DEPARTMENT OF CONSUMER & BUSINESS SERVICES

MEMORANDUM

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To: All of Oregon OSHA

From: Peggy Munsell, Manager of Standards & Technical Resources

Subject: Lever Lock Brake Devices – Powered Industrial Trucks

You will find lever lock brake devices on a variety of powered industrial trucks with hydraulic brakes. Lever lock brakes are supplemental parking mechanisms installed in the service brake system and are not designed to replace the parking brake. They trap a column of fluid in the service brake system and act as a parking brake. They may lose their holding power with declining ambient temperatures, internal fluid leakage, and external fluid leakage.

When you encounter powered industrial trucks with lever lock parking mechanisms, consider the following:

1. OSHA Standard 1910.178 (m)(5) requires vehicle brakes to be set when the vehicle is parked and the operator is not in the truck.
2. ANSI B56.1-1969 requires a parking mechanism capable of holding internal combustion powered trucks on the maximum grade that the truck can climb with the rated capacity load or on a 15 percent grade, whichever is less.
3. If there is no parking mechanism, the employer must attempt to get written approval for the modification from the manufacturer. If this is not possible, they must have written approval from a registered professional engineer. Oregon OSHA considers the lack of manufacturer's approval to be a minimal violation if the employer received written approval from a qualified registered professional engineer. The engineer needs to perform a safety analysis and address all safety and structural issues before granting approval for the modification. If the owner has no written permission for the modification, it is a violation under OSHA Standard 1910.178 (a)(4).
4. It is easy to confuse lever lock brakes and self-contained electro-hydraulic activation systems. Look up the model number on the parking mechanism and verify that it is not a self-contained electro-hydraulic activation system because they maintain constant pressure and don't lose their holding power with declining ambient temperatures.