

Operating and Maintenance Manual

Frontloader Implements



CE

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- Original Operating Manual -

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Dear Customer

We are pleased that you decided to purchase a front loader from our company. Before using the front loader please read this operating and maintenance manual carefully so that you can enjoy this product for a long time and are aware of any possible dangers that may arise when using the product.

If you have any questions about these operating and maintenance instructions, please contact your dealer.

If you need additional copies, you can download them online at www.stoll-germany.com/download.

Thank you.

Wilhelm STOLL Maschinenfabrik GmbH

1 Introduction

1.1 About this operating and maintenance manual

This operating and maintenance manual is a component of the respective vehicle with frontloader attachments and must always be carried in the vehicle when the frontloader is used. If the operating and maintenance manual is lost or no longer complete, please contact your dealer.

This operating and maintenance manual contains information that is valid and state of the art at the time of delivery. We reserve the right to make changes to the construction and data of the front loader and its components in the course of technical developments.

Directions refer to the forward direction of travel, unless otherwise specified.

1.1.1 Symbols in this operating and maintenance manual

The symbols used in these operating and maintenance instructions indicate particular hazards associated with the use of a front loader or provide you with useful information.

**Warning!**

Texts with this symbol indicate possible risks of accident or injury, which can cause serious injury or death.

**Caution!**

Texts with this symbol indicate a risk of accident and injury that may result in minor injuries.

**Attention!**

Texts with this symbol indicate potential hazards that can cause damage to the equipment.

**Note**

Texts with this symbol contain additional information and tips on dealing with the frontloader

2 Use

2.1 Intended use

- The STOLL silage cutter is built exclusively as a front loader tool for the usual areas of work: to cut and load or transport silage.
- The STOLL bale handler is built exclusively as a front loader tool for the usual areas of work: to lift, load, transport and stack bales.
- The STOLL roll-type bale fork and STOLL bucket loader with grab are built exclusively as front loader tools for the usual areas of work: to lift, load and transport manure, compost, bushes and silage.
- The STOLL Grip Fork FC is built exclusively as front loader tool for the usual areas of work: to lift, load and transport timber, bushes and other landscaping material and tree trunks of up to a maximum length of 3m.
- The STOLL top loading grip FC is an accessory for the STOLL pallet fork (see Chapter 11) and may only be used in conjunction with the pallet fork. The STOLL top loading grip FC is built exclusively as a front loader tool for the usual areas of work: to lift, load and transport tree trunks up to a maximum length of 3m, timber and bushes.
- The STOLL combined leveling and grabbing bucket loader is built exclusively as a front loader tool for the usual areas of work: levelling, gripping, loading and transporting soil, sand, gravel and the like.

The frontloader tool may only be used and serviced by persons who have carefully read and understood the operating and maintenance instructions and are informed in particular about the hazards present when dealing with the frontloader and mounted frontloader tools.

When the front loadertool is passed on to another party, it must be delivered with the operating manual.

The frontloader may not be used for lifting operations that require the presence of people near the front loader and the raised load. There is a danger, in the event of the failure of the hydraulic loader, that people may be crushed in between the lifted load and the ground or components. For any work with such tools, the frontloader is equipped with a safety device and this must be enabled.

- Note all the information and especially the safety instructions in this operating and maintenance manual, as well as the operating and maintenance manual of the front loader, before performing any work with the front loader tool.

2.2 Improper use

An improper use occurs when actions are taken that contradict the information specified in this operating and maintenance manual.



Warning!

The improper use of the product can cause dangers resulting from the front loader tool.
The manufacturer is not liable for damages that are caused by the improper use of the tool.

3 Safety instructions

3.1 General safety instructions



Warning – Risk of accident and injury!

- For all work carried out with the front loader, you must adhere to the accident prevention regulations and the safety, health and road traffic regulations of the respective country.
- Never undertake any unauthorised modifications to the front loader or the front loader tool.
- Regularly check the tightening torque of all connections, see section 15.2 on page 4141.

3.2 Safe handling of frontloader tools



Warning – Risk of accident and injury!

- Before starting work familiarise yourself with all the equipment and controls as well as their function.
- Never drive with a loaded bucket on public roads.
- Before each use of the respective frontloader tool, put the hydraulic control devices on the tractor in the neutral position.
- Due to the higher loading on the tyres and axles, the maximum permissible speed with the frontloader and mounted tool is 25 km/h for travelling on roads and 10 km/h with loading work.
- Make sure that the pressure of the tyres, especially the front wheels of the tractor, complies with the requirements for the higher wheel load of the manufacturer of the tyres and the tractor.
- Never jerk the vehicle when the frontloader is in the highest loading position and the tool is fully loaded.
- Never drive across a slope with a raised loader.
- Always slide the load material together downhill and load the material in the basin.
- If necessary, enlarge the track width of the tractor and also never work under a normal track with an adjustable axle.
- Always check the inclination of the tool.
- Never repair, clean or lubricate components when the loader arm is raised. Lower the loader arm when the tractor is turned off, otherwise you can dismantle it.



Fig. 1:
Person at risk by the increasing angle of the tool



Warning – Risk of accident and injury!

The lifting, stacking, storage and retrieval of large objects (bales, logs, crates....) is dangerous. For tractors without a closed driving cab or 4-post rollover protection structure do not raise the front loader any higher than the height of the rocker's pivot point when performing this kind of work!

- You must respect the safety regulations of the country you are in!
- Install additional protective devices on tractors without a closed cab or 4-post rollover protection structures.



Fig. 2: Person at risk in the work area of the frontloader



Warning – Risk of accident and injury!

People or animals that are in the work area of the frontloader can be seriously injured by the frontloader, the tool and falling load.

- Make sure that nobody is in the work area of the frontloader.
- Only work in conditions of good visibility, keep the windscreen of the tractor clean and light up the work area if necessary.



Fig. 3:
Person at risk if lifted by
the frontloader.



Warning – Risk of accident and injury!

The lifting and transporting of persons with the front loader is extremely dangerous and it is prohibited.



Fig. 4: the risk of injuries!



Warning – Risk of accident and injury!

Hydraulic oil escaping under high pressure can penetrate the skin and cause serious injury.

- Never look for leaks with your fingers.
- Use the appropriate tools
- Seek immediate medical care for injuries.

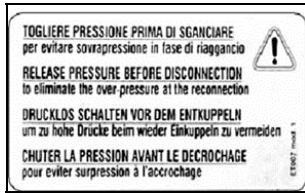


Fig. 5:
Avoid high pressures
when uncoupling.
Stoll Order no 3430510



Warning – Risk of accident and injury!

Careless handling at high pressures can lead to serious injury.

- Switch off the hydraulic pressure and turn off the engine before coupling or uncoupling the hydraulic system.
- Check the hydraulics lines and connections for wear and leaks. Observe the safety regulations or the regulatory body that are applicable to your work.
- Replace worn, outdated or leaking hydraulic lines.
- Repair or replace leaky hydraulic cylinders. You will need special tools for repairs to the hydraulic cylinders. Let your authorised dealer repair defective cylinders.

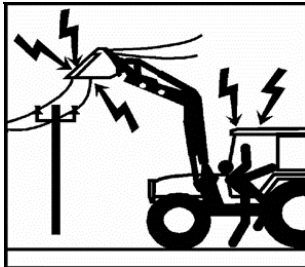


Fig. 6: Risk of death by
electric lines!



Warning - Risk of death by electric shock!

If the frontloader or the tool come into contact with electrical lines, there is a risk of death from the electric shock, see Fig. 6.

- Always maintain sufficient distance from electrical lines.
- Familiarise yourself with the working area and the terrain.



Caution - risk of damage to components

Only drive directly towards the material to be loaded. The steering must not be impacted.

