

ATTENTION

INFORMATION RESOURCE PERTAINING
TO FUNCTION, OPERATION OR
MAINTENANCE OF A PRODUCT

TECHNICAL BULLETIN

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Title: Crane Operation Technique to Prevent "Boom Bounce"

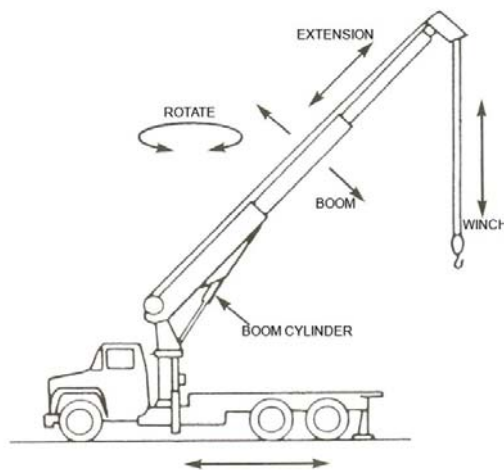
Product Series/Model: 6000, 8000, 10000, 11000, 12000, 14000 Series Cranes

The crane on Maintainer service trucks is one of the many tools a mechanic uses on a daily basis to accomplish his/her job. It is important that the operator be aware of crane system operational characteristics in order to handle loads safely and to prolong crane service life. Cranes should only be operated by trained, competent operators.

Smooth load handling is one of many skills the operator must master. Smooth handling can be defined as no sudden acceleration or deceleration of the moving load. Sudden acceleration or deceleration of moving loads causes dynamic forces on the crane system that are well in excess of the weight of the load. Crane designