
Original Operating Manual

Front power lift

FPS-JD 3036

Front power lift 131 7161

Joystick set triple 131 7136

Joystick set single 131 7160

Conversion kit orig. JD frontloader 131 7224

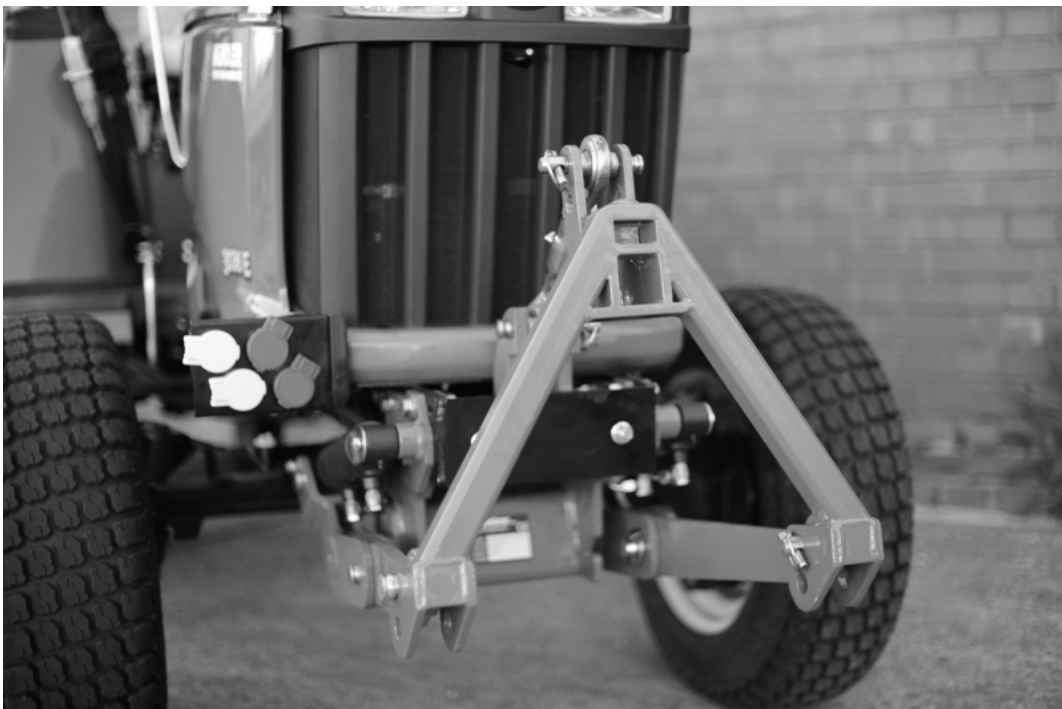


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1 About this operating manual

Dear customer!

Thank you for purchasing this device, we appreciate your trust.

In order to optimally use your new front power lift it is necessary to read this operating manual completely and conscientiously and to understand it before first use of the device.

To obtain the long service life that matev products are known for, careful and conscientious maintenance is a strict requirement. To properly maintain your front power lift it is strictly necessary that you have carefully read this operating manual. Moreover it is not possible for matev to assume liability for damage that is attributed to improper use or non-intended use of the front power lift.

Keep this operating manual where it is easily accessible. This will enable you to refer to important information and handling instructions as needed.

Listings with bullet points are marked as follows:

- Text
- Text
- Text . . .

Handling instructions are marked in the sequence in which they should be executed, as follows:

2. Text
3. Text
3. Text . . .



This device is subject to change in the interest of technical progress. All information, illustrations, and technical specifications represent the latest status at the time this manual was published. The manufacturer reserves the right to make changes at any time in the interest of technical progress. However there is no obligation to extend any changes made to previously delivered front power lifts or associated accessories.

2 Safety

Guidelines and instructions with which you must comply are summarized in this section.

Personnel who install, operate and maintain the device, must have read and understood this operating manual.

2.1 Intended use

The front power lift should only be mounted on type JD 3036 tractors, it is used for accommodating small to medium-sized implements, such as snow blades, sweepers, etc. and should only be connected and operated with such implements. Please note that you must avoid overloading the front axle even in heavy-duty implementation (e.g. snow removal). The permissible axle load is specified in the appropriate documentation provided by the tractor manufacturer.



Attention!

The front power lift should not be charged with downward pressure via the tractor's hydraulic system! For implements that contact the ground or roll on the ground in operation the tractor hydraulic system must be switched to the float setting! Strictly comply with the manufacturer's recommendation!



The front power lift is not suitable for lifting people or for use as a work platform!

In addition compliance with the service and maintenance guidelines is a component of intended use. Moreover intended use includes exclusive use of original spare parts and supplemental equipment, or use of such parts and equipment that meet the technical requirements specified by the manufacturer.

All other uses are excluded.

