

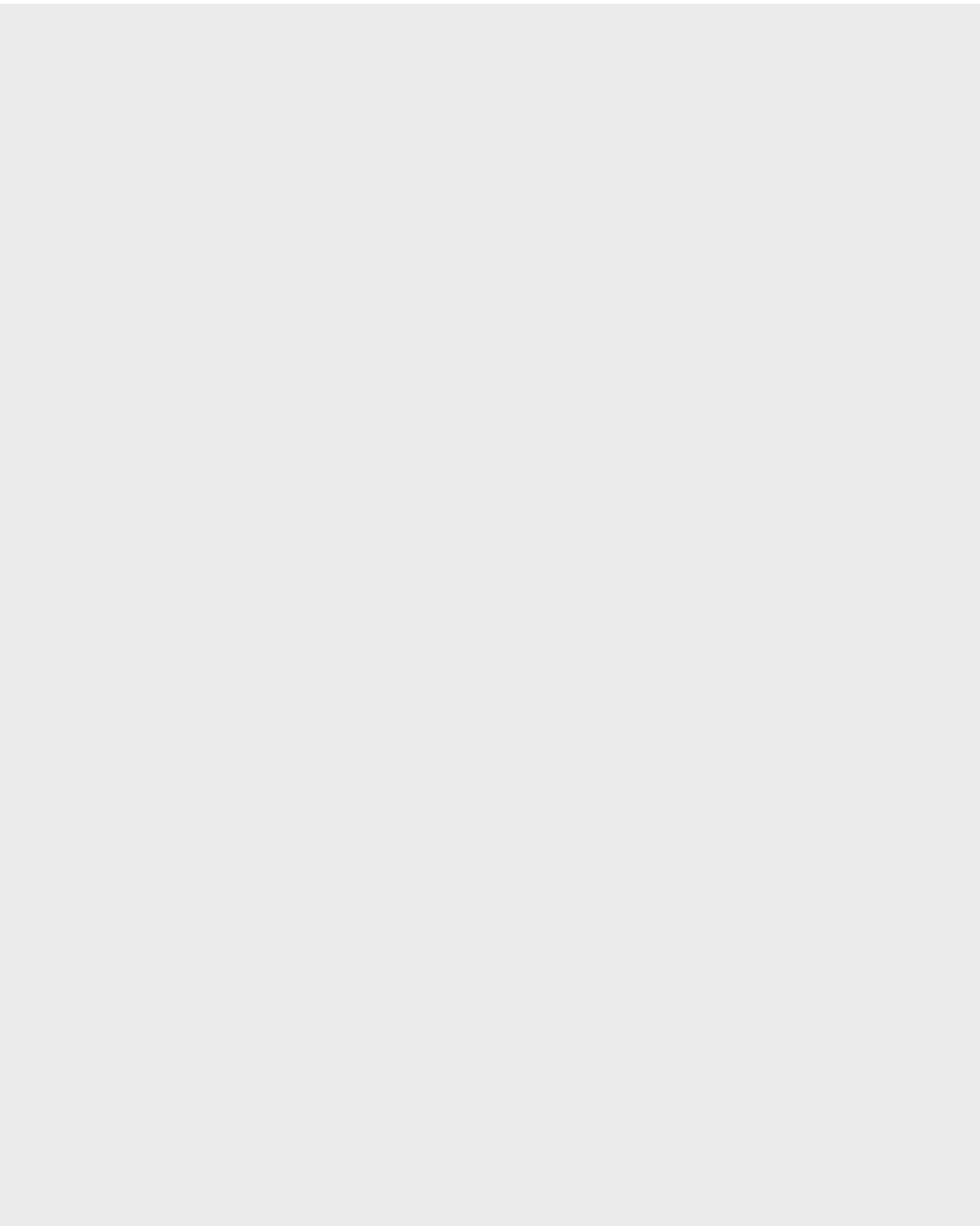
# DEGENHART

**Operating instructions**

**Front Hitch**

**Front PTO**





## Contents:

<b>1. Declaration of acceptance and start of operation</b> .....	page 4
<b>2. Service interval</b> .....	page 6
<b>3. Intended use</b> .....	page 9
<b>4. Conformity</b> .....	page 9
<b>5. Safety</b> .....	page 10
<b>6. Traffic regulations</b>	
<b>6.1 Driving with front implement</b> .....	page 11
<b>6.2 Driving without front implement</b> .....	page 11
<b>6.3 Axle load</b> .....	page 11
<b>6.4 Adjusting additional lighting</b> .....	page 11
<b>7. Instructions for use of Front Hitch</b>	
<b>7.1 Control unit</b> .....	page 12
<b>7.2 Multi-valve</b> .....	page 12
<b>7.3 Remote control</b> .....	page 13
<b>7.4 Accumulator</b> .....	page 14
<b>7.5 Pressure gauge</b> .....	page 14
<b>7.6 Hydraulic connector lifting cylinder</b> .....	page 14
<b>7.7 Hydraulic connectors to the front</b> .....	page 14
<b>7.8 Lower link</b> .....	page 15
<b>7.9 Top link</b> .....	page 16
<b>7.10 Connecting implements</b> .....	page 17
<b>7.11 Fixture for relieving springs</b> .....	page 18
<b>7.12 Additional weight</b> .....	page 18
<b>7.13 Note for using front implements</b> .....	page 19
<b>7.14 Damage prevention</b> .....	page 20
<b>8. Service / Inspection Front Hitch</b> .....	page 21
<b>9. Technical data Front PTO</b> .....	page 22
<b>10. Instructions for use of Front PTO</b>	
<b>10.1 Connecting implements</b> .....	page 22
<b>10.2 Commissioning</b> .....	page 22
<b>10.3 Damage prevention</b> .....	page 23
<b>11. Service / Inspection Front PTO</b> .....	page 24
<b>12. Inspection Sheet Front PTO after 2014</b> .....	page 26

## 1. Declaration of acceptance and start of operation

The customer was instructed by the dealer concerning proper use, operation and maintenance. He was informed about safety devices in accordance with the instructions for installation and use as handed over. The dealer has informed the customer about warranty conditions of the manufacturer.

### Dealer data:

Name		Street, no.
ZIP	Place	Country

Front hitch		Serial no.
Front PTO		Serial no.
Accessories		Serial no.
Accessories		Serial no.

### Endkunde:

Name		Street, no.
ZIP	Place	Country

**Before delivery of the front hitch and/or front p.t.o the following works were executed:**

	Retightening of all hydraulic hoses and inspection, if there are any spots of abrasion
	Checking tightening torque of all fixing bolts of the front hitch
	Functional test of the front hitch
	Front PTO: Inspection of oil level
	Front PTO checking tightening torque of all bolts
	Functional test of the front PTO

- The front hitch / front p.t.o as supplied has to be used exclusively in the mode as described in the instructions for installation and use. Any other mode of use has to be considered as inappropriate use and is therefore strictly prohibited and beyond the range of liability of the manufacturer.
- With regard to the risks involved when inhaling exhaust fumes a tractor must never be started in closed rooms (Art. 69 of the safety resolution for agriculture).
- Local safety regulations for the prevention of accidents must be observed at any time.
- Please read the instructions for installation and use thoroughly before starting operation of the front hitch / the front PTO
- It is not permitted to work with a defective component.
- Any maintenance and repair work may only be executed by qualified personnel.
- The front hitch / front PTO is supplied with all required fixing material and accessories.
- For any information required concerning spare parts, maintenance and repair that is not included in these instructions may we kindly request you to contact your dealer respectively the manufacturer. Please make sure that you have the information noted on the type plate at hand.

**Front hitch / front PTO handed over on \_\_\_\_\_**

These operating instructions have been handed over with the unit, also have I been instructed on use, safety- and inspection-regulations.

\_\_\_\_\_  
Signature customer

\_\_\_\_\_  
Signature dealer

## 2. Service intervals

The first service has to be done after 50 tractor hours. For further service, please stick to the oil-change intervals of the tractor manufacturer.

Date: \_\_\_\_\_  
Operating hours: \_\_\_\_\_  
Oil type: \_\_\_\_\_  
Filter change   
Oil change

Stamp

Date: \_\_\_\_\_  
Operating hours: \_\_\_\_\_  
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Stamp

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Operating hours: \_\_\_\_\_  
Oil type: \_\_\_\_\_  
Filter change   
Oil change

Stamp

50

The first service has to be done after 50 tractor hours. For further service, please stick to the oil-change intervals of the tractor manufacturer.

Date: \_\_\_\_\_  
Operating hours: \_\_\_\_\_  
Oil type: \_\_\_\_\_  
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Oil change   
Stamp



### 3. Intended use

- Before starting work, read these operating instructions and get to know all actuators and their function.
- The Front PTO is purely made for the common use in agricultural and similar work, e.g. the municipal use.
- Every usage that exceeds the intended use, has to be clarified with the professional workshop beforehand.
- For damages resulting out of this use the manufacturer is not liable.
- The risk therefore is solely beared by the operator.
- The intended use also includes the compliance of the mandatory Service intervals and inspections.
- Do only use original spare parts or parts that are approved by the manufacturer!
- The manufacturer does not take any responsibility for claims, which are a result of using not approved parts or implements, manipulation or changes, made without approval of the manufacturer.
- Have the mounting, service, inspections and repairs done by a professional workshop.

### 4. Conformity

The main purpose of the merchandise is for agricultural use and is conform to guide line 2006/42/EG.

## 5. Safety Instructions

Follow safety instructions and notes! => Risk of crushing or getting caught by turning and moving parts!

Operators of the front PTO may not be under the influence of alcohol or medication or other substances, which disturb the ability to concentrate or coordination.

Unauthorized personnel is not allowed to step into the danger area! Make sure the danger area is clear (if necessary by a second person)

Danger through unintended use by children!

Before each use, the front PTO needs to be checked for visible damages like wearout, leaks or cracks. They need to be fixed right away!

Before starting the tractor engine, make sure the front PTO is switched off.

Switch off the tractor right away, when damages are noticed during use.

Only work with secured PTO shaft.

The front PTO may only be used with the designated safety devices. Missing or broken safety devices like protecting funnel or cover plate need to be replaced immediately!

When work is undertaken on the front PTO or the implement:

- Do not step into the danger zone!
- Do not reach into openings or narrow points!
- Wear protective clothing!

Before work is undertaken on the front PTO or the implement:

- Turn off the engine and secure against accidental starting!
- Disburden the 3 point front hitch!
- Mechanically secure the front implement against lowering!

After a certain time of use, high temperatures occur on the gearbox. => Risk of burns!

Always drive at a speed which gives total control over the tractor and the implement connected to the 3 point front hitch and does not cause overloading.

When not using the front PTO, always switch it off and put on shaft safety!

When using the front hitch, the hydraulic sockets connected to the control unit may not be used otherwise! The blind stops mounted in the sockets may not be removed!



Before driving with an implement, make sure all bolts are secured properly and that the implement is locked into place securely!

When jacking up the tractor please note the tractor manual.

During transport journey the rocker arm has to be raised sufficiently and the multi-valve has to be locked.

## 6. Traffic regulations

Please note the valid traffic regulations in your country!

### 6.1 Driving with front implement

#### Measurements

Implements can be transported in traffic, if the distance from the middle of the steering wheel to the front edge of the implement does not exceed 3,5m. If this distance is exceeded, the visual field might be restricted and technical help needs to be installed.

#### Additional lighting

- If the main head lights are covered by the front implement, additional lighting needs to be turned on
- When additional lighting is turned on, the maximum speed is 30km/h

### 6.2 Driving without front implement

#### Transport hazardous parts

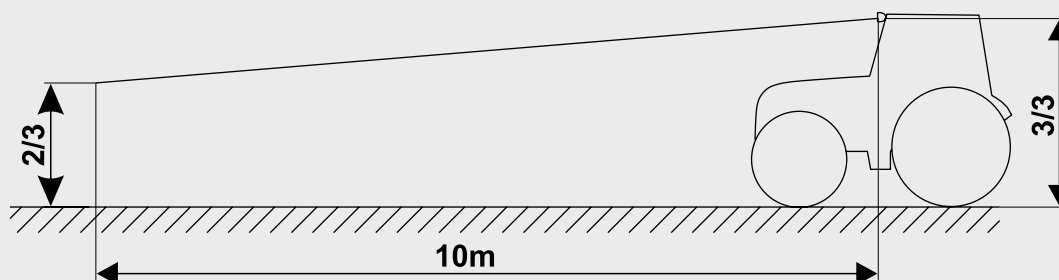
To prevent a transport hazard by parts that stick out, the following actions have to be taken on official roads

- the lower links have to be raised all the way (before, lift the front hitch all the way) or
- take off the lower links or
- a tractor triangle has to be hooked into the front hitch

### 6.3 Axle load

- During transport of front implements, take care of enough weight on the back axle
- The from the manufacturer released maximum front axle weight as well as the maximum total weight and the maximum speed for this may not be exceeded.

### 6.4 Adjusting additional lighting



## 7. Instructions for use of Front Hitch

### 7.1 Control unit

The hydraulic cylinders of the front hitch are connected to a double acting control unit of the tractor.  
For the control of the control unit please use the Operating Instructions of your tractor.

- Gently use the intended switch!
- When leaving the tractor please end time-, continuous operation and floating position of the control unit.  
=> Bring control unit into neutral position!

### 7.2 Multi-valve

#### General function

The multi-valve is installed between the control unit and the hydraulic cylinders und is operated by the use of 2 levers, with which you can set 3 different functions (see chart)

Function	Picture					Description
<b>Front Hitch locked</b>						<ul style="list-style-type: none"> <li>• "Lift" and "Lower" not possible</li> <li>• Both lines locked</li> </ul> => Front Hitch remains in this position
<b>Front Hitch single-acting</b>						<ul style="list-style-type: none"> <li>• "Lift" with pressure</li> <li>• "Lower" without pressure</li> </ul> => No pushing possible
<b>Front Hitch double-acting</b>						<ul style="list-style-type: none"> <li>• "Lift" with pressure</li> <li>• "Lower" with pressure</li> </ul> => Front implement can be pushed towards the ground

## 7.3 Remote control

(only with electrical control units) With 2 buttons, installed in the front, the front hitch can be slowly lifted or lowered. For setting up the oil flow please use the installation instructions of the remote control:



### Safety instructions:

- The front hitch may always only be used either from the inside or outside  
=> Risk of accident by simultaneous use!  
=> The signal of the remote control comes first!
- The use from the outside is only allowed, when the lever in the cabin is set on neutral.  
When leaving the tractor please end time-, continuous operation and floating position of the control unit.
- Don't step into the danger area!
- When not using the front hitch, completely raise the front hitch and then fold the arms up!
- **When using the front hitch, the connected sockets of the control unit may not be used otherwise!  
The plugs to lock these sockets may not be removed!**
- **Make sure that the control unit that controls the front hitch, no other implements (i.e. front loader) are controlled!**

## 7.4 Accumulator

The accumulator absorbs shocks during the transport of a front implement.

=> Recommended when transporting heavy implements

- connected to the lifting line
- multi-valve in position "locked"

=> After „lifting“ of the front hitch, slightly lower it again to ensure proper operation.

### Further field of use:

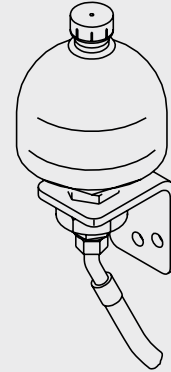
The accumulator ensures an even bearing pressure (Front Packer).

- Connected to pushing-line;
- Multi-valve in position "double-acting";

### Safety instructions:

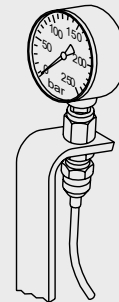
The accumulator is always under pressure (also when the engine is turned off).

Changes or repairs may only be carried out by an authorized workshop.



## 7.5 Pressure gauge

The working pressure can be checked by installing a pressure gauge (outside of the cabin)

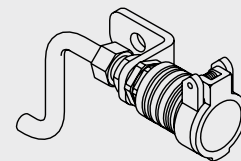


## 7.6 Hydraulic connector lifting cylinder

To the hydraulic socket you can connect hydraulic cylinders of the front implements (i.e. front mower cylinder)

=> Connected with front hitch lifting line;

=> For the use of connected front implements please note the instructions for the implement



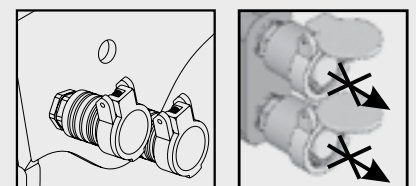
## 7.7 Hydraulic connectors to the front

The connected front implement can be controlled with the corresponding control unit from the cabin.

### Safety instructions:

When using the hydraulic connectors in the front, the connected sockets of the control unit may not be used otherwise!

