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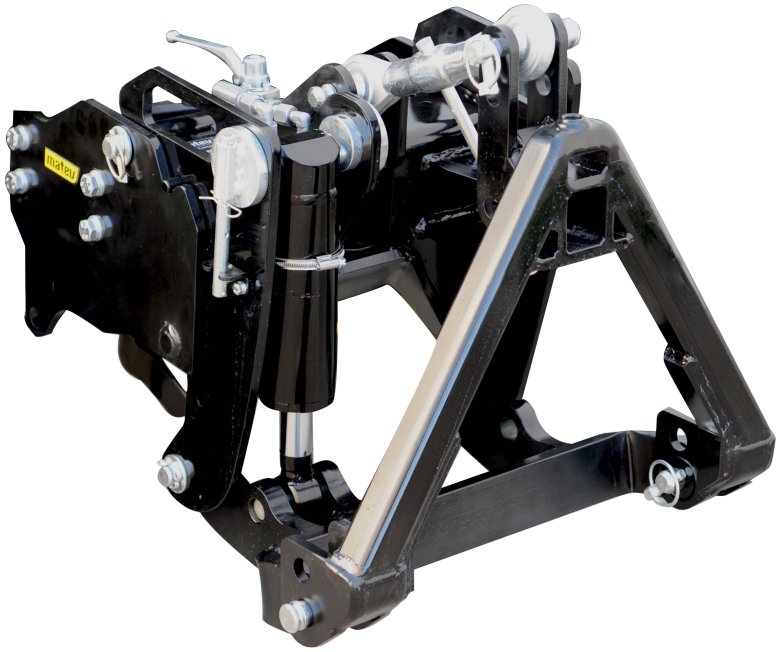
Operating Manual

FPS JD-2026R



Carefully read chapter 3 all the way through before unpacking the implement.

Prior to using the implement for the first time read this operating manual carefully and conscientiously all the way through.

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

The operating manual is part of the implement. The operating manual must always be provided with new and used machines.

Version 09/2018

Introduction

Dear customer! Dear customer!

Thank you for purchasing a product of matev GmbH, we appreciate your trust. You have acquired a quality product, if contrary to expectations you should have problems with the implement, contact your responsible sales partner.

Company stamp – sales partner

Prior to first use please read this operating manual carefully and conscientiously all the way through. The manual describes the handling of the implement in detail and will support you in working safely and effectively. By complying with the maintenance tasks you will retain the value and operational capability of the implement.

For damage that occurs due to operating errors or improper use, we will not accept any guarantee claims.

Variants may be described in the manual that do not agree with the scope of delivery of your implement.

Please enter the data of the rating plate on the implement in the manual. This information will be helpful in communication if there is a service case.

The matev products are 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.

Regards

matev GmbH

Table of contents

Table of contents

1 About this operating manual

Prior to first use read this operating manual carefully and conscientiously all the way through.

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

At transfer of the machine the owner of the machine receives instruction in the operation and maintenance of the machine from the owner's sales partner.

The owner must ensure that operating and maintenance personnel have been instructed in full scope in the operation and maintenance of the machine.

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:

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

2 Safety

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

2.1 Intended use

The implement must only be used in accordance with its specifications. Please read **chapter 5.1 Intended use** all the way through. All other uses are excluded.

Non-intended use causes:

- Health hazards for the operator or for third parties
- Implement damage
- Environmental damage

2.2 Instructions for the owner

Attention!

The front power system 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!

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

Danger!
Always ensure that no one is in the danger zone before and when using the front power system or the front PTO shaft.

2.2.1 Qualifications of personnel

This machine must only be operated by persons who are qualified, as follows:

- They must be at least 18 years old.
- They have received instruction on the machine.
- They must have read and understood this operating manual.
- They have been instructed concerning the relevant safety regulations (accident prevention).

The relevant accident prevention regulations and the other generally acknowledged occupational health and safety and road traffic regulations must be complied with at all times.

2.2.2 Instruction

At transfer of the machine the owner of the machine receives instruction in the operation and maintenance of the machine from the owner's sales partner.

The owner must ensure that operating and maintenance personnel have been instructed in full scope in the operation and maintenance of the machine.

2.2.3 Accident prevention

The safety regulations and accident prevention regulations are legally regulated in every country. The owner of the machine is responsible for compliance with the valid regulations.

2.3 General safety notices

In this section general safety notices are explained that are used in the subsequent sections.

Comply with these safety notices to ensure safe operation and to save work time and costs.

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

Comply with the safety notice.

Attention!
Minor injury to the operator or third parties can occur. The tractor, the implement, or the environment can be damaged.

Comply with the safety notice.

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 Warnings on the machine

Warnings and their general meaning are specified below that are also affixed as stickers on the implements.

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

Danger of injury due to rotating parts.
Maintain a safe distance from the area of drive shafts.
Switch off the implement. Wait until all machine parts have come to a standstill before performing 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 notice in the operating manual.

Attention!
Danger of crushing due to moving parts.
Never reach into the crushing hazard zone if parts are moving or can move.
Comply with the notice in the operating manual.

Attention!
Danger of injury due to the hydraulic system.
Do not enter the danger zone unless the lift cylinder safeguard is in place.

3 Delivery and transport

Our implements are delivered in suitable packaging. Please comply with the valid occupational health and safety regulations when unpacking and use suitable hoists if necessary.

3.1 Delivery on a pallet

3.1.1 Lift the implement off of the pallet

1. Remove the protective packaging and the transport safeguard.
2. Lift the implement off of the pallet with a suitable device (crane or forklift) and set it down.

3.1.2 Long-distance transport

If you want to transport the implement over longer distances (e.g. shipping via freight forwarder), you must lash the implement onto a pallet, as it was at delivery.

