Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Bin No. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Lab 5**

**Use FAA-H-8083-31 V2**

**Reference Required**

1. A basic example of a closed center hydraulic system is a .

Reference \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. Using Fig. 12-4 on page 12-7 of the text-

 A. What unit(s) directs the fluid to the reservoir? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 B. Where does the pressure come from that returns the fluid to the reservoir?

3. Using Fig. 12-4 on page 12-7,

 A. How would you cause the piston in the hydraulic actuator to go the other direction?

4. What is the source of hydraulic flow in Fig 12.4?

5. In Fig 12-4, what component would not be needed if the selector valves were of the open center type? (Refer to figure 12-3 on page 12-6)

6. Draw a simple hydraulic system and label the following components.

 1. Hydraulic Reservoir 1 EA

 2. Hand Pump 1 EA

 3. Selector Valve 2 EA

 4. Double Acting Cylinder 2 EA

 5. Engine Driven Pump 1 EA

 6. Press - Relief Valve 1 EA

 7. High Press Fluid - Lines as necessary.

 8. Low Press Fluid - Lines as necessary.

**Drawing Space**

**CAUTION! YOU MUST USE EYE PROTECTION AND PROTECTIVE CLOTHING TO DO THIS PART OF THE PROJECT.**

7. Assemble a double acting cylinder and a selector valve on the hydraulic flow bench and check it for proper operation.

Instructor Signature