4 Silage cutter

4.1 Description

The STOLL-silage cutter consists of a fork with tines connections for quick attach euro hooks and one top grab which is movable by double acting hydrocylinders.

The third control circuit of the front loader (double acting) actuates the cutting top grab.

 **Observe the general safety instructions on page 7.**



Warning – Risk of accident and injury!

To automatically lock the tool, it may only be raised up to a maximum height of 1.5 m for it to lock securely. An unsecured tool may fall down and cause serious injury to people in the work area of the frontloader

- In any case, check that the tool is securely attached on the removable frame.



Warning – Risk of accident and injury!

The cutting edges of the cutting top grab are very sharp.

- Wear protective gloves when working on the cutting!



Attention!

- The required operating pressure of the hydraulic system is min. 190 bar. The maximum allowable operating pressure is max. 205 bar.
- Only use the silage cutter in conjunction with the double-acting hydraulic cylinders of the front loader beam.



Note

During the cutting process with the HDP front loader beam turn off the parallel guide. With HDP beams that were built from 1995 onwards, the parallel guide is automatically shutdown with the actuation of the 3rd control circuit.

4.2 Setting to work

Mounting of the frontloader rocker

- Attach by driving the quick-change frame under the hooks of the silage cutter.
- Then lock this in place by tilting the quick-change frame.

Connect the hydraulics

- Connect the hydraulic hoses to the third control circuit using the couplers.

Information on the top grab cutter

- The blade fitted to the top grab must always be clean and sharp to ensure flawless work results.
- If nec., damaged blades must be resharpened using a smooth file.
- Proceed with utmost caution when using a right-angle grinder: the cutting edges must not anneal!
- Replace the blade when excessively damaged (e.g. by a foreign object in the silage stack).



Fig. 7: Silage cutter

Use silage cutter

1. Place the silage cutter in a horizontal position and fully open the top grab cutter.

2. With the top grab opened, introduce the silage cutter into the stack.
3. Pull the parking brake of the tractor.
4. With the tractor engine at medium speed lower the top grab until it reaches the bottom final position. The cutting edge will cut until it reaches under the level of the teeth (overlap). This will permit the silage block to be separated more easily from the silage stack.
5. Release the parking brake of the tractor.
6. Tilt the silage cutter slightly.



Caution - risk of blade damage

If the silage cutter is not tilted upwards before it is moved out of the stack, there is a risk of damage to the blades and loosening of the stack.

- Instead of tilting the silage cutter, as referred to in point 6, you can also fold up the top grab by the same amount of overlap.

7. Drive back out of the silage stack and carefully lift the silage block a little with the front loader.

Removing the silage blocks

To ensure a troublefree unloading procedure, especially in the case of dry and hard grass silage, the following sequence should be respected to avoid any irregular loading on the silage cutter components:

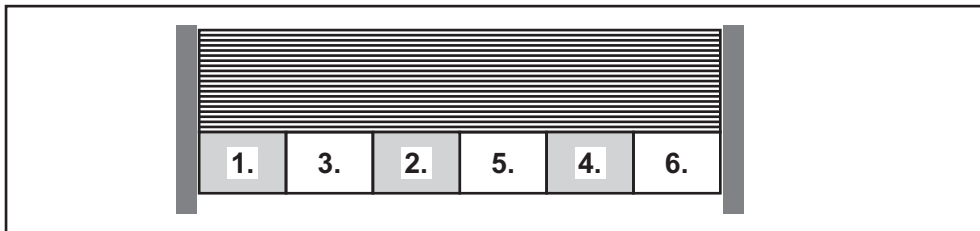


Fig. 8: Unloading sequence

4.3 Technical Data

Bezeichnung		1,30 m	1,50 m	1,90 m
Schnittbreite		1,28 m	1,52 m	1,88 m
Blockvolumen		0,87 m ³	1,03 m ³	1,28 m ³
Einstichtiefe		790 mm	790 mm	790 mm
Öffnungsweite (Abstand Zinken zur Messerspitze)		856 mm	856 mm	856 mm
Überstand und Überbiß (Zange geschlossen)				
	a) v. Zinkenspitze bis Schneidkante	30mm	30 mm	30 mm
	b) v. Zinkenspitze bis Schneidspitze	120 mm	120 mm	120 mm
	c) v. Zinkenspitze bis Schneidtal	70 mm	70 mm	70 mm
Zinkenabstand		120 mm	120 mm	120 mm
Anzahl der Hubzylinder		2	2	3
Hubzylinder-Durchmesser		100 mm	100 mm	100 mm
Werkzeug-Leergewicht		480kg	540 kg	730 kg

5 Wrapped bale tongs

5.1 Description

The STOLL-wrapped bale handler is suitable for loading foil-wrapped silage bales. Of course, even highly compressed bales of all standard shapes and sizes that are not wrapped can also be loaded. The bales gripped with tongs must not be transported on public land.

Observe the general safety instructions in chapter  on page 7.



Warning – Risk of accident and injury!

To automatically lock the tool, it may only be raised up to a maximum height of 1.5 m for it to lock securely. An unsecured tool may fall down and cause serious injury to people in the work area of the frontloader

- In any case, check that the tool is securely attached on the removable frame.



Warning – Risk of accident and injury!

- Never carry large bales on public roads and paths. This is forbidden.
- Never carry two or more bales at the same time.

5.2 General information

- Compress the silage bales as tightly as possible to improve their transportability.
- Press the bales, which have secondary fermentation and are very soft, repeatedly together with the tongs before transporting them, as these bales are too prone to collapsing and can slip out of the tongs if the drive is a particularly bumpy one.
- Do not grip very long square bales of silage (over 1.50 m) at the ends, as they tend to sag under their own weight and thereby slip off.
- Make sure that the bale is on the inside of the support frame when gripping and transporting it, because this guarantees the safe handling of the bale.
- Always wrap the bales in the area of the final storage location. The delicate foil wrapped bales can be damaged when they are being transported over a longer distance.
- You can pick up, transport, set down or stack the foil-wrapped bales with bale handler both in the upright and horizontal position.

5.3 Setting to work

Mounting of the frontloader rocker

- Mount the quick-change frame under the hook of the bale handler.
- Then lock this in place by tilting the quick-change frame.

Connect the hydraulics

- Connect the hydraulic hoses for the drive of the bale handler to the terminals of the front loader's 3rd control circuit.



Fig. 9: Wrapped bale tongs

Adjusting the bale gripper to different bale sizes

1. Adjust the gripper to the bale size to be loaded by moving the right hand bracket (Fig. 10, pos. 1) and the cylinder pin (pos 2) to fit the bale size
2. The bracket and the cylinder pin must always be moved at the same time on the long control rod.



Attention!

Rule: at the right of both bracket and cylinder pin there should always be visible the same number of free holes. Any nonobservance of this rule will result in the destruction of the cylinder:

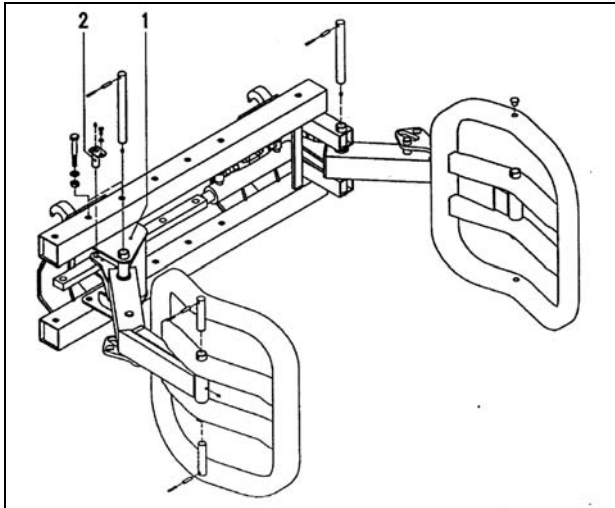


Fig. 10: Adjusting the bale gripper to different bale sizes

Adjusting the hinge on the rear guide element

To adjust the wrapped bale gripper to the different bale sizes, the hinge must be set on the rear guide element. Please refer to the following rear guide images for the corresponding bale shapes and sizes.