The plugs to lock these sockets may not be removed!

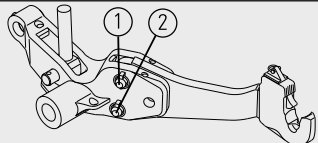

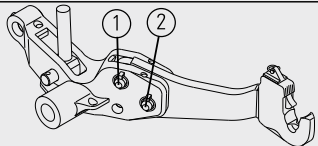
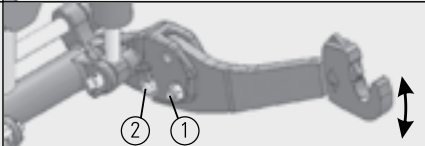
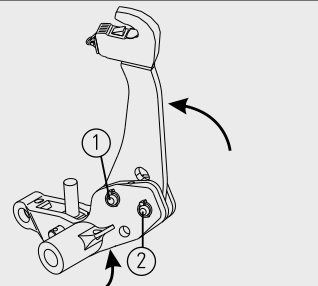
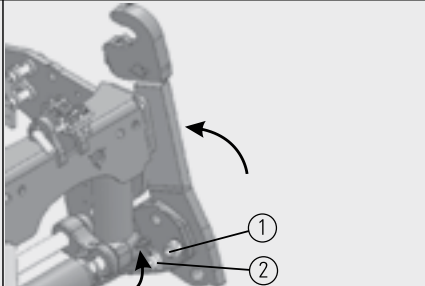


## 7.8 Lower link

### 7.8.1 Lower arms positioning

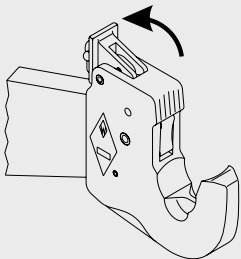
The lower arms can be brought into 3 different positions.  
Pin ① does not have to be removed when changing the position.

**⚠ Always secure lower link pin with a linch pin!** 

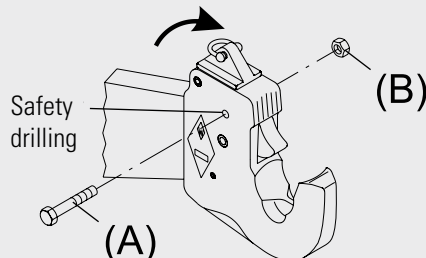
<p><b>Position 1:</b> Fixed lower arms Arms are set without movement;</p>		
<p><b>Position 2:</b> Pendulum compensation Approx. 90mm movement up/down possible;</p>		
<p><b>Position 3:</b> Arms folded up (transport) During transport without implements:  <ul style="list-style-type: none"> <li>• First raise the front hitch up completely!</li> <li>• Then bring the lower arms in transport position!</li> </ul> </p>		

### 7.8.2 Quick couplers

Unlocked:



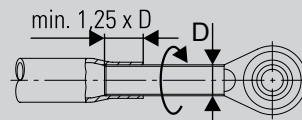
Locked:



- => The category displayed on the coupler has to be conform with the used ball.
- => During transport with implements the couplers have to be locked correctly.
- => In especially difficult conditions of use, the couplers can be secured against unintentional release. To do so insert screw (A) i.e. M8x50 into the safety drilling and secure with a nut (B).

## 7.9 Top link

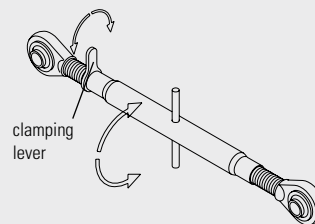
Look out for sufficient thread engagement!



### 7.9.1 Top link

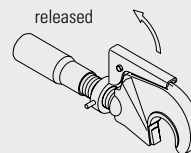
#### Setting:

- Place tractor on even ground and lower the front hitch
- Release clamping lever
- Turn the top link until the desired length is reached
- Counter clamping lever against top link sleeve



#### Top link with catch hook

The category displayed on the hook has to be conform with the used ball.

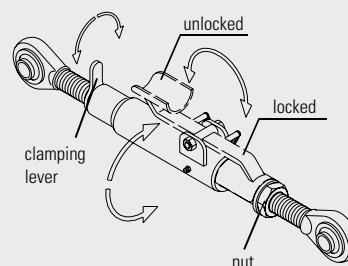


Look out for a secure locking of the catch hook!

### 7.9.2 Telescopic top link (can be locked)

#### Setting:

- Place tractor on even ground
- Open locking flap
- Lower the front hitch
- Release clamping lever
- Turn the top link until it is compressed about 10mm (recommendation for front mowers)
- Counter clamping lever against top link sleeve
- By loosening the nut the top link can be shortened or extended further

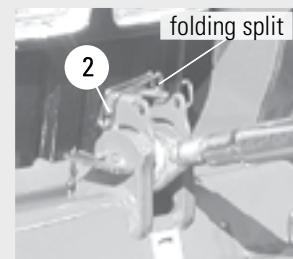
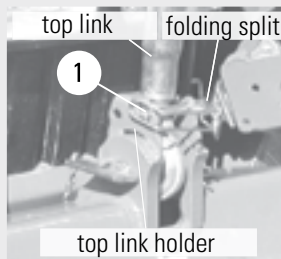




## 7.9.3 Top link holder

### Top link in resting position:

- Bring the top link up;
  - Put the folding split pin in the front hole ①;
- ⇒ On holders with 2 front holes:  
Depending on the size of the shaft (M30/M36),  
put the folding split in in bottom or top hole.



### Top link in working position:

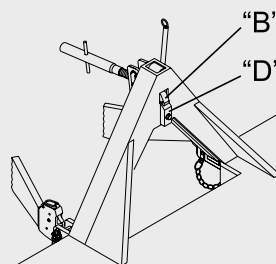
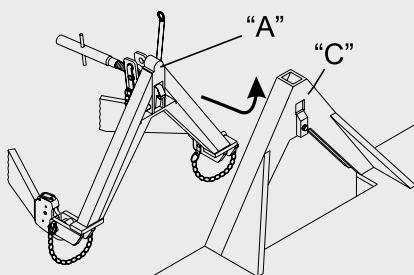
- Put the folding split pin in the rear hole ②.

## 7.10 Connecting implements

### 7.10.1 Tractor triangle

**Look out for proper locking and securing of all pins when connecting the tractor triangle!**

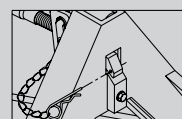
#### Hitching up an implement:



- Carefully drive below the quick hitch equipment frame "C" with the tractor triangle "A"
- Raise the tractor triangle up until the latch hook "B" engages in notch "D"

**Important: Adjust the notch!**

**Secure the latch hook "B" with a spring pin!**

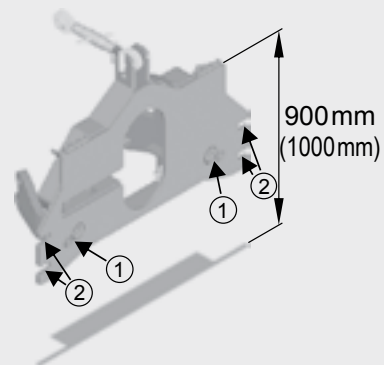


## 7.10.2 Municipal Plate (size 3 / 5)

For attaching several municipal implements:

- Set working height to 900mm (size 5 to 1000mm);
- Bring the multi-valve in position "locked"

**Secure the implements with 2 collar screws ① and, if available on the implement, with 2 eye bolts ②! Look out for enough clearance around the shaft when using a front PTO!**



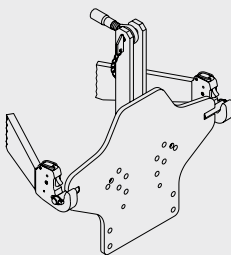
## 7.11 Fixture for relieving springs

Fit the relieving springs of the implement into the fixtures (as shown in the picture).  
=> Not suitable for the chains of a pulled mower!