Non-intended use causes:

- Health hazards for the operator or for third parties
- Damage to the tractor and the attachments
- Immediate invalidation of the guarantee
- Environmental damage

To avoid accidents and reduce the risk of accidents the relevant accident prevention regulations and the other generally acknowledged occupational health and safety and road traffic regulations apply without limitation.

Changes to the front power lift and/or the associated accessories invalidate the guarantee and exclude any liability on the part of the manufacturer for damage due to the changes.

2.2 Qualification of personnel

Only persons 18 years of age or older, or instructed persons should install, operate, and maintain the implements. The operator must have read and understood this operating manual.

2.3 General safety instructions

General safety instructions are explained in this section. These safety instructions are used in the subsequent sections. In addition to the safety aspect, you will save money and work time if you follow these safety instructions.



Danger!
Severe injury to the operator or third parties occurs.
Follow the safety instruction.



Attention!
Minor injury to the operator or third parties can occur. The tractor, the implements, or the environment can be damaged.
Comply with the safety instruction.



Note!
Important, helpful tips or information for the operator.
Read this note. It facilitates your work.



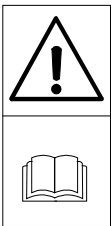
Attention!
Injuries can occur.
Wear protective work clothing.

2.4 Special safety instructions

Safety instructions are specified in this chapter that are also affixed as stickers on the implements



Attention!
Danger of injury due to moving parts.
Remove the ignition key before performing maintenance tasks on the implement.



Attention!
Injuries can occur due to improper operation. The implement can be damaged.
Read the operating manual all the way through.
Comply with the safety instructions.



Attention!
Injuries due to fluid escaping under high pressure.
Comply with the instructions in the operating manual.



Attention!
Danger of crushing due to moving parts.
Never reach into the crushing hazard danger area, if parts are still moving or can move.
Comply with the instruction in the operating manual.



Attention!
There is an increased risk of accident due to the rotating PTO shaft.
Do not enter the work area of the PTO shaft when it is rotating.
For your own safety do not wear any loose clothing, belts, or any other loose items. Switch off the implement. Wait until all machine parts have come to a standstill before converting or servicing the implement.



Attention!
Check all threaded unions prior to using the implement and after using the implement. Loosened connections must be retightened.
Damage can occur due to loose connections.

3 Installation



Danger!
Severe injury to the operator or third parties occurs.
Switch off the tractor and remove the ignition key before mounting or dismounting the implements.



Note!
Enter the chassis number of the front power lift in section 6, page 23 of this operating manual.

3.1 Mounting the front power lift

3.1.1 Delivery status

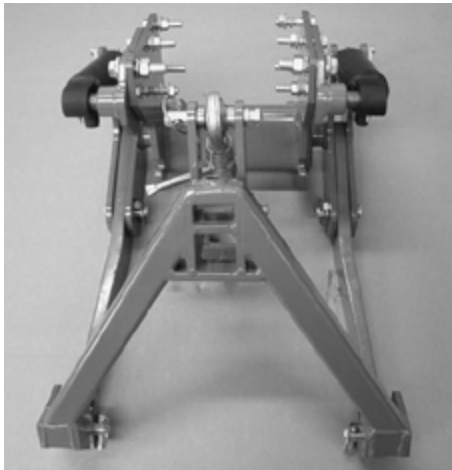
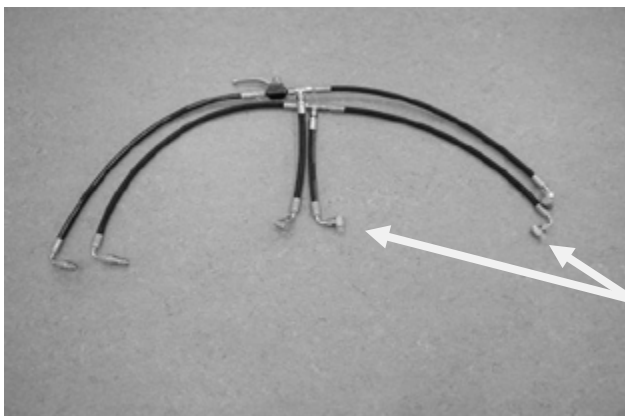


Fig 1: Lift unit with hydraulic cylinders



Cylinder connections

Fig 2: Hydraulic unit

Installation

3.1.2 Preparation

Before you mount the front power lift on the frame of the tractor it is necessary to drill 3 tapped holes on each side of the frame. The precise position of the individual bores is shown in Fig 3.

