



STOLL

Operating instructions

Front loader **implements**

for the ProfiLine and Solid model series



Side shift carriage

Top-loading grip

Timber tongs with top-loading grip

Bucket with grab

Bucket with grab UNI

Disposal bucket

Silage cutters

Bucket with grapple

Multifunction bucket HD

Fork with grapple

Round bale cutter

Wrapped bale handler H

Wrapped bale handler Pro H

Wrapped bale handler

Bale stacker H

Maxi bale claw

Rotating bale handler

Status: 12/2022

Company details**Wilhelm STOLL Maschinenfabrik GmbH**

PO box 1181, 38266 Lengede

Bahnhofstr. 21, 38268 Lengede

Phone: +49 (0) 53 44/20 -222

Fax: +49 (0) 53 44/20 -182

E-mail: info@stoll-germany.com

Web: www.stoll-germany.com

Spare Parts Order

Phone: +49 (0) 53 44/20 -144 and -266

Administration

Phone: +49 (0) 53 44/20 -145 and -146

Fax: +49 (0) 53 44/20 -183

E-mail: parts@stoll-germany.com

Copyright

© Wilhelm STOLL Maschinenfabrik GmbH

Reproduction of these instructions, both completely and in excerpts, is only allowed with approval from Wilhelm STOLL Maschinenfabrik GmbH. Any infringement shall entail full compensation of damages and can be punishable by law.

The original instructions were written in the German language.

Instructions in other languages were translated from German.

Contents

1	About these operating instructions	6
1.1	Documentation overview	6
1.2	Use and purpose of the operating instructions	7
1.3	Rating plate	7
1.4	Validity of the operating instructions	7
1.5	Storage of the documents	7
1.6	Other applicable documents	8
1.7	Design tools	8
1.8	Nomenclature of the footer	9
2	Safety	9
2.1	Explanation of safety and warning notices	9
2.2	Representation and layout of warning notices	9
2.3	Danger grading of warning notices	9
2.4	EC Conformity	10
2.5	Proper use	10
2.6	Foreseeable misuse	12
2.7	Operational limits	12
2.8	Basic safety information	12
2.9	Danger zones	18
2.10	Safety equipment	18
2.11	Safety stickers	19
2.11.1	Silage cutters	19
2.11.2	Round bale cutter	20
2.11.3	Wrapped bale handler	20
2.12	Personnel requirements	21
2.13	Behaviour in case of emergency	21
2.13.1	Behaviour if the tractor tips or falls over	21
2.13.2	Behaviour in case of flashovers from electrical power lines	22
3	Implements	22
3.1	Side shift carriage	22
3.1.1	Structure and description	22
3.1.2	Start-up	23
3.1.2.1	Initial operation	23
3.1.2.2	Check before each start-up	25
3.1.2.3	Mounting the implement	25
3.1.3	Operation	25
3.1.4	Putting down the implement	26
3.2	Top loading grip	27
3.2.1	Structure and description	27
3.2.2	Start-up	27
3.2.2.1	Initial operation	27
3.2.2.2	Check before each start-up	28
3.2.2.3	Mounting the implement	29
3.2.3	Operation	29
3.2.4	Putting down the implement	30
3.3	Timber tongs with top loading grip	30
3.3.1	Structure and description	30

3.3.2	Start-up	31
3.3.2.1	Initial operation	31
3.3.2.2	Check before each start-up	31
3.3.2.3	Mounting the implement	31
3.3.3	Operation	31
3.3.4	Putting down the implement	32
3.4	Bucket with grab	32
3.4.1	Structure and description	32
3.4.2	Start-up	33
3.4.2.1	Initial operation	33
3.4.2.2	Check before each start-up	34
3.4.2.3	Mounting the implement	35
3.4.3	Operation	35
3.4.4	Putting down the implement	35
3.5	Bucket with grab UNI (Maxi Grapple Fork)	36
3.5.1	Structure and description	36
3.5.2	Start-up	37
3.5.2.1	Initial operation	37
3.5.2.2	Check before each start-up	37
3.5.2.3	Mounting the implement	37
3.5.3	Operation	38
3.5.4	Putting down the implement	38
3.6	Disposal bucket	39
3.6.1	Structure and description	39
3.6.2	Start-up	40
3.6.2.1	Initial operation	40
3.6.2.2	Check before each start-up	41
3.6.2.3	Mounting the implement	41
3.6.3	Operation	42
3.6.4	Putting down the implement	42
3.7	Silage cutters	43
3.7.1	Structure and description	43
3.7.2	Start-up	43
3.7.2.1	Initial operation	43
3.7.2.2	Check before each start-up	44
3.7.2.3	Mounting the implement	44
3.7.3	Operation	45
3.7.4	Putting down the implement	45
3.8	Bucket with grapple, multifunction bucket HD and fork with grapple	46
3.8.1	Structure and description	46
3.8.2	Start-up	47
3.8.2.1	Initial operation	47
3.8.2.2	Check before each start-up	49
3.8.2.3	Mounting the implement	49
3.8.3	Operation	49
3.8.4	Putting down the implement	50
3.9	Round bale cutter	50
3.9.1	Structure and description	50
3.9.2	Start-up	51
3.9.2.1	Initial operation	51
3.9.2.2	Check before each start-up	51

3.9.2.3	Mounting the implement	51
3.9.3	Operation	52
3.9.4	Putting down the implement	54
3.10	Wrapped bale handler H	54
3.10.1	Structure and description	54
3.10.2	Start-up	55
3.10.2.1	Initial operation	55
3.10.2.2	Check before each start-up	55
3.10.2.3	Mounting the implement	55
3.10.3	Operation	56
3.10.4	Putting down the implement	57
3.11	Wrapped bale handler Pro H	58
3.11.1	Structure and description	58
3.11.2	Start-up	59
3.11.2.1	Initial operation	59
3.11.2.2	Check before each start-up	60
3.11.2.3	Mounting the implement	60
3.11.3	Operation	60
3.11.4	Putting down the implement	60
3.12	Wrapped bale handler	61
3.12.1	Structure and description	61
3.12.2	Start-up	61
3.12.2.1	Initial operation	61
3.12.2.2	Check before each start-up	63
3.12.2.3	Mounting the implement	63
3.12.3	Operation	63
3.12.4	Putting down the implement	64
3.13	Maxi bale claw	64
3.13.1	Structure and description	64
3.13.2	Start-up	64
3.13.2.1	Initial operation	64
3.13.2.2	Check before each start-up	65
3.13.2.3	Mounting the implement	65
3.13.3	Operation	65
3.13.4	Putting down the implement	66
3.14	Rotating bale handler	66
3.14.1	Structure and description	66
3.14.2	Start-up	67
3.14.2.1	Initial operation	67
3.14.2.2	Check before each start-up	67
3.14.2.3	Mounting the implement	67
3.14.3	Operation	68
3.14.4	Putting down the implement	68
3.15	Bale stacker H	69
3.15.1	Structure and description	69
3.15.2	Start-up	70
3.15.2.1	Initial operation	70
3.15.2.2	Check before each start-up	70
3.15.2.3	Mounting the implement	70
3.15.3	Operation	71
3.15.4	Putting down the implement	72

4	Troubleshooting	72
5	Servicing	74
5.1	Cleaning and care	75
5.1.1	Lubrication points	75
5.1.2	Lubrication schedule	79
5.2	Service	79
5.2.1	Service schedule	79
5.2.2	Service instructions for the hydraulic lines	80
5.3	Repairs	80
6	Decommissioning	81
6.1	Temporary decommissioning	81
6.2	Recommissioning	82
6.3	Final decommissioning and disposal	82
7	Spare parts and customer service	83
7.1	Spare parts	83
7.2	Customer service	83
8	Technical specifications	83
8.1	Dimensions and weights	83
8.1.1	Side shift carriage	83
8.1.2	Top loading grip	84
8.1.3	Timber tongs with top loading grip	84
8.1.4	Bucket with grab	84
8.1.5	Bucket with grab UNI (Maxi Grapple Fork)	84
8.1.6	Disposal bucket	84
8.1.7	Silage cutters	84
8.1.8	Bucket with grapple, multifunction bucket HD and fork with grapple	85
8.1.9	Round bale cutter	85
8.1.10	Wrapped bale handler H	85
8.1.11	Wrapped bale handler Pro H	85
8.1.12	Wrapped bale handler	85
8.1.13	Maxi bale claw	86
8.1.14	Rotating bale handler	86
8.1.15	Bale stacker H	86
8.2	Noise emissions	86
8.3	Tightening torques for screws	87
9	Declaration of Conformity	88
	Index	90

1 About these operating instructions

1.1 Documentation overview

There are various instructions and technical documentation for the front loader, mounting kit and accessories. Most documents are available in multiple languages.

If a set of instructions is missing or required in a different language:

- Order the instructions through a dealer.
- Download instructions free of charge from the Internet at www.stoll-germany.com.

Installation instructions for the front loader mounting kit



The installation of the mounting kit as well as the hydraulic and electric equipment may only be performed by an authorised specialised workshop.

The installation instructions describe how to install the front loader mounting kit and the hydraulic and electrical equipment up to the initial start-up of the front loader. They are intended for the specialist workshop.

The installation instructions have been specially compiled for this tractor model. They do not contain any information that is already included in the operating instructions.

The installation instructions contain information on spare parts for the tractor-specific mounting parts and equipment.

Operating instructions of the front loader

These operating instructions describe the safe use of the front loader from the initial operation to its disposal. They are intended for the operator and the user of the front loader.

The operating instructions are compiled specifically for the front loader series, they can therefore only take tractor-specific equipment into account to a limited extent.

Spare parts list

The spare parts list of the front loader lists all the information required for ordering spare parts, the front loader series and their options. Special adaptations for the tractor are not taken into account.

In addition, spare parts lists are available for front loader implements.

Operating instructions for front loader implements

The operating instructions describe the implements available for the specified front loader series.

Other documents

In addition to the above instruction manuals, there may be installation and operating instructions as well as other Technical Information that deal with special additional equipment and extensions, which are not included in the other documentation.



When you pass on the front loader or the tractor with a front loader attached, please also hand over all the relevant documents. The next owner needs the information.

1.2 Use and purpose of the operating instructions

The present operating instructions contain important information on the safe operation and for faultless, proper, and economical operation of front loader implements from Wilhelm STOLL Maschinenfabrik GmbH. It is intended for the operator and user of the front loader implement and should help to prevent risks, damage and downtimes as well as ensure and increase the service life of the implements.

Before start-up of the implement, the operating instructions must be read and understood.

For better readability, Wilhelm STOLL Maschinenfabrik GmbH will be called "STOLL" in the following.

1.3 Rating plate

The implements are identified with a rating plate.

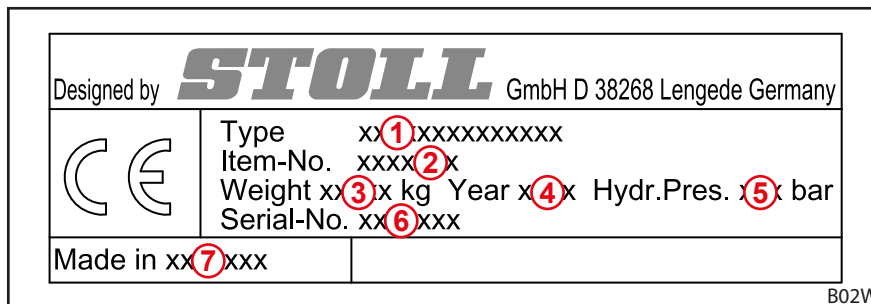


Fig. 1 Rating plate on the implement

Legend

- 1 Type of implement (e.g. round bale cutter)
- 2 Identification number
- 3 Weight
- 4 Year of manufacture
- 5 Permissible hydraulic pressure (not for all implements)
- 6 Serial number
- 7 Country of manufacture (e.g. ROK Republic of Korea)

1.4 Validity of the operating instructions

The operating instructions are valid only for STOLL Global and Profi implements listed under 2.5 *Proper use*, called "implement" in the following. The implement type can be found on the rating plate.

The operating instructions covers all of the components and functions of the model.

1.5 Storage of the documents

The operating instructions are a part of the machine. The entire documentation, consisting of these operating instructions as well as all other additional instructions supplied, must always be kept accessible, safe and dry on or in the vehicle. When lending or selling the front loader, the entire documentation must also be handed over.

1.6 Other applicable documents

In conjunction with these operating instructions, the following additional documents also apply:


- Operating instructions of the tractor
- Operating instructions of the front loader


When handling the implement and for all service work, please also observe:

- The recognised technical regulations for safe and professional work,
- The legal regulations for accident prevention,
- The legal regulations for health and environmental protection,
- The national regulations that apply in the country of the operator / user of the implement,
- The specifications that are relevant for the status of the technology,
- The road traffic regulations.

1.7 Design tools

The operating instructions contain the following different symbols and markings in the text:

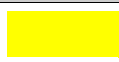

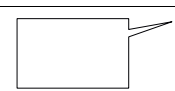

 Warning symbol that is used for warning notices and is graduated based on the danger (see 2 Safety)

 Additional information and tips

- List points
- ➔ Requirement for a sequence of actions
- ✂ Required tools
- (1) Numbered action step
- ✓ Result of an action or sequence of actions
- Unnumbered action step

Moreover, stylised drawings are used. For better understanding, some of the figures are exemplary, simplified or with dismantled parts for better representation and explanation.

- Please observe the following:
 - Dismounting is not always absolutely required for the respective description.
 - No different equipment variations are shown in the figures, unless otherwise specified.
 - The associated descriptive text always applies to the figures.
 - The following representation rules and elements apply:

Representation	Meaning
	Elements represented in yellow highlight the components for the respective operating situation.
	Item numbers designate assemblies or components. In each figure, there is always an explanatory legend for the item numbers.
	Magnifying glasses serve to focus on individual parts and details.
	Arrows indicate a direction of movement or action to be performed.

1.8 Nomenclature of the footer

The footer consists of the following parameters:

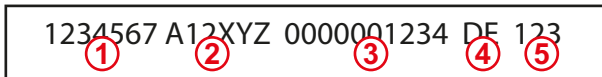


Fig. 2 Nomenclature of the footer

Legend

- 1 Document number (order number)
- 2 Type of instructions
- 3 Internal system number
- 4 Language identifier
- 5 Version

2 Safety

2.1 Explanation of safety and warning notices

The basic safety information comprises instructions that always apply for safe operation or to maintain the safe condition of the front loader and the front loader implements.

The action-related warning notices warn against residual dangers and are placed in front of dangerous action sequences.

2.2 Representation and layout of warning notices

Warning notices are action-related and are designed according to the following principle:

⚠ DANGER

Type and source of danger!

Explanation of the type and source of danger.

- ▶ Measures to prevent the danger.

2.3 Danger grading of warning notices

Warning notices are graded according to their level of danger and are represented as follows with the corresponding signal words and warning symbols:

⚠ DANGER

Immediate lethal danger or serious injuries.

⚠ WARNING

Possible lethal danger or serious injuries.

⚠ CAUTION

Possible slight injuries.

NOTICE

Damage to the implement or the surroundings.

2.4 EC Conformity

STOLL implements comply with Machinery Directive 2006/42/EC.

2.5 Proper use

The implements described are solely intended for use on agricultural or forestry tractors with a front loader and are intended for:

- mounting and use on tractors with STOLL front loaders from the ProfiLine and Solid model series as well as on tractors with front loaders approved by STOLL,
- use according to the usual purpose (see below),
- use and operation within the defined limits (see *8 Technical specifications*),
- control from the driver's seat.

The information for its correct use and technical data in the operating instructions of the front loader apply in all other respects.

The implements may only be operated when they are in perfect condition. If faults impair safety, these must be promptly repaired by an authorised specialist workshop.

The implements may not be used in work processes that require the presence of people close to the load when the front loader is in the raised position! This kind of work is permitted only if the front loader is equipped with an anti-lowering guard (see front loader operating instructions).

The front loader and its implements must not be operated simultaneously with other hydraulic equipment on the tractor.

Proper use also includes reading and observing the operating instructions, the associated additional instructions, the other applicable documents as well as the safety information. To ensure operational safety, prescribed maintenance work as well as intervals and conditions for care and service must also be observed. Any use other or beyond those described in the manual is considered as improper use.

Purpose of the side shift carriage

The side shift carriage is intended for transporting and loading pallets, including the loads they carry.

The shifting function only serves for better positioning when loading or putting down pallets, and may not be used during transport.

The side shift carriage is intended for mounting on a Euro change frame.

Purpose of the top loading grip

The top loading grip (ID number 3548990) is an accessory for STOLL pallet forks HD (ID numbers 3583680, 3583700, 3583710) and HS1500 (ID numbers 3430830, 3434900) and may be used only in conjunction with one of these pallet forks.

The top loading grip is intended for lifting, loading and transporting tree trunks, timber, and bushes. Moreover, the top loading grip can also be used to clamp bulky objects on the fork tines.

By installing the top loading grip on the pallet fork, its intended use changes to such an extent that the transport of pallets is no longer possible.

The maximum permissible payload of the pallet tines may not be exceeded!

Purpose of the timber tongs with top loading grip

The timber tongs with top loading grip is intended for picking up, loading, sorting and transporting tree trunks and smallwood.

The timber tongs with top loading grip are intended for mounting on a Euro change frame.

Purpose of the bucket with grab

The bucket with grab is intended for removing grass and maize silage from the silage stock.

With the top grapple open, the bucket can also be used to a limited extent as a universal bucket (see ROBUST U).

The bucket with grab is intended for mounting on the Euro change frame.

Purpose of the bucket with grab UNI (Maxi Grapple Fork)

The bucket with grab UNI is intended as a universal implement for levelling, grabbing, loading and transporting bulk materials. Moreover, bales and similar piece goods of suitable size can be picked up and loaded.

The bucket with grab UNI is intended for mounting on the Euro change frame.

Purpose of the disposal bucket

The disposal bucket is intended for lifting, loading and transporting tree trunks, timber and bushes.

With inserted side sheets and the top grapple open, the disposal bucket can also be used to a limited extent as a universal bucket (see ROBUST U).

The disposal bucket is intended for mounting on the Euro change frame.

Purpose of the silage cutters

The silage cutters are intended for taking silage blocks from the silage stock.

The silage cutters are intended for mounting on a Euro change frame.

Purpose of the bucket with grapple, the fork with grapple and the multifunction bucket HD

The bucket with grapple, the fork with grapple and the multifunction bucket HD are intended for picking up, loading and transporting stable manure, compost, shrubbery, silage and similar materials.

The bucket with grapple, the fork with grapple and the multifunction bucket HD are not suitable for picking up piece material such as firewood or stones, since these materials get jammed between the tines and can bend them.

The bucket with grapple, the fork with grapple and the multifunction bucket HD are intended for mounting on a Euro change frame.

Purpose of the round bale cutter

The round bale cutter is intended for dividing bales of silage, straw and hay.

Maximum bale length: 1.3 m

Maximum bale diameter: 1.55 m

The round bale cutter is intended for mounting on a Euro change frame.

Purpose of the wrapped bale handler H

The wrapped bale handler H is intended for loading and transporting wrapped silage bales and non-wrapped high-pressure bales. Only 1 bale can be picked up at a time.

Suitable for:

- Round bales with a diameter from 1.0 m to 1.8 m
- Square bales with a side length of 1.6 m

The wrapped bale handler H is intended for mounting on a Euro change frame.

Purpose of the wrapped bale handler Pro H

The wrapped bale handler Pro H is intended for loading and transporting wrapped silage bales and non-wrapped high-pressure bales. Only 1 bale can be picked up at a time.

Bale width: 0.8 m to 2 m

The wrapped bale handler Pro H is intended for mounting on a Euro change frame.

Purpose of the wrapped bale handler

The wrapped bale handler is intended for loading and transporting wrapped silage bales and non-wrapped high-pressure bales. Only 1 bale can be picked up at a time.

Suitable for:

- Round bales with a diameter from 0.8 m to 1.4 m
- Square bales with a side length of 1.2 m

The wrapped bale handler is intended for mounting on a Euro change frame.

Purpose of the Maxi bale claw

The Maxi bale claw is intended for loading and transporting net-wrapped high-pressure bales of hay, straw or similar materials.

Suitable for:

- Round bales up to a diameter of 1.6 m
- Square bales with a side length of 1.6 m

The Maxi bale claw is intended for mounting on a Euro change frame.

Purpose of the rotating bale handler

The rotating bale handler is intended for loading and transporting high-pressure bales of hay, straw, or similar materials. Only 1 bale can be picked up at a time.

The rotating bale handler is suitable only for round bales, not for square bales!

Suitable for:

- Round bales with a diameter from 0.8 m to 1.8 m

The rotating bale-handler is intended for mounting on a Euro change frame.

Purpose of the bale stacker H

The bale stacker H is intended for loading, transporting and stacking individual high-pressure bales of hay, straw, or similar materials.

The bale stacker H is intended for mounting on a Euro change frame.

2.6 Foreseeable misuse

Avoid the following:

- Use of the implements on a wheel loader or farm loader
- Exceeding of the permissible axle load and the permissible total weight of the tractor
- Use outside of the conditions and prerequisites that are specified in the technical manuals and documents
- Transport of persons
- Transport of loads that do not correspond to the purpose of the implements
- Transport of loads in road traffic
- Transport of unsecured loads (e.g. stone pallets)

2.7 Operational limits

- The following operating conditions and requirements on the operational environment must be observed:
 - If applicable, temperature range for proper operation of the tractor (see operating instructions of the tractor)
 - Sufficient load capacity of the tires and the front axle of the tractor

2.8 Basic safety information

The basic safety information comprises all safety measures grouped by theme and is applicable at all times. In addition, the information is presented as warning notices at the corresponding positions in these operating instructions.



The implements are intended for use with STOLL front loaders from the ProfilLine or Solid model series. Observe the safety instructions in the front loader operating instructions.

Basic dangers



Mortal danger exists when persons are lifted or carried with the front loader. The front loader is not equipped with the necessary safety equipment to be used as a work cage.

- It is forbidden to lift or transport people with the front loader.

Mechanical dangers



There is a risk of crushing and impact of the upper and lower limbs due to projecting or protruding frame parts and moving components of the machine.

- Personnel must be instructed in the proper use of the machine and in the location and types of danger.
- Instruct persons to exit the danger and movement areas of the machine.
- Wear suitable protective gear, if necessary, when performing service tasks.



There is a lethal risk of crushing and injury due to accidental movements of the tractor, the front loader, and the implements.

- Instruct persons to exit the danger and action area of the machine.
- Do not allow other people to assist in any way (e.g. holding of pasture fence posts if they are to be pressed into the ground with the front loader) and instruct people to exit the working area of the machine.
- Assistance from a second person for loading activities should only be allowed when the front loader is lowered, provided that an anti-lowering guard is not installed.
- For loading work as well as when mounting and dismounting the front loader, ensure that the tractor is standing on level and solid ground.
- Only operate the front loader from the driver's seat of the tractor. Operating elements outside of the tractor must not affect the front loader! In particular, the operating elements of the front linkage must not affect the front loader!
- The front loader must only be operated by one person.

There is a lethal risk of injury due to exceeding of the maximum permissible load or with improper use of the front loader resulting in breaking of the front loader or its components.

- Observe the load limits specified in the technical data.
- When transporting loads or levelling, do not drive faster than 10 km/h.
- When clearing, do not drive faster than 6 km/h.
- Work only with mounted and locked implement.
- Observe the load capacity of the tyres and the front axle of the tractor.

Hydraulic dangers



There is a risk of injury due to escaping hydraulic fluids under high pressure.

- Observe the safety stickers on the machine.
- Check the hydraulic couplings and lines for leaks before uncoupling.
- On tractors without a closed driver's cab, mount tubes with splash guards.



There is a risk of crushing when machine parts move uncontrollably due to entrapped air in the hydraulic system.

- Before performing any work on the hydraulic system, depressurize the system.
- Clean the hydraulic couplings and lines before coupling.
- Change the hydraulic fluid regularly according to the service schedule.

Electrical dangers



There is lethal danger due to power surges when touching live machine parts, e.g. due to short circuits in the on-board network of the tractor.

- Installation and service tasks on the electrical system should only be performed by an electrician.
- Observe the operating instructions of the tractor.



There is lethal danger due to collision of the raised front loader with high-voltage lines.

- Do not raise the front loader higher than 4 m when driving on roads.
- Keep a safe distance away from electrical lines.
- If you do not know the rated voltage, stay at least 4 m away from electrical lines.

Danger due to emissions



With long-lasting normal operation of the machine, hearing damage can be caused by the noise level of the tractor and the hydraulic system.

- Always wear personal hearing protection.
- Observe special regulations for road operation and for operating machines in open spaces.

Dangers during packaging and transport



There is a risk of injury due to crushing, impacts or pinching if the implement tips over or falls from the lifting gear.

- During all preparatory work and during transport, always ensure a secure stand of the machine.
- Assisting persons must be instructed to exit the immediate danger area under the implement.

There is a risk of accidents during transport of the implement if it is not correctly loaded and secured.

- The implement must be correctly secured and transported.

Dangers during installation for start-up



There is a risk of injury when lifting and handling heavy machine parts as well as bulky components of the implement.

- Heavy and bulky machine parts may only be lifted with the assistance of a second person.
- Avoid back injuries by lifting correctly.

Dangers when picking up and putting down implements



There is a risk of serious injury and lethal danger due to implements falling down or uncontrolled lowering of the front loader when unsuitable implements are used or if the used implements are overloaded.

