Original inside

GB Operator‘s manual

+ INSTRUCTIONS FOR PRODUCT DELIVERY . . . Page 3

"Translation of the original Operating Manual"

Nr. 99 3751.EN.80Q.0

NOVACAT 261
NOVACAT 261 alpha motion / ED / RC
(Type PSM 3751 : 01001 - 01202**)**

NOVACAT 301
NOVACAT 301 alpha motion / ED / RC
(Type PSM 3761 : 01001 - 9221**)**

NOVACAT 351
NOVACAT 351 alpha motion / ED / RC
(Type PSM 3811 : 01001 - 02213**)**

• **Disc mower**

Chassis Nr.

Pöttinger - Trust creates Affinity - since 1871

"Quality pays for itself." Therefore we apply the highest quality standards to our products which are constantly monitored by our in-house quality management and our management board. Because the safety, perfect function, highest quality and absolute reliability of our machines in operation are the core competencies for which we stand.

There may be deviations between these instructions and the product as we are constantly developing our products. Therefore no claims may be derived from the data, illustrations and descriptions. Please contact your Specialist Service Centre for any binding information about specific features of your machine.

We would ask you to please understand that changes to the scope of supply with regard to form, equipment and technical specifications are possible at any time.

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Product liability, information obligation

Product liability obliges manufacturers and dealers to issue operating instructions for the machine at the point of sale and to instruct the customer on the operation, safety and maintenance regulations governing the machine.

A confirmation is required to verify that the machine and operating instructions have been handed over correctly.

For this purpose

- **Document A** is to be signed and returned to Pöttinger or via the internet to www.poettinger.at
- **Document B** remains with the specialist dealer handing over the machine.
- **The customer receives document C**.

For the purposes of product liability law, every farmer is an entrepreneur.

In the terms of product liability law, damage to property is any damage arising due to the machine, but not to the machine, and an excess (500 euros) exists for this liability.

Corporate damage to property within the terms of the product liability law is excluded from this liability.

Be advised! The operating instructions must also be handed over with any subsequent machine sale or transfer and the transferee must be instructed in the regulations stated.

Refer to PÖTPRO for additional information about your machine:

Are you looking for suitable accessories for your machine? No problem! All the information you require is here at your disposal. Scan the QR code on the machine's type plate or look under www.poettinger.at/poetpro

And if we don't have what your looking for, then your Specialist Service Centre is there for you with help and advice.

(EN) INSTRUCTIONS FOR PRODUCT DELIVERY

Dokument D

PÖTTINGER Landtechnik GmbH
Industriegelände 1
A-4710 Grieskirchen
Tel. 07248 / 600 -0
Telefax 07248 / 600-2511

According to the product liability please check the above mentioned items.

Please check. [X]

- ❑ Machine checked according to delivery note. All attached parts removed. All safety equipment, drive shaft and operating devices at hand.
- ❑ Operation and maintenance of machine and/or implement according to operating instructions explained to the customer.
- ❑ Tyres checked re. correct pressure.
- ❑ Wheel nuts checked re. tightness.
- ❑ Drive shaft cut to correct lenght.
- ❑ Correct power-take-off speed indicated.
- ❑ Fitting to tractor carried out: to three-point linkage
- ❑ Trial run carried out and no defects found.
- ❑ Functions explained during trial run.
- ❑ Pivoting in transporting and operating position explained.
- ❑ Information given re. optional extras.
- ❑ Absolute need to read the operating manual indicated.

In order to prove that the machine and the operating manual have been properly delivered, a confirmation is necessary.
For this purpose please do the following:

- sign the **document A** and send it to the company Pöttinger or via the internet to www.poettinger.at
- **document B** stays with the specialist factory delivering the machine.
- **document C** stays with the customer.

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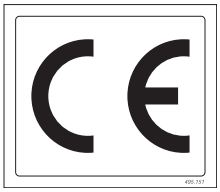
CE sign



The CE sign, which is affixed by the manufacturer, indicates outwardly that this machine conforms to the engineering guideline regulations and the other relevant EU guidelines.

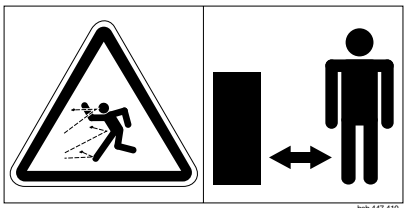
EU Declaration of Conformity (see supplement)

By signing the EU Declaration of Conformity, the manufacturer declares that the machine being brought into service complies with all relevant safety and health requirements.

Recommendations for work safety

All points referring to satety in this manual are indicated by this sign.

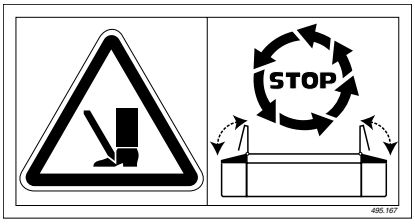
Meaning of warning signs



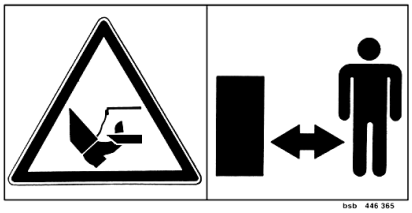
Danger - flying objects; keep safe distance from the machine as long as the engine is running.

Stay clear of swinging area of implements

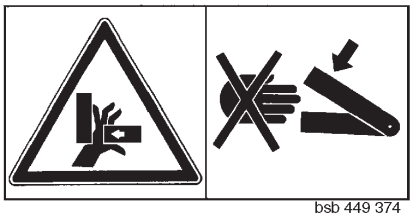
Wait until all machine components have stopped completely before touching them.



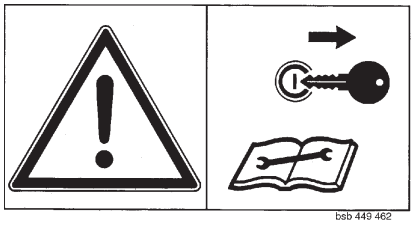
Close both side protective coverings before engaging p.t.o..



Stay clear of mower knife area as long as tractor engine is running with PTO connected.



Never reach into the crushing danger area as long as parts may move.



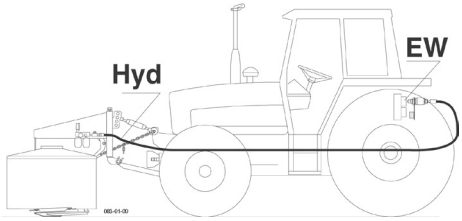
Shut off engine and remove key before performing maintenance or repair work.

Attaching in general

1. Observe safety tips in supplement A.
2. Mark off the implement at the tractor's front lifting gear.
   - Secure locking bolts with linch pins.

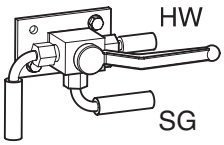
Solving problems with hydraulic connection

If the tractor has no hydraulic connection at the front,



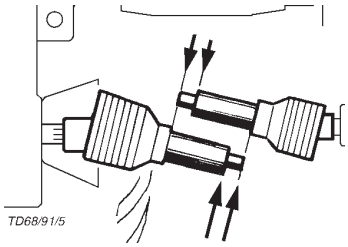
then a hydraulic hose must be run from the rear to the front.

A switch between the front lifting gear (HW) and front control device (SG) via a three-way tap may be necessary with some tractors.



Drive shaft

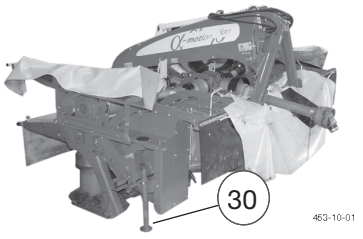
- Before operating for the first time, drive shaft is to be checked and adapted if necessary. See also chapter "Fitting the drive shaft" in supplement B.



Parking the Unit

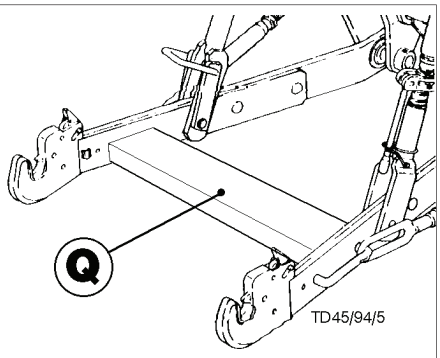
Always park the mowing unit on the supporting legs (30) with the adapter (conditioner), otherwise there is a danger of the unit tipping over.

- fix the supporting leg by means of a sprung forelock.



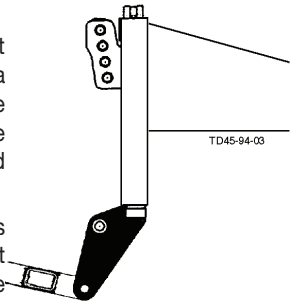
Attaching problems

On lifting gear with a crosspiece (Q) between the lower links, damage could occur to the drive shaft when lowering the attached implement.

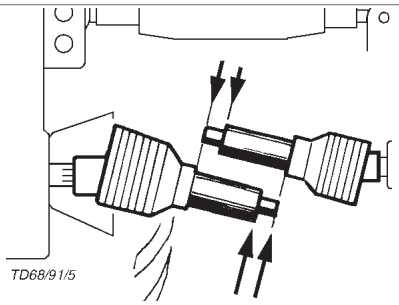


In order to prevent damage an extra elevator unit is to be installed between the Weiste-triangle and the lifting gear.

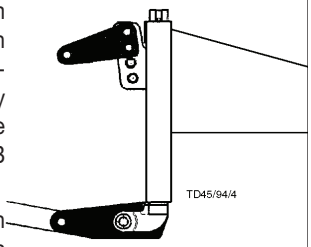
In a case such as this please contact our Customer Service Dept.



When towing implements whose p.t.o stub is positioned a long way forward, the drive shaft must be shortened quite a bit.



- When the implement is engaged then there is insufficient casing to over the drive shaft.
- The maximum angle of deviation of the universal-joint will possibly be exceeded (see Supplement B also).



In this case an accessory kit is necessary which positions the implement approx. 200 mm forwards.

In a case such as this please contact our Customer Service Dept.

Attention!

The following danger source exists with double action front lifting devices on tractors:

The maximum mower unit lowering depth is set with limiting chains. If the lifting gear exceeds the maximum set lowering depth then load is placed on the limiting chains.

This can lead to the chain or the linch pin breaking and danger of injury exists for persons standing in the danger are!

Take note!

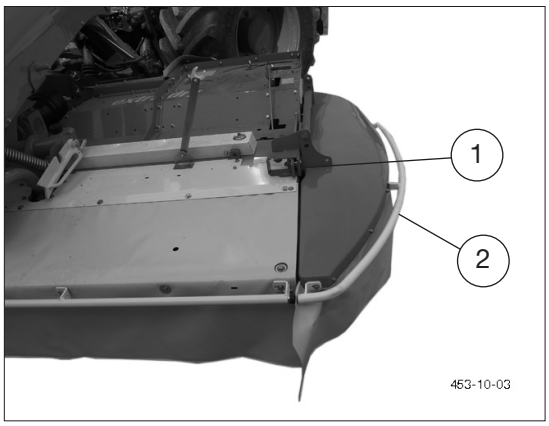
No support stands are required to securely park the mowing unit with swath former!

Guard plates and protective aprons

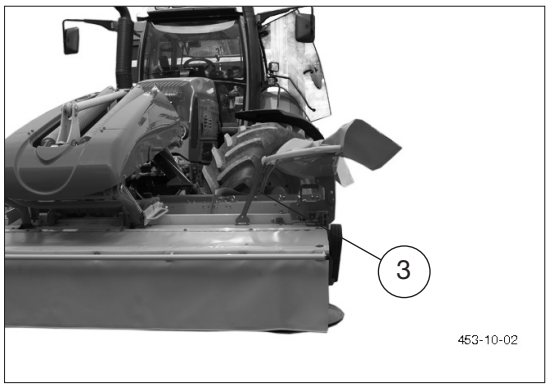
Guard plates and protective aprons can be raised when maintenance work is to be done.

For safety reasons it is necessary to wait for mowing disks to stop completely before raising and securing guard plates.

1. Loosen locking mechanism (1) and swing protection (2) up.



- engage protective frame in holder (3)
- left and right



Hydraulic side protection

Be aware!

Danger of crushing exists when swivelling the side protection!

As an optional extra, swivelling the side protection can be carried out hydraulically using the tractor's servo-valve.

This would eliminate the necessity of releasing or latching a locking device.

Transport position

When both safety devices are swivelled up and secured in the catch (3), the consequent width is:

Type	NC 261	NC 301	NC 351
Transport width (X)	< 2,58m	< 3,00m	< 3,42m

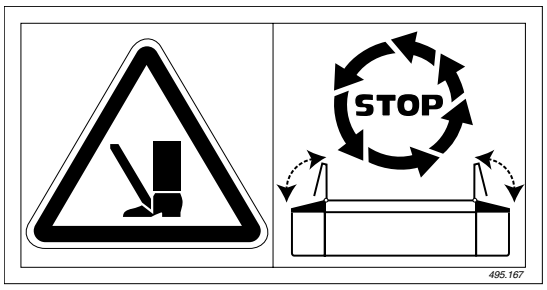
Road Transport

- Observe the regulations issued by your country's legislative body.
- Travelling on public roads may only be undertaken as is described in the chapter "Transporting Position".
- Fasten lower hydraulic link so that implement cannot swing out sideways.

Work position

Before commencing work

Turn the p.t.o. on only when all safety devices (coverings, protective aprons, casings, etc.) are in proper condition and attached to the implement in the correct protective positions.



For safety reasons mowing may only be conducted in this position.

Beware!

Swing side protection down before starting work!

Beware!

Check side protection for correct function, working position and condition before every operation.

Any defective parts on the safety equipment must be replaced immediately.

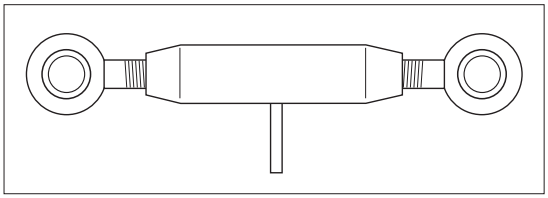
The manufacturer is not responsible for any manipulation and inappropriate use of safety equipment.

Beware!

Entering the safety equipment area is not permitted!

Rigid steering mechanism

Use a rigid steering mechanism



Pay particul arattention before initial attachment to Tractor!

Note!

For front lifting gear with double-action hydraulic cycle (danger of damage)!

Remedy:

- Switch control valve to single-action
- Convert front lifting gear to single-action function (bypass line) through a specialist work shop

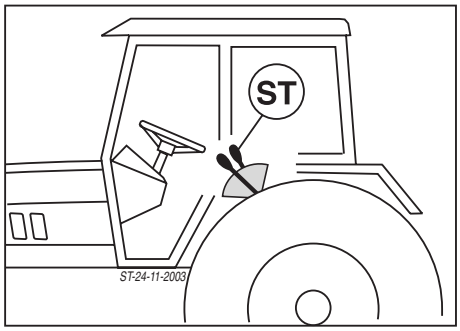
- **When the mower is attached to the tractor, the the hydraulic control (ST) must not be set at „Lower“.**
- **Immediately after such an operating error, reset the adjustable plate (P1). Replace damaged parts beforehand.**

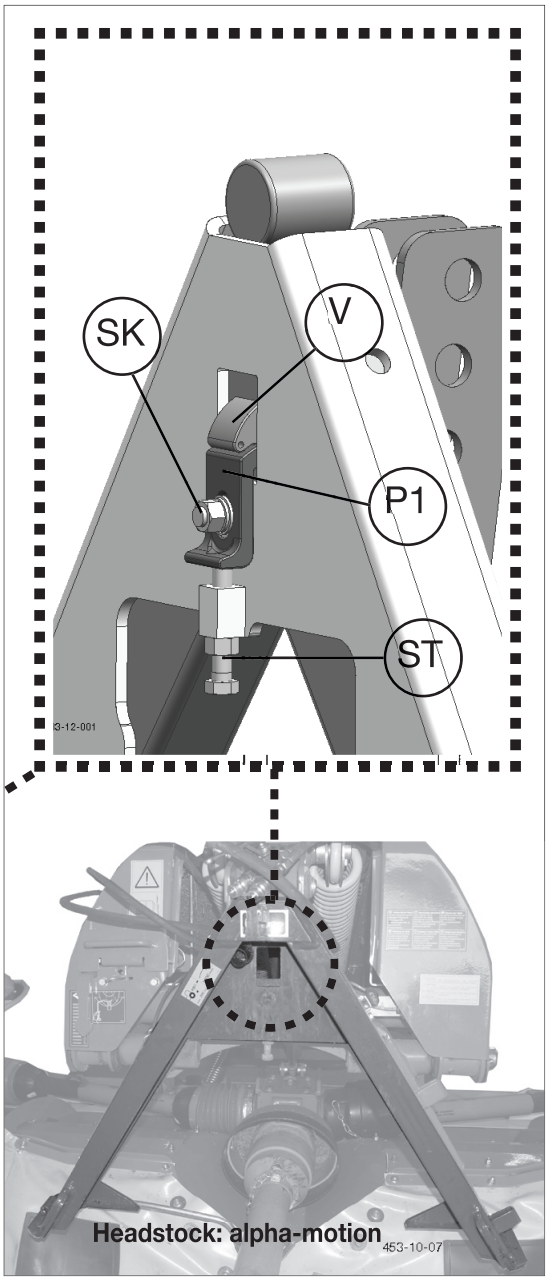
The following could happen after an operating error:

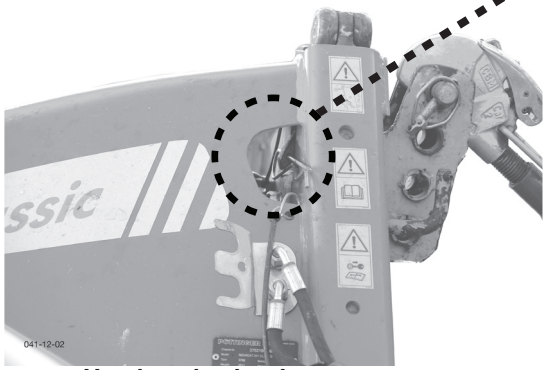
- the position of the plate (P1) has changed in the slot; the gap to the locking hook (V) is therefore too great,
- the locking hook (V) breaks,
- both levers on the load relieving unit become damaged.
- The limiting chains can snap.

Reset the adjustable plate (P1)

1. Loosen bolts enough so that position of plate (P1) can be altered using the adjusting screw (ST).
2. Couple the mower to the tractor´s lifting gear
3. Position the adjustable plate (P1) so that the locking hook (V) can still be unlatched.The gap to the hook should be as narrow as possible.
4. Uncouple the mower from the tractor´s lifting gear.
5. Tighten screws (SK) to **65 Nm**.







Headstock: classic

Headstock: alpha-motion

Beware!

The following danger source exists with double action front lifting devices on tractors: The maximum mower unit lowering depth is set with limiting chains. If the lifting gear exceeds the maximum set lowering depth then load is placed on the limiting chains.

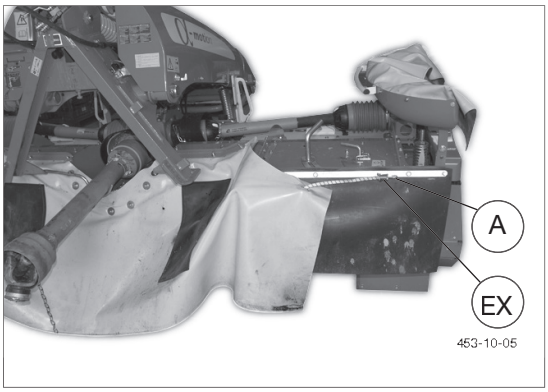
This can lead to the chain or the linch pin breaking and danger of injury exists for persons standing in the danger are!

Snap Connector (1)

1. Secure Expander (EX) in the correct position

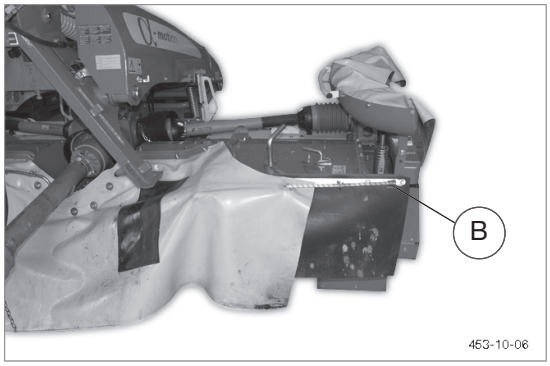
Position A

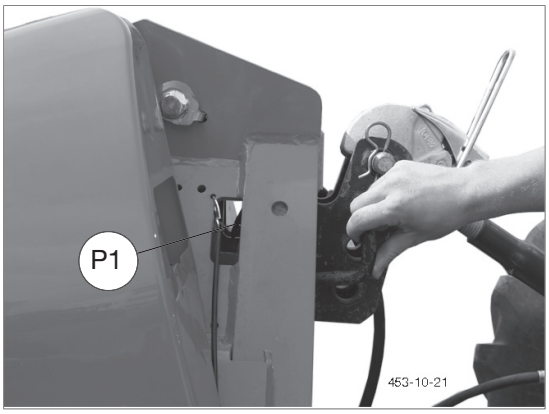
- before hooking up to the tractor



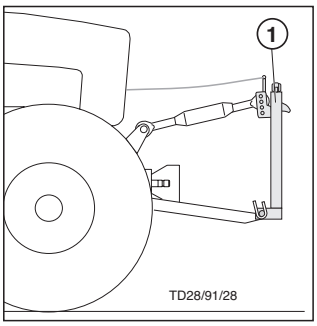
Position B

- after hooking up to the tractor and during mowing

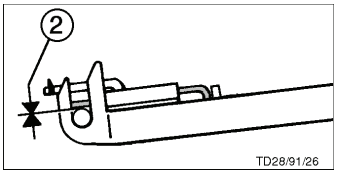




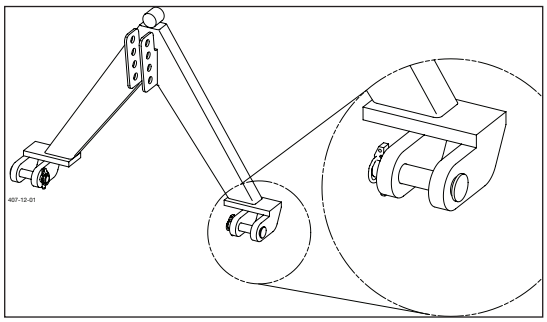
2. Mount snap connector (Weiste triangle) onto the front lifting gear in a vertical position or inclined slightly forward.



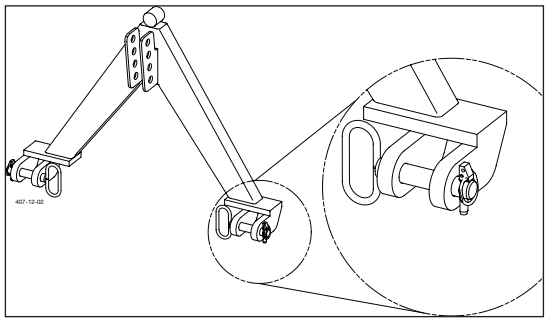
3. Lock lower link bolts (2) so that they are free from play.



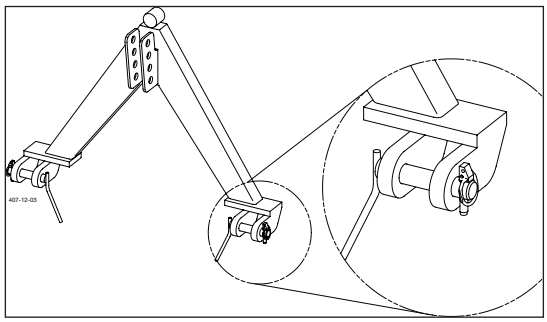
Insert lower linkage bolts from the inside outward to prevent damage to protective aprons. At most, linch pins may extend outside the lower linkage. For correct positions see diag. 1, 2, 3.



Linch pin inside (diag. 1)

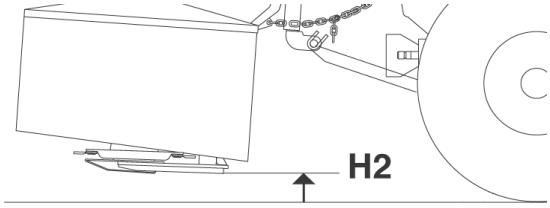


Linch pin outside (diag. 2)



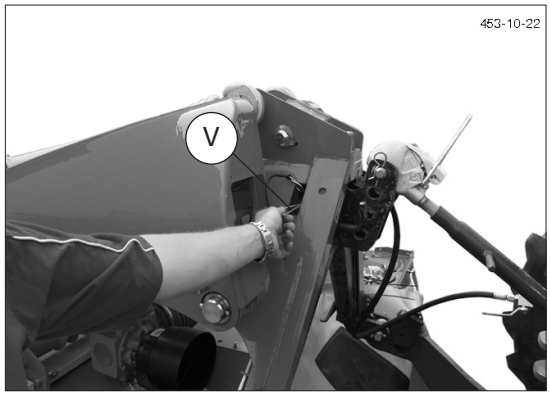
Linch pin outside (diag. 3)

4. Connect and lift mower unit (H2).



5. Secure locking clamp (V) with cotter pin.
   - Check the position of the adjustable plate Platte (P1).

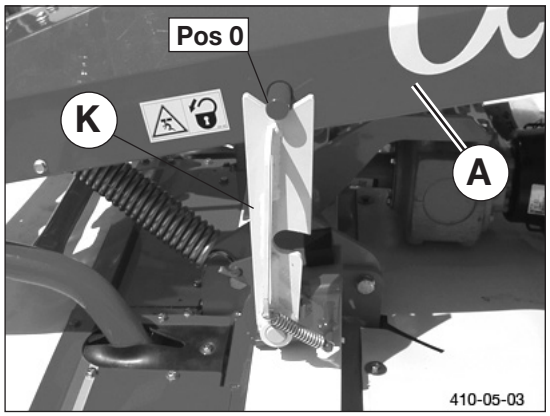
     The gap to the hook should be as narrow as possible.



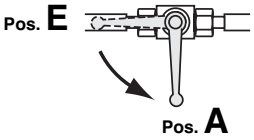
6. Fit drive shaft.

Parking position

- For parking the implement, swivel the bracket (K) up (pos. 0)



- Close stop cock (pos. A)

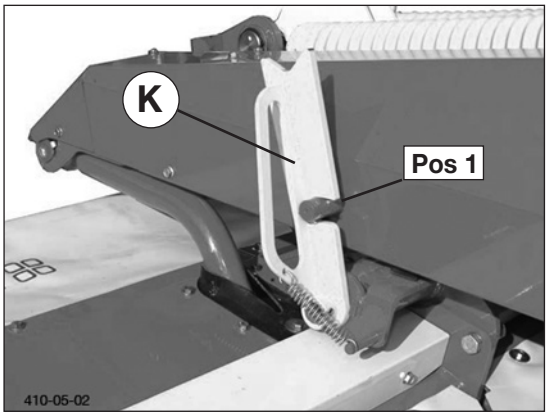


Note!

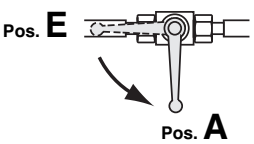
The conditioner can be removed only in this position (pos. 0)

Transport position

- Always lock the cutter unit when transporting
  - Swivel the bracket (K) to pos. 1

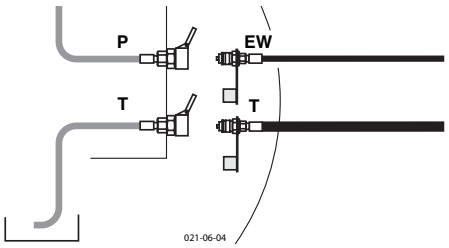


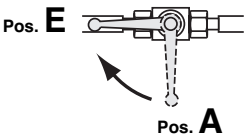
- Close stop cock (pos. A)



Mounting

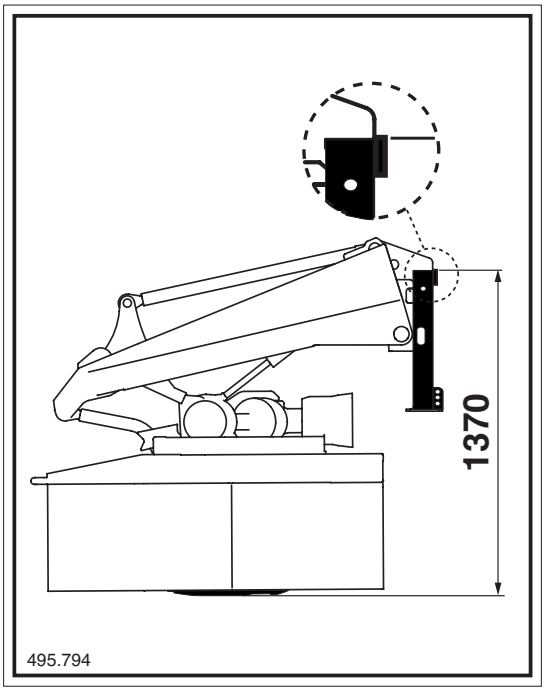
- See chapter "Attaching with the Snap Connector"
- Connect lifting cylinder hydraulic lines to the tractor's single-action (EW) hydraulic circuit

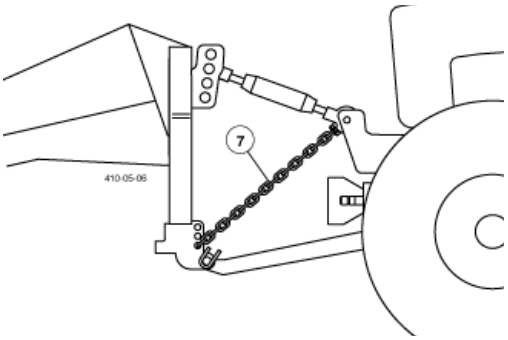




- Open stop cock (pos. E)
- Lift the mounting frame (A) over the tractor's lifting gear
- Swivel the bracket (K) forward
- Set working height at 1370 mm and secure with chain (7)

  (The limiting chains serve as setting aids!)





Variant with NOVACAT 301 and 261

Attention!

The cutter bar must always be secured during transportation.

Attention!

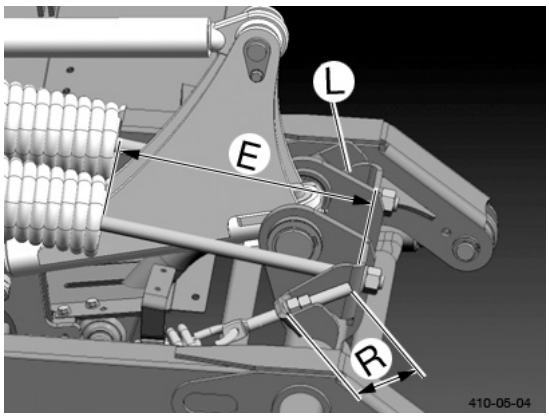
Park the implement on flat, firm ground

Beware!

The following danger source exists with double action front lifting devices on tractors: The maximum mower unit lowering depth is set with limiting chains. If the lifting gear exceeds the maximum set lowering depth then load is placed on the limiting chains.

This can lead to the chain or the linch pin breaking and danger of injury exists for persons standing in the danger are!

Set spring tension



E = Relieving springs

R = Weight counterbalance: right

L = Weight counterbalance: left

Cutter unit with Swath Maker (Standard values)

Type	E (mm)	R (mm)	L (mm)
NOVACAT 261	**245**	**55**	**25**
NOVACAT 301	**270**	**25**	**60**
NOVACAT 351	**250**	**25**	**90**

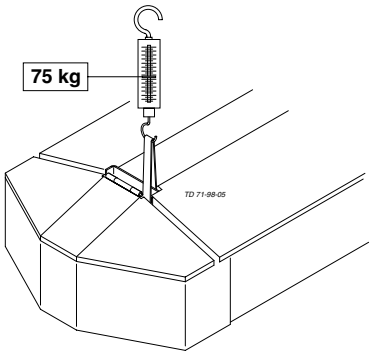
Cutter unit with Conditioner ED (Standard values)

Type	E (mm)	R (mm)	L (mm)
NOVACAT 261	**180**	**45**	**45**
NOVACAT 301	**205**	**45**	**45**
NOVACAT 351	**185**	**25**	**25**

Cutter unit with Conditioner RC (Standard values)

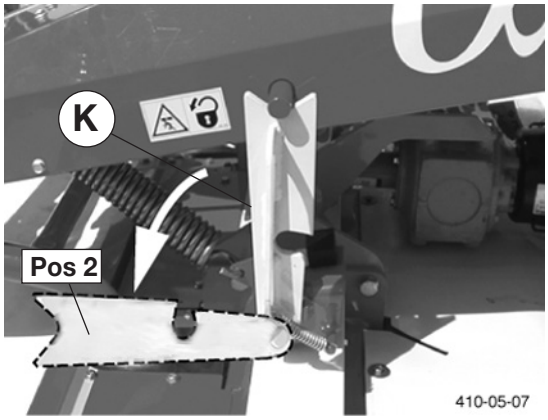
Type	E (mm)	R (mm)	L (mm)
NOVACAT 301	**160**	**45**	**45**
NOVACAT 351	**210**	**25**	**25**

- More important than the standard length value for springs is the ground bearing load of the cutter bar. It should be about 150 kg (approx. 75kg left and right).



Operation

- Swivel the bracket (K) to pos. 2

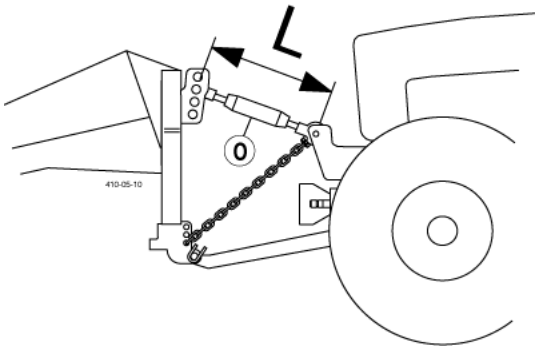


Note!

When setting and during operation, the hydraulic control valve for the front lifting gear must be locked for the position set.

Set cutting height [1)]

With upper link (O):

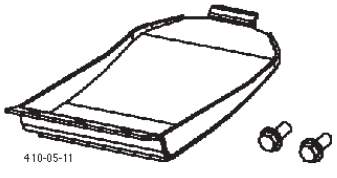


Altering the upper link length (L +/-) enables a cutting height difference of between 3 to 6 cm.

Note!

When stopping the mower bring the triangular headstock into the vertical position.

With high cut skids:



Use when cutting height exceeds 6 cm

[1)]Only with disc mowing

Safety advice

1. Check

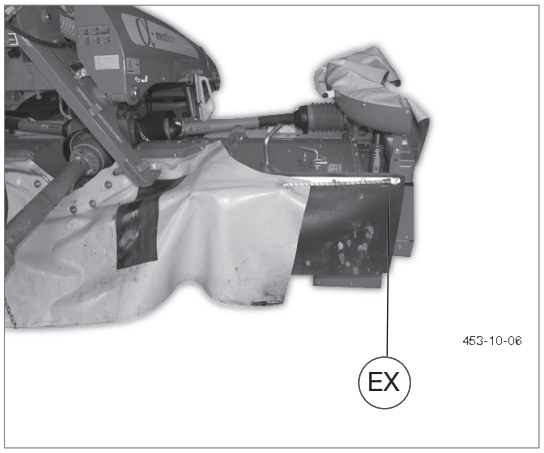
- Check the condition of knives and the knife holder.
- Check mower discs for damage (see chapter "Maintenance and Service")

2. Switch machine on in working position only and do not exceed the specified p.t.o. speed (e.g. max. 540 rpm)!

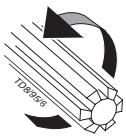
A transfer, located near the gearing, advises which p.t.o. speed your mower unit is equipped for.

540 Upm	750 Upm	1000 Upm

- Always and only switch the p.t.o. drive on when all safety devices (covers, protective clothes, casings) are in proper condition and are attached to the implement in their safety positions.
  - Hook up expander (EX)



3. Pay attention to correct p.t.o. direction of rotation!

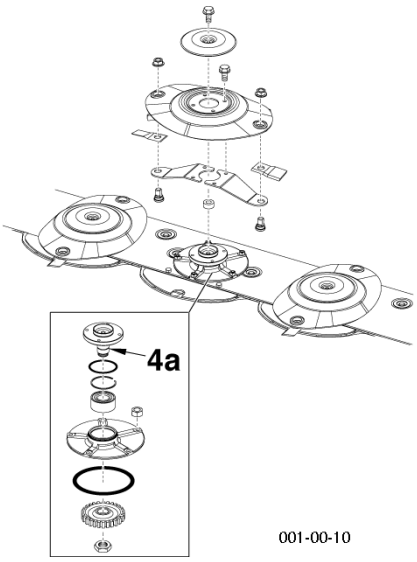


4. Prevent any damage!

The area to be mowed must be free of obstacles or foreign objects. Such objects (e.g. large stones, pieces of wood, boundary stones, etc.) can damage the mower unit.

In the event of a collision

- Stop immediately and switch off the drive.
- Check the implement carefully for any damage In particular check the mowing discs and their drive shafts (4a).
- If necessary have it checked over in the work shop as well.



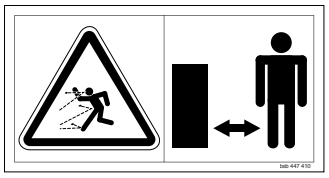
After contact with a foreign object

- Check the condition of knives and the knife fixings.
- Retighten all knife screw fittings.
- Check the implement carefully for any damage. The mowing discs and their drive shaft must be checked in particular.
- If necessary have it checked over in the work shop as well.

5. Remain at a distance when the engine is running.

- Guide people out of the danger area as they may receive injuries from foreign objects being ejected by the mower.

  Special care is necessary on stony ground and near roads and paths.



6. Wear hearing protection

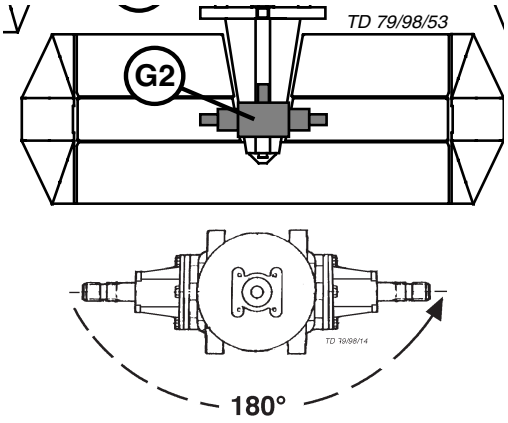
The noise level in the workplace can deviate from the measured value (see Technical Data) partly because of the differing cabin types of various tractors.

- If a noise level of 85 dB (A) is reached or exceeded, then the contractor (farmer) must have suitable hearing protection readily available (UVV 1.1 § 2).

- If a noise level of 90 dB (A) is reached or exceeded, then hearing protection must be worn (UVV 1.1 § 16).

Remedy! Where p.t.o. on tractor being used cannot be switched to rotate anticlockwise:

- Remove transmission (G2), turn it 180° and refit it.



Important notes prior to starting work

Safety information: see Supplement A, pt. 1. - 7.)

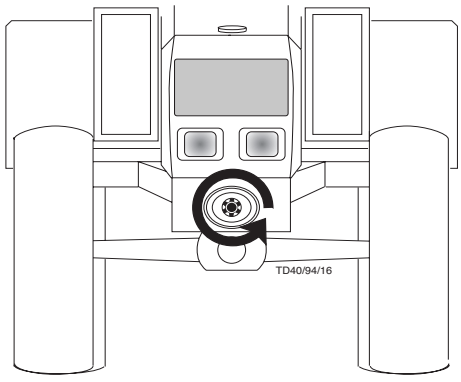
• After the first hours of operation

• Retighten screw fittings for all knives.

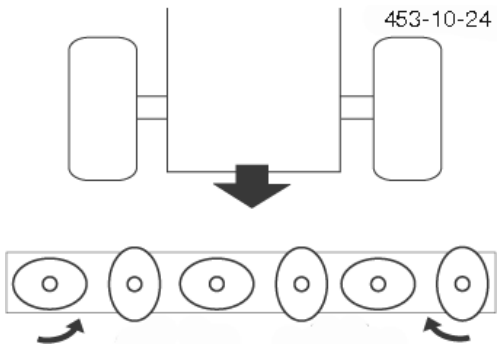
Note direction of rotation of mower discs

General

For mowing the p.t.o. must rotate anticlockwise.

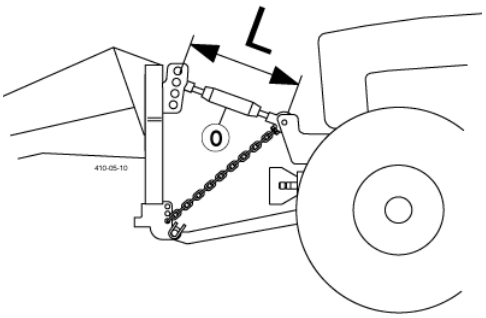


The mower discs direction of rotation is OK if the outside mower discs rotate inward when viewed from the front.



Set cutting height[1)]

With upper link (O):



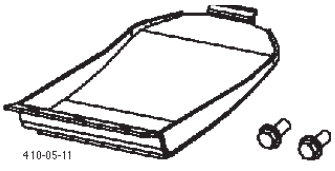
Altering the upper link length (L +/-) enables a cutting height difference of between 3 to 6 cm.

Note!

When parking mower, bring triangular mounting frame back to vertical position.

With high-cut skids:

Use when cutting height exceeds 6 cm.



only for disc mowing

Mowing

Be advised!

Check all safety devices!

Stones and other objects can be picked up and ejected when mowing. Direct all persons out of the danger area.

Side protection must be properly folded down and secured!

1. **Set cutting height by turning upper link spindle (max. 5° incline for mower discs)**
2. **For mowing, slowly engage the p.t.o. shaft away from the crop and bring the mower rotor up to full speed.**

   Smoothly increasing the p.t.o. speed will avoid system-related noises from the p.t.o. shaft free-running.

