



Dear Farmer

You have just made an excellent choice. Naturally we are very happy and wish to congratulate you for having chosen Pöttinger. As your agricultural partner, we offer you quality and efficiency combined with reliable servicing.

In order to assess the spare-parts demand for our agricultural machines and to take these demands into consideration when developing new machines, we would ask you to provide us with some details.

Furthermore, we will also be able to inform you of new developments.



Important information concerning Product Liability.

According to the laws governing product liability, the manufacturer and dealer are obliged to hand the operating manual to the customer at the time of sale, and to instruct them in the recommended operating, safety, and maintenance regulations. Confirmation is necessary to prove that the machine and operating manual have been handed over accordingly.

For this purpose,

- **document A** is to be signed and sent to Pöttinger,
- **document B** remains with the dealer supplying the machine,
- and the customer receives **document C**.

In accordance with the laws of product liability, every farmer is an entrepreneur.

According to the laws of product liability, property damage is damage caused by a machine and not to it. An excess of Euro 500 is provided for such a liability.

In accordance with the laws of product liability, entrepreneurial property damages are excluded from the liability.

Attention! Should the customer resell the machine at a later date, the operating manual must be given to the new owner who must then be instructed in the recommended regulations referred to herein.

INSTRUCTIONS FOR PRODUCT DELIVERY

Dokument **D**



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

Please check. ☒

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

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

- sign the **document A** and send it to the company Pöttinger
(in case of Landsberg equipment: to the company Landsberg)
- **document B** stays with the specialist factory delivering the machine.
document C stays with the customer.

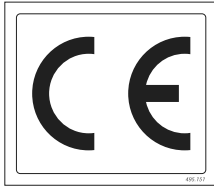
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Recommendations for work safety

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



CE sign

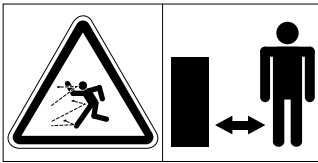
The CE sign, which is affixed by the manufacturer, indicates outwardly that this machine conforms to the engineering guideline regulations and the other relevant EU guidelines.

EU Declaration of Conformity (see supplement)

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

Meaning of warning signs

Recommendations for work safety



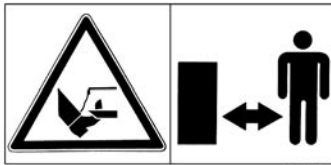
Danger - flying objects; keep safe distance from the machine as long as the engine is running.



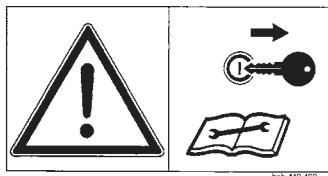
All points referring to safety in this manual are indicated by this sign.



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



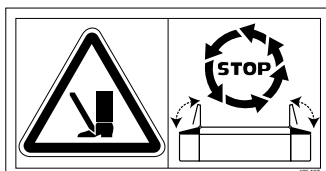
Stay clear of mower knife area as long as tractor engine is running with PTO connected.



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



Stay clear of swinging area of implements



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

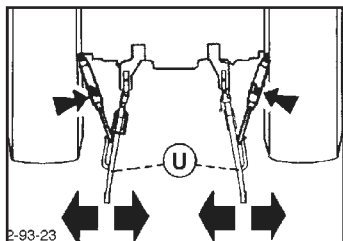


Never reach into the crushing danger area as long as parts may move.

Attaching implement to tractor

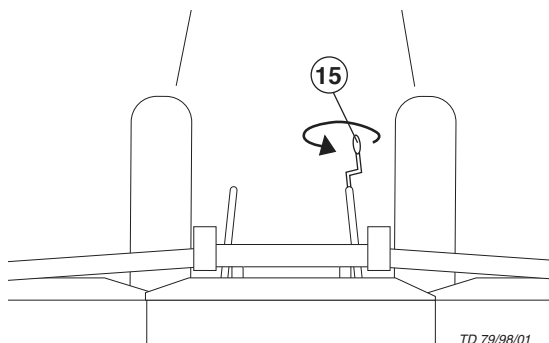
Centre-mount (M) mower unit to tractor

- Adjust lower link accordingly.
- Secure the lower hydraulic link so that the appliance cannot swing sideways.



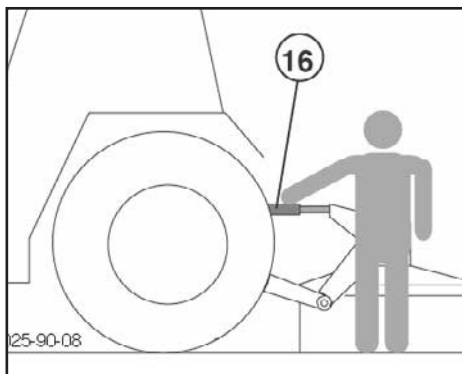
Frame in horizontal position

- Bring frame into horizontal position by adjusting linkage arm spindle (15).



Setting upper link height using spindle

- By turning upper link spindle (16) the cutting height is adjusted.

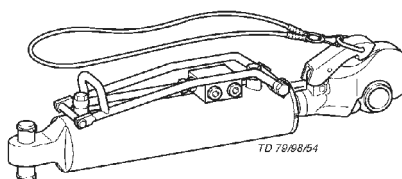


Safety hints:

see supplement-
A1 points 7.), 8a.
- 8h.)



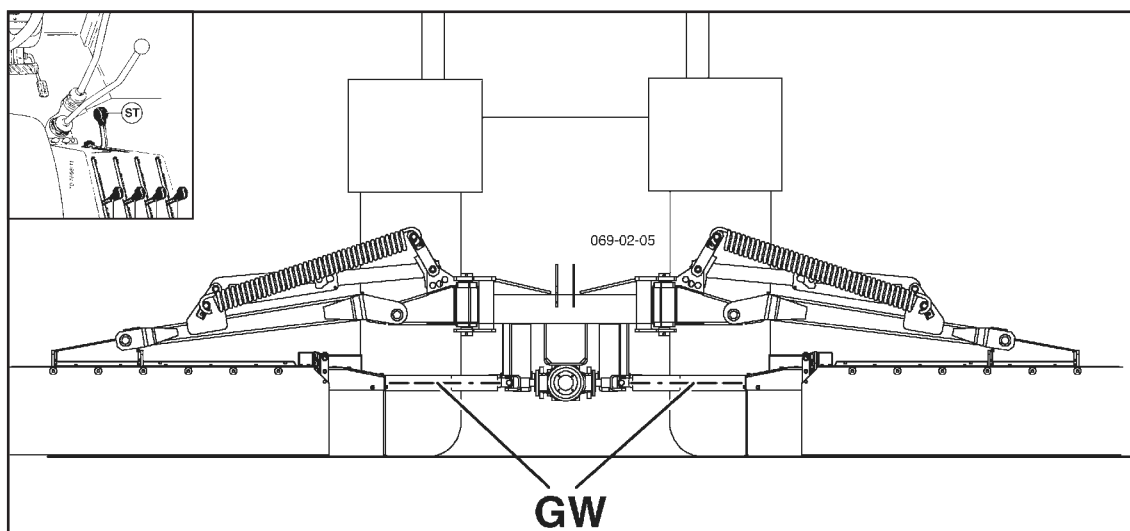
A hydraulic upper link is recommended.
(double-action hydraulic connection)



Setting lower link height

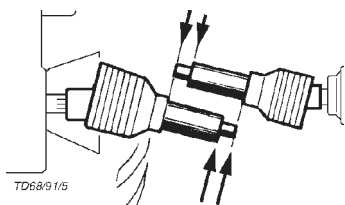
- Adjust tractor's hydraulics (ST) using bottom stop.
- The drive shaft (GW) should be about horizontal when mowing.

This height allows optimal evenness when working on uneven ground and need not be changed for swinging cutter bar up.



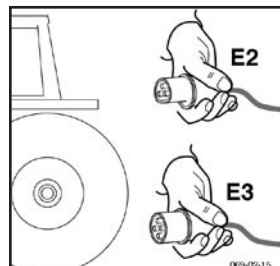
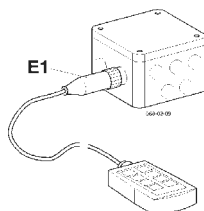
Fitting drive shaft

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



Establish power supply

1. Connect the control console cable to the switch box (E1)
2. Connect the power supply cable from the tractor (E2,E3)



Safety hints

This appliance is designed only for use with tractors (not for automotive machines).

In the case of automotive machines, the driver's visual range is restricted when the two outer mower bars are raised in the transport position.

Observe rotation direction of cutting discs

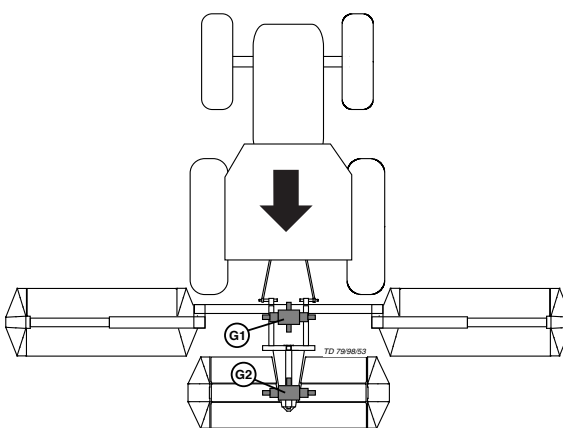
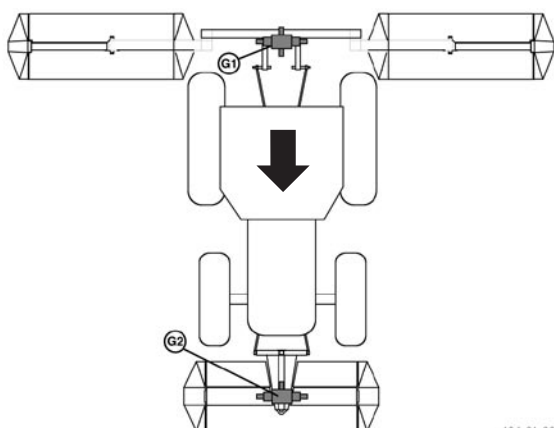
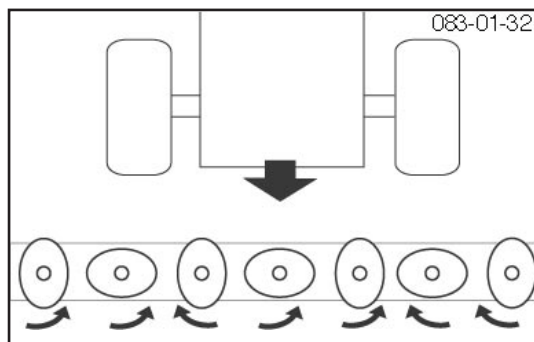
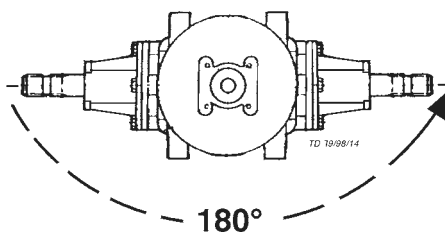
- Select appropriate rotation direction for the drive
- if the necessary r.p.m. cannot be preselected on the tractor, then turn both gearings (G1, G2) 180°.



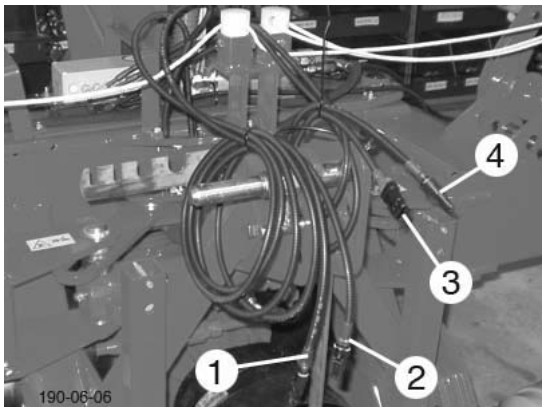
Note!

Before reinstalling a gearing on the machine:

- Swap ventilation screw and drain plug positions.
- The correct ventilation screw position is on top.



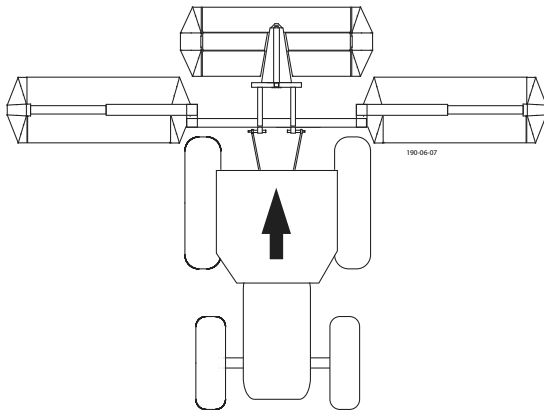
Connecting the Sensor and valve cables from front mower unit



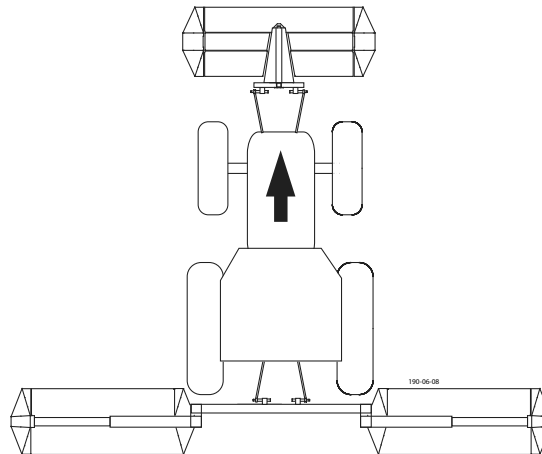
Electrical cable connections between front mower unit and mower combination

Nr	Cable	Description
1	3 channel, long	Sensor add-on set
2	2 channel, long	Valve cable
3	3 channel, short	Sensor r.p.m.
4	2 channel, short	Valve cable

Combination 2



Combination 3



Electro cable connection according to attachment variant

Combination variant	Front mower unit type	Conditioner (CR)		Needed cable number (Nr)
		Yes	No	
2	NovaCat 306 F "Alpha-Motion"	X		1, 2, 3
2	NovaCat 306 F "Alpha-Motion"		X	1, 2
2	NovaCat 306 F	X		3 Cable 1, 2, 4 pre attached
3	NovaCat 306 F "Alpha-Motion"	X		1, 2, 3, + extension cable
3	NovaCat 306 F "Alpha-Motion"		X	1, 2, + extension cable

Hydraulic connection

Minimal hydraulic system:

- 1 x single-action hydraulic connection (EW) with unpressurized backflow (T)
- 1 x double-action hydraulic connection (DW), for the starting lock

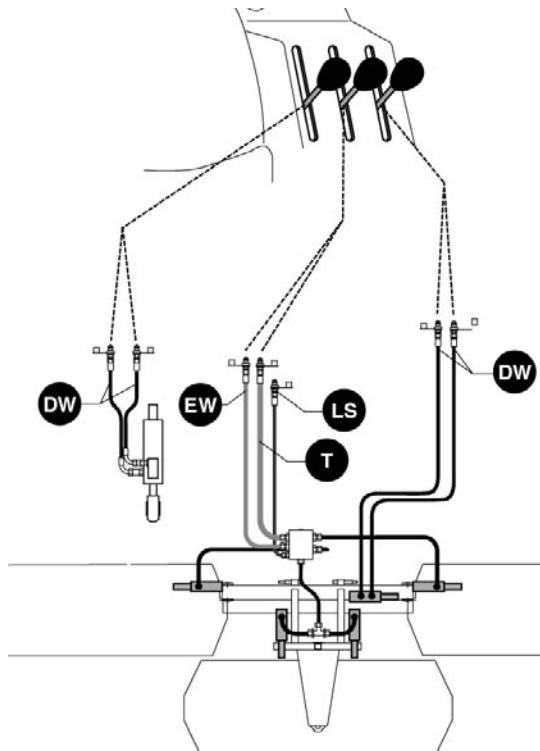
Optimal hydraulic system:

- 1 x single-action hydraulic connection (EW) with unpressurized backflow (T)
- 1 x double-action hydraulic connection (DW) for the starting lock
- 1 x double-action hydraulic connection (DW) for the hydraulic upper link

or

Load-sensing hydraulic connection (LS) (Optional equipment)

- 1 x double-action hydraulic connection (DW) for the starting lock
- 1 x double-action hydraulic connection (DW) for the hydraulic upper link



Settings

Screw (7) on the hydraulic unit must also be adjusted accordingly.



Important!

Disconnect electrical connection (E2, E3).

Tractors with a "Load sensing" system

- Screw (7) on the hydraulic unit must be screwed in all the way

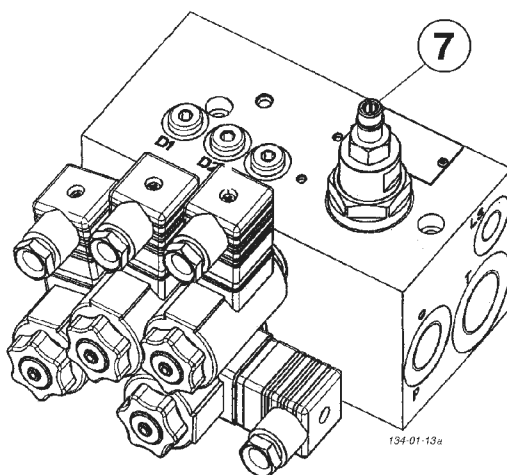
Tractors with a closed hydraulic system

JOHN DEERE, CASE MAXUM, CASE MAGNUM, FORD Series 40 SLE

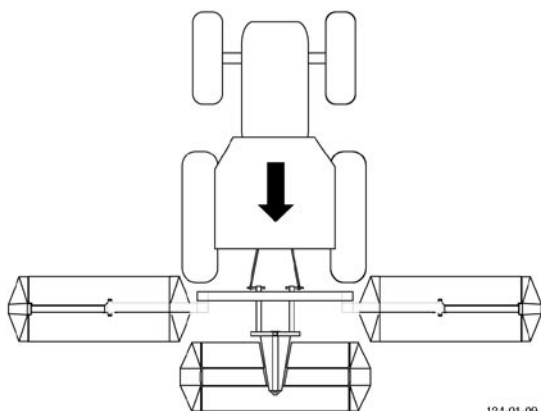
- Screw (7) on the hydraulic unit must be screwed in all the way

Tractors with an open hydraulic system

- Completely unscrew screw (7) on the hydraulic unit



Combination 3



134-01-09

Should it be necessary to convert from Combination 2 to Combination 3, the following steps must be carried out:

1. Remove adapter (pos. 5)
2. Detach attaching axle and install in pos. 4a
3. Install lifting gear (pos. 1)
4. Set up hydraulic connection (pos. 3)
5. Set up electric connection (pos. 2)
6. Attach mower unit to lifting gear (1)
 - Attach expander (EX)
7. Attach both chains (7)
 - when doing this, please note instructions in chapter on Adjustments



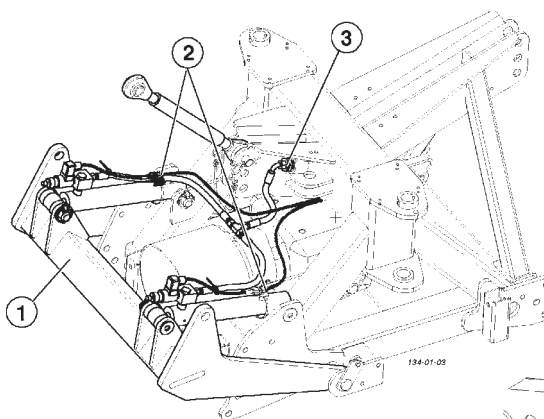
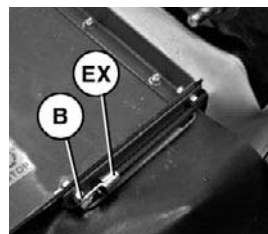
Safety hint:

see supplement A1/
pt. 7, 8a-8h

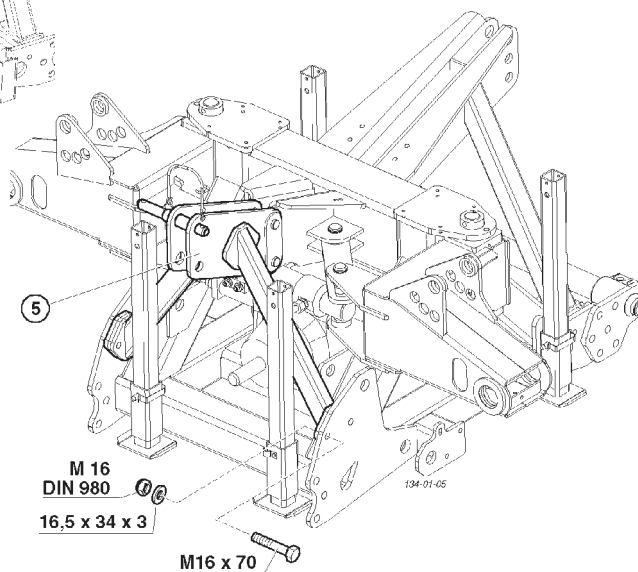


Take note!

The lifting gear cannot be progressively raised or lowered. When the hydraulic control valve is activated, the central cutter bar is either completely raised or lowered (danger of crushing).



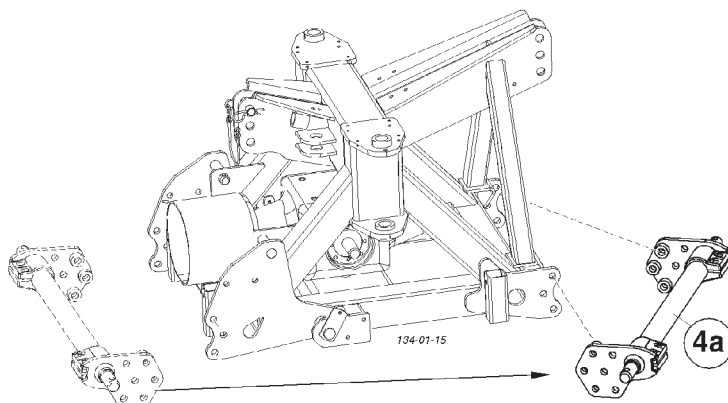
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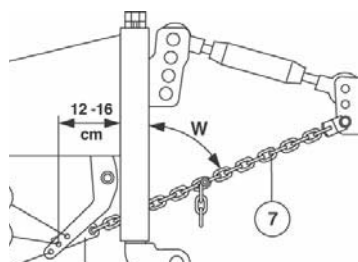
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M 16
DIN 980
16,5 x 34 x 3

M16 x 70



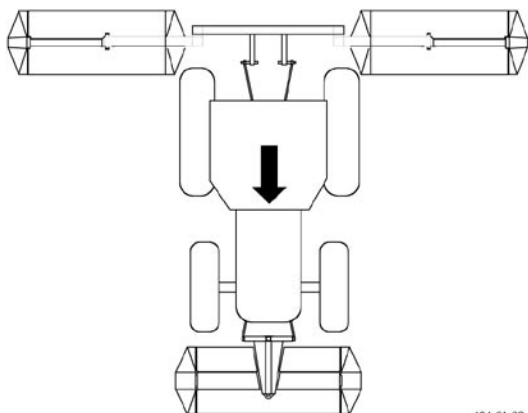
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12-16
cm

W

Combination 2



134-01-08

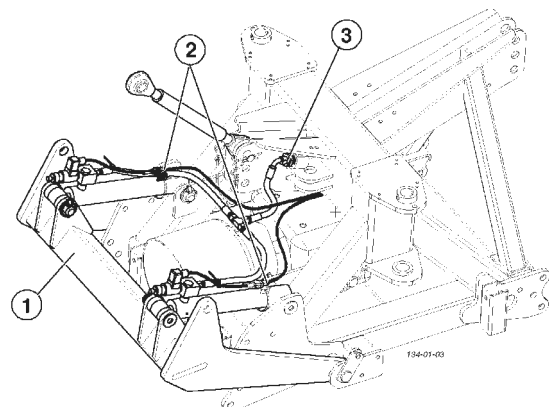
Should it be necessary to convert from Combination 3 to Combination 2, the following steps must be carried out:

1. Disconnect electrical connection (pos. 2)
 - Attach the cable to a suitable place on the frame
2. Disconnect hydraulic connection (pos. 3)
3. Detach lifting gear (pos. 1)
4. Mount attachment axle (pos. 4)
5. Attach adapter (pos. 5)
6. Attach mower unit to tractor's lifting gear

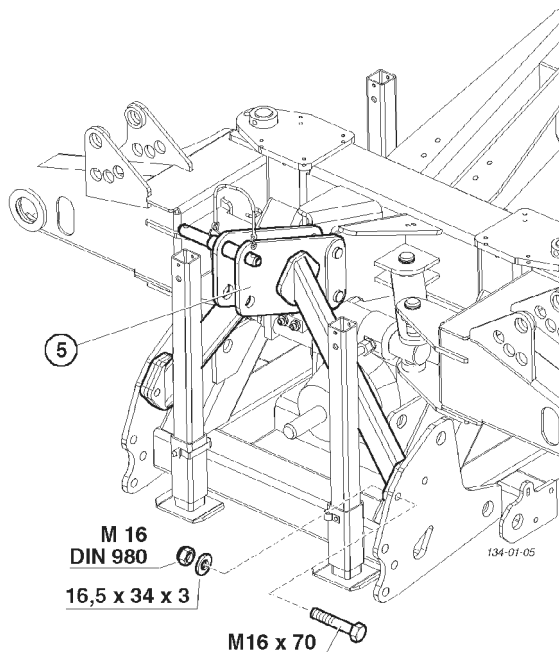
Attach front mower to the lifting gear

When doing this, please also note instructions in the chapters on

- Adjustments Front-Mower
- Special Attaching Kits



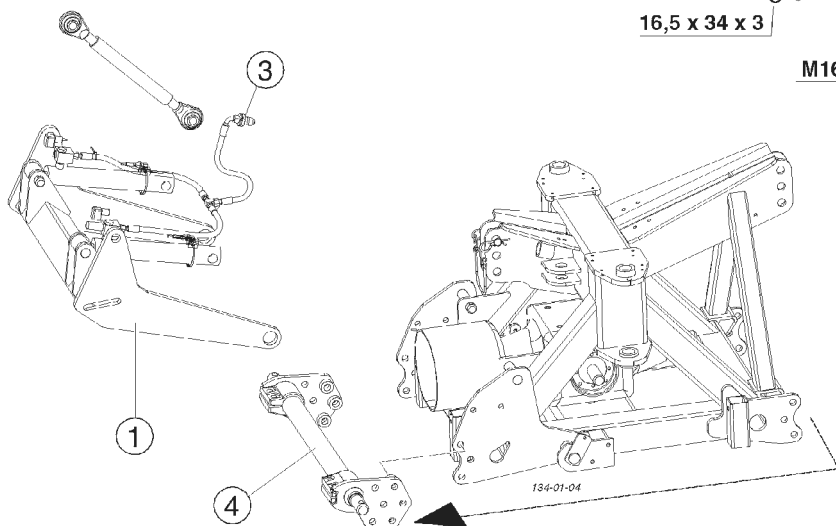
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134-01-05

M 16
DIN 980
16,5 x 34 x 3

M16 x 70



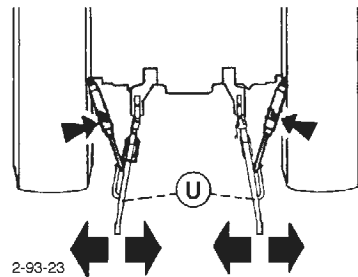
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Driving on public roads

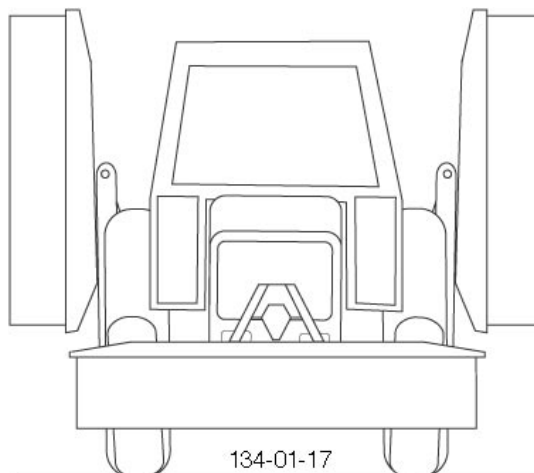
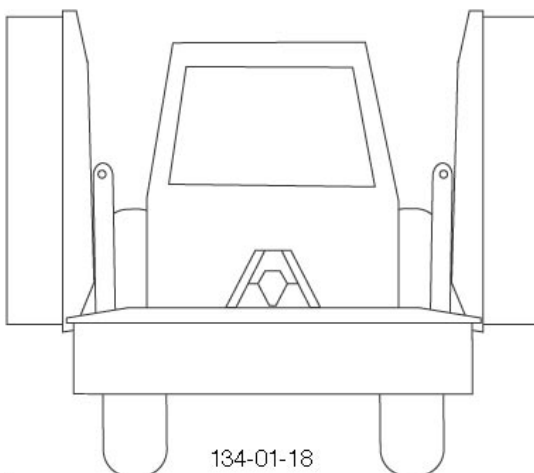
- Observe the official regulations of your country.
- Travelling on open roads may only be carried out as described in chapter "Transport position".
- Protection devices must be in proper condition.
- Before travelling bring all swivelling parts into their correct positions and secure against dangerous changes to position.
- Check that lighting functions before travelling.
- Important information can also be found in the supplement of this operating manual.