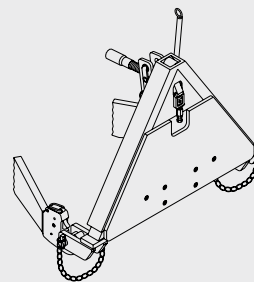


## 7.12 Additional weights

**Front Plate  
(for intake with  
the front hitch)**



**3-point Plate  
(for intake with  
the tractor triangle)**

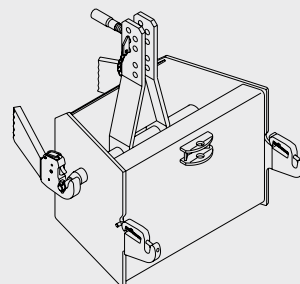


**Make sure the weight are secured properly!**

### Ballast container

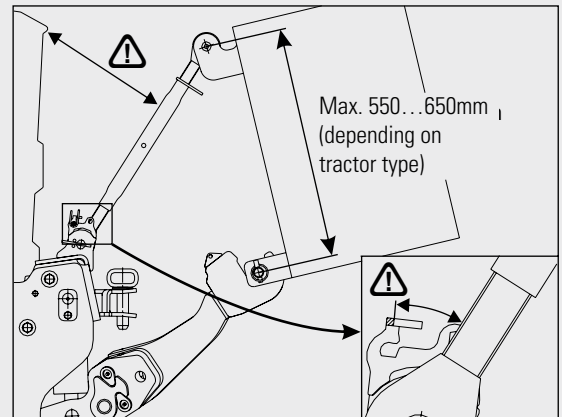
Total weight:

- with concrete: approx. 720kg
- with different material: up to 1000kg
- on the hooks implements with a max weight of 1000kg can be transported

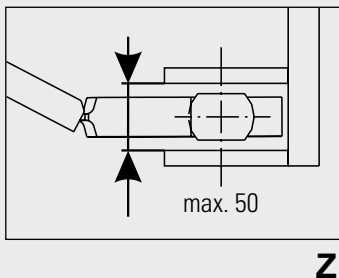


## 7.13 Note for using front implements

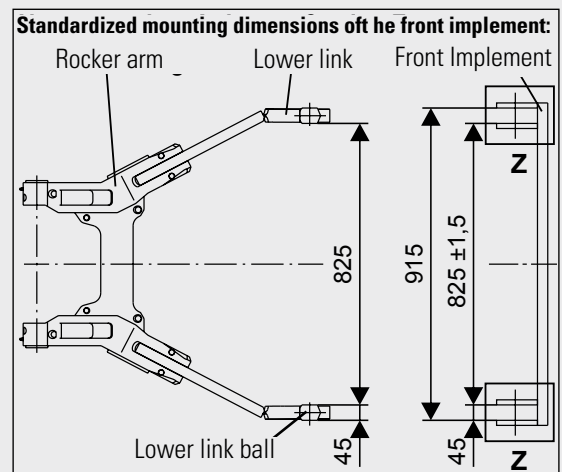
- When connecting an implement you need to check if the tractor, front hitch, top link, drive shaft and implement have enough clearance in all possible moving positions (for example enough clearance on the top link as shown in the picture). If necessary, appropriate measures must be taken to avoid collision.
- When using a front loader, check for enough clearance in all working positions.



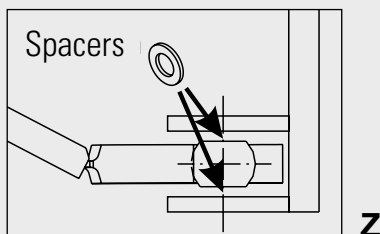
- When connecting an implement the following instructions have to be followed: Too much space around the balls on the implement can lead to damage under transverse forces.



Z



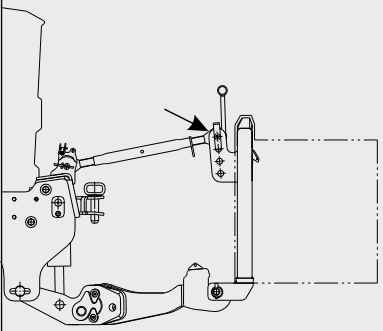
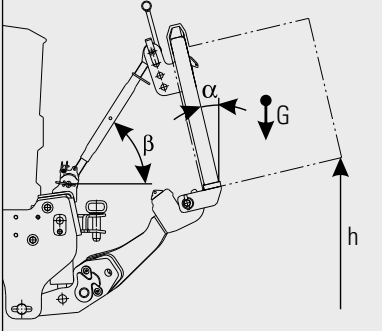
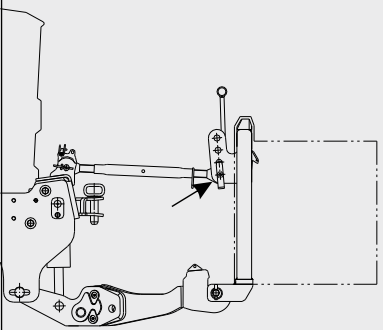
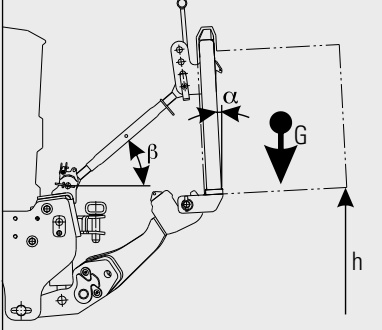
**Cure:**



Z

1. Reduce clearance;

### Pinning of the top link:

	Rocker arm in working position	Rocker arm raised up completely	Effect
Top link in top drilling			<ul style="list-style-type: none"> <li>- big lifting height (h)</li> <li>- big tilting angle (<math>\alpha</math>)</li> <li>- big top link angle (<math>\beta</math>)</li> <li>- low max implement weight (G)</li> </ul>
Top link in lowest drilling			<ul style="list-style-type: none"> <li>- small lifting height (h)</li> <li>- small tilting angle (<math>\alpha</math>)</li> <li>- small top link angle (<math>\beta</math>)</li> <li>- big max implement weight (G)</li> </ul>

- The front hitch double-acting. When using front implements that may **not** be pushed, set the multi-valve on "single-acting";  
=> This is to prevent the front implement being pushed into the ground by malfunction (pushing instead of floating position).
- The front hitch is designed for common agricultural work.

### We can not take responsibility for damages caused by overload!

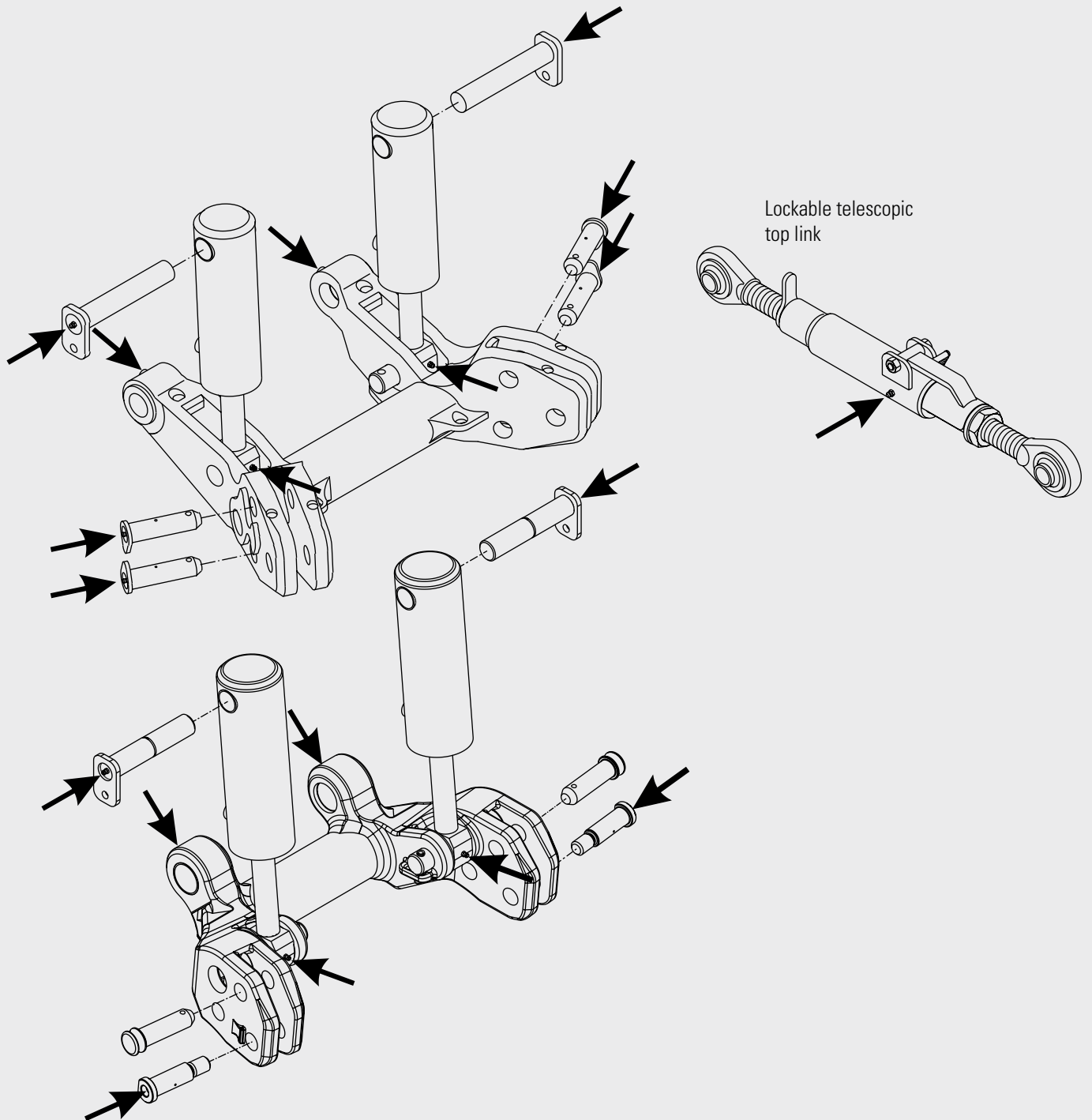
- Depending on tractor type or implement, reinforcements might be necessary.  
=> For this contact the company Degenhart or the tractor manufacturer.

