

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

OPERATOR'S MANUAL

GXS 2405 P

GXS 2805

GXS 2805 P

GXS 3205

GXS 3205 P

GXS 3605

GXS 4005

Disc Mower

FOREWORD

DEAR CUSTOMER!

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

This instruction manual is intended for farmers or other persons who have a corresponding agricultural education. The 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 cannot 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. Besides this there are illustrations with 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.

Kongsilde 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 changes on any unit previously delivered.

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1. INTRODUCTION

INTENDED USE

KONGSKILDE disc mowers are developed for agricultural work. They should only be connected to tractors and driven by the PTO of the tractor.

The disc mowers are solely intended for:

Cutting on the ground of natural or planted grass and stem crops for animal feeding purposes. The mowers are solely constructed for usual work in agriculture.

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 the like.

Any other use is regarded as not intended. Kongskilde Industries A/S is not responsible for any damage resulting from such use, the user bears that risk. If 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 resulting from this.

Intended use, of course, implies that you observe the instructions in the instruction manual and the spare parts book, use original spare parts and contact an authorised workshop, in so far as it is necessary.

The following safety instructions as well as common rules concerning technical safety, working practices and road safety must be observed altogether.

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

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 family in the best possible way**, but this also requires an effort on your part.

A disc mower cannot be constructed in such a way that it guarantees the full safety of persons and at the same time performs an efficient piece of work. 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 skilled operation, which means that you should have a relevant agricultural background and experience and **you should read the instruction manual before you connect the machine to the tractor**. Even though you 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.

SAFETY RULES

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.

1. INTRODUCTION

GENERAL SAFETY INSTRUCTIONS

Before use, the operator should make sure that the tractor and the machine observe the general work-related legislation and can comply with the Road Traffic Act.

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 machine to the ground and use correct support or transport safety device when the machine is parked.
3. Always use the transport safety device of the machine during transport.
4. Never work under a raised machine unless the link arms of the tractor are secured by means of a support chain or other mechanical securing device to prevent the machine from being lowered unintentionally.
5. Never start the tractor until all persons are safely away from the tractor and the machine.
6. Make sure that all tools have been removed from the machine before starting the tractor.
7. Make sure that all guards are intact and have been mounted correctly.
8. The clothes of the operator must be tight-fitting. During work never wear loose clothes or have your hair hang down as it may be pulled in by the moving parts of the machine.
9. Do not change the guards or work with the machine when a guard is missing or defective.
10. Always drive with the statutory lights and safety marking during transport on public road and at night.

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11. Always adjust the speed to the conditions. If the machine has been marked with a maximum speed limit, this should never be exceeded.
12. Do not stand near the machine while it is working.
13. When mounting the PTO drive shaft check that the number and direction of RPM of the tractor matches those of the machine.
14. 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.
15. Before raising or lowering the machine with the link arms of the tractor, check that no persons are near the machine or touching it.
16. Do not stand near the guards of the cutting unit and do not lift the guards before all revolving parts have stopped moving.
17. Never use the machine for other purposes than what it has been constructed for.
18. Do not allow any children to be near when you are working with the machine.
19. Never stand between the tractor and the machine during connection and disconnection.

SPECIAL SAFETY INSTRUCTIONS

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

1. Use a tractor with a cabin provided with safety glass. Furthermore it is advisable to protect the glass of the cabin with polycarbonate plates inside 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 sets in order not to create an unbalance 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.
13. If in doubt, always contact the nearest dealer.

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CHOICE OF TRACTOR

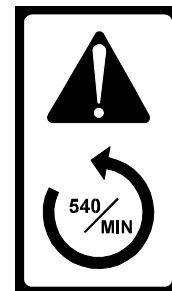
Always follow the recommendations specified in the instruction manual of the tractor. If this is not possible, technical assistance must be sought.

Choose a tractor with a suitable power on the PTO. To obtain full capacity under all conditions, we recommend you to choose a tractor which has 15 kW more than the informed minimum.

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

If you have chosen a machine which is constructed for 540 rpm, you should make sure not to use the wrong PTO by mistake. It is **highly dangerous** to connect a machine intended for 540 rpm, to a PTO delivering 1000 rpm.

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



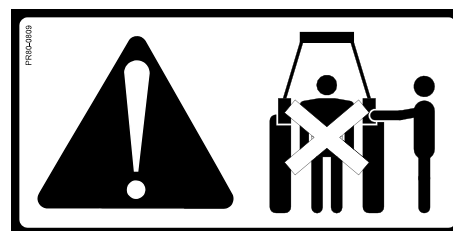
Choose a tractor with a suitable own weight and track width so that it can drive steadily on the ground. Also make sure that the link arms and towing hook of the tractor are intended to carry machines with the own weight in question.

To maintain full control of the tractor under all conditions, minimum 20 % of the own weight of the tractor should be on the front axle. It may be necessary to use front weights to fulfil this requirement.

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.



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PTO DRIVE SHAFT

Do not use PTO drive shafts with other specifications than the shaft which was supplied with the machine.

The PTO shaft has its own instruction manual which is supplied with the machine and should be followed to ensure correct use of the shaft. All instructions should be followed, particularly the safety and maintenance instructions, in order to prevent unintentional damage.

Make sure that the PTO drive shaft has been mounted correctly, i.e. that the lock pin is in mesh and that the support chain has been fastened at both ends.

The guard must be intact. If the guard is defective it must be replaced immediately.

THE HYDRAULIC SYSTEM

Check that all hydraulic couplings are correctly mounted and tight and that all hoses and fittings are undamaged before activating the hydraulic system.

When the tractor engine has stopped, make sure that there is no pressure in the hydraulic hoses by activating the tractor hydraulic spool valves.

Hydraulic hoses should only be connected to the tractor outlets if the tractor and the machine are pressure-free. If the hydraulics of the tractor is activated it may lead to uncontrolled movements which may cause secondary damage.

Hydraulic oil under pressure can penetrate the skin and cause serious infections. You should always protect the skin and the eyes against oil splashes. You should never try to ascertain whether there is a leakage by using your hands. Oil under pressure may even penetrate gloves. If, by accident, hydraulic oil under pressure hits you, consult a doctor immediately.



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.

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 you enter or drive on public roads.

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ADJUSTMENTS

Never adjust the mower while the PTO drive shaft is engaged. Stop the tractor engine before you adjust the machine. It is important not to remove the guards until all revolving parts have stopped.

Before starting check that no blades are missing or are defective and can be turned freely. Likewise, check that the blade holders are not loose or defective. Replace damaged blades and blade holders. (see section 5: MAINTENANCE)

Check periodically if blades and blade bolts are worn according to the rules in the instruction manual. (see section 5: MAINTENANCE)

TRANSPORT

If you wish to transport the machine on the public road, please make sure that the combination tractor and machine observes the traffic rules in your country. This gives you and your surroundings the best possible safety.

As an example the following should be checked:

- The lighting and warning panels are correctly mounted
- The allowable transport dimensions and weights are observed
- The tractor and machine combination has sufficient braking capacity

Always adjust the driving speed to the conditions of the road. In case of bad road conditions and high driving speeds, big forces may occur and cause overload of tractor and machine. The speed should always be adjusted according to the road and weather conditions.

Always check that mechanical transport safety devices are activated before transport.

WORKING IN THE FIELD

The machine should only be put into operation according to instructions from the dealer or the service engineer of the company.

Before working check blades, blade holders, disc and guide shoes for cracks and other damage. Replace damaged parts.

Check periodically if blades and blade holders are worn according to the rules in the instruction manual. (See section on maintenance)

Loose stones and foreign matter in the field 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.

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In stony fields the stubble height should be adjusted to maximum (horizontal cutter bar) height.

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.

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

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 on hillsides. (See section on driving on hilly ground).

When turning on hillsides always be careful when lifting the machine with the 3-point linkage since there is a risk of overturning. Adjust the speed to these conditions.

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

PARKING AND MAINTENANCE

When parking the machine there are some operational risks which may cause personal injury. Therefore you should:

- Make sure that tractor and machine cannot move
- Stop the tractor engine and remove the ignition key
- Make sure that nobody stands between the tractor and the machine during disconnection
- Make sure that the ground is firm and even during parking
- Make sure that the parking stand is secured
- Place the PTO shaft in the special holder

The recommended greasing, replacement and inspection intervals should be observed to prevent secondary damage.

Only use original replacement parts to avoid unintentional risks and damage.

Always make sure that the used spare parts are mounted correctly and that screws are tightened to the correct torque.

Before you carry out any repair or maintenance work you should:

- Park the machine safely and disconnect the tractor.

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In case the machine is connected to the tractor during repair and maintenance you should make sure that:

- The PTO is disconnected
- The tractor engine is stopped
- The ignition key is removed
- The tractor cannot move

and

When the machine is raised, the link arms must always be secured by support chains.

Be careful when using high pressure cleaners, particularly near bearings and seals.

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 unbalance, small counterweights should be mounted.

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

If the vibrations and/or the noise of the machine increase considerably during the operation, stop working immediately. Do not continue the work until the fault has been corrected.

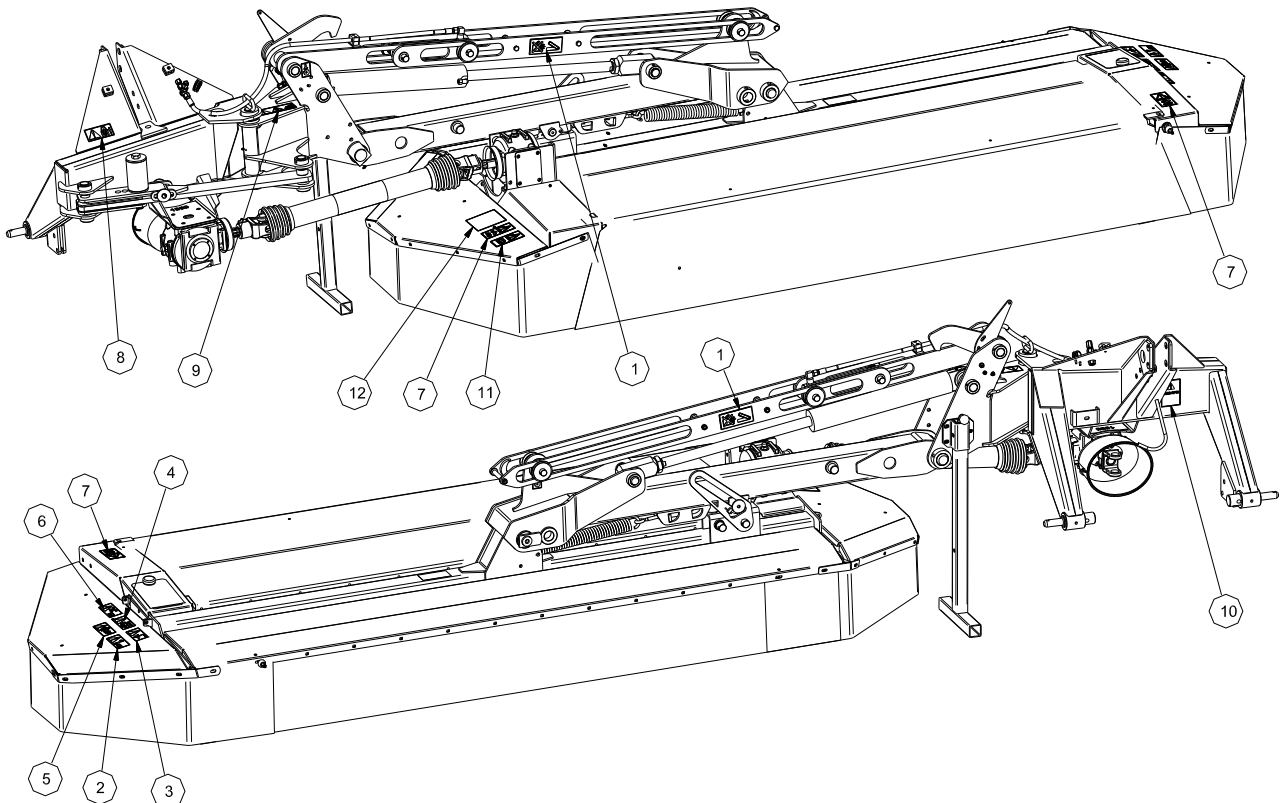
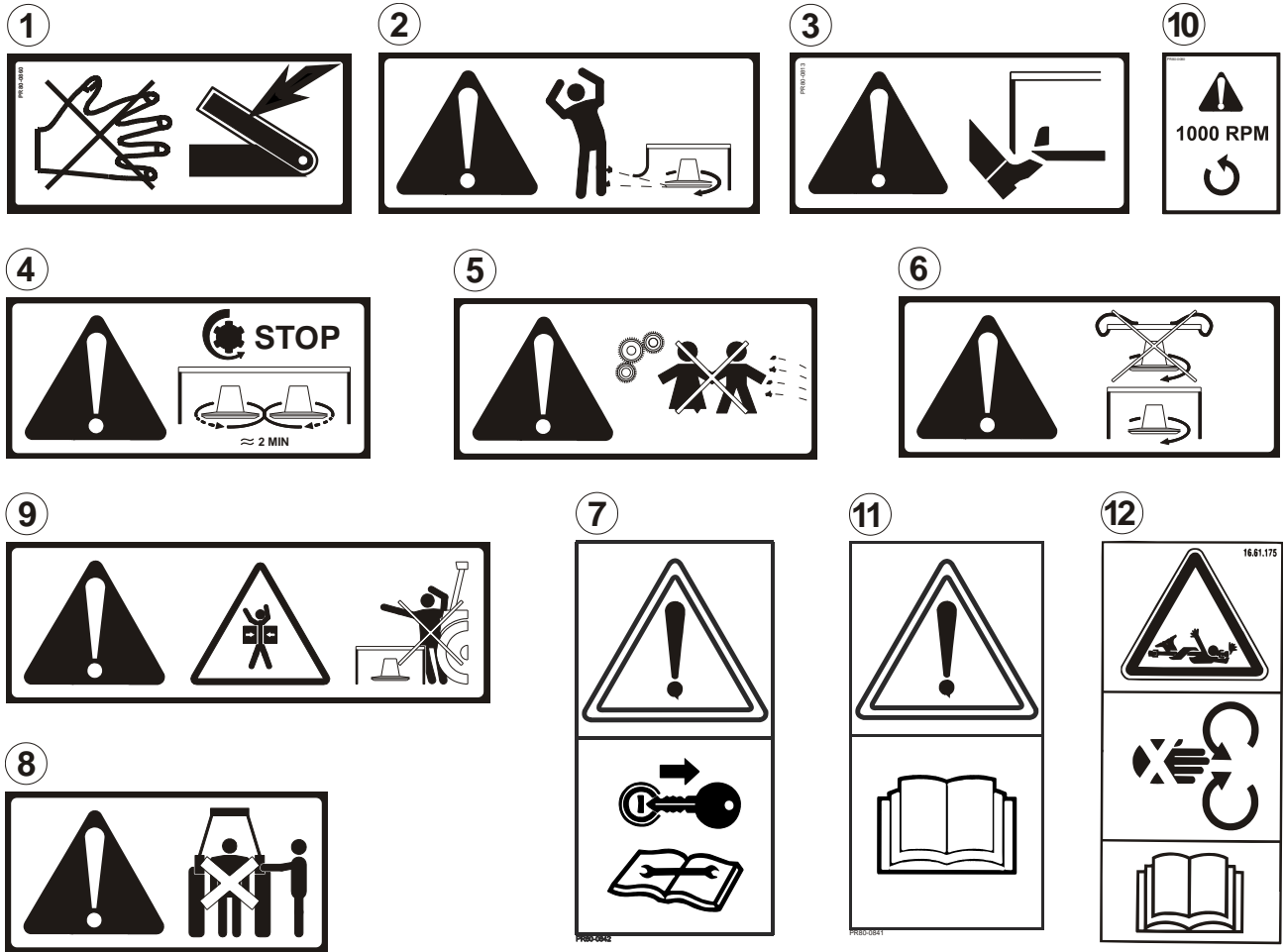
When replacing blades, both blades on the disc in question must be replaced as not to create an unbalance.

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 of earth and grass regularly.

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

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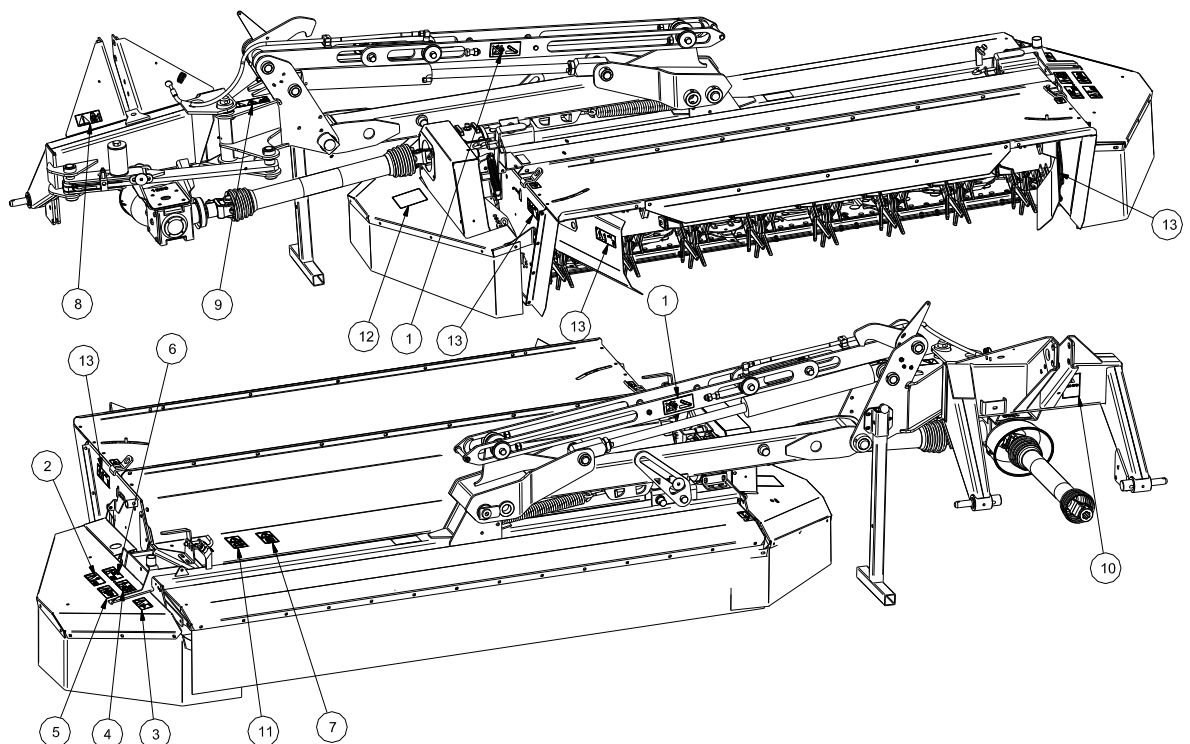
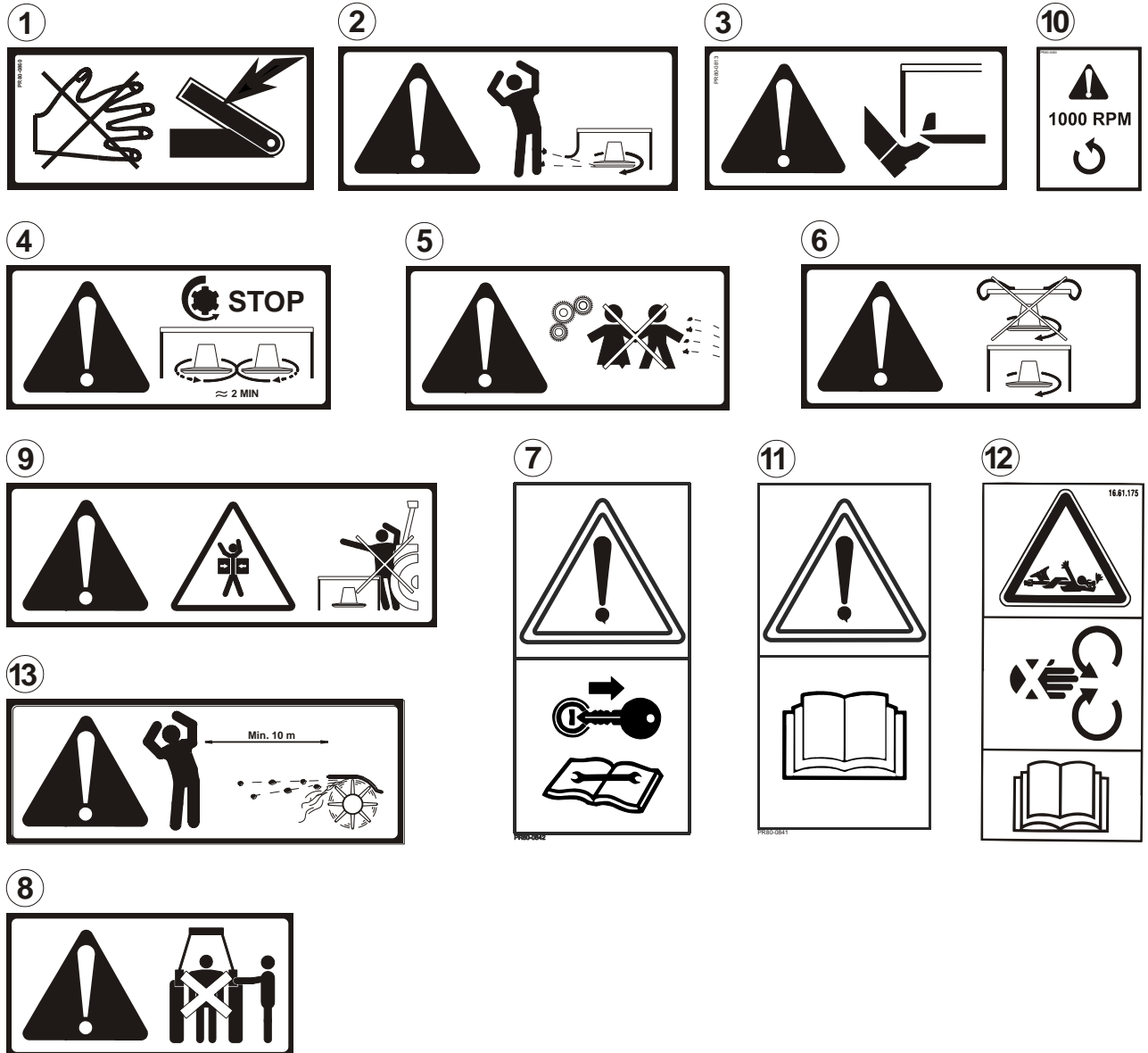


SAFETY DECALS ON PLAIN MOWERS

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, require those missing. The decals have the following meaning:

1. **Danger through cutting forces**
During movement of the kinematics there is a risk of parts making cutting movements. Keep a safe distance to these parts.
2. **Risk of stones being thrown.**
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.
3. **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.
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. **Children.**
Never let children stand near the machine during operation. Especially not small children as they have a tendency to do unforeseen things.
6. **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.
7. **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.
8. **Risk of getting jammed**
Never let anyone stand between the machine and the tractor after the connection. An unintentional manoeuvre may cause serious injury.
9. **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.
10. **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.
11. **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.
12. **Stop PTO**
PTO must be stopped before the machine is swivelled into transport position.

1. INTRODUCTION

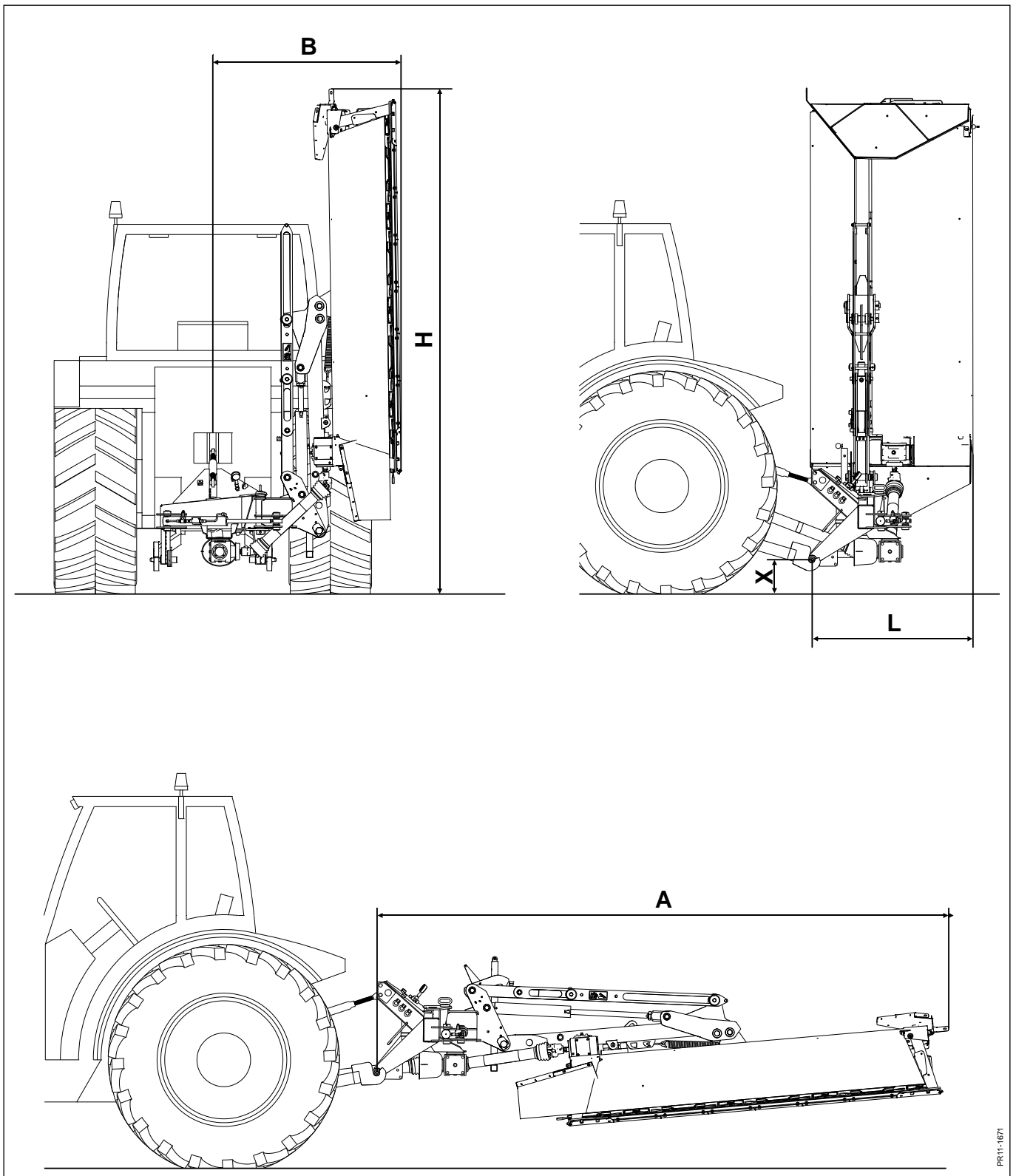


SAFETY DECALS ON MOWER CONDITIONERS

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, require those missing. The decals have the following meaning:

1. **Danger through cutting forces**
During movement of the kinematics there is a risk of parts making cutting movements. Keep a safe distance to these parts.
2. **Risk of stones being thrown.**
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.
3. **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.
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. **Children.**
Never let children stand near the machine during operation. Especially not small children as they have a tendency to do unforeseen things.
6. **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.
7. **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.
8. **Risk of getting jammed**
Never let anyone stand between the machine and the tractor after the connection. An unintentional manoeuvre may cause serious injury.
9. **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.
10. **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.
11. **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.
12. **Stop PTO**
PTO must be stopped before the machine is swivelled into transport position.
13. **Stones being thrown from the conditioner**
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.

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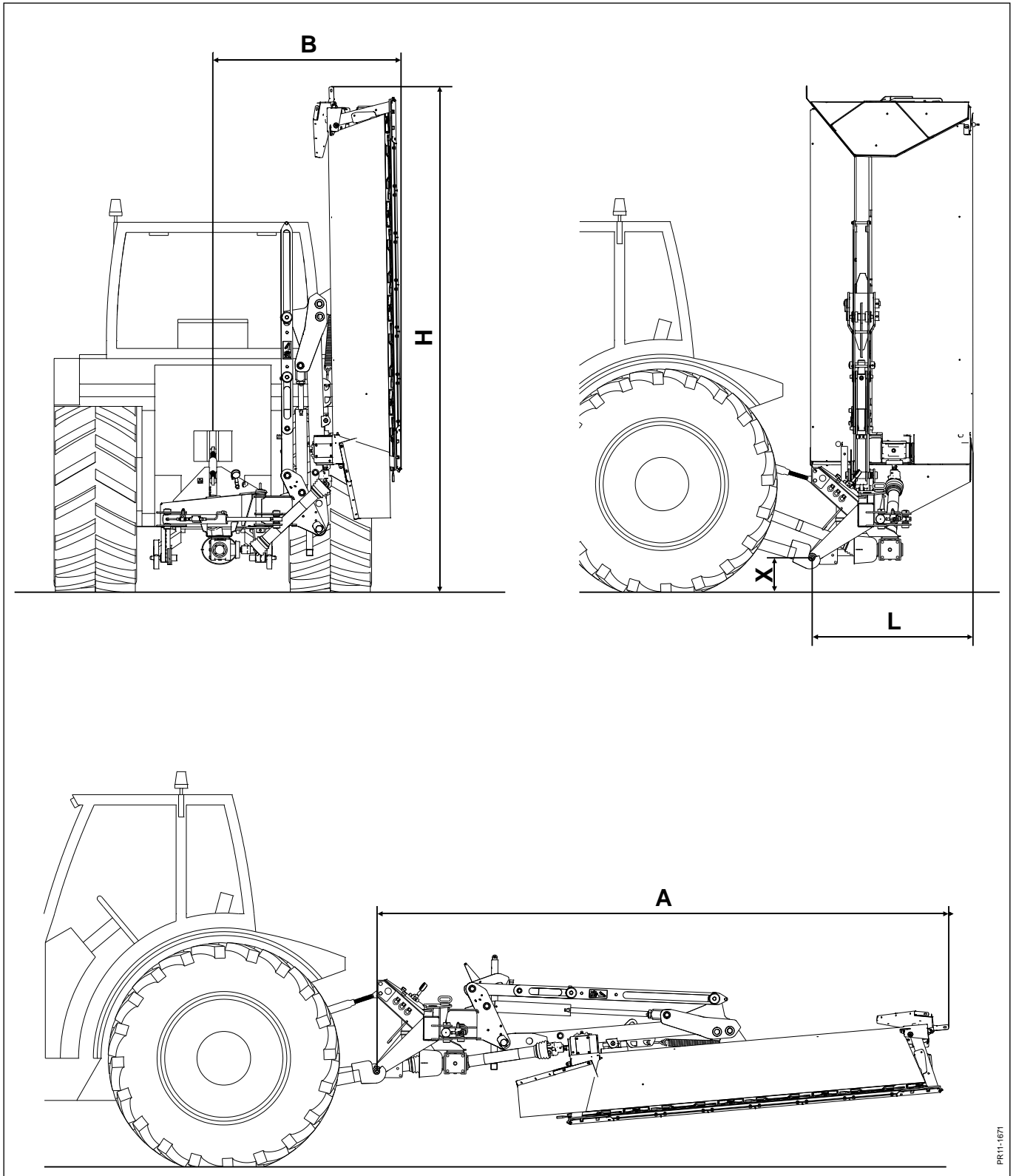
TECHNICAL DATA (PLAIN MOWERS)

Type			GXS 2805	GXS 3205	GXS 3605	GXS 4005
Working width			2.8 m	3.2 m	3.6 m	3.9 m
Power requirement, min. [kW/HP]			40 / 54	50 / 68	60 / 82	70 / 95
3-point linkage			Cat. II		Cat. III	
PTO-type			1 3/8" - 6 splines - with friction clutch and free wheel			
PTO speed (rpm)			540 ¹⁾ / 1000		1000	
Oil outlet			1 SA		1 SA + 1 DA	
Stone release			Mechanical		Hydraulic	
Horizontal transport position			Option ²⁾		Standard	
Number of discs			7	8	9	10
Number of blades			14	16	18	20
Conditioner width, approx.			-	-	-	-
Conditioner elements			-	-	-	-
Relief of the machine			Mechanical or hydraulic ³⁾		Hydraulic	
Weight, approx.			815 kg	860 kg	940 kg	1000 kg
Dimension B			1.49 m	1.49 m	1.49 m	1.49 m
Dimension H			3.65 m	3.99 m	4.39 m ⁴⁾	4.73 m ⁴⁾
Dimension X			0.27 m	0.27 m	0.27 m	0.27 m
Dimension L			1.30 m	1.30 m	1.30 m	1.30 m
Dimension A			4.14 m	4.48 m	4.88 m	5.22 m
Noise level in the tractor cabin	Machine connected	Window closed	78.5 dB			
		Window open	84.5 dB			
	Machine dis-connected	Window closed	76.5 dB			
		Window open	78.0 dB			

We reserve the right to change the construction and specification details without notice.

- 1) Option
- 2) Requires an additional double-acting outlet.
- 3) Hydraulic relief requires an additional single-acting outlet.
- 4) No allowed during transport on public road

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TECHNICAL DATA (MOWER CONDITIONERS)

Type			GXS 2405 P	GXS 2805 P	GXS 3205 P
Working width			2.4 m	2.8 m	3.2 m
Power requirement, min. [kW/HP]			44 / 60	54 / 73	66 / 90
3-point linkage			Cat. II	Cat. III	
PTO-type			1 3/8" - 6 splines - with friction clutch and free wheel		
PTO speed (rpm)			540 ¹⁾ / 1000	1000	
Oil outlet			1 SA		
Stone release			Mechanical		
Horizontal transport position			Option ²⁾		
Number of discs			6	7	8
Number of blades			12	14	16
Conditioner width, approx.			1.77 m	2.15 m	2.48 m
Conditioner elements			PE-fingers	PE-fingers	PE-fingers
Relief of the machine			Mechanical or hydraulic ³⁾		
Weight, approx.			960 kg	1060 kg	1140 kg
Dimension B			1.49 m	1.49 m	1.49 m
Dimension H			3.25 m	3.65 m	3.99 m
Dimension X			0.27 m	0.27 m	0.27 m
Dimension L			1.95 m	1.95 m	1.95 m
Dimension A			3.74 m	4.14 m	4.48 m
Noise level in the tractor cabin	Machine connected	Window closed	78.5 dB		
		Window open	84.5 dB		
	Machine dis-connected	Window closed	76.5 dB		
		Window open	78.0 dB		

We reserve the right to change the construction and specification details without notice.

- 1) Option
- 2) Requires an additional double-acting outlet.
- 3) Hydraulic relief requires an additional single-acting outlet.
- 4) Option

2. CONNECTION AND TEST DRIVING

CONNECTION TO THE TRACTOR

DANGER:



Check the following before you start working:

- Check if the blades are mounted correctly.
- Check if the safety devices are intact and placed correctly.
- Check the screws.
- The guard of the PTO shaft is secured with the chain.
- If the tool for replacement of blades is placed on the machine, it must be secured with clip pin.
- Only start the mower in working position.
- Never let the machine run without supervision.
- Make sure that there are no persons in the danger zone. Stop the mower immediately if persons are approaching.
- Grease the machine carefully before you start working.

ADJUSTMENT OF LINKAGE

The GXS machines are connected to the link arms and top link of the tractor. First, the hitch pins must be adjusted to the link arms.

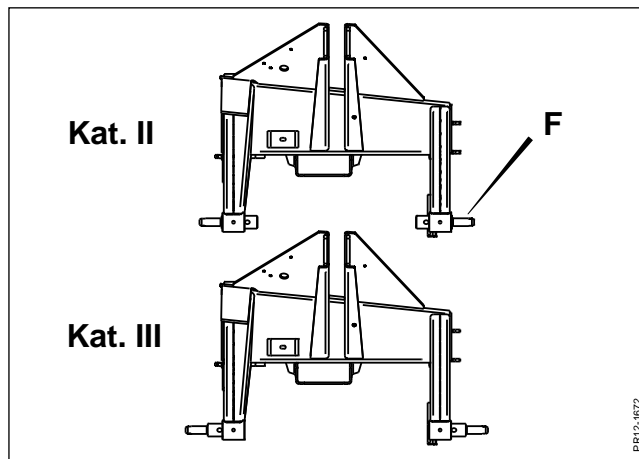


Fig. 2.1

Fig. 2.1 The hitch pins can be adjusted in width, independent of their diameter, to fit category II or III.

2. CONNECTION AND TEST DRIVING

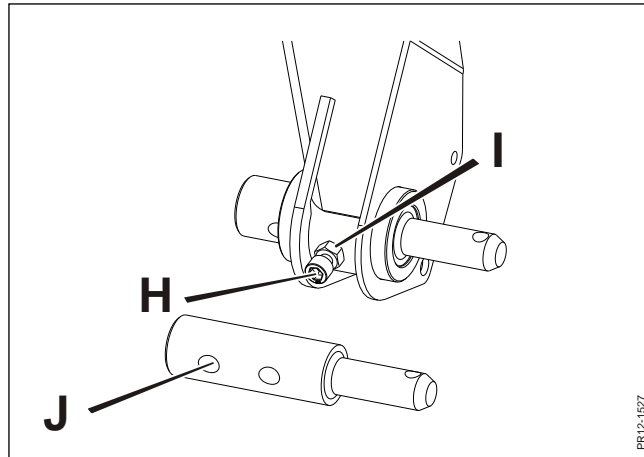


Fig. 2.2

Fig. 2.2 Adjustment of pin position: Counter nut **I** is loosened and bolt **H** is turned out. The pin is displaced and fastened again through centre hole **J**, bolt is tightened and counter nut is tightened.



DANGER: If the hitch pins are not fixed properly or if the link arms are not mounted correctly, there is a risk of losing the machine unintentionally.

- check if the hitch pins are fastened correctly
- check if the hitch pins are correctly engaged with the link arms.

Fig. 2.1 Connect the link arms of the tractor to the coupling points **F** of the machine.

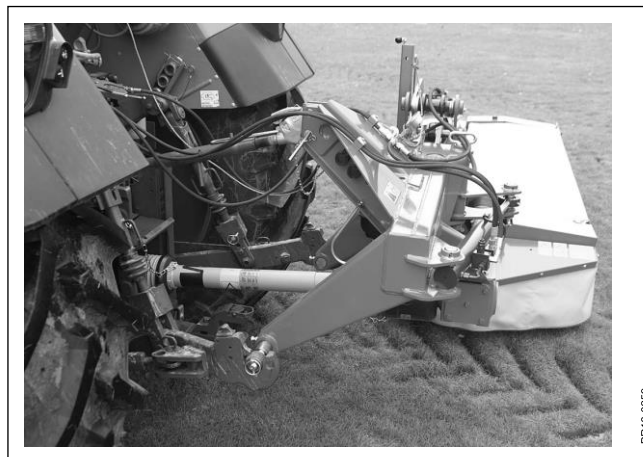


Fig. 2.3

Fig. 2.3 Mount the top link so that it is approximately parallel with the link arms of the tractor. Adjust the length of the top link so that the linkage is approximately horizontal in working position.

2. CONNECTION AND TEST DRIVING

Thereby a suitable movement is achieved when lifting the machine with the link arms and optimal conditions for later connection and disconnection of the machine.

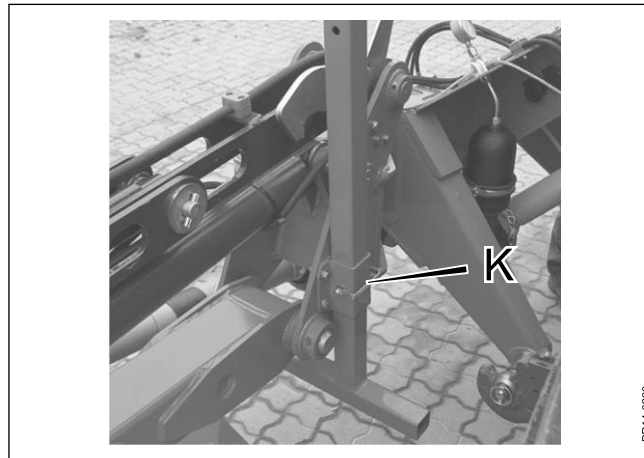


Fig. 2.4

Fig. 2.4 The 3-point frame is lifted with the link arms until the support is raised from the ground. The spring pin **K** is pulled out, the support is lifted and fixed again in the top position with the spring pin **K**.

HYDRAULIC CONNECTIONS

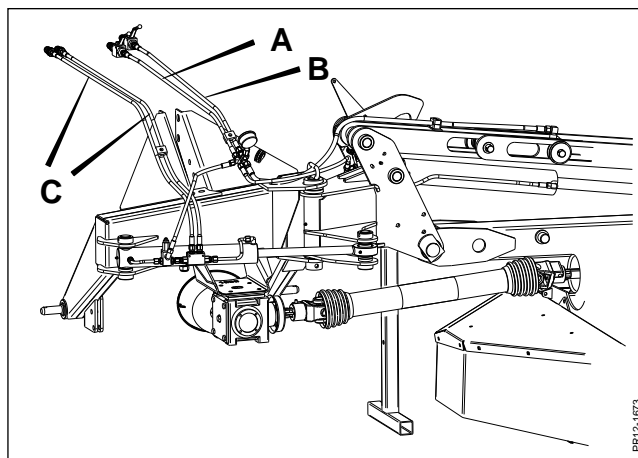


Fig. 2.5

- Fig. 2.5** The hydraulic hoses are connected to the tractor. Depending on the equipment of the mower, the number of hydraulic hoses vary from one to four.
The hose **A** is for lift of the cutting unit and must be connected to a single-acting outlet.
The hose **B** is for the hydraulic relief (option) and must also be connected to a single-acting outlet.
The 2 hoses **C** are for horizontal transport conversion (option) and must be connected to a double-acting outlet.



DANGER: For transport and disconnection of the hydraulic hoses the stop cocks must be closed. They are closed when the lever is transverse to the flow direction.



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.

MOUNTING OF PTO DRIVE SHAFT

All GXS machines are as standard delivered with a PTO shaft with friction clutch and free wheel. The PTO shaft is mounted with the clutch towards the machine side and the other end towards the tractor.

The guard of the PTO shaft is secured with the chain.



IMPORTANT: For the warranty of the PTO shaft to be valid, and to retain the durability, the following rules must be observed.

- Always start the machine with the engine running at low speed.
- Always start the machine with the PTO shaft in a position of maximum 10° from horizontal.
- *Last, but not least:* Grease the PTO shaft and especially its profile tubes every 40 working hours, minimum.
- In order to ensure the function of the friction clutch, it must be aired before the start of a new machine and after a long period of standstill. See also the supplied instruction manual for the PTO 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 PTO to PIC 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 measures shown in Fig. 2-6.

2. CONNECTION AND TEST DRIVING

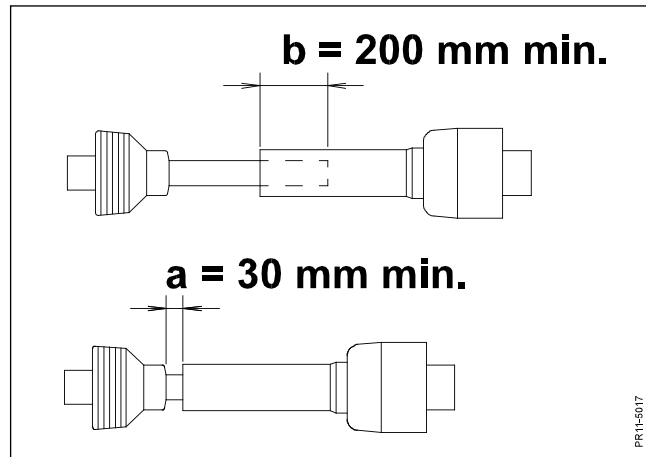


Fig. 2.6

IN CASE OF SHORTENING:

- Fig. 2.6** 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.

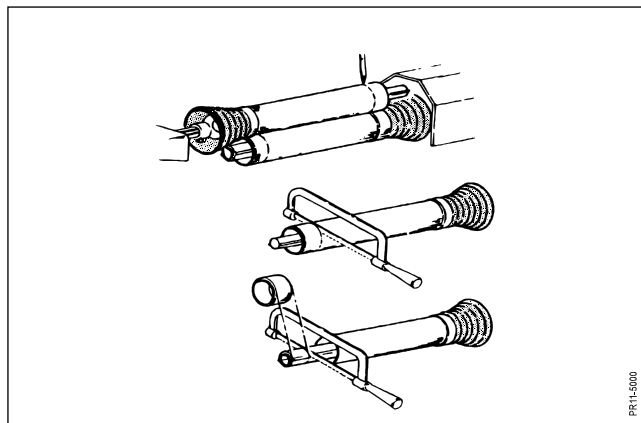


Fig. 2.7

- Fig. 2.7** Fasten the PTO drive shaft half parts to PTO (on the tractor) and PIC (input shaft on the machine), 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 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.

TEST DRIVING

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 all tools have been removed from the machine.
4. 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.
5. 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.
6. 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.
7. Check that the machine has been greased sufficiently and check that the oil level in the gearbox and the cutterbar is correct. See section **"4. GREASING"**.
8. Air the friction clutch as described in chapter **5 "MAINTENANCE"**.
9. 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:
Start the machine at a low number of RPM. With open rear window and without hearing protector you should check that there are 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).

2. CONNECTION AND TEST DRIVING

If there is any doubt, stop the tractor and the machine according to the procedure described in the section "**SAFETY**".

Turn the revolving parts with manual power 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.

REMEMBER: Note that because of the smaller centrifugal force at a low number of RPM, the blades can touch the guard plates on the cutterbar. 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 the machine has been checked and you wish to test it for a long time, close the rear window or wear hearing protector!

DRIVING ON PUBLIC ROAD

The machine is only built to be transported behind a tractor in the tractor link arms, cf. section **CONNECTION TO THE TRACTOR**.

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.



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.

To maintain full control of the tractor under all conditions, minimum 20 % of the own weight of the tractor should be on the front axle. It may be necessary to use front weights to fulfil this requirement.

Always adjust the transport speed to the conditions. All hydraulic stop cocks must be closed.

VERTICAL TRANSPORT POSITION



Fig. 2.8

Fig. 2.8 Mowers in sizes GXS 2405-3205 can be transported in vertical transport position. Mowers in sizes GXS 3605-4005 would exceed the allowable transport height of 4 metres in vertical transport position. Therefore they can only be transported in horizontal transport position.

2. CONNECTION AND TEST DRIVING



DANGER - ALWAYS REMEMBER: In vertical transport position the outermost guard must be folded in and the 3-point linkage must be lowered so that the transport height is below 4 metres. The exact transport height for the individual machines is stated under technical data.

WHEN DRIVING ON SLOPING GROUND, you must be aware that the machine's high centre of gravity will increase the risk of overturning, and also affects the road-holding qualities around corners etc.

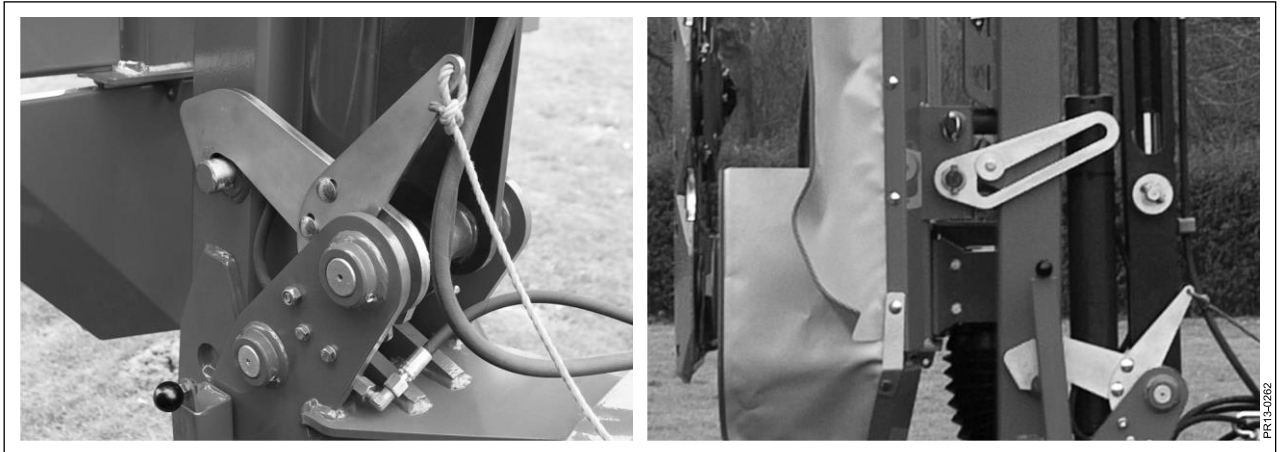


Fig. 2.9

Fig. 2.9 The GXS machines are equipped with 2 transport safety devices which must be safely engaged when the machine is transported vertically. The left picture shows the hook which connects the boom with the suspension. The right picture shows the transport safety device which in vertical transport position blocks the pendulum movement between the cutting unit and the boom.

The mower is placed in vertical transport position by activating the lifting cylinder while pulling the cord for the transport hook. Thereby the valve for headland lift is oversteered and the machine can be folded up 90°.



Fig. 2.10

Fig. 2.10 Machines that are equipped with a cylinder for horizontal transport position can now be swivelled 90° to the rear. Thereby you obtain a better weight distribution on the tractor's rear wheels. This transport position is especially recommended for light tractors and heavy machines, like e.g. GXS 3205 P.

HORIZONTAL TRANSPORT POSITION



Fig. 2.11

Fig. 2.11 For horizontal transport position the machine is not folded up, but swivelled horizontally to the rear. This is done by activating the double-acting hydraulic cylinder which is placed between the suspension and the boom instead of the mechanical stone release. On GXS 3605 and 4005 this cylinder is standard, on all other models it is available as optional equipment.



DANGER: In horizontal transport position the machine protrudes very far to the rear. Be aware of other road users, especially in curves and when turning.



Fig. 2.12

Fig. 2.12 In horizontal transport position the transport safety device is not activated by the force of gravity. Therefore the hoop must be swivelled towards the suspension manually and be secured with split pin.



DANGER:

If the transport safety device is not activated, the cutting unit may start to rock in case of irregularities. This may result in uncontrollable movements of the tractor and may cause the cutterbar to hit the ground and get damaged.

DISCONNECTION OF THE MACHINE

The machine is parked on firm and even ground. If the transport safety device is activated, it must now be deactivated.



DANGER: Stop the engine and remove the ignition key before working on the machine.

The machine cannot be disconnected until the relief has been deactivated. Depending on whether the machine is equipped with mechanical relief (springs) or hydropneumatic relief, the procedures below must be followed:

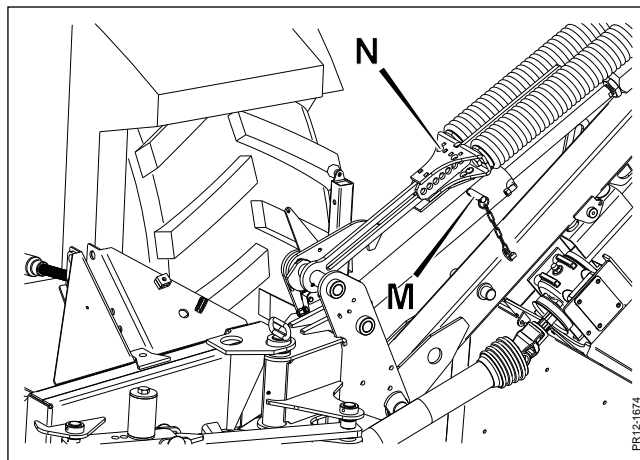


Fig. 2.13

Fig. 2.13 Mechanical relief:

The cutting unit is lifted above the headland position until the relief springs are fully relaxed and the bolt **M** is in the oblong hole. The bolt is removed, placed in the hole **N** and secured with split pin.

The mechanical relief is now deactivated.

2. CONNECTION AND TEST DRIVING

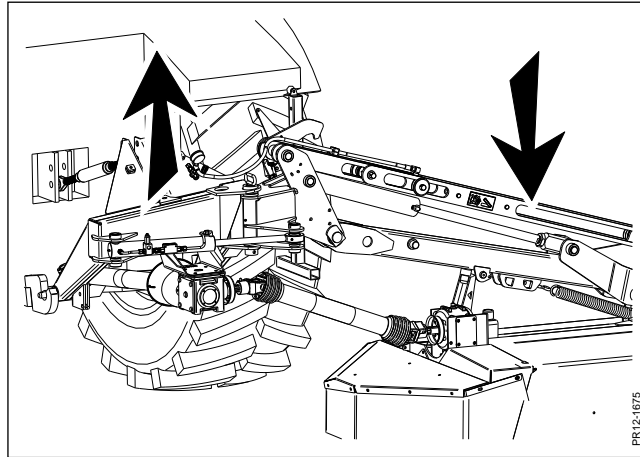


Fig. 2.14

Fig. 2.14 Hydraulic relief:

The cutting unit is placed in working position and the two hydraulic outlets for the lifting cylinder and the hydropneumatic relief are set to floating position.

The tractor's link arms are raised to their highest position so that the cylinder for the relief is fully compressed.

When the pressure of the relief system is zero, watch the pressure gauge, close the stop cock for the relief system.

The hydropneumatic relief is now deactivated.

The GXS machines are disconnected in working position. Machines which are equipped with cylinder for horizontal transport position can also be disconnected in horizontal rear position.

When the machine has been placed in the desired position, all hydraulic outlets must be set to floating position. Raise the tractor's link arms, until the support can be lowered. Secure the support in the bottom position with spring pin and lower the link arms until the support rests safely on the ground. Disconnect the top link.

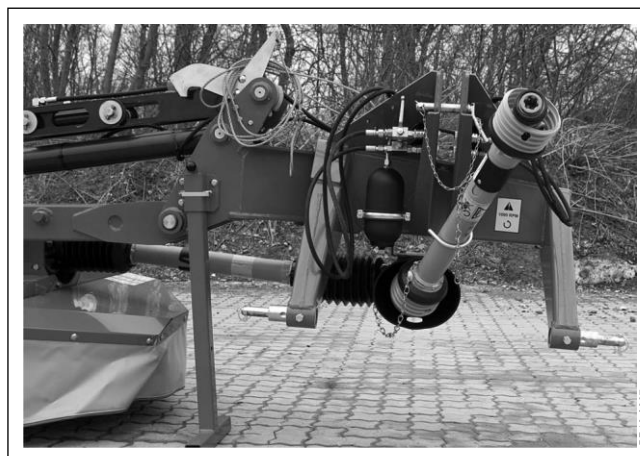


Fig. 2.15

Fig. 2.15 In order to facilitate a later connection, it is recommended to let the suspension have a small inclination so that the left hitch pin is lower than the right one. This is done by releasing the hitch hook for the right hitch pin and lowering the link arms to the wanted inclined position. (approx. 50 mm is recommended).

2. CONNECTION AND TEST DRIVING

Close the stop cock for the lifting cylinder. **Thereby the suspension stays in the wanted position.**

The hitch hook for the left hitch pin is released and the link arms are lowered until the pins are free.



Fig. 2.16

Fig. 2.-16 When all stop cocks are closed, the hydraulic hoses are disconnected from the tractor and placed in the holders at the left- and right-hand side of the suspension.

The PTO shaft is disconnected and placed in the holder.

3. DRIVING AND OPERATION

CONSTRUCTION AND FUNCTION

The GXS machines are rear-mounted disc mowers with working widths of 2.4 – 3.9 m. Model names ending with “P”, e.g. GXS 3205 P are equipped with conditioner with PE-fingers.

One of the characteristics of the GXS range is that the machines perform a perfect piece of work and at the same time have minimum fuel consumption. Furthermore the machine, the crop and the grass roots are spared. Gearboxes, discs, blades and guide shoes are matching each other very well and the relief is optimal and easily adjustable.



Fig. 3.1

Fig. 3.1 The cutting unit is pendular suspended in the centre of gravity. This means perfect ground following and even ground pressure in the whole working width. The special kinematics of the relief system gives an almost constant ground pressure in all working positions.

TRANSPORT POSITION



IMPORTANT: The following instructions imply that the machine has been prepared, adjusted to the tractor and tested according to section 2. CONNECTION AND TEST DRIVING.

Disconnection of the machine is also described in section 2.



DANGER: TRAFFIC MARKING: Before transporting the machine on public road, make sure that the traffic rules can be observed. This, of course, implies that the machine does not cover the lights and signals on the tractor.

VERTICAL, LATERAL TRANSPORT POSITION

Mowers in sizes GXS 2405 – GXS 3205 can be placed in vertical transport position. The 2 larger models GXS 3605 and GXS 4005 may, due to the transport height, only be transported in horizontal transport position.



Fig. 3.2

Fig. 3.2 Folding to vertical transport position takes place hydraulically with the lifting cylinder by activating the tractor's hydraulic outlet. Between the tractor and the cylinder there is a valve which limits the lifting height to the headland position "Easy Lift". By pulling the cord for the transport safety device, the valve is oversteered so that the machine can be lifted higher.



DANGER: Before the machine is folded to transport position, you must check that there are no persons in the danger zone and that there is no risk of collision with objects near the machine.

3. DRIVING AND OPERATION



DANGER: Transport height

Before transporting the machine on public road, make sure that the transport height of 4.0 m is not exceeded.

Folding of the machine to vertical, lateral transport position takes place as follows:

1. Stop the PTO and wait until all revolving parts have stopped.
2. Activate the tractor's hand brake.
3. Fold up the side guards and clean the machine, if necessary.
4. Pull the cord for the transport safety device.
5. Fold up the machine to approx. 45° hydraulically – let go of the cord and lift the machine further until the transport safety device is engaged.
6. Lower the link arms of the tractor so that the hitch pins are approx. 25 cm above the ground.
7. Close all hydraulic stop cocks and check that the transport safety device is engaged.



WARNING: Lowering of the 3-point suspension

When the machine is lowered in the 3-point suspension, it must be checked, that the machine does not touch parts on the tractor.

HORIZONTAL TRANSPORT POSITION

Machines which are equipped with cylinder for horizontal transport position can also be transported in horizontal rear position. On the models GXS 3605 and GXS 4005 this cylinder is fitted as standard.



Fig. 3.3

Fig. 3.3 The machine is swivelled to horizontal transport position hydraulically by activating the hydraulic outlet of the tractor.



DANGER: Before the machine is placed in transport position, you must check that there are no persons in the danger zone and that there is no risk of collision with objects near the machine.



DANGER: **Transport length**
In horizontal transport position the machine protrudes very far to the rear. Be aware of other road users, especially in curves and when turning.

The machine is placed in horizontal transport position as follows:

1. Stop the PTO and wait until all revolving parts have stopped.
2. Activate the tractor's hand brake.
3. Fold up the side guards and clean the machine, if necessary.
4. Raise the machine a little with the lifting cylinder.
5. Move the transport safety device towards the suspension and fasten it with split pin.
6. The machine is swivelled to the rear hydraulically until it meets the stop.
7. Close all hydraulic stop cocks.



WARNING: **PTO drive shaft**
If the machine is swivelled to the rear while the PTO is running, it may be damaged.

VERTICAL REAR TRANSPORT POSITION

Mowers in sizes GXS 2405 – GXS 3205 which are equipped with cylinder for horizontal transport position (option) can also be transported in vertical rear position. The 2 larger models GXS 3605 and GXS 4005 may, due to the transport height, only be transported in horizontal transport position.



Fig. 3.4

Fig. 3.4 The machine is folded up and swivelled to the rear in vertical rear transport position hydraulically by activating the tractor's hydraulic outlet. This transport position is especially recommended for light tractors and heavy machine since it gives a better weight distribution on the rear wheels. At the same time the relief of the front axle is relatively small and the tractor can be steered safely.



DANGER: Before the machine is placed in transport position, you must check that there are no persons in the danger zone and that there is no risk of collision with objects near the machine.



DANGER: **Transport height**
Before transporting the machine on public road, make sure that the transport height of 4.0 m is not exceeded.

3. DRIVING AND OPERATION

Folding of the machine to vertical, rear transport position takes place as follows:

1. Stop the PTO and wait until all revolving parts have stopped.
2. Activate the tractor's hand brake.
3. Fold up the side guards and clean the machine, if necessary.
4. Pull the cord for the transport safety device.
5. Fold up the machine to approx. 45° hydraulically – let go of the cord and lift the machine further until the transport safety device is engaged.
6. The machine is swivelled to the rear hydraulically until it meets the stop.
7. Lower the link arms of the tractor so that the hitch pins are approx. 25 cm above the ground.
8. Close all hydraulic stop cocks and check that the transport safety device is engaged.



WARNING:

Lowering of the 3-point suspension

When the machine is lowered in the 3-point suspension, it must be checked, that the machine does not touch parts on the tractor.



WARNING:

PTO drive shaft

If the machine is swivelled to the rear while the PTO is running, it may be damaged.

WORKING POSITION

Conversion of the machine to working position takes place in reverse order of the conversion to transport position.



DANGER: Before the machine is placed in working position, you must check that there are no persons in the danger zone and that there is no risk of collision with objects near the machine.

The machine is placed in working position as follows:

1. All hydraulic outlets are set from floating position to closed middle position and the machine's stop cocks are opened.
2. Raise the link arms so that the hitch pins are approx. 60 cm above the ground.
3. Fold up the cutting unit by briefly activating the hydraulic outlet so that there is no load on the hook for the transport safety device.
4. Lower the cutting unit by pulling the cord for the transport safety device while activating the hydraulic outlet.
5. If the hydraulic oil is cold and/or if the cutterbar ground pressure is very light, it may happen that the lowering speed decreases strongly around the headland position. Here it helps pulling the cord for the transport safety device again.
6. The machine is swivelled into working position.
7. Activate the hand brake.
8. Fold down the side guards.
9. Deactivate the transport safety device.



Fig. 3.5

Fig. 3.5 On firm ground the link arms are raised/lowered so that the pin on the boom is in the middle of the oblong hole of the transport safety device.

RELIEF OF CUTTER BAR

A low ground pressure spares the grass roots, reduces crop contamination, minimises machine wear and reduces fuel consumption.

Therefore the correct adjustment of the relief is an important factor if you wish to obtain a good result. On the GXS machines there are two optional relief systems; a mechanical relief with two or three strong spiral springs or a hydropneumatic relief.

In general you should always work with the lowest possible ground pressure. On uneven ground a light machine may however cause the cutting unit to move up and down, which may result in uneven stubbles. In that case it may be necessary to increase the ground pressure.

SETTING OF MECHANICAL RELIEF

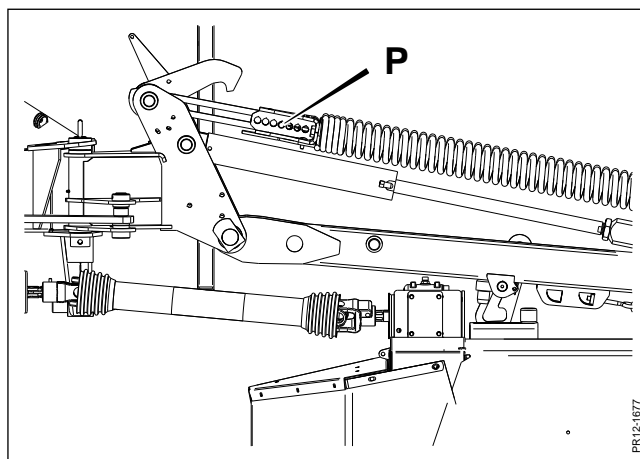


Fig. 3.6

Fig. 3.6 The mechanical relief can be adjusted to 7 different positions by moving the bolt **P**. When the bolt is moved to the right, the relief is increased and the ground pressure reduced.

In order to move the bolt, the cutting unit must be lifted above the headland position so that the spiral springs are relieved and the bolt can move in the oblong hole.

It is recommended to start with a relatively high relief and then reduce it if the cutting is unsatisfactory. It should always be possible to lift the machine in one side by hand.



WARNING: Disconnection of the machine

Before the machine is disconnected the bolt **P must** be removed since the springs will otherwise lift the suspension whereby the machine will overturn.

SETTING OF HYDROPNEUMATIC RELIEF

With the hydropneumatic relief the ground pressure can, contrary to the mechanical relief, be adjusted continuously at any time and in all working positions. Instead of spiral springs, the drawing power is transferred by means of a hydraulic cylinder. This cylinder is supplied with oil from a gas pressure accumulator.

The pressure in the system can be changed directly from the tractor by using the hydraulic outlet.



Fig. 3.7

Fig. 3.7 The current pressure in the system can be seen on the pressure gauge. The adjustment of the pressure during working depends on the machine weight and the ground conditions and will be a matter individual experience.

A good start is obtained as follows:

1. Place the machine in working position.
2. The hydraulic outlet for the lifting cylinder is set to floating position.
3. The pressure in the relief system is increased until the cutting unit is raised.
4. The pressure is lowered gradually until the cutting unit rests on the ground again.
5. Lower the pressure further 5-10 bar.



WARNING:

Disconnection of the machine

Before the machine is disconnected make sure that there is no pressure in the hydraulic system for the relief since the cylinder will otherwise lift the suspension and the machine will overturn.

HEADLAND POSITION

When lifting the cutting unit from working position to headland position, the travel of the cylinder is limited so that the cutting unit can only be lifted to a certain height.

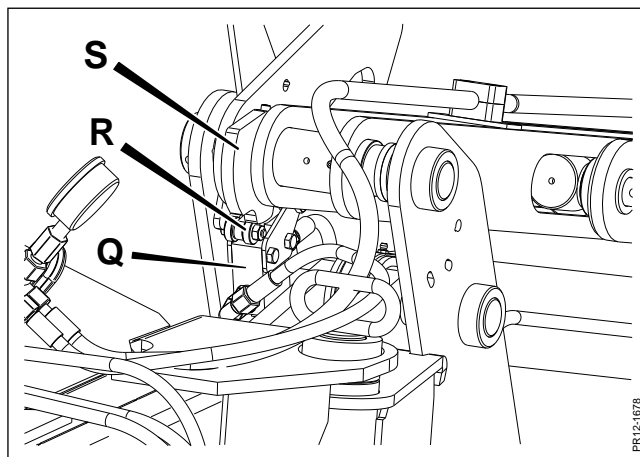


Fig. 3.8

Fig. 3.8 This is secured by a valve **Q** which is controlled by an arm running on a cam track **S**. When the ball bearing on the arm **R** meets the notch on the cam track, the oil supply between the tractor and the cylinder is interrupted and the cutting unit is not lifted any further.

If the cutting unit is going to be lifted higher than the headland position, the valve can be oversteered by pulling the cord for the transport safety device.

ADJUSTMENT OF LIFTING HEIGHT

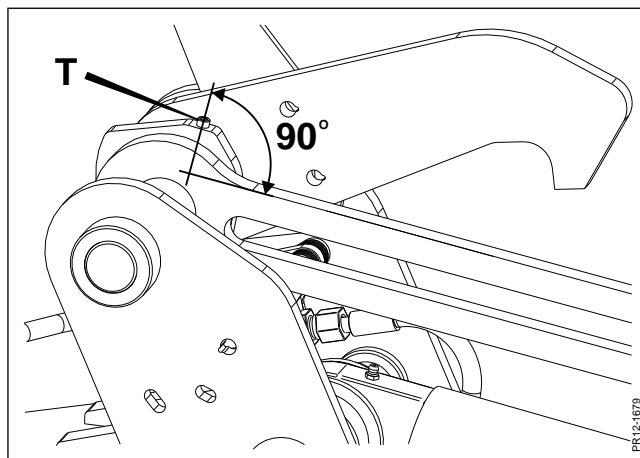


Fig. 3.9

Fig. 3.9 When the screw **T** is loosened the cam track can be turned. If it is turned to the right, the lifting height of the cutting unit is increased. If it is turned to the left, the lifting height is reduced.

From the factory the cam track is adjusted so that the screw **T** is at a right angle to the relief rod. This will be the optimal adjustment in most cases.

If you want another lifting height than the standard adjustment, do as follows:

1. Lift the cutting unit to the wanted headland position by activating the hydraulic outlet. Pull the cord for the transport safety device, if necessary.
2. Loosen the screw **T** and turn the cam track until the ball bearing of the arm is in the notch of the cam track.
3. Tighten the screw again.

STONE RELEASE

All GXS machines are equipped with a stone release which makes it possible for the cutting unit to swivel backwards in case of collision with an obstacle. This stone release can be found at the back of the suspension.



IMPORTANT: The stone release only works when driving forwards.

On machines which are equipped with a hydraulic cylinder for horizontal transport position the stone release is hydraulic. On all other machines it is mechanical.

If the stone release is activated too often, it may be because the ground pressure of the cutting unit is too high. Always check the adjustment of the relief before you change the adjustment of the stone release.

MECHANICAL STONE RELEASE

The mechanical stone release is tensioned in working position by a compression spring. If the pressure on the rod becomes too great, the spring is compressed and the cutting unit can swivel 25° to the rear.

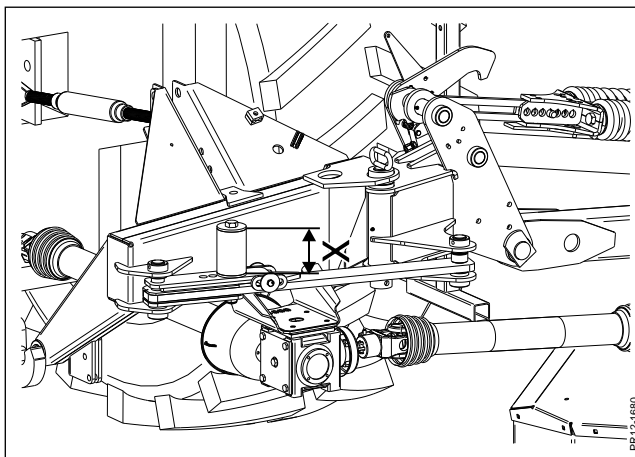


Fig. 3.10

Fig. 3.10 The release power can be adjusted by changing the initial tension of the compression spring. The height **X** of the spring in working position **must be minimum 95 mm**.

When the stone release has been activated, reverse slowly with lowered cutterbar. Thereby the stone release is locked again.



WARNING: After each stone release the machine must be stopped and inspected for damage immediately. In case there is any damage do not continue the work until repair has been made.

HYDRAULIC STONE RELEASE

The hydraulic stone release works with a pressure relief valve at the swivel cylinder. If the pressure in the cylinder gets too big, the oil runs from the cylinder to the lifting cylinder and back to the tractor.

From the factory the pressure relief valve is adjusted to open at 180 bar. Adjustment of the valve must always be made by an expert with suitable measuring equipment.

When the hydraulic stone release has been activated the cylinder can be put back to working position by using the hydraulic outlet.



WARNING: After each stone release the machine must be stopped and inspected for damage immediately. In case there is any damage do not continue the work until repair has been made.

WORKING IN THE FIELD

Before you work in the field check that the machine has been connected correctly, that the cutting unit is in working position and that the relief has been adjusted correctly as described in the previous sections.

Connect the power take-off carefully and increase to the correct number of rpm before working in the crop.

When mowing, the single-acting hydraulic outlet for raising the cutting unit must be in floating position.

The speed varies from 6-20 km/h depending on the crop and the working conditions.



IMPORTANT: When mowing, the hydraulic outlet for raising the cutting unit must be in floating position. Otherwise the cutting unit is unable to follow the ground.

TURNING

Always drive slowly when turning on the headland and when driving with lifted cutting unit.



WARNING: If you turn at high speed the cutting unit may begin to move in the suspension and collide with the ground.

STUBBLE HEIGHT

The stubble height is adjusted by changing the length of the top link.

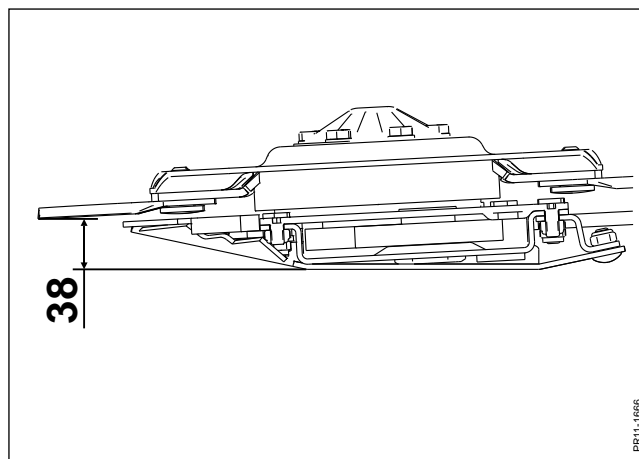


Fig. 3.11

Fig. 3.11 When the suspension is horizontal the cutter bar has a forward inclination of 3° . This results in a theoretical stubble height of 38 mm.

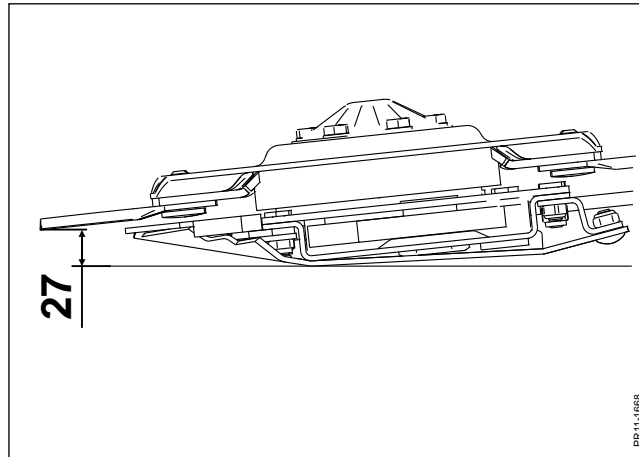


Fig. 3.12

Fig. 3.12 A forward inclination of about 3° results in a theoretical stubble height of 27 mm.

The forward or backward inclination of the suspension should not exceed 3° since this would result in a deviation of the PTO shaft and consequently vibrations and increased wear. Furthermore guide shoes, discs and blades are quickly worn if the cutting height is low and there is a risk of crop contamination.

If you want an extra high stubble, e.g. when topping fallow fields, high guide shoes can be mounted. See spare parts book.

SECURING AGAINST OVERLOAD



IMPORTANT: The tractor driver can secure the transmission against overload!

When using the machine, the following should be considered:

- 1) Always start the machine with the engine running at low speed. This especially applies to tractors with electro-hydraulic connection of the PTO shaft.
- 2) Only start the machine with the cutting units lowered to working position.
- 3) A sudden increase in the number of RPM of the machine, e.g. when driving into the field or after turning in the field should also happen with the machine lowered to working position.
- 4) Listen to the RPM of the tractor when working in the field. If the number of RPM falls slowly or is suddenly reduced it may be a sign of overload of the transmission due to too high driving speed or foreign matter in the cutting unit. In this case, the friction clutch will slip and you should disconnect the PTO immediately and let the machine “rest”.

CONDITIONER

GXS 2405 P, GXS 2805 P and GXS 3205 P are equipped with a conditioner rotor with PE fingers. The conditioner rotor rotates with 860 rpm.

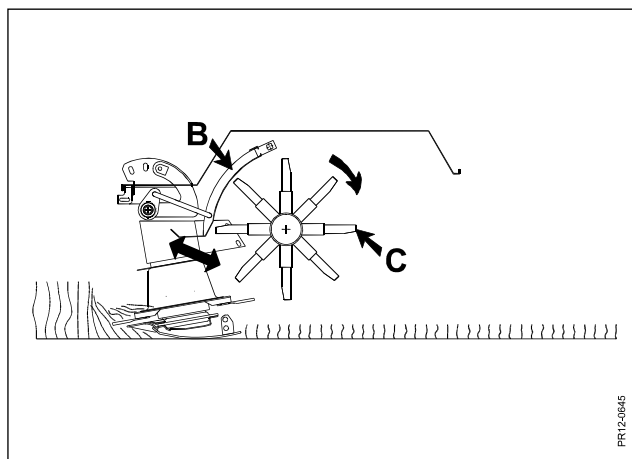


Fig. 3.13

Fig. 3.13 The degree of conditioning can be varied by changing the distance between the conditioner plate **B** and the conditioner fingers **C**.

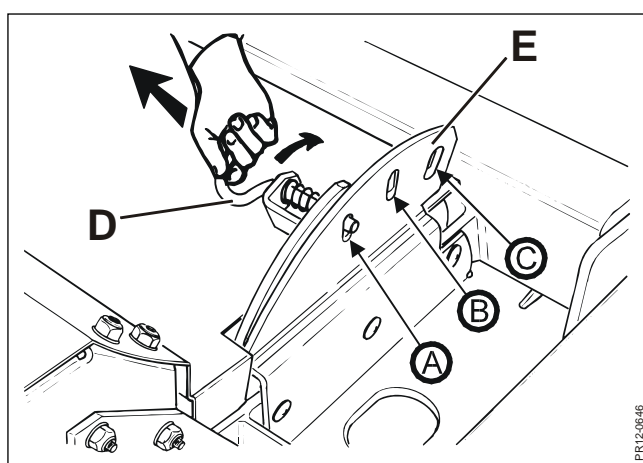


Fig. 3.14

Fig. 3.14 The conditioning is adjusted with the handle **D** which can be placed in 3 positions on the bracket **E**. If the handle is placed in pos. **A**, the distance between the conditioner plate and the conditioner rotor is short, in pos. **B**, the distance is medium and in position **C** the distance is long.

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.

EQUIPMENT FOR WIDE SPREADING (TOP DRY)

The mower conditioners are fitted with equipment for wide spreading which makes it possible to spread the crop instead of laying a swath in order to optimise the drying.

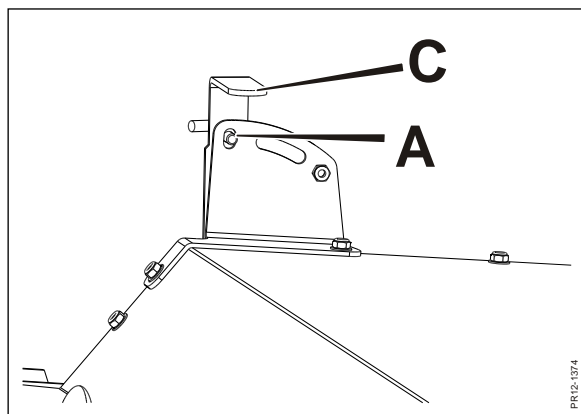


Fig. 3.15

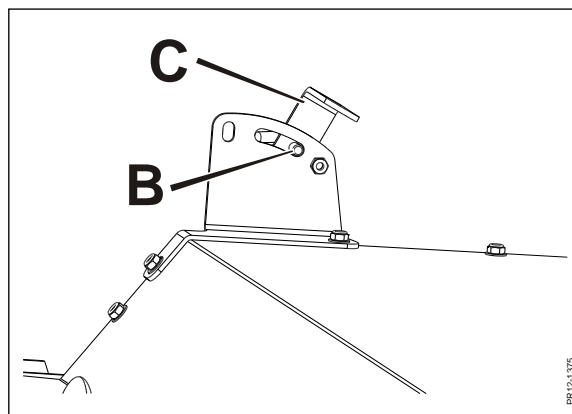


Fig. 3.16

Fig. 3.15 The equipment consists of a plate which is mounted behind the conditioner rotor. When normal swathing is wanted, the plate must be folded up and the handle must be in position **A** (inactive).