3.2 Transport over short distances

Suitable transport equipment or hoists must be used for transport. (Crane, forklift, lift truck)

4 Installation

Danger!

Severe injuries to the operator or third parties can occur.

Switch off the tractor and remove the ignition key before mounting or dismounting the implements.

The front power system is two-piece and consists of:

- Basic holder for mounting on the vehicle.

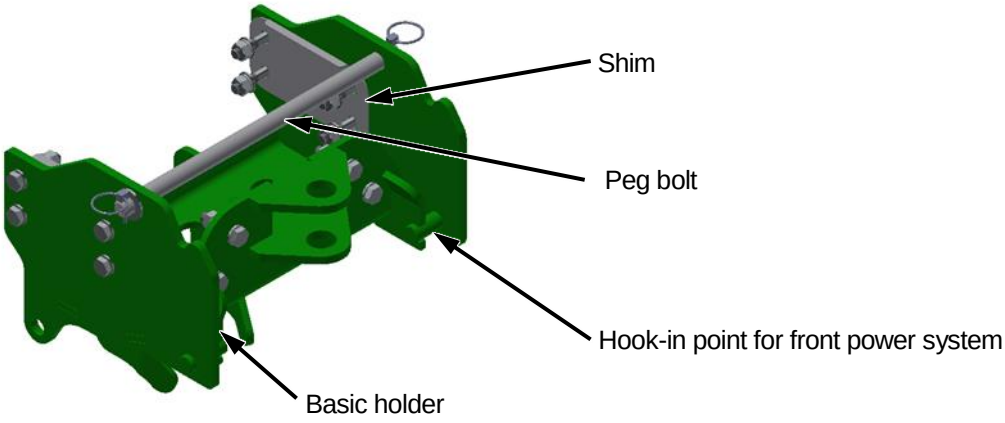


Fig. 1: Basic holder

- Pre-assembled, removable, front power system

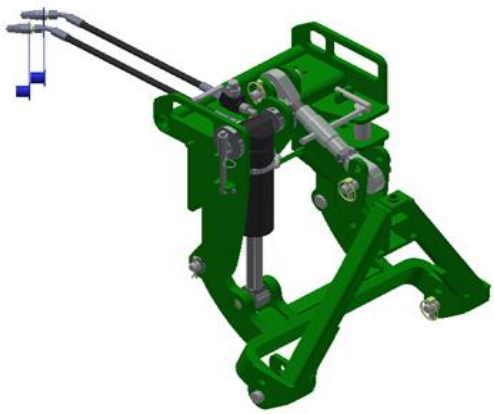


Fig. 2: Front power system, removable

4.1 Mounting the basic implement

Attention!
The cylinder of the front power system can be adjusted via an eccentric. Familiarize yourself with the handling of the eccentric as described in the "Operation" section.

1. Mount the hose guide on the tractor.

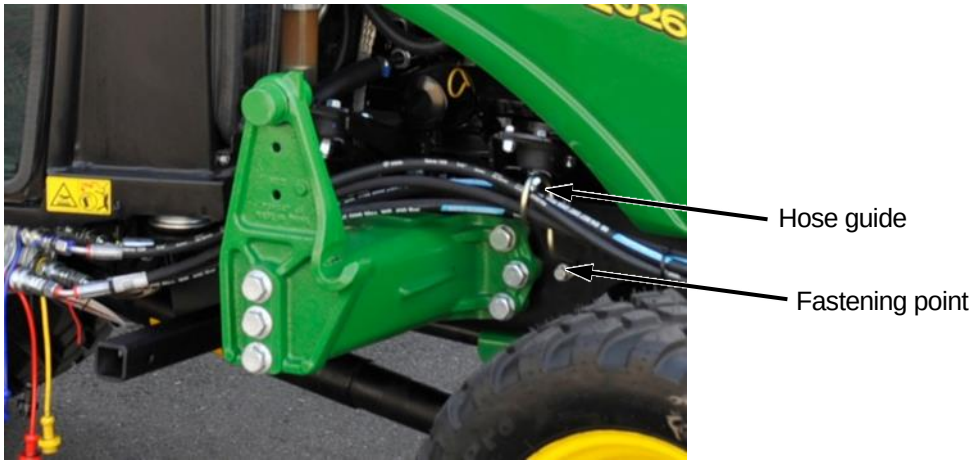


Fig. 3: Hose guide

2. Mount the basic holder on the tractor. Use the provided shims, if necessary.
   To facilitate installation, the peg bolt can remain mounted, in this case it rests on the tractor frame.

Fig. 4: Basic holder mounted

Hook in the front power system at the intended hook-in points on the base frame and secure it with the peg bolt.
Use the handles on the left and right to lift the front power system. Hook it in on the

lower hook-in points. Then swing the front power system toward the vehicle and hook it in on the upper safety bolt.