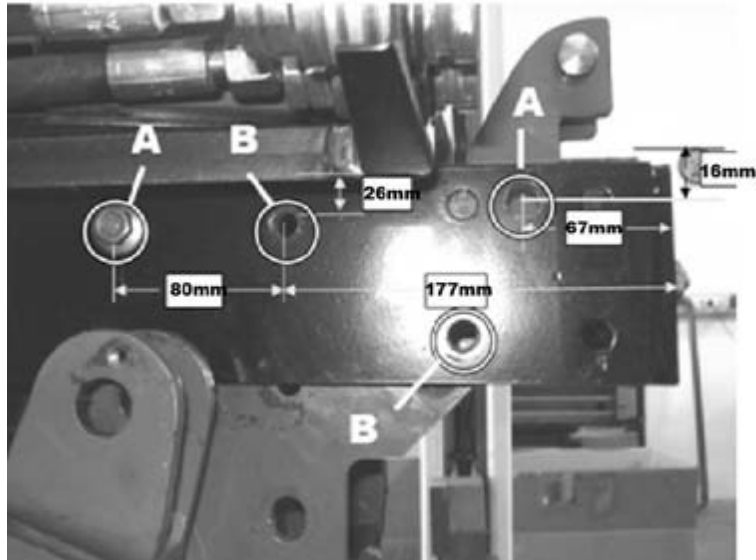


Fig 3: Mounting bores in the tractor frame

The bore diameter for the A-marked bores is 16 mm, and the bore diameter for the B-marked bore is 12 mm.

3.1.3 Mounting the front power lift

1. Position the front power lift correctly relative to the tractor.
2. Bolt the front power lift to the tractor frame on both sides with the 2 rear screws (see Fig 4).

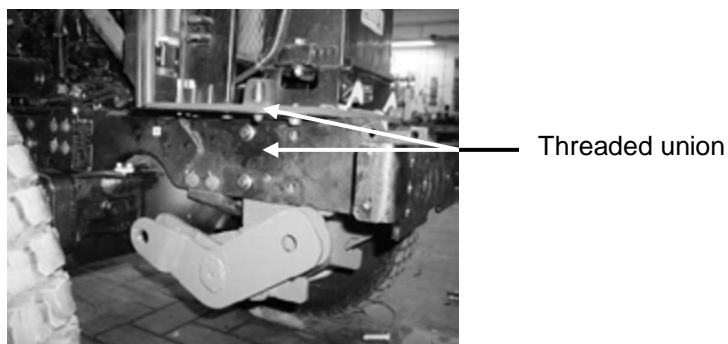


Fig 4: Fastening on the tractor frame

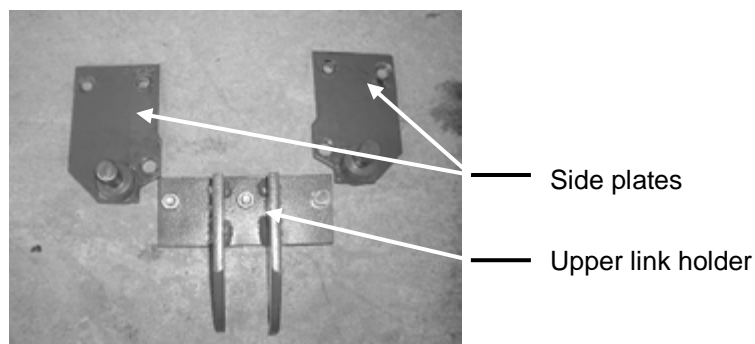


Fig 5: Side plates & upper link holder

3. Fit the cylinders on the side plates.
4. Bring both parts together in the correct position and bolt the side plates to the tractor frame and basic implements with 4 bolts on each side (see Fig 6).



Fig 6: Bolting the side plates

5. Bolt the upper link holder to the tractor frame inside on the front. For use with a frontloader the upper link must be mounted on the outside.

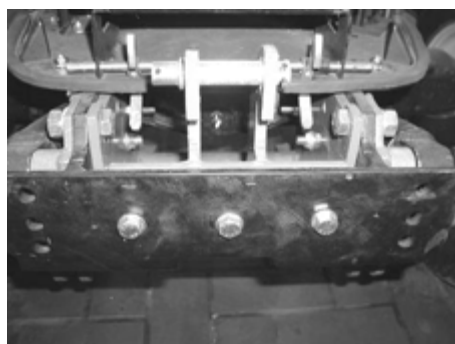


Fig 7: Installation of the upper link holder

6. Use bolts to fasten the free end of the cylinder to the lift shackle of the basic implement (Fig 8).

7. Secure the bolt with the lock screw.

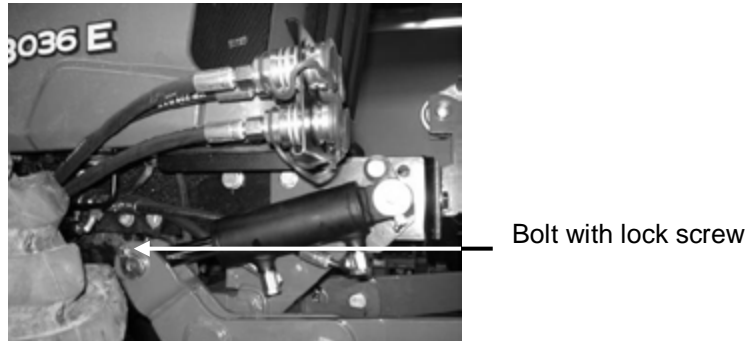


Fig 8: Cylinder installation with lift shackle

8. Connect the hydraulic hoses to both cylinders and connect the hydraulic hoses to the tractor's hydraulic lift.



Attention!

