

User manual

STENSBALLE Rotary mowers

Registration for use	3
EC declaration of conformity	5
General.....	6
Tractor selection	8
Technical information.....	10
Handling and assembly	11
Daily use.....	16
Detaching the implement.....	22
Maintenance and storage	24
Labelling	30
Customer services and claims.....	32

Registration of Use

GB

STENSBALLE manufactures quality machines for professional users.

The warranty period on our machines is 12 months from the purchase date, and covers any material or manufacturing defects.

Any parts that have suffered damage as a result of material and production faults will be replaced by GMR maskiner a/s at no extra charge.

Consequential damage and wearing parts will not be replaced.

PLEASE NOTE!

To maintain warranty, the Dealer is obliged to fill in and return the "Registration for use" below to GMR maskiner a/s, not later than one month after delivery to the end user.

A condition for any processing of claims is that this "Registration for use" is submitted timely.

This can be done via our website www.gmr.dk

or by completing and scanning/submitting the coupon below to:

GMR maskiner a/s
Saturnvej 17
8700 Horsens, Denmark
stensballe@gmr.dk

Registration for use:

Machine number	<input type="text"/>
Model	<input type="text"/>
Delivery date	<input type="text"/>
End user	<input type="text"/>
Address	<input type="text"/>
Dealer	<input type="text"/>

EC declaration of conformity

Manufacturer: GMR maskiner a/s
Saturnvej 17, 8700 Horsens, Denmark
Tel.: +45 7564 3611

hereby declares that

machine: Stensballe
machine no.: _____
date: _____

is in conformity with the applicable requirements of:

Order of 10 June 2013 implementing Directive 2006/42/EC of the European Parliament and of the Council as amended, as well as the EMC Directive 2004/108/EC as amended.

Standards applied:

DS/EN ISO 12100:2 011 Safety of machinery - General principles for design
- Risk assessment and risk reduction.

Signature: Peter Thomsen
Peter Thomsen
Factory Manager

Introduction

For safety reasons and to take full advantage of the mower, you should read the user manual before starting to use the machine. You can find detailed technical information about each type of rotary mower and spare parts on www.gmr.dk.

Contact your dealer if in doubt.

Use only original Stensballe parts in your rotary mower. To order original parts, contact your dealer or GMR maskiner a/s directly.

This user manual includes an illustrated spare parts list. Read the introduction to the spare parts list before ordering spare parts.

Your STENSBALLE rotary mower is fully assembled and tested at the factory, and ready for use.

Mowers described in this user manual

This user manual applies to all Stensballe rotary mowers. Any differences in the use and operation of the various types are listed and described.

Safety warnings

Please note the following safety warnings found in this user manual:



WARNING

Risk of personal injury or death

A technical procedure or similar which may be hazardous and result in personal injury or death.



CAUTION

Damage to machinery or accessories

A technical procedure or similar which may result in damage to the machinery or accessories.



NOTE

Important information

A very important technical procedure or similar.

Packaging

The plastic packaging that the mower is supplied in, is made from polythene (PE), which can be recycled. The packaging should therefore be disposed of at your nearest recycling centre.

Never allow:

- unauthorised persons to use the machine unattended.
- a PTO shaft to be used without a CE label.
- the machine to be used without factory installed safety guards.
- people to stand close to the machine while it is in use.
- drivers to leave the tractor cab while the machine is in operation and the blades are rotating.
- the tractor to stop with the PTO output activated.
- settings to be adjusted while the tractor engine is running.
- the mower to be lifted while it is running.
- the specified speed on the PTO output to be exceeded.

Always ensure that:

- nuts and bolts are securely tightened and that blades and rotary parts are inspected for defects.
- the user fully understands how to operate the tractor and the machine's hydraulic functions and associated movements.
- the working area is checked for wires, steel pipe, large stones, bottles and other hazardous items and these are removed before work begins.
- the tractor is stopped and the PTO output is disengaged if abnormal vibrations or noises are coming from the machine so the cause can be investigated.
- the tractor's PTO never operates slower than 90% of the machine's stated PTO rpm.
- the tractor's PTO is disengaged and the tractor is stopped before performing any adjustments, maintenance or repairs on the machine.

Tractor selection

When choosing a tractor, you should make certain that the rotary mower and the tractor form a stable unit during operation.

The tractor must be equipped with a front mounting unit with a floating position function. If the tractor does not have a floating setting, it must either be equipped with one or the mower must be equipped with a fitting frame with moveable arms.



CAUTION

Locked floating position

If the tractor does not have a locked floating position, driving on uneven terrain may lift the machine off the ground and transfer the tractor's weight to the machine. Both events may damage the wheels or wheel forks.

Rotary mowers that are hydraulically driven may only be fitted and used on tractors that are equipped with operating hydraulics, or fitted with an external hydraulic system. The hydraulic system's operating lever must be lockable.

Triplex type rotary mowers may only be fitted and used on tractors that are equipped with at least two single or double-acting hydraulic connections. Both must have a lockable floating position function.