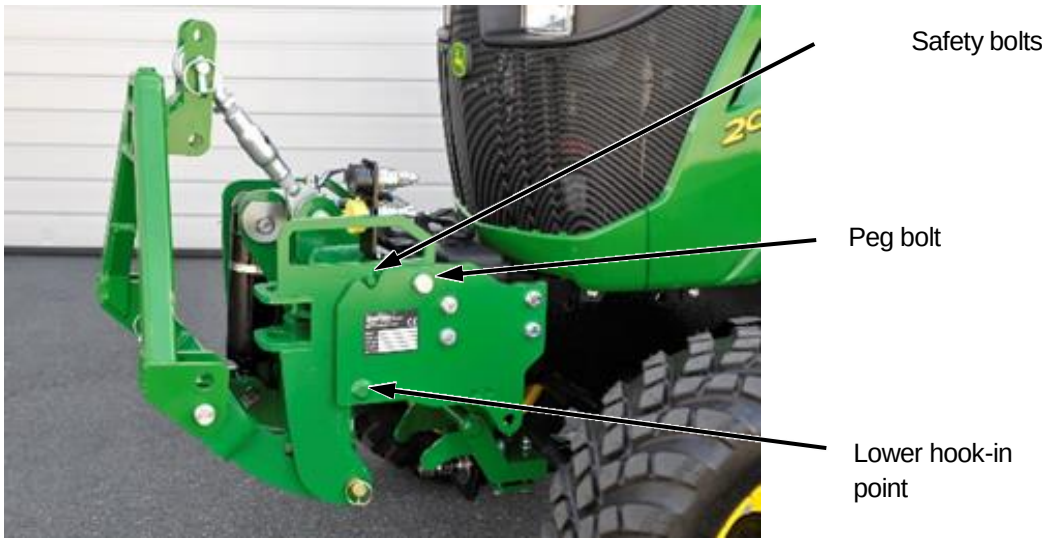


Fig. 5: Front power system hooked in

3. Lay out the hydraulic lines on the tractor frame. Fix the hydraulic hoses in place in the hose guides. Connect the front power system to the hydraulic couplings.

Fig. 6: Front power system hooked in

4.2 Mounting accessories

4.2.1 Hydraulic extension kit

1. Mount the coupling holder on the front power system. Please note the different mounting position of the holders for BG3 and BG2 – drip-free couplings.

