

Operator's manual

Translation of the original Operating Manual

Nr. **99+3551.EN.80U.0**

A horizontal number line with 11 equally spaced tick marks. The first tick mark on the left is labeled '0', and the last tick mark on the right is labeled '10'. There are no numbers or labels between the tick marks.

Chassis Nr.

Drum mower

EUROCAT 311

ALPHAMOTION MASTER

(Type PSM 3550 : +..01001)

EUROCAT 311

ALPHAMOTION PRO

(Type PSM 3553 : + .. 01001)

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.

Any form of reprint, translation or reproduction, including excerpts, requires the written approval of Pöttinger Landtechnik GmbH.

All rights according to copyright laws remain expressly reserved by Pöttinger Landtechnik GmbH.

© Pöttinger Landtechnik GmbH – 31st October 2012

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.

Confirmation is required to prove that the machine and the operating instructions have been properly handed over. For this purpose you have received a confirmation e-mail from Pöttinger. If you have not received this mail, please contact your local dealer. Your dealer can fill in the handover declaration online.

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.



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

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

Please place a cross where appropriate.



- ☐ Machine checked according to delivery note. All attached parts removed. All safety equipment, drive shaft and operating devices at hand.
- ☐ Operation, commissioning and maintenance of the machine or device discussed and explained to the customer on the basis of the operating instructions.
- ☐ Check tyres for correct air pressure.
- ☐ Check wheel nuts for tight fit.
- ☐ Correct PTO shaft speed indicated.
- ☐ Adaptation to the tractor carried out: Three point adjustment
- ☐ Cardan shaft correctly cut to length.
- ☐ Test run carried out and no defects detected.
- ☐ Function explanation during test run.
- ☐ Swivel in transport and working position explained.
- ☐ Information about optional equipment is given.
- ☐ Indication of unconditional reading of the operating instructions.

Confirmation is required to prove that the machine and the operating instructions have been properly handed over. For this purpose you have received a confirmation e-mail from Pöttinger. If you have not received this mail, please contact your local dealer. Your dealer can fill in the hand-over declaration online.

Table of contents

SYMBOLS USED

CE mark	5
Safety hints:	5
Introduction	6

WARNBILDZEICHEN

Bedeutung der Warnbildzeichen	7
Position der Warnbildzeichen	9

ATTACHING TO TRACTOR

Safety advice	10
Attaching in general	10
Cardan shaft	10
Parking the machine	10
Attaching problems	10
Fenders and protective cloths	11
Hydraulic side protection	11
Transport position	12
Road Transport	12
Working position	12
Top linkage	12

MOUNTING UNIT "ALPHA MOTION"

General safety information	13
Parking position	13
Transport position	13
Mounting	13
Set spring tension	14
Operation	15
Set cutting height ¹⁾	15

STARTING WORK

Safety advice	16
Important notes prior to starting work	16
Observe the direction of rotation of the mowing drums	17
Mowing	17
Operation	18
Central cutting height adjustment	18
Cutting height adjustment	18

ED TINE CONDITIONER

Mowing with the conditioner	20
Correct V-belt tension	20
Rotor tines position	20
Maintenance of the rotor tines	20
Uncoupling and coupling the conditioner	21
Position of the rotor tines on the conditioner	23
Mowing without a conditioner	24
Optional equipment	24

SWATH FORMER

Adjustment of both swath makers ^(Bi)	25
Adjustment of swath width ^(Bi)	25
Assembly of the conveyor braces	26
Assembly of the conveyor bars	26

GENERAL MAINTENANCE

Safety advice	27
General maintenance information	27
Cleaning of machine parts	27
Parking in the open	27
Winter storage	27
Articulated shafts	28
Hydraulic unit	28
Checking the mowing blades and the mowing blade holder	29

Changing the mowing blades and the mowing blade holder	29
Cutting disc	30
Greater cutting height with high-cut mower disc	31
Angular gear	31
V-belt drive	32
Wear part control	33

TECHNICAL DATA

Technical data	34
Optional equipment	34
Necessary connections	34
Type plate	35
The defined use of the mower unit	35
Type plate position	35

SUPPLEMENT

SAFETY ADVICE

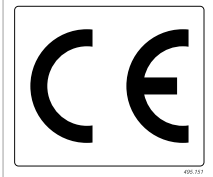
Lubrication chart	42
EUROCAT 311 alpha motion master ED	43
EUROCAT 311 alpha motion pro ED	44
Lubricants	45
Combination of tractor and mounted implement	48

TAPER BUSHES

Taper bushes installation instructions	50
--	----

CE mark

The CE mark, 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 Attachment)

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

Safety hints:

These Operating Instructions contain the following Figures:

DANGER

If you do not follow the instructions in a text section with this marking, there is a risk of fatal or life-threatening injury.

- All instructions in such text sections must be followed!

WARNING

If you do not observe the instructions marked this way, there is the risk of a severe injury.

- All instructions in such text sections must be followed!

CAUTION

If you do not observe the instructions marked this way, there is the risk of an injury.

- All instructions in such text sections must be followed!

NOTE

If you do not observe the instructions marked this way, there is the risk of material damage.

- All instructions in such text sections must be followed!

TIP

The text sections marked in this way provide you with special recommendations and advise regarding the economical use of the implement.

ENVIRONMENT

The text sections marked in this way provide practices and advice on environmental protection.

The features marked as (optional) are only available as standard with specific implement versions or are only offered for specific versions as optional equipment or are only offered in certain countries.

Figures may deviate from your implement in detail and are to be taken as illustrations of operating principle.

Designations such as right and left always apply as the direction of travel unless the text or illustrations clearly show otherwise.

Introduction

Dear Customer

These Operating Instructions are intended to allow you to familiarise yourself with the implement and provide you with clear information on safe and correct handling, care and maintenance. Thus please take the time to read these Instructions.

These Operating Instructions comprise part of the implement. They are to be kept at a suitable location and accessible to staff over the entire service life of the implement. Instructions based on the national provisions regarding protection against accidents, road traffic and environmental protection are also to be applied additionally.

Any persons commissioned with the operation, maintenance or transport of the implement must read and understand these Instructions, in particular the safety information, prior to starting work. Any warranty claims lapse on non-observance of these Instructions.

In case you have questions related to this operation manual or further questions about this implement, please contact your dealer.

Care and maintenance performed in good time and scrupulously according to the maintenance intervals specified ensure operational and traffic safety as well as the reliability of the implement.

Use only the original spare parts and accessories from Pöttinger or accepted by Pöttinger. For those parts reliability, safety and suitability for Pöttinger machines can be assured. Warranty claims lapse if non-approved parts are used. The use of original parts is also recommended after the warranty period has expired to maintain the performance of the implement in the long term.


Product liability legislation obliges the manufacturer and the authorised dealer to issue Instructions when selling implements and to instruct customers in the use with reference to the safety, operating and maintenance regulations. Confirmation in the form of a declaration of transfer is required to verify that the implement and Instructions have been transferred correctly. The declaration of transfer was attached to the implement on delivery.


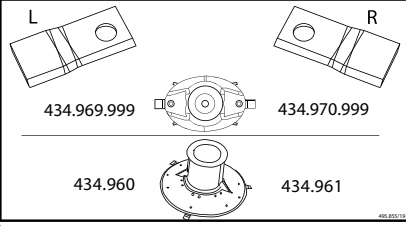
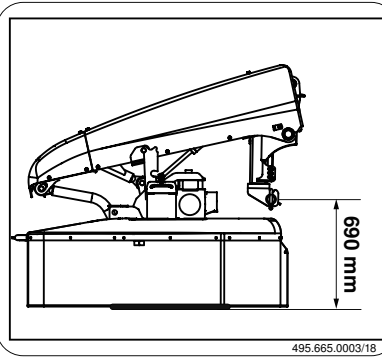
Every self-employed person and farmer is an entrepreneur within the meaning of the product liability legislation. In accordance with the laws of product liability, entrepreneurial property damages are excluded from the liability. All damage to property within the meaning of the product liability legislation is regarded as damage caused by the implement but not to the implement.

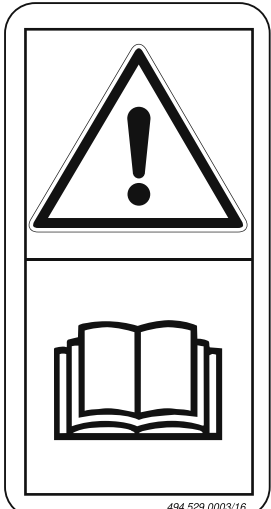
These Operating Instructions are integral part of the implement delivery scope. You should therefore hand them over to the new owner if ownership of the implement is transferred. Train and instruct the new owner in the regulations stated.

The Pöttinger Service-Team wishes you good luck.

Bedeutung der Warnbildzeichen

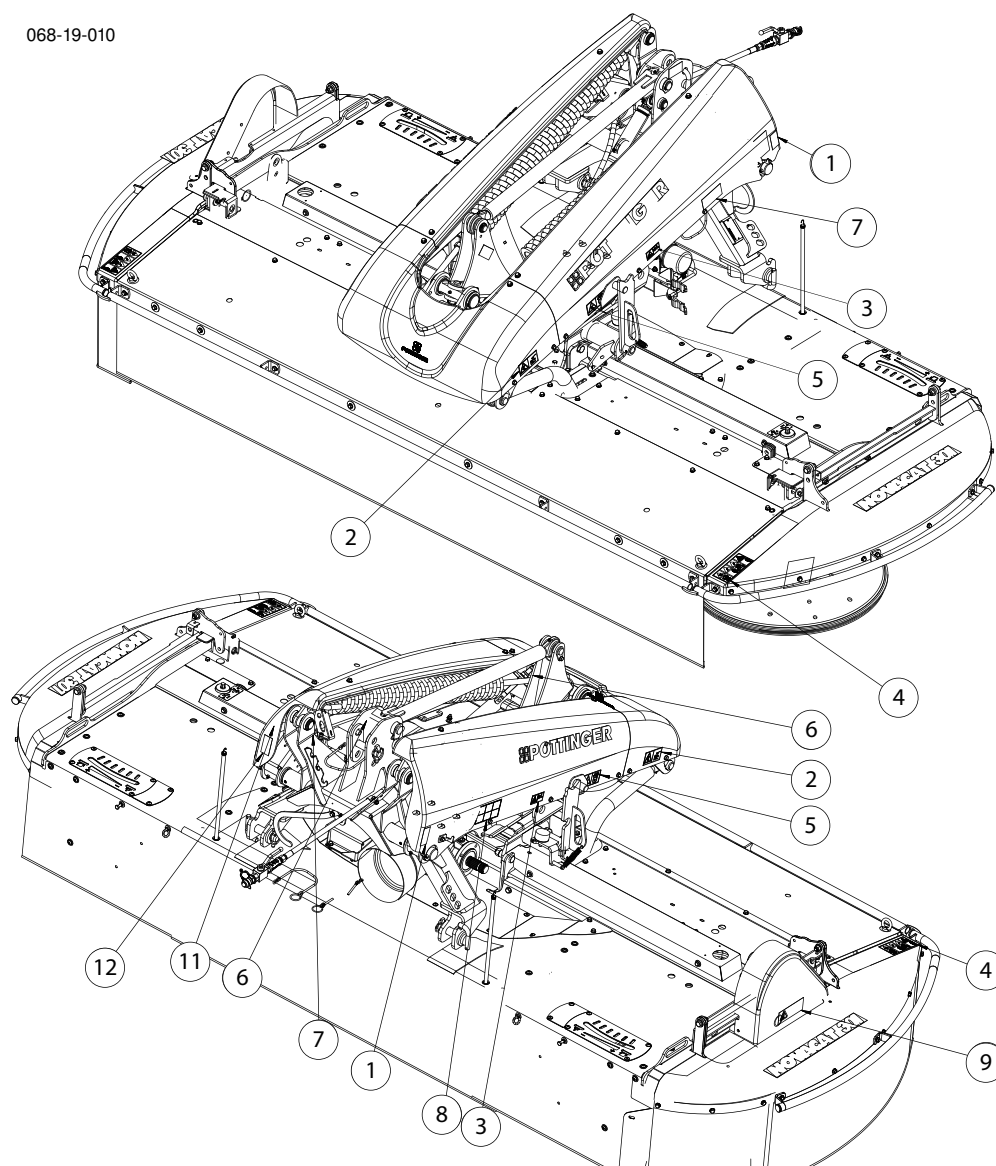
1 (2x)	 bsb 440 462	<p>Vor Wartungs- und Reparaturarbeiten Motor abstellen und Schlüssel abziehen.</p> <p>495.165.0001</p>
2 (2x)	 bsb 448 567	<p>Nicht im Schwenkbereich der Arbeitsgeräte aufhalten.</p> <p>495.166</p>
3 (2x)	 bsb 449 374	<p>Niemals in den Quetschgefahrenbereich greifen, solange sich dort Teile bewegen können.</p> <p>495.171</p>
4 (2x)	 STOP	<p>Keine sich drehende Maschinenteile berühren Abwarten bis sich bewegende Maschinenteile zum Stillstand kommen.</p> <p>Bei laufendem Motor mit angeschlossener Zapfwelle ausreichend Abstand zu den Mähklingen halten.</p> <p>Vor dem Einschalten der Zapfwelle beide Seitenschutze schließen</p> <p>Gefahr durch fortgeschleuderte Teile bei laufendem Motor - Sicherheitsabstand halten.</p> <p>495.175.0001</p>
5 (2x)	 495.169/16	<p>Vor dem Aufenthalt im Gefahrenbereich Sicherheitsgurt einlegen.</p> <p>495.169</p>
6 (2x)	 495.404	<p>Aufhängepunkt beim Abladen</p> <p>495.404</p>

7 (1x)	<p>(D) Achtung! Während des Arbeitseinsatzes das Hydraulik Steuergerät auf "Schwimmstellung od. Senken" stellen.</p> <p>(F) Attention! Au travail, mettre la manette du distributeur hydraulique en position "flottante ou descente".</p> <p>(GB) Caution! The hydraulic control should be in the "float or lower" position during operation.</p> <p>(NL) Attentie! Tijdens het werk het hydraulische stuurventiel in de "zweefstand of op dalen" instellen.</p> <p>495.469.16</p>	<p>Während des Arbeitseinsatzes das Hydrauliksteuergerät auf Schwimmstellung stellen.</p> <p>495.469</p>
8 (1x)	<p>(D) Sichern Sie Ihr Recht mit Ihrer Unterschrift auf der Übergabe-Erklärung für ordnungsgemäße Produktübergabe (Pkt. 3). Das sichert die Produkt-Haftung.</p> <p>(F) Garantisez votre droit Votre signature sur la déclaration de remise témoigne de la remise conforme du produit (Point 3). Ainsi, la responsabilité de produit est garantie.</p> <p>(GB) Secure your rights by signing the declaration of delivery for proper product transfer (Point 3). This will secure product liability.</p> <p>(NL) Waarborg uw recht door uw handtekening op de afleveringverklaring voor een reglementaire product-overdracht (pt. 3). Hiermee is de productaansprakelijkheid gewaarborgd.</p> <p>(I) Cautelate il vostro diritto firmando la dichiarazione di consegna che attesta la regolare consegna del prodotto (punto 3). In tal modo la responsabilità per danno da prodotto difettoso è garantita.</p> <p>(E) Asegure sus derechos firmando el certificado de entrega cuando se le suministre el producto (punto 3) correctamente. Así queda asegurada la responsabilidad sobre el producto.</p> <p>495.713.16</p>	<p>Produkthaftung</p> <p>495.713</p>
9 (1x)	<p></p> <p>(D) Riemenspannung kontrollieren ! (siehe Betriebsanleitung !)</p> <p>(UA) Перевірити натяг ременя Дивись інструкцію по експлуатації</p> <p>494.355.16</p>	<p>Riemenspannung regelmäßig kontrollieren</p> <p>494.355</p>
10 (1x)	<p></p> <p>434.969.999 434.970.999</p> <p>434.960 434.961</p> <p>495.855.16</p>	<p>Klingenausrüstung</p> <p>495.855</p>
11 (1x)	<p></p> <p>690 mm</p> <p>495.665.0003/18</p>	<p>Anbauhöhe Master</p> <p>495.665.0003</p> <p>Anbauhöhe Pro</p> <p>495.XXX.xxxx</p>

12 (1x)		Lesen sie die Betriebsanleitung vor Inbetriebnahme! 494.529.0003
------------	---	---

Position der Warnbildzeichen

068-19-010



Safety advice

CAUTION

Risk of slight or moderate injury through tractor's double-acting front lifting gear.

