



Customer Focus on Loss Control

Innovative Safety and Health SolutionsSM

Construction Equipment Hydraulics

Hydraulic systems have some special characteristics that distinguish them from other types of mechanical operating systems.

Hydraulic attachments on construction equipment are held in position by a trapped column of oil in the cylinders and lines. If the hydraulic oil escapes, the attachment will fall.

Follow these tips before servicing construction equipment hydraulic systems.

- Prior to making adjustment or repairs on the hydraulic system, make sure the ground, blocking, or cribbing is supporting the attachment, not the oil.
- The hydraulic system may hold pressure for a long period of time after the engine has been shut down. Removal of plugs or lines may result in oil and the component shooting out with explosive force. Always release system pressure *before* making repairs or adjustments.
- Pressurized hydraulic oil escaping the system through a leak can be almost invisible. Never search for an oil leak with your bare hands. A pressurized oil leak can penetrate the skin and cause serious injury. Use a piece of cardboard or wood when searching for suspect leaks.
- Pressurized hydraulic tanks become heated during operation; this can cause pressure to build up in the tank. Too-quick removal of the cover may cause the hot air and oil to escape rapidly. The oil may be very hot and cause severe burns. Bleed off the pressure *before* removing the cover. Consult the manufacturer's instructions.
- Pressurized oil leaks spraying on a hot engine can be an invitation to disaster. Accumulated oil and fuel from leaks on the machine can result in a fire that can spread with explosive speed. Keep the machine clean and free of leaks.
- Never attempt to service or repair a hydraulic system if you do not know what you are doing. They are unforgiving and can cause serious injuries or death.
- Never work under a hydraulic attachment that is supported on the oil system.
- Never take chances.



Always follow the manufacturer's instructions for correct procedures, and never work under hydraulic attachments that are supported by the oil.