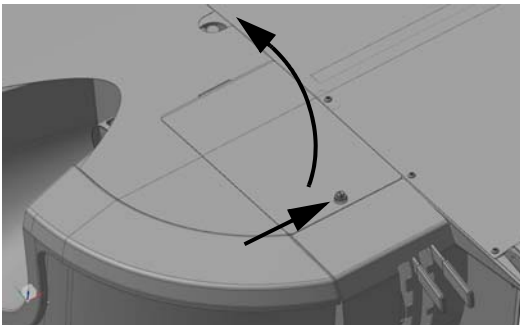
V-belts for the rotor transmission must be replaced when it is shown that they are worn.

The V-belts are replaced in the following way:

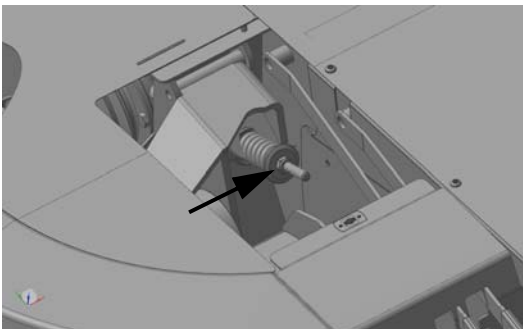
- ▶ Remove the PTO shaft.



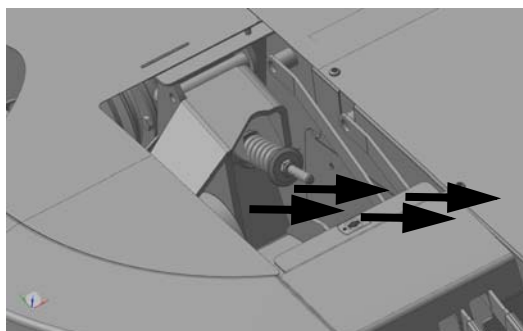
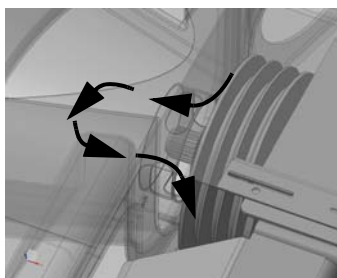
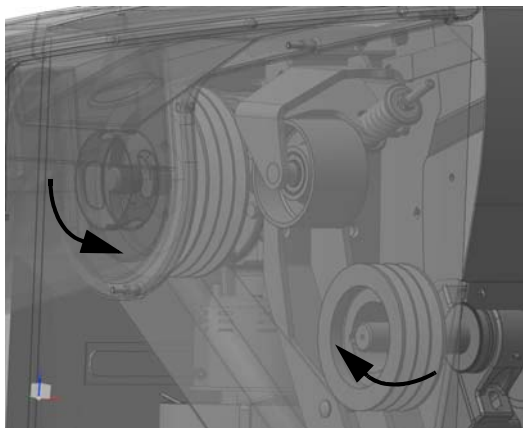
- ▶ Open the cover.



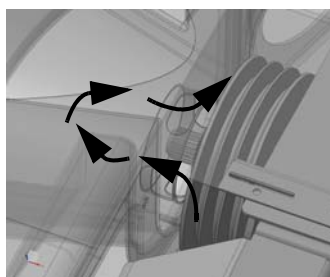
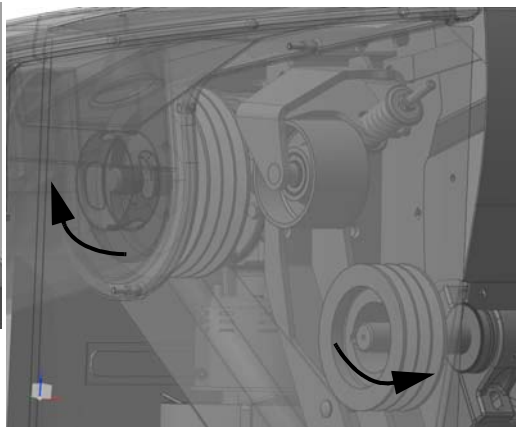
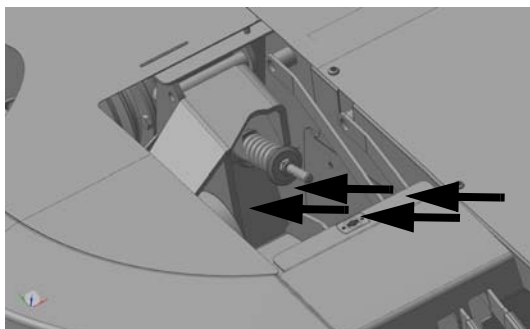
- ▶ Loosen the nut until the V-belt is completely relieved.