Tractor/model overview:

Up to 30 HP

- TM/TH, FR, HP

From 31-50 HP

- BM/FM/FH model P, TM/TH, FR, THM, HC/HCH, R3H

51 HP and greater

- BM/FM/FH model P, THM/TH

Noise

The driver will be exposed to a noise level in the tractor cabin between 74-85 dB (A). These figures originate from data provided by most tractor manufacturers in their product specifications. The noise varies between a minimum measured value (machine unloaded) and a maximum measured value (machine loaded).

The figures require that the machine is fitted to a tractor with a cab that is noise protected with closed windows, and which operates in an open environment. In addition, the recommended operating speed is 4-10 km/h. The noise levels also require that the grass length is 10-15 cm and that there is no wind.

If the cab windows, roof window or similar are open, the noise level will exceed the values stated here.

The rotary mower does not emit any specific type of noise. This means that the tractor driver will only be exposed to noise from the tractor itself.

If the driver finds the noise uncomfortable when operating the machine, GMR maskiner a/s recommends that the driver should wear ear protection.

Total PTO power

The following values represent the total PTO power for the whole mower. This means that if the mower is operated with both a mechanical and hydraulic PTO, both the mechanical and the hydraulic power should be included in the figures.

Cutting width	Min. PTO power	Max. PTO power	Capacity at 4 km/h	Capacity at 10 km/h
1150 mm	11 kW	18 kW	0.39 ha	0.97 ha
1300 mm	12 kW	21 kW	0.44 ha	1.1 ha
1500 mm	13 kW	25 kW	0.51 ha	1.3 ha
1800 mm	17 kW	30 kW	0.61 ha	1.5 ha
2100 mm	23 kW	35 kW	0.71 ha	1.8 ha
2500 mm	25 kW	37 kW	0.85 ha	2.1 ha
3000 mm	31 kW	46 kW	1.0 ha	2.6 ha
3500 mm	36 kW	54 kW	1.2 ha	3.0 ha
4000 mm	41 kW	60 kW	1.4 ha	3.4 ha



NOTE

Axle load

The tractor's maximum stated axle load must not be exceeded. Contact your dealer if in doubt.



CAUTION

Damage to machinery or accessories

If you use tractors which can deliver more than the stated maximum power, this could overload and damage the mower.



NOTE

Nominal rpm

The nominal rpm is stated on the mower's fixed PTO shield.



CAUTION

PTO speed

If the PTO speed falls below 90% of the nominal PTO speed, the mower will be overloaded and damaged.

Lifting and moving the mower

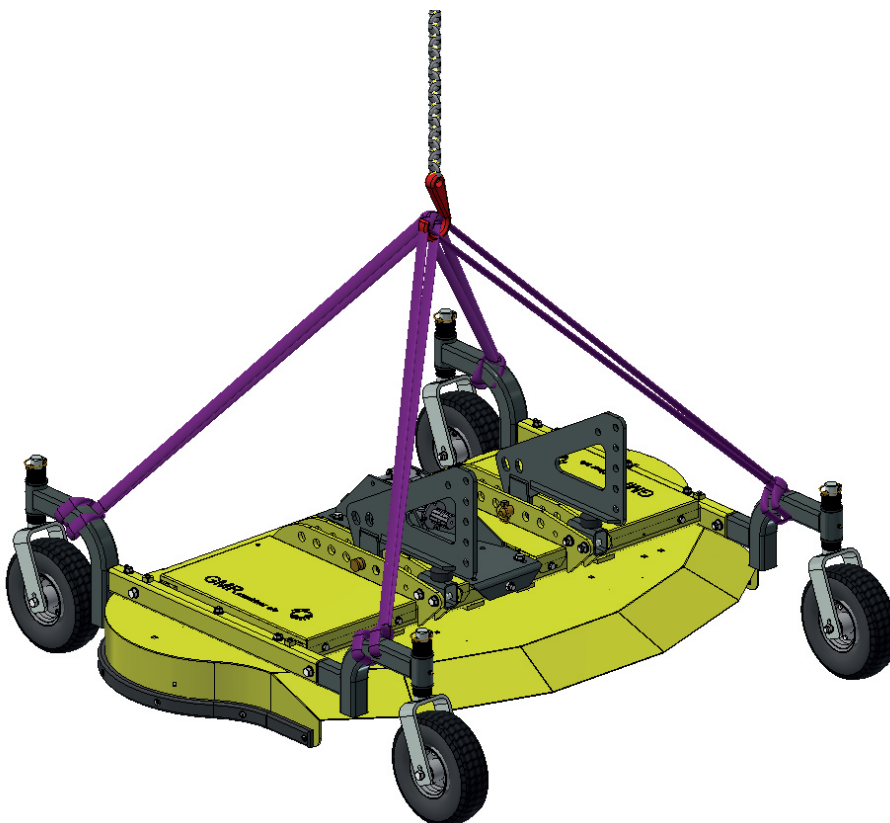
Type: HC/HCH and HP
as well as BRK, BR, RK,
TM/TH, FR, R3H, 2W and
Triplex

Always use a crane to move or lift the rotary mower to carry out maintenance.

Use four straps or similar with eyes. Place a strap around each wheel arm, and assemble the four straps in a focal point in the centre above the mower. Lift the mower from this point.

