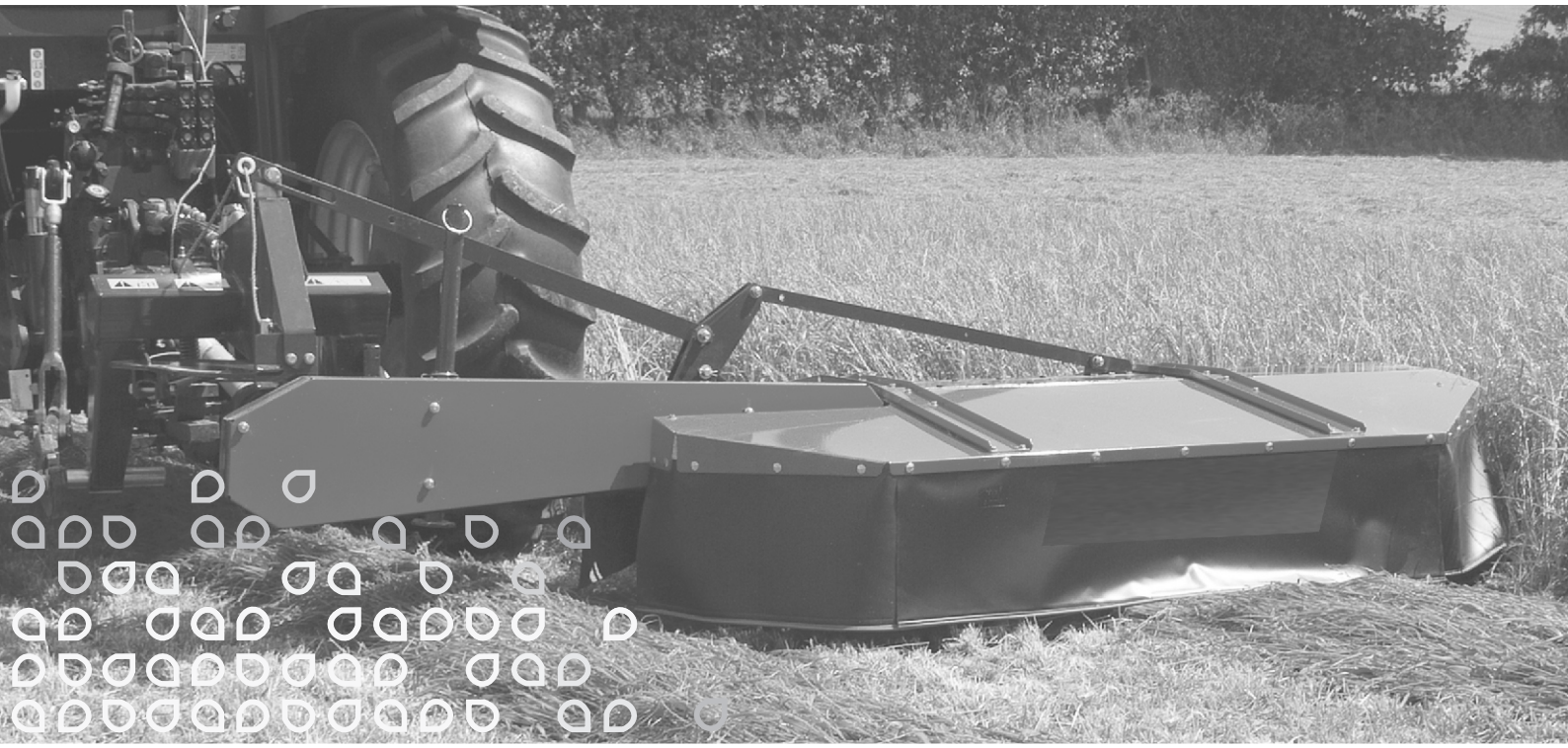
CM 170 I CM 190



Drum Mower

Directions for use

"Original instructions"

GB

FOREWORD

DEAR CUSTOMER!

We appreciate the confidence you have shown to our company by investing in a JF 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.

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

CONTENTS

1. INTRODUCTION

INTENDED USE

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

Drum mowers are solely intended for:

Cutting on the ground of natural or planted grass and stem crops for animal feeding purposes. The machine is solely intended for field work in agricultural connection.

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 and road safety must be observed altogether.

The drum 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 JF'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 drum 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, apart from having a relevant agricultural background and training, **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.

DEFINITIONS

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

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

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

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

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

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

GENERAL SAFETY INSTRUCTIONS

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 lift suspension of the tractor is secured by means of a support chain or other mechanical securing device.

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 have been mounted correctly.

8. During work never wear loose clothes which can 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.

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

11. Limit the transport speed to maximum 30 km/h if the machine has not been marked with another maximum speed limit.

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

13. When mounting the PTO drive shaft observe that the number 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 in the lift suspension 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 wearing parts.

4. Before use, check the revolving parts (blades, blade bolts, rotors and drums). 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.

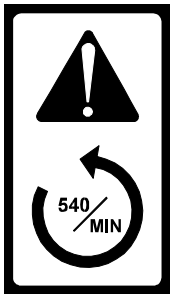
SAFETY JF MOWERS

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.

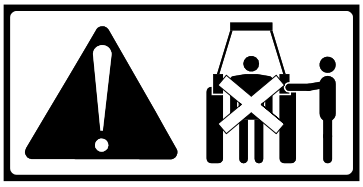


Choose a tractor with a suitable own weight and track width so that it can drive steadily on the ground. Also make sure that the link arms and towing hook of the tractor are intended to carry machines with the own weight in question.

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 drum 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.

THE 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.

HYDRAULICS

(The machine is as standard delivered without hydraulic cylinders)

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.

ADJUSTMENT

Never adjust the mower while the PTO drive shaft is engaged. Disengage the PTO drive shaft and stop the tractor engine before you adjust the machine. Do not lift the guard until all the revolving parts have stopped moving.

Before starting check that no blades are missing or are defective and they can be turned freely. Likewise, check that the blade holders are not loose or defective. Replace damaged blades and blade holders. (see section 6: MAINTENANCE)

Check periodically if blades and blade holders are worn according to the rules in the instruction manual. (see section 6: 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

Never drive faster than the conditions allow, and maximum 30 km/h. 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 the mechanical transport safety devices are activated before transport.

WORKING

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, drums, rotor skirts and guide shoes for cracks and other damage. Replace damaged parts.

Check periodically if blades and blade suspensions 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.

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

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.

When working with a side-mounted mower, never drive too fast along slopes and hillsides as you should be able to avoid large stones, ditches and other obstacles which may cause the tractor to overturn.

Also remember to adjust the speed for sharp turns on hillsides and for lifting the machine in the three-point linkage.

The side-mounted mowers have a spring-loaded safety release which secures the directional stability of the tractor and reduces damage in case of collision.
Check that the safety release can be released and that it is not blocked.

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.

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
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

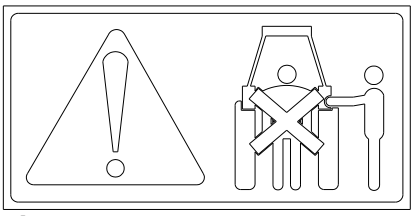
All revolving parts are balanced by JF by means of a special machine with electronic sensors. If it turns out that a part still has an unbalance, small counterweights should be mounted.

As the rotor skirts run at up to 2000 RPM, even the slightest unbalance will cause vibrations which may lead to fatigue fractures.

When replacing blades, all blades on the rotor 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 the space between rotor skirt and guide shoe of earth and grass regularly.



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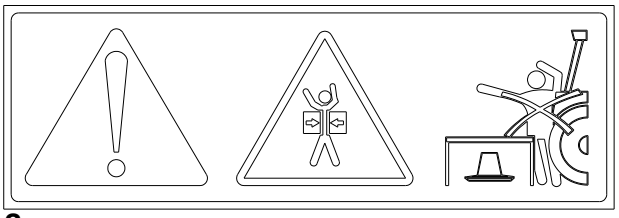

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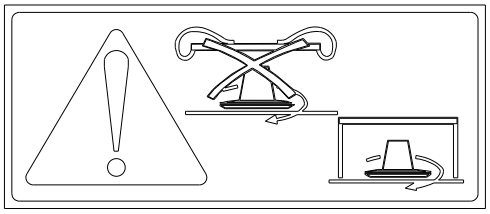

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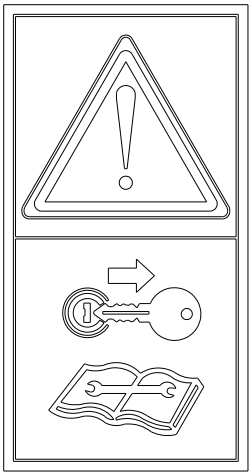

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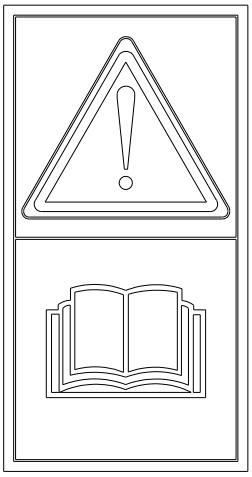

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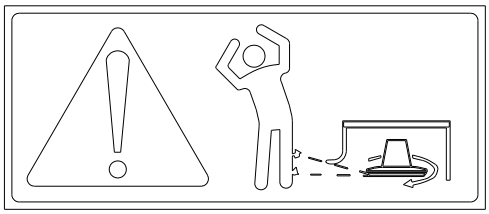

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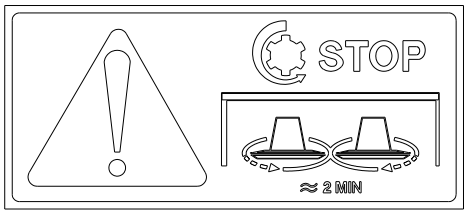

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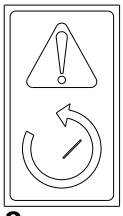

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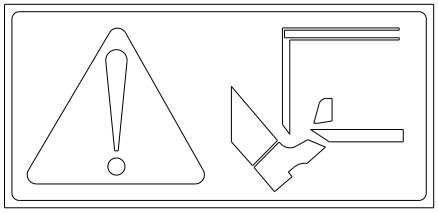

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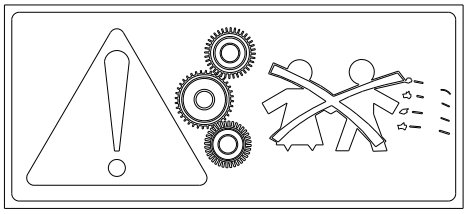

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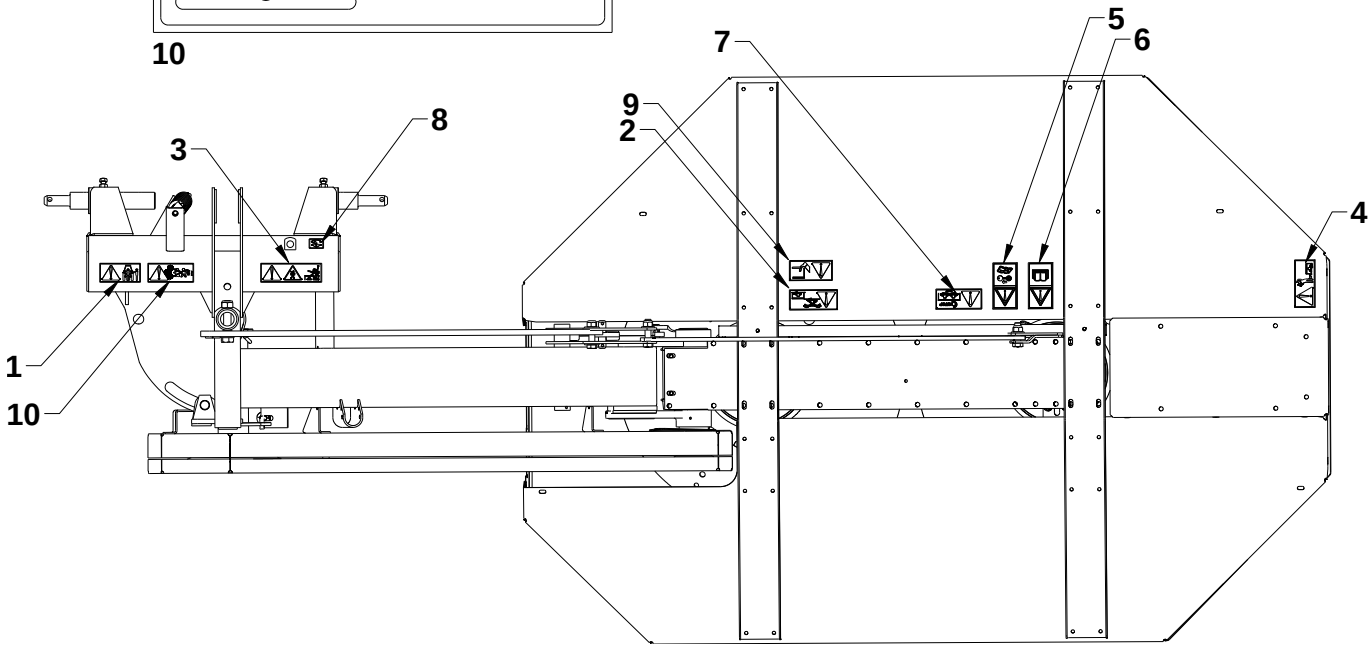


SAFETY DECALS

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

1 Risk of getting jammed
Never let anyone stand between the machine and the tractor after the connection. An unintentional manoeuvre may cause serious injury.

2 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.

3 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.

4 Risk of stones being thrown
Similar meaning to decal No. 2. But even though all canvases and guards are in the right place, there is still a risk of stones etc. being thrown out.

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

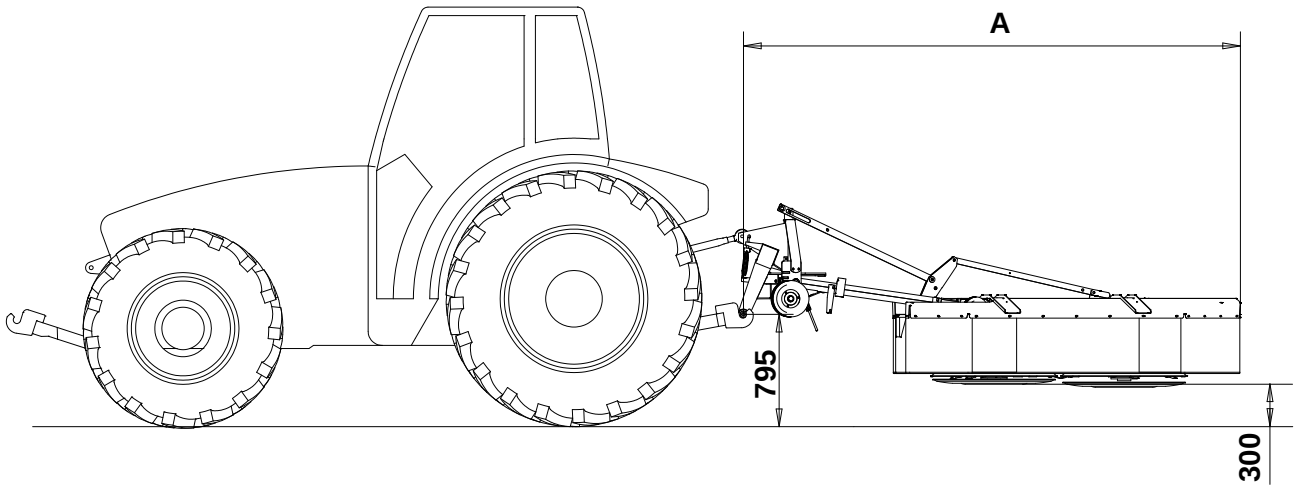
6 Read the instruction manual and the safety instructions
This is to remind you to read the delivered documents to ensure the machine is operated correctly and to avoid unnecessary accidents and machine damage.

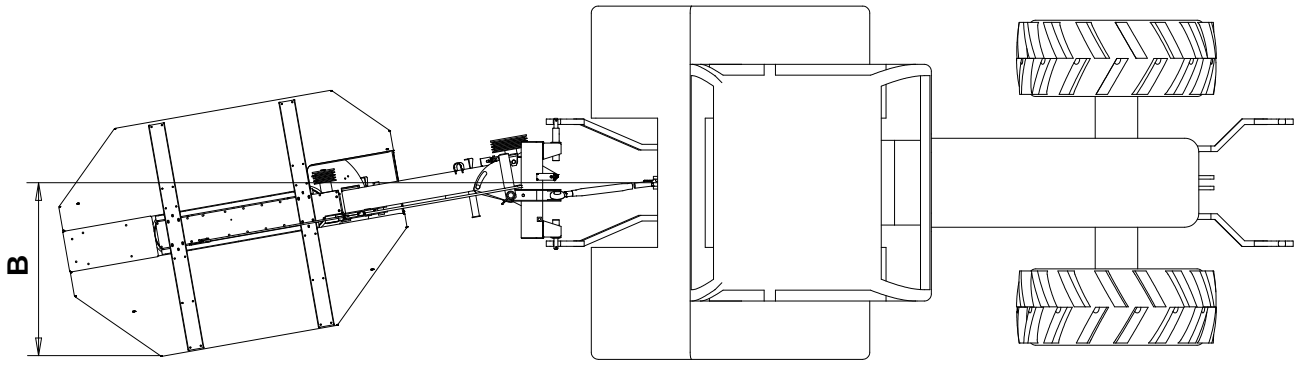
7 Rotating parts
After the PTO drive shaft has stopped, the blades will have a momentum where they keep rotating for up to 2 minutes. Wait until the blades have come to a complete stop before you remove the canvas and the guards for inspection and maintenance.

8 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 eventually damage the machine with the risk of personal injury as a result.

9 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.

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





PR11-1600

TECHNICAL DATA

			CM 170	CM 190
Working width	[m]		1.7	1.9
Capacity	[Ha/h]		1.5 – 1.7	1.7 – 1.9
Power requirement on PTO	[kW/HP]		Minimum 23/30	Minimum 30/40
PTO (Standard)	[rpm]		540	540
Suspension (Standard)			Cat. II	
Outlets			-	
Weight	[kg]		390	480
Number of rotors/drums	[pcs.]		2	2
Number of blades	[pcs.]		2x3	2x3
Blade speed	m/sec		83	
Swath width	[m]		approx. 0.85	approx. 1.0
Transport width	[m]		Tractor width	
Transport **B**	[m]		1,3	1,37
Transport length **A**	[m]		3,31	3,45
Stone release, mechanical			Standard	
Free wheel			Standard	
Noise level in tractor cabin	Machine connected	Window closed	76.5 dB	
		Window open	92.5 dB	
	Machine disconnected	Window closed		
		Window open		

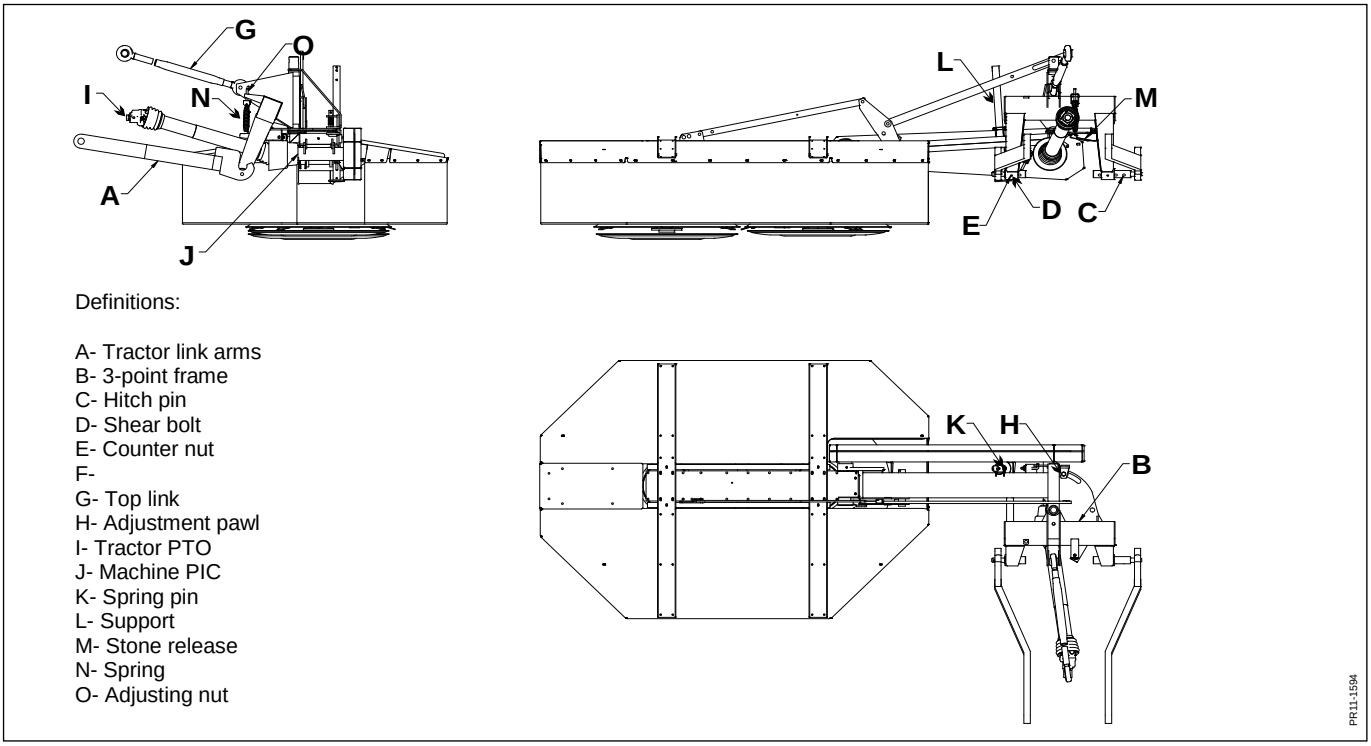
We reserve the right to change the construction and specification details without notice.