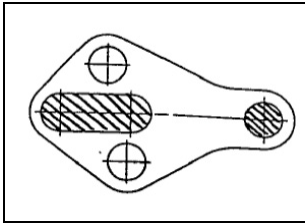


Fig. 11:
Rear guide element:
Round bales less than
1.50 m in diameter

Round bales less than 1.50 m in diameter

- Fit the rear guide element in the slotted hole.

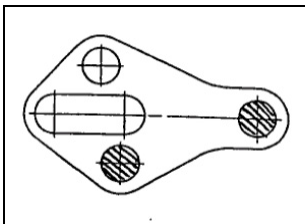


Fig. 12:
Rear guide element:
Round bales equal to or
larger than 1.50 m in
diameter

Round bales equal to or larger than 1.50 m in diameter

- Fit the rear guide element in the round hole.



Note

Corresponds to the default factory setting on delivery.

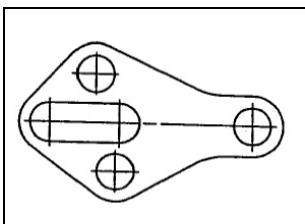


Fig. 13:
Rear guide element:
Square bales

- Adjust the rear guide element to the respective conditions.

6 Maxi bale claw H

6.1 Description

The maxi bale claw is suitable for loading large bales. The gripped bales must not be transported on public land.

 **Observe the general safety instructions on page 7.**



Warning – Risk of accident and injury!

To automatically lock the tool, it may only be raised up to a maximum height of 1.5 m for it to lock securely. An unsecured tool may fall down and cause serious injury to people in the work area of the frontloader

- In any case, check that the tool is securely attached on the removable frame.

6.2 Setting to work

Mounting of the frontloader rocker

- Attach to the quick-change frame under the hooks of the bale claw/bale gripper.
- Then lock this in place by tilting the quick-change frame.

Connect the hydraulics

- Connect the hydraulic hose of the Maxi bale claw H to the connections of the 3rd control circuit.

Use maxi bale claw H

Follow the steps below on how to lift a bale.

1. Lower the front loader beam and, as required, open the claw fully using the 3rd control circuit.
2. Drive towards the large bale until the claw rests against the wrapped side of the bale.

3. Using the 3rd control circuit close the claw until it securely grips the large bale.
4. Raise the bale a little with the beam and transport it in this position.
5. Only lift the beam further to stack the large bale.

Follow the steps below on how to set down a bale.

1. Slowly lower the large bale once you have reached the place it is to be stacked.
2. Using the 3rd control circuit, open the bale claw.
3. Then drive the tractor carefully back out.



Warning – Risk of accident and injury!

Never carry two or more bales at the same time.



Note

The large bales can be turned to the desired position for stacking, whether vertical or horizontal, when they are transported.

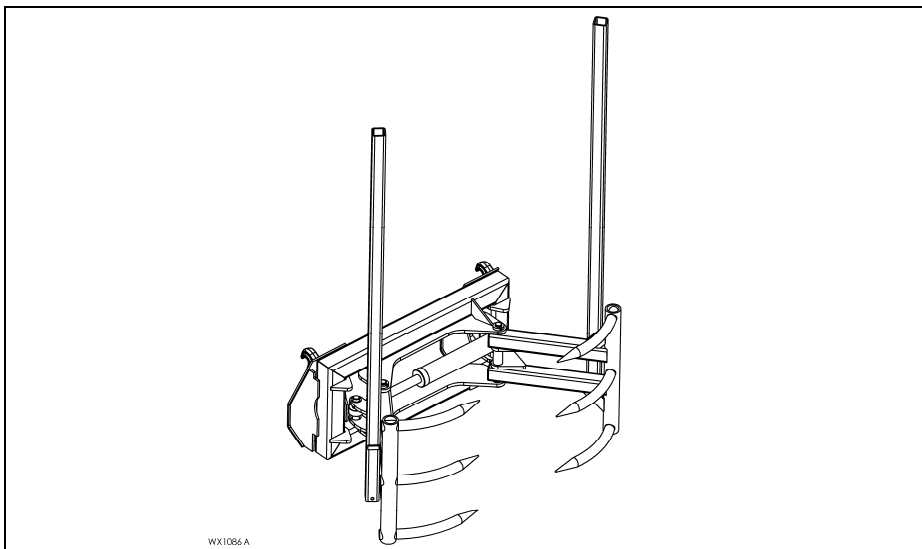


Fig. 14: Maxi bale claw H

7 Bale fork lift H

7.1 Description

The bale fork lift is designed for stacking bales. It is not permitted to transport the bales with the bale fork lift on public property.

 **Observe the general safety instructions on page 7.**



Warning – Risk of accident and injury!

To automatically lock the tool, it may only be raised up to a maximum height of 1.5 m for it to lock securely. An unsecured tool may fall down and cause serious injury to people in the work area of the front loader

- In any case, check that the tool is securely attached on the removable frame.

7.2 Setting to work

Mounting of the frontloader rocker

- Mount the quick-change frame under the hook of the bale fork lift.
- Then lock this in place by tilting the quick-change frame.

Connect the hydraulics

- Connect the hydraulic hoses of the bale fork lift to the terminals of the 3rd control circuit using the screw couplings.

Use bale fork lift H

Follow the steps below on how to lift a bale.

1. Lower the front loader beam and adjust the tines so that they are approximately parallel to the ground.

2. Drive the tractor slowly forwards and grip underneath the large bale with the tines of the stacking fork on the bale stacker until the bale rests against the rear wall of the bale stacker.
3. Next, lift the bale stacker to its uppermost position using the 3rd control circuit.
4. Then raise the front loader beam to the required level.

Follow the steps below on how to set down a bale.

1. Slowly lower the large bale once you have reached the place it is to be stacked.
2. Then drive the tractor carefully back out.



Warning – Risk of accident and injury!

Never carry two or more bales at the same time.



Note

- If the bales are to be transported lift the large bales slightly, only increase the necessary lifting height for the stacking process.
- The large bales can be turned to the desired position for stacking, whether vertical or horizontal, when they are transported.

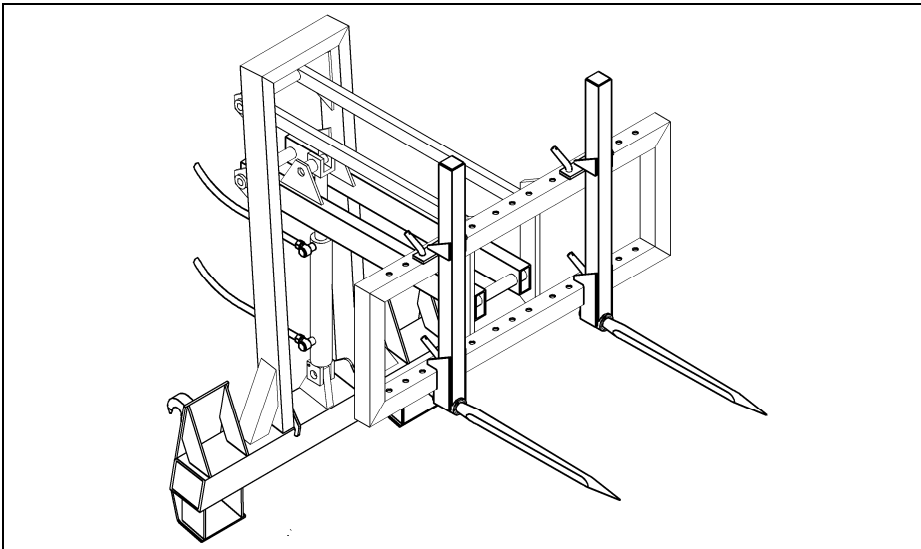


Fig. 15: Bale fork lift H

8 Wrapped bale handler Pro H

8.1 Description

The wrapped bale handler PRO H is designed for loading square bales. It is not permitted to transport the bales with the warped bale handler on public property.