Connect the hydraulic hoses in such a manner that the hoses coming from the stop valve are connected to the bottom of the cylinders.

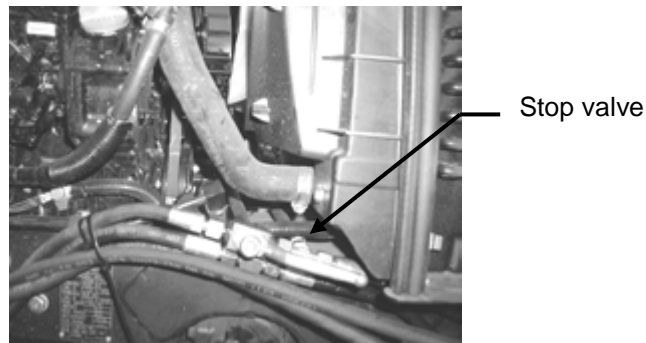


Fig 9: Installing and connecting the hydraulic hoses

9. Route the hydraulic hoses for the left cylinder directly through and behind the engine (see Fig 10 and 11).

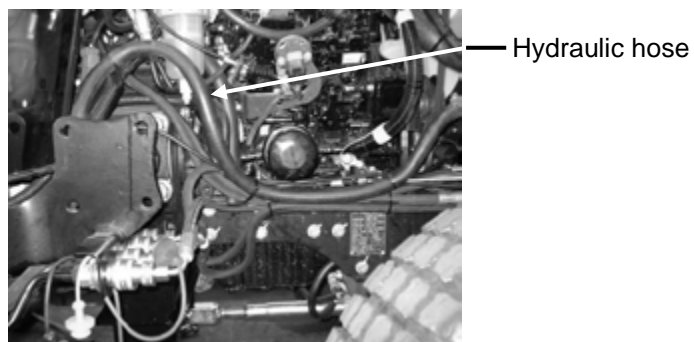


Fig 10: Install the hydraulic hoses, right side

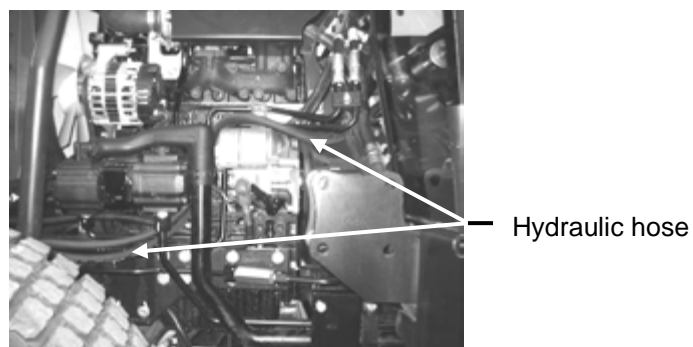


Fig 11: Install the hydraulic hoses, left side

3.2 Use with frontloader

3.2.1 Mounting the upper link holder

Bolt the upper link holder to the tractor frame outside on the front. The upper link holder does not need to be removed for operation with frontloader.

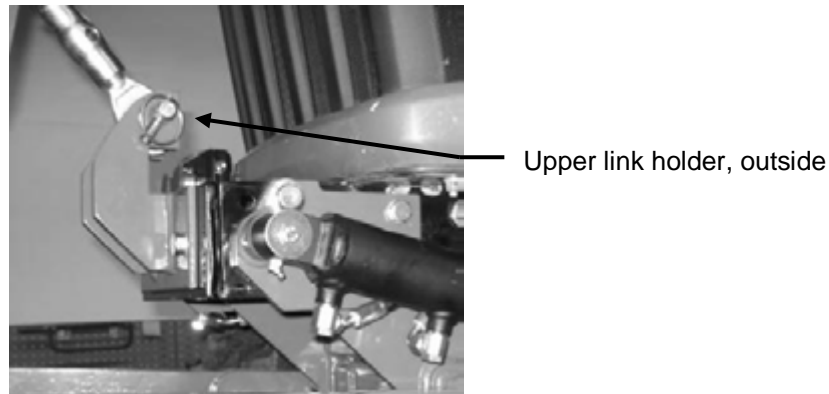


Fig 12: Installation of the upper link holder

3.2.2 Dismounting the lift arms

The lift arms, the coupling support and the upper link must always be removed for operation with frontloader. To dismount the lift arms you must remove the fastening screw and the bolt.