Remove the PTO shaft before lifting. Please be aware that when the mower is lifted, it may move unexpectedly. The mower should not be lifted quickly or unintentionally, to avoid the risk of personal injury.

When lifting the Triplex mower, the side mowers may be in both the operating and transport positions.



WARNING **Safety zone**

When lifting the mower, all persons must stay clear of the machine.
The safety zone is min. 2 metres.

Attaching the mower to the tractor

When fitting for the first time, remove the reusable plastic packaging.

- Check that the correct type of machine has been delivered.
- Check that the machine is complete and has not suffered damage in transit.
- Check that the rpm and direction indicated on the PTO protection on the angular gear are correct for the tractor (not applicable for hydraulic machines).

3-point hitch

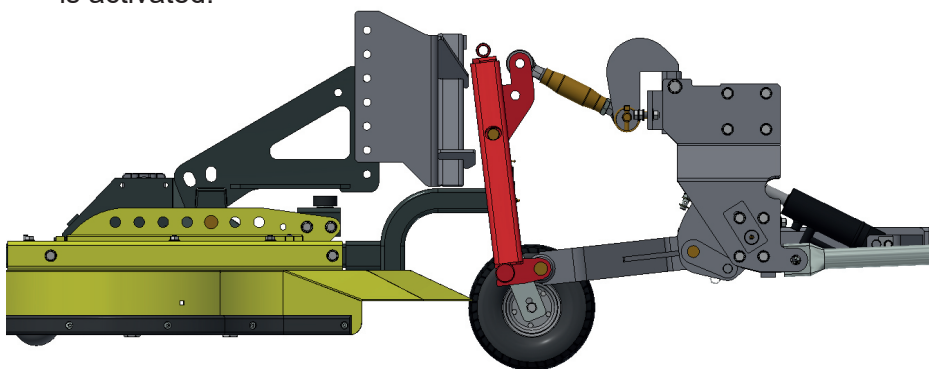
Depending on the type of mower you are using, attach the mower with either a 3-point hitch or an A-frame.

1. Drive the tractor at right angles to the mower.
2. Stop the tractor engine and PTO output.
3. Connect the hitch arms to the mower.
4. Connect the top bar to the mower.
5. Connect the PTO shaft to the tractor.
Check that the snap coupling clicks into place in both forks.
6. Attach the PTO shaft safety chains to the sides of the tractor (mechanical machines only).
7. Connect the hydraulic hoses to the tractor using the snap couplings (hydraulic machines only).
8. Check that the couplings are fitted so the mower rotates in the correct direction.
9. Check the snap couplings for impurities.
Clean the couplings if necessary.

A-frame

Drive the tractor at right angles to the mower.

1. Lower the male section of the tractor and drive it under the female section.
2. Lower the male section so it locks into the female section. Activate the manual locking system, or check that the automatic locking system is activated.



Example illustration. Design and positioning will vary depending on implement and tractor.

3. Lift the machine slightly.
4. Stop the tractor engine.
5. Connect the PTO shaft to the tractor.
6. Check that the snap coupling clicks into place in both forks.
7. Attach the PTO shaft safety chains to the sides of the tractor (mechanical machines only).
8. Connect the hydraulic hoses to the tractor using the snap couplings (hydraulic machines only).
9. Check that the couplings are fitted so the mower rotates in the correct direction.
10. Check the snap couplings for impurities.
Clean the couplings if necessary.



WARNING **Safety zone**

Never manoeuvre the tractor hitch if there are people in the vicinity.

The safety zone is min. 2 metres.



CAUTION

Mechanical operation

Attaching the mower for the first time:

Before coupling the PTO shaft to the tractor, position the mower where the distance between the PTO output and the mower's PTO input is shortest. This ensures that the PTO shaft is not too long and is not damaged when lifting the mower.

Follow the instructions in the user manual when shortening the PTO shaft. Contact your dealer if you have any questions about the above.

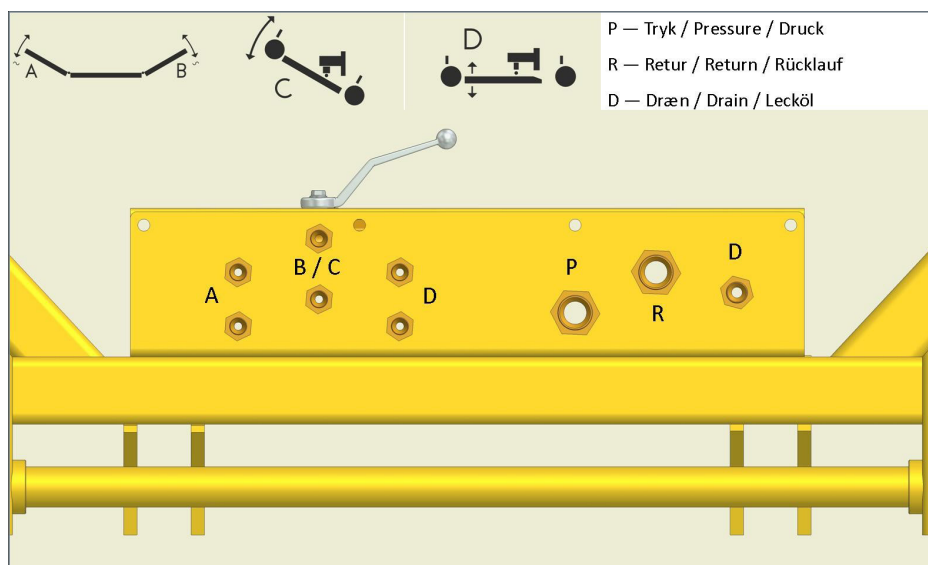
Connecting the hydraulic hoses

Mount the mower on the tractor by coupling the hydraulic hoses to the tractor's double-acting output.

