

Date: Wed, 18 Feb 1998 09:54:31 -0700  
From: Meredith Brown <racer@lanl.gov>  
Subject: Yellow Alert: Truck Crane Design Problem

**TITLE: "IMT" UTILITY TRUCK CRANE DESIGN PROBLEM**

IDENTIFIER: BN-LL98-050

DATE: February 17, 1998

LESSONS LEARNED STATEMENT: Acceptance testing aids in the identification of potential design shortcomings which could result in worker injuries or equipment damage.

DISCUSSION: An incident occurred during an acceptance test of the newly purchased subject crane on 7-14-97 in the Mercury Fleet Yard. During the acceptance test, the manual boom extension was completely pulled out of the first stage and fell to the ground. No one was hurt.

ANALYSIS: IOWA MOLD TOOLING CO.,INC. (IMT) makes a model IMT 2015 utility truck crane that has a three section boom that can be extended fifteen feet from its center of rotation. The boom configuration consists of a lower section a first stage hydraulic extension and a second stage manual extension. The manual boom extension can be completely pulled out of the first stage. And if personnel are not aware of this situation there could be people hurt and or equipment damage.

RESOLUTION/RECOMMENDED ACTIONS: The manufacture has issued a repair modification to prevent the extension from coming out of the second stage boom. This modification can be obtained by calling the IMT company at (515)-923-3711 in GARNER, IOWA and requesting the " MANUAL STOP PROPOSAL (2015)" drawing dated 7-28-97.

The lack of a stop is a design shortcoming , and BN plans to install a stop and stencil "Not to be extended beyond this point" on the boom.

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NAME OF AUTHORIZED DERIVATIVE CLASSIFIER: D. W. Murphy

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PRIORITY DESCRIPTOR: Yellow/Caution

DOE FUNCTIONAL CATEGORY: Safety

KEYWORDS: Safety; Design

REFERENCES: IMT 2015 utility truck crane " MANUAL STOP PROPOSAL (2015)" drawing dated 7-28-97.

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 Dennis W. Murphy by e-mail at [murphydw@nv.doe.gov](mailto:murphydw@nv.doe.gov) (or phone 702-295-0734) of any action taken as a result of this report or of any technical inaccuracies you find. Your feedback is important and appreciated.