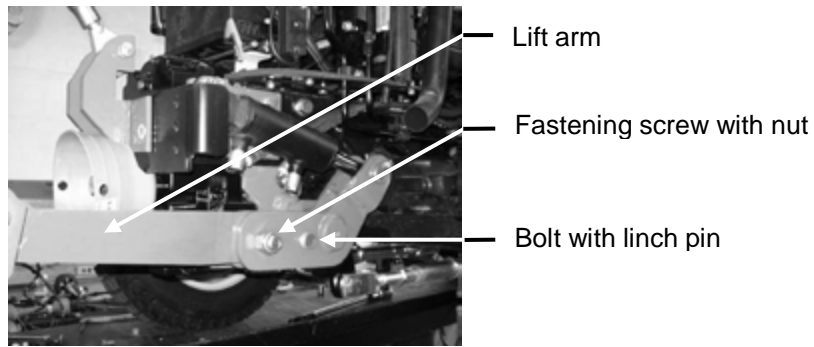


Fig 13: Lift arm

3.3 Mounting an original JD hood guard

To mount a John Deere hood guard as shown in Fig 14 it is necessary to align the fastening points on the front power lift. To do this we recommend the use of our conversion kit for JD frontloaders (see Fig. 17, article no. 131 7224)

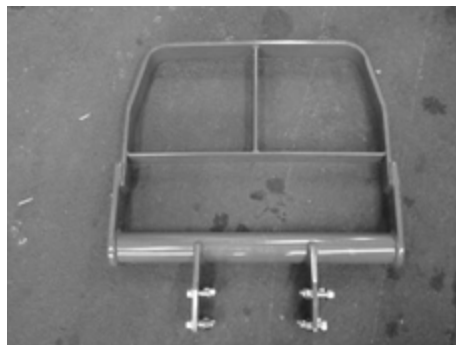


Fig 14: Hood guard

1. Mark and drill two tapped bores as shown in the Fig below. The bore diameter is 13 mm.

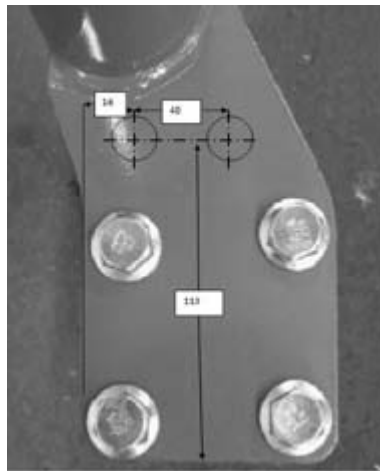


Fig 15: Bores in the hood guard

2. Cut off the original fastening lugs. See the line in Fig 16 for the precise position of a separating cut.

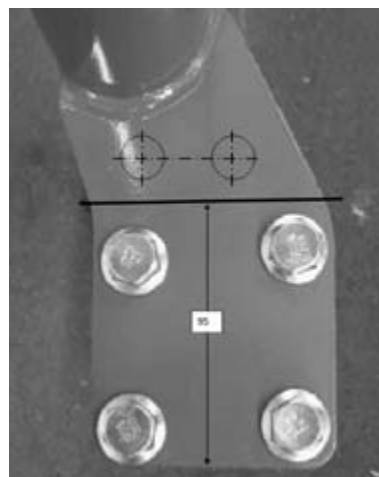


Fig 16: Separating cut line on the hood guard

3. To connect the hood guard with the tractor frame, bolt the lugs on the hood guard to our adapter plates as shown.



Fig 17: Conversion kit, adapter plate

4. Now bolt the front power lift to the tractor frame as usual.

3.4 Mounting the joystick set

(Optionally available, article no. 131 7136 and 131 7160)

3.4.1 Mounting the joystick element

(For 131_7160 joystick set 3x)

10. Mount the joystick unit on the right fender as shown in Fig 18. After aligning it is necessary to drill two 8.5 mm bores for this.



Fig 1: Joystick element

11. Now route the cable pulls through the existing opening shown in Fig 19 and down.

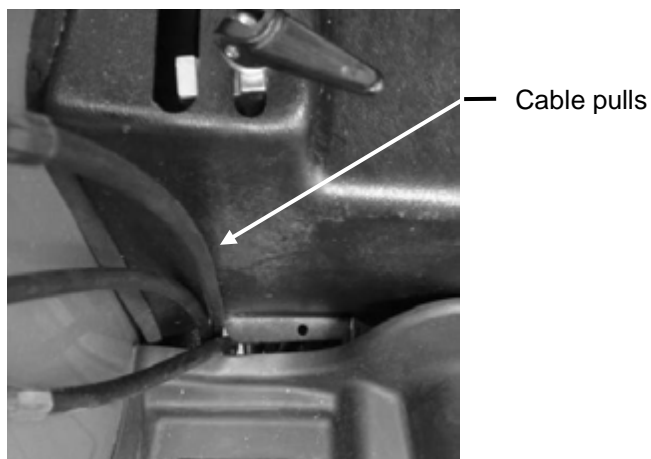


Fig 2: Cable pull passage

3.4.2 Attaching the control device

1. Fasten the control device below the right fender as shown in Fig 20. To do this it is necessary to drill an 8.5 mm bore. The position of the bore is shown in Fig 21. For marking, we recommend using the holder as a drilling template. The other two mounting bores are already present in the tractor fender and you do not need to drill these bores yourself.

