

Version: 1.1 EN / Item no.: 00601-3-200

## Conversion Instructions HG 450 M1 Simmering 2 Viton SLSF 25-35-6

**Please read carefully before initial operation!**

ORIGINAL OPERATING INSTRUCTIONS



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# 1 Items included

## **08000-2-011 conversion kit 2 Viton seal F10 6 HG450:**

00601-3-156	Simmering 2 Viton SLSF 25-35-6	1x
00601-3-157	Support disk 2 35-25 F10 6	1x
00605-3-643	Temperature measuring strip +71 +110	1x
BN823-35	Locking ring	1x

## 2 Removal of the defective Viton seal for the axial piston motor F10 6 HG450

- Dismount both hydraulic hoses from the hydraulic motor (Figure 1).
- Remove the cover and the guard screen from the air intake duct of the hopper (Figures 2 and 3).



Figure 1



Figure 2



Figure 3

- Disconnect the connection between the fan wheel and motor shaft (Figure 4).
- Fix the fan wheel in place with a piece of wood, then unscrew the hexagon bolts M6 5W10 (Figure 5).
- Remove the two M12 nuts, then take off the motor (Figure 6).



Figure 4



Figure 5



Figure 6

- Take off the locking ring with a suitable tool (Figure 7).
- Use a small screwdriver to first remove the support disc (Figure 8) and then remove the Viton seal (Figure 9). Mechanical damage of the motor must not occur while doing so.



Fig. 7



Figure 8



Figure 9

### 3 Installation of the new Viton seal for the axial piston motor F10 6 HG450

- Insert the new Viton seal with the open side towards the motor (Figure 10).



#### **CAUTION!**

Put on the support disc such that the side with the chamfer points towards the Viton seal (Figure 11, 12, 13).



Figure 10



Fig. 11



Figure 12

- With two drift punches, press the support disc together with the Viton seal evenly into the motor (Figure 14).
- Then fit the locking ring into the recess (Figure 15).



Figure 13



Figure 14



Figure 15



**CAUTION!**

The locking ring must be installed with the sharp edge pointing upwards (Figure 16).

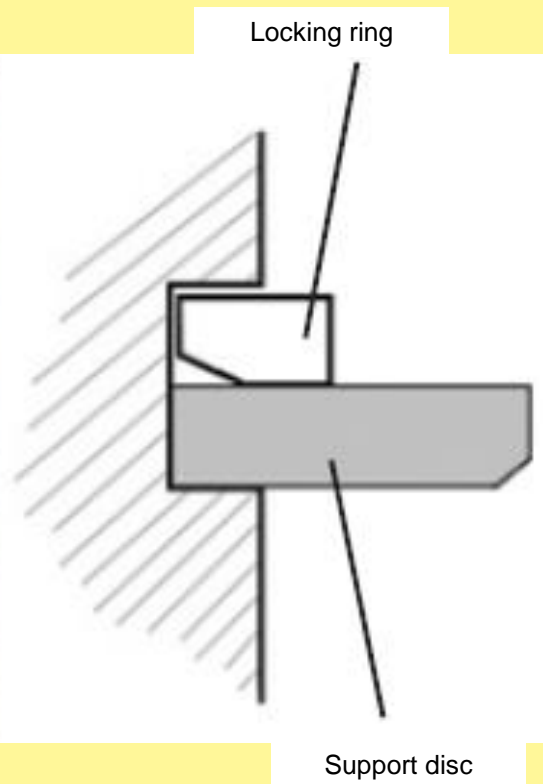


Figure 16

- Remove the old temperature measuring strip from the motor and replace it with the new temperature measuring strip (Figure 17).
- Now the hydraulic motor can be installed again and fixed in place with the two nuts. Ensure that the fan wheel is correctly seated on the motor shaft (Figure 18).



Figure 17



Figure 18

- With the existing hexagonal bolt, fasten the fan wheel on the motor shaft with a tightening torque of 10 Nm (Figure 19 and 20).



### **CAUTION!**

**For this, use a suitable liquid thread-lock compound.**



Figure 19



Figure 20

- Connect the motor and the control block with the existing hydraulic hoses. Connection A motor to connection B on the control block, and connection B motor to connection A control block (Figure 21).
- To conclude, install the guard screen and if necessary, also the cover plate over the air intake duct (Figure 22, 23).



