

**OREGON OCCUPATIONAL SAFETY AND HEALTH DIVISION  
DEPARTMENT OF CONSUMER & BUSINESS SERVICES**

**SUBJECT:** Employee exposure to potential pinch point hazards on skid steer loaders equipped with backhoe attachments.

**AFFECTED CODES/**

**DIRECTIVES:** OAR 437-02-223 (3) (c), Vehicles; 437-007-0140 and AOR 437-03-1926.600 (437-03-090), Construction

1. **PURPOSE:** To alert OR-OSHA staff to a potentially serious safety hazard existing with the use of backhoe attachments on Koehring skid steer loaders.
  
2. **BACKGROUND:** A fatality occurred when an employee was crushed between the backrest of the seat for the backhoe attachment and the upper frame of the loader cab on a Koehring skid steer loader. The backhoe attachment on the machine involved consists of an operator's seat, operator's console, backhoe boom, and shovel (see attached copy from the manufacturer's publication). All of these components are attached as one unit to the main boom on the front-end loader when the bucket for the loader has been removed. The backhoe is operated from the seat located outside of the loader cab. Located inside the cab at the lower operator seat position are hand controls, which drive the loader, and foot controls which operate the main boom. These foot controls are safeguarded by a safety bar which renders them inoperable when it is in the "up" position. When the safety bar is lowered across the operator's lap, the latches on the foot pedals are released and the pedals become operable.

The Koehring Company conducted tests on skid steer loaders which suggest that under certain circumstances it is possible for an operator, by improper use of the pedals, to defeat the function of the safety bar.

This may occur if the pedals are depressed immediately before the seat bar is raised. When this happens, the pedals may continue to be operable until the action initiated by depressing the pedals has been completed. In the case of the referenced fatality, it appears that the operator defeated the function of the seat bar by raising it and then used the pedals to raise the main boom while his body was extended out of the cab. The operator was crushed between the seat backrest and the cab frame.

3. Action: When encountering Koehring skid steer loaders equipped with backhoe attachments or machines of similar design, enforcement personnel and consultative staff shall verify that employers have informed operators – of the potential serious hazard and have provided training for safe operating procedures. If this information is not verifiable, the serious hazard shall be addressed in accordance with current division procedures to eliminate serious hazards in the work place.

**6/22/04 this interpretation was updated to reflect the appropriate rule numbers.**