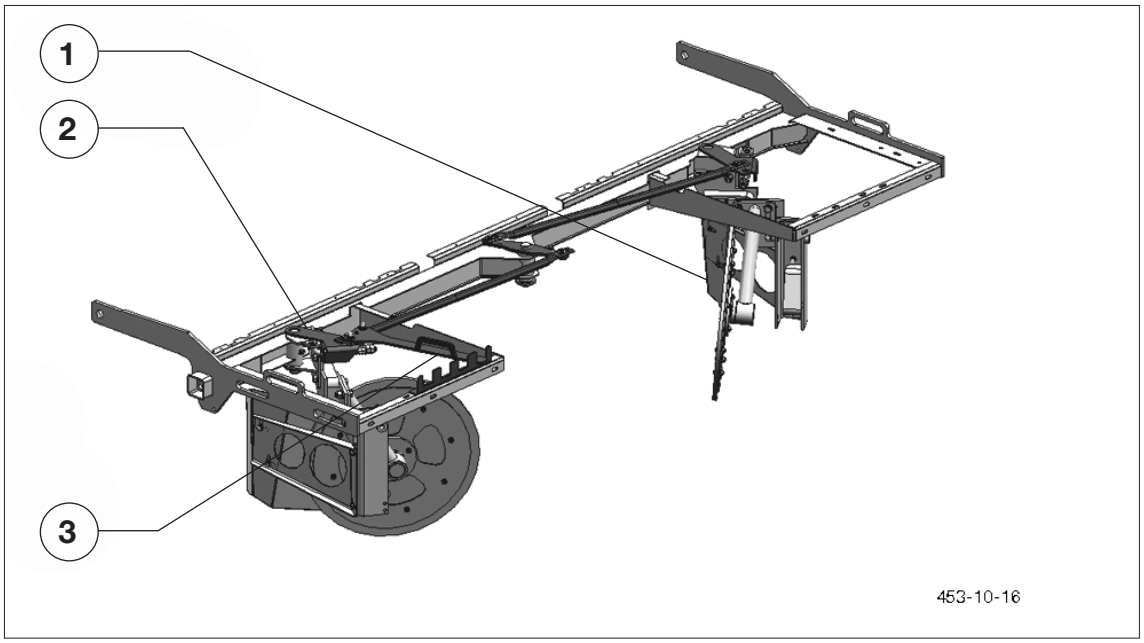
- The driving speed depends on the ground conditions and the crop to be mown.

Reversing

Raise the mower when reversing!

Operating Principle

A narrow swath is formed when using the swath plates while mowing. This avoids driving over the crop with wide tractor tyres.



Safety note:

Read and comply with the Operating Instructions and particularly the safety notes prior to commissioning.

Designations:

(1) Swath disc
(2) Swath disc holder
(3) Adjusting mechanism

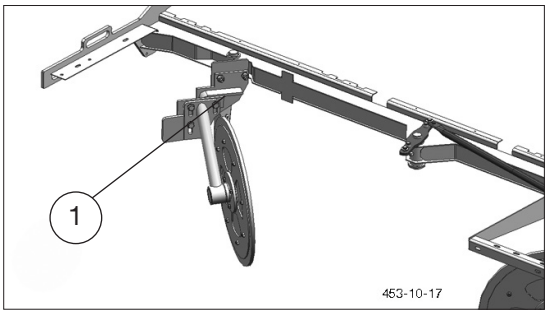
Adjustment Possibilities

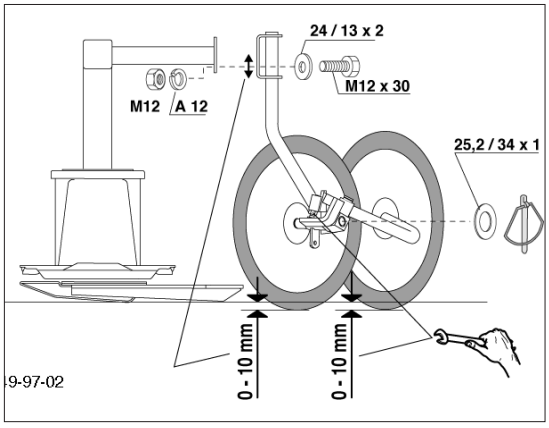
Working range:

The horizontal working range of the swath former is adjustable via the slots (L).

Optimum adjustment:

The discs are mounted 0-10 mm lower than the bottom edge of the cutter bar.





Warning!

Rotating parts, danger of being pulled in. Never open or remove protective devices when engine is running.

Non-standard equipment

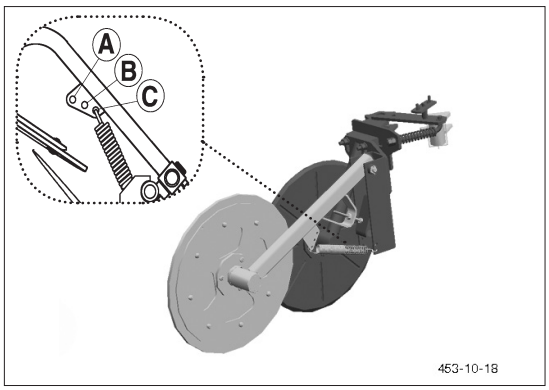
Additional swath plate

Adjusting the two tension springs:

A = For tall, dense fodder crops.

B = Basic setting.

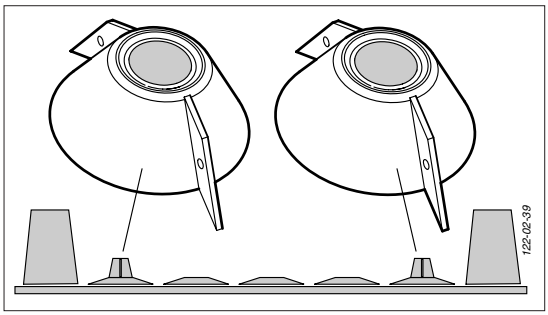
C= For short fodder crops.



Conveying cone

The conveying cones are recommended:

- To improve the output for the swath deposit, particularly with heavy, dense fodder crops.
- See Spare Parts List for spare parts



Caution!

Switch off the engine before carrying out maintenance and repair work and remove the ignition key.

maintenance

The swath former is maintenance-free with the exception of cleaning activities.

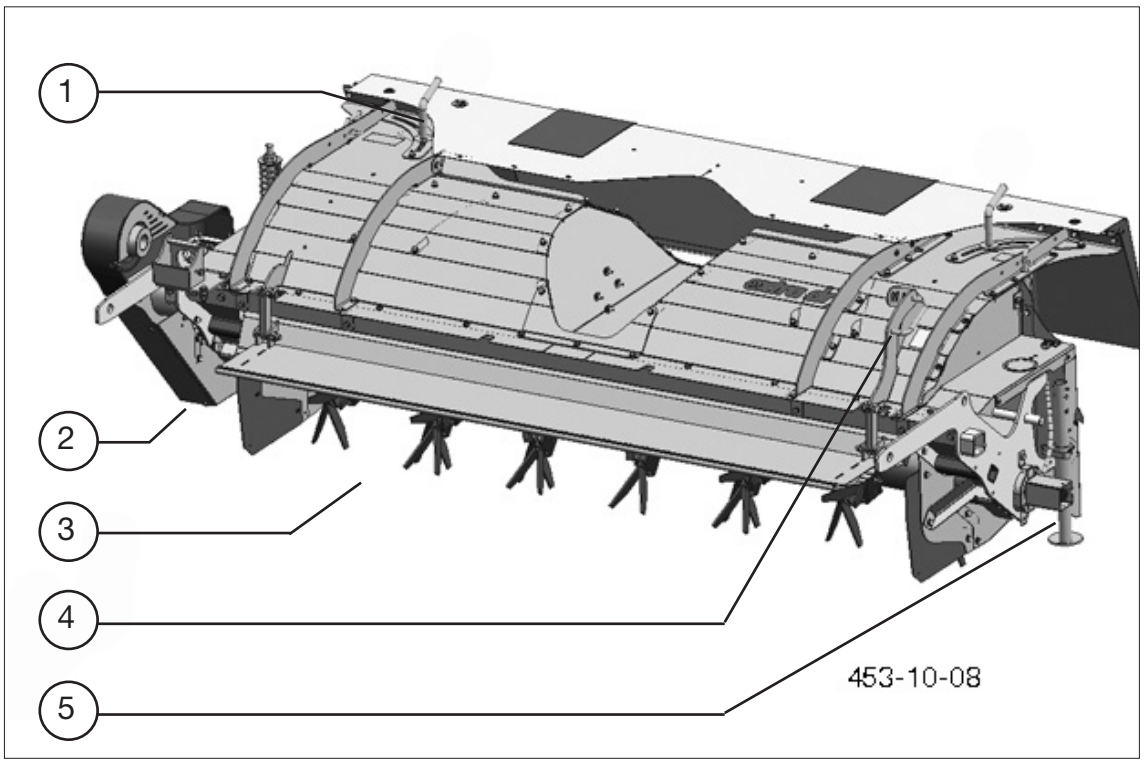
Removal and installation of the swath former

The mower unit is compatible for optional hitching of a tine conditioner, roller conditioner or swath former. Special work steps are necessary for the conversion depending on the attachment unit.

For details see the Section “REPLACE CONDITIONER”

Operation mode

The aim of conditioning is to ream the wax layer (protection layer) on the blade of grass. Consequently, the fodder looses moisture more easily and dries more quickly. Conditioning is carried out using V-shaped tines, placed in a spiral on the conditioner shaft. The intensity is adjusted via a baffle plate with conditioner rails.



Designations:

(1) adjustable swath board
(2) Intensity adjustment unit
(3) Tine rotor
(4) Propeller unit
(5) Support leg

Safety information

Read and observe the operating instructions and, in particular, the safety information prior to initial operation.

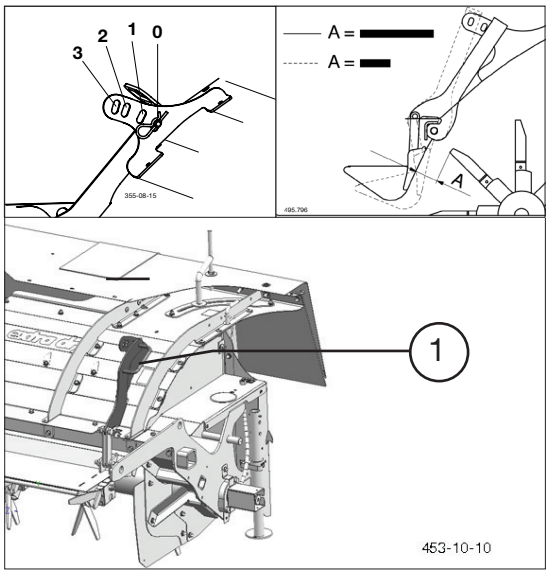
Possible settings

For optimal adaptation to the surrounding conditions, make the following adjustments to the tine conditioner:

Setting the conditioning effect:

Adjust the distance between the adjustment bracket and the rotor using lever (1).

- Position (3): the most effective conditioning. The fodder surface is strongly reamed. However, the fodder must not be beaten.
- Position (0): the fodder surface is reamed only slightly.



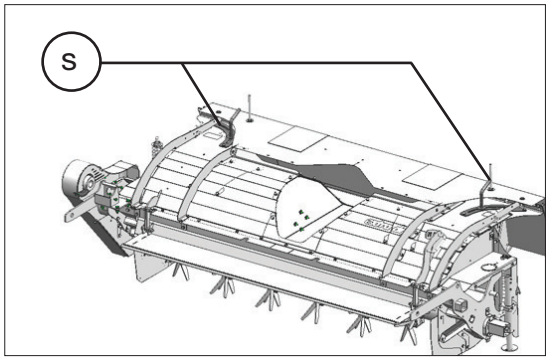
The right setting depends on the quantity of the cuttings, driving speed and tractor capacity among other things. Therefore, we cannot provide an obligatory recommendation regarding the correct lever setting.

Warning!

Danger of being drawn-in when components are still rotating. Do not open or remove protective devices while the engine is running.

Set swath width:

The swath boards shape the cut and conditioned fodder to the desired swath width. You adjust the swath plates left and right by opening and setting the adjustment screw in an identical way (S)

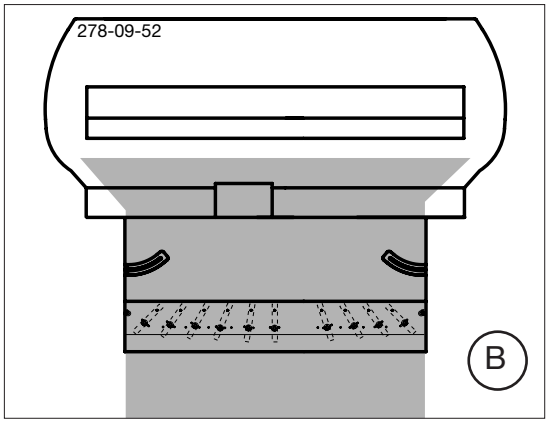


Setting the position of swath and guide plates

The settings listed below should be taken as basic settings. Because of the various types of crops, an optimum setting of the guiding plates can possibly first be ascertained when the machine is in use.

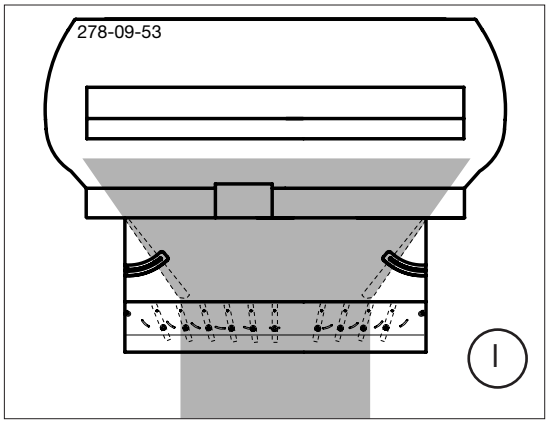
Crop spreading

- Swivel the swath plates (S) completely to the outside
- Position (B)



Windrows

- Swivel the swath plates (S) to the inside
- Position (L)



Note!

Incorrectly setting the swath plates and guide plates may lead to:

- **increased power requirements**
- **machine clogging**
- **V-belt damages**

Operation

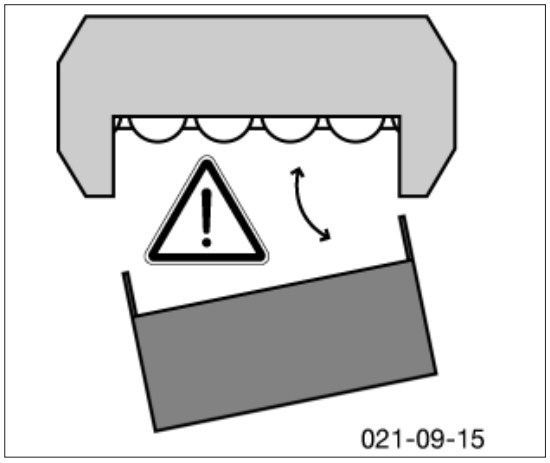
Driving speed:

Adapt the speed to fodder consistency. Travelling too fast reduces conditioning quality and evenness.

Working without conditioner:

If necessary, the tine conditioner can also be detached and replaced with a roller conditioner or a swath former. (Contact your sales partner for more information.)

A machine with a conditioner as a complete unit is fitted with the proper protective devices. Should the conditioner be removed then the mower unit is no longer completely encased. In this case mowing must not take place without fitting additional protective devices!



Be advised!

If the conditioner is detached, the cutting blades of the disc mower are freely accessible. The greatest risk of injury exists. For mowing without a conditioner, specially designed protective devices for this type of operation must be fitted to the mower bar.

These safety elements are not included in the scope of delivery for a new machine with conditioner. The parts must be ordered additionally (see spare parts list, component: "REAR PROTECTION“).

Caution!

Danger of injury from ejecting parts. Keep persons at a sufficiently safe distance during mowing.

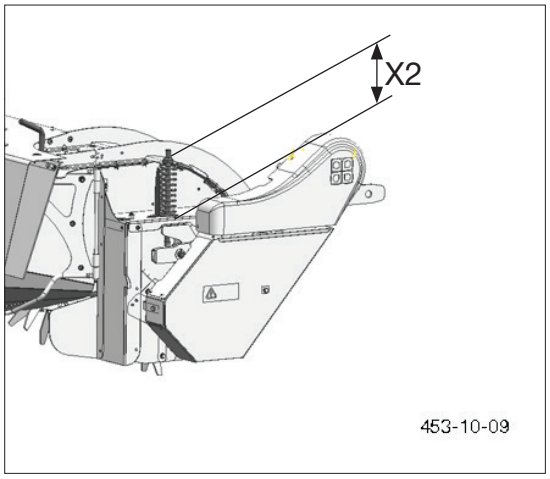
Maintenance

Correct belt tension:

Control size X2

NOVACAT 261, NOVACAT 301 and NOVACAT 351:

X2 = 173 mm (lateral mowers)



Beware!

Risk of crushing when tensioning the belt!

Rotor tines:

1. Replacing tine fixings

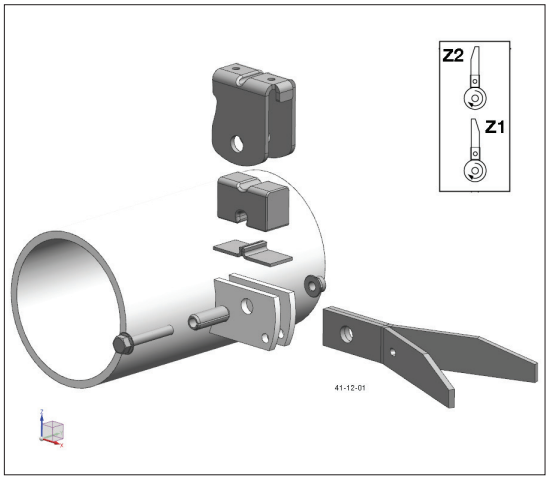
If signs of strong wear are found on the tine fixings, then the affected component(s) must be replaced. (tines, screw, clamping sleeve, ...)

2. Rotor tines position

Pos. Z1: Rotor tines position for normal conditions of use.

Pos. Z2: For difficult operating conditions, e.g. when the fodder winds around the rotor.

Turn the rotor prongs 180° (pos. Z2). This prong position solves the problem in most cases. However, this reduces the conditioning effect to a certain extent.



Caution!

Turn engine off and remove key before performing maintenance or repair work.

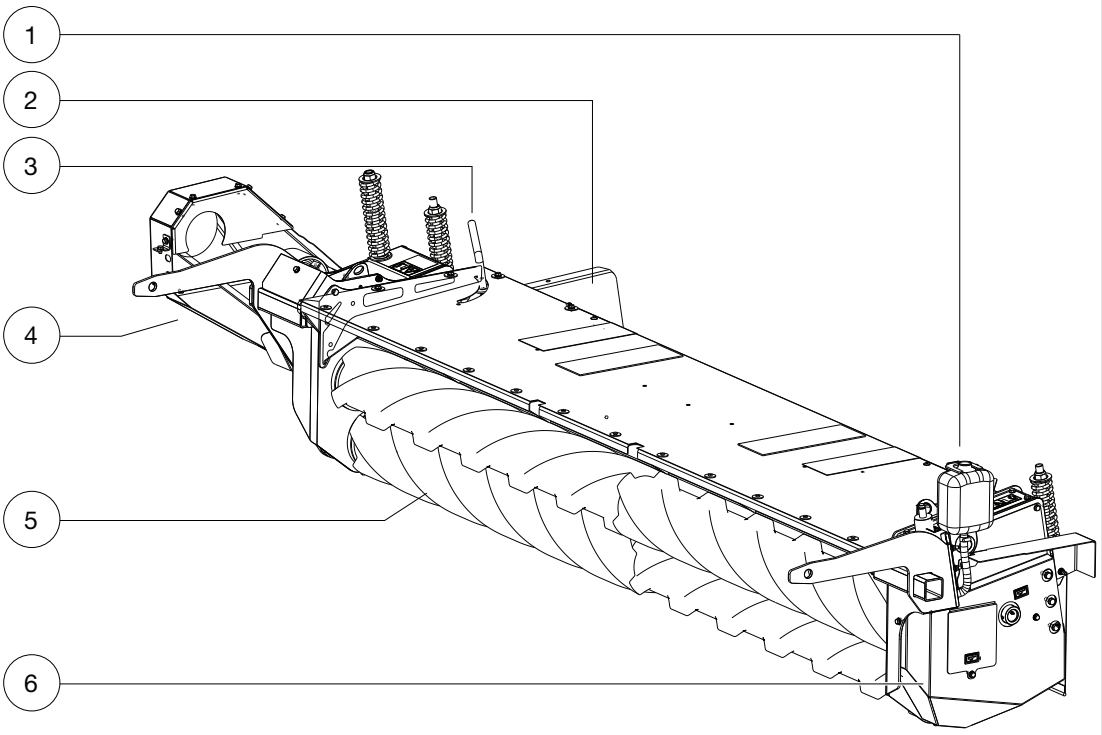
Detaching and attaching the conditioner

The mower unit is compatible for the optional attachment of a tine, roller conditioner or swath former. Special work steps are necessary for the conversion depending on the unit to be attached.