- Check that the implements are suitable before use.
- Check that the implement is locked correctly by repeatedly putting the implement down on the ground.
- Perform a visual check on the locking device.
- Only perform the hydraulic locking of the implement up to a height of 1.5 m.
- Check the proper functioning of the implements one time without load before beginning work.

Dangers during excavation work



There is lethal danger and a risk of explosion during excavation work due to collision with cables buried in the ground.

- Before performing excavation work, ensure that there are no electric cables in the ground.
- Before performing excavation work, ensure that there are no gas lines in the ground.

Dangers during loading work



There is a risk of serious injury and mortal danger when loading and transporting loads, if the front loader is operated from one side, the load is raised too far over the driver's seat or if unsuitable implements are used.

- If not equipped, check for retrofitting a cab and/or a FOPS (falling objects protection structure) / ROPS (roll-over protection structure) within the framework of work safety regulations.
- If there is no cab or safety equipment, never lift loads over the driver's seat.
- Only use suitable implements, which prevent e.g. rolling back and falling on the driver's seat.

Dangers when operating the front loader



There is a risk of serious injury or lethal danger due to tipping of the tractor when working on slopes, when going around bends, when the load on the rear axle is too low, and when driving into the bulk to be lifted at a skewed angle.

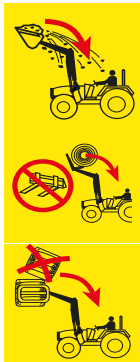
The risk increases when the front loaders are raised up high because of the higher centre of gravity.

- Drive carefully when working on slopes. Never travel with a raised load across a slope.
- Ensure that the ground is level enough.
- When driving in curves, reduce the speed and lower the load.
- Never start driving abruptly with the front loader raised high and fully loaded.
- Observe and comply with the maximum load of the tractor.
- Always use sufficient counterweights at the rear of the tractor.
- In case of instability or tipping, lower the front loader and remain in the driver's cab.
- Drive towards the load in a straight line and do not steer while driving into the load.
- Use the safety belts.
- Connect the brake pedals.
- Switch off the front axle suspension.
- On tractors with adjustable track width: set the maximum possible track width.

When driving on roads, there is a risk of serious injury and lethal danger for the operator as well as for other road users if the tractor and the front loader are not correctly prepared and operated for road traffic.

- Only drive on roads without a load.
- Before driving on roads, switch off the hydraulic system and lock it.
- Raise the front loader.

Dangers due to falling loads



There is mortal danger due to raised loads falling down on the driver's seat. There is a particularly high risk when lifting pallets or bales above the driver's cab and when working on slopes. Even the standard protection systems (roll-over protection structure ROPS, falling objects protective structures FOPS) do not provide fully adequate protection.

- When working on slopes, reduce the implement filling and lower the load.
- Check the inclination of the implement. Do not scoop too far with the implement.
- Use implements that are designed such that they prevent loads from falling onto the driver's seat.
- Only use the appropriate implements when loading piece goods (e.g. bale grabber for bales or pallet fork for pallets).
- Lift pallets or bales one at a time. Never stack several loads on top of each other, since the top load could fall down on the driver's seat.
- Compensate for the increased angle on front loaders without parallel motion when lifting by "dumping" with the implement.
- Do not operate the front loader without parallel motion while driving in reverse.
- On tractors without a cab or 4-post roll-over protection structure, do not lift large load items, in particular bales, any higher than the pivot point of the lifting arm.
- Watch the load as you are lifting. Do not lift the load when reversing.

Dangers during maintenance



Improperly performed maintenance work (care and cleaning, service, repairs) impair the safety of the implements.

- Check the implements regularly for defects.
- Care and cleaning work must be carried out correctly.
- Only have repair work performed by authorised qualified personnel.

2.9 Danger zones

On and around the front loader, there are the following areas with increased risk to safety of the operator or safety of other persons:

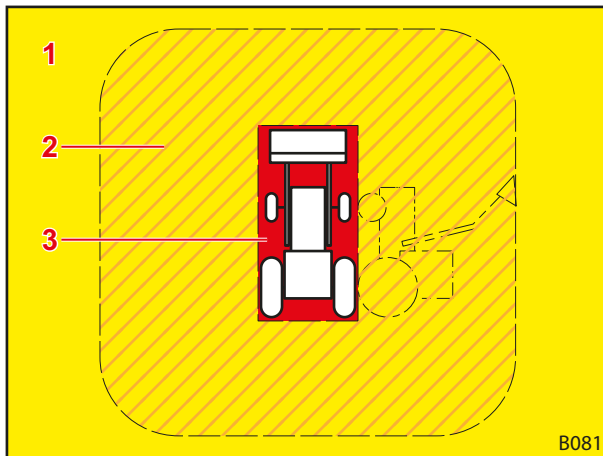


Fig. 3 Top view (from above)

Legend

- 1 Work area (yellow)
- 2 Outer danger zones (hatched in orange)
- 3 Inner danger zones (red)

Danger zone	Description	Danger
Work area	Overall possible movement area of the tractor incl. the front loader during loading work.	<ul style="list-style-type: none"> ● Standing in the working area represents a risk.
Outer danger zone	Overall field of action of the tractor and front loader as well as the area in which the tractor or front loader could tip over in case of accident: <ul style="list-style-type: none"> ● On the sides (left and right): height of the tractor with the front loader raised as far as it goes (incl. implement) ● Front and rear: half the height of the tractor with the front loader raised as far as it goes (incl. implement) 	<ul style="list-style-type: none"> ● When the tractor tips over or when loads fall down, people can be seriously injured.
Inner danger zone	Area on and around the tractor and front loader, especially between the wheels of the tractor, directly in front of and behind the tractor as well as on and under the front loader.	<ul style="list-style-type: none"> ● Persons can be pinched in between the wheels of the tractor. ● Persons can be overseen by the tractor driver and run over. ● Moving machine parts can move uncontrollably and thereby crush and injure people.

- Observe the danger zones and instruct unauthorised persons out of these areas.

2.10 Safety equipment

Depending on the type, the implements have the following protective and safety equipment:

Protective/safety equipment	Function
Safety stickers	Safety stickers warns against hazards at danger points (see 2.11 <i>Safety stickers</i>).

2.11 Safety stickers

Safety stickers warn of hazards at danger points and are an important part of the safety equipment of the front loader.

- Clean safety stickers if they are soiled.
- Replace damaged or illegible safety stickers (see 7.1 Spare parts).
- If necessary, equip new spare parts with the corresponding safety stickers.

2.11.1 Silage cutters

Position and description of the safety stickers

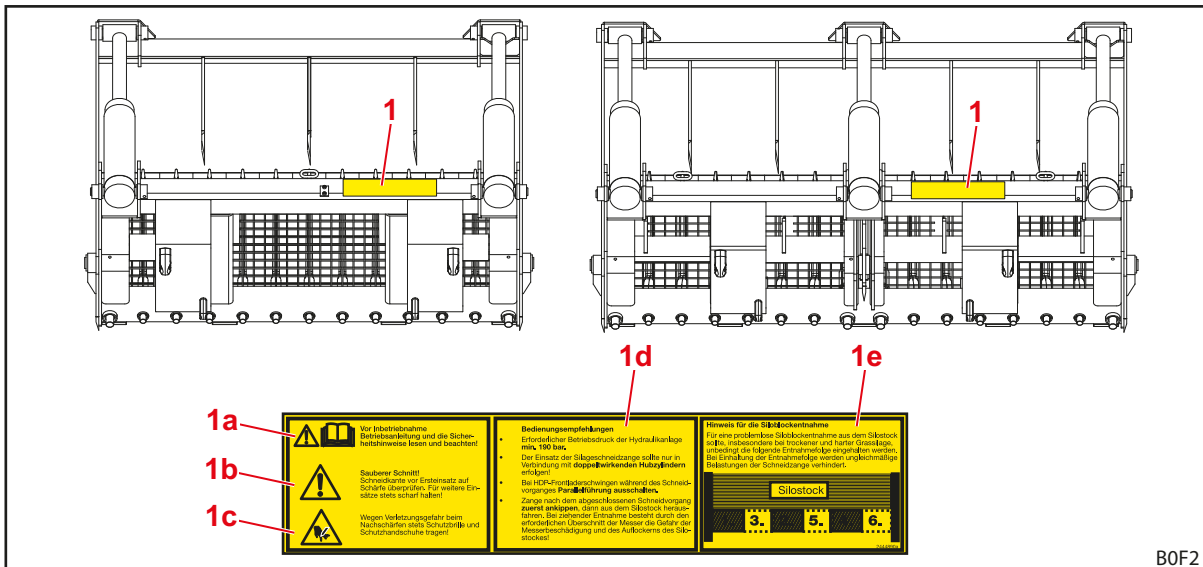


Fig. 4 Silage cutters

Position	Description
1a	Observe the operating instructions.
1b	Always keep the cutting edge sharp.
1c	Be careful of hydraulic oil under high pressure.
1d	Information for operation.
1e	Observe the removal sequence to prevent uneven loads on the implement.

2.11.2 Round bale cutter

Position and description of the safety stickers

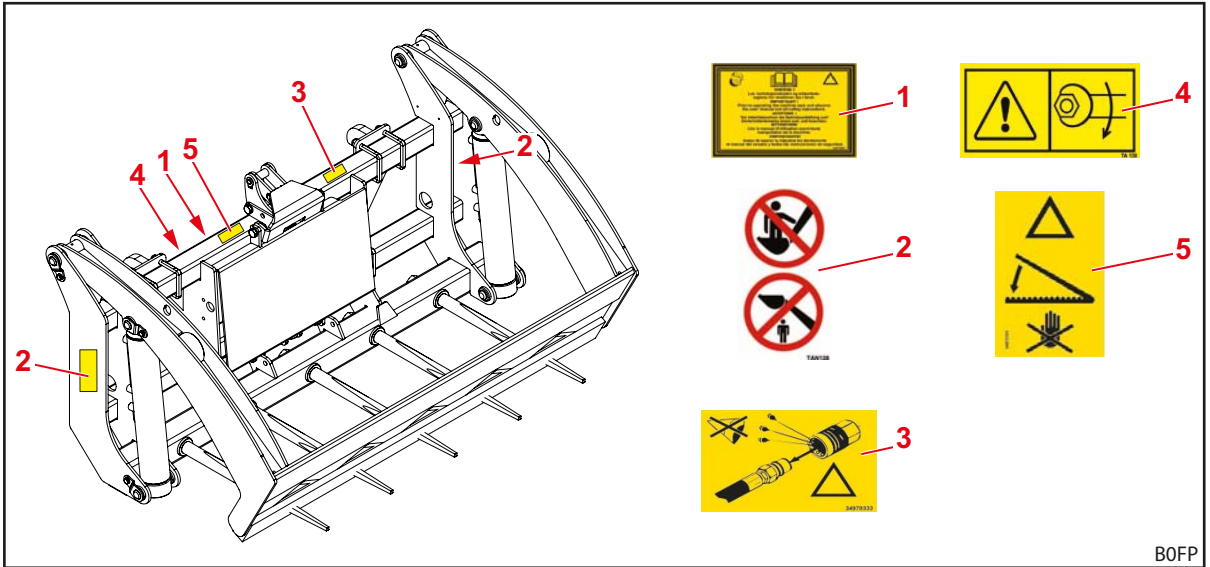


Fig. 5 Round bale cutter

Position	Description
1	Observe the operating instructions.
2	Do not stand on or under the implement.
3	Hoses are under pressure at all times.
4	Make sure that all screw connections are always firmly tightened.
5	Danger! Observe the safety distance from the blades.

2.11.3 Wrapped bale handler

Position and description of the safety stickers

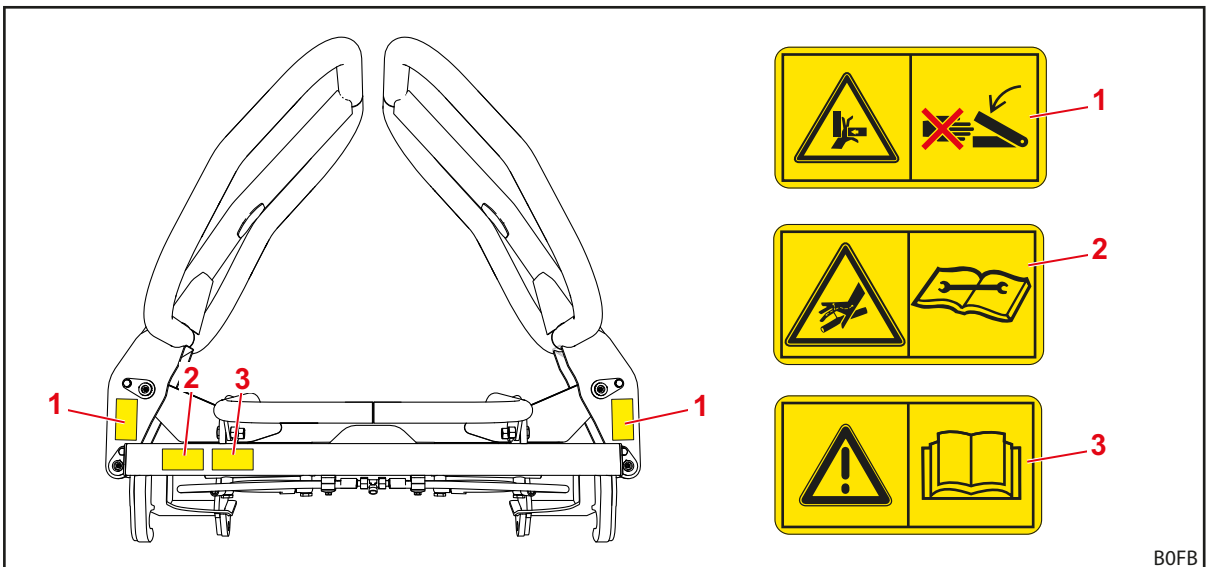


Fig. 6 Wrapped bale handler

Position	Description
1	Never reach into the crushing zone as long as parts are moving.
2	Be careful of hydraulic oil under high pressure.
3	Observe the operating instructions.

2.12 Personnel requirements

In the operating instructions, a distinction is made between the following persons:

- Operators
- Qualified personnel
- Specialised tradesmen

All person groups must have read and understood the operating instructions. The table lists the other respective qualifications and responsibilities.

Personnel	Qualification/responsibility
Operators	<ul style="list-style-type: none"> • are responsible for the proper operation of the front loader • instruct qualified personnel on how to handle the front loader • ensure regular inspection and service of the front loader in a specialised workshop
Qualified personnel	<ul style="list-style-type: none"> • are responsible for the proper operation of the front loader • are physically able to control the front loader and the tractor • ensure regular service of the front loader • know the relevant road traffic regulations • are in possession of the prescribed driving license • are familiar with driving tractors safely
Specialised tradesmen	<ul style="list-style-type: none"> • perform maintenance work (service and repairs) • have a recognised training certificate or specialised knowledge that is required to observe the existing specifications, regulations, and directives



Work on electrical components of the machine may only be performed by an electrician according to the electro-technical regulations.
Welding work may only be performed in an authorised workshop.

2.13 Behaviour in case of emergency

➤ Initiate the following measures to avoid further damage in cases of emergency:

- (1) Secure the accident site correctly.
- (2) Provide first aid (if necessary).
- (3) Call rescue workers, describe the situation briefly and concisely. Wait for feedback.
- (4) Inform the employer or operator.

2.13.1 Behaviour if the tractor tips or falls over

➤ If the tractor tips or falls over with the front loader, observe the following instructions:

- (1) Lower the load.
- (2) Stay in the driver's cab until professional help arrives.

2.13.2 Behaviour in case of flashovers from electrical power lines

In the vicinity of electrical power lines, flashovers can happen quickly that cause high electrical voltage on the outside of the tractor. This results in large voltage differences on the ground around the machine.

In the case of a flashover:

- Do not exit the driver's cab.
- Do not touch any metal parts.
- There must be no connection to the earth.
- Warn any persons standing around against coming closer.
- Have the power switched off.
- Wait for professional rescue workers.

If it is still necessary to exit the driver's cab, e.g. due to the threat of fire:

- Jump away from the tractor and be sure not to touch it.
- Take small steps to move away from the tractor.

3 Implements

3.1 Side shift carriage

3.1.1 Structure and description

The implement consists of the following components:

- 1 frame
- 1 shifting frame
- 1 hydraulic cylinder for actuating the shifting frame
- 2 pallet tines (adjustable spacing)

The frame is equipped with 2 support hooks and 2 support lugs for the Euro change frame.

To actuate the double-acting hydraulic cylinder, the 3rd control circuit or a double-acting auxiliary control unit must be installed on the tractor or front loader.

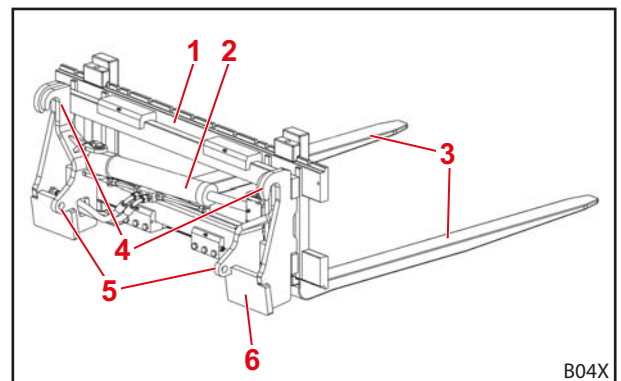


Fig. 7 Structure of the side shift carriage

Legend

- 1 Shifting frame
- 2 Hydraulic cylinder
- 3 Pallet tine
- 4 Support hooks for change frame
- 5 Support lugs for pins of the change frame
- 6 Frame

3.1.2 Start-up

3.1.2.1 Initial operation

The initial operation is performed at a specialist workshop. This also includes mounting of the implement as well as a functional check.

- Obtain instruction from the specialised workshop and ask questions if necessary.
- Read the operating instructions before initial use.
- Check all of the implement functions without a load.
- Check proper functioning of the implement under all operating states.

ProfiLine front loader

The factory assembles the implement so that it is ready for use. Only the hydraulic and supply lines still need to be installed before the initial operation.

Installing the hydraulic lines:

- (1) Fasten the elbow sockets in the holes on the left side of the side shift carriage.
 - (2) Install the hose lines with the 90° end onto the locking block of the hydraulic cylinder.
 - (3) Connect the hose lines with the screw-in elbow sockets (A on A).
- ✓ The hydraulic lines are installed.

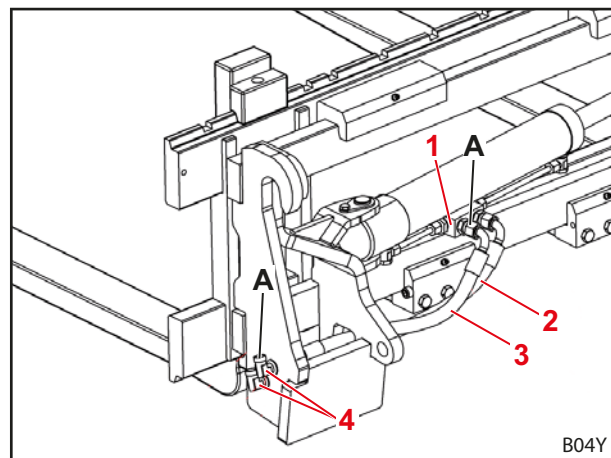


Fig. 8 *Installing the hydraulic lines*

Legend

- 1 Locking block
- 2 Hose line 10x450
- 3 Hose line 10x420
- 4 Elbow sockets

Installing the supply lines:

- (4) Put the orifice in the elbow socket that is connected to the piston side of the hydraulic cylinder (A).
- (5) Connect the hose lines to the elbow sockets.
- (6) Install the hydraulic couplings at the other end of the hose line.
- (7) Only for screw or plug-in couplings:
 - Put the red protective cap on the coupling sleeve of the upper hose line (*opening function*).
 - Put the blue protective cap on the coupling sleeve of the lower hose line (*closing function*).
- (8) Bundle the hose lines with cable ties.
- ✓ The supply lines are installed.

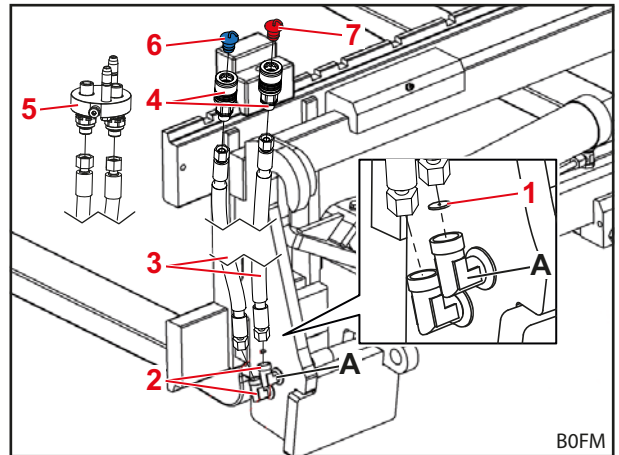


Fig. 9 Installing the supply lines

Legend

- 1 Orifice
- 2 Elbow sockets
- 3 Hose lines
- 4 Hydraulic couplings (screw/plug-in couplings)
- 5 Hydraulic couplings (Implement-Fix)
- 6 Blue protective cap
- 7 Red protective cap

Solid, ClassicLine, EcoLine and Robust F front loaders

The factory assembles the implement so that it is ready for use. Only the supply lines still need to be installed before initial operation.

Installing the supply lines:

- (1) Put the orifice in the piston-side connection of the locking block on the hydraulic cylinder.
- (2) Install the hose lines on the hydraulic cylinders.
- (3) Install the hydraulic couplings at the other end of the hose line.
- (4) Only for screw or plug-in couplings:
 - Put the red protective cap on the coupling sleeve of the left hose line (*opening function*).
 - Put the blue protective cap on the coupling sleeve of the right hose line (*closing function*).
- (5) Bundle the hose lines with cable ties.
- ✓ The supply lines are installed.

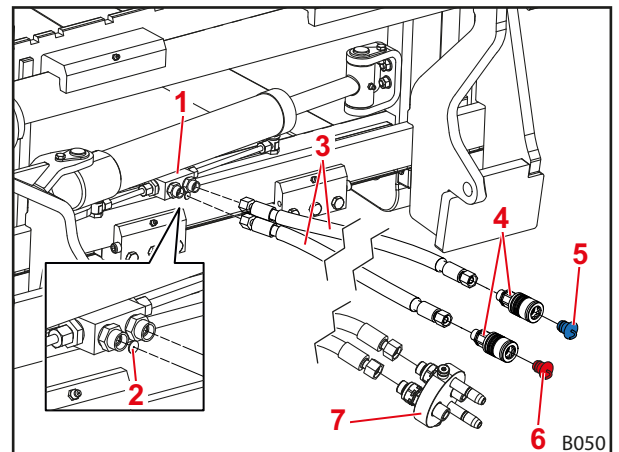


Fig. 10 Installing the supply lines

Legend

- 1 Locking block
- 2 Orifice
- 3 Hose lines
- 4 Hydraulic couplings (screw/plug-in couplings)
- 5 Blue protective cap
- 6 Red protective cap
- 7 Hydraulic couplings (Implement-Fix)

3.1.2.2 Check before each start-up

- Before each start-up, check all of the points on the checklist.
- Fix any observed defects in a safe position and location.
- Use the implement only if proper and safe operation is ensured.

	Checks	See also	Completed
Before mounting the implement			
	Is the correct counterweight mounted on the rear?	see front loader operating instructions	
	Visual check performed on the implement for damage (e.g. cracks, corrosion)?		
After mounting the implement			
	Is the locking mechanism for the implement locked properly?	see front loader operating instructions	
	Ensured that the implement cannot collide with the front loader in any position?		

3.1.2.3 Mounting the implement

The implement is intended for mounting on a Euro change frame.

- In doing so, observe the description and warnings for mounting implements and operation of the implement locking mechanism in the front loader operating instructions.

Hydraulic connection

- Connect the hydraulic hoses with the hydraulic couplings to the connections of the 3rd control circuit.

3.1.3 Operation

⚠ WARNING

Risk of accident when driving on roads due to protruding tines or when the front loader is raised too far!

In case of accidents in road traffic, other road users can be severely injured by protruding tines. When the front loader is raised too far, there can be collisions with power lines, bridges, trees, etc.

- ▶ Follow the instructions for driving on roads in the front loader operating instructions.
- ▶ Before driving on roads, always move the tines to a vertical position (*Dumping function/scooping function* of the front loader).
- ▶ Do not drive on public roads with a loaded implement.

⚠ WARNING

Risk of injury due to changes in the centre of gravity!

When the shifting function is used, the load centre of the tractor is also shifted. The tractor can tip over and cause serious injuries to persons standing in the surrounding area.

- ▶ Only use the shifting function for loading and unloading when at a standstill.
- ▶ Move the shifting frame to the centre position for transport (cylinder extended halfway).
- ▶ Make sure that your tractor has a sufficient ballast.
- ▶ Observe the maximum speed limit with the carried load (10 km/h)!
- ▶ Observe the axle loads of the tractor (see tractor operating instructions).
- ▶ Lift the load only as high as necessary.

⚠ WARNING

Risk of injury and material damage due to tines not positioned parallel to the ground!

The side shift carriage is designed for working with the tines positioned parallel to the ground. When the tines are not positioned parallel to the ground, hydraulic components can be damaged and affect the function of the side shift carriage. Hydraulic oil can escape uncontrollably. This can cause serious injury to persons.

- ▶ Never use the *dumping* function of the front loader to the full extent.

