



# PELLERIN MILNOR CORPORATION

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## SERVICE BULLETIN - FACSIMILE

### Single Stage Press Hydraulic Systems

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REPLY TO PARTS & SERVICE: 504-469-9777

E-MAIL: SERVICE@MILNOR.COM

DATE: January 8, 2001

YOUR REF.NO.:

MILNOR REF NO.:

FAX NO.:

TO:

FROM: Gary Lazarre

COMPANY: RETURN TO: Diane Schnauder, Service

SUBJECT: SINGLE STAGE PRESS HYDRAULIC SYSTEMS

MP16\_\_\_\_, s/n \_\_\_\_\_

#### SECOND TRANSMISSION - 1/23/01

#### PROBLEM:

- The hydraulic system demonstrates a "hammering" effect at the end of a pressure cycle.
- Hydraulic system has evidence of loose fittings and possibly O-ring failure.

#### CAUSE:

- The system pressure is controlled by a proportional valve and a proportional valve card. The control card will be referred to as the DBET card. During the pressure cycle the pressure of the hydraulic system is increased as goods are being pressed. At the end of the cycle, the system must relieve the pressure. We do this through the DBET card and the proportional valve which "shuts down" the pressure output of the pump.

The DBET card controls the rate of "shutdown" of the proportional valve. Internally, there is a potentiometer to set the speed of shutdown.

We recently learned that a number of presses were released from the factory with a shutdown time of approximately 4 seconds. This is the maximum time allowable by the DBET card.

The problem at its root is that we open and close a number of hydraulic valves to operate different functions of the press, as little as one second after the high-pressure cycle of the press. Thus, we have to reduce the system hydraulic pressure within one second so that the valves can shift without any "shock" to the hydraulic system.

The first step is to check the system for evidence that the hydraulic pressure is not being reduced quickly enough. The second step is to make adjustment to the DBET card to decrease the “shutdown time” of the system.

PROCEDURE:

**FALL HAZARD: THE TOP OF THE PRESS MAY BE SLIPPERY. YOU MAY FALL OFF. TAKE STEPS TO CLEAN SLIPPERY SURFACES TO AVOID INJURY.**

The press can be in a normal production condition for the test.

- While standing on top of the machine during the high-pressure cycle, a technician should hold the two hydraulic lines at the points indicated in figure 1 below.
- As the system pressure begins to drop at the end of the pressure cycle, chattering noises and vibration may be witnessed in the hydraulic tubing. Additionally, the system pressure gauge should be witnessed for the following possible scenario: the system pressure drops abruptly to zero and then bounces back to 3500 PSI. If this occurs, then this is evidence that the DBET card needs to be adjusted to bring the pressure to zero more quickly. We are looking for a smooth transition from high pressure to zero pressure within 1 second. There should be no vibration in the two hydraulic lines if this occurs properly.
- If vibration or chattering noises are witnessed, then turn the ramp down adjustment on the DBET card approximately 20 turns **counterclockwise**. Retest the machine. Continue the adjustment until chattering and pressure spikes are minimized or completely eliminated.
- The potentiometer on the DBET card will allow the adjustment screw to be turned even if the potentiometer is at its limit.

If you have any problems with the procedure, please contact MILNOR Tech Support at [Service@MILNOR.com](mailto:Service@MILNOR.com) or by phone 504-467-9591, ext.75, or fax 504-469-9777.

Best regards,

PELLERIN MILNOR CORPORATION

Gary Lazarre

Gary L. Lazarre  
Manager  
Customer Service

GLL/das

Attachments



chatter.jpg