For details see the Section “REPLACE CONDITIONER”

Mode of operation

The roller conditioner is suitable for lucerne and clover types. Two power-driven interlocking rollers crush the fodder. This damages the plant's natural wax coating and the drying time is accelerated.



(Diag.: Roller conditioner - model 381

Designations:

(1) Central lubricating unit
(2) adjustable swath board
(3) Adjusting unit for swath board (left and right)
(4) Maintenance unit: Belt drive
(5) Upper and lower rubber roller
(6) Maintenance unit: Chain drive

Safety information

Before initial operation read and observe the operating instructions, particularly the safety information.

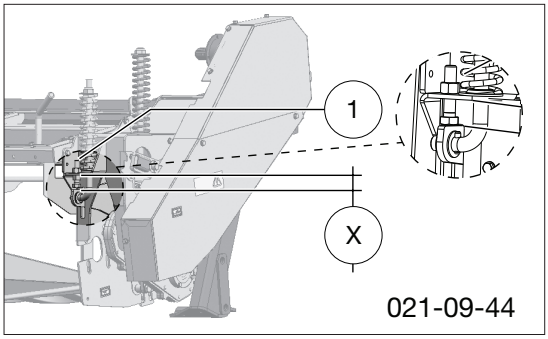
Possible settings

When delivered the roller conditioner is preset for medium intensity. For optimum adaptation to the surrounding conditions the following adjustments can be made:

Distance between rollers:

The distance between the rollers is set identically on the left and right using the adjustment screw (1). (Illus.: 021-09-44) Basic setting: (X) = 45 mm.

Despite the basic setting, component tolerances can cause an uneven roll slit. Check and readjust if necessary as a minimal slit must be present over the whole area!



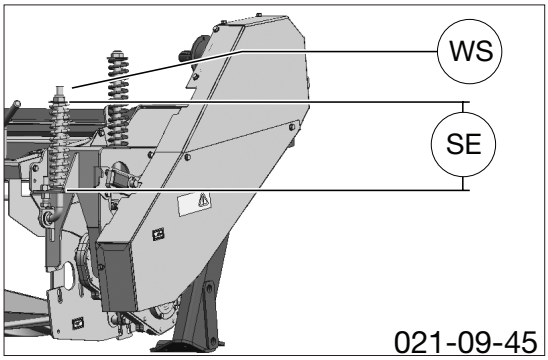
Warning!

Rotating components, danger of being drawn-in. Do not open or remove protective devices with the engine running.

Spring pre-tension of upper roller:

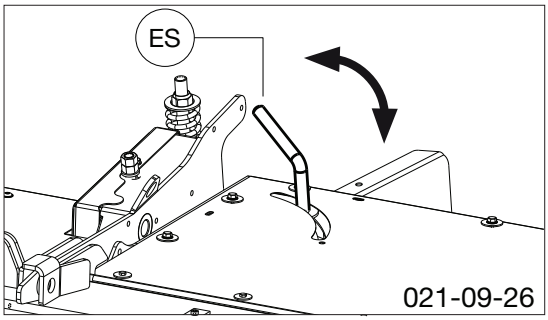
The upper roller is moveable and is tensioned left and right with a spring. The spring tension intensity can be adjusted at any time with nut (WS). (Illus.: 021-09-45)

Standard setting (SE): 210 mm



Set swath width:

The swath boards deposit the cut and conditioned fodder in the desired swath width. The swath boards are set identically on the left and right by unscrewing and adjusting the adjustment screw (ES) (Illus.: 021-09-26)



Operation

Driving speed:

Adapt the speed to fodder consistency. Travelling too fast reduces conditioning quality and evenness.

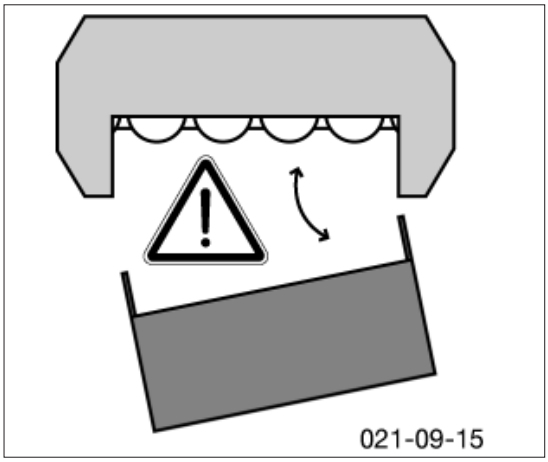
Working without roller conditioning:

If required the roller conditioner can also be removed and replaced with a tine conditioner or swath former. (Contact sales department for more information.)

A machine with a conditioner as a complete unit is fitted with the proper protective devices. Should the conditioner be removed then the mower unit is no longer completely encased. In this case mowing must not take place without fitting additional protective devices!

Be advised!

The disc mower cutter blades are freely accessible if the roller conditioner is dismounted. Maximum danger of injury exists. Protective elements, especially provided for this operating method, must be fitted on the cutter bar for mowing without conditioner. These elements are not included in the the delivery of a new machine with conditioner. They must be ordered separately (see Spare Parts List, "GUARD REAR" component).



Caution!

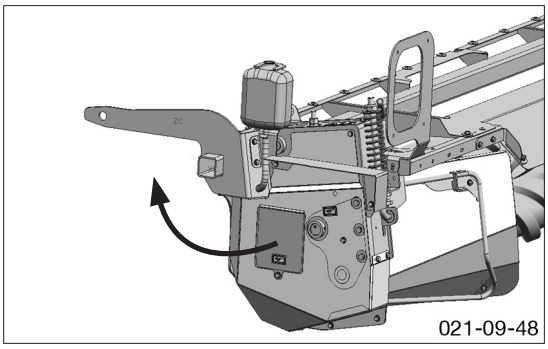
Danger of injury from ejecting parts. Keep persons at a sufficiently safe distance during mowing.

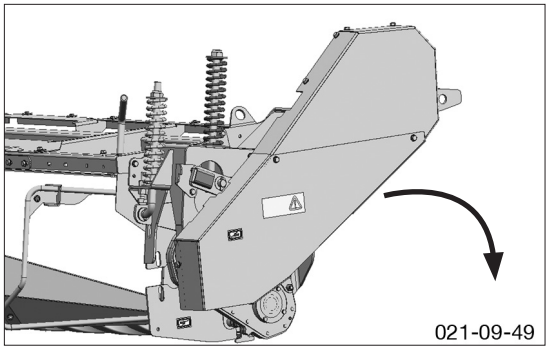
Maintenance

Cleaning: (every 20 operating hours)

- Unscrew maintenance access cover for chain drive. Unscrew whole cover if needed (Illus.: 021-09-48)
- Unscrew belt drive cover if needed (Illus.: 021-09-49)
- Remove any accumulated grime
- Clean rubber rollers

Grime can affect lubrication and cause damage!





Caution!

Shut off engine and remove key before performing maintenance or repair work.

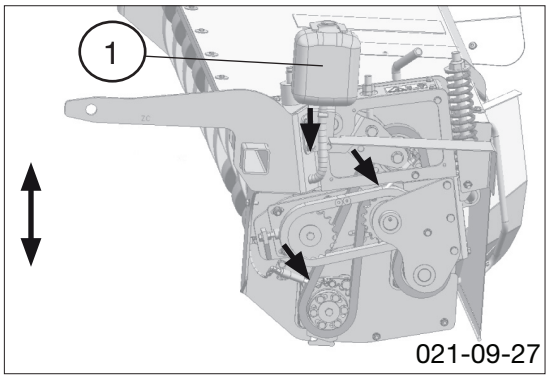
Maintenance unit chain drive (Illus.: 021-09-27)

Lubrication: (every 20 operating hours)

Drive chains are lubricated via main lubricating device. A lubricating impulse is triggered every time mower is raised

- Check that lubricating device functions
- Check oil level (Oil reservoir (1) is fitted to conditioner)

Check oil level of main lubrication unit prior to each use. Operation without sufficient lubrication causes damage to drive chains.



Note:

The following oils are recommended for the central lubrication device:

- Synthetic oil HEES 46

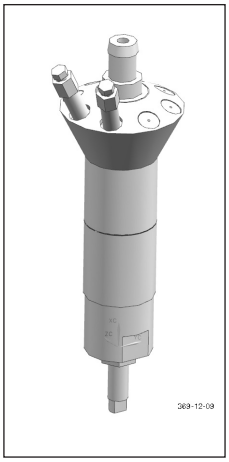
- Hydraulic oil HLP 46

Only use clean oil!

The old pump (until end of July 2011) does not allow adjustment of oil volume per lift. (see illust. 369-12-08) Pump is located on conditioner below oil reservoir (1).

The new pump (from August 2011) allows adjustment of oil volume per lift:

old oil pump
until July 2011



new oil pump
from August 2011

Correct setting for oil volume per lift:

The smaller the field the more often the mower lift per unit of time is triggered, so select the LOWEST oil volume to be injected per lift.

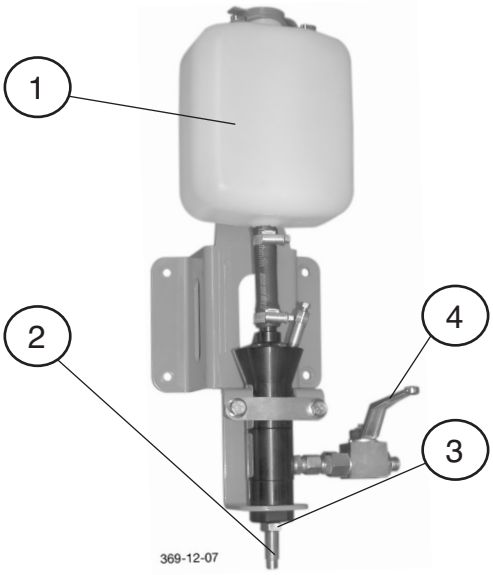
Set oil volume using adjusting screw (2) and lock nut (3). The further the adjusting screw is screwed into the pump, the lower the oil volume per lift.

(1) Oil reservoir

(2) Adjusting screw

(3) Lock nut

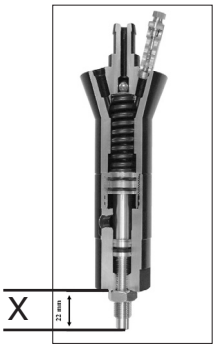
(4) Stop-cock (Lubrication on/off)



Setting the lubrication amount

- Factory setting: X=22 mm
- Screw out screw to increase the lubrication amount.
- Screw in screw to decrease the lubrication amount.

Check the oil level at the main lubrication unit prior to each use. Operation without sufficient lubrication causes damage to the drive chains.



Chain tension: (every 60 operating hours)

(Illus.: 021-09-16)

Short drive chain

Check chain tension with your thumb on check point (PP1). Play: 3.5 –5 mm.

Alter chain tension:

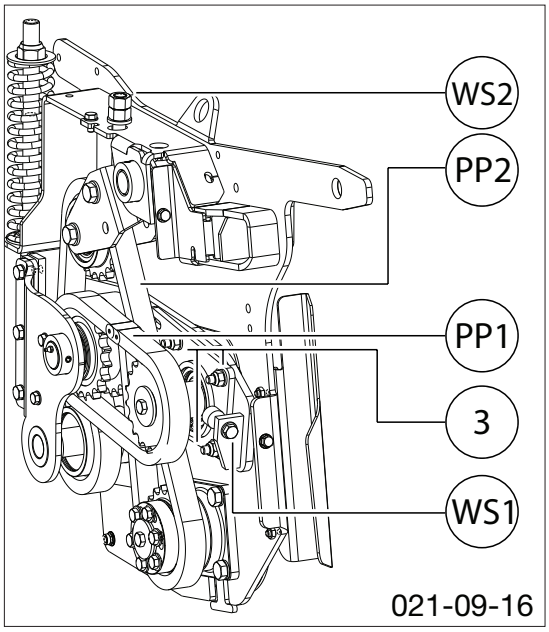
- Loosen screws (3)
- Adjust tensioning screw (WS1)

Long drive chain

Check chain tension with your thumb on check point (PP2). Play: 5 – 8 mm.

Alter chain tension:

- Adjust straining screw (WS2)

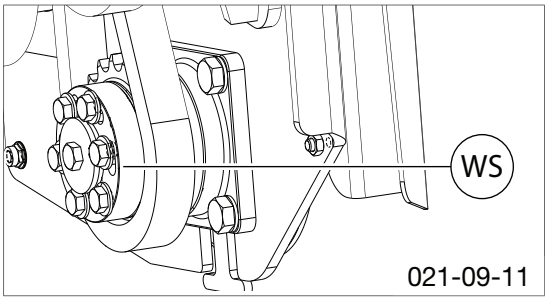


Altering roller position: (as required) (Illus.: 021-09-11)

Roller position will change when drive chains have been re-tensioned several times.

Alter roller position:

Loosen screws (WS) and rotate roller. Set lower roller position so that the profile of both rollers optimally interlock but do not make contact with each other.



Optimum roller position reduces wear on the rubber rollers.

Drive belts: (as required)(Illus.: 021-09-32)

Check belt tension:

- Basic setting (SE): 183mm

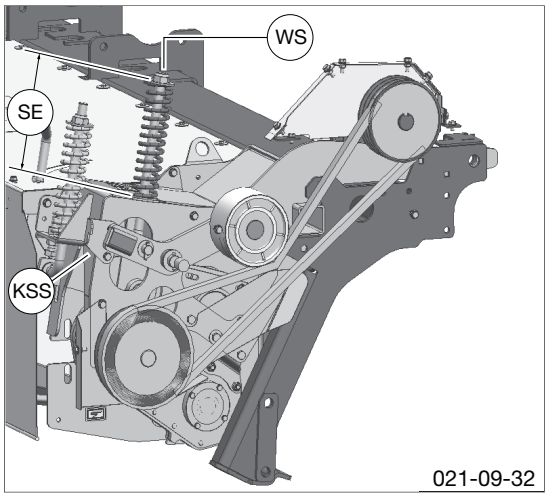
Changing belt tension:

- Adjust screw (WS)

Replacing belts:

When the drive belts show signs of damage or wear, they must be replaced. **(Note: always replace the complete belt set!)**

- Loosen belt tension. The blade quick-change spanner can be used to deactivate belt tensioner.
- Replace belt
- Restore belt tension



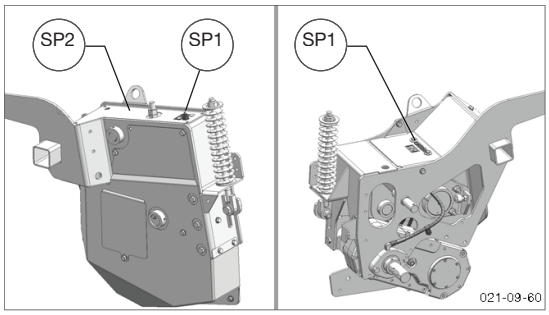
Lubrication: (Illus.: 021-09-32/34)

Every 50 operating hours:

- SP1

Every 100 operating hours:

- SP 2 (dismount upper covering)



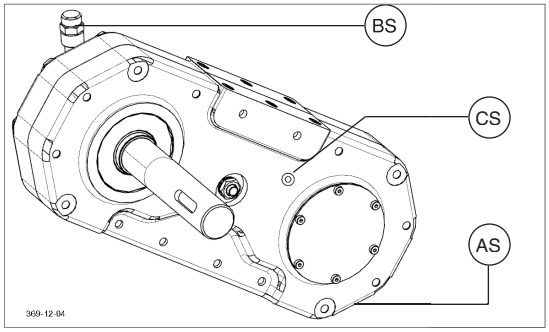
Gear oil:

(Every 100 operating hours)

The gearbox is located on the outside of the cutter bar.

- Open drain plug (AS) and drain oil
- Pour gear oil (700ml) in filling screws (BS)
- (CS) = Filling level screw

(Fully synthetic lubricating oil for high-temperature lubrication, ISO-VG class 220)



Operating Principle

The mower unit is compatible for optional hitching of a tine conditioner, roller conditioner or swath former. The conditioners or swath formers are additionally designed as a safety device and are imperative for use.

Dismantle conditioner

1. Shut down mower unit

Caution!

Place the mowing unit on a solid, even ground and protect against falling over before starting assembly.

Caution!

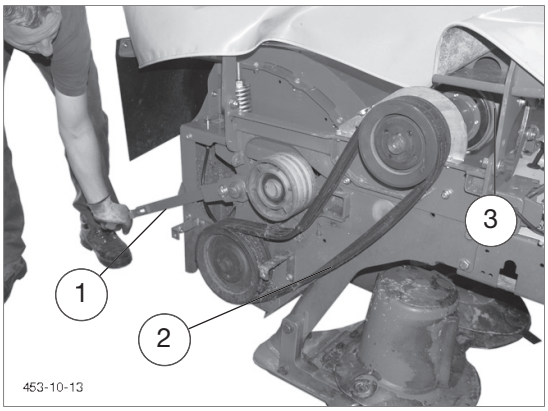
The attachment (conditioner or swath former) is an additional safety device. The disc mower must not be used without such attachment.

2. Remove protective cover and belt

Loosen the belt tension using the knife wrench (1) and remove the belt (2) on the conditioner side.

Then remove knife wrench.

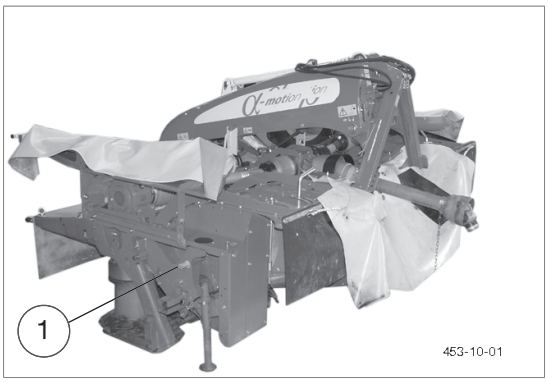
The belts must be removed completely if a swath former is attached. Unhitch PTO drive shaft (3) and remove belt.



3. Loosen conditioner fixing

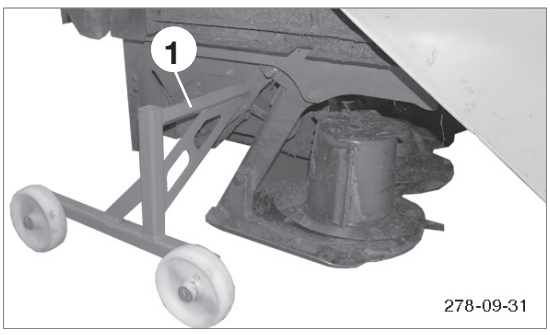
The conditioner fixing (1) to be loosened is located under the conditioner's outer side guard.

The optimum alignment between mower unit and conditioner is adjusted using the conditioner fixing (1). The belt pulleys on the inside of the conditioner must be aligned flush with the belt pulleys of the mower unit.



4. Attach chassis

Insert the chassis (1) supplied into the mounting on both sides until the limit is reached for transporting the dismantled conditioner.

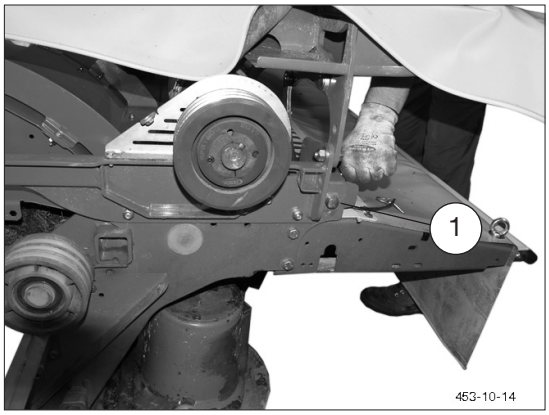


5. Open retaining bolt

The conditioners are each attached to the mower unit with 2 retaining bolts.

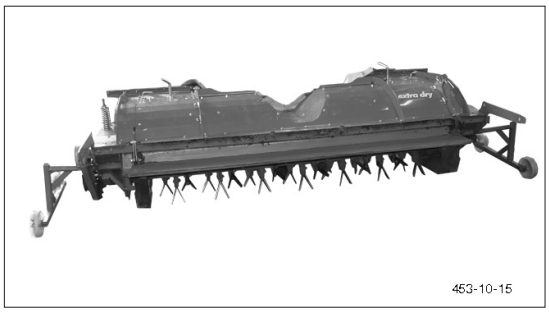
Standard (A): Screw + sleeve

Non-standard equipment (B): Spring-assisted quick closure.



6. Remove conditioner

Move the conditioner away from the mower unit and place in the vicinity of the mower unit.



Install conditioner

1. Clean

Clean the conditioner/swath former and the mower unit thoroughly especially the connecting points.

2. Push conditioner or swath former into mounting of mower unit.

3. Close retaining bolt

Standard (A): Screw + sleeve

Standard equipment (B): Spring-assisted quick closure.

4. Disconnect chassis

5. Adjust and secure conditioner fixing

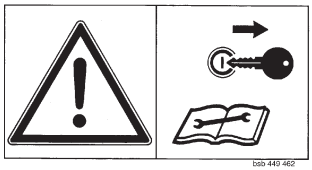
The optimum alignment between mower unit and conditioner is adjusted using the conditioner fixing (1). The belt pulleys on the inside of the conditioner must be aligned flush with the belt pulleys of the mower unit. Secure conditioner fixing!