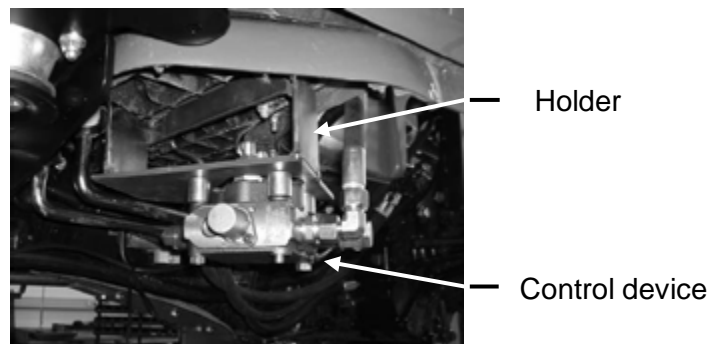


Fig 20: Control device, attachment position

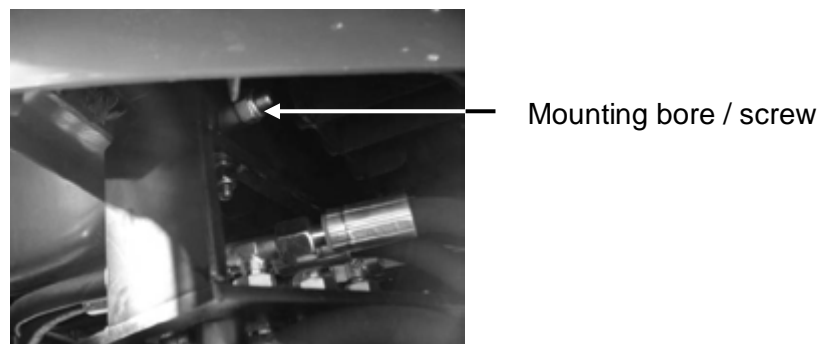


Fig 21: Fastening the control device

2. Connect the joystick element and the control device to the cable pulls in accordance with the connection descriptions for your control device in Fig 22 or Fig 23.

Installation

3.4.3 Connection in assignments on the single control valve

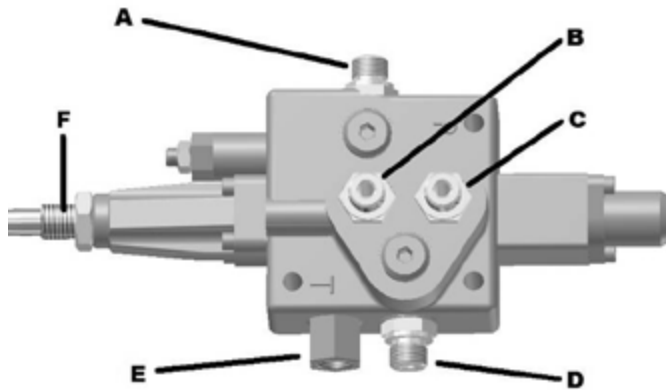


Fig 22: Connection assignments of the control device, single

- A: Feed connection (hydraulic pump)
- B, C: Front power unit (lift / lower)
- D: Pressureless return (tank)
- E: Pressure continuation
- F: Cable pull / joystick (swing)

3.4.4 Connection assignments on the triple control valve

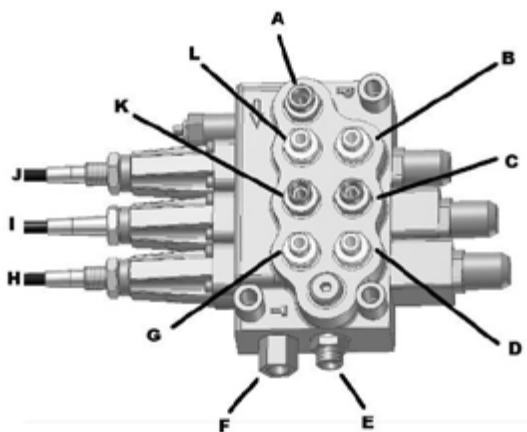
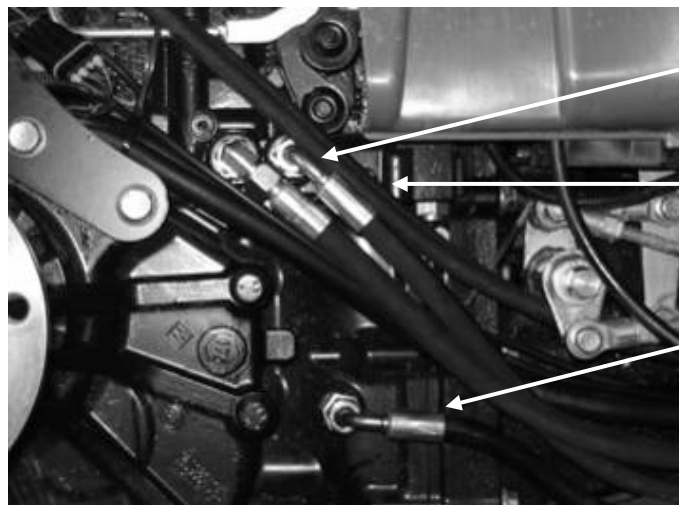