 **Observe the general safety instructions on page 7.**



Warning – Risk of accident and injury!

To automatically lock the tool, it may only be raised up to a maximum height of 1.5 m for it to lock securely. An unsecured tool may fall down and cause serious injury to people in the work area of the frontloader

- In any case, check that the tool is securely attached on the removable frame.

8.2 Setting to work

Mounting of the frontloader rocker

- Mount the quick-change frame under the hook of the bale handler.
- Then lock this in place by tilting the quick-change frame.

Connect the hydraulics

- Connect the hydraulic hoses of the wrapped bale handler to the terminals of the 3rd control circuit using the screw couplings.

Use the wrapped bale handler PRO H

Follow the steps below on how to lift a bale.

1. Lower the front loader beam as required and open the wrapped bale handler fully using the 3rd control circuit.
2. Drive towards the square bale until the bale claw can hold both sides of the square bale somewhere in the middle.



Note

Grip/hold the square bales, as much as possible, only on the ends that have been wrapped crosswise.

3. Close the bale claw using the 3rd control circuit until the square bale is in a secure hold
4. Lift the square bale slightly with the beam and transport it in this position.
5. Only lift the beam further to stack the square bale.

Follow the steps below on how to set down a bale.

4. Slowly set the square bale down at the desired point.
5. Open the bale claw using the 3rd control circuit
6. Then drive the tractor carefully back out.



Warning – Risk of accident and injury!

Never carry large bales on public roads and paths. This is forbidden.

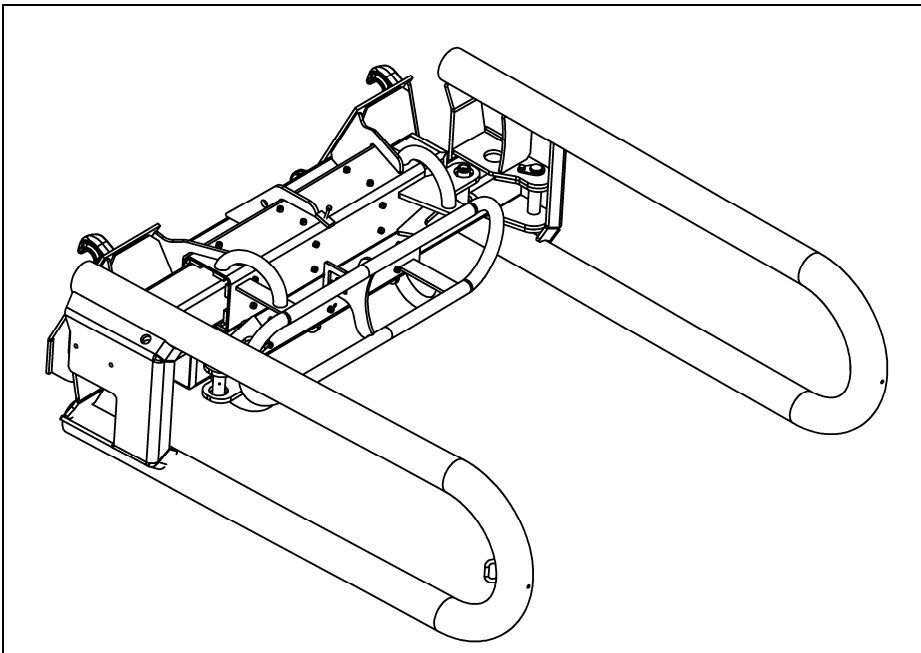


Fig. 16: Wrapped bale tongs PRO H

9 Roll-type bale fork

9.1 Description

The roll-type bale fork from STOLL is composed of a frame with connectors for the quick-change frame and two roll-type forks operated by a double acting hydraulic cylinder.

For controlling the double acting hydrocylinder of the movable roll-type bale fork part the 3rd control circuit or a double acting additional control unit must be installed.

 **Observe the general safety instructions on page 7.**



Warning – Risk of accident and injury!

To automatically lock the tool, it may only be raised up to a maximum height of 1.5 m for it to lock securely. An unsecured tool may fall down and cause serious injury to people in the work area of the frontloader

- In any case, check that the tool is securely attached on the removable frame.



TIP

In combination with the hydraulic tool control system the bales can easily be lifted, transported and deposited onto the ground.

9.2 Setting to work

Mounting of the frontloader rocker

- Mount the quick-change frame under the hook of the roll-type bale fork.
- Then lock this in place by tilting the quick-change frame.

Connect the hydraulics

- Connect the hydraulic hoses to the third control circuit using the couplers.

Use roll-type bale fork

Follow the steps below on how to lift a bale.

1. With the roll-type bale fork in a horizontal position, unfold both roll-type forks.
2. Lower the roll-type bale fork until it is close to the ground. Adjust the roll-type forks so that they are roughly parallel to the ground.
3. Drive towards the bale until the latter rests against the frame of the roll-type bale fork.
4. Operate the double acting hydraulic cylinder to press both roll-type forks against the bale.
5. With the frontloader, slightly raise the roll-type bale fork with the gripped bale.

Follow the steps below on how to set down a bale.

1. Lower the frontloader beam until the bale rests on the ground or on the stack.
2. Open the forks using the double acting hydraulic cylinder.
3. Drive back out slowly.

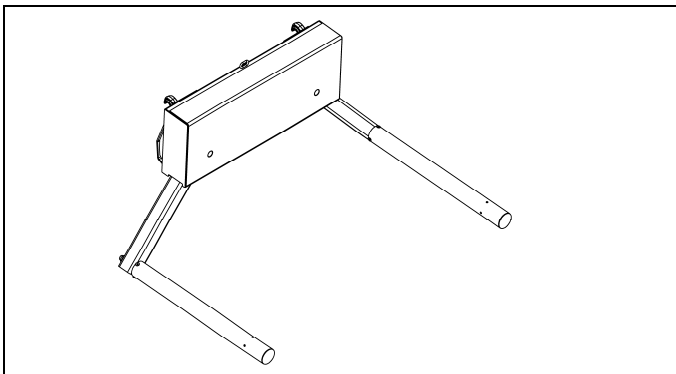


Fig. 17: Roll-type bale fork

10 Grip fork FC

10.1 Description

The STOLL grip fork FC consists of a fork, hydraulic connections for the quick-fit frame and a double-acting hydraulic cylinder which operates the upper grip of the implement.

For the operation of the double-acting hydraulic cylinder of the tines of the upper grip, the tractor – respectively the loader – needs to be equipped with a 3rd oil circuit or a double-acting additional control valve.

The STOLL grip fork FC is used for loading and saving of timber, bushes and other materials for the landscape care. Even loading of logs with a maximum length of 3 metres is possible.

 **Observe the general safety instructions on page 7.**



Warning – Risk of accident and injury!

To automatically lock the tool, it may only be raised up to a maximum height of 1.5 m for it to lock securely. An unsecured tool may fall down and cause serious injury to people in the work area of the front loader

- In any case, check that the tool is securely attached on the removable frame.



Attention!

