TEREX | SCHAEFF

HR 13 SERVICE-MANUAL

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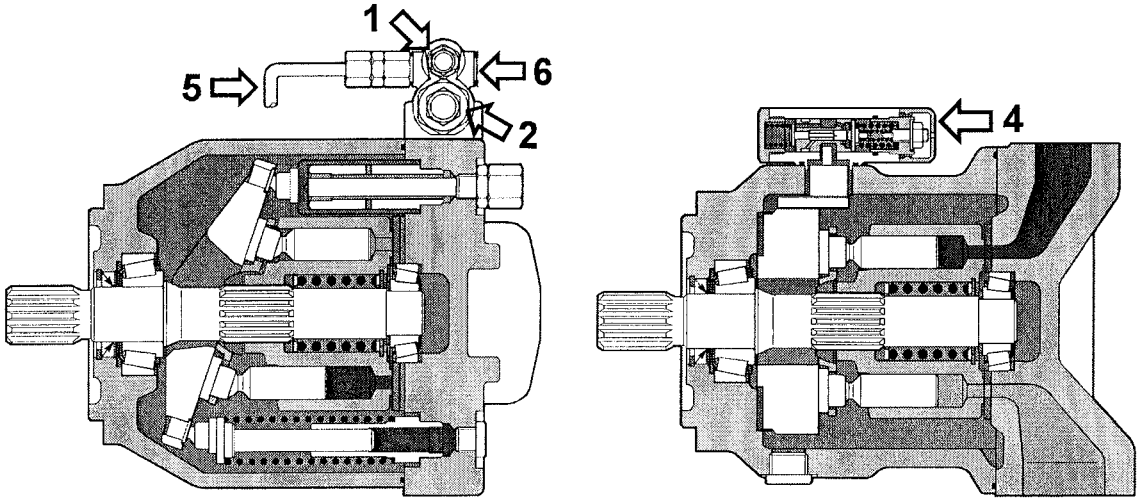
A.) *Adjustment of the Δ p - valve (power regulator)* ***(1)*** *at the Brueninghaus variable displacement pump*

- Connect 60 bar - gauge to pump high pressure port of valve bank 1 (working hydraulics)
- Turn in the setting screw at the load-sensing regulator **(2)** by one turn
- Dismount plug **(6)** opposite the pressure signal line **(5)** at the power regulator **(1).** Mount a screwed fitting GE 8 S 7/16-20 UNF (part no. 1 939 000 815) and a hose nominal width 8 mm (length: approx. 1.52m ⇒ part no. 4 506 152 351), put the latter into the hydraulic tank (ventilation filter hole). Prepare a receptacle for approx. 5 l drain oil for this check.
- Start the engine, set it to approx. 1,000 min^{-1} (rpm)
- Set a pressure of approx. 20 bar at the setting screw of the power regulator **(1)**
- Stop the engine, dismount the screwed fitting and hose. Slacken the setting screw at the load sensing regulator **(2)** by 1 turn. Check the stand-by pressure and re-adjust if necessary

B.) *Adjustment of the load-sensing regulator* ***(2)***

- Connect 60 bar - gauge to the gauge port of valve bank 1
- Start the engine and set it to approx. 1,000 min^{-1} (rpm)
  Set the stand-by pressure at the setting screw of the load-sensing regulator **(2)** (see Technical Data)