Picking up and unloading loads:

➔ Before beginning operation, check that the implement functions properly and safely without a load.

- (1) Lower the front loader to the desired height.
- (2) Position the implement horizontally.
- (3) Carefully drive into the pallet with the pallet tines.
- (4) Lift the load.



Lift the load only as high as necessary for transport.

- (5) Move the shifting frame to the centre position (*3rd control circuit* function of the front loader).
- (6) Drive the load to the target site as precisely as possible.
- (7) Use the shifting functions if necessary (*3rd control circuit* function of the front loader).
- (8) Put down the load and carefully drive out of the pallet.
 - ✓ The load has been picked up and unloaded.

3.1.4 Putting down the implement



Park the implement only on level and solid ground. Make sure that the pallet tines are sufficiently spaced to establish a secure position.

- see 6.1 *Temporary decommissioning*

3.2 Top loading grip

3.2.1 Structure and description

The implement consists of the following components:

- 1 frame
- 1 top-loading grip
- 1 double-acting hydraulic cylinder

The top-loading grip serves as an accessory for STOLL pallet forks (ID numbers 3583680, 3583700, 3583710, 3430830 and 3434900).

The frame of the top-loading grip is bolted onto the pallet fork.

To actuate the double-acting hydraulic cylinder, the 3rd control circuit or a double-acting auxiliary control unit must be installed on the tractor or front loader.

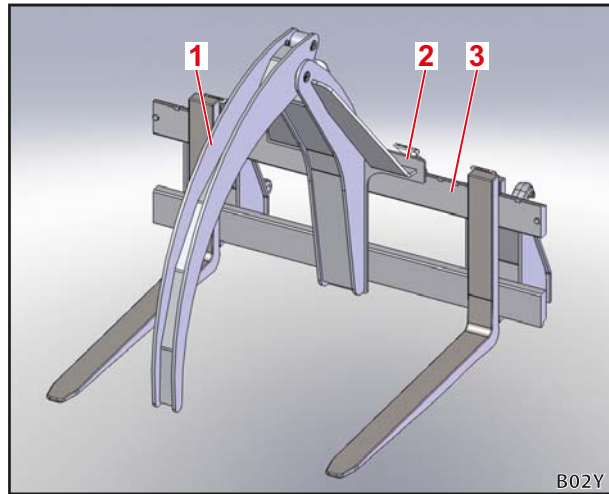


Fig. 11 Structure of the top-loading grip

Legend

- 1 Top-loading grip
- 2 Beam
- 3 Pallet fork

3.2.2 Start-up

3.2.2.1 Initial operation

The initial operation is performed at a specialist workshop. This also includes mounting of the implement as well as a functional check.

- Obtain instruction from the specialised workshop and ask questions if necessary.
- Read the operating instructions before initial use.
- Check all of the implement functions without a load.
- Check proper functioning of the implement under all operating states.

The factory assembles the implement so that it is ready for use. Only the supply lines still need to be installed before initial operation.

Installing the supply lines:

- (1) Install 2 hose lines on the hydraulic cylinder, each with 1 screw-in connector.
- (2) Install the hydraulic couplings at the other end of the hose line.
- (3) Only for screw or plug-in couplings:
 - Put the red protective cap on the coupling sleeve of the upper hose line (*opening* function).
 - Put the blue protective cap on the coupling sleeve of the lower hose line (*closing* function).
- (4) Bundle the hose lines with cable ties.
 - ✓ The supply lines are installed.

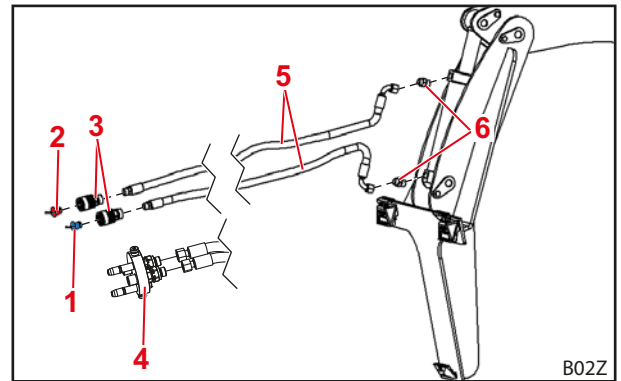


Fig. 12 Installing the supply lines

Legend


- 1 Blue protective cap
- 2 Red protective cap
- 3 Hydraulic couplings (screw/plug-in couplings)
- 4 Hydraulic couplings (Implement-Fix)
- 5 Hose lines
- 6 Screw-in connector

3.2.2.2 Check before each start-up

- Before each start-up, check all of the points on the checklist.
- Fix any observed defects in a safe position and location.
- Use the implement only if proper and safe operation is ensured.

	Checks	See also	Completed
Before mounting the implement			
	Is the correct counterweight mounted on the rear?	see front loader operating instructions	
	Visual check performed on the implement for damage (e.g. cracks, corrosion)?		
After mounting the implement			
	Is the locking mechanism for the implement locked properly?	see front loader operating instructions	
	Is the locking mechanism for the tines correctly locked?	See initial operation	
	If accessories were installed: Are the accessories correctly installed/locked?	See chapter for the respective accessory	
	Ensured that the implement cannot collide with the front loader in any position?		


3.2.2.3 Mounting the implement

 Use of the top-loading grip is permitted only when the top-loading grip is firmly bolted onto the pallet fork frame.


Mounting on the pallet fork frame

Mounting the implement on the pallet fork frame:

- (1) Slide the implement onto the pallet fork frame from the side.

 Make sure that the implement is placed exactly in the middle of the pallet fork frame and that the notches for latching onto the implement are lined up.

- (2) Allow the implement to latch on.
 - ✓ The implement is mounted on the pallet fork frame.

 For removal, proceed in the reverse order.

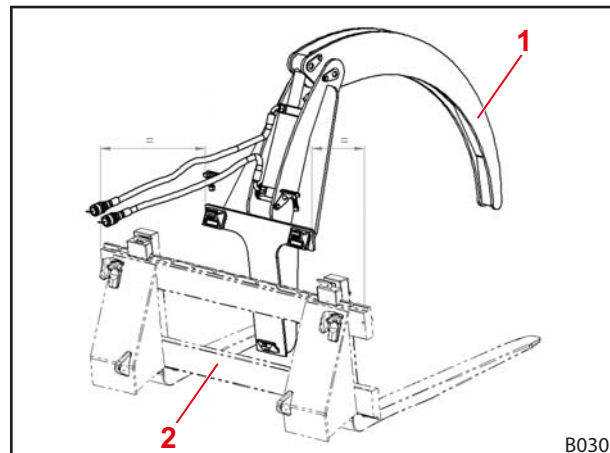


Fig. 13 Mounting the implement on the pallet fork frame

Legend

- 1 Top-loading grip
- 2 Pallet fork frame

Mounting on the front loader

Mounting of the pallet fork on the front loader is not substantially changed by the top-loading grip.

- In doing so, observe the description and warnings for mounting implements and operation of the implement locking mechanism in the front loader operating instructions.

Hydraulic connection

- Connect the hydraulic hoses with the hydraulic couplings to the connections of the 3rd control circuit.


3.2.3 Operation

NOTICE

Material damage due to top loading grip swivelling through!

The tines of the top loading grip can swivel down lower than the underside of the fork tines. This can cause damage to the tines or the ground.


- ▶ Slightly lift or tilt the implement before closing the top loading grip completely.

 The tines of the top loading grip may not be bent!
To ensure a smooth operation, replace or straighten bent tines.

Picking up loads:

➔ Before beginning operation, check that the implement functions properly and safely without a load.

- (1) Position the implement horizontally and open all the way.
- (2) Drive the implement with the top-loading grip open into the material to be picked up.
- (3) With the tractor engine running at about mid-speed, close the top-loading grip as far as possible.

 It may be necessary to lift or tilt up the implement slightly before completely closing the gripping tines.

- (4) Lift the load.
- (5) Close the top-loading grip again or press down again to securely grasp any loose loads before transport.
- ✓ The load has been picked up.

3.2.4 Putting down the implement

⚠ WARNING

Risk of injury due to implement tipping over!

When the top-loading grip is fully closed, the tine of the top-loading grip is lower than the fork tines and the implement can tip over. This can cause injuries to persons.

- ▶ Only put down the implement when the tine tip is approximately at the same height as the underside of the fork tines.

When the hydraulic cylinder is fully extended (closed top loading grip), the tines of the top loading grip are approximately 10 cm lower than the fork tines (see drawing on the left in Fig. 14). In this position, the implement may not be removed from the front loader or parked, since it can tip over uncontrollably.

To put it down, position the top loading grip such that that the tine tip is approximately at the same height as the underside of the fork tines (see drawing on the right in Fig. 14).

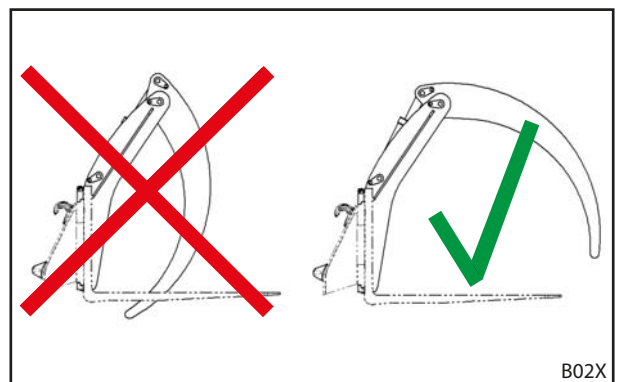


Fig. 14 Putting down the implement

- see 6.1 Temporary decommissioning

3.3 Timber tongs with top loading grip

3.3.1 Structure and description

The implement consists of the following components:

- 1 frame
- 2 tines
- 1 top loading grip
- 1 double-acting hydraulic cylinder

The frame is equipped with a lifting eye at the top rear, on which the implement can be transported (e.g. with a crane). The frame is equipped with 2 support hooks and 2 support lugs for the Euro change frame.

The top loading grip is actuated by a double-acting hydraulic cylinder. To actuate the double-acting hydraulic cylinder, the 3rd control circuit or a double-acting auxiliary control unit must be installed on the tractor or front loader.

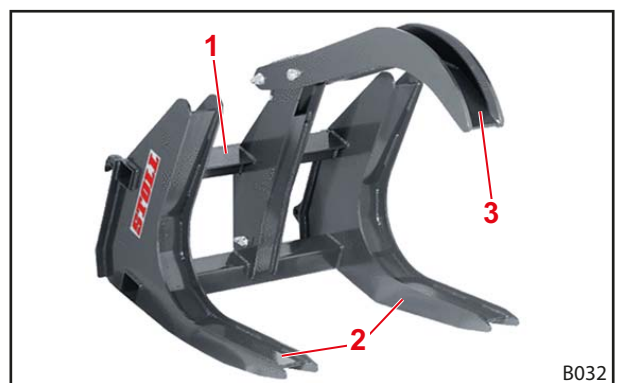


Fig. 15 Timber tongs

Legend

- 1 Frame
- 2 Tines
- 3 Top loading grip

3.3.2 Start-up

3.3.2.1 Initial operation

The initial operation is performed at a specialist workshop. This also includes mounting of the implement as well as a functional check.

- Obtain instruction from the specialised workshop and ask questions if necessary.
- Read the operating instructions before initial use.
- Check all of the implement functions without a load.
- Check proper functioning of the implement under all operating states.

The factory assembles the implement so that it is ready for use. Only the supply lines still need to be installed before initial operation.

Installing the supply lines:

- (1) Route the longer hose line with the 45° end behind the crossbar and connect to the bottom adjustable elbow union.
- (2) Connect the shorter hose line with the 90° end to the top adjustable elbow union.
- (3) Install the hydraulic couplings at the other end of the hose line.
- (4) Only for screw or plug-in couplings:
 - Put the red protective cap on the coupling sleeve of the upper hose line (*opening function*).
 - Put the blue protective cap on the coupling sleeve of the lower hose line (*closing function*).
- (5) Bundle the hose lines with cable ties.
 - ✓ The supply lines are installed.

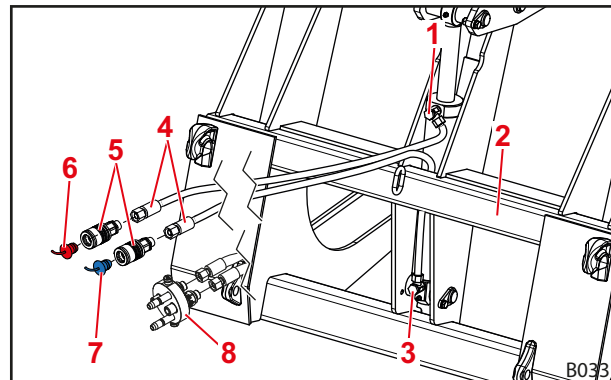


Fig. 16 Installing the supply lines

Legend

- | | |
|---|---|
| 1 | Top adjustable elbow union |
| 2 | Crossbar |
| 3 | Bottom adjustable elbow union |
| 4 | Hose lines |
| 5 | Hydraulic couplings (screw/plug-in couplings) |
| 6 | Red protective cap |
| 7 | Blue protective cap |
| 8 | Hydraulic couplings (Implement-Fix) |

3.3.2.2 Check before each start-up

- see 3.1.2.2 *Check before each start-up*

3.3.2.3 Mounting the implement

The implement is intended for mounting on a Euro change frame.

- In doing so, observe the description and warnings for mounting implements and operation of the implement locking mechanism in the front loader operating instructions.

Hydraulic connection

- Connect the hydraulic hoses with the hydraulic couplings to the connections of the 3rd control circuit.

3.3.3 Operation

- see 3.2.3 *Operation*

3.3.4 Putting down the implement

➤ see 6.1 *Temporary decommissioning*

3.4 Bucket with grab

3.4.1 Structure and description

The implement consists of the following components:

- 1 top grapple
- 2 double-acting hydraulic cylinders
- 1 bucket body

Special features for bucket widths greater than 2.5 m:

- 3rd bearing position in the middle
- 2 additional support hooks for FZ 100 change frame

Option:

- 2 additional maize cutters

The bucket body is equipped with 2 support hooks and 2 support lugs for the Euro change frame.

To operate the double-acting hydraulic cylinders, the 3rd control circuit or a double-acting auxiliary control unit must be installed on the tractor or front loader.

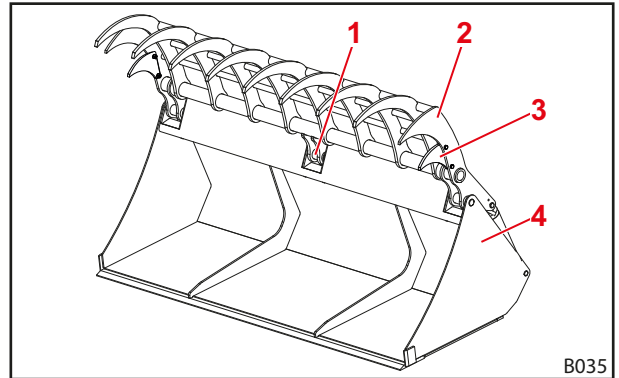


Fig. 17 Structure of the bucket with grab – front view

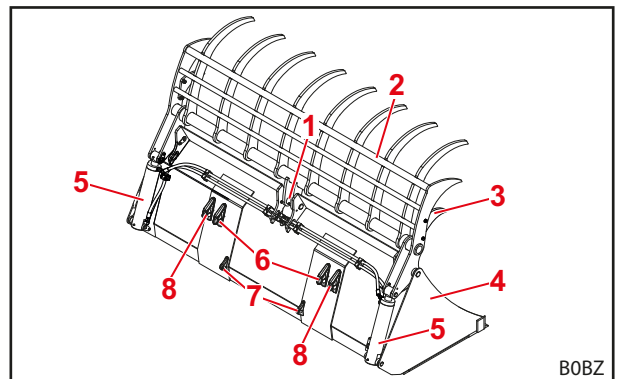


Fig. 18 Structure of the bucket with grab – rear view

Legend

- 1 3rd bearing position in the middle
- 2 Top grapple
- 3 Additional maize cutter
- 4 Bucket body
- 5 Hydraulic cylinder
- 6 Support hooks for change frame
- 7 Support lugs for pins of the change frame
- 8 Additional support hook for FZ 100 change frame

3.4.2 Start-up

3.4.2.1 Initial operation

The initial operation is performed at a specialist workshop. This also includes mounting of the implement as well as a functional check.

- Obtain instruction from the specialised workshop and ask questions if necessary.
- Read the operating instructions before initial use.
- Check all of the implement functions without a load.
- Check proper functioning of the implement under all operating states.

The factory assembles the implement so that it is ready for use. The hydraulic lines and the maize cutters (optional) still need to be mounted prior to initial start-up.

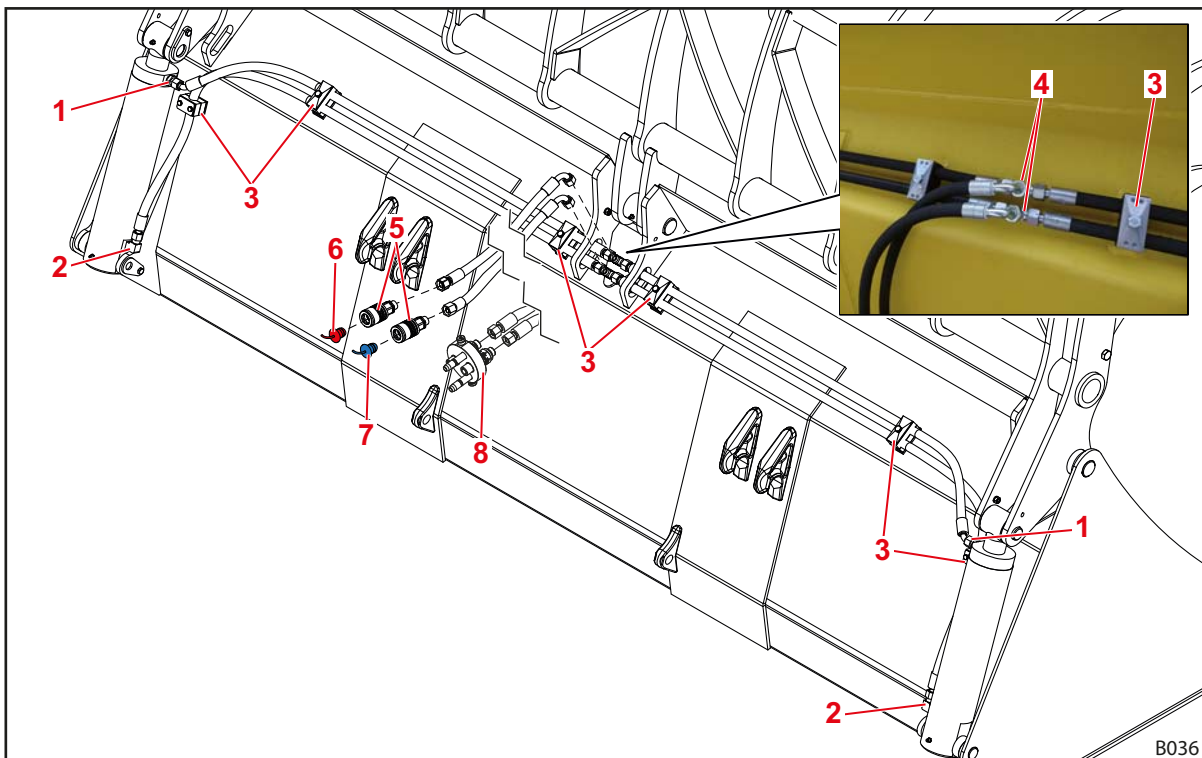


Fig. 19 Preparing for initial operation

Legend

1	Top connection	5	Hydraulic couplings (screw/plug-in couplings)
2	Bottom connection	6	Red protective cap
3	Pipe clamps	7	Blue protective cap
4	T-union	8	Hydraulic couplings (Implement-Fix)

Installing the hydraulic lines (on both sides of the implement):

- (1) Screw in the screw-in connector on the top connection of the hydraulic cylinder.
- (2) Connect the shorter hydraulic hose with the 45° end on the screw-in connector.
- (3) Connect the longer hydraulic hose to the bottom connection.
- (4) Connect the hydraulic lines with T-unions.



Pay attention to the correct assignment of the hose lines:

The two top ends of the hydraulic cylinders must be connected to each other.
The two bottom ends of the hydraulic cylinders must be connected to each other.

- (5) Fasten the hydraulic hoses with pipe clamps.

i The number of pipe clamps differs depending on the bucket width.

- ✓ The hydraulic lines are installed.

Installing the supply lines:

- (6) Connect 2 supply lines to the T-union.

i For supply lines with 90° end, pay attention to the orientation (see Fig. 19).

- (7) Install the hydraulic couplings at the other end of the hose line.
- (8) Only for screw or plug-in couplings:
- Put the red protective cap on the coupling sleeve of the upper hose line (*open* function).
 - Put the blue protective cap on the coupling sleeve of the lower hose line (*close* function).
- (9) Bundle the hose lines with cable ties.
- ✓ The supply lines are installed.

Installing the maize cutters (optional):

- (10) Fasten the maize cutters on the inside of the top grapple, each with 2 hexagonal screws M14, detent edged rings and hexagonal nuts.

i Do not put the maize cutters on the top grapple from the outside. Otherwise, they can collide with the side wall.

- ✓ The maize cutters are installed.
- ✓ The implement is prepared for initial operation.

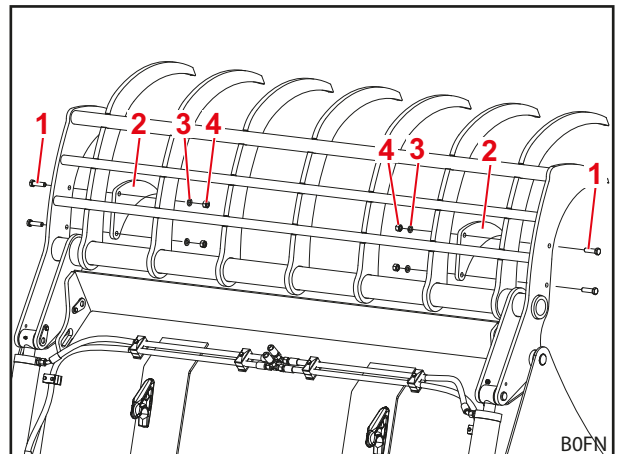


Fig. 20 Installing the maize cutter

Legend

- 1 Hexagonal screw M14
- 2 Maize cutter
- 3 Detent edged ring VSK 14
- 4 Hexagonal nut M14

3.4.2.2 Check before each start-up

- see 3.1.2.2 *Check before each start-up*

3.4.2.3 Mounting the implement

The implement is intended for mounting on a Euro change frame.

The design sizes with a bucket width wider than 2.5 m can also be used on the reinforced Euro change frame of the FZ 100 front loader.

- In doing so, observe the description and warnings for mounting implements and operation of the implement locking mechanism in the front loader operating instructions.

Hydraulic connection

- Connect the hydraulic hoses with the hydraulic couplings to the connections of the 3rd control circuit.

3.4.3 Operation



The tines of the top grapple may not be bent!
To ensure a smooth operation, straighten bent tines.

For low-density material (e.g. maize silage):

➔ Before beginning operation, check that the implement functions properly and safely without a load.

- (1) Position the implement horizontally and open all the way.
 - (2) With the top grapple opened, drive the implement into the pile with a bit of momentum.
 - (3) Slightly tilt the implement.
 - (4) With the tractor engine running around medium speed, lower the top grapple until it reaches the bottom end position.
- ✓ The load has been picked up.

For high-density material (e.g. uncut grass silage):

➔ Before beginning operation, check that the implement functions properly and safely without a load.

- (1) Tip the implement down by about 45° and open the top grapple all the way.
 - (2) Tear a block out of the silage stock with the top grapple.
- ✓ The load has been picked up.

3.4.4 Putting down the implement

- see 6.1 *Temporary decommissioning*

3.5 Bucket with grab UNI (Maxi Grapple Fork)

3.5.1 Structure and description

The bucket with grab UNI consists of the following components:

- 2 swivel arms
- 2 double-acting hydraulic cylinders
- 1 grate
- 2 mount
- 1 bucket body
- Fork tines (number depends on the model)
- Gripping tines (top loading grip)

The frame is equipped with 2 support hooks and 2 support lugs for the Euro change frame.

To operate the double-acting hydraulic cylinders, the 3rd control circuit or a double-acting auxiliary control unit must be installed on the tractor or front loader.

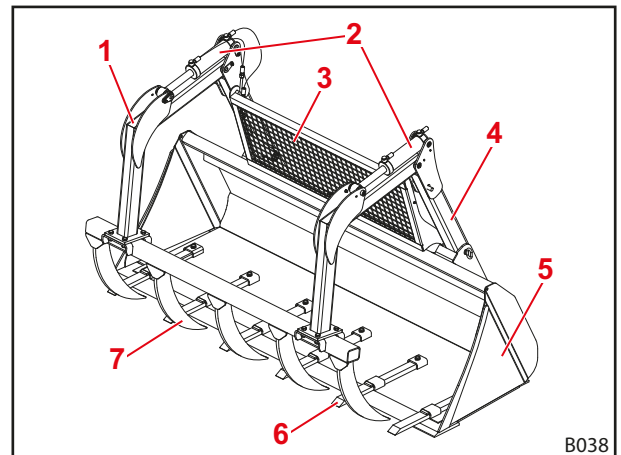


Fig. 21 Structure of the bucket with grab UNI

Legend

- 1 Swivel arm
- 2 Hydraulic cylinder
- 3 Grid
- 4 Bracket
- 5 Bucket body
- 6 Fork arms
- 7 Gripping tines (top loading grip)

3.5.2 Start-up

3.5.2.1 Initial operation

The initial operation is performed at a specialist workshop. This also includes mounting of the implement as well as a functional check.