Please check that no parts are missing, e.g. the PTO shaft, the instruction manual and/or the spare parts book.

If one or more parts are missing, or if the machine has been damaged during transport, please inform your dealer, the importer or the manufacturer directly.

2. CONNECTION OR DISCONNECTION AND TEST DRIVING

OVERVIEW



Definitions:

A- Tractor link arms
B- 3-point frame
C- Hitch pin
D- Shear bolt
E- Counter nut
F-
G- Top link
H- Adjustment pawl
I- Tractor PTO
J- Machine PIC
K- Spring pin
L- Support
M- Stone release
N- Spring
O- Adjusting nut

Fig. 2.1

CONNECTION TO THE TRACTOR

LINK ARMS

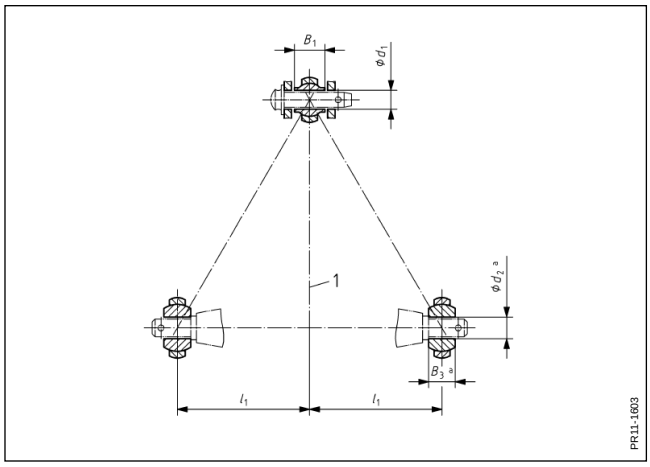


Fig. 2.2

Fig. 2.2 The machine is intended for 3-point suspension, category II.

For category II the following dimensions have been chosen as normal standard

Dimension	1	2
d1	19.3	25.7
B1	44	51
d2	22.4	28.7
B3	35	45

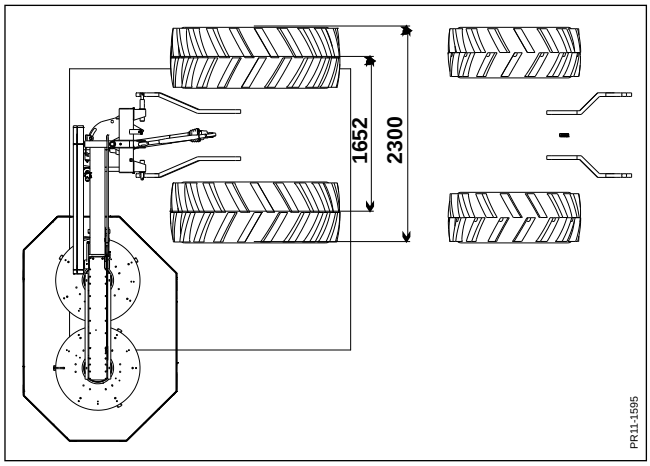


Fig. 2.3

Fig. 2.3 The machine is designed for a full effective working width with tractor track widths of about 1.65 m and tractor widths with normal tyres corresponding to 2.3 m.

In most cases, the link arms of the tractor can be released and adjusted laterally. This facilitates connection and ensures full working width.

However, it is important that the link arms are stabilised again after the machine has been connected to avoid unintentional movements during transport.

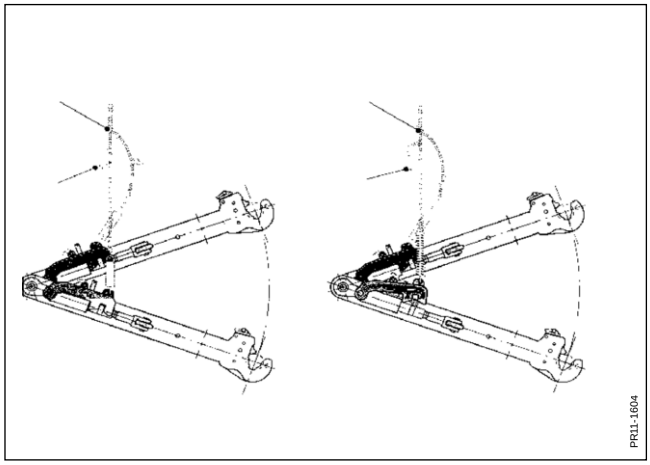


Fig. 2.4

DANGER: If the draw pins are not fixed properly or if the link arms are not mounted correctly, there is a risk of unintentional movements of the machine.

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

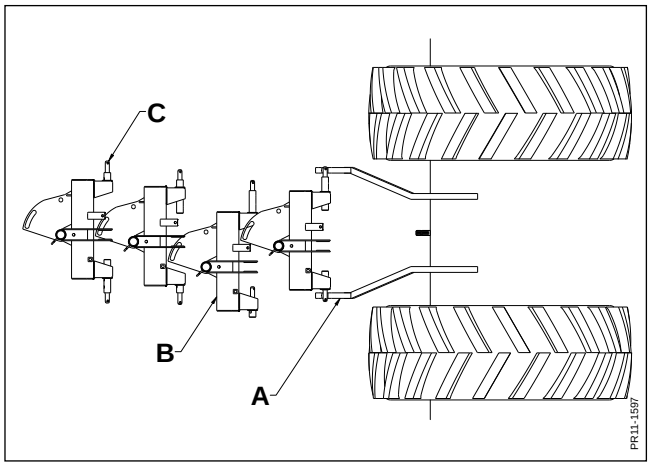


Fig. 2.5

Fig. 2.5 Moreover, it is possible to change the position of the machine in relation to the link arms **A** of the tractor by changing the position of the pins **C** in relation to the 3-point linkage.

Fig. 2.1 The position of the pins can be adjusted by loosening the counter nut **E** and taking out the bolt **D**. The pin **C** can then be moved sideways and be fixed in another centre hole. The bolt and counter nut is tightened at the wanted pin position.

TOP LINK

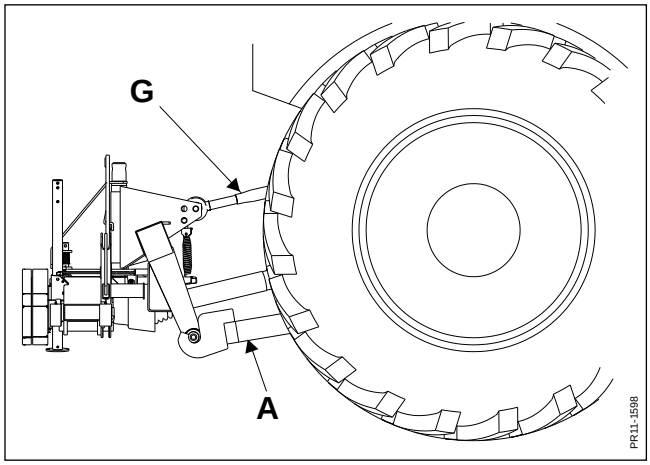


Fig. 2.6

Fig. 2.6 Mount the top link **G**. It should be approximately parallel with the link arms of the tractor.

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.

The machine can now be raised in the link arms.

TRANSPORT CONVERSION

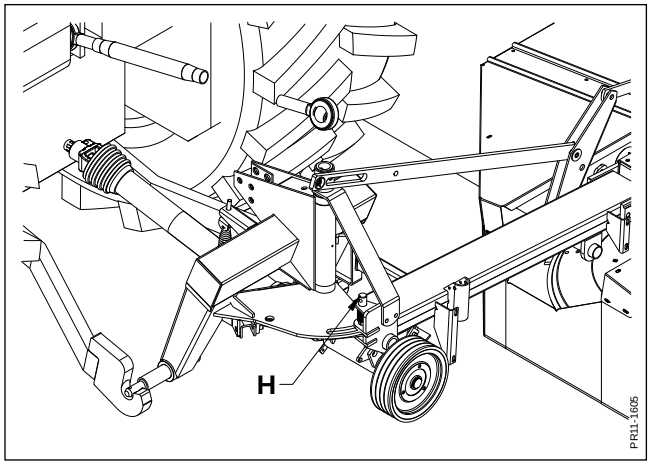


Fig. 2.7

Fig. 2.7 Conversion from transport to working and vice versa is done by pulling the cord for the spring-loaded pawl **H**. Thereby the machine is allowed to swivel backwards.

The conversion is carried out by turning the tractor sharply to the left without lifting the cutter bar.

Since the cord can be activated from the tractor seat, the conversion can be carried out safely without leaving the tractor seat. Check that the pawl **H** is correctly engaged before transport.

It may be necessary to adjust the height of the right link arm to ensure sufficient ground clearance when turning in the field.

THE PTO DRIVE SHAFT

Since the position of the power take-off and the length of the link arms can be very different on individual tractors, it may be necessary to adjust the length of the supplied PTO shaft.

IMPORTANT: Do not shorten your new PTO shaft until you are certain that it is necessary. From the factory the shaft has a length which is suitable for most tractor brands.

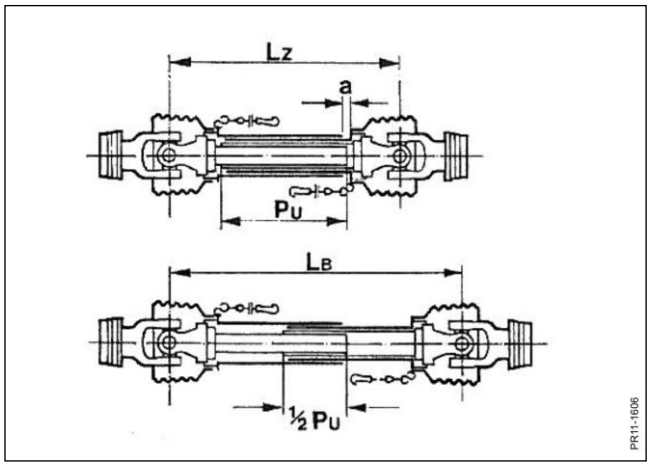


Fig. 2.8

Fig. 2.8 Adjust the length of the PTO shaft so that it in the longest position has minimum ½ Pu = 135 mm and is not longer than Lb = 985 mm. The profile tubes should not be compressed more than a = 30 mm in order not to bottom the shaft.

The PTO shaft is separated in two halves, the half with freewheel is mounted to the input shaft of the machine and the other half is mounted to the PTO of the tractor.