6. Install belt, tension and attach protective cover.

For details see the Section “Dismantle conditioner”

Safety advice

- Switch off engine prior to any adjustment, maintenance or repair work.



General maintenance information

Please observe the infiormation below to maintain the implement in good condition even after a long period in operation:

- Re-tighten all bolts after the first hours in operation.

The following should be checked in particular:

Blade bolt connections at mower

Tine bolt connections at rake and tedder

Spare parts

a. Original parts and accessories are specially designed for the implements.

b. We expressly point out that we have not tested or approved any original parts and accessories not supplied by us.

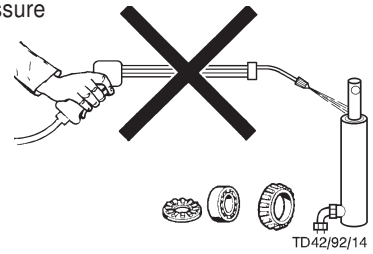
c. The installation and/or use of such products may under certain circumstances negatively modify or impair the propeties of the implement as specified in the design. Any liability on the part of the manufacturer is excluded in the event of any damage due to the use of non-original parts and accessories.

d. Any unauthorised modifications or the use of components and attachments at the implement rules out any liability on the part of the manufacturer.

Cleaning of machine parts

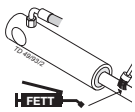
Be advised! Do not use high-pressure washers for the cleaning of bearing- and hydraulic parts.

- Danger of rust!
- After cleaning, lubricate the implement according to the lubrication plan and perform a brief test run.
- Cleaning pressure being too high may damage the paint.



Parking in the open

Clean and protect the piston rods with grease prior to longer periods parked outside.



Winter storage

- Clean implement thoroughly prior to winter storage.
- Put up protection against weather.
- Change or top up gear oil.
- Protect exposed parts from rust.
- Lubricate all greasing points according to lubrication chart.
- Disconnect terminal, store dry and protected from frost.

Cardans

- See information in Attachment

Please observe the following for maintenance!

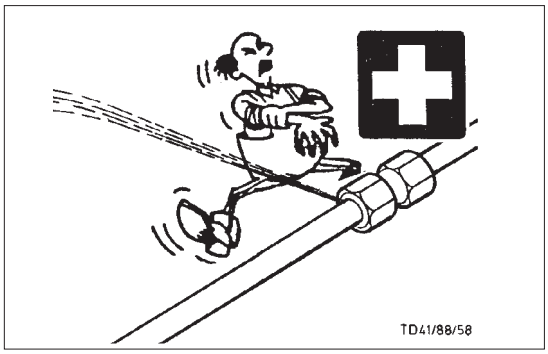
The instructions in these Operating Instructions apply.

If no particular instructions are available here, then the information in the instructions supplied by the respective cardan shaft manufacturer apply.

Hydraulic unit

Caution injury and infection hazard!

Liquids discharging at high pressure may penetrate the skin. Therefore seek immediate medical help!



Make sure that the hydraulic system is suitable for the tractor before connecting the hydraulic lines.

After the first 10 hours in operation and thereafter every 50 hours in operation

- Check hydraulic unit and piping for leaks and if necessary re-tighten bolt connections.

Prior to every taking into operation

- Check hydraulic hoses for wear.

  Replace any worn or damaged hydraulic hoses immediately. The replacement hoses must meet the manufacturer's technical requirements.

Hose lines are subject to natural ageing. The period of use should not exceed 5 – 6 years.

Safety advice

• Switch off engine and remove ignition key prior to any adjustment, maintenance or repair work.

• Only perform work underneath the implement with secure supports.

• Re-tighten all bolts after the first hours in operation.

• Only park implement on flat, firm ground.

Repair information

Please observe the repair information in the Attachment (If available).

Safety advice

Clean the coupling plug of the hydraulic hoses and the oil socket prior to each connection.

Note any abrasion and clamping points.

Cutter bar oil level check

- Under normal operating conditions, oil is to be replenished annually.

Caution

Cleaning and maintenance works shall be performed only with the machine turned off and the mowing units lowered.

• Carry out oil level check at operating temperature.

• The oil is too viscous when cold. Too much used oil would stick to the gear teeth, thus giving a false reading.

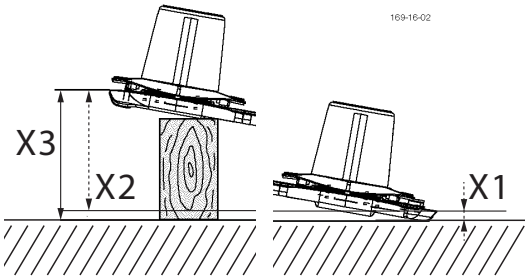
.

1. Lift one side of the mower bar X3 and support it.

X3 = X2 + X1

X1 = Distance from ground to vats upper edge.

X2 = Distance from vats upper edge left to vats upper edge right.



NOVACAT 261: X2 = 175 mm
NOVACAT 301: X2 = 300 mm
NOVACAT 351: X2 = 300 mm

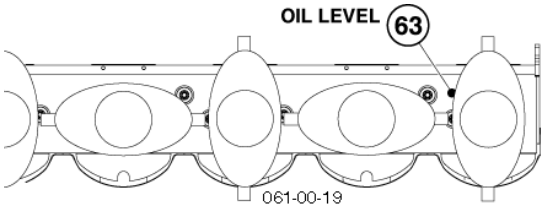
- The side where the oil refill screw is located remains on the ground.
- Lift the mower bar on the other side (X1) and support it with an appropriate prop.

2. Leave mower bar in this position for about 15 minutes.

- This time is necessary to allow the oil to collect in the lower area of the mower bar.

3. Remove oil fill screw (63).

Measure oil level through the opening (63).

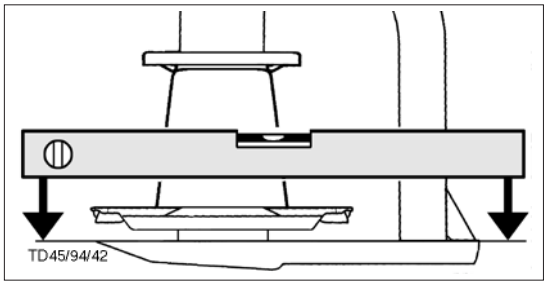


4. Oil level check

Important information when measuring the oil level:

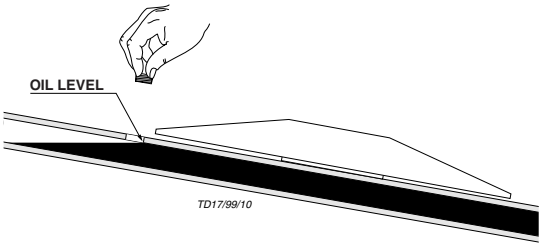
You jack up the cutter bar depending on the length.

The cutter bar width must be adjusted in precise horizontal position. (see image).



4.1 Oil level check for NOVACAT 261 and NOVACAT 351

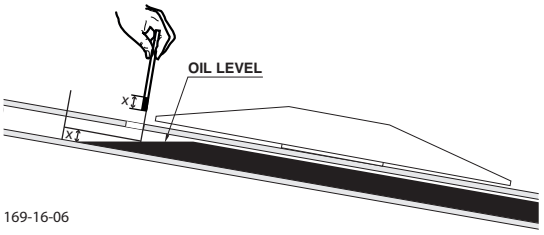
The oil level is correct if the gear oil reaches the lower edge of the level opening (63).



4.2. Oil level check for NOVACAT 301

The oil level is correct if x= 16 mm.

X is the oil level at the lower edge of the level opening (63)



5. Topping up oil

Complete with the missing oil quantity.

Note

• Too much oil can cause the cutter bar to overheat during operation.

• Too little oil does not guarantee the necessary lubrication.

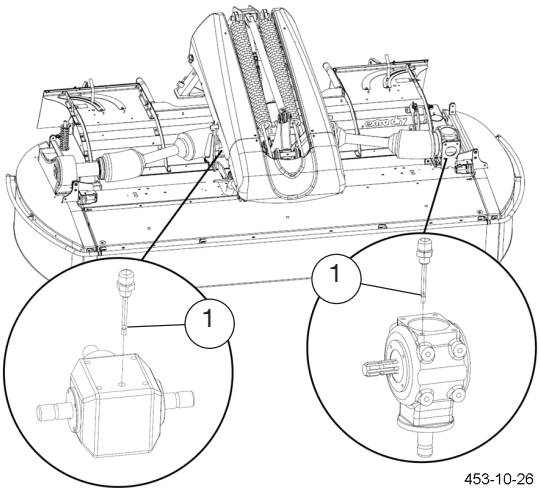
Angular gear

- Change oil after the first 50 operating hours.

  Under normal operating conditions, oil is to be replenished annually (1 = OIL LEVEL).
- Change oil after 100 hrs. at the latest.

Check the oil level:

- The filling level is checked with the marking (1) on the oil measuring rod.



Oil quantity:
0.7 litre SAE 90

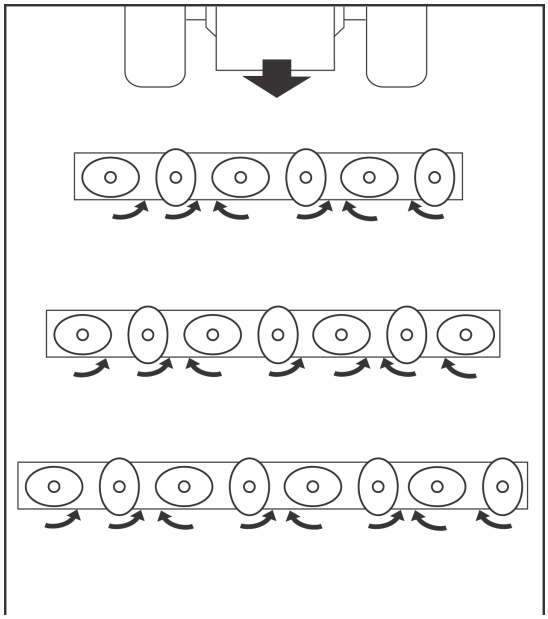
Oil quantity:
0.8 litre SAE 90

Installing cutter blades

Be advised!

The arrow on the cutter blade shows the cutter disc's direction of turn.

- Before installing, clean the paint from the bolt fixing surfaces.



Cutter bar

Oil change

- Change oil after the first 50 operating hours or after 100 ha at the latest.

Oil quantity:

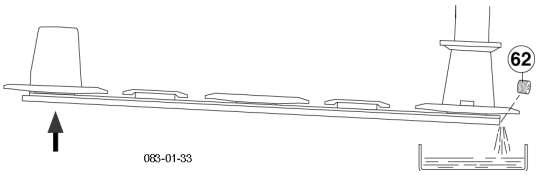
NOVACAT 261: 2.6 litre SAE 90
NOVACAT 301: 3.0 litre SAE 90
NOVACAT 351: 3.5 litre SAE 90

• Change oil when at operating temperature.

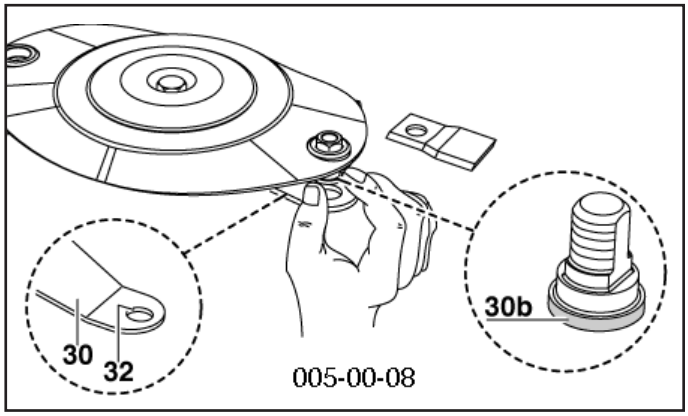
• The oil is too viscous when cold. Too much old oil remains stuck to the gearwheels preventing the removal of any suspended matter present in the gearbox.

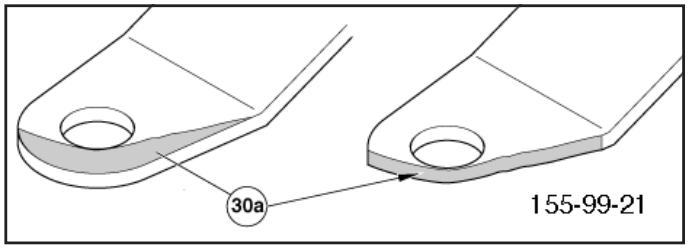
• It can take some time until the used oil has completely drained.

- Lift the right side of the cutter bar.
- Take out oil drain plug (62), let oil run out and dispose of waste oil correctly.



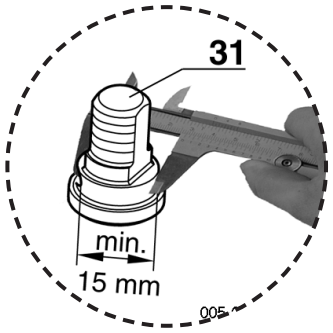
Checking wear on mowing blade holders





Wearing parts are:

- mounting of mowing blades (30)
- bolts of mowing blades (31)



Attention!

Danger of accident if wearing parts are worn

If such wearing parts are worn out they must not be used any longer.

Otherwise accidents may be caused through parts that are flinged away (e.g. mowing blades, fragments...)

Process of visual control:

1. remove mowing blades

2. remove grass and dirt

- around pin (31)

Check the suspension of mowing blades as to wear and other damage:

- every time before bringing the machine into operational use
- several times during use
- immediately after hitting an obstacle (e.g. a stone, piece of wood, metal,...)

Attention !

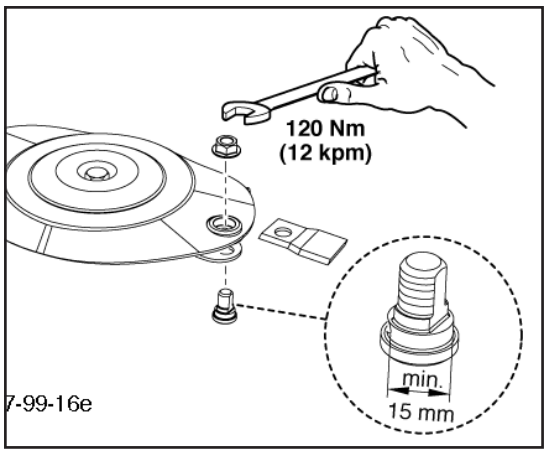
Danger of accident if:

- the central part of pin of blade must have a minimum of 15 mm
- the wearing area (30a) has reached the edge of the boring
- the pin of the blade is worn in the lower part (30b)
- the pin of the blade is no longer firmly seated

If you notice one or several of these characteristics of wear stop mowing at once!

Worn parts must be replaced by original parts made by Pöttinger immediately !

Screw down the pin of the blade with the nut with 120 Nm.



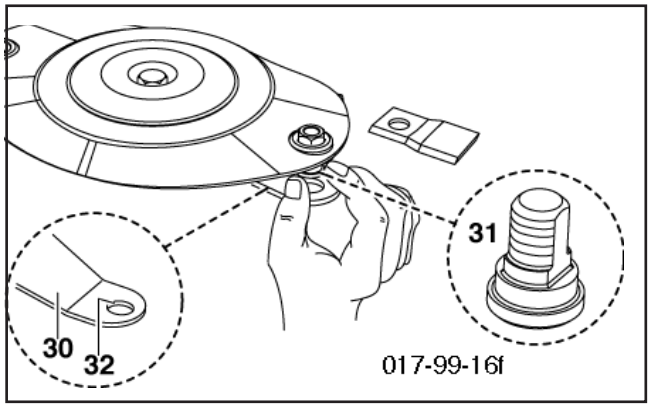
Holder for a quick change of cutter blades

Attention!

For Your Safety

- Regularly check that cutter blades are tightened firmly!
  - Cutter blades on a cutter disc should wear out simultaneously (danger of imbalance).

    Otherwise they are to be replaced with new ones (replace in pairs).
  - Buckled or damaged cutter blades must not be used further.
- Buckled, damaged and/or worn cutter blade holders (30) should not be used further.



Checking the mowing blade suspension

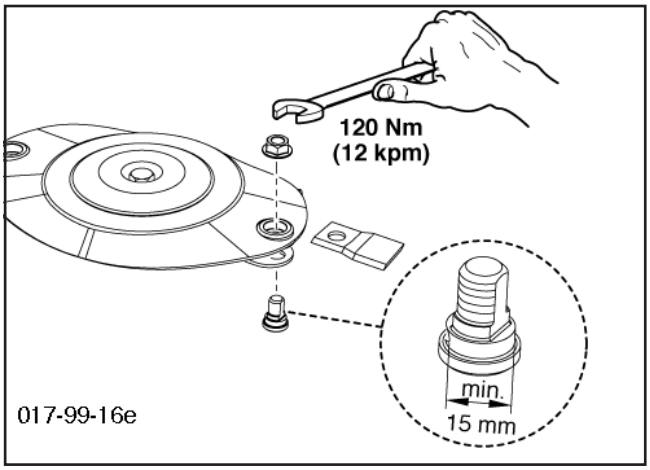
- Normal check every 50 hours.
- Check more often when mowing on stony terrain or in other difficult operating conditions.
- Check immediately after driving over a hard obstacle (e.g. stones pieces of wood, ect).

Carry out a check

- as described in chapter „Changing the Cutter Blades“

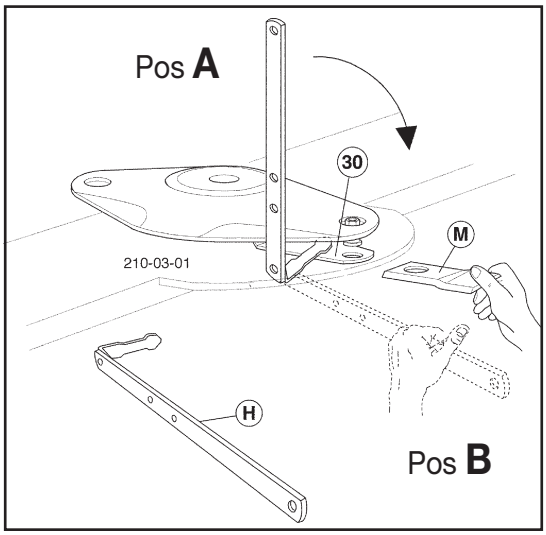
Take note!

Damaged, buckled and worn out parts must not be used further (danger of accident).

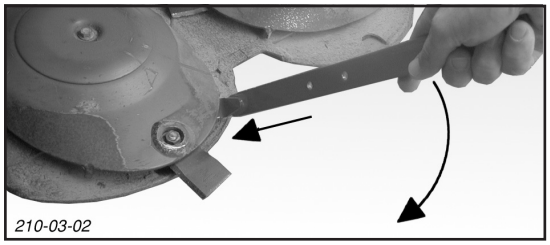


Changing the Cutter Blades

1. **Insert lever from left or right side on the cutter disc "Pos A" until it stops.**
2. **Swing lever from "pos. A" to "pos. B" and push the movable holder (30) down.**
3. **Remove cutter blade (M)**

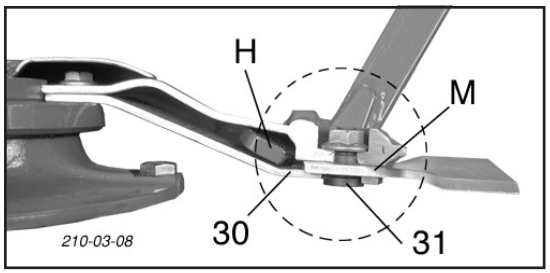


4. **Clean forage remains and dirt away.**
   - around the bolts (31) and inside the borehole (32)
5. **Check:**



- blade bolts (31) for damage, wear and fitting
- holder (30) for damage, change in position and fitting
- borehole (32) for damage.
  - Side surfaces must not show signs of deformation

6. **Install cutter blades**
7. **Visual check! Check that blade (M) is correctly**

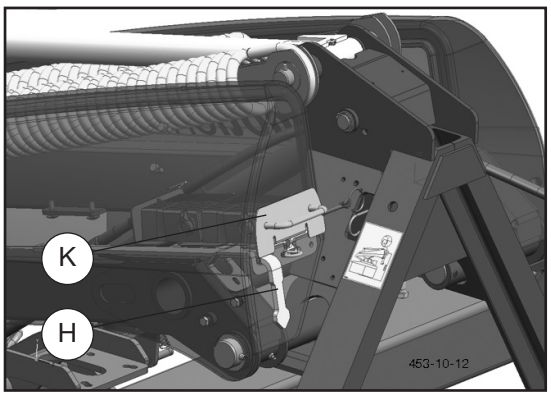


positioned between blade bolts (31) and holder (30) (see diagram)**.**

8. **Swivel lever (H) to "A" again and remove.**

Storing the lever

- Place lever in the respective holding pouch and secure.
- Place box of blades (K) in the holder and secure after use.