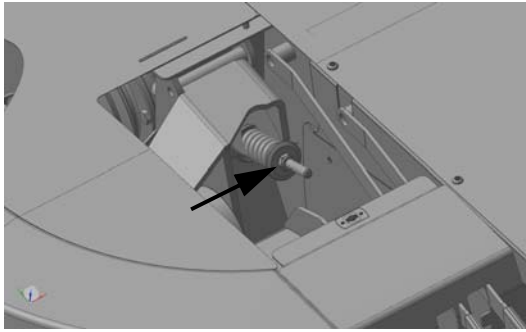


► Remove the old V-belts.

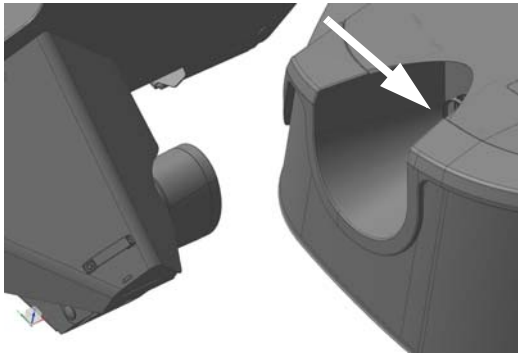


► Install the new V-belt.





- ▶ Tighten the nut until it stops.
- ▶ Close the cover.



→ Install the P.T.O. shaft.



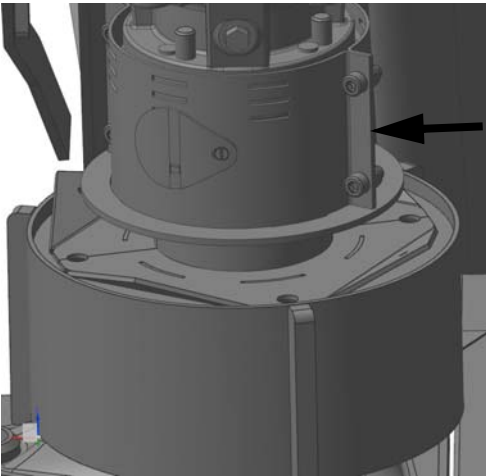
Maintenance

Drive shaft

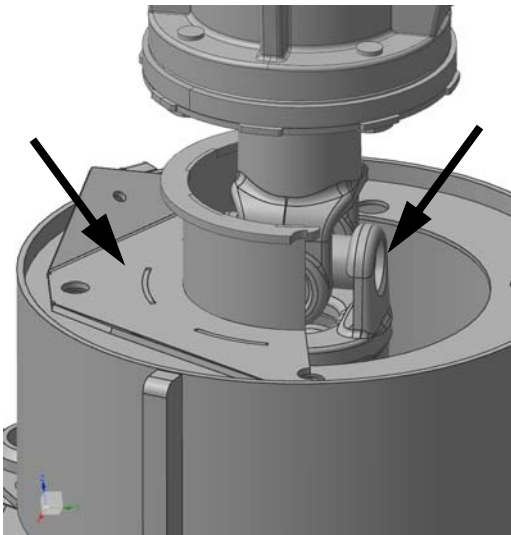
Replace the drive shaft as follows:

→ »Maintenance intervals« Page 88

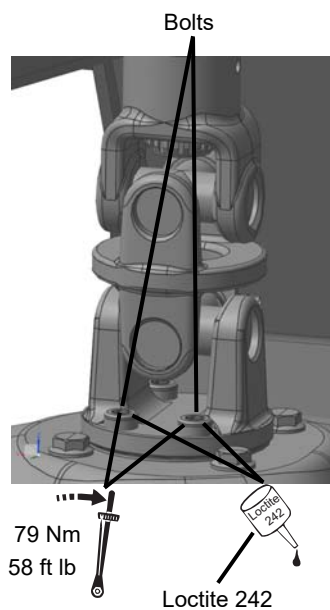
- ▶ Dismount the protection around the drive shaft between the transmission and the cutterbar.

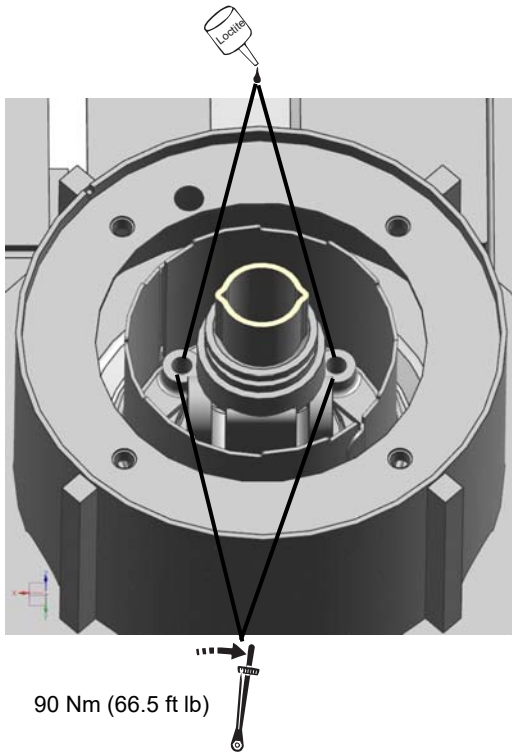


- ▶ Remove the top cover from the cone.



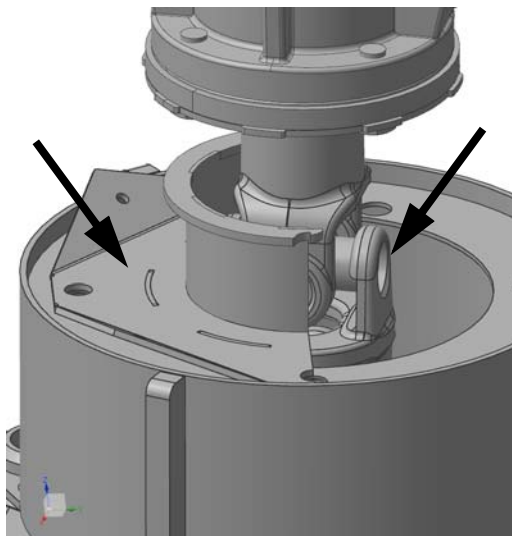
- ▶ Remove the bolt and replace the drive shaft.
- ▶ Clean the bolts.
- ▶ Apply Loctite 242 or a similar product to all bolts.
- ▶ Fit the bolts and tighten to the indicated torque.





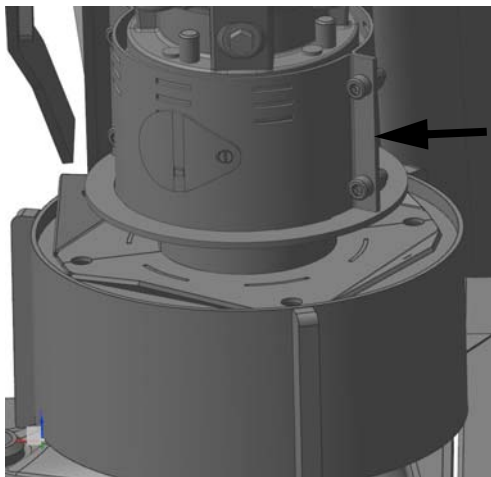
If the cone has been dismantled:

- ▶ Clean all the bolts to the cone.
- ▶ Apply Loctite 242 or a similar product to all bolts.
- ▶ Secure the cone with the indicated tightening torque.

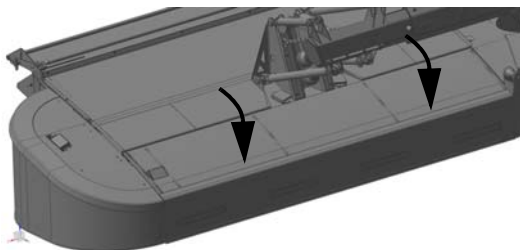


- ▶ Fit the cone's top cover.

Maintenance



- ▶ Attach the protection around the PTO shaft between the transmission and the cutterbar.



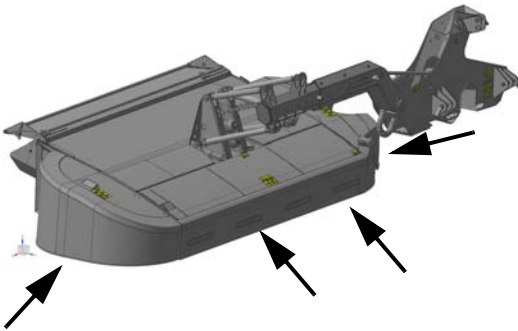
- ▶ Close the guard.
- ▶ Make sure that the guard is in place and locked.

Tarpaulin

Tarpaulin and other covers around the cutter bar shall be replaced in the event of any form of damage.

Replacement of a damaged tarpaulin and auxiliary protection is done as follows:

- ▶ Remove the machine's protection.
- ▶ Replace the damages parts.
- ▶ Attach the machine's protection.
- ▶ Make sure that the machine's protective guard is correctly attached.



Maintenance

P.T.O. shaft



Refer to the manufacturer's user manual included with the P.T.O. shaft.

→ »User manual for the P.T.O. shaft« Page 37

→ »Lubricants« Page 143



Friction clutch

With respect to replacing the friction discs on the P.T.O. shaft, refer to the included user's manual.

→ »User manual for the P.T.O. shaft« Page 37

Accumulator



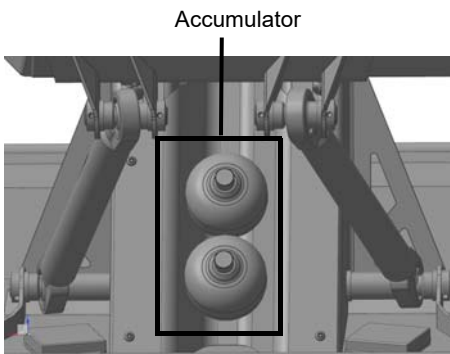
WARNING

Very high amount of accumulated pressure in the accumulator

Do not attempt to replace the accumulator.

The accumulator contains a very high level of accumulated pressure and may only be taken apart by authorized persons.

Attempting to replace the accumulator can lead to serious or fatal injury.



Pressure in the accumulator: up to 210 bars. (3045 psi)

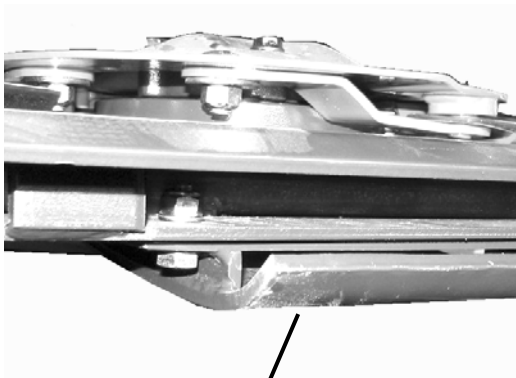


Inspections and/or repairs must only be done by authorized service staff.

Skid

The machine can be fitted with high skids if a higher stubble height is required.