Remember to keep the hydraulic hoses correctly separated in pairs so that the two hoses from one cylinder go to one double-acting hydraulic output.

The outputs for A and B functions should have a floating position.

The illustration below shows the function chart for Triplex mowers.





CAUTION

Hydraulic hoses

Connect the hydraulic hoses so that they cannot come into contact with moving parts.



NOTE

Shortening the hoses

The hydraulic hoses are supplied in standard lengths. If the hoses need to be shortened, this should be done by the dealer.



CAUTION

Make sure that the machine's standard PTO speed and direction of rotation can be met by the tractor.

Height adjustment

There are various ways to set the cutting height depending on the type of mower used.

Height adjustment with lever

Type: FM, BM, FH

Use four straps or similar with eyes. Place a strap around each wheel arm, and assemble the four straps in a focal point in the centre above the mower. Lift the mower from this point.

Height adjustment on each wheel

Type: Triplex, BRK, RK, TH/TM, 2W, HC/HCH, HP

Adjust the cutting height using the two spindle handles on the top of the wheel boxes.

A height adjustment scale is attached to the side of the wheel box. This is only a guide.

1. Determine the cutting height.
2. Measure the current cutting height from the ground to the lower edge of the rotor guard in centimetres.
3. Start the tractor, lift the mower, and then stop the tractor again.
4. Adjust the wheels in relation to the measured cutting height. On Triplex mowers, it may be necessary to set the centre mower one ring higher than the side mowers to take account of the mower's weight distribution and the ground's carrying capacity.

Example

Measured cutting height 5 cm

Required cutting height 4 cm

Remove the split pin and move the wheel up one ring (one ring = 1 cm), then reattach the wheel and repeat for all eight wheels.

Rollers

The mower may have one or two rollers which help to protect the blades. The rollers have three adjustment options:

- Regular hilly terrain = top setting
- Average hilly terrain = middle setting
- Very hilly terrain = bottom setting

Central, hydraulic height adjustment

Type: BR/LM, FR/LM, FR/LH, R3H, Triplex C

The following applies to mowers where the cutting height is adjusted by means of hydraulics controlled from the tractor cab.

1. Lower the mower to the lowest position and activate the hydraulics for 10-20 seconds until all the adjustment cylinders are completely in the outer position, and no air is left in the system. Use this method to reset the cutting height, so all the cutting units are at exactly the same height.
2. Raise the mower to the desired cutting height. Use the guide scale on the inner, left cylinder.

If there is a difference in height, you can reset the system by lowering the cutting height all the way to the bottom position, and activate the hydraulics until all the cutting units are at the bottom, and no air is left in the system. You can now set the height as described above.

Before you start the machine, you should inspect the working area and remove any foreign objects.

If the machine is hydraulically driven, you must ensure that you are well-acquainted with the machine's hydraulic functions.

STENSBALLE mowers are only designed to mow grass and no other forms of vegetation. Avoid mowing areas with more robust vegetation. Pay attention to any foreign objects and avoid them as much as possible. Mowing in areas with more robust vegetation will lead to greater wear on the blades and may lead to undue damage to the machine and mean that your warranty will be voided.

Mowing in high and/or thick grass restricts the forward driving speed. We recommend a speed range of 4-10 km/h. As the owner of this mower, you should be careful to maintain the nominal rpm, despite the load on the mower.

The machine must run on its own wheels while mowing. It must not hang in the tractor's hitch.



CAUTION

Foreign objects can cause major damage to the rotor blades and other parts in the transmission. If the rotor blades collect foreign objects, stop and clean the mower immediately.

**Start-up procedure
for mechanically
driven machines**

1. Check that the tractor's PTO output is disengaged.
2. Start the tractor and leave it idling at high speed.
3. Engage the tractor's PTO output and let the machine idle while checking the machine's moving parts rotate freely and unhindered.
4. For Triplex mowers: Raise the side mowers to vertical, and make sure that the engine is disengaged and the blades have stopped. Lower the mowers again and set the valve to the floating position.
5. Increase the PTO rpm to the standard rpm and allow the machine to run for 60 seconds. Check for abnormal vibrations or noises coming from the machine.
If there are abnormal vibrations or noises, contact your dealer immediately.
6. Reduce the tractor engine's rpm to idle and disengage the PTO output to stop the mower.