Figure 21



Figure 22



Figure 23

## **4 Instructions for working correctly with the HG 450**

The fan produces an air current that carries the seed through the hoses to the dispersion plates. The required air pressure and air quantity depend strongly on the seed (type and weight), the spread rate, working width and speed. For this reason, it is not possible to give precise specifications for the correct fan settings, it must be determined in field trials!



### **CAUTION!**

**The air flow must not be too low under any circumstances, otherwise the seed can get stuck and clog the hoses! This results in a lot of work, since the hoses must then be disconnected and emptied manually. In addition, the seed might be ground in the metering unit!**

**An excessive air flow can also have negative impacts on the seed distribution.**

**Guiding principle: As much air as required, but as little air as possible!!**

The air quantity is limited by the spreading material used, which must not be damaged when it hits the spreading plate, nor must it bounce off too high in order to achieve the desired placement!  
The fan speed increases proportionally with the oil flow.

## Setting procedure (HG)

### Version 1 (constant pump – non-adjustable oil quantity)

- Completely screw in the control valve (- minus)
- Start up the fan (tractor engine speed as in field operation)
- Adjust the fan speed using the control valve on the control block
- The control block protects the motor against overspeed



#### Tip!

The hydraulic pump on the tractor must supply sufficient oil so that the fan speed does not drop when the tractor motor speed drops or when other hydraulic functions are actuated.



Figure 24

### Version 2 (Variable pump or oil quantity adjustable on the tractor)

- Completely turn out the control valve (+ plus)
- Close the flow control valve on the tractor (set the oil quantity to **ZERO**)
- Start up the fan and run up to the desired fan speed (slowly increase the oil quantity)



#### Tip!

The control block is only designed for 80 l/min. The system can overheat if the tractor pump produces a greater quantity of oil or if the tractor does not have an oil cooling system.



**CAUTION!** The setting is only valid for the tractor used. If a different tractor is connected, the fan must be readjusted!

Correct adjustment is essential to prevent possible seeding errors when the speed is too slow or damage to the fan when the speed is too fast!

#### Setting table for the control valve:

(valid for approx. 50°C oil temperature)

Seed	Rate	Working width					
		3 m		6 m		12 m	
		Printi ng	Speed	Printi ng	Speed	Printi ng	Speed
Fine seed	5 kg/ha	9 bar	750 rpm	15 bar	1000 rpm	15 bar	1000 rpm
Fine seed	30 kg/ha	20 bar	1250 rpm	22 bar	1500 rpm	24 bar	1600 rpm
Coarse seed	50 kg/ha	16 bar	1100 rpm	20 bar	1250 rpm	37 bar	2000 rpm
Coarse seed	200 kg/ha	22 bar	1500 rpm	50 bar	2500 rpm	64 bar	2900 rpm

These pressure specifications apply for the manometer attached on the control block.



**TIP:** A measuring strip is applied on the hydraulic motor. If the temperature increases in a range of the scale (from 71°C to 110°C), the strip is coloured black.

**Temperatures above 80 °C are not permitted!**

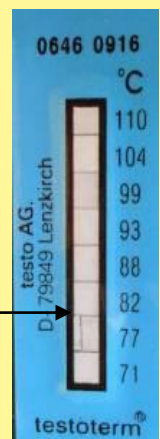


Figure 25



## Function of the fan sensor and of the pressure switch

The pressure monitor (Figure 25) prevents the seeding shaft from being switched on as long as the hydraulic fan is not yet switched on, and thus prevents clogging of the seed drill through accidental or premature switch-on. The hydraulic switch (Figure 26) signals on the control box if too much pressure (10 bar) is applied in the tank line of the hydraulic motor. This can destroy the seal.



Fig. 25

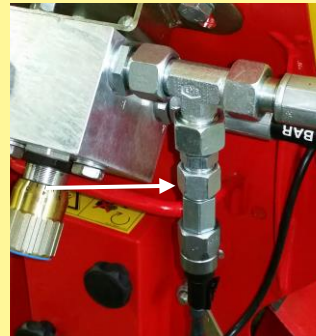


Fig. 26

As soon as one of the two sensors outputs an error, the message "Fan error" appears on the screen of the control box.

If the fan is not running yet, then turn it on. The fault message then disappears and the seeding shaft can be started.

If the fan is already running, then there is too much pressure in the tank line of the motor. This could be caused by a clogged oil filter on the tractor or a **small tank line** to the coupling.