Technical data

Description	NOVACAT 261 Type 3751	NOVACAT 301 Type 3761	NOVACAT 351 Type 3811
Attaching	3-point hitch (front Weiste A-frame) Kat.II	3-point hitch (front Weiste A-frame) Kat.II	3-point hitch (front Weiste A-frame) Kat.II
Working width	2.62 m	3.04 m	3.46 m
Transport width	2.57 m	2.98 m	3.42 m
Conditioner width	1.99 m	2.41 m	2.68 m
Swath width (machines without Conditioner)			
without swath discs	1.7 m	2.1 m	2.5 m
with 2 swath discs	1.3 m	1.7 m	2.1 m
with 4 swath discs	0.9 m	1.3 m	1.7 m
No. of mowing discs	6	7	8
No. of cutter blades	12	14	16
Coverage capacity	2.6 ha/hr	3.0 ha/hr	3.4 ha/hr
Drive speed (r.p.m.)	540 / 750 / 1000	540 / 750 / 1000	540 / 750 / 1000
Cardan shaft overload safeguard	1500 Nm	1500 Nm	1500 Nm
Power requirement without conditioner	30 kW (40 hp)	35 kW (47 hp)	45 kW (61 hp)
with conditioner	45 kW (61 hp)	52 kW (70 hp)	60 kW (80 hp)
Weight ALPHAMOTION - without conditioner	810 kg	890 kg	1010 kg
ALPHAMOTION - ED	1020 kg	1130 kg	1240 kg
ALPHAMOTION - RC	1009kg	1200 kg	1310 kg
Continuous sound emmission level	91.4 dB (A)	91.6 dB (A)	91.6 dB (A)

All data subject to change without notice

Optional equipment:

- Conditioner
- Lighting equipment
- Warning sign
- Manual gearbox (Conditioner)
- Bar bracing for heavy soil for NOVACAT 301 and NOVACAT 351

Necessary connections

- 1 single-action hydraulic plug connection (min. tractor requirements)
  pressure min.: 140 bar
  Operating pressure max.: 200 bar
- 7-pin connection for the lighting (12 volt)

Weight: Possible variants depending on machine features.

Position of identification plate

The chassis number is engraved in the identification plate as shown opposite. Guarantee claims, inquiries and spare parts orders cannot be processed without the chassis number.

Please enter the chassis number on to the operating instructions' title page immediately upon taking delivery of the vehicle / implement.

The defined use of the mower unit

The **"NOVACAT 261 (Type PSM 3751)", "NOVACAT 301 (Type PSM 3761)", "NOVACAT 351 (Type PSM 3811)"** mowers are to be used exclusively for specified normal operation in agricultural work.

- For the mowing of grassland and short stemmed fodder

  Any other uses outside of this are regarded as not in accordance with the defined use.

  The manufacturer accepts no liability for any damage arising as a result thereof; the user accepts sole responsibility.
- Use as specified also includes adherence to the manufacturer's stipulated maintenance and repair conditions.

SUPPLEMENT

Things will run better with genuine Pöttinger parts

Original inside

- **Quality and precise fitting**
  - Operating safety.
- **Reliable operation**
- **Longer lasting**
  - Economy
- **Guaranteed availability** through your Pöttinger Sales Service.

The decision must be made, ”original” or ”imitation”? The decision is often governed by price and a ”cheap buy” can sometimes be very expensive.

Be sure you purchase the ”Original” with the cloverleaf symbol!

PÖTTINGER

Recommendations for work safety

All points refering to safety in this manual are indicated by this sign.

1. Operating instructions

a. The operating instructions are important for the correct operation of the machine. Make sure that the operating instructions are always on hand when operating the machine.

b. Keep the operating instructions as long as the machine is in your hands.

c. Pass the operating instructions on to the buyer when selling the machine.

d. Make sure that all safety and warning symbols remain attached on the machine and keep them readable. The hazard warnings provide important information for a safe operation and, thus, your safety.

2. Qualified personnel

a. Only persons of legal age, mentally and physically able and having been trained or familiarized accordingly must operate this machine.

b. Persons not yet trained or familiarized or under training must only operate this machine under the supervision of an experienced person.

c. Inspection, setting and repair work must only be performed by authorized persons.

3. Repair work

a. These instructions only refer to service, maintenance and repair operations the user is able to carry out without assistance. Any work beyond this scope has to be carried out at authorized workshops only.

b. Repairs on the electrical and hydraulic system, preloaded springs, pressure accumulators, etc. require sufficient knowledge, correct tools and protective clothing and, thus, must only be performed at authorized workshops.

4.) Defined use

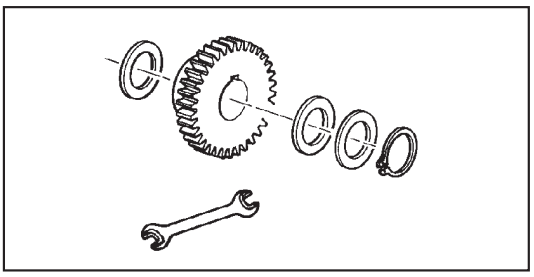
a. See "Technical Data".

b. The keeping of operating, service and maintenance requirements layed down by the manufacturer also come under the heading of "defined use".

5.) Spare parts

a. The **original components and accessories** have been designed especially for these machines and appliances.

b. We want to make it quite clear that components and accesories that have not been supplied by us have not been tested by us.



c. The installation and/or use of such products can, therefore, negatively change or influence the construction characteristics of the appliance. We are not liable for damages caused by the use of components and accessories that have not been supplied by us.

d. Alterations and the use of auxiliary parts that are not permitted by the manufacturer render all liability invalid.

6.) Protection devices

a. All protection devices must remain on the machine and be maintained in proper condition. Punctual replacement of worn and damaged covers is essential.

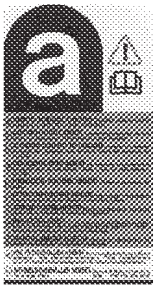
7.) Before starting work

a. Before commencing work, the operator must be aware of all operating devices and functions. The learning of these is too late after having already commenced operation!

b. The vehicle is to be tested for traffic and operating safety before each operation.

8.) Asbestos

a. Certain sub-supplied components of the vehicle may contain asbestos due to technical reasons. Observe the warning on spare parts.



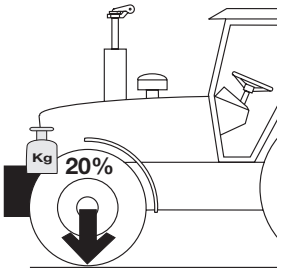
9.) Transport of persons prohibited

a. The transport of persons on the machine is not permitted.

b. The machine may only be driven on public roads when in the position stipulated for road transport.

10.) Driving ability with auxiliary equipment

a. The towing vehicle is to be sufficiently equiped with weights at the front or at the rear in order to guarantee the steering and braking capacity (a minimum of 20% of the vehicle's tare weight on the front axle).



b. The driving ability is influenced by ground conditions and by the auxiliary equipment. The driving must be adapted to the corresponding terrain and ground conditions.

c. When driving through curves with a connected appliance, observe the radius and swinging mass of the appliance.

d. When travelling in a curve with attached or semimounted implements, take into account the working range and swing mass of the implement!

11.) General

a. Before attaching implement to three-point linkage, move system lever into a position whereby unintentional raising or lowering is ruled out!

b. Danger of injury exists when coupling implement to tractor!

c. Danger of injury through crushing and cutting exists in the three-point linkage area!

d. Do not stand between tractor and implement when using three-point linkage external operation!

e. Attach and detach drive shaft only when motor has stopped.

f. When transporting with raised implement, secure operating lever against lowering!

g. Before leaving tractor, lower attached implement to the ground and remove ignition key!

h. Nobody is to stand between tractor and implement without tractor being secured against rolling using parking brake and/or wheel chocks!

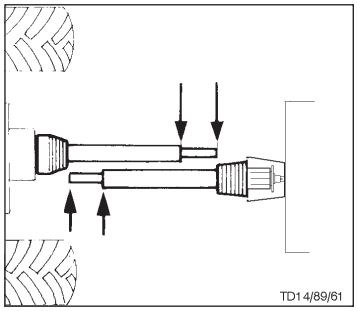
i. For all maintenance, service and modification work, turn driving motor off and remove universal drive.

12.) Cleaning the machine

a. Do not use high-pressure washers for the cleaning of bearing- and hydraulic parts.

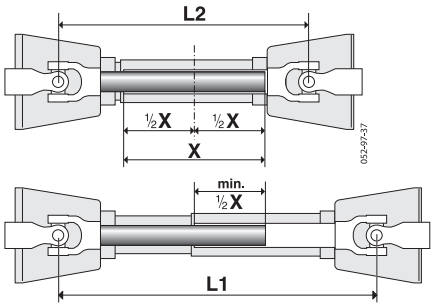
Matching driveshaft to tractor

To determine the actual length required, hold the two halves of the driveshaft side by side.



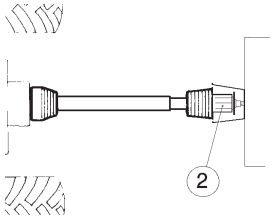
T rimming procedure

- To adjust the length, place the pto halves in the shortest operating position (L2) next to one another and mark.



Caution!

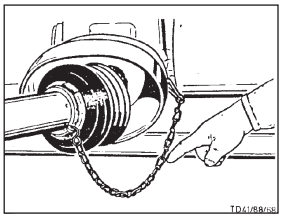
- Note the maximum operating length (L1)
  - Aim at the maximum possible tube superimposition (min. 1/2 X)
- Trim the inner and outer protective tube equally
- Attach overload fuse (2) at the implement!
- Always check that drive shaft locks are securely engaged before starting work.



Safety chain

- Use chain to prevent tube guard from rotating.

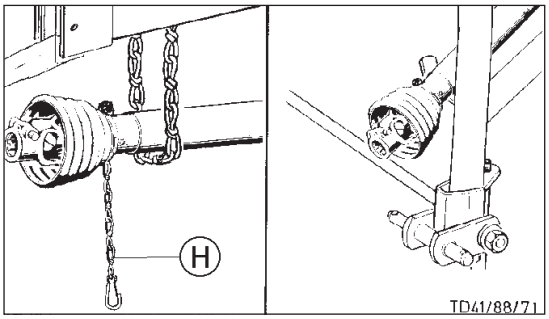
  Ensure sufficient swivel space for the cardan shaft!
- Trim the safety chain so that it cannot wind around the cardan shaft.



Instructions for working

The permissible pto speed may not be exceeded when using the implement.

- The hitched implement may continue to run after the pto is switched off. Work may only be performed once it has reached complete standstill.
- The cardan shaft must be put down or secured using a chain when the implment is parked. Do not use safety chain (H) to suspend the cardan shaft.



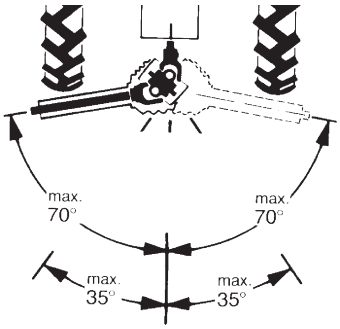
Wide-angle joint:

Maximum angle in operation and at standstill 70°.

Standard joint :

Maximum angle at standstill 90°.

Maximum angle in operation 35°.

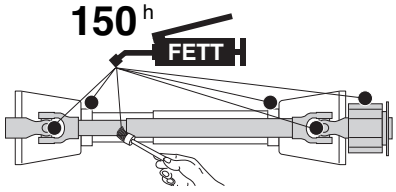


Maintenance

Replace work covers immediately.

- Lubricate with a brand-name grease before starting work and every 150 hours worked.
- Before any extended period of non-use, clean and lubricate driveshaft.

  For winter working, grease the tube guards, to avoid them freezing together.



Be advised!

Only use the cardan shaft supplied or stated; otherwise the warranty claims for any damage are not valid.

Important for driveshafts with friction clutch

Torque is limited with overloading and brief torque peaks and evenly transferred during slipping.

Prior to initial operation and after long periods out of use, check friction clutch for proper function.

a) Measure dimension „L“ at compression spring of K90, K90/4 and K94/1 or at set screw of K92E and K92/4E.

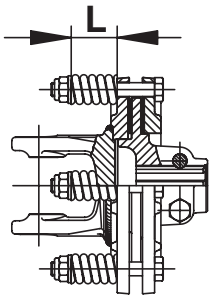
b.) Loosen screws to release the pressure on the friction disk.

Slip the clutch.

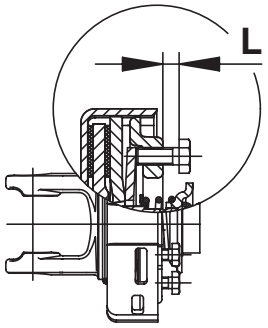
c.) Tighten set screws to dimension "L".

Clutch is ready for use.

K90,K90/4,K94/1



K92E,K92/4E



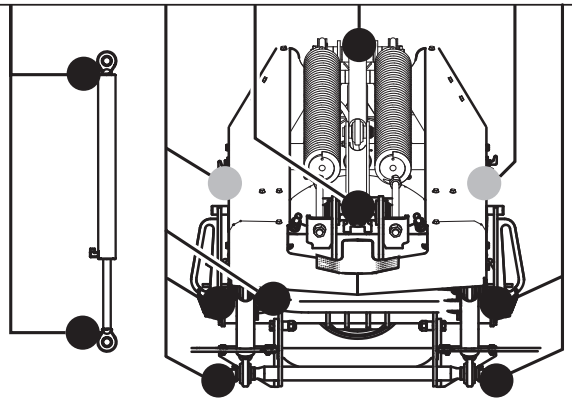
Lubrication chart

X^{h}	after every X hours operation
40 F	all 40 loads
80 F	all 80 loads
1 J	once a year
100 ha	every 100 hectares
BB	if necessary
	GREASE
	Oil
 =	Number of grease nipples
 =	Number of grease nipples
(III), (IV)	see supplement „Lubrificants“
[l]	Litre
– – – –	Variation
	See manufacturer’s instructions
↺	Rotations per minute
	Always screw in measuring stick up to stop.

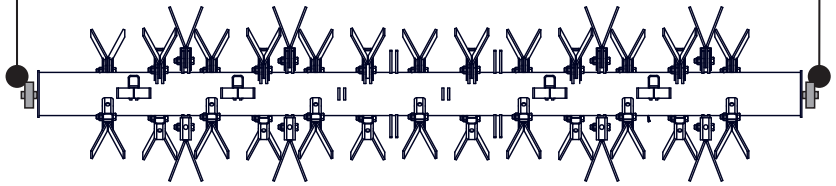
50^{h}

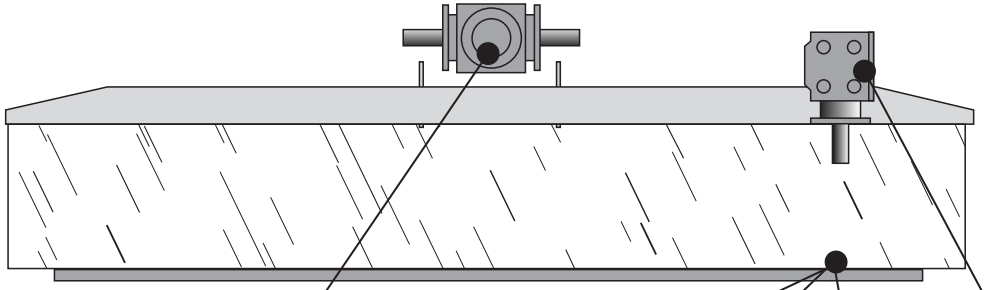
FETT

(IV)



Variante
NOVACAT 261
NOVACAT 301
NOVACAT 351



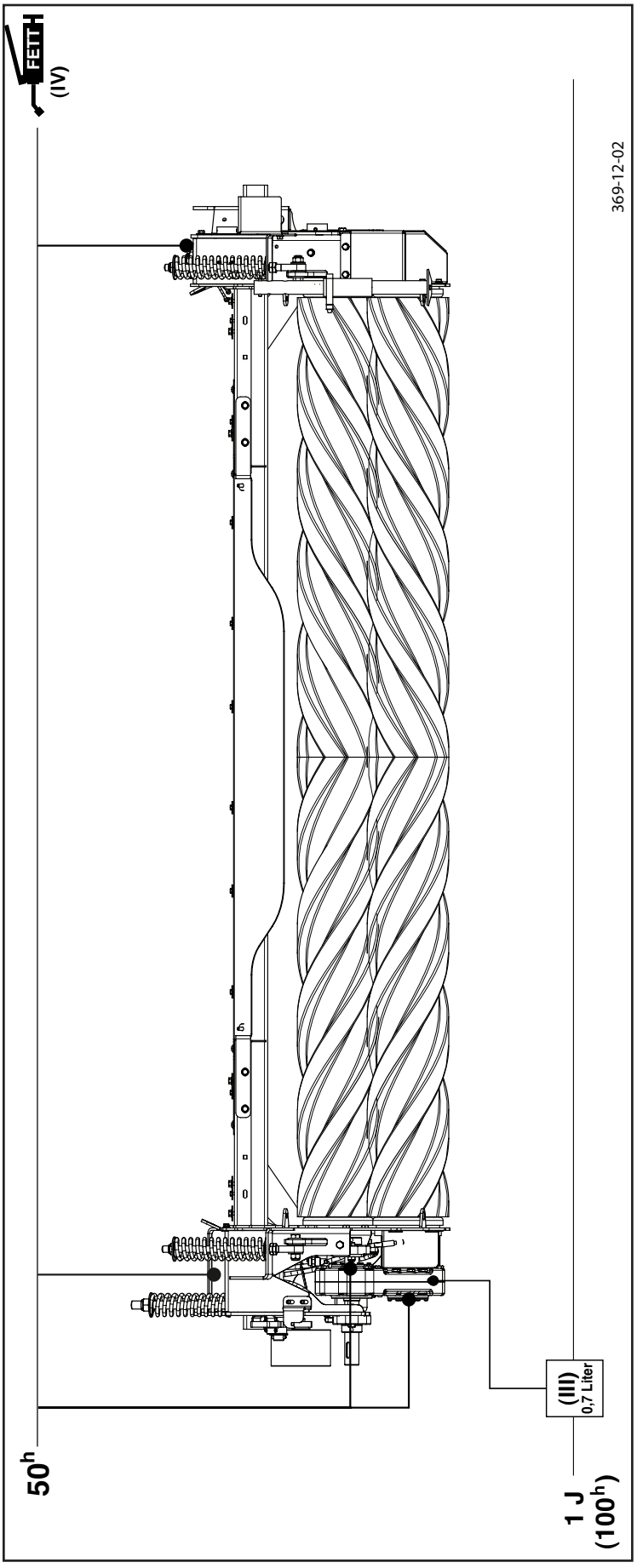


410-05-09

1 J
(100^{h})

(III) 0,7 Liter	(III) 2,6 Liter	(III) 3,0 Liter	(III) 3,5 Liter	(III) 0,8 Liter
	NOVACAT 261	NOVACAT 301	NOVACAT 351	

FETT


FETT
(IV)
369-12-02
50h
(III)
0,7 Liter
1 J
(100h)

EN

Lubricants

Edition 2013

The performance and the lifetime of the farm machines are highly depending on a careful maintenance and application of correct lubricants. our schedule enables an easy selection of selected products.

The applicable lubricants are symbolized (eg. “III”). According to this lubricant product code number the specification, quality and brandname of oil companies may easily be determined. The listing of the oil companies is not said to be complete.

Gear oils according to operating instructions - however at least once a year.

- Take out oil drain plug, let run out and duly dispose waste oil.

Before garaging (winter season) an oil change and greasing of all lubricating points has to be done. Unprotected, blanc metal parts outside (joints, etc.) have to be protected against corrosion with a group "Iv" product as indicated on the reverse of this page.