- Obtain instruction from the specialised workshop and ask questions if necessary.
- Read the operating instructions before initial use.
- Check all of the implement functions without a load.
- Check proper functioning of the implement under all operating states.

Mounting the implement:

- (1) Mount the implement according to the installation instructions A2005.
- ✓ The implement is mounted.

Installing the supply lines:

- (2) Connect 2 hose lines to the T-union.
- (3) Install the hydraulic couplings at the other end of the hose line.
- (4) Only for screw or plug-in couplings:
 - Put the red protective cap on the coupling sleeve of the right hose line (*opening* function).
 - Put the blue protective cap on the coupling sleeve of the left hose line (*closing* function).
- (5) Bundle the hose lines with cable ties.
- ✓ The supply lines are installed.

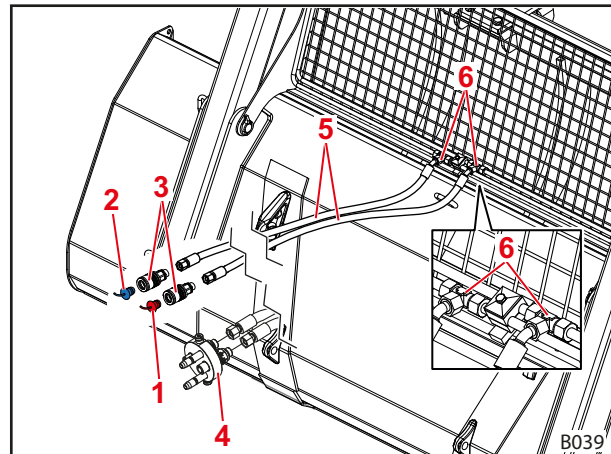


Fig. 22 Installing the supply lines

Legend

- 1 Red protective cap
- 2 Blue protective cap
- 3 Hydraulic couplings (screw/plug-in couplings)
- 4 Hydraulic couplings (Implement-Fix)
- 5 Hose lines
- 6 T-union

3.5.2.2 Check before each start-up

- see 3.1.2.2 *Check before each start-up*

3.5.2.3 Mounting the implement


The implement is intended for mounting on a Euro change frame.

- In doing so, observe the description and warnings for mounting implements and operation of the implement locking mechanism in the front loader operating instructions.

Hydraulic connection

- Connect the hydraulic hoses with the hydraulic couplings to the connections of the 3rd control circuit.

3.5.3 Operation

 The tines of the top grapple may not be bent!
To ensure a smooth operation, straighten bent tines.

Picking up loads:

- ➔ Before beginning operation, check that the implement functions properly and safely without a load.
- (1) Position the implement horizontally and open all the way.
- (2) Drive the implement with the top loading grip open into the load with some momentum.
- (3) Slightly tilt the implement.
- (4) With the tractor engine running at about mid-speed, close the top loading grip.
 - ✓ The load has been picked up.

3.5.4 Putting down the implement

- see 6.1 *Temporary decommissioning*

3.6 Disposal bucket

3.6.1 Structure and description

The implement consists of the following components:

- 1 top grapple
- 2 double-acting hydraulic cylinders
- 1 bucket body

Special features for bucket widths greater than 2.5 m:

- 3rd bearing position in the middle
- 2 additional support hooks for FZ 100 change frame

Option:

- 2 side sheets

The bucket body is equipped with 2 support hooks and 2 support lugs for the Euro change frame.

To operate the double-acting hydraulic cylinders, the 3rd control circuit or a double-acting auxiliary control unit must be installed on the tractor or front loader.

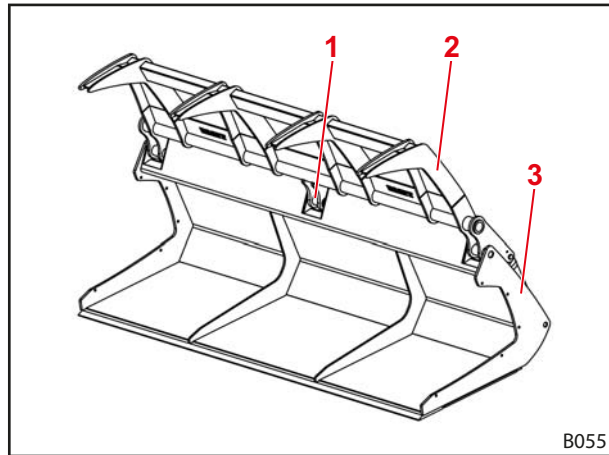


Fig. 23 Structure of the disposal bucket – front view

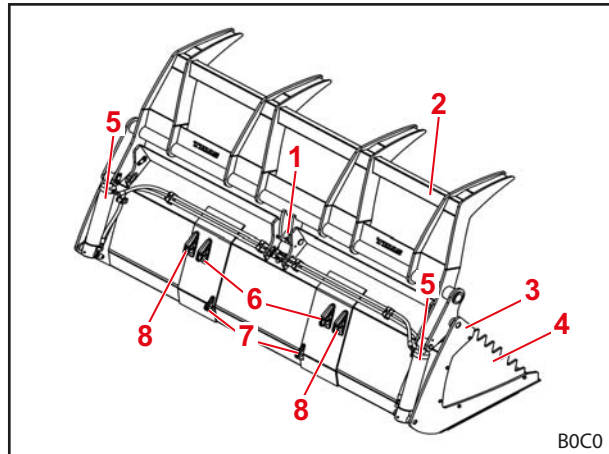


Fig. 24 Structure of the disposal bucket – rear view

Legend

- 1 3rd bearing position in the middle
- 2 Top grapple
- 3 Bucket body
- 4 Side sheet
- 5 Hydraulic cylinder
- 6 Support hooks for change frame
- 7 Support lugs for pins of the change frame
- 8 Additional support hook for FZ 100 change frame

3.6.2 Start-up

3.6.2.1 Initial operation

The initial operation is performed at a specialist workshop. This also includes mounting of the implement as well as a functional check.

- Obtain instruction from the specialised workshop and ask questions if necessary.
- Read the operating instructions before initial use.
- Check all of the implement functions without a load.
- Check proper functioning of the implement under all operating states.

The factory assembles the implement so that it is ready for use. Only the hydraulic lines and the side sheets (optional) still need to be mounted prior to initial start-up.

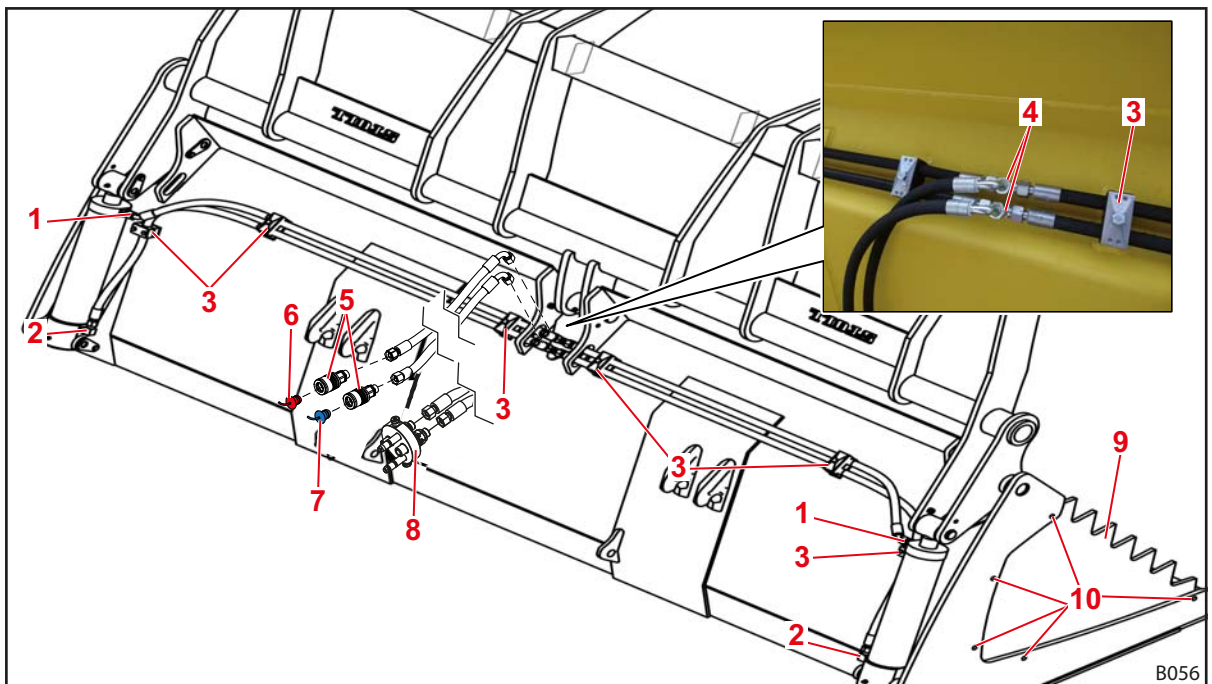


Fig. 25 Preparing for initial operation

Legend

1	Top connection	6	Red protective cap
2	Bottom connection	7	Blue protective cap
3	Pipe clamps	8	Hydraulic couplings (Implement-Fix)
4	T-union	9	Side sheet
5	Hydraulic couplings (screw/plug-in couplings)	10	Hexagonal screws M12

Installing the hydraulic lines (on both sides of the implement):

- (1) Screw in the screw-in connector on the top connection of the hydraulic cylinder.
- (2) Connect the shorter hydraulic hose with the 45° end on the screw-in connector.
- (3) Connect the longer hydraulic hose to the bottom connection.
- (4) Connect the hydraulic lines with T-unions.



Pay attention to the correct assignment of the hose lines:

The two top ends of the hydraulic cylinders must be connected to each other.
The two bottom ends of the hydraulic cylinders must be connected to each other.

(5) Fasten the hydraulic hoses with pipe clamps.



The number of pipe clamps differs depending on the bucket width.

✓ The hydraulic lines are installed.

Installing the supply lines:

(6) Connect 2 supply lines to the T-union.



For supply lines with 90° end, pay attention to the orientation (see Fig. 25).

(7) Install the hydraulic couplings at the other end of the hose line.

(8) Only for screw or plug-in couplings:

- Put the red protective cap on the coupling sleeve of the upper hose line (*open* function).
- Put the blue protective cap on the coupling sleeve of the lower hose line (*close* function).

(9) Bundle the hose lines with cable ties.

✓ The supply lines are installed.

Installing the side sheets (optional):

(10) Install 2 side sheets on the inside of the bucket body, each with 5 hexagonal screws M12, detent edged rings and hexagonal nuts.



Do not put the side sheets on the bucket body from the outside.

✓ The side sheets are installed.

3.6.2.2 Check before each start-up

- see 3.1.2.2 *Check before each start-up*

3.6.2.3 Mounting the implement

The implement is intended for mounting on a Euro change frame.

The design sizes with a bucket width wider than 2.5 m can also be used on the reinforced Euro change frame of the FZ 100 front loader.

- In doing so, observe the description and warnings for mounting implements and operation of the implement locking mechanism in the front loader operating instructions.

Hydraulic connection

- Connect the hydraulic hoses with the hydraulic couplings to the connections of the 3rd control circuit.

3.6.3 Operation

NOTICE

Possible destruction of the implement!

The implement is only suitable for transporting bulk goods. Use for demolition work can lead to destruction of the implement.

- ▶ Only use the implement for the transport of bulk goods.



The tines of the top grapple may not be bent!
To ensure a smooth operation, straighten bent tines.

For low-density material (e.g. compost):

- ➔ Before beginning operation, check that the implement functions properly and safely without a load.
- (1) Position the implement horizontally and open all the way.
- (2) With the top grapple opened, drive the implement into the pile with a bit of momentum.
- (3) Slightly tilt the implement.
- (4) With the tractor engine running around medium speed, lower the top grapple until it reaches the bottom end position.
- ✓ The load has been picked up.

For loose material (e.g. uncut pruned material):

- ➔ Before beginning operation, check that the implement functions properly and safely without a load.
- (1) Tip the implement down by about 45° and open the top grapple all the way.
- (2) Drive into the pruned material with the top grapple.
- (3) Close the top grapple.
- ✓ The load has been picked up.

3.6.4 Putting down the implement

- see 6.1 *Temporary decommissioning*

3.7 Silage cutters

3.7.1 Structure and description

The implement consists of the following components:

- 1 frame with grate rear wall
- 2 or 3 double-acting hydraulic cylinders
- 2 side walls
- 1 cutting top grapple
- Fork tines (number depends on the model)

Depending on the design size, the frame is equipped with 1 or 2 transport eyes at the top rear, on which the implement can be transported (e.g. with a crane). The frame is equipped with 2 support hooks and 2 support lugs for the Euro change frame.

To actuate the double-acting hydraulic cylinder, the 3rd control circuit or a double-acting auxiliary control unit must be installed on the tractor or front loader.

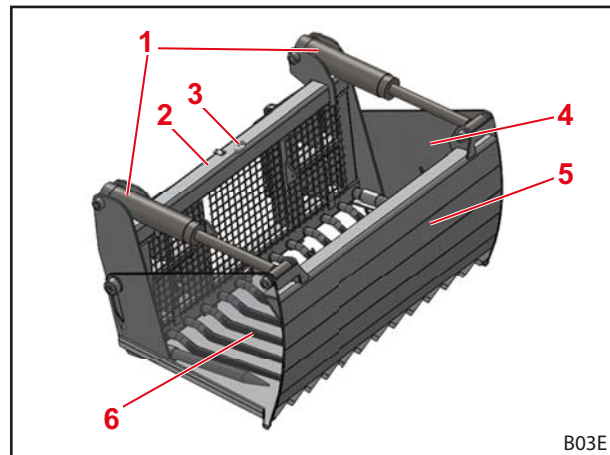


Fig. 26 Structure of the silage cutters with 2 hydraulic cylinders

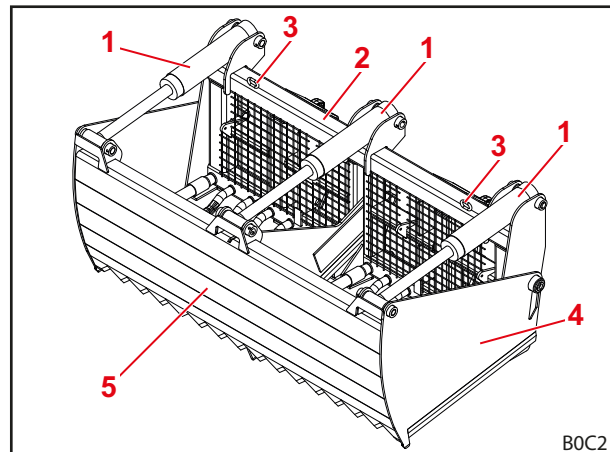


Fig. 27 Structure of the silage cutters with 3 hydraulic cylinders

Legend

- 1 Hydraulic cylinder
- 2 Frame with grate rear wall
- 3 Lifting eye
- 4 Side wall
- 5 Cutting top grapple
- 6 Fork arms

3.7.2 Start-up

3.7.2.1 Initial operation

The initial operation is performed at a specialist workshop. This also includes mounting of the implement as well as a functional check.

- Obtain instruction from the specialised workshop and ask questions if necessary.
- Read the operating instructions before initial use.
- Check all of the implement functions without a load.
- Check proper functioning of the implement under all operating states.

The factory assembles the implement so that it is ready for use. Only the hydraulic and supply lines still need to be installed before the initial operation.

*Installing the hydraulic lines
(with 3 hydraulic cylinders):*

- (1) Install 4 hydraulic lines with the 90° end on the two outer hydraulic cylinders, each with 1 screw-in connector.
- (2) Install 2 T-unions with screw-in connectors on the centre hydraulic cylinder.
- (3) Install 2 T-unions with T-unions on the centre hydraulic cylinder.
- (4) Install 4 hydraulic lines on the T-unions.
- (5) Bundle the hose lines with cable ties.
- ✓ The hydraulic lines are installed.

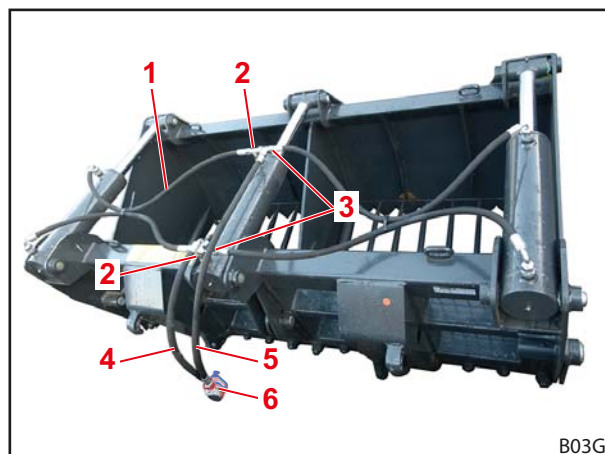


Fig. 28 Installing the hydraulic lines (example: silage cutters with 3 hydraulic cylinders)

*Installing the hydraulic lines
(with 2 hydraulic cylinders):*

- (1) Install 4 hydraulic lines with the 90° end on the two hydraulic cylinders, each with 1 screw-in connector.
- (2) Connect the top hydraulic lines with T-unions.
- (3) Connect the bottom hydraulic lines with T-unions.
- ✓ The hydraulic lines are installed.

Legend

- | | |
|---|---|
| 1 | Hydraulic line |
| 2 | T-union |
| 3 | T-unions on the centre hydraulic cylinder |
| 4 | Bottom supply line |
| 5 | Top supply line |
| 6 | Hydraulic couplings |

Installing the supply lines:

- (4) Connect 2 supply lines to the T-union.
- (5) Install the hydraulic couplings at the other end of the hose line.
- (6) Only for screw or plug-in couplings:
 - Put the red protective cap on the coupling sleeve of the upper hose line (*opening* function).
 - Put the blue protective cap on the coupling sleeve of the lower hose line (*closing* function).
- (7) Bundle the hose lines with cable ties.
- ✓ The supply lines are installed.

3.7.2.2 Check before each start-up

- see 3.1.2.2 *Check before each start-up*

3.7.2.3 Mounting the implement

The implement is intended for mounting on a Euro change frame.

- In doing so, observe the description and warnings for mounting implements and operation of the implement locking mechanism in the front loader operating instructions.

Hydraulic connection

- Connect the hydraulic hoses with the hydraulic couplings to the connections of the 3rd control circuit.

3.7.3 Operation

NOTICE

Possible material damage due overlap of the cutting top grapple!

Due to overlap of the cutting top grapple, the underlying silage can be loosened when pulling out the silage cutters from the silage stock, and the cutting top grapple can be damaged.

- ▶ Tilt up the silage cutters before pulling out of the silage stock.
- ▶ Or: Swivel back the cutting top grapple sufficiently.



Information on the cutting top grapple

- Keep the blade of the cutting top grapple clean and sharp to ensure flawless work results.
- Damaged blades must be resharpened using a smooth file if necessary.
- Proceed with utmost caution when using a right-angle grinder for sharpening. The cutting edges may not be tempered!
- Replace the blade when excessively damaged (e.g. by a foreign object in the silage stack).
 - Take out the damaged segments and replace the individual blades.

Picking up loads:

➔ Before beginning operation, check that the implement functions properly and safely without a load.

- (1) Position the implement horizontally and open all the way.
- (2) Drive the implement with the top grapple open into the material to be picked up.
- (3) Apply the parking brake.
- (4) With the tractor engine running around medium speed, lower the top grapple until it reaches the bottom end position.



At the end of the cutting stroke, the cutting edge will reach under the level of the tines (overlap), which allows the block to be separated more easily from the silage stock.

- (5) Release the parking brake of the tractor.
- (6) Slightly tilt the implement.
- (7) Drive in reverse out of the silage stock and carefully lift the silage block with the front loader.



Avoid unnecessary transverse loads on the implement and front loader.



Make sure that the silage is taken out of the silage stock such that there is silage on both sides of the implement or there is no silage on both sides.

- ✓ The load has been picked up.

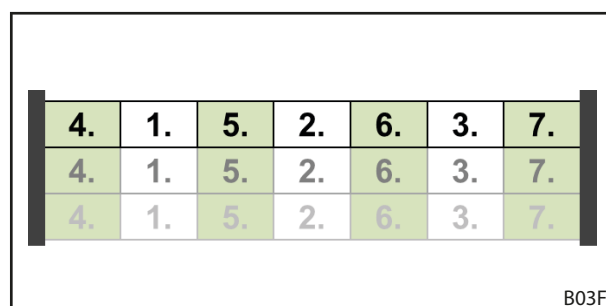


Fig. 29 Example for the removal sequence of individual silage blocks

3.7.4 Putting down the implement

- see 6.1 Temporary decommissioning

3.8 Bucket with grapple, multifunction bucket HD and fork with grapple

3.8.1 Structure and description

The bucket with grapple and the multifunction bucket HD consist of the following components:

- 2 double-acting hydraulic cylinders
- 1 top grapple
- Gripping tines (number depends on the model)
- 1 bucket body

Options:

- 2 side sheets
- 2 lateral teeth

The fork with grapple consists of the following components:

- 2 double-acting hydraulic cylinders
- 1 top grapple
- Gripping tines (number depends on the model)
- 1 frame
- Fork tines (number depends on the model)

The bucket body/frame is equipped with 2 support hooks and 2 support lugs for the Euro change frame.

To actuate the double-acting hydraulic cylinder of the top grapple, the 3rd control circuit or a double-acting auxiliary control unit must be installed on the tractor or front loader.

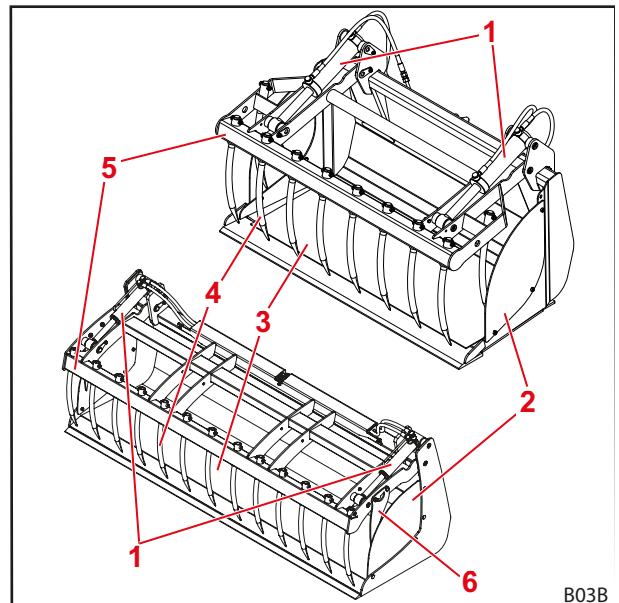


Fig. 30 Structure of the bucket with grapple and multifunction bucket HD

Legend

- 1 Hydraulic cylinder
- 2 Side sheets
- 3 Bucket body
- 4 Gripping tines
- 5 Top grapple
- 6 Lateral tooth

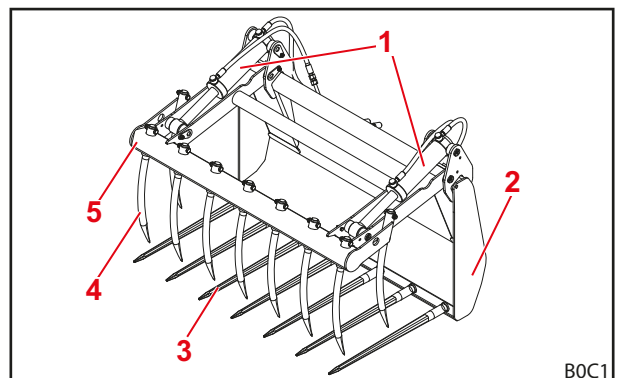


Fig. 31 Structure of the fork with grapple

Legend

- 1 Hydraulic cylinder
- 2 Beam
- 3 Fork arms
- 4 Gripping tines
- 5 Top grapple

3.8.2 Start-up

3.8.2.1 Initial operation

The initial operation is performed at a specialist workshop. This also includes mounting of the implement as well as a functional check.

- Obtain instruction from the specialised workshop and ask questions if necessary.
- Read the operating instructions before initial use.
- Check all of the implement functions without a load.
- Check proper functioning of the implement under all operating states.

The factory assembles the implement so that it is ready for use. The hydraulic lines and the optional accessories still need to be mounted prior to initial start-up.

Bucket with grapple and fork with grapple

Installing the hydraulic lines:

- (1) Install the hydraulic lines according to the installation instructions A1913.
- ✓ The hydraulic lines are installed.

Installing the supply lines:

- (2) Connect 2 supply lines to the T-piece.
- (3) Install the hydraulic couplings at the other end of the hose line.
- (4) Only for screw or plug-in couplings:
 - Put the red protective cap on the coupling sleeve of the left hose line (*open* function).
 - Put the blue protective cap on the coupling sleeve of the right hose line (*close* function).

- (5) Bundle the hose lines with cable ties.
- ✓ The supply lines are installed.

*Installing the side sheets
(Option for bucket with grapple):*

- (6) Install 2 side sheets on the bucket body from the outside, each with 3 hexagonal screws M10x20 and hexagonal nuts.
- ✓ The side sheets are installed.

