

TRANE

SERVICE BULLETIN

THE TRANE COMPANY - LA CROSSE, WISCONSIN

No. G-50
DATE _____
PRODUCT Recip. Comp.
SERV. MAN. SECT. _____
PAGE 1-5
F.S.

SUBJECT: MODEL E COMPRESSOR RELIABILITY IMPROVEMENTS

DISCUSSION:

On current production the Model E compressor oil safety control senses oil pressure directly from the oil pump discharge port before the oil enters the internal oil lines. If any of the internal oil lines develop a leak, there is a possibility that the oil safety control will not sense the decrease in oil pressure because of the high efficiency of the Model E oil pump holding the pressure just over the cut out point.

ACTION:

For added lubrication protection and compressor reliability, an oil pressure control conversion kit is now available to update units that are now in operation. The kit consists of instructions to increase the oil pressure control cutout from 17 pounds to 30 pounds and fittings to relocate the control sensing line from the oil pump discharge to the compressor handhole cover. (See sample installation instructions).

The new oil pressure sensing locations will monitor more closely the compressor oil pressure and react faster to a decrease in oil pressure.

ORDERING INFORMATION:

Enter orders to La Crosse using the following information:

KIT-454 Order Number 7-4413-0876

INSTALLATION ALLOWANCE:

No installation allowance is authorized.

FUTURE PRODUCTION:

All hermetic Model E compressor manufactured with the design sequence of "H" and all open Model E compressors with the design sequence of "F" will have an oil pressure control with the cutout point of 30 pounds and the oil pressure sensing line monitoring the oil pressure from the handhole cover of the compressor. Example of compressor model number:

Hermetic	Open
2E5H59	2E5F59
Design	Design
Sequence	Sequence

This change will be phased into all units utilizing Model E Compressors during the next several months.

SAMPLE INSTALLATION INSTRUCTIONS

INSTALLATION:

1. De-energize the temperature control system causing the system to pump down.
2. Front seat the compressor suction service valve.
3. Open the disconnect switch to assure system will not cycle on, and front seat the compressor discharge service valve.
4. Slowly bleed the charge from the compressor by loosening the suction gauge service port cap located at the rear of the suction service valve. (See Figure 1).

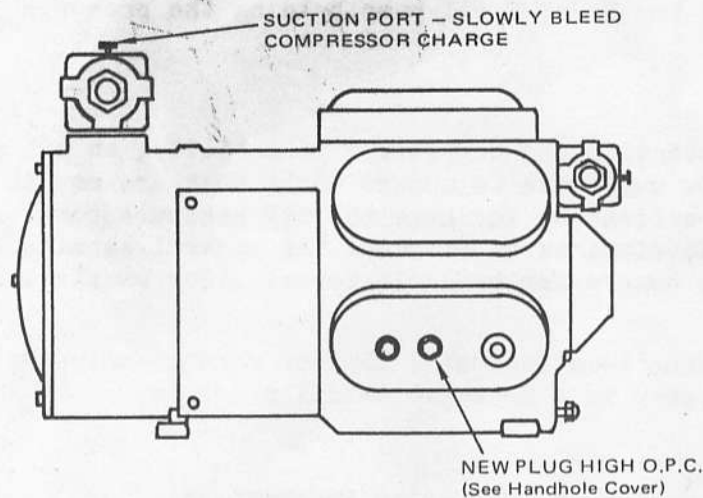


FIGURE 1

5. The suction service port cap should be sealed to assure a small positive charge will remain in the compressor. Upon completion of final installation this will avoid evacuation of the compressor.
6. Remove the plug located on the compressor hand hole cover. (See Figures 1 & 2)

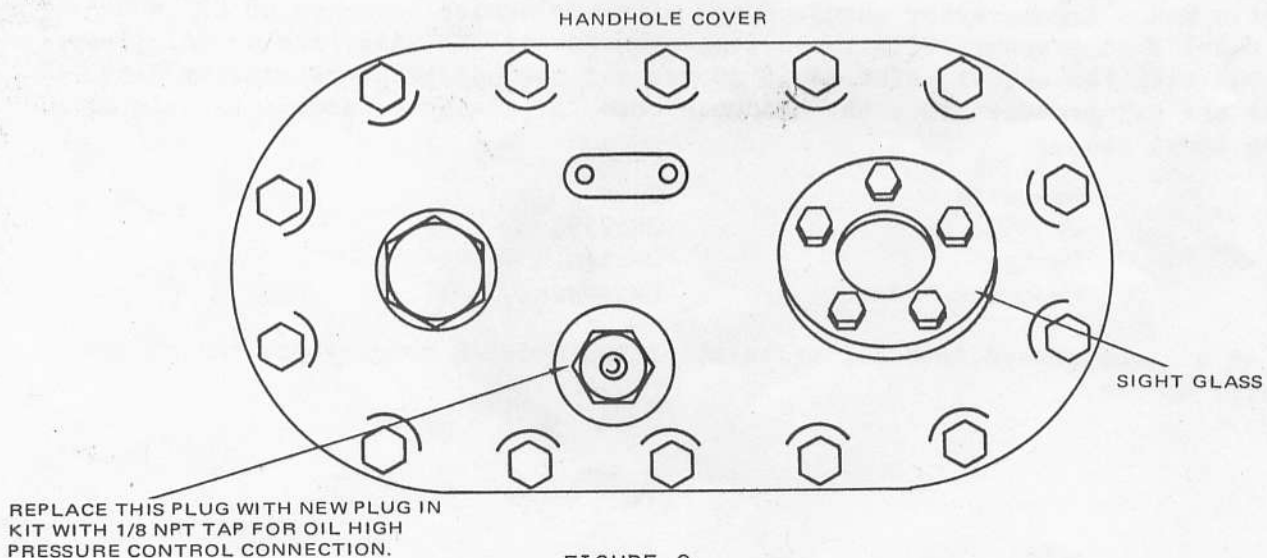


FIGURE 2

7. Replace with new plug and then add the 1/8 x 1/4 flare adapter to the plug, cap the flare adapter to avoid losing all the positive pressure. Note: Threads must be sealed with "leak-lock" or "glptol".
8. Remove the oil pressure control line from the compressor connection and remove the flare adapter fitting from the compressor (See Figure 3).

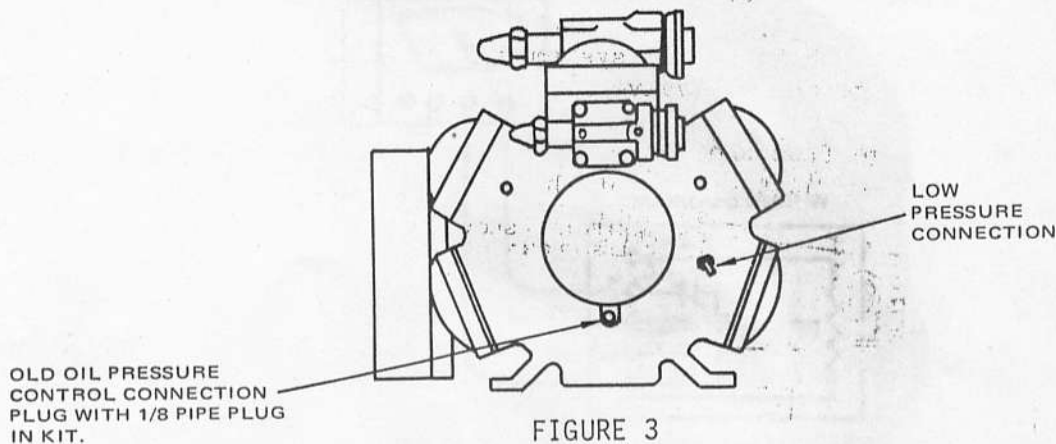


FIGURE 3

9. Plug the port by using the 1/8 pipe plug provided. (See Figure 3) Note: Threads must be sealed with "leak-lock" or "glptol".

READJUSTMENT OF THE OIL PRESSURE CONTROL

Units prior to November, 1968 have the control shown in Figure 4, factory adjusted for a cut out point of 17 lbs. To adjust the control to 30 lb. cut out point follow these steps.

UNITS HAVE THIS CONTROL
PRIOR TO NOVEMBER 1968

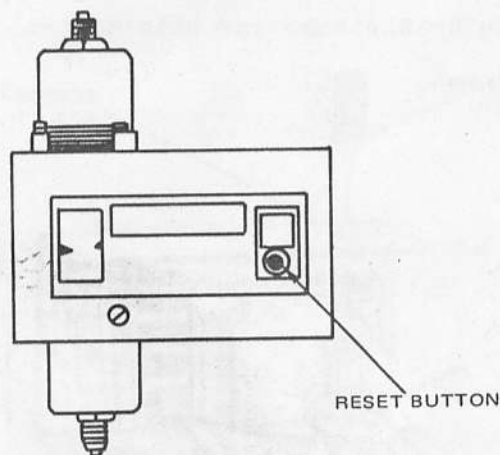


FIGURE 4

1. Remove low pressure sensing line from the compressor and cap the connection.
2. Connect the oil pressure line of the control to a drum of dry nitrogen through an appropriate regulator.

3. Leave the low pressure line exposed to the atmosphere.
4. Disconnect control wires from control. Attach an ohmmeter to the controls terminals '2' and '120' (See Figure 5). Select the scale that has the highest deflection.

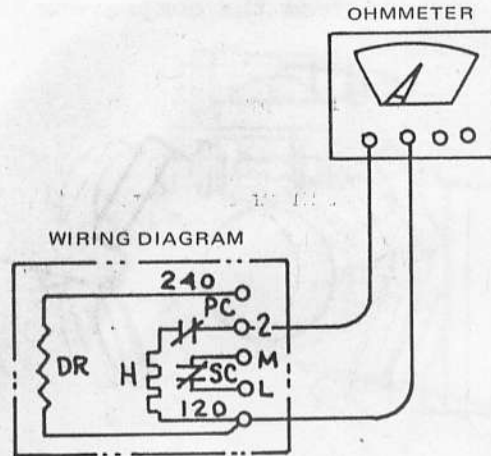


FIGURE 5

5. Apply pressure to the control, the contacts will open at approximately 17 lbs. Turn adjusting wheel (Figure 4) clockwise a half turn, reset the control and slowly increase the pressure until the contacts open again. Repeat this operation until the contacts open at 30 lbs. pressure. The control is now adjusted properly.
6. Units with the control shown in Figure 6 require a special wrench for adjustment which is included with this kit.

Adjustment sequence is the same for this control as outlined in step 5.

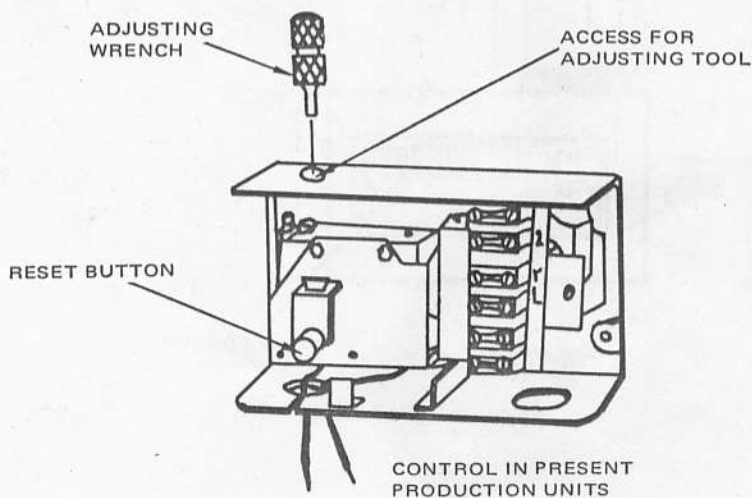


FIGURE 6

7. Remove ohmmeter, reconnect wires, and reset control. Disconnect control from pressure source.

8. Remove cap from compressor low pressure connection and connect low pressure tube.
9. Remove cap from oil pressure connection on the handhole cover and install the oil pressure line.
10. Back set the compressor discharge and suction valves.
11. Leak test the oil pressure compressor fittings, low pressure fitting and old pressure oil port.
12. Close the system disconnect switch and energize the control circuit.