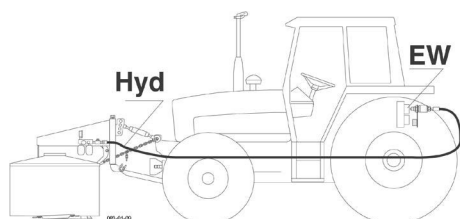
- Do not exceed the maximum lowering depth of the mower unit! This results in unacceptably high pressure on the limiting chains, which can break. In the most unpleasant case, this will result in injuries to persons in the danger area around the mower.

Attaching in general

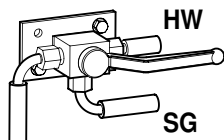
- Observe safety tips in supplement A.
- Attach the machine to the tractor's front lifting gear.
 - Secure locking bolts with linch pins.

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.

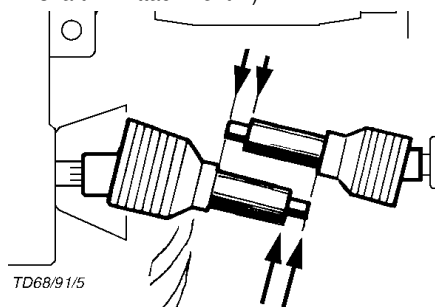


A switch between the front lifting gear (HW) and front control device (SG) via a three-way tap may be necessary with some tractors.



Cardan shaft

- The cardan shaft is to be checked before first use and adapted if necessary (see Chapter "Adapting the cardan shaft" in Attachment B).

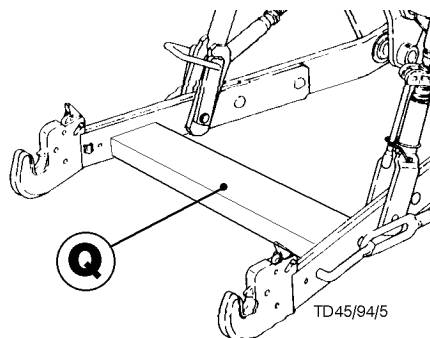


Parking the machine

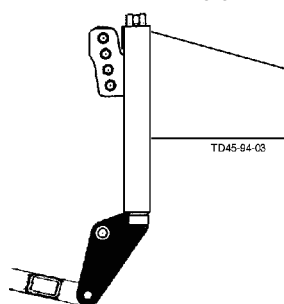
Park the mower only on firm and level ground, and ensure that it is stable.

Attaching problems

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

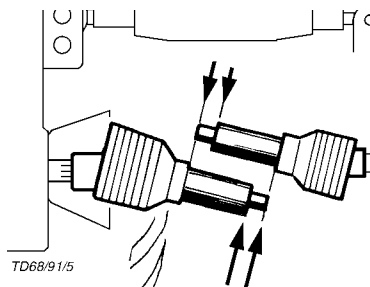


To avoid damage, an extension must be mounted between the lifting gear and the attachment frame.

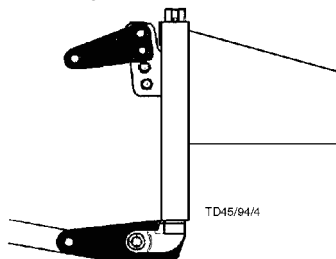


In a case such as this, please contact our Customer Service Dept.

On tractors where the PTO shaft stub is very far forward, the PTO shaft would have to be considerably shortened.

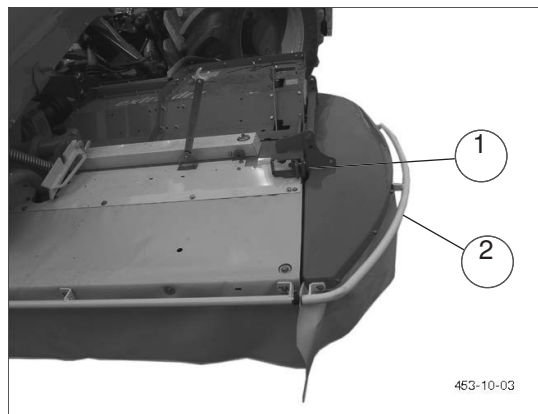


- When the machine is raised, there is insufficient casing to over the cardan shaft.

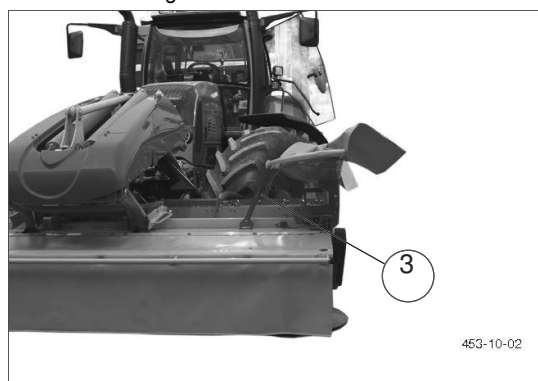


- The maximum universal-joint angle of deviation will possibly be exceeded (see Supplement B also). In this case an accessory kit is necessary which positions the machine approx. 200 mm forward. In a case such as this, please contact our Customer Service Dept.

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



- Engage protective frame in holder (3)
- Left and right



Fenders and protective cloths

DANGER

Danger to life - due to rotating or ejected components

- Before starting work, check the protective devices for function, correct position and condition.
- Fold the guards down before starting work.
- Replace defective protective devices immediately.
- Manipulation or improper use of safety devices is not the responsibility of the manufacturer.
- Do not enter the protective facility!

DANGER

Danger to life through rotating or ejected components when folding the guards up

- Switch off the cutter bar drive.
- Wait for the cutter bars to come to a standstill before swivelling the mudguards and protective guards up.

The mudguards and protective cloths can be folded up for maintenance work.

Hydraulic side protection

CAUTION

Risk of slight or moderate injury through being crushed by the side guards.

- Pay special attention when swivelling the side guards.
- Do not reach into the danger area.
- Direct other persons away from the hazard area.

As an option, the side guards can be swivelled hydraulically with the control valve on the tractor.

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

Transport position

When the two protective elements (2) are swivelled up and snapped into the holder (3), the following width applies:

Type	EC 311
Transport width (X)	< 3.00m

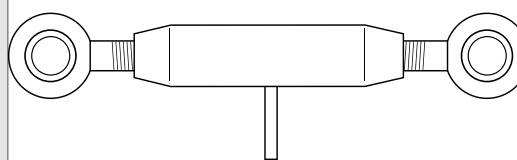


Top linkage



TIP

Use a rigid upper link.



Road Transport

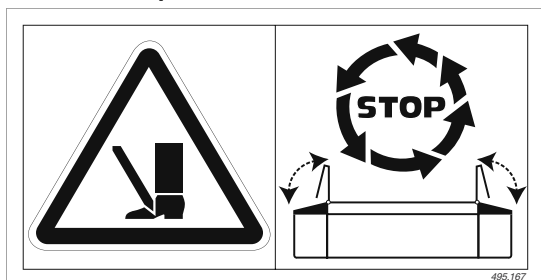
- Observe the statutory regulations for your country/state. Supplement C contains information on attaching a lighting system, valid for Germany.
- It is only permitted to drive on public roads as described in the chapter "Transport position".
- Secure the hydraulic lower link (U) so that machine cannot swing out sideways.

Working position

Before commencing work

Always switch the p.t.o.drive on, only when all safety devices (covers, protective aprons, casings, etc.) are in proper condition and are attached to the machine in their safety positions.

For safety reasons, mowing may only be carried out in this position.



General safety information

! DANGER

Danger to life due to unlocked or incorrectly locked hydraulics.

- Before starting the run, check that the transport lock has closed correctly. Otherwise a single operating error on the control unit can fold the machine down while driving.

! DANGER

Danger to life due to machinery tipping over while parked on unsuitable ground.

- Only park machinery on firm, level ground.

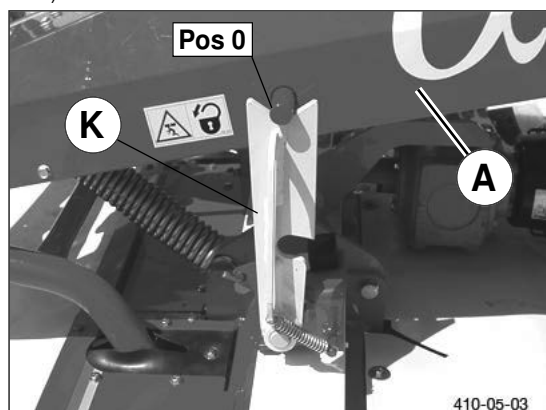
! CAUTION

Risk of slight or moderate injury through tractor's double-acting front lifting gear.

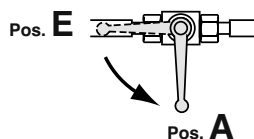
- Do not exceed the maximum lowering depth of the mower unit! This results in unacceptably high pressure on the limiting chains, which can break. In the most unpleasant case, this will result in injuries to persons in the danger area around the mower.

Parking position

- Swivel the flap (K) upwards to park the mower unit (Pos 0).



- Close stopcock (Pos. A)

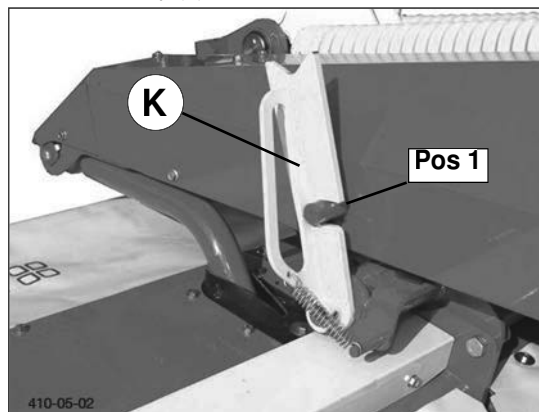


TIP

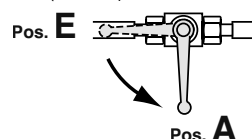
The Conditioner can only be dismantled if the Alpha-Motion unit is in position 0.

Transport position

- The mower must always be locked during transportation.
- Swivel flap (F) to "Pos. 1"

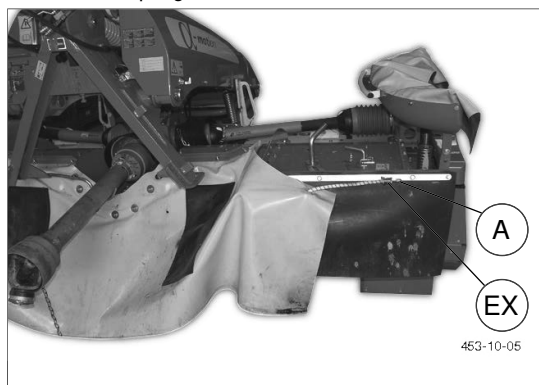


- Close stopcock (Pos. A)



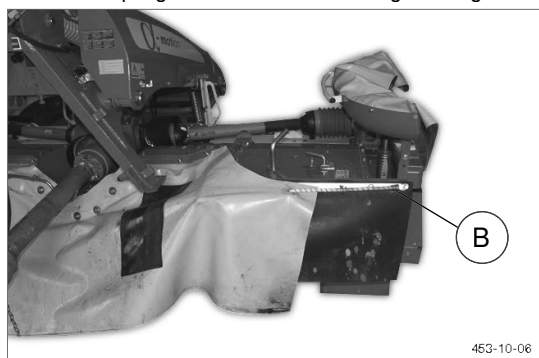
Mounting

- Mount the Expander (EX) in the correct position.
- Position A
- before coupling to the tractor

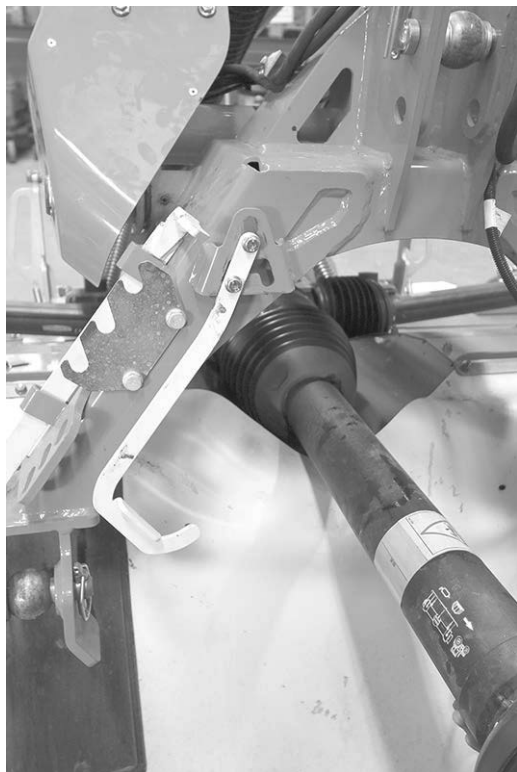


Position B

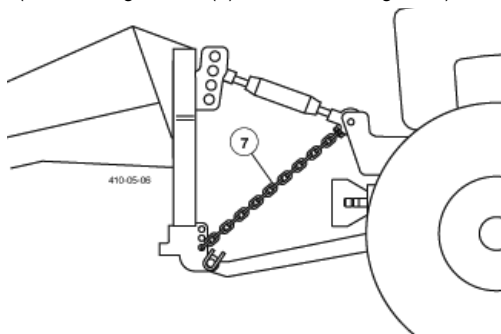
- after coupling to the tractor and during mowing



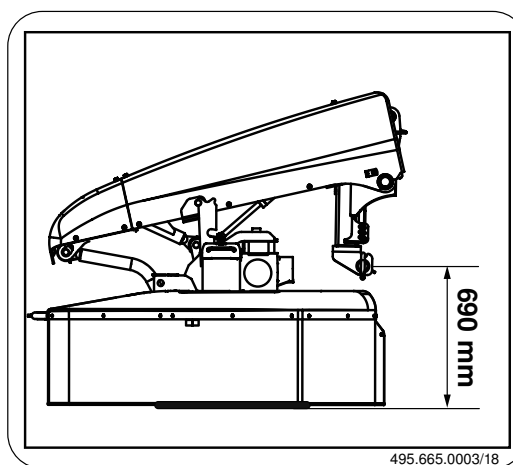
- Connect cardan shaft.
- Bring cardan shaft holder into park position



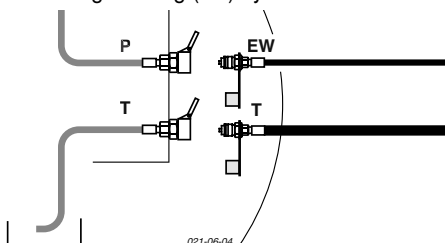
(The limiting chains (7) serve as setting aids!)