High skids are recommended for uneven fields with lots of stones or molehills.



High skids

| Stubble height | Note |
|---------------------------|-----------------------------|
| 20 - -45 mm (0.8 - 1.8") | No skids attached |
| 35 - -65 mm (1.4 - 2.6") | 20 mm (0.8") skids attached |
| 45 - -80 mm (1.8 - 3.1") | 40 mm (1.6") skids attached |
| 65 - -105 mm (2.6 - 4.1") | 60 mm (2.4") skids attached |
| 85 - -130 mm (3.3 - 5.1") | 80 mm (3.1") skids attached |

Optional equipment

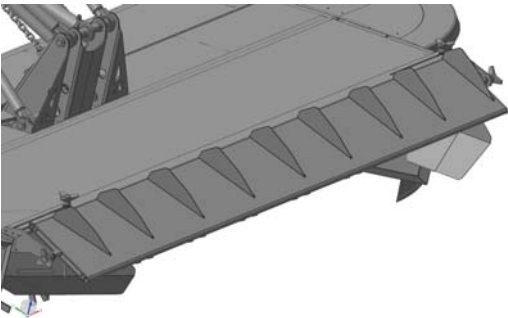
Chain

A chain is available as Optional equipment to prevent the tractor's lift arms from lowering. The chain is fitted between the highest point on the tractor and one of the lift arms.

Spreading device

Does not apply to Vario

The machine can be equipped with a spreader that can adjust the spreading direction as desired.



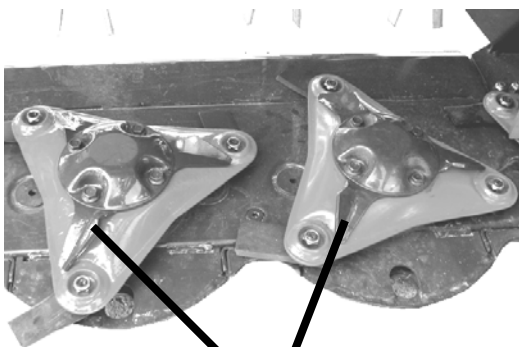
Throwing wings

Only T model

Fitting throwing wings is recommended to rectify any stripe problems with spring crops, caused by grass blocking the cutting discs.



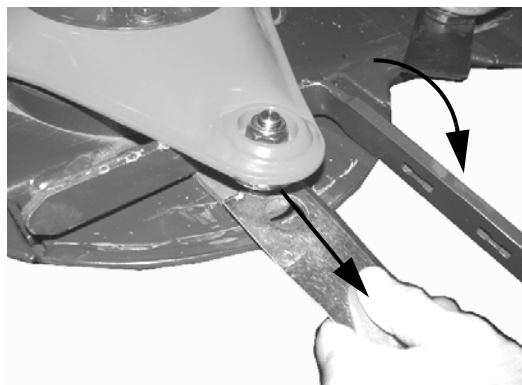
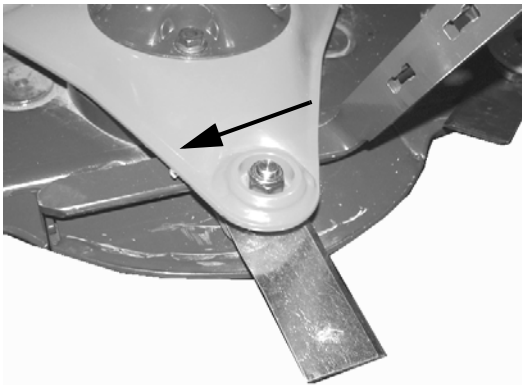
The throwing wings are specifically made for right and left turning cutting discs.