## 7.14 Damage prevention

- Before using the front hitch, check for visible damages and wear;
- Check hydraulic lines for leaks, damage and wear and replace if necessary;

## 8. Service / Inspection Front Hitch

- Retighten mounting screws after 10 hours for the first time, then during every inspection;
- Retighten hydraulic lines during every inspection (must be pressureless);
- All moving parts of the front hitch have to be cleaned and greased during every inspection; (see drawing for grease nipples)



## 9. Technical data

Gearbox type	Gear ratio	Rated speed of front PTO (by engine speed)	Continuous output, torque (by rated speed)	Max. output, torque (by rated speed)	Oil grade	Profile Shaft ISO 500	Direction of rotation (standing in front of the tractor)
125 mm	1.93	1000 1/min (1930 1/min)	110 kW 1050 Nm	147 kW 1400 Nm	10 W30 STOU	1 3/8" – 6	CCW
125 mm eco*	1.63	1000 1/min (1630 1/min)	88 kW 840 Nm	100 kW 960 Nm	Shell Donax TX Esso ATF D3	1 3/8" – 6	CCW
186 mm	1.93	1000 1/min (1930 1/min)	110 kW 1050 Nm	147 kW 1400 Nm	10 W30 STOU	1 3/8" – 6	CCW
186 mm eco*	1.63	1000 1/min (1630 1/min)	110 kW 1050 Nm	147 kW 1400 Nm	10 W30 STOU	1 3/8" – 6	CCW
380 mm	1.91	1000 1/min (1910 1/min)	110 kW 1050 Nm	125 kW 1200 Nm	10 W40 STOU/ 75 W 90	1 3/8" – 6	CCW

\*Eco-gearbox: max. permitted engine speed with turned on PTO 1800 1/min

## 10. Instructions of use

### 10.1 Connecting implements

#### Length of the intermediate shaft

Check the length of the intermediate drive shaft before using the front PTO; with attached front implement the intermediate drive shaft may not be pushed together completely, this leads to damages on the gearbox and the joints inevitably.

- => the intermediate joint has to be adjusted to each implement
- => make sure there is enough overlap and room for movement
- => possibly shorten the intermediate drive shaft according to manufacturer's notes

#### Speed and way of rotation

Before using the front PTO, make sure that the speed and way of rotation are conform to the front implement

- => speed = 1000 1/min (540 1/min) standing in front of the tractor CCW

### 10.2 Starting the front PTO

#### Switching on the front PTO

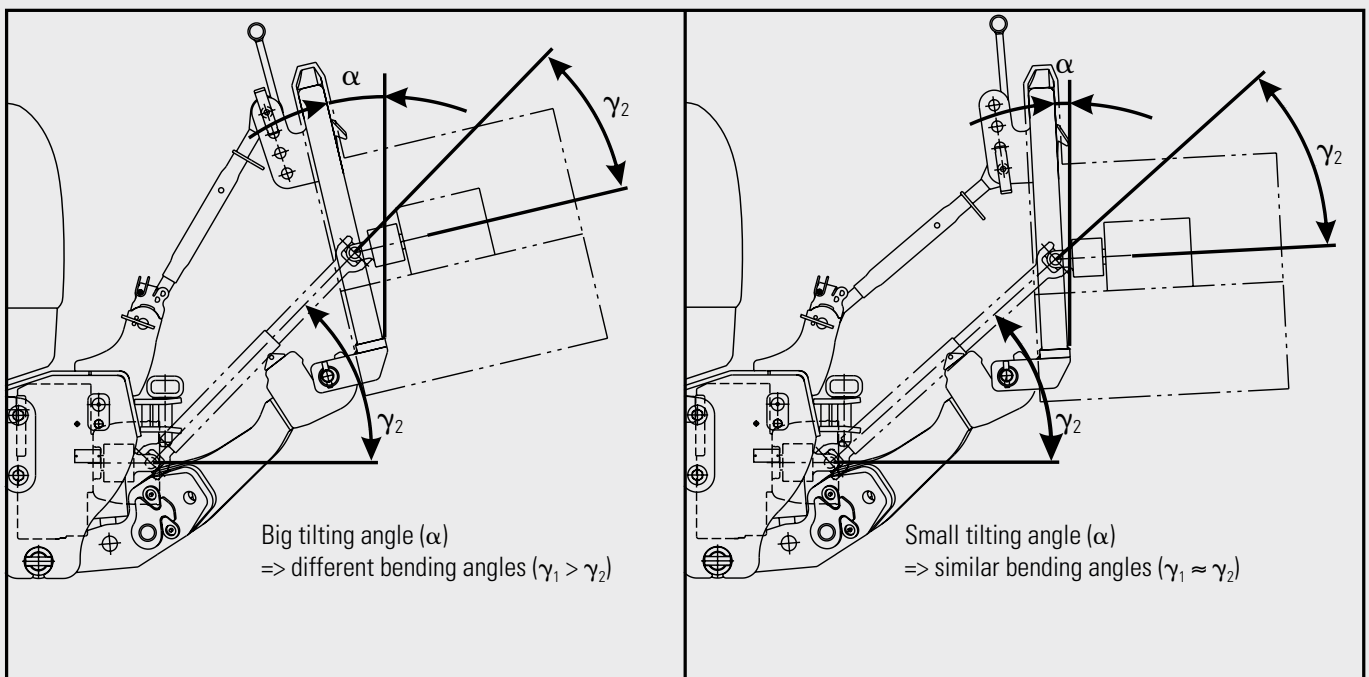
- start the engine
- with slightly raised engine speed press the PTO switch
- wait until the front PTO starts
- speed up the front implement to the needed rpm, by raising the engine speed

#### Turning off the front PTO

- press the PTO switch

## 10.3 Damage prevention

- Check the front PTO for visible damages before each use! The tractor may not be started, when damages on the elastic coupling, drive shaft or gearbox occur.
- When unusual sound or vibrations occur during use, the front PTO has to be switched off right away and the cause has to be repaired, if necessary by a professional workshop.
- The drive shaft should have room to move and a correctly set up overload clutch.
- The forked sleeve of the drive shaft must be smooth-running and well greased.
- Implements with asymmetric, swinging respectively impulsive load, may not be used with the front PTO (e.g. liquid manure agitators, forest mulchers).
- Front implements may not be raised or lowered, while the front PTO is running with a load (e.g. empty corn shredders first, then lift)
- **Warning!**  
**Jammed or overloaded implements may not be freed with repeated engaging/disengaging the front PTO.**  
**This can lead to overheating and damaging of the clutch.**
- The bending angle of the driveshaft, on the tractor ( $\gamma_1$ ) and the implement ( $\gamma_2$ ), should be similar over the whole operating range.



- In aggravated conditions of use (e.g. big heat, lots of dust) the service intervals from chapter "Service/Inspection" have to be shortened!

## 11. Service / Inspection of the front PTO

### 11.1 Gearbox 125 mm, 125 mm eco, 186 mm, 186 mm eco

#### Oil change

	125 mm	125 mm eco	186 mm and 186 mm eco
<b>Oil grade</b>	10 W 30 STOU	Shell Donax TX / Esso ATF D3	10 W 30 STOU
<b>Amount of oil</b>	1,8 l	2,2 l	2,6 l

The gearbox has to be filled up to the lower edge of the opening for oil insert!