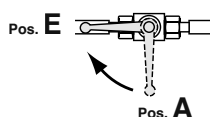
- Set lower link height at approx. 800 mm.



- Couple the hydraulic lines for lifting cylinder on the tractor's single-acting (SA) hydraulic circuit.

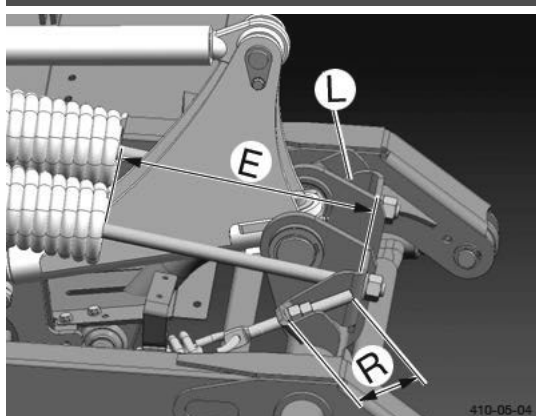


- Open shut-off valve (pos. E)
- Raise the mounting frame (MF) via the tractor's lifting gear



- Swivel the bracket (K) forward.
- Set working height at 1370 mm and secure with limiting chain (7). Only with Alphamotion

Set spring tension



E = Relieving spring

R = Weight counterbalance: right

L = Weight counterbalance: left

¹⁾only for disc mowing

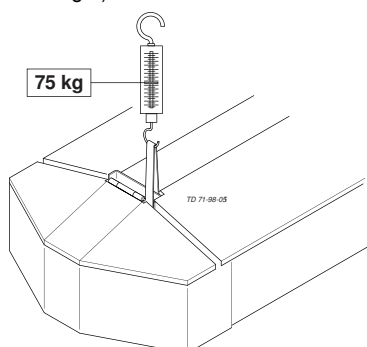
Cutter unit with swather

Type	E	R	L
EUROCAT 311 alpha-motion	245 (mm)	55 (mm)	25 (mm)
EUROCAT 311 alpha motion MASTER	205 (mm)	80 (mm)	70 (mm)

Cutter unit with Conditioner ED

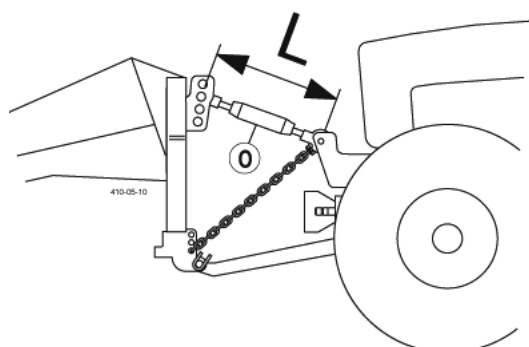
Type	E	R	L
EUROCAT 311 alpha-motion	180 (mm)	45 (mm)	45 (mm)

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



Set cutting height¹⁾

With upper link (O):



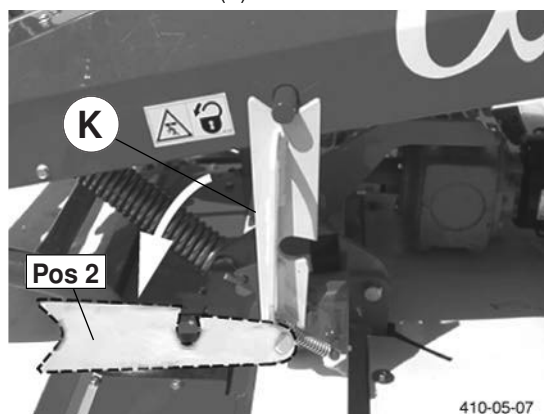
Altering the upper link length L +/- enables a cutting height difference of up to 6 cm.

TIP

When parking the mower, bring the mounting frame back into vertical position.

Operation

- Swivel the bracket (K) to "Pos. 2"



TIP

The hydraulic control valve for the front lifting gear must be locked in the set position when making adjustments and during work.

Safety advice

! DANGER

Life-threatening- by blades thrown away

- After the first operating hours tighten all blade screwed connections
- Check all safety equipment before starting work. In particular, make sure that the side safeguards are folded down correctly in the field transport position.

! DANGER

Life-threatening danger exists through ejected parts when removing clogging, changing blades or adjusting the machine.

- Stop tractor/trailer unit on level ground and apply tractor's brakes.
- Park the mower in working position.
- Before going back to the machine, make sure that the pto has stopped and the hydraulic hoses are depressurised.
- Remove the tractor key!

! DANGER

Life-threatening danger exists through falling off the machine.

- Do not climb onto the machine, or play on or around it.
- Do not let anybody to climb onto the machine, or play on or around it.
- Before starting, make sure that no one is standing on the machine or in its danger area!

TIP

Further safety instructions: see Supplement A, pt. 1. - 7.)

Important notes prior to starting work

1. Check

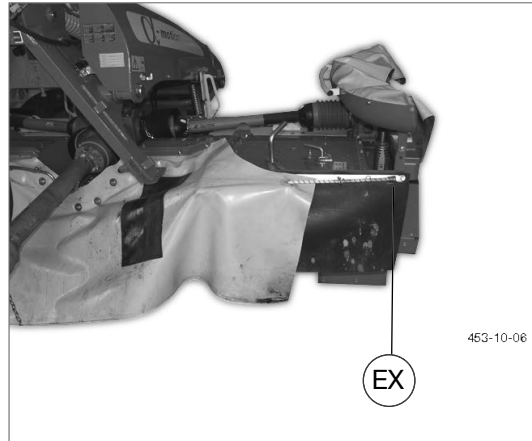
- Check condition of blades and blade holder.
- Check mowing drums for damage (see chapter "Maintenance").

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

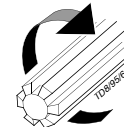
540 Upm 750 Upm 1000 Upm

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

- 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.
 - 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.

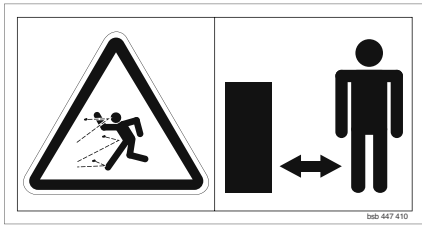
In the event of a collision

- Stop immediately and switch off the drive.
- Carefully check the implement for damage. In particular check the mowing drums and their drive shafts (4a).
- Have the implement checked also by a specialist workshop if necessary.

After contact with a foreign object

- Check the condition of knives and the knife fixings.
- Retighten all blade screw connections.
- Check the implement carefully for damages. You must check in particular the mowing drums and their drive shafts.
- Have the implement checked also by a specialist workshop if necessary.

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



- Keep people out of the danger zone as any foreign bodies ejected by the mower could injure them.
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.

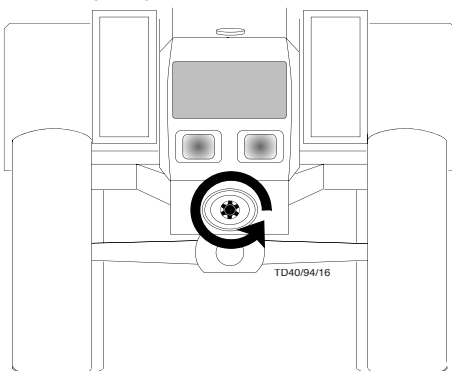


- If a noise level of 85 dB (A) is reached or exceeded, the farmer must have suitable hearing protection in readiness (UVV 1.1 §2).
- If a noise level of 90 dB (A) is reached or exceeded, the hearing protection must be worn (UVV 1.1 § 16).

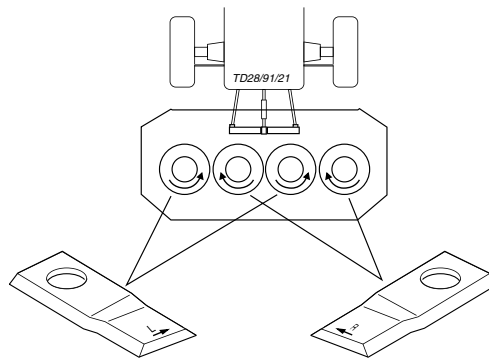
Observe the direction of rotation of the mowing drums.

General

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

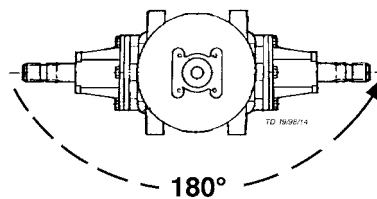
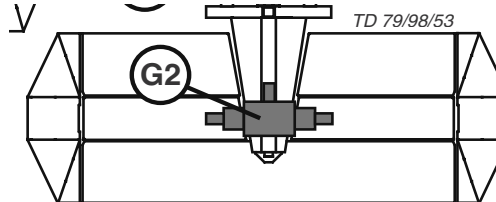


The mower drums direction of travel is OK if the outside drum is turning inward when looking from the front.



Help when the PTO shaft cannot be coupled on left rotation on the operating tractor:

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



Mowing

! DANGER

Danger to life due to parts being thrown off.

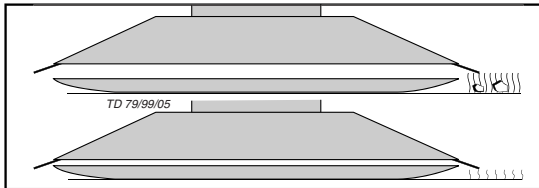
- Before starting to work, check all guards to ensure that they are in the correct position and secured.
- Also check whether the protective devices have defects which impair their function.
- Stones and other objects can be picked up and ejected when mowing. Direct all persons out of the danger area.

Operation

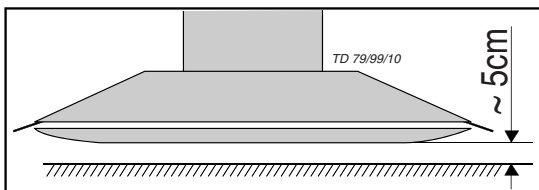
Set cutting height by turning upper link spindle (mower drum incline, max. 50)

Central cutting height adjustment

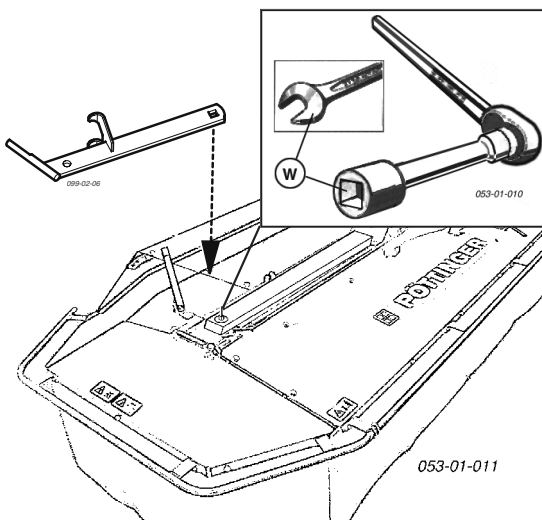
The cutting height can be set anywhere from 35 to 65 mm by adjusting the centre disc.



1. Lift unit with loader (~5 cm).



2. The key (W) is put on the square or hexagon and turned until the required cutting height is set.
Turn once = 1,5 mm



Cutting height adjustment

Safety points

- Turn engine off when adjustment, service and repair work is to be done.
- Do not work under the machine without safe support.
- Retighten all screws after the first hours of operation.



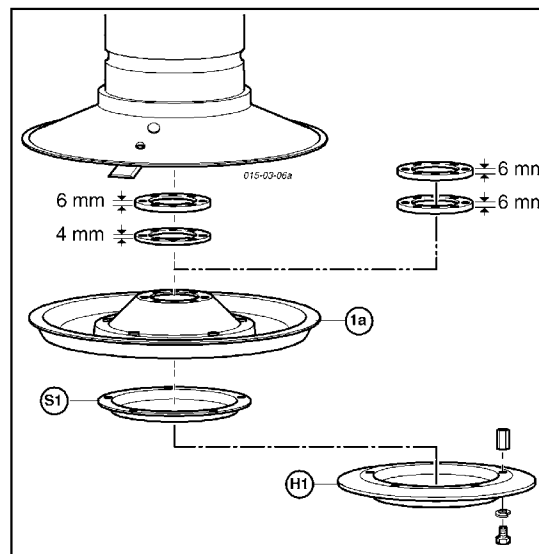
Distance plates

- The cutting height is set by inserting distance plates (4mm, 6mm).
2 of which have already been inserted (4mm, 6mm) in the factory.

Optional equipment: 8 distance plates (6mm)

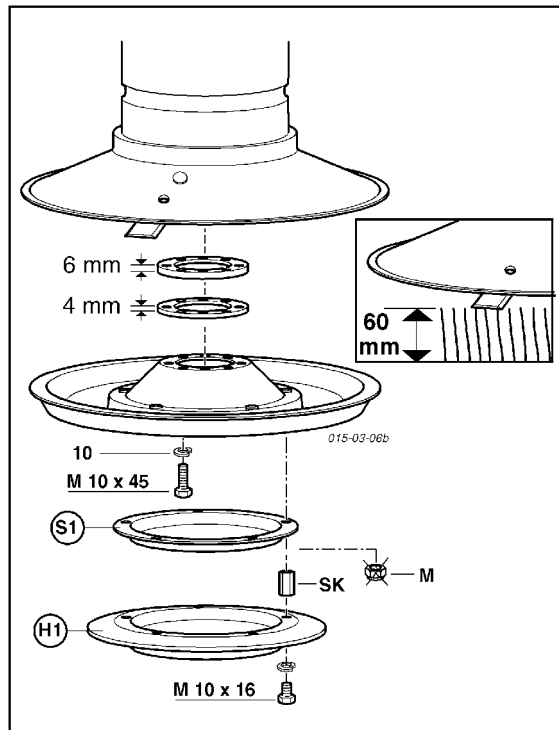
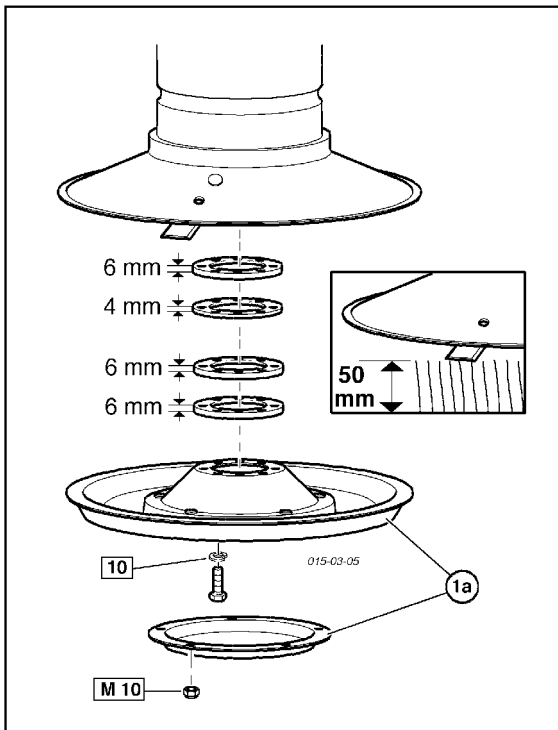
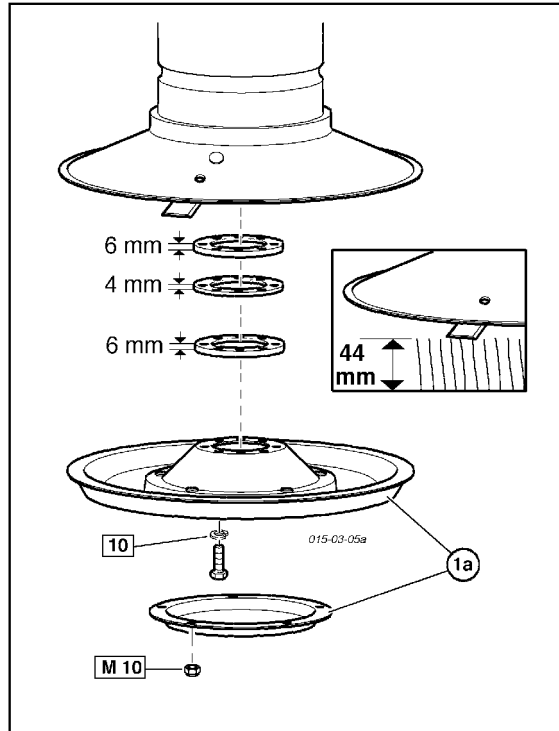
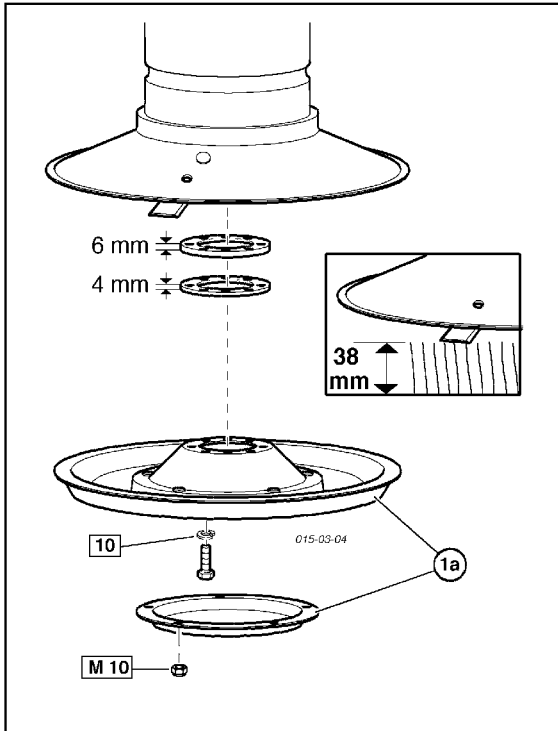
Optional equipment: high-cut mowing plate (H1)