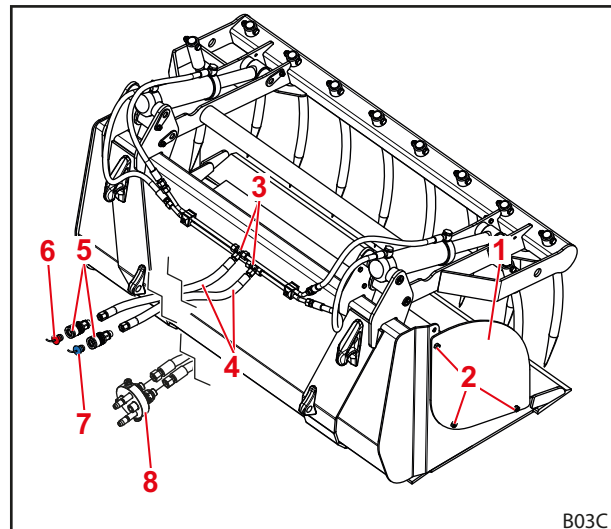


Fig. 32 Preparing for initial operation (example: bucket with grapple)

Legend

- 1 Side sheet
- 2 Hexagonal screws M10x20
- 3 T-pieces
- 4 Supply lines
- 5 Hydraulic couplings (screw/plug-in couplings)
- 6 Red protective cap
- 7 Blue protective cap
- 8 Hydraulic couplings (Implement-Fix)

Multifunction bucket HD

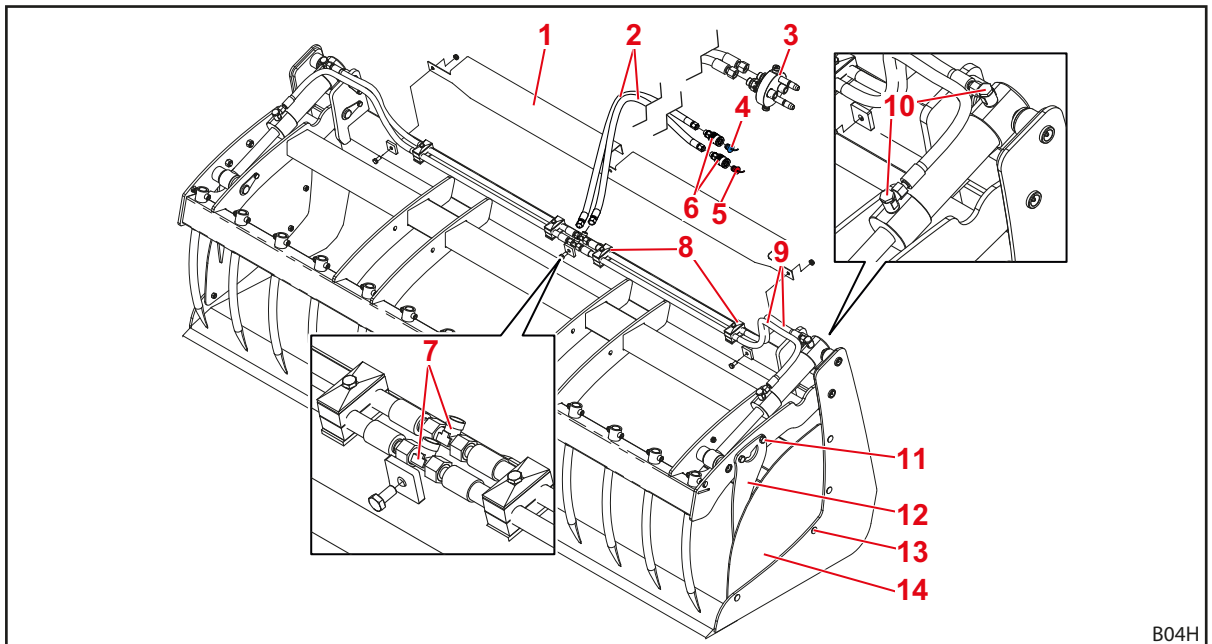


Fig. 33 Preparing for initial operation – Multifunction bucket HD

Legend

1	Cover plate	8	Pipe clamps
2	Supply lines	9	Hydraulic hoses
3	Hydraulic couplings (Implement-Fix)	10	Adjustable elbow union
4	Blue protective cap	11	Hexagonal screw M14x35 with hexagonal nut
5	Red protective cap	12	Lateral tooth
6	Hydraulic couplings (screw/plug-in couplings)	13	Hexagonal screw M10x25 with hexagonal nut
7	T-union	14	Side sheet

Installing the hydraulic lines (on both sides of the implement):

- (1) Remove the cover plate.
- (2) Connect the hydraulic lines to the connections of the hydraulic cylinder, each with 1 adjustable elbow union.

i Make sure that the hose lines lead away from the hydraulic cylinder at about a right angle after the adjustable elbow union has been tightened.

- (3) Connect the hydraulic lines with T-unions.

i Pay attention to the correct assignment of the hose lines:
 The two front connections of the hydraulic cylinders must be connected to each other.
 The two rear connections of the hydraulic cylinders must be connected to each other.

- (4) Fasten hydraulic lines with pipe clamps.
- (5) Reinstall the cover plate.
- ✓ The hydraulic lines are installed.

Installing the supply lines:

- (6) Connect 2 supply lines to the T-union.

i For supply lines with 90° end, pay attention to the orientation.

- (7) Install the hydraulic couplings at the other end of the hose line.
- (8) Only for screw or plug-in couplings:
 - Put the red protective cap on the coupling sleeve of the rear hose line (*open* function).
 - Put the blue protective cap on the coupling sleeve of the front hose line (*close* function).
- (9) Bundle the hose lines with cable ties.
 - ✓ The supply lines are installed.

Installing the side sheets (optional):

- (10) Install 2 side sheets on the inside of the bucket body, each with 4 hexagonal screws M10x25 and hexagonal nuts.

Installing the lateral teeth (optional):

- (11) Install 2 lateral teeth on the outside of the top grapple, each with 2 hexagonal screws M14x35 and hexagonal nuts.
 - ✓ The implement is prepared for initial operation.

3.8.2.2 Check before each start-up

- see 3.1.2.2 *Check before each start-up*

3.8.2.3 Mounting the implement

The implement is intended for mounting on a Euro change frame.

- In doing so, observe the description and warnings for mounting implements and operation of the implement locking mechanism in the front loader operating instructions.

Hydraulic connection

- Connect the hydraulic hoses with the hydraulic couplings to the connections of the 3rd control circuit.

3.8.3 Operation



The tines of the top grapple may not be bent!
To ensure a smooth operation, straighten bent tines.

Picking up loads:

- ➔ Before beginning operation, check that the implement functions properly and safely without a load.
- (1) Position the implement horizontally and open all the way.
 - (2) Drive the implement with the top grapple open into the material to be picked up.
 - (3) With the tractor engine running around medium speed, lower the top grapple until it reaches the bottom end position.



It may be necessary to lift or tilt up the implement slightly before completely closing the top grapple.

- (4) Lift the load.
- (5) Close the top grapple again or press down again to securely grasp any loose loads before transport.
 - ✓ The load has been picked up.

3.8.4 Putting down the implement

⚠ WARNING

Risk of injury due to implement tipping over!

When the top grapple is open, the bucket or fork with grapple can tip over. This can cause injuries to persons.

- ▶ Only put down the bucket or fork with grapple when the top grapple is closed and completely swivelled down!

When the hydraulic cylinder is completely extended, the top grapple is completely swivelled down.

In this position, the bucket with grapple or fork with grapple can be safely removed from the front loader and put down.

- see 6.1 Temporary decommissioning

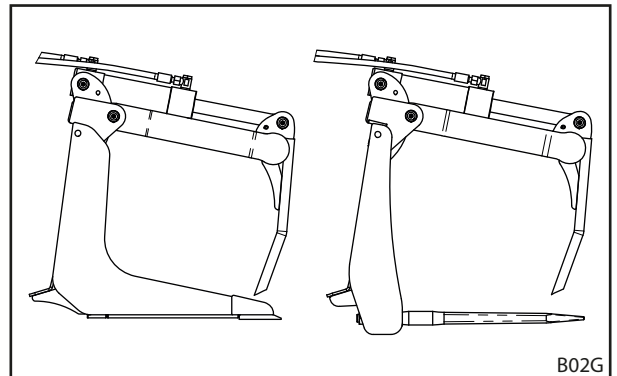


Fig. 34 Putting down the implement

3.9 Round bale cutter

3.9.1 Structure and description

The implement consists of the following components:

- 1 main frame
- 1 rear panel
- 1 gripper mechanism
- 1 cutting frame
- 2 double-acting hydraulic cylinders
- 5 bale tines

The main frame is equipped with 2 support hooks and 2 support lugs for the Euro change frame.

To operate the double-acting hydraulic cylinders, the 3rd control circuit or a double-acting auxiliary control unit must be installed on the tractor or front loader.

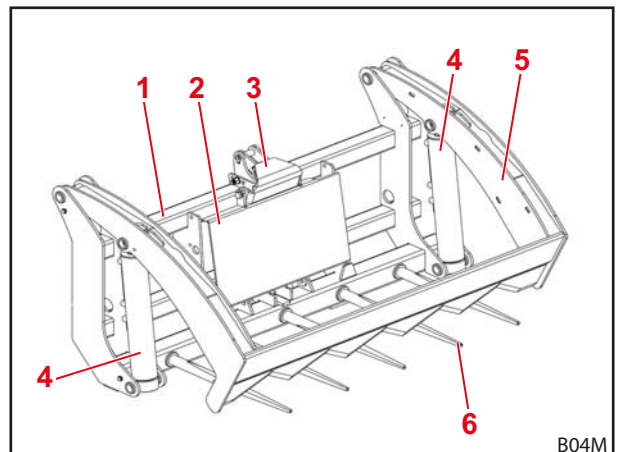


Fig. 35 Structure of the round bale cutter

Legend

- 1 Main frame
- 2 Rear panel
- 3 Gripper mechanism
- 4 Hydraulic cylinder
- 5 Cutting frame
- 6 Bale tines

3.9.2 Start-up

3.9.2.1 Initial operation

The initial operation is performed at a specialist workshop. This also includes mounting of the implement as well as a functional check.

- Obtain instruction from the specialised workshop and ask questions if necessary.
- Read the operating instructions before initial use.
- Check all of the implement functions without a load.
- Check proper functioning of the implement under all operating states.

The factory assembles the implement so that it is ready for use. Only the supply lines still need to be installed before initial operation.

Installing the supply lines:

- (1) Remove the 2 sealing plugs from the installed control valve.
 - (2) Connect 2 hydraulic hoses to the screw-in connector.
 - (3) Install the hydraulic couplings at the other end of the hose line.
 - (4) Only for screw or plug-in couplings:
 - Put the red protective cap on the coupling sleeve that supplies the *opening* side of the hydraulic cylinder. Put the blue protective cap on the other coupling sleeve.
- ✓ The supply lines are installed.

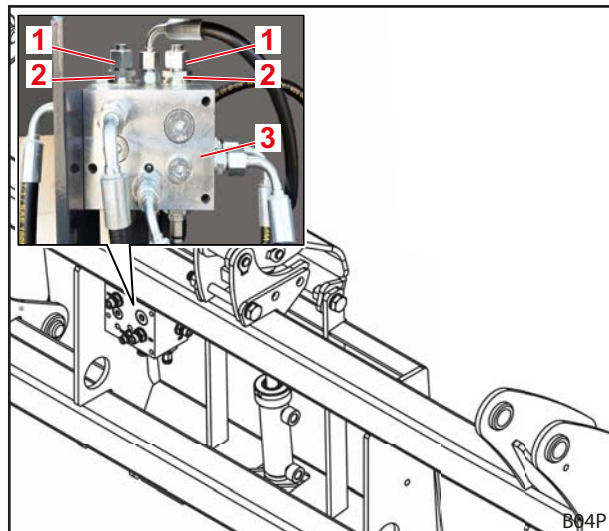


Fig. 36 Installing the supply lines

Legend

- 1 Seal plug
- 2 Screw-in connector
- 3 Control valve

3.9.2.2 Check before each start-up

- see 3.1.2.2 *Check before each start-up*

3.9.2.3 Mounting the implement

The implement is intended for mounting on a Euro change frame.

- In doing so, observe the description and warnings for mounting implements and operation of the implement locking mechanism in the front loader operating instructions.

Hydraulic connection

- Connect the hydraulic hoses with the hydraulic couplings to the connections of the 3rd control circuit.

3.9.3 Operation

i Information on the cutting frame

- The blades of the round bale cutter must be sharpened on a regular basis.
- You must always wear protective clothing and safety shoes when working on the blades.
- During normal operation, the blades must be sharpened only if they are damaged.
- The knives may be sharpened only using a file.
- Do not use portable grinding machines, as this will overheat the blades and affect their sharpness.

Processing round bales:

→ Before beginning operation, check that the implement functions properly and safely without a load.

- (1) Drive towards the round bale with the implement fully open and with tines lowered to the ground until the round bale is firmly pressed against the main frame.



Fig. 37 Pressing the round bales against the main frame

- (2) Close the cutting frame over the round bale while the gripper closes at the same time and holds the plastic wrapping in place.

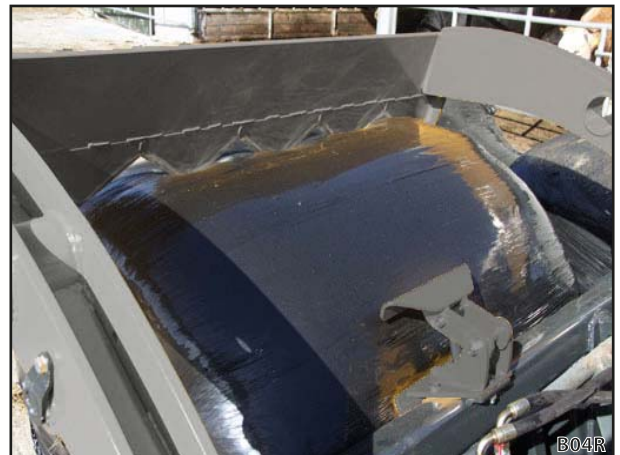


Fig. 38 Closing the cutting frame over the round bale

- (3) Transport the round bale to the site where it is intended to be cut apart.
- (4) Close the implement to cut the bale through the plastic wrapping.



Fig. 39 Dividing round bales

- (5) Open the implement almost fully and raise the front loader at the same time to unload the bale halves onto the feed belt or into the feed trolley.



Fig. 40 Opening the implement

- (6) Raise the front loader even further to remove the plastic wrapping, which is still held by the gripping claws, from the round bale.



Fig. 41 Removing the plastic wrapping

- (7) Drive to a suitable collection site for recycling and unload the plastic wrapping by completely opening the implement.
- ✓ The round bales have been processed.



Fig. 42 Unloading the plastic wrapping

3.9.4 Putting down the implement



Make sure that the implement is always completely closed when not in use.

- see 6.1 Temporary decommissioning

3.10 Wrapped bale handler H

3.10.1 Structure and description

The implement consists of the following components:

- 2 grippers
- 1 adjustable bearing support
- 1 frame
- 1 double-acting hydraulic cylinder
- 2 guide elements to adjust the grippers

The frame is equipped with 2 support hooks and 2 support lugs for the Euro change frame.

To actuate the double-acting hydraulic cylinder, the 3rd control circuit or a double-acting auxiliary control unit must be installed on the tractor or front loader.

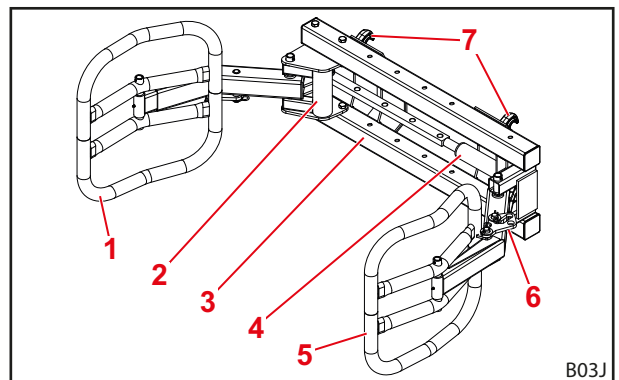


Fig. 43 Structure of the wrapped bale handler H

Legend

- 1 Right gripper
- 2 Adjustable bearing support
- 3 Frame
- 4 Hydraulic cylinder
- 5 Left gripper
- 6 Guide element
- 7 Support hooks for change frame

3.10.2 Start-up

3.10.2.1 Initial operation

The initial operation is performed at a specialist workshop. This also includes mounting of the implement as well as a functional check.

- Obtain instruction from the specialised workshop and ask questions if necessary.
- Read the operating instructions before initial use.
- Check all of the implement functions without a load.
- Check proper functioning of the implement under all operating states.

The factory assembles the implement so that it is ready for use. Only the supply lines still need to be installed before initial operation.

Installing the supply lines:

- (1) Install 1 hose line on the 90° end with 1 adjustable elbow union on the locking block of the hydraulic cylinder.
 - (2) Install 1 hose line on the 90° end with 1 screw-in connector on the locking block of the hydraulic cylinder.
 - (3) Install the hydraulic couplings at the other end of the hose line.
 - (4) Only for screw or plug-in couplings:
 - Put the red protective cap on the coupling sleeve of the inner hose line (*opening function*).
 - Put the blue protective cap on the coupling sleeve of the outer hose line (*closing function*).
 - (5) Bundle the hose lines with cable ties.
- ✓ The supply lines are installed.

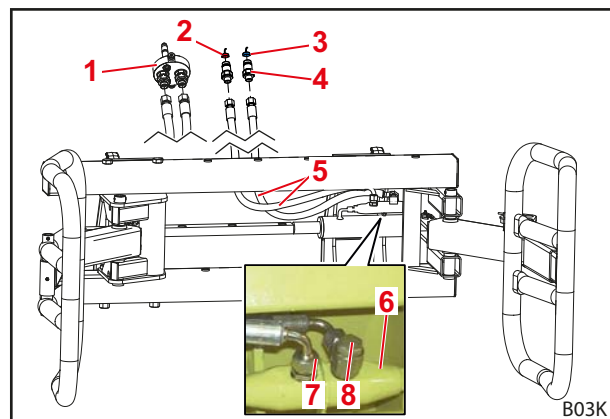


Fig. 44 Installing the supply lines

Legend

- 1 Hydraulic couplings (Implement-Fix)
- 2 Red protective cap
- 3 Blue protective cap
- 4 Hydraulic couplings (screw/plug-in couplings)
- 5 Hose lines
- 6 Locking block
- 7 Screw-in connector
- 8 Adjustable elbow union

3.10.2.2 Check before each start-up

- see 3.1.2.2 *Check before each start-up*

3.10.2.3 Mounting the implement

The implement is intended for mounting on a Euro change frame.

- In doing so, observe the description and warnings for mounting implements and operation of the implement locking mechanism in the front loader operating instructions.

Hydraulic connection

- Connect the hydraulic hoses with the hydraulic couplings to the connections of the 3rd control circuit.

3.10.3 Operation

i Notes

- Compress the silage bales as tightly as possible to make them easier to load.
- Press bales that have secondary fermentation and are very soft, repeatedly together with the implement before transporting them, as these bales are too prone to collapsing and can slip out of the implement when driving on bumpy surfaces.
- Do not grip very long square bales of silage (longer than 1.50 m) by the ends, as they tend to sag under their own weight and thereby slip off.
- Make sure that the bale is resting on the inside of the frame when gripping and transporting it to ensure safe handling of the bale.
- If possible, only 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.
- The wrapped bale handler can be used to pick up, transport and deposit or stack wrapped bales that are either upright or horizontal.

Adjusting the gripper spacing to the bale width or bale diameter:

- (1) Loosen the pin on the bearing support and pull it out.
- (2) Unscrew the top and bottom screws.
- (3) Slide the bearing support to the desired position.
- (4) Fasten the bearing support again with the top and bottom screw.
- (5) Reinstall the pin on the bearing support.

i The number of free holes on the frame on the right beside the screws and on the control rod on the right beside the pin must be the same.

- ✓ The gripper spacing is set.

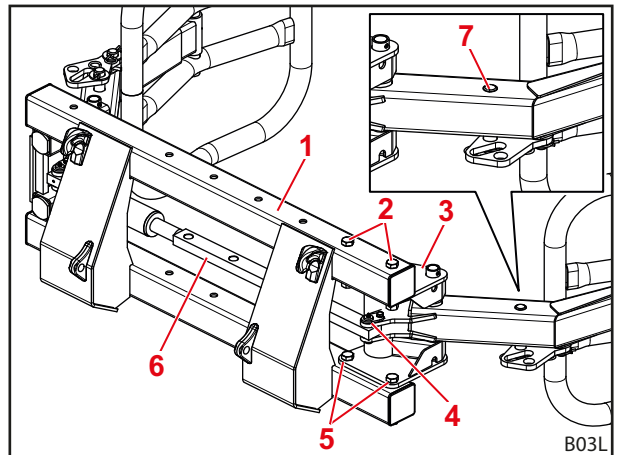


Fig. 45 Adjusting the gripper spacing to the bale width or bale diameter

Legend

- 1 Frame
- 2 Top screw
- 3 Bearing block
- 4 Pin on the bearing support
- 5 Bottom screw
- 6 Control rod
- 7 Pins in the guiding element (right gripper)

Adjusting the gripper angle on the guide elements (on both sides):

- For round bales with a diameter smaller than 1.5 m, insert the pins of the guide element through the elongated slot (see pattern of holes A in Fig. 46).
 - For round bales with a diameter greater than 1.5 m, insert the pins of the guide element through the hole with the short distance (see pattern of holes B in Fig. 46).
 - For square bales or horizontal round bales, different settings can be optimal depending on the properties of the bales (proportions, density). Determine the best possible setting by trial and error.
- ✓ The gripper angle has been adjusted on the guide elements.

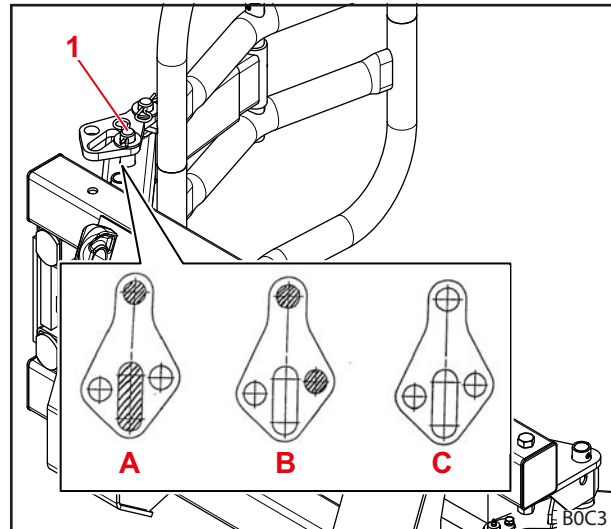


Fig. 46 Adjusting the gripper spacing to the bale width or bale diameter (left gripper)

Legend

- 1 Pins in the guiding element
- A Pattern of holes for round bales with a diameter < 1.5 m
- B Pattern of holes for round bales with a diameter \geq 1.5 m
- C The pattern of holes must be determined by trial and error

Picking up loads:

- ➔ Before beginning operation, check that the implement functions properly and safely without a load.
- (1) Position the implement horizontally and open all the way.
 - (2) Carefully drive into the bale until the bale touches the frame of the implement.
 - (3) Close the implement until it securely grasps the bale.
 - (4) Lift the load.
 - (5) It may be necessary to press the bale repeatedly with the implement to grasp it securely.
- ✓ The load has been picked up.

3.10.4 Putting down the implement

- see 6.1 *Temporary decommissioning*

3.11 Wrapped bale handler Pro H

3.11.1 Structure and description

The implement consists of the following components:

- 1 frame
- 2 grippers
- 1 stop frame
- 2 double-acting hydraulic cylinders

The frame is equipped with 2 support hooks and 2 support lugs for the Euro change frame.

To operate the double-acting hydraulic cylinders, the 3rd control circuit or a double-acting auxiliary control unit must be installed on the tractor or front loader.

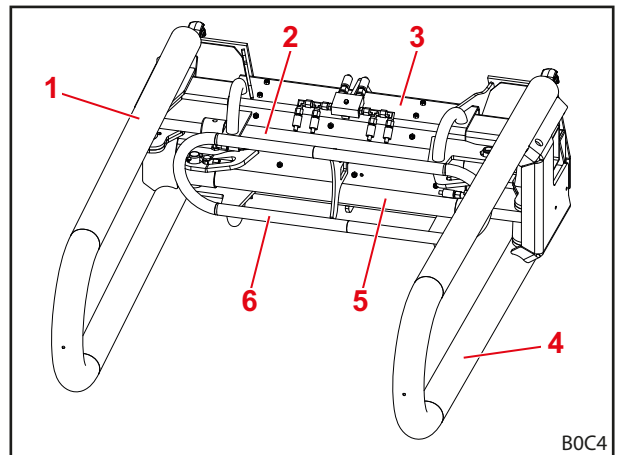


Fig. 47 Structure of the wrapped bale handler Pro H – front view

Legend

- 1 Right gripper
- 2 Hydraulic cylinder for the right gripper
- 3 Frame
- 4 Left gripper
- 5 Hydraulic cylinder for the left gripper
- 6 Stop frame

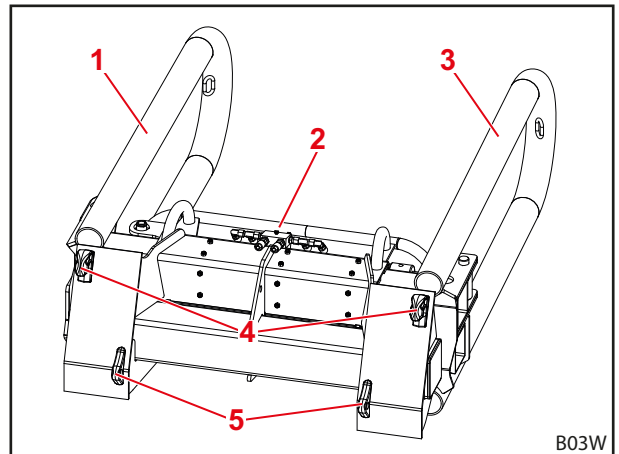


Fig. 48 Structure of the wrapped bale handler Pro H – rear view

Legend

- 1 Left gripper
- 2 Stop frame
- 3 Right gripper
- 4 Support hooks for change frame
- 5 Support lugs for pins of the change frame

3.11.2 Start-up

3.11.2.1 Initial operation

The initial operation is performed at a specialist workshop. This also includes mounting of the implement as well as a functional check.