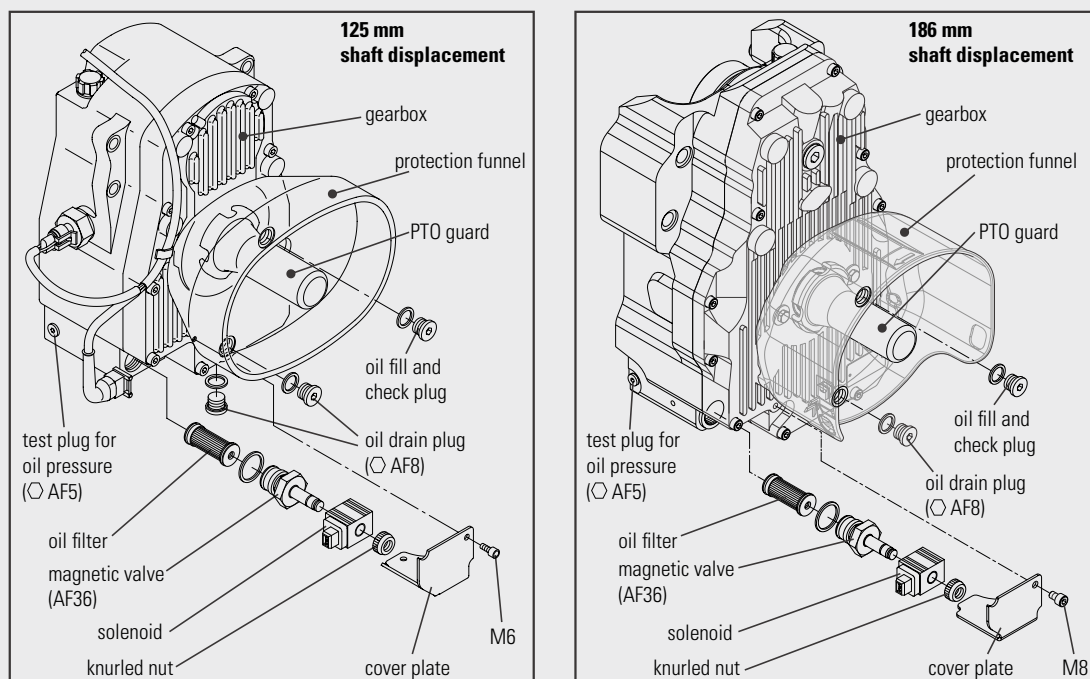
Dispose used oil in an environmentally responsible behavior!

#### Oil filter change

Change the oil filter for the first time after 50 hours, for further service, please stick to the oil-change intervals of the tractor manufacturer.

#### Procedure:

- clean the outside of the gearbox housing
- drain the oil of the gearbox
- remove the cover plate
- dismount the solenoid and the magnetic valve
- with the help of a M8-screw, pull the filter out of the housing
- grease all O-rings
- mount the new filter and all dismantled parts in reverse order into the gearbox housing
- fill new oil into the gearbox (see oil change)



Tighten the magnetic valve with a torque of 30 Nm.  
Too much torque can compromise the function of the magnetic valve!



## 11.2 Gearbox 380 mm

### Oil change

Change the oil of the gearbox for the first time after 50 hours, then every 500 tractor operating hours, but at least once a year!

<b>Oil grade</b>	10 W 40 STOU / 75 W 90
<b>Amount of oil</b>	2,7 l

Use the instructed oil grades! Other grades can lead to damaging the gearbox. **Do not use HY-GARD!**

The gearbox needs to be filled between the middle and upper edge of the oil gauging-glass!  
=> Check the oil level directly after a test run and fill more oil in if necessary!

Dispose used oil in an environmentally responsible behavior!

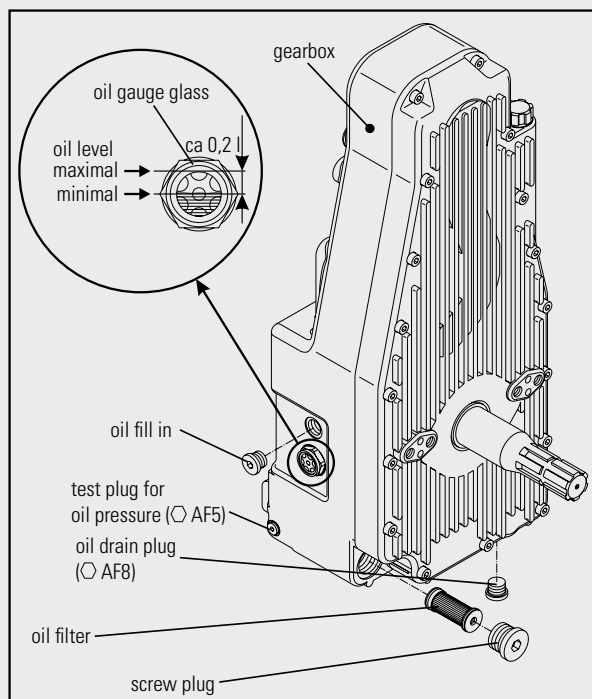
### Oil Filter change

Change the oil filter for the first time after 50 hours, for further service, please stick to the oil-change intervals of the tractor manufacturer.

#### Procedure:

- clean the outside of the gearbox housing
- drain the oil of the gearbox
- remove the screw plug (M30x1,5)
- with the help of a M8-screw, pull the filter out of the housing
- grease all O-rings
- push the new oil filter in and screw the screw plug back in
- fill new oil into the gearbox (see oil change)

#### 380 mm shaft displacement



## 12. Inspection sheet for Front PTOs from 2014 on with 125 mm/186 mm/380 mm shaft displacement

### Front PTO does not switch on

#### 1. Inspect electric circuit

- At least 9 Volt at the magnetic valve
- Inspect all plug connections between magnetic valve and original wire harness
- Check PTO switch and relay in the cabin
- Without pulse from the speed sensor the front PTO switches off automatically after about 10 seconds. Control lamp starts blinking.  
=> exchange defective parts, or clean them

#### 2. Inspect hydraulic circuit

- Check oil level and refill if necessary (see table for oil approval)
- Check oil filter, clean or replace if necessary
- Check magnetic valve, stuck, possibly tightened with too much torque max. 30Nm
- Check coupling pressure, switched on 18- 24 bar (see data sheet)
- Check back pressure valve in the pump, possibly opened up accidentally when changing the oil and lost the 8mm ball!
- Missing pin in the pump piston  
=> exchange pump or magnetic valve

### Front PTO switches off constantly

- Slack joint in the power supply
- Inspect plug connections and magnetic valve (see inspection of electric circuit)

### Front PTO does not turn off, or PTO shaft is constantly running

- Check magnetic valve, disconnect plug (see inspection of electric circuit)
- Check oil pressure, switched off > 1 bar, exchange magnetic valve
- Filled in wrong oil grade, check oil grade and change
- Overheating of the clutch due to the wrong amount of oil
- Overheating of the clutch due to insufficient clutch pressure
- Overheating due to maloperation  
=> repair clutch, exchange clutch discs, possibly exchange pump

### Whistling noise from hydraulic pump

=>inform after sales service

### Front PTO switched off – rattling of the gearbox

- Check clearance of drive shaft, in accordance to the mounting instructions!
- Inspect all screw fastenings
- Inspect torsion muffler

### Front PTO switched on – rattling of the gearbox

- Check clearance of drive shaft, in accordance to the mounting instructions.
- Inspect all screw fastenings.
- Inspect torsion muffler
- Rattling noise with or without load?