- Each mowing drum must have an equal number of plates inserted.



Inserting distance plates

1. Remove both skid plates (S1, 1a).
2. Insert distance plates (6mm).
3. Refit both skid plates.
Replace worn or damaged spring lock washers with new ones.
Similarly with worn screws and nuts.
Tighten all screws firmly!
4. Check after the first hour of operation
Check all screws for tightness.



Mowing with the conditioner

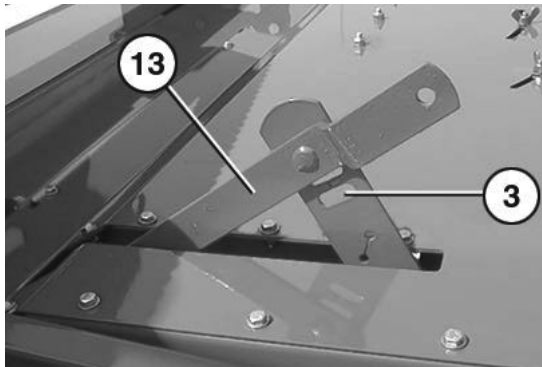
The conditioning effect can be modified.

- The distance between the adjusting strip and the rotor is set using lever (13).

The conditioning is most intense with the lever at the bottom of its travel

(pos. 3)

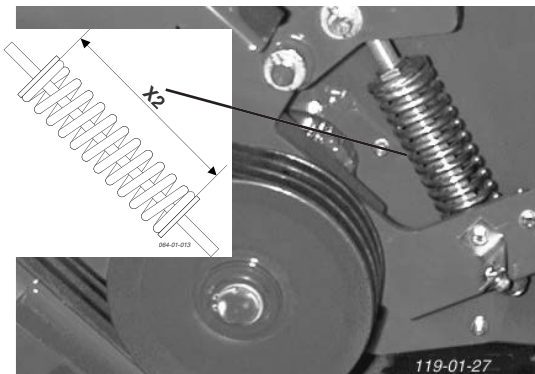
However, the fodder must not be beaten.



Correct V-belt tension

Control size X2

EUROCAT 311 alpha-motion: X2 = 193 mm

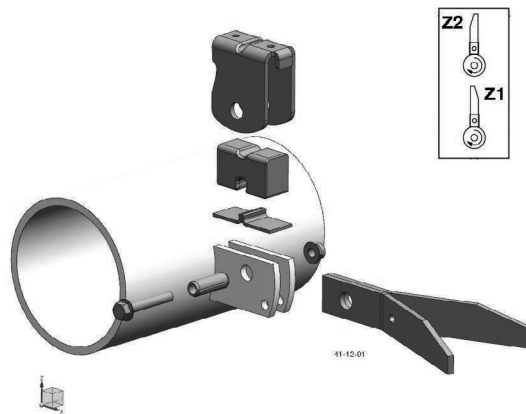


Rotor tines position

Pos. Z1: Rotor tines position for normal operating conditions.

Pos. Z2: For difficult conditions of use, if e.g. the fodder wraps around the rotor.

Turn the rotor prongs 180° (pos.Z2). This tine position solves the problem in most cases. However, the conditioning effect is thereby somewhat reduced.



Maintenance of the rotor tines:

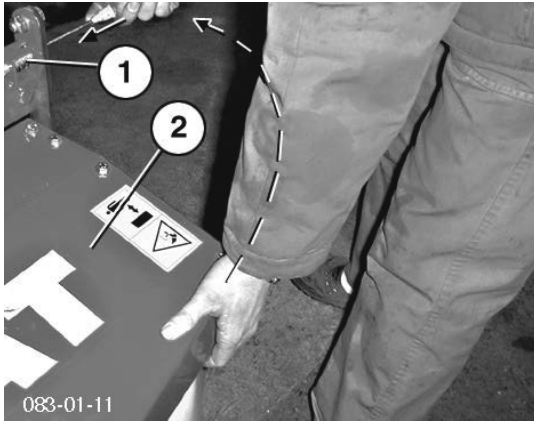
1. Replacing tine fixings

If signs of wear are found on the tine fixings, then the affected component(s) must be replaced. (tines, bolt, slotted spring pin ...)

Uncoupling and coupling the conditioner

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

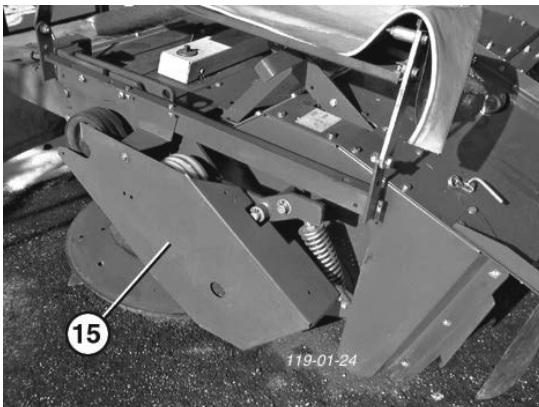
- engage protective frame in holder (3)



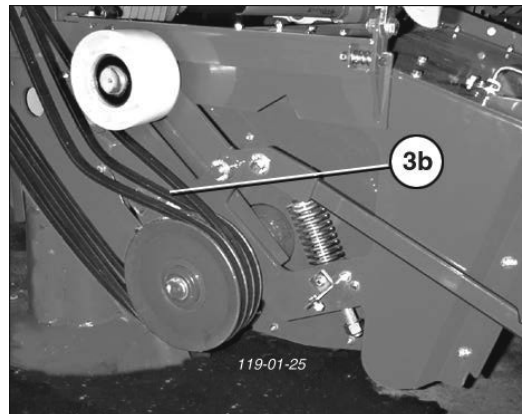
- left and right



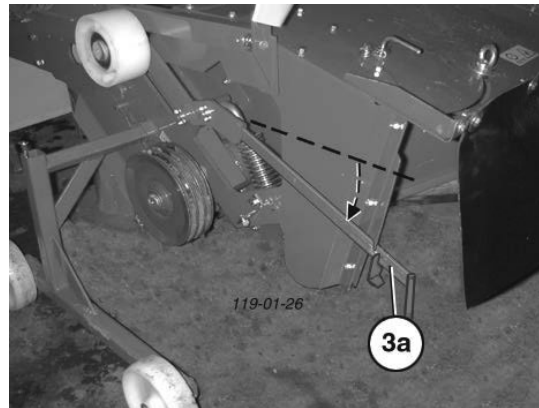
2. Remove the belt protection (15)



3. Remove belts (3b)

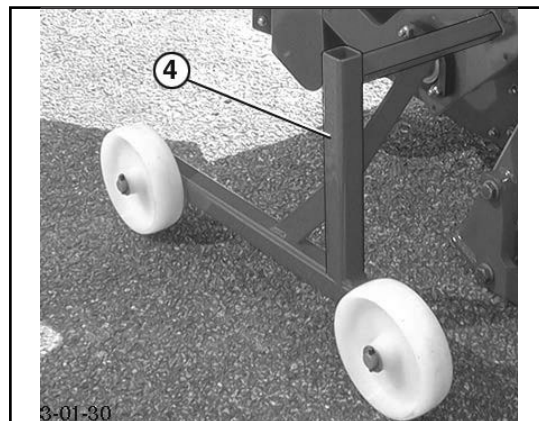


- Release the tension using lever (3a) beforehand



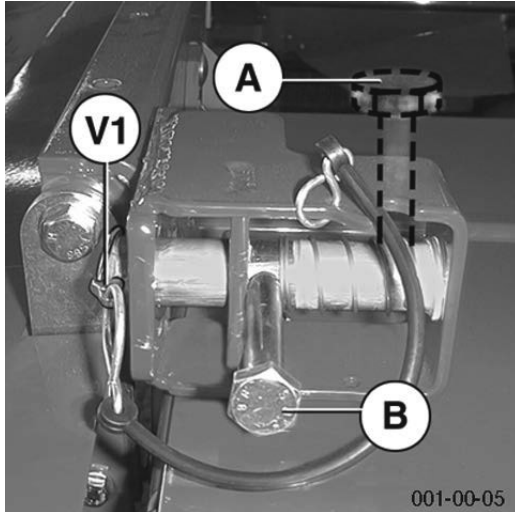
4. Fit transport wheels (4)

- left and right



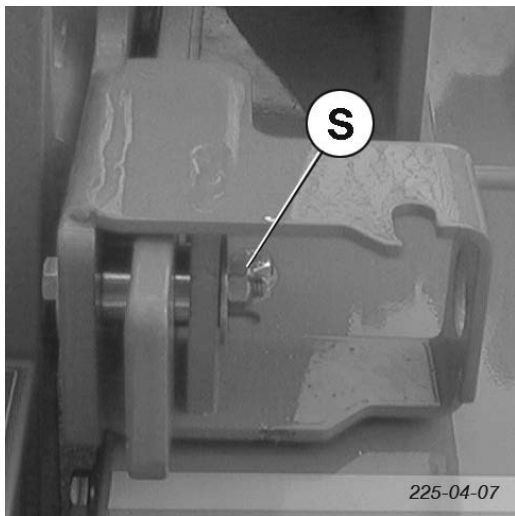
5. Release left and right locks

- Spring loaded positioning bolt up to 2004 model
Remove the linchpin (V1) and unlock the bolt



- Pos A = released
- Pos B = locked

- Screwed in from 2004 model
Remove screw (S)



(Spring loaded positioning bolt = optional)

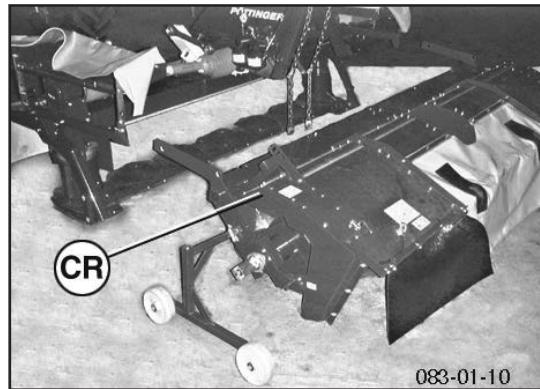
! DANGER

Life-threatening danger exists when detaching the conditioner. If the conditioner is detached, the cutting blades are freely accessible.

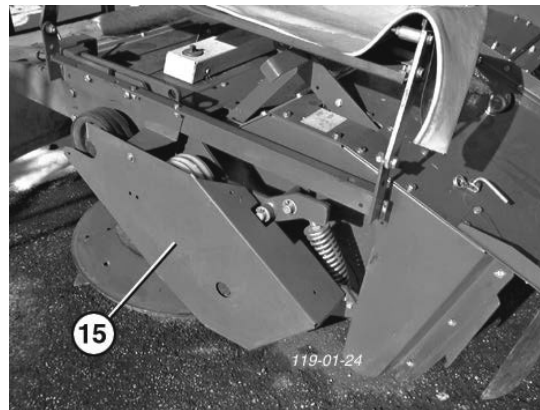
- For mowing without a conditioner, specially designed protective devices for this type of operation must be fitted to the mower bar.

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").

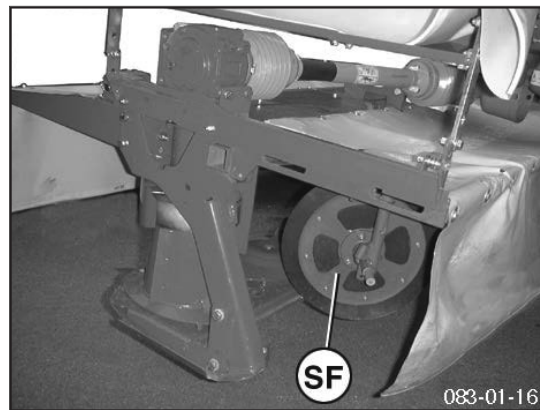
6. Always park conditioner (CR) stably.



7. Mount the guard (15)



Installation of the conditioner (CR) or the swath formers (SF)



- is carried out similarly to removal but in the reverse order.

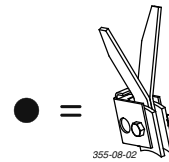
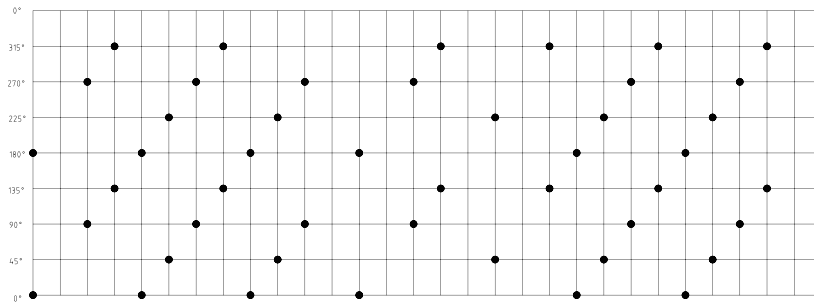
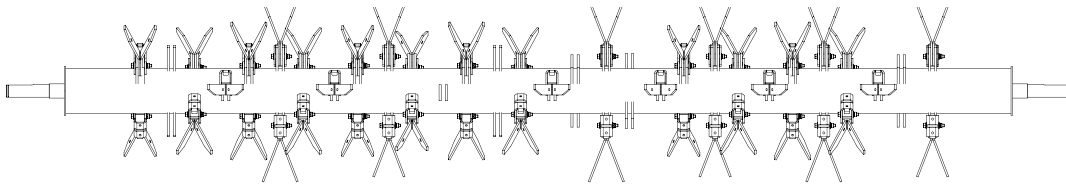
Position of the rotor tines on the conditioner

! NOTE

Risk of material damage during operation with unbalance.

