



**Tools/Equipment Required:**

- 0-500 psi pressure gauge or transducer
- 0-5000 psi pressure gauge or transducer
- 13mm offset closed-end wrench
- hammer and punch

**WARNING:**

If performing this procedure on a vehicle, care must be taken. The pump will be put on stroke during this procedure, hence the vehicle must be safely elevated to allow the motor to free-wheel. If this is NOT possible, then the pump workports "P" and "S" must be short circuited to each other to avoid movement of the motor.

**NOTE:** Prior to performing this procedure, verify that the hydraulic neutral on the pump is correctly adjusted. Use Linde Service Bulletin HPV-NEUTRAL.doc to check and adjust the hydraulic neutral setting if required.

**A. Adjustment Procedure for *Right-Hand Rotation (CW) Pump:***

- 1A. Install the 0-500 psi gauge into gauge port "Y".
- 2A. Install the 0-5000 psi gauge into gauge port "Mp".
- 3A. Set the input speed to high idle.
- 4A. While simultaneously monitoring both gauges, slowly supply control pressure into port "Y". Note the pressure at port "Y" when you first see pressure at port "Mp". This is the regulation begin pressure for workport "P".
- 5A. To Adjust the Regulation Begin Pressure:
  - a. Use the hammer and punch to loosen (rotate CCW) "Spanner Nut #2".
  - b. Use the 13mm wrench on "Locking Nut #2" to adjust "Regulation Begin Cup #2". Turn it IN to increase the regulation begin pressure or turn it OUT to decrease it.
  - c. Use the hammer and punch to tighten (rotate CW) "Spanner Nut #2".
  - d. Repeat steps #3A and #4A to verify that the regulation begin pressure is correct.

- 6A. Install the 0-500 psi gauge into gauge port "Z".
- 7A. Install the 0-5000 psi gauge into gauge port "Ms".
- 8A. Set the input speed to high idle.
- 9A. While simultaneously monitoring both gauges, slowly supply control pressure into port "Z". Note the pressure at port "Z" when you first see pressure at port "Ms". This is the regulation begin pressure for workport "S".
- 10A. To Adjust the Regulation Begin Pressure:
  - a. Use the hammer and punch to loosen (rotate CCW) "Spanner Nut #1".
  - b. Use the 13mm wrench on "Locking Nut #1" to adjust "Regulation Begin Cup #1". Turn it IN to increase the regulation begin pressure or turn it OUT to decrease it.
  - c. Use the hammer and punch to tighten (rotate CW) "Spanner Nut #1".
  - d. Repeat steps #8A and #9A to verify that the regulation begin pressure is correct.

**B. Adjustment Procedure for *Left-Hand Rotation (CCW) Pump:***

- 1B. Install the 0-500 psi gauge into gauge port "Y".
- 2B. Install the 0-5000 psi gauge into gauge port "Ms".
- 3B. Set the input speed to high idle.
- 4B. While simultaneously monitoring both gauges, slowly supply control pressure into port "Y". Note the pressure at port "Y" when you first see pressure at port "Ms". This is the regulation begin pressure for workport "S".
- 5B. To Adjust the Regulation Begin Pressure:
  - a. Use the hammer and punch to loosen (rotate CCW) "Spanner Nut #2".
  - b. Use the 13mm wrench on "Locking Nut #2" to adjust "Regulation Begin Cup #2". Turn it IN to increase the regulation begin pressure or turn it OUT to decrease it.
  - c. Use the hammer and punch to tighten (rotate CW) "Spanner Nut #2".
  - d. Repeat steps #3B and #4B to verify that the regulation begin pressure is correct.

- 6B. Install the 0-500 psi gauge into gauge port "Z".
- 7B. Install the 0-5000 psi gauge into gauge port "Mp".
- 8B. Set the input speed to high idle.
- 9B. While simultaneously monitoring both gauges, slowly supply control pressure into port "Z". Note the pressure at port "Z" when you first see pressure at port "Mp". This is the regulation begin pressure for workport "P".
- 10B. To Adjust the Regulation Begin Pressure:
  - a. Use the hammer and punch to loosen (rotate CCW) "Spanner Nut #1".
  - b. Use the 13mm wrench on "Locking Nut #1" to adjust "Regulation Begin Cup #1". Turn it IN to increase the regulation begin pressure or turn it OUT to decrease it.
  - c. Use the hammer and punch to tighten (rotate CW) "Spanner Nut #1".
  - d. Repeat steps #8B and #9B to verify that the regulation begin pressure is correct.