## Gearbox leakage

- Input or output shaft
- Housing
- Speed sensor
- Magnetic valve
- Hydraulic pump  
=> Retaining ring, O-ring or sealing to be replaced

## No indication of rotation speed

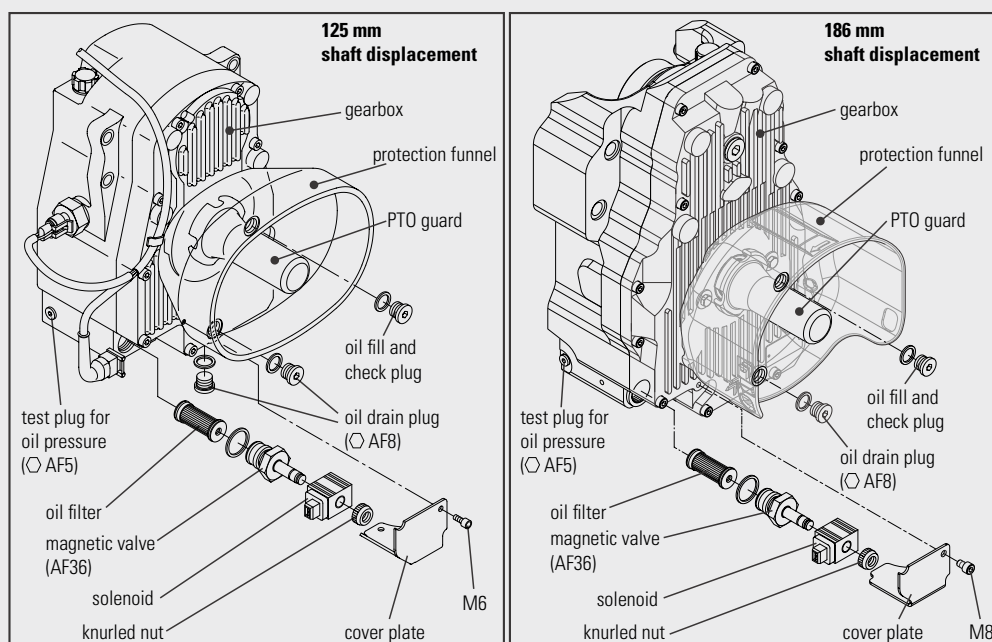
- Inspect all plug connections
- Entry in Bif, BCU or PTF box to be tested.
- Speed sensor adjustment to be checked and cleaned if necessary  
=> exchange speed sensor

## Approval of oil grades

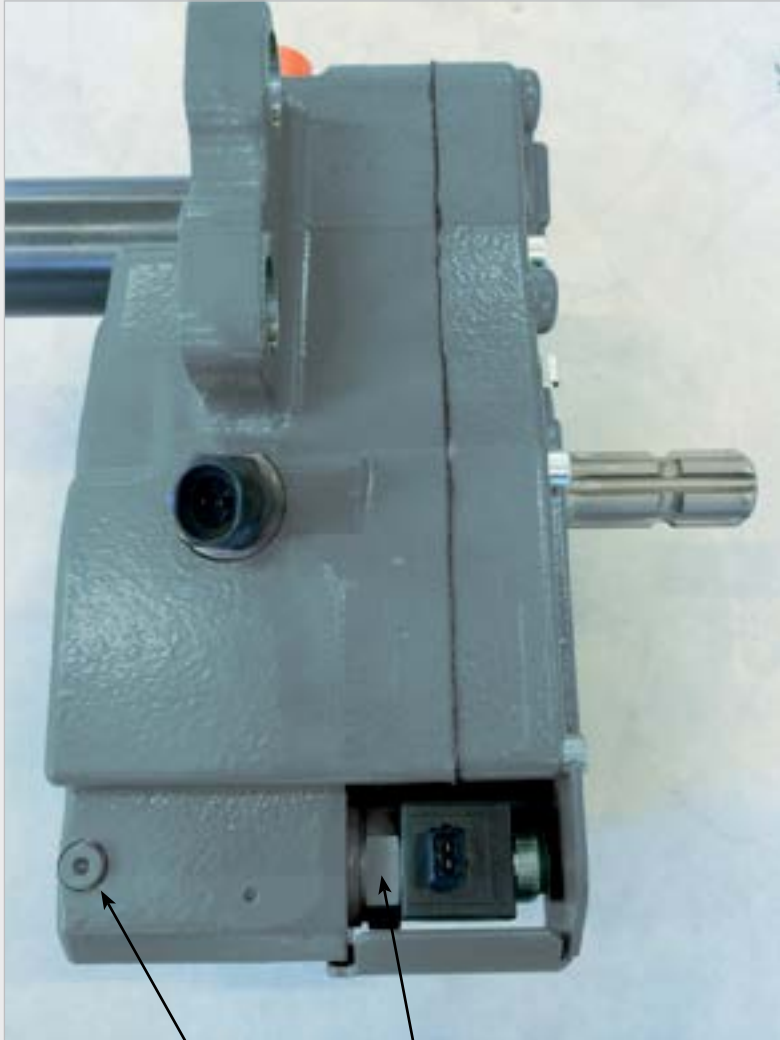
- **for 125 mm respectively 186 mm shaft displacement and 186 mm type Eco:**  
10W30 STOU or JOHN DEERE HY-GARD JDMJ 20C STOU
- **for 125 mm shaft displacement type Eco:**  
ATF (Shell Donax TX or Esso ATF D3)
- **for 380 mm shaft displacement\*:**  
10W40 STOU or 75 W 90 (approx. 2,7 Liter)  
**\* DO NOT use JOHN DEERE HY-GARD!**

## Service / Oil change

Change the oil filter for the first time after 50 hours, for further service, please stick to the oil-change intervals of the tractor manufacturer.



## Inspection sheet for Front PTOs from 2014

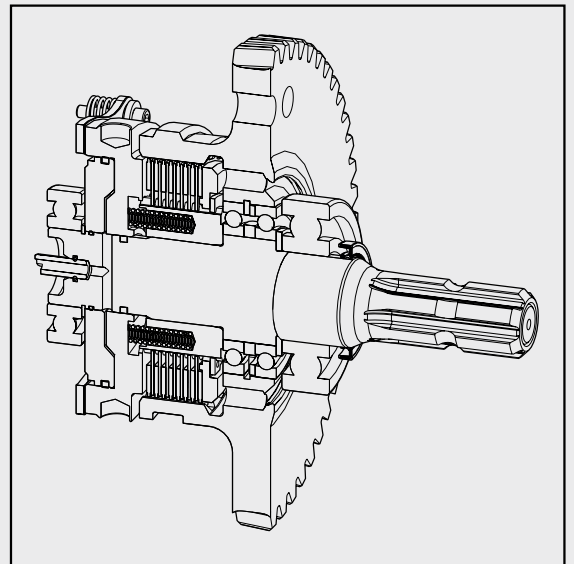
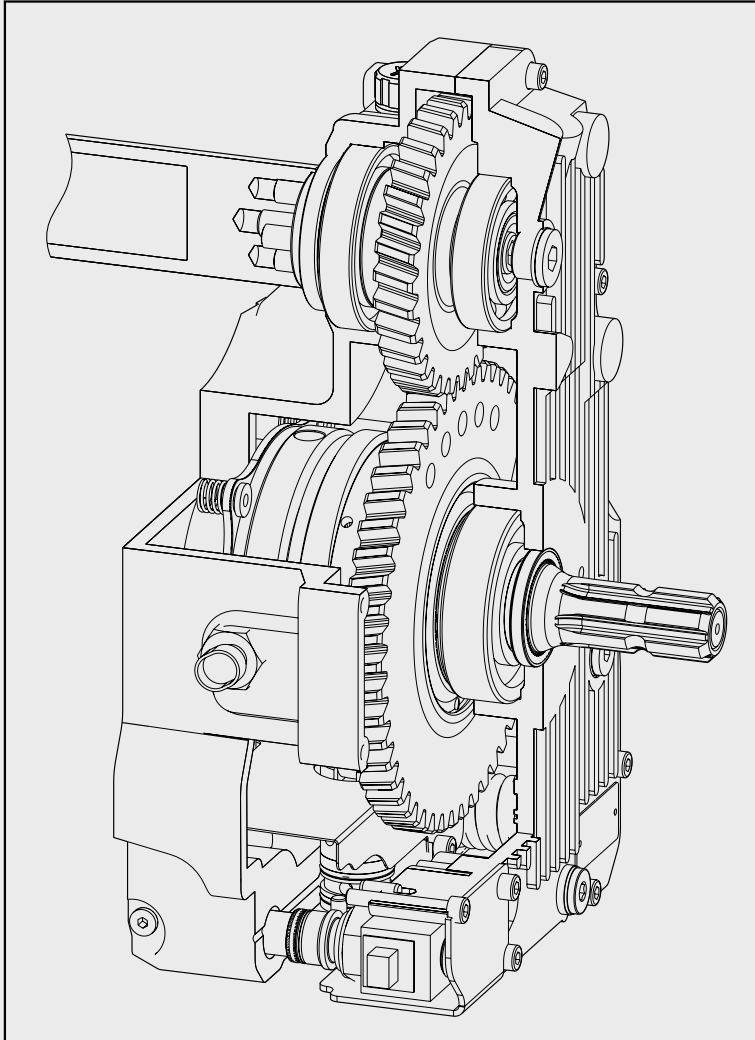