Fig 23: Connection assignments of the control device, triple

- A: Feed connection (hydraulic pump)
- B, L: Swing
- C, K: Connection for external devices (oil motor, leaf vacuum, etc.)
- D, G: Front power unit (lift / lower)
- E: Pressureless return (tank)
- F: Pressure continuation
- H: Cable pull / joystick (lift / lower)
- I: Cable pull / hand lever connection with locking receptacle (for external devices)
- J: Cable pull / joystick (swing)

3.4.5 Connecting the control device to the tractor hydraulic system

When mounting the control device it is connected with the connection points of the tractor hydraulic system as shown in Fig 24.



- Pressure continuation
- Hydraulic pump
- Tank

Fig 24: Tractor hydraulic system connections



Attention!

The hydraulic pump connection is connected to the connection of the pressure continuation via a passage bore. Consequently it is necessary to seal this passage bore with a screw (spare part no. 01 000 380) before mounting a hose to the hydraulic pump connection.

3.4.6 Mounting the rear hydraulic extension kit

12. Align the holder on the frame, mark the bore positions and drill tapping bores for M8. Cut the M8 thread and screw on the holder.

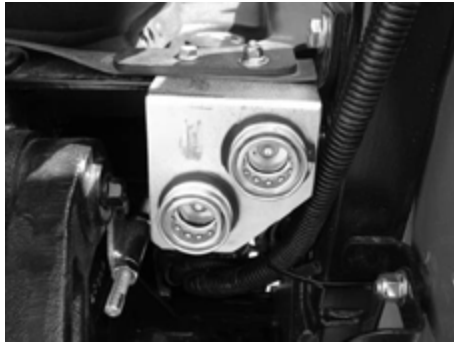


Fig 25: Hydraulic extension attached on the rear

4. Lay out the hydraulic hoses to the connection of the control device and connect the hoses in accordance with the connection assignment of your control device.

Control device, single: B / C

Control device, triple: G / D

5. Fix the hose in place at a suitable point with cable ties.

3.4.7 Mounting the front hydraulic kit (only for joystick set triple, art. no.: 131_7136)

1. Align the holder on the frame, mark the bore positions and drill tapping bores for M8. Cut the M8 thread and screw on the holder



Fig 26: Hydraulic extension attached on the front

6. Lay out the hydraulic hoses to the connections of the control device in accordance with Fig 23 (B, C, K, L) and fix the hoses in place at a suitable point via cable ties.

4 Operation



Attention!

Before starting up the implement read the instructions on safety and handling for operation of the entire implement and connection to the tractor. In addition, prior to start-up you must ensure that the vehicle meets the requirements specified in the German Road Traffic Vehicle Licensing Act.

The front power lift should only be placed in service if all safety devices are attached and fully functional. Prior to starting work the operator must familiarize himself with the device and ensure for himself that the entire device is operationally reliable.

Moving objects and fixtures, (ropes, chains, linkage, etc.) must be adequately secured before transport or driving on public roads to exclude the danger of accident or hazards to third persons.

4.1 Attachment variants of the coupling triangle

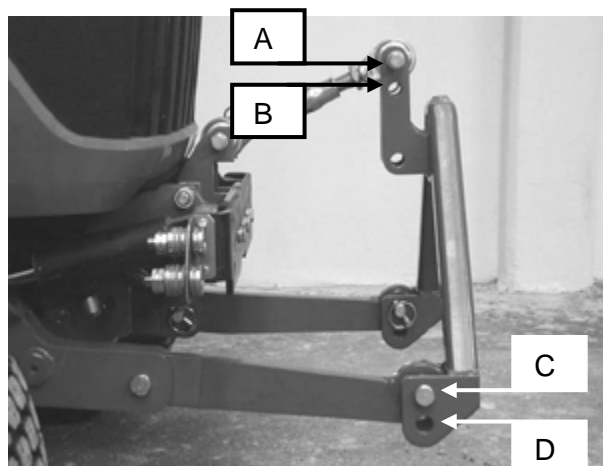


Fig 27: Coupling triangle

You can make four different settings on the coupling triangle (see Fig 27 in this regard). Position the bolts in the appropriate bores to achieve the desired setting.

Standard

Couple the triangle in points A and C.

Standard with stronger take-up

Couple the triangle in points B and C.