**Start-up procedure
for hydraulically
driven machines**

1. Check that the tractor's hydraulic connection is in the neutral position.
2. Start the tractor and leave it idling at high speed.
3. Engage the tractor's operating hydraulics and let the machine idle while checking the machine's moving parts rotate freely and unhindered. On Triplex type mowers, raise the side mowers to vertical. Make sure that the hydraulic engines are disengaged and the blades have stopped. Lower the mowers again and set the valve to the floating position.
4. Increase the tractor engine's rpm to the standard rpm and allow the machine to run for 60 seconds. Check for abnormal vibrations or noises coming from the machine. If there are abnormal vibrations or noises, contact your dealer immediately.
5. Reduce the tractor engine's rpm to idle and set the hydraulic control handle to the neutral position.



WARNING

Safety zone

During start-up and use, the mower must be lowered to the ground, before engaging the mechanical or hydraulic PTO output.

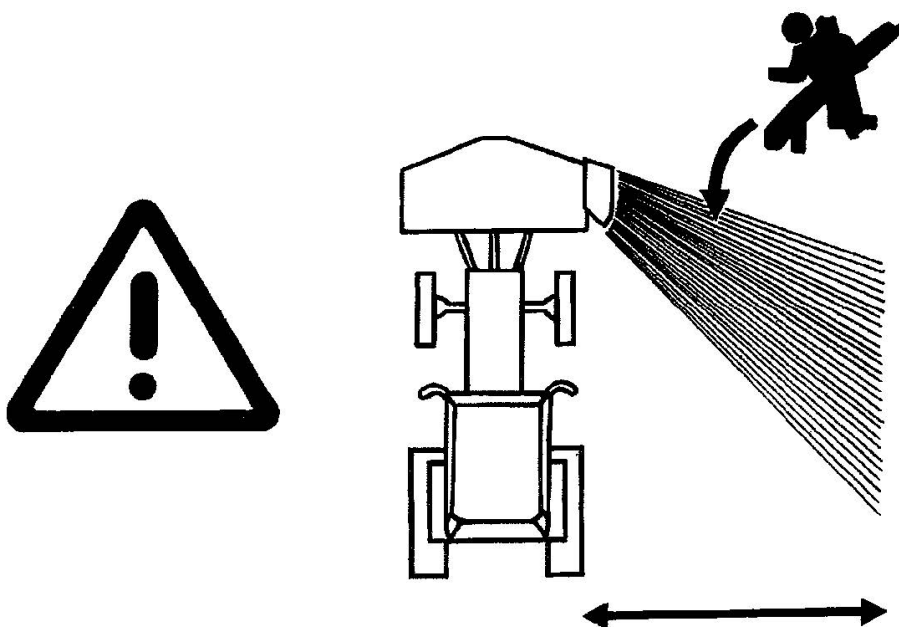
Disengage the PTO output before lifting. Failure to do so means there is a risk of personal injury on contact with rotating parts (blades).

Transport

Stop the tractor PTO output during transport between mowing areas and raise the hitch into the top position. Check regularly that the hitch is in the top position.

Side ejection

We recommend that mowers with side ejection are driven so the grass is ejected to the side where the grass is mown.



Special instructions for Triplex mowers

Triplex mowers can benefit from several different driving positions for use in different situations.

There may be situations with trees in the middle of the field, so it can be an advantage to lift one of the side mowers.



WARNING

The tractor driver must stop the machine immediately if anyone moves into the danger zone.



WARNING

Never lift the side mowers while anyone is within the danger zone.

Danger zone

The mower is designed with a fixed guard which follows the cutting height. This means that when the mower is set at the high cutting height, the guard will be the same distance from the ground.



WARNING

Safety zone

When operating the mower, all persons must stay clear of the machine.
The safety zone is min. 2 metres.

Floating position

When driving with the mower, the hitch must be in the floating position, so the side mower can follow the terrain.

If the hitch is not in the floating position, the weight may transfer from the tractor to the mower, which could overload both the centre mower and the side mowers.

**Special instructions
for Triplex**

When driving with the Triplex mower, the hydraulic outputs must be in the floating position, so the side mower can follow the terrain.

If the hydraulic outputs are not in the floating position, the weight may transfer from the tractor to the mower, which could overload both the centre mower and the side mowers.

Breakdown

In case of a breakdown, proceed as follows:

1. Reduce the tractor's rpm to idle.
2. Disengage the tractor's PTO output or operating hydraulics.
3. Stop the engine before leaving the cab.

Contact your dealer if you cannot identify the cause of the breakdown.

Failure

If the mower fails during use, you must stop the tractor's mechanical or hydraulic PTO output immediately. Then stop the tractor engine before leaving the driver's cab. You can now inspect the mower to find the cause.

Mechanical operation

If the centre mower has stopped, the V-belts may be slipping due to overloading or the V-belts may need tightening.

Hydraulic operation

If the mower is forced too much, the tractor's hydraulic pressure relief valves are activated and one or both side mowers stops mowing.

Restart

If the mowing action is failing and you need to restart, proceed as follows:

1. Stop the tractor's PTO and run back a little.
Then attempt a restart as follows:
2. Check that the PTO output is disengaged.
3. Start the tractor and drive the mower free of the grass.
4. Engage the PTO output.
5. If the rotary mower is now running, you can continue to mow the grass, but drive a little more slowly than before.