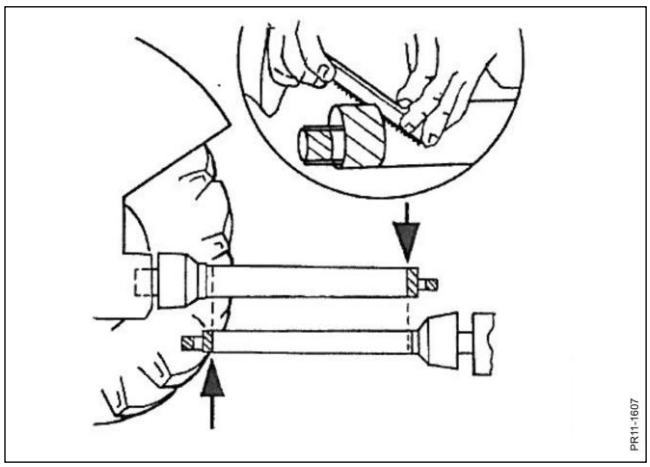


Fig. 2.9

Fig. 2.9 Place the machine in working position and lift/lower the 3-point linkage until both halves of the shaft are horizontal, i.e. the position with the shortest distance between the shaft ends in the PTO shaft. Hold the shaft ends parallel to each other and mark the 30 mm (minimum).

After shortening check the profile tube overlaps at completely lifted and/or lowered machine position.

Secure the guard of the PTO shaft by fastening the chain to the tractor.

The PTO-shaft can be mounted – the free wheel towards the machine side.

The use of impact tools or the like to get the PTO shaft onto the tractor PTO should be avoided since the PTO shaft may get seriously damaged.

Check the length of the PTO shaft before connecting it to the tractor and the machine
Shorten the PTO shaft, if necessary
Make sure that the PTO of the tractor is clean and greased
Make sure that the lock pin is engaged
Make sure that the rpm of the tractor is correct: 540 rpm.

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

CAUTION: **Shorten all 4 tubes equally. The ends of the profile tubes MUST be rounded off outside and inside. Burrs MUST be removed carefully.**

Grease the tube carefully before reassembling. If the shafts are not greased, they are exposed to big friction forces if e.g. the stone release system is activated during the transmission of heavy load.

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^{o} from horizontal.
- A sudden increase in the number of rpm of the machine, e.g. when driving into the crop after turning in the field, must only take place with the PTO shaft in a position of maximum 10^{o} from horizontal.
- *Last, but not least:* Grease the PTO shaft and especially its profile tubes every 8 working hours, minimum.

TEST DRIVING

When all guards are in place and the machine is in working position, a test drive can be made.

Before test driving you should check that:

- The tractor's PTO has the correct number of rpm.
- The machine and the PTO shaft are maintained.
- The guard of the PTO shaft is secured with chain.
- All blades are there and correctly mounted.
- The machine is lowered to the ground before the PTO is connected.
- The PTO is connected at low number of rpm.
- Canvases and guards are mounted.
- All tools have been removed from the machine.
- No persons are near.

Connect the PTO shaft carefully and let the engine run at low number of rpm for some minutes. If there is no unintended noise or unusual vibrations, the speed can be increased to normal number of RPM.

Apart from the tractor driver nobody should stand near the machine.

All machines are checked for vibrations and leakages before they leave the factory. This is an essential part of the company's quality control.

Anyway you should check the machine for vibrations and leakages regularly.

PARKING

The machine should be parked on firm and even ground.

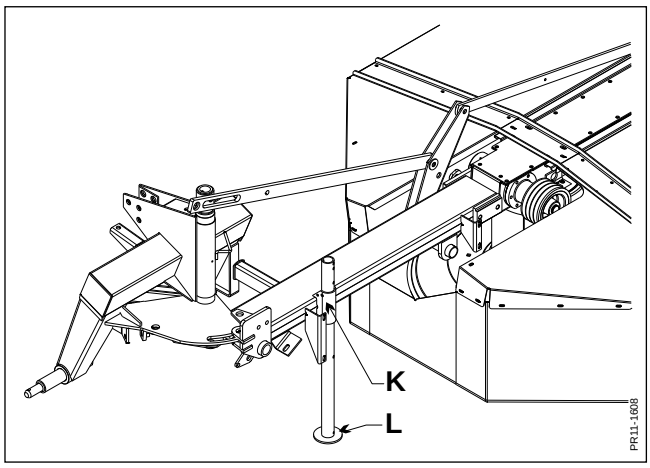


Fig. 2.10

Fig. 2.10 It is possible to park the machine in working or transport position by loosening the spring pin **K**, lowering the support **L**, replacing the spring pin again and then lowering the link arms of the tractor until they are released from the pins.

Release the top link and place the PTO shaft in the special holder.

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

3. ADJUSTMENTS AND TRANSPORT

ADJUSTMENTS

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

This section deals with the adjustments for transport on public road and the necessary adjustments depending on the conditions of the field.

Instruction for normal connection:
1) Place the tractor right in front of the three-point linkage of the machine.
2) Check if the link arms of the tractor are at the same height.
3) Connect the machine to the link arms of the tractor.
4) Mount the top link. It should be approximately parallel with the link arms.
5) Raise the link arms so that the support can also be lifted.
6) Mount the PTO shaft on the tractor and secure the guard with the chain.

TRANSPORT POSITION

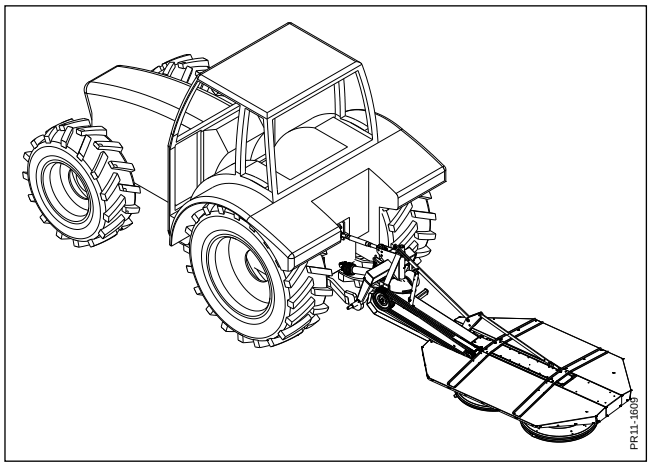


Fig. 3.1

Conversion from transport to working and vice versa is done by pulling the cord for the spring-loaded pawl **H**. Thereby the machine is allowed to swivel backwards around the 3-point swivel bracket.

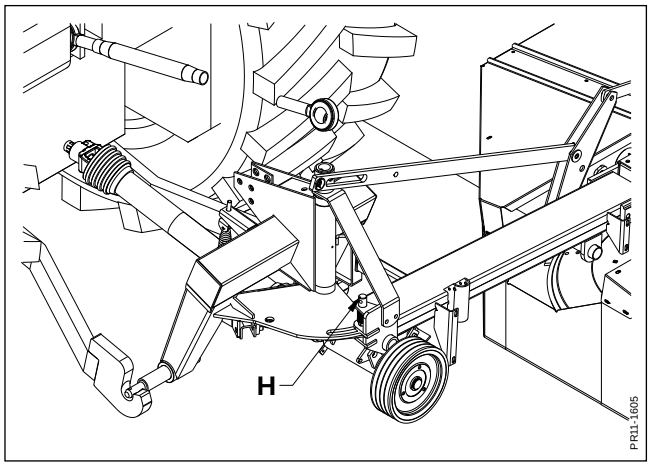


Fig. 3.2

Fig. 3.2 The conversion is carried out by turning the tractor around, without lifting the cutter bar. Check that the pawl **H** is correctly engaged.

Since the cord can be activated from the tractor seat, the conversion can be carried out safely without leaving the tractor seat.

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.**

WARNING: **Conversion to transport position should not take place with revolving PTO shafts.**

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.**

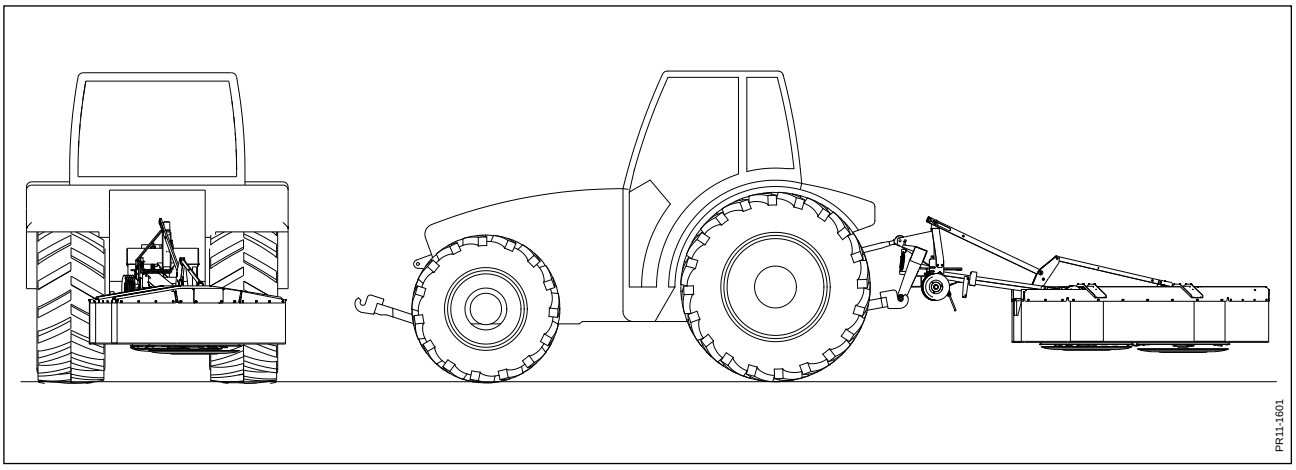


Fig. 3.3

STUBBLE HEIGHT ADJUSTMENT

From the factory the machine is fitted with guide shoes which provide a stubble height from 30 - 45 mm, depending on the crop and the tractor speed during the operation.

Stones and the conditions of the ground may require an increased stubble height in order to reduce the risk of damaging the blades or to reduce crop contamination.

It is possible to change the stubble height by placing a 10 mm spacer between the guide shoe hub and the guide shoe. (See order numbers in the spare parts book)

This work should be done in a workshop where the guide shoes of the machine can be dismounted safely.

DANGER: **Stop the tractor engine, remove the ignition key and activate the parking brakes before leaving the tractor and changing the adjustments of the machine. If work is carried out on the machine while it is suspended in the link arms of the tractor, it must be secured mechanically, e.g. by means of support chains or the like.**

4. WORKING IN THE FIELD

STARTING

First of all, carry out the points mentioned under **Chapter 2 - Connection or disconnection and test driving - "Before test driving you should check that:".**

DANGER: **Before starting check that the guards are intact and that no persons are near. If this is not the case, the machine must be stopped immediately.**

There is danger due to rotating parts, and risk of ejecting foreign matter.

If canvases are worn or damaged, they must be replaced immediately.
Do not under any circumstances lean against or step on the canvas.

Any work near the blades means danger of personal injury. Always stop the tractor engine, remove the ignition key and wait until the PTO has stopped before carrying out any work on the machine.

Safety gloves should be used.

Before driving into the crop, increase the PTO to 540 rpm.

Always make sure that the number of revolutions is not reduced considerably during the operation as this might result in an unsatisfactory cut.

Theoretically, it is possible to work with a speed of 15 km/h. However, always adjust the tractor speed to the conditions, i.e. the crop and the conditions of the ground.

The operator should always aim to have full control of the tractor and be able to discover and avoid irregularities and foreign matter in the field in time.