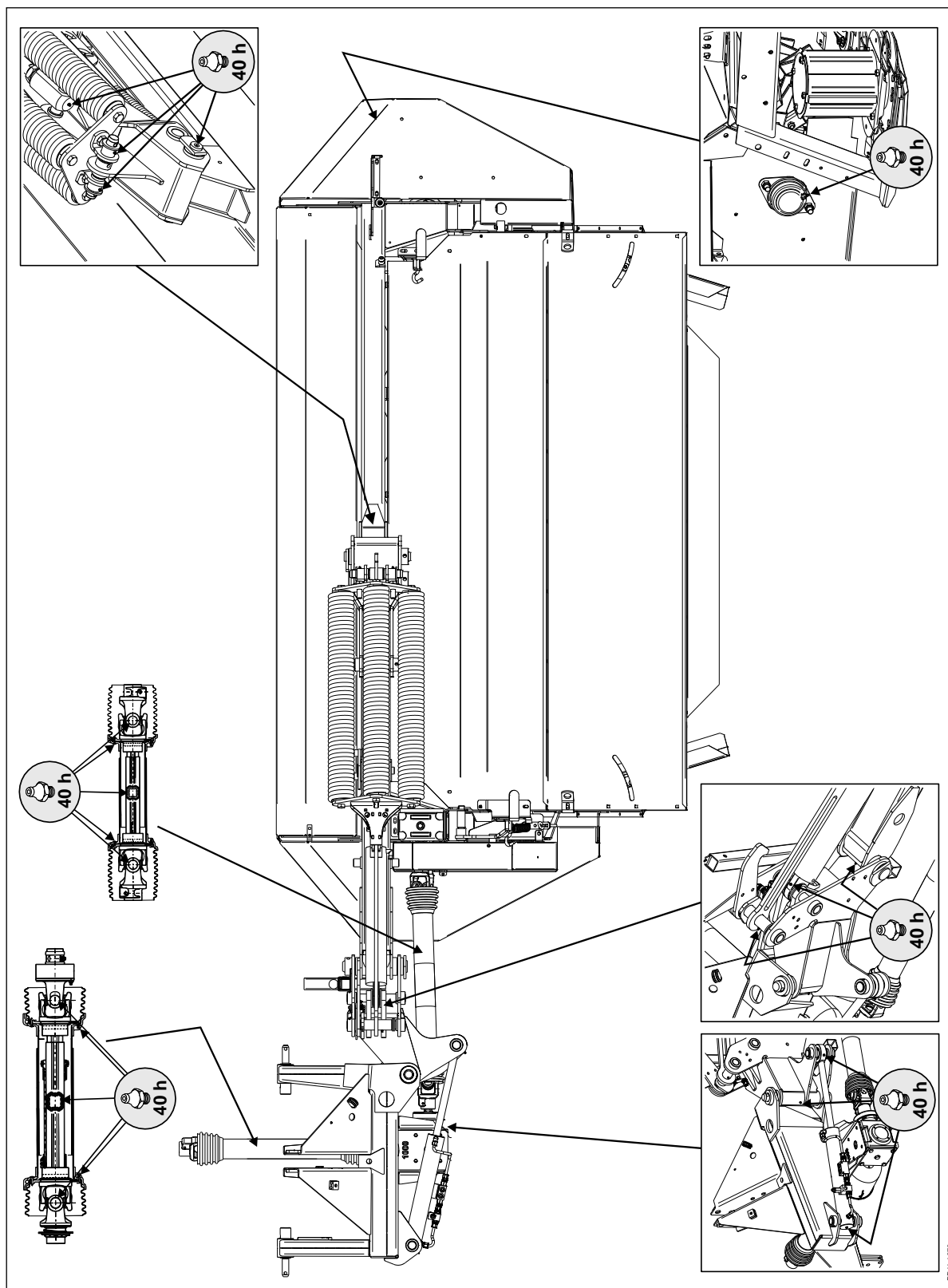
Fig. 3.16 For wide spreading the plate is folded down with the handle **C** in an active position **B** behind the conditioner rotor.

During wide spreading the crop is thrown from the conditioner rotor against the plate which leads the crop towards the ground. Thereby the crop is laid in the full width of the conditioner.

4. GREASING

Greasing chart for GXS 2405 P – GXS 4005.

Below grease spots must be greased after every **40 hours of operation**, however **at least once a year**.



PR11-1678

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.



WARNING - REMEMBER: Pay special attention to the sliding **PROFILE TUBES** of the PTO shafts. They must be able to slide back and forth when the torque is heavy.
If you neglect to grease the profile tubes sufficiently it will result in high axial forces which will damage the profile tubes and in time also connecting shafts and gearboxes.
Lubricate via external lubricating nipple in the protective tube.

OIL CHANGE:

CUTTER BARS

Oil content per cutterbar:	GXS 2405 P	2.2 l
	GXS 2805 (P)	2.5 l
	GXS 3205 (P)	3.0 l
	GXS 3605	3.0 l
	GXS 4005	3,7 l

OIL LEVEL

The oil in the cutterbar 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.

It is practical to place the machine in the correct 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.

Oil level

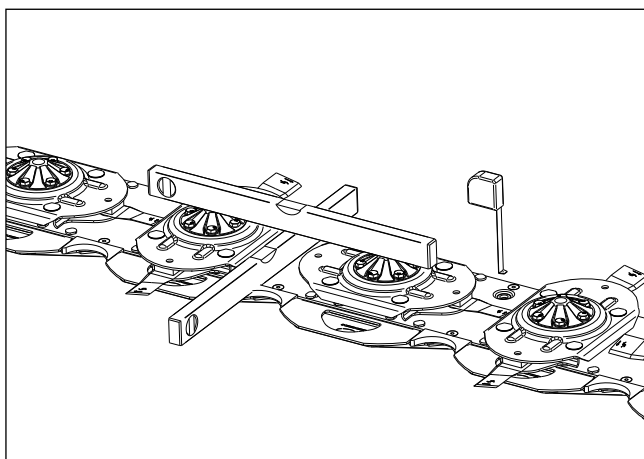


Fig. 4.1

Fig. 4.1 To check the oil level, place the cutterbar horizontal, which should be checked by means of a level tube, both lengthwise and crosswise.

On each cutterbar there are 2 plugs for inspection of oil level and filling.

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.

4. GREASING

These are placed as follows:

On **GXS 2405 P** between 2nd and 3rd disc and between 4th and 5th disc.

On **GXS 2805** and **GXS 2805 P** between 2nd and 3rd disc and between 5th and 6th disc.

On **GXS 3205** and **GXS 3205 P** between 3rd and 4th disc and between 5th and 6th disc.

On **GXS 3605** between 3rd and 4th disc and between 6th and 7th disc.

On **GXS 4005** between 4th and 5th disc and between 6th and 7th disc.

In order to facilitate the oil check we recommend you to have a permanent "oil measuring platform" on which the cutterbar can be placed when checking the oil level.

This means that the check for horizontal cutter bar with level tube 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:

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.

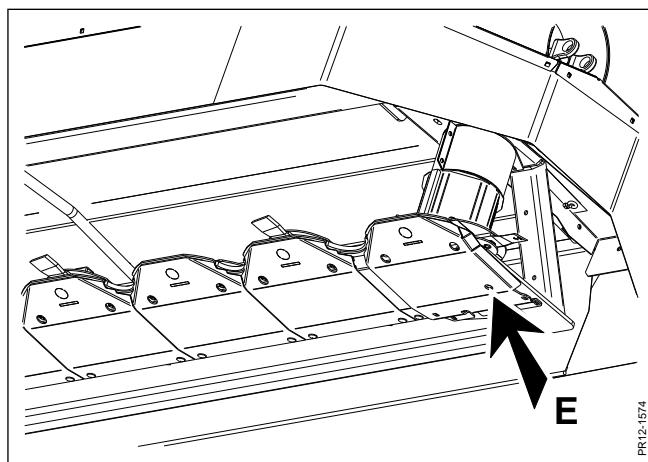


Fig. 4.2

Fig. 4.2 The plug for draining of oil is placed in the hole on the outermost guide shoe **E**.

4. GREASING

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

REMEMBER: to mount the plug again after draining. The drain plug has a magnet to collect metallic impurities. Therefore, always clean the drain plug before remounting it.

When changing the oil, be sure to use a correct oil type.

Correct oil type: **SHELL OMALA S2G 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 cutterbar may cause unintentional overheating which in the long term will damage the bearings.

4. GREASING

BEVEL GEARBOX ABOVE THE CUTTER BAR

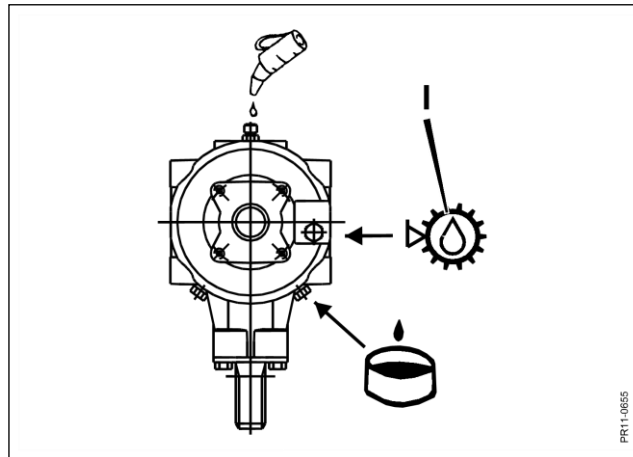


Fig. 4.3

Fig. 4.3	Oil content:	0.9 l
	Oil type:	API GL4 or GL5 SAE 80W-90
	Oil level:	Check the oil level after every 80 hours of operation.
	Oil change:	First oil change after 50 working hours and then after every 600 working hours or at least once a year.

4. GREASING

BEVEL GEARBOX AT THE HEADSTOCK

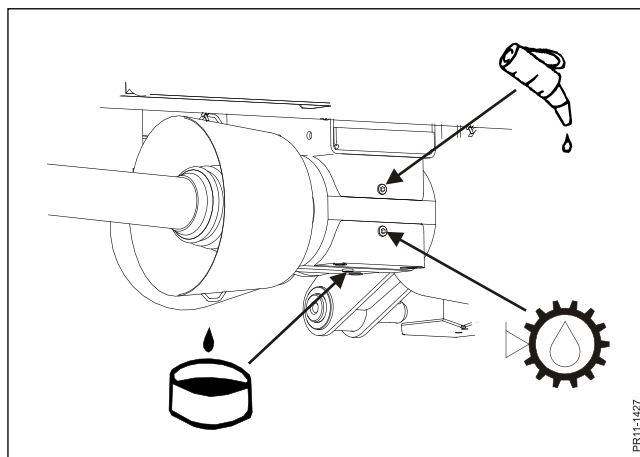


Fig. 4.4

Fig. 4.4	Oil content:	540 rpm = 1.1 l 1000 rpm = 1.2 l
	Oil type:	API GL4 or GL5 SAE 80W-90
	Oil level:	Check the oil level after every 80 hours of operation.
	Oil change:	First oil change after 50 working hours and then after every 600 working hours or at least once a year.

5. MAINTENANCE



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 RULES** 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.

Ma 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 20x1,5	430	615	720
M 24	640	900	1100
M 24x1,5	690	960	1175
M 30	1300	1800	2300

Fig. 5.1

Fig. 5.1 Torque moment **M_A** (if nothing else has been stated).

FRICITION CLUTCH

The front PTO drive shaft has a friction clutch.

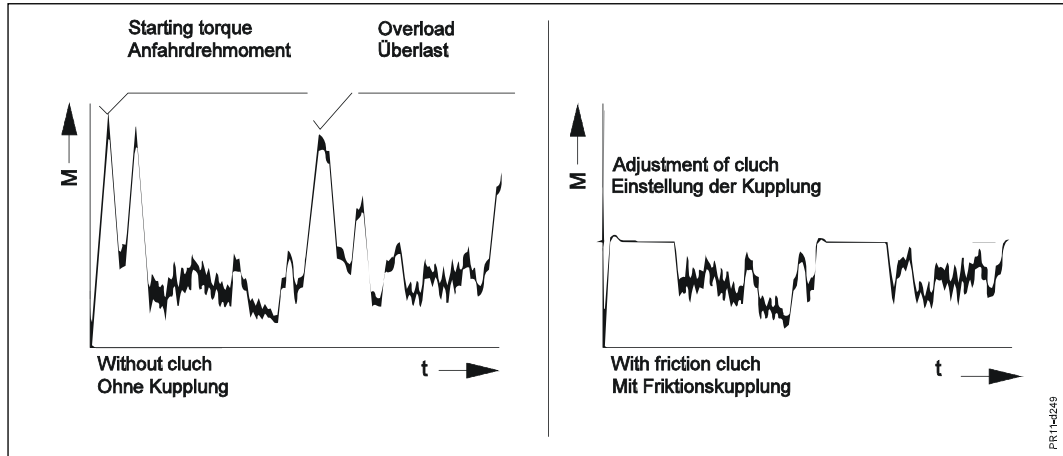


Fig. 5.2

Fig. 5.2 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 is in function (slips).

The friction clutch must be maintained at regular intervals. At the same time the clutch must be checked after any long period of standstill. This especially applies after winter storage before the machine is used for the first time in the season.

Maintaining the friction clutch:

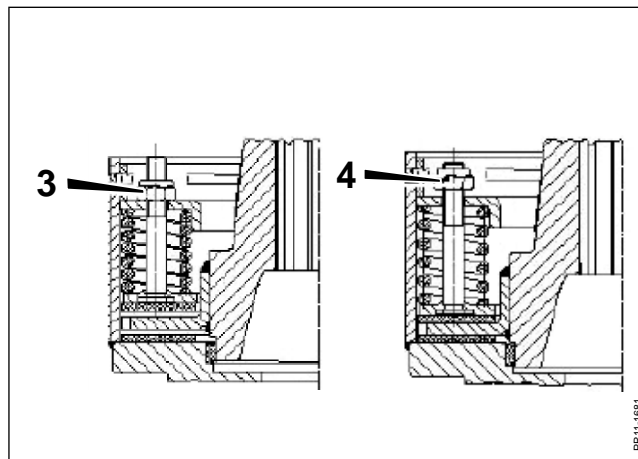


Fig. 5.3

Fig. 5.3

- 1) The nuts **3** are tightened equally whereby the friction discs are relieved.
- 2) Turn the clutch all the way round.
- 3) The nuts **4** are turned back to the end of the thread.



IMPORTANT: 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 unbalance.

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 and rotor fingers are intact. In the long run unbalance 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.

Bolts at stone protectors and shearbars at the front of the cutterbar should be checked at regular intervals.

DISCS AND BLADES - QS

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

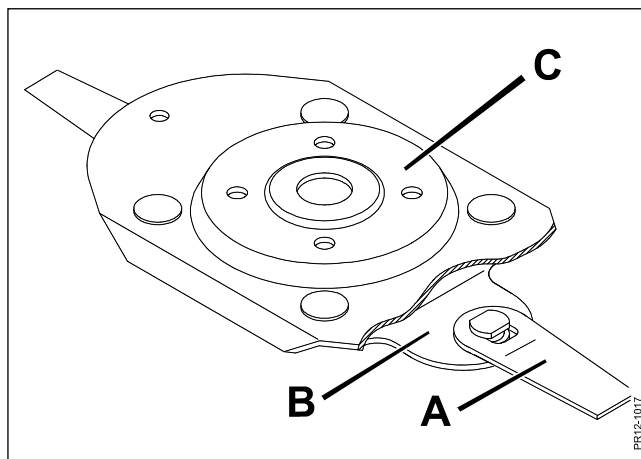


Fig. 5.4

Fig. 5.4 The system is called QS, (Quick and Safe), which indicates the quick mounting/change of blades and the high safety as blades **A** cannot unintentionally be released from the blade holder **B**, which is bolted on the disc **C**.

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 a disc is damaged, do not attempt to weld the parts together again. 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 as not to create an unbalance.

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

BLADES

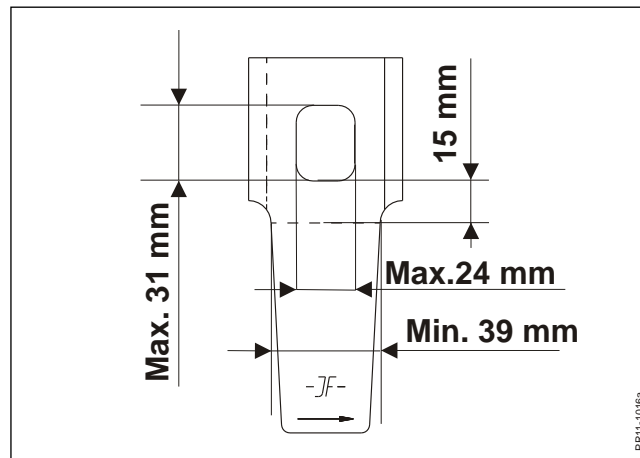


Fig. 5.5

Fig. 5.5 Replace blades immediately if:

- 1) They are bent or cracked
- 2) The width of the blade is less than 39 mm measured 15 mm from the edge
- 3) The blade hole is larger than stated.

BLADE HOLDER

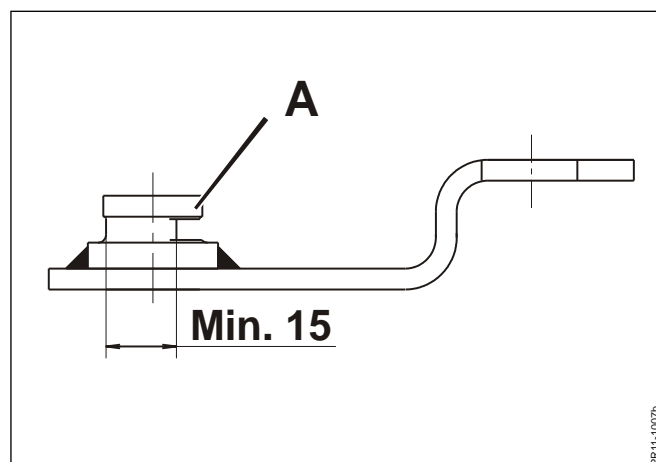


Fig. 5.6

Fig. 5.6 The blade holder must be replaced if:

- 1) The blade pin **A** is not in contact with the disc
- 2) The blade pin **A** is strongly worn on one side,
- 3) The diameter of the blade pin is less than 15 mm.