Stop the tractor's PTO immediately if the rotary mower is not running, and contact your dealer for assistance.



WARNING

Contact your dealer if you cannot identify the cause of the mowing failure. You risk personal injury if you troubleshoot without thorough knowledge of the machine and technology in general.

Detaching the implement

GB

Hydraulic oil

When operating the mower, you should ensure that the temperature does not exceed 80 °C. After prolonged heavy use of the mower, the oil may get very hot.

Danger signs

If there are signs of heat generation, vibration or noise during operation, you must stop the mower and then the tractor immediately. Inspect the mower.

In case of heat:

- Check for dry grass under the shielding/guards by the V-belts.
- Check if the gears and/or bearings are overloaded.

In case of vibration and noise:

- Check all transmission parts.
- Check the blades carefully for damage (breakages).

Detaching the implement

GB

Detaching the mower

The method for detaching the mower varies depending on whether a 3-point hitch or an A-frame is used.

The mower must be detached on a level surface.

All types

1. Carefully lower the mower down onto the surface and stop the tractor engine.
2. Remove the PTO shaft from the tractor and attach the free end to the mowers using the safety chain.
3. On hydraulically driven models: Remove the quick release connections from the tractor and attach the dust caps. Next, lay the hoses across the mower.

3-point hitch

After completing steps 1-3 above, proceed as follows:

4. Remove the pin for the top bar on the mower, so that the top bar is only attached to the tractor.
5. Remove the pins for the hitch arms.
6. Drive the tractor free of the mower.

A-frame

After completing steps 1-3 above, proceed as follows:

4. Disable the locking system, so the male and female parts are released from each other.
5. Start the tractor engine and lower the male part.
6. Drive the tractor free of the mower.

F model tractors

1. Disengage the top bar from the mower.
2. Remove the rear assembly pins.
3. Lower the mower to the ground and remove the front assembly pins.
4. Drive the tractor free of the mower.
5. Insert the assembly pins and safety pins in the mower.

Maintenance and storage

GB



WARNING

Working under a raised mower

Never enter the space under a raised mower unless it has sufficient support.

Manual tilt-up

Use manual tilt-up when you need to clean the mower.

1. Lower the mower to the ground.
2. Disengage the PTO output.
3. Stop the tractor.
4. Remove the PTO shaft and place it to one side. Applies to mechanical machines only.
5. Start the tractor and lift the hitch with the mower in the top position.
6. Tip the mower by hand into an almost vertical position.
7. Lock the mower in tilt-up position using pins through the mounting bracket and frame. Depending on the type of tractor, it may be necessary to turn the rear wheels so they are pointing forward.
8. Gently lower the mower to the ground, so the rear wheels are resting on the surface.
9. Stop the tractor and remove the key before you leave the tractor cab.

Hydraulic tilt-up

Some mowers may be equipped with hydraulic tilt-up.

1. Disengage the hydraulic PTO output.
2. Stop the tractor.
3. Remove the PTO shaft and place it to one side.
Applies to mechanical machines only.
4. Turn the lever on the switch valve to the tilt-up position.
5. Start the tractor.
6. Lift the hitch with the mower in the top position.
7. Activate the valve battery for tilt-up, and make sure the mower moves freely and unhindered to the top position. Depending on the type of tractor, it may be necessary to turn the rear wheels so they are pointing forward, or to detach them completely with the wheel forks.
8. When the mower is tipped right up, you can gently lower the mower with the hitch so it rests on the ground.
9. Stop the tractor and remove the key before you leave the tractor cab.

Maintenance and storage

GB

After cleaning

1. Start the tractor and raise the hitch into the top position.
2. Tilt the mower down to horizontal, and continue to activate the hydraulic valve until the cylinder is completely in the outer position.
3. Lower the mower to the ground.
4. Stop the tractor and remove the key before you leave the tractor cab.
5. Turn the lever on the switch valve back to the working position.
6. Attach the PTO shaft. (Applies only to mechanical machines)

Lubrication

The machine has labels attached for grease and oil lubrication, respectively.

Daily

- Wheel bushings grease
- Wheel hub grease

After 50 operating hours

- Bearing housing
for rotary shafts grease
- Cylinder eyes grease
- Adjustable tilting arm oil
- Fixed tilting arm grease

Angular gear

The angular gear is half filled with oil at the factory. According to the gear manufacturer, the first oil change should be performed after 50 working hours and subsequently at intervals of 500-800 hours, but at least once per year.

To prevent sedimentation, we recommend that you change the oil while it is warm. Use an SAE 90 EP oil. If necessary, use an oil syphon to remove the used oil.

Maintenance and storage

GB

V-belts

The rotary mower is fitted with 2 or 4 V-belts which are tightened with the gear/engine bracket.

After the first 5 hours of use, check that the V-belts are tight enough. Tighten them if necessary. Then check after every 40 hours of operation that the V-belts are tight enough and tighten them if necessary.

Tightening and retightening V-belts

New V-belts will stretch a lot during the first few hours of use. You must therefore retighten the V-belts after 5 hours of use.