Throwing wings

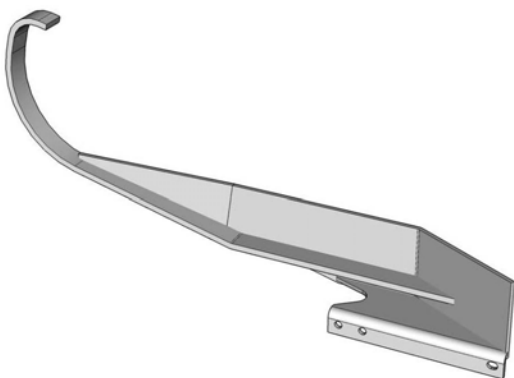
EXPRESS

The machine can be equipped with quick-changing blades [EXPRESS], so the blades can easily be changed or turned in a manner of seconds with the help of a simple tool.



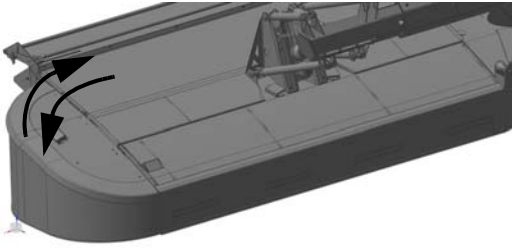
Straw divider

The machine can be equipped with a straw divider on the right side of the cutter that is used during the harvesting of seedlings and of long tangled grass species.



Optional equipment

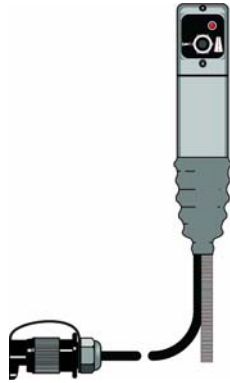
Guard



The machine can be equipped with hydraulic opening/closing of upper guards on the cutter unit:

- When harvesting crops close to fences and similar.
- When preparing the machine for:
 - transport on public roads.
 - working in the field.

Electric control



The machine can be equipped with an electric control for the raise/lower function of the arm and cutter unit.

Hydraulic system

| Fault | Possible cause | Remedy | Page |
|-----------------------------------------------------|--------------------------------------------------------|------------------------------------------------------------------------------------------|------|
| The machine leaves towing tracks on the ground | There is too much downward pressure on the cutter unit | Adjust the cutter unit's balancing pressure | 61 |
| Hydraulics | The machine's hydraulic functions do not work | Check that the hydraulic hoses are correctly connected to the tractor's hydraulic outlet | 46 |
| | | Insufficient amount of oil or oil pressure from the tractor | |
| The machine can not be lifted in transport position | The machine's hydraulic valve is not activated | Contact on the control is not in the correct position | 52 |
| | | Cord for the valve not activated | |

Cutterbar

| Fault | Possible cause | Remedy | Page |
|------------------------------------------------|--------------------------------------------------------------------------------------------|----------------------------------------------------|------|
| The machine leaves towing tracks on the ground | There is too much downward pressure on the cutter unit | Adjust the cutter unit's balancing pressure | 61 |
| | The mounting bracket is not at the correct height | Adjust the height of the mounting bracket | 43 |
| Uneven stubble | Driving too slowly | Increase speed | 30 |
| | The tractor RPM on the PTO is too low | Check RPM | 30 |
| | The blades are blunt or individual blades are missing | Turn or replace the blades | 118 |
| | The machine is not correctly balanced | Adjust the cutter unit's balancing pressure | 61 |
| | The mounting bracket is not at the correct height | Adjust the height of the mounting bracket | 43 |
| | balancing pressure too low | Increase the balancing pressure on the cutter unit | 61 |
| Stripes in stubble ^[1] | The inclination of the cutter bar does not have the correct angle for the crop in question | Adjust the angle of the cutter bar | 60 |
| | | Increase speed | |
| | Build up of crop on the cutting discs | Increase the from opening on the conditioner plate | 62 |
| | | The rotor RPM is set to 1000 RPM | 64 |
| | | Attach casting blades ^[2] | 133 |
| Stubble too high | Beam angle too small | Adjust the stubble height | 60 |

