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**Manufacturing Engineering**

**Hydraulic and Pneumatic Systems**

Matching Terms and Definitions

**Directions:** Match the terms in Section 1 with the definitions in Section 2.

**Section 1:**

1. Actuators
2. Pump
3. Compressor
4. Gauges
5. Pressure relief valves
6. Control valve
7. Filter
8. Reservoir
9. Hydraulic fluid
10. Tubes / hoses
11. Fittings / connections

**Section 2:**

**\_\_\_\_\_\_\_\_** used to direct fluid to the proper component, like an actuator, gauge,output line, etc.

**\_\_\_\_\_\_\_\_**a key component in a pneumatic system and is used to pressurize air fortransport through the system

**\_\_\_\_\_\_\_\_**converts the hydraulic pressure (energy) to mechanical energy tooperate the load; (cylinder) - converts hydraulic energy to linear energy to operate piston rods; (hydraulic motor) - converts hydraulic energy to rotational energy to rotate a shaft

**\_\_\_\_\_\_\_\_**provides an analog or digital indication of system pressure

**\_\_\_\_\_\_\_\_**placed in specific locations in a hydraulic system to relieve excesspressure to prevent system overload, which would result in leaks, and damaged components, etc.

**\_\_\_\_\_\_\_\_**stainless steel or rubber connecting lines that connect systemcomponents and are used for fluid transfer

**\_\_\_\_\_\_\_\_**provides a pressurized fluid supply to the hydraulic system to operatethe actuators; pressure may be 5000 pounds per square inch (psi), or more

**\_\_\_\_\_\_\_\_**a critical component used to trap particles (usually metal or dirt) thatcould clog and damage system components

**\_\_\_\_\_\_\_\_**liquid used to circulate through a hydraulic system to transfer energybetween components and to the load; the fluid provides cooling and transfers particles (contaminants) to the filter

**\_\_\_\_\_\_\_\_**threaded or clamped connections that are used to connect the tubesand hoses to system components; must be of proper size and orientation to prevent leaks

**\_\_\_\_\_\_\_\_**serves as a storage container for hydraulic fluid