- Always remove both opposite tine holders and install them if you want to remove damaged tines.
- In case of noticeable vibrations, stop immediately and check the tine conditioner for lost tines. If necessary, remove the tine and the opposite bracket.

EUROCAT 311



Mowing without a conditioner

Pay particular attention if the conditioner has been removed from the cutter bar!

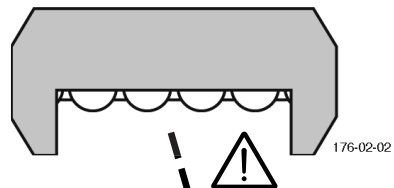
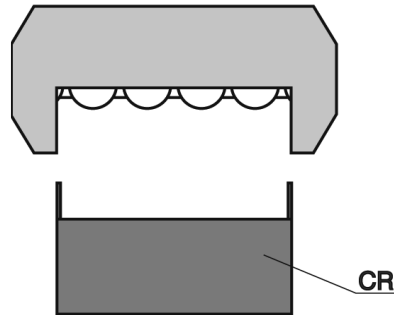
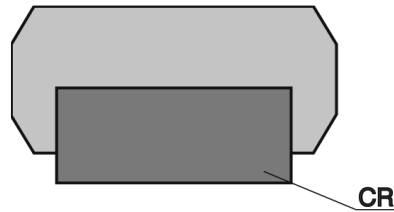
Note

A machine with a conditioner (CR) as a complete unit is fitted with proper protection elements. However, if the conditioner has been removed then the mower unit is no longer completely covered. In this case, mowing must not take place without fitting additional safeguards!

DANGER

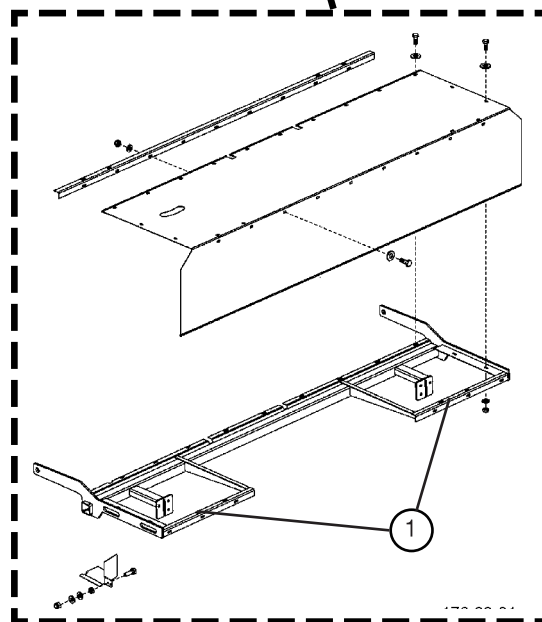
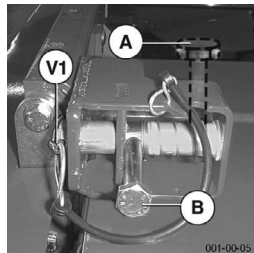
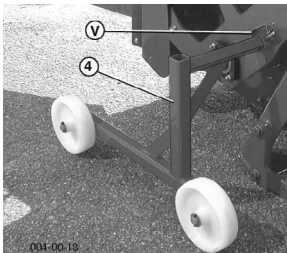
Danger to life - with the conditioner dismantled. If the conditioner is dismantled, the mower blades are freely accessible. There is danger to life!

- For mowing without a conditioner, specially designed safeguards for this type of operation must be fitted to the mower bar. Mowing must not be carried out without these protective elements!
- These safeguards 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")..



Optional equipment

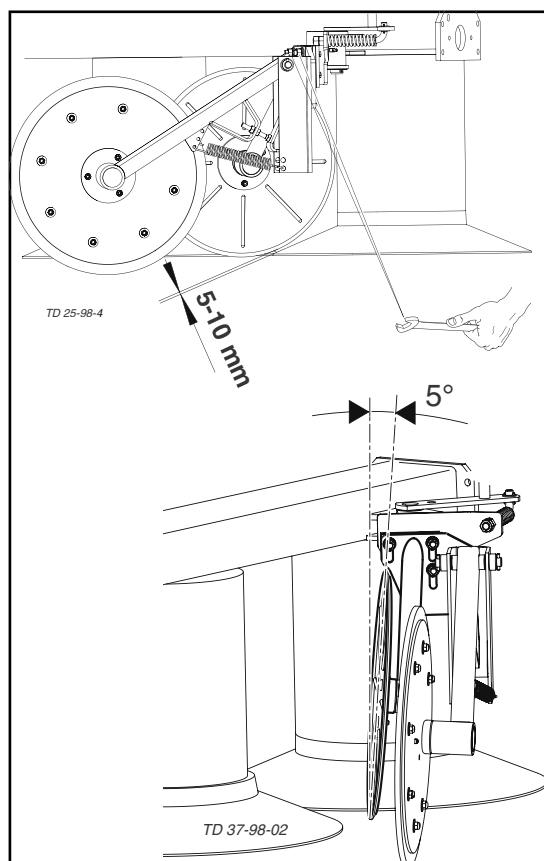
- Chassis (4)
- Spring-loaded fixing bolts (A-B)



Adjustment of both swath makers ⁽⁸ⁱ⁾

Leading swath disc

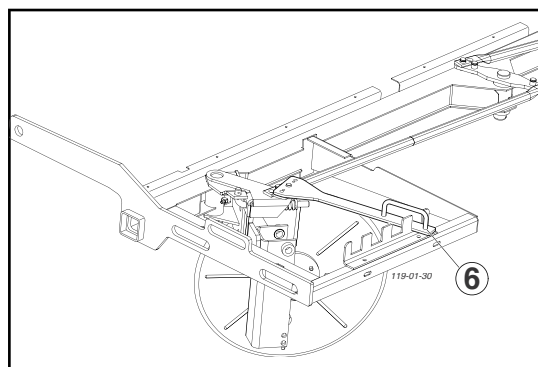
- Distance between mowing plate and swath disc "5-10 mm".
- inclination 5°



Adjustment of swath width ⁽⁸ⁱ⁾

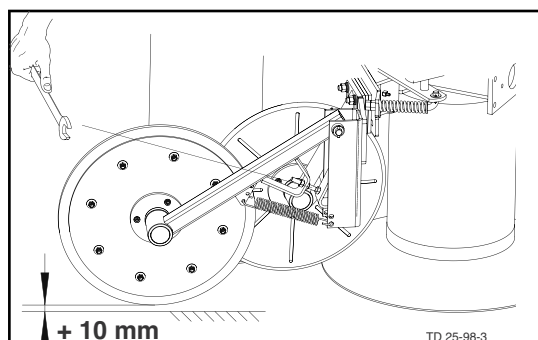
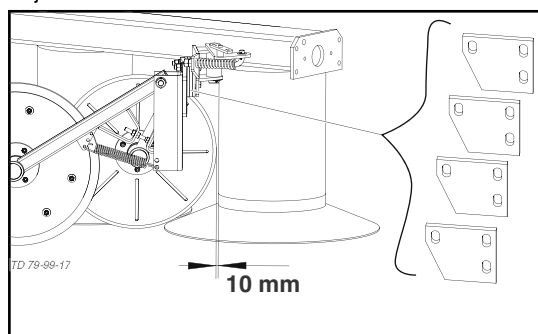
The swath width can be altered by changing the position of the levers (6).

If an obstruction appears then the swath width is to be increased.



Rear swath disc

Adjustment "+10 mm".



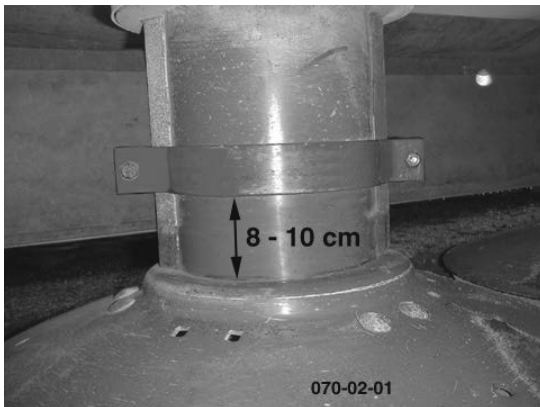
Assembly of the conveyor braces

To avoid clogging when working with heavy feed, you can assemble additional conveyor braces on the inner mowing drums.

Setting **"8 - 10 cm"**

TIP

The conveyor braces cannot be used together with a conditioner

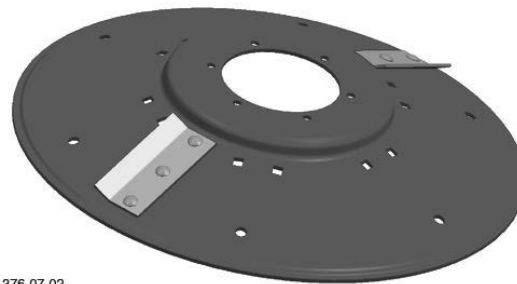
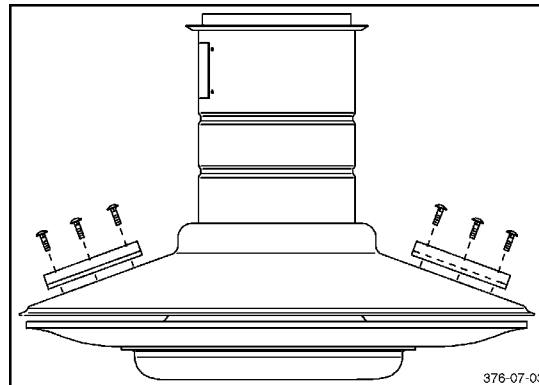


Assembly of the conveyor bars

For dense fodder additional conveying guides can be fitted to prevent clogging

TIP

Conveyor flights cannot be used together with a conditioner!



Safety advice

! DANGER

Life-threatening danger exists through moving or rotating parts

Carry out maintenance works on the machine only when:

- It has been parked securely on level, firm ground.
- It has been secured against rolling with wheel chocks.
- The tractor engine is turned off and the pto shaft is stationary.
- All moving or rotating parts (especially the mowing disks) have come to a halt. (Hearing test!)
- The tractor's ignition key has been removed.
- If necessary, remove the cardan shaft.

Life-threatening danger exists when under the machine.

- Support the sub-areas you are under in an adequate way.

! WARNING

Risk of serious injury through escaping oil.

- Pay attention to scuffed or clamped hose areas.
- Clean the couplings of the oil hoses and the oil sockets prior to each connection!
- Wear the relevant protective clothing.

! NOTE

Material damage due to impurities that have penetrated into the hydraulic system

- Clean the couplings of the oil hoses and the oil sockets prior to each connection!

General maintenance information

Please observe the information below to maintain the machine 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 on the mowers

Tine bolt connections on the rake and tedder

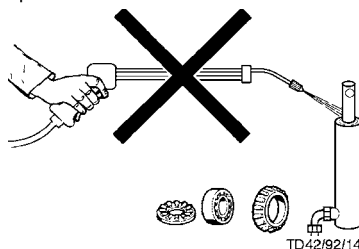
Spare parts

- Genuine parts and accessories are specially designed for the machines.
- We expressly draw your attention to the fact that genuine parts and accessories not supplied by us, have not been tested and approved by us.
- Under certain circumstances, the installation and/or use of such products may negatively modify or impair the specified structural properties of the machine. The manufacturer accepts no liability for any damage caused through the use of non-genuine parts and accessories.
- Any unauthorised modifications and/or fitting of components and attachments to the machine negates any liability on the part of the manufacturer.

Cleaning of machine parts

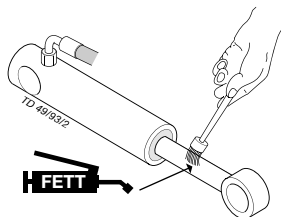
Be advised! Do not use high-pressure cleaners for the cleaning of bearing and hydraulic parts.

- Danger of rust!
- After cleaning, lubricate the machine according to the lubrication plan and carry out 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 out in the open



Winter storage

- Clean machine thoroughly prior to winter storage.
- Park protected against the weather.
- Change or top up gear oil.
- Protect exposed parts from rust.
- Lubricate all greasing points.
- Disconnect terminal, store dry and protected from frost.

Articulated shafts

- See information in the supplement

Please observe the following for maintenance!

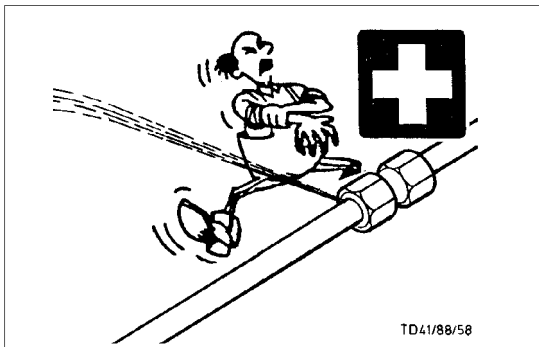
The directions in these Operating Instructions apply.

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



Make sure that the hydraulic system is suited to the tractor before connecting the hydraulic lines.

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

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

Prior to every startup

- Check hydraulic hoses for wear.

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

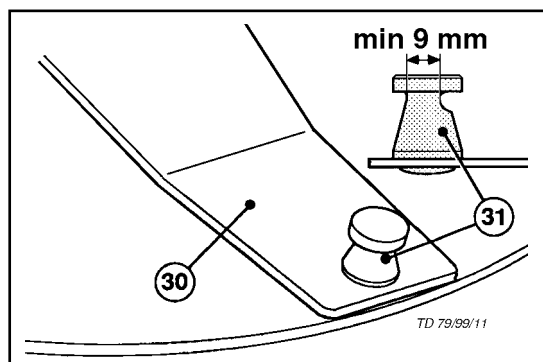
Hose lines are subject to natural ageing. The period of use should not exceed 5 – 6 years.

Checking the mowing blades and the mowing blade holder

Checking interval:

- Checking interval: every 50 hrs.
- Shorten control interval when mowing on stony terrain or in difficult operating conditions
- Immediately check after driving over a solid obstacle (e.g. stone, wood piece, ...).

Control criteria:



* The mowing blades on a mowing drum must be evenly worn (danger of imbalance), otherwise they must be replaced by new ones. Always change all blades on a drum at the same time.

* Bent, damaged or worn mowing blades, blade holders (30) or blade bolts (31) must not be used.

