ORIGINAL INSTRUCTIONS - *according to Directive 2006/42/EC, Annex I 1.7.4.1*

OPERATOR'S MANUAL

GXT 13005 P CoI

Disc Mower

Part number 81PIGB-190a
1st edition English
February 2018

KONGSKILDE

FOREWORD

DEAR CUSTOMER!

We appreciate the confidence you have shown to our company by investing in a KONGSKILDE product and congratulate you on your new purchase. Of course, it is our wish that you will experience complete satisfaction with the purchase investment.

This instruction manual contains information about correct and safe use of the machine.

When buying the machine you will receive information about use, adjustment and maintenance.

However, this first introduction doesn't replace a more thorough knowledge of the different tasks, functions and correct technical use of the machine.

Therefore you should read this instruction manual very carefully before using the machine. Pay special attention to the safety instructions.

This instruction manual is made so that the information is mentioned in the order you will need it, i.e. from the necessary operation conditions to use and maintenance. In addition, there are illustrations to accompany the text.

"Right" and "Left" are defined from a position behind the machine facing the direction of travel.

All the information, illustrations and technical specifications in this instruction manual describe the latest version at the time of publication.

Kongskilde Industries A/S reserves the right to make changes or improvements in the design or construction of any part without incurring the obligations to install such improvements on any unit previously delivered.

CONTENTS

1. INTRODUCTION

This instruction manual deals with GXT 13005, GXT 13005 P and GXT 13005 P Collector. The front mower has its own dedicated instruction manual.

INTENDED USE

The disc mowers are **solely constructed for** usual work in agriculture. They are **solely intended for cutting growing grass and straw crops on the ground. They should only be connected to tractors and driven by the PTO of the tractor.**

Any use beyond this is outside the intended use. Kongskilde Industries A/S is not responsible for any damage or injury resulting from such use; the user bears that risk.

It is assumed that the work is performed under reasonable conditions, i.e. that the fields are cultivated normally and to a reasonable extent kept clear of foreign matter and debris.

Intended use also means that the information prescribed by Kongskilde Industries A/S in the instruction manual and the spare parts book is observed.

The disc mowers should only be used maintained and repaired by persons who, through relevant instructions and after reading the instruction manual, are familiar with the machine in question and, in particular, is informed of possible dangers.

The following safety instructions as well as common rules concerning technical safety, working practices and road safety **must** be observed at all times.

If any changes are made on the machine and its construction without permission from Kongskilde Industries A/S, Kongskilde Industries A/S cannot be held responsible for any damage or personal injury resulting from this.

SAFETY

The safety of persons and machines is an integral part of Kongskilde's development work. However, damage can occur as a consequence of misuse and insufficient instruction. **We wish to ensure the safety of you and your staff in the best possible way**, but this also requires an effort on your part.

A mower cannot be constructed in such a way that it guarantees the full safety of persons and at the same time performs efficiently. This means that it is very important that you as user of the machine pay attention and use the machine correctly and thereby avoid exposing yourself and others to unnecessary danger.

The machine demands a skilled operation, which means that ***you should read the instruction manual before you connect the machine to the tractor***. Even though you may have been driving a similar machine before, you should read the manual - this is a matter of your own safety!

You should **never** leave the machine to others before you have made sure that they have the necessary knowledge to operate the machine safely.

DEFINITIONS

The safety decals and the instruction manual of the machine contain a line of safety notes. The safety notes mention certain measures, which we recommend you and your colleagues to follow as to increase the personal safety as much as possible.

We recommend that you take the necessary time to read the safety instructions and inform your staff to do the same.

In this instruction manual this symbol is used with reference to personal safety directly or indirectly through maintenance of the machine.

CAUTION: The word CAUTION is used to ensure that the operator follows the general safety instructions or the measures mentioned in the instruction manual to protect the operator and others against injuries.

WARNING: The word WARNING is used to warn against visible or hidden risks, which might lead to serious personal injuries.

DANGER: The word DANGER is used to indicate measures which, according to legislation, must be followed to protect the driver and others against serious injuries.

GENERAL SAFETY INSTRUCTIONS

The following is a brief description of the measures, which should be a matter of common knowledge to the operator.

1. Always disengage the PTO drive shaft, activate the parking brake and stop the tractor engine before you
   - lubricate the machine,
   - clean the machine,
   - disassemble any part of the machine,
   - adjust the machine.

2. Always lower the cutting unit to the ground or activate the transport safety device when parking the machine.

3. Always use the transport safety device of the cutting unit and the stop valves of the hydraulic cylinders during transport.

4. Never work under a raised cutting unit unless it is secured by means of stop blocks or other mechanical securing devices.

5. Always block the wheels before working under the machine.

6. Never start the tractor until all persons are at a safe distance away from the machine.

7. Make sure that all tools have been removed from the machine before starting the tractor.

8. Make sure that all guards have been mounted correctly and locked where appropriate.

9. During work never wear loose clothes which can be pulled in by the moving parts of the machine.

10. Do not change the guards or work with the machine when a guard is missing or defective.

11. Always drive with the statutory lights and safety marking during transport on public roads and at night.

12. Limit the transport speed to maximum 40 km/h if the machine has not been marked with another maximum speed limit.

13. Do not stand near the machine while it is working.

14. When mounting the PTO drive shaft, check that the number of rpm of the tractor matches those of the machine.

15. Always use hearing protectors if the noise from the machine is annoying or if you are working with the machine for a considerable period in a tractor cabin, which has not been silenced sufficiently.

16. Before raising or lowering the cutting unit, check that no persons are near the machine or touching it.

17. Do not stand near the guards of the cutting unit and do not lift the guards before all revolving parts have stopped moving.

18. Never use the machine for other purposes than what it has been constructed for.

19. Do not allow any children to be near when you are working with the machine.

20. Never stand between the tractor and the mower during connection and disconnection.

SPECIAL SAFETY INSTRUCTIONS

When working with mowers the following special measures should be observed.

1. Use a tractor with closed cabin. Furthermore it is advisable to protect the glass of the cabin with polycarbonate plates or with a close-meshed net outside. The cabin should be closed when working in the field.

2. Always keep away from the cutting unit when the parts of the machine rotate.

3. When replacing blades it is important to observe the rules in the instruction manual to fulfil the safety requirements. Always use original spare parts.

4. Before use, check the revolving parts (blades, blade bolts, discs and flow caps). If parts are damaged (bent or cracked), worn or missing, they should be replaced immediately.

5. Damaged, worn or missing blades should be replaced in matched sets in order not to create an in-balance in the machine.

6. Check canvases and guards regularly. Replace worn or damaged canvases.

7. Canvases and guards secure against ejection of stones and foreign matter. Before use canvases and guards must be placed correctly.

8. Lower the cutting unit to working position before starting the power transmission.

9. The field should be kept clear of stones and foreign matter, if possible.

10. Even if the machine is adjusted and operated correctly, stones and foreign matter in the field can be ejected from the cutting unit. Therefore no persons should stand near the cutting unit where the conditions are unknown. Be particularly careful when working along public roads or facilities (schools, parks etc.)

11. Though it is possible, you should never reverse with the cutting unit in working position. The correct movement for the cutting unit only works when driving forward, as there is a risk of damage if driving backwards with the machine in working position.

12. Even though the power transmission has stopped, the revolving parts have a momentum. Therefore, always wait until the revolving parts have come to a complete stop before getting near the cutting unit.

If in doubt, always contact the nearest dealer.

CHOICE OF TRACTOR

Always follow the recommendations specified in the instruction manual of the tractor. If this is not possible, technical assistance must be sought.

Choose a tractor with a suitable power on the PTO. If the power of the tractor is considerably larger than the usual requirement of the machine, the machine should be secured against overload with a suitable clutch on the PTO.

Long-term overload may damage the machine and at worst result in ejection of parts.

Choose a tractor with a suitable weight and track width so that it can drive safely on the ground. Also make sure that the link arms of the tractor are intended to carry machines with the weight in question.

Always choose a tractor with a closed cabin when working with a disc mower.

CONNECTION AND DISCONNECTION

Always make sure that nobody is standing between the tractor and the machine during connection and disconnection. An unintentional manoeuvre with the tractor may cause serious injury. (See fig. 1-1)

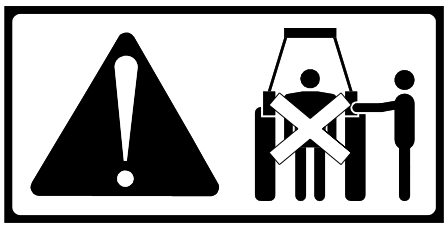


Fig. 1-1

Check that the machine is intended for the number and the direction of rotation of the tractor PTO. The number and direction of rotation of the tractor must be as in figure 1-2, seen from a position standing behind the tractor facing the direction of travel. A wrong number of rotations may result in reduced cutting and over a long period may damage the machine and at worst result in ejection of parts.

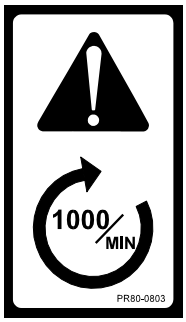


Fig. 1-2

Make sure that the PTO drive shaft has been mounted correctly. The lock pin must be in mesh and the support chain must be fastened.

The PTO drive shaft must be correctly protected. If a guard is defective, it must be replaced immediately.

Check that all hydraulic couplings are correctly mounted and tight and that all hoses and fittings are undamaged before activating the hydraulic system.
Before the tractor engine has stopped, make sure that there is *no* pressure in the hydraulic hoses by activating the tractor hydraulic spool valves to floating position.
Hydraulic oil under pressure can penetrate the skin and cause serious infections. You should always protect the skin and the eyes against oil splashes.

If, by accident, hydraulic oil under pressure hits you, consult a doctor immediately. (See fig. 1-3)

Fig. 1-3

Check that the cutting units can move freely before you activate the hydraulic cylinders. Make sure that no persons are near the machine when starting as there might be air in the hydraulic system which might lead to sudden movements.

ADJUSTMENT

Never adjust the mower while the PTO drive shaft is engaged. Disengage the PTO drive shaft and stop the tractor engine before you adjust the machine. It is important not to remove the guards until all revolving parts have stopped. Since the machine has a built in PTO freewheel, this may take some time.

Before working check blades and discs for cracks and other damage. Replace damaged blades and discs. (See section on maintenance)

Check periodically if blades and blade bolts are worn according to the guide in the instruction manual. Likewise, check that the blade holders are not loose or defective (see section on maintenance).

TRANSPORT

Never drive faster than the conditions allow, and maximum 40 km/h if the machine has not been marked with another maximum speed limit.

It is important to block the hydraulic transport adjustment. An unintentional operation of the cylinder for conversion between work and transport or the over-steer cylinder may cause the machine to move to the opposite lane, or towards the roadside where pavements and cycle tracks may be located.

This may also happen if there is air in the hydraulic cylinders or if there is a sudden loss of oil from the hydraulic hoses.

To ensure all the air has been expelled from the oil in the hydraulic cylinders; test all the functions after the hydraulic connections are connected to the tractor, especially before driving on the public road.

Before driving on public roads for the first time, you must make yourself familiar with the turning characteristics of the trailer (see section on power steering).

WORKING

During the daily work it should be considered that loose stones and foreign matter on the ground might get in contact with the revolving parts and get thrown out again at a very high speed.

Therefore, all guards must always be correctly mounted and intact when you are working with the machine.

Worn and damaged canvases should be replaced.

In stony fields, the stubble height should be adjusted to maximum and the cutting angle to minimum.

Through a stone release mechanism in the suspension, the machine is secured against shocks in the direction of travel. However, there is no securing against shocks if reversing with a lowered cutting unit and you **risk damaging the machine.**

If the cutting unit or the conditioner is blocked, stop the tractor engine, activate the parking brake and wait until the revolving parts have stopped before removing the foreign matter.

Never allow anybody to stand near the mower during work, especially not children.

Drive in a low tractor gear if working on hillsides.

When working with a mower keep a safe distance from steep slopes and similar ground conditions, as the ground may be slippery and pull the mower and the tractor sideways. Also remember to adjust the speed for sharp turns when driving up/down hillsides. (See section on driving on hilly ground).

PARKING

The machine can be parked in 2 positions. In working position with the cutting units lowered or in transport position.
Never leave the tractor before the cutting unit is resting on the ground or the machine is in transport position, the tractor engine has stopped, and the parking brake has been activated. This is the only way to perform a safe operation. See section on parking.
Make sure that the jack is correctly fastened and locked when parking the machine.

GREASING

When lubricating or maintaining the machine, make sure that the cutting unit is either resting on the ground, in transport position, or that the lifting cylinders are blocked by means of stop valves.

Never try to clean, grease or adjust the machine before the PTO has been disengaged, the tractor engine has stopped and the parking brake been activated.

MAINTENANCE

It is important that the cutting unit is correctly relieved to ensure perfect operation in the field and to reduce the risk of damaging the cutter bar.

Always make sure that the replacement spare parts are tightened to the correct torque. (See section on maintenance)

Hydraulic hoses must be checked by an expert before use, and after that, a minimum of once a year. If necessary, they must be replaced. The working life of hydraulic hoses should not exceed 6 years, including maximum 2 years of storage.
When replacing, always use hoses which comply with the requirements stated by the manufacturer. All hoses are marked with date of production.

When replacing parts in the hydraulic system always make sure that the cutting unit rests on the ground or is in transport position. Remember to relieve the oil pressure before working with the hydraulic system.

MACHINE SAFETY

All revolving parts are balanced by KONGSKILDE by means of a special machine with electronic sensors. If it turns out that a part still has an in-balance, small counterweights should be fastened.

As the discs run at up to 3000 RPM, even the slightest in-balance will cause vibrations which may lead to fatigue fractures.

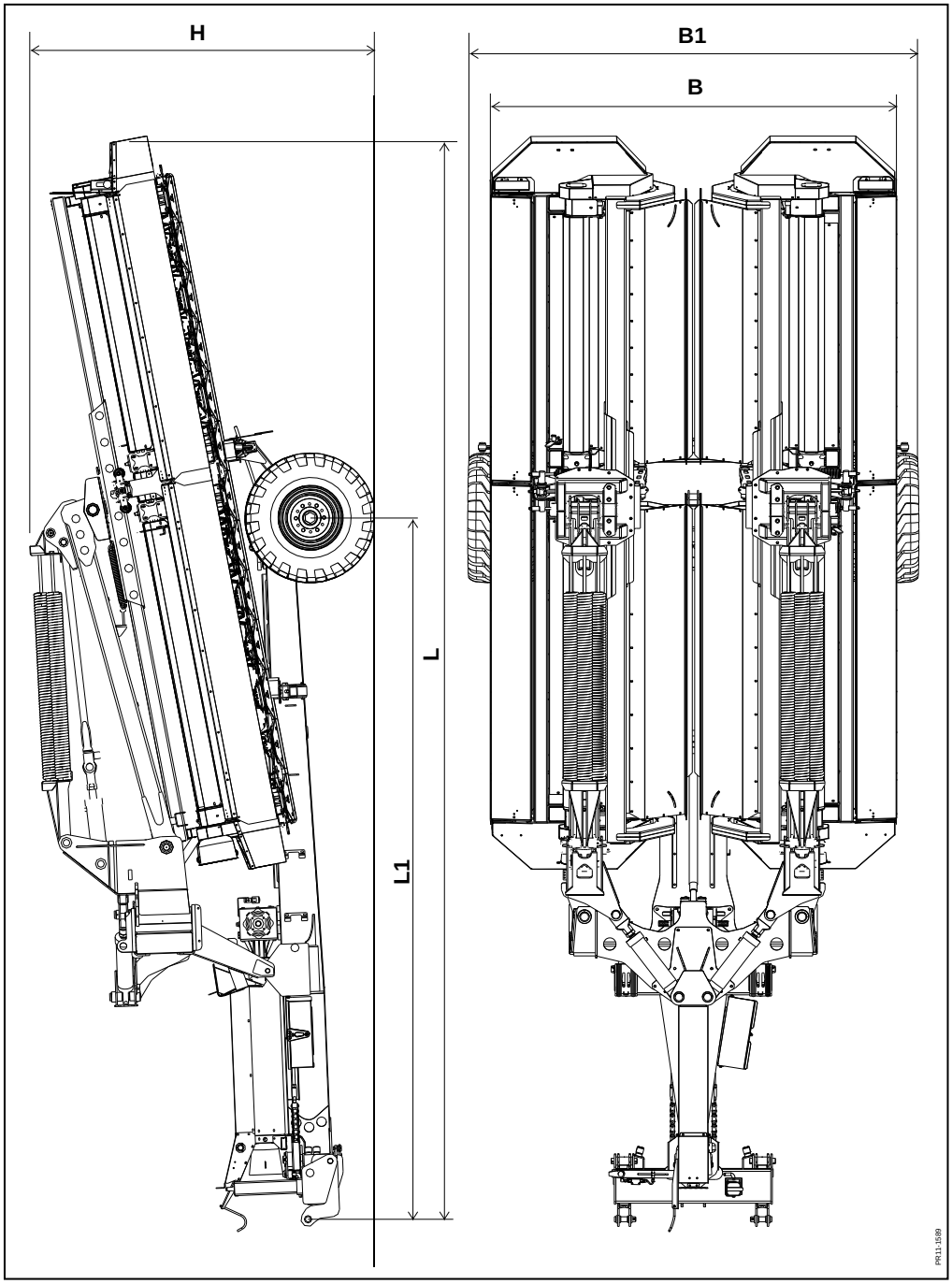
If the vibrations or the noise of the machine increases significantly during operation, stop working immediately. Do not continue the work until the fault has been corrected.

When replacing blades, both blades on the disc in question must be replaced as not to create an in-balance.

During the season check daily that no blades, carriers or bolts are missing. If any of these are missing, mount new parts immediately.

Clean caps and flow intensifiers of earth and grass regularly.

You should also check and “air” the PTO friction clutch regularly to ensure it does not rust.



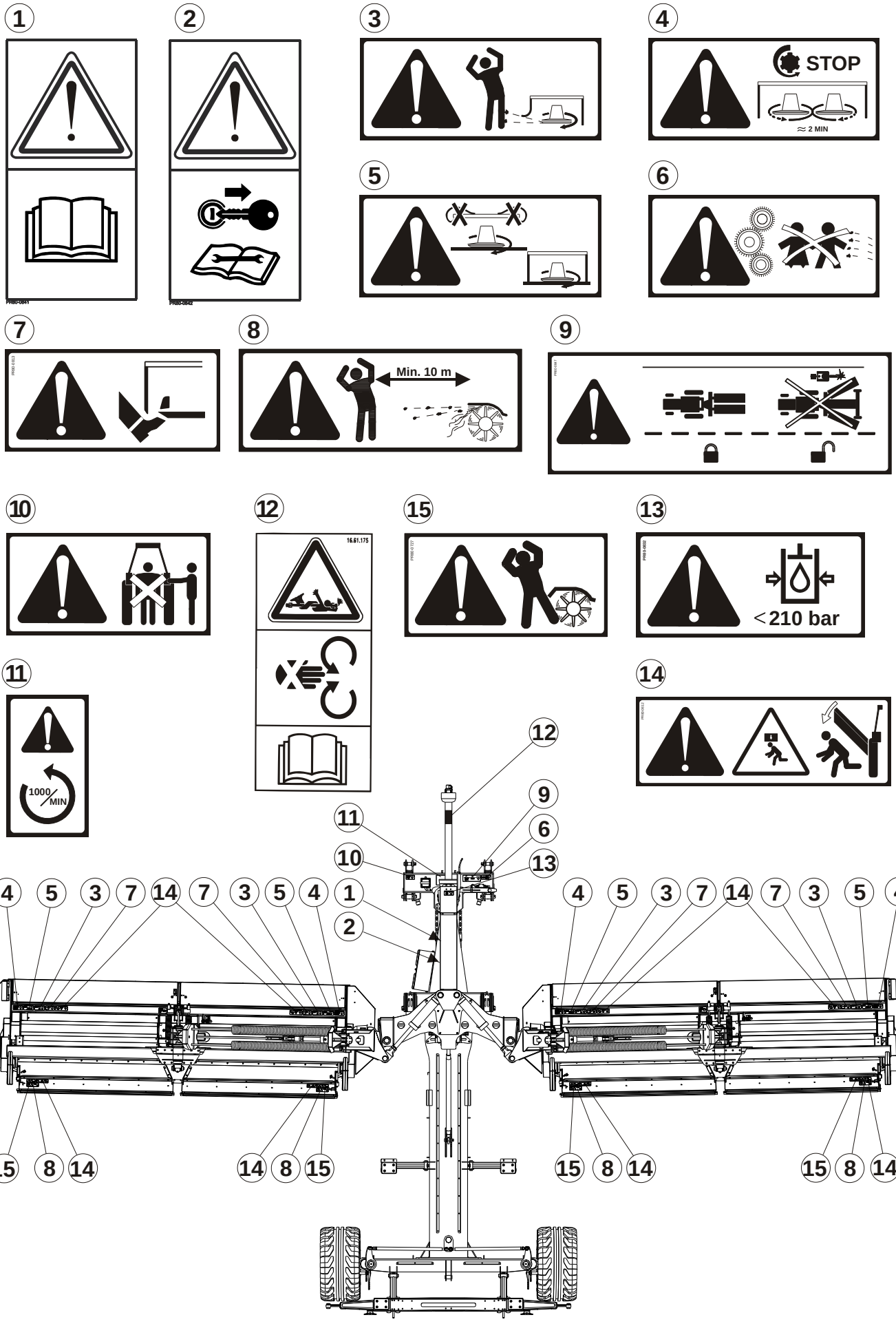
	GXT 13005 GXT 13005 P	GXT 13005 P Collector
L	7.9	7.9
L1	5.15	5.15
B	2.99	2.99
B1(15.0/70-18)	2.99	2.99
B1(500-50-17)	3.29	3.29
H	2.6	3.5

The dimensions are in metres and are ***approximate*** measurements.

TECHNICAL DATA

Type			GXT 13005	GXT 13005 P	GXT 13005 P Collector
Conditioner system			-	PE-fingers	PE-fingers
Working width			12.3 m		
Power requirement, minimum on PTO			191 kW/250 HP		220 kW/300 HP
Capacity at 10 km/h			Approx. 12 ha/h		
Number of discs			26		
Number of blades			52		
Oil outlet			1 SA + 1 DA		1 SA + 1 DA+ LS*
LS requirements			-		Minimum 80 L/min
Oil outlets over steering (Option)			+ 1 DA		
Power outlets 12 V			1		
Link arms required			Cat. III		
PTO-type, RPM			1 3/4” 20 spline/1000 rpm		
Friction clutch and freewheeling			Standard (One per cutting unit)		
Transport conversion			Hydraulic		
Safety system			TopSafe and hydraulic		
Lighting kit			Standard		
Triple swath width*			-		1.5 m to 2.8 m
Transport width depending on wheels					
15.0/70-18 AW			2.99 m		
500/50-17 FL+			3.29 m		
Weight, approx.			5900 kg	6400 kg	7700 kg
Weight transferred to tractor Transport (working)			1300 (3100) kg	1300(3200) kg	1400(4000) kg
Conditioner width, approx.			-	2 x 1.8 m + 2 x 2.1 m	
Noise level in the tractor cabin	Machine connected	Window closed	74.6 dB (A)		
		Window open	86.1 dB (A)		
	Maskinen disconnected	Window closed	72.1 dB (A)		
		Window open	75.7 dB (A)		

*) Depends on conditions


1
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14 8 15
15 8 14
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SAFETY DECALS

The safety decals shown on the previous page are positioned as shown on the drawings at the bottom of the page. Before using the machine, check that all decals are present: if not, replace those missing. The decals have the following meaning:

1 Read the instruction manual and the safety instructions.
This is to remind you to read the delivered documents to ensure the machine is operated correctly and to avoid unnecessary accidents and machine damage.

2 Stop the tractor engine and remove the ignition key before touching the machine.
Always remember to stop the tractor engine before lubricating, adjusting, maintaining or repairing. Also remember to remove the ignition key to ensure that nobody starts the engine, until you have finished.

3 Risk of stones being thrown.
Similar meaning to decal No. 5. Even though all canvases and guards are in the right place, there is still a risk of stones etc. being thrown out. Therefore, nobody should be allowed to stand near the machine during operation.

4 Rotating parts.
After the PTO drive shaft has stopped, the blades will have a momentum where they keep rotating for up to 2 minutes. Wait until the blades have come to a complete stop before you remove the canvas and the guards for inspection and maintenance.

5 Operation without canvas.
Do not start the machine unless canvases and guards are intact and in their right place. The machine can throw out stones and other foreign matter during operation. The purpose of the canvases and the guards is to reduce such danger.

6 Children.
Never let children stand near the machine during operation. Especially not small children as they have a tendency to do unforeseen things.

7 Rotating blades.
Do not under any circumstances let anyone get near or stand near the machine during operation. The rotating blades of the machine can without difficulty cause serious injury to any part of the body if hit by such a blade.

8 Stones being thrown from the conditioner (only applies to GXT 13005 P and GXT 13005 P Collector).
The conditioner rotor runs with a high number of RPM and stones on the ground can be thrown up to 10 m backwards at a very high speed. Therefore, always make sure that nobody is standing near the machine when it is working.

9 Remember the transport lock.

Always remember to activate the transport lock before transporting the machine on public roads. Errors in the hydraulic system and unintended manoeuvres may cause the machine to move to the working position during transport, which may result in serious machine damage or personal injury.

10 Risk of injury during the connection.

Never let anybody stand between the tractor and the machine during connection to the tractor. An unintentional manoeuvre may cause serious injury.

11 The number and the direction of rotations.

Check that the PTO drive shaft runs with the right RPM and in the right direction. A wrong number of rotations and/or direction of rotation can damage the machine with the risk of personal injury as a result.

12 The PTO drive shaft.

This decal has the purpose to remind you how dangerous the PTO drive shaft can be if it is not correctly mounted or protected.

13 Maximum 210 bar.

Make sure that all the hydraulic components are not exposed to more pressure than 210 bar, as there could be a risk of explosive damage of parts. Hereby you expose yourself and others to serious danger of getting hit by metal parts with high speed or oil under high pressure.

14 Never stand underneath a lifted cutting unit.

You must never stand under a lifted cutting unit without having placed supports to prevent the cutting unit from falling down, which could cause serious injury.

14 Folding up/down of the Collector unit

Nobody is allowed to stand near the Collector units when these are being folded down due to the risk of getting caught underneath the units.

15 Conditioner (only applies to GXT 13005 P and GXT 13005 P Collector).

Do not under any circumstances let anyone get near or stand near the machine during operation. The rotating parts of the conditioner can without difficulty cause serious injury to any part of the body if hit by such a part. Therefore it is important that the canvas is placed correctly.

2. CONNECTION AND TEST DRIVING

CONNECTION TO THE TRACTOR

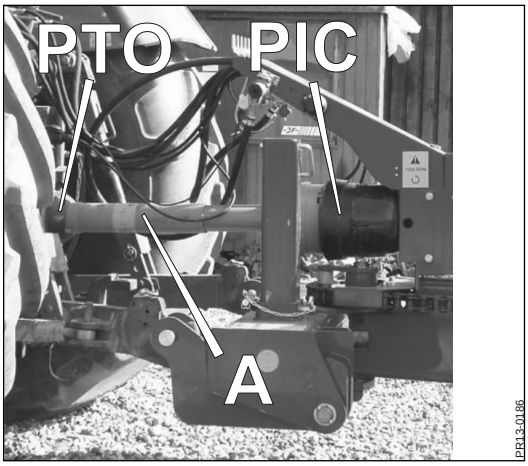


Fig. 2-1

Fig. 2-1 The GXT machines are connected to the lower link arms of the tractor. The hitch pins are intended for category III.
Adjust the lower link arms to the same height.
The lower link arms of the tractor can now be connected to the machine and then **raised to a height where the PTO drive shaft A is horizontal.**
The lower link arms must be **locked** in this position to prevent a sideways travel so that **the tractor PTO shaft and the machine shaft are in line as viewed from above**. A straight PTO drive shaft provides the longest life for universal joints and the other rotating parts of the machine.

WARNING: **If the link arms are not locked sideways during transport, it may cause the wagon to wobble.**

ADJUSTMENT OF PTO DRIVE SHAFT

IMPORTANT: Do not shorten your new PTO shaft until you are certain that it is necessary. From the factory the PTO shaft is adjusted to the distance from tractor PTO to machine shaft which is standard on most tractor brands.

If it is still necessary to shorten the PTO shaft, please note the following:

IMPORTANT: The profile tubes of the PTO shaft must fully comply with the overlapping dimensions shown in Fig. 2-2.

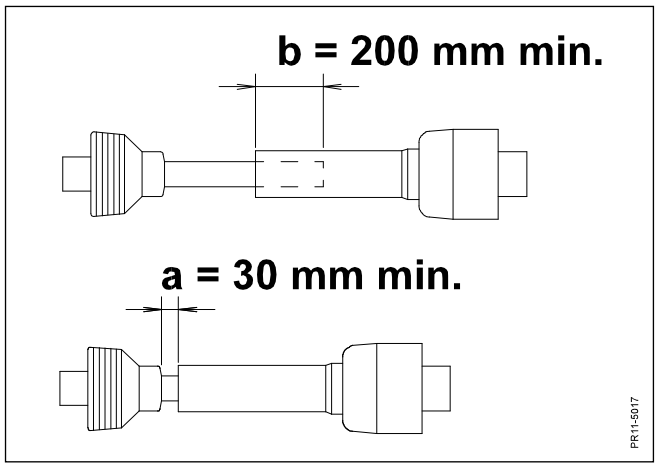


Fig. 2-2

IN CASE OF SHORTENING:

Fig. 2-2 Adjust the PTO shaft so that it:

- has the biggest possible overlapping
- in no position has less overlapping than 200 mm
- is not compressed more than the prescribed 30 mm in order not to bottom the shaft out.

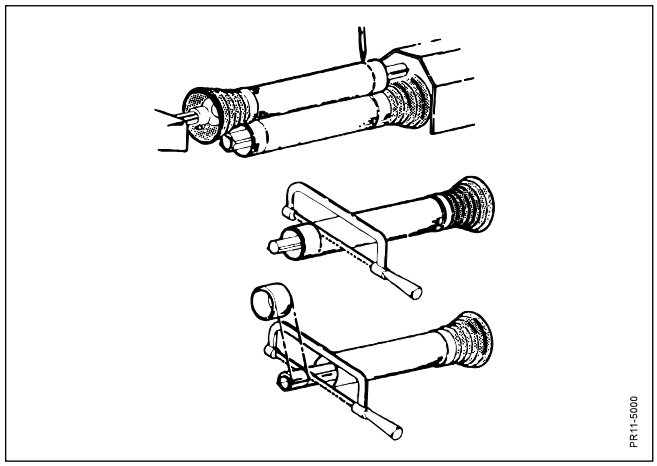


Fig. 2-3

Fig. 2-3 Fasten the PTO drive shaft half parts to PTO and PIC, respectively, when these are at the same horizontal level and opposite each other. (The shortest distance from the machine).
Keep the shaft ends parallel to each other and mark the 30 mm (minimum).
Shorten all 4 tubes equally. The ends of the profile tubes must be rounded off with minimum radius 2 mm and burrs must be removed carefully.

WARNING: **Grease the tube carefully before it is reassembled as it will otherwise be exposed to big friction forces.**

PARKING STAND

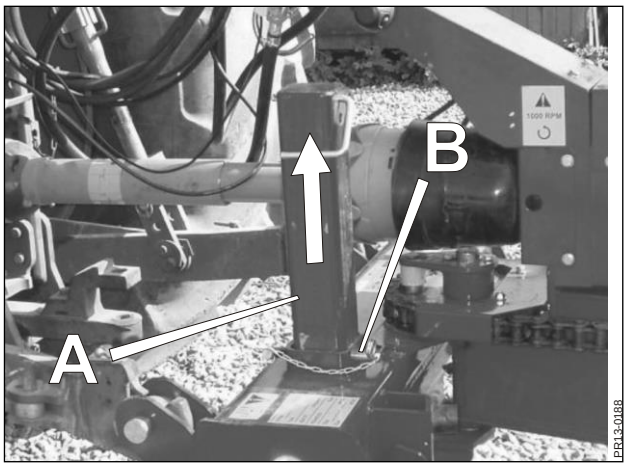


Fig. 2-4

Fig. 2-4 The parking stand **A** on the drawbar is lifted upwards and locked with pin **B** and spring pin.

THE PTO SPEED OF THE MACHINE

The machine is built for 1000 rpm. Therefore, before starting the machine, please select 1000 rpm from the tractor.

FRICTION CLUTCH AND FREEWHEELING

A friction clutch with freewheel is mounted near the input gear on each cutting unit. See section **5. MAINTENANCE – friction clutch** before you start up.

HYDRAULIC CONNECTION

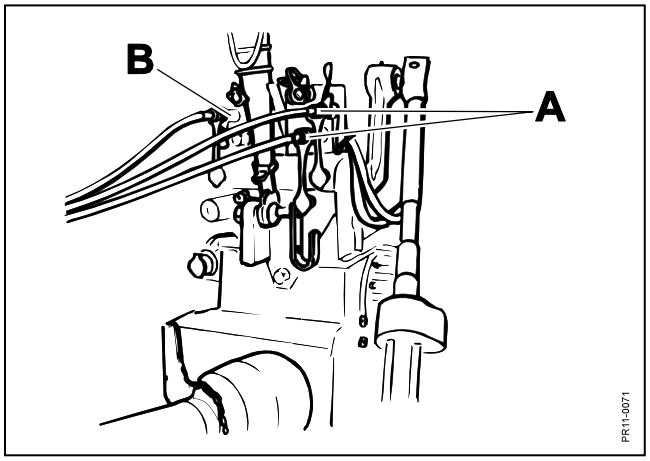


Fig. 2-5

Fig. 2-5 The hydraulic hoses for the cylinders for conversion between work and transport position are connected to the double-acting oil outlet **A** and the hydraulic hose for the lifting cylinders is connected to a single-acting outlet **B** on the tractor.
If the machine is fitted with the equipment “Cylinder for over-steering” an extra double acting outlet must be used.

DANGER: **The hydraulic components must not be exposed to a higher pressure than 210 bar as a higher pressure may cause parts to be damaged. Hereby a serious risk of personal injury occurs.**

HYDRAULIC CONNECTION COLLECTOR

On GXT 13005 P Collector additional hydraulic controls must be connected. The hydraulic hoses which are mentioned in previous sections must still be used. There must be Load Sensing (LS) outlet on the tractor in order to drive the conveyor belts.

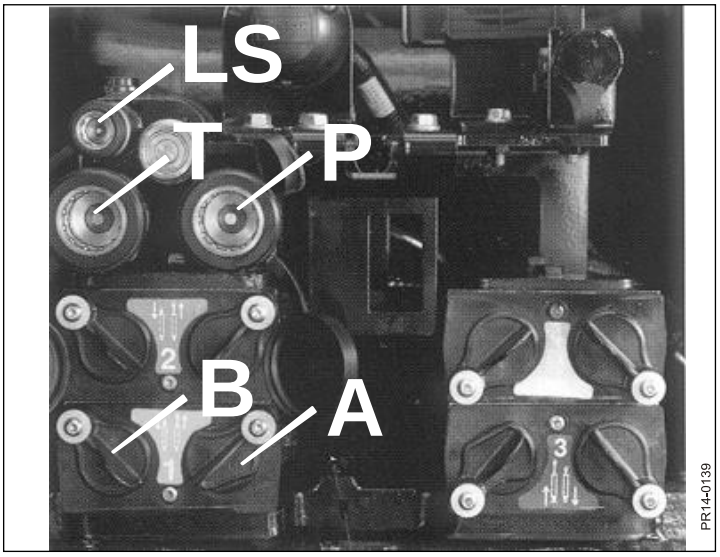


Fig. 2-6

Fig. 2-6 The following hoses for Load Sensing must be mounted:

- Pressure hose (marked ”P”) to the tractor pump.
- Return hose (marked ”T”) directly to a free flow return. ***The ¾” (large size) quick-release coupling of the return hose must be used. Do not use smaller couplings***.
- The hose which transmits to the tractor pump the signal regarding the load of the hydraulic system (marked ”LS” Load Sensing).

ELECTRIC CONTROL

There are 2 different electric control units. One for GXT 13005 and GXT 13005 P and another for GXT 13005 P Collector. They are both connected to 12V. There is no on/off button. The control unit for GXT 13005 and GXT 13005 P is inactive and uses no power when the button is in middle position. The control unit for GXT 13005 P Collector is in standby mode with minimum power consumption when it is not in use, i.e. when the machine is not running.

AIR BRAKES

The machine can be equipped with air brakes if this is required by the Road Traffic Act. The system is a 2-wire system. First connect the yellow connector and then the red connector to the tractor. When disconnecting, follow the procedure in reverse order.

IMPORTANT: Check that the clutches are correctly mounted and that the hoses cannot get jammed.

DRIVING ON PUBLIC ROADS!

The machine is only built to be trailed behind a tractor suspended in the fixed tractor link arms; see section **CONNECTION TO THE TRACTOR**.
When you receive the machine from Kongskilde Industries A/S it is in transport position. Before you drive on public roads you must convert the machine from transport to working position and back again to ensure that there is no air in the hydraulic system. **See section on conversion.**

Before driving on public roads you should make yourself familiar with the use of the machine's power steering. You must pay special attention to the turning characteristics of the machine. **See section on power steering.**

If the machine is fitted with the equipment "Cylinder for over-steering" the cylinder must be placed in middle position so that the machine drives directly behind the tractor.

Limit the transport speed to **maximum 40 km/h if the machine has not been marked with another maximum speed limit from the factory**.

DANGER - ALWAYS REMEMBER:

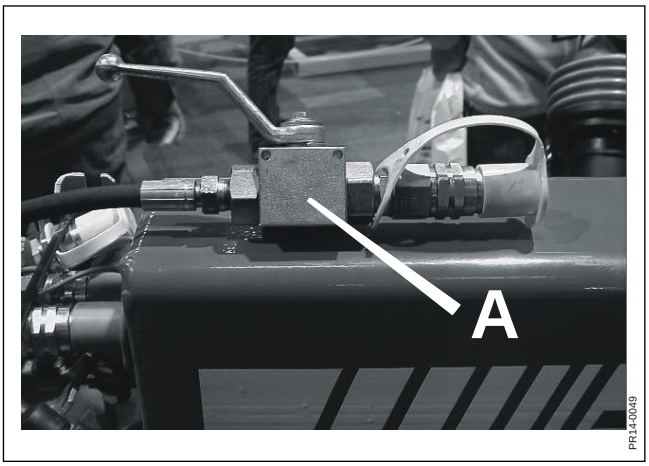


Fig. 2-7

Fig. 2-7 **BEFORE TRANSPORT CLOSE THE BALL VALVES** that are placed by the quick-release couplings of the tractor. The valve is shown in open position and is turned off when the handle is turned 90 degrees.
This must be done in case of unintended use of the hydraulic outlet during transport to prevent the machine from swinging into working position during transport. If the power steering cylinder is mounted, the ball valve for this cylinder must also be closed.

DANGER – TRAFFIC MARKING:

The owner is always obliged to ensure that the machine is equipped with correct lighting system and other traffic marking in accordance with the country's current rules.

CHECK BEFORE USE

Before you use your new disc mower, please do as follows:

1. Read this instruction manual carefully!

2. Check that the machine has been assembled correctly and is undamaged.

3. Check that the PTO speed of the machine (and of the tractor) is correct. Too high PTO speed can be dangerous. Too low PTO speed causes bad cutting, blocking of the disc mower and high torque on the drive shafts. Help to find the correct speed can be found in the section **”CONTROL OF CORRECT PTO SPEED”**.

4. Check the movements of the PTO drive shaft. If the PTO shafts are too short or too long it may damage the tractor as well as the machine considerably.
   Check that the protection tubes do not get jammed or damaged in any position.
   Check that the safety chains of the protection tubes have been secured properly and that they do not in any position get too tight or damaged.

5. Make sure that the hydraulic hoses have been connected in such a way that they are long enough for the movements of the machine in relation to the tractor.

6. Retighten the wheel bolts.

7. Check the tyre pressure. See section **”5. MAINTENANCE”.**

8. Check that the machine has been greased sufficiently and check that the oil level in the gearbox and the cutter bar is correct. See section **”4. GREASING”.**

9. Air the friction clutch as described in chapter **5 "MAINTENANCE".**

TEST DRIVING

From the factory the revolving parts of the machine have been tested and declared error-free. However, you should do as follows before using the machine:

10. Start the machine at a low number of RPM. With open rear window and without hearing protector; you should check that there is no unusual scratching or knocking sounds. Then the number of RPM can be increased. At the correct number of RPM, check if there are any noticeable vibrations. (Check the guards for unusual vibrations). **The machine must be in working position. See the section "Conversion between work and transport position".**

If there is any doubt, stop the tractor and the machine according to the procedure described in the section "**SAFETY".**
Turn the revolving parts manually to check if the machine can turn freely.
Check the machine visually to find possible errors. (Such as burnt or scraped paint). Then seek authorised assistance.

NB: Note that because of the smaller centrifugal force at a low number of RPM, the blades can touch the guard plates on the cutter bar. This sound must disappear at the normal number of RPM during work.

Also note that the cutter bar under the discs will get very warm. The colour of the cutter bar gets darker after some hours of operation.

CAUTION: If you wish to test the machine for a long time, close the rear window or wear hearing protector!

TEST RUN COLLECTOR

When all components have been mounted correctly and the machine has been connected to the tractor, the belt must be tested.

1) The Collector is raised to inactive position and then lowered into active position again.

2) Let the belts run at a low number of rpm (the value in the display must be 5) and check whether the belt rotates without any particular noise and that the Collector does not have unusual vibrations. Check that the belts do not collide with the front or rear edge. If this is the case they must be adjusted. Adjustment of belt is described in the section MAINTENANCE.

WARNING: Keep a safe distance from the machine and the rotating parts.

3) When the belts have been running for a couple of minutes and the oil is warm, the number of rpm of the belts can be increased.

CAUTION: Be aware of any unusual noise or vibrations from the Collector.

4) Lower the number of rpm to value 60, stop the belts, and the test drive is finished.

IMPORTANT: If, during test driving, you experience errors or deviations which you cannot solve, contact your KONGSKILDE dealer.

3. ADJUSTMENTS AND DRIVING

CONSTRUCTION AND FUNCTION

GXT is a trailed triple disc mower which is mounted behind the tractor. In order to use the machine a front mower with a minimum working width of 3 m must be mounted in front of the tractor.

The machine is fitted with a PE-finger conditioner.

The main frame is mounted on a trailed suspension and transport frame in order to reduce the load on the rear axle of the tractor and to ensure smooth and safe transport. The frame has steerable wheels that follow the movements of the tractor. This is called power steering in the rest of the instruction manual.

The cutting units of the machine are suspended in a frame according to the KONGSKILDE **TopSafe** principle. This causes the cutting unit to tip backwards if colliding with stones etc. In order to ensure optimal ground following abilities the frame also features pendulum suspension.

COLLECTOR

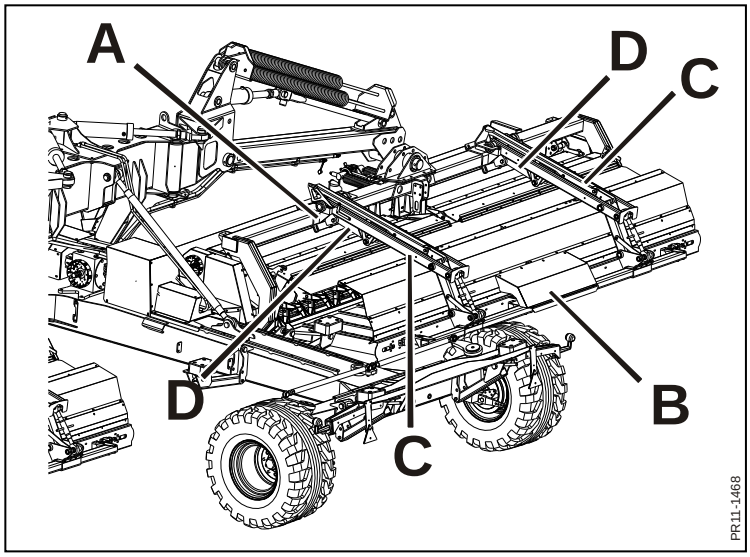


Fig. 3-1

Fig. 3-1 The complete Collector unit consists of a right-hand and a left-hand unit, a hydraulic block at the middle of the machine and an additional relief spring.
At each side the units consist of a suspension **A** which is attached to the Top Safe frame on the standard machine with bolts and a belt unit **B** which is suspended in a frame **C** behind the machine. The unit can be lifted with the hydraulic cylinders **D** when the belt is not being used.

Double swathing means that the crop is thrown from the machine onto a rubber belt which runs across the direction of travel and throws the crop to the middle of the machine. Hereby the crop can be placed just beside the swath from the front machine in a gathered swath from the whole working width.

CONVERSION BETWEEN WORKING AND TRANSPORT POSITION

Please note that this description only deals with GXT. Conversion of the front machine is described in a separate instruction manual.

CONVERSION FROM WORKING TO TRANSPORT POSITION

1) Stop the PTO. If the machine is placed in transport with PTO running, it will strongly reduce the life of the PTO shafts.

2) If the Collector is mounted and active, the belts units must be lifted up into inactive position.

3) The cutting units are lifted by activating the lifting cylinders.

WARNING: If the cutting units are not lifted all the way up it may result in collision with the wheel or the supports for transport.

4) The cutting units are moved into transport position by activating the cylinders for conversion between work and transport position.

5) When the cutting units are in transport position the cutting units are lowered down onto the supports for transport by activating the lifting cylinders.

6) If the machine is fitted with cylinder for over-steering make sure that the cylinder is placed in middle position.

7) Close all ball valves on the machine. These are placed by the quick-release couplings.

CONVERSION FROM TRANSPORT TO WORKING POSITION

1) Open all ball valves on the machine. These are placed by the quick-release couplings.

2) The cutting units are lifted by activating the lifting cylinders.

WARNING: If the cutting units are not lifted all the way up it may result in collision with the wheel or the supports for transport.

3) The cutting units are moved into working position by activating the cylinders for conversion between work and transport position.

4) Finally, the cutting units are lowered to the ground.

5) If the Collector is mounted and you want to make a swath, the Collector units must be lowered to active position.