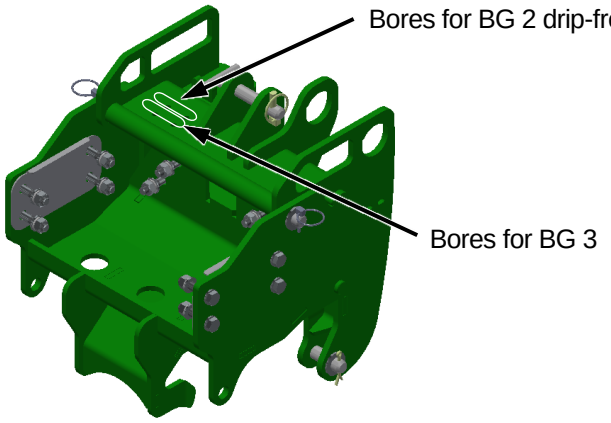


Fig. 7: Bores for hydraulic extension kit

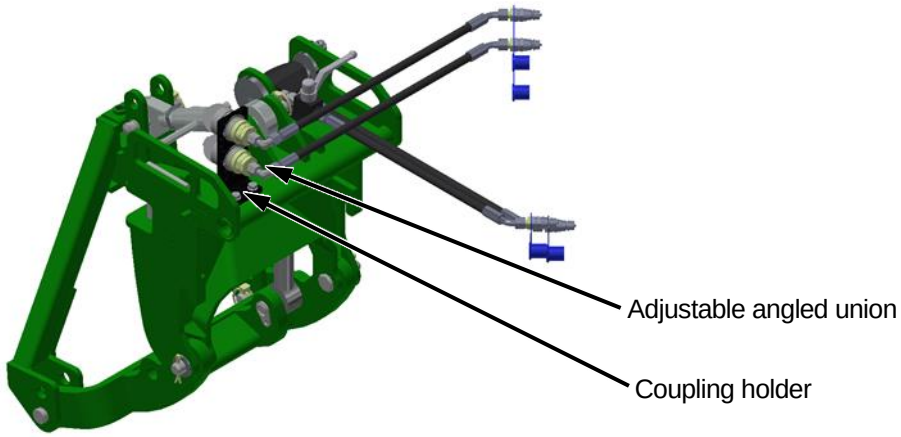


Fig. 8: Hydraulic extension kit BG3

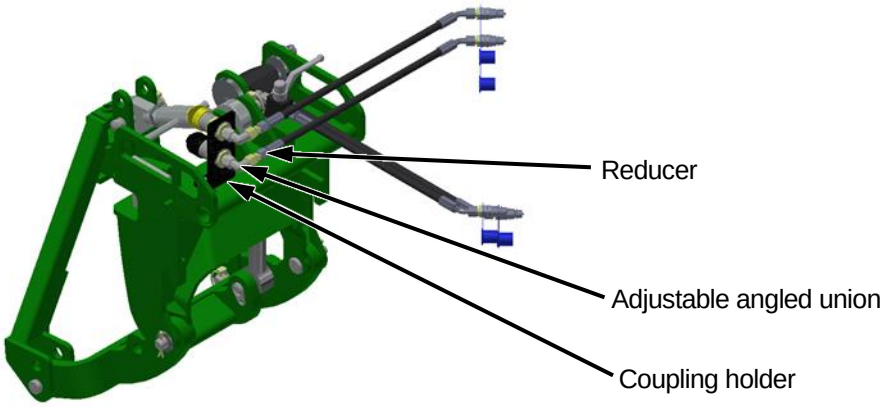


Fig. 9: Hydraulic extension kit BG2 – drip-free

2. Fix the hoses of the extension kit on the hoses of the front power system with cable ties.

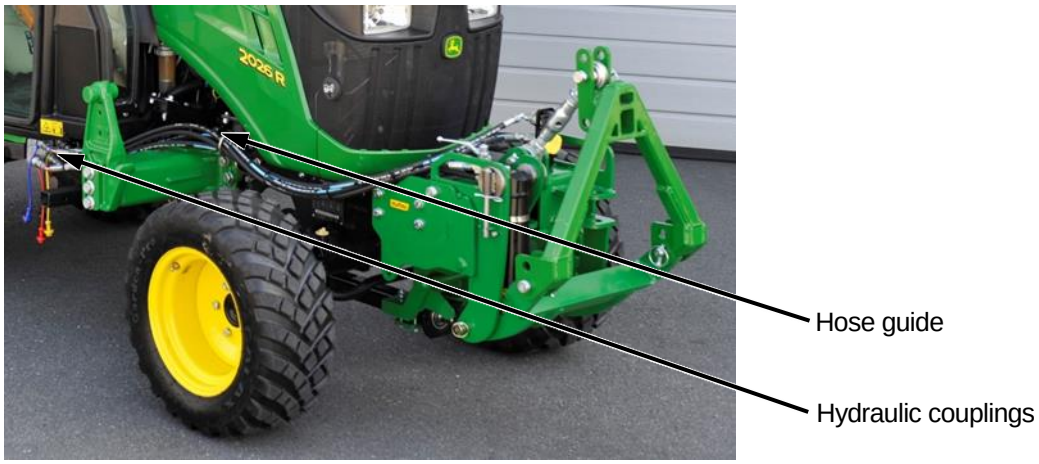


Fig. 10: Hose lay-out – hydraulic extension kit

3. Plug the hydraulic extension kit onto the tractor.

4.2.2 Hydraulic extension kit

For the hydraulic extension kit a free hydraulic circuit must be present on the rear of the tractor. This free hydraulic circuit is laid out from the rear on the left side of the tractor frame, forward to the front power system.

The provided holder is mounted under the fastening screws of the basic holder.

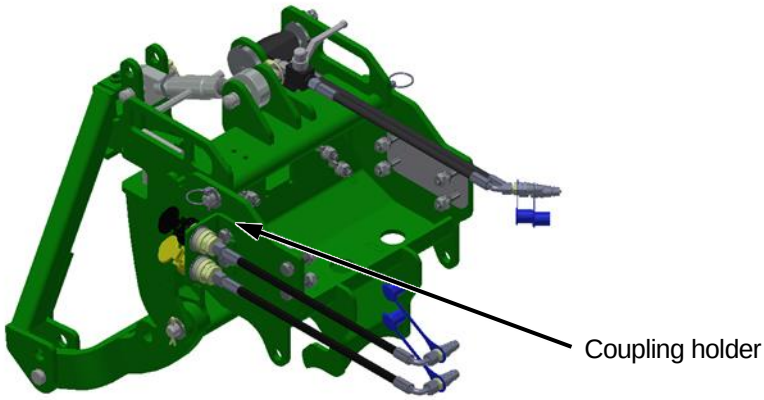


Fig. 11: Hydraulic extension kit

4.2.3 Arrest kit for control lever

Fasten the sheet metal plate on the bracket of the tractor as shown.

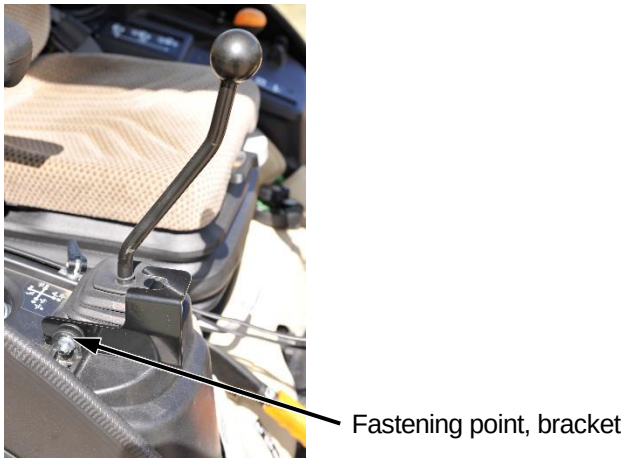


Fig. 12: Arrest kit for control lever

4.2.4 Compression struts

To accommodate higher thrust forces that occur when clearing snow, for example, a compression strut can be mounted as an option. For installation of the compression strut the bolts of the lifting arm are replaced.

The length of the compression strut can be changed in the same manner as top link can be changed. Unscrew the lock nut for adjustment and then tighten it.

Attention!

The compression strut is not compatible with the frontloader. It must be dismounted. The shorter, original lifting arm bolts must be used.

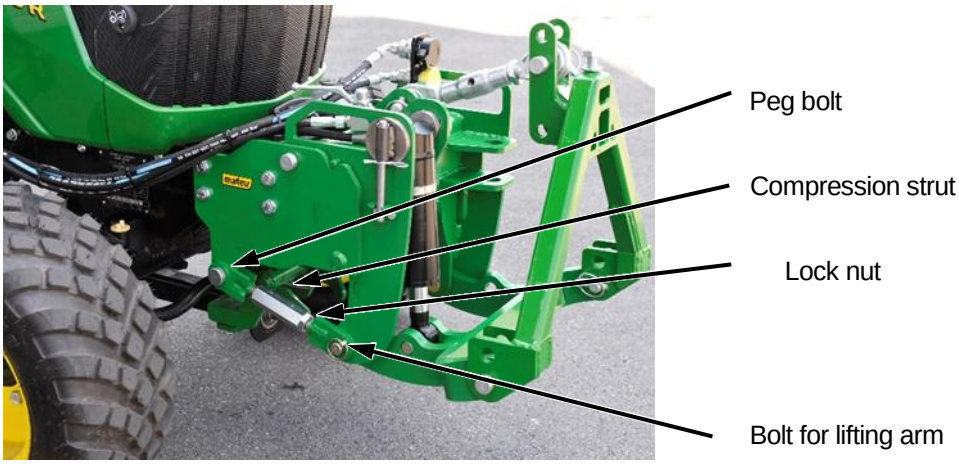


Fig. 13: Installation of the compression strut

4.2.5 Installation of the front PTO shaft

Attention!
The front PTO shaft must be dismounted before using the mid-mount mower.