Checking procedure

As described in chapter "Changing the Mowing blades"

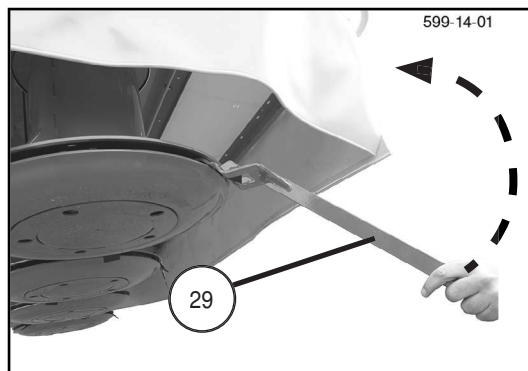
Changing the mowing blades and the mowing blade holder

! WARNING

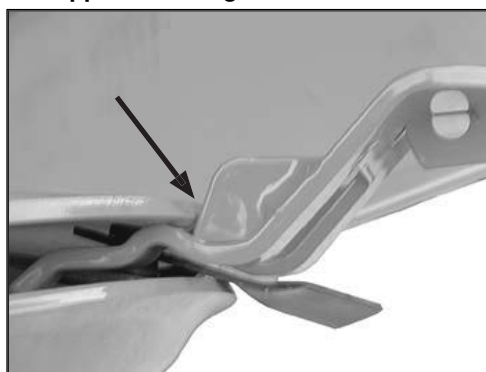
Risk of injury resulting in death or other serious injury through broken off and ejected mowing blades or other components.

- Remove damaged, deformed or heavily worn components or mowing blades immediately.
- Always change all mowing blades on each mowing drum.

1. Place the cutter bar in headland position
2. Insert the blade wrench (29) in the gap between the floor plate and the drum, as shown in the illustration.



Make sure that the blade wrench edge lies on the upper drum edge.



Then push the blade wrench (29) upward, and with that the blade holder (30) moves downward.

- The mowing blade (M) is hooked onto the bolt (31).

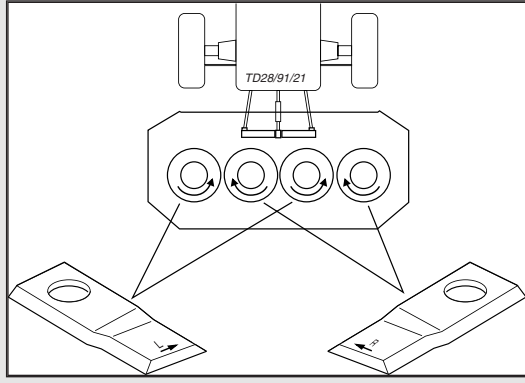
3. Remove mowing blade

-The mowing blade (M) is hooked onto the bolt (31).

- Remember the letter ("L" or "R") engraved on the mower blade. Only use the new mower blade if it carries the same letter as the old mower blade.

TIP

- Fit the "L" designated blades only on the anticlockwise-turning mowing drum.
- Fit the "R" designated blades only on the clockwise-turning mowing drum.

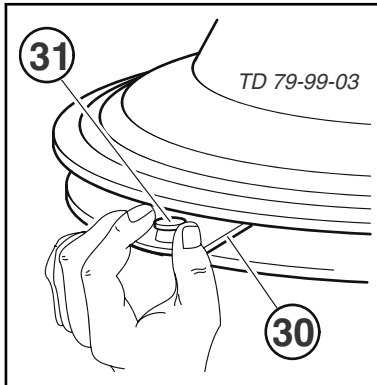


4. Remove fodder residue and dirt

- from around the pin (31).

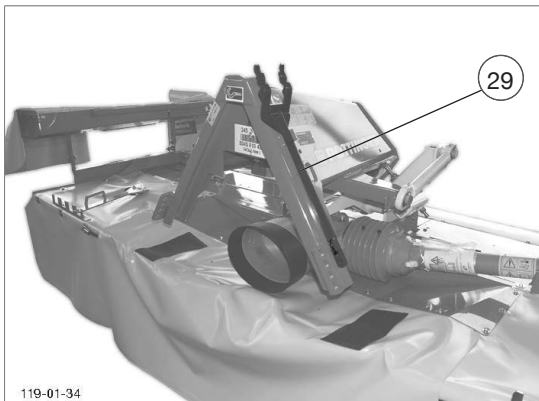
5. Check

- Check the blade bolt (31) for damage, wear and tight fitting
- Check the blade holder (30) for damage, change in position and fitting



6. Fit mower blades and remove lever (29)

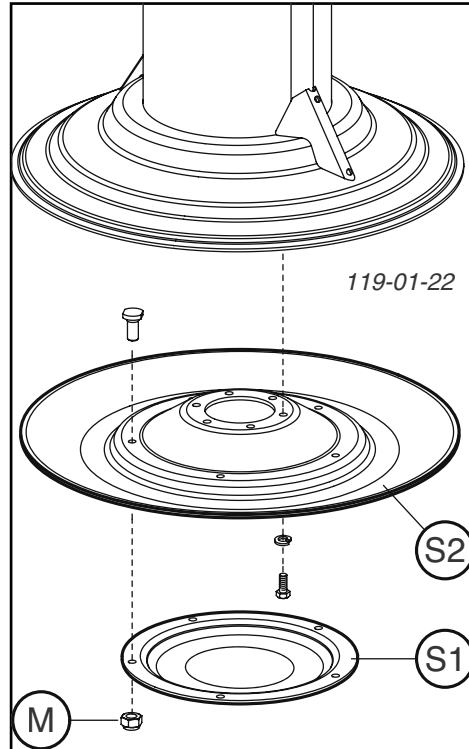
7. Place lever (29) in the two brackets.



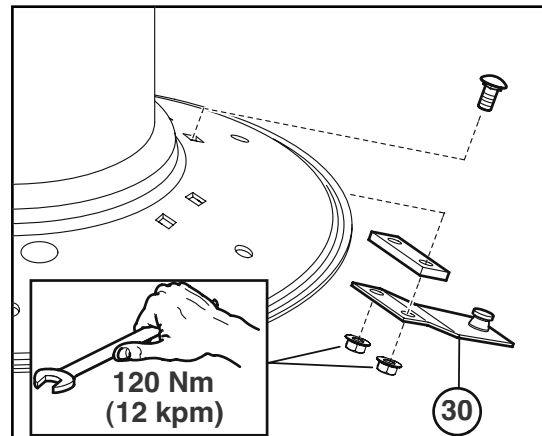
Cutting disc

For worn mowing discs in the mower blade area, proceed as follows:

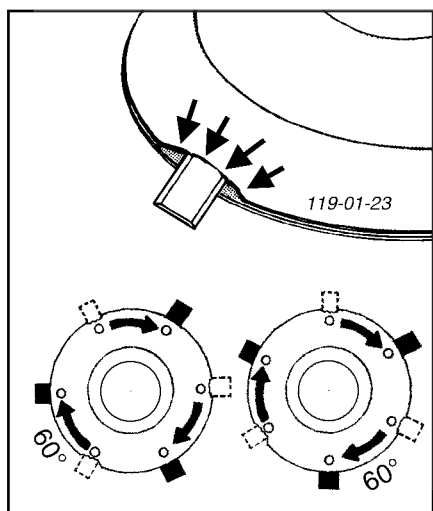
- Remove both lower slide discs (S1, S2).



- Loosen the screws of the blade brackets (30).



- Shift the blade bracket about 60°.



- Tighten the screws well (120 Nm)
 - Check for tightness after several hours of operation.
- Refit both lower slide discs correctly.

Greater cutting height with high-cut mower disc

Spacer discs (standard fittings).

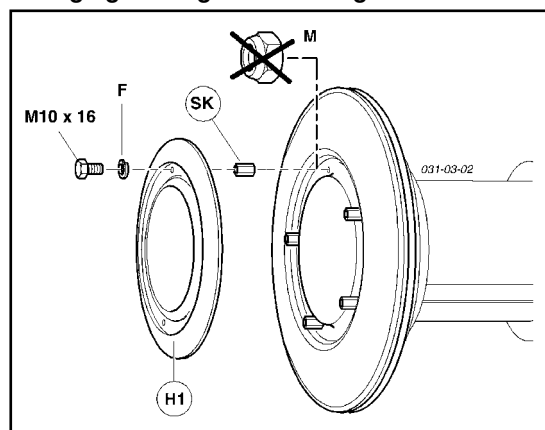
- The machine's basic design allows cutting length adjustment by adding spacer discs.
 - see chapter "Putting into Operation"

High-cut mowing disc (optional)

This results in a cutting height increase of 23 mm.

By removing individual spacer discs the cutting height can be reduced.

Changing to a high-cut mowing disc



1. Remove the nuts (M)
2. Fit the high-cut mowing disc (H1)
 - Screw the hexagonal spacer elements (SK) onto the threaded bolts by hand first and then tighten them
 - Fit the high-cut mowing disc (H1) using the M10 x 16 hexagonal screws and the locking ring (F)

3. Check all screw fittings for tightness after several hours of operation.

TIP

- Changing from a high-cut mowing disc (H1) back to a standard slide disc (S1) is carried out in reverse order.

Angular gear

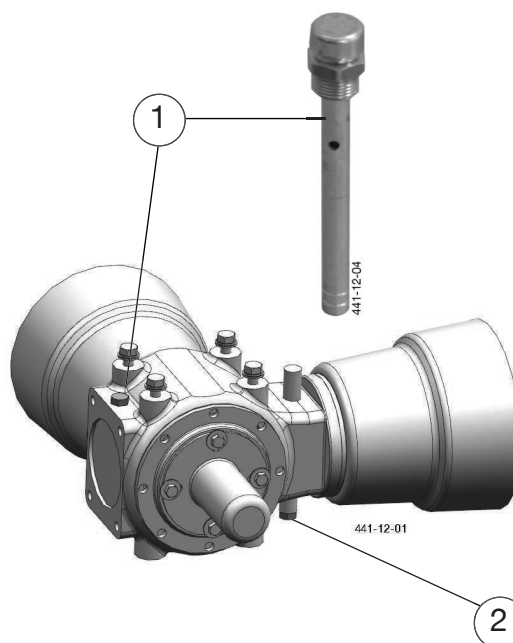
- Change oil after the first 50 operating hours. Under normal operating conditions, oil is to be topped up annually (OIL LEVEL).
- Change oil after 100 ha at the latest.

Oil quantity:

0.7 litre SAE 90

1... Oil filling screw, oil dipstick and breather

2... Oil drain screw



V-belt drive

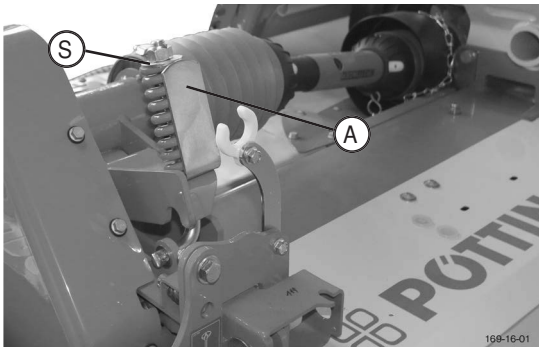
- Check V-belt tension:

After 1h, after 5h, after 20h and then occasionally.

Setting values:

If the disc (S) and the top edge of the indicator (A) are at the same height (0 - 2 mm above), the drive belt's tension is correct.

Re-tensioning is only required if the distance between the disc (S) and the top edge of the indicator (A) exceeds 2 mm.



- If any of the 4 V-belts are damaged or twisted, then all 4 V-belts must be replaced.

! NOTE

Physical damage to ball bearings and shafts due to overtensioned V-belts.

- Be aware of the correct V-belt tension.

Wear part control

! WARNING

Risk of injury resulting in death or other serious injury if the holders and bolts of the mowing blades are worn out or damaged by parts thrown away.

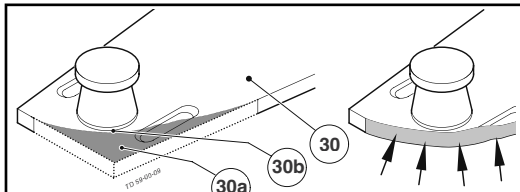
- Check the holders (30) and the bolts (31) of the mowing blades for damage or deterioration:
 - Before each start-up.
 - During operation
 - Immediately after driving over a solid obstacle (e.g. stone, wood piece, metal ...).
- If you notice any wear or damage to the mower don't go on!

The following parts are subject to wear:

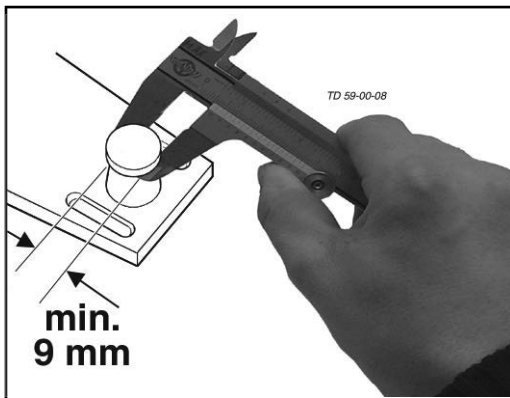
- Cutting blade brackets (30)
- Cutting blades pins (31)

Procedure - Visual control

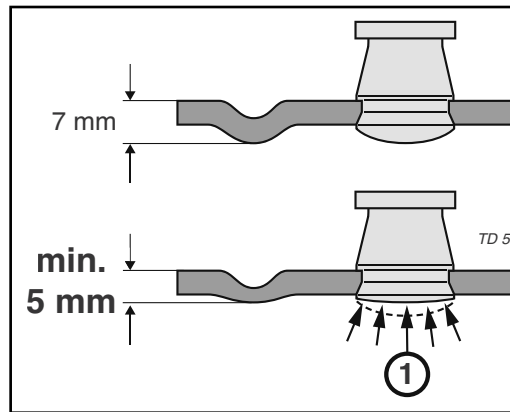
1. Remove the cutting blades.
2. Remove the feed residues and dirt
 - from around the bolt (31).
3. Check the following aspects
 - the wearing area (30a) is worn up to the pin of the mowing blade (30b)



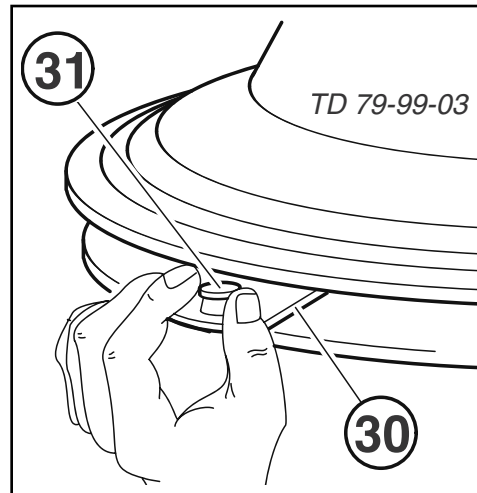
- the pin diameter is **9 mm** or less



- the profile is only **5 mm** or less
(original measure = 7 mm)



- the riveted joint (1) of the pin is worn
- the pin (31) of the blade is no longer firmly seated



4. Stop mowing when you have noticed at least one of these signs of wear. Don't mow any more!
5. Replace the wearing parts before continuing to mow, observing the safety and danger notes in the chapter of maintenance.

Technical data

Description		EUROCAT 311 alpha-motion Type 3550/Type 3551
Coupling		3-point coupling Cat. II
Working width		3.05 m
Transport width		3 m
No. of mower drums		4
Number of cutters per drum		3
Area output		3.2 ha/h
Drive speed (r.p.m.)		540 / 1000
Cardan shaft overload safeguard		1500 Nm
Power requirement without a conditioner with conditioner		45 kW (60 hp) 52 kW (70 hp)
Weight	alpha-motion	870 kg
	alpha-motion plus	895 kg
	alpha-motion plus ED	1070 kg
	alpha-motion MASTER	820 kg
Permanent sound emission level		91.1 dB (A)

All data subject to change without notice

Optional equipment

- Conditioner
- Lighting equipment
- Warning signs
- 8 spacer discs

Necessary connections

- 1 single-action hydraulic plug connection
(min. tractor requirements)
Min. pressure: 80 bar
Max. operating pressure: 180 bar
- 7-pin lighting (12 volt) connection

Weight: Variations are possible depending on machine features.