D.) *The horse power control valve* ***(4)*** *is adjusted on the test bench*



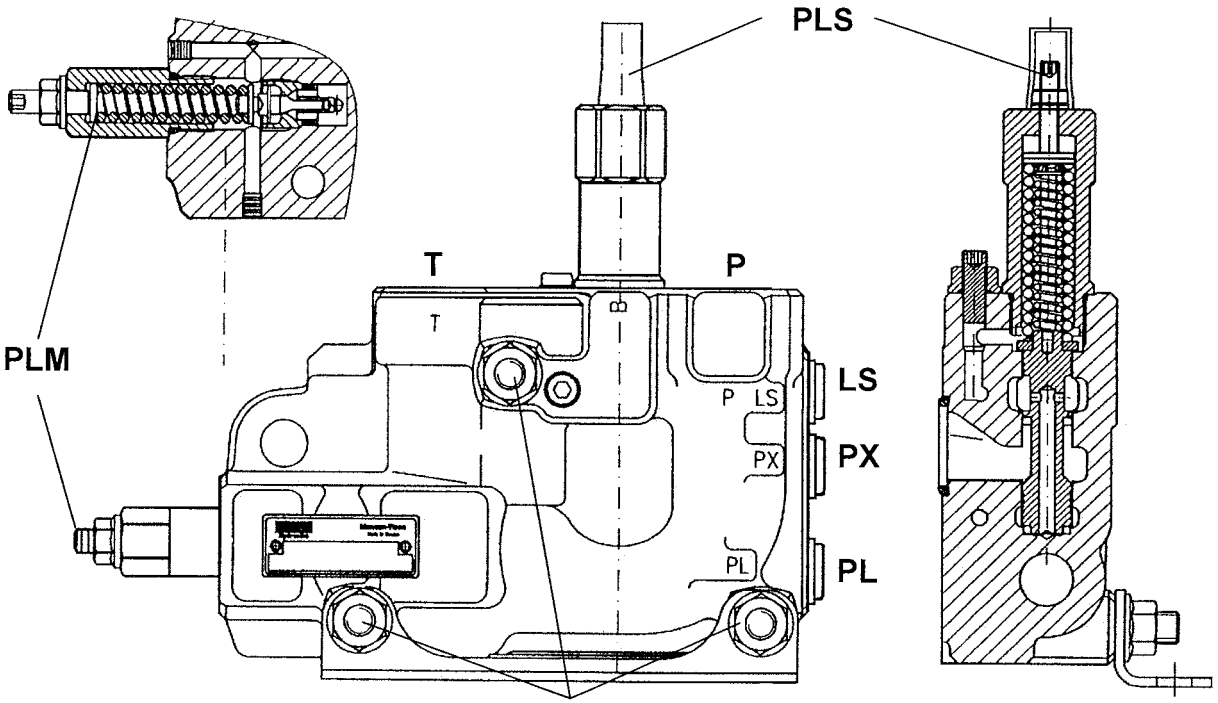
The PLS valve compensates pressure peaks, which can create a short change of the pressure difference, provided that the Δp of the pumpregulator is set by 5 to 8 bar lower than the Δp of the PLS valve.

Please note the following prior to the adjustment of the PLS - valve:

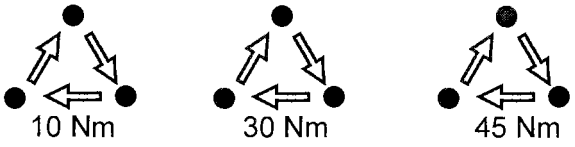
- Check the Δp - valve of the Brueninghaus variable displacement pump according to the setting instructions on page 5.520.01
- Mount a flow rate meter in the P line
- Mark the setscrew at the PLS valve

Adjustment of the PLS valve:

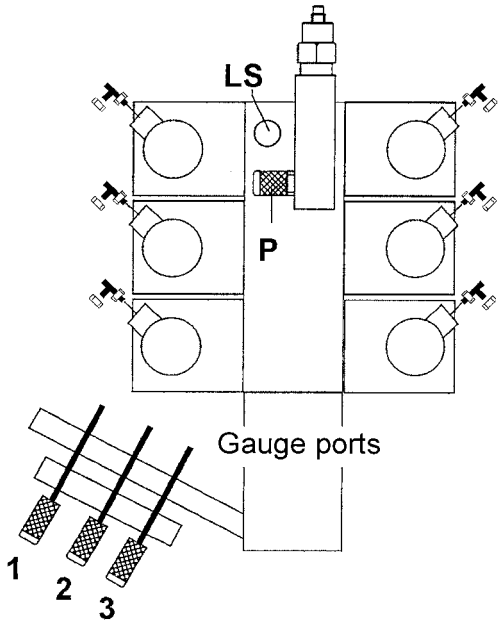
- Raise the Δp of the variable displacement pump by **5 - 8 bar** (Δp basic adjustment = 20 bar)
- The flow rate must be **0 ltr/min** (PLS valve closed).
  When a flow rate is measured, the spring of the PLS valve has to be preloaded until the flow rate meter indicates **0 ltr/min**.
  (One turn of the setscrew corresponds to approx. 2.5 bar)
- Now open the PLS valve until a value of **20 ltr/min** is indicated. Counterlock the setscrew.
- Re-adjust the Δp of the variable displacement pump to its original value.