Attention!
The front power system can be adjusted via an eccentric. If handled incorrectly the universal joint shaft for the front implement can be damaged. Familiarize yourself with the handling of the eccentric as described in the "Operation" section.

The front PTO shaft can only be installed if the John Deere AutoConnect mower receptacle is mounted.

1. Screw the retaining bracket for the front PTO shaft onto the tractor frame in the available bores. Hydraulic hoses are mounted in the plant on the left side in the direction of travel.

Fig. 14: Retaining bracket, front PTO shaft

2. Mount the PTO shaft as shown below. Mount the front holder as far in front as possible (weld seam).
   The position of the rear holder is adjusted on the vehicle at installation.

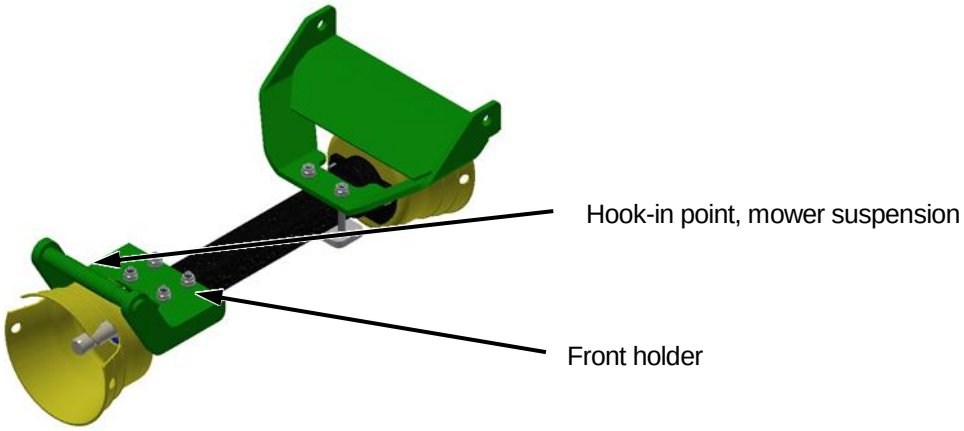


Fig. 15: Pre-installation – front PTO shaft

3. Hook the front PTO shaft into the mower hook-in element an the front power system and check whether the bolts on the rear holder can be pegged on the rear holder. If necessary, correct the position of the rear holder.

Fig. 16: matev front PTO shaft in the mower hook-in element

4. Mount the provided universal joint shaft between the mid-mount PTO shaft of the tractor and the front PTO shaft. Shorten the universal joint shaft if necessary. Comply with the provided original operating instructions for the universal joint shaft.

4.2.6 Installation of the hose clamp holder

For operation with a material collection device, a hose clamp holder can be mounted on the vehicle for the suction hose.

Fig. 17: Hose clamp holder, mounted

Fig. 18: Holder for hose clamp

Fig. 19: Double hose clamp

Fig. 20: Single hose clamp

The holder is mounted on the right in the direction of travel. Use the fastening points that are intended for the frontloader.

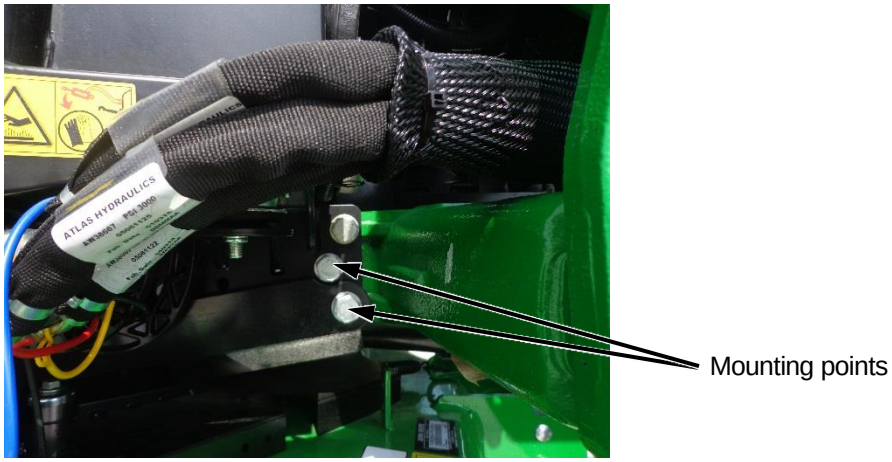


Fig. 21: Hose clamp holder, mounting points

5 Operation

Attention!
The front power system 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!

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

Danger!
Always ensure that no one is in the danger zone before and when using the front power system or the front PTO shaft.

5.1 Intended use

The front power system is used to accommodate small to medium-sized implements, such as snow blades, sweepers, etc. The front PTO shaft extends the mid-mount PTO shaft of the tractor to the front. It is used to power sweepers, or similar implements that are driven with PTO shafts.

All other uses are excluded.

Non-intended use causes:

- Health hazards for the operator or for third parties
- Damage to the tractor and the implements
- Environmental damage

5.2 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 system hydraulically.
3. Drive slowly toward the implement until the coupling support of the tractor is under the coupling triangle of the implement.
4. Slowly lift the front power system hydraulically 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.

5.3 Lowering safeguard for the front power system

Note!

Use the lowering safeguard for:
– Road travel
– Driving between work locations
– Cleaning and maintenance tasks

1. Lift the front power system.
2. Activate the stop valve by pulling it out and swinging it 90 degrees.
   The lowering safeguard is locked.

