Hydraulic Hazards

Safety Talk

What's at Stake?

The power of fluids is amazing. Hydraulic power is a form of stored energy that, when under control, does good work. When released unexpectedly, hydraulic power can damage you for life or even kill you.

What's the Danger?

Many injuries and deaths occur because workers are poorly trained and ill-informed about hydraulic power. Here are four examples of hydraulic hazards:

1. A hydraulic line can break and spray flammable liquid, resulting in fires and explosions.
2. A pressurized hose can whip around and strike someone.
3. If a line fails or is disconnected, the loss of fluid pressure can cause machine components to collapse, resulting in possible injuries or death if a worker is underneath the machine.
4. When someone uses a hand to check for a pinhole leak in a hydraulic line, the pressurized fluid can be injected under the skin. This injury can lead to infection and possibly require amputation of the infected hand.

How to Protect Yourself

Follow these guidelines procedure before doing all service or maintenance procedures.

Hydraulic Fluid

- The fluid used in hydraulic power tools must be an approved fire-resistant fluid.
- It also must be designed to retain its operating characteristics at the most extreme temperatures it will be exposed to.

Safe Operating Pressure

- Don't exceed the manufacturer's recommended safe operating pressure for hoses, valves, pipes, filters and other fittings.

- Make sure all fittings, hoses, valves, etc., are securely fastened before use.

Jacks

- All jacks – lever and ratchet jacks, screw jacks and hydraulic jacks – must have a device that stops them from jacking up too high.
- The manufacturer's load limit must be permanently marked in an easy-to-see place on the jack. Never exceed this limit.
- Never use a jack to support a lifted load. Once the load has been lifted, it must immediately be blocked up.
- Fill hydraulic jacks exposed to freezing temperatures with an adequate antifreeze liquid to prevent freezing.

Blocking and Locking

- Hydraulic pressure must be relieved before work is done on any part the hydraulic system or when repairing or performing maintenance on equipment with hydraulics.
    - Even equipment that has been idle for a long time may still contain high pressure.
    - Your employer must instruct you how to do this safely and train you on how to lock and tag out all hydraulic power.
- Equipment parts supported by hydraulic systems must be mechanically blocked during maintenance and service.
    - Remember, when machines are turned off the hydraulic lines may still be under pressure.
    - If a line fails – or is disconnected during servicing – the loss of pressure can cause machine components to collapse.
- Lock and tag out all hydraulic power before adjusting any equipment.

Reporting

- Stop work and immediately report any problems you observe, such as leaks, missing locks, and other hazards.

Final Word

Don't take chances with your safety and your life when working with hydraulic power. Follow proper protocol and procedures safely deenergizing, releasing fluid, blocking and lockout/tagout.