Lift increased by 45 mm

Couple the triangle in points B and D.

Lift increased by 45 mm

Couple the triangle in points B and D.

4.2 Coupling and uncoupling implements



Note!

Comply with the axle loads specified by the tractor manufacturer

1. Drive the tractor forward in front of the implement.
2. Lower the front power lift hydraulically.
3. Drive slowly toward the implement until the coupling triangle of the tractor is under the coupling triangle of the implement.
4. Slowly lift the front power lift until the implement is slightly lifted.
5. Secure the implement with the appropriate triangle locking mechanism. The triangle locking mechanism depends on the type of implement.

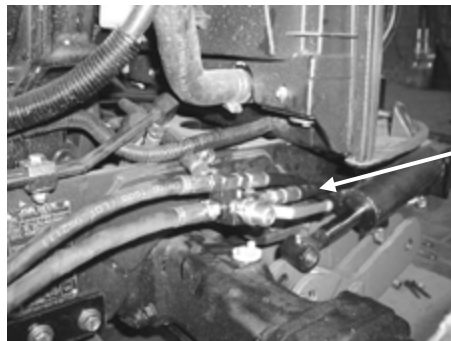
4.3 Lowering safeguard for the front power lift



Note!

Use the lowering safeguard when:

- Driving on roads
- Driving between work locations
- Cleaning and maintenance tasks



Lowering safeguard

Fig 28: Lowering safeguard, shown in unlocked position

1. Lift the front power lift.
2. Activate the stop valve by pulling it out and swinging it 90 degrees relative to the hydraulic hoses. The lowering safeguard is now locked.



Fig 29: Lowering safeguard, shown in unlocked position

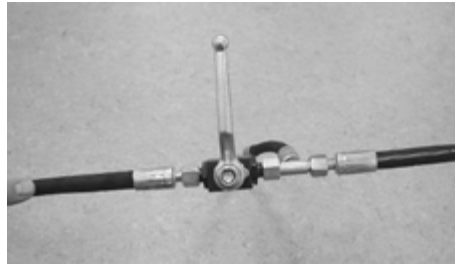


Fig 30: Lowering safeguard, shown in locked position



Note!

Strictly avoid lowering the front power lift via the tractor's control lever when the lowering safeguard is locked. This could damage parts of the front power lift!

5 Maintenance

5.1 General



Attention!

Personal injury or damage to the tractor and the implements can occur. Before each use check all safety-relevant parts, the hydraulic connections, and all threaded unions.

5.2 Service



Attention!

Danger of injury due to moving parts. Remove the ignition key before performing maintenance tasks on the implement.

After 25 operating hours, at the start of the season, or after a longer standstill period.

- Grease the moving parts of the device
- Grease the bearing of the bracket for the PTO shaft drive.
- Grease the lowering safeguard:
- Grease the arrest bolt
- Check the seat, status and seal of the hydraulic hoses

Before and after each use check all threaded unions for firm seat and re-tighten them if necessary



Attention!
Repairs on parts that are under tension (springs, pressure accumulators) require adequate skills and prescribed tools and should only be performed by specialists.



Note!
Replace any worn or no longer functioning protective device!



Note!
Only use original matev spare parts.

5.2.1 Maintaining the hydraulic system



Attention!
The hydraulic system is under high pressure.
Escaping fluids (hydraulic oil) can penetrate the skin and cause severe injuries.



Attention!
Strictly ensure that you switch off the engine and de-pressurize the system before executing tasks on the hydraulic system

- Regularly check the hydraulic hoses and replace them if there is damage or sign of aging.
- Block the hydraulic accumulator or de-pressurize it before performing tasks on the hydraulic system.

6 Repair

If there are faults, problems, or other indications of malfunction, contact your sales consultant or contact the manufacturer directly:

matev GmbH
Nürnberger Str. 50
90579 Langenzenn
Tel.: (Switchboard): 09 101/90 87-0

Enter the article number and the chassis number here.
This information is on the type plate of the device.

Article number:

chassis number

7 Disposal

The implements must be disposed of in accordance with the applicable regulations of the municipality or the country.

Take the parts to the collection points for residual waste, special waste, or recycle them depending on material.

matev GmbH does not provide any disposal services.

8 Warranty

The General Terms & Conditions of matev GmbH provide information on the warranty and guarantee conditions.

matev GmbH
Nürnberg Str. 50
90579 Langenzenn

9 Technical data and accessories

9.1 Technical data

Front power lift	Data
Hydraulic cylinder	Two double-acting cylinders arranged on the side
Lifting force	Do not exceed the permissible axle loads of the vehicle!
Lift height	308 mm
Coupling triangle	can be removed for frontloader implement
Weight	71 kg

9.2 Accessories

Accessories	Order number
Hydraulic kit for front power unit, triple with joystick	131 7136
Joystick set incl. 1x control valve (rear hydraulics)	131 7160
Conversion kit, orig. JD Frontloader	131 7224

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