IMPORTANT: This inspection must be made especially 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 you **MUST** replace parts if you have the slightest doubt whether they have been damaged, to secure against loss of rotating parts.

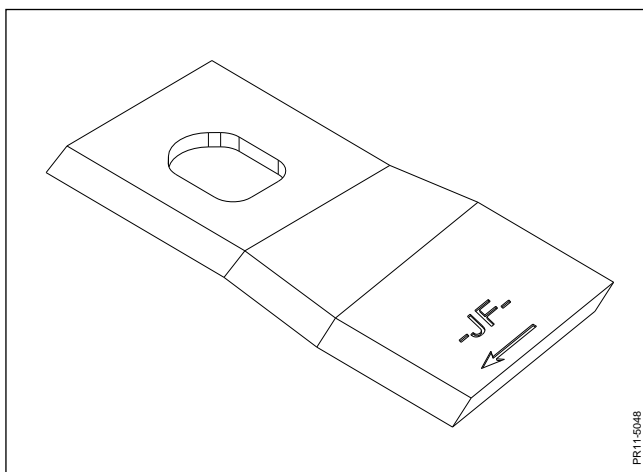


Fig. 5.7

Fig. 5.7 Twisted blades can be used on both sides by turning the blade. It must however stay on the same disc.

Please note that twisted blades are available in a left-twisted and a right-twisted version, 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 problems.

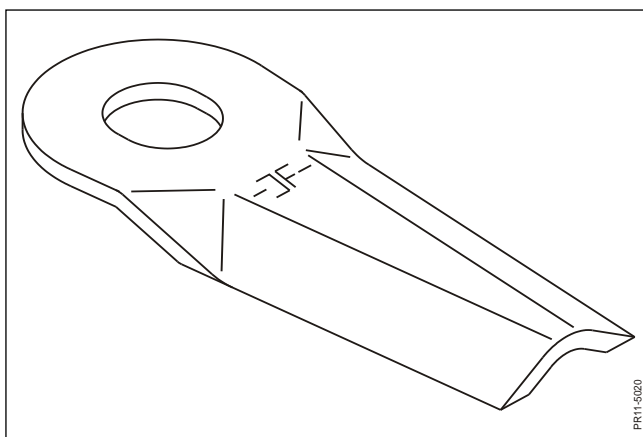


Fig. 5.8

Fig. 5.8 Profile blades can be used on both sides by moving the blades from one disc to another with opposite direction of rotation.

Replacement of blades

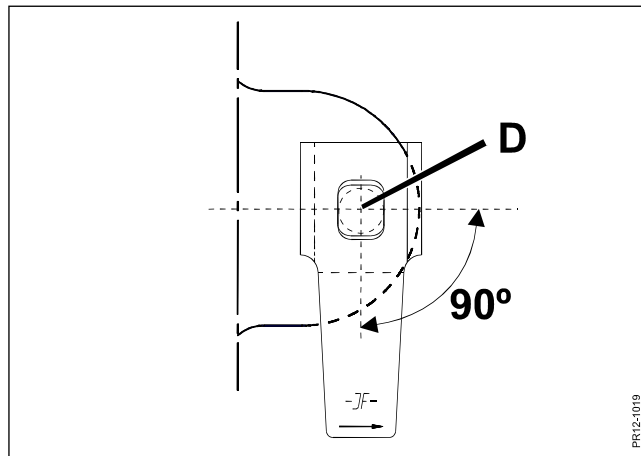


Fig. 5.9

Fig. 5.9 Turn the blade 90 degrees from working position and release the blade from the blade pin **D**.

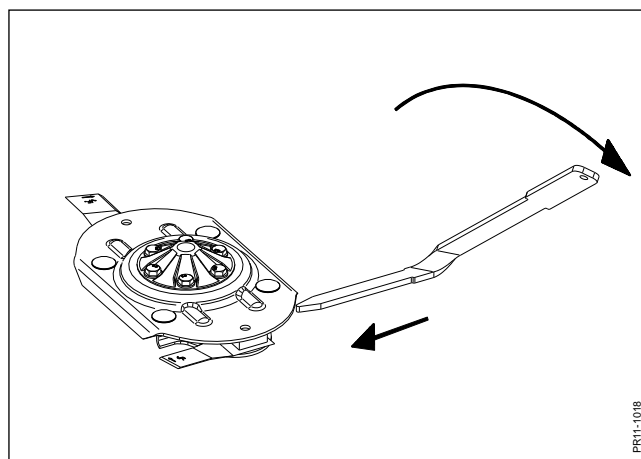


Fig. 5.10

Fig. 5.10 Place the supplied tool for replacement of blades as shown with the short narrow end behind the blade. So far in that it covers the whole width of the blade holder.

5. MAINTENANCE

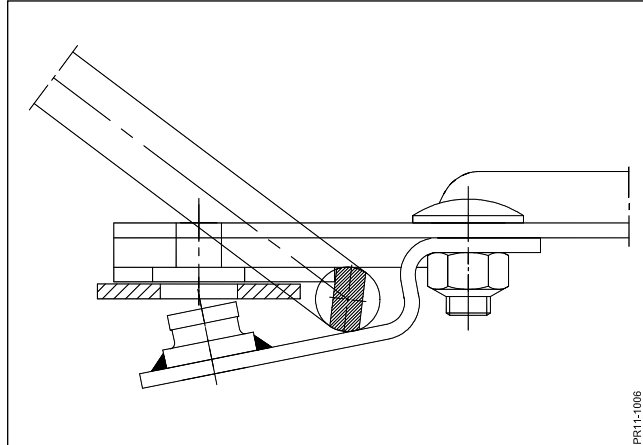


Fig. 5.11

Fig. 5.11 Press the blade holder down by pulling the long end of the tool forward.



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

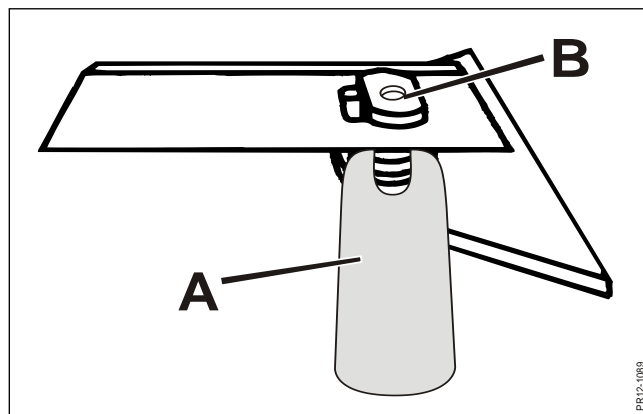


Fig. 5.12

Fig. 5.12 In connection with replacement of blades check all blade pins **B** on the discs regularly with the gauge **A** (in the spare parts package).



IMPORTANT: When the gauge **A** can get over the blade pin **B** it **MUST** be replaced immediately.

When mounting blades this is done in reverse order.

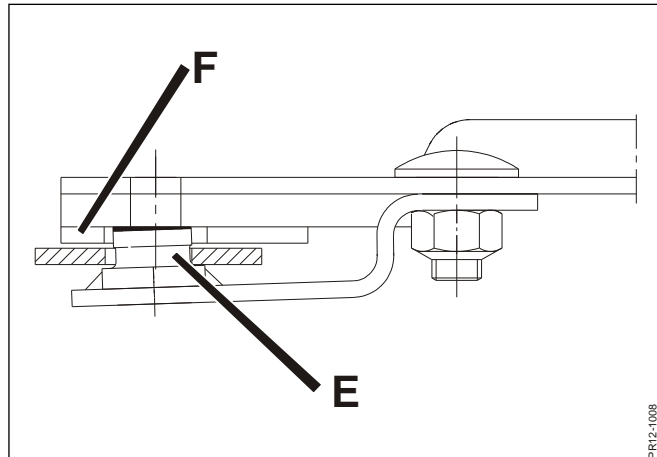


Fig. 5.13

Fig. 5.13 IMPORTANT: Make sure that there are no impurities between the contact faces of the blade pin and the disc and that the blade pin E of the blade holder has correct contact with the bottom of the disc F. If the blade pin is not in contact with the disc, the blade holder should be replaced.



IMPORTANT: All discs must have the correct number of blades and it must be possible to turn the blades freely from side to side. **REMEMBER:** The blades will in both sides stop against the blade holder.



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 all guards must be placed correctly.

REMEMBER: The blades can be used on both sides.

DISCS AND BLADES – Q+

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

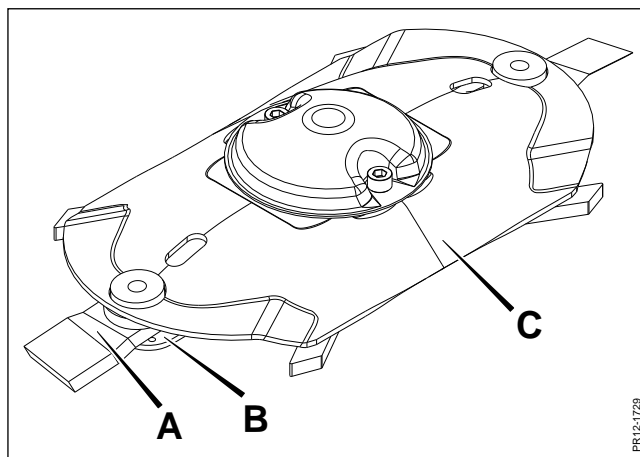


Fig. 5.14

Fig. 5.14 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 unbalance.

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

BLADES

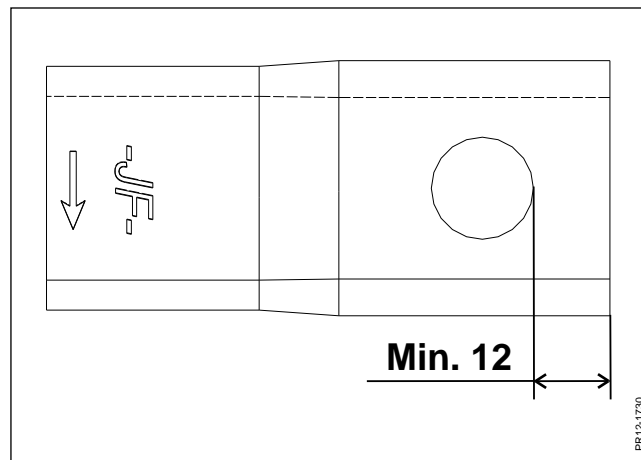


Fig. 5.15

Fig. 5.15 Replace blades immediately if:

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

BLADE HOLDER

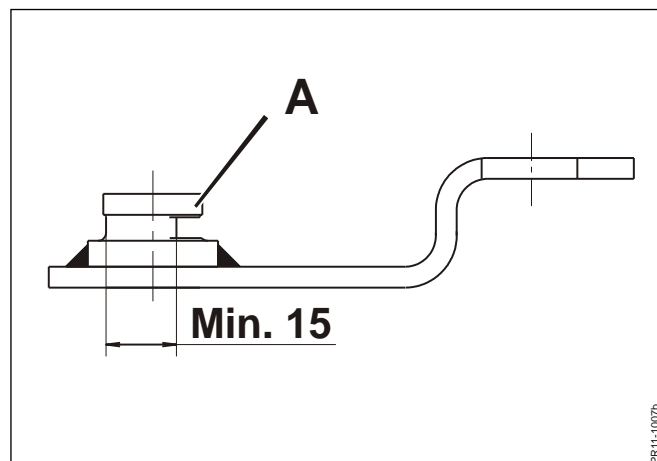


Fig.5.16

Fig. 5.16 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 diameter of the blade pin 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.

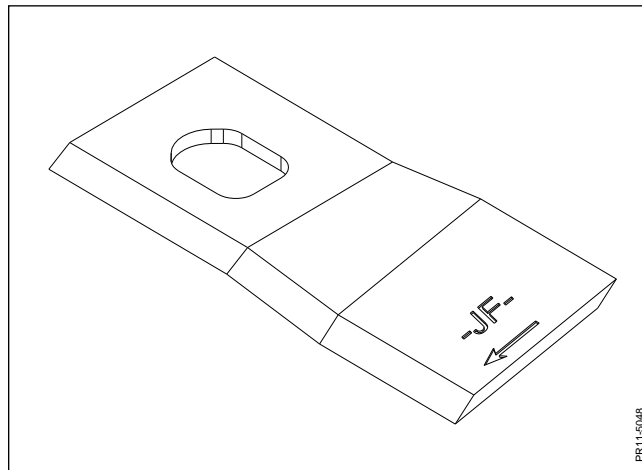


Fig. 5.17

Fig. 5.17 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 a left-twisted and a right-twisted version, 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 problems.

Replacement of blades

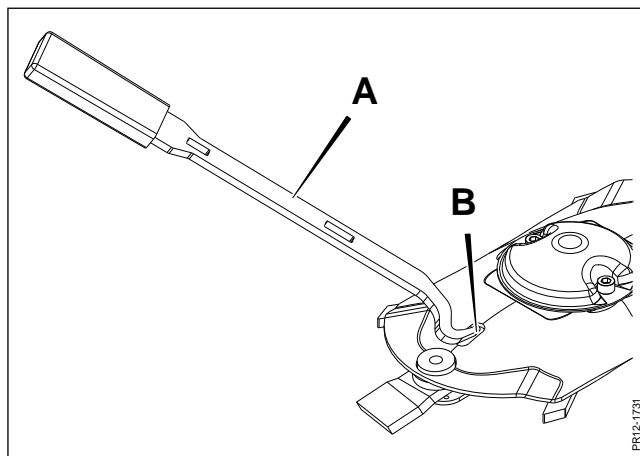


Fig 5.18

Fig. 5.18 The replacement tool **A** placed in the oblong hole **B** in the disc. When the tool is in the hole it is straightened up and pushed forward in the oblong hole.

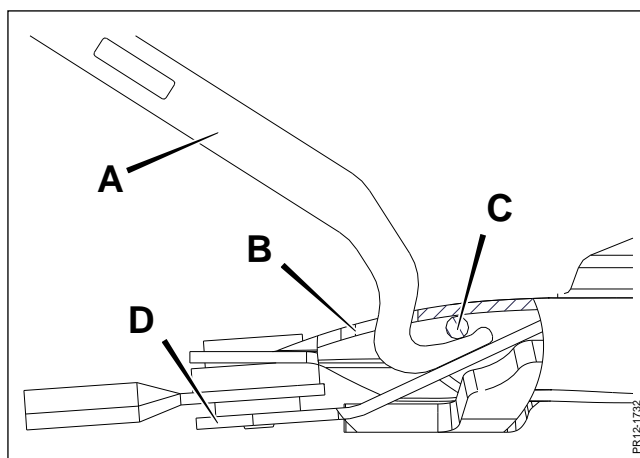


Fig. 5.19

Fig. 5.19 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.

5. MAINTENANCE

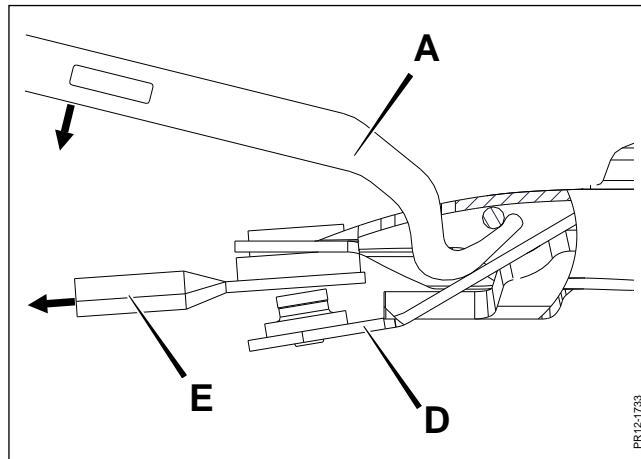


Fig. 5.20

Fig. 5.20 The tool **A** is pulled down until the blade **E** can be removed.

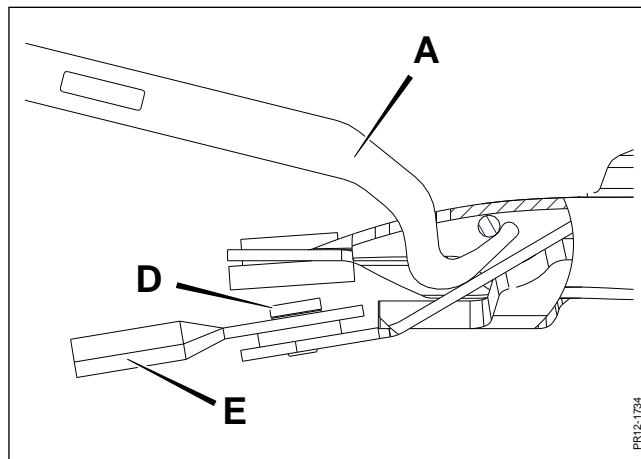


Fig. 5.21

Fig. 5.21 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.