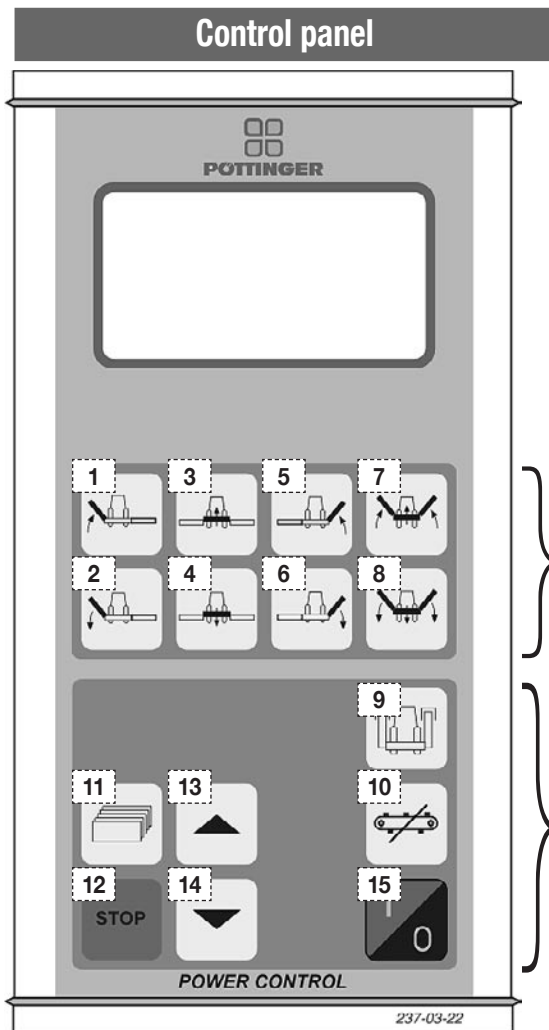
Hydraulic lower link

- Fix the hydraulic lower link (U) in such a way that the machine cannot swing out sideways.



Transport position





Description of the buttons

Display indicator:

- Main indicator
- Special menu
 - sensor test
 - software versions
 - hydraulic system
 - operating hours / onboard voltage

Buttons:

- 1 Raise left cutter bar
- 2 Lower left cutter bar
- 3 Raise centre cutter bar
- 4 Lower centre cutter bar

Note! Keys 3 and 4 are ineffective if the cross conveyor belt is fitted to the mower

- 5 Raise right cutter bar
- 6 Lower right cutter bar
- 7 Raise all cutter bars
- 8 Lower all cutter bars

- 9 Road transport - button
- 10 Neutralize cross conveyor belt
- 11 Special menu - button
- 12 STOP
- 13 Navigation key upward
- 14 Navigation key downward
- 15 ON / OFF button



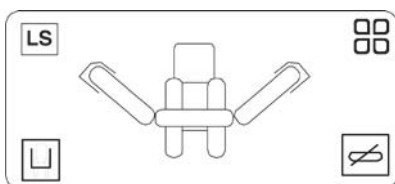
Important points!

“POWER CONTROL” must be set for the selected hydraulic before initial operation.

- closed hydraulic system
 - open hydraulic system
 - “load sensing” hydraulic system
- see Menu Key (11) description

Display

The relevant hydraulic function is graphically shown on the display when any of the buttons is pushed, e.g. one of the buttons 1-8.



Power control initial operation

Switching on operating device

- pressing the I/O button



Switch off the control panel and job calculator by

- pressing the I/O button



Note!!

After turning off the control panel (AUS). Move the hydraulic control valve to the O position.

- Always store control panel in a weather-resistant location.

- After turning off the control panel (AUS)

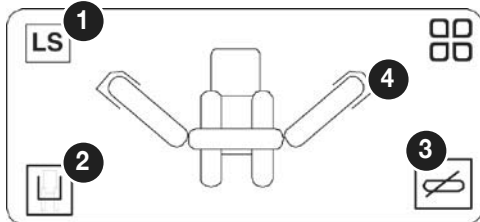
Move the hydraulic control valve to the O position.

This is particularly necessary for tractors with open hydraulic systems, otherwise oil heating occurs.

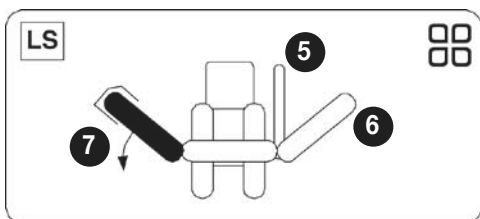
Hauptanzeige

Das Bedienteil **startet** in der Hauptanzeige.

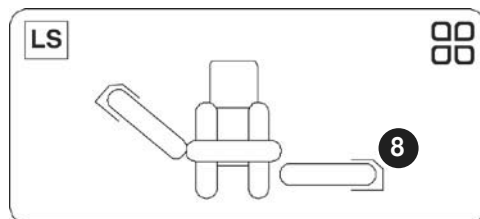
- Anzeige folgender Funktionen



- 1 Eingestelltes Hydrauliksystem
- 2 Aktivierte Straßentransport-Funktion
- 3 Aktivierte Förderband Entkoppelung
- 4 Gekoppeltes Förderband



- 5 rechtes Förderband entkoppelt und in Straßentransportstellung
- 6 rechtes Mähwerk in Vorgewende-Stellung
- 7 linkes Mähwerk mit gekoppeltem Förderband wird abgesenkt

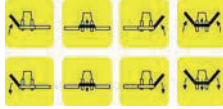


- 8 rechtes Mähwerk mit gekoppeltem Förderband in Mähposition

Functions

Buttons to start a swivelling function

- Press the allocated button and the hydraulic function is activated.
- Release the button and the hydraulic function is deactivated.



Note:

The buttons 3 and 4 are ineffective when the cross conveyor belts are mounted onto the cutter bar.

Button



STOP

Briefly pressing the key will stop all movements

Navigation keys



Menu navigation (up)



Menu navigation (down)

Road transport



preselection key

Selection to swing into the road transport position and the operating position

This button will only function when all cutting bars are in the field transport position (FT)

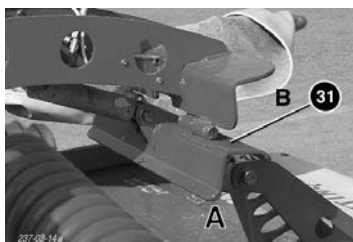
Button



Cross conveyor belt

Button to release and lock both locking flaps (31)

- see chapter "Operating methods" also



Note:

If mowing without the cross conveyor belt, this key must be pressed before lowering out of the road transport position.

Button



Special menu

This will switch over to the special menu.

The following functions and tests can be carried out (see paragraph "Special Menu" also)

- sensor test
- software versions
- hydraulic system
- operating hours / onboard voltage

End the menu

Pressing the button 11 saves altered settings and exits the menu.

Through pressing every other button settings will likewise be saved and the menu exited (except for 13, 14).

Sondermenü

Betriebsstunden / Bordspannungen

1	Betriebsstunden:	49 h 39 min
2	Bordspannung:	
	Multicat:	11,6 V
	Förderband:	11,5 V

- 1 Betriebsstunden der Maschine
- 2 Bordspannungen
 - Jobrechner - Mähwerk (Multicat:)
 - Jobrechner - Querförderband (Förderband:)

Softwareversionen

Softwareversionen:		
Terminal:	1	Q 3.2
Multicat:	2	F 2.1
Förderband:	3	B 2.0

Hier können die Software-Versionen abgelesen werden für:

- 1 Bedienteil (Terminal:)
- 2 Jobrechner - Mähwerk (Multicat:)
- 3 Jobrechner - Querförderband (Förderband:)

Sensortest

Sensortest:	
Zapfw. :	Bg.li :
Bg.re :	MW.li:
Aufb.li :	MW.re:
Aufb.re :	Kl.li :
	Kl.re :

Ein schwarz gefülltes Kästchen bedeutet:

Sensor / Schalter liefert Signal "1"

- 1 Drehzahl Zapfwelle (Zapfw.:)
- 2 Schalter Schutzbügel rechts (Bg.re :)
- 3 Drehzahl Aufbereiter links (Aufb.li:)
- 4 Drehzahl Aufbereiter rechts (Aufb.re:)
- 5 Schalter Schutzbügel links (Bg.li :)
- 6 Position Mähwerk links (MW.li:)
- 7 Position Mähwerk rechts (MW.re:)
- 8 Schalter Klappe links (Kl.li:)
- 9 Schalter Klappe rechts (Kl.re:)

Hydrauliksystem

Hydrauliksystem:	
☐ CC	closed center
☐ OC	open center
☒ LS	load sensing

Vor Inbetriebnahme muss "POWER CONTROL" für das verwendete Hydrauliksystem eingestellt werden

- CC geschlossenes Hydrauliksystem
- OC offenes Hydrauliksystem
- LS "load sensing" Hydrauliksystem



Wichtig:

Weiters muß am Hydraulikblock die Schraube (7) eingestellt werden. (siehe Kapitel "Wartung")

Conversion from working to transport position



- Before swivelling the cutter bar up, turn off the drive and wait for the mower discs to come to a complete standstill.
- Make sure that swivel area is free and that nobody is standing in the danger area.



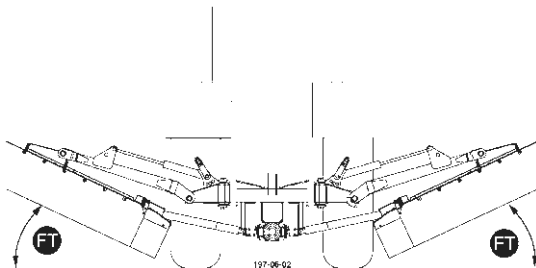
**Safety
Precaution!**

Changing from working position to transport position is only to be carried out on even, firm ground.

- Only transport the machine in the transport position!

Swivelling in road transport position

This button will only function when all cutting bars are in the field transport position (FT)



- Turn drive off and wait for standstill
- Swing in all hoop guards on the cutting bars

- Press **button 9**  to activate its function.

- Press **button 7**  and all cutting bars swivel until the end position is reached.

Swivelling from road transport to field transport position

This procedure can be carried out with or without cross conveyor belt

- Swing out all hoop guards on mower unit
- Swivel all cutting bars into the field transport position (FT)

Swivelling with cross conveyor belt

- Press **button 9**  to activate its function.
- Press **button 8**  and all mower units (including cross conveyor belt) swivel to field transport position (FT)

Swivelling without cross conveyor belt

- Press **button 9**  to activate its function.
- Press **button 10**  to activate its function.
- Press **button 8**  and Locking flaps are unlocked and all mower units swivel to field transport position (FT)
Cross conveyor belts remain in the road transport position

Take care when turning on slopes!



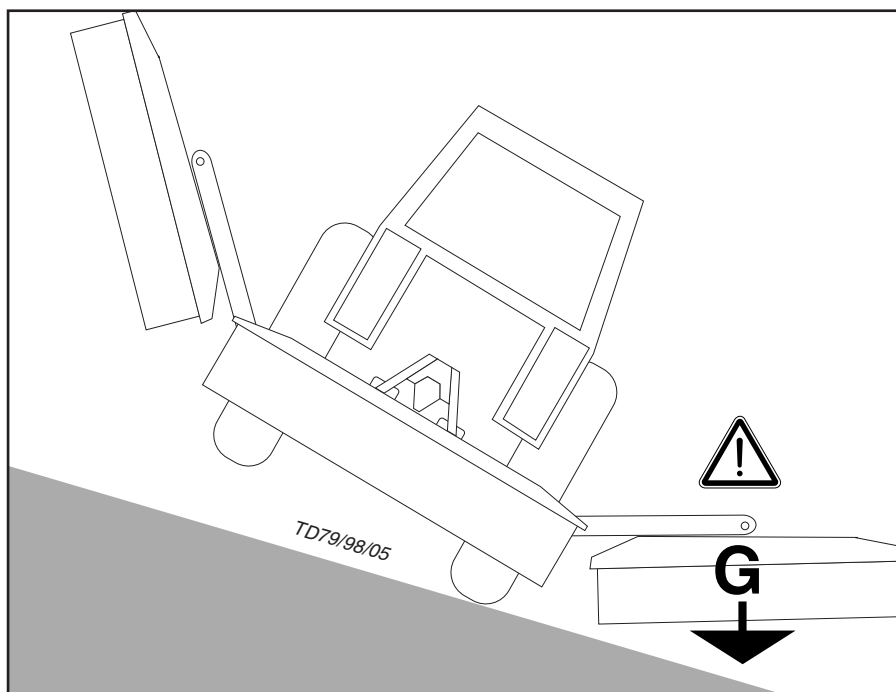
The tractor's travelling characteristics are influenced by the weight (G) of the mower unit. This can lead to dangerous situations, especially on slopes.

Safety advice

- Reduce speed in curves accordingly.
- It is better to travel in reverse on a slope than to carry out a risky turning manoeuvre.

Danger of tipping occurs

- when the mower units are in a raised position
- when travelling in a curve with the mower units raised



Important points before starting work



Safety hints:

see supplement-A1 points 1. - 7.)

After the first hours of operation

- Retighten all knife screw fittings.

Safety hints

1. Check

- Check the condition of knives and the knife holder.
- Check cutting drums for damage (see also chapter "Maintenance").

2. Switch-on the machine only in working position and do not exceed the prescribed power take-off speed (for example max. 540 rpm).

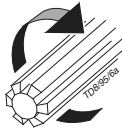
A transfer, which is located near the gear, advises which p.t.o. speed your mower unit is equipped for.

540 Upm

1000 Upm

- 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.

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



4. Damage protection!



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

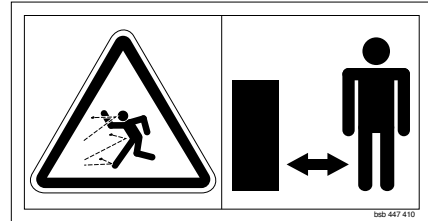
In the event of a collision

- Stop immediately and switch off the drive.
- Carefully check the implement for damage. The mowing discs and their drive shaft must be checked in particular.
- Have the implement checked also by a specialist workshop if necessary.

After any contact with foreign objects

- Check the condition of knives and the knife holder (see chapter "Maintenance and service").
- Retighten all knife screw fittings.

4. Stay clear while engine is running.



- Keep people out of the danger zone - foreign bodies which can be ejected by the mower could injure them.

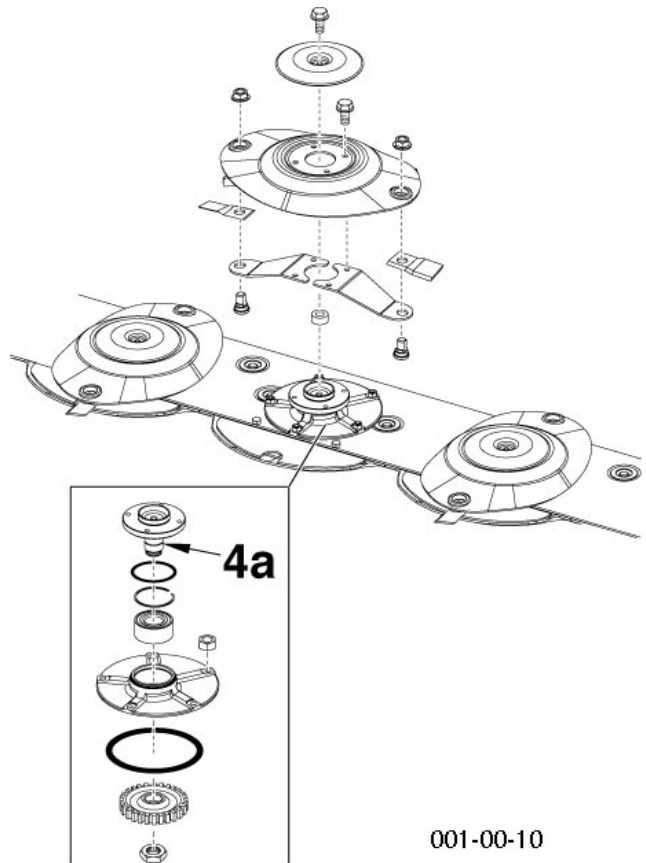
Special care is necessary on or near stony ground.

5. 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).



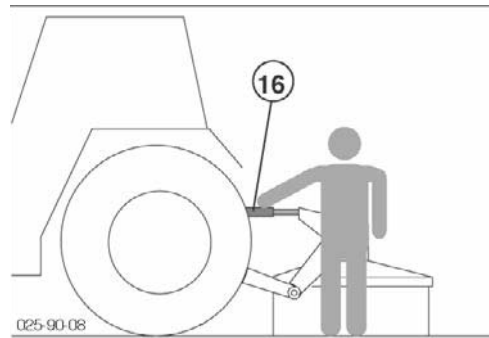
001-00-10

Operation

1. Adjust cutting height by turning upper link spindle (inclination of the cutting discs max. 5°).
2. To mow, gradually supply power to the p.t.o. before entering the crop and bring the mowing discs up to full revs.

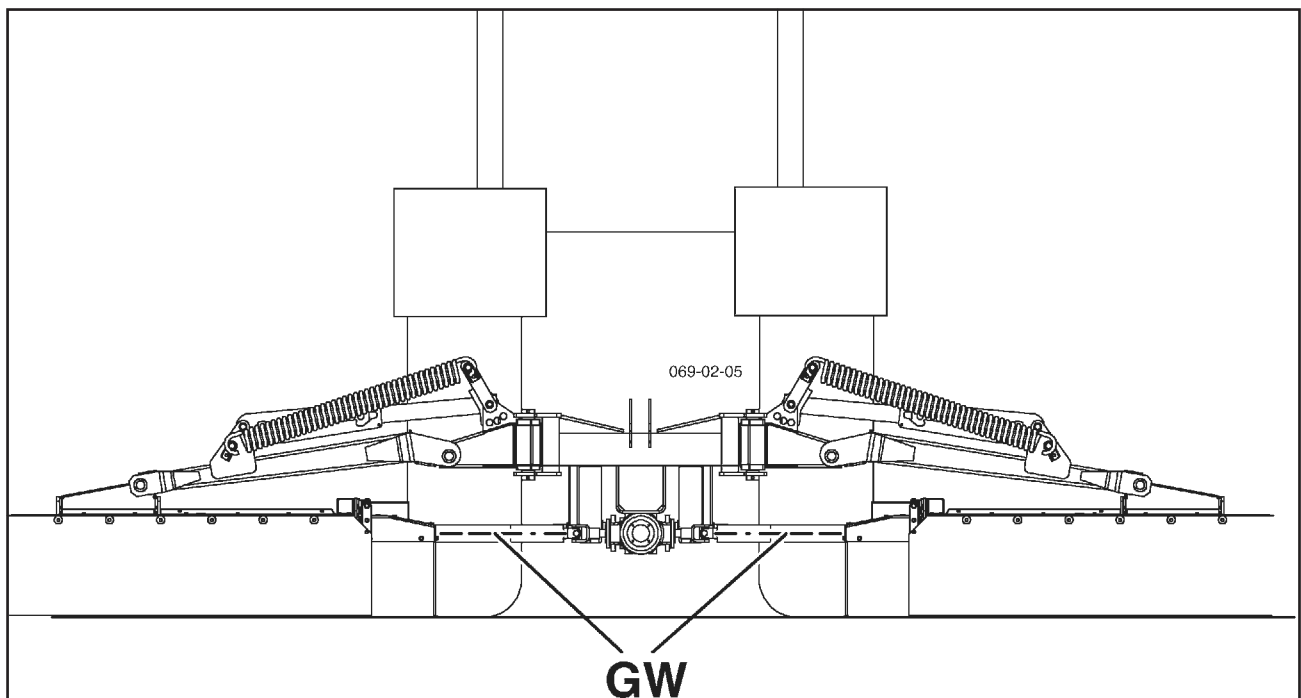
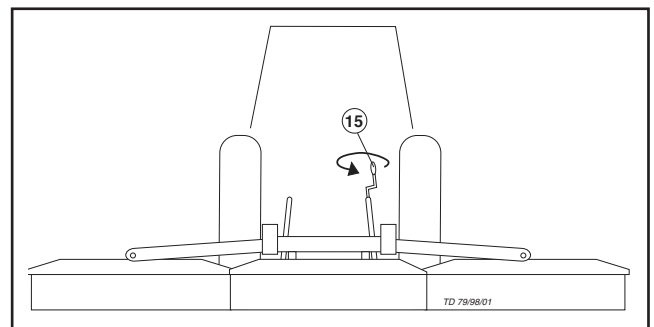
Smoothly increase the p.t.o. speed, in order to avoid noises in the free-wheel conditioned by the system.

- Adjust travel speed to terrain and crop.



Adjustment

- The drive shaft (GW) position should be approximately horizontal when mowing.
- Frame horizontal.
- Fix hydraulic lower links in a way that the machine cannot swing out sideways.



Collision safety device

When mowing around trees, fences, boundary stones etc., collisions between the cutter bar and obstacles can occur despite careful and slow driving. Therefore, in order to prevent such damage, collision protection has been planned for the cutting device.

Attention!

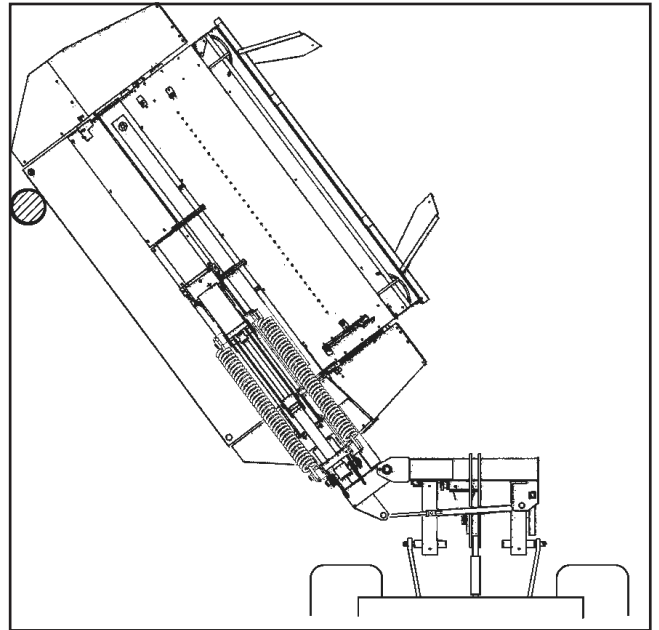
It is not the intention of the collision safety device to prevent damage to the machine when working at full speed.

How the hydraulic collision safety device functions

When a collision with an obstacle occurs, the cutter bar swivels back far enough for it to pass by.

Then the cutter bar can be swivelled back hydraulically into the operating position.

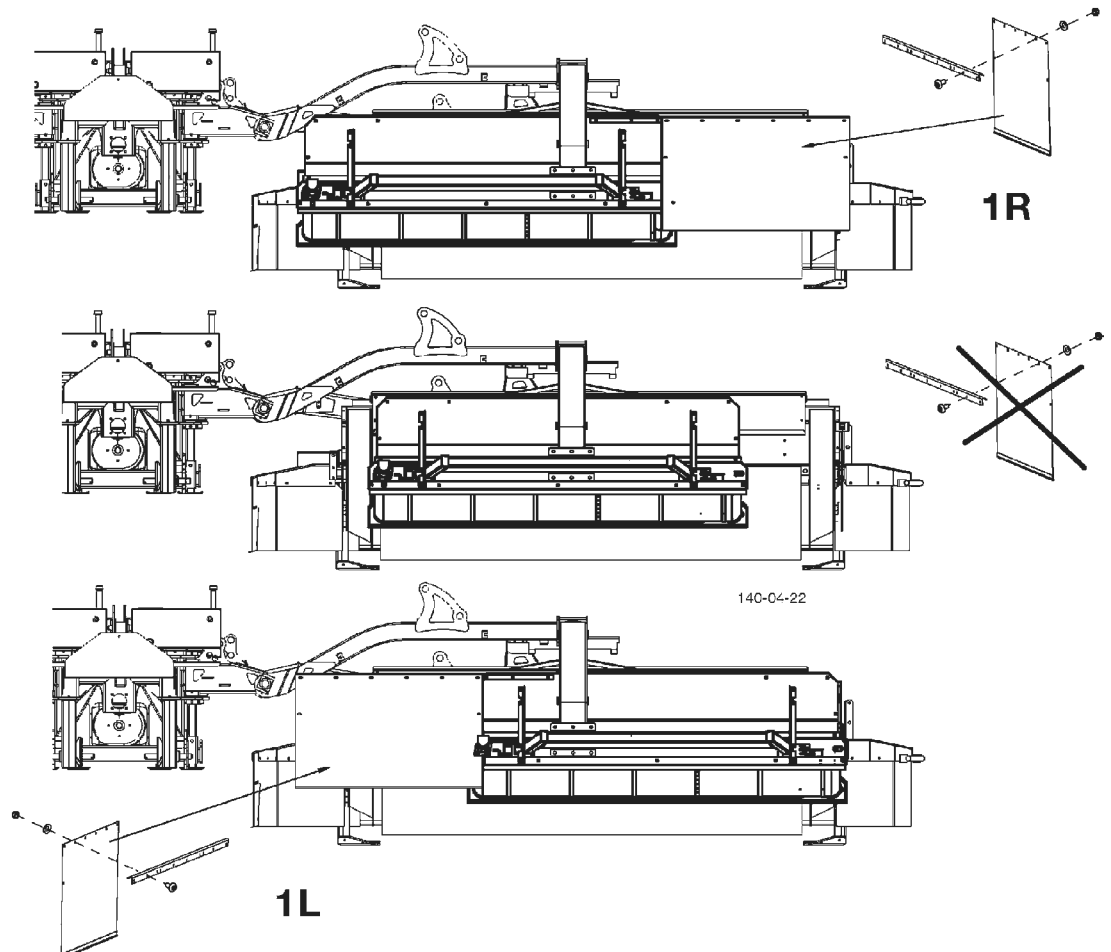
To do this, actuate the double-action control valve (ST).



Safety hints

Check (1R, 1L)

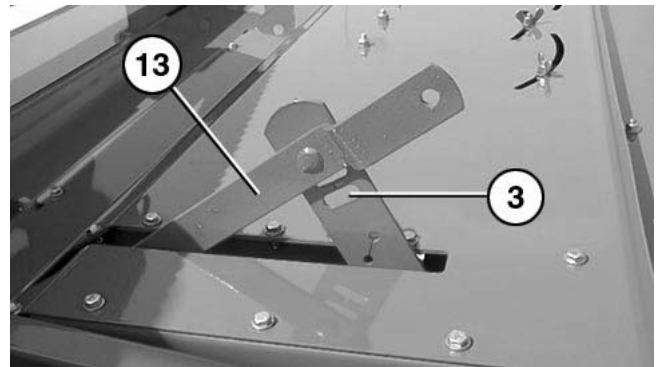
- Turn the p.t.o. on only when all safety devices (coverings, protective aprons, casings, etc.) are in proper condition and attached to the implement in the correct protective positions.



Mowing with the conditioner

The conditioning effect can be modified:

- with lever (13), which adjusts the gap between adjustable plate and rotor. The conditioning effect is most intense with the lever at the bottom of its travel (Pos. 3).
However the crop should not be chopped.

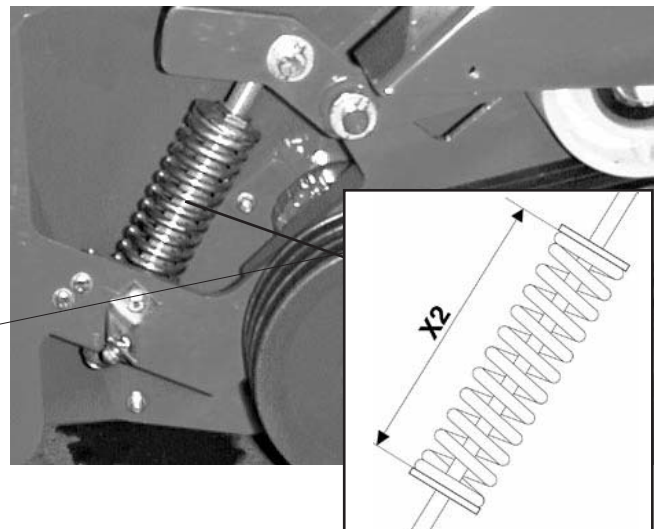


Correct belt tension

Check X2 size

NOVACAT 7800: X2 = 164 mm(side mowers)

NOVACAT 8600: X2 = 164 mm (side mowers)



700 r.p.m. for rotor

- less damage to crop

Pulley, belt and belt guard must be replaced.

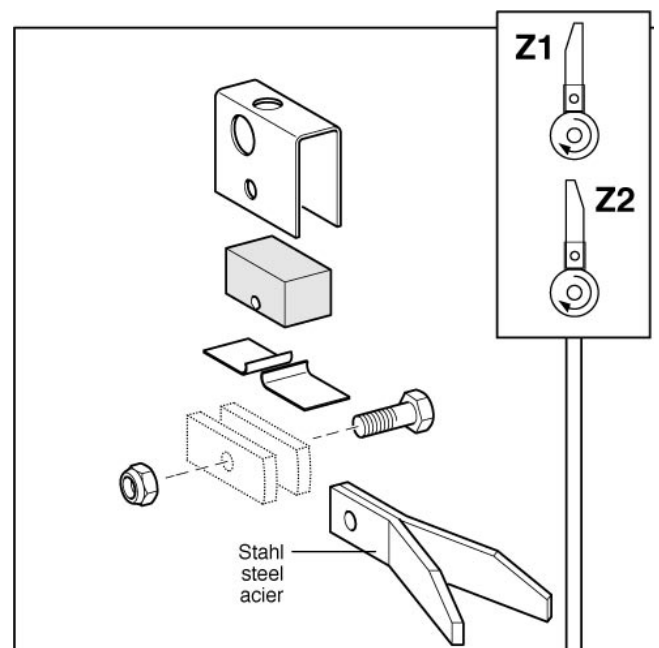
See replacement parts list for parts.

Position of the rotor prongs

Pos. Z1: position of the rotor prongs for normal operating conditions

Pos. Z2: for difficult operating conditions if for example the chuck wraps around the rotor

The rotor prongs turn 180° (pos.Z2). This prong position removes the problem in most cases. The preparation effect is thereby somewhat reduced.



Dismounting and mounting the conditioner

Side mowers

Reduce spring tension before dismounting the conditioner



Pin bolt (18) in the relative position (a)

- see chapter "MAINTENANCE"

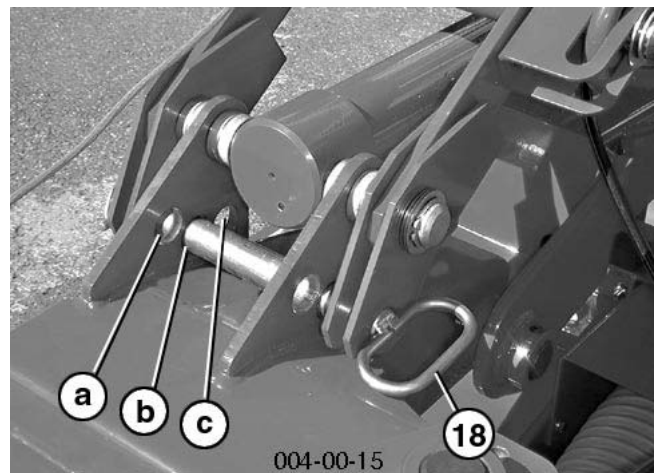
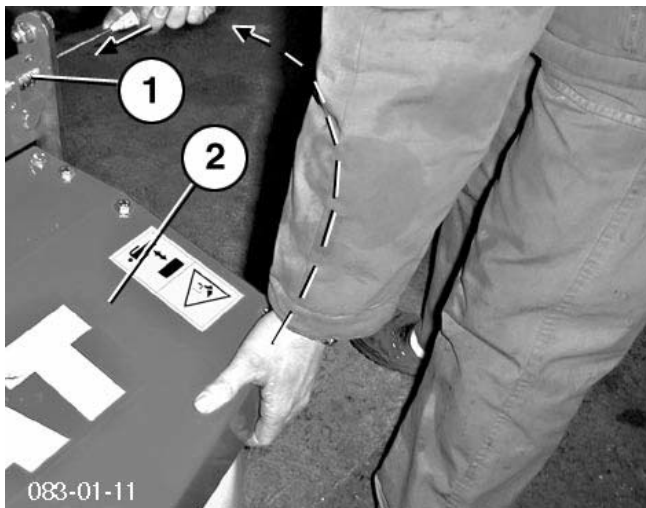
Otherwise the danger exists that the mounting frame of the cutter bar could swivel up in jerks and jolts when uncoupling the lower link

1. Dismounting cutter bar from tractor

(only in cutter bar Combination 3)

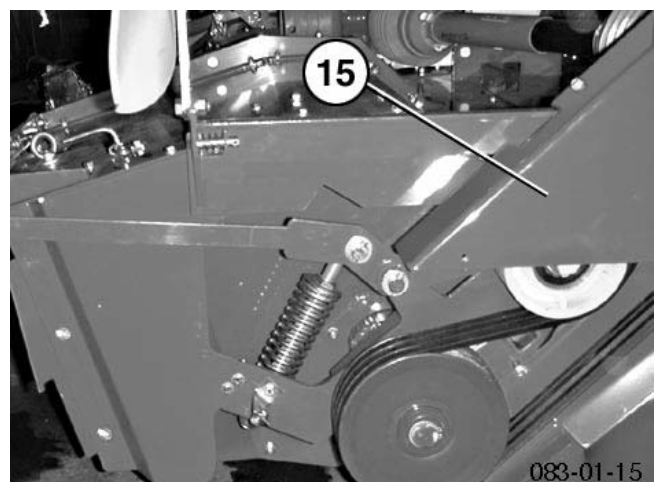
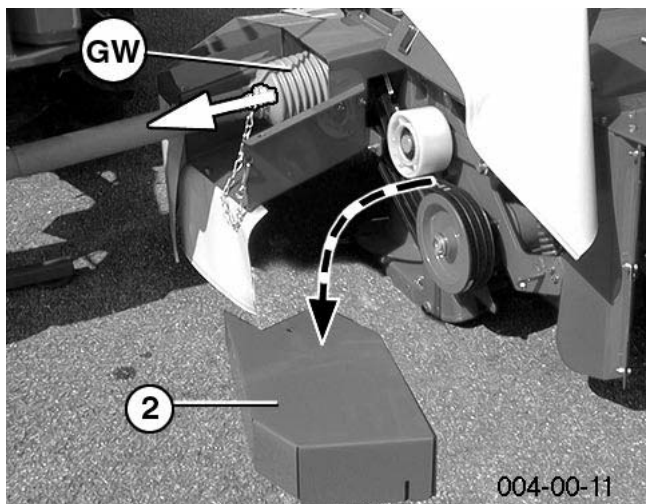
2. Loosen locking mechanism (1) and swing protection (2) up.

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



3. Remove the belt protection (15) (Front-Mower)

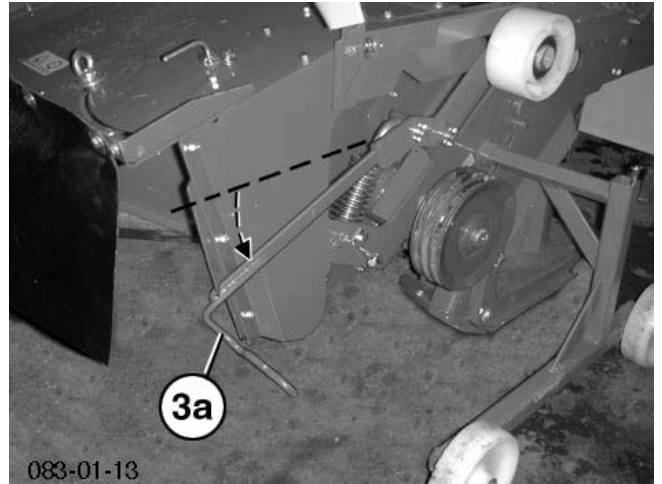
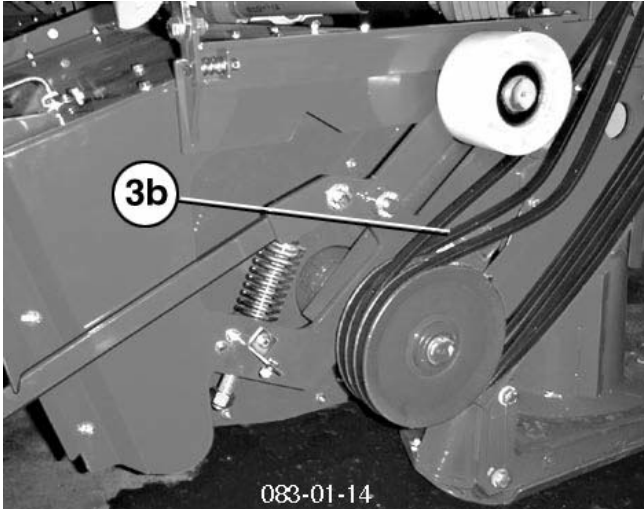
3a. Remove the belt protection (2) and withdraw the drive shaft (GW) from the gear (side mowers).



Front mower

3. Remove belts (3b)

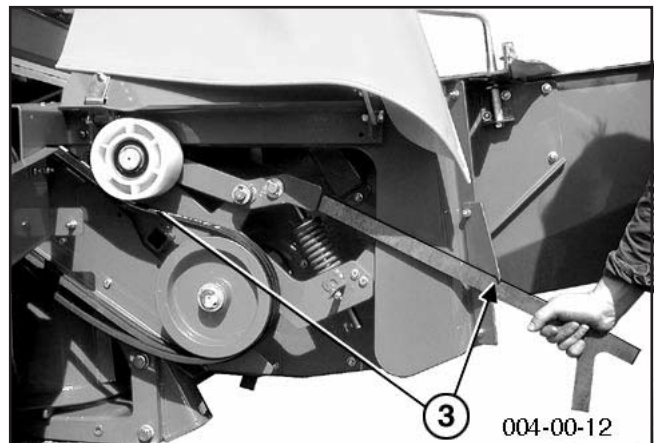
- Release the tension using lever (3a) beforehand



Side mowers

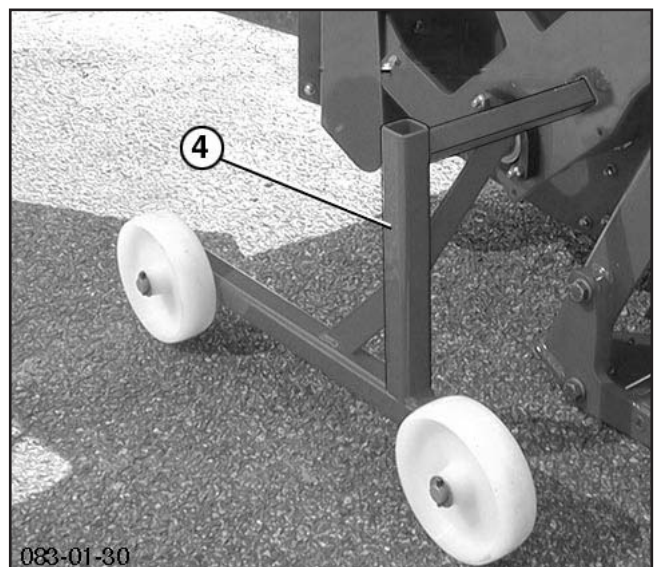
3a. Remove belts

- Release the tension using lever (3) beforehand



4. Fit transport wheels (4)

- left and right

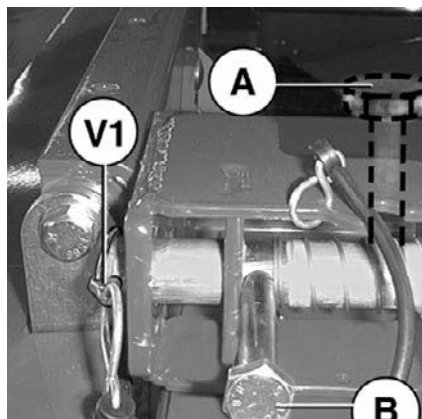


5. Release left and right locks

- Spring loaded positioning bolt up to 2004 model

Remove linch pin (V1) and release bolts

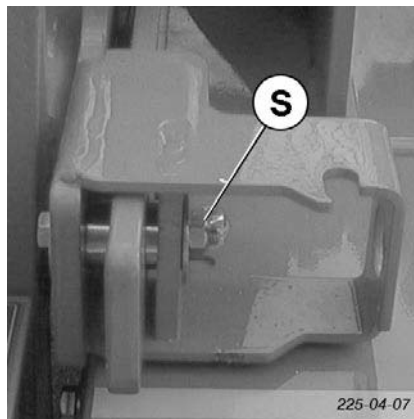
- Pos. A = released
- Pos. B = Locked



- Screwed in from 2004 model

Remove screw (S)

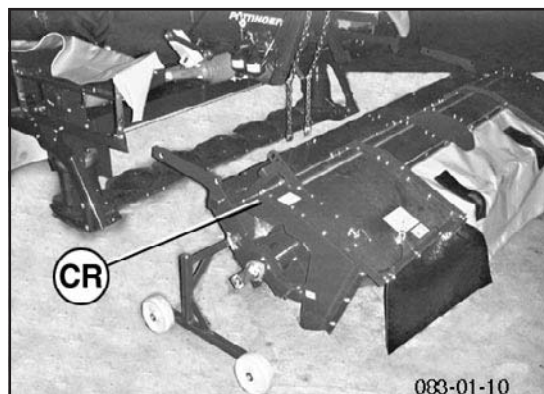
(Spring loaded positioning bolt = optional)



Important!

When mowing without conditioner, protective elements and the both swath formers (SB) must be mounted additionally on the cutter bar. Parts see spare parts list.

6. Always park conditioner (CR) steadfast.

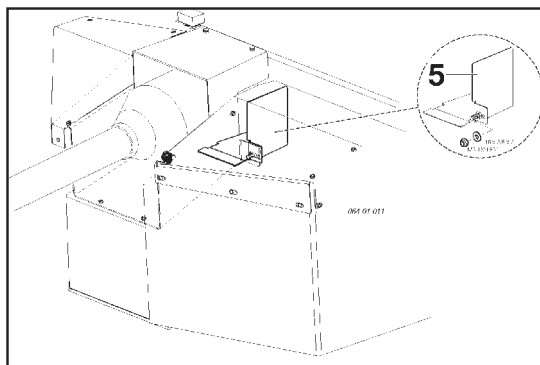


Installation of the conditioner (CR) or the swath formers (SF)

- is effected in the reverse sequence to dismounting.

7. Mount the guard (15) (Front-Mower)

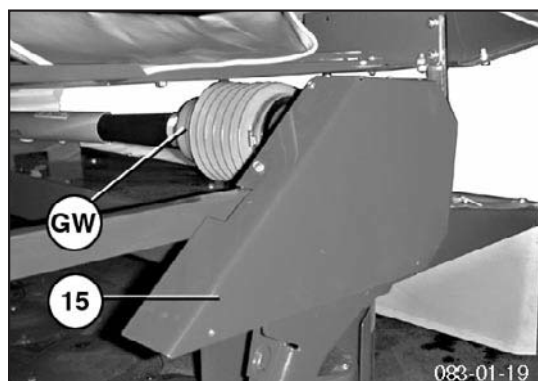
This guard (15) prevents the penetration of dirt into the gear area.



8. Mount the guard (5) (only applies to side mowers)

This guard (5) prevents the penetration of dirt into the gear area.

- connect drive shaft (GW)



Take particular notice when the conditioner is detached from the cutter bar

Safety hint

A machine with a conditioner (CR) as a complete unit is fitted with proper protection elements.

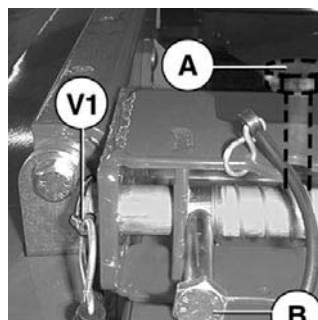
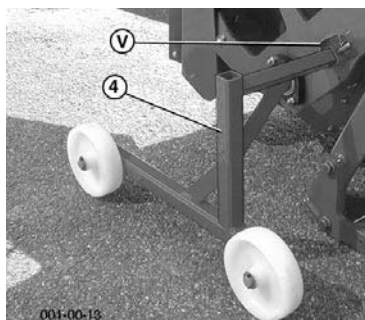
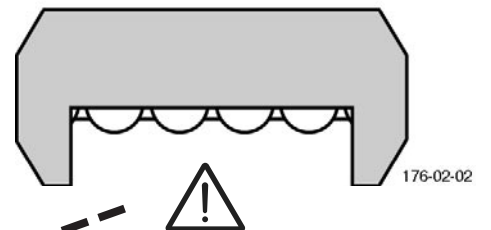
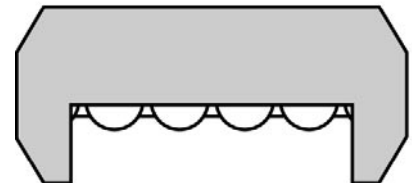
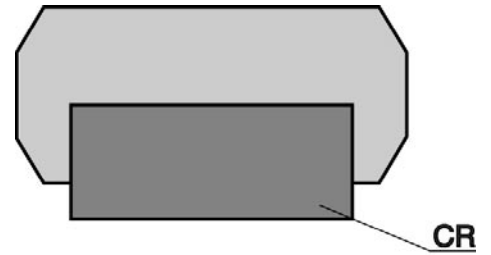
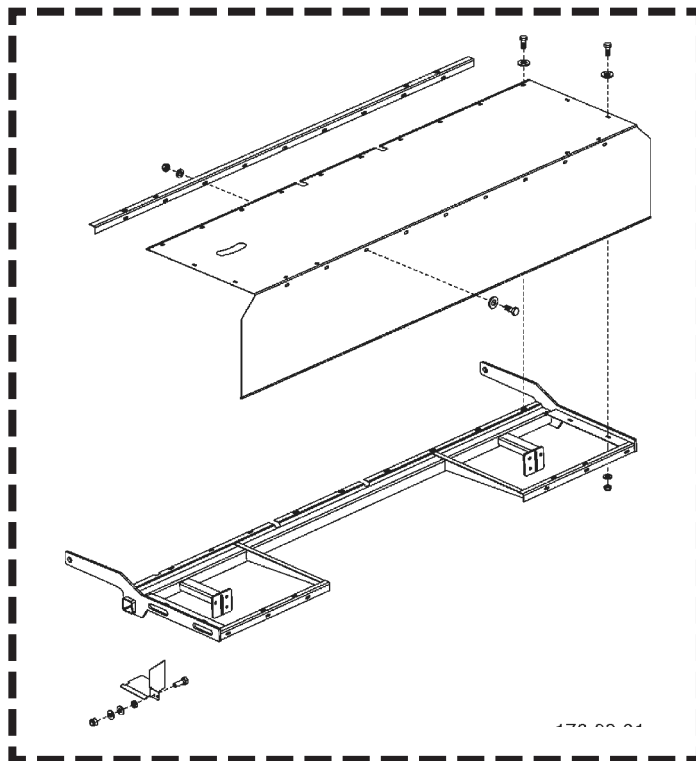
Should the conditioner be detached however, the mowing unit no longer has complete protection covering. In this situation mowing may not take place without additional protection elements!



Beware!

Protection elements, especially intended for this mode of mowing, must be fitted to the mowing unit.

These protection elements are not included in the delivery of a new machine with a conditioner, the parts must be additionally ordered (see Spare Parts List, component group "REAR PROTECTION").



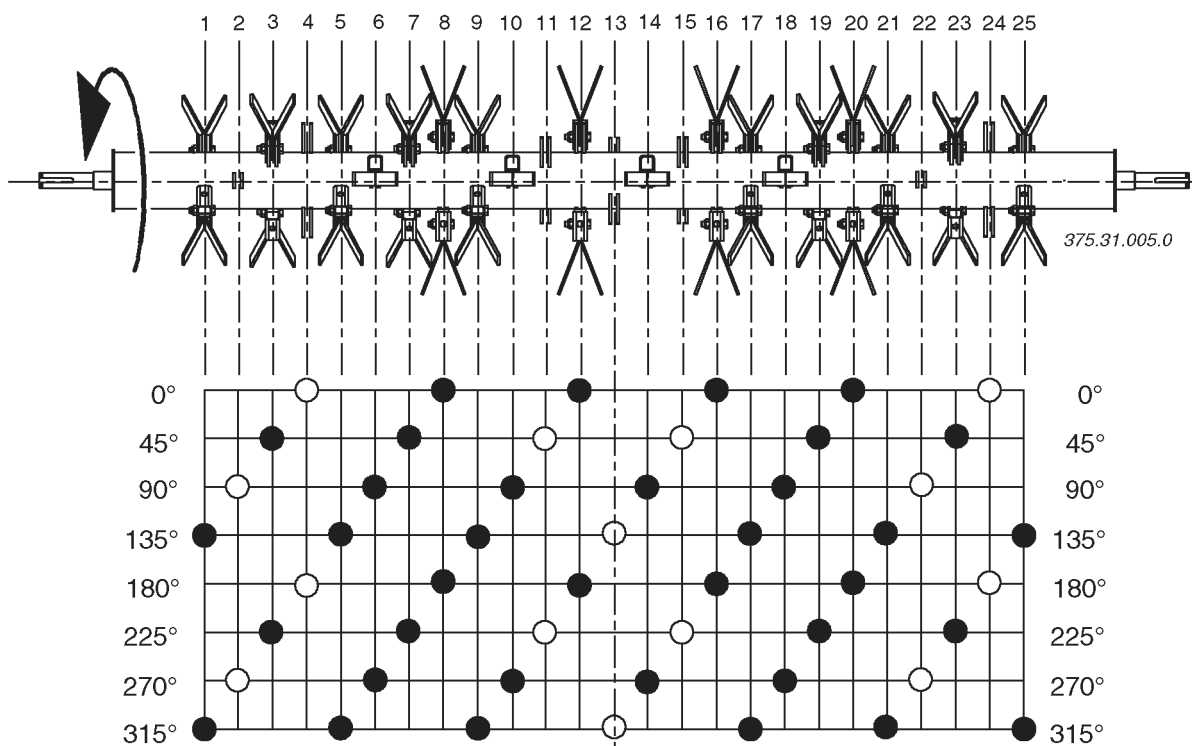
Optional extra

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

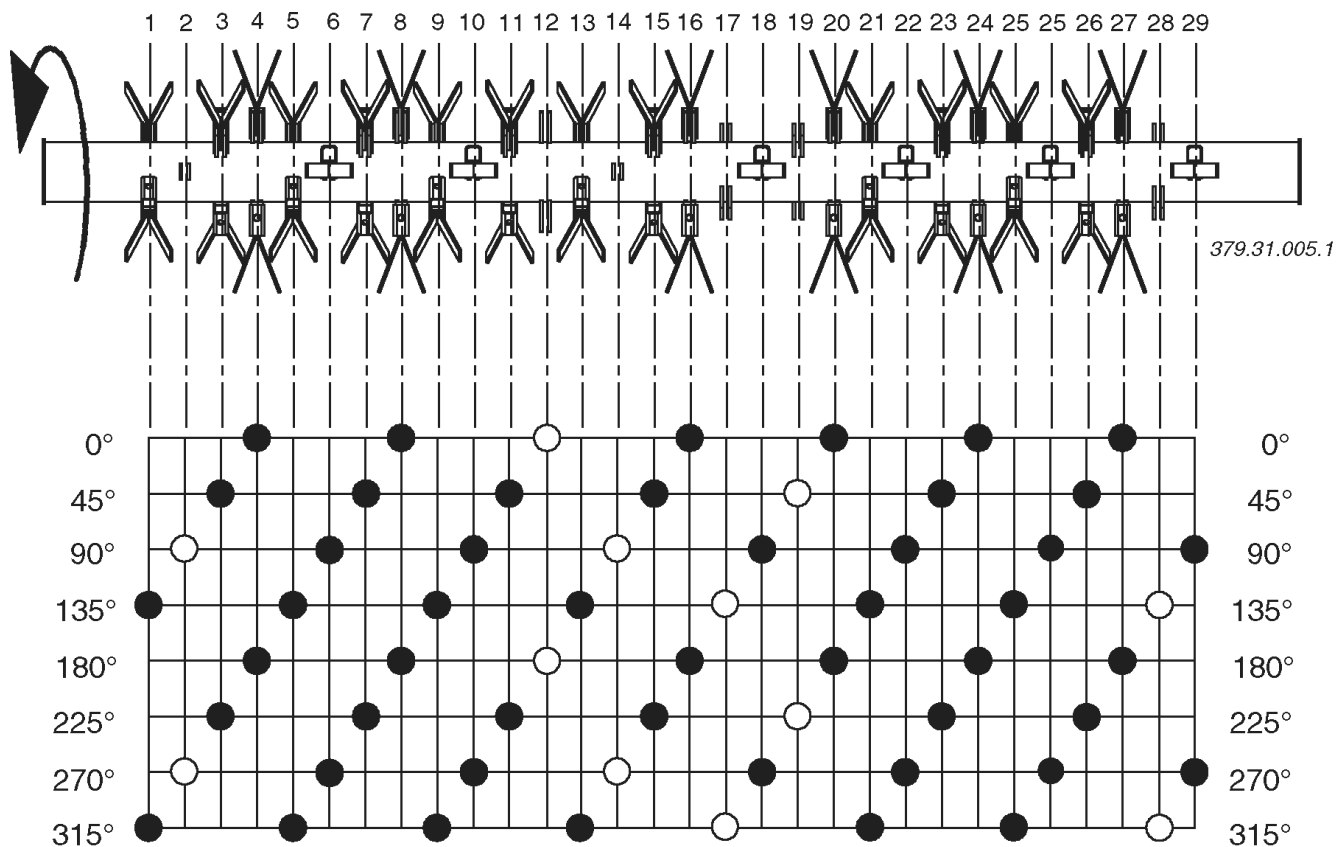


For mowing without conditioner (CR)

- Observe safety hint (above) without reservation!



NOVACAT 266 F (Type PSM 375)
NOVACAT 7800 (Type PSM 383)



NOVACAT 305 H (Type PSM 379)
NOVACAT 306 F (Type PSM 376)
NOVACAT 8600 (Type PSM 384)

Settings

Side pressure springs

- to set the gap between the rubber cylinders
- adjustable through screw (B)

Cleaning and maintenance

Clean with water after every operation

- the rubber cylinders
 - the side bearing
- (if using a high pressure cleaner see chapter „Maintenance and Service“)

After ever operation, grease

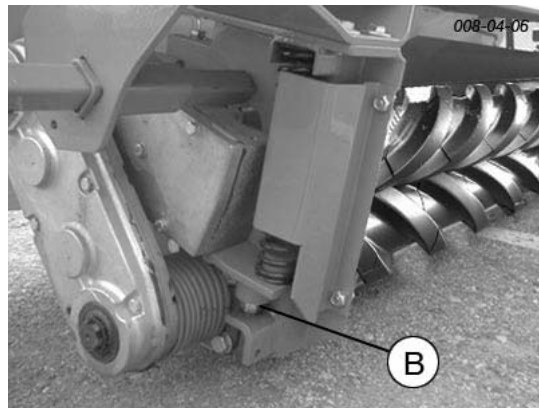
- the lower roller side bearings (L)
left and right
- the upper roller side bearing (L)
left

Lubricate after every 100 hours of operation

- the upper roller gearing (M)
right

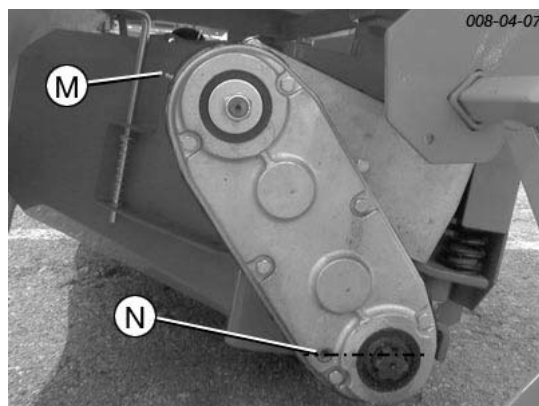
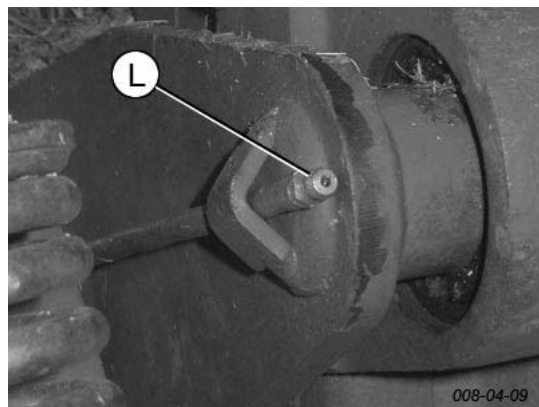
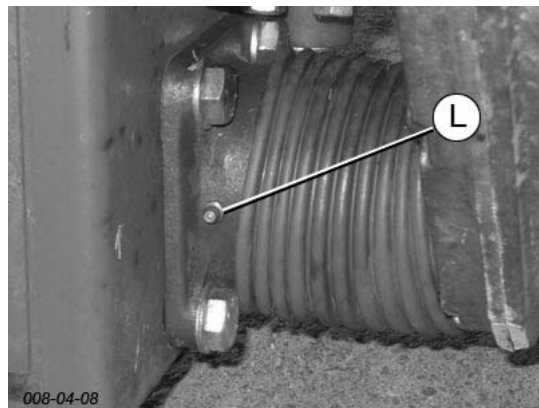
After every 500 operating hours

- change the oil
- fill with SAE 90 (III) oil to the mark (N)



Note!

Dismounting and mounting the roller conditioner
-see chapter „CONDITIONER“



Variation

"Extra dry" system

Note

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

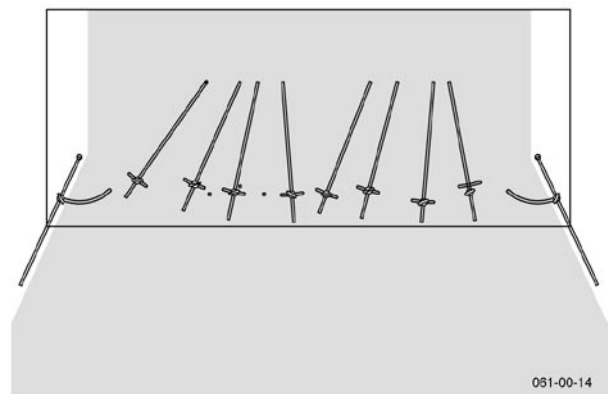
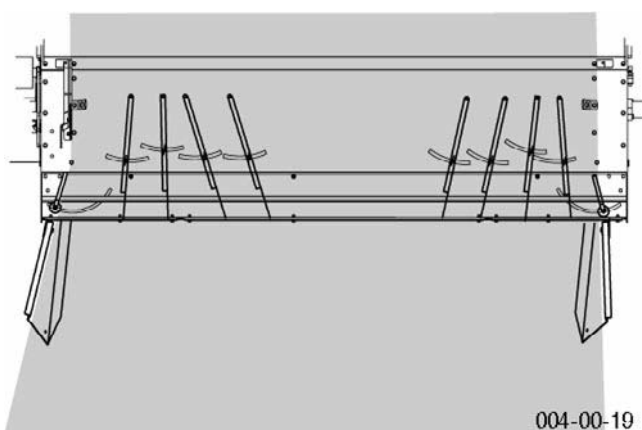
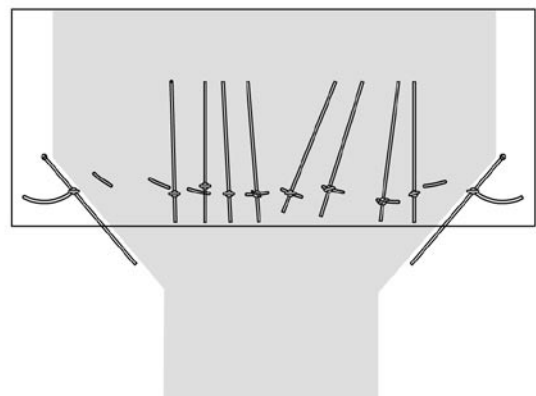
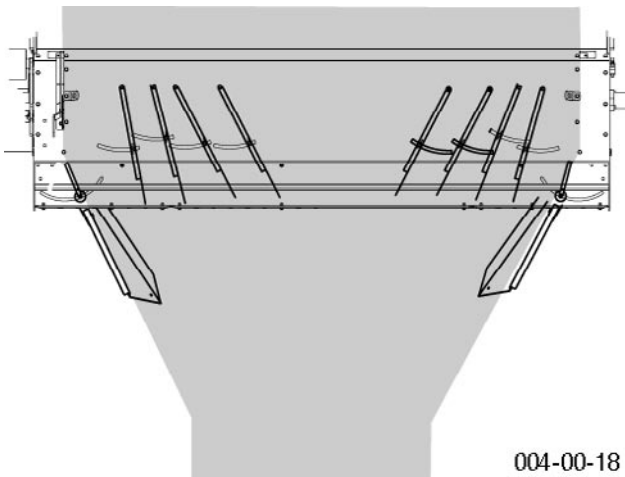
Swathes

Spread width

1. Set the positions of the guiding plates
 - see diagram

NOVACAT 8600 extra dry

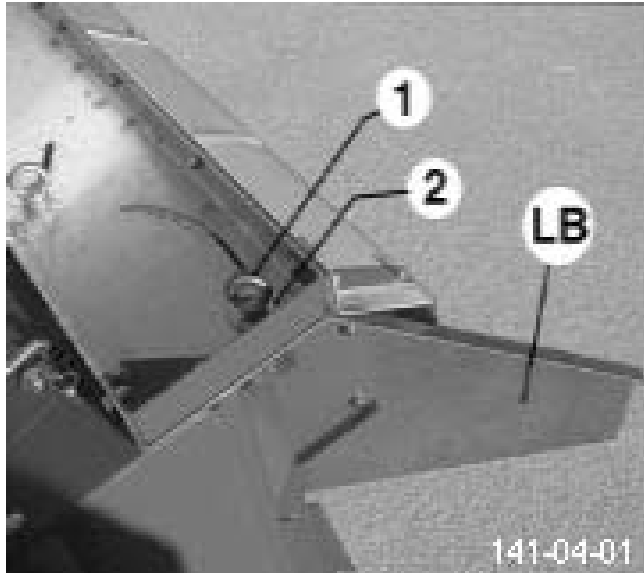
NOVACAT 7800 extra dry



Dismount guide plate

When spreading it could occur that the left mounted guide plate (LB) reduces the spread width.

If a greater spread width is required, the guide plate can be



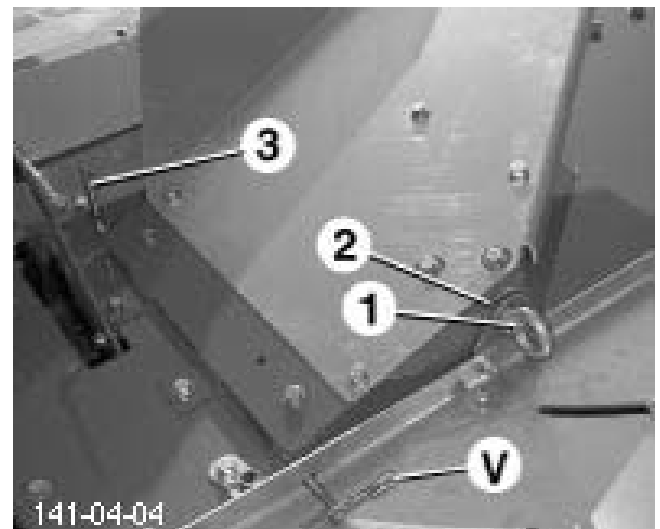
removed.

- Remove ring bolt (1) and washer (2).



- Remove split pin (V) and pull bolt (3) out

- Mount guide plate (LB) onto the top side of the conditioner



- Bolt (3) and split pin (V)
- Ring screw (1) and washer (2)

Important: Washers in the order as shown in diagram

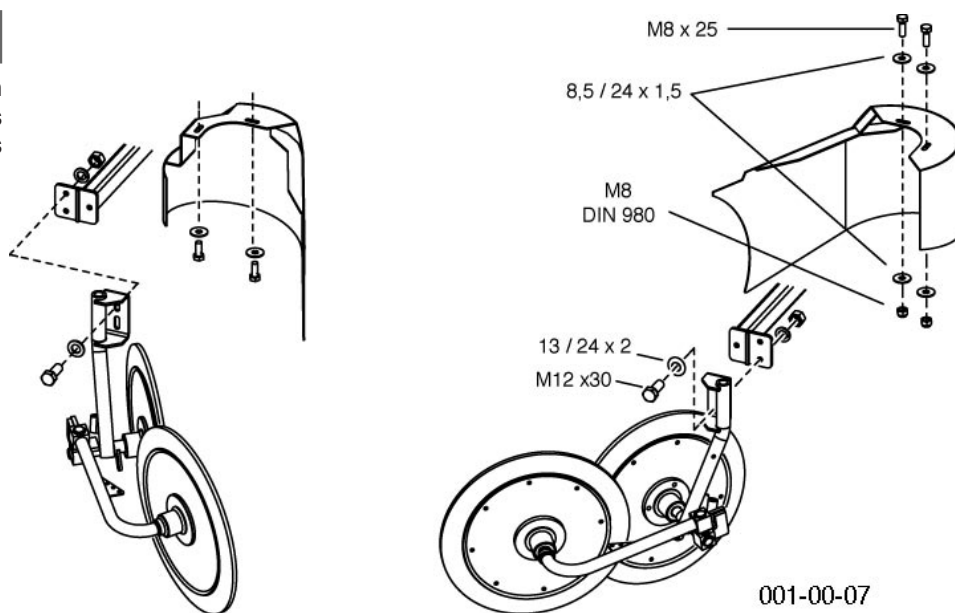
Mount guide plate

For swathing, the guide plate is to be mounted in the position provided.

- Mounting takes place in the reverse analogical order as by dismounting.

Swath Discs

With the swath discs a narrower swath is formed when mowing. This prevents them from being run over by the tractor's wide tyres.

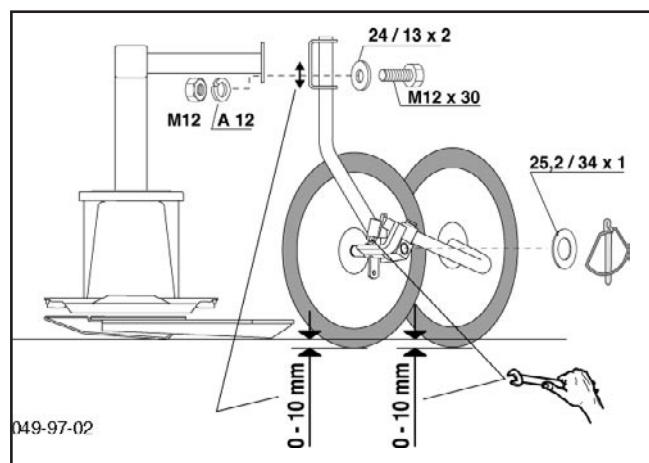
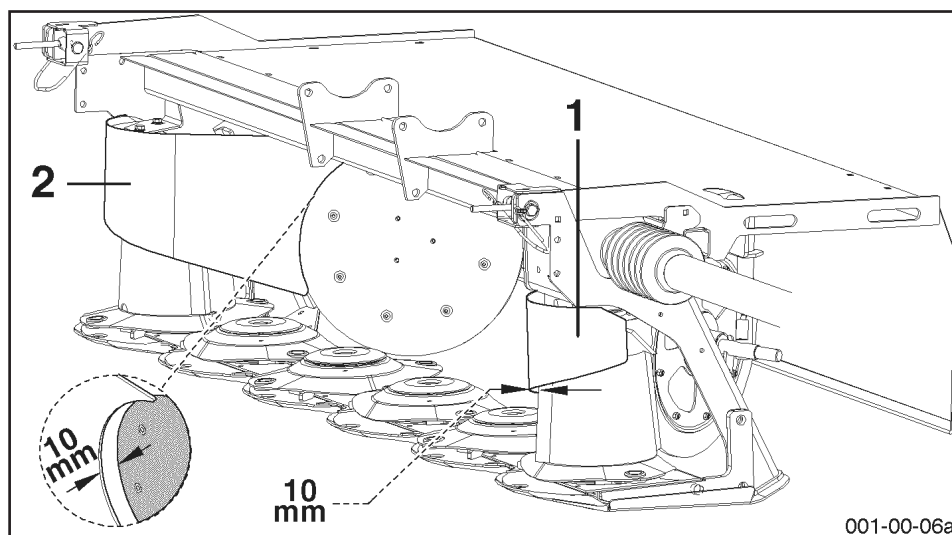
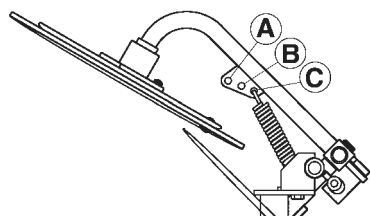


Mount guide plates

- left (1) and right (2)

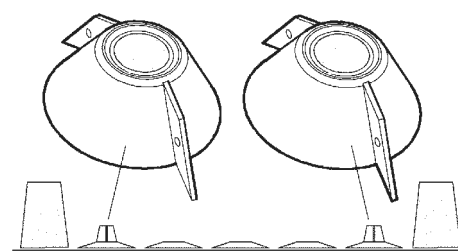
Setting both tension springs

- A = for high dense forage
- B = basic setting
- C = for short forage



Flat cone conveyor (Optional extra)

- Flat cone conveyor are recommended to improve the conveyance rate of swath deposits, particularly with heavy, thick fodder components
- For individual parts see Spare Parts List



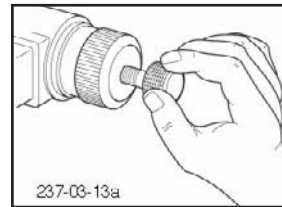
Dismounting the Cross Conveyor Belt

1. Lower mower unit.



2. Open locking flaps (31) by emergency operation

- Screw in the screw (30) on respective valve - flap (31) swivels into position "A"
- Then screw the screw out again.

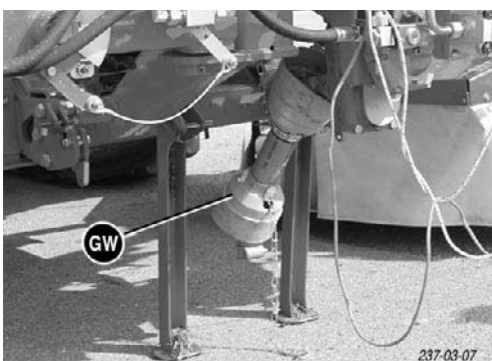
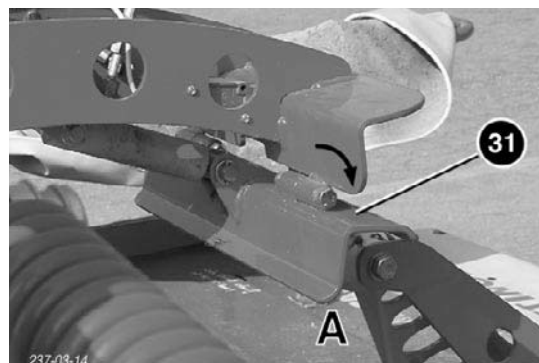
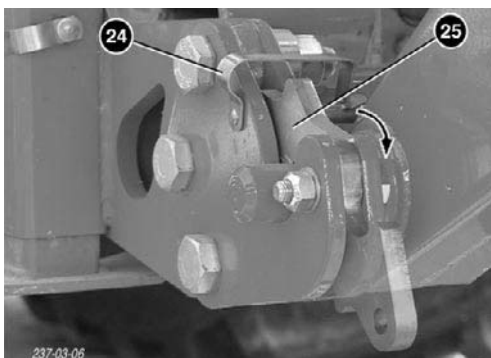
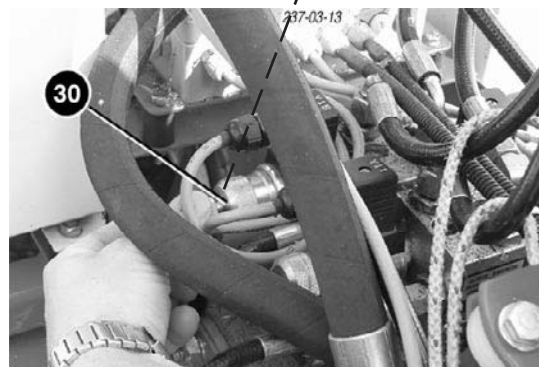


3. Move support stands to the support position and secure (5x)

Raise main frame and both mower units for this.

4. Separate cross conveyor belts from mower unit

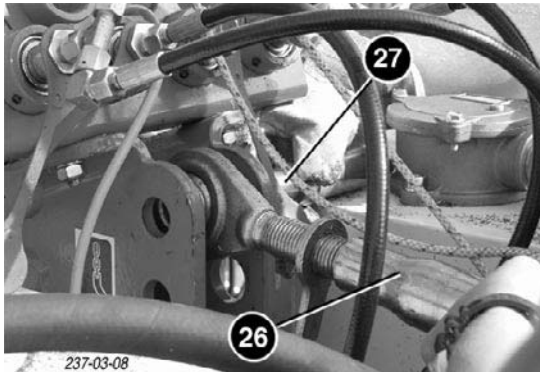
- Remove spring pin (24) and fold away lower linkage lock (25).
- Uncouple the cardan shaft (GW).



5. Lower mainframe until conveyor belts rest on support stands

6. Loosen upper linkage (26) by turning spindle

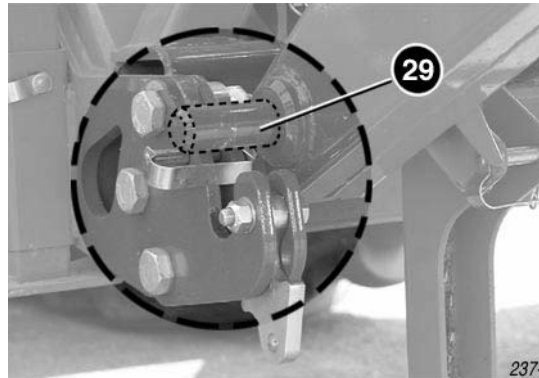
7. Remove upper linkage pins (27)



8. Disconnect hydraulic lines

9. Separate electrical cable

10. Lower mainframe until lower linkage pins (29) are free



11. Drive mower unit slightly forward

The cross conveyor belts are now separated from the mower unit

Mounting the Cross Conveyor Belt

1. Move mower unit up to the cross conveyor belt

2. Connect lines

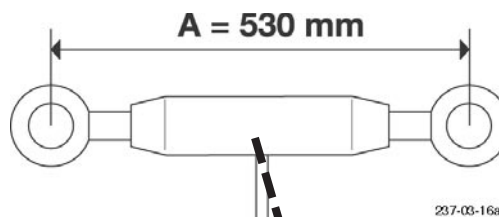
- Connect hydraulic hoses
- Connect electrical connections (28)

3. Link the cross conveyor belt with the mower unit

- Lift mainframe until lower linkage pins (29) catch. Then continue lifting until support stands move freely.
- Lock both lower linkage pins with bracket (25) and secure with linch pin.
- Couple cardan shaft (GW)
- Swing middle support stand and secure (3x)
- Lower mainframe until upper linkage pins can be inserted into holes.
- Secure upper linkage pins with linch pin
- Adjust upper linkage length ($A = 530$ mm) by turning spindle

4. Lift both mower units until support stands move freely

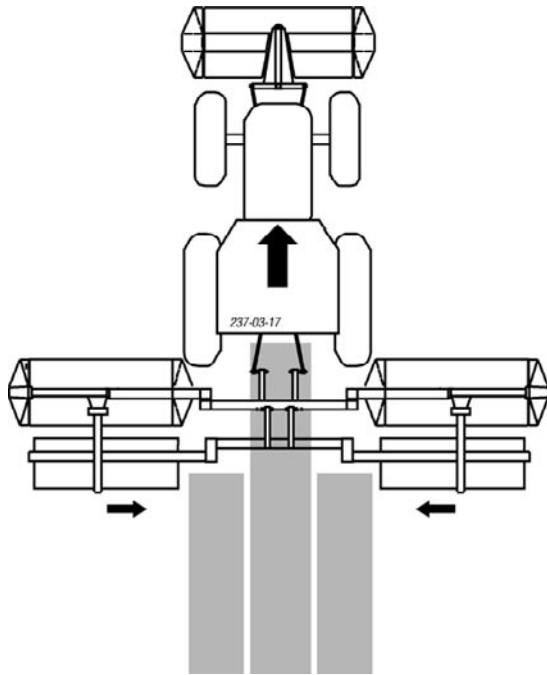
- Swing support stands up and secure (2x).



Swath courses

Standard setting

Left and right conveyor belts deposit the swath into the centre

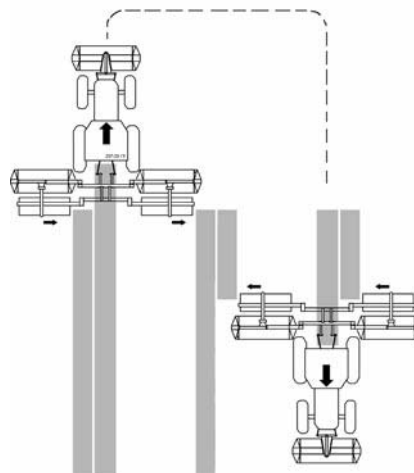
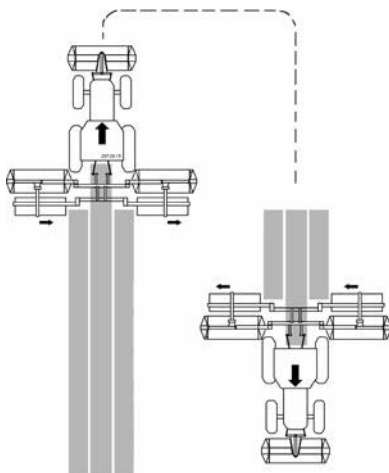
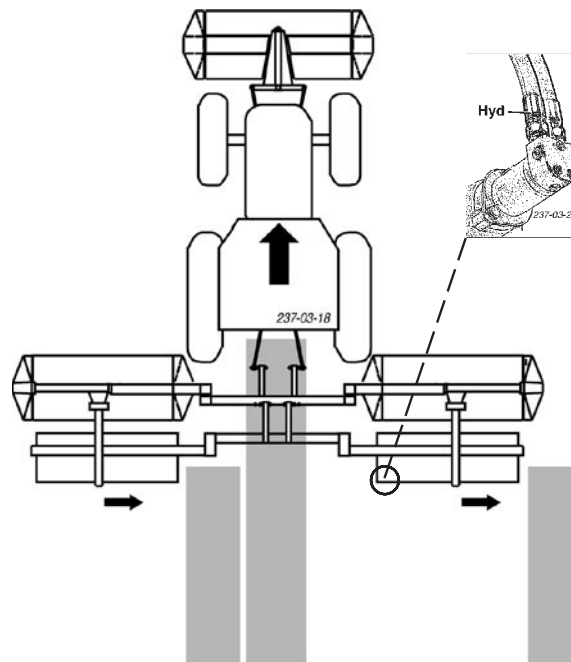


Special setting

The rotation direction of the motor can be altered.

- Swap the connections of both hydraulic lines (Hyd) (only on the right conveyor belt)

The swath is then deposited to the outside.



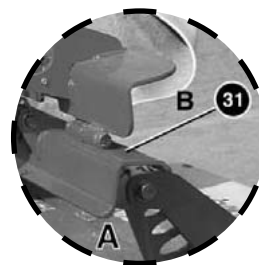
Operating methods

1. Both cutter bars with coupled cross conveyor belts



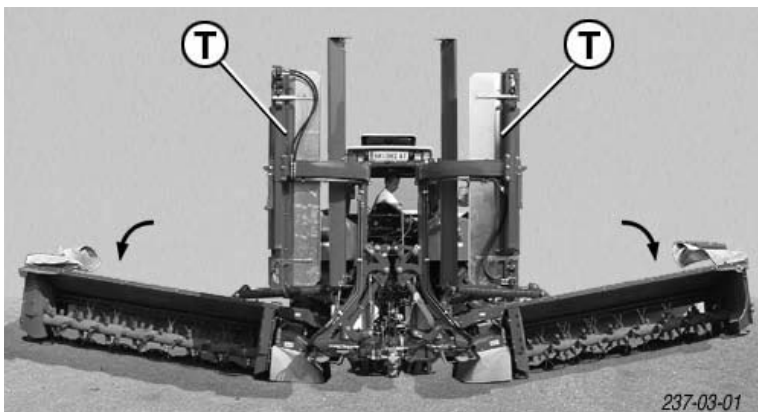
The cutter bars and cross conveyor belts are swivelled simultaneously from the working position into the transport position and reversed.

- Both locking flaps (31) must therefore be in the locked position (B)



General

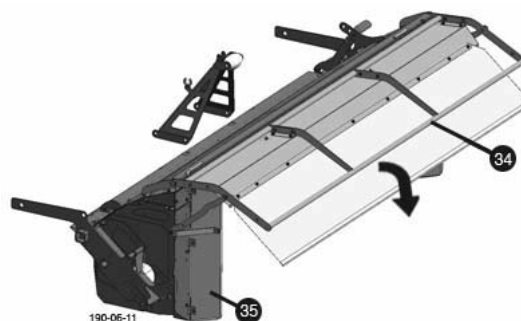
The mower unit can be used in three ways.



2. Both cutter bars with uncoupled cross conveyor belts

The conveyor belts are not swivelled; they are fixed in the transport position (T). Only both cutter bars are swivelled from the working position to the transport position and reversed.

- Both locking flaps (31) must therefore be in the unlocked position (A)
- fold hoop guards (34) down
- attach side guards (35)



Note!

When operating without a cross conveyor belt the hoop guard (34) must be folded down and side plates (35) must be attached

3. Both cross conveyor belts dismantled

Both cross conveyor belts can be dismantled from the cutter bar (see chapter "Dismounting the Cross Conveyor Belt")

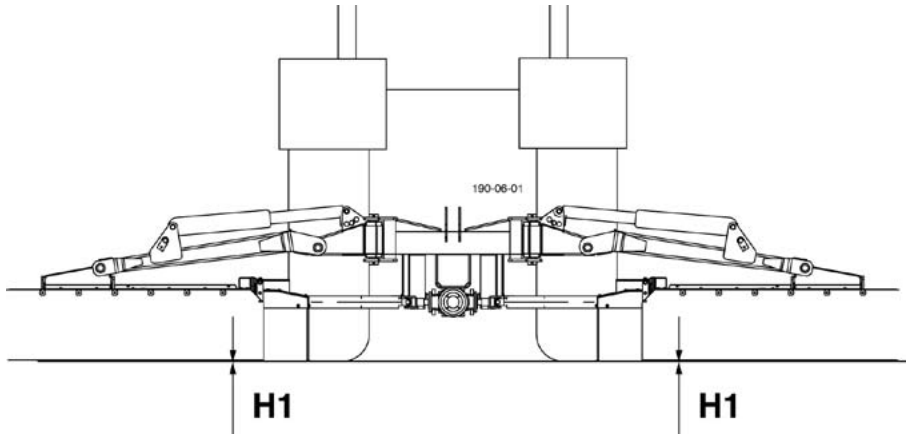
Grow the Mower at the tractor and put in the hydraulic relief



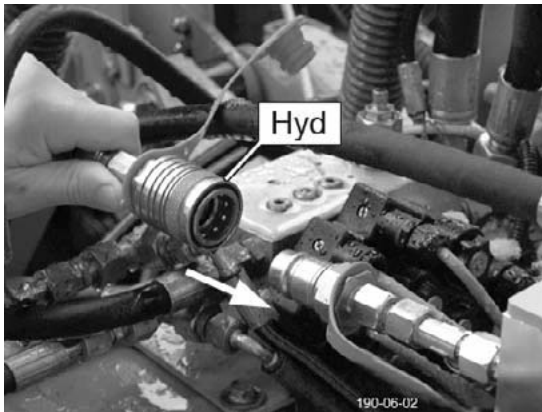
Note!

When setting up or during operation the hydraulic control valve for the front lifting gear must be in the floating position.

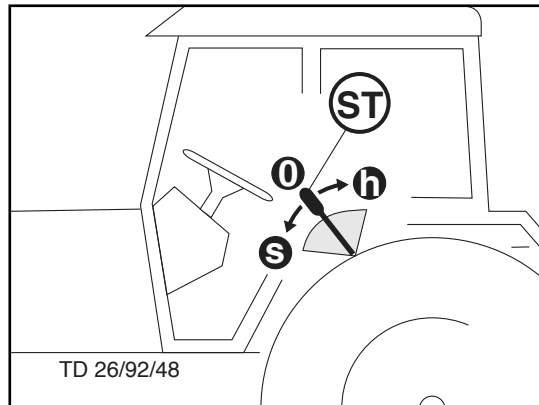
1. Attach implement on level surface and bring into mowing position (H1).



2. Connecting the hydraulic lead to the mowing unit and to the tractor's straightforward hydraulic circuit (EW)

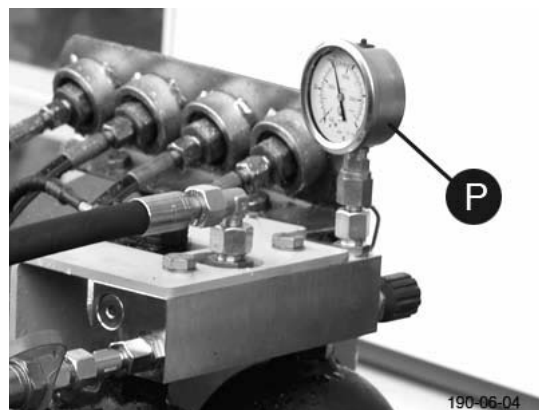
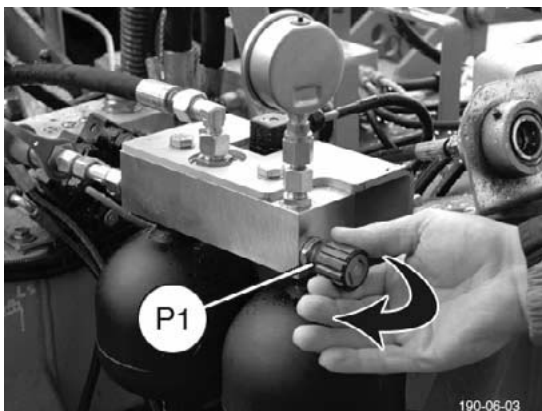


4. Activate hydraulic control valve (ST) until a pressure of 170 bar registers on the pressure gauge.



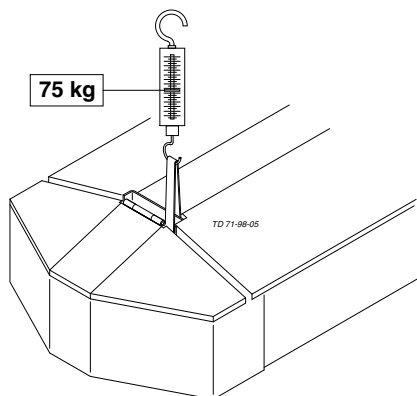
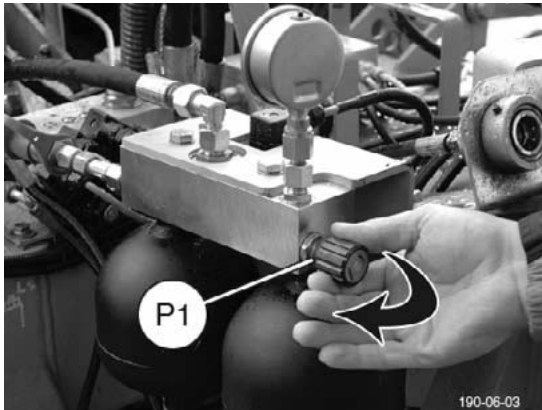
3. Close pressure valve (P1) completely (clockwise)

Direction of rotation to the right



5. Move the hydraulic control valve to floating position (S)

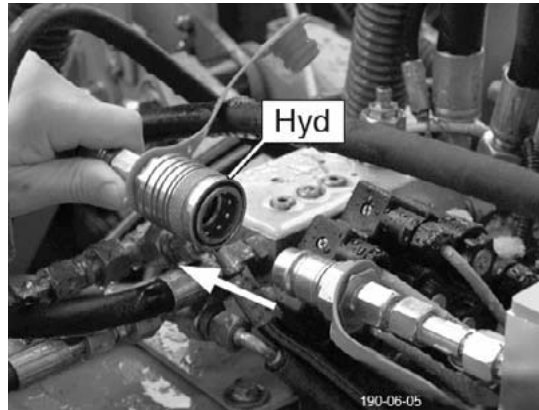
6. Open and close pressure valve gradually until cutter bar ground bearing pressure is approx. 75 kg



7. Check the floor bearing load of the mowing bar (150 kg)
(75 kg left and right)

8. Repeat procedure if adjustments are necessary

9. Hydraulic line (Hyd) must now be connected, now setting work is finished



Note!



Carry out setting procedure on both sides (left and right mower unit) separately



Important!

If there is no pressure in load alleviation system, machine cannot be brought into transport position

Safety points

- Turn engine off when adjustment, service and repair work is to be done.



General maintenance hints

In order to keep the implement in good condition after long periods of operation, please observe the following points:

- Tighten all screws after the first hours of operation.



In particular check:

- blade screws on the mowers
- tine screws on the swather and tedder.

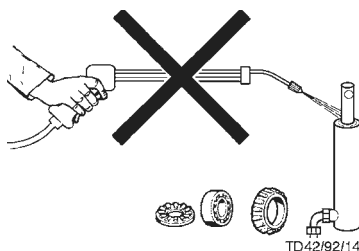
Spare part

- The **original components and accessories** have been designed especially for these machines and appliances.
- We want to make it quite clear that components and accessories that have not been supplied by us have not been tested by us.
- The installation and/or use of such products can, therefore, negatively change or influence the construction characteristics of the appliance. We are not liable for damages caused by the use of components and accessories that have not been supplied by us.
- Alterations and the use of auxiliary parts that are not permitted by the manufacturer render all liability invalid.

Cleaning of machine parts

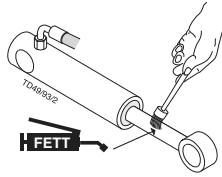
Attention! Do not use high-pressure washers for the cleaning of bearing- and hydraulic parts.

- Danger of rust!
- After cleaning, grease the machine according to the lubrication chart and carry out a short test run.
- Cleaning with too high pressure may do damage to varnish.



Parking in the open

When parking in the open for long periods of time, clean piston rods and then coat with grease.



Winter storage

- Thoroughly clean machine before storage.
- Put up protection against weather.
- Change or replenish gear oil.
- Protect exposed parts from rust.
- Lubricate all greasing points according to lubrication chart.

Drive shafts

- see notes in the supplement

For maintenance please note!

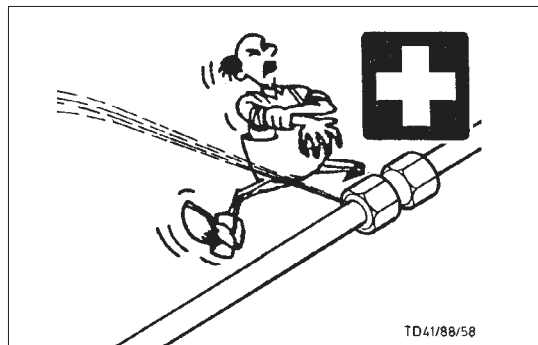
The instructions in this operating manual are always valid.

In case there are no special instructions available, then the notes in the accompanying drive shaft manufacturer's instructions are valid.

Hydraulic unit

Caution! Danger of injury or infection!

Under high pressure, escaping fluids can penetrate the skin. Therefore seek immediate medical help!



After the first 10 operating hours and then every consecutive 50 operating hours

- Check the hydraulic unit and lines for tightness and retighten screw connections if necessary.

Before operation

- Check hydraulic hoses for wear.

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

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



Safety 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..



Repair Instructions

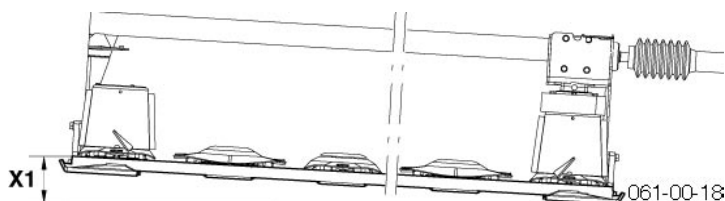
Please refer to repair instructions in supplement (if available)

Cutter bar oil level check

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

N.B.:

- Check the level of the oil at a working temperature.
When cold, the oil is too viscous. Too much used oil would stick to the gear teeth, thus giving a false reading.



1. Lift one side of the mower bar (X1) and support.

NOVACAT 266 F: X1 = 22,5 cm

NOVACAT 7800: X1 = 22,5 cm

NOVACAT 306 F: X1 = 38 cm

NOVACAT 8600: X1 = 38 cm

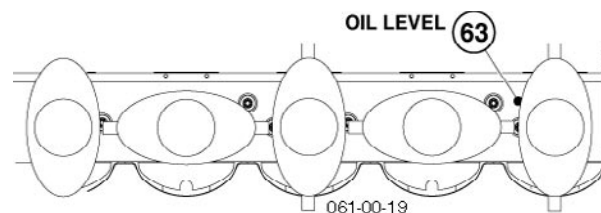
- The side where the oil refill screw is located remains on the ground.
- Lift the other side of the mower bar about **X1** and support with a suitable prop.

2. Let mower bar stand in this position for some 15 minutes.

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

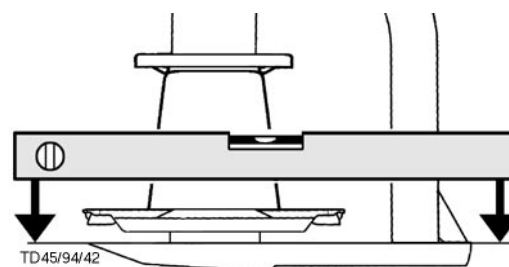
3. Remove oil refill screw (63).

The oil level is measured at the oil refill screw hole.



Important!

In doing so the cutter bar must be in horizontal position.



- Take out oil filler plug (63) and top up oil "SAE 90"

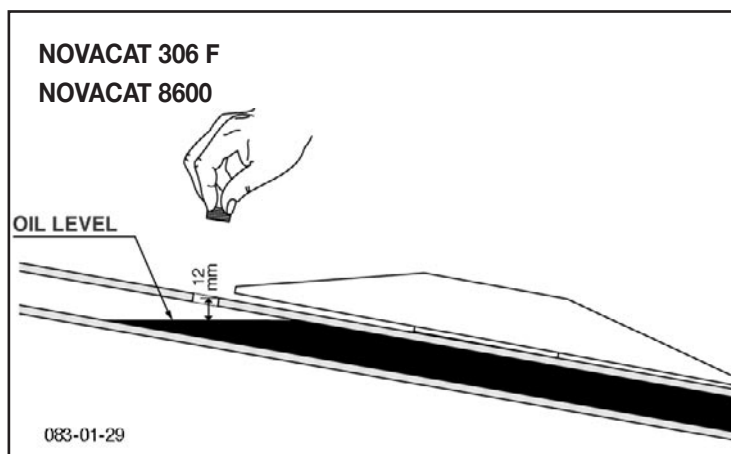
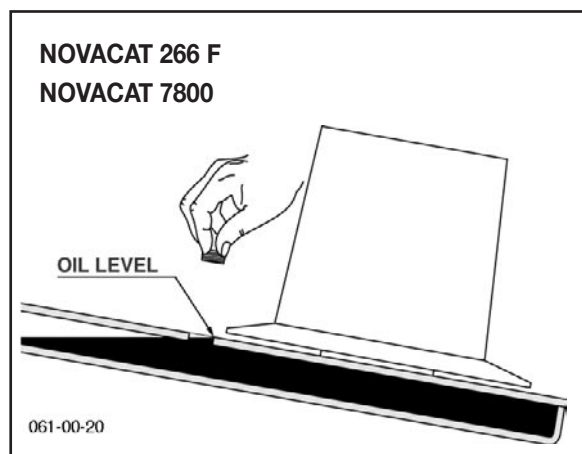
4. Oil level check

NOVACAT 266 F / 7800: The oil level is correct when the oil comes up to the level screw¹⁾ (OIL LEVEL).

NOVACAT 306 F / 8600: Measure the distance up to the level of the oil. The oil level is correct when the measurement is 12mm.



- Too much oil leads to the mower bar overheating during operation.
- Too little oil does not guarantee the necessary lubrication.



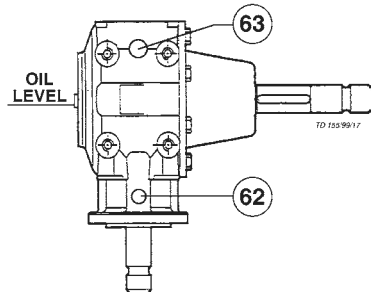
¹⁾ The oil filler plug (63) is also the level screw (OIL LEVEL)

Angular gear

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

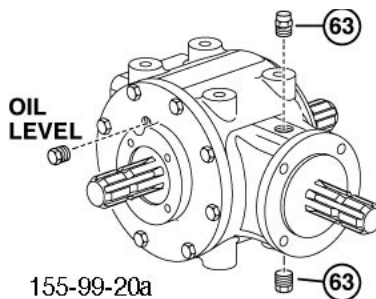
Quantity:

0,8 Liter SAE 90



Quantity:

1,0 Liter SAE 90



Cutter bar

Changing oil

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

Note:

- Change oil when at operating temperature.
The oil is too viscid when cold. Too much old oil remains stuck to the gearwheels and because of this any suspended matter present cannot be removed from the gearing.

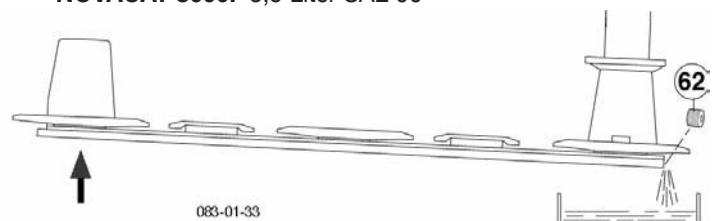
Quantity:

NOVACAT 266 F: 3 Liter SAE 90

NOVACAT 7800: 3 Liter SAE 90

NOVACAT 306 F: 3,5 Liter SAE 90

NOVACAT 8600: 3,5 Liter SAE 90



- Put cutter bar in vertical position and wait approx. 5 minutes.
- Take out oil drain plug (62), let run out and duly dispose waste oil.

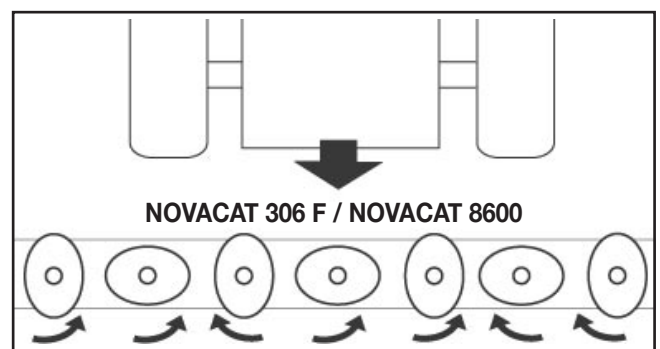
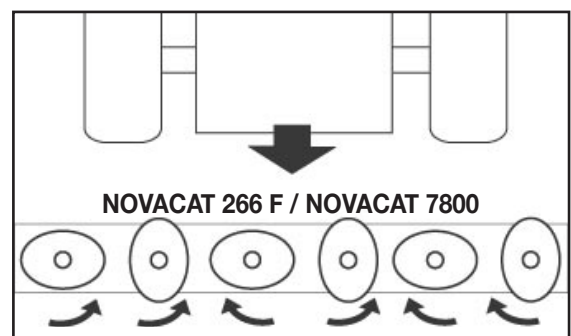
Installing cutter blades



Take note!

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

- To install, clean back plates from varnish.



Adjustment of sensors

Always carry out adjustments and controls in that operating position where the distance from the sensor is smallest.

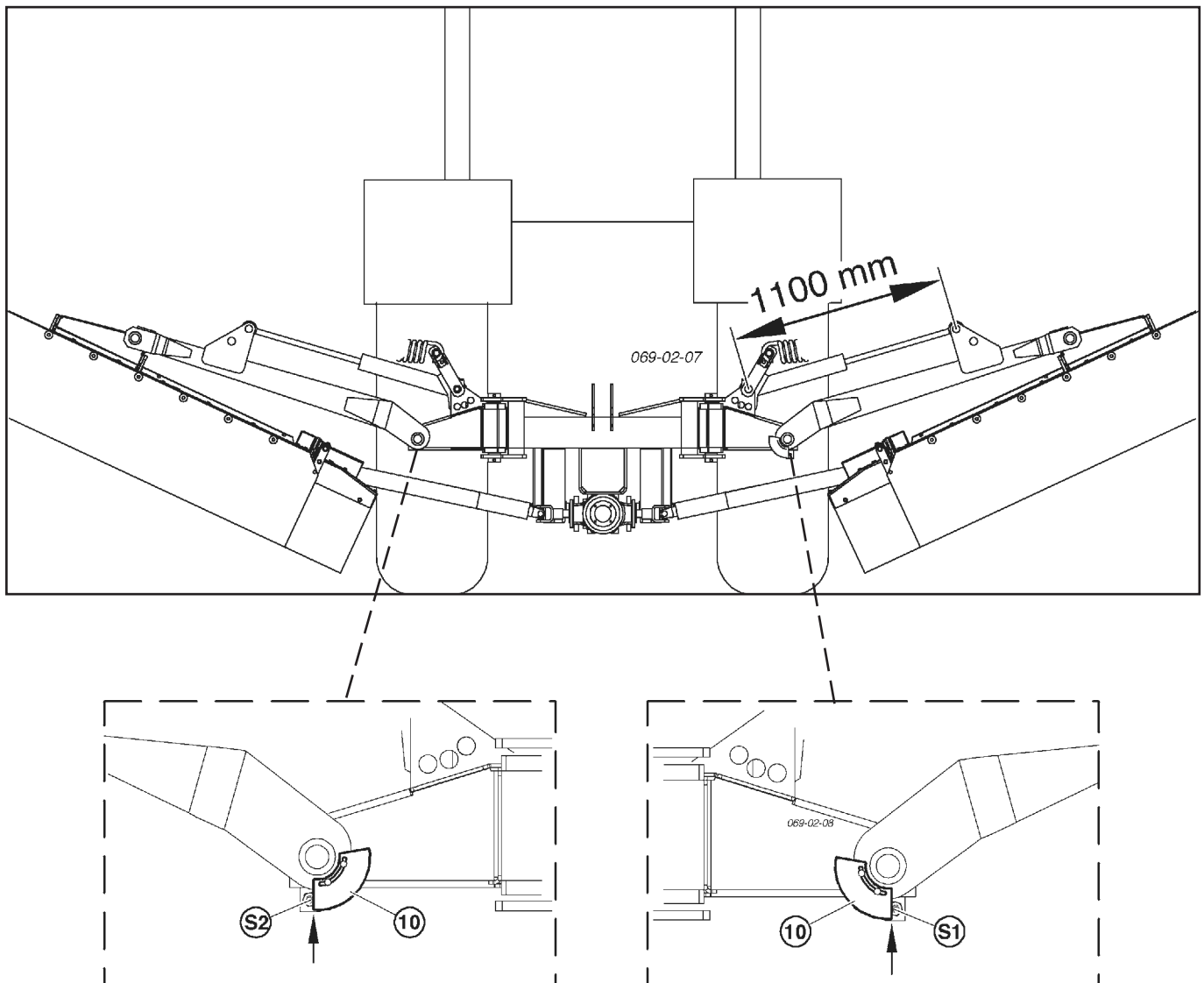
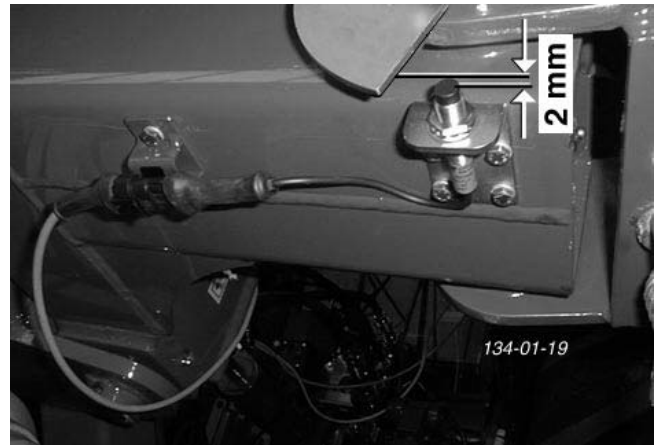
When doing this, a possible assembly clearance should also be taken into account.

Distance 2 mm

Setting the field transport position (end-of run turns)

The following guide is valid for both cutter bars.

1. Set sensors' gap (2 mm).
2. Raise both cutter bars until hydraulic cylinders have travelled in to a measurement of "1100 mm".
3. Loosen plate screws (10).
4. Move plate (10) in slot until edge is positioned just at sensor (S1).
5. Retighten plate screws.



Gear (G2)

- see previous page

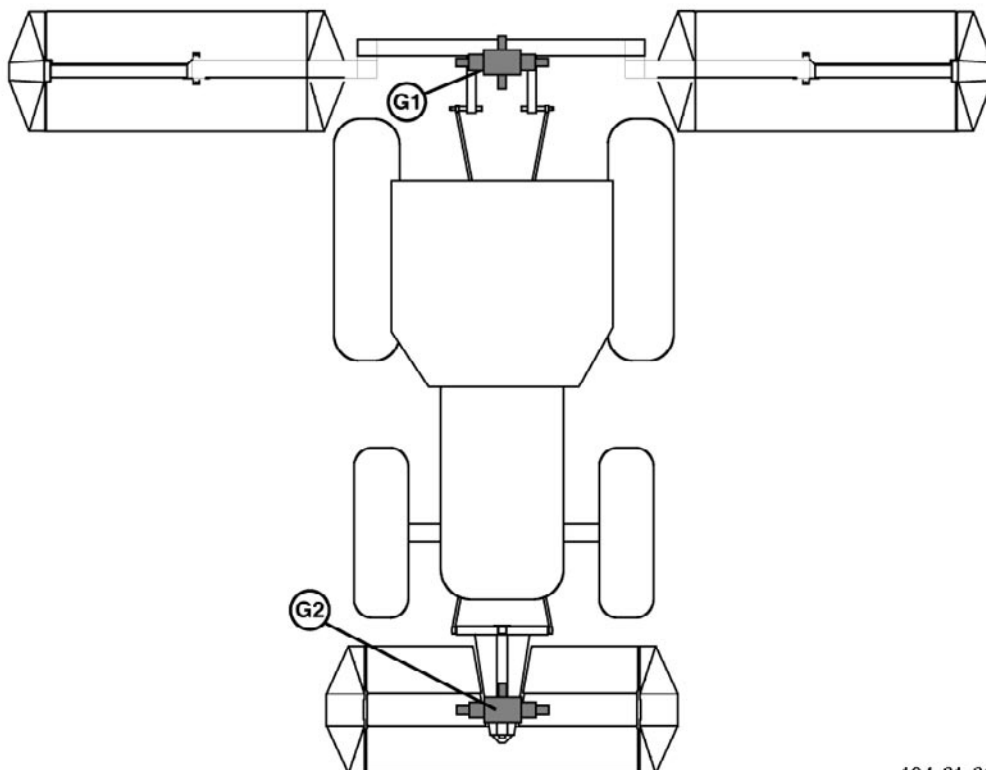
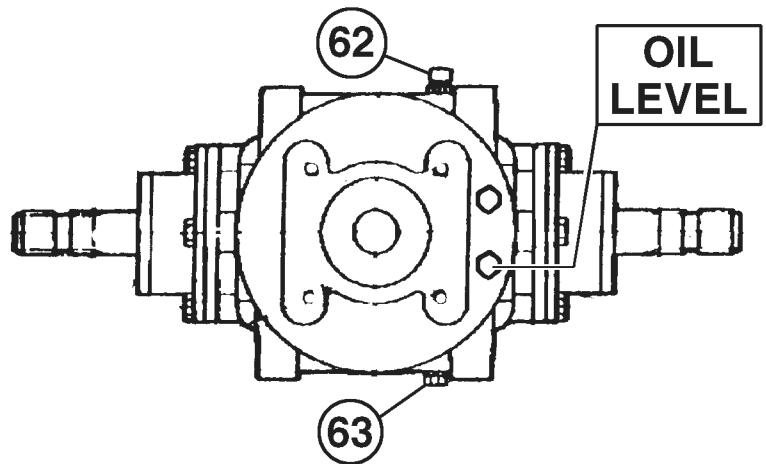
Gear (G1)

Quantity: 3,8 Liter SAE 90

Oil change: change oil after each operating year, see enclosed sheet on fuel instructions (III).

Conduct oil change at the latest after mowing 900 hectares

- * Filler opening (62)
- * Oil outlet (63)
- * Oil level control (OIL LEVEL)



134-01-06

Disruptions and remedies to power failure

- When there is a disruption in the electrical unit, the required hydraulic function can be carried out by means of an emergency application.



- This mode of operation is not suitable for use while working with the machine.

The function diagram's analogue shows the respective outlet button to be used for the required function.

Be alert to the dangers involved with all raising and lowering, and on and off switching activities!

Caution!

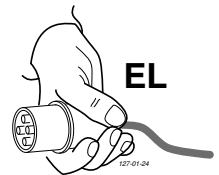
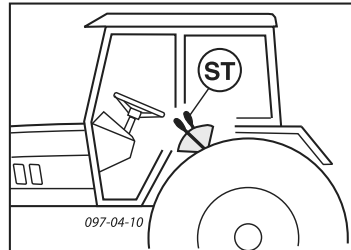


The emergency application must be carried out by 2 people.



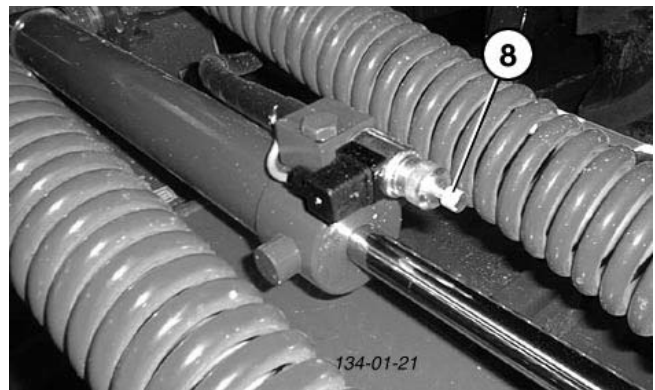
Please carefully read through the following instructions before carrying out any of the hydraulic functions.

During such swinging operations, the hydraulic system is comparatively unsafe. Therefore proceed with special caution!



Raising a mower bar

1. Disconnect electrical connection (EL)
2. Screw in screw (7) all the way
3. Screw in the valve screw (8) all the way
4. Press the corresponding valve button on the hydraulic unit
5. In the case of tractors with a "load-sensing" system: press the LS valve button on the hydraulic unit:
the hydraulic function will be carried out
6. In the case of tractors without a "load-sensing" system:
set control valve (ST) on the towing vehicle to "lift":
the hydraulic function will be carried out



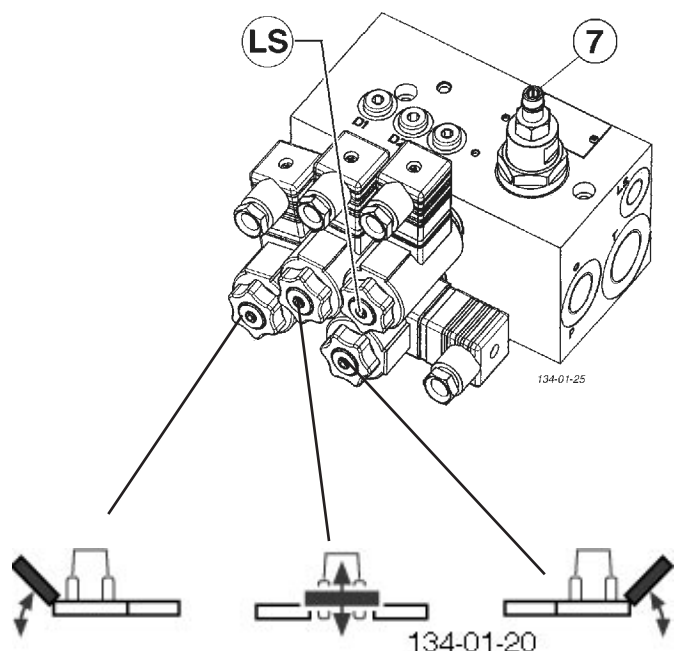
Important! Hold the control valve (ST) in this position until the valve screw (8) has been unscrewed again. Only then switch control valve (ST) to 0 position.

Unscrewing the valve screw (8) ensures that the raised mower bar is stabilised in this position.

Otherwise there is the risk of an accident, as the raised mower bar would immediately swing down again.

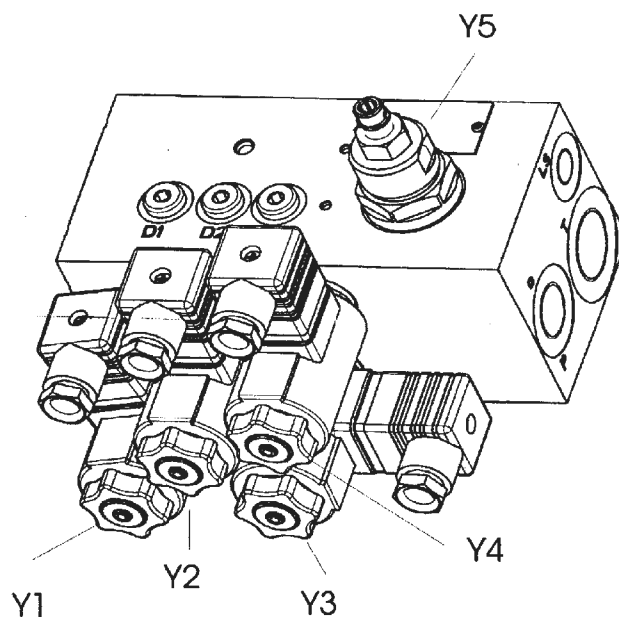
Lowering a mower bar

1. Disconnect electrical connection (EL)
2. Check tractors with electronic hydraulic valve: the hydraulic backflow must be unrestricted.
3. Screw valve screw (8) slowly in.
 - the hydraulic function is activated, the mower bar swings down.

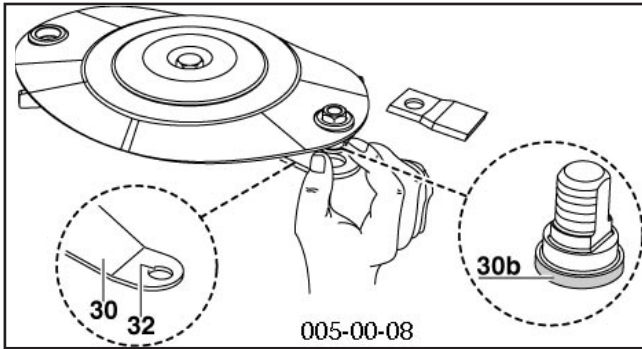


Hydraulik system	Funktionen / functions		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9
Load Sensing		↑	✗			✗	↓				✗
		↓				↓					✗
		↑		✗		↓			✗	✗	
		↓				↓			✗	✗	
		↑			✗	↓		✗			
		↓				↓		✗			
geschlossenes System / Closed Center		↑	✗				↓				✗
		↓				↓					✗
		↑		✗		↓			✗	✗	
		↓				↓			✗	✗	
		↑			✗	↓		✗			
		↓				↓		✗			
offenes System / Open Center		↑	✗				↑				✗
		↓				↑					✗
		↑		✗		↑			✗	✗	
		↓				↑			✗	✗	
		↑			✗	↑		✗			
		↓				↑		✗			
	keine Funktion / no function				✗	↑					

384-02-001



- ↑ Y5 screwed out
- ↓ Y5 screwed in



Attention! Danger of accident if wearing parts are worn

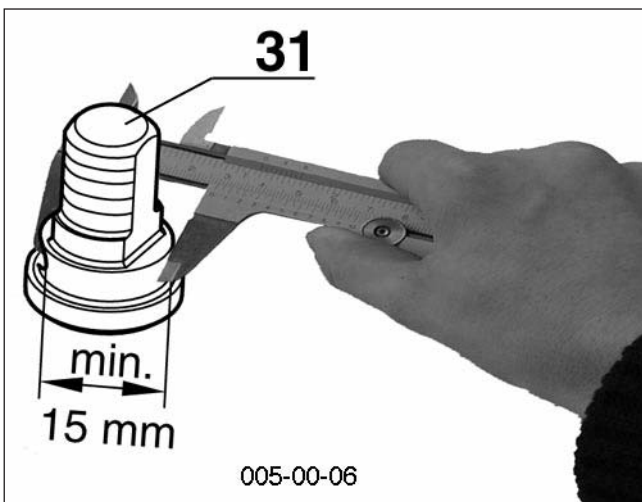
Wearing parts are:

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



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

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

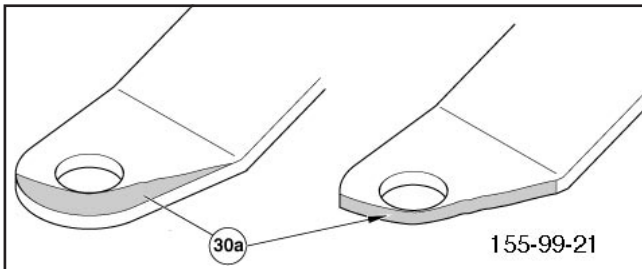


Check the suspension of mowing blades as to wear and other damage:

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

Process of visual control:

1. remove mowing blades
2. remove grass and dirt
 - around pin (31)



Attention !

Danger of accident if:

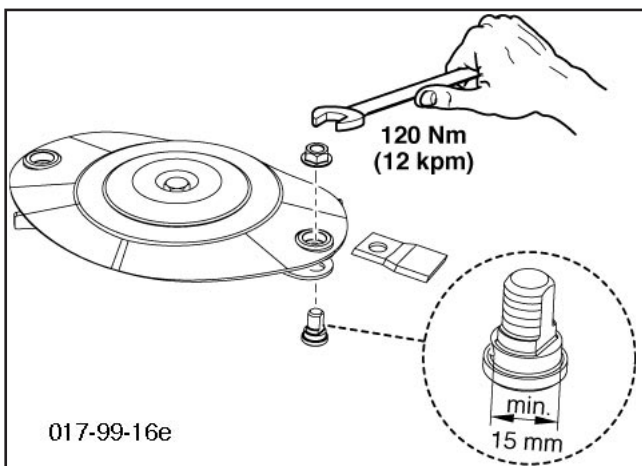
- the central part of pin of blade must have a minimum of 15 mm
- the wearing area (30a) has reached the edge of the boring
- the pin of the blade is worn in the lower part (30b)
- the pin of the blade is no longer firmly seated



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

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

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

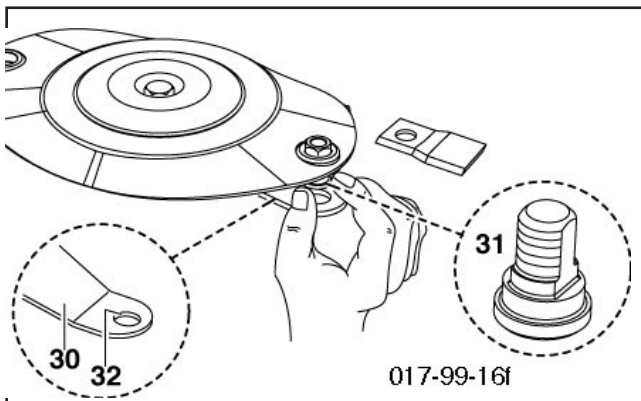


Holder for a quick change of cutter blades



Attention!
For Your Safety

- Regularly check that cutter blades are tightened firmly!
 - Cutter blades on a cutter disc should wear out simultaneously (danger of imbalance).
Otherwise they are to be replaced with new ones (replace in pairs).
 - Buckled or damaged cutter blades must not be used further.
- Buckled, damaged and/or worn cutter blade holders (30) should not be used further.



Checking the mowing blade suspension

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

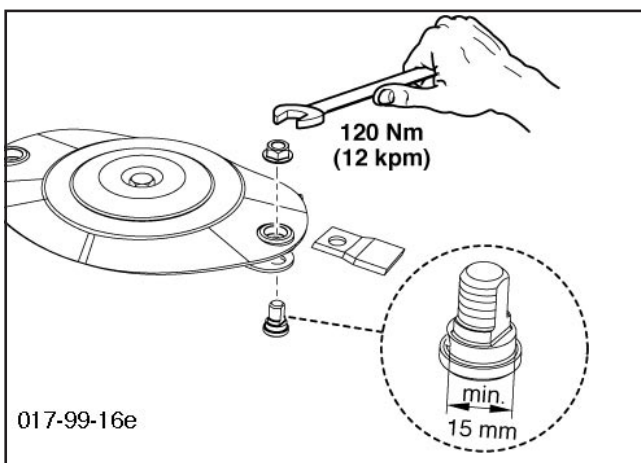
Carry out a check

- as described in chapter „Changing the Cutter Blades“

Take note!

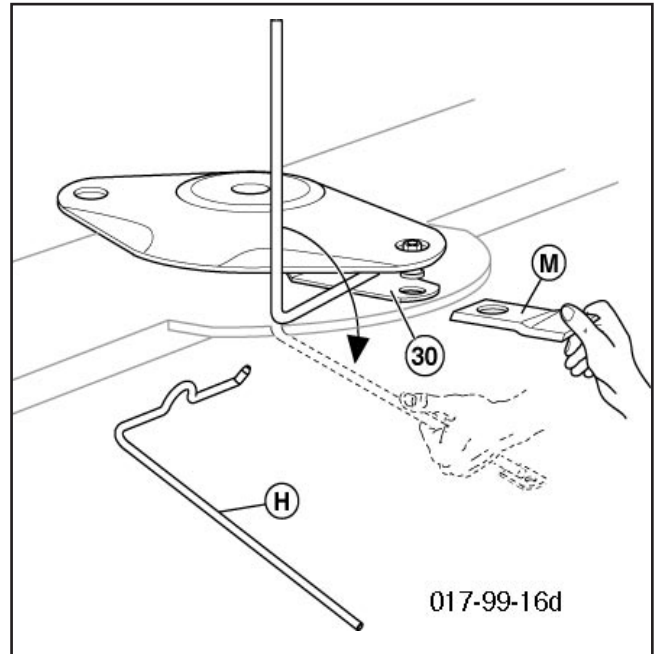


Damaged, buckled and worn out parts must not be used further (danger of accident).



Changing the Cutter Blades (up to 2003 model)

1. Insert lever (H) horizontally between cutter disc and holder (30)



2. Push movable holder (30) down using lever (H).
3. Remove cutter blade (M)
4. Clean forage remains and dirt away.
 - around the bolts (31) and inside the borehole (32)

5. Check:

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

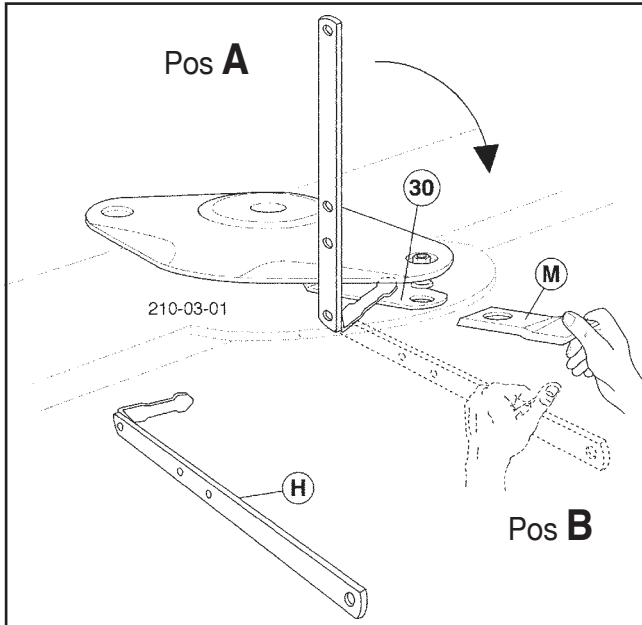
6. Fit cutter blades and remove lever (H)

- Insert the lever (H) into both of the U-clips.



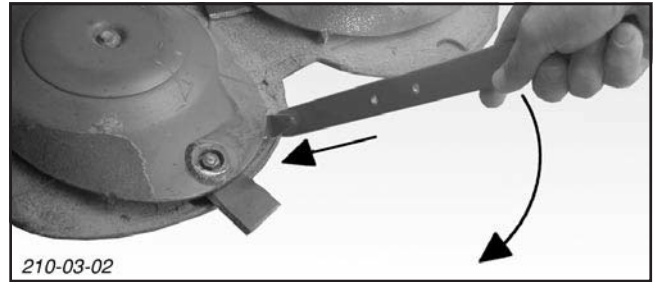
Changing the Cutter Blades (from 2004 model)

1. Insert lever from left or right side on the cutter disc "Pos A" until it stops.
2. Swing lever from "pos. A" to "pos. B" and push the



movable holder (30) down.

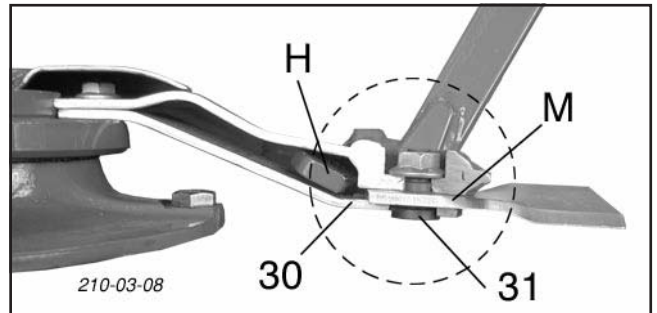
3. Remove cutter blade (M)
4. Clean forage remains and dirt away.
 - around the bolts (31) and inside the borehole (32)
5. Check:



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

6. Install cutter blades

7. Visual check! Check that blade (M) is correctly



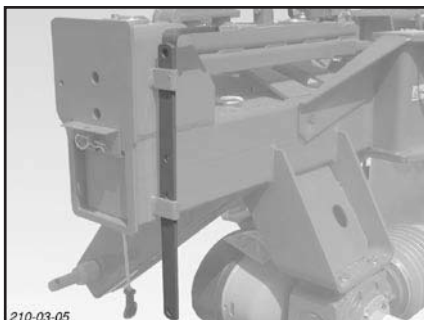
positioned between blade bolts (31) and holder (30) (see diagram).

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

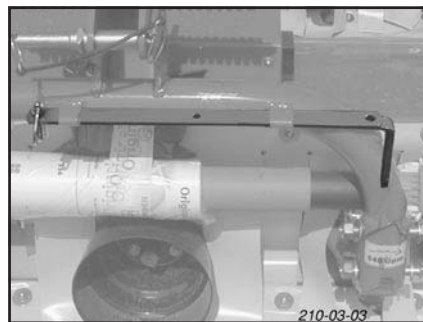
Storing the lever

- Place lever in the respective holding pouch and secure.
- See diagrams for storage places.

Nova Cat 225/ 265 / 305 / 350 / 400



Nova Alpin 226/266



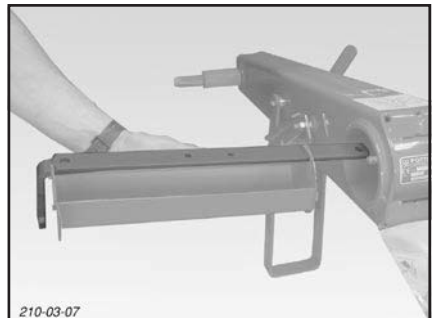
Nova Alpin 226/266 Weiste triangle



Nova Cat 266F / 306F



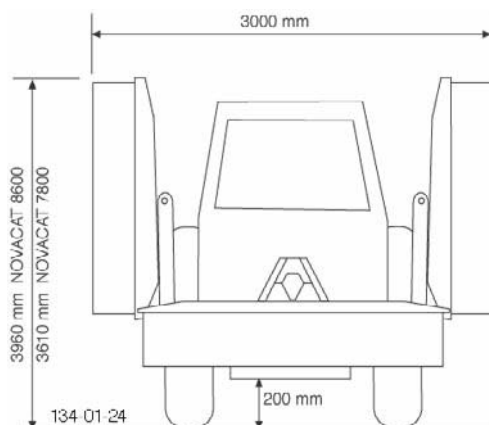
Nova Disc 225



Technical data

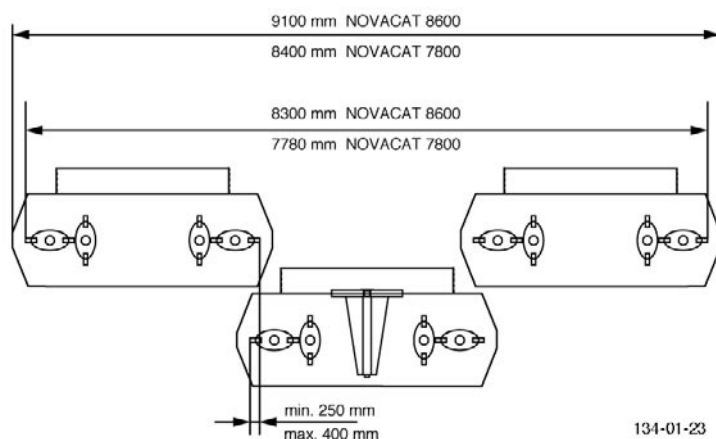
Description		NOVACAT 8600 (Type 384)	NOVACAT 8600 Collector (Type 3841)
Three-point linkage (front / stern)		Kat II / III	Kat II / III
No. of mowing discs		2 x 7	2 x 7
No. of knives per disc		2	2
Required power	[kw/PS]	100 / 135	110 / 150
Coverage up to	[ha/h]	10,0	10,0
Max. p.t.o. speed	[U/min ⁻¹]	1000	1000
Torque limiter (3x)	[Nm]	1110	1100
Weight ¹⁾ Combination 2			
- Basic implement	[kg]	1800	1800
- with „Extra dry“	[kg]	2490	2490
- with „Collector“	[kg]	-	3140
Weight ¹⁾ Combination 3			
- Basic implement	[kg]	2220	2220
- with „Extra dry“	[kg]	3115	3115
- with „Collector“	[kg]	-	3790
Permanent sound emission level	[db(A)]	93,6	93,6

All data subject to revision.



Necessary connections

- Hydraulic connection
 - see chapter " ATTACHING TO TRACTOR "
 - pressure min.: 140 bar
 - pressure max.: 200 bar
- 7 channel connection for the lighting equipment (12 volt)
- 3 channel connection for the electro-hydraulic system (12 volt)



 PÖTTINGER A. Pöttinger Maschinenfabrik Ges. m. b. H. A-4710 Grieskirchen Oberösterreich			
	Modell		
	Type	Ges. Gew	
Masch. Nr.			

Position of Vehicle Identification Plate

The factory number (Masch. Nr. / Fgst. Ident. Nr.) is imprinted on the accompanying Vehicle Identification Plate (as shown) and on the frame. Guarantee issues and further inquiries cannot be processed without the factory number being stated.

Please enter the number onto the front page of the operating manual immediately after taking delivery of the vehicle/implement.

The defined use of the mower unit

The „**NOVACAT 8600 (Type PSM 384)**“ „**NOVACAT 8600 Collector (Type PSM 3841)**“ mower is intended solely for normal use in agricultural work.

- The mowing of grassland and short stemmed fodder.

Any other uses outside of these are regarded as undefined.

The manufacturer takes no responsibility for any resulting damage which occurs henceforth. The risk is carried by the user alone.

- The keeping of operating, service and maintenance requirements laid down by the manufacturer also come under the heading of „defined use“.

SUPPLEMENT

Things will run better with
genuine Pöttinger parts

Original
inside



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

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

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


PÖTTINGER



Recommendations for work safety

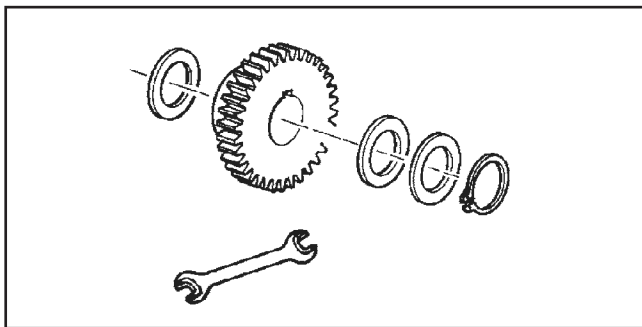
All points referring to safety in this manual are indicated by this sign.

1.) Defined use

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

2.) Spare parts

- a. The **original components and accessories** have been designed especially for these machines and appliances.
- b. We want to make it quite clear that components and accesories that have not been supplied by us have not been tested by us.
- c. The installation and/or use of such products can, therefore, negatively change or influence the construction characteristics of



the appliance. We are not liable for damages caused by the use of components and accessories that have not been supplied by us.

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

3.) Protection devices

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

4.) Before starting work

- a. Before commencing work, the operator must be aware of all operating devices and functions. The learning of these is too late after having already commenced operation!
- b. The vehicle is to be tested for traffic and operating safety before each operation.

5.) Asbestos

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

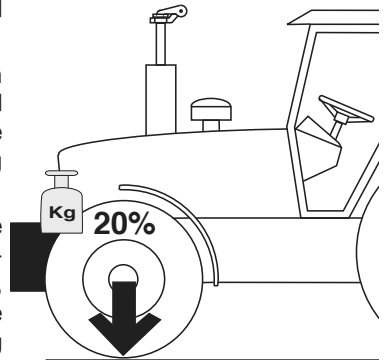


6.) Transport of persons prohibited

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

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



8.) General

- a. Before attaching implement to three-point linkage, move system lever into a position whereby unintentional raising or lowering is ruled out!
- b. Danger of injury exists when coupling implement to tractor!
- c. Danger of injury through crushing and cutting exists in the three-point linkage area!
- d. Do not stand between tractor and implement when using three-point linkage external operation!
- e. Attach and detach drive shaft only when motor has stopped.
- f. When transporting with raised implement, secure operating lever against lowering!
- g. Before leaving tractor, lower attached implement to the ground and remove ignition key!
- h. Nobody is to stand between tractor and implement without tractor being secured against rolling using parking brake and/or wheel chocks!
- i. For all maintenance, service and modification work, turn driving motor off and remove universal drive.

9.) Cleaning the machine

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

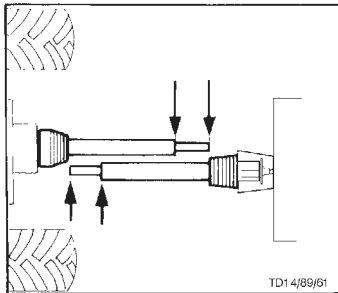


DRIVESHAFT

Important! Only use the indicated or accompanying drive shaft, otherwise the right to claim under guarantee for any possible damage does not exist.

Matching driveshaft to tractor

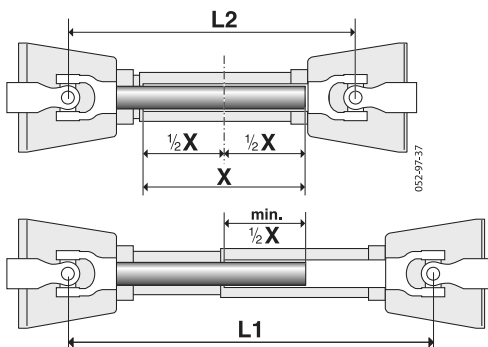
To determine the actual length required, hold the two halves of the driveshaft side by side.



TD1 4/89/61

Procedure for cutting to length

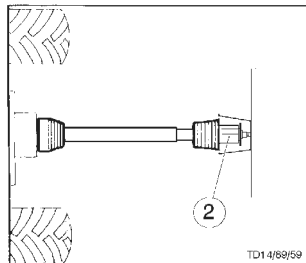
- To determine length required, set implement in closest working position (L2) to tractor, hold driveshaft halves side by side and mark off.



052-073-37

Important!

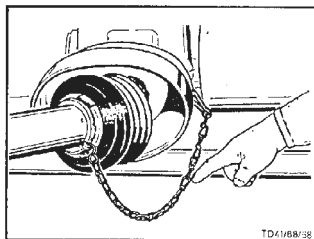
- Note the maximum operating length (L1)
 - Try to attain the greatest possible shaft overlap (min. $\frac{1}{2} X$)!
- Shorten inside and outside tube guard by the same amount.
- Fit torque limiter (2) of drive shaft to implement end of driveshaft!
- Always check that drive shaft locks are securely engaged before starting work.



TD1 4/89/69

Retaining chain

- Use chain to prevent tube guard from rotating. Take care that chain does not impede driveshaft pivoting.



TD41/88/38

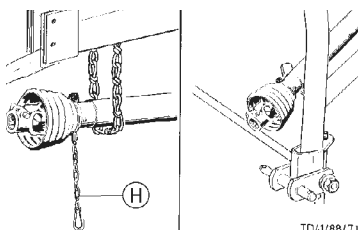
Rules for working

Never exceed the maximum p. t. o. speed when using the implement.

- When the p.t.o. is switched off, the implement hitched up may not stop at once.

Do not go close to the implement until all motion has stopped; only then may work be done on it.

- When the implement is parked, either remove the driveshaft and store it, or secure it with a chain. (Do not use retaining chain (H) for this).

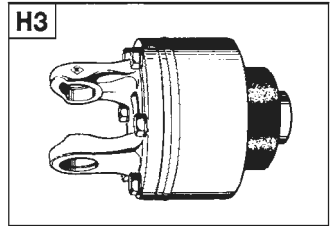


TD41/88/71

1) How a cam type cut out safety clutch works:

This overload clutch switches the torque transmitted to zero if overloaded. To revert to normal operation, stop the p.t.o. drive briefly.

The clutch reengages at a speed below 200 rpm.



IMPORTANT !

The overload clutch on the driveshaft is not a "Full up" indicator. It is purely a torque limiter designed to protect the implement against damage.

Driving the right way will avoid triggering the clutch too often, and thus causing unnecessary wear on it and the implement.

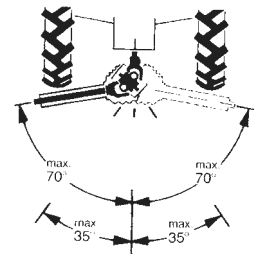
2) Wide-angle joint :

Maximum angle of deflection when working/stationary : 70°

3) Standard joint :

Maximum angle of deflection when stationary: 90°

Maximum angle of deflection when working: 35°

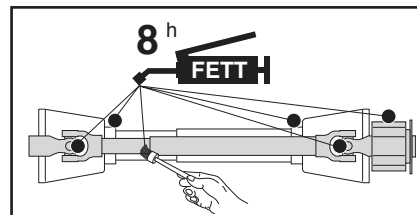


Maintenance

Replace worn-out covers/guards at once.

- Lubricate with a brand-name grease before starting work and every 8 hours worked.
- Before any extended period of non-use, clean and lubricate driveshaft.

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



- Important for driveshafts with friction clutch

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

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

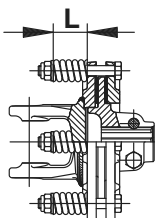
b.) Loosen screws to release the pressure on the friction disk.

Slip the clutch.

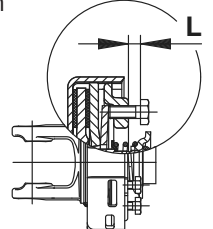
c.) Tighten set screws to dimension „L“.

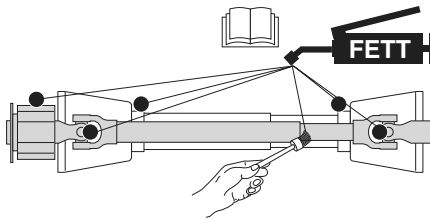
Clutch is ready for use.

K90, K90/4, K94/1

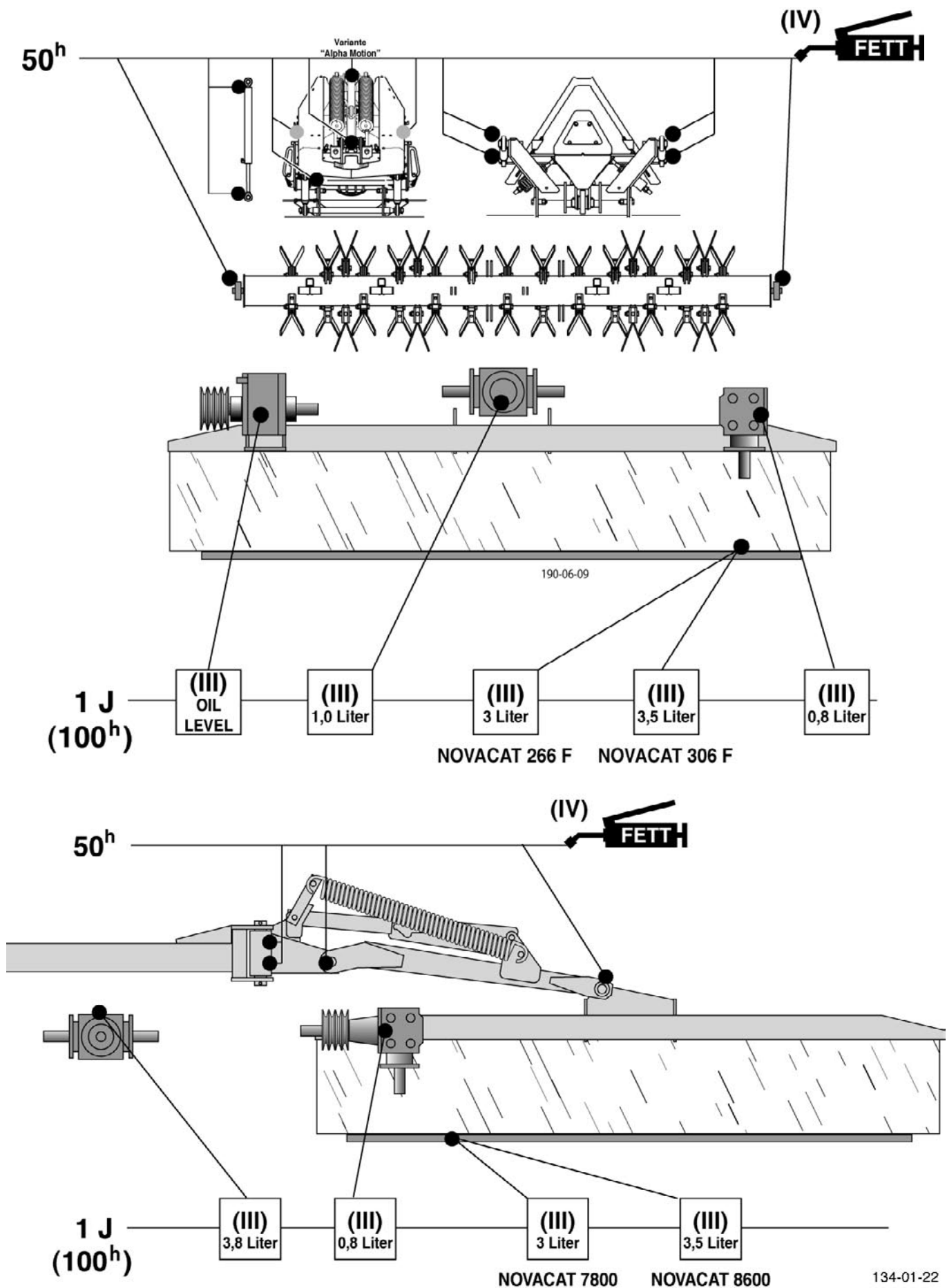


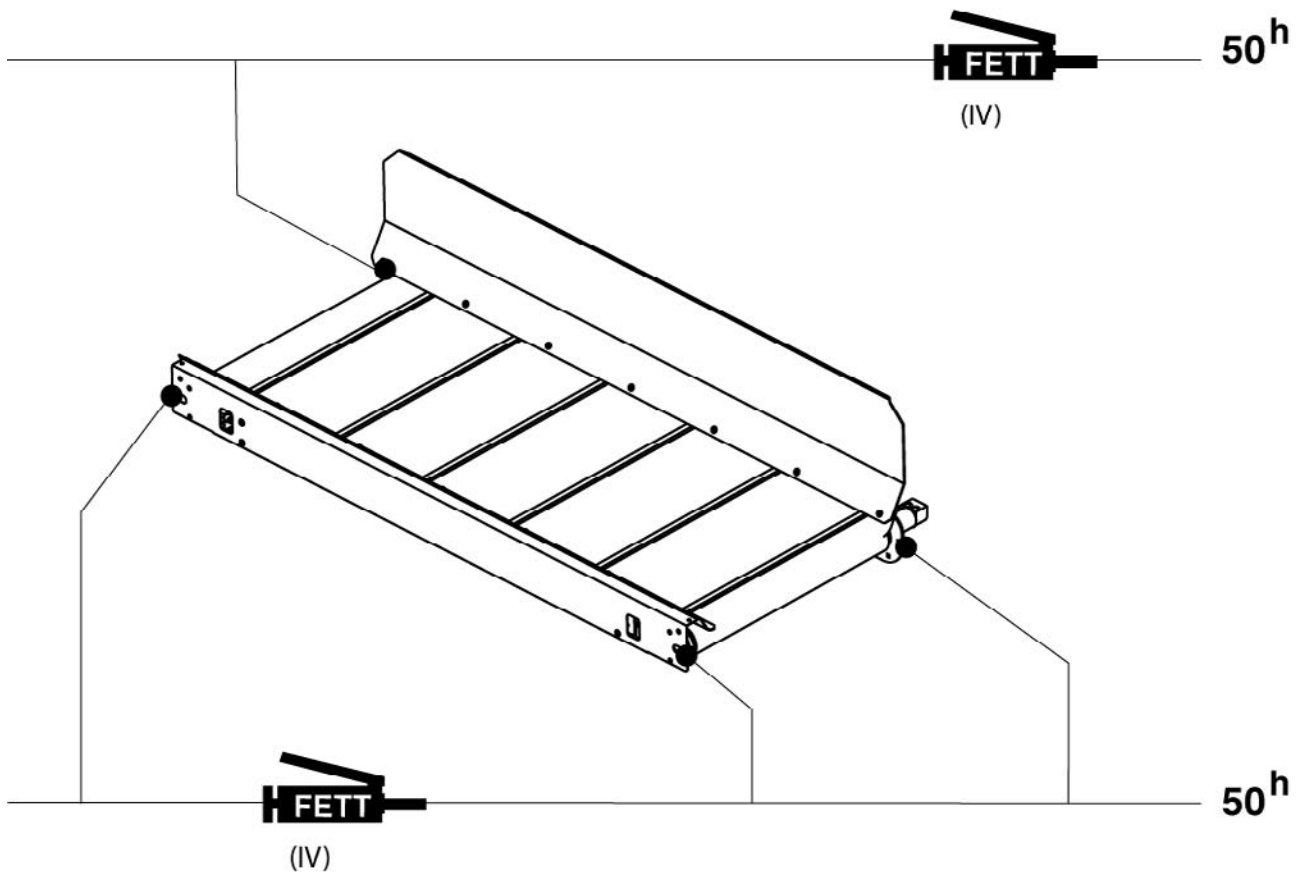
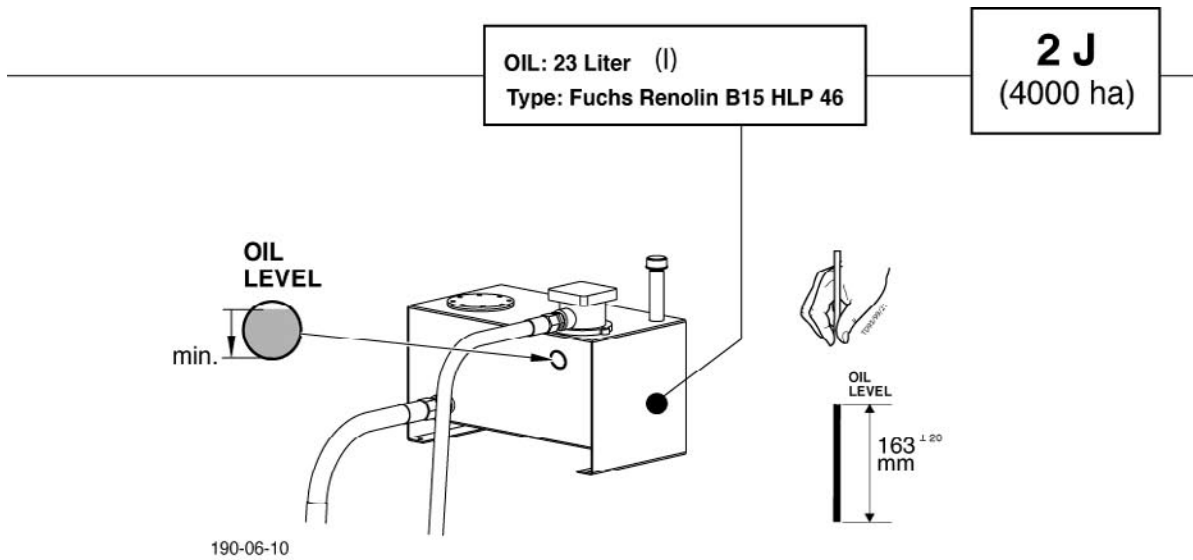
K92E, K92/4E





D Schmierplan 8^h alle 8 Betriebsstunden 20^h alle 20 Betriebsstunden 40 F alle 40 Fahren 80 F alle 80 Fahren 1 J 1 x jährlich 100 ha alle 100 Hektar FETT FETT ▽ = Anzahl der Schmiernippel (IV) Siehe Anhang "Betriebsstoffe" Liter Liter * Variante Siehe Anleitung des Herstellers	F Plan de graissage 8^h Toutes les 8 heures de service 20^h Toutes les 20 heures de service 40 F Tous les 40 voyages 80 F Tous les 80 voyages 1 J 1 fois par an 100 ha tous les 100 hectares FETT GRAISSE ▽ = Nombre de graisseurs (IV) Voir annexe "Lubrifiants" Liter Litre * Variante Voir le guide du constructeur	GB Lubrication chart 8^h after every 8 hours operation 20^h after every 20 hours operation 40 F all 40 loads 80 F all 80 loads 1 J once a year 100 ha every 100 hectares FETT GREASE ▽ = Number of grease nipples (IV) see supplement "Lubricants" Liter Litre * Variation See manufacturer's instructions
NL Smeerschema 8^h alle 8 bedrijfsuren 20^h alle 20 bedrijfsuren 40 F alle 40 wagenladingen 80 F alle 80 wagenladingen 1 J 1 x jaarlijks 100 ha alle 100 hectaren FETT VET ▽ = Aantal smeernippels (IV) Zie aanhangsel "Smeermiddelen" Liter Liter * Varianten zie gebruiksaanwijzing van de fabrikant	S Smörjschema 8^h Varje 8:e driftstimme 20^h Varje 20:e driftstimme 40 F Varje 40: e lass 80 F Varje 80: e lass 1 J 1 x årligen 100 ha Varje 100:e ha FETT FETT ▽ = Antal smörjnipplar (IV) Se avsnitt "Drivmedel" Liter liter * Utrustningsvariant Se tillverkarens anvisningar	N Smøreplan 8^h Hver 8. arbeidstime 20^h Hver 20. arbeidstime 40 F Hvert 40. lass 80 F Hvert 80. lass 1 J 1 x årlig 100 ha Totalt 100 Hektar FETT FETT ▽ = Antall smørenipler (IV) Se vedlegg "Betriebsstoffe" Liter Liter * Unntak Se instruksjon fra produsent
I Schema di lubrificazione 8^h ogni 8 ore di esercizio 20^h ogni 20 ore di esercizio 40 F ogni 40 viaggi 80 F ogni 80 viaggi 1 J volta all'anno 100 ha ogni 100 ettari FETT GRASSO ▽ = Numero degli ingrassatori (IV) vedi capitolo "materiali di esercizio" Liter litri * variante vedi istruzioni del fabbricante	E Esquema de lubricación 8^h Cada 8 horas de servicio 20^h Cada 20 horas de servicio 40 F Cada 40 viajes 80 F Cada 80 viajes 1 J 1 vez al año 100 ha Cada 100 hectáreas FETT LUBRICANTE ▽ = Número de boquillas de engrase (IV) Véase anexo "Lubrificantes" Liter Litros * Variante Véanse instrucciones del fabricante	P Plano de lubrificação 8^h Em cada 8 horas de serviço 20^h Em cada 20 horas de serviço 40 F Em cada 40 transportes 80 F Em cada 80 transportes 1 J 1x por ano 100 ha Em cada 100 hectares FETT Lubrificante ▽ = Número dos bocais de lubrificação (IV) Ver anexo "Lubrificantes" Liter Litro * Variante Ver instruções do fabricante
FIN Voitelukaavio 8^h 8 käyttötunnin välein 20^h 20 käyttötunnin välein 40 F 40 kuorman välein 80 F 80 kuorman välein 1 J kerran vuodessa 100 ha 100 ha:n välein FETT RASVA ▽ = Voitelunippojen lukumäärä (IV) Katso liite "Polttoaineet" Liter Litraa * Versio Katso valmistajan ohjeet	DK Smøreplan 8^h Hver 8. driftstime 20^h Hver 20. driftstime 40 F Hvert 40. læs 80 F Hvert 80. læs 1 J 1 gang årligt 100 ha For hver 100 hektar FETT Fedt ▽ = Antal smørenipler (IV) Se smøredagrammet Liter Liter * Udstyrsvariant Se producentens anvisninger	

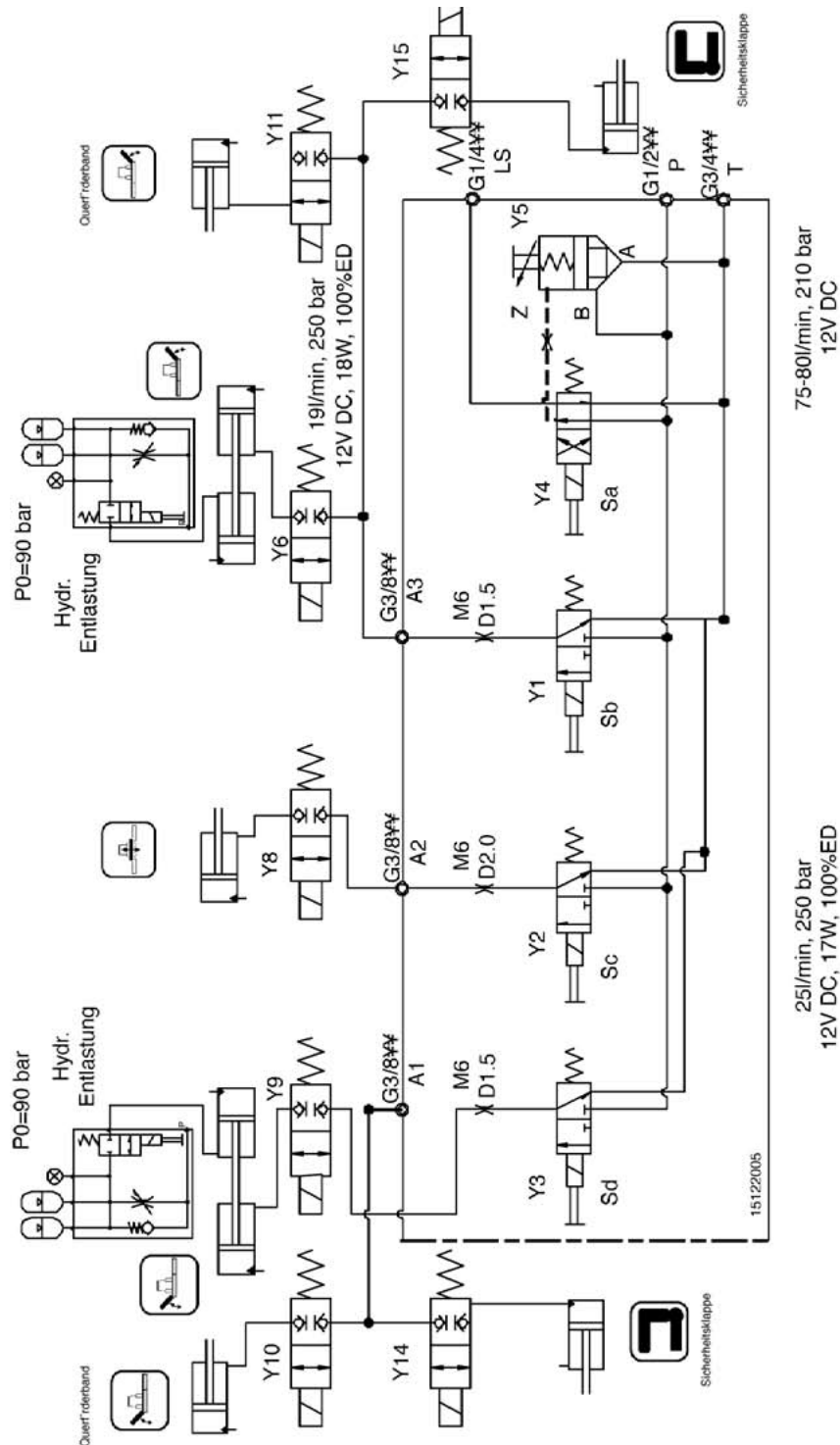




D	Betriebsstoffe Ausgabe 1997	GB	Lubricants Edition 1997	F	Lubrifiants Édition 1997	I	Lubrificanti Edizione 1997	NL	Smeermiddelen Uitgave 1997
Leistung und Lebensdauer der Maschine sind von sorgfältiger Wartung und der Verwendung guter Betriebsstoffe abhängig. Unsere Betriebsstoffaufleistung erleichtert die richtige Auswahl geeigneter Betriebsstoffe. Im Schmierplan ist der jeweils einzusetzende Betriebsstoff durch die Betriebsstoffkennzahl (z.B. "III") symbolisiert. Anhand von "Betriebsstoffkennzahl" kann das geforderte Qualitätsmerkmal und das entsprechende Produkt der Mineralölfirmen festgestellt werden. Die Liste der Mineralölfirmen erhebt keinen Anspruch auf Vollständigkeit.	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.	Le bon fonctionnement et la longévité des machines dépendent d'un entretien soigneux et de l'utilisation de bons lubrifiants. Notre liste facilite le choix correct des lubrifiants. Sur le tableau de graissage, on trouve un code (p.ex. "III") se référant à un lubrifiant donné. En consultant ce code on peut facilement déterminer la spécification demandée du lubrifiant. La liste des sociétés pétrolières ne prétend pas d'être complète.	L'efficienza e la durata della macchina dipendono dall'accuratezza della sua manutenzione e dall'impiego dei lubrificanti adatti. Il nostro elenco dei lubrificanti Vi agevola nella scelta del lubrificante giusto. Il lubrificante da utilizzarsi di volta in volta è simbolizzato nello schema di lubrificazione da un numero caratteristico (per es. "III"). In base al "numero caratteristico del lubrificante" si possono stabilire sia la caratteristica di qualità che il progetto corrispondente delle compagnie petrolifere. L'elenco delle compagnie petrolifere non ha pretese di completezza.	Motors at four times: need to change the oil every 100 hours of operation and that of the oil for changes can be established in the manual of the instructions for use (however, at least once a year). - Remove the drain plug, let run out and fully dispose waste oil.	Oil in operation (winter season) an oil change and greasing of all lubricating points has to be done. Unprotected, blank metal parts outside (joints, etc.) have to be protected against corrosion with a group "IV" product as indicated on the reverse of this page.	Voor het buiten gebruik stellen (winterperiode) de olie-wissel uitvoeren en alle vetnippel smeerpunten doorsmeren. Blanke metaaldelen (koppelingen enz.) met een product uit groep "IV" van de navolgendetabel tegen corrosie beschermen.	Olie in aandrijvingen volgens de gebruiks-aanwijzing vervisselen - echter tenminste 1 x jaarlijks. - Aftapplug er uit nemen, de olie aftappen en milieuvriendelijk verwerken.	Prestaties en levensduur van de machines zijn afhankelijk van een zorgvuldigheid en het gebruik van goede smeermiddelen. Dit schema vergemakkelijkt de goede keuze van de juiste smeermiddelen.	
Getriebeöl gemäß Betriebsanleitung - jedoch mindestens 1 x jährlich wechseln. - Ölabaßschraube herausnehmen, das Altöl auslaufen lassen und ordnungsgemäß entsorgen.	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.	Pour l'huile transmission consulter le cahier d'entretien - au moins une fois par an. - Retirer le bouchon de vidange, laisser l'huile s'écouler et l'éliminer correctement.	Motors at four times: need to change the oil every 100 hours of operation and that of the oil for changes can be established in the manual of the instructions for use (however, at least once a year). - Remove the drain plug, let run out and fully dispose waste oil.	Oil in operation (winter season) an oil change and greasing of all lubricating points has to be done. Unprotected, blank metal parts outside (joints, etc.) have to be protected against corrosion with a group "IV" product as indicated on the reverse of this page.	Voor het buiten gebruik stellen (winterperiode) de olie-wissel uitvoeren en alle vetnippel smeerpunten doorsmeren. Blanke metaaldelen (koppelingen enz.) met een product uit groep "IV" van de navolgendetabel tegen corrosie beschermen.	Olie in aandrijvingen volgens de gebruiks-aanwijzing vervisselen - echter tenminste 1 x jaarlijks. - Aftapplug er uit nemen, de olie aftappen en milieuvriendelijk verwerken.	Prestaties en levensduur van de machines zijn afhankelijk van een zorgvuldigheid en het gebruik van goede smeermiddelen. Dit schema vergemakkelijkt de goede keuze van de juiste smeermiddelen.		
Betriebsstoff-Kennzahl Lubricant indicator Code du lubrificat Numero caratteristico del lubrificante Smeermiddelen code	I			V	VI	VII			
gefordertes Qualitätsmerkmal required quality level niveau de performance demandé caratteristica richiesta di qualità verlangte kwaliteitskenmerken	HYDRAULIKÖL HLP DIN 51524 Teil 2 Siehe Anmerkungen ** ***	Motorenöl SAE 30 gemäß API CD/SF motor oil SAE 30 according to API CD/SF API CD/SF huile moteur SAE 30 niveau API CD/SF olio motore SAE 30 secondo specifiche API CD/SF	LI-Fett (DIN 51 502, KP 2K) lithium grease graisse au lithium grasso al litio	Getriebeöl SAE 90 bzw. SAE 85 W-140 gemäß API-GL 4 oder API-GL 5 gear oil, SAE 90 resp. SAE 85 W-140 according to API-GL 4 or API-GL 5 huile transmission SAE 90 ou SAE 85 W-140, niveau API-GL 4 ou API-GL 5 olio per cambi e differenziali SAE 90 o SAE 85 W-140 secondo specifiche API-GL 4 o API-GL 5	Komplexfett (DIN 51 502: KP 1R) complex grease graisse complexe grasso a base di saponi complessi	Getriebeöl SAE 90 bzw. SAE 85 W-140 gemäß API-GL 5 gear oil SAE 90 resp. SAE 85 W-140 according to API-GL 5 huile transmission SA 90 ou SAE 85 W-140, niveau API GL 5 olio per cambi e differenziali SAE 90 o SAE 85 W-140 secondo specifiche API-GL 5			

Firma Company Société Società	I				V	VI	VII	ANMERKUNGEN
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	* Bei Verbundarbeit mit Naßbremsen-schleppern ist die internationale Spezifikation J 20 erforderlich ** Hydrauliköle HLP-(D) + HV
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 GETRIEBEÖL HYP 90 EP MULTIHYP 85W-140 EP	*** Hydrauliköle auf Pflanzenbasis HLP + HV Biologisch abbaubar, deshalb besonders umweltfreundlich
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 ABSCHMERZFETT	AVIA GETRIEBEFLEISSFETT	AVIALUB SPEZIALFETT LD	GETRIEBEÖL HYP 90 EP MULTIHYP 85W-140 EP	
BAYWA	HYDRAULIKÖL HLP 32/46/68 SUPER 2000 CD-MC * HYDRA HYDR. FLUID * HYDRAULIKÖL MC 530 ** PLANTOHYD 40N ***	SUPER 2000 CD-MC SUPER 2000 CD HD SUPERIOR 20 W-30 HD SUPERIOR SAE 30	SUPER 8090 MC HYPOID 80W-90 HYPOID 85W-140	MULTI FETT 2 SPEZIALFETT FLM PLANTOGEL 2 N	GETRIEBEFLEISSFETT NLGI 0 RENOLIT DURAPLEX EP 00 PLANTOGEL 00N	RENOPLEX EP 1	HYPOID 85W-140	
BP	ENERGOL SHF 32/46/68	VISCO 2000 ENERGOL HD 30 VANELLUS M 30	GEAR OIL 90 EP HYPOGEAR 90 EP	ENERGEGREASE LS-EP 2	FLIESSFETT NO ENERGEGREASE HTO	OLEX PR 9142	HYPOGEAR 90 EP HYPOGEAR 85W-140 EP	
CASTROL	HYSPIN AWS 32/46/68 HYSPIN AWH 32/46	RX SUPER DIESEL 15W-40 POWERTRANS	EPX 80W-90 HYPOY C 80W-140	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 AUSTROTRAC 15W-30	GETRIEBEÖL MP 85W-90 GETRIEBEÖL B 85W-90 GETRIEBEÖL C 85W-90	LORENA 46 LITORA 27	RHENOX 34	-	GETRIEBEÖL B 85W-90 GETRIEBEÖL C 85W-140	
ELF	OLNA 32/46/68 HYDRELF 46/68	PERFORMANCE 2 B SAE 30 8000 TOURS 20W-30 TRACTORELF ST 15W-30	TRANSSELF EP 90 85W-140	EPEXA 2 ROLEXA 2 MULTI 2	GA O EP POLY G O	MULTIMOTIVE 1	TRANSSELF TYP B 90 85W-140 TRANSSELF TYP BLS 80 W-90	
ESSO	NUTO H 32/46/68 NUTO HP 32/46/68	PLUS MOTORÖL 20W-30 UNIFARM 15W-30	GEAROL GP 80W-90 GEAROL 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 MULT 46/68	SUPER EWAROL HD/B SAE 30 UNIVERSAL TRACTOROIL SUPER	HYPOID GA 90 HYPOID GB 90	HOCHDRUCKFETT LT/SC 280	GETRIEBEFETT MO 370	EVA 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	RENOLIN 1025 MC *** TITAN HYDRAMOT 1030 MC ** RENOGEAR HYDRA * PLANTOHYD 40N ***	TITAN HYDRAMOT 1030 MC TITAN UNIVERSAL HD	RENOGEAR SUPER 8090 M RENOGEAR HYPOID 85 W-14 RENOGEAR HYPOID 90	RENOLIT MP RENOLIT FLM 2 RENOLIT ADHESIV 2 PLANTOGEL 2 N	RENOSOD GFO 35 DURAPLEX EP 00 PLANTOGEL 00N	RENOPLEX EP 1	RENOGEAR SUPER 8090 MC RENOGEAR HYPOID 85W-140 RENOGEAR HYPOID 90	* When working in conjunction with wet- brake tractors, the international specification J 20 A is necessary.
GENOL	HYDRAULIKÖL HLP 32/46/68 HYDRAMOT 1030 MC * HYDRAULIKÖL 520 ** PLANTOHYD 40N ***	MULTI 2030 2000 TC HYDRAMOT 15W-30 HYDRAMOT 1030 MC	GETRIEBEÖL MP 90 HYPOID EW 90 HYPOID 85W-140	MEHRZWECKFETT SPEZIALFETT GLM PLANTOGEL 2 N	GETRIEBEFLEISSFETT PLANTOGEL 00N	RENOPLEX EP 1	HYPOID EW 90 HYPOID 85W-140	** Hydraulic oil
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	*** Hydraulic oil with vegetable oil base HLP + HV is bio-degradable and is therefore especially safe for the environment.
RHG	RENOLIN B 10/15/20 RENOLIN B 32 HV/46HVI	EXTRA HD 30 SUPER HD 20 W-30	MEHRZWECKGETRIEBEÖL SAE90 HYPOID EW 90	MEHRZWECKFETT RENOLIT MP DURAPLEX EP	RENOSOD GFO 35	RENOPLEX EP 1	HYPOID EW 90	
SHELL	TELLUS S32/S 46/S68 TELLUS 1 32/146	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 SIMMUNA GREASE C	AEROSHELL GREASE 22 DOLUUM GREASE R	SPIRAX HD 90 SPIRAX HD 85W-140	
TOTAL	AZOLLA ZS 32 46 68 EQUIVUS ZS 32, 46, 68	RUBIA H 30 MULTAGRI TM 15W-20	TOTAL EP 85W-90 TOTAL EP B 85W-90	MULTIS EP 2	MULTIS EP 200	MULTIS HT 1	TOTAL EP B 85W-90	
VALVOLINE	ULTRAMAX HLP 32/46/68 SUPER TRAC FE 10W-30 ULTRAMAX HVLP 32 ** ULTRAPLANT 40 ***	SUPER HPO 30 STOU 15W-30 SUPER TRAC FE 10W-30 ALL FLEET PLUS 15W-40	HP GEAR OIL 90 oder 85W-140 TRANS GEAR OIL 90W-90	MULTILUBE EP2 VAL-PLEX EP 2 PLANTOGEL 2 N	RENOLIT ZH 000 DEGRALUB ZSA 000	DURAPLEX EP 1	HP GEAR OIL 90 oder 85W-140	* Bij gebruik op trekkers met natte remmen moet de internationale specificatie J 20 A worden toegepast
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	** Hydrauliekolles HLP-(D) + HV
WINTERSHALL	WIOLAN HS (HG) 32/46/68 WIOLAN G 46 *** WIOLAN HF 32/46 *** HYDROLFLUID *	MULTI-REKORD 15W-40 PRIMANOL REKORD 30	HYPOID-GETRIEBEÖL 80W-90, 85W-140 MEHRZWECKGETRIEBEÖL 80W-90	WIOLUB LFP 2	WIOLUB GFW	WIOLUB AFK 2	HYPOID-GETRIEBEÖL 80W-90, 85W-140	*** Hydrauliekolles op plantenoliebasis HLP + HV is biologisch afbreekbaar, daarom milieuvriendelijk

Hydraulics plan

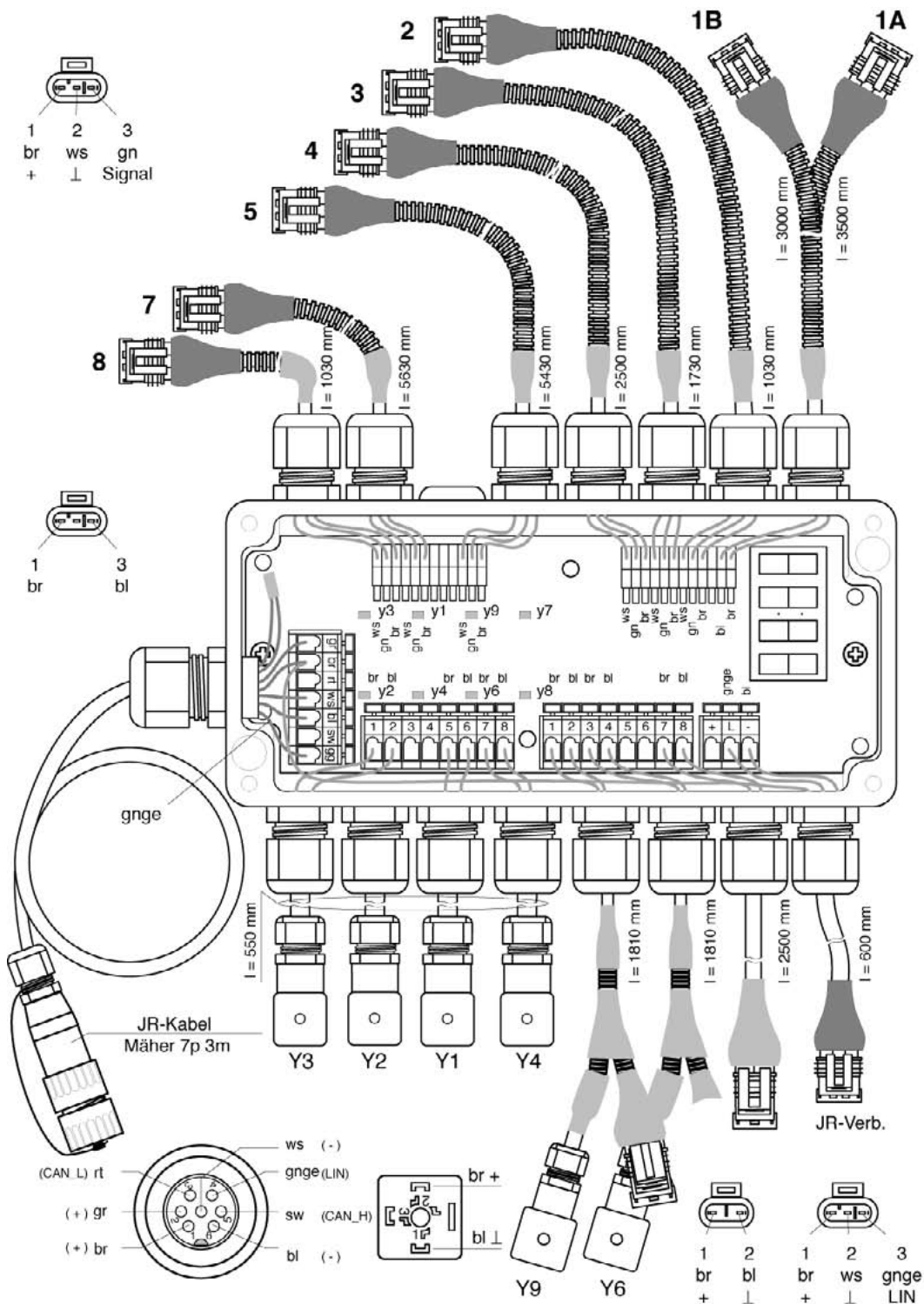


Legend:

- Y1 Distributing valve on the right cutter bar
- Y2 Distributing valve on the centre cutter bar
- Y3 Distributing valve on the left cutter bar
- Y4 / Y5 Load sensing
- Y6 Hydraulic relief - right
- Y7 / Y8 Front cutter unit

- Y9 Hydraulic relief - left
- Y10 Cross conveyor belt left
- Y11 Cross conveyor belt right
- Y14 Safety cover left
- Y15 Safety cover right

Connection diagram



Legend:

- JR-Kabel: Job calculator cable
 JR-Verb.: Job calculator connector cable
 1A Switch - left
 1B Switch - right
 2 Sensor - cutter unit position right
 3 Sensor - cutter unit position left

- 4 Sensor - cutter unit position centre
 5 Sensor - Conditioner r.p.m. right
 7 Sensor - Conditioner r.p.m. left
 8 Sensor - power take-off r.p.m.
 Y1 - Y4 see hydraulics plan

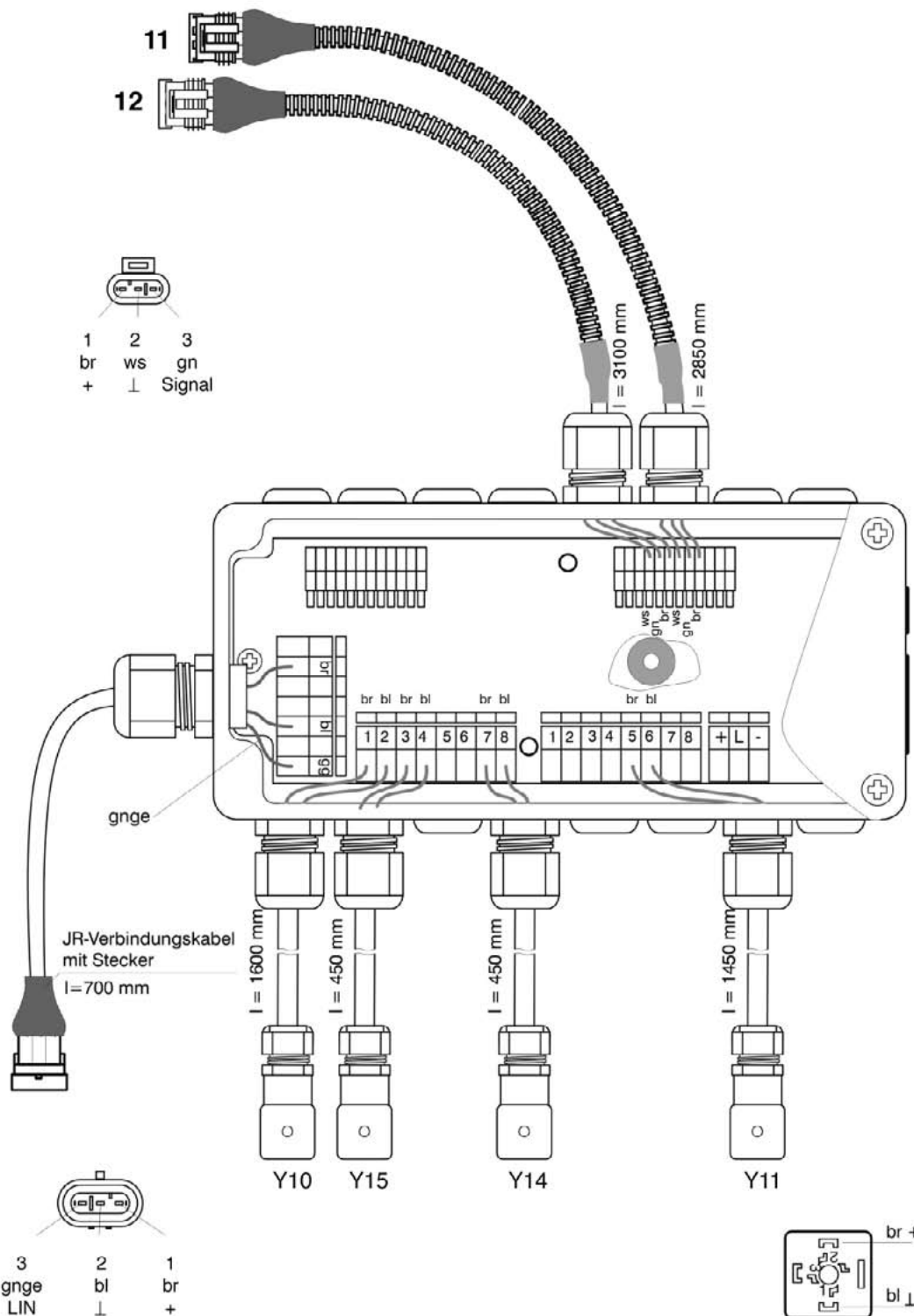
Connection diagram

**Note!**

All connector diagrams are viewed from outside.

Colour code:

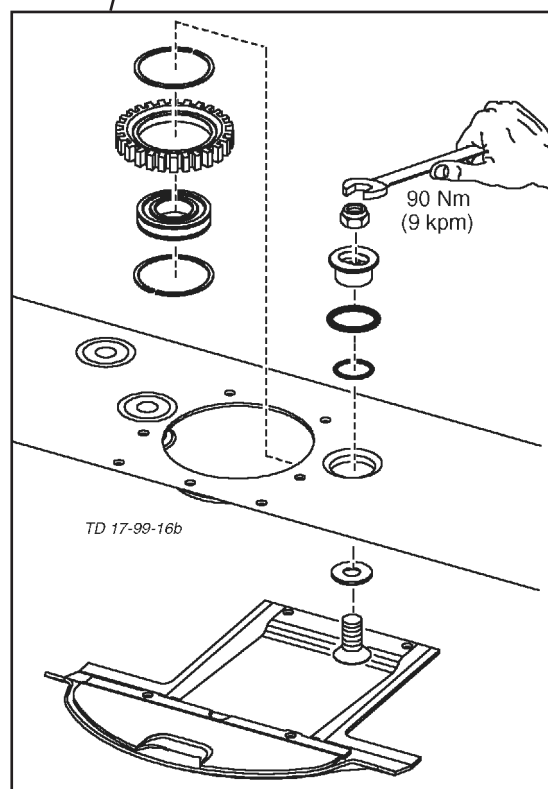
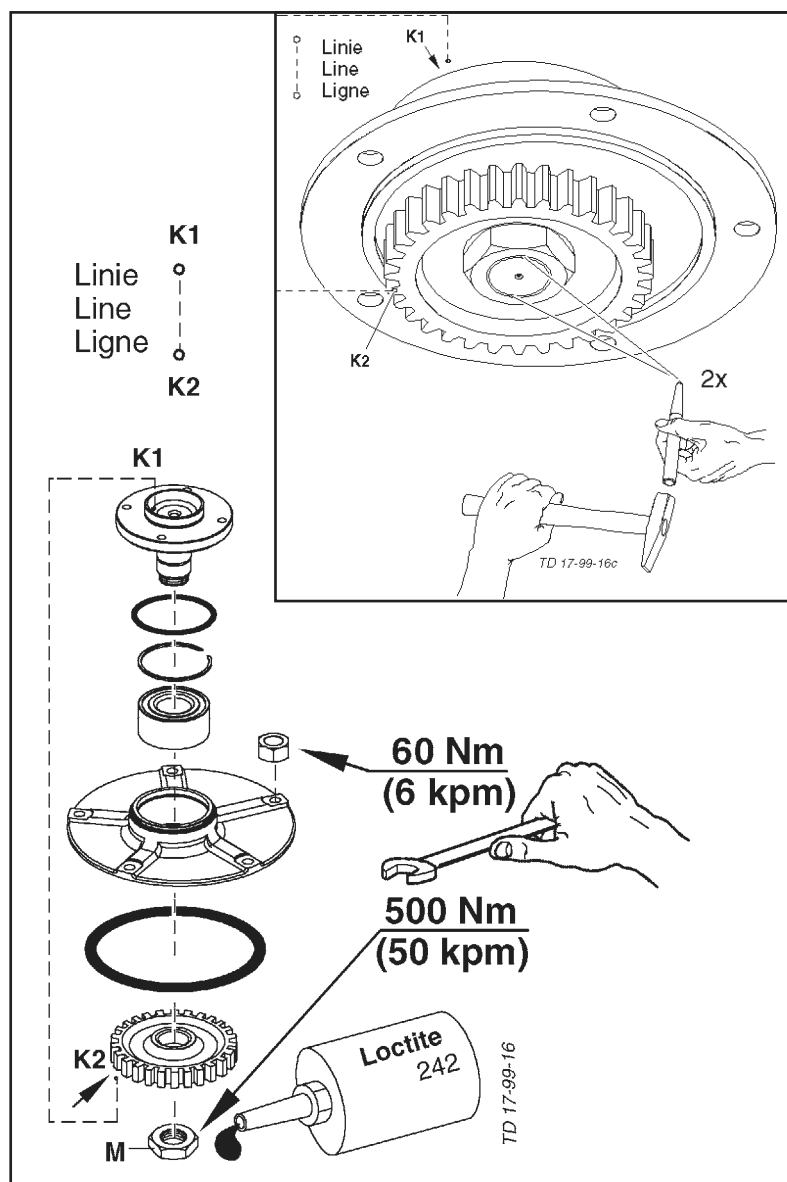
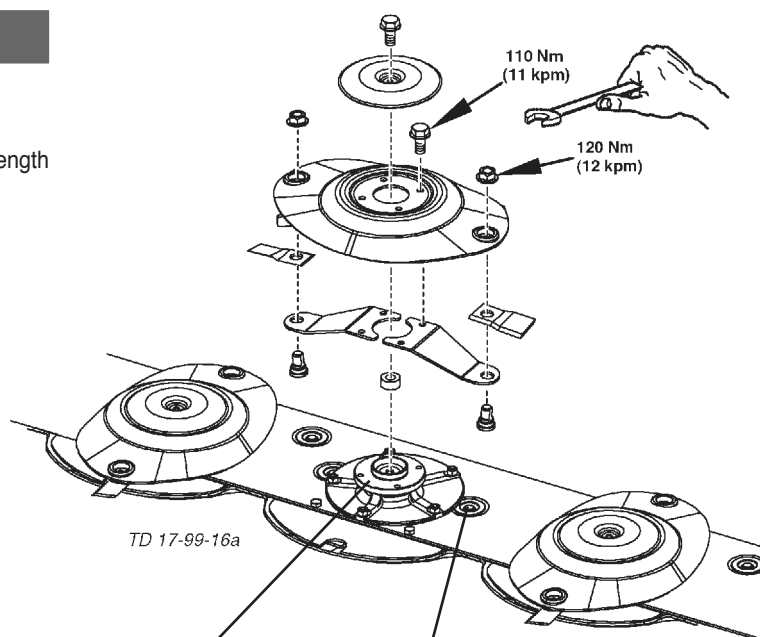
bl	blue
br	brown
gn	green
gnge	green/yellow
gr	grey
rt	red
sw	black
ws	white

**Legend:**

JR-Verb:	Job calculator connector cable
11	Sensor – right cover
12	Sensor – left cover
Y1 -Y4	see hydraulics plan

Repairs on the cutter bar

- Adjust markings in a line (K1, K2).
- Only screw the nut (M) on when there is sufficient thread length in order to prevent any damage.
- Secure nut (M) against loosening.
 - with „Loctite 242“ or an equivalent product
 - and center-point (2x)



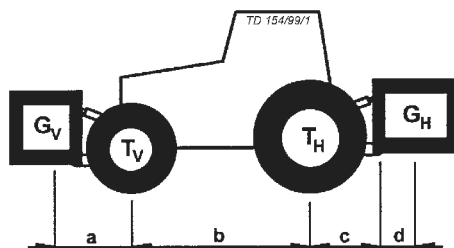
Combination of tractor and mounted implement



The mounting of implements on the front or rear three point linkage shall not result in exceeding the maximum permissible weight, the permissible axle loads and the tyre load carrying capacities of the tractor. 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

Consideration of rear mounted implement and front/rear combinations

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

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

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

Front mounted implement

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

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

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

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

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

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

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

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

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.

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

6. TYRE LOAD CARRYING CAPACITY

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

Table

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

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

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

Appendix 1

EC Certificate of Conformity
conforming to EEC Directions 98/37/EG

We ALOIS PÖTTINGER Maschinenfabrik Gesellschaft m.b.H.
(name of supplier)

A-4710 Grieskirchen; Industriegelände 1
(full address of company - where this concerns authorized agents within the Common Market, also state the company name and manufacturer)

declare in sole responsibility, that the product

Disc mower	
NOVACAT 8600	Type PSM 384
NOVACAT 8600 Collector	Type PSM 3841

(make, model)

to which this certificate applies, conforms to the basic safety and health requirements of
EEC Directions 98/37/EG,
(if applicable)
and to the other relevant EEC Directions.

(title and/or number and date of issue of the other EEC Directions)

(if applicable)

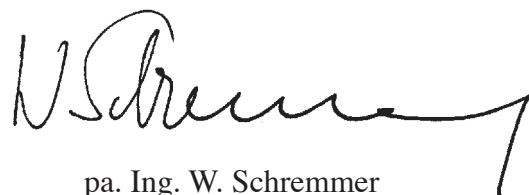
To effect correct application of the safety and health requirements stated in the EEC Directions,
the following standards and/or technical specifications were consulted:

EN 292-1 : 1991 EN 292-2 : 1991 EN 745

(title and/or number and date of issue of standards and/or specifications)

Grieskirchen, 28.11.2005

(Place and date of issue)



pa. Ing. W. Schremmer
Entwicklungsleitung

(Name and job function of authorized person)

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