Reduce the driving speed if:

- the ground is uneven
- the crop is lodged
- the crop is high and thick

Increase the driving speed if:

- the crop is low and thin
- the crop is mixed or has stiff stems

On uneven ground you should be particularly careful because there is a risk that foreign matter such as concrete panels, tyres, stones or banks of earth will damage blades, drums or rotor skirts.

It is important to pay attention to sudden bumps against the cutting parts. Reduce the driving speed or stop working in order to check whether the machine has been damaged.

CAUTION: Before working in the field, always check the machine - especially the blades but also drums, rotor skirts and guide shoes - for any damage. The same applies after collision with obstacles. Check if the blades are mounted correctly. Worn or missing blades must be replaced immediately.

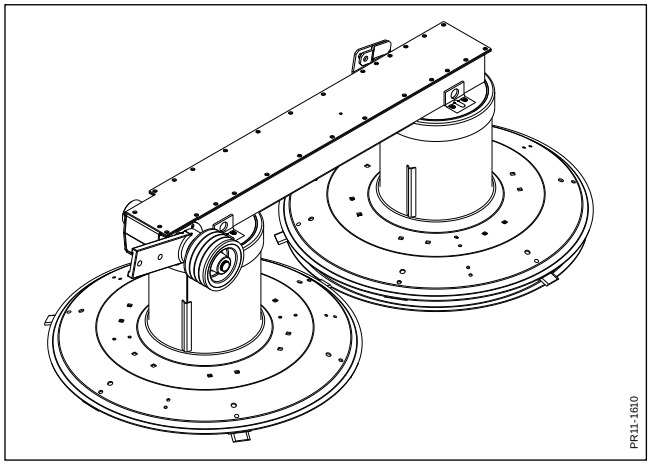


Fig. 4.1

Fig. 4.1 The machine has two rotor skirts which rotate to the right and left, respectively, whereby the blades cut the material and transport it towards the middle where a swath is placed.

The number of revolutions of the rotor skirts gives the blades a speed of a little more than 80 m/s.

Under most conditions the machine is able to drive through already existing swaths and still make a new swath.

DRIVING

WORKING POSITION

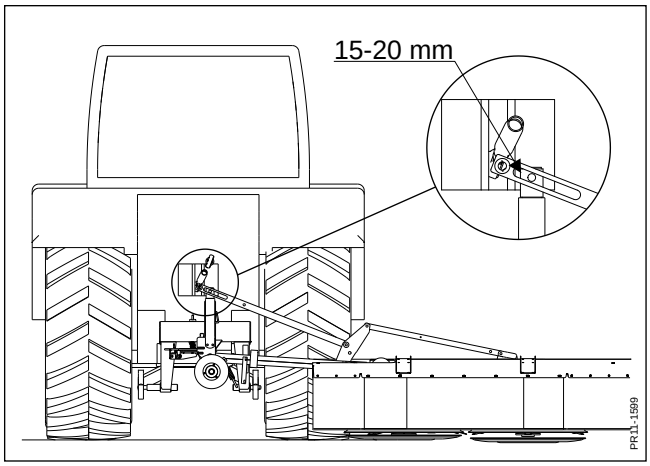


Fig. 4.2

Fig. 4.2 To ensure satisfactory ground following abilities and sufficient ground clearance when turning, the link arms should be positioned in a height which gives the guide of the headstock about 15-20 mm travel before it bottoms.

TURNING

The machine is raised in working position and lifted over the already existing swaths.

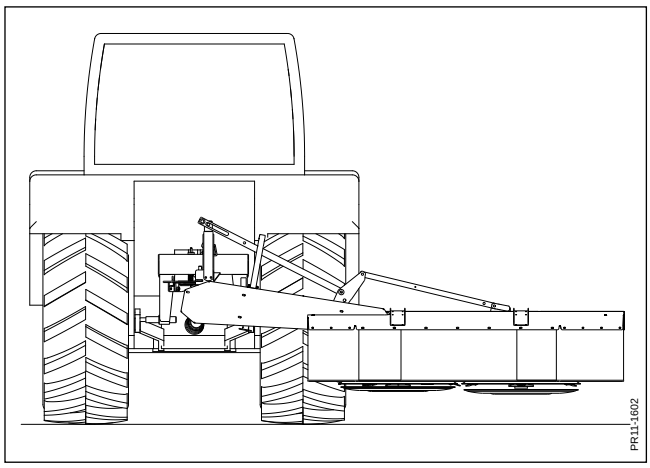


Fig. 4.3

Fig. 4.3 It is however possible to turn in the field without raising the machine with the link arms. A drum mower will always place a swath again. This can be very practical on hilly ground if you are working with a small tractor. In this situation it may be uncomfortable to raise a machine in working position when turning.

STONE RELEASE

A mechanical stone release enables the cutting unit to swivel backwards in case of collision with foreign matter.

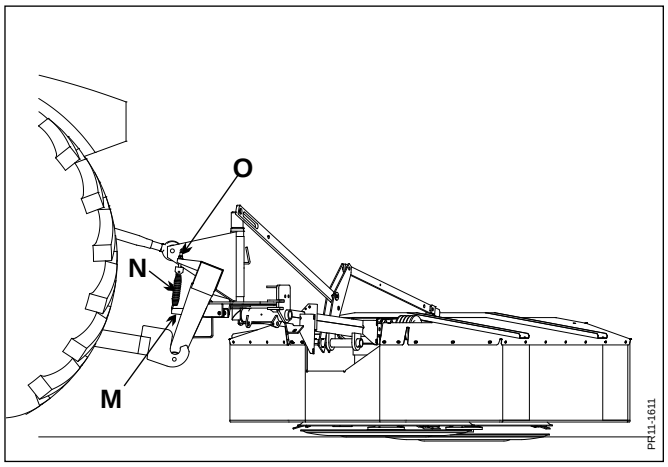


Fig. 4.4

Fig. 4.4 The stone release is a pawl **M** whose release power is determined by a spring **N**. The release power can be adjusted with a nut **O** which is as standard adjusted to a free thread length of 20 mm.

The factory setting of the stone release is adapted to most conditions, but if the stone release is activated too often, it is possible to increase the initial tension of the spring. Although the spring cannot get blocked, you should always remember to adjust the speed to the ground conditions before the spring tension is increased.
When the stone release is activated, disengage the power take-off immediately and stop driving.

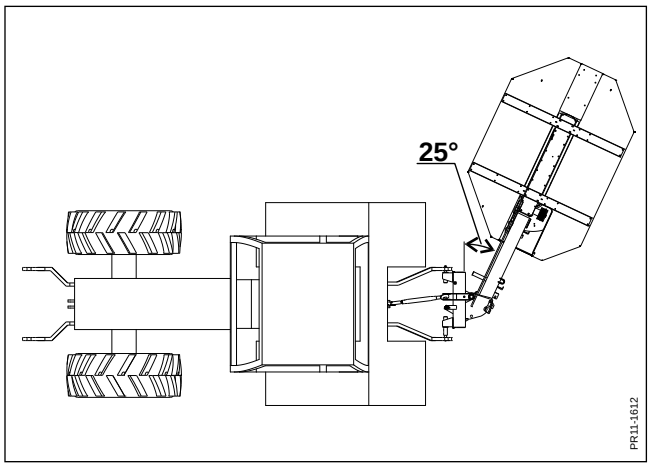


Fig. 4.5

Fig. 4.5 Disengagement is important as the PTO shafts will otherwise be exposed to a large angle due to the backwards movement of the cutter bar.
The stone release can be locked again by reversing the tractor with lowered cutting unit.

After each stone release the machine must be checked for damage.

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) The machine must be in working position when starting.

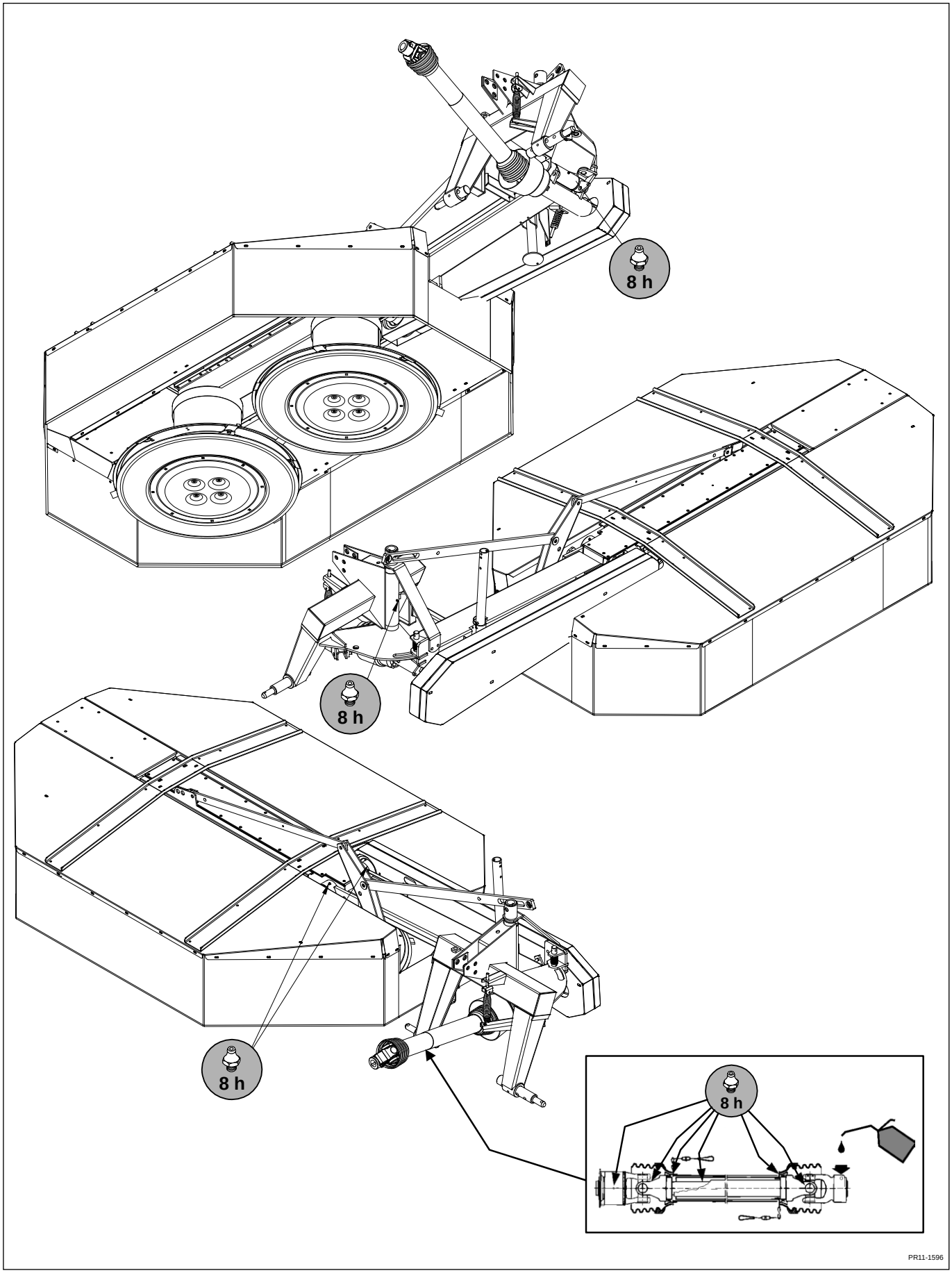
3) A sudden increase in the number of RPM of the machine, e.g. when driving into the field or after turning in the field should also happen with the machine lowered to working position.