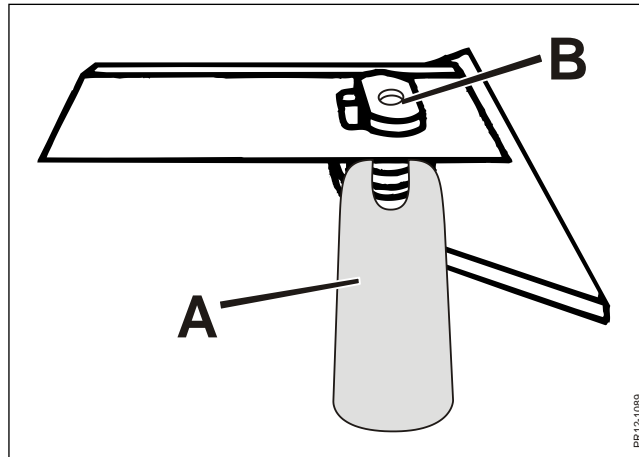


Fig. 5.22

Fig. 5.22 In connection with replacement of blades check the blade pins **B** on the discs regularly with the gauge **A** (in the spare parts package).



IMPORTANT: When the gauge **A** can get over the blade pin **B** it **MUST** be replaced immediately.

When mounting blades this is done in reverse order.

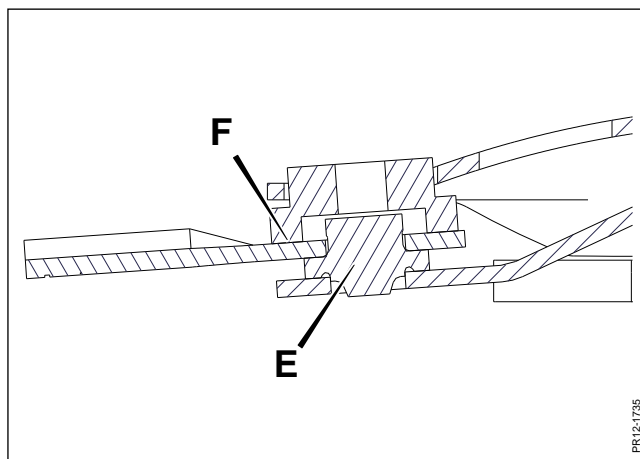


Fig. 5.23

Fig. 5.23 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.

REMEMBER: The blades can be used on both sides.

REPLACEMENT OF DISCS

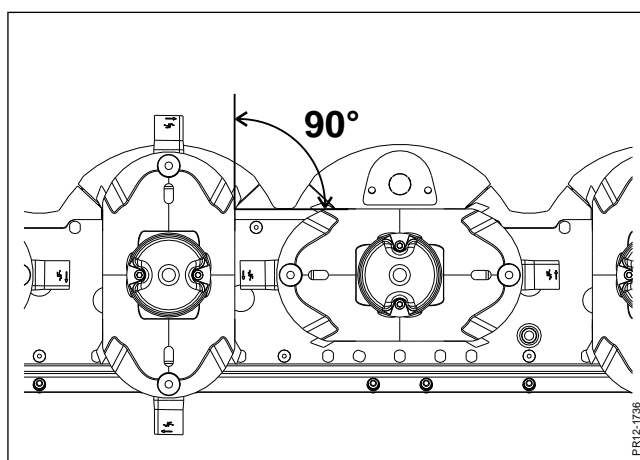


Fig. 5.24

Fig. 5.24 If discs have been dismantled they must be mounted again staggered 90° in relation to each other.

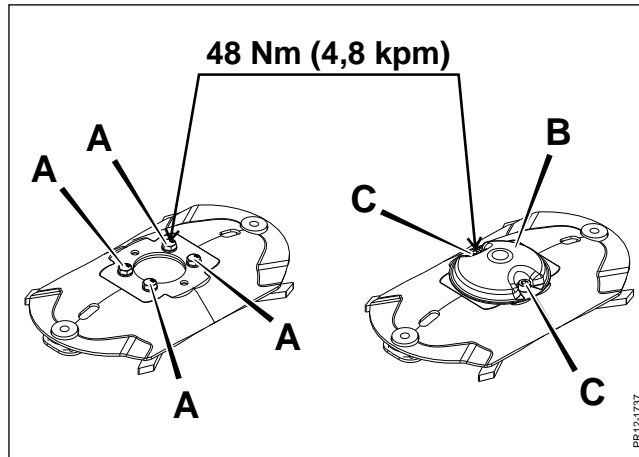


Fig. 5.25

Fig. 5.25 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 all 6 bolts are identical.

IMPORTANT: After replacement of blades and blade bolts it must be checked 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.

DISCS AND CUTTERBAR

REPLACEMENT OF DISCS

The height of the disc can be adjusted by placing spacers between disc and hub. This may be necessary when replacing the discs if the blades are not at the same height afterwards.

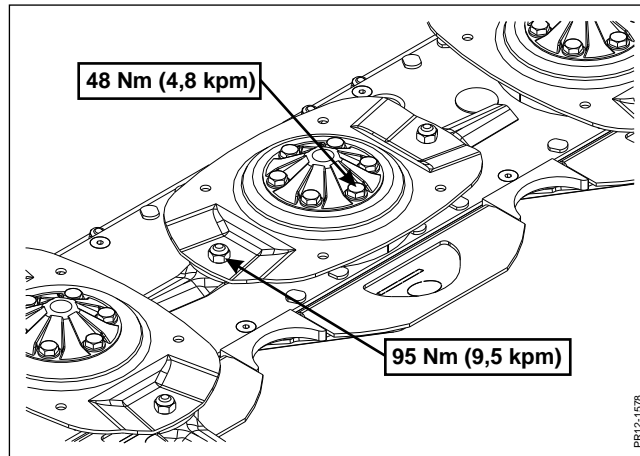


Fig. 5.26

Fig. 5.26 The discs are fastened with 6 bolts which must be tightened to 48 Nm (4.8 kpm). Knife bolts must be tightened to 95 Nm (9.5 kpm).

REPLACEMENT OF HUBS

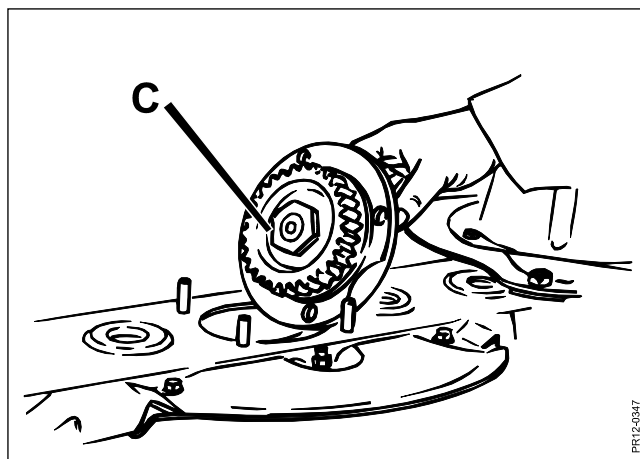


Fig. 5.27

Fig. 5.27 A cutterbar is used on which each hub **C** below the discs is easily replaced from above (Top Service cutter bar).

The hubs with bearing housing are dismantled by loosening the bolts that fix it to the cutterbar.

5. MAINTENANCE

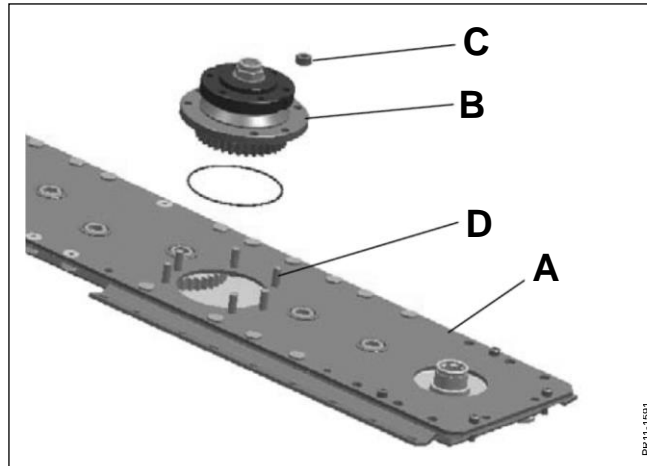


Fig. 5.28

Fig. 5.28 When the hub is mounted the surface of the cutterbar **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)**.

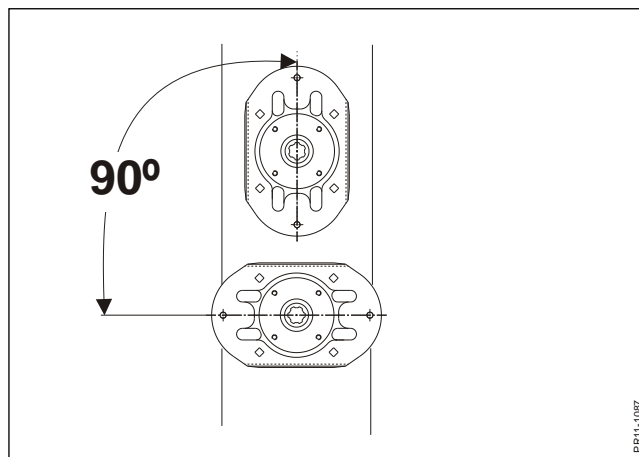


Fig. 5.29

Fig. 5.29 Make sure that the discs are mounted 90 degrees staggered in relation to each other.

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.

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 nipples carefully before and 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 wearing parts needed 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 the parts polished with use and the hydraulic cylinder piston rods.
- Change the oil in the cutter bar and the gearboxes.
- Store the machine in a ventilated engine house.

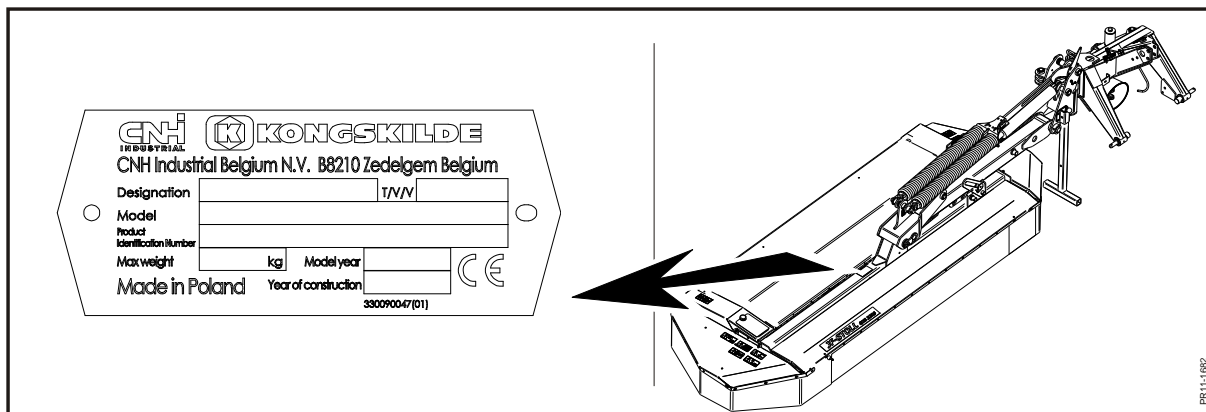
6. MISCELLANEOUS

DRIVING TIPS AND FAULT-FINDING

Problem	Possible cause	Remedy
Uneven stubble or bad cut	<p>The number of rpm of the tractor is too low.</p> <p>The blades are worn</p> <p>Discs, stone protectors or flow caps are deformed.</p> <p>The ground pressure is too low.</p>	<p>Check that the number of rotations of the tractor PTO is correct. Keep a constant number of RPM</p> <p>Turn/move the blades to another disc or replace the blades</p> <p>Replace deformed parts.</p> <p>Adjust the relief – increase the ground pressure.</p>
Stripes in stubble	<p>The cutting angle is too large, the grass is not transported across the cutterbar</p> <p>Accumulation of material in front of the cutterbar</p> <p>Earth and grass around the cutterbar between the discs</p> <p>You are working early in the morning when the grass is still very wet</p>	<p>Adjust the cutter bar more horizontal by lengthening the top link</p> <p>Increase the driving speed, if possible</p> <p>Replace worn shearbars.</p> <p>Increase the driving speed, if possible</p>
Irregular flow through the machine	<p>Conditioner fingers may be worn or missing</p> <p>The distance between the conditioner plate and the conditioner rotor is too long</p>	<p>Replace worn fingers and mount new ones where these are missing</p> <p>Adjust the conditioner plate to shorter distance to the rotor</p> <p>Increase the driving speed</p>
The machine vibrates/ uneven operation	<p>Blades may be deformed, damaged or missing</p> <p>Defective PTO drive shafts</p> <p>Defective bearings in cutter bar or conditioner rotor</p>	<p>Replace damaged blades and mount new ones where these are missing</p> <p>Check if the shafts are intact. Repair, if necessary.</p> <p>Check if bearings are loose or damaged. Replace if necessary</p>
Gear or cutterbar overheated	Oil level not correct	<p>Check the oil level and refill/drain out oil, if necessary</p> <p>REMEMBER: Gearbox temperature maximum 80 °C, cutterbar temperature maximum 90-100 °C.</p>
Power consumption unusually high	<p>Crop and dust under the discs</p> <p>String or wire is wrapped around a disc.</p>	<p>Stop the tractor engine. Dismount the discs and clean cutter bar and discs.</p> <p>Check if the friction clutch is intact.</p> <p>Remove the foreign matter.</p>

SPARE PARTS ORDER

When ordering spare parts, please state machine type and serial number. 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.



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 destruction company.
- Disassemble the machine and separate the individual 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.

7. 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 conformità/ EG Verklaring van Overeenstemming/ EG-försäkran om överensstämmelse/ EY-vaatimustenmukaisuusvakuutus/ Declaración de conformidad CE/ Deklaracja Zgodności WE./ Декларация за съответствие EO/ EK Megfelelősségi Nyilatkozat /ES Prohlášení o shodě/ EB Atitikties deklaracija/ ES prehlásenie o zhode/ Declarația de conformitate CE/ Vastavuse Deklaratsioon EÜ /ES Izjava o skladnosti/ Δήλωση πιστότητας EK/ 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

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Leon Claeyssstraat 3a, 8210 Zedelgem, BELGIUM

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



Model/Type: **GXS 2450 P- GXS 4005**
Designation: Mower
Serial:

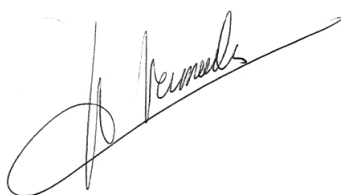
- er i overensstemmelse med Maskindirektivets bestemmelser (Direktiv 2006/42/EF) og hvis relevant også bestemmelserne i EMC-direktivet 2014/30/EU.

- 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.

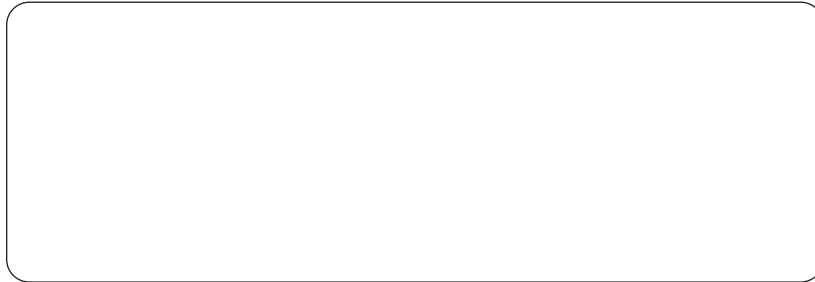
- est conforme aux dispositions de la Directive relatives aux machines 2006/42/CE et également aux dispositions de la Directive sur la Directive EMC 2014/30/UE.
- é in conformita' con la Direttiva Macchine 2006/42/CE e, se pertinente, anche alla Direttiva alla Direttiva EMC 2014/30/UE.
- in overeenstemming 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 bestämmelserna EMC-direktivet 2014/30/EU.
- täyttää Konedirektiivin (Direktiivi 2006/42/EY) määräykset ja oleellislta 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.
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- Está de acordo com exigências das Directivas das Maquinarias 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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