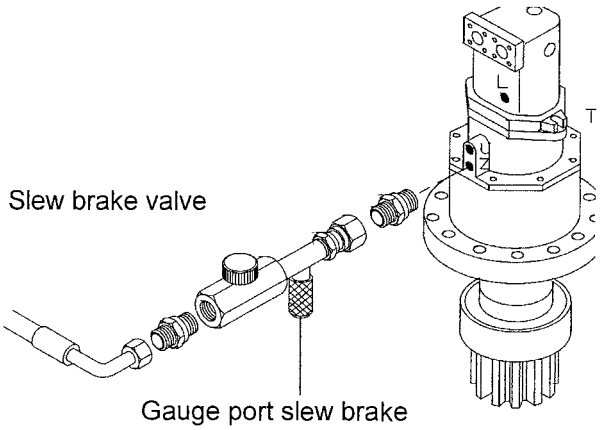


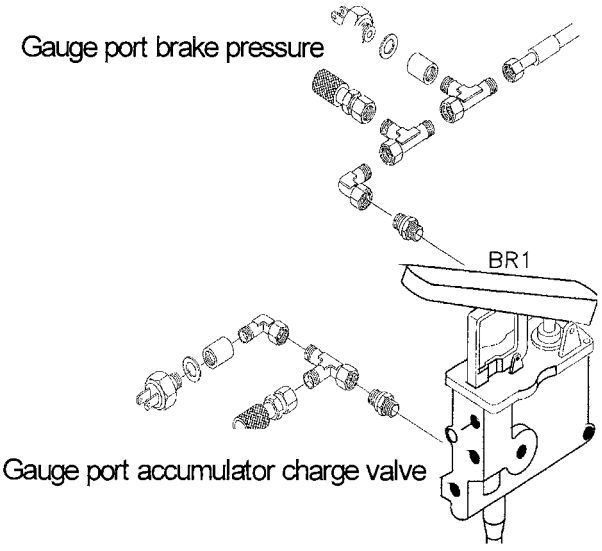
Tightening torque = **MA,** in three stages



PLM valve = main pressure relief valve in connection with the PLS valve (see diagram)