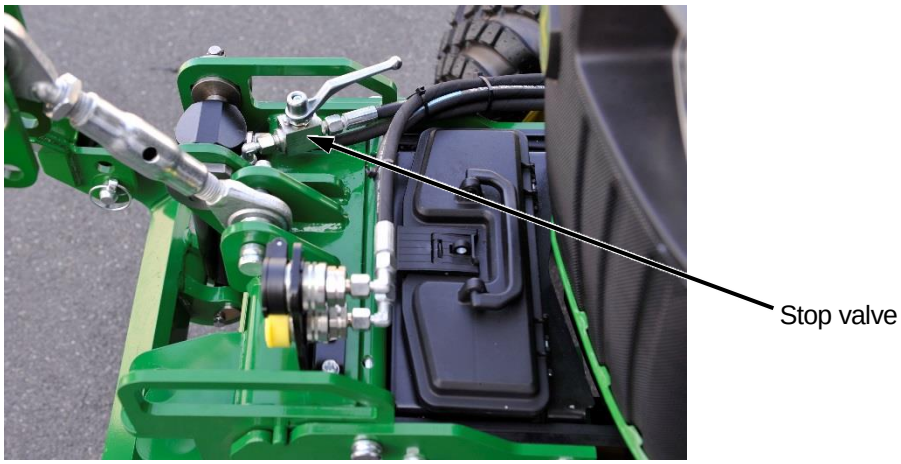


Fig. 22: Lowering safeguard, shown in unlocked position

5.4 Use of the eccentric

The lift cylinder of the front power system is suspended in the upper fastening bore with an eccentric bolt. The front power system can be brought into a working position and into a parking position by turning the bolt.

Attention!
Strictly comply with the instructions below; if these instructions are not complied with the tractor or the implements can be damaged

Attention!
Danger of injury due to moving parts.
Remove the ignition key before performing tasks on the front power system.

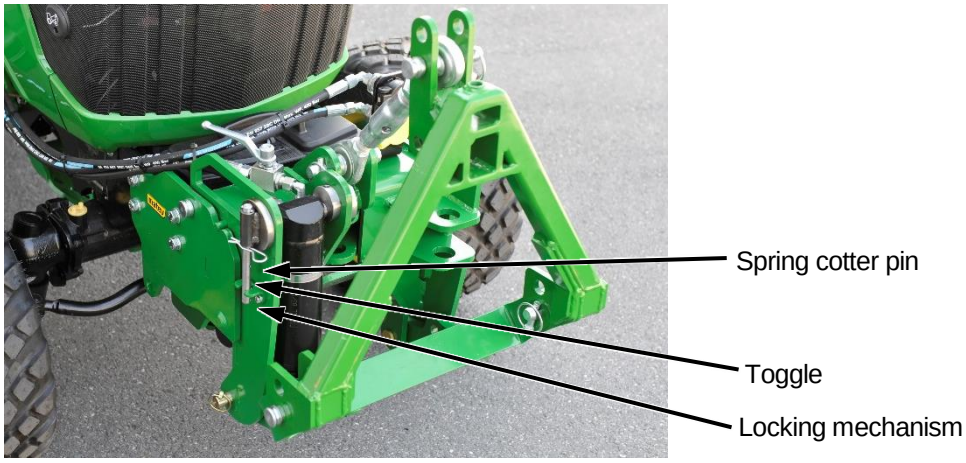


Fig. 23: Eccentric bolt (working position)

Fig. 21 shows the eccentric bolt in working position. The cylinder bolt is underneath the eccentric pivot point. You can also take the bore shown in the Fig below as a reference point for the working position.

Fig. 24: Eccentric bolt, bore

To turn the eccentric bolt, pull the spring cotter pin and pull the toggle upward. Turn the bolt 180° and re-insert the toggle in the locking mechanism. Then secure the bolt with the spring cotter pin.

5.4.1 Working position

The cylinder is in the lower position, the front power system can be used for lifting and lowering implements.

Attention!

Frontloader and AutoConnect Mid-Mount Mower Deck cannot be taken up in this position.

5.4.2 Park position

To reach park position the front power system must be brought into the highest position. The lowering safeguard must be locked (-> 5.3 Lowering safeguard for the front power system) and the eccentric must be turned 180°.

The park position will be required for the subsequent tasks. Alternatively the front power system can be taken off (-> 5.5 Taking off the frontloader)

- Taking up and setting down the frontloader, and working with the frontloader.
- Taking up and setting down the mower.

5.5 Taking off the frontloader

Attention!
Danger of injury due to moving parts.
Remove the ignition key before performing tasks on the front power system.

Attention!
The front power system has a weight of approx. 50 kg. You must be familiar with the lifting of such loads and must not have any health restrictions that prohibit the lifting of such loads.

The front power system can be taken off without tools, to make the work with the mid-mount mower or the frontloader as easy as possible, even under difficult conditions.

5.5.1 Taking off the front power system

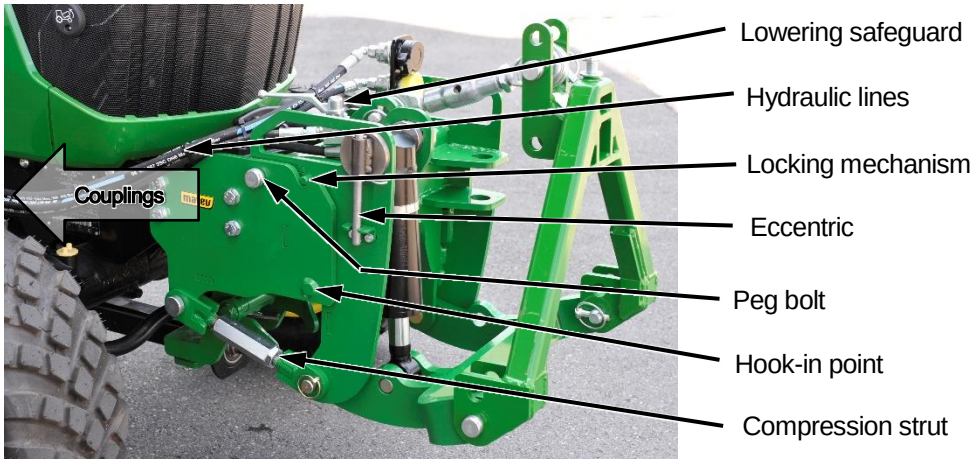


Fig. 25: Taking off the frontloader

1. If necessary, dismount the compression strut
2. Bring the eccentric into working position.
3. Lower the front power system to the lowest position
4. Lock the lowering safeguard.
5. Uncouple the hydraulic lines and place the lines on the ground.