- Obtain instruction from the specialised workshop and ask questions if necessary.
- Read the operating instructions before initial use.
- Check all of the implement functions without a load.
- Check proper functioning of the implement under all operating states.

The factory assembles the implement so that it is ready for use. Only the hydraulic and supply lines still need to be installed before the initial operation.

Installing the hydraulic lines:

- (1) Install the 4 adjustable elbow unions on the hydraulic cylinders.
- (2) Fasten the locking block with 1 hexagonal screw M6x45 and detent edged ring.
- (3) Install 2 L-connectors on the locking block with screw-in connectors.
- (4) Install 2 adjustable elbow connectors on the L-connectors.
- (5) Connect 2 hydraulic lines 8x400 to the adjustable elbow connectors and the top hydraulic cylinders.

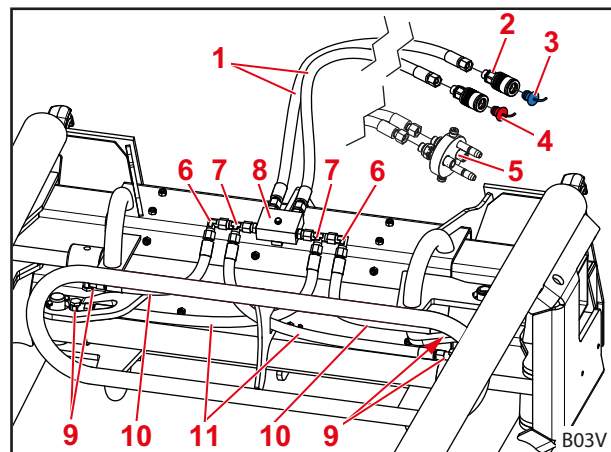


Fig. 49 Preparing for initial operation

i Do not cross over the hydraulic lines:
Route the right connection to the right hydraulic cylinder end and the left connection to the left hydraulic cylinder end.

- (6) Connect 2 hydraulic lines 8x600 to the L-connectors and the bottom hydraulic cylinder.

i Crossing over the hydraulic lines:
Route the left connection to the right hydraulic cylinder end and the right connection to the left hydraulic cylinder end.

Legend

- | | |
|----|---|
| 1 | Supply lines |
| 2 | Hydraulic couplings (screw/plug-in couplings) |
| 3 | Blue protective cap |
| 4 | Red protective cap |
| 5 | Hydraulic couplings (Implement-Fix) |
| 6 | Adjustable elbow connectors |
| 7 | L-connectors |
| 8 | Locking block |
| 9 | Adjustable elbow union |
| 10 | Hydraulic lines 8x400 |
| 11 | Hydraulic lines 8x600 |

- ✓ The hydraulic lines are installed.

Installing the supply lines:

- (7) Install 2 hose lines on the locking block, each with 1 screw-in connector.
- (8) Install the hydraulic couplings at the other end of the hose line.
- (9) Only for screw or plug-in couplings:
 - Put the red protective cap on the coupling sleeve of the left hose line (*opening* function).
 - Put the blue protective cap on the coupling sleeve of the right hose line (*closing* function).
- (10) Bundle the hose lines with cable ties.
- ✓ The supply lines are installed.

3.11.2.2 Check before each start-up

- see 3.1.2.2 *Check before each start-up*

3.11.2.3 Mounting the implement

The implement is intended for mounting on a Euro change frame.

- In doing so, observe the description and warnings for mounting implements and operation of the implement locking mechanism in the front loader operating instructions.

Hydraulic connection

- Connect the hydraulic hoses with the hydraulic couplings to the connections of the 3rd control circuit.

3.11.3 Operation



Notes

- Compress the silage bales as tightly as possible to make them easier to load.
- Press bales that have secondary fermentation and are very soft, repeatedly together with the implement before transporting them, as these bales are too prone to collapsing and can slip out of the implement when driving on bumpy surfaces.
- Do not grip very long square bales of silage (longer than 1.50 m) by the ends, as they tend to sag under their own weight and thereby slip off.
- Make sure that the bale is resting on the inside of the frame when gripping and transporting it to ensure safe handling of the bale.
- If possible, only 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.
- The wrapped bale handler can be used to pick up, transport and deposit or stack wrapped bales that are either upright or horizontal.

Picking up loads:

➔ Before beginning operation, check that the implement functions properly and safely without a load.

- (1) Position the implement horizontally and open all the way.
- (2) Carefully drive into the bale until the bale touches the frame of the implement.
- (3) Close the implement until it securely grasps the bale.
- (4) Lift the load.
- (5) It may be necessary to press the bale repeatedly with the implement to grasp it securely.
 - ✓ The load has been picked up.

3.11.4 Putting down the implement

- see 6.1 *Temporary decommissioning*

3.12 Wrapped bale handler

3.12.1 Structure and description

The implement consists of the following components:

- 1 frame
- 2 grippers
- 1 stop frame
- 2 hydraulic cylinders

The frame is equipped with 2 support hooks and 2 support lugs for the Euro change frame.

The hydraulic cylinders are controlled by the tractor hydraulic system and are used to open and close the grippers.

To actuate the hydraulic cylinder, the 3rd control circuit must be installed on the tractor or front loader.

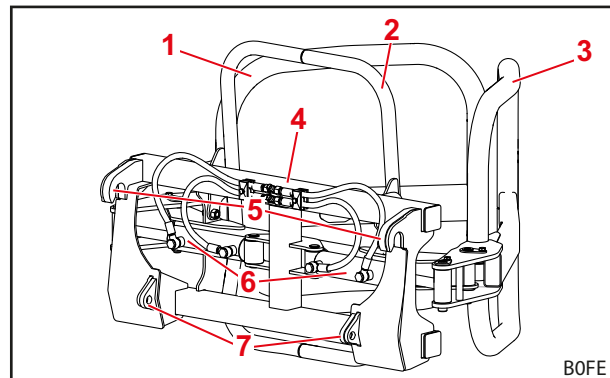


Fig. 50 Structure of the wrapped bale handler

Legend

- 1 Left gripper
- 2 Stop frame
- 3 Right gripper
- 4 Frame
- 5 Support hooks for change frame
- 6 Hydraulic cylinder
- 7 Support lugs for pins of the change frame

3.12.2 Start-up

3.12.2.1 Initial operation

The initial operation is performed at a specialist workshop. This also includes mounting of the implement as well as a functional check.

- Obtain instruction from the specialised workshop and ask questions if necessary.
- Read the operating instructions before initial use.
- Check all of the implement functions without a load.
- Check proper functioning of the implement under all operating states.

The factory assembles the implement so that it is ready for use. Only the hydraulic and supply lines still need to be installed before the initial operation.

Installing the hydraulic lines:

- (1) Install 2 hydraulic lines 10x550 on each hydraulic cylinder, each with 2 USIT-rings and 1 banjo bolt.
- (2) Fasten 2 hydraulic lines each with 2 pipe clamp halves, and install with 1 cover plate and 1 hexagonal screw M8x30 on the frame.

i Do not cross over the hydraulic lines (see Fig. 51)!
Only screw in the hexagonal screws loosely initially!

- (3) Connect 2 hydraulic lines each with 1 T-union.

i The opening of the T-union must point upwards as far as possible (see Fig. 52). Otherwise, the supply lines will chafe later on the cross bar of the change frame.

- (4) Tighten the screws with a torque wrench.

i Observe the tightening torques for the screws in 8.3 *Tightening torques for screws!*

✓ The hydraulic lines are installed.

Installing the supply lines:

- (5) Connect 2 hose lines to the T-union.
- (6) Install the hydraulic couplings at the other end of the hose line.
- (7) Only for screw or plug-in couplings:
 - Put the red protective cap on the coupling sleeve of the upper hose line (*opening function*).
 - Put the blue protective cap on the coupling sleeve of the lower hose line (*closing function*).

- (8) Bundle the hose lines with cable ties.

✓ The supply lines are installed.

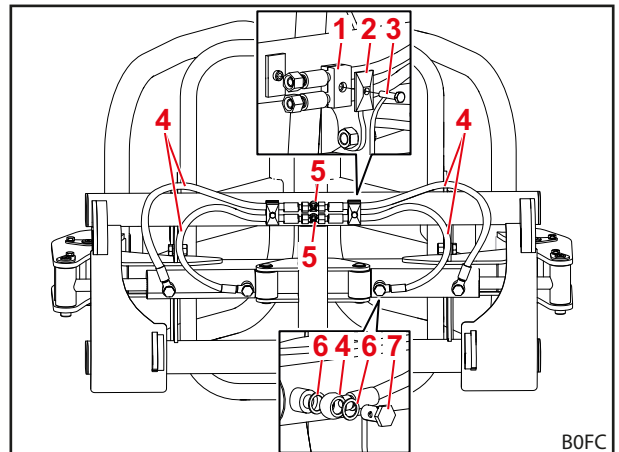


Fig. 51 Installing the hydraulic lines

Legend

- 1 Pipe clamp halves
- 2 Cover plate
- 3 Hexagonal screw M8x30
- 4 Hydraulic lines 10x550
- 5 T-union
- 6 USIT-ring
- 7 Banjo bolt

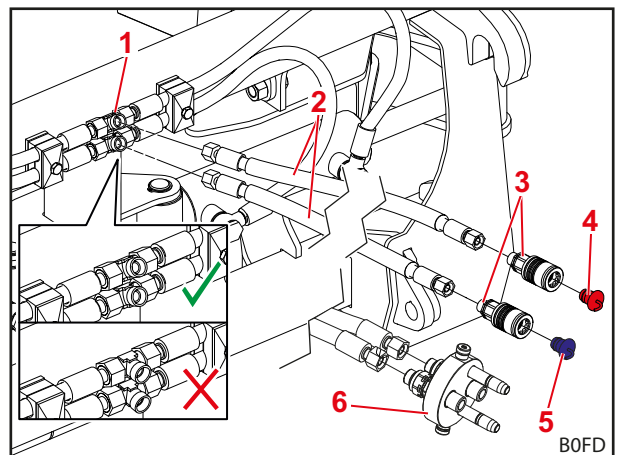


Fig. 52 Installing the supply lines

Legend

- 1 T-union
- 2 Hose lines
- 3 Hydraulic couplings (screw/plug-in couplings)
- 4 Red protective cap
- 5 Blue protective cap
- 6 Hydraulic couplings (Implement-Fix)

3.12.2.2 Check before each start-up

- see 3.1.2.2 Check before each start-up

3.12.2.3 Mounting the implement

The implement is intended for mounting on a Euro change frame.

- In doing so, observe the description and warnings for mounting implements and operation of the implement locking mechanism in the front loader operating instructions.

Hydraulic connection

- Connect the hydraulic hoses with the hydraulic couplings to the connections of the 3rd control circuit.

3.12.3 Operation

Notes

- Compress the silage bales as tightly as possible to make them easier to load.
- Press bales that 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 when driving on bumpy surfaces.
- Make sure that the bale is on the inside of the stop frame when gripping and transporting it to ensure safe handling of the bale.
- If possible, only 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.
- The wrapped bale handler can be used to pick up, transport and deposit or stack wrapped bales that are either upright or horizontal.

Picking up and unloading loads:

- ➔ Before beginning operation, check that the implement functions properly and safely without a load.

- (1) Lower the front loader until it is just above the ground and position the implement horizontally.
- (2) Open the implement all the way.
- (3) Carefully drive into the bale until the bale touches the frame of the implement.

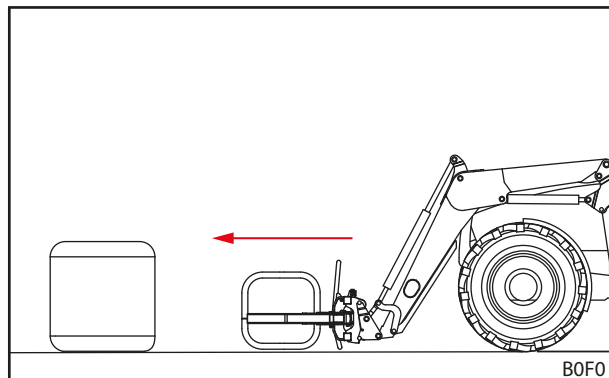




Fig. 53 Driving into the bale

- (4) Close the implement until it securely grasps the bale.

 For a secure hold, grasp the bales at the bottom.

- (5) Lift the load.

 Lift the load only as high as necessary for transport.

- (6) It may be necessary to press the bale repeatedly with the implement to grasp it securely.

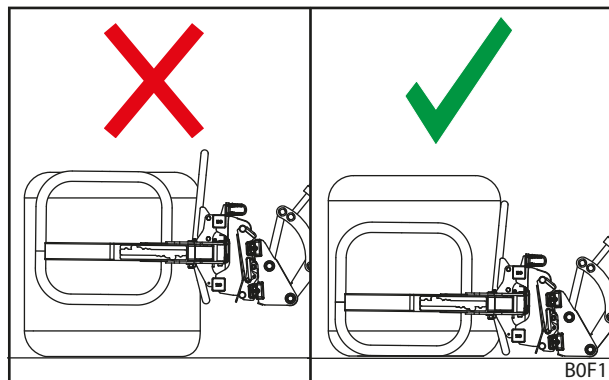


Fig. 54 Grasping the bale at the bottom

- (7) Drive the load to the target site.

- (8) Put down the load.
- (9) Open the implement all the way and carefully drive out of the bale.
 - ✓ The load has been picked up and unloaded.

3.12.4 Putting down the implement

- see 6.1 Temporary decommissioning

3.13 Maxi bale claw

3.13.1 Structure and description

The implement consists of the following components:

- 1 frame
- 2 grippers
- 1 double-acting hydraulic cylinder
- 2 protection tubes
- 6 tines

The frame is equipped with 2 support hooks and 2 support lugs for the Euro change frame.

To actuate the double-acting hydraulic cylinder, the 3rd control circuit or a double-acting auxiliary control unit must be installed on the tractor or front loader.

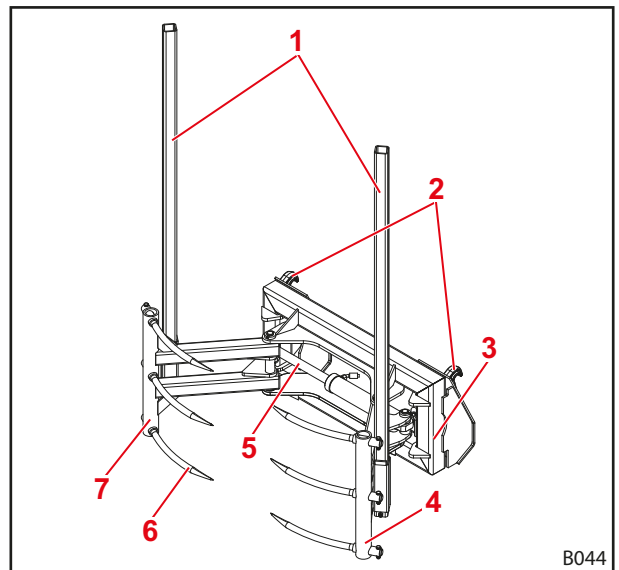


Fig. 55 Structure of the Maxi bale claw

Legend

- 1 Protection tubes
- 2 Support hooks for change frame
- 3 Frame
- 4 Left gripper
- 5 Hydraulic cylinder
- 6 Tines
- 7 Right gripper

3.13.2 Start-up

3.13.2.1 Initial operation

The initial operation is performed at a specialist workshop. This also includes mounting of the implement as well as a functional check.

- Obtain instruction from the specialised workshop and ask questions if necessary.
- Read the operating instructions before initial use.
- Check all of the implement functions without a load.
- Check proper functioning of the implement under all operating states.

The factory assembles the implement so that it is ready for use. Only the supply lines still need to be installed before initial operation.

Installing the supply lines:

- (1) Install 2 hose lines with the 45° end on the hydraulic cylinder, each with 1 screw-in connector.
- (2) Install the hydraulic couplings at the other end of the hose line.
- (3) Only for screw or plug-in couplings:
 - Put the red protective cap on the coupling sleeve of the right hose line (*opening* function).
 - Put the blue protective cap on the coupling sleeve of the left hose line (*closing* function).
- (4) Bundle the hose lines with cable ties.
 - ✓ The supply lines are installed.

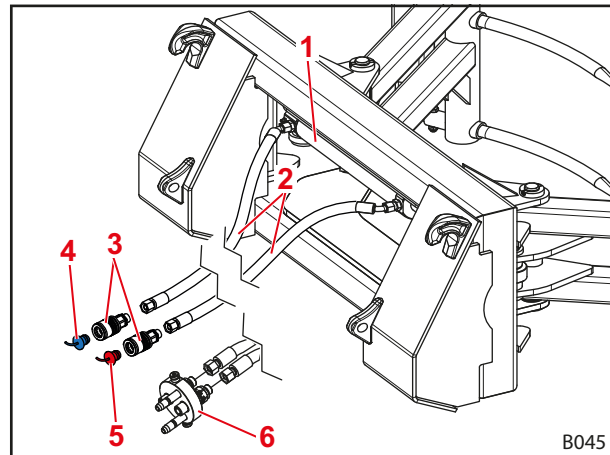


Fig. 56 Connecting the supply lines

Legend

- 1 Hydraulic cylinder
- 2 Hose lines
- 3 Hydraulic couplings (screw/plug-in couplings)
- 4 Blue protective cap
- 5 Red protective cap
- 6 Hydraulic couplings (Implement-Fix)

3.13.2.2 Check before each start-up

- see 3.1.2.2 *Check before each start-up*

3.13.2.3 Mounting the implement

The implement is intended for mounting on a Euro change frame.

- In doing so, observe the description and warnings for mounting implements and operation of the implement locking mechanism in the front loader operating instructions.

Hydraulic connection

- Connect the hydraulic hoses with the hydraulic couplings to the connections of the 3rd control circuit.

3.13.3 Operation

⚠ WARNING

Lethal danger due to bales falling down!

Stacked bales can easily fall to the rear from the raised bale claw and then fall, roll or slip over the front loader onto the driver. This can cause lethal injuries to the driver.

- ▶ Before working with stacked bales, install the protection tubes.
- ▶ Close the bale claw until the protection tubes are positioned behind the bale.
- ▶ Only lift bale stacks when the topmost bale does not protrude beyond the protection tubes.

Picking up loads:

➔ Before beginning operation, check that the implement functions properly and safely without a load.

- (1) Position the implement horizontally and open all the way.
- (2) Carefully drive into the bale until the bale touches the frame of the implement.
- (3) Close the implement until the tines are completely inserted in the material.



When the tines are only partially inserted in the material, transverse forces can occur that damage the tines.

- (4) Lift the load.
- (5) It may be necessary to press the bale repeatedly with the implement to grasp it securely.
 - ✓ The load has been picked up.

3.13.4 Putting down the implement

➤ see 6.1 *Temporary decommissioning*

3.14 Rotating bale handler

3.14.1 Structure and description

The implement consists of the following components:

- 1 frame
- 1 rotating fork
- 1 double-acting hydraulic cylinder

The frame is equipped with a lifting eye at the top rear, on which the implement can be transported (e.g. with a crane). The frame is equipped with 2 support hooks and 2 support lugs for the Euro change frame.

To actuate the double-acting hydraulic cylinder, the 3rd control circuit or a double-acting auxiliary control unit must be installed on the tractor or front loader.

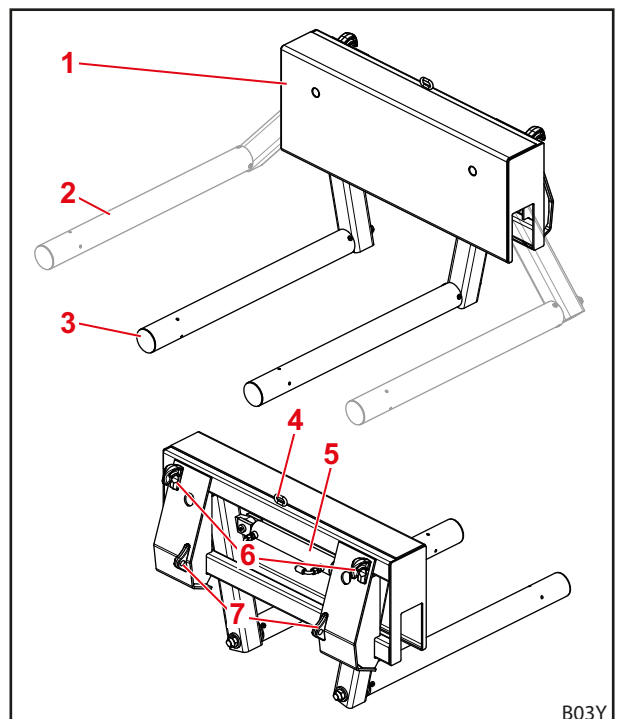


Fig. 57 Structure of the rotating bale handler

Legend

- 1 Frame
- 2 Rotating fork fully swivelled out
- 3 Rotating fork fully swivelled in
- 4 Lifting eye
- 5 Hydraulic cylinder
- 6 Support hooks for change frame
- 7 Support lugs for pins of the change frame

3.14.2 Start-up

3.14.2.1 Initial operation

The initial operation is performed at a specialist workshop. This also includes mounting of the implement as well as a functional check.

- Obtain instruction from the specialised workshop and ask questions if necessary.
- Read the operating instructions before initial use.
- Check all of the implement functions without a load.
- Check proper functioning of the implement under all operating states.

The factory assembles the implement so that it is ready for use. Only the supply lines still need to be installed before initial operation.

Installing the supply lines:

- (1) Install 2 supply lines with the 90° end on the hydraulic cylinder, each with 1 screw-in connector.
- (2) Install the hydraulic couplings at the other end of the hose line.
- (3) Only for screw or plug-in couplings:
 - Put the red protective cap on the coupling sleeve of the right hose line (*opening function*).
 - Put the blue protective cap on the coupling sleeve of the left hose line (*closing function*).
- (4) Bundle the hose lines with cable ties.
 - ✓ The supply lines are installed.

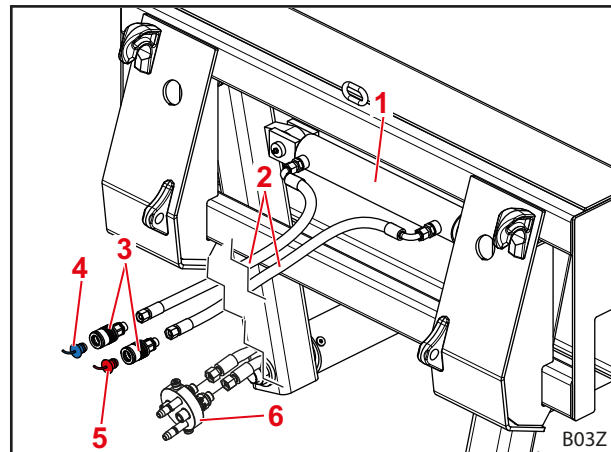


Fig. 58 Connecting the supply lines

Legend

- | | |
|---|---|
| 1 | Hydraulic cylinder |
| 2 | Hose lines |
| 3 | Hydraulic couplings (screw/plug-in couplings) |
| 4 | Blue protective cap |
| 5 | Red protective cap |
| 6 | Hydraulic couplings (Implement-Fix) |

3.14.2.2 Check before each start-up

- see 3.1.2.2 *Check before each start-up*

3.14.2.3 Mounting the implement

The implement is intended for mounting on a Euro change frame.

- In doing so, observe the description and warnings for mounting implements and operation of the implement locking mechanism in the front loader operating instructions.

Hydraulic connection

- Connect the hydraulic hoses with the hydraulic couplings to the connections of the 3rd control circuit.

3.14.3 Operation


 **Notes**

- The bale is resting loosely on the rotating bale handler. For this reason, the rotating bale handler is less suitable for loading work with longer or particularly bumpy transport routes.
 - Make sure that the bale is resting on the frame when gripping and transporting it to ensure safe handling of the bale.
-

Picking up and unloading loads:

➔ Before beginning operation, check that the implement functions properly and safely without a load.

- (1) Position the implement horizontally and open all the way.
 - (2) Lower the front loader just above the ground and set the rotating fork parallel to the ground.
 - (3) Carefully drive into the bale until the bale touches the frame of the implement.
 - (4) Press the rotating fork against the bale.
 - (5) Lift the load.
-

 Lift the load only as high as necessary for transport.