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 belt drive will slip and you should disconnect the PTO immediately and let the machine “rest. If the machines is blocked or has hit an obstacle, the machine should be stopped and inspected immediately.

DISCONNECTION OF THE MACHINE

Procedure as in **Chapter 2 - Connection or disconnection and test driving - Parking**.

Lubrication chart for drum mower type CM 170 and CM 190.
The below grease spots must be greased according to the operation time intervals indicated.



5. GREASING

GREASE

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

Go through the greasing chart.

TYPE OF GREASE: Universal grease of good quality.

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

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 tilting bearing.

6. MAINTENANCE

IN GENERAL

The machine should be placed in parking position during general maintenance work.

Maintenance terms:

Job	Contents
Greasing	Sliding surfaces are greased (with brush)
Lubrication	If nothing else is stated, press the grease gun twice at the grease nipple
Filling	Filling of grease into the gearbox according to the instructions after repair
Replace	Replace worn and/or damaged parts by spare parts
Check	Check wear, tightening of bolts, balance etc. Regular inspection

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 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.

CLEANING

The assembled machine should be cleaned regularly, i.e. quick cleaning after each working day and thorough cleaning after each season and before the next season begins.

Cleaning can be made with a high pressure cleaner, however you should be careful not to get too close to bearings and seals. It is important to clean the space between rotor skirt and guide shoe of earth and crop. Dry earth may cause unintentional wear of blade holders and in some cases unbalance.

BOLT CONNECTIONS

Missing or damaged bolts should always be replaced by corresponding bolts. In case of doubt it is recommended to order bolts as spare parts in order to ensure correct quality.

Bolts should be tightened with a suitable torque wrench to obtain the necessary torque moment.

All bolts should be retightened

After the first 5 hours of operation
After the next 10 hours of operation
Then after 150 hours of operation
Finally, before each new season.

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

Bolts on blade holders must, however, be tightened to 210 Nm.

Ma **Ø**	**Class:** 8.8 M_A **[Nm]**	**Class:** 10.9 M_A **[Nm]**	**Class:**12.9 M_A **[Nm]**	**Wrench size mm**
M 8	**25**	**33**	**40**	**13**
M 10	**48**	**65**	**80**	**17 (15)**
M 12	**80**	**120**	**135**	**19 (17)**
M 12x1,25	**90**	**125**	**146**	**19 (17)**
M 14	**135**	**180**	**215**	**22 (19)**
M 14x1,5	**145**	**190**	**230**	**22 (19)**
M 16	**200**	**280**	**325**	**24 (22)**
M 16x1,5	**215**	**295**	**350**	**24 (22)**
M 18	**270**	**380**	**440**	**27**
M 20	**400**	**550**	**650**	**30**
M 20x1,5	**430**	**615**	**720**	**30**
M 24	**640**	**900**	**1100**	**36**
M 24x1,5	**690**	**960**	**1175**	**36**
M 30	**1300**	**1800**	**2300**	**46**

Please note the following:

- The values in the list apply to a dry or slightly greased connection.
- Galvanized bolts and nuts should not be used without greasing the connection.
- In cases where secured bolts and nuts are used, the values in the table should be increased by 10 %.

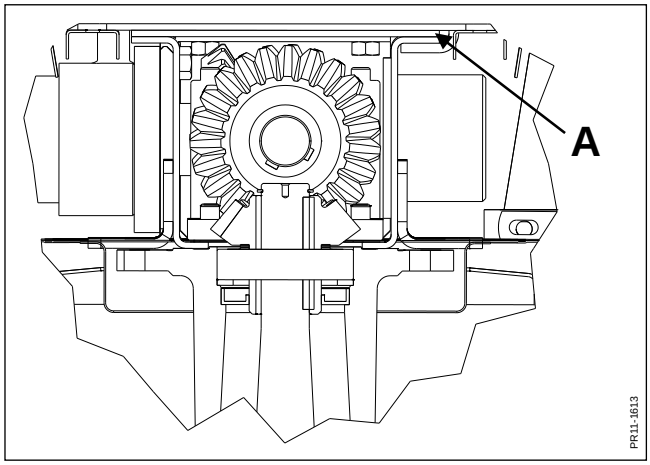


Fig. 6.1

Fig. 6.1 Please note that if the cover for the gearbox is opened, the sealing compound **A** should be replaced before the cover is mounted again.

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 1700 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 are intact.
In the long run unbalance may cause fatigue fractures and serious damage. All machines manufactured by JF 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.

BELT DRIVE

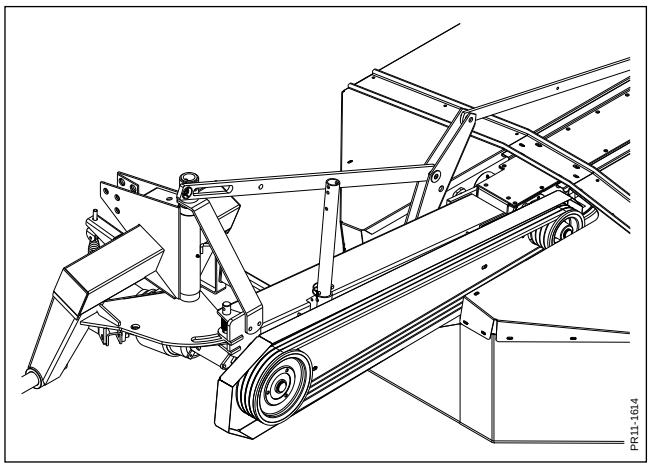


Fig. 6.2

Fig. 6.2 The belt drive consists of 4 identical V-belts.

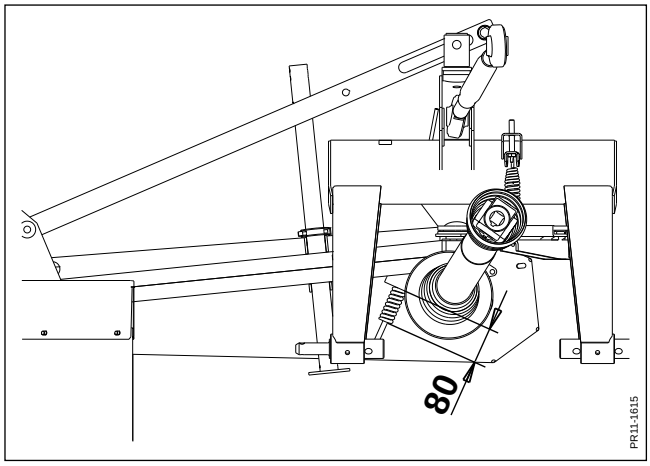


Fig. 6.3

Fig. 6.3 Their tension is correct when the spring is tightened to a length of 80 mm.

The belt tension should be checked regularly and always before a new season begins.

BLADES AND BLADE HOLDERS

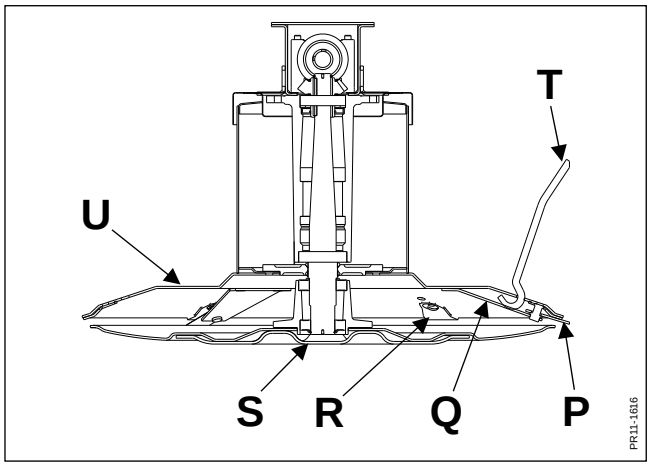


Fig. 6.4

Fig. 6.4 The machine works with 3 blades **P** per rotor skirt. Each blade is mounted by means of a blade holder **Q** which allows the blade to turn freely. The blade holder is a leaf spring which can be opened by means of a special tool for replacement of worn or damaged blades.

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 blade holder 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.

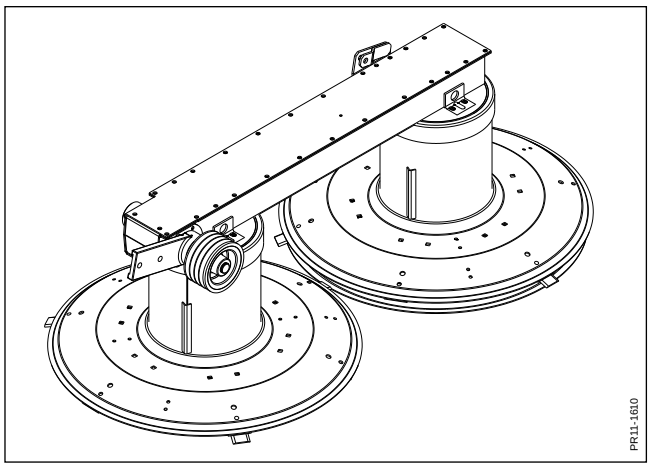


Fig. 6.5

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

WARNING: When replacing blades, all blades on the rotor in question must be replaced as not to create an unbalance.

CAUTION: If work is carried out on the machine while it is suspended in the link arms of the tractor, it must be secured mechanically, e.g. by means of a support chain.

BLADES

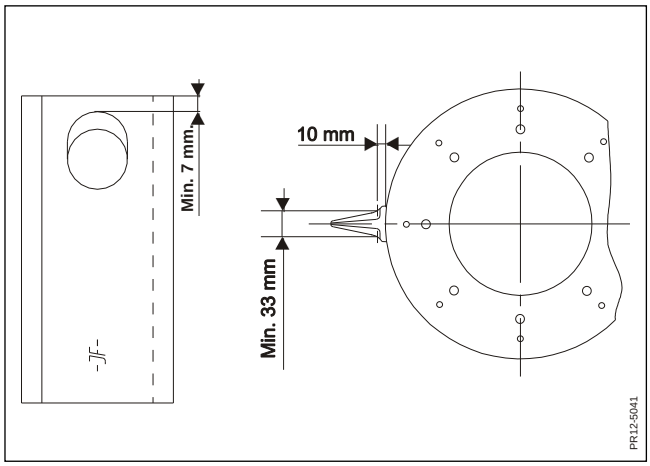


Fig. 6.6

Fig. 6.6 Replace blades immediately if:

1) the blade is bent or cracked,
2) the width of the blade is less than 33 mm measured 7 mm from the edge,
3) the blade hole is larger than stated.