Attention! The gripping fork is not suitable for lifting pieces of firewood. The wood may get caught between the tines and bend them.



Note

With the long tines of the top grab, you can easily pick up and carry a large volume and then unload in set amounts, e.g. bulky bushes.

10.2 Before the first operating

The STOLL grip fork FC is fully assembled before it leaves the factory. You only need to connect the two hydraulic connections of the cylinder which are closed with plastic caps; these supply lines are included in a separate bag.

Mount the supply lines

- Remove the two plastic caps on the hydraulic cylinder and turn the screw socket firmly into place.
- Then screw on the two hydraulic hoses as shown in the figure 18 with the mounting boss and attach the coupling sleeves onto them at the other end.
- Fit the coupling sleeve, which supplies the lower side of the cylinder, with the red cap and the other side with the black cap.
- Finally, bundle the individual hoses together with the aid of cable ties.

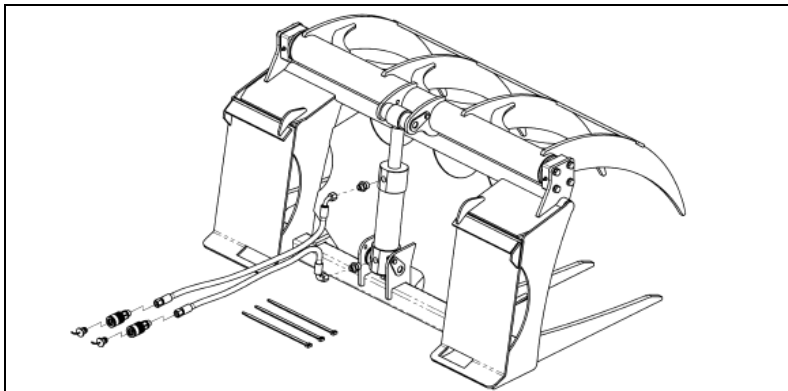


Fig. 18: Grip fork FC: Preparations before the first start-up

10.3 Setting to work

Mounting of the frontloader rocker

- Attach under the plates of the tool with the quick-change frame.
- Tilt the quick-change frame slightly and then lift the latch hook of the quick-change frame into the holes on the tool.



Attention!

The tines of the upper gripper may not be bent in order to ensure proper work. Replace or align immediately tines which might be bent.

Connect the hydraulics

- Connect the hydraulic hoses to the third control circuit using the couplers.

Use grip fork FC

1. Place the STOLL grip fork FC in the horizontal position.
2. Fully open the top grab.
3. Insert the STOLL grip fork FC with opened top grab into the material to be lifted.
4. With the tractor engine at medium speed lower the top grab until it reaches the bottom final position.



Attention!

The tines of the top grab can go lower than the bottom of the fork tines. As a result this may damage the surface or penetrate it.

- Lift or tilt the tool slightly if nec., before fully closing the top grab

5. After lifting the loading goods with the front loader, the tines of the top grab need to be closed or pressed together again to ensure that loose material is securely gripped before transport. Drive carefully!

Turn off the implements

When the hydraulic cylinder is fully open (closed top grab), the tines are approx. 10cm deeper than the fork. Only in this position, may the loader be mounted or set down, otherwise there is the risk of unwanted tipping.

- The top grab has to be positioned so that the peak of the tines is at the same height as the bottom of the fork when setting down the tool.

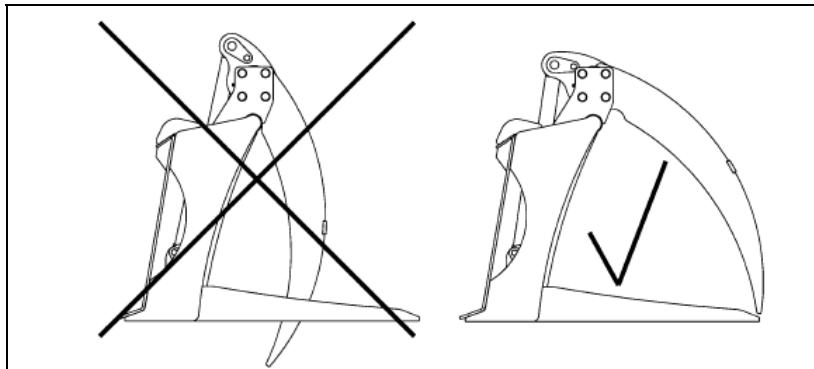


Fig. 19: Tool is incorrectly set down (left) and correctly set down (right).

11 Top loading grip

11.1 Description

The STOLL upper grip FC serves as an option for a STOLL pallet fork (STOLL-order-no. 3486070) and it consists of a frame which is bolted to the STOLL-pallet fork and a double acting hydraulic cylinder to operate the upper grip.

For the operation of the double-acting hydraulic cylinder of the top loading grip, the tractor – respectively the loader – needs to be equipped with a 3rd oil circuit or a double-acting additional control valve.

The STOLL top loading grip FC is used for recovery and loading of logs up to a total length of maximum 3 metres. You may also use it for bushwood and pruning as well as bulky goods can be clamped with the fork tine.

 **Observe the general safety instructions on page 7.**



Warning – Risk of accident and injury!

To automatically lock the tool, it may only be raised up to a maximum height of 1.5 m for it to lock securely. An unsecured tool may fall down and cause serious injury to people in the work area of the front loader

- In any case, check that the tool is securely attached on the removable frame.



Attention!

You may not use the STOLL-upper grip FC for the transport of pallets as those would hinder the operation of the fork tines.



Note

With the long tines of the top loading grip FC, you can easily pick up and carry a large volume and then unload in set amounts.

11.2 Before the first operating

The STOLL top loading grip FC is readily mounted factory-side. Only the two hydraulic connections of the cylinder are sealed with plastic caps and the supply lines are enclosed in a bag.

Mount the supply lines

- Remove the two plastic caps on the hydraulic cylinder and turn the screw socket firmly into place.
- Then screw on the two hydraulic hoses as shown in the figure 20 with the mounting boss and attach the coupling sleeves onto them at the other end.
- Fit the coupling sleeve, which supplies the lower side of the cylinder, with the red cap and the other side with the black cap.
- Finally, bundle the individual hoses together with the aid of cable ties.

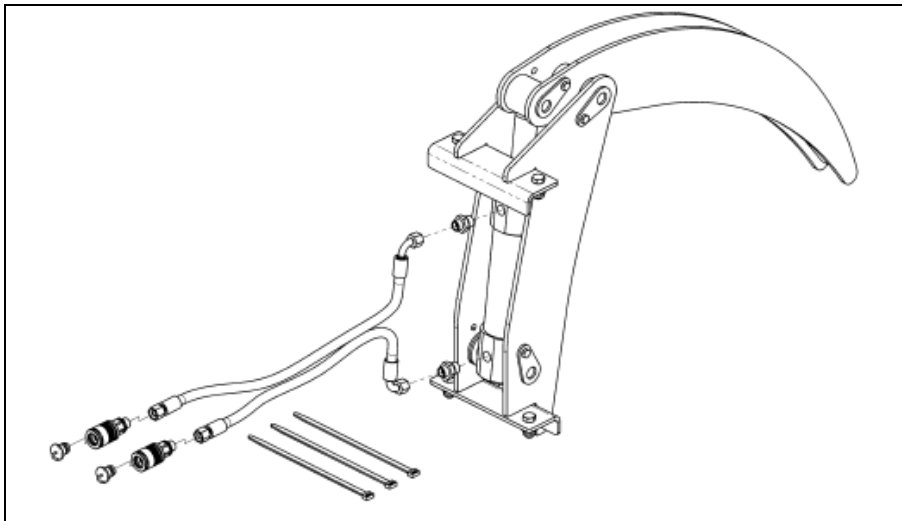


Fig. 20: STOLL-Top loading grip: Preparations before the first start-up

11.3 Setting to work

Mounting on the pallet fork frame

- Insert the STOLL top loading grip FC on the pallet fork frame from the top. Make sure that the STOLL top loading grip FC is exactly centered on the pallet fork frame so that the screw holes marry up.
- Screw the STOLL top loading grip FC onto the pallet fork frame with four M12x30 screws and four washers and self-locking nuts with a tightening torque of 80 Nm.
Only then may it be used.
- To dismantle follow the steps in reverse order.