Troubleshooting

| Fault | Possible cause | Remedy | Page |
|--------------------------------------------|---------------------------------------------------------------|------------------------------------|------|
| Increased wear on the skids | Balancing pressure too high | Adjust the balancing pressure | 61 |
| "Black" stripes on the ground | | | |
| Uneven swathes | The rotor's RPM is too low | Adjust the rotor's RPM to 1000 RPM | 63 |
| | Insufficient tension of V-belt transmission at the rotor | Check the V-belts | 97 |
| | Worn V-belt transmission at rotor | Replace the V-belts | 125 |
| | Incorrect setting of the deflector plate | Adjust the deflector plates | 75 |
| Conditioning too weak | Too much distance between the conditioner plate and the rotor | Adjust the conditioner plate | 62 |
| | The rotor's RPM is too low | Adjust the rotor's RPM to 1000 RPM | 63 |
| | Roller pressure is too low | Adjust the roller pressure | 72 |
| | The V-belts at the rollers are not sufficiently tight | Check the V-belts | 97 |
| | The V-belts at the rollers are worn | Replace the V-belts | 125 |
| Breaking of stems too severe | Roller pressure is too great | Adjust the roller pressure | 72 |
| | The speed of the tractor is too low | Increase speed of the tractor | |
| The cutter bar gets abnormally warm | Wrong oil type | Change to the correct oil type | 143 |

P.T.O. shaft

| Fault | Possible cause | Remedy | Page |
|-----------------------------------------------------------------------------|---------------------------------------------|--------------------------------------------------------|------|
| The friction clutch on the PTO shaft becomes abnormally warm | The RPM on the PTO shaft is too low | Check the rotational speed at the tractor's PTO outlet | 30 |
| | The friction discs in the coupling are worn | Replace the friction discs in the clutch | 132 |
| PTO shaft is difficult to adjust between the tractor and the machine | PTO shaft's profile tube is dirty | PTO shaft is removed, cleaned and lubricated | 132 |

- ¹ Problems with stripes are more likely to occur when mowing short, strong, spring crops in less than ideal weather conditions. Always begin by checking that the blades on the cutting discs are sharp.
- ^[2] »Optional equipment« Page 133

Guidelines for Warranty

The warranty period for our product is 12 months from the date of purchase. The warranty does not include the parts subject to wear.

Warranty claims can be made with Kverneland warranty application which must be filled out by your local Kverneland dealer where your machine/equipment was purchased.

No liability is accepted for any damage that may arise

We are not liable for compensation for any damage not arising from the machine/equipment itself. This also includes damage arising from incorrect usage of the machine/equipment.

Therefore, read this instruction manual before putting the machine/equipment to use. Furthermore, always check that the machine/equipment works correctly before and during use.

Disposal

When the machine reaches the end of its service life, it must be disposed of in the correct way. Observe the following:

Metal parts

Take usable parts to an authorized recycling plant. Larger scrap parts must be taken to an authorized wrecker where they can be processed in accordance with applicable regulations.

Rubber parts

Take usable parts to an authorized recycling plant where they can be processed in accordance with applicable regulations.

Plastic

Take usable parts to an authorized recycling plant where they can be processed in accordance with applicable regulations.

Hydraulic oil

The machine must be emptied of oil.
Used oil and lubricants must be taken to a wrecker where it can be processed in accordance with applicable regulations.

Electronic parts

Take usable parts to an authorized recycling plant where they can be processed in accordance with applicable regulations.

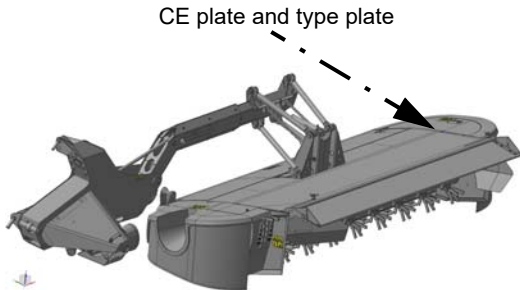
EU Declaration of Conformity

EU Directive 2006/
42/EC

We:

Kverneland Group Kerteminde AS
Taarupstrandvej 25
DK - 5300 Kerteminde
Denmark

hereby declare under our sole responsibility that the following product:



**DMC 6332T/R - 6336T - 6336T Vario
and ancillary equipment**

**Applicable as from machine No:
KT478034**

to which the declaration pertains, is in compliance with the basic safety requirements set out in EU Directive 2006/42/EF.