- (6) Drive the load to the target site.
- (7) Lower the front loader until the bale is resting on the ground or on a stack.
- (8) Swivel the rotating fork slightly outwards.
- (9) Slowly drive in reverse.
 - ✓ The load has been picked up and unloaded.

3.14.4 Putting down the implement

➤ see 6.1 *Temporary decommissioning*

3.15 Bale stacker H

3.15.1 Structure and description

The implement consists of the following components:

- 1 base frame
- 1 lifting frame
- 1 lifting mechanics
- 2 laterally adjustable bale spikes
- 1 double-acting hydraulic cylinder

The base frame is equipped with 2 support hooks and 2 support lugs for the Euro change frame.

To actuate the double-acting hydraulic cylinder, the 3rd control circuit or a double-acting auxiliary control unit must be installed on the tractor or front loader.

Thanks to the lifting function of the bale stacker, the bales can be lifted 1.4 m higher than the lifting height of the front loader.

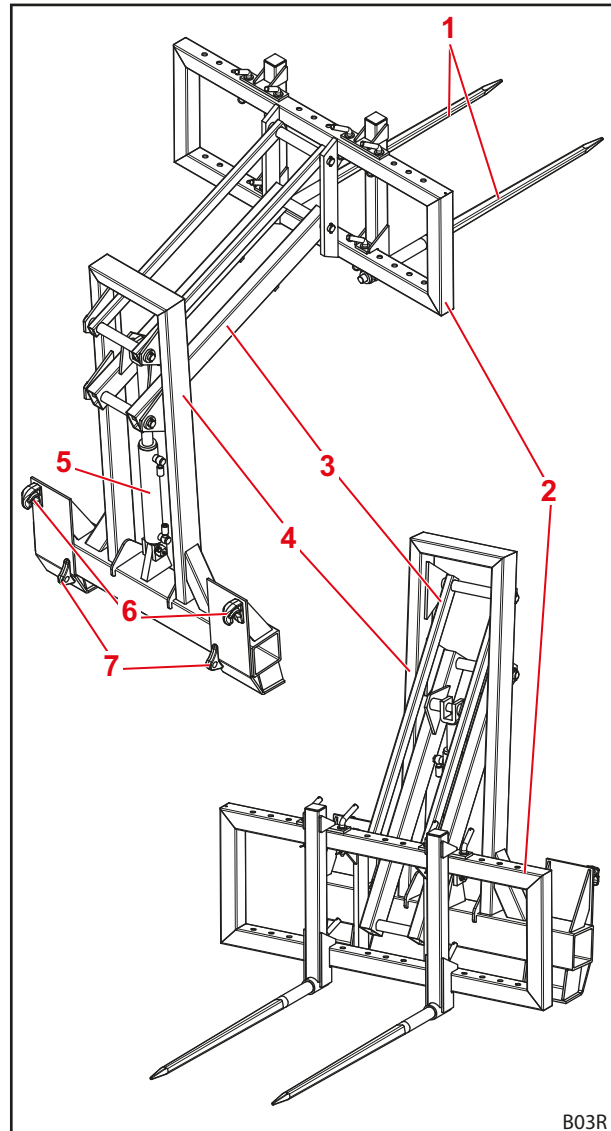


Fig. 59 Structure of the bale stacker

Legend

- 1 Bale spikes
- 2 Lifting frame
- 3 Lifting mechanics
- 4 Base frame
- 5 Hydraulic cylinder
- 6 Support hooks for change frame
- 7 Support lugs for pins of the change frame

3.15.2 Start-up

3.15.2.1 Initial operation

The initial operation is performed at a specialist workshop. This also includes mounting of the implement as well as a functional check.

- Obtain instruction from the specialised workshop and ask questions if necessary.
- Read the operating instructions before initial use.
- Check all of the implement functions without a load.
- Check proper functioning of the implement under all operating states.

The factory assembles the implement so that it is ready for use. Only the supply lines still need to be installed before initial operation.

Installing the supply lines:

- (1) Install 2 hose lines on the hydraulic cylinder, each with 1 solder ring piece, 1 banjo bolt and 1 edge sealing ring.
- (2) Install the hydraulic couplings at the other end of the hose line.
- (3) Only for screw or plug-in couplings:
 - Put the red protective cap on the coupling sleeve of the upper hose line (*opening function*).
 - Put the blue protective cap on the coupling sleeve of the lower hose line (*closing function*).
- (4) Bundle the hose lines with cable ties.
 - ✓ The supply lines are installed.

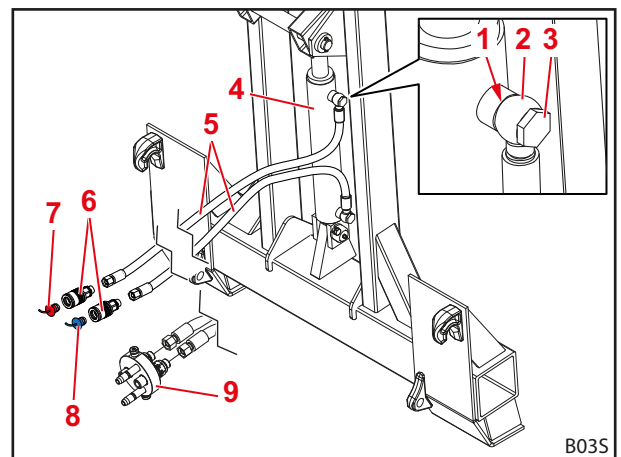


Fig. 60 Installing the supply lines

Legend

- 1 Edge sealing ring
- 2 Solder ring piece
- 3 Banjo bolt
- 4 Hydraulic cylinder
- 5 Hose lines
- 6 Hydraulic couplings (screw/plug-in couplings)
- 7 Red protective cap
- 8 Blue protective cap
- 9 Hydraulic couplings (Implement-Fix)

3.15.2.2 Check before each start-up

- see 3.1.2.2 *Check before each start-up*

3.15.2.3 Mounting the implement

The implement is intended for mounting on a Euro change frame.

- In doing so, observe the description and warnings for mounting implements and operation of the implement locking mechanism in the front loader operating instructions.

Hydraulic connection

- Connect the hydraulic hoses with the hydraulic couplings to the connections of the 3rd control circuit.

3.15.3 Operation

i Adjust both bale spikes to the same distance from the centre to prevent one-sided strain and therefore premature wear of the implement.

Adjusting the spacing of the bale spikes (on both sides):

- (1) Remove the 3 splint pins.
- (2) Remove the 3 pins.
- (3) Slide the spike mount to the desired position.
- (4) Reinsert the pins and splint pins.

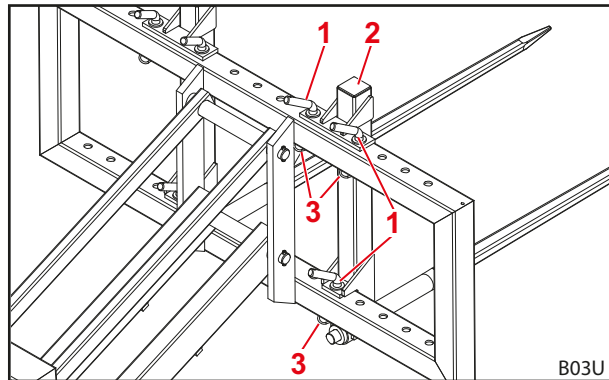


Fig. 61 Adjusting the spacing of the bale spikes

Legend

- 1 Pin
- 2 Spike mount
- 3 Splints

⚠ WARNING

Risk of tipping over!

The tractor can tip over due to one-sided strain on the bale stacker. This can seriously injure or even kill the driver and persons standing in the surrounding area.

- ▶ Lift the bale from the middle. The load centre must be in the longitudinal axle of the tractor.

i Large bales can be transported in lying or upright position, depending on the desired shape of the stack.

Never transport two or more large bales at the same time. Never tip down the implement further than the horizontal position of the bale spikes in a loaded state.

Picking up and unloading loads:

- ➔ Before beginning operation, check that the implement functions properly and safely without a load.
- (1) Lower the front loader and set the bale spikes approximately horizontal to the ground.
 - (2) Slowly drive the tractor forwards and grasp under the bale with the bale spikes until the bale touches the lifting frame.
 - (3) Lift the load and slightly tip up the implement (*scooping* function).

i Only lift the bale slightly for transport.
Only lift the bale up high for the stacking procedure.

- (4) After reaching the stacking position, slowly put down the bale.
- (5) Slowly drive in reverse.
- ✓ The load has been picked up and unloaded.

3.15.4 Putting down the implement

WARNING

Risk of injury due to lacking stability!

If the implement is not correctly and safely parked, it can tip over and injure persons nearby.

- ▶ Always move the implement to the lower end position to put it down.

➤ see 6.1 *Temporary decommissioning*

4 Troubleshooting

WARNING

Mortal danger and material damage due to lack of safety!

Improperly performed troubleshooting and repair work can impair the safety of the implement.


- ▶ Necessary repair work should only be performed by an authorised specialised workshop.

Faults on the implement are frequently caused by factors that are not a result of a malfunction of the implement or front loader.

In case of faults, first check:

- Is there enough oil in the hydraulic tank of the tractor?
- Has the correct oil been used?
Only use oil types specified in the tractor operating instructions. The wrong oil can cause foam to build up and leaks.
- Is the hydraulic oil clean and free of moisture?
You may need to change the oil and filter.
Install an additional filter in the hydraulic system if necessary.
- Are the hoses and connections mounted correctly?
The connections must be locked in place.
- Are the hoses and connectors undamaged, not clamped or twisted?
- Have the cylinders of the front loader been moved several times into their end positions to remove the air from the lines and the cylinders?
- Have you taken the low outside temperatures into consideration?
Is the oil at operating temperature already?

If these points do not resolve the problem, the following table will help to localize and correct the fault.

 Incorrect repairs can lead to safety risks. That is why the repair work must only be carried out by suitably qualified personnel!
STOLL recommends that the repair work be performed at a specialised workshop.

Description of the fault	Cause	Rectifying the fault
Front loader and/or implements work in the wrong direction to the operating lever.	Hydraulic connection is not connected properly.	Check the hydraulic connections, correct if necessary.
	Bowden cables are mounted incorrectly.	Check the connection of the Bowden cables and adjust if necessary.
	Operating lever not aligned correctly.	Check the installation position, and change the connection of the Bowden cables if necessary.

Description of the fault	Cause	Rectifying the fault
The front loader, implement and implement with hydraulic function, such as a top loading grip, move too slowly or not at all.	Not enough oil in the hydraulic system.	Check oil level and refill if necessary.
	Hydraulic couplings are not connected correctly.	Check the connections.
	Tractor pump is worn.	Check the tractor pump, replace if necessary.
	Insufficient oil flow.	Check the tractor hydraulic system.
	Engine speed too low.	Increase engine speed.
	Hydraulic fluid too cold.	Warm up the hydraulic system to operating temperature.
	Too big load in the implement.	Reduce load.
	Hydraulic coupling defective.	Check couplings, replace if necessary.
	Internal leaking in the hydraulic cylinder.	Check the cylinders, repair or replace defective cylinders.
	Pressure relief valve is set incorrectly.	Check the setting of the pressure relief valve.
	Internal leakage in the control block.	Check the control block, replace if necessary.
	Operating lever not adjusted correctly.	Correct the settings of the operating lever.
	The top loading grip valve does not switch.	Check the magnet and shutters, replace if necessary.
Insufficient lifting and tear-out force.	Insufficient oil pressure.	Check the tractor hydraulic system.
	Internal leaking in the hydraulic cylinder.	Check the cylinders, repair or replace defective cylinders.
	Too big load in the implement.	Reduce load.
	The primary or secondary pressure relief valve is incorrectly set or defective.	Check the settings of the pressure relief valve and replace if necessary.
	Internal leakage in the control block.	Check the control block, replace if necessary.
Air in the hydraulic fluid (recognizable by the foamy hydraulic fluid).	The hydraulic pump sucks in air.	Check the lines between the hydraulic pump and tank for loose or defective connections.
	The hydraulic filter is dirty.	Check the hydraulic filter, replace if necessary.
	Low oil quantity in the tank.	Check the oil level, refill if necessary.
	Mixed oil types.	Only use recommended oils.
	Discharging of returning oil.	Connection for returning oil according to the specifications.
Leakage on the hydraulic couplings of the front loader or the 3rd or 4th control circuit.	Leaks caused by infiltrated dirt.	Clean the coupling, replace if necessary. If the front loader or the 3rd or 4th control circuits are not used, seal the hydraulic couplings with the protective caps, or close the cover of the Hydro-Fix.
	Couplings are worn or damaged.	Replace the couplings.
Front loader, implement and implement with hydraulic function is blocked during lifting or lowering movement.	Coupling not completely closed.	Check the hydraulic coupling.
	The coupling is defective.	Replace the defective coupling halves.
	Hydro-Fix, multi-coupler and Implement-Fix not fully closed.	Check the locking lever for deformation. Check the couplings for firm seating, fasten if necessary.
The front loader rocks when lowering the load.	Lowering speed too high.	Reduce the lowering speed.
Unstable implement on FS rapid emptying front loaders (implement tilts away backwards).	Rapid emptying activated without dumping. This causes a vacuum in the hydraulic system.	Only activate the rapid emptying during the dumping process. Increase the engine speed in order to deliver enough oil.

Description of the fault	Cause	Rectifying the fault
The implement cylinder are extended, but are not retracted again.	Piston seal in the implement cylinder is defective, so that the surface of the piston and the ring are stuck together.	Check each cylinder separately for leaks and if necessary replace any defective cylinders.
	Seat valve does not return to starting position after turning on the rapid emptying.	Remove seat valve and check for debris, if necessary, replace.
	Insufficient oil flow.	Check the tractor hydraulic system.
	The double pressure relief valve of the front loader control block does not close.	Clean the double pressure relief valve and replace if necessary.
The front loader is raised when scooping from a lowered position.	Oil shortage on the piston rod side of the lifting arm cylinder.	Increase the engine speed when lowering.
		Lower without float position.
The front loader is raised when scooping from a lowered position, and when subsequently dumping, the front loader is lowered very fast.	Oil shortage on the piston crown side of the lifting arm cylinder.	After the previous error, only actuate the <i>lifting</i> function until the front loader is raised and the implement can be carried in a parallel position.

5 Servicing

WARNING

Serious risk of injury due to uncontrolled lowering of the front loader!

During service and repair work, a raised front loader can be lowered unexpectedly and crush and injure nearby persons.

- ▶ Only perform maintenance work when the front loader is completely lowered.

WARNING

Risk of injury due to hydraulic fluids under high pressure!

Even when the tractor is switched off or the front loader has been removed, the hydraulic system can still be under pressure. If the service work is not carried out correctly, oil can spurt out at high pressure and cause serious injury to persons standing nearby.

- ▶ Before opening the couplings or dismantling hydraulic components, depressurize the hydraulic system.
- ▶ Always used suitable auxiliary materials when searching for leaks.
- ▶ Never search for leaks using your fingers.

CAUTION

Risk of burns by hot machine parts!

Hydraulic components as well as other parts of the front loader and tractor can get very hot during operation. This can cause burns to the skin when performing maintenance work.

- ▶ Allow the machine and components to cool down to under 55 °C before performing maintenance work.

Repairs help to maintain proper functioning of the implement and prevent premature wear. A distinction is made between the following measures:

- Cleaning and care
- Service
- Repairs

5.1 Cleaning and care

NOTICE

Possible material damage due to unsuitable cleaning agents!

Unsuitable cleaning agents can damage surfaces and safety devices as well as destroy gaskets.

- ▶ Only use cleaning agents that are compatible with the machine surfaces and seal materials.

NOTICE

Possible material damage due to dirt accumulating behind the hydraulic cylinders!

Dirt that accumulates behind the hydraulic cylinders is continuously compacted by the movement of the hydraulic cylinder, until the hydraulic cylinders are damaged.

- ▶ Clean the area behind the hydraulic cylinders regularly.
- Clean the implement with water and a mild cleaning agent.
- Lubricated surfaces of the implement must be re-greased after cleaning.

5.1.1 Lubrication points

Side shift carriage

Number of lubrication points: 4

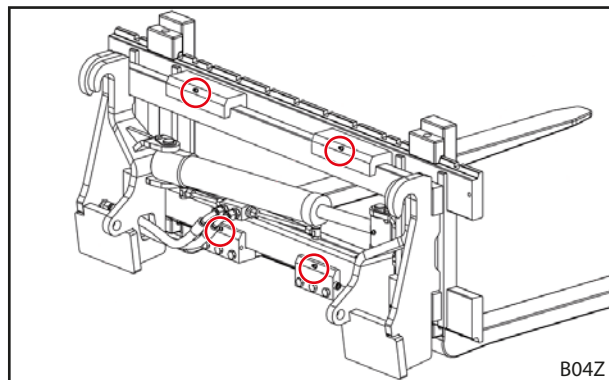


Fig. 62 Side shift carriage lubrication points

Top loading grip

Number of lubrication points: 3

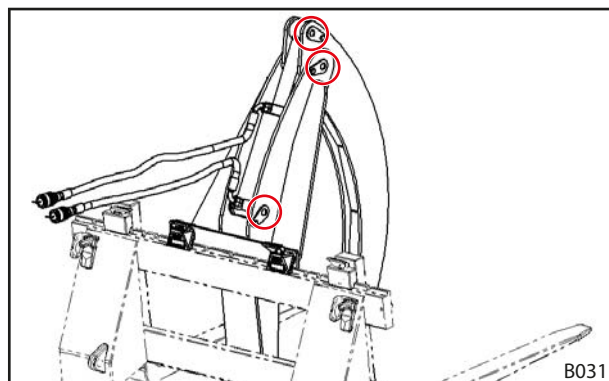


Fig. 63 Top loading grip lubrication points

Timber tongs with top loading grip

Number of lubrication points: 3

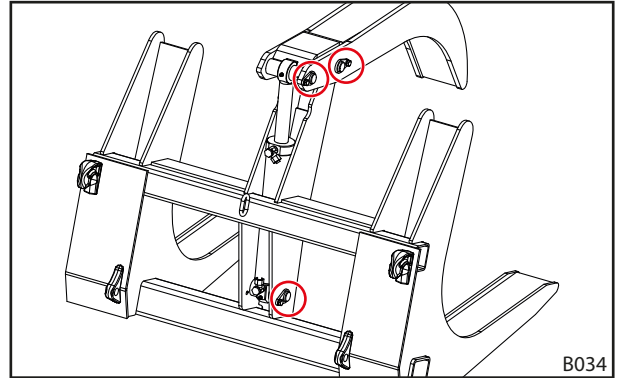


Fig. 64 Timber tongs with top loading grip lubrication points

Bucket with grab

Number of lubrication points:

6 for bucket widths up to 2.2 m

7 for bucket widths above 2.5 m

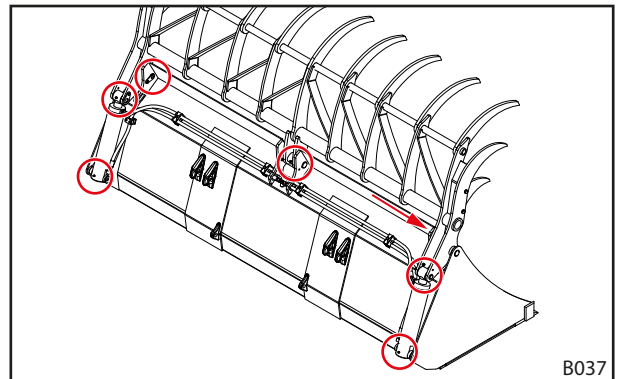


Fig. 65 Bucket with grab lubrication points

Bucket with grab UNI

Number of lubrication points: 6

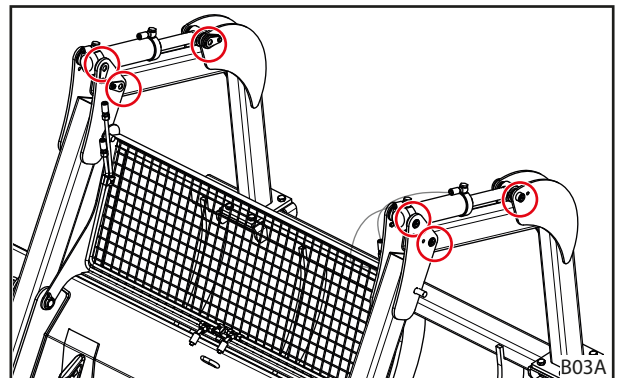


Fig. 66 Bucket with grab UNI lubrication points

Disposal bucket

Number of lubrication points:

6 for bucket widths up to 2.2 m

7 for bucket widths above 2.5 m

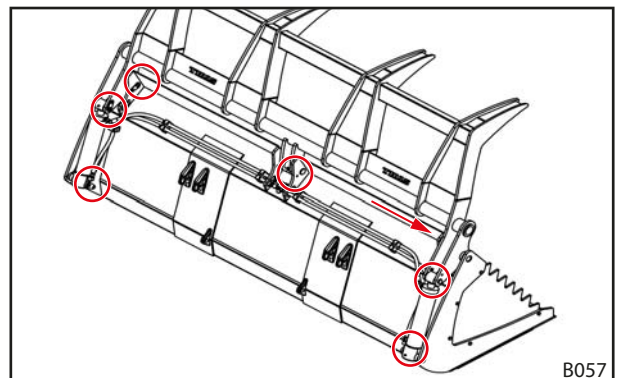


Fig. 67 Disposal bucket lubrication points

Silage cutters

Number of lubrication points:

6 for model with 2 hydraulic cylinders

9 for model with 3 hydraulic cylinders

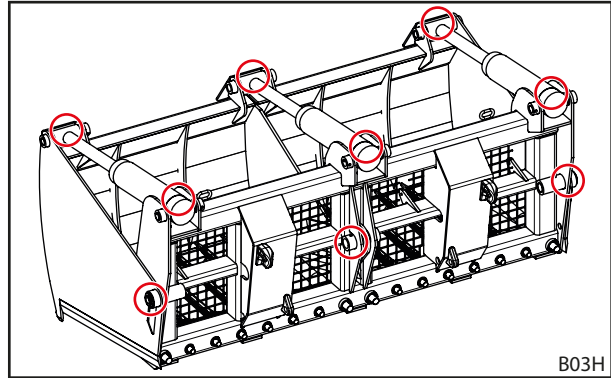


Fig. 68 Silage cutters lubrication points

Bucket with grapple, multifunction bucket HD and fork with grapple

Number of lubrication points: 6

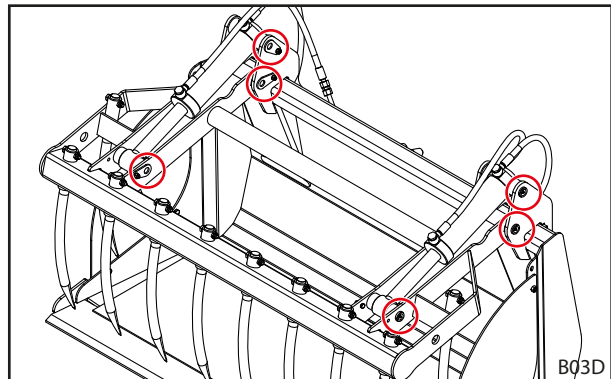


Fig. 69 Lubrication points for the bucket with grapple, multifunction bucket HD and fork with grapple

Round bale cutter

Pivot points should be greased at regular intervals using the grease nipples.

