

PRODUCT SUPPORT BULLETIN #266

Product: Rock Breaker Systems

Date: May 28/07

Subject: Sauer-Danfoss Pump Adjustment

Status: Information Only

Circulation: Internal and All Dealer Locations

Details: Breaker Technology has been using a Sauer-Danfoss Variable displacement piston type Pump in the Power Pack of most Rock Breaker Systems. The flow and pressure settings normally come pre-set for the equipment being operated, however when installing a replacement pump, or re-adjusting a pump to suit another application, the following details are required.

1. Setting the Stand-By (LS) Pressure Adjustment

- Attach a gauge to the 'P' or 'MA' port on the Control Valve
- The Adjustment Screw is locked in place by a grub screw – loosen the grub screw
- With the motor and pump running, adjust the Stand-By LS pressure to 450 psi
- Tighten the grub screw to hold the Adjustment place.

Stand-By (LS) Pressure Adjustment (450 psi)

Pump Cut-Out Pressure Adjustment



2. Set the Main (Inlet) Relief on the Control Valve

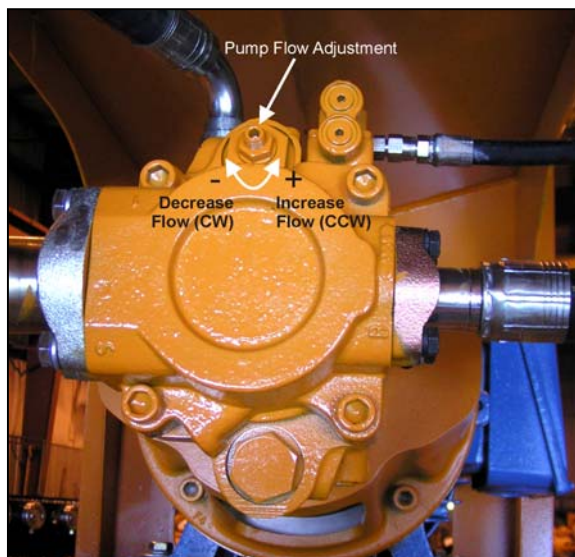
Because this main relief on the control valve is set higher than the Pump Cut-Out pressure, you must set this value first with the Pump Cut-Out turned in with sufficient pressure to achieve this reading. Please refer to the hydraulic schematic for correct pressure setting.

3. Setting the Pump Cut-Out Pressure Adjustment

- Attach a gauge to the ‘P’ or ‘MA’ port on the Control Valve
- Loosen the grub screw holding the Pump Cut-Out Adjusting Screw
- Note: You must find a way to ‘dead-head’ the circuit. With a Boom and Breaker, you can manual activate the Breaker Fire in the opposite direction which is a capped port on the valve.
- With the motor and pump running, dead-head the circuit and adjust this pressure to reflect the pressure on the hydraulic schematic. (Usually 3000 psi)
- Tighten the grub screw to hold the Adjustment in place

4. Setting the Flow – Mechanical Volume Stop Adjustment

- Loosen the Jam Nut
- Turn Adjusting Screw Counter Clockwise until it will not turn any further. This will be the “Starting Point”.
- It is best to use a Hydraulic Flow Meter, mounted in place of the Breaker, to accurately determine flow rate. However the chart below can be used if a Flow Meter is not available. Turn the adjusting screw Inward (Clockwise) until the desired flow is achieved.
- Lock the Jam Nut to hold the Adjusting Screw in place.





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Pump Flow Adjustment - Sauer-Danfoss
 Number of Turns inward (Clockwise) from the full flow setting

| Pump Size | Breaker Size | desired Flow Rate | Working in North America (60 Hz) | | Working in Export (50 Hz) | |
|------------|--------------|-------------------|----------------------------------|----------------------|-----------------------------|----------------------|
| | | | Theoretical displ. (cc/rev) | Number of Turns (CW) | Theoretical displ. (cc/rev) | Number of Turns (CW) |
| 71 cc/rev | TB335/BT750 | 15 gpm | 33 | 6 1/2 | 38 | 5 1/2 |
| 6.0cc/turn | TB425/BT1000 | 20 gpm | 43 | 4 2/3 | 51 | 3 1/3 |
| | TB625/BT1400 | 25 gpm | 54 | 2 3/4 | 63 | 1 1/3 |
| | TB725/BT2000 | 29 gpm | 63 | 1 1/3 | 71 | 0 |
| 100 cc/rev | TB830/BT3500 | 39 gpm | 84 | 2 1/2 | 95 | 3/4 |
| 6.5cc/turn | TB925/BT4000 | 42 gpm | 91 | 1 1/3 | 100 | 0 |
| 130 cc/rev | TB980/BT5500 | 57 gpm | 123 | 1 | n/a | n/a |
| 6.5cc/turn | TB1280 | 63 gpm | 130 | 0 | n/a | n/a |

If you have any further questions, please do not hesitate to call your nearest BTI Service Representative.