1. Make sure that the tractor engine has stopped and the PTO output is disengaged.
2. Remove the outer shielding/guards.
3. Unscrew the bolts in the gear bracket and tighten the belts by adjusting the clamping bolt on the gear bracket, so that the free section of the belts can be deformed by approx. 3 cm in either direction by hand.
4. Then retighten the gear bracket.
5. Bolt the shields firmly back in place.

Replacing V-belts

1. Make sure that the tractor engine has stopped and the PTO output is disengaged.
2. Unscrew the bolts in the gear bracket.
3. Slacken the belts by loosening the locking nut on the adjustment bolt on the front of the gear bracket and remove the locking nut.
4. Detach the gear bracket unit and remove the V-belts.
5. Place the new belts loosely around the front centre pulley and fit the gear bracket unit back in place.
Make sure that all the belts are behind the angular gear pulley, and the clamping bolt passes through the hole in the front of the gear bracket plate.
6. Insert the 4 set screws in the gear bracket and put the nuts on without tightening them.
7. Attach the V-belts on the outer pulleys. Check that the belts are sitting in the right guides.
8. Tighten the V-belts.
9. Tighten the gear bracket.

Rotary shafts

After the first five hours of operation:

- Check and retighten the pulleys.
- Check that the blades and any slide plates are tightened.

Maintenance and storage

GB

Replacing the bearing unit

Follow the method described for replacing V-belts, but do the following after removing the belts:

Remove the bearing unit without detaching the pulley by loosening the 4 bolts that fix the bearing unit to the rotor guard, and pulling the bearing unit out of the bottom of the mower.

Special instructions for HC/HCH

On HC/HCH mowers, the V-belt pulley must be detached before the bearing unit can be removed.

Blades

The blades are made of boron-alloyed steel, drop-forged and hardened, so they can cope with the loads and shocks that are expected to occur during operation. The hardness of the blades is controlled constantly and all blades are stamped with GMR followed by the spare part number.



WARNING

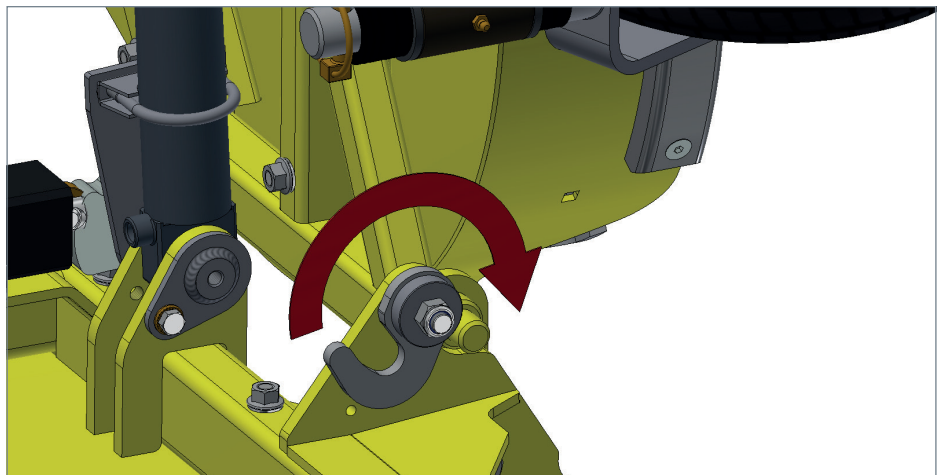
Using blades made by other manufacturers risks fatal injury.

The machine warranty will be void if they are used.



WARNING

Before sharpening the blades on Triplex side mowers, the side mower must first be secured as shown in the illustration below. Failure to do so means there is a risk of personal injury.



Maintenance and storage

GB



WARNING

Never allow the blades to rotate when cleaning the mower.

Sharpening the blades

The blades can be sharpened while they are mounted on the mower, or they can be detached and sharpened. Always make sure that the blades are sharpened evenly and are balanced. After sharpening, hang the blade on a nail or similar to check the result.

The blade must always be sharpened on the inclined upper side.

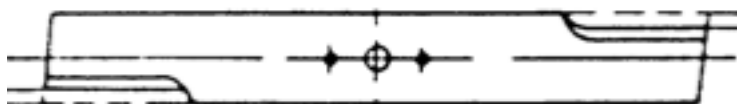
1. Start the tractor engine.
2. Raise the mower to the top lifting position.
3. If the mower is equipped with the hydraulic tilt-up function, tilt the mower into an almost vertical position.
4. Stop the tractor engine.
5. If the mower is not equipped with the hydraulic tilt-up function, lift the front edge of the mower by hand into an almost vertical position.
6. Secure the mower position with the supplied locking bolt through one of the slots in the mounting brackets and the mounting bracket plate on the centre mower.
7. It may be necessary to detach the rear support wheels and wheel forks before tilting the mower vertically.

The blades can now be serviced. After sharpening, hang the blade on a nail or similar to check the result.



NOTE

To ensure a correct and fine cut, the blade material must be sharpened to max. 5 mm. At this point, the blades should be replaced. See the illustration below.



