



### Unchanged operating logic

- The lifting and lowering is effected by the available control arm.
- After each lifting process a new pressure can be chosen.

### Illuminated pressure gauge

- Illuminated three-digit LCD display in order to show the system pressure (lifting and relief pressure).
- Display can be switched to a further pressure measurement P2 (option).

### Intuitive handling

- An ergonomically formed operating device which is accessible from the driver's seat and has an illuminated ON / OFF button and a potentiometer.
- By using the potentiometer the desired relief pressures can be programmed.

### Well thought-through working principle

- When lowering the implement to floating position, the set relief pressure remains in the cylinder on the lifting side. A hydraulic accumulator ensures the best ground adjustment and levels out the bumps in the field.
- As a consequence there is no additional energy demand of the hydraulic, thus no additional oil warming.
- When the implement relief is switched on, lifting and lowering is effected faster; the maximum lifting power is halved for an optimum regulation. When the implement relief is switched off, the maximum lifting power can be used.
- Available for mechanical and electrical control units; independent from the hydraulic system; can be used for LS as well OC systems.

### Reduced coupling effort

- The implement relief replaces the relief springs.
- Thus, the hooking in and adjusting of the relief springs is no longer necessary.

### Better traction

- Through the relief, there is better traction and maneuverability at the front axle.

## Sauter implement relief for front linkages

### Optimum protection of the implement

- The implement relief is ideal for mowers, choppers and snow ploughs.
- Through the relief in floating position, the support pressure of the implements is substantially reduced and thus protects the implements and also the field and the road surface.

### Easy mounting

- Easy hydraulic installation by connecting to lifting and lowering pipe behind the reversing valve of the front linkage, not to P and T.
- Easy electrical installation with a cable set which connects the valves of the relief block to the operating device and a 12 V connection in addition.

### Further advantage

- The hydraulic accumulator serves as a shock absorber for the implement when driving on the roads.
- A already mounted hydraulic accumulator 0.75 l, pretension 40 bar can be used.

### Advice on usage

for an efficient implement relief

- In working position, the position of the lower links and top link when the implement is hooked is horizontal or rising to the implement.
- Implements having a pendulum compensation of their own. Physically, the pendulum compensation of the support of lower links of the front linkage stiffens from approximately the half of the implement weight when lifting / relieving an implement. Thus, implements without pendulum compensation can only be relieved up to below the half of the implement weight (max. 50 %) while implements with pendulum compensation can be relieved up to approx. 75 %.
- The implement weight has to be in relation to the cylinder size and the storage of the hydraulic accumulator. Example: An implement weighing 500 kg cannot be relieved by a front linkage with a lifting power of 5 t while an implement weighing 800 kg fits optimally to a front linkage with 2.5 t lifting power.
- Despite the seat tightness of the valves used, a lowering of the set relief pressure in the time span of several minutes by a few bar is possible. In this case, lift the implement slightly and bring it to floating position again.
- The implement relief characterized by a hydraulic accumulator 0.75 l, pretension 40 bar has been developed for the use in even and slightly bumpy field.

Example of driving on a ramp, having a difference in height of 0.6 m at a length of 2.5 m:

Technical equipment: Mounting implement mower 650 kg, set relief pressure of 60 bar, diameter of hydraulic cylinders: 80 mm with a total lifting length of 150 mm.

While driving on the ramp, a relief path of 52 mm ( $\pm 26$  mm) at the hydraulic cylinder is covered at a pressure difference of  $\pm 16$  bar to the set 60 bar. The result is a good mowing result where the implement follows the terrain thoroughly.

- Depending on the terrain, the difference in pressure can, on request, be reduced by paralleling several hydraulic accumulators.

for a failure-free operation

- Couple and uncouple the implement only when the implement relief is switched "OFF". The implement relief can only be used with single-acting front linkage and only with coupled implement.
- Attention: Otherwise, the front linkage can unintentionally move up under bad setting conditions, which actually is a function of the implement relief.
- The hydraulic implement relief has to be switched off during transport on public roads.
- Additionally the advice from the operating instructions of the front linkage apply.

### Mounting

- The mounting to the tractor has to be effected individually. The time needed for mounting depends on the tractor.
- For the hydraulic implement relief, the hydraulic block has to be fixed at the tractor. The support, pipes and hoses have to be adapted individually. Pipes and hoses are not included in the delivery scope.
- The necessary hydraulic accumulator is not included in the delivery scope and has to be ordered separately as an accessory when needed. The hydraulic accumulator is already included in the delivery scope of several front linkages.