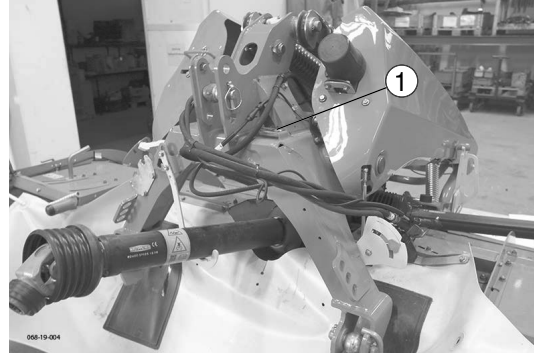
Type plate

The chassis number is engraved on the type plate shown opposite. Guarantee claims, enquiries and spare parts orders cannot be processed without the chassis number.

Please enter the number on the title page of the Operating Instructions immediately upon taking delivery of the vehicle/equipment.

Type plate position

The type plate (1) is located on the right-hand side of the attaching frame, at the tractor end.



The defined use of the mower unit

The "**EUROCAT 311 alpha-motion (Type PTM 3551)**", "**EUROCAT 311 alpha-motion MASTER (Type PTM 3550)**" mowers are designated exclusively for normal use in agricultural work.

- The mowing of grassland and short stemmed fodder.
Any other use outside of this is regarded as not in accordance with the designated use.
The manufacturer is not liable for any damage resulting from this. The user alone bears the risk of such damage.
- Complying with the manufacturer's specified operating, service and maintenance requirements is also a designated use condition.

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

**TIP**

This operating manual contains this symbol at all points relating to the safety of  persons.

1.) Operating instructions

- a. The operating instructions are an important part 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 possession.
- c. Pass the operating instructions on to the buyer when selling the machine or changing the operator.
- 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 who are mentally and physically able and have been trained or familiarized accordingly is allowed to operate this machine.
- b. Persons not yet trained, familiarized or under training or in a general education 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.) Performing maintenance 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.) After maintenance work on brakes

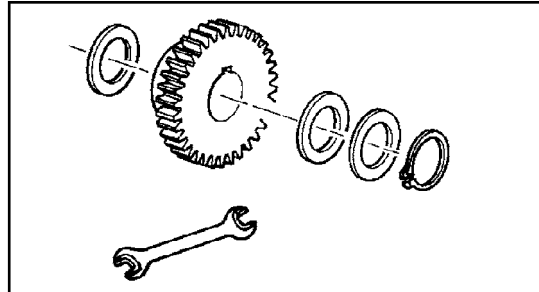
- a. After each repair of the brakes, a functional check or a test drive must be carried out to ensure that the brakes function properly. New drums or brake linings only have optimum braking effect after a few braking operations. Violent braking should be avoided.

5.) Modification work

- a. Do not undertake any unauthorised additions, modifications or alterations to the machine. This also applies to the installation and setting of safety devices as well as welding or drilling in stress-bearing parts.

6.) Appropriate use

- a. see technical data
- b. Intended use also includes compliance with the manufacturer's stipulated operating, maintenance and service conditions.

**7.) Spare parts**

- a. **Original parts and accessories** are specially designed for the machines and their equipment.
- b. We expressly draw your attention to the fact that genuine parts and accessories not supplied by us, have not been tested and approved by us.
- c. Under certain circumstances, the installation and/or use of such products may negatively modify or impair the specified structural properties of the machine. The manufacturer accepts no liability for any damage caused through the use of non-genuine parts and accessories.
- d. Unauthorised changes as well as the use of components or attachments on the machine lead to the exclusion of manufacturer's liability.

8.) Safety devices

- a. All protection devices must remain on the machine and be maintained in proper condition. Replacement of worn or damaged covers or guards is required in good time.

9.) Before starting work

- a. Before commencing work, the operator must familiarise with all of the operating devices and functions. The learning of these is too late after having already commenced operation!
- b. Before every putting into operation check the vehicle or the implement for traffic and operating safety.

10.) Asbestos

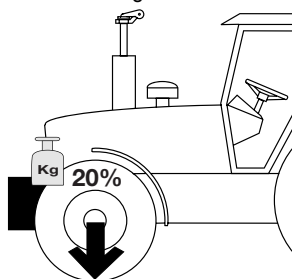
- a. Certain sub-supplied components of the vehicle may contain asbestos due to technical reasons. Please observe the marking of spare parts.

**11.) Transport of people prohibited**

- a. The transport of people on the machine is not permitted.
- b. The machine may only be driven on public roads when in the position stipulated for road transport.

12.) Driving ability with auxiliary equipment

- a. The towing vehicle is to be sufficiently equipped 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 the road and auxiliary equipment. The driving must be adapted to the corresponding terrain and ground conditions.
- c. When driving through curves with a connected implement, observe the radius and swinging mass of the implement!
- d. When travelling in a curve with attached or semi-mounted implements, take into account the working range and swing mass of the implement!

13.) General

- a. Before attaching implements to the three-point linkage, move system lever into a position whereby unintentional raising or lowering is ruled out!
- b. Danger of injury exists when coupling implements to the tractor!
- c. Danger of injury through crushing and cutting exists in the three-point linkage area!
- d. Do not stand between the tractor and the 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 allowed to stand between tractor and implement without the 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 the universal drive.

14.) Cleaning the implement

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

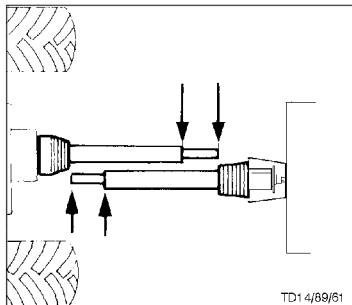
Adapting cardan shaft to tractor

! NOTE

Material damage - due to inferior spare parts

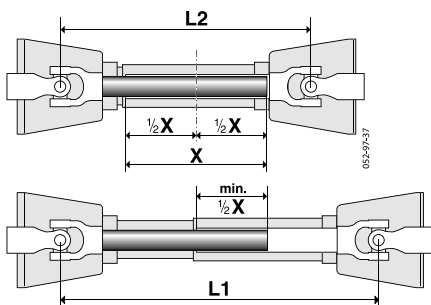
- Only use the cardan shaft supplied or stated; otherwise the warranty claims for any damage are not valid.

The correct length is determined by comparing both cardan shaft halves.



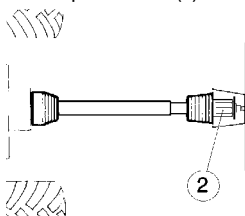
Cutting to length

- To adapt the length, place cardan shaft halves next to each other in the shortest operating position (L2) and mark.



Caution!

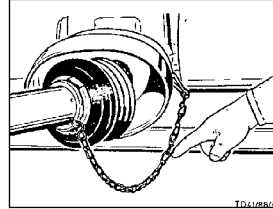
- Note the maximum operating length (L1)
 - Aim at the maximum possible tube superimposition (min. $\frac{1}{2} X$)
- Shorten the inner and outer protective tube equally
- Attach overload protection (2) to the machine!



- Before each cardan shaft start-up, check that the catches are securely engaged.

Safety chain

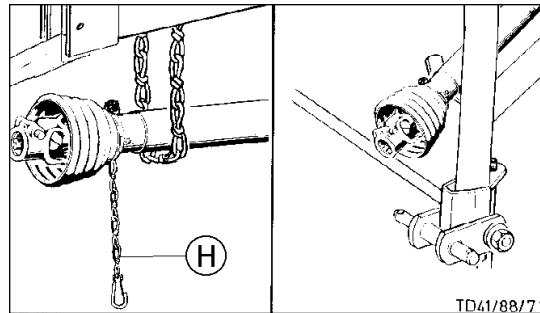
- Use chain to prevent tube guard from rotating.
- Ensure sufficient swivel space for the cardan shaft!



Instructions for working

Do not exceed the permitted r.p.m. when using the machine.

- The machine can still run-on after the p.t.o has been turned off. Work can only be carried out on the machine when it is at a complete standstill.
- When parking the machine, the cardan shaft must be taken off or secured using a chain, as instructed. Do not use safety chain (H) to suspend the cardan shaft.



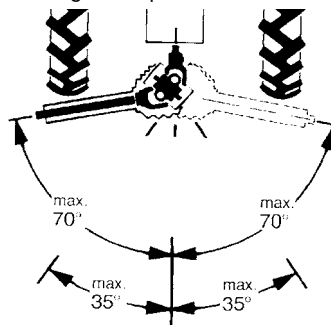
Wide-angle joint:

Maximum angle for operation and at standstill 70°.

Standard joint :

Maximum angle at standstill 90°.

Maximum angle for operation 35°.

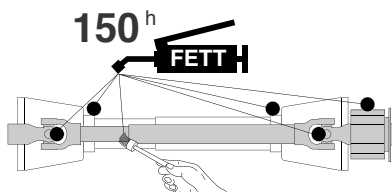


Maintenance

DANGER

Mortal danger - due to worn covers

- Replace the worn covers immediately
- Lubricate with a brand-name grease before starting work and once every 150 operating hours.
 - Before any extended period of non-use, clean and lubricate cardan shaft.
- For winter working, grease the tube guards to prevent freezing.



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

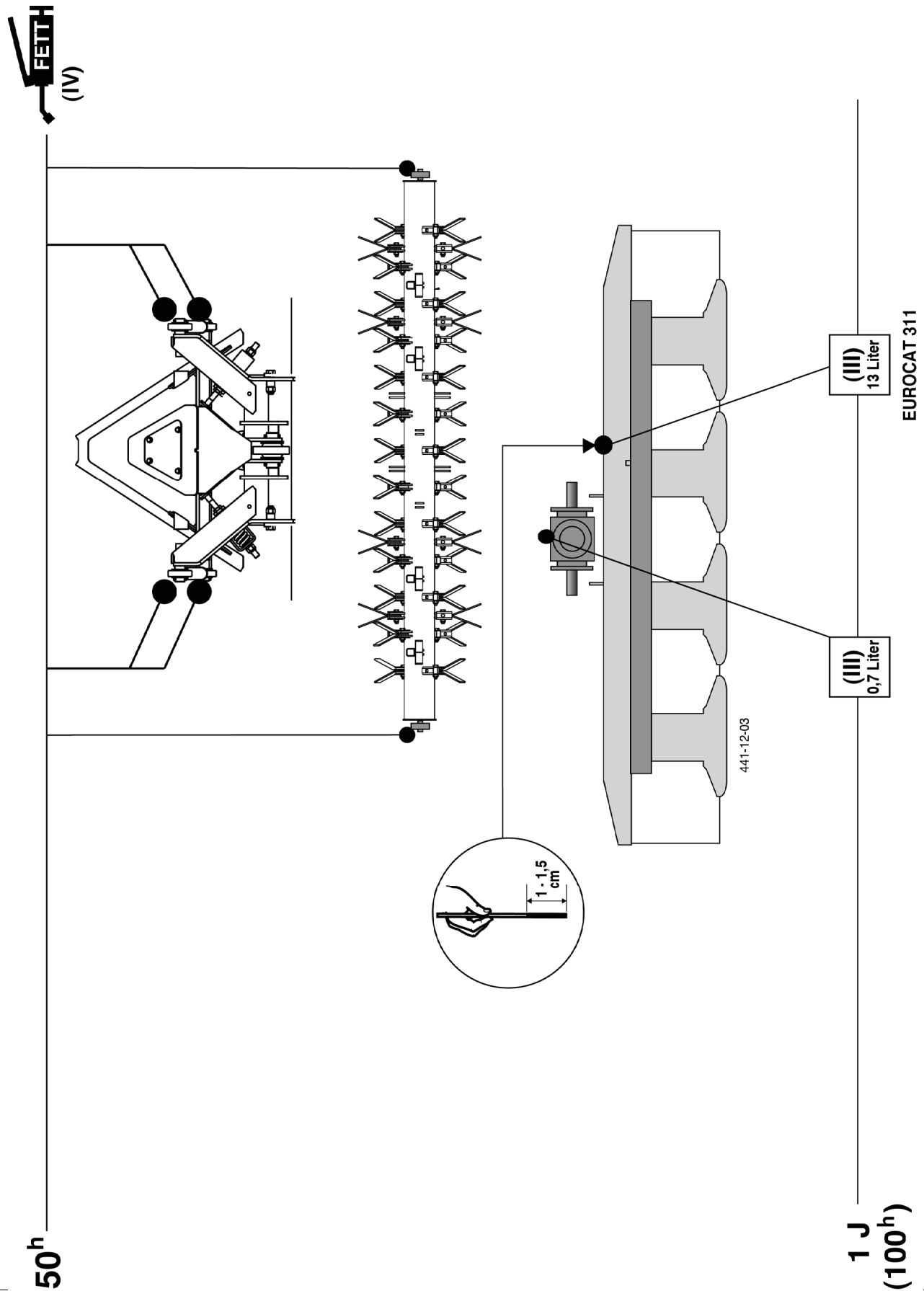


Rotations per minute

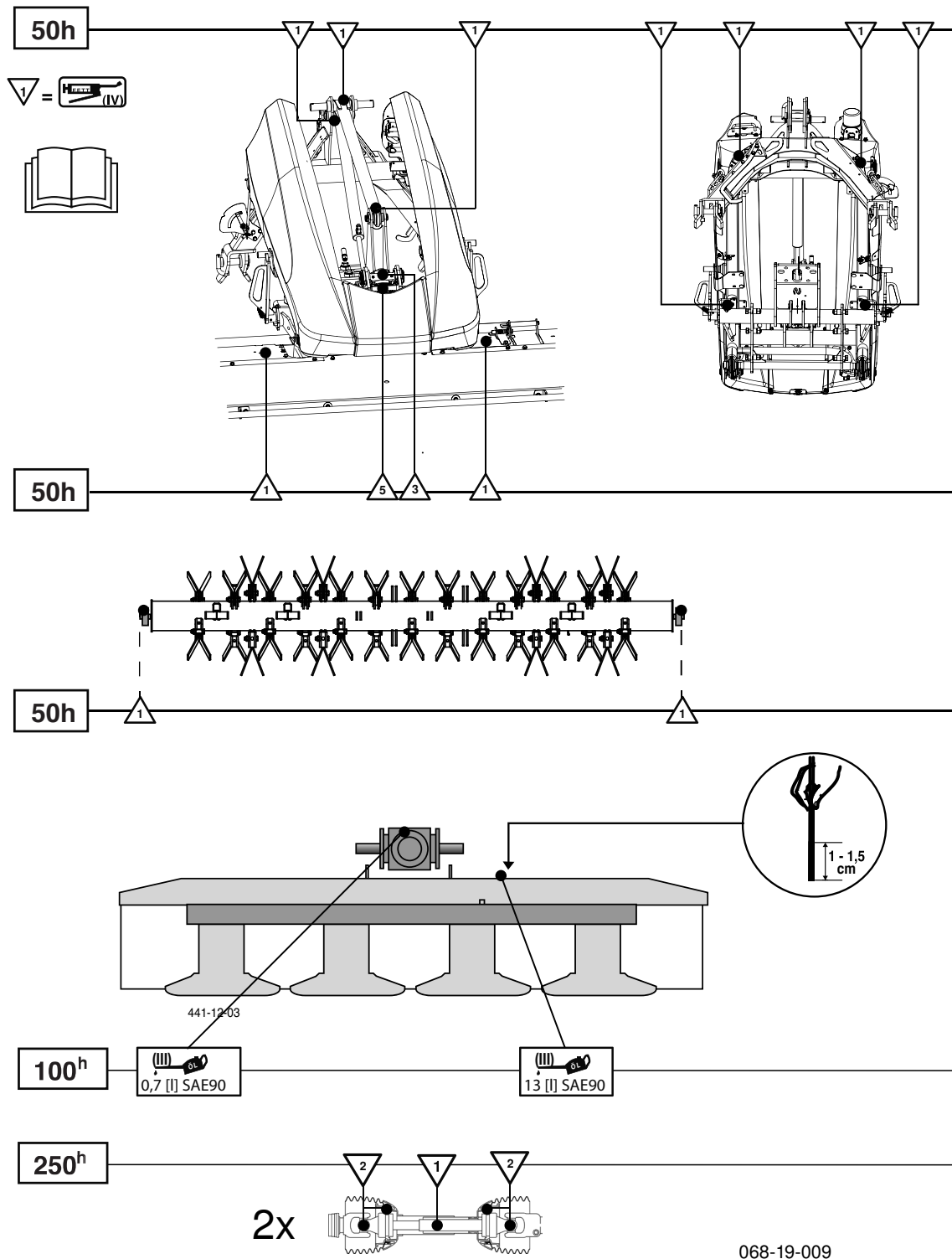


Always screw in measuring stick up to stop.