6. Pull the peg bolt.
7. Lift the front power system out of the locking mechanism (via the handles) and pivot it slightly forward.
8. Lift the front power system out of the lower hook-in element and place it in front of the tractor.
9. Re-insert the peg bolt.

5.5.2 Attaching the front power system

1. Set down the front power system in mounting position in front of the tractor.
2. Pull the peg bolt.
3. Lift the front power system via the handles. In this process it will tilt slightly. This tilt is desired and it makes the installation easier for you.
4. Hook-in the front power system on the lower hook-in points.
5. Pivot the front power system around the lower hook-in point to the rear and lift it via the locking mechanism until it locks in place.
6. Insert the peg bolt
7. Couple the hydraulic lines of the front power system.
8. Unlock the lowering safeguard

5.6 Front power system in conjunction with original John Deere mid-mount mower

The front power system is optimized for parallel use with the John Deer mid-mount mower.

Attention!

When taking up and setting down the John Deere mid-mount mower the front power system must be brought into park position (-> section 5.4 Use of the eccentric).

Fig. 26: John Deere AutoConnect Mid-Mount Mower Deck

To take up and set down the mid-mount mower, the front power system must be brought into park position. After taking up the mower the front power system can again be brought into work position, in order to work with the matev lawn harrow, for example.

Fig. 27: matev lawn harrow

5.7 Front power system in conjunction with John Deere frontloader 120R

The front power system is optimized for parallel use with the John Deere frontloader 120R.

Attention!

When taking up, setting down, and operating the John Deere frontloader 120R, the front power system must be brought into park position (-> section 5.4 Use of the eccentric).

To work with the frontloader 120R, the front power system must be brought into park position. If the frontloader is in the highest possible position, theoretically you can again work with the front power system. To do this, the hydraulic hoses of the frontloader must be uncoupled and the front power system must be coupled. The frontloader must be safeguarded against lowering.

After uncoupling the front loader the hydraulic lines are pressurized. Without a shut-off fixture in the hydraulic line for the frontloader, installed retroactively by the dealer, the front loader can no longer be coupled.

Fig. 28: John Deere frontloader 120R

5.8 Use of the matev front PTO shaft

Attention!
Danger of injury due to moving parts.
Remove the ignition key before performing tasks on the front PTO shaft.

The matev PTO shaft can be removed and installed without tools. To operate the front PTO shaft, if installed, the John Deere AutoConnect mower lift must be dismounted, so that the mid-mount PTO shaft stub is freely accessible.

The front PTO shaft is tested with all matev front attachment implements, however due to the versatility of the front power system particular attention is required. When first placing the implements in service always check to ensure that there are no collision points between universal joint shaft and front power system.

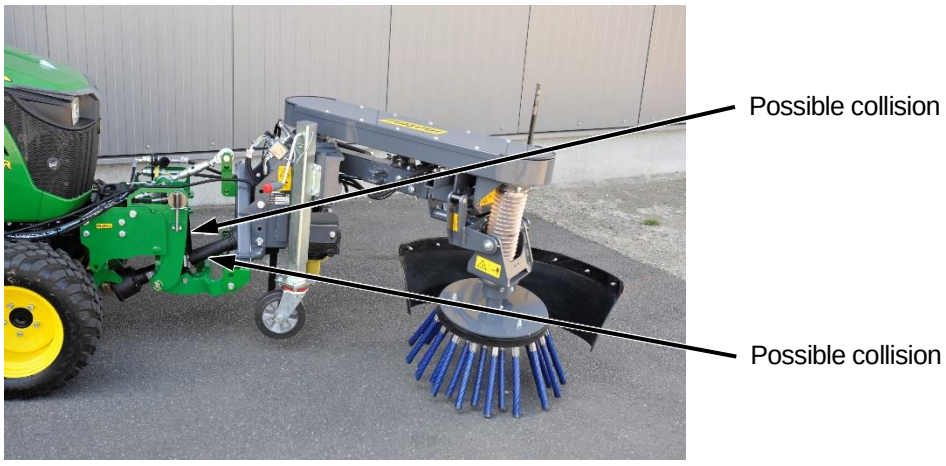


Fig. 29: matev weed brush

1. Mount the coupling triangle on the implement as shown in the Fig. below.
2. Mount the universal joint shaft between the implement and the output stub of the front PTO shaft