DRIVING ON PUBLIC ROADS

The machine is only built to be trailed behind a tractor in the tractor link arms, See section **CONNECTION TO THE TRACTOR**.
Before you drive on public roads the machine must be in transport position. **See section on conversion.**

If the machine is fitted with the equipment “Cylinder for over-steering” the cylinder must be in middle position so that the machine drives directly behind the tractor. **See section on power steering.**

DANGER - ALWAYS REMEMBER:

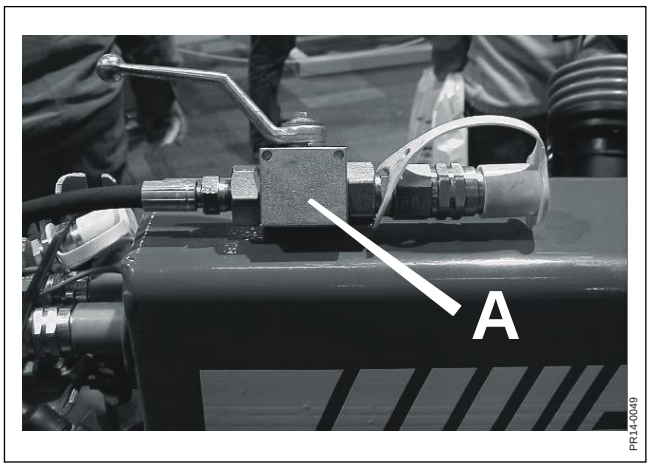


Fig. 3-2

Fig. 3-2 **BEFORE TRANSPORT CLOSE THE BALL VALVES** that are placed by the quick-release couplings of the tractor. The valve is shown in open position and is turned off when the handle is turned 90 degrees.

DANGER – TRAFFIC MARKING:

The owner is always obliged to ensure that the machine is equipped with correct lighting system and other traffic marking in accordance with the country's current rules.

Limit the transport speed to **maximum 40 km/h if the machine has not been marked with another maximum speed limit from the factory**.

POWER STEERING

The machine is equipped with steerable wheels. When driving on public roads there are certain things that you should pay special attention to.

The link arms of the tractor must be stabilised, otherwise it may cause the machine to wobble.

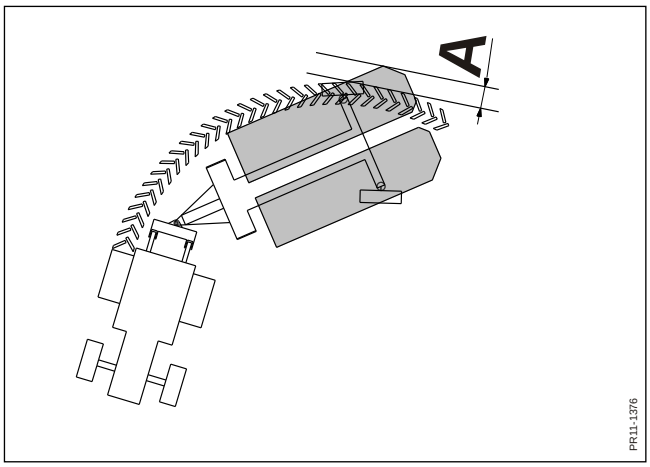


Fig. 3-3

Fig. 3-3 When turning with the machine the rear edge of the machine will reach distance **A** further out than the tractor. Therefore, always pay attention to the surroundings when turning.

BEACON LIGHT

In certain countries it is compulsory to use beacon light when driving on public roads. It is the responsibility of the driver to ensure that the beacon light can be seen from all sides. It may be necessary to mount an extra beacon light on the tractor or the machine to ensure that the light is visible from all sides.

AIR BRAKES

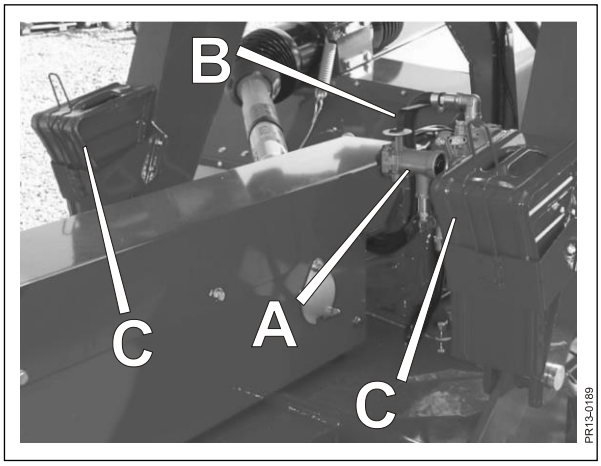


Fig 3-4

Fig. 3-4 In certain countries the machine must be equipped with air brakes in order to meet the current Road Traffic Act.

The weight on the rear axle varies a lot from working to transport position. Therefore, there is a valve **A** with a manual setting of the brake power.

As basis it must always be adjusted to full braking power. If the wheels block during braking while the machine is in working position, it is possible to reduce the braking power by turning handle **B**. See figure 3-5.

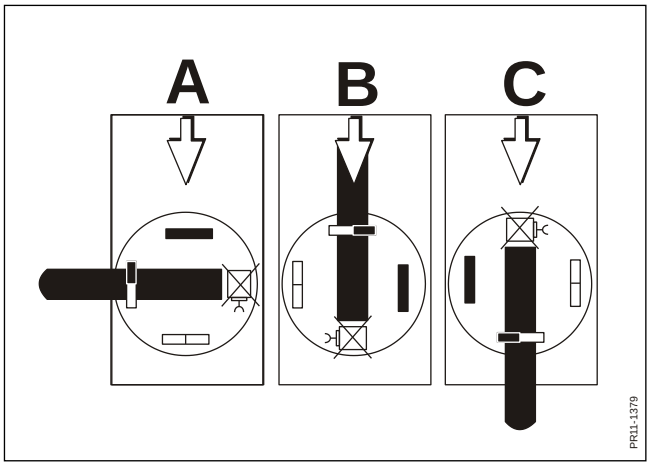


Fig. 3-5

Fig. 3-5 There are 3 settings on the valve which can be used.

A) Transport position. Full braking power.
B) Working position. Reduced braking power to avoid locking of the wheels.
C) Brakes loosened. This function is used if the machine must be pulled by a tractor without air brakes. If there is no more air in the tank it is possible to pull without adjusting the valve.

WARNING: When driving on public roads the valve must always be adjusted to full brake power. Otherwise the braking length is increased.

PARKING

The machine can be parked in 2 positions. In working position with the cutting units lowered or in transport position. If you park in working position, you must be aware that the weight on the parking stand is bigger and it may sink into the ground if it is soft.

Never leave the tractor before the cutting unit is resting on the ground or the machine is in transport position, the tractor engine has stopped, and the parking brake has been activated. This is the only way to perform a safe operation.

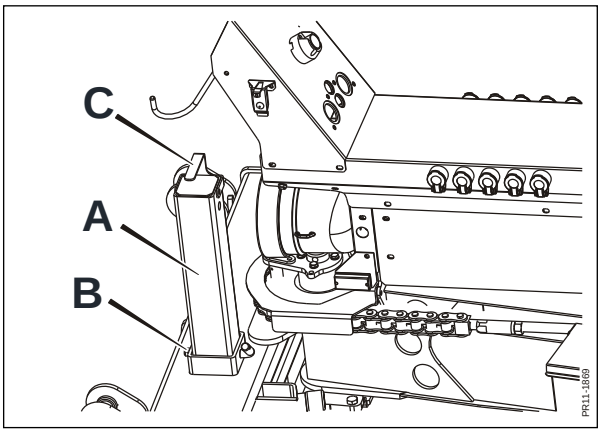


Fig. 3-6

Fig. 3-6

1) Remove pin **B** while holding handle **C**. Lower the jack **A** and fix it again with pin **B**.

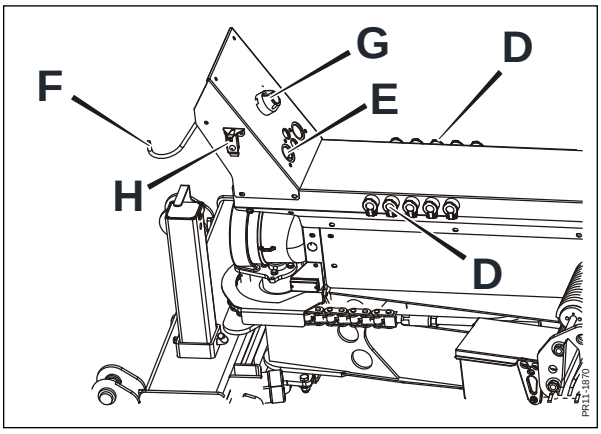


Fig. 3-7

Fig. 3-7

2) Disconnect hoses, PTO and electric equipment from the tractor and place them in their respective holders. Place hydraulic hoses in **D**. Hoses for Load Sensing, and plug for electric control are placed in the holes **E.** PTO shaft in **F**. Plug for lighting equipment in **G**. Electronic box (option) is placed indoor or in the tool box. Hoses for air brakes in **H**.

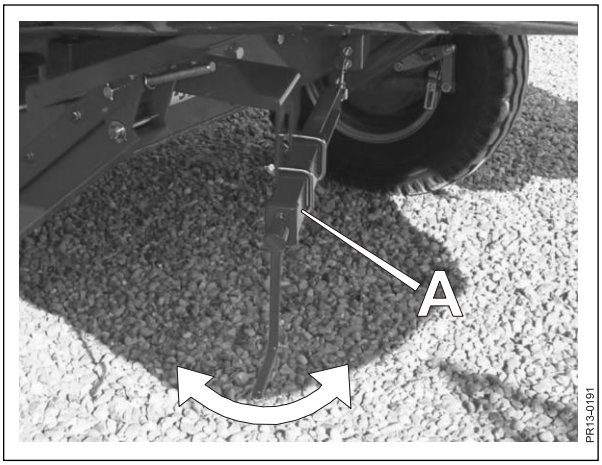


Fig. 3-8

Fig. 3-8 3) If the machine is equipped with parking brake **A** it must be activated now.

Fig. 3-4 4) Stop blocks **C** are placed on the machine; they can be placed behind the wheels.

6) Disconnect the machine.

When connecting the machine again follow the procedure in reverse order.

SETTING OF RELIEF

RELIEF OF CUTTER BAR

The relief springs are tightened from the factory, but can be re-adjusted.

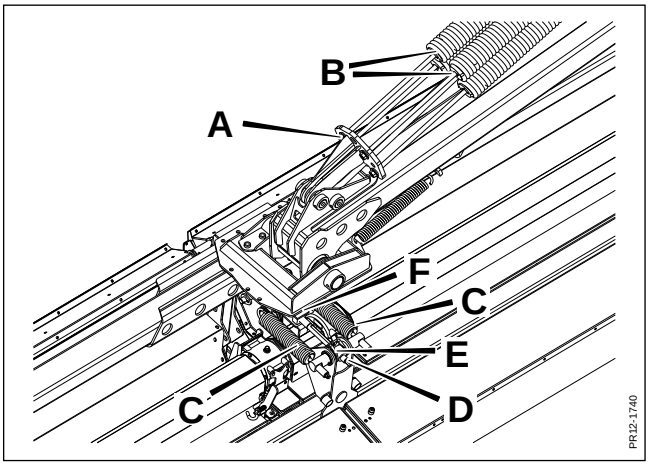


Fig. 3-9

Fig. 3-9 The relief is adjusted by turning bolt **A**. If the spring **B** is tightened the cutting unit becomes lighter. If the spring **B** is loosened the cutting unit becomes heavier. Both spring sets should be adjusted so that they have the same length.

TOP SAFE

Fig. 3-9 The cutting units of the machine are suspended in a frame according to the KONGSKILDE **TopSafe** principle. The TopSafe system makes it possible for the cutting unit to tip backwards in case of collision with stones etc. This means that it is easier for the cutting unit to avoid obstacles. This reduces the load on the machine's chassis in case of collision.
The release power of the TopSafe system can be adjusted by changing the length of the springs **C**.
If the machine leaves uneven stubble, the reason could be that the TopSafe system releases although there are no obstacles. In this case the springs **C** must be loosened.

BALANCING SPRINGS

In order to balance the cutting units, a set of balancing springs have been mounted on each cutting unit. These springs create balance when the cutting units are lifted and lowered and they ensure that the weight on the ground is distributed evenly.

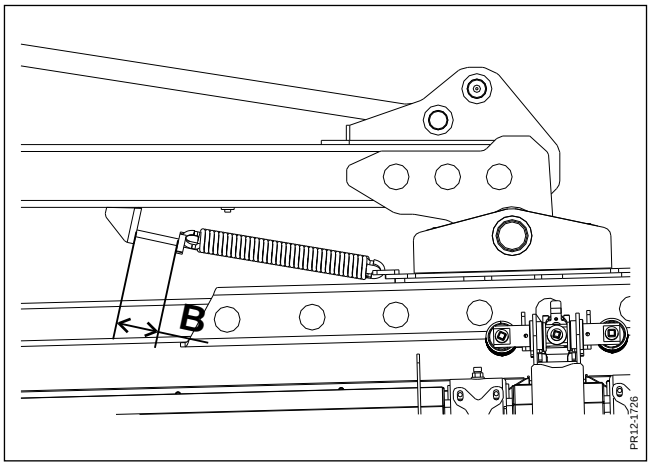


Fig. 3-10

Fig. 3-10 From the factory the distance **B** is set to 100 mm. This is a basic adjustment which ensures a good balance.

HYDROPNEUMATIC RELIEF

The machine can be fitted with hydro-pneumatic relief.

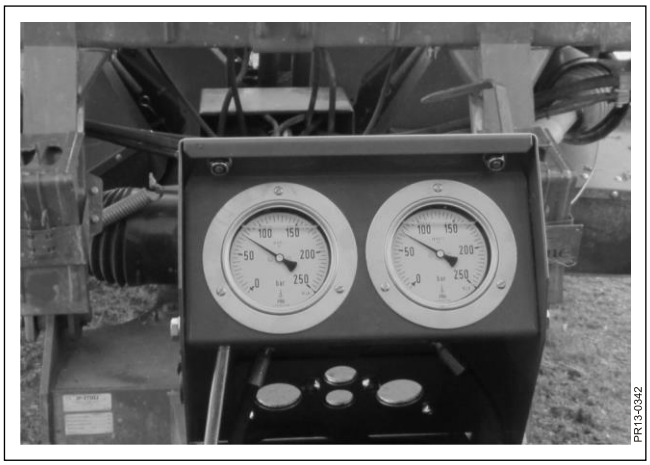


Fig. 3-11

Fig. 3-11 The hydraulic pressure in the relief-cylinders and accumulators are adjusted with the hydraulic outlet from the tractor. Please notice the gauge of the manometers, when the wanted relief has been reached.

This must be the same in left and right side, when the machine is placed on even ground.

Higher pressure means lighter cutting unit, lower pressure means heavier cutting unit.

As a start, the pressure in working position is adjusted to 110 bar, 130 bar if the machine is mounted with collector.

WORKING IN THE FIELD

In this section the general instructions which apply to all machines are described first. Afterwards the specific instructions for GXT 13005 P are described and finally the specific instructions for GXT 13005 P Collector.
Before you start working the field make sure that GXT and the front machine are both in the correct working positions. See the section “Conversion between work and transport position”.
Connect the power take-off carefully and increase to the correct number of rpm, i.e. 1000 rpm before working in the crop.
When mowing, the single-acting hydraulic outlet of the tractor for raising/lowering the cutting units must be in floating position.
The speed varies from 6-20 km/h depending on the crop and the ground conditions.

STUBBLE HEIGHT

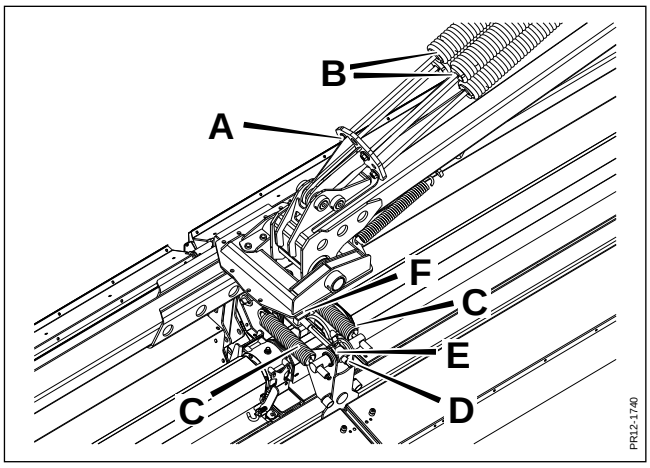


Fig. 3-12

Fig. 3-12 The mower has continuous adjustment of the stubble height which is adjusted with spindle **D** at the middle of each cutting unit. Before the spindle is turned with the supplied all-purpose handle, the stubble height lock **E** must be tipped backwards. It may be necessary to turn the spindle a little in order to release the lock. On the scale **F** the stubble height can be seen continuously. Both cutting units must have the same value. When the adjustment has been finished the stubble height lock **E** is tipped back.
The stubble height scale is divided into steps from 1 to 9 where 1 is the lowest stubble and 9 the highest stubble setting.

CONDITIONER

GXT 13005 P and GXT 13005 P Collector are fitted with a conditioner rotor with PE-fingers.

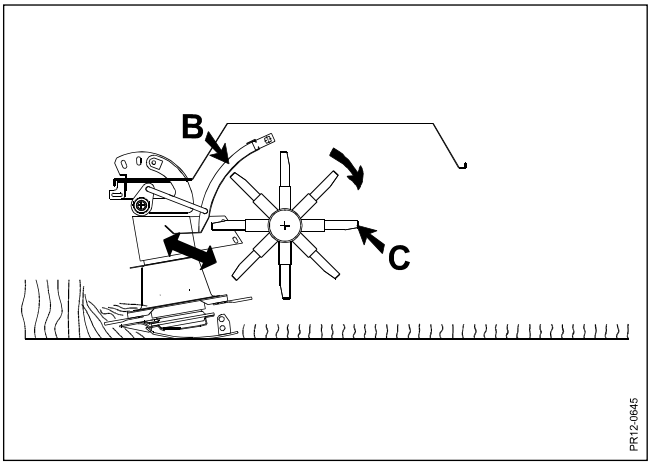


Fig. 3-13

Fig. 3-13 The degree of conditioning can be varied by changing the distance between the conditioner plate **B** and the conditioner fingers **C**.

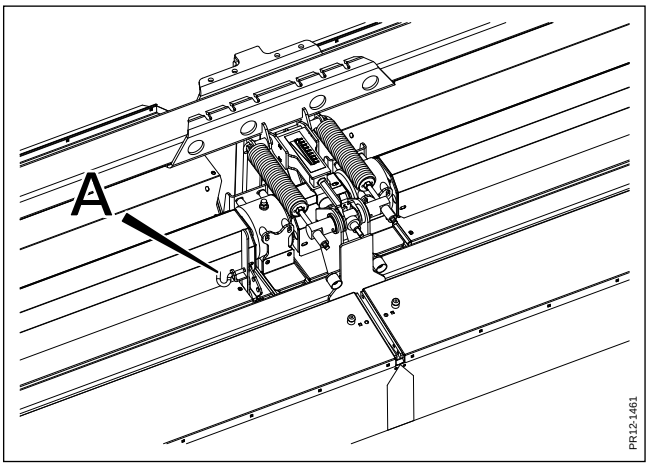


Fig. 3-14

Fig. 3-14 The conditioner plate can be placed in 3 positions. Adjustment is made by moving the handle **A** which can be placed in 3 positions.

In general: **Short distance - Strong conditioning**

Large distance - Moderate conditioning

The adjustment should be adapted to the forward speed and the state of the crop.
As basic setting it can be recommended to start in the middle position.

SAFETY SYSTEM

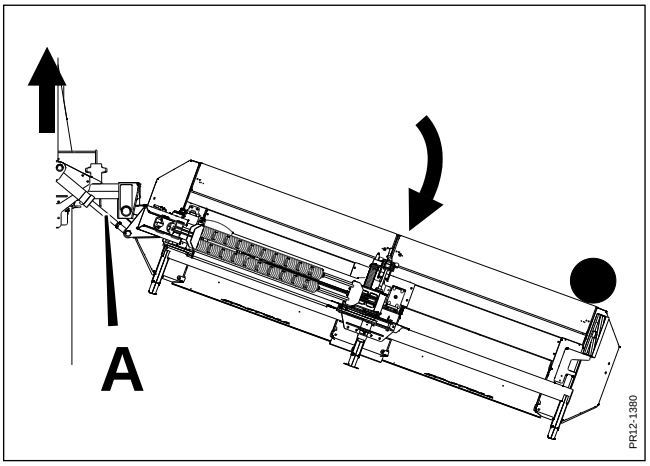


Fig. 3-15

Fig. 3-15 Although the cutting units are suspended in a frame according to KONGSKILDE's TopSafe principle there is also a hydraulic safety system which allows the cutting unit to move backwards in case of collision. If this happens you must activate the cylinder for conversion between work and transport **A** in order to get the cutting unit back into the right position. **Do <u>not</u> reverse with the machine.**
The release power is controlled with a pressure valve. There is one valve per cutting unit. The valve is adjusted from the factory and should only be adjusted by KONGSKILDE qualified staff. Wrong adjustment of the machine may result in damage of the machine in case of collision.

TURNING

When turning on headlands or driving with lifted cutting units always make sure that the cutting units are lifted all the way up because otherwise they will not be locked.

WARNING: If the cutting units are not lifted all the way up they may swivel in the pendulum suspension and hit the ground.

CHANGE OF DIRECTION ON HEADLAND

In general turning on headland should always take place as U-turns at regular speed. This is the best way to spare both the driver and the machine.
If you need to change direction of travelling on the headland where the cutting units are lifted you should make the change between forward and backward as soft as possible in order to avoid heavy load on frame parts due to the size of the cutting units.

WORKING ON HILLY GROUND

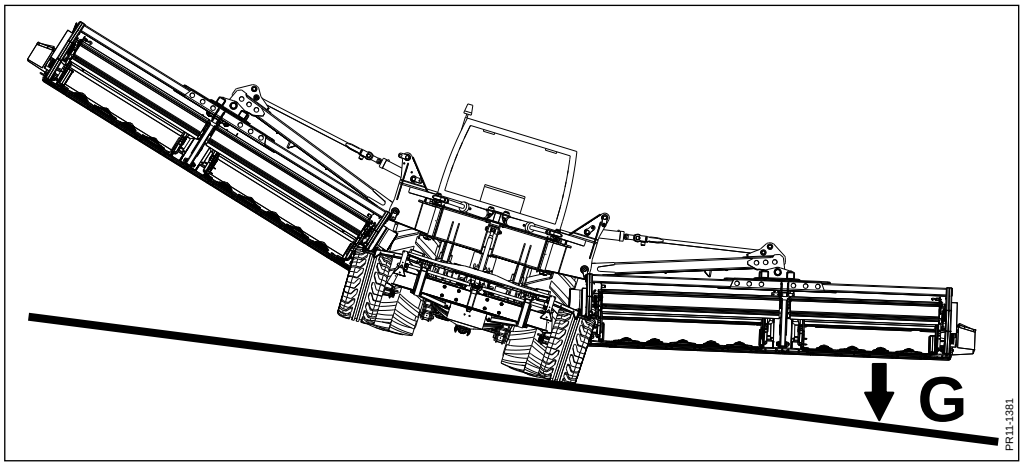


Fig. 3-16

Fig. 3-16. As the GXT has its own wheels, it is very stable in spite of the wide working width. When working on hilly ground you must, however, pay attention to the stability of the machine, especially when driving with lifted cutting units. The weight **G** of the cutting unit might tend to tip the machine and the tractor.

IMPORTANT: Keep the cutting units in lowered position when driving on sideways sloping ground. This increases the stability.