EUROCAT 311 alpha motion master ED



EUROCAT 311 alpha motion pro ED



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				V	VI	VII
required quality /level niveau	HYDRAULIKÖL HLP DIN 51524 Teil 2	motor oil SAE 30 according to API CD/SF	gearoil, 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
	See notes: * ** ***						

Company	I				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.
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	** HLP-(D) + HV hydraulic oils
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	A V I A L U B SPEZIALFETT LD		GETRIEBEÖL HYP 90 EP MULTIHYP 85W-140 EP	*** HLP + HV hydraulic oils
BAYWA	HYDRAULIKÖL HLP 32/46/68 SUPER 2000 CD-MC* HYDRA HYDR. FLUID * HYDRAULIKÖL MC 530 ** PLANTOHD 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	RENO LIT 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	HYSPINAW 32/46/68 HYSPIN AWH 32/46	RX SUPER DIESEL 15W-40 POWERTRANS	EPX 80W-90 HYPOY C 80W-140	CASTROL GREASE LM	IMPERVIA MMO	CASTROL GREASE 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 AUSTRORAC 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	GEAR OIL GP 80W-90 GEAR OIL GP 85W-140	MULTI PURPOSE GREASE H	FIBRAX EP 370	NEBULA EP 1 GP GREASE	GEAR OIL GX 80W-90 GEAR OIL GX 85W-140	
EVVA	ENAK HLP 32/46/68 ENAK MULTI 46/68	SUPER EVVAROL HD/BSAE 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 • TITAN UNIVERSAL HD • AGRIFARM STOU MC 10W-30 • AGRIFARM UTTO MP • PLANTOHD 40N ***	• AGRIFARM STOU MC 10W-30 • TITAN UNIVERSAL HD	• AGRIFARM GEAR 80W90 • AGRIFARM 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 ** PLANTOHD 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	GETRIEBEFUESSFETT 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	MEHRZWECKGETRIEBEÖL SAE 90 HYPOID EW 90	MEHRZWECKFETT RENOLIT MP DURAPLEX EP	RENOSOD GFO 35	RENOPLEX EP 1	HYPOID EW 90	

Company	I				V	VI	VIII	NOTATIONS
SHELL	TELLUS32/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 SIMMIA 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.
TOTAL	AZOLLA ZS32,46,68 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	** HLP-(D) + HV hydraulic oils
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	*** HLP + HV hydraulic oils with a vegetable oil basis, biodegradable and therefore environmentally friendly.
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	WOLAN HS (HG) 32/46/68 WOLAN HVG 46** WOLAN HR 32/46*** HYDROFLUID*	MULTI-REKORD 15W-40 PRIMANOL REKORD 30	HYPOID-GETRIEBEÖL 80W-90, 85W-140 MEHRZWECKGETRIEBEÖL 80W-90	WOLUB LFP 2	WOLUB GFW	WOLUB 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	

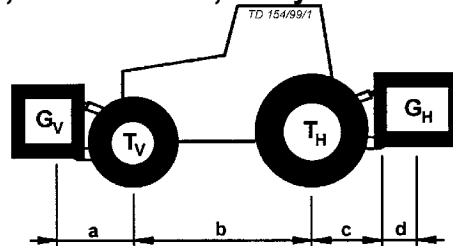
Combination of tractor and mounted implement

! DANGER

Life hazard or material hazard - due to overload on tractor or wrong tractor ballast distribution.

- Make sure that hitching the implement (in the front and rear three-point linkage) does not lead to exceeding the maximum total admissible weight of the tractor, the axle loads or the load capacity of the tyres. The front axle of the tractor must always 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

Rear hitched implement resp. front-rear combinations

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

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

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

Front mounted implement

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

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

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

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

(If the front hitched implement (G_V) does not reach the minimum required ballasting Front ($G_{V\text{min}}$), the weight of the front hitched implement must be increased to the minimum ballasting Front!)

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

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 the rear hitched implement (G_H) does not reach the minimum required ballasting Rear ($G_{H\text{min}}$), the weight of the rear hitched implement must be increased to the minimum ballasting Rear!)

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

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 $T_{H\text{tat}}$

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

6. TYRE LOAD CAPACITY

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

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 capacity (two tyres)
Minimum ballasting Front / rear	<div style="border: 1px solid black; padding: 5px; display: inline-block;">/ kg</div>	---	---
Total weight	<div style="border: 1px solid black; padding: 5px; display: inline-block;">kg</div>	<div style="border: 1px solid black; padding: 5px; display: inline-block;">kg</div>	---
Front axle load	<div style="border: 1px solid black; padding: 5px; display: inline-block;">kg</div>	<div style="border: 1px solid black; padding: 5px; display: inline-block;">kg</div>	<div style="border: 1px solid black; padding: 5px; display: inline-block;">kg</div>
Rear axle load	<div style="border: 1px solid black; padding: 5px; display: inline-block;">kg</div>	<div style="border: 1px solid black; padding: 5px; display: inline-block;">kg</div>	<div style="border: 1px solid black; padding: 5px; display: inline-block;">kg</div>

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!

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

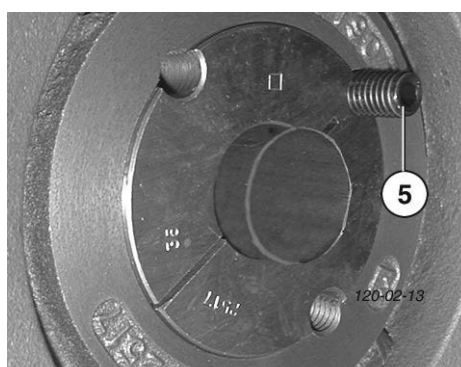
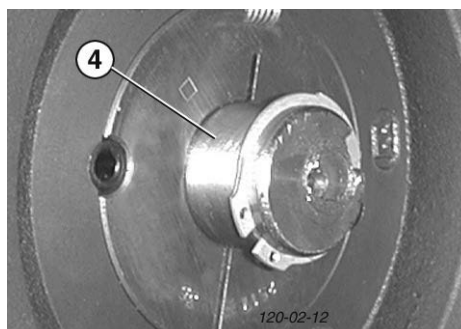
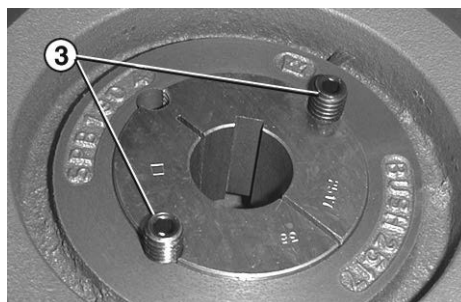
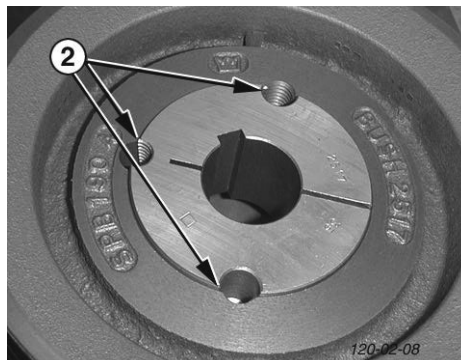
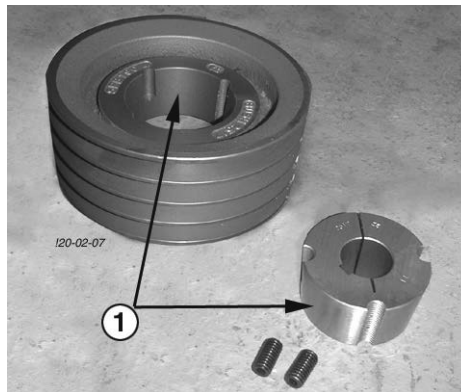
Bush identifier	Torque [Nm]
2017	30
2517	49

- When the drive has been operating under load for a short period (half to one 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 hole(s) in bush (Pos. 5).
2. Tighten screw(s) uniformly and alternately until the bush is loose in the hub and pulley is free on the shaft.
3. Remove pulley bush assembly from shaft.



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
Type
Serial no.**

EUROCAT 311 alpha-motion MASTER	EUROCAT 311 alpha-motion PRO
3550	3553

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

A handwritten signature in black ink, appearing to be 'MB'.

Markus Baldinger,
CTO R&D

A handwritten signature in black ink, appearing to be 'JL'.

Jörg Lechner,
CTO Production

Grieskirchen, 01.08.2016

(DE) Im Zuge der technischen Weiterentwicklung arbeitet die PÖTTINGER Landtechnik GmbH ständig an der Verbesserung ihrer Produkte.

Änderungen gegenüber den Abbildungen und Beschreibungen dieser Betriebsanleitung müssen wir uns darum vorbehalten, ein Anspruch auf Änderungen an bereits ausgelieferten Maschinen kann daraus nicht abgeleitet werden.

Technische Angaben, Maße und Gewichte sind unverbindlich. Irrtümer vorbehalten.

Nachdruck oder Übersetzung, auch auszugsweise, nur mit schriftlicher Genehmigung der

PÖTTINGER

Landtechnik GmbH

A-4710 Grieskirchen.

Alle Rechte nach dem Gesetz des Urheberrecht vorbehalten.

(EN) Following the policy of the PÖTTINGER Landtechnik GmbH to improve their products as technical developments continue, PÖTTINGER reserve the right to make alterations which must not necessarily correspond to text and illustrations contained in this publication, and without incurring obligation to alter any machines previously delivered. Technical data, dimensions and weights are given as an indication only. Responsibility for errors or omissions not accepted.

Reproduction or translation of this publication, in whole or part, is not permitted without the written consent of the PÖTTINGER

Landtechnik GmbH

A-4710 Grieskirchen.

All rights under the provision of the copyright Act are reserved.

(ES) La empresa PÖTTINGER Landtechnik GmbH se esfuerza continuamente en la mejora constante de sus productos, adaptándolos a la evolución técnica. Por ello nos vemos obligados a reservarnos todos los derechos de cualquier modificación de los productos con relación a las ilustraciones y a los textos del presente manual, sin que por ello pueda ser deducido derecho alguno a la modificación de máquinas ya suministradas.

Los datos técnicos, las medidas y los pesos se entienden sin compromiso alguno.

La reproducción o la traducción del presente manual de instrucciones, aunque sea tan solo parcial, requiere de la autorización por escrito de

PÖTTINGER

Landtechnik GmbH

A-4710 Grieskirchen.

Todos los derechos están protegidos por la ley de la propiedad industrial.

(FR) La société PÖTTINGER Landtechnik GmbH améliore constamment ses produits grâce au progrès technique.

C'est pourquoi nous nous réservons le droit de modifier descriptions et illustrations de cette notice d'utilisation, sans qu'on en puisse faire découler un droit à modifications sur des machines déjà livrées.

Caractéristiques techniques, dimensions et poids sont sans engagement. Des erreurs sont possibles.

Copie ou traduction, même d'extraits, seulement avec la permission écrite de

PÖTTINGER

Landtechnik GmbH

A-4710 Grieskirchen.

Tous droits réservés selon la réglementation des droits d'auteurs.

(IT) La PÖTTINGER Landtechnik GmbH è costantemente al lavoro per migliorare i suoi prodotti mantenendoli aggiornati rispetto allo sviluppo della tecnica.

Per questo motivo siamo costretti a riservarci la facoltà di apportare eventuali modifiche alle illustrazioni e alle descrizioni di queste istruzioni per l'uso. Allo stesso tempo ciò non comporta il diritto di fare apportare modifiche a macchine già fornite.

I dati tecnici, le misure e i pesi non sono impegnativi. Non rispondiamo di eventuali errori. Ristampa o traduzione, anche solo parziale, solo dietro consenso scritto della

PÖTTINGER

Landtechnik GmbH

A-4710 Grieskirchen.

Ci riserviamo tutti i diritti previsti dalla legge sul diritto d'autore.

(NL) PÖTTINGER Landtechnik GmbH werkt permanent aan de verbetering van hun producten in het kader van hun technische ontwikkelingen. Daarom moeten wij ons

veranderingen van de afbeeldingen en beschrijvingen van deze gebruiksaanwijzing voorbehouden, zonder dat daaruit een aanspraak op veranderingen van reeds geleverde machines kan worden afgeleid.

Technische gegevens, maten en gewichten zijn niet bindend. Vergissingen voorbehouden.

Nadruk of vertaling, ook gedeeltelijk, slechts met schriftelijke toestemming van

PÖTTINGER

Landtechnik GmbH

A-4710 Grieskirchen.

Alle rechten naar de wet over het auteursrecht voorbehouden.

(PT) A empresa PÖTTINGER Landtechnik GmbH esforçase continuamente por melhorar os seus produtos, adaptando-os à evolução técnica.

Por este motivo, reservamos o direito de modificar as figuras e as descrições constantes no presente manual, sem incorrer na obrigação de modificar máquinas já fornecidas.

As características técnicas, as dimensões e os pesos não são vinculativos.

A reprodução ou a tradução do presente manual de instruções, seja ela total ou parcial, requer a autorização por escrito da

PÖTTINGER

Landtechnik GmbH

A-4710 Grieskirchen

Todos os direitos estão protegidos pela lei da propriedade intelectual.



PÖTTINGER

Landtechnik GmbH

Industriegelände 1

A-4710 Grieskirchen

Telefon: +43 7248 600-0

Telefax: +43 7248 600-2513

e-Mail: info@poettinger.at

Internet: <http://www.poettinger.at>

PÖTTINGER Deutschland GmbH

Verkaufs- und Servicecenter Recke

Steinbecker Strasse 15

D-49509 Recke

Telefon: +49 5453 9114-0

Telefax: +49 5453 9114-14

e-Mail: recke@poettinger.at

PÖTTINGER Deutschland GmbH

Servicecenter Landsberg

Spöttinger-Straße 24

Postfach 1561

D-86 899 LANDSBERG / LECH

Telefon:

Ersatzteildienst: +49 8191 9299 - 166 od. 169

Kundendienst: +49 8191 9299 - 130 od. 231

Telefax: +49 8191 59656

e-Mail: landsberg@poettinger.at

Pöttinger France S.A.R.L.

129 b, la Chapelle

F-68650 Le Bonhomme

Tél.: +33 (0) 3 89 47 28 30

e-Mail: france@poettinger.at