Corrosion protection: Fluid 466

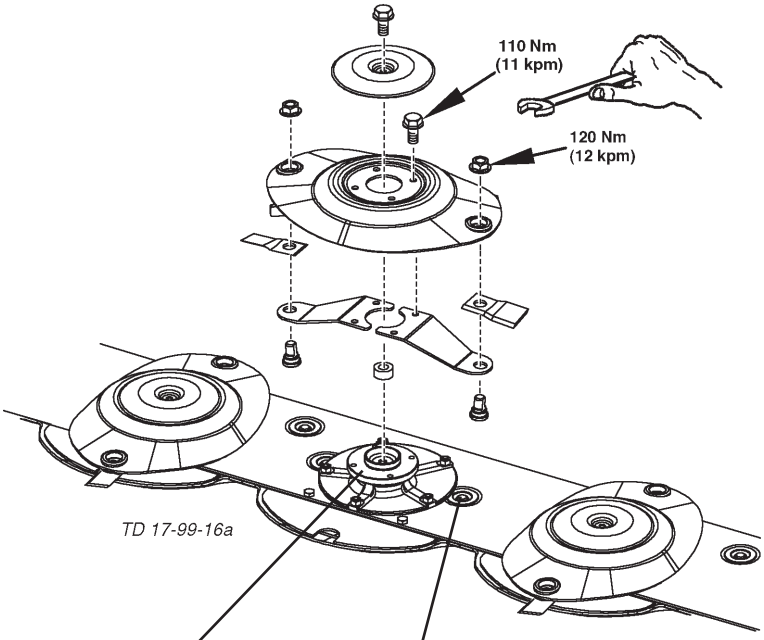
Lubricant indicator	**I**		**III**		**V**	**VI**	**VII**
required quality level niveau	HYDRAULIKöL HLP DIN 51524 Teil 2 See notes: * ** ***	motor oil SAE 30 according to API CD/SF	gear oil, SAE 90 resp. SAE 85 W-140 according to API-GL 4 or API-GL 5	lithium grease	transmission grease	complex grease	gear oil SAE 90 resp. SAE 85 W-140 according to API-GL 5

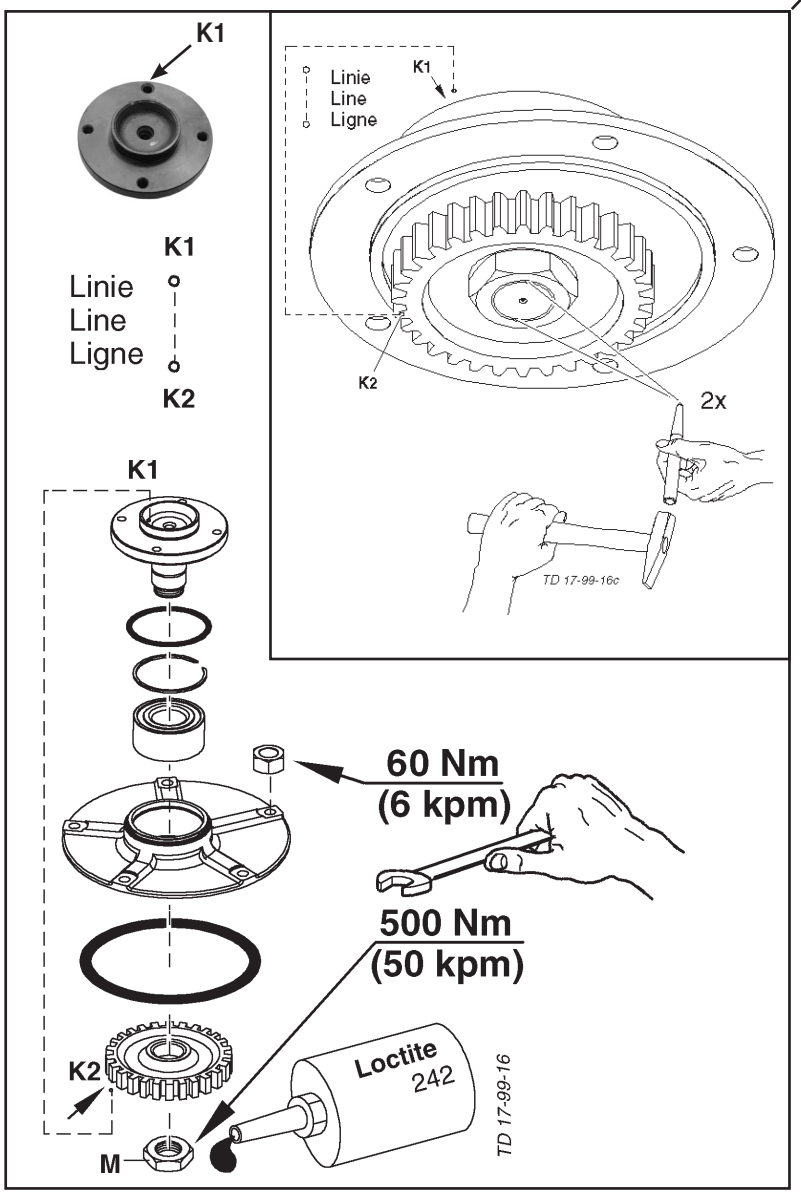
Company	I	(II)	III	(IV)	V	VI	VIII	NOTATIONS
AGIP	OSO 32/46/68 ARNICA 22/46	MOTOROIL HD 30 SIGMA MULTI 15W-40 SUPER TRACTOROIL UNIVERS. 15W-30	ROTRA HY 80W-90/85W-140 ROTRA MP 80W-90/85W-140	GR MU 2	GR SLL GR LFO	-	ROTRA MP 80W-90 ROTRA MP 85W-140	* The international specification J 20 A is necessary for compound operation with wet brake tractors. ** HLP-(D) + HV hydraulic oils *** HLP + HV hydraulic oils with a vegetable oil basis, biodegradable and therefore environmentally friendly.
ARAL	VITAM GF 32/46/68 VITAM HF 32/46	SUPER KOWAL 30 MULTI TURBORAL SUPER TRAKTORAL 15W-30	GETRIEBEÖL EP 90 GETRIEBEÖL HYP 85W-90	ARALUB HL 2	ARALUB FDP 00	ARALUB FK 2	GETRIEBEÖL HYP 90	
AVIA	AVILUB RL 32/46 AVILUB VG 32/46	MOTOROIL HD 30 MULTIGRADE HDC 15W-40 TRACTAVIA HF SUPER 10 W-30	GETRIEBEÖL MZ 90 M MULTIHYP 85W-140	AVIA MEHRZWECKFETT AVIA ABSCHMIERFETT	AVIA GETRIEBEFLIESSFETT	AVIALUB SPEZIALFETT LD	GETRIEBEÖL HYP 90 EP MULTIHYP 85W-140 EP	
BAYWA	HYDRAULIKÖL HLP 32/46/68 SUPER 2000 CD-MC * HYDRA HYDR. FLUID * HYDRAULIKÖL MC 530 ** PLANTOHYD 40N ***	SUPER 2000 CD-MC SUPER 2000 CD HD SUPERIOR 20 W-30 HD SUPERIOR SAE 30	SUPER 8090 MC HYPOID 80W-90 HYPOID 85W-140	MULTI FETT 2 SPEZIALFETT FLM PLANTOGEL 2 N	GETRIEBEFLIESSFETT NLGI 0 RENOLIT DURAPLEX EP 00 PLANTOGEL 00N	RENOPLEX EP 1	HYPOID 85W-140	
BP	ENERGOL SHF 32/46/68	VISCO 2000 ENERGOL HD 30 VANELLUS M 30	GEAR OIL 90 EP HYPOGEAR 90 EP	ENERGREASE LS-EP 2	FLIESSFETT NO ENERGREASE HTO	OLEX PR 9142	HYPOGEAR 90 EP HYPOGEAR 85W-140 EP	
CASTROL	HYSPIN AWS 32/46/68 HYSPIN AWH 32/46	RX SUPER DIESEL 15W-40 POWERTRANS	EPX 80W-90 HYPOY C 80W-140	CASTROLGREASE LM	IMPERVIA MMO	CASTROLGREASE LMX	EPX 80W-90 HYPOY C 80W-140	
ELAN	HLP 32/46/68 HLP-M M32/M46	MOTORÖL 100 MS SAE 30 MOTORÖL 104 CM 15W-40 AUSTROTRAC 15W-30	GETRIEBEÖL MP 85W-90 GETRIEBEÖL B 85W-90 GETRIEBEÖL C 85W-90	LORENA 46 LITORA 27	RHENOX 34	-	GETRIEBEÖL B 85W-90 GETRIEBEÖL C 85W-140	
ELF	OLNA 32/46/68 HYDRELF 46/68	PERFORMANCE 2 B SAE 30 8000 TOURS 20W-30 TRACTORELF ST 15W-30	TRANSELF TYP B 90 85W-140 TRANSELF EP 90 85W-140	EPEXA 2 ROLEXA 2 MULTI 2	GA O EP POLY G O	MULTIMOTIVE 1	TRANSELF TYP B 90 85W-140 TRANSELF TYP BLS 80 W-90	
ESSO	NUTO H 32/46/68 NUTO HP 32/46/68	PLUS MOTORÖL 20W-30 UNIFARM 15W-30	GEAROIL GP 80W-90 GEAROIL GP 85W-140	MULTI PURPOSE GREASE H	FIBRAX EP 370	NEBULA EP 1 GP GREASE	GEAR OIL GX 80W-90 GEAROIL GX 85W-140	
EVVA	ENAK HLP 32/46/68 ENAK MULTI 46/68	SUPER EVVAROL HD/B SAE 30 UNIVERSAL TRACTOROIL SUPER	HYPOID GA 90 HYPOID GB 90	HOCHDRUCKFETT LT/SC 280	GETRIEBEFETT MO 370	EVVA CA 300	HYPOID GB 90	
FINA	HYDRAN 32/46/68	DELTA PLUS SAE 30 SUPER UNIVERSAL OIL	PONTONIC N 85W-90 PONTONIC MP 85W-90 85W-140 SUPER UNIVERSAL OIL	MARSON EP L 2	NATRAN 00	MARSON AX 2	PONTONIC MP 85W-140	
FUCHS	• TITAN HYD 1030 • AGRIFARM STOU MC 10W-30 • AGRIFARM UTTO MP • PLANTOHYD 40N ***	• AGRIFARM STOU MC 10W-30 • TITAN UNIVERSAL HD	• AGRIFARM GEAR 80W90 • AGRIAFRM GEAR 85W-140 • AGRIFARM GEAR LS 90	• AGRIFARM HITEC 2 • AGRIFARM PROTEC 2 • RENOLIT MP • RENOLIT FLM 2 • PLANTOGEL 2-N	• AGRIFARM FLOWTEC 000 • RENOLIT SO-GFO 35 • RENOLIT DURAPLEX EP 00 • PLANTOGEL 00N	• RENOLIT DURAPLEX EP 1	• AGRIFARM GEAR 8090 • AGRIFARM GEAR 85W-140 • AGRIFARM GEAR LS90	
GENOL	HYDRAULIKÖL HLP/32/46/68 HYDRAMOT 1030 MC * HYDRAULIKÖL 520 ** PLANTOHYD 40N ***	MULTI 2030 2000 TC HYDRAMOT 15W-30 HYDRAMOT 1030 MC	GETRIEBEÖL MP 90 HYPOID EW 90 HYPOID 85W-140	MEHRZWECKFETT SPEZIALFETT GLM PLANTOGEL 2 N	GETRIEBEFLIESSFETT PLANTOGEL 00N	RENOPLEX EP 1	HYPOID EW 90 HYPOID 85W-140	
MOBIL	DTE 22/24/25 DTE 13/15	HD 20W-20 DELVAC 1230 SUPER UNIVERSAL 15W-30	MOBILUBE GX 90 MOBILUBE HD 90 MOBILUBE HD 85W-140	MOBILGREASE MP	MOBILUX EP 004	MOBILPLEX 47	MOBILUBE HD 90 MOBILUBE HD 85W-140	
RHG	RENOLIN B 10/15/20 RENOLIN B 32 HVI/46HVI	EXTRA HD 30 SUPER HD 20 W-30	MEHRZWECKGETRIEBEÖISAE90 HYPOID EW 90	MEHRZWECKFETT RENOLIT MP DURAPLEX EP	RENOSOD GFO 35	RENOPLEX EP 1	HYPOID EW 90	

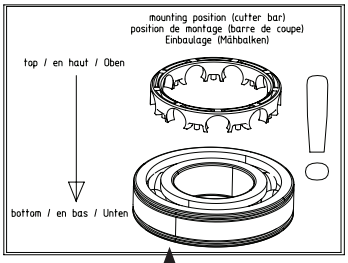
Company	I	(II)	III	(IV)	V	VI	VIII	NOTATIONS
SHELL	TELLUS S32/S46/S68 TELLUS T 32/T46	AGROMA 15W-30 ROTELLA X 30 RIMULA X 15W-40	SPIRAX 90 EP SPIRAX HD 90 SPIRAX HD 85/140	RETINAX A ALVANIA EP 2	SPEZ. GETRIEBEFETT H SIMMNIA GREASE O	AEROSHELL GREASE 22 DOLIUM GREASE R	SPIRAX HD 90 SPIRAX HD 85W-140	* The international specification J 20 A is necessary for compound operation with wet brake tractors. ** HLP-(D) + HV hydraulic oils *** HLP + HV hydraulic oils with a vegetable oil basis, biodegradable and therefore environmentally friendly.
TOTAL	AZOLLA ZS 32, 46, 68 EQUIVIS ZS 32, 46, 68	RUBIA H 30 MULTAGRI TM 15W-20	TOTAL EP 85W-90 TOTAL EP B 85W-90	MULTIS EP 2	MULTIS EP 200	MULTIS HT 1	TOTAL EP B 85W-90	
VALVOLINE	ULTRAMAX HLP 32/46/68 SUPER TRAC FE 10W-30* ULTRAMAX HVLP 32 ** ULTRAPLANT 40 ***	SUPER HPO 30 STOU 15W-30 SUPER TRAC FE 10W-30 ALL FLEET PLUS 15W-40	HP GEAR OIL 90 oder 85W-140 TRANS GEAR OIL 80W-90	MULTILUBE EP 2 VAL-PLEX EP 2 PLANTOGEL 2 N	RENOLIT LZR 000 DEGRALUB ZSA 000	DURAPLEX EP 1	HP GEAR OIL 90 oder 85W-140	
VEEDOL	ANDARIN 32/46/68	HD PLUS SAE 30	MULTIGRADE SAE 80/90 MULTIGEAR B 90 MULTIGEAR C SAE 85W-140	MULTIPURPOSE	-	-	MULTIGEAR B 90 MULTI C SAE 85W-140	
WINTERSHALL	WIOLAN HS (HG) 32/46/68 WIOLAN HVG 46 ** WIOLAN HR 32/46 *** HYDROLFLUID *	MULTI-REKORD 15W-40 PRIMANOL REKORD 30	HYPOID-GETRIEBEÖL 80W-90, 85W-140 MEHRZWECKGETRIEBEÖL 80W-90	WIOLUB LFP 2	WIOLUB GFW	WIOLUB AFK 2	HYPOID-GETRIEBEÖL 80W-90, 85W-140	
MOTOREX	COREX HLP 32 46 68** COREX HLPD 32 46 68** COREX HV 32 46 68** OEKOSYNT 32 46 68***	EXTRA SAE 30 FARMER TRAC 10W/30	GEAR OIL UNIVERSAL 80W/90 GEAR OIL UNIVERSAL 85W/140	FETT 176 GP FETT 190 EP FETT 3000	FETT 174	FETT 189 EP FETT 190 EP FETT 3000	GEAR OIL UNIVERSAL 80W/90 GEAR OIL UNIVERSAL 85W/140	

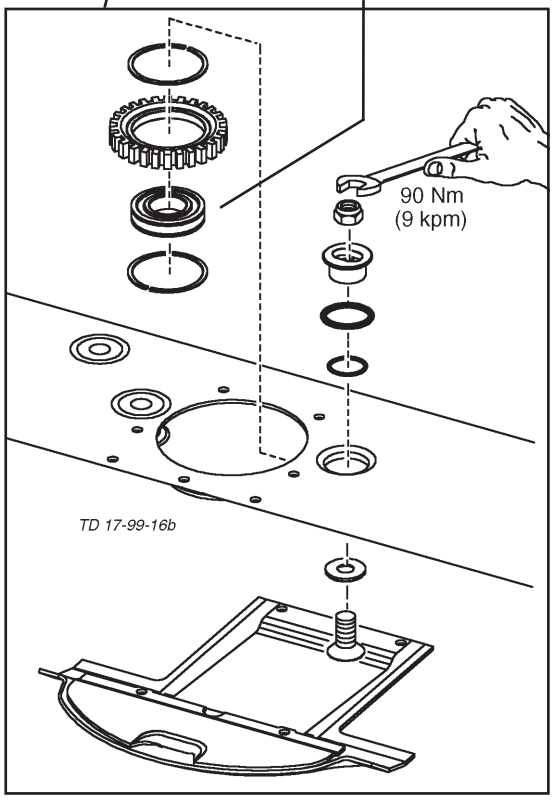
Repairs to the cutter bar

- Markings aligned (K1, K2).
  up to 2005 model
  (Marking K1 = Centre point on the hub)
  from 2006 model
  (Marking K1 = Larger countersink when drilling)
- Only screw on nut (M) when there is sufficient thread length (L) to prevent any damage.
- Secure nut (M) against loosening
  - with "Loctite 242" or an equivalent product
  - and centre point (2x)



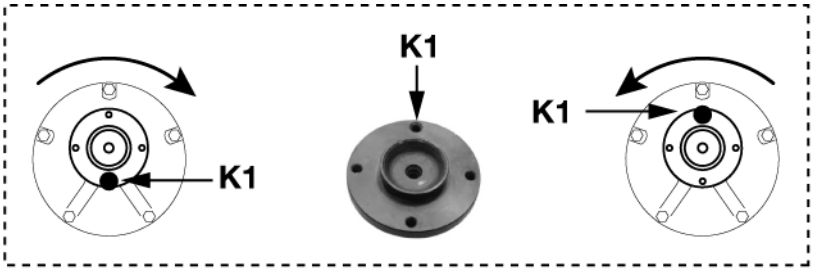


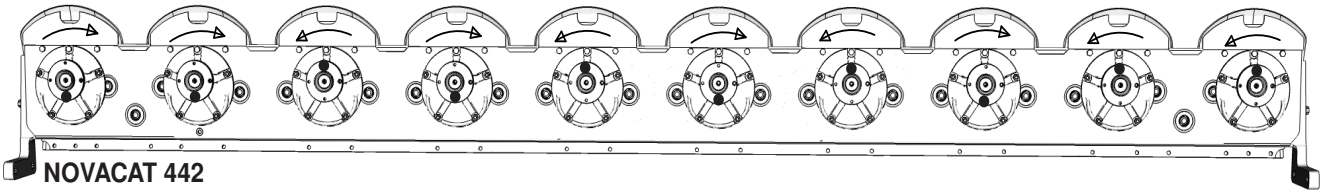




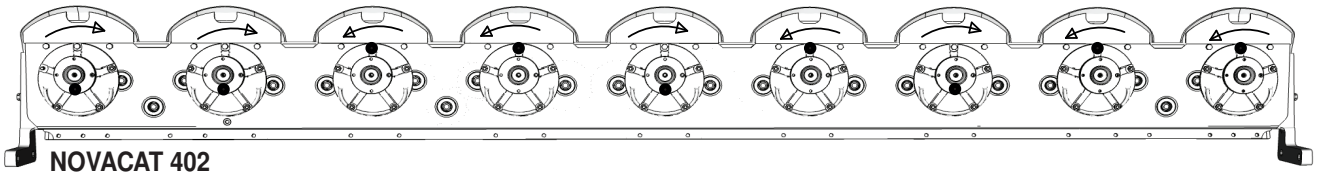
Assembly instructions

- For easier assembly of the cutting discs please proceed as follows:
  1. With the disc's direction of rotation to the left = Marking (K1) at the top
  2. With the disc's direction of rotation to the right = Marking (K1) at the bottom

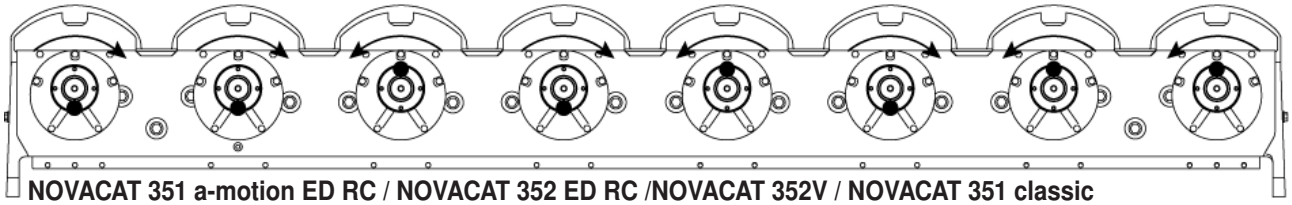




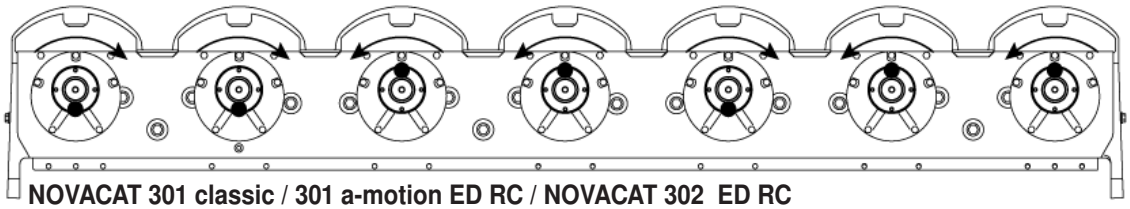
NOVACAT 442



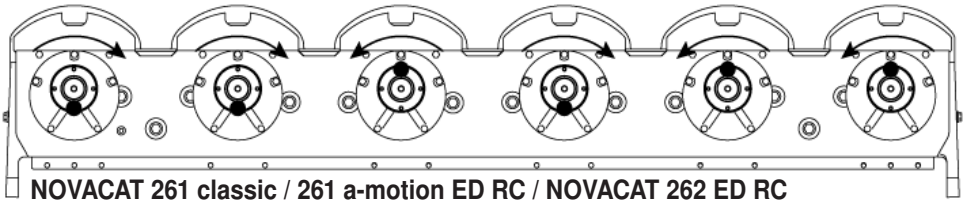
NOVACAT 402



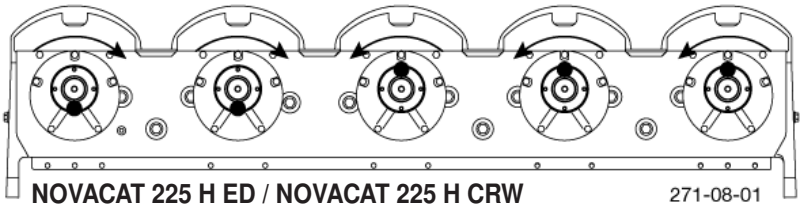
NOVACAT 351 a-motion ED RC / NOVACAT 352 ED RC /NOVACAT 352V / NOVACAT 351 classic