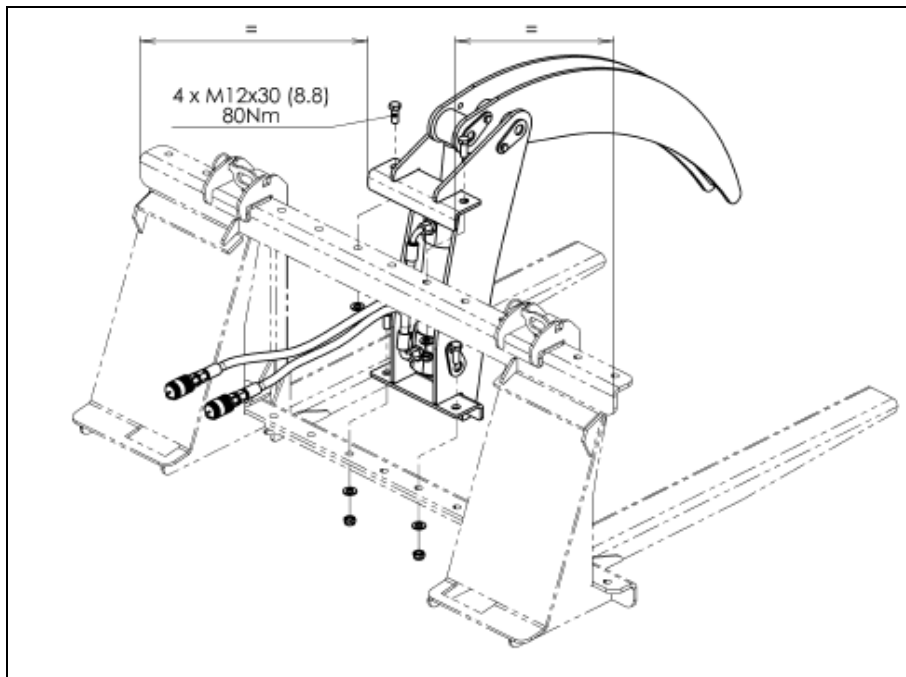


Fig. 21: STOLL-Top loading grip FC: Mounting on the pallet fork frame

Mounting of the frontloader rocker

- Attach under the plates of the tool with the quick-change frame.
- Tilt the quick-change frame slightly and then lift the latch hook of the quick-change frame into the holes on the tool.



Attention!

The tines of the upper gripper may not be bent in order to ensure proper work. Replace or align immediately tines which might be bent.

Connect the hydraulics

- Connect the hydraulic hoses to the third control circuit using the couplers.

Use STOLL-Top loading grip FC

1. Bring the pallet fork in horizontal position.
2. Open the top grab completely.
3. Pierce the opened tines of the STOLL top loading grip FC into the material to be lifted.
4. With the tractor engine at medium speed lower the top grab until it reaches the bottom final position.



Attention!

The tines of the top grab can go lower than the bottom of the fork tines. As a result this may damage the surface or penetrate it.

- Lift or tilt the tool slightly if nec., before fully closing the top grab
-

5. After lifting the loading goods with the front loader, the tines of the top grab need to be closed or pressed together again to ensure that loose material is securely gripped before transport. Drive carefully!

Turn off the implements

When the hydraulic cylinder is fully deployed (closed STOLL-upper grip), the tines of the upper grip are approximately 10 cm lower than the fork tines. In this position,

the implement may not be separated/parked from the loader since it could overturn unintentionally.

- The top grab has to be positioned so that the peak of the tines is at the same height as the bottom of the fork when setting down the tool.

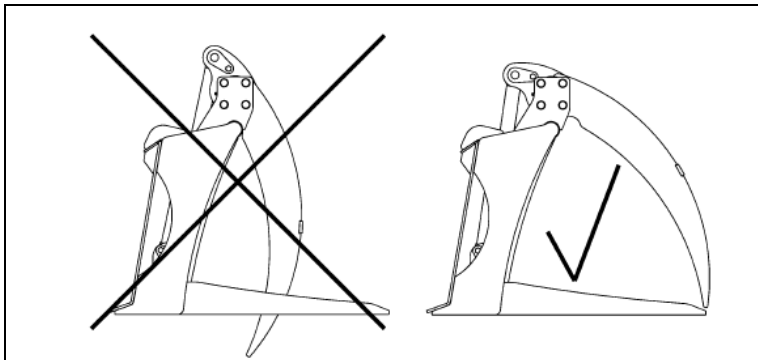


Fig. 22: Tool is incorrectly set down (left) and correctly set down (right).

12 Bucket with grab

12.1 Description

The STOLL- bucket with grab consists of a bucket, connections for quick attach euro hooks and one grab part which is movable by double acting hydrocylinders. For controlling the double acting hydrocylinder of the movable grab part the 3rd control circuit or a double acting additional control unit must be installed.

⚠ Observe the general safety instructions on page 7.



Warning – Risk of accident and injury!

To automatically lock the tool, it may only be raised up to a maximum height of 1.5 m for it to lock securely. An unsecured tool may fall down and cause serious injury to people in the work area of the front loader

- In any case, check that the tool is securely attached on the removable frame.



Attention!

Only use the bucket with grab in conjunction with double-acting hydraulic cylinders of the front loader beam.

**Note**

During the closing process with the HDP front loader beam turn off the parallel guide. With HDP beams that were built from 1995 onwards, the parallel guide is automatically shutdown with the actuation of the 3rd control circuit.

12.2 Setting to work

Mounting of the frontloader rocker

- Mount the quick-change frame under the hook of the bucket with grab.
- Then lock this in place by tilting the quick-change frame.

Connect the hydraulics

- Connect the hydraulic hoses to the third control circuit using the couplers.



Attention!

The tines of the upper gripper may not be bent in order to ensure proper work. Replace or align immediately tines which might be bent.

Use bucket with grab

1. Place the bucket with grab in a horizontal position and fully open the top grab.
2. With the top grab opened, insert the bucket with grab into the stack with a slight swing.
3. Tilt the bucket with grab slightly.
4. With the tractor engine at medium speed lower the top grab until it reaches the bottom final position.
5. Tilt the bucket with grab slightly.
6. Drive back out whilst lifting the loaded material up slightly with the front loader.

13 Combined levelling and grabbing bucket

13.1 Description

The STOLL- combined levelling and bucket with grab consists of a back wall with grade edge, connections for quick attach euro hooks and one bucket part which is movable by double acting hydrocylinders.

To actuate the doubleacting hydraulic cylinder, the 3rd control circuit or a double acting additional control unit must be installed on the tractor.

 **Observe the general safety instructions on page 7.**



Warning – Risk of accident and injury!

To automatically lock the tool, it may only be raised up to a maximum height of 1.5 m for it to lock securely. An unsecured tool may fall down and cause serious injury to people in the work area of the front loader

- In any case, check that the tool is securely attached on the removable frame.



Attention!

Only use the levelling and grabbing bucket in conjunction with double-acting hydraulic cylinders on the front loader beam.



Note

The material can easily be lifted, transported and deposited onto the ground with the hydraulic tool operation.