OVER-STEERING

The machine can be fitted with cylinder for over-steering of the power steering. The cylinder allows you to straighten up the machine on slopes thus avoiding uncut grass between the front mower and GXT.

NOTE: The link arms of the tractor must be stabilised, otherwise the need for straightening up the machine becomes much greater.

Fig. 3-17

Fig. 3-17 When turning, stripes may occur if there is not enough overlapping in relation to the front machine. These stripes can be removed/minimized by adjusting the cylinder. The over-steering function is effective during turning, but the effect is very limited when turning sharply, e.g. around corners since the power steering has already steered the wheels completely out.

IMPORTANT: The cylinder for over-steering does not automatically find the middle position again. You need to do that by using the indicator shown on the figure. The indicator must be in the middle position when driving on public roads.

GXT 13005 AND GXT 13005 P

INDIVIDUAL LIFT OF CUTTING UNITS

The machine is equipped with an electric control which allows each cutting unit to be lifted individually. This can be used in case of short work mowing.

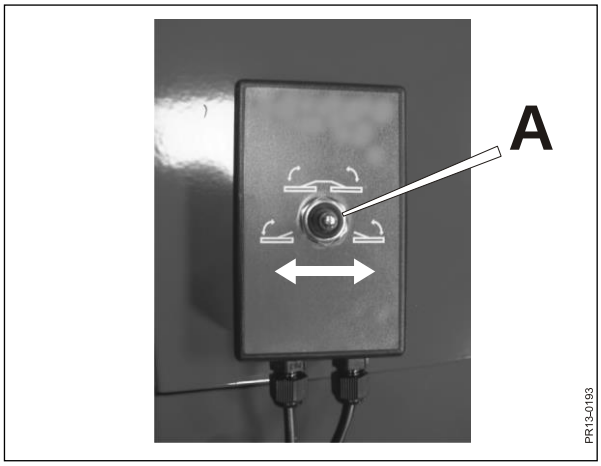


Fig. 3-18

Fig. 3-18 The electric system consists of a control box which operates two on/off valves on the machine. When the switch **A** is in the middle position both cutting units are lifted/lowered simultaneously. When the switch **A** is in the left position, only the left cutting unit is lifted/lowered. When the switch **A** is in the right position, only the right cutting unit is lifted/lowered.

If you only lower one cutting unit and place the hydraulic handle in floating position the other cutting unit will automatically be lowered when the switch **A** is placed in the middle position.

IMPORTANT: When converting the machine from working to transport position and back the switch **A** must be placed in the middle position.

WARNING: **If the power to the control box is disconnected both valves will open. This means that the oil can flow freely and the cutting units will be lowered to the ground. Therefore no one is allowed to stand under the cutting units.**

GXT 13005 P COLLECTOR

The GXT 13005 P Collector can be used in 3 ways. You can widespread, place a swath in the middle underneath the machine or in one round lay a double swath of 13 m by working with only one active Collector unit.

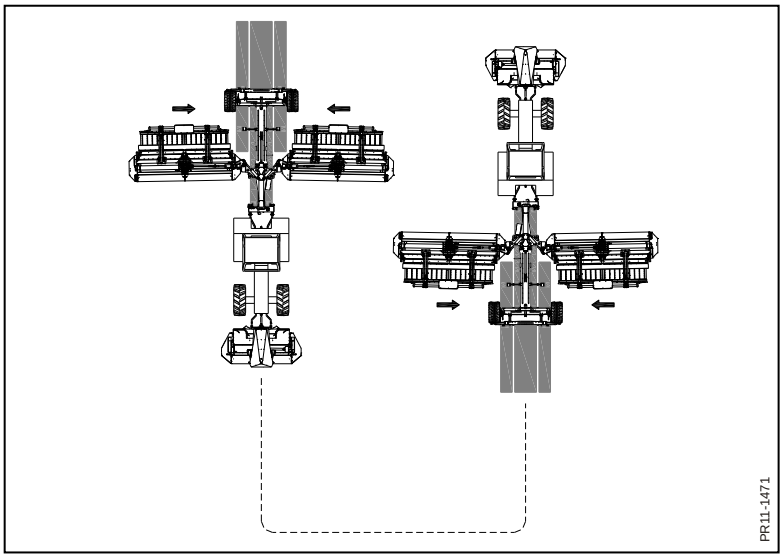


Fig. 3-19

Fig. 3-19 When both Collector units are folded down, a swath is placed in the middle underneath the machine. The swath has a minimum width of 1.5 - 2.8 m. The minimum width of the double swath depends on the crop but also the speed of the conveyor belt. When 1 swath is laid in the middle underneath the machine, the belt units are active all the time.

IMPORTANT: When the Collector is folded from raised, inactive position to lowered, active position and vice versa, the machine must stand still. If there is material in the machine it may result in blockages.

IMPORTANT: Remember that the Collector units must be started manually via the control box. They do not start automatically.

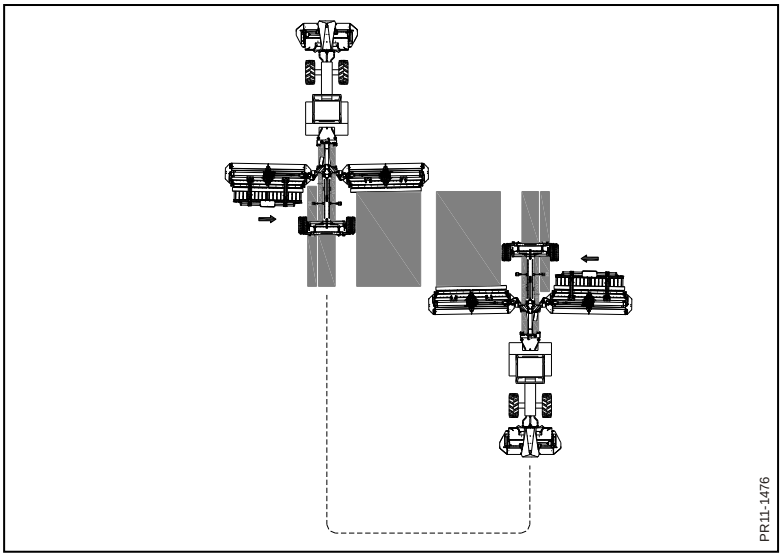


Fig. 3-20

Fig. 3-20 One collector unit can be active while the other is inactive and folded up. After one round you have a swath of about 14 m. This function is used if you have a rake with a working width of more than 14 m. Then you can rake a swath together from about 24 m grass. You can also use it when mowing the outermost round to make a big distance between swath and field boundary so that the rake does not have to drive so close to fences etc.

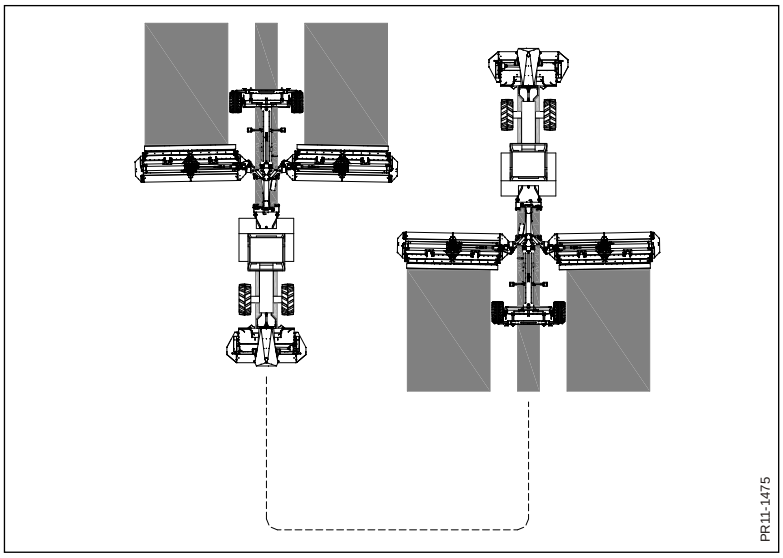


Fig. 3-21

Fig. 3-21 If you wish to widespread with the machine, both belt units must be inactive and folded up.

When a belt unit goes from inactive to active position or vice versa, the stop guard at the back of the conditioner must be adjusted due to the risk of stones being thrown from the conditioner. There is a handle at each side.

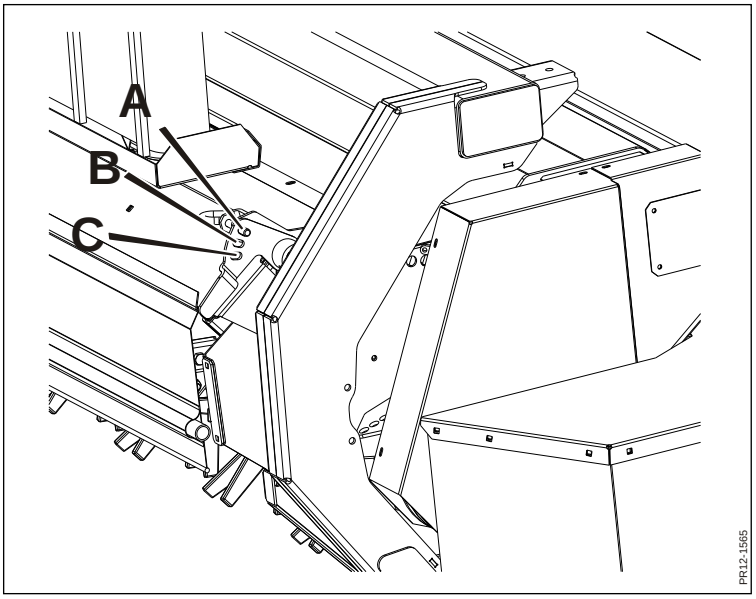


Fig. 3-22

Fig. 3-22 When the belt unit is inactive, the stop guard must be down in position **A**. When the belt unit is active, the stop guard must be adjusted to one of the holes shown at **B** and **C** in order for the material to be thrown up on the belt. The hole you use depends on the amount of grass. In most cases **B** is used.
If the material comes out of the belt unit unevenly, it is because the stop guard is adjusted too high. The material from the conditioner must hit the belt directly in order for the material to come out of the belt unit evenly. If the stop guard is adjusted too low, at may result in blockage between the belt unit and the cutting unit.
The stop guard must not be adjusted when the machine is placed in transport position.

It may be necessary to place the curtain on the stop guard in order to ensure an even flow of the material from the conditioner.

IMPORTANT: When the belt unit is inactive and folded up, the curtain must be placed as shown in order to protect against ejection of stones etc.

NOTE: If the Collector is overfilled and blocked, you should not lift the Collector in order to empty it. It will only cause the material to be placed on the cutting unit and become more difficult to remove.

OPERATION OF THE ELECTRIC CONTROL

For the operation of the GXT 13005 P Collector an electric control unit is supplied.
The electronic control unit consists of a control box and junction box on the machine.

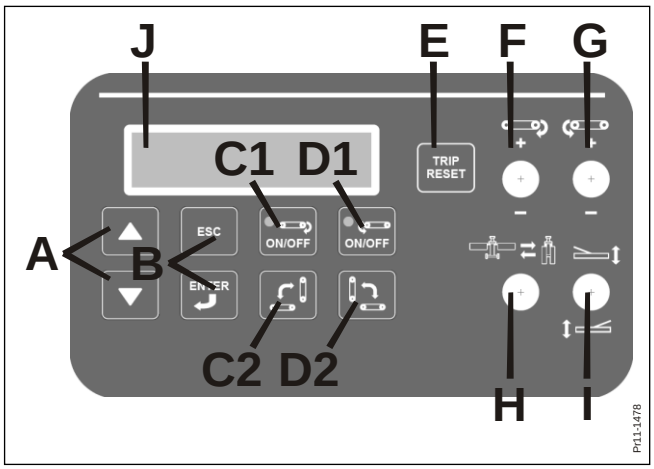


Fig. 3-23

Fig. 3-23 The control box consists of a number of push-buttons, toggle switches and a display. The electronic control is connected to the cable from the machine and 12 V from the tractor. The control unit is switched on as soon as there is 12 V from the tractor.
The cable between the machine and the tractor can be dismounted at the control box in order for the box to stay in the tractor or be brought indoors. It should not be placed on the machine when the machine is stored outside. The end of the cable is placed in the tool box on the machine.

The display **J** shows hour meters, belt speeds and error codes.
The top line shows the total number of hours TOT: an hour meter TRIP: TRIP: can be reset with button **E**.
The bottom line shows the belt speed for the right and left-hand side. The value is 05-100. The right-hand value is the right-hand belt unit. In the middle an error code is shown if there is an error. See also the description of the functions of each button.
We recommend a belt speed of the value 70-80.

The hydraulic functions of GXT with Collector are controlled as follows: The oil motors for the belts are driven by an LS outlet on the tractor. The cutting units are lifted by means of a single-acting outlet on the tractor. The electronic control is only used if you wish to lift the cutting units separately.

IMPORTANT: In working position the outlet for lifting must be in floating position.

For conversion from working to transport position and vice versa as well as folding up/down the belt units, you need a double-acting outlet and the electronic control to choose which function is activated.

Button **A1, A2, B1 and B2**
Used for navigation in menus for testing and setting up of the electronic control. These buttons should only be used by your KONGSKILDE dealer or the Service Department at Kongskilde Industries A/S.

Button **C1**
Starts and stops the left belt unit. To start the belt unit, press the button for some seconds until the light is on. The belt starts softly. To stop the belt unit, press the button once. The belt unit will not start if it is folded up. If you try, you will hear an alarm and the display will show E1.

Button **C2**
Folds up and down the left belt unit. Press and hold the button while operating the double-acting outlet. You cannot fold up the belt unit if the belt is started. You will hear an alarm and the display will show E2.

Button **D1**
Starts and stops the right belt unit. To start the belt unit, press the button for some seconds until the light is on. The belt starts softly. To stop the belt unit, press the button once. The belt unit will not start if it is folded up. If you try, you will hear an alarm and the display will show E1.

Button **D2**
Folds up and down the right belt unit. Press and hold the button while operating the double-acting outlet. You cannot fold up the belt unit if the belt is started. You will hear an alarm and the display will show E2.

NOTE: You can activate both **C1** and **D1** or **C2** and **D2** at the same time so that you can start and stop both belts at the same time and fold them up and down at the same time.

Button **E**
This button is used for resetting of the trip control. Hold the button until the value is reset.

Toggle switch **F**
This switch is used for adjustment of the belt speed of the left belt between value 5 and 100. One push changes the value by 5. The value is shown in the display.

Toggle switch **G**
This switch is used for adjustment of the belt speed of the right belt between value 5 and 100. One push changes the value by 5. The value is shown in the display.

Toggle switch **H**
This switch is used for conversion of the machine from working to transport position. This switch and the double acting outlet are activated at the same time.
Since it must be possible to move the cutting units forward during working, you can convert the machine from transport to working position without using the switch.
The machine cannot be converted if PTO is running or if the belt units are not folded up to inactive position. You will hear an alarm and the display will show E3.

Toggle switch **I**
With this switch you choose whether the cutting units are lifted/lowered separately or simultaneously. You cannot place the machine in transport position if the toggle switch is not in the middle position. You will hear an alarm and the display will show E3.

WARNING: If the power for the control unit is interrupted, the valves will open and the oil can flow freely. Therefore the cutting unit which is lifted will be lowered and the other cutting unit can go up. Therefore, NEVER stand near the cutting units while using this function.

CONVEYOR BELT

The belt has been operated and adjusted from the factory to run correctly, but without load from the crop. As the belt is made of an elastic material it may stretch a little when initially driving in the field. Therefore, you must note the following:

IMPORTANT: When you start operating in the field it is important to check the belt after the first couple of rounds and make the necessary readjustments until the belt runs correctly. Adjustment of belt is described in the section MAINTENANCE.
If the belt runs hard against the front or back plate, it will get damaged within a short time. We therefore recommend you to check daily that the belt runs correctly.

LATERAL ADJUSTMENT OF BELT UNIT

The belt unit can be laterally adjusted on the frame which fixes the Collector in relation to the frame of the machine. Lateral adjustment of the belt unit can be necessary in order to obtain optimal placing of the crop which is thrown from the belt towards the already existing swath from the front machine. The belt unit can be adjusted approx. 50 mm in each direction. The distance **A** must not be smaller than 0.

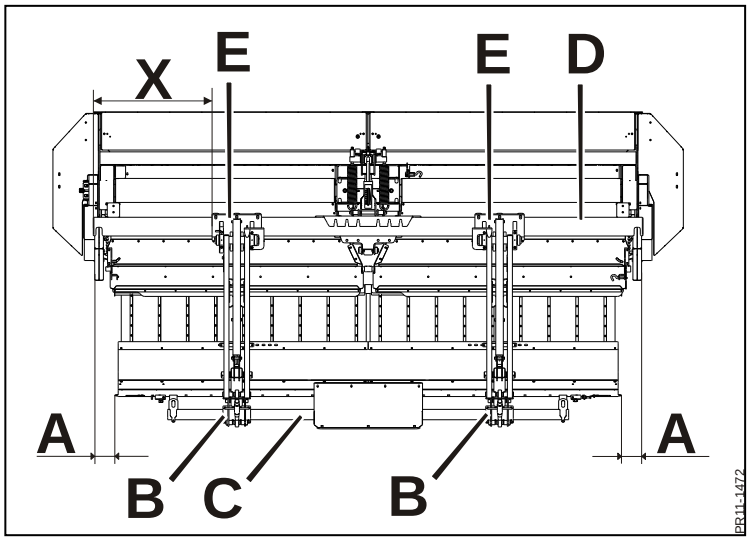


Fig. 3-24

Fig. 3-24 The belt unit is adjusted laterally by loosening the 16 bolts which hold the brackets **B**, after which the belt unit **C** can be displaced. Tighten the 16 bolts again when the belt unit is in the desired position.

4. GREASING

GREASE

Always ensure that the machine has been properly greased before it starts operating.

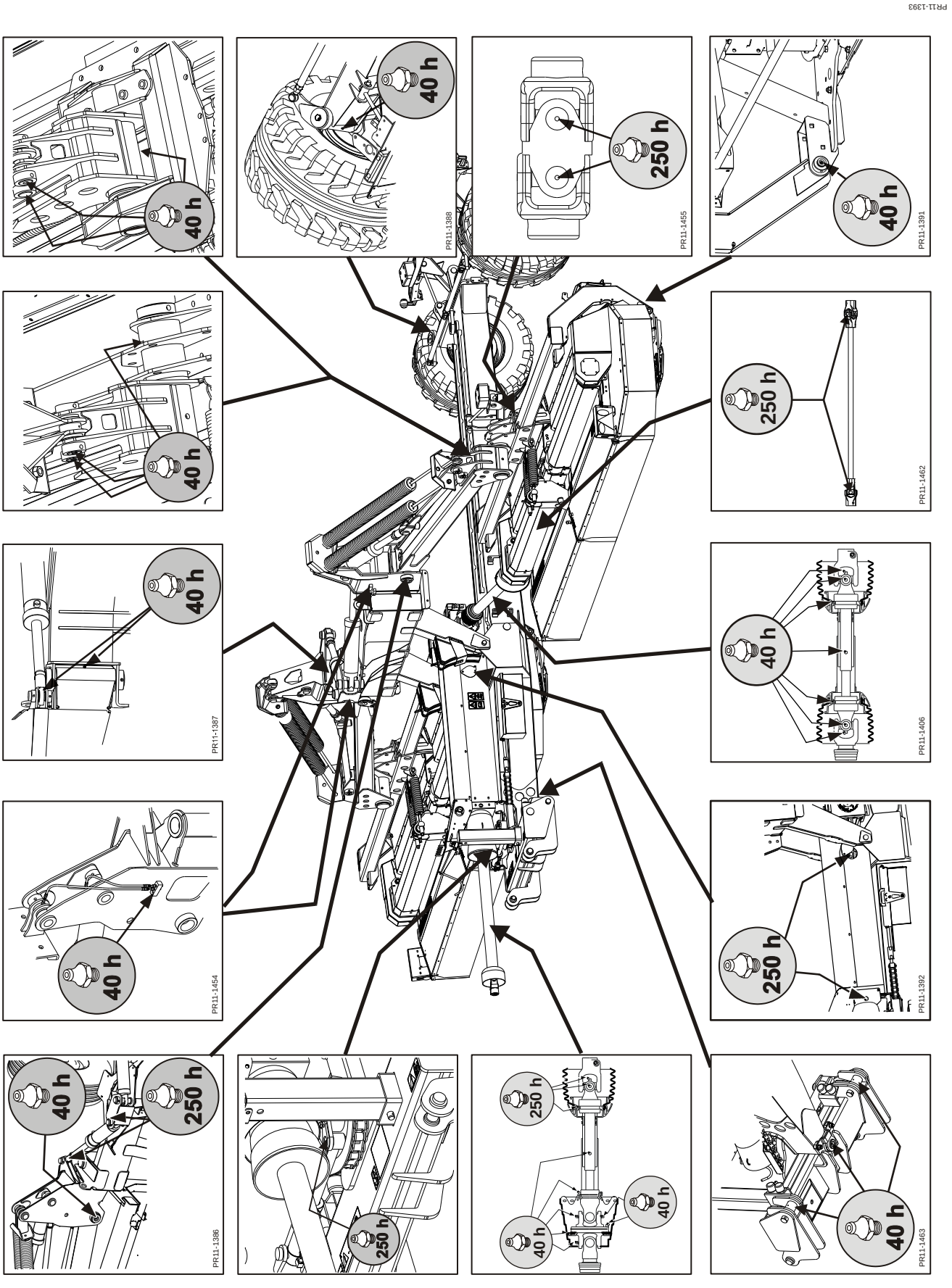
Go through the greasing chart.

TYPE OF GREASE: Universal grease of good quality.

Rotating mechanical connections are greased with grease or oil as required.

