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SAFETY ALERT

07-S-7

HYDRAULIC HOSE LEAK SQUIRTS OIL UNDER SKIN

May 2007

www.forestresources.org/members/serpub/07-S-7.html

BACKGROUND: A loader operator was trying to repair a leaking hydraulic hose on a relatively new knuckleboom loader on a logging operation in the South. The loader had been leaking fluid from around the grapple, and the operator decided to stop and find the hose that was leaking.

PERSONAL CHARACTERISTICS: The experienced, 30-year-old loader operator was fully trained on the operation of the loader he was running. He had repaired damaged hydraulic lines in the past without any problems. He was not wearing any personal protective equipment other than a hard hat.

UNSAFE ACTS: The loader boom was grounded, and the operator was searching through a bundle of lines located on or near the grapple attachment to try and find the one that was leaking.

The operator asked another employee to start the loader and to “bump” the mechanism so he could see which line had the hole in it. When the employee engaged the hydraulics, the operator’s hand was too close to the hydraulic lines.



ACCIDENT: The leaky hydraulic line shot fluid under high pressure into his hand, breaking the skin open with a large cut.

INJURY: The loader operator immediately pulled his hand away from the lines, but the hydraulic fluid had already been injected into his hand. The operator immediately transported himself to a nearby hospital for treatment. The local hospital had to send the injured operator to an orthopedic specialist in a nearby larger city to perform immediate surgery on the injured hand. If the operator had not sought immediate treatment, he would have lost his hand and possibly part of his arm. The operator underwent 2-3 hours of surgery on his hand and forearm and needed 6-8 weeks of therapy and medication to avoid blood poisoning.

RECOMMENDATIONS FOR CORRECTION:

- Follow the loader manufacturer’s directions for safely and properly repairing or changing hydraulic lines. Don’t let the pressure of maintaining production lead to shortcuts during repairs.
- Never put yourself or a body part anywhere near a damaged hydraulic line while it is under pressure. (Note: Logging machines’ hydraulic systems may have fluid pressures of 2,500 to 5,000 psi.)
- Always make sure a piece of machinery is properly disengaged with all stored energy released before performing any maintenance on hydraulic lines. (Lock out and release all stored energy.)
- Always seek immediate medical attention for an injury involving injection of hydraulic fluid, regardless of how minor the injury may appear.

Reviewed by:
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Please follow equipment manufacturers’ recommendations for safe operation and maintenance procedures.