

Date: Mon, 11 May 1998 07:36:31 -0400
From: eub@ornl.gov (Cynthia M. Eubanks)
Subject: Yellow Alert: Welds Found Broken on Mobile Crane Outrigger

The following Bechtel Jacobs Company, LLC Lessons Learned Yellow Alert communicates an incident that occurred recently at the East Tennessee Technology Park (ETTP). Please disseminate as applicable. If you have any questions, please contact Joanne Schutt (s6u@ornl.gov) at (423)574-1248.

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TITLE: Welds Found Broken on Mobile Crane Outrigger

IDENTIFIER: Y-1998-OR-BJCETTP-0402
DATE: April 20, 1998

LESSONS LEARNED STATEMENT: Owners and operators of mobile cranes may be unaware of cracks to hidden weld areas of the outrigger support assembly unless the outrigger assembly is removed for visual inspection.

DISCUSSION: On 03/31/98, a heavy equipment mechanic was called to the site of a heavy lift to determine why the air brakes on a mobile crane were losing air pressure. The mechanic first noticed that an air-line fitting had been knocked loose and subsequently observed that a broken outrigger lug had fallen against the air-line, causing an air leak. The problem was on the right outrigger support of a seventy-five ton capacity P & H mobile crane. The crane did not have a load at the time the problem was discovered. After removal of the outrigger assembly for repairs other cracks were found in the outrigger support members, including the left support lug. It is not known why these welds failed.

The manufacturer was consulted prior to the commencement of outrigger repairs. The crane was repaired to manufacturers specifications and load tested prior to placing the crane in service.

ANALYSIS:

RESOLUTION/RECOMMENDED ACTIONS: Mobile crane inspections do not normally include inspection of the outriggers. This crane was more than twenty years old.

Owners of P & H mobile cranes should consider a complete initial inspection of outrigger assemblies, regardless of their age.

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PRIORITY DESCRIPTOR: Yellow/Caution

KEYWORDS: mobile crane, cracks, outrigger assembly, weld

REFERENCES: n/a

DOE FUNCTIONAL CATEGORY: Engineering Design and Construction, Occupational Safety and Health

BJC FUNCTIONAL CATEGORY: EC - Engineering and Construction, SH - Safety and Health

HAZARD CATEGORY: Mechanical/Structural Pressurized Systems

WORK ACTIVITY: Heavy Equipment Facility Equipment

FOLLOW-UP ACTION: Information in this report is accurate to the best of our knowledge. As means of measuring the effectiveness of this report please notify Joanne E. Schutt at 423/574-1248, e-mail at s6u@ornl.gov of any action taken as a result of this report or of any technical inaccuracies you find. Your feedback is important and appreciated.

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