PVV to P1 Hydraulic Pump Retrofit

Erie Strayer Company

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TECHNICAL SERVICE BULLETIN ESC061808

Supplied Components (PVV – P1 Retrofit with water cooling, P/N 65859)

Qty	Description	Erie #
1	Pump hydraulic P1	65549
1	P16 Gear Pump	64064
1	Bracket pump Vescor	65550
4	Nut std hex 5/8-11	13565
1	Fitting 2507	65553
8	Screw 5/8-11 x 2	16494
4	Washer lock 5/8	14098
4	Screw 3/4-10 x 2	16506
4	Washer flat 3/4	58312
4	Washer lock 3/4	17143
1	Plate mounting hyd. pump	1A249779
1	Fitting IE	53433
1	Fitting IE swivel	16727
1	Assy hose 381-20 2250psi	1A249780
1	Line hyd. for pump	1A249781
1	Flane 120-231	65551
8	Washer flat 5/8	14079
1	Fitting Aeroquip 06S	60621
1	Elbow 90 1/4 NPT	59266

Tools Required for Installation

- SAE Socket Set
- SAE Wrench Set
- SAE Allen Wrench Set
- Feeler gauges
- Assortment of small and large crescent wrenches
- Lifting device
- Pry bar
- Rags, oil pan and oil dry

Warning

Before doing any work, make sure the equipment is locked out and tagged out according to OSHA regulations.

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Instructions

1. Removal of lines and hoses
    a. Disconnect compensator line from compensator and relief manifold.
    b. Remove case drain hose from hydraulic pump.
    c. Unbolt and remove flange from suction line of pump.
    d. Remove pressure line from pump to relief manifold.

2. Removal of hydraulic pump
    a. Unbolt pump from pump mounting bracket.
    b. Unbolt pump mounting bracket from electric motor.

3. Unbolt electric motor feet from tank mounting blocks.

4. Raise electric motor enough to install the hydraulic pump mounting plate. Note the markings on the mounting plate and bolt accordingly. Orientate plate so that pump side is facing pump and bolt plate using slots marked tank to the tank mounting blocks.

5. Bolt electric motor to slots on mounting plate marked motor. (Ref. Fig. 1)

6. Install coupling to the electric motor.

7. Bolt Vescor pump bracket to electric motor. (Ref. Fig. 1)

8. Bolt P1 pump to Vescor pump bracket allowing for 1/8” coupling gap to allow for motor end thrust. (Ref. Fig. 1)

FIG. 1

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9. Connect hydraulic line between the pump compensator and relief manifold. Note: this line may need to be trimmed to fit using a tubing cutter on the non-flared end. (Ref. Fig. 2)

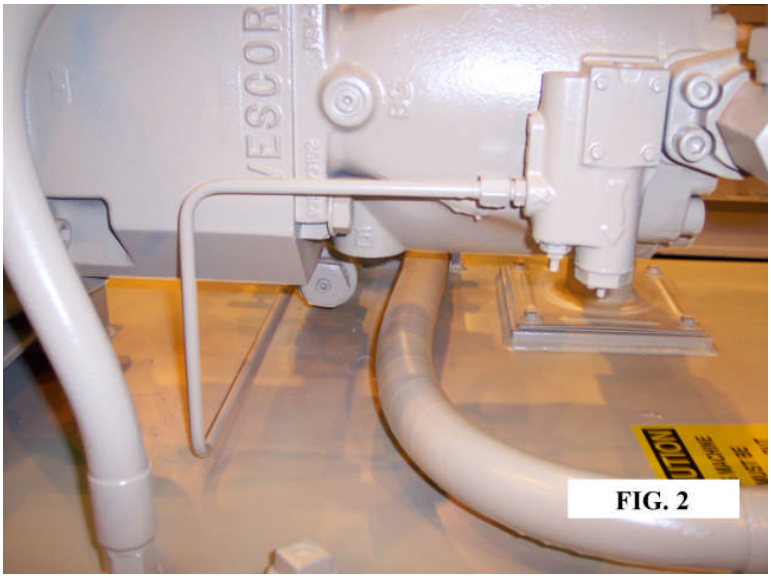

FIG. 2

10. Fill case drain with 2 qts of hydraulic oil and connect pump case drain using existing hose. (Ref. Fig. 1)

11. Fit pump suction line using flanged connection. (Ref. Fig. 3)

FIG. 3

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12. Connect supplied pressure hose between hydraulic pump to the relief manifold block. (Ref. Fig. 4)

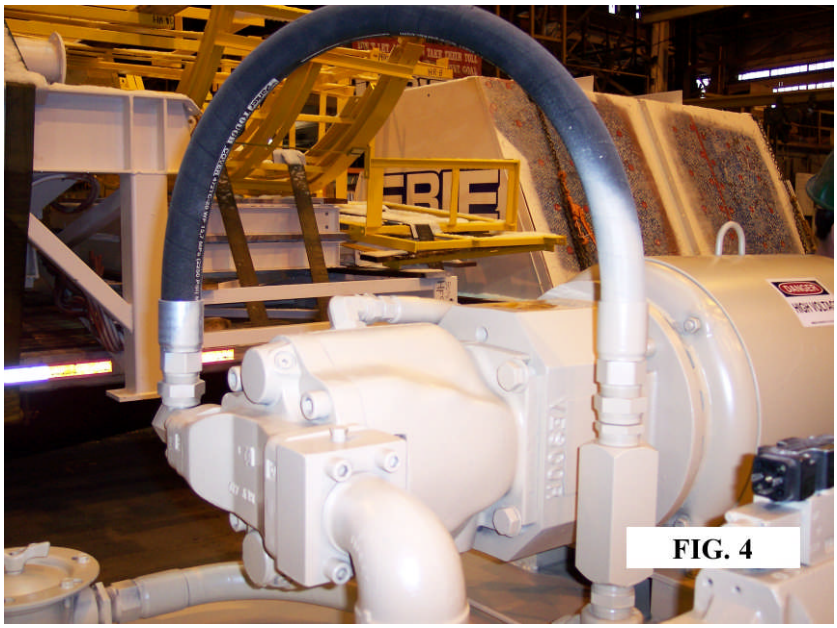

FIG. 4

13. Check all connections to ensure they are tight.

14. **It is recommended when replacing a worn pump to also change the hydraulic oil (AW32 or AW46) and filter.** Contaminated hydraulic oil will shorten the life of the new hydraulic pump. Only use AW46 when ambient temperatures exceed 80F.

15. The hydraulic pump comes from the factory with the pump compensator set for low pressure (idle pressure). Check for proper motor rotation and run pump on idle pressure making sure to pick up a prime. It may be necessary to "bump" the A and B coil overrides for priming to start. If the pump does not pick up prime, call Erie Strayer Company for assistance.

16. Connect water cooler hoses to the P16 gear pump. Only circulate water through the cooler when ambient temperatures exceed 70F.

17. After running idle for 5 -10 minutes, check lines and hoses for leaks and repair.

18. Bleed Air from the hydraulic system. See Technical Service Bulletin ESC092107

19. Set pump compensator pressure. See Technical Service Bulletin ESC052008