BLADE HOLDERS

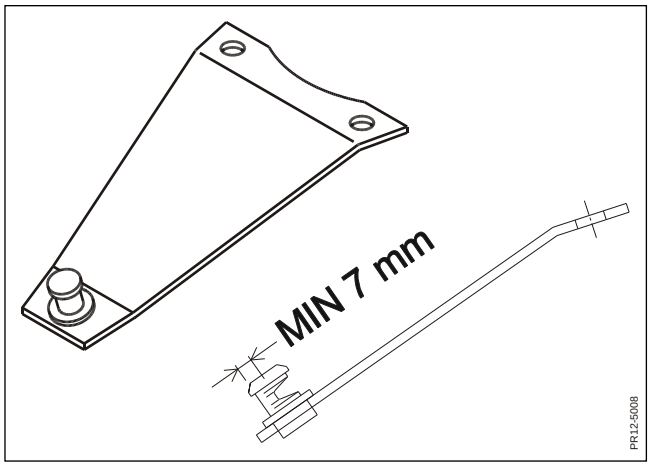


Fig. 6.7

Fig. 6-7 The blade holder must be replaced if:

1) the blade pin **A** is strongly worn on one side,
2) The diameter of the blade pin is less than 7 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 AND BLADE HOLDERS

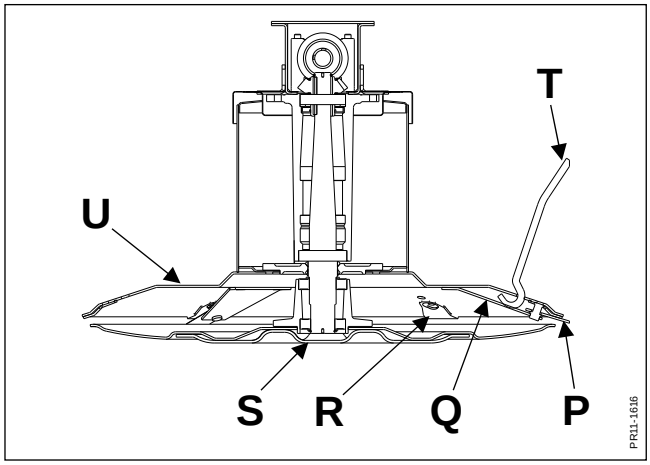


Fig. 6.8

Fig. 6.8 A special tool **T** for easy replacement of blades is supplied. Blades should be replaced regularly to ensure an acceptable operation and to limit the power requirement when working in the field. The power requirement increases when the blades are worn.

The tool is placed as shown in the figure and is pulled down until the blade can be released from the holder.

The blades have two cutting edges and can thus be worn on two sides. Remove straight blades to the neighbouring rotor. Turn twisted blades.

Obviously, the blade holders can be used for a longer time before they need replacement. Therefore it is accepted that the replacement of these requires a bit more work.

It is necessary to remove the guide shoe **S** to get access to the blade holders.

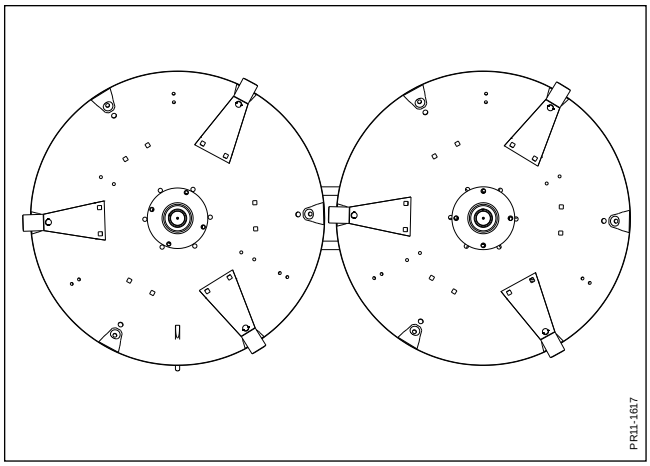


Fig. 6.9

Fig. 6.9 If the rotors are worn at the blades, the blade holders can be moved to a new position. All blade holders must be moved to maintain the synchronisation.

Since it is necessary to remove the guide shoe **S** to get access to the blade holders, the work should be carried out in a workshop.

CAUTION: If work is carried out on the machine while it is suspended in the link arms of the tractor, it must be secured mechanically, e.g. by means of a support chain.

DANGER: It is very important to check the parts after:
- **Collision with foreign matter, or**
- **If a blade, as an exception, is missing.**

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.

IMPORTANT: Both rotor skirts must have the correct number of blades and it must be possible to turn the blades freely from side to side.

CAUTION: When mounting is finished, the rotor skirts must be turned minimum once by hand in order to check that no parts are colliding.

CAUTION: Worn blades and the replacement tool must be removed from the machine before the work is resumed.

7. VARIOUS

DRIVING TIPS AND FAULT-FINDING

Problem	Possible cause	Remedy
Uneven stubble or bad cut	The number of rpm of the tractor is too low.	Check that the number of rotations of the tractor PTO is correct. Keep a constant number of RPM
	A blade is missing or the blades are worn	Turn/move the blades to another rotor or replace the blades. Replace deformed parts.
Stripes in stubble	You are working early in the morning when the grass is very wet.	Increase the driving speed, if possible
The machine vibrates/ uneven operation	Blades may be deformed, damaged or missing	Replace damaged blades and mount new ones where these are missing
	Defective PTO drive shafts	Check if the shafts are intact. Repair, if necessary Check if bearings are loose or damaged. Replace if necessary
Power consumption unusually high	Crop and dust between guide shoe and rotor skirt.	Stop the tractor engine. Clean the space between guide shoe and rotor skirt. Reduce the driving speed.

STORAGE

When the season is over, the preparation for winter storage should be made. First, clean the machine thoroughly as dust and dirt absorb moisture and moisture increases the formation of rust.

CAUTION: Be careful when cleaning with a high pressure cleaner. Never spray directly on bearings.

IMPORTANT: Grease all grease points after cleaning the machine.

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.

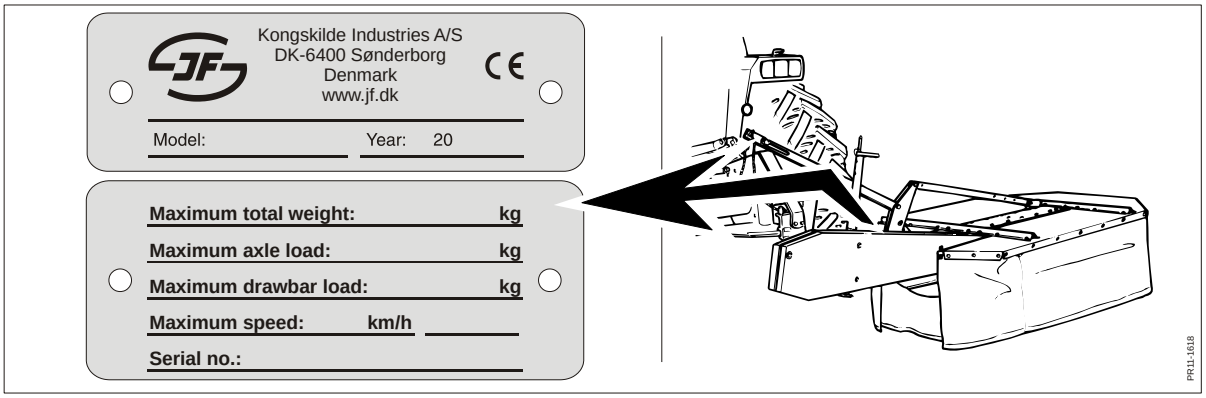
- Dismount, clean and lubricate the PTO shafts. Remember to grease the profile tubes. The PTO shaft must be kept in a dry place.

- Spray the machine with a thin coat of rust-preventing oil. This is especially important on the parts polished with use.

- Store the machine in a ventilated engine house.

SPARE PARTS ORDER

When ordering spare parts, please state machine type and serial number.
This information is printed on the machine plate which is placed as shown on the figure below.



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.

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, and gearboxes, cylinders and cutter bar must be emptied of oil. These oils must be handed over to a destruction company.

- Disassemble the machine and separate the individual parts, e.g. PTO shafts, hydraulic hoses and components.

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

ALLOWABLE TRACTOR WEIGHTS

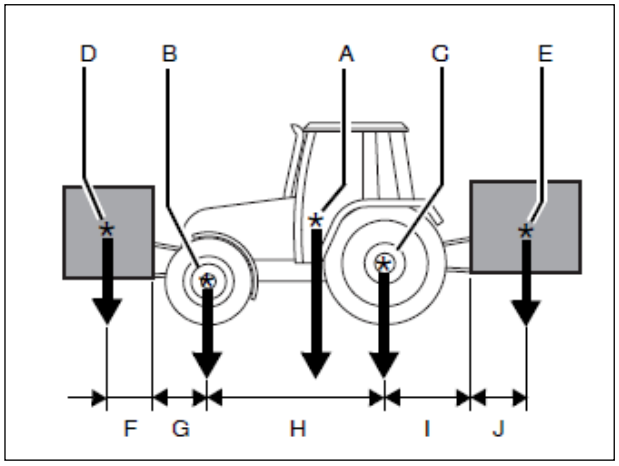
The maximum allowable tractor own weight as well as static axle and tyre pressure should be checked before using the machine.

The connection of machines to the link arms of the tractor should not have the following consequences:

- The allowable total weight of the tractor is exceeded
- The allowable front or rear axle load is exceeded
- The allowable tyre pressure is exceeded
- The minimum front axle load is not observed
- The minimum rear axle load is not observed

Before using a machine the tractor connection should be checked with regard to the above.

Most of the dimensions and weight indications in the figure below can be found in the instruction manual of the tractor. If, contrary to expectation, this is not the case, please contact your tractor dealer to provide the missing information.



Dimensions	Specification	Unit
A	Tractor's own weight	kg
B	Front axle load empty	kg
C	Rear axle load empty	kg
D	Total machine weight front	kg
E	Total machine weight rear	mm
F	Distance from front link arm balls to the machine's centre of gravity	mm
G	Distance between front axle and front link arm balls	mm
H	Front and rear axle distance	mm
I	Distance between rear axle and rear link arm balls	mm
J	Distance from rear link arm balls to the machine's centre of gravity	mm

The total own weight can be determined by weighing the tractor and the implement or by adding up the specified values.

The total own weight

$$A + D + E = \text{.....} \text{ kg}$$

Should never exceed the maximum allowable own weight of tractor and implement specified by the tractor manufacturer.

The total front axle load can be determined by weighing the tractor's front axle with connected implements or by making the following calculation.

$$B + \frac{D \times (F + G + H)}{H} - \frac{D \times (F + G + H)}{H} = \text{.....} \text{ kg}$$

The total front axle load should not exceed the maximum front axle load specified by the tractor manufacturer.

Please also be aware that the total front axle load should not be lower than the minimum allowable front axle load (M).
The specification of the minimum front axle load is going to ensure that the tractor has sufficient stability and manoeuvrability.

If there is no specification of the minimum allowable front axle load (M) in the instruction manual of the tractor, you should choose a front axle load which is minimum 20% of the tractor's own weight without implements.

If the necessary front axle load is not obtained for the tractor with implement, you should use additional front weights to guarantee the front axle load.