### **CAUTION!**

**It is imperative to reduce the pressure, otherwise the motor can be destroyed!**

## Hydraulic system (HG)



### **CAUTION!**

**The hydraulic system is under high pressure!**

**If the connections are interchanged, there will be an inverse function and/or certain destruction of the hydraulic motor! Risk of accident!**

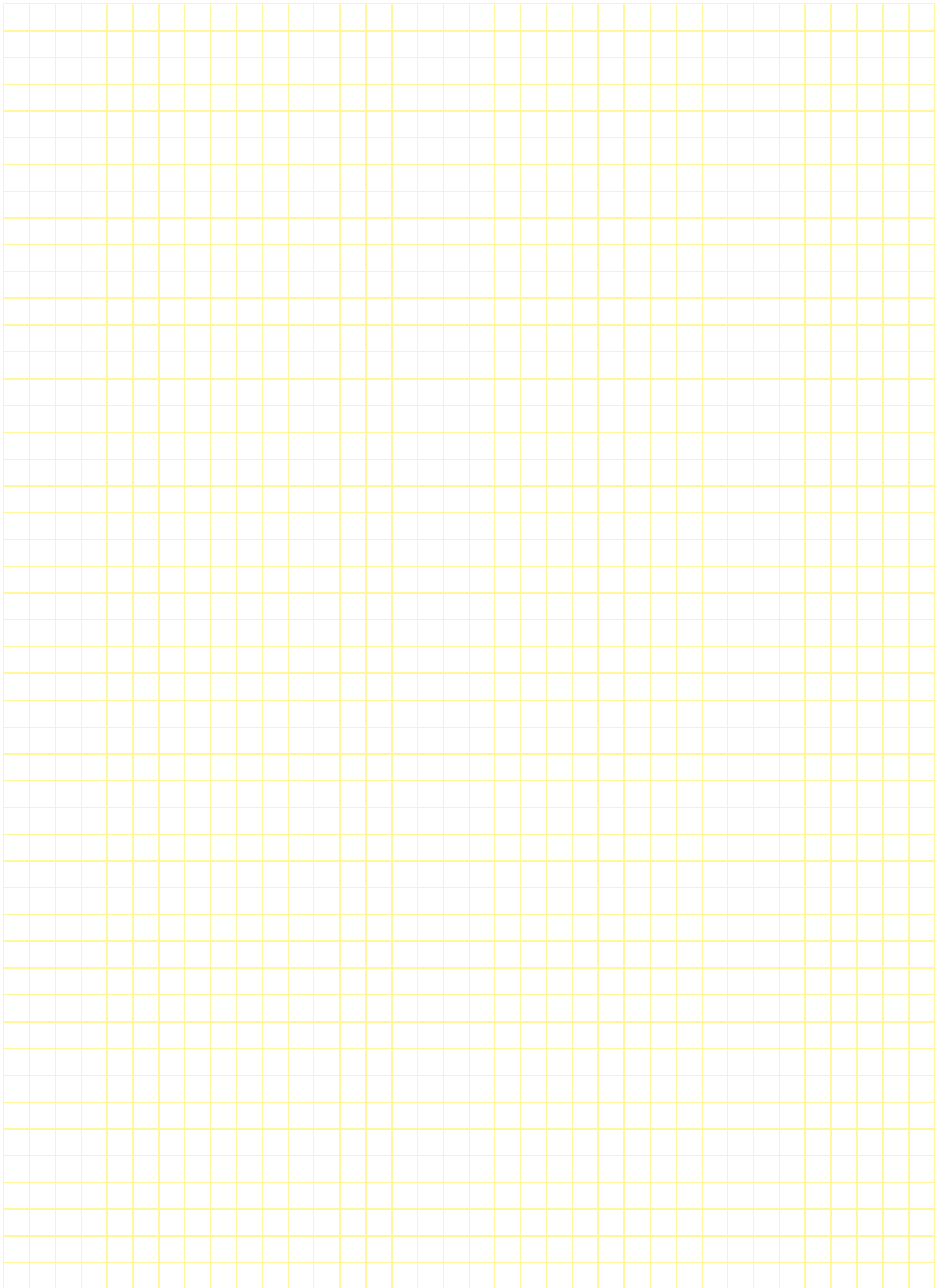
- When connecting hydraulic motors, the specified connection of the hydraulic hoses must be observed!
- When connecting the hydraulic hoses to the tractor hydraulic system, make sure that the hydraulic system on the tractor and implement side is unpressurised!  
For hydraulic function connections between the tractor and implement, coupling sleeves and connectors should be marked to exclude the possibility of operating errors!
- Inspect the hydraulic hose lines at regular intervals and replace in case of damage or wear! The replacement lines must comply with the technical requirements of the implement manufacturer!
- Due to the risk of injury, use suitable tools when searching for leaks!
- Liquids escaping under high pressure (hydraulic oil) can penetrate skin and cause serious injuries! Consult a doctor immediately in case of injury! (Risk of infection!)