13.2 Setting to work

Mounting of the frontloader rocker

- Mount the quick-change frame under the hook of the levelling and grabbing bucket.
- Then lock this in place by tilting the quick-change frame.

Connect the hydraulics

- Connect the hydraulic hoses to the third control circuit using the couplers.

Possibilities of use with the combined levelling and bucket with grab

You can use the combined levelling and bucket with grab as:

- Earth bucket with hydraulic actuation, with down-tilted movable bucket part.
- Grader shield, with movable bucket part swivelled up.
- Bucket with grab, with movable bucket part swivelled upwards. To grab a pile, swing the movable bucket part down.
- Measured unloading of loose bulk material. To do this, rotate the movable bucket part slowly in the opening direction until the opening gap has reached the required size.



Fig. 23: Combined levelling and grabbing bucket

14 Bucket with grapple, Fork with grapple

14.1 Description

The bucket with grapple and the fork with grapple respectively consist of a bucket or fork, connections for the quick-change frame and top grab driven by a double-acting hydraulic cylinder.

For controlling the double acting hydrocylinder of the movable grab part the 3rd control circuit or a double acting additional control unit must be installed.

⚠ Observe the general safety instructions on page 7.



Warning – Risk of accident and injury!

To automatically lock the tool, it may only be raised up to a maximum height of 1.5 m for it to lock securely. An unsecured tool may fall down and cause serious injury to people in the work area of the frontloader

- In any case, check that the tool is securely attached on the removable frame.
-

**Attention!**

Only use the bucket with grapple/fork with grapple in conjunction with double-acting hydraulic cylinders on the front loader beam.

**Note**

During the closing process with the HDP front loader beam turn off the parallel guide. With HDP beams that were built from 1995 onwards, the parallel guide is automatically shutdown with the actuation of the 3rd control circuit.

14.2 Setting to work

Mounting of the frontloader rocker

- Mount the quick-change frame under the hook of the bucket with grapple or fork with grapple.
- Then lock this in place by tilting the quick-change frame.

Connect the hydraulics

- Connect the hydraulic hoses to the third control circuit using the couplers.



Attention!

The tines of the upper gripper may not be bent in order to ensure proper work. Replace or align immediately tines which might be bent.

Use bucket with grapple, or fork with grapple

1. Place the bucket or fork with grapple in a horizontal position and fully open the top grab.

2. With the top grab opened, insert the bucket or fork with grapple into the stack with a slight swing.
3. Tilt the bucket or fork with grapple slightly.
4. With the tractor engine at medium speed lower the top grab until it reaches the bottom final position.

**Note**

During the closing process with the HDP front loader beam turn off the parallel guide. With HDP beams that were built from 1995 onwards, the parallel guide is automatically shutdown with the actuation of the 3rd control circuit.

5. Tilt the bucket or fork with grapple slightly.
6. Drive back out whilst lifting the loaded material up slightly with the front loader.



Fig. 24: Bucket with grapple (left) and fork with grapple (right)

15 Maintenance

15.1 Safety instructions



Fig. 25:

Protective equipment



Warning – Risk of accident and injury!

The use of inappropriate parts can lead to accidents and injuries.

- Only use original spare parts that are approved by the manufacturer for your type of tool.



Warning – Risk of accident and injury!

The following points must be observed in any case before the start of the maintenance work:

- Put on suitable protective equipment (protective clothing, gloves, safety glasses, safety shoes).
- Always lower the front loader to the ground for maintenance and repairs.
- Leave the front loader coupled to the tractor when it is being serviced.
- Depressurise the hydraulics and its connections.
- Allow the engine to cool to below 55°C.
- Make sure the lighting is good.

15.2 Screw connections



Warning – Risk of accident and injury!

Screw connections must be tight at all times, otherwise components may loosen and endanger people in and on the tractor.

- Tighten all screws after 5 operating hours.
- Check that the screw connections are tight every 100 operating hours.
- Tighten loose screw connections immediately.

Tightening torque for screws					
Strength class 8.8 and 10.9 – Average friction coefficient μ 0.12					
Screws	Tightening torque (Nm)		Screws	Tightening torque (Nm)	
	8.8	10.9		8.8	10.9
M 8	23	33	M 20	380	530
M 8x1	25	35	M 20x2	400	560
M 10	46	65	M 20x1,5	420	590
M 10x1,25	49	69	M 22	510	720
M 12	80	110	M 22x2	540	750
M 12x1.5	84	118	M 22x1.5	560	790
M 12x1.25	88	123	M 24	630	890
M 14	130	180	M 24x2	680	950
M 14x1.5	138	190	M 27	930	1310
M 16	190	270	M 27x2	995	1400
M 16x1.5	210	290	M 30	1260	1770
M 18	270	380	M 30x2	1370	1930
M 18x2	280	400			
M 18x1,5	300	420	5/8" UNC (normal)	175	245
			5/8" UNF (fine)	200	280
			3/4" UNC (normal)	380	530
			3/4" UNF (fine)	420	590

15.3 Hydraulic system

Observe the safety instructions in chapter 3.2 on page 8.

The instructions and regulations of tractor hydraulics apply to the maintenance and care of the hydraulic system.

- Lubricate the bearings after every 20 hours of operation with a multi-purpose grease (type K2K DIN 51502 or equivalent).
- Only use original spare parts!

A load weight in the three-point linkage is also recommended for front loader work with four-wheel drive.

Applies for grapple bucket, grab bucket and bucket with grapple,/fork with grapple

Lubrication points:

Swivel bearing of the movable top grab: 2

Hydraulic cylinder bearings: 4

The fork tines must always be firmly seated in their mounting.

Applies for silage cutter:

Lubrication points:

Swivel bearing of the movable top grab: 2 resp. 3

Hydraulic cylinder bearings: 4 resp. 6

The fork tines must always be firmly seated in their mounting.

Applies for combined levelling and grabbing bucket:

Lubrication points:

Swivel bearing of the movable bucket part: 2

Hydraulic cylinder bearings: 4

The fork tines must always be firmly seated in their mounting.

Applies for grip fork FC:

Lubrication points: Swivel bearing of the movable top grab: 2
Hydraulic cylinder bearings: 2

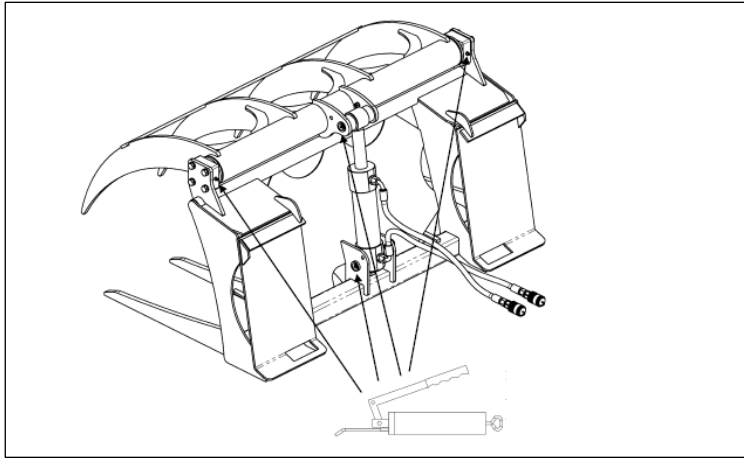


Fig. 26: Grip fork FC: Lubrication points

Applies for top loading grip FC:

Lubrication points: Swivel bearing of the top loading grip FC: 1
Hydraulic cylinder bearings: 2