The necessary front weight can also be calculated.

$$\frac{E \times (I + J) - (B \times H) + (M \times H)}{F + G + H} = \text{.....} \text{ kg}$$

The total rear axle load can be determined by weighing the tractor's rear axle with connected implements or by making the following calculation.

$$C + \frac{E \times (H + I + J)}{H} - \frac{D \times (F + G)}{H} = \text{.....} \text{ kg}$$

The total rear axle load should not exceed the maximum rear axle load specified by the tractor manufacturer.

Please also be aware that the total rear axle load should not be lower than the minimum allowable rear axle load (N).

The specification of the minimum rear axle load is going to ensure that the tractor has sufficient stability and manoeuvrability.

If there is no specification of the minimum allowable rear axle load (N) in the instruction manual of the tractor, you should choose a rear axle load which is minimum 45 % of the tractor's own weight without implements.

If the necessary rear axle load (N) is not obtained, additional weights can be mounted at the rear.

The necessary rear weights can also be calculated as follows.

$$\frac{D \times (F + G) - (C \times H) + (N \times H)}{H + I + J} = \text{..... kg}$$

The allowable tyre load is calculated per tyre, which means that the front or rear axle load must be divided by 2.

The acceptable tyre load will depend on the tyre pressure and the driving speed. In general, if the axle load is high, it is recommended to reduce the tyre pressure and the driving speed.

WARRANTY

Kongskilde Industries A/S, 6400 Sønderborg, Denmark, hereafter called **"Kongskilde"**, grants warranty to any buyer of new JF machines from authorized JF dealers.

The warranty covers remedy of material and production faults. This warranty is valid within a year after date of sale to end-user.

The warranty is invalidated in the following cases:

1. **The machine has been used for other purposes than those described in the instruction manual.**
2. **Improper use.**
3. **Damage caused by external sources, e.g. lightning or falling objects.**
4. **Insufficient maintenance.**
5. **Transport damage.**
6. **The construction of the machine has been modified without Kongskildes written permission.**
7. **Unskilled repair of the machine.**
8. **Unoriginal spare parts have been used.**

Kongskilde cannot be held responsible for loss of income or legal claim as a result of faults either of the owner or of a third party. Nor is Kongskilde responsible for wages beyond current agreements in connection with replacement of warranty parts.

Kongskilde is not responsible for the following costs:

1. **Normal maintenance such as expenses for oil, grease and minor adjustments.**
2. **Transport of machine to and from workshop.**
3. **The dealer's travelling expenses or freight charges to and from the user.**

Warranty is not granted on wearing parts unless it can clearly be proved that Kongskilde has committed a fault.

The following is regarded as wearing parts:

Protective canvases, blades, blade suspensions, wearing bars, guide shoes, stone protections, discs, rotor skirts, crimper parts, tyres, tubes, brake shoes, chain tightening parts, guards, hydraulic hoses, conveyors, vertical auger and tub, wheel-fixing bolts and nuts, snap rings, sockets, PTO-shafts, clutches, gaskets and seals, tooth belts, V-belts, chains, sprocket wheels, carriers, conveyor chain slats, rake- and pick-up tines, rubber seals, rubber paddles, cutter blades, chute liner and lining for spreading platform, shredding blades incl. bolts and nuts, spreading rotors and vanes for farmyard manure spreaders.

In addition, the user must note the following:

1. **The warranty is only valid if the dealer has undertaken a pre-delivery check and has given instruction to the end user in the use of the machine.**
2. **The warranty cannot be transferred to others without Kongskildes written permission.**
3. **The warranty can be nullified if repair is not undertaken immediately.**

EN EC-Declaration of Conformity
according to Directive 2006/42/EC

DE EG-Konformitätserklärung
entsprechend der EG-Richtlinie 2006/42/EG

IT Dichiarazione CE di Conformità
ai sensi della direttiva 2006/42/CE

NL EG-Verklaring van conformiteit
overeenstemming met Machinerichtlijn 2006/42/EG

FR Déclaration de conformité pour la CE
conforme à la directive de la 2006/42/CE

NO EF-samsvarserklæring
i henhold til 2006/42/EF

CZ ES prohlášení o shodě
podle 2006/42/ES

ES CE Declaración de Conformidad
según la normativa de la 2006/42/CE

PT Declaração de conformidade
conforme a norma da C.E.E. 2006/42/CE

DA EF-overensstemmelseserklæring
i henhold til EF-direktiv 2006/42/EF

PL Deklaracja Zgodności WE
wedlug Dyrektywy Maszynowej 2006/42/WE

FI EY : N Vaatimustenmukaisuusilmoitus
täyttää EY direktiivin 2006/42/EY

SV EG-försäkran om överensstämmelse
enligt 2006/42/EG

ET EÜ vastavusdeklaratsioon
vastavalt 2006/42/EÜ

Kongskilde Industries A/S
Linde Allé 7
DK 6400 Sønderborg
Dänemark / Denmark
Tel. +45-74125252

EN We declare under our sole responsibility, that the product:
DE Wir erklären in alleiniger Verantwortung, dass das Produkt:
IT Noi Dichiara sotto la propria responsabilità che il prodotto:
NL Wij verklaren als enig verantwoordelijken,dat het product:
FR Nous déclarons sous notre seule responsabilité que le produit:
NO Herved erklærer vi, at:
CZ Prohlašujeme tímto, že:
ES Vi declaramos bajo resposibilidad propia que el producto:
PT Me declaramos com responsabilidade próqria que o produto:
DA Vi erklærer på eget ansvar, at produktet:
PL Nosotros deklarujemy z pełną odpowiedzialnością, iż produkt:
FI Nós ilmoitamme yksin vastaavamme, että tuote:
SV Härmed förklarar vi att:
ET Käesolevaga kinnitame, et:

CM 170
CM 190

EN to which this declaration relates corresponds to the relevant basic safety and health requirements of the Directive: 2006/42/EC

DE auf das sich diese Erklärung bezieht, den einschlägigen grundlegenden Sicherheits- und Gesundheitsanforderungen der EG-Richtlinie entspricht: 2006/42/EG

IT E' Conforme ai Requisiti Essenziali di Sicurezza a di tutela della Salute di cui alla Direttiva e sue successive modificazioni: 2006/42/CE

NL waarop deze verklaring betrekking heeft voldoet aan de van toepassing zijnde fundamentele eisen inzake veiligheid en gezondheid van de EG-machinerichtlijn no: 2006/42/EG

FR faisant l'objet de la déclaration est conforme aux prescriptions fondamentales en matière de sécurité et de santé stipulées dans la Directive de la: 2006/42/CE

NO er i overensstemmelse med alle relevante bestemmelser i Maskindirektivet 2006/42/EF.

CZ odpovidá všem příslušným ustanovením ES směrnice o strojích 2006/42/ES.

ES al cual se refiere la presente declaración corresponde a las exigencias básicas de la normativa de la y referentes a la seguridad y a la sanidad: 2006/42/CE

PT a que se refere esta declaração corresponde às exigencias fundamentais respectivas à segurança e à saúde de norma da C.E.E.: 2006/42/CE

DA som er omfattet af denne erklæring, overholder de relevante grundlæggende sikkerheds- og sundhedskrav i EF-direktiv: 2006/42/EF

PL dla którego się ta deklaracja odnosi, odpowiada właściwym podstawowym wymogom bezpieczeństwa i ochrony zdrowia Dyrektywy Maszynowej: 2006/42/WE

FI johon tämä ilmoitus liittyy, vastaa EY direktiivissä mainituja perusturvallisuus- ja terveysvaatimuksia (soveltuvin osin) sekä muita siihen kuuluvia EY direktiivejä: 2006/42/EY

SV överensstämmelse med alla hithörende bestämmelser i EG:s maskindirektiv 2006/42/EG

ET vastab kõigile EÜ masinadirektiivi 2006/42/EÜ asjakohastele sätetele.

CE

Konstruktion (Design)
Sønderborg, 26.09.2011
Klaus Springer

Produktion (Production)
Sønderborg, 26.09.2011
Ole Lykke Hansen

EN EC-Declaration of Conformity
according to Directive 2006/42/EC

BG ЕО-декларация за съответствие
съгласно директива 2006/42/ЕО,

RO Declarația de conformitate CE
în conformitate cu 2006/42/CE

SK ES prehlásenie o zhode
Podľa 2006/42/ES

SL ES-izjavo o skladnosti
na podlagi Direktive 2006/42/ES

HU EK-megfelelőségi nyilatkozatra
a 2006/42/EK

MT Dikjarazzjoni tal-Konformità tal-KE
skont 2006/42/KE

LT EB atitikties deklaracijos
pagal 2006/42/EB

TR AT Uygunluk Beyani
2006/42/AT göre

EL ΕΚ-Δήλωση συμμόρφωσης
σύμφωνα με την οδηγία 2006/42/ΕΚ,

LV EK atbilstības deklarācijas
sastādīšanai saskaņā ar Direktīvas 2006/42/EK

Kongskilde Industries A/S
Linde Allé 7
DK 6400 Sønderborg
Dänemark / Denmark
Tel. +45-74125252

EN We declare under our sole responsibility, that the product:
BG С настоящото декларираме, че:
RO Prin prezenta declarăm faptul că:
SK Prehlasujeme týmto, že:
SL Izjavljamo, da je
HU Kijelentjük, hogy a/az:
MT Għalhekk aħna niddikjaraw li l-
LT Šiuo mes deklaruojame, kad
TR Iş bu beyanla, aşağida tanımlı makinenin:
EL Με την παρούσα δηλώνουμε, ότι
LV Ar šo mēs apliecinām, ka:

CM 170
CM 190

EN to which this declaration relates corresponds to the relevant basic safety and health requirements of the Directive: 2006/42/EC

BG съответства на всички релевантни разпоредби на директива: 2006/42/ЕО

RO este în conformitate cu toate dispozițiile relevante ale Directivei 2006/42/CE privind echipamentele tehnice

SK zodpovedá všetkým príslušným ustanoveniam ES smernice o strojoch 2006/42/ES

SL skladen z vsemi ustreznimi določbami Direktive o strojih 2006/42/ES

HU a 2006/42/EK gépekre vonatkozó irányelv valamennyi vonatkozó rendelkezésével megegyezik.

MT Jissodisfa d-dispożizzjonijiet kollha rilevanti tad-Direttiva: 2006/42/KE

LT atitinka visas atitinkamas EB Mašinų direktyvos 2006/42/EB nuostatas.

TR 2006/42/AT sayılı AT Makine direktifinin tüm ilgili hükümlerine uygun olduğunu teyit ederiz.

EL Συμφωνεί με όλους τους σχετικούς κανόνες της ΕΚ- οδηγίας μηχανημάτων 2006/42/ΕΚ.

LV atbilst visiem attiecīgajiem EK Mašīnu direktīvas 2006/42/EK noteikumiem.

CE

Konstruktion (Design)
Sønderborg, 26.09.2011
Klaus Springer

Produktion (Production)
Sønderborg, 26.09.2011
Ole Lykke Hansen

Edition: I Ausgabe:
Edition: I Udgave:
02

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You can always find the latest version of the manuals at www.jf.dk