Number of lubrication points: 6

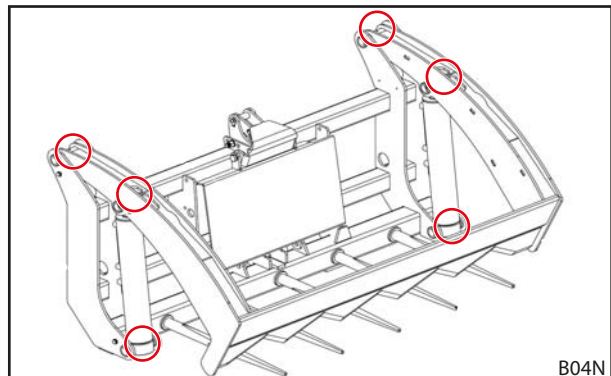


Fig. 70 Round bale cutter lubrication points

Wrapped bale handler H

Number of lubrication points: 6

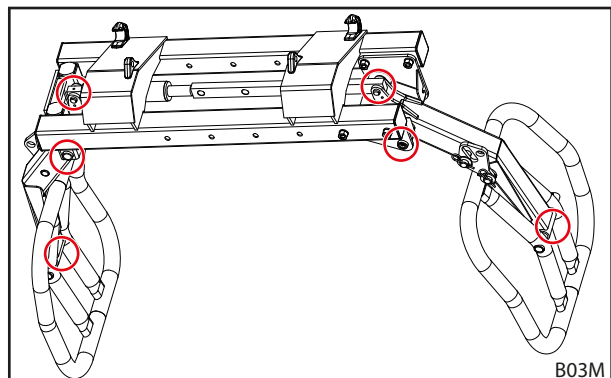


Fig. 71 Wrapped bale handler H lubrication points

Wrapped bale handler Pro H

Number of lubrication points: 4

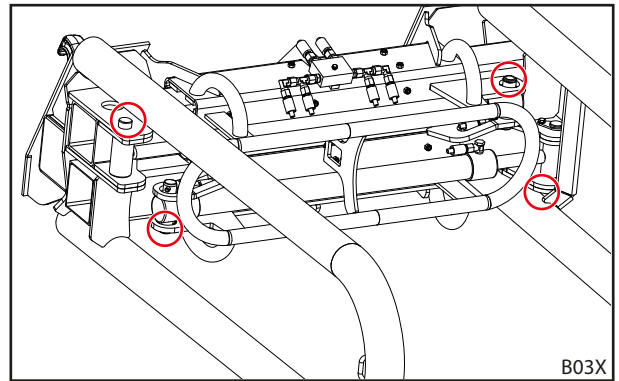


Fig. 72 Wrapped bale handler Pro H lubrication points

Wrapped bale handler

Number of lubrication points: 4

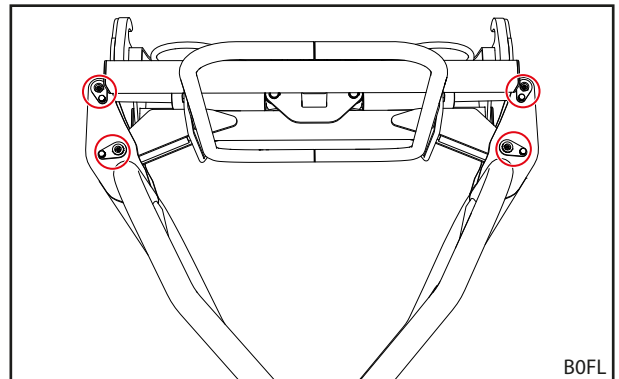


Fig. 73 Wrapped bale handler lubrication points

Maxi bale claw

Number of lubrication points: 4

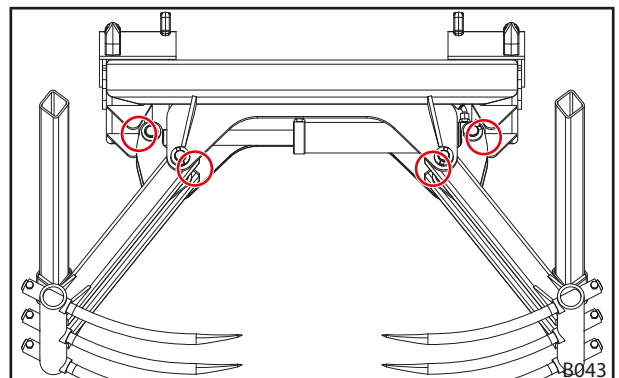


Fig. 74 Maxi bale claw lubrication points

Rotating bale handler

Number of lubrication points: 4

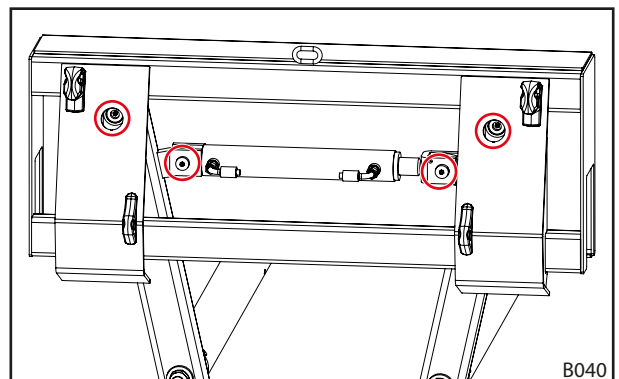


Fig. 75 Rotating bale handler lubrication points

Bale stacker H

Number of lubrication points: 1

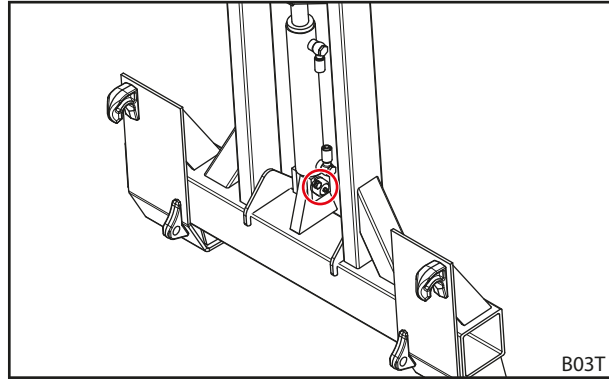


Fig. 76 Bale stacker H lubrication points

5.1.2 Lubrication schedule

Lubrication point	Interval (operating hours)	Lubricant
Bearing positions	10 h	Multipurpose grease DIN 51502 K2K, ISO 6743 ISO-L-XCCEA2, or comparable product



Shorten the lubrication intervals if there is strong dirt contamination.

5.2 Service

⚠ WARNING

Lethal danger and material damage due to lack of service!

Service tasks deferred or carried out incorrectly impair the safety of the front loader.

- ▶ Only have service carried out by authorised personnel.
- ▶ Only have visible defects repaired by trained qualified personnel.
- ▶ Observe additional documentation, e.g. for implements, for other service tasks.

To ensure proper operating condition of the implement, the defined service tasks must be performed at the specified intervals by qualified personnel.

- Have service tasks performed regularly according to the service intervals described in the following.

5.2.1 Service schedule

The specified service intervals are guidelines.

- Adjust the intervals according to the operating conditions.
- Consult with a workshop for any questions.

Maintenance position	Job	Interval (operating hours)
Check the screw connections	Check, tighten if necessary	100 h
Bearing positions	Visual inspection	10 h
	Lubrication (see 5.1.2 Lubrication schedule)	10 h
Hydraulic hose lines	Visual inspection, if necessary, have them replaced by an authorized workshop	100 h
	Replacement by authorized workshop	4 years ¹

¹See information under 5.2.2 Service instructions for the hydraulic lines

5.2.2 Service instructions for the hydraulic lines

⚠ WARNING

Risk of accident and injury due to defective hydraulic hose lines!

Defective or worn hydraulic hose lines can cause uncontrolled escaping of hydraulic fluid and injury to persons nearby or the safety of the front loader can be impaired.

- ▶ Do not use hydraulic hose lines that are more than 6 years old.
- ▶ Do not use hydraulic hoses with tubing material that is more than 10 years old.
- ▶ Shorten the replacement interval when hoses wear out prematurely.
- ▶ For all work on the hydraulic system, wear personal protective equipment, especially oil-proof gloves and goggles.
- ▶ Have the hydraulic lines replaced if they are porous or cracked.

⚠ WARNING

Risk of injury due to hydraulic fluids under high pressure!

Even when the tractor is switched off or the front loader has been removed, the hydraulic system can still be under pressure. Hydraulic fluid can escape under high pressure and cause personal injury.

- ▶ Depressurize the hydraulic system before performing any service tasks.

In accordance with DIN 20066, hydraulic hose lines should be stored for a maximum of 2 years and used for a maximum of 6 years from the date of manufacture. This results in a service life of at least 4 years with normal loading.

Hydraulic hose lines are marked with 2 dates:

- On the hose material, e.g. "1Q15" for production of the hose in the 1st quarter of 2015;
- on the fittings, e.g. "0415" or "04/15" for production of the hose line in April 2015.

5.3 Repairs

⚠ WARNING

Mortal danger and material damage caused by repair work carried out incorrectly!

Repair work carried out incorrectly can impair the safety of the front loader and can lead to serious accidents and injuries.

- ▶ Repair work should only be performed by an authorised specialised workshop.

Repairs involve the replacement and repair of components. This is only necessary if components are damaged after wear or due to external circumstances.

The specialised workshop must:

- Perform all required repair work professionally and complying with the applicable regulations and according to the rules of engineering.
- Worn or damaged parts should never be provisionally repaired.
- Only use original or approved spare parts for repairs (see 7.1 *Spare parts*).
- Replace the gaskets.

6 Decommissioning

6.1 Temporary decommissioning

WARNING

Risk of injury due to implement tipping over!

If the implement is not in the required position to be safely put down, the implement can tip over. This can cause injuries to persons.

- ▶ Observe the instructions for putting down the implement in the respective chapter for the implement.
- ▶ Ensure that the implement is stable.

Putting down the implement:

- (1) Lower the front loader close to the ground and position the implement horizontally on the ground or place on a secure rack.



Do not completely lower the front loader onto the ground.

- (2) Switch off the tractor.
 - Apply the parking brake.
 - Stop the engine.
 - Depressurise the hydraulic system (see front loader operating instructions).
or
With the implement function actuated, move the operating lever in the lateral end positions in order to depressurize the implement hydraulic system (see front loader operating instructions).
- (3) Open the implement locking mechanism (see front loader operating instructions).
- (4) If applicable, disconnect the hydraulic lines from the couplings on the change frame (see front loader operating instructions).
- (5) Switch on the tractor.
- (6) Lower the implement to the ground.
- (7) Unhook the change frame from the implement hooks.
 - Use the *dumping* function until the upper cross bar is positioned under the implement hook.

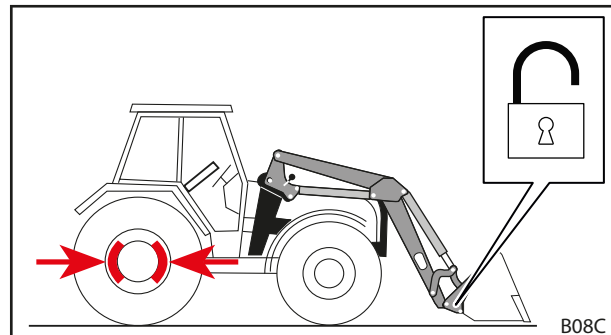


Fig. 77 Opening the implement locking mechanism

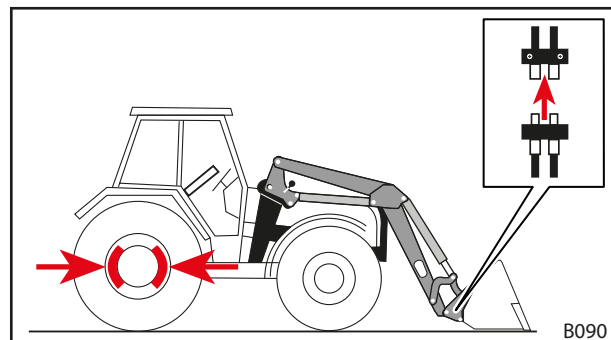


Fig. 78 Releasing the hydraulic lines

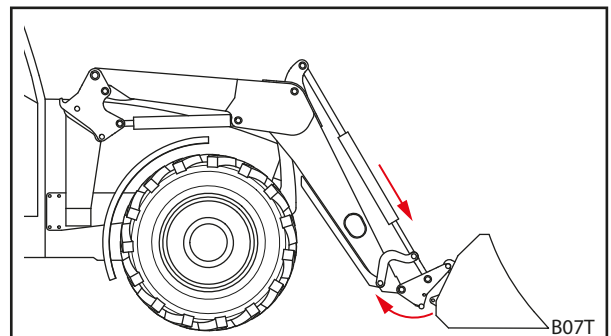


Fig. 79 Unhooking the change frame

- (8) Slowly drive the tractor away in reverse.
 - (9) Check that the implement is in a stable position.
 - (10) If applicable, cover the implement with a protective tarp.
- ✓ The implement is put down.

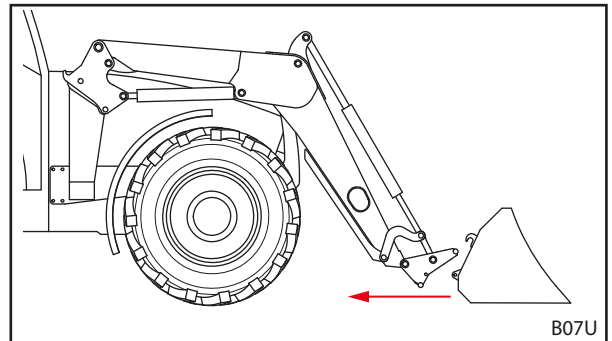


Fig. 80 Driving away

6.2 Recommissioning

Recommissioning the implement:

- (1) If necessary, take the protective tarpaulin off of the implement.
 - (2) Clean the implement if necessary.
 - (3) Have maintenance performed on the implement if necessary (see 5.2.1 Service schedule).
 - (4) Perform a "Check before each start-up" (see chapter for the respective implement).
 - (5) Check all of the implement functions.
- ✓ The implement is ready for operation again.

6.3 Final decommissioning and disposal

NOTICE

Environmental damage due to improper disposal!

The implements consist essentially of components made of steel and hydraulic components, which may contain, among other things, rubber and plastics which must be disposed of separately. Improper disposal can harm the environment.

- ▶ Observe the national and local regulations and environmental legislation for the disposal.
- ▶ Hand the implement over to the dealer or a specialised company for disposal.

The implement does not have a limit on its service life. In case of disposal, the implements must be decommissioned and disposed of correctly.

- Also observe the safety instructions for service and maintenance.

7 Spare parts and customer service

7.1 Spare parts

⚠ WARNING

Risk of injury and material damage due to using the wrong spare parts!

The use of non-approved spare parts can impair the safety of the implement and results in expiry of the operating permit.

- ▶ Only use original spare parts or those approved by STOLL.

Original spare parts and fitting accessories are listed in separate spare part lists.

- Download spare part lists at www.stoll-germany.com.

Order information for safety stickers

Silage cutters:

Order no.	Designation	Stickers included
2444890	"Silage cutters" sticker	1 sticker at Pos. no. 1

Wrapped bale handler:

Order no.	Designation	Stickers included
1441860	"Risk of crushing" sticker	1 sticker at Pos. no. 1
1441850	"Pressure oil" sticker	1 sticker at Pos. no. 2
1441870	"Observe instructions" sticker	1 sticker at Pos. no. 3

7.2 Customer service

For further questions regarding your front loader, please contact your dealer.

8 Technical specifications

8.1 Dimensions and weights

8.1.1 Side shift carriage

Id. no.	Width [mm]	Tine length [mm]	Permissible payload (total) [kg]	Weight [kg]
3614380	1250	1200	2000	257

Frame

Id. no.	Width [mm]	Permissible payload [kg]	Weight [kg]	Mount
3666450	1250	2000	155	ISO 2328

Pallet tines

Id. no.	Tine length [mm]	Permissible payload [kg]	Weight [kg]	Mount
3570730	1200	1250	51	ISO 2A

8.1.2 Top loading grip

Id. no.	Opening width [mm]	Weight [kg]
3548990	1385	79

8.1.3 Timber tongs with top loading grip

Id. no.	Width [mm]	Permissible payload [kg]	Weight [kg]
3390260	1110	1000	235

8.1.4 Bucket with grab

Id. no.	Width [mm]	Opening width [mm]	Volume [m ³]	Permissible payload [kg]	Weight [kg]
3687650	1600	1480	0.88	1720	512
3687660	1800	1480	1.0	2000	549
3687670	2000	1480	1.1	2200	601
3687680	2200	1480	1.21	2420	641
3687690	2500	1480	1.38	2680	753

8.1.5 Bucket with grab UNI (Maxi Grapple Fork)

Id. no.	Width [mm]	Opening width [mm]	Volume [m ³]	Permissible payload [kg]	Weight [kg]
3477620	2050	2000	0.7	1460	566
3477630	2400	2000	0.82	1690	655
3477640	2600	2000	0.88	1810	705

8.1.6 Disposal bucket

Id. no.	Width [mm]	Opening width [mm]	Volume [m ³]	Permissible payload [kg]	Weight [kg]
3591550	1800	1480	1.0	2000	557
3632970	2000	1480	1.1	2200	605
3591560	2200	1480	1.21	2420	636
3602920	2500	1480	1.38	2680	762

8.1.7 Silage cutters

Id. no.	Width [mm]	Depth [mm]	Number of tines	Opening width [mm]	Volume heaped [m ³]	Permissible payload [kg]	Weight [kg]
3334760	1280	790	10	856	0.87	650	500
2449320	1520	790	13	856	1.05	790	530
3306680	1880	790	16	856	1.28	960	730

8.1.8 Bucket with grapple, multifunction bucket HD and fork with grapple
Bucket with grapple

Id. no.	Width [mm]	Opening width [mm]	Volume [m ³]	Permissible payload [kg]	Weight [kg]
3547610	1500	1290	0.59	590	292
3547620	1700	1290	0.67	670	314
3547630	2050	1290	0.82	820	373
3547650	2200	1290	0.88	880	423
3547640	2400	1290	0.97	970	446

Multifunction bucket HD

Id. no.	Width [mm]	Opening width [mm]	Volume [m ³]	Permissible payload [kg]	Weight [kg]
3668320	1500	1320	0.62	770	341
3668330	1700	1320	0.71	870	372
3668340	2050	1320	0.85	1070	429
3668350	2200	1320	0.92	1140	458
3668360	2500	1320	1.0	1270	498

Fork with grapple

Id. no.	Width [mm]	Number of tines, bottom	Opening width [mm]	Volume heaped [m ³]	Permissible payload [kg]	Weight [kg]
3429090	1300	7	1300	0.54	540	226
3429100	1500	8	1300	0.63	630	249
3429110	1700	9	1300	0.71	710	268
3429120	2050	11	1300	0.87	870	304
3430650	2400	13	1300	1.02	1020	355

8.1.9 Round bale cutter

Id. no.	Height (closed) [mm]	Height (open) [mm]	Length [mm]	Width [mm]	Permissible payload [kg]	Weight [kg]
3591570	850	1750	1100	1820	1400	450

8.1.10 Wrapped bale handler H

Id. no.	Widest/smallest opening [mm]	Permissible payload [kg]	Weight [kg]
2364610	1850/900	1200	225

8.1.11 Wrapped bale handler Pro H

Id. no.	Width [mm]	Widest/smallest opening [mm]	Effective depth [mm]	Permissible payload [kg]	Weight [kg]
3395020	1350	2050/650	1200	1000	305

8.1.12 Wrapped bale handler

Id. no.	Widest/smallest opening [mm]	Permissible payload [kg]	Weight [kg]
3714810	1400/800	1100	146

8.1.13 Maxi bale claw

Id. no.	Widest/smallest opening [mm]	Permissible payload [kg]	Weight [kg]
2449950	1670/460	500	150

8.1.14 Rotating bale handler

Id. no.	Gripping range [mm]	Permissible payload [kg]	Weight [kg]
3573240	600 - 1850	1200	245

8.1.15 Bale stacker H

Id. no.	Height gain relative to normal height [mm]	Permissible payload [kg]	Weight [kg]
1339660	1400	500	260

8.2 Noise emissions

The emission sound pressure level is less than 70 dB(A) (depending on the tractor).

8.3 Tightening torques for screws

Tightening torque for screws						
Thread	Strength category					
	8.8		10.9		12.9	
	Nm	lb-ft	Nm	lb-ft	Nm	lb-ft
M4	3	2	4.5	3	5	4
M6	11	8	15	11	17	13
M8	27	20	36	27	42	31
M8x1	29	21	38	28	45	33
M10	54	40	71	52	83	61
M10x1.25	57	42	75	55	87	64
M12	93	69	123	91	144	106
M12x1.5	97	72	128	94	150	111
M12x1.25	101	74	133	98	155	114
M14	148	109	195	144	229	169
M14x1.5	159	117	209	154	244	180
M16	230	170	302	223	354	261
M16x1.5	244	180	320	236	374	276
M18	329	243	421	311	492	363
M18x2	348	257	443	327	519	383
M18x1.5	368	271	465	343	544	401
M20	464	342	592	437	692	510
M20x2	488	360	619	457	724	534
M20x1.5	511	377	646	476	756	558
M22	634	468	807	595	945	697
M22x2	663	489	840	620	984	726
M22x1.5	692	510	873	644	1022	754
M24	798	589	1017	750	1190	878
M24x2	865	638	1095	808	1282	946
M27	1176	867	1496	1103	1750	1291
M27x2	1262	931	1594	1176	1866	1376
M30	1597	1178	2033	1499	2380	1755
M30x2	1756	1295	2216	1634	2594	1913
5/8" UNC (normal)	230	170	302	223		
5/8" UNF (fine)	244	180	320	236		
3/4" UNC (normal)	464	342	592	437		
3/4" UNF (fine)	511	377	646	476		



Make sure that the threads are clean! The specified tightening torques are valid for screws and threads that are clean, dry and free of grease.

9 Declaration of Conformity

(in accordance with EC Directive 2006/42/EC, Appendix II 1.A)

Wilhelm STOLL Maschinenfabrik GmbH
Bahnhofstrasse 21
38268 Lengede, Germany

hereby declares that the machine in its state on delivery complies with the directives and harmonised standards listed in the following, and will be made available on the market:

Designation:	Implement
Type:	Top-loading grip, ID number 3548990
	Timber tongs H with top-loading grip, ID number 3390260
	Bucket with grab, ID numbers 3687650, 3687660, 3687670, 3687680, 3687690
	Disposal bucket, ID numbers 3591550, 3591560, 3602920, 3632970
	Bucket with grab UNI, ID numbers 3477620, 3477630, 3477640
	Bucket with grapple, ID numbers 3547610, 3547620, 3547630, 3547650, 3547640, 3668320, 3668330, 3668340, 3668350, 3668360
	Fork with grapple, ID numbers 3429090, 3429100, 3429110, 3429120, 3430650
	Silage cutters, ID numbers 3334760, 2449320, 3306680
	Round bale cutter, ID number 3591570
	Wrapped bale handler H, ID number 2364610
	Wrapped bale handler Pro H, ID number 3395020
	Wrapped bale handler, ID number 3714810
	Maxi bale claw, ID number 2449950
	Rotating bale handler, ID number 3573240
	Bale stacker H, ID number 1339660
	Side shift carriage, ID numbers 3614380, 3666450
Machine no.:	5400000 to 5999999
With the intended use/ function:	As a mounted implement, the implement is "interchangeable equipment" as defined by the Machinery Directive 2006/42/EC. The implement is mounted on front loaders on agricultural and forestry tractors using a change frame, and serves to perform processes and tasks in the agricultural and forestry sector. Further information on the intended use with the operating conditions, the description, the function and other technical data for the implement can be found in the operating instructions.

The machine complies with all relevant and applicable provisions of the

- Council Directive 2006/42/EC on machinery,
- Directive 2014/30/EU of the European Parliament and the Council for Electromagnetic Compatibility (EMC),
- Directive 2014/68/EU on the provision of pressure equipment on the market.

The technical documentation was produced according to Annexe VII A of Directive 2006/42/EC, and is the responsibility of the development manager at Wilhelm STOLL Maschinenfabrik GmbH, Bahnhofstrasse 21, D-38268 Lengede.

The design and manufacturing of the implement observed the following harmonised standards that are also published in the EU official gazette:

Harmonised standards	Date	Title of the standard
DIN EN ISO 4254-1	2016-09	Agricultural machinery – Safety – Part 1: General requirements
DIN EN ISO 4413	2011-04	Hydraulic fluid power – General rules and safety requirements for systems and their components
DIN EN 12525	2011-02	Agricultural machinery – Front loader safety
DIN EN ISO 12100	2011-03	Safety of machinery – Basic terms, General principles for design for the safety of machinery – General principles for design - Risk assessment and risk reduction
DIN EN ISO 13857	2020-04	Safety of machinery – Safety distances to prevent hazard zones being reached by upper and lower limbs
EN ISO 14982	2009-12	Agricultural and forestry machines – Electromagnetic compatibility – Test methods and acceptance criteria

Lengede, 17.07.2020



Guido Marenbach
Managing Director



Peter Gotthard
Head of Development and Quality Management

Index

B

Bale stacker H 12, 69, 79, 86
 Behaviour in case of emergency 21
 Bucket with grab 10, 32, 76, 84
 Bucket with grab UNI 11, 36, 76
 Bucket with grab UNI 84
 Bucket with grapple 11, 46, 77, 85

C

Check before each start-up 25, 28
 Cleaning 75

D

Danger areas 18
 Danger due to emissions 14
 Dangers during installation for start-up . 15
 Dangers during loading work 15
 Dangers during maintenance 17
 Dangers during packaging and
 transport 14
 Dangers when operating the front
 loader 16
 Dangers when picking up and putting down
 implements 15
 Disposal 82
 Disposal bucket 11, 39, 76, 84
 Documentation overview 6

E

EC conformity 10
 Electrical dangers 14

F

Faults 72
 Fork with grapple 11, 46, 77, 85

H

Hydraulic dangers 13, 13, 17

I

Initial operation 23, 27, 31, 33, 37, 40,
 43, 47, 51, 55, 59, 61, 64, 67, 70

L

Lubrication schedule 79

M

Maxi bale claw 12, 64, 78, 86
 Mechanical dangers 13
 Multifunction bucket HD 11, 46, 77

O

Operational limits 12

P

Protective and safety equipment 18
 Putting down the implement 81

R

rating plate 7
 Recommissioning 82
 Repairs 74, 80
 Rotating bale handler 12, 66, 78, 86
 Round bale cutter 11, 20, 50, 77, 85

S

Safety and warning notifications 9
 Safety stickers 19
 Service intervals 79
 Side shift carriage 10, 22, 75, 83
 Silage cutters 11, 19, 43, 77, 84
 Spare parts 83

T

Tightening torques for screws 87
 Timber tongs with top-loading
 grip 10, 30, 76, 84
 Top loading grip 10, 27, 75, 84

W

Wrapped bale handler 11, 20, 61, 78, 85
 Wrapped bale handler H 11, 54, 77, 85
 Wrapped bale handler Pro H11, 58, 78, 85

Address of the dealer

Stick or write down the serial number here



Wilhelm STOLL Maschinenfabrik GmbH

PO box 1181, 38266 Lengede

Bahnhofstr. 21, 38268 Lengede

Phone: +49 (0) 53 44/20 222

Fax: +49 (0) 53 44/20 182

E-mail: info@stoll-germany.com

STOLL on the Internet:

www.stoll-germany.com

www.facebook.com/STOLLFrontloader

www.youtube.com/STOLLFrontloader