To fulfill the appropriate safety requirements under the terms of the EU Directive, the following standards have been applied:

- DIN EN ISO 12 100-1:2003
- DIN EN ISO 12 100-2:2003
- DIN EN ISO 4254-12:2012
- DIN 11001-3:1998

Kverneland Group Kerteminde AS
Kerteminde - Denmark 27.03.2018

Claus Udengaard Thomsen

Administrating manager
and party in charge of documentation*

* The person authorized to collect the technical appendices and who is a resident of the community. Address, see above.

Conversion table

| Basic unit: | SI - unit | Conversion figures: |
|---------------|---------------------------------------------|-----------------------------------------------------------------------------------|
| Length | 1 m | 39.4 in = 3.3 ft = 1.1 yd = 0.00062 miles (US) |
| Area | 1 m ² | 1.2 yd ² = 10.8 ft ² = 0.00025 acre = 0.0001 ha |
| Volume | 1 dm ³ (1 l) | 61 in ³ = 0.035 ft ³ = 0.22 gallon (Imp) = 0.26 gallon (US) |
| Speed | 1 m/sec | 3.6 km/h = 2.24 mph = 3.28 ft/sec |
| Power | 1 N | 0.10 kp = 0.22 lbf |
| Effect | 1 kW | 1.36 hp = 102 kpm/sec |
| Mass | 1 kg | 2.2 lbs = 0.0197 cwt = 35 oz |
| Torque moment | 1 Nm | 0.102 kpm = 8.8 lb-in = 0.74 ft lb |
| Pressure | 1 bar | 0.01 atm. (kp/cm ²) = 0.14 psi |
| RPM | min ⁻¹ = revolutions / min = RPM | |

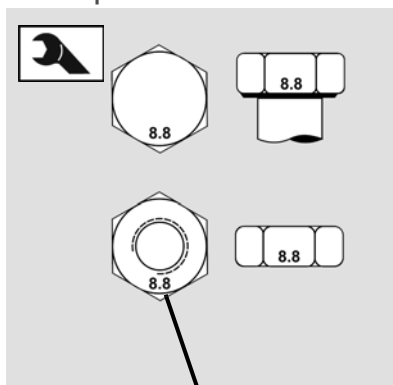
Lubricants

Only check the oil level when there is a visible loss of oil while the machine is level.

Transmission oil and lubricant must meet the following requirements

| Specification | | | |
|-------------------|--------|-------------------|---|
| Transmission oil | | Lubricant | |
| SAE J-2360 | 80W-90 | NLGI GC/LB | 2 |
| API | GL-4 | | |

Torque moment



Specification of quality class

WARNING

Use the correct torque

Fasten the screws, nuts and bolts using the indicated torque. Otherwise, this may result in damaging the machine and cause serious injury or death.

Note the quality class for screws, nuts and bolts.

Note the size of screw, nut and bolt and find the corresponding torque in the table.

Tighten screws, nuts and bolts to the indicated values, provided that no other value is indicated.

| Tightening torque for grade 8.8 black and/or galvanized and ungreased bolts when tightened on a smooth surface or a plain washer | | | | | | | | | |
|----------------------------------------------------------------------------------------------------------------------------------|-----|-----|----|----|----|------|-------|-----|-------|
| Thread dia. mm | 5 | 6 | 8 | 10 | 12 | 14 | 16 | 20 | 22 |
| Nm | 5.5 | 10 | 24 | 47 | 81 | 128 | 197 | 385 | 518 |
| ft lb | 4 | 7,5 | 18 | 35 | 60 | 94,5 | 145,5 | 284 | 382,5 |

The tables above apply unless otherwise indicated in the instruction manual for this machine.

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