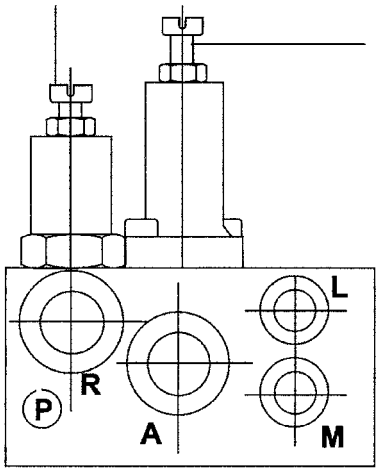




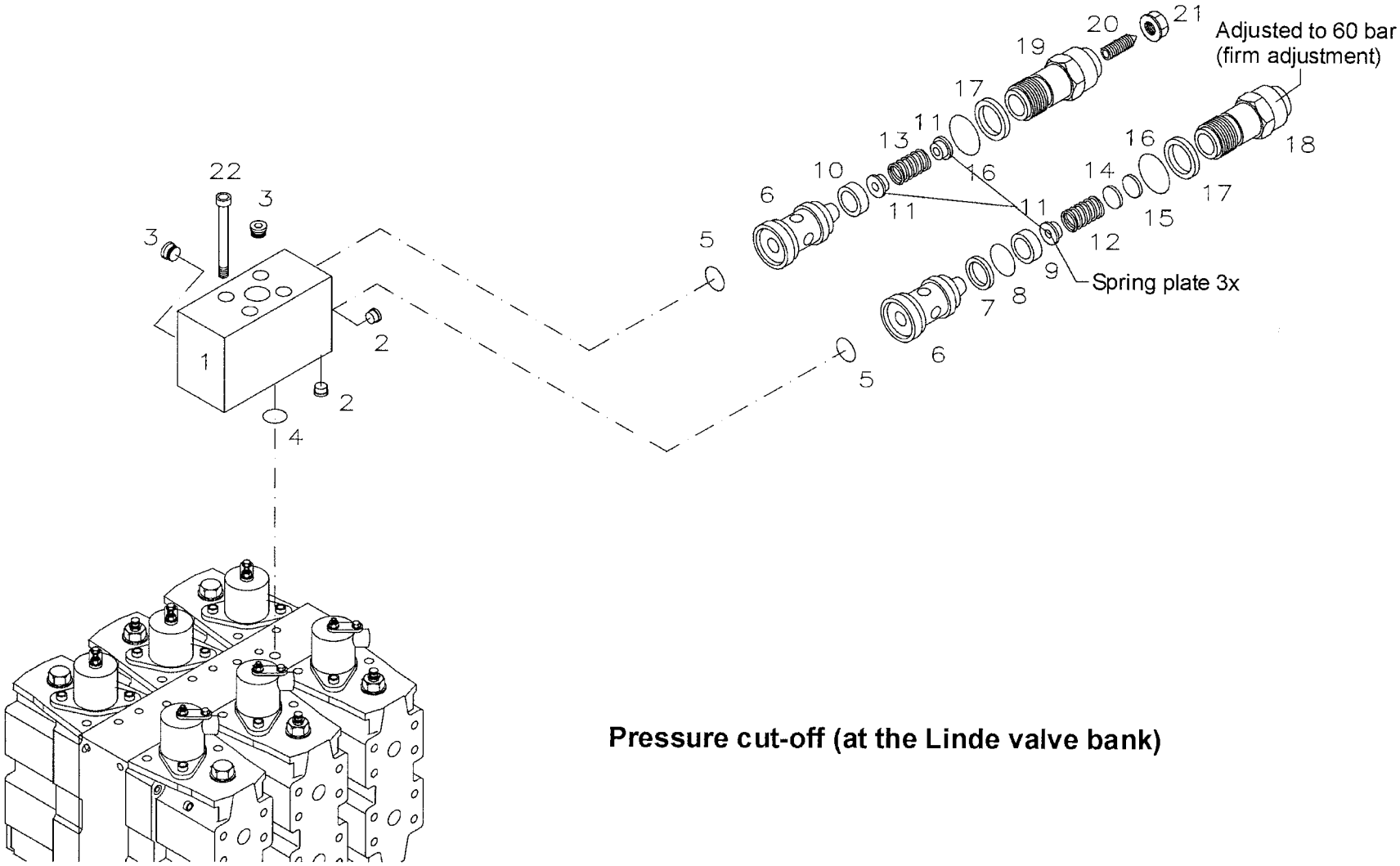


1. parking brake - gear shifting
2. pilot pressure
3. steering priority valve

40 bar pressure limitation / need not be adjusted



setscrew pressure reducing valve
pilot pressure: 32 bar



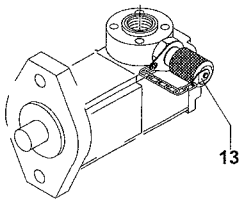
Pressure cut-off (at the Linde valve bank)

1. Check and replacement of the line relief valves

Note: It is checked if the line relief valves are approx. 30 bar above the main pressure relief valve or if the line relief valve „dumping out" is adjusted correctly resp.

- connect 600 bar - gauge to gauge port (13) of the working pump
- increase main pressure relief valve by approx. 40 bar
- set engine rpms to approx. 1,100 min^{-1}
- actuate all functions, one after the other, until mechanical stop
- watch the gauge: - function „dumping out": Desired value: see Technical Data. If the desired value is not reached or exceeded resp., the line relief valve cartridge has to be replaced

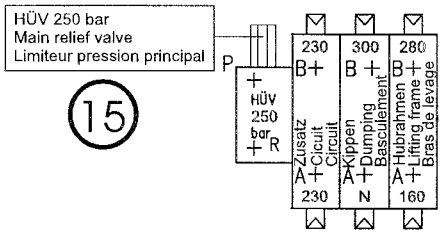
  - with all other functions it is checked whether the corresponding line relief valve is approx. 30 bar above the main pressure relief valve. If a value is too far beyond the tolerance, the corresponding valve cartridge has to be replaced
- reset main pressure relief valve to the desired value (see Technical Data)



2. Check and adjustment of the main pressure relief valve

- connect 600 bar - gauge to gauge port (13) of the working pump
- fully accelerate
- actuate function „lifting frame, lift". Attention: Steering must not be actuated
- read the value on the gauge. Desired value (main pressure relief valve): see Technical Data
- if the desired value is not reached, turn the setscrew (15) at the main pressure relief valve in or out resp.

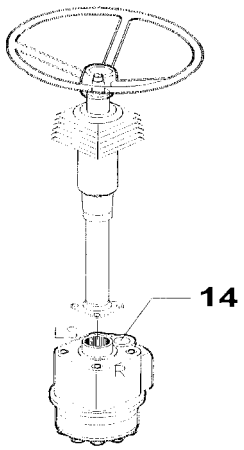
  Turning in: pressure increase
  Turning out: pressure decrease



3. Check and adjustment of the steering pressure

- connect 600 bar - gauge to gauge port (13) of the working pump
- fully accelerate
- actuate steering until stop
- read the value on the gauge. Desired value: see Technical Data
- if the desired value is not reached, carry out the adjustment as described in the following:
- remove cap at the rear of the steering console
- unscrew plug (14)
- screw the setscrew below in or out resp.

  Screwing in: steering pressure increase
  Screwing out: steering pressure decrease



4. Adjustment of the parking brake and service brake

- adjustment possibility between the front axle and brake anchor plate of the brake drum at the setting gear
- adjust setting gear by means of a screwdriver until the brake blocks, then loosen until the wheels turn freely.
  An adjustment at the Bowden cable is not necessary.

Einstellzahnrad = setting gear