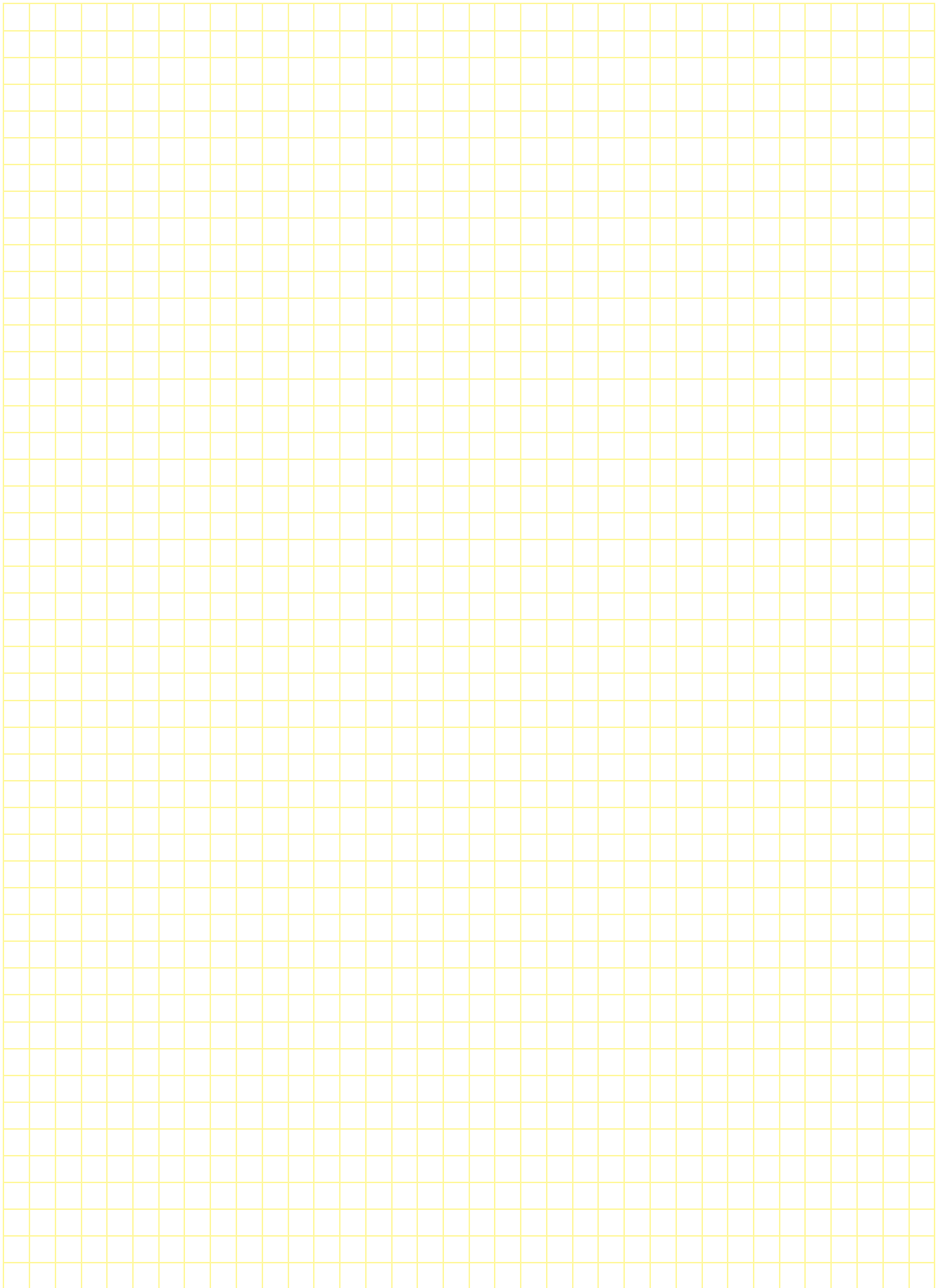
### **CAUTION!**

**Before working on the hydraulic system, set down the implement, depressurize the system and switch off the motor!**

## Notes



## Notes



# Qualität für Profis

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