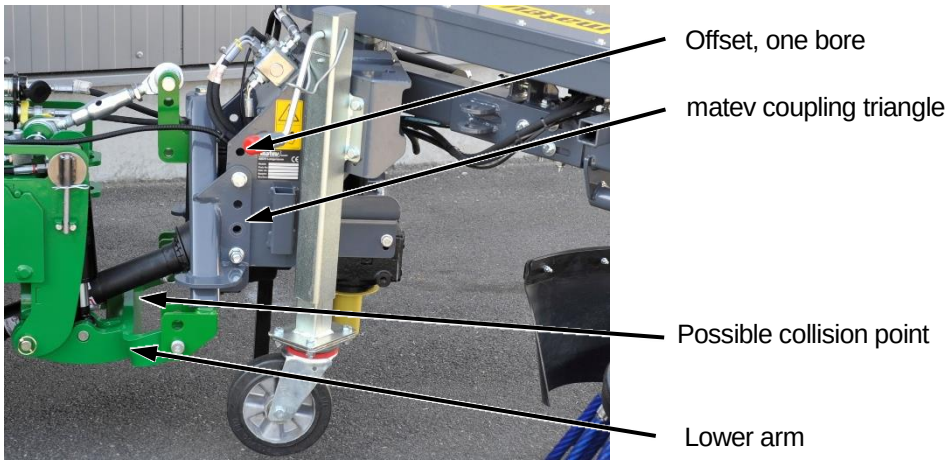


Fig. 30: Installation of the coupling triangle

3. If the universal joint shaft collides with the lower arm, then move (offset) the coupling triangle one additional bore downward.
4. Lift out the implement and have a second person check to ensure that a collision of the universal joint shaft does not occur in the upper area of the front power system in lifted-out status. If the distance in lowered status is similar to that on the **Fig.** 30**,** this will not be the case with matev implements.

A function of the front PTO shaft in conjunction with the frontloader cannot be guaranteed. This must be checked for each individual case. Pay special attention to the parking rest of the frontloader.

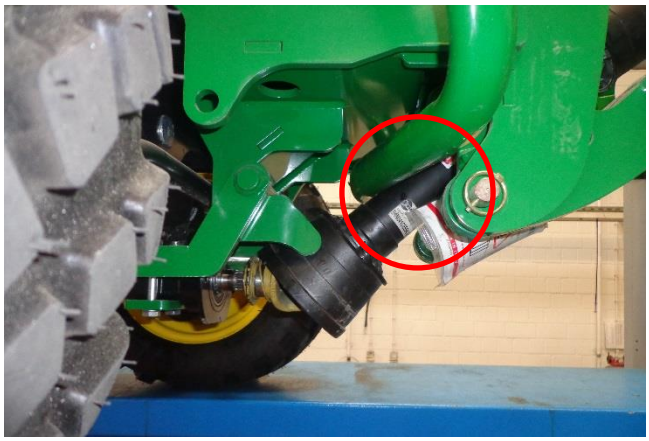


Fig. 31: Front PTO shaft with frontloader

5.8.1 Using the front PTO shaft

1. Place the front PTO shaft under the tractor and hook the front PTO shaft into the front mower hook-in element.

Fig. 32: Front PTO shaft – mower hook-in element

2. Lift the rear part of the front PTO shaft and peg the rear holder on the angle brackets intended for this purpose.

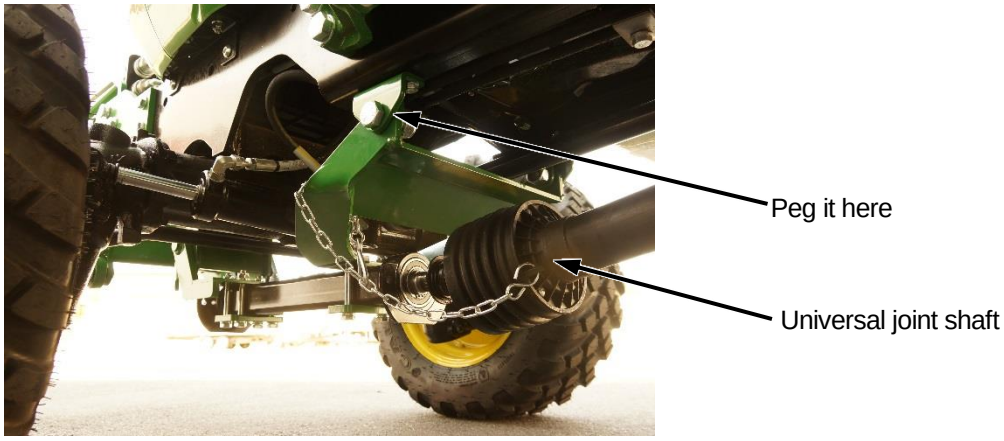


Fig. 33: Front PTO shaft – rear holder

3. Connect the mid-mount PTO shaft of the tractor to the matev front PTO shaft via the provided universal joint shaft.

5.8.2 Removal of the front PTO shaft

1. Dismount the universal joint shaft.
2. Pull the peg bolts of the front PTO shaft holder.
3. Pull the front PTO shaft out of the front mower suspension.

6 Maintenance

6.1 General information

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.

6.2 Maintenance

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 implement via the lubricating nipples
- Check the seat, status and seal of the hydraulic lines
- Before and after each use check all threaded unions for firm seat and re-tighten them if necessary

6.3 Repair

If there are faults, problems, or other indications of malfunction, contact your sales partner.

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 Guarantee

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

9 Technical data

Front power system FPS-JD 2026R	**Data**
Hydraulic cylinder	A double-acting, laterally arranged cylinder
Lift force	Do not exceed the permissible axle loads of the vehicle! 300 kg - 600 mm in front of the coupling point
Lift height	120 mm – 450 mm, on the coupling point of the lower arms
Distance in front of the axle	approx. 785 mm in work position (cat. 0)
Weight	Approx. 75 kg (removal cat. 0)

Front PTO shaft	**Data**
Weight	25 kg

10 List of illustrations

11 EG - Declaration of Conformity

EC Declaration of Conformity for a machine to confirm compliance with the Machinery Directive 2006/42/EC and with the statutory regulations issued for the implementation of the Machinery Directive.

The manufacturer	matev GmbH
	Nürnberger Str. 50
	90579 Langenzenn, Germany
declares that the machine	front power system and front PTO shaft
	FPS-JD – 2026R

complies with the provisions of the Machinery Directive 2006/42/EC and with the implementing national statutory regulations.

The signer is authorized to compile the technical documents.

The address is the address of the manufacturer.

Date / signature	September 2018	.....
Name of signer		Georg Hemmerlein
Signer information		Managing Director