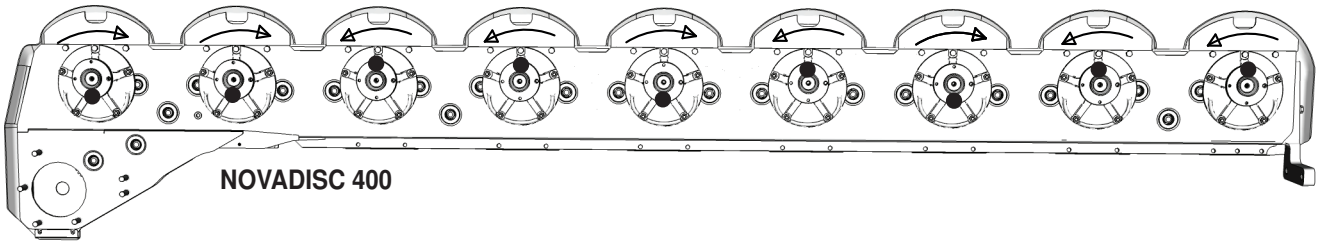
NOVACAT 301 classic / 301 a-motion ED RC / NOVACAT 302 ED RC



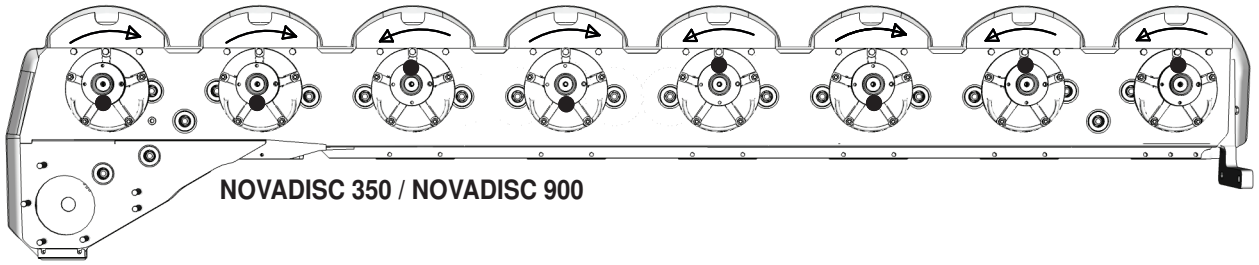
NOVACAT 261 classic / 261 a-motion ED RC / NOVACAT 262 ED RC



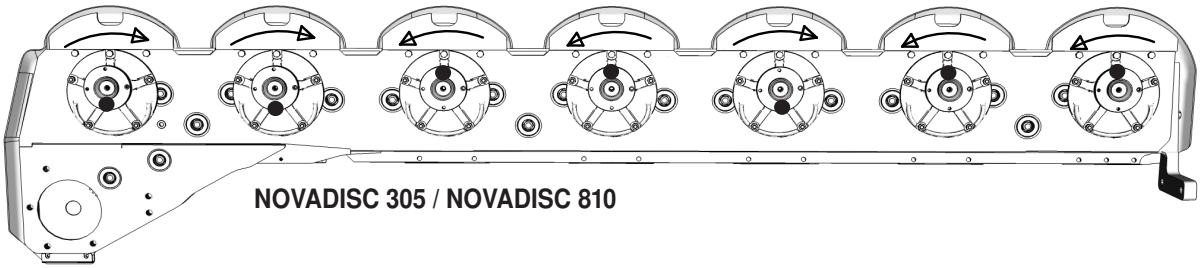
NOVACAT 225 H ED / NOVACAT 225 H CRW 271-08-01



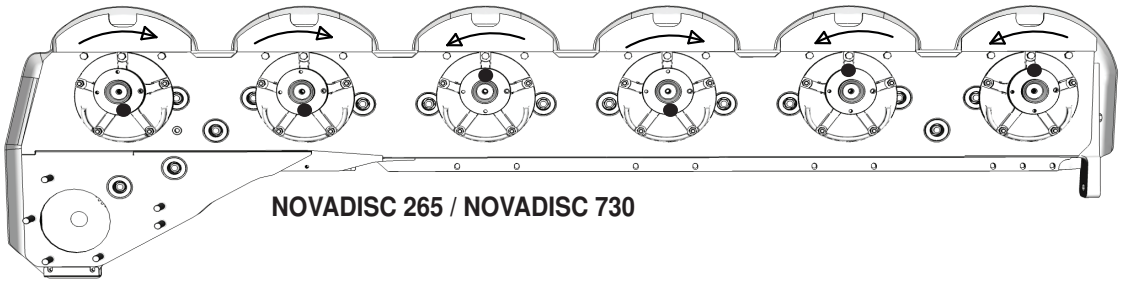
NOVADISC 400



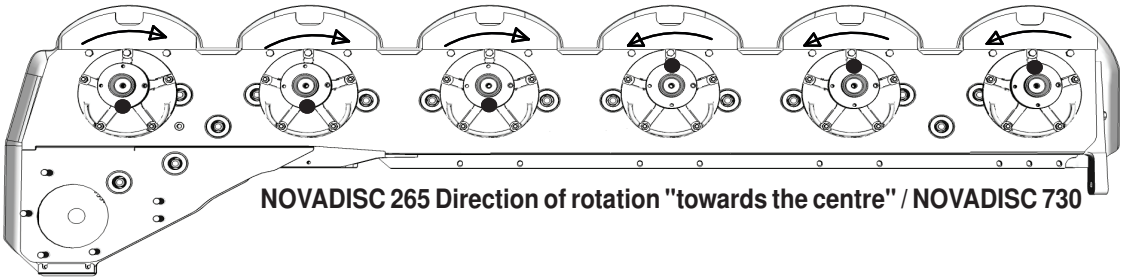
NOVADISC 350 / NOVADISC 900



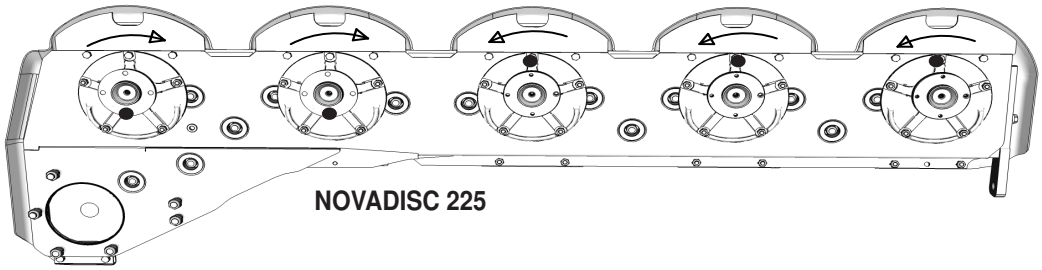
NOVADISC 305 / NOVADISC 810



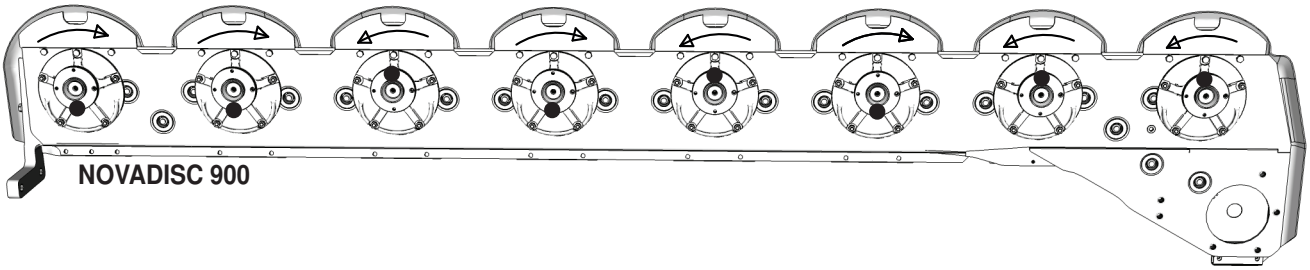
NOVADISC 265 / NOVADISC 730



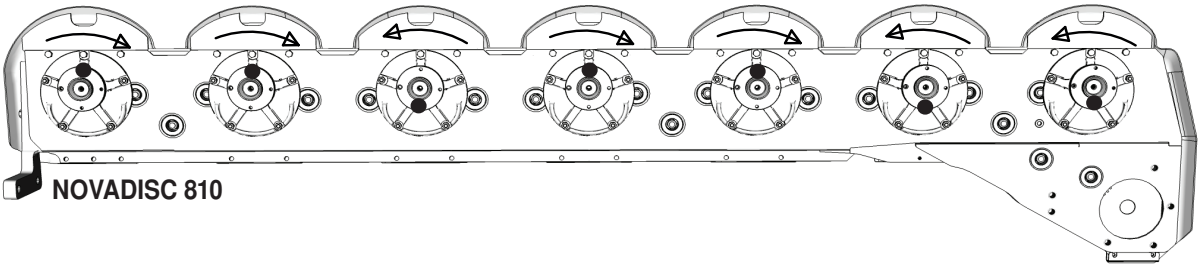
NOVADISC 265 Direction of rotation "towards the centre" / NOVADISC 730



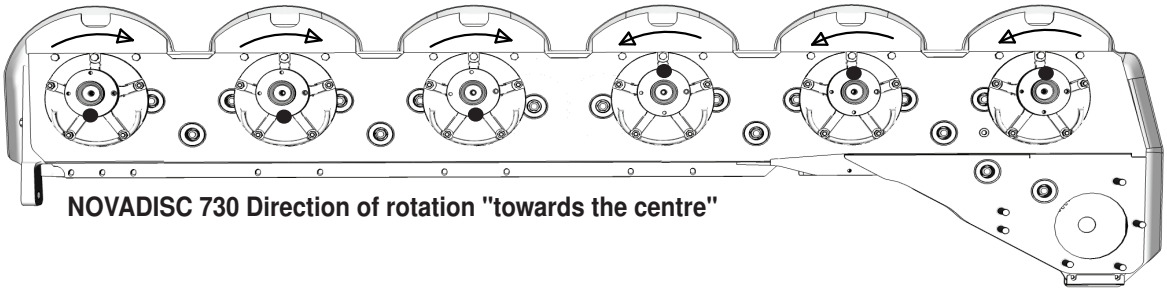
NOVADISC 225



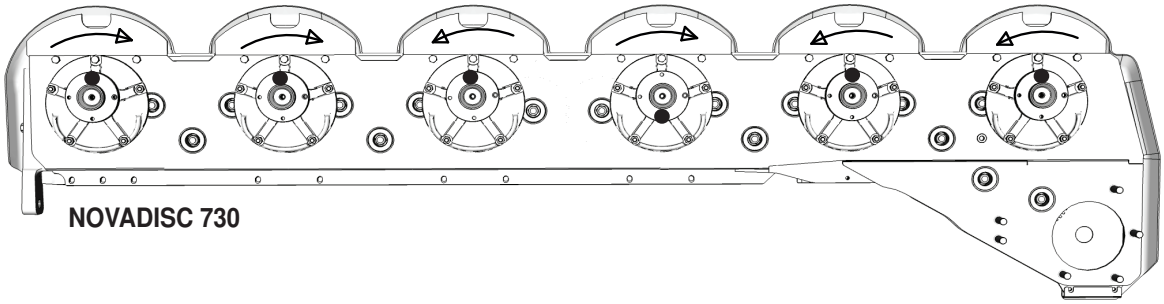
NOVADISC 900



NOVADISC 810



NOVADISC 730 Direction of rotation "towards the centre"



NOVADISC 730

Taper bushes installation instructions

To assemble

1. Clean and degrease the bore and taper surfaces of the bush and the tapered bore of the pulley.
2. Insert the bush in the pulley hub and line up the holes (half thread holes must line up with half straight holes).
3. Lightly oil the grub screws (bush size 1008 to 3030) or the cap screws (bush size 3535 to 5050) and screw them in, do not tighten yet.
4. Clean and degrease the shaft. Fit pulley with taper bush on shaft and locate in desired position.
   - When using a key it should first be fitted in the shaft Keyway. There should be a top clearance between the key and the keyway in the bore.
   - Using a hexagon socket wrench (DIN 911) gradually tighten the grub/cap screws in accordance with the torques as listed in the schedule of screw tightening torques

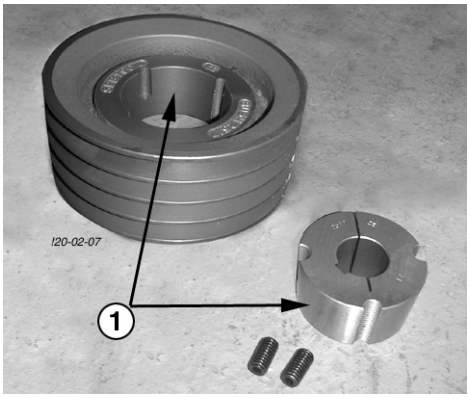
Bush identifier	Torque [Nm]
2017	30
2517	49

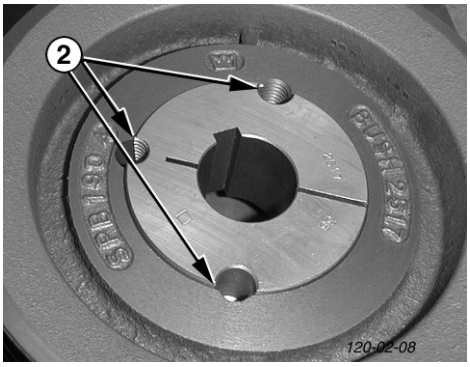
   - When the drive has been operating under load for a short period (half to on hour) check and ensure that the screws remain at the appropriate tightening torque.
   - In order to eliminate the ingress of dirt fill all empty holes with grease.

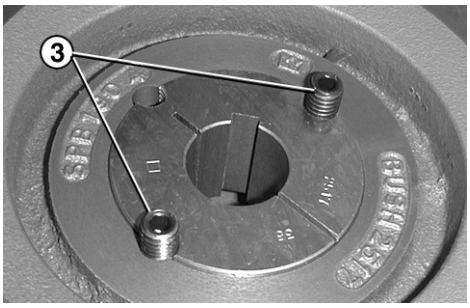
Removal

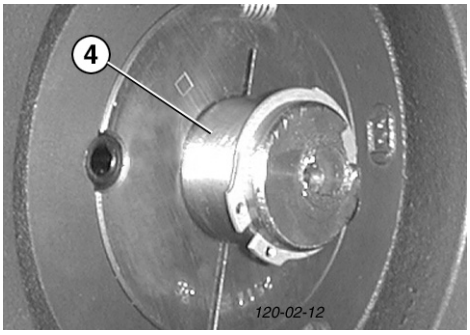
1. Slacken all screws. Depending on the size of the bush remove one or two.

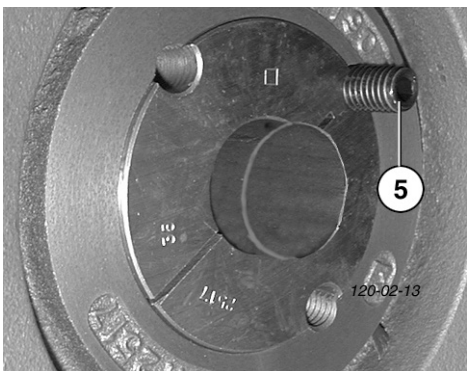
   After oiling point and thread of grub screws or under head and thread of cap screws insert them into the jacking off holie(s) in bush (Pos. 5).
2. Tighten screw(s) unitormly and alternately until the bush is loose in the hub and pulley is free on the shaft.
3. Remove pulley bush assembly from shaft.









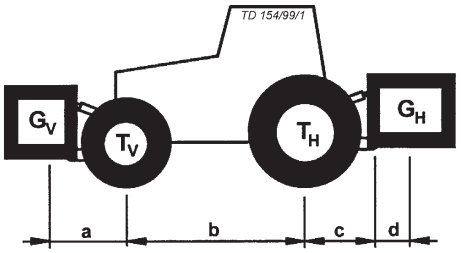


Combination of tractor and mounted implement

The mounting of implements on the front or rear three point linkage shall not result in exceeding the maximum permissible weight, the permissible axle loads and the tyre load carrying capacities ot the tractor. The front axle of the tractor must always to be loaded with at least 20 % of the unladen weight of the tractor.

Make sure before buying an implement that these conditions are fulfilled by carrying out the following calculations or by weighing the tractor/implement combination.

Determination of the total weight, the axle loads, the tyre load carrying capacity and the necessary minimum ballasting



For the calculation you need the following data:

T_L [kg]	unladen weight of tractor	1	**a** [m]	distance from centre of gravity for combined front mounted implement/front ballast to front axle centre	2 3
T_V [kg]	front axle load of unladen tractor	1			
T_H [kg]	rear axle load of unladen tractor	1	**b** [m]	Tractor wheelbase	1 3
G_H [kg]	combined weight of rear mounted implement/rear ballast	2	**c** [m]	distance from rear axle centre to centre of lower link balls	1 3
G_V [kg]	combined weight of front mounted implement/front ballast	2	**d** [m]	distance from centre of lower link balls to centre of gravity for combined rear mounted implement/rear ballast	2

1 see instruction handbook of the tractor
2 see price list and/or instruction handbook of the implement
3 to be measured

Consideration of rear mounted implement and front/rear combinations

1. CALCULATION OF MINIMUM BALLASTING AT THE FRONT $G_{V\ min}$

Record the calculated minimum ballasting which is needed at the front of the tractor into the table.

$$G_{V\ min} = \frac{G_H \bullet (c+d) - T_V \bullet b + 0{,}2 \bullet T_L \bullet b}{a+b}$$

Front mounted implement

2. CALCULATION OF THE MINIMUM $G_{H\ min}$

$$G_{H\ min} = \frac{G_V \bullet a - T_H \bullet b + 0{,}45 \bullet T_L \bullet b}{b+c+d}$$

Record the calculated minimum ballasting which is needed at the rear of the tractor into the table.

3. CALCULATION OF THE REAL FRONT AXLE LOAD $T_{V\ tat}$

(If with the front mounted implement (G_V) the required minimum front ballasting ($G_{V\ min}$) cannot be reached, the weight of the front mounted implement has to be increased to the weight of the minimum ballasting at the front!)

$$T_{V\ tat} = \frac{G_V \bullet (a+b) + T_V \bullet b - G_H \bullet (c+d)}{b}$$

Record the calculated real front axle load and the permissible front axle load of the tractor into the table.

4. CALCULATION OF THE REAL TOTAL WEIGHT G_{tat}

(If with the rear mounted implement (G_H) the required minimum rear ballasting ($G_{H\ min}$) cannot be reached, the weight of the rear mounted implements has to be increased to at least the weight of the minimum ballasting at the rear!)

$$G_{tat} = G_V + T_L + G_H$$

Record the calculated real and the permissible total weight given in the instruction handbook for the tractor into the table.

5. CALCULATION OF THE REAL REAR AXLE LOAD $T_{H\ tat}$

Record the calculated real and the permissible rear axle load given in the instruction handbook for the tractor into the table.

$$T_{H\ tat} = G_{tat} - T_{V\ tat}$$

6. TYRE LOAD CARRYING CAPACITY

Record double the value (two tyres) of the permissible load carrying capacity into the table (see for instance documentation provided by the tyre manufacturer).

Table

	Real value according to calculation		Permissible value according to instruction handbook		**Double** permissible tyre load carrying capacity (two tyres)
Minimum ballasting front/rear	/ kg		---		---
Total weight	kg	≤	kg		---
Front axle load	kg	≤	kg	≤	kg
Rear axle load	kg	≤	kg	≤	kg

The minimum ballasting has to be attached to the tractor either in form of a mounted implement or ballasting weight!

The calculated values must be less or equal (<) the permissible values!

The CE norm is not valid in the United States of America and Canada.

EC Conformity Declaration

Original Conformity Declaration

Name and address of the manufacturer:

PÖTTINGER Landtechnik GmbH
Industriegelände 1
AT - 4710 Grieskirchen

Machine (interchangeable equipment):

mower	NOVACAT	261	/	301	/	351
Type		3751		3761		3811
Serial no.						

The manufacturer declares that the machines adhere to all relevant provisions in the following EU directive:

machinery 2006/42/EG

In addition to this, the manufacturer also declares adherence to the other following EU directives and/or relevant provisions

Source of applied, harmonised norms:

EN ISO 12100 EN ISO 4254-1 EN ISO 4254-12

Source of applied miscellaneous technical norms and / or specifications:

Person responsible for documentation:
Andreas Gadermayr
Industriegelände 1
A-4710 Grieskirchen

Markus Baldinger,
CTO R&D

Jörg Lechner,
CTO Production

Grieskirchen, 01.08.2016

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