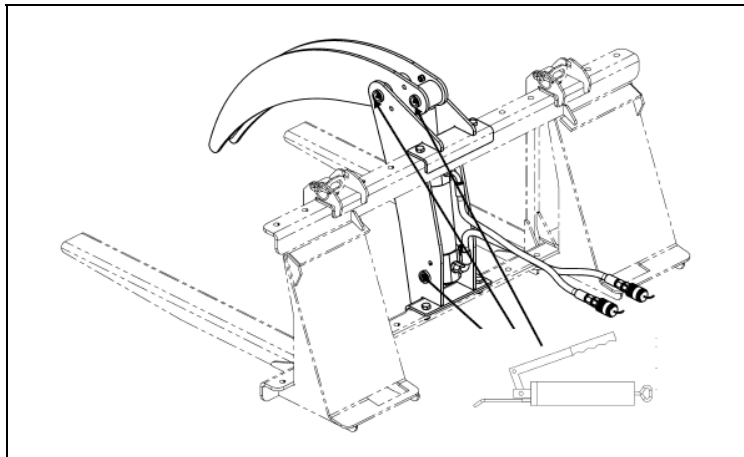


Fig. 27: Top loading grip FC: Lubrication points

16 Declaration of Conformity

STOLL

CE

DE	EG-Konformitätserklärung entsprechend der EG-Richtlinie 98/37/EEC, 04/108/EEC, 97/23/EEC	ES	CEE Declaración de Conformidad según la normativa de la 98/37/EEC, 04/108/EEC, 97/23/EEC
EN	EC-Declaration of Conformity according to Directive 98/37/EEC, 04/108/EEC, 97/23/EEC	PT	Declaração de conformidade conforme a norma da C.E.E. 98/37/EEC, 04/108/EEC, 97/23/EEC
IT	Dichiarazione CE di Conformità ai sensi della direttiva 98/37/EEC, 04/108/EEC, 97/23/EEC	DK	EF-overensstemmelseserklæring i henhold til EF-direktiv 98/37/EEC, 04/108/EEC, 97/23/EEC
NL	EG-Verklaring van conformiteit overeenstemming met Richtlijn nr. 98/37/EEC, 04/108/EEC, 97/23/EEC	PL	Deklaracja Zgodności CE według Dyrektywy Maszynowej 98/37/EEC, 04/108/EEC, 97/23/EEC
FR	Déclaration de conformité pour la CEE conforme à la directive de la 98/37/EEC, 04/108/EEC, 97/23/EEC	FI	EY : N Vaatimustenmukaisuusilmoitus täytää EY direktiivin 98/37/EEC, 04/108/EEC, 97/23/EEC

DE EN IT NL FR ES PT DK PL FI	Wir, We, Noi, Wij, Nous, Vi, Me, Vi, Nosotros, Nós,	<p>Wilhelm Stoll Maschinenfabrik GmbH Bahnhofstr. 21 38268 Lengede Germany</p>
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DE	erklären in alleiniger Verantwortung, daß das Produkt:	ES	declaramos bajo responsabilidad propia que el producto:
EN	declare under our sole responsibility, that the product:	PT	declaramos com responsabilidade própria que o produto:
IT	Dichiaro sotto la propria responsabilità che il prodotto:	DK	erklærer på eget ansvar, at produktet:
NL	verklaren als enig verantwoordelijken, dat het product:	PL	deklarujemy z pełną odpowiedzialnością, iż produkt:
FR	déclarons sous notre seule responsabilité que le produit:	FI	ilmoitamme yksin vastasavamme, että tuote:

DE	Typ :	STFH	Peltengabel H mit hydr. Obergreifer	TIGR	Rückezange
EN	model :	BALI	Ballenhubstapler	BABU	Löffelschaufel
IT	modello :	BACL	Follienballenzange	BRGR	Greifgabel
NL	type :	MBTO	Maxi-Ballenkralle	UGPF	Obergreifer
FR	modèle :	RBHA	Rollen-Ballengabel		
ES	modelo :	SBWC	Greifschaukel		
PT	marca :	BWGR	Schaukelzange		
DK	typ :	FWGR	Gabelzange		
PL	Model :	SCGR	Silageschneldzange		
FI	merkki :	SIGR	Silagezange		

DE	Nnummer :	STFH	3390260	TIGR	3556810
EN	number :	BALI	1339660	BABU	3557480
IT	numero :	BACL	3395020;02364610	BRGR	3508220
NL	nummer :	MBTO	2449950	UGPF	3520780; 3548990
FR	numéro :	RBHA	3327710		
ES	número :	SBWC	3307220; 2480440; 2479490; 3324050		
PT	número :	BWGR	3322000; 3321930; 3322150; 3322310		
DK	nummer :	FWGR	3327950; 3327960; 3327970; 3327980		
PL	o numerze :	SCGR	3334760; 2449320; 3306680		
FI	numero :	SIGR	1388850; 1314000		

DE	auf das sich diese Erklärung bezieht, den einschlägigen grundlegenden Sicherheits- und Gesundheitsanforderungen der EG-Richtlinie entspricht: EN 12525:2000+EN 12525/A1:2006, EN 12100-1:2003, EN 12100-2:2003, EN 982:1996, ISO 23206:2005	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: EN 12525:2000+EN 12525/A1:2006, EN 12100-1:2003, EN 12100-2:2003, EN 982:1996, ISO 23206:2005
EN	to which this declaration relates corresponds to the relevant basic safety and health requirements of the Directive: EN 12525:2000+EN 12525/A1:2006, EN 12100-1:2003, EN 12100-2:2003, EN 982:1996, ISO 23206:2005	PT	a que se refere esta declaração corresponde às exigências fundamentais relativas à segurança e à saúde de norma da C.E.E. EN 12525:2000+EN 12525/A1:2006, EN 12100-1:2003, EN 12100-2:2003, EN 982:1996, ISO 23206:2005
IT	E' Conforme ai Requisiti Essenziali di Sicurezza a di tutela della Salute di cui alla Direttiva e sue successive modificazioni: EN 12525:2000+EN 12525/A1:2006, EN 12100-1:2003, EN 12100-2:2003, EN 982:1996, ISO 23206:2005	DK	som er omfattet af denne erklæring, overholder de relevante grundlæggende sikkerheds- og sundhedskrav i EF-direktiv samt: EN 12525:2000+EN 12525/A1:2006, EN 12100-1:2003, EN 12100-2:2003, EN 982:1996, ISO 23206:2005
NL	waarop deze verklaring betrekking heeft voldoet aan de van toepassing zijnde fundamentele eisen inzake veiligheid en gezondheid van de EG-machinesrichtlijn nr. EN 12525:2000+EN 12525/A1:2006, EN 12100-1:2003, EN 12100-2:2003, EN 982:1996, ISO 23206:2005	PL	dia którego się ta deklaracja odnosi, odpowiada właściwym podstawowym wymogom bezpieczeństwa i ochrony zdrowia Dyrektywy Maszynowej EN 12525:2000+EN 12525/A1:2006, EN 12100-1:2003, EN 12100-2:2003, EN 982:1996, ISO 23206:2005
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: EN 12525:2000+EN 12525/A1:2006, EN 12100-1:2003, EN 12100-2:2003, EN 982:1996, ISO 23206:2005	FI	johon tämä ilmoitus liittyy, vastaa EY direktiivissä mainittuja perusturvallisuus- ja terveysvaatimuksia (soveltuvin osin) sekä muita siihen kuuluvia EY direktiivissä: EN 12525:2000+EN 12525/A1:2006, EN 12100-1:2003, EN 12100-2:2003, EN 982:1996, ISO 23206:2005

i.v. K. Kraft

Lengede, 18.03.2013 i. V. Karsten Kraft
Innovations- und Entwicklungsleiter
(General Manager Innovation and Development)

CE

CE_FL_WZ_2013DE-1

Klaus Schlag

Lengede, 18.03.2013 i. V. Klaus Schlag
Produktionsleitung (Production Management)

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