Maintenance and storage

GB

Tension of knife bolts



NOTE

Important information

The knife bolts must not be tightened too hard, as the bolts can be overtightened and there is a risk that the knives will fall off.

Follow the form below:

Tightening torques for STENSBALLE knife bolts:			
	Thread dimension	Thread direction	Maximum tension torque
1/2"	1/2in-13 UNC-2B	Right	110 Nm
	1/2in-13 UNC-2B	Left	110 Nm
20 mm	MF20x1,5	Right	365 Nm

Maintenance and storage

GB

Safety guards

All moving parts on the mower are shielded to prevent accidents related to the use of the machine.

All safety guards must be intact. In the event of damage or wear to the guards, they must be replaced or repaired by the dealer. Safety guards must only be removed using the proper tools.



WARNING

Using the machine without safety guards risks fatal injury.

Replacing the hydraulic hoses

Replace the hydraulic hoses when there are:

- leaks in the hose and rubber material.
- severe cracks in the rubber material.

Order new hoses from the spare parts list at the back of this manual.

Storage

- Clean the mower and loosen the V-belts at the end of the season.
- Clean the blades carefully and lubricate them with oil. This prevents corrosion and extends the life of the blades.
- Check the oil level in the tank and top up if necessary.
- Store the mower in an area with low air humidity, protected from rain and snow.

The machine bears the following plates/labels. They must be attached to the machine and be clearly visible. New plates/labels can be ordered from the dealer.

Warning labels

Warning against contact with blades:



Warning of crushing hazard:



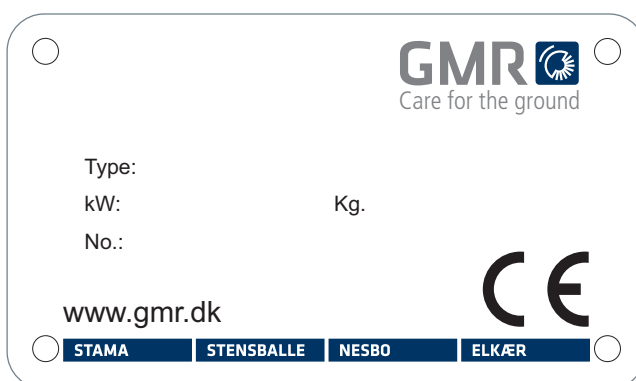
Do not pressure clean:



Type plate

The machine is equipped with a type plate with an engraved machine number. The first two digits of the machine number indicate the year of manufacture. The machine number is unique to the particular machine, and GMR maskiner a/s will always be able to refer back to that machine if the number is quoted.

This plate also states the weight of the machine in kg and its power requirement in kW.



CE labelling

The label indicates that the machine complies with the EC Machinery Directive, the year of manufacture and the manufacturer's website.

Customer services and claims

GB

Service

It is the dealer's responsibility to deliver the machine (and assemble if required), to start it on delivery or first use, and to instruct the operator about the use and maintenance of the machine (including tightening nuts and bolts).

The dealer is also obliged to make sure that the user manual and spare parts list is delivered to the customer and that the registration for use is completed correctly and sent to GMR maskiner a/s no later than 1 month after delivery to the user. (See page 3)

Claims

The warranty period on GMR machines is 12 months from the purchase date, and covers any material or manufacturing defects. These parts will be replaced by GMR maskiner a/s free of charge. Consequential damage and wear and tear will not be replaced.

Any components which are not manufactured by GMR maskiner a/s are included under the terms of the warranty to the extent authorised by the supplier of the parts in question.

GMR maskiner a/s reserves the right to assign a claim of this kind to the relevant supplier and not to reach a decision until the relevant supplier has responded.

The following must be observed when working on a claim:

- report the claim to GMR maskiner before the repair is started
- agree a time period with GMR maskiner for qualified technicians to carry out the repair
- any labour costs will only be approved at a fixed net price.

If GMR maskiner a/s has not authorised repair work in advance, any invoice submitted for repair work will not be approved.

At GMR maskiner a/s' request, before the claim can finally be handled, any parts that were replaced must be sent carriage paid to the factory.

GMR maskiner a/s retains the exclusive right to determine the extent to which a part shall be replaced or repaired.

Customer services and claims

GB

The warranty does not cover:

- normal wear and tear or damage which has resulted from inadequate maintenance.
- damage caused by collision.
- non-compliance with the product's technical specifications or if the product is used for a purpose other than that described in the ser manual.

If the product is altered or if non-original spare parts are used, all rights under the warranty will be rendered void.

The purchaser does not have the right to require that design changes on future models are implemented in a pre-existing machine.

In the event of a complaint

Complaints must be registered directly with GMR maskiner a/s. Complete a complaint report, stating the machine type, production number and date of its delivery to the customer, and send it to us. This is done via the dealer login on our website www.gmr.dk. If questions arise about claims on imported machines, we reserve the right to present the claim to the manufacturer before making any decision about whether the claim can be accepted.

Our machinery is subject to the EC Machinery Directive and quality assured within the European Union. We make every effort to comply with these requirements and do our utmost to supply high quality machinery.

Horsens, 01.06.2017
GMR maskiner a/s



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