**Test plug M10x1 AF5**  
Switched off: < 1 bar  
Switched on: 18-24 bar

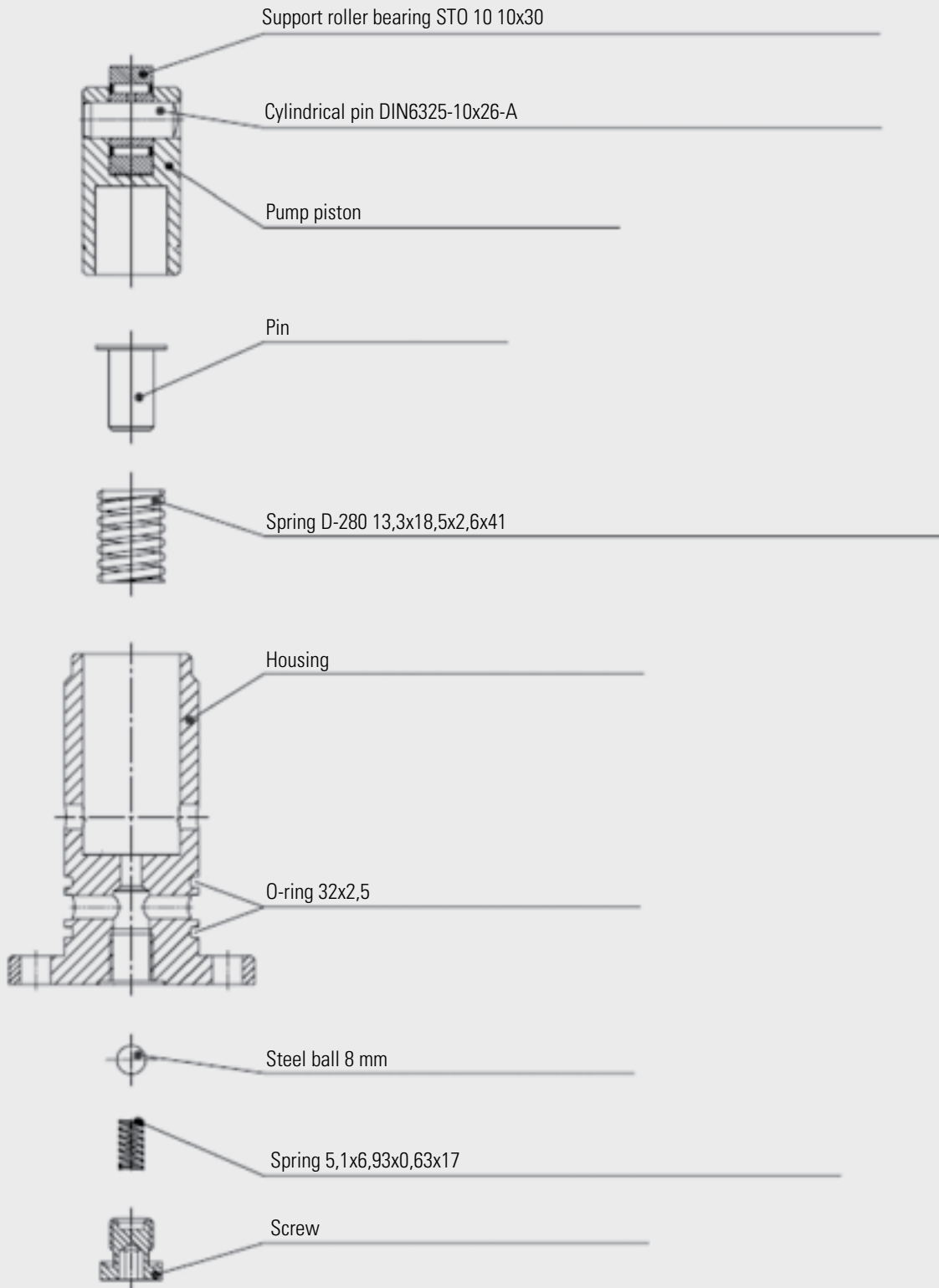
**Magnetventil SW36**  
Torque: max 30 Nm



## Sectional drawing gear box 186mm

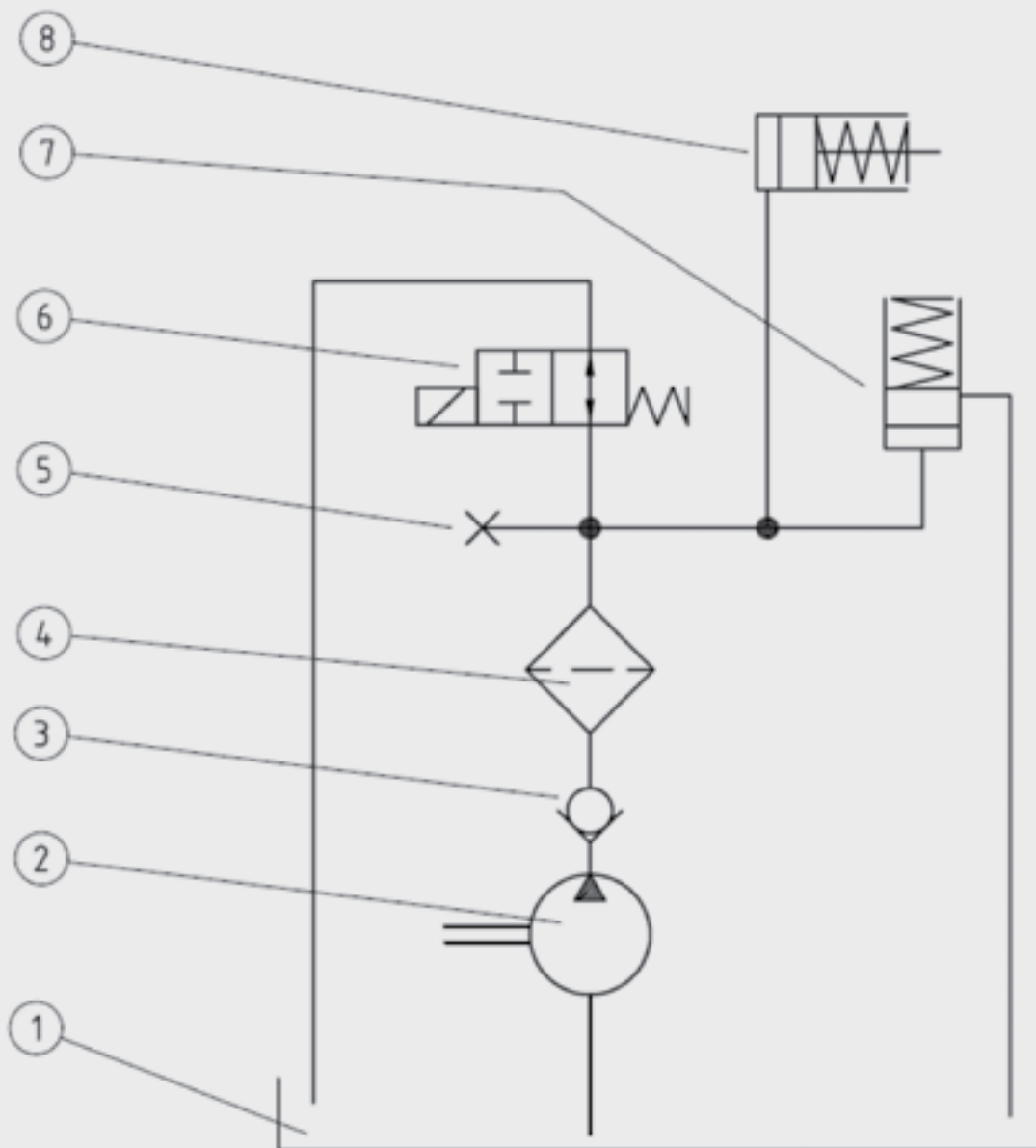


## Pump unit



## Hydraulic circuit front PTO

- | Pos. | Item  |
|------|---|
| 1    | Oil sump  |
| 2    | Pump unit   |
| 3    | Back pressure valve                                     |
| 4    | Oil filter  |
| 5    | Test plug M10x1 for clutch pressure                     |
| 6    | 2/2-magnetic valve                                      |
| 7    | Pressure control valve combination/pressure accumulator |
| 8    | Clutch cylinder   |



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