

OSH INFORMATION MEMORANDUM: 81-X-53

TO: All Directors, Supervisors, and Field Personnel

FROM: William M. Lybrand, Director of OSH

SUBJECT: Uncontrolled Movement of Warner & Swasey G-880, G-660, G-440, and G-800 Grandall Telescopic Boom Hydraulic Excavators

DATE: August 31, 1981

PURPOSE

This memorandum provides information on Warner & Swasey Gradells which may create a hazard due to uncontrollable boom action.

BACKGROUND

During a recent Federal OSHA fatality investigation, a situation involving a G-880 Warner & Swasey Gradall was found. It appears that when the Gradalls are traveling and the boom "extend or retract" lever is operated at the same time, air is drawn into the boom "extend or retract" hydraulic cylinder. This produces a condition where the boom inner section is free and will react to its position up or down in an uncontrolled manner. If the boom is lowered with the inner section retracted, the inner section will fly out very rapidly to full extension creating a hazard for anyone standing in front of it. In the accident investigated, a man was pinned between the bucket and a portable building.

FINDINGS

Warner & Swasey representatives were contacted and provided the following information:

The models affected are: G-880, G-660, G-440, and G-800 crawler mounted machines and G-440 hydraulic remote wheel mounted machines. On those models, it is possible for the telescoping boom to extend or retract rapidly and unexpectedly (without the control actuation), if the following sequence of events takes place:

- a. With the boom raised and extended, the operator actuates both hand lever travel controls and also actuates the hand lever boom retract control (this requires the operation of a hand lever with a foot or leg). Then, when the boom is lowered, it will run out rapidly.

- b. With the boom lowered and retracted, the operator actuates both hand lever travel controls and also actuates the hand lever boom extend control. Then, when the boom is raised, it will run in rapidly.

Strict adherence to warnings and instructions to stay clear of machine and to stay away from the front of the boom and away from under the boom while machine is operating, will minimize exposure. These warnings and instruction are found on decals applied to the machine and in the operator's manuals.

The company also indicated that they were working on the problem, but it may be some time until the situation is resolved.

ACTION

Compliance Officers should be aware of this situation during inspections. If the above-mentioned Gradall equipment is observed during an inspection at a job site, employers and employees should be alerted to the possible uncontrolled movement of the equipment.

EFFECTIVE DATE

This memorandum is effective upon receipt and will remain in effect until cancelled or superseded.