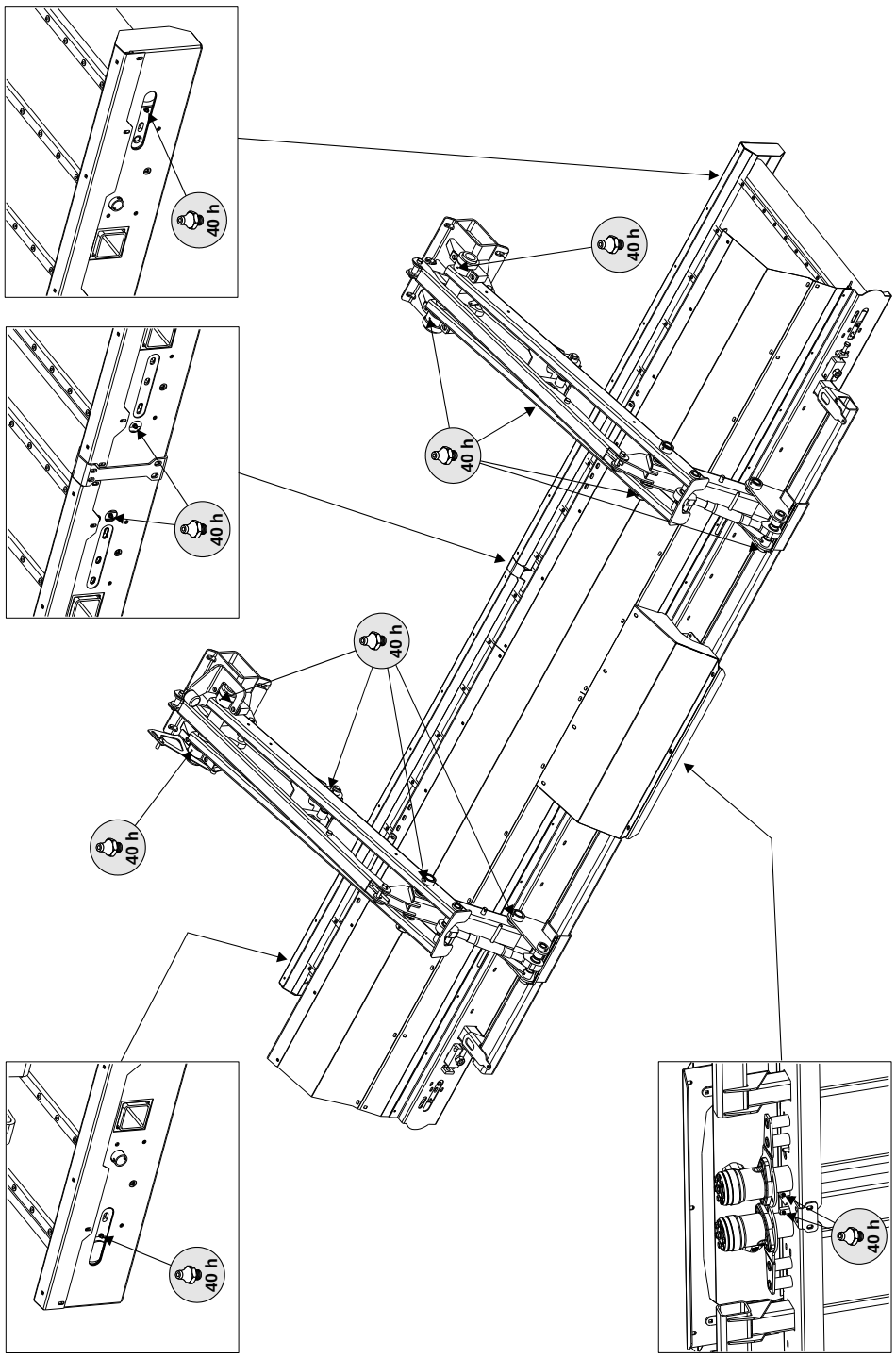
IMPORTANT: The bearings on the conditioner rotor should **NOT** be greased. These grease nipples are only mounted so that the bearing housings can be filled with grease at the factory in order to prevent dirt and water from entering. If the bearings are greased any further, there is a risk that the sealing will be damaged.

Lubrication chart for disc mowers type <u>GXT 13005 and GXT 13005 P</u>
The grease points **must** be greased according to the operation time intervals indicated.



Greasing chart for Collector units

The grease points **must** be greased according to the operation time intervals indicated, however, at least once every year.



OIL IN THE CUTTER BAR

THE CUTTER BAR

Since the machine has different cutter bar sizes, you have to count the number of discs per cutter bar in order to know the correct oil content.

OIL CONTENT

The oil in the cutter bar is very thick, especially when it is cold. Therefore, wait minimum 15 minutes if the oil is cold and minimum 3 minutes if the oil is warm before checking the oil level if the machine has been moved or has been in operation.
It is practical to place the machine in the correct horizontal position for oil level measuring (as described below) when the working day is over to be sure that the oil is correctly distributed the next morning and the oil level can be checked without any waiting time.

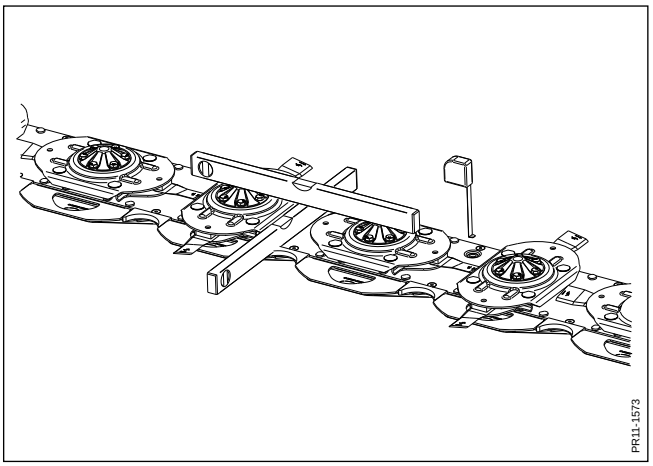


Fig. 4-1

Fig. 4.1 On each cutterbar there are 2 plugs for inspection of oil level and filling. The plugs are placed between the 2nd and 3rd disc from the left and between the 2nd and 3rd disc from the right.

The oil level must be between 7 and 9 mm, as an average of the measurements at the filling holes.

Even if the cutterbar is inclined or curved up to 20 mm, the oil level is read as an average of the two measurements.

Oil level

Fig. 4-1 To check the oil level, place the cutter bar horizontal, which should be checked by means of a spirit level, both lengthwise and crosswise.

In order to facilitate the oil check we recommend you to have a permanent "oil measuring platform" on which the cutter bar can be placed when checking the oil level.
This means that the check for horizontal cutter bar with spirit level as shown in Fig. 4-1, need not be repeated every time the oil level is checked.

The oil level must be checked every day during the harvesting season at one of the plugs.

OIL CHANGE:

Oil change: The first change of oil in the cutter bar must be made after 50 working hours and then after every 200 working hours or at least once every season.

The easiest way to change the oil is to let the machine run a couple of minutes until the oil is hot. At the same time this will ensure that impurities are mixed with the oil and are removed when changing the oil.

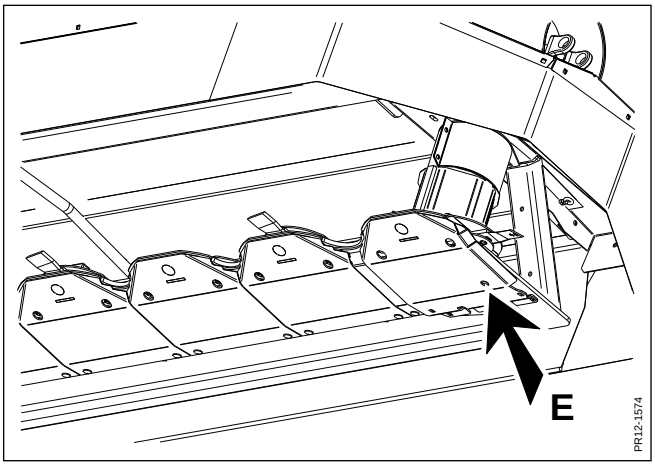


Fig. 4-2

Fig. 4-2 The plug for draining of oil is placed in the hole in the outermost guide shoe E.

When changing the oil, ensure you use a correct oil type.

Correct oil type: **SHELL OMALA S 2G 320**

Or similar quality of other suppliers.

WARNING: **Never** fill with more or less oil than prescribed.
Too much oil as well as too little oil in the cutter bar may cause unintentional overheating which in the long term will damage the bearings in the cutter bar.

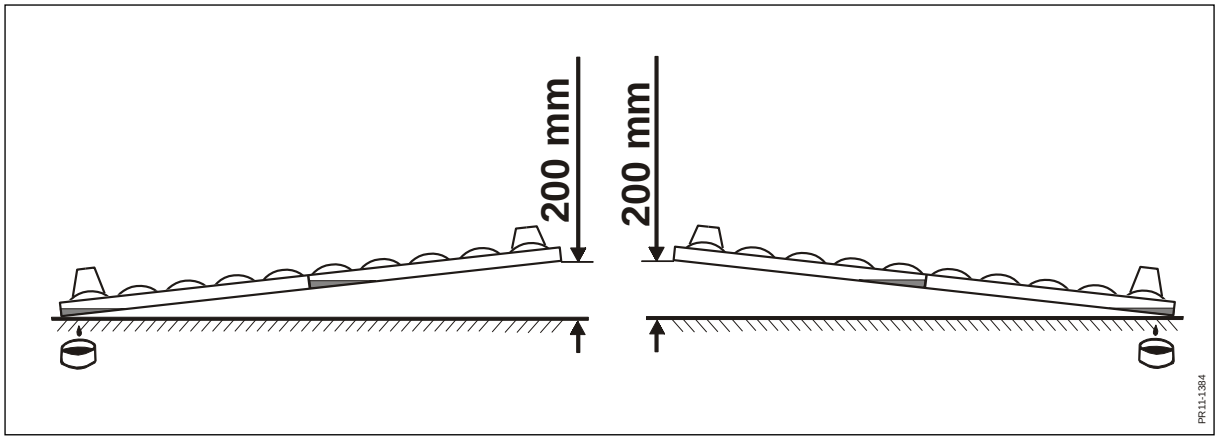


Fig. 4-3

Fig. 4-3 For oil change the cutter bar is raised minimum 200 mm to ensure optimum emptying.

Each cutting unit consists of 2 cutter bars. You must empty these by lifting the cutting unit in one side. Empty the cutter bar in question. Then lift the other side and empty the other cutter bar.

The drain plug is fitted with a magnet and should be cleaned at every oil change.

It is recommended to measure the oil volume drained out, and then add the same volume again.
Measure the oil level, and adjust if necessary.

Correct oil content:	**6-disc cutter bar**	**2.2 l**
	7-disc cutter bar	**2.5 l**

REMEMBER: **Never** fill with more oil than prescribed.
Too much oil as well as too little oil in the cutter bar causes unintended heating which in time will damage the bearings.

OIL IN THE GEARBOX ABOVE THE CUTTER BAR

CENTRAL GEARBOX

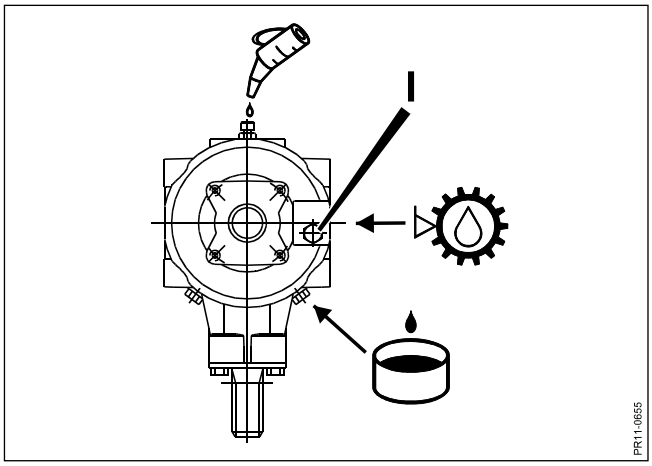


Fig. 4-4

Fig. 4-4 **Oil content:** **0.8 litres**

Oil type: API GL4 or GL5 SAE 80W-90

Oil level: **Check the oil level after every 40 hours of operation.**

Oil change: First oil change after 50 working hours and then after every 500 working hours or at least once a year. It is recommended to suck the oil out of the gearbox.

GEARBOX ON TRAILER

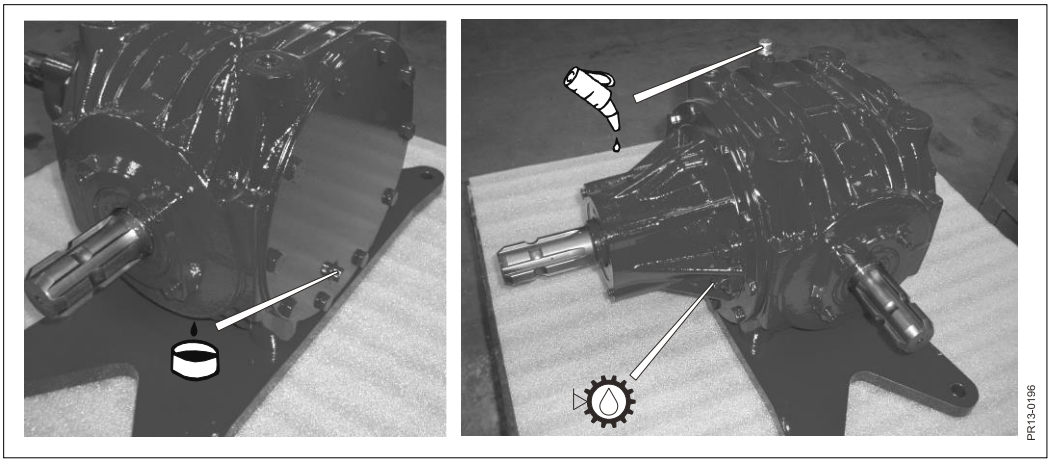


Fig. 4-5

Fig. 4-5 **Oil content:** **4.4 litres**

Oil type: API GL4 or GL5 SAE 80W-90

Oil level: **Check the oil level after every 40 hours of operation.**

Oil change: First oil change after 50 working hours and then after every 500 working hours or at least once a year.

PTO SHAFTS

A separate instruction manual for the PTO shafts is enclosed. This is fixed to the PTO safety guard. This section describes the features that are specific for GXT.

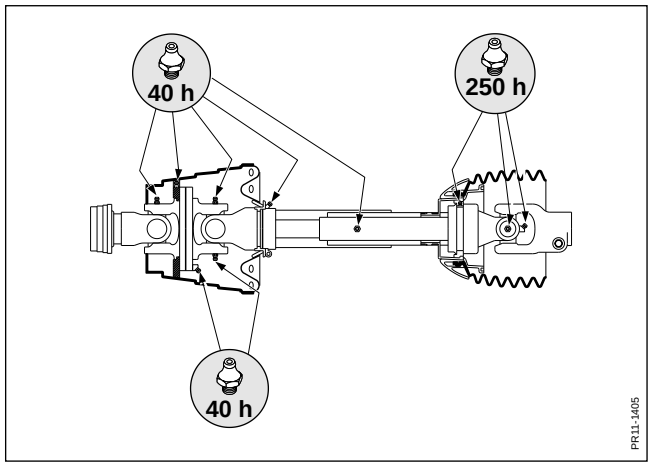


Fig. 4-6

Fig. 4-6 All PTO shafts generally have a 250 hour greasing interval, except the wide-angle joint and the profile tube on the PTO shaft between tractor and machine.

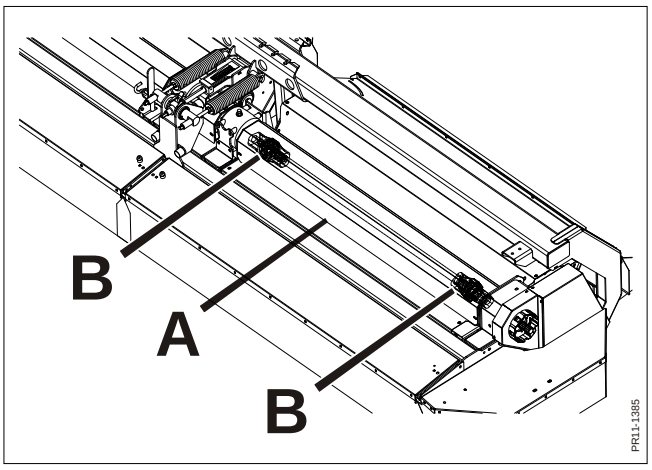


Fig. 4-7

Fig. 4-7 The guard **A** must be dismounted in order to grease the universal joints **B**. There are 4 universal joints per cutting unit, however GXT 13005 only has one shaft and two universal joints at each side, closest to the middle of the machine. The universal joints must be greased with a 250 hour interval.

5. MAINTENANCE

IN GENERAL

WARNING: **When repairing or maintaining the machine it is especially important to ensure correct personal safety. Therefore, always park the tractor (if mounted) and the machine according to the GENERAL SAFETY INSTRUCTIONS items 1-20 in the beginning of this instruction manual.**

IMPORTANT: **Screws and bolts on your new machine must be retightened after some hours of operation. This also applies if repairs have been made.**

Torque measurement M_A (if nothing else has been stated).

A Ø	Class: **8.8** **M_A** [Nm]	Class: **10.9** **M_A** [Nm]	Class:**12.9** **M_A** [Nm]
M 8	25	33	40
M 10	48	65	80
M 12	80	120	135
M 12x1,25	90	125	146
M 14	135	180	215
M 14x1,5	145	190	230
M 16	200	280	325
M 16x1,5	215	295	350
M 18	270	380	440
M 20	400	550	650
M 24	640	900	1100
M 24x1,5	690	960	1175
M 30	1300	1800	2300

FRICTION CLUTCH

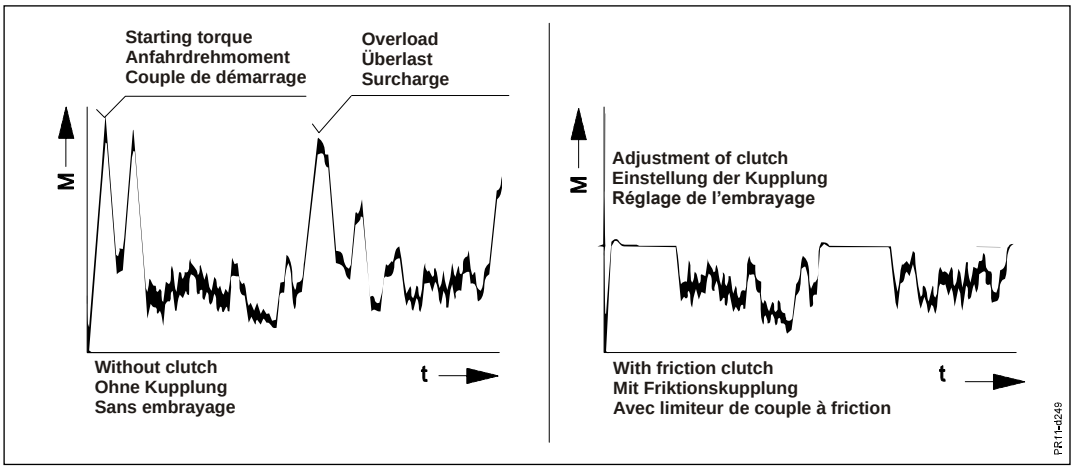


Fig. 5-1

Fig. 5-1 **In order to ensure a long life for your tractor and machine** the machine is delivered with **friction clutch** on the PTO drive shafts between the frame and cutting units. The difference between these is the direction in which the free-wheeling is running. The figure illustrates how the clutch protects the transmission against high torque peaks and at the same time is capable of transmitting the torque while it slips.

In order to ensure that the clutch works as intended it must be “aired” at regular intervals **as dirt and moisture may cause the clutch to get “stuck”.**

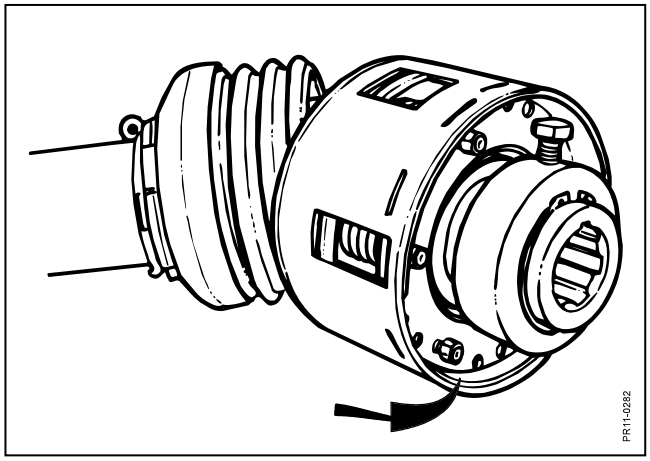
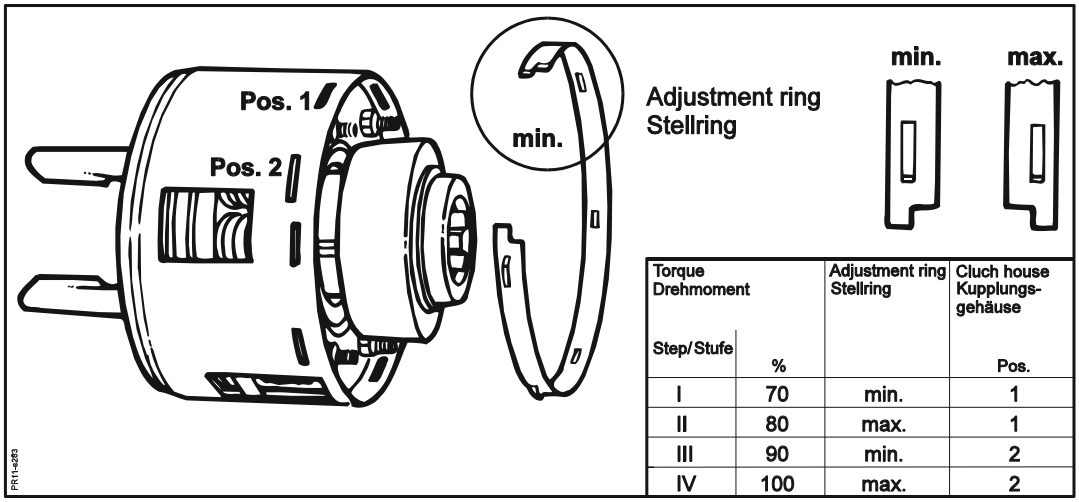


Fig. 5-2

Fig. 5-2 Before the start of a new machine and after a long period of standstill, e.g. winter storage, **the clutch is "aired" in the following way:**

The six nuts on the flange are tightened. Hereby the springs are compressed so that they do not press on the clutch plates and the clutch can rotate freely. **Have the clutch rotate for half a minute** to remove dirt and possible rust on the plates. The nuts are **loosened** again until they are at level with the threads of the bolts, and the springs can press on the clutch plates.



Torque Drehmoment Step/Stufe	%	Adjustment ring Stellring	Cluch house Kupplungs-gehäuse Pos.
I	70	min.	1
II	80	max.	1
III	90	min.	2
IV	100	max.	2

Fig. 5-3

Fig. 5-3 The torque in the friction clutch has 4 different torque adjustments, which should be chosen as required. This is done by turning the adjustment ring and by choosing between 2 different positions in the clutch housing.

1. The adjustment ring has a **minimum** and a **maximum** position.

2. The clutch housing has two different sets of slots in the height into which the adjustment ring can be mounted, **pos. 1 and pos. 2.**

TORQUE ADJUSTMENT GUIDE

PTO	Torque	Adjustment
1000	1500 Nm	Step II

The adjustment can only be made when the six nuts are tightened. After the adjustment the nuts are loosened again to the end of the bolt.

WARNING: **If the clutch is overloaded it will slip and get heated, and hence be worn quickly. Overheating will damage the friction plates. If the clutch is blocked or partly put out of function in other ways, the factory guarantee will be discontinued.**

CONTROL OF BALANCE

WARNING: **When driving in the field you must always pay attention if the machine starts vibrating more than usually or if it has jarring sounds.**
The discs run at up to 3000 RPM, and one broken blade may cause serious injury to persons or material damage resulting from in-balance.
If working with a modern closed cabin the symptoms may be difficult to discover, and once in a while you have to get out and check if all blades are intact.
In the long run in-balance will cause fatigue fractures and serious damage. All machines manufactured by KONGSKILDE are tested and checked for vibrations with special tools.

The first time you start the machine pay attention to vibrations and noise to have a standard of comparison later.

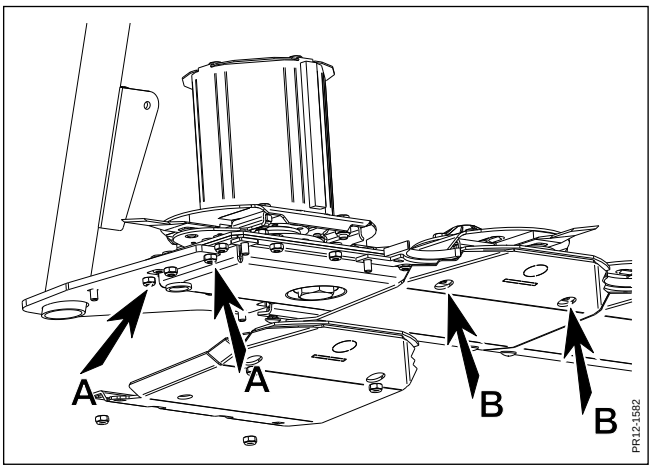


Fig. 5-4

Fig. 5-4 To avoid damage caused by vibrations in the cutting unit, the cutter bar must be fastened correctly to the frame. This must be checked at regular intervals.
In order to check this the outermost guide shoes must be dismounted. The nuts on the bolts, **A**, which fix the cutter bar to the frame must be retightened.

It is M10 bolts which must be tightened to 75 Nm (7 Kpm).
The bolts that are placed where there are recesses in the frame should not be retightened. These are only intended to hold the cutter bar together and do not go through the frame.

The bolts **B** at guide shoes and shearbars on the cutter bar should also be checked at regular intervals.

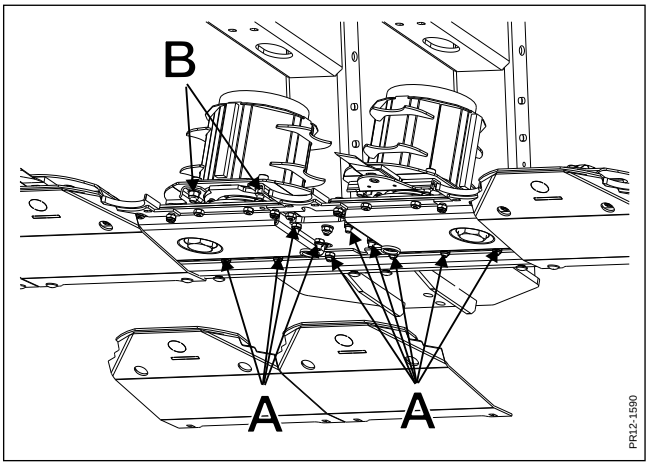


Fig. 5-5

Fig. 5-5 The bolts **A** must be checked at regular intervals to see if they are tightened correctly. Tighten the bolts if necessary.
The bolts **B** which are used to fix the blade holder on the input disc should be tightened at regular intervals.

CONDITIONER

Missing or defective fingers on the conditioner rotor may cause in-balance which will result in reduced life of the bearings and functional problems during working.

CUTTER BAR

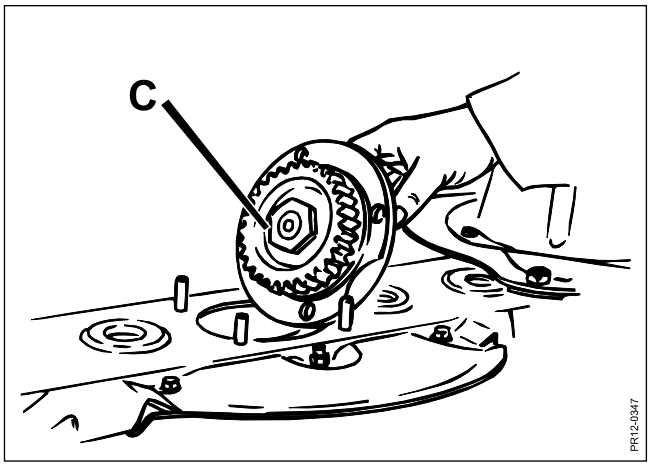


Fig. 5-6

Fig. 5-6 Cutter bars are used on which each hub **C** below the discs is easily replaced from above (Top Service cutter bar).

The hubs with bearing housing are dismounted by loosening the bolts that fix it to the cutter bar.

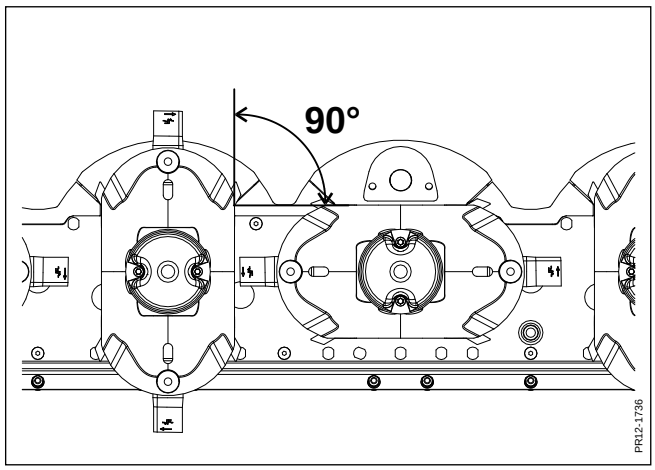


Fig. 5-7

Fig. 5-7 Make sure that the discs are mounted 90 degrees staggered in relation to each other.

REPLACEMENT OF HUBS

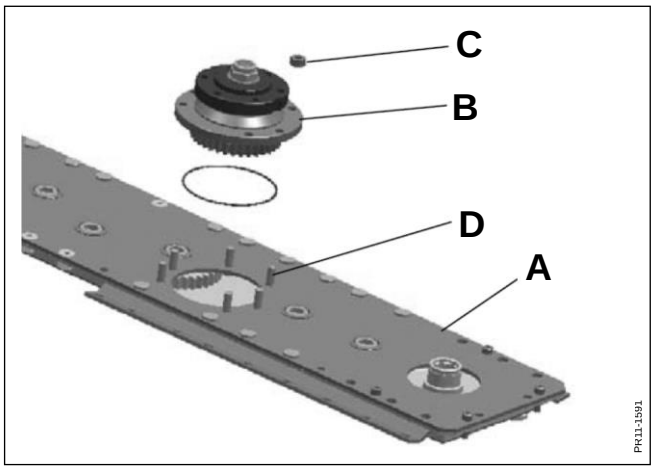


Fig. 5-8

Fig. 5-8 When the hub is mounted the surface of the cutter bar **A** and the underside of the hub **B** must be clean and greased with a thin layer of grease. The nuts **C** must be locked with Loctite 243 on the threaded pins **D** and tightened to **92 Nm** (9.2 Kpm).

POWER TAKE-OFF FOR THE CUTTER BAR

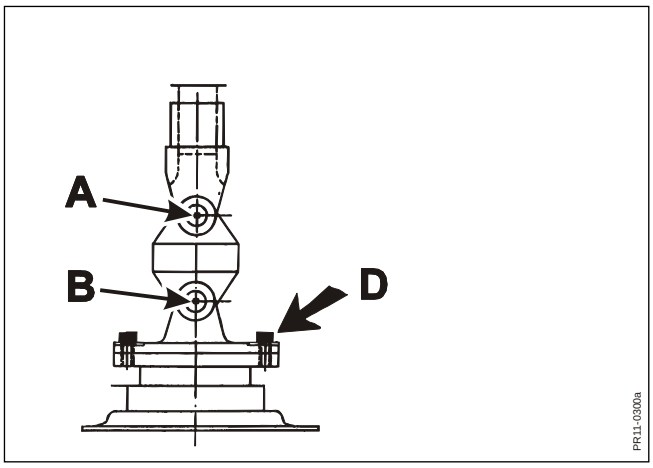


Fig. 5-9

Fig. 5-9 The PTO for the cutter bar should run with minimum angular deviation. Therefore a special tool is available (KONGSKILDE part number 6000-836x) which is used for placing the bevel gearbox precisely in relation to the cutter bar.

If you do not have this special tool, check that the deviation from the vertical line at **A** and **B** is as small as possible and maximum +/- 3 mm. This can be tested by placing a right angle on the flange at **D**.

The bolts **D** are tightened to 48 Nm (4.8 Kpm) and must be locked with LocTite 243.

The PTO shaft for the cutter bar which is bolted onto the input disc is greased for life. If it is separated it must however be greased before it is mounted again.

CAUTION: Before starting the machine, the discs must be turned a minimum one complete revolution by hand in order to check that no parts are colliding.

WARNING: After replacement of blades, blade bolts, nuts or discs check that no tools have been left on the machine.

DISCS AND BLADES - Q+

Your machine is fitted with a disc/blade system for quick replacement of blades which has been developed to facilitate maintenance of the machine.

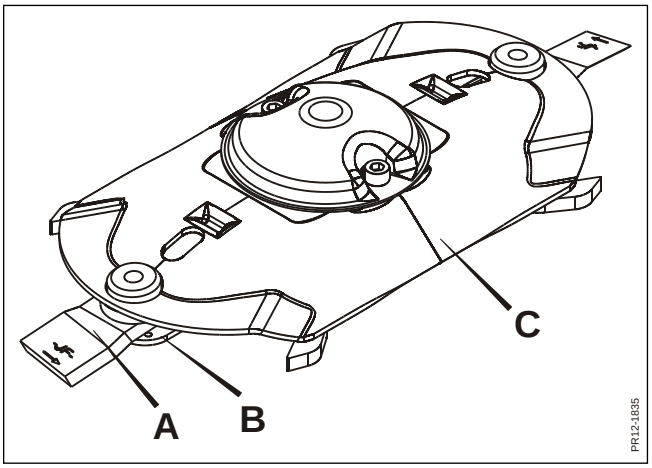


Fig. 5-10

Fig. 5-10 The system is designed for quick fitting/replacement of blades and high safety as blades **A** cannot unintentionally be released from the blade holder **B**, which is bolted under the disc **C**. The blade holder **B** fixes the blade firmly to the disc.

Discs, blade holders and blades are made from high-alloyed hardened materials. A special heat treatment results in an especially hard and ductile material which can handle extreme stress. If a blade or disc is damaged, do not attempt to weld the parts together again as the generation of heat will destroy the material properties and expose you and others to increased risk.

IMPORTANT: Damaged blades, discs and blade holders must be replaced by original KONGSKILDE spare parts to obtain a safe operation.

WARNING: When replacing blades, both blades on the disc in question must be replaced in order not to create an in-balance.

CAUTION: Always lower the cutting unit to the ground before replacing blades, blade holders, discs and the like.

BLADES

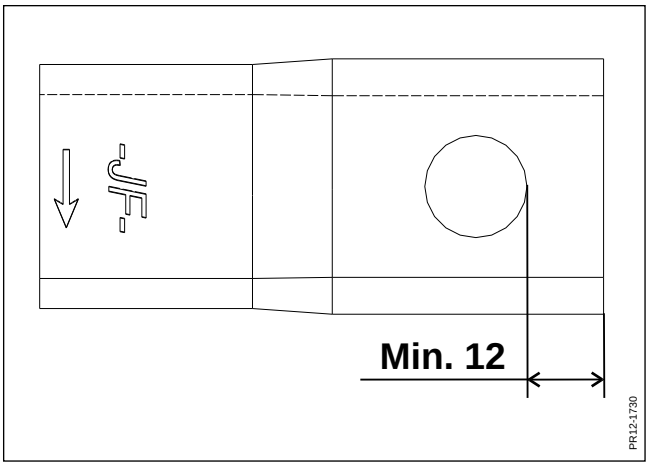


Fig. 5-11

Fig. 5-11 Replace blades immediately if:

1) The blade is bent or cracked,
2) The thickness behind the hole is less than 12 mm.

BLADE HOLDER

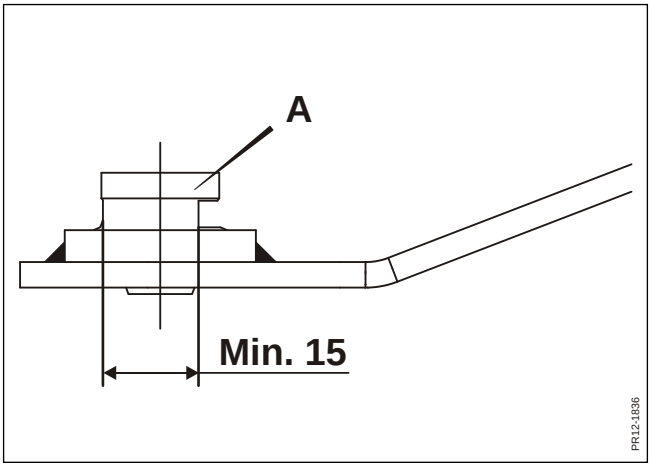


Fig.5-12

Fig. 5-12 The blade holder must be replaced if:

1) The blade holder does not fix the blade firmly to the disc.
2) The blade pin **A** is badly worn on one side
3) The thickness of the blade pin at the thinnest spot is less than 15 mm.

IMPORTANT: This must especially be checked after collision with foreign matter, after replacement of blades and the first time you use the machine.

REPLACEMENT OF BLADES

DANGER: **It is very important to check the parts after:**

- **Collision with foreign matter, or**
- **If a blade, as an exception, is missing on the cutter bar.**

Parts can be damaged and MUST be replaced if you have the slightest doubt whether they have been damaged to ensure safety against loss of rotating parts.

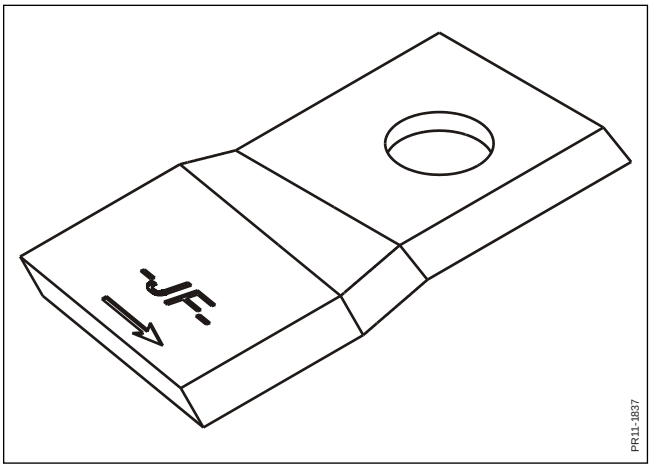


Fig. 5-13

Fig. 5-13 **Twisted blades** can be used on both sides by turning the blade, but it **must** remain on the same disc.
Please note that twisted blades are available in left-handed and right-handed versions, adapted to the different direction of rotation of the discs. The blade is placed correctly if the front edge of the blade is lower than the rear edge when the disc is turned in its direction of rotation. An arrow is stamped in the blade showing the right direction. If blades are not placed correctly, it will result in cutting irregularities.

Replacement of blades

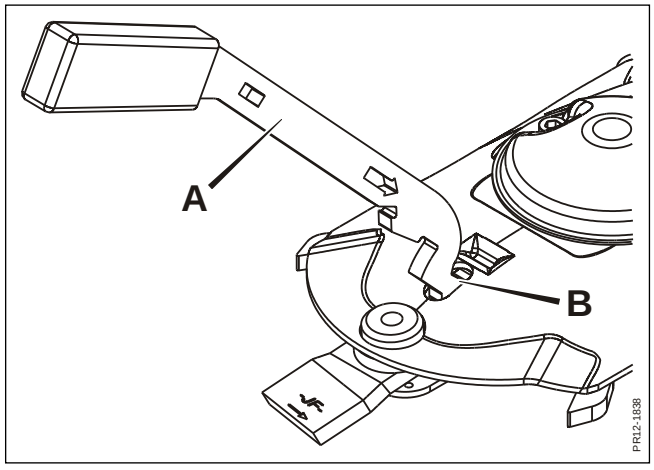


Fig 5-14

Fig. 5-14 The replacement tool **A** is placed in the oblong hole **B** in the disc. When the tool is in the hole it is pushed forward in the oblong hole.

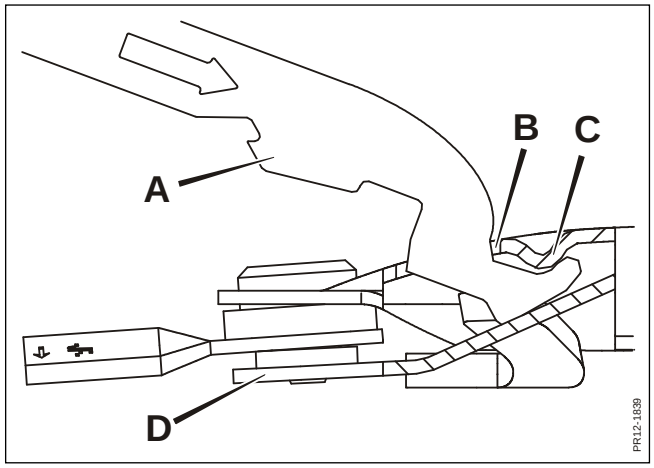


Fig. 5-15

Fig. 5-15 When the replacement tool has been pushed forward in the oblong hole **B** it is situated between the stop **C** and the blade holder **D** as shown.

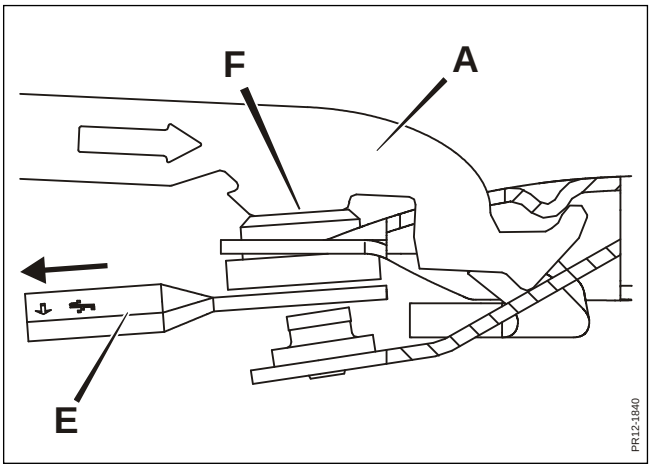


Fig. 5-16

Fig. 5-16 The tool **A** is pulled forward and down. The tool is pushed down against the stop **F**, and the blade **E** can be removed.

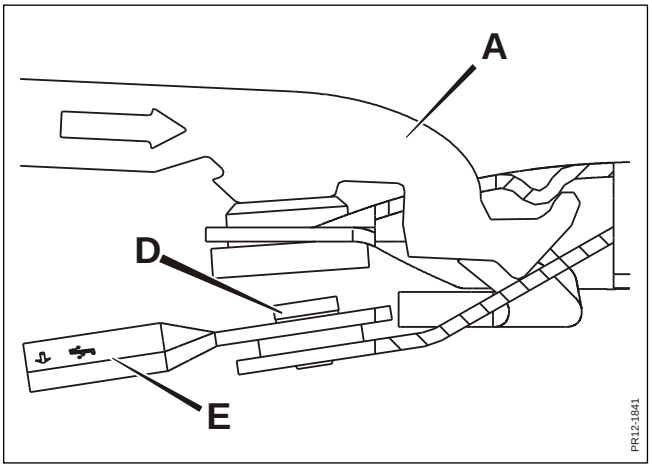


Fig. 5-17

Fig. 5-17 When placing a blade **E** you must ensure that the blade is placed correctly on the pin **D** of the blade holder before you slacken the tool **A** and let it go back up. The replacement tool **A** must, by the force of the blade holder only, end up in the same position as before you replaced the blade. If the blade holder does not let the replacement tool return fully, it indicates that the blade is not placed correctly.

WARNING: **Replace the blade with your free hand. Do not let go of the handle since the spring power of the blade holder can make the tool spring back with considerable power.**

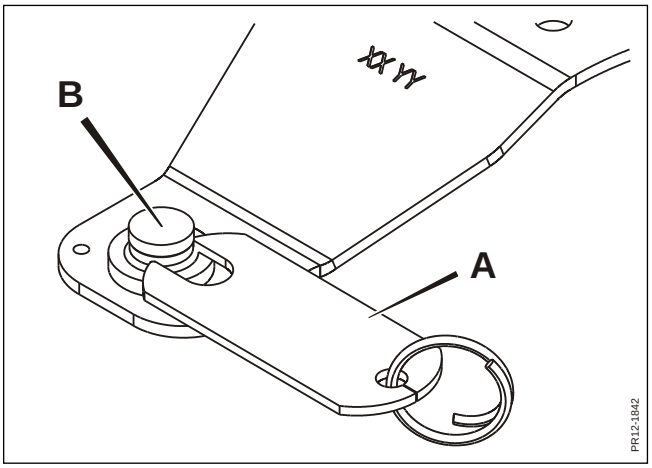


Fig. 5-18

Fig. 5-18 In connection with replacement of blades check the blade pins **B** on the discs regularly with the gauge **A** (in the spare parts package supplied with the machine when new).

IMPORTANT: When the gauge A can get over the blade pin B it MUST be replaced immediately. The gauge should not be able to get over the blade pin from any direction (see fig. 5-12)

When mounting blades the procedure is carried out from fig. 5-14, after inspection of the blade pins.

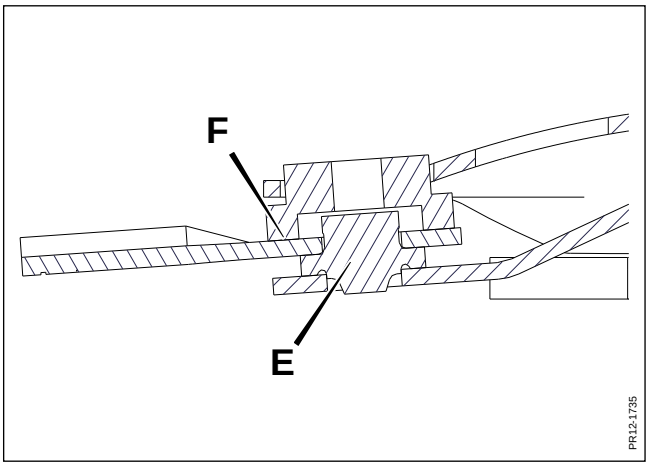


Fig. 5-19

Fig. 5-19 **IMPORTANT:** Make sure that there are no impurities between the contact faces of the blade pin and the disc **F** and that the blade pin of the blade holder **E** has correct contact with the bottom of the blade and that the blade is firmly in contact with the disc. If the blade pin is not firmly in contact with the disc, the blade holder should be replaced.

IMPORTANT: All discs must have the correct number of blades.

CAUTION: **When mounting is finished, the discs must be turned a minimum one complete revolution by hand in order to check that no parts are colliding.**

CAUTION: Worn blades and the replacement tool must be removed from the machine and the guards must be placed correctly before starting the machine.

REMEMBER: The blades can be used on both sides.

REPLACEMENT OF DISCS

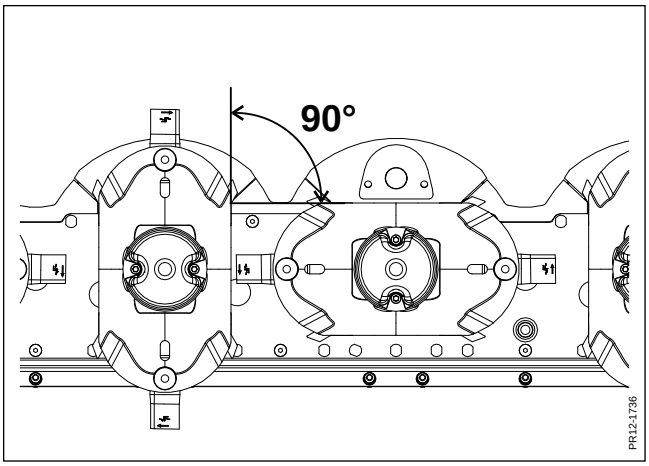


Fig. 5-20

Fig. 5-20 If one or more discs have been dismounted they must be mounted again **staggered 90° in relation to each other**.

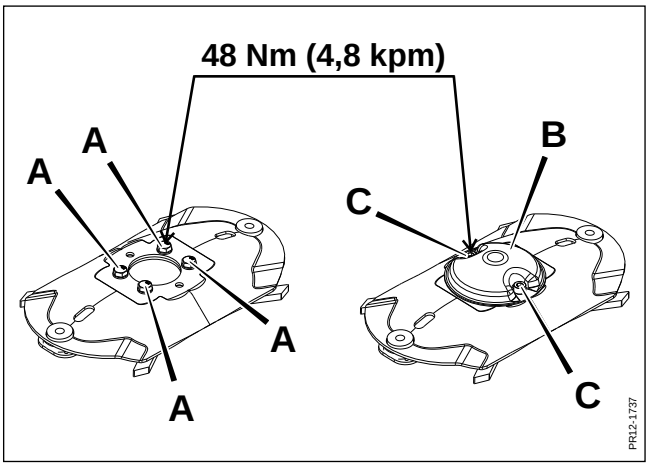


Fig. 5-21

Fig. 5-21 The discs are fastened with 6 bolts which must be tightened to 48 Nm (4.8 kpm). 4 bolts **A** are under top **B**. 2 bolts **C** also fasten top **B**. Input and output discs do not use any top, so here all 6 bolts are identical.

IMPORTANT: After replacement of blades and blade bolts check that the blades are mounted correctly and that all discs have the correct number of blades.

CAUTION: When mounting is finished, the discs must be turned a minimum one complete revolution by hand in order to check that no parts are colliding.

WARNING: After replacement of blades, blade bolts, discs and the like check that no tools have been left on the machine and that the guards have been placed correctly.

AIR BRAKES

IMPORTANT: All repairs or maintenance of the air brake system must be carried out by a specialist.

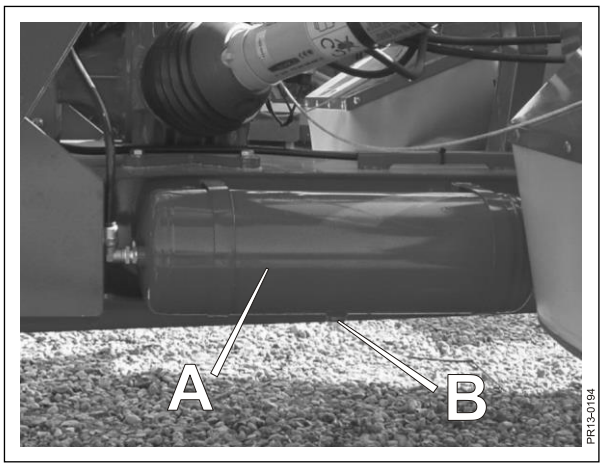


Fig. 5-22

Fig. 5-22 Once every day you must drain the air tank **A** of water. Pull the ring on the drain valve **B** to drain the air tank.

A filter is integrated with the quick-release coupling. If the filter is blocked the air will pass unfiltered through the quick-release coupling. That may cause damage to other components in the brake system.
Therefore it is necessary to clean the filter regularly.

CONDITIONER (NOT GXT 13005)

Replace defect fingers to avoid crop waste. Furthermore, the conditioner rotor will be out of balance resulting in e.g. reduced life of the bearings.

TIGHTENING OF V-BELTS

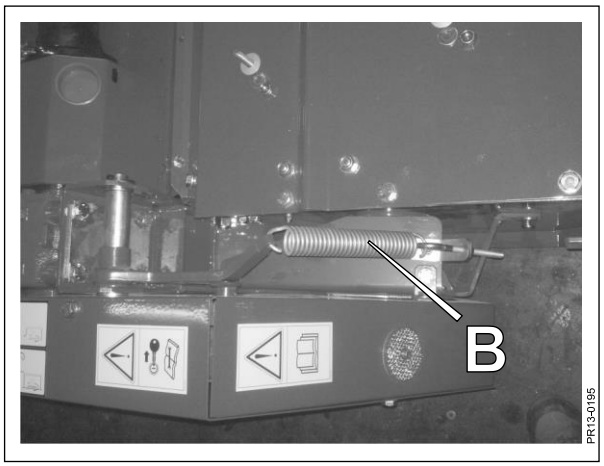


Fig. 5-23

Fig. 5-23 The V-belts are tightened with a tension pulley.
The tension pulley is tightened automatically by a spring **B**. The spring should be adjusted so that there is always at least a 1-2 mm gap between the spring coils.

TYRES

Check in the diagram below which tyre pressure applies to your disc mower:

	GXT 13005 GXT 13005 P	GXT 13005 P Collector
Tyre dimension	15.0/70-18 AW	15.0/70-18 AW
Recommended tyre pressure bar/PSI**	4.2 / 61	5.7 / 83
Minimum tyre pressure bar/PSI*	2.8 / 41	4 / 58
Tyre dimension	500/50-17 FL+	500/50-17 FL+
Recommended tyre pressure bar/PSI**	2.6 / 38	3.4 / 50
Minimum tyre pressure bar/PSI*	20 / 29	2.6 / 38

*) Minimum tyre pressure can be used when driving in areas where extra large carrying capacity is required (meadows, sandy areas or the like). **On public roads speed limits may not exceed 30 km/h at minimum tyre pressure.**

****) On public roads speed limits may not exceed 50 km/h at recommended tyre pressure, however in consideration of local traffic rules.**

At regular intervals you should check the tyre pressure and make sure that the wheel bolts have been tightened properly.

FIXING OF WHEELS

The wheels are fastened by tightening the opposed bolts with a torque wrench. The correct torque moment is = 380 Nm.

The wheel-fixing bolts must be tightened the first time after 8 hours; after that once a month.
After a wheel change it is necessary to retighten after 8 hours.

CHECK OF PLAY IN WHEEL BEARING

To make this check it is necessary to lift the axle clear of the ground, until the wheel can rotate - without hindrance. To adjust the wheel play, dismount the hub cap, remove the split pin, and tighten the hub nut, until there is a noticeable resistance. Then turn the hub nut back, until the first hole for split pin fits. Insert split pin and bend. Fill the hub cap ¾ with new grease, and mount.

COLLECTOR

It must be checked **every day** that the belt runs correctly on the rollers. **The belt runs correctly when it runs close to the back plate of the belt frame and when the carriers have 10-20 mm to the lower edge of the lower front guard**. Adjustment and tightening of the belt is carried out at the right-hand side at the back of the belt unit, see below.
NOTE: When the belt is loaded with grass it will be forced down towards the front guard of the belt frame due to the weight of the grass. Therefore, the belt must run close to the back plate of the belt frame when checked without load from the crop.

The belt unit is equipped with fixed scrapers on the rollers. They prevent accumulation of material on the rollers. However, the rollers must still be **checked every day** for accumulation of material as it may result in damage of belt and other parts. If you find bulges or other irregularities on the rollers, you must clean the rollers and adjust the scrapers, see below.

TIGHTENING OF BELT

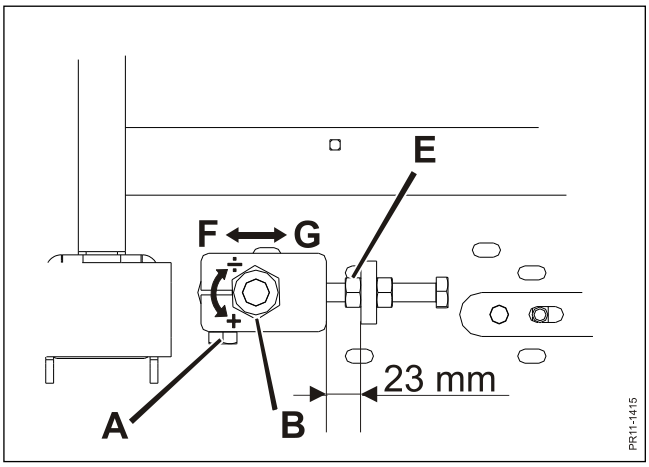


Fig. 5-24

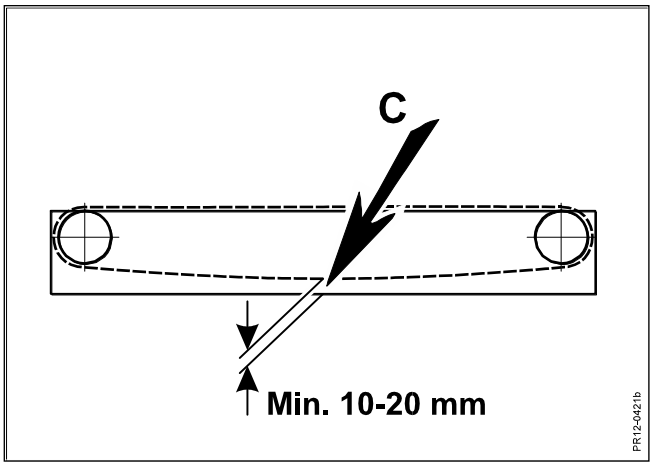


Fig. 5-25

Fig. 5-24 **Tightening of the conveyor belt** is carried out as follows: First, loosen the bolt **A**,
Fig. 5-25 which secures the tightening. With a spanner, turn the bolt **B** towards **+** to tighten and towards **–** to loosen. The belt is tightened correctly when the carriers have 10-20 mm to the lower edge of **the lower front** guard. Tighten the bolt **A** again, when the belt is tightened correctly.

ADJUSTING THE BELT

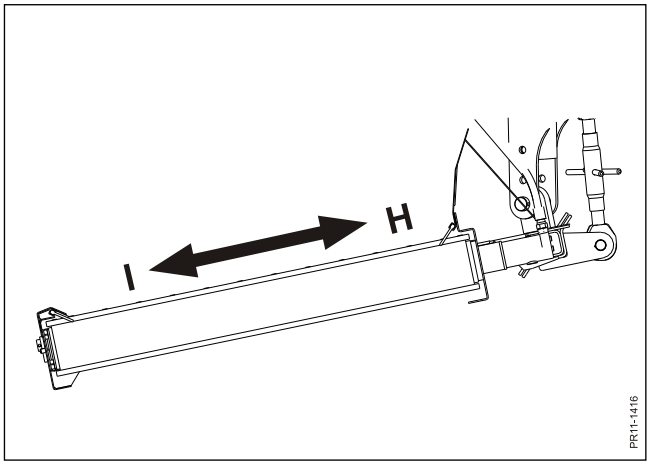


Fig. 5-26

Fig. 5-24 Basic setting is **23 mm**.

Fig. 5-26 1) If the belt has a tendency to work its way upwards in direction **H**, the belt should be slightly tightened at **E** (in direction **G**). (Fig. 5-24). That means the **distance at the top between right and left roller is *increased***.

2) On the other hand, if the belt has a tendency to work its way downwards in direction **I**, the belt should be slightly loosened at **E** (in direction **F**). (Fig. 5-24). That means the **distance at the top between right and left roller is *reduced***.

WARNING: Pay special attention when the conveyor belt runs and do not get too close to rotating parts.

Let the belt run for minimum 30 sec. and check that the belt runs at the top of the rollers without wearing the back plate. The belt must run at the top of the rollers as the crop will press the belt downwards on the rollers during work.

WARNING: When you start operating in the field with a new belt or other new rotating parts (rollers, bearings etc.) it is important to check the belt after the first couple of rounds and make the necessary readjustments until the belt runs correctly.
If the belt runs hard against the front or back plate, it will get damaged within a short time. We therefore recommend you check the belt daily.

ADJUSTING THE SCRAPERS

In connection with the daily check of the belt unit you should also check whether there are bulges on the rollers, which indicate accumulation of material.

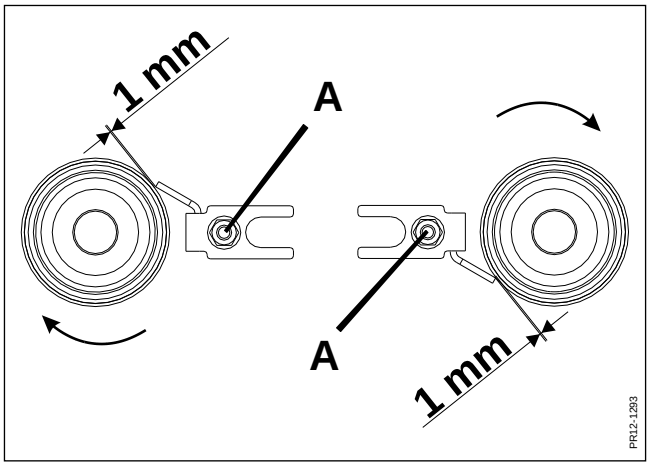


Fig. 5-27

Fig. 5-27 If this is the case the scrapers must be adjusted. This is done by following the description below:

1. Dismount the belt. See the section ”Mounting of belt”.
2. Clean the rollers.
3. Check the scrapers for wear. If they are so worn down that they cannot be adjusted to clean the total width of the roller, they must be ground straight or replaced.
4. The scrapers are adjusted according to the rollers. This is done by loosening the bolt **A** in both sides. Now push the scraper in until there is approx. 1 mm space between roller and belt.
5. Mount the belt again and carry out a test drive. See the section ”Mounting of belt”.

MOUNTING OF BELT

Collector GXT is equipped with an endless belt. The belt can be dismounted easily in connection with e.g. inspection of the rollers or scrapers.

Dismounting is done as follows:

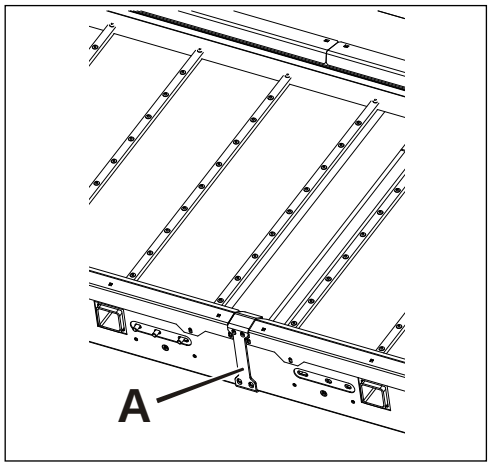


Fig. 5-28

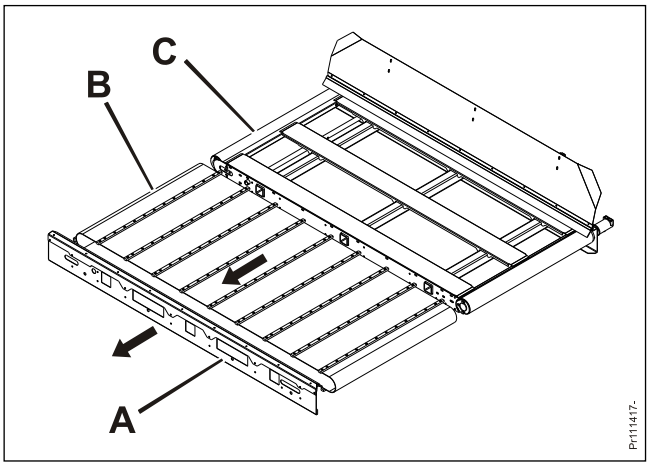


Fig. 5-29

Fig. 5-28 In order to dismount a belt, fitting **A** must dismounted first.

Fig. 5-29 The front guard **A** of the belt unit with the super seal brushing is unbolted from the belt frame **C**. Be aware that not all bolts on the guard must be loosened in order to dismount it.

Fig. 5-24 Now loosen the belt by loosening bolt **A,** and then bolt **B**.

Fig. 5-29 Now the belt **B** can easily be pulled off the belt frame **C** without other parts coming off as well.

The belt can now be serviced or replaced and you have easy access to clean the rollers and scrapers of the belt unit as well.
After servicing the machine, mount the belt again in reverse order.

If a new belt is mounted this should be tightened and adjusted according to the directions in the sections TIGHTENING OF BELT and ADJUSTING THE BELT.

SENSORS

There are 3 sensors on the machine. There is a PTO sensor which registers the RPM of the machine and 2 sensors for registration of the position of the belt unit.

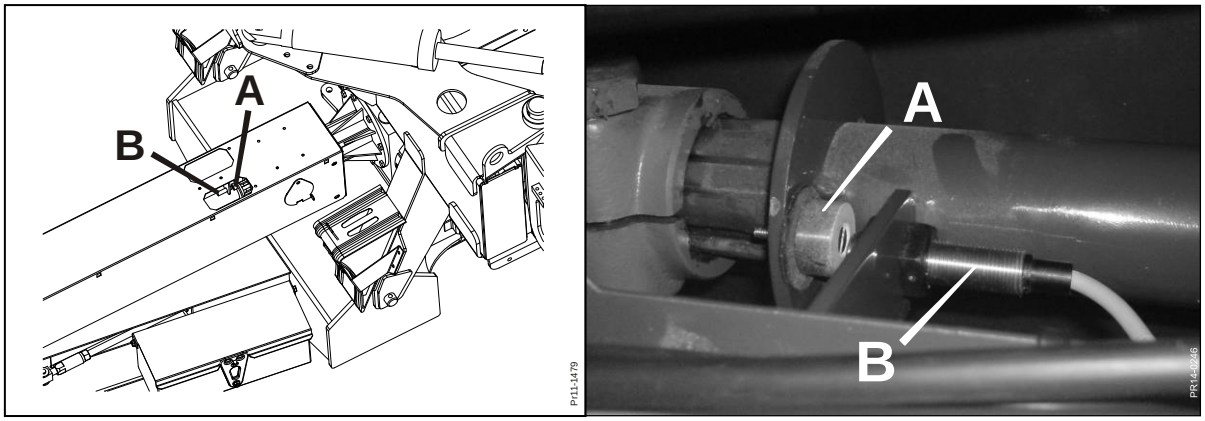


Fig. 5-30

Fig. 5-30 The PTO sensor is marked with “PTO”. It is located at the front of the machine. The guard must be removed in order to get access to magnets **A** and sensor **B**. 2 magnets are mounted on the shaft. Remember to mount the magnets **A** with the felt washer and the white side against the sensor. The distance between sensor and magnet must be 2-10 mm.

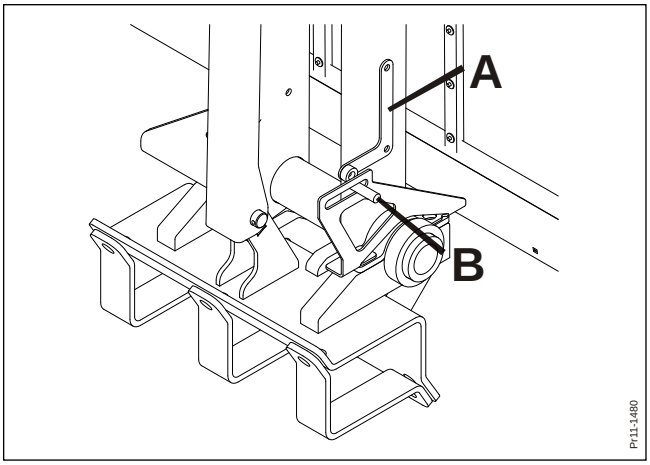


Fig. 5-31

Fig. 5-31 A sensor is mounted for each belt unit in order to check whether the belt unit is folded up. The magnet is mounted on fitting **A** and the sensor is mounted on fitting **B**. The magnet is mounted with felt washer. The sensors are marked with H for right and V for left and are placed according to this.

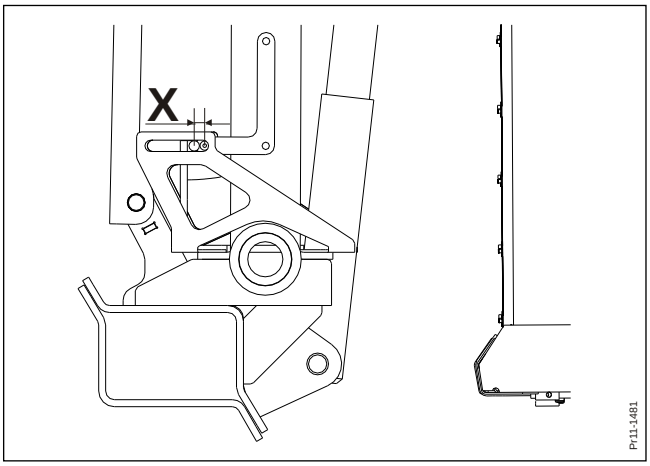


Fig. 5-32

Fig. 5-32 The sensor is mounted in the oblong groove. Adjust the sensor so that the distance X is between 0 and 15. If the electronic control indicates that the belt unit is not folded up, even though it is, the distance X may be too big.

6. INTERRUPTIONS

PROBLEM	POSSIBLE CAUSE	ACTION
Stubble uneven or bad cutting.	Wrong relief. Number of rpm on the tractor PTO too low. Blades are dull or missing. Discs, stone protectors and flow caps are deformed. Top Safe releases	Check the relief springs Check if the tractor PTO runs with 1000 rpm. Turn or replace the blades. Replace deformed parts. Loosen Top Safe springs
*) Stripes in stubble.	The inclination of the cutter bar is not ideal for the crop in question. Accumulation of material on the cutter bar.	Reduce the inclination of the cutter bar. Increase the driving speed. Mount flow caps on the discs
Irregular flow through the machine.	Check if conditioner fingers are worn or missing. Distance between conditioner plate and rotor too big.	Replace worn conditioner fingers. Turn fingers Adjust the conditioner plate so the distance at the front is 10-15 mm. Increase the driving speed.
The machine vibrates/ uneven operation	Check if blades are damaged or missing. Defective PTO drive shaft Defective bearings. Defective flow caps and intensifiers	Mount missing blades. Check that the PTO drive shafts are in order. Check if bearings are loose or damaged. Replace flow caps and intensifiers.
Power requirement seems too high		Remove flow caps on the discs Adjust the conditioner plate to the outermost position

*) Especially short, strong spring crops harvested under unfavourable weather conditions.

PROBLEM	POSSIBLE CAUSE	ACTION
Gearbox heats	Wrong oil level	Check oil level in gearbox (maximum temperature approx. 80° C.).
Cutter bar heats	Wrong oil level	Check oil level in cutter bar (maximum temperature, 90-100° C.).
The grass is not thrown up onto the Collector	Too slow conditioner speed or too large distance between conditioner and conditioner plate.	Check that the tractor is set to 1000 rpm on the PTO Minimize the distance between the conditioner and the conditioner plate.
	The canvas at the back of the cutting unit stops the grass.	Open the stop guard some more. Place the canvas on the stop guard. **IMPORTANT! For safety reasons the canvas must be placed correctly again when driving with inactive belt units.**
The belt speed is irregular or stops completely under load.	The belt brushes against front and rear edge.	Adjust the belt.
	The scraper collides with the roller.	Move the scraper outwards.
Accumulation of material on the belt.	The belt runs too slowly.	Increase the belt speed.
	The grass hits the belt too high.	Adjust the stop guard downwards.

7. STORAGE (WINTER STORAGE)

When the season is over, the preparation for winter storage should be made immediately after. First, clean the machine thoroughly. Dust and dirt absorb moisture and moisture increases the formation of rust. **Be careful when cleaning with a high pressure cleaner. Never** spray directly on the bearings and grease all grease points carefully after cleaning so that possible water is pressed out of the bearings.

The following points are instructions how to prepare for winter storage.

- Check the machine for wear and other defects – note down the necessary parts you will need before the next season and order the spare parts.
- Dismount the PTO drive shafts, lubricate the profile tubes and keep them in a dry place.
- Spray the machine with a coat of rust-preventing oil. This is especially important on parts polished.
- Change the oil in the hydraulic system, the cutter bar and the gear boxes.
- Store the machine in a ventilated building. Lay up the machine to unload the tyres.

COLLECTOR

Especially for GXT 13005 P Collector.

- Check the rollers for crop residue. Clean the rollers if necessary.

8. DIAGRAMS

GXT 13005 AND GXT 13005 P

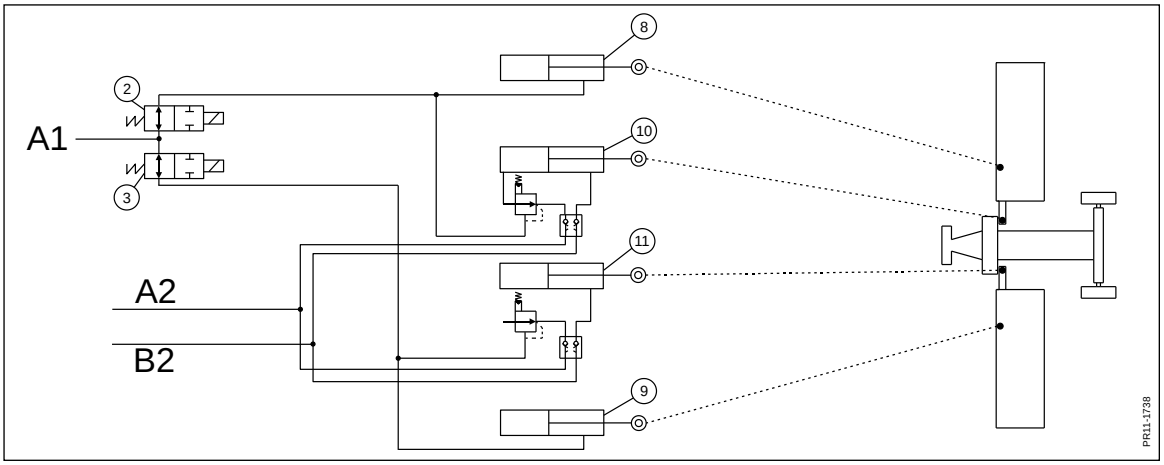


Fig. 8-1

Fig. 8-1 Explanation of diagram:

8. Right lifting cylinder
9. Left lifting cylinder
10. Right conversion cylinder
11. Left conversion cylinder

GXT 13005 P COLLECTOR

Fig. 8-2 Explanation of diagram:

8. Right lifting cylinder
9. Left lifting cylinder
10. Right conversion cylinder
11. Left conversion cylinder
12. Cylinders right Collector unit
13. Cylinders left Collector unit
18. Hydraulic motors left Collector unit
19. Hydraulic motors right Collector unit

Symbols from the electronic control show which valve the button/toggle switch activates.

The number shown at the valve corresponds to the number on the plug of the valve. On the plug it says **OUT + number**. The same number can be seen in the table for the Electric diagram under the column **Function**.

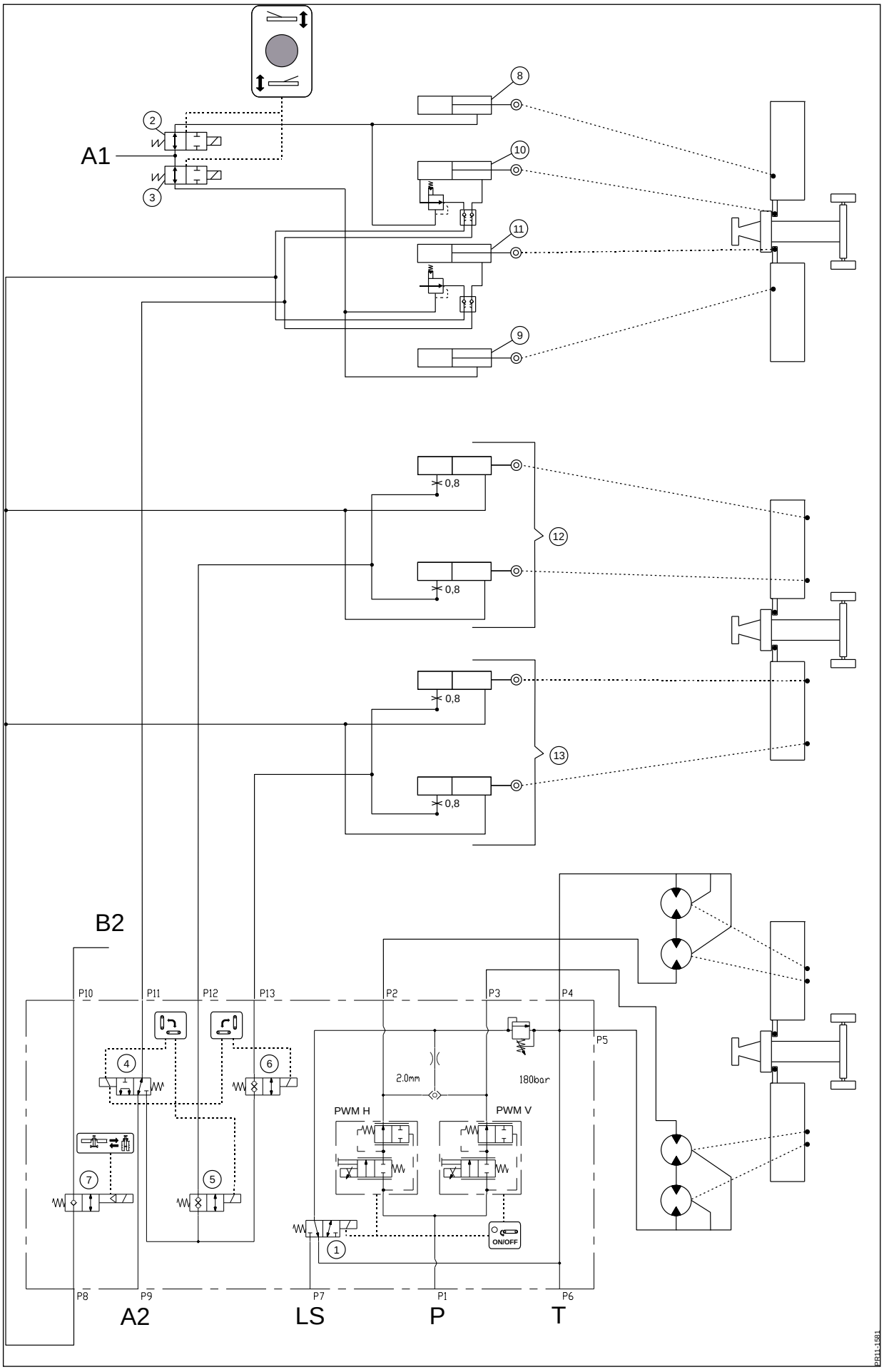

A1
B2
2
3
8
10
11
9
0,8
12
13
P10
P11
P12
P13
P2
P3
P4
P5
4
6
7
5
2.0mm
180bar
PWM H
PWM V
1
ON/OFF
P8
P9
P7
P1
P6
A2
LS
P
T

Fig. 8-2

Electric diagram

Cable 21*0,75mm

Cable no.	***Terminal no.*** ***in connection box***	***Type***	***Function***
1	-0V	Power	- 0 volt for relay out
2	+12V	Power	+ 12 volt (polar protected via fuse in monitor)
3	1	Relay out	OUT1
4	2	Relay out	OUT2
5	3	Relay out	OUT 3
6	4	Relay out	OUT 4
7	5	Relay out	OUT 5
8	6	Relay out	OUT 6
9	7	Relay out	OUT 7
10	8	Relay out	OUT 8
11	9	Fet. Pull	PWM V
12	10	Fet. Pull	PWM H
13	-0V	Power	- 0 volt for relay out
14	+12V	Power	+ 12 volt (polar protected via fuse in monitor)

15	3	Digital in	SENS V (reed)
16	4	Digital in	SENS H (reed)
17	5	Digital in	PTO (hall)
18	-0V	Power	- 0 volt for sensors
19	+12V	Power	+ 12 volt (polar protected via fuse in monitor)

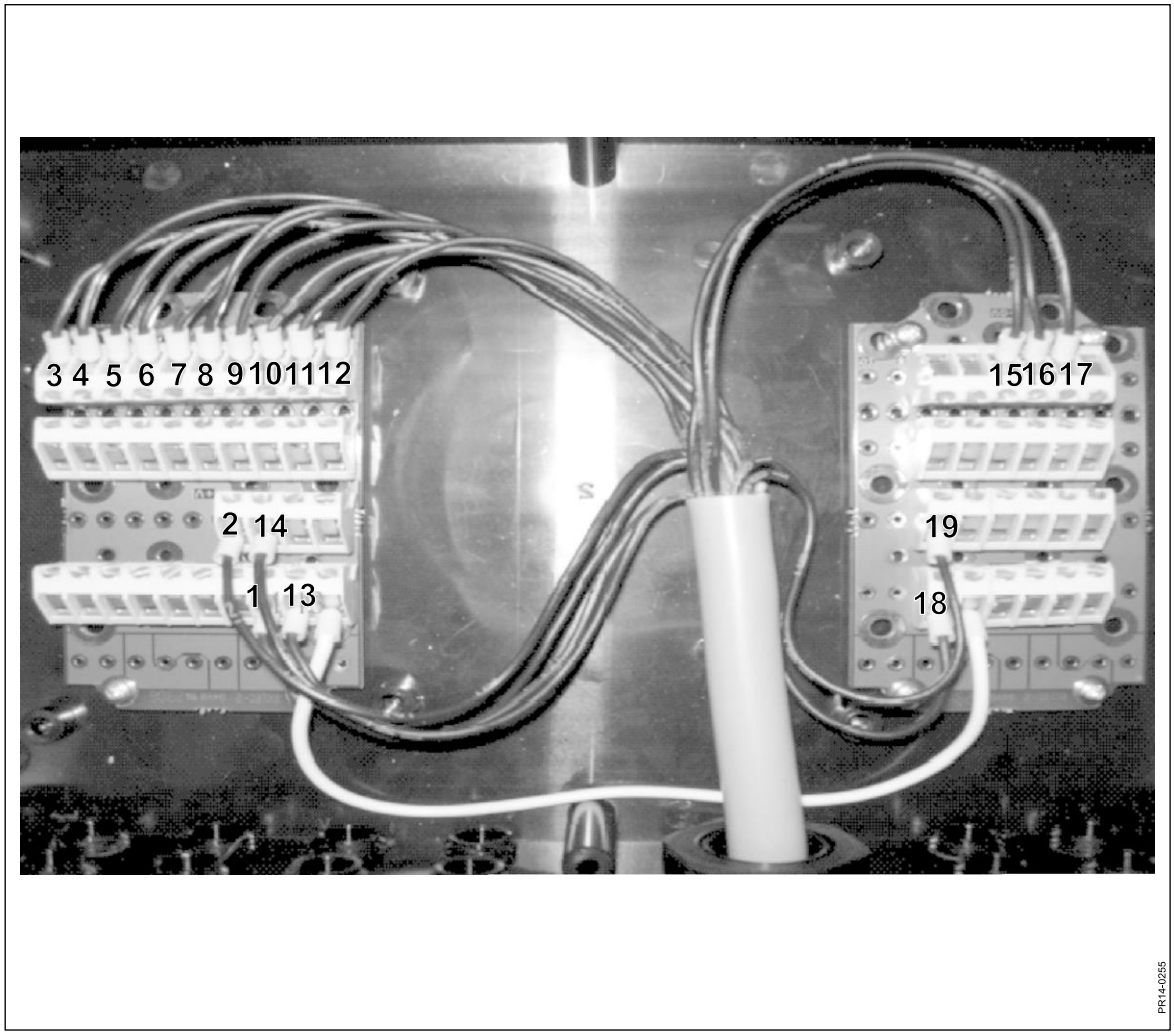
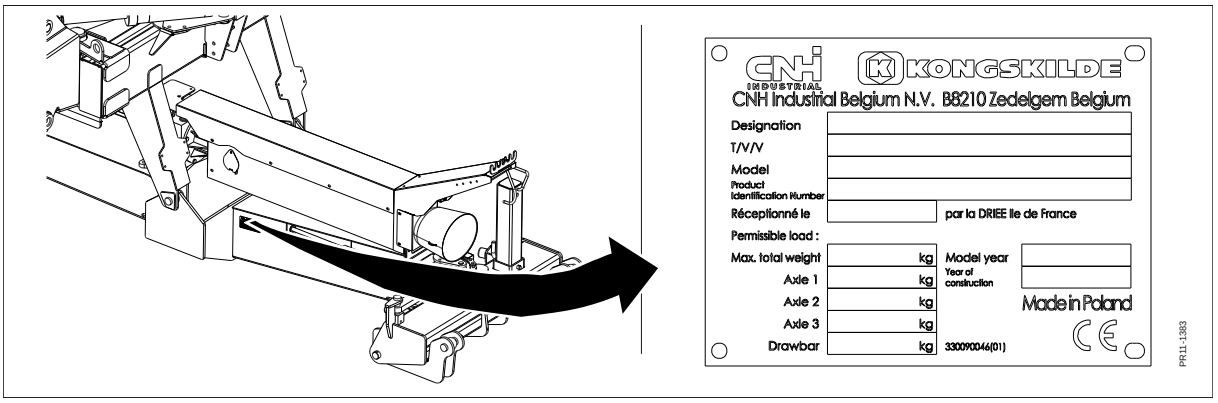


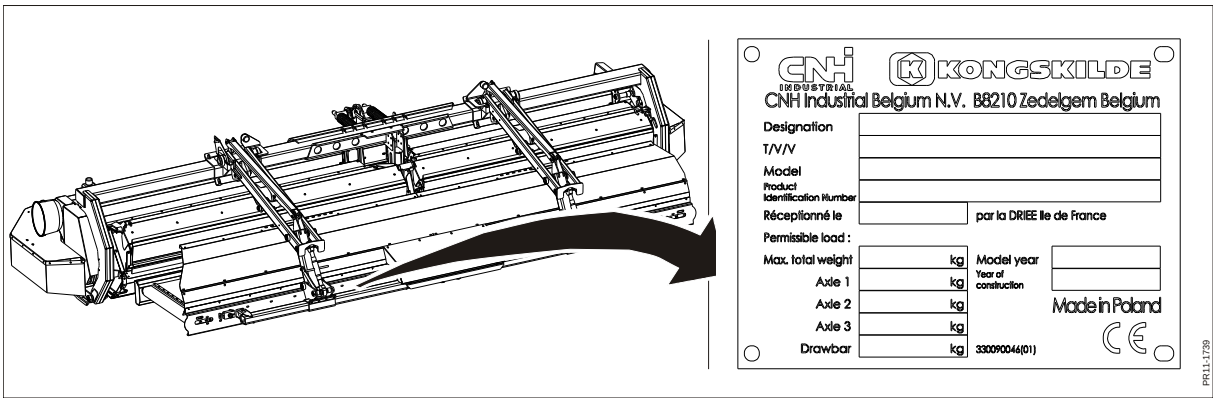
Fig. 8-3

Fig. 8-3 On the picture of the assembly box for the electronic control, cables from the control box are shown. The cables further out to the valves and sensors are not shown. The plus cable is located opposite the corresponding from the control box and the minus cable is located at the bottom in the row where 1, 13 and 18 are shown.

9. SPARE PARTS ORDERING

When ordering spare parts, please state the exact machine type, serial number and manufacturing year. This information is printed on the machine plate. We request you to write this information on the first page in the spare parts book supplied with the machine as soon as possible so that you have the information at hand when ordering spare parts.





10. MACHINE DISPOSAL

When the machine is worn-out it must be disposed of in a proper way. Observe the following:

- The machine must **not** be placed somewhere outside; it must be emptied of oil (gearboxes and hydraulic system). These oils must be handed over to a recycling company.

- Disassemble the machine and separate the individual recycling parts, e.g. tyres, hydraulic hoses, hydraulic valves etc.

- Hand over the usable parts to an authorised recycling centre. The large scrapping parts are handed over to an authorised breaker's yard.

11. WARRANTY

Your machine is warranted according to legal rights in your country and the contractual agreement with the selling dealer. No warranty shall, however, apply if the machine has not been used, adjusted and maintained according to the instructions given in this operator's manual.
It is prohibited to carry out any modifications to the machine unless specifically authorized, in writing, by a NEW HOLLAND representative.

EF-overensstemmelseserklæring/ EG-Konformitätserklärung/ EC Declaration of Conformity/ Déclaration CE de conformité/ Dichiarazione CE di conformita/ EG Verklaring van Overeenstemming/ EG-försäkran om överensstämmelse/ EY-vaatimustenmukaisuusvakuutus/ Declaración de conformidad CE/ Deklaracja Zgodności WE./ Декларация за съответствие ЕО/ EK Megfelelőségi Nyilatkozat /ES Prohlášení o shodě/ EB Atitikties deklaracija/ ES prehlásenie o zhode/ Declaraţia de conformitate CE/ Vastavuse Deklaratsioon EÜ /ES Izjava o skladnosti/ Δήλωση πιστότητας ΕΚ/ Declaração de fidelidade CE/ Dikjarazzjoni ta' Konformità tal-KE/ EK Atbilstības deklarācija/

Fabrikant/ Hersteller/ Manufacturer/ Fabricant/ Produttore/ Fabrikant/ Fabrikant/ Valmistaja/ Fabricante/ Producent/ Производител/ Gyártó/ Výrobce/ Gamintojas/ Výrobca/ Producător/ Tootja/ Proizvajalec/ Κατασκευαστής/ Fabricante/ Fabbrikant/ Ražotājs

CNH INDUSTRIAL BELGIUM N.V.

Leon Claeysstraat 3a, 8210 Zedelgem, BELGIUM

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Erklærer hermed, at/ Erklären hiermit, daß/ Hereby declare that/ Déclare par la présente que/ Dichiara che/ Verklaren hierbij dat/ Försäkrar härmed, att/ Vakuuttaa täten, että tuote/ Por el presente declara que/ Niniejszym deklaruje, że/ Декларирам, че/ Az alábbiakban kijelentem, hogy/ Tímto prohlašuje, že/ Deklaruoja, kad/ Týmto prehlasujeme, že/ Prin prezenta declar că/ Alljärgnevaga deklareerib, et/ Izjavljamo, da je/ Με το παρόν δηλώνω ότι/ Abaixo declara que **/** Jiddikjaraw li / Apstiprinu, ka

Maskine:	La máquina:	Masin:
Maschine:	Maszyna:	Stroj:
Machine:	Машината:	Η μηχανή:
Machine:	Gép:	Máquina:
La macchina:	Stroj:	Il-magna:
Machine:	Mašina:	Mašīna:
Maskin:		Stroj:
Laite:		Maşina:

KONGSKILDE

Model/Type**: GXT 13005- P-COL**
Designation: Mower
Serial:

- er i overensstemmelse med Maskindirektivets bestemmelser (Direktiv 2006/42/EF) og hvis relevant også bestemmelserne i EMC-direktivet 2014/30/EU.

- In übereinstimmung mit den Bestimmungen der Maschinen-Richtlinie 2006/42/EG und wenn erforderlich auch mit der EMC-Richtlinie 2014/30/EU hergestellt wurde.

- is in conformity with the provisions of the Machinery Directive 2006/42/EC and if relevant also the provisions of the EMC Directive 2014/30/EU.

- est conforme aux dispositions de la Directive relatives aux machines 2006/42/CE et également aux dispositions de la Directive sur la Directive EMC 2014/30/UE.

- é in conformita' con la Direttiva Macchine 2006/42/CE e, se pertinente, anche alla Direttiva alla Direttiva EMC 2014/30/UE.

- in overeenstemming is met de bepalingen van de Machine richtlijn 2006/42/EG en wanneer relevant ook met de bepalingen van de EMC richtlijn 2014/30/EU.

- är i överensstämmelse med Maskindirektivets bestämmelser (Direktiv 2006/42/EG) ock om relevant också bestämmelserne EMC-direktivet 2014/30/EU.

- täyttää Konedirektiivin (Direktiivi 2006/42/EY) määräykset ja oleellisilta osin myös EMC-direktiivin 2014/30/EU.

- es conforme a la Directiva de Maquinaria 2006/42/CE y, si aplica, es conforme también a la Directiva EMC 2014/30/EU.

- pozostaje w zgodzie z warunkami Dyrektywy Maszynowej 2006/42/WE i jeżeli ma to zastosowanie również z warunkami Dyrektywy dot. kompatybilności elektro magnetycznej EMC 2014/30/UE.

- отговаря на изискванията на Директивата за Машините 2006/42/ЕО и ако има приложение на изискванията на Директивата за електромагнитна съвместимост 2014/30/ЕС.

- Megfelel a 2006/42/EK Gépi Eszközökre vonatkozó előírásoknak és amennyiben felhasználásra kerül, a 2014/30/EU Elektromágneses kompatibilitás Irányelv feltételeinek.

- odpovídá základním požadavkům Strojní směrnice 2006/42/ES a jestliže to její uplatnění vyžaduje i s podmínkami Směrnice 2014/30/EU týkající se elektromagnetické kompatibility.

- atitinka Mašinų direktyvos Nr. 2006/42/EB ir, jeigu taikoma, Elektromagnetinio suderinamumo direktyvos Nr. 2014/30/ES reikalavimus.

- je v súlade s podmienkami Smernice 2006/42/ES o strojných zariadeniach a pokiaľ si to jeho uplatnenie vyžaduje aj s podmienkami Smernice 2014/30/EÚ o elektromagnetickej kompatibilite.

- îndeplineşte prevederilor Directivei de Maşini 2006/42/CE şi dacă este utilizată de asemenea cu prevederile Directivei referitoare la compatibilitatea electro-magnetică EMC 2014/30/UE.

- on vastavuses Masinate Direktiivi tingimustega 2006/42/EÜ ning sammuti juhul, kui on tegemist sammuti on vastavuses Elektromagnetilise kokkusobivuse Direktiivitingimustega EMC 2014/30/EL.

- z določili Direktive o strojih 2006/42/ES ter, če je to relevantno, tudi z določili EMC Direktive 2014/30/EU.

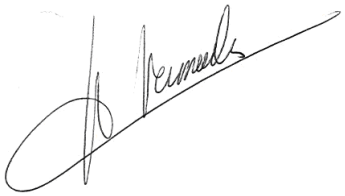
- παραμένει σύμφωνη με τους όρους της Οδηγίας περί Μηχανών 2006/42/ΕΚ και σε περίπτωση που αυτό εφαρμόζεται και με τους όρους της Οδηγίας περί ηλεκτρομαγνητικής συμβατότητας (ΗΜΣ) 2014/30/ΕΕ.

- Está de acordo com exigências das Directivas das Maquínarias 2006/42/CE e no caso em que tiver igualmente aplicação com as exigências das Directivas referentes a compatibilidade electromagnética EMC 2014/30/UE.

- tikkonforma mad-dispożizzjonijiet tad-Direttiva dwar il-Makkinarju 2006/42/KE u jekk rilevanti wkoll mad-dispożizzjonijiet tad d-Direttiva EMC 2014/30/EU.

- atbilst mašīnu direktīvai 2006/42/EK, kā arī nepieciešamības gadījumā elektromagnētiskās saderības direktīvai EMC 2014/30/ES.

Zedelgem, date:



Antoon Vermeulen

Dealer's stamp

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Availability of some models and equipment builds varies according to the country in which the equipment is being used. For exact information about any particular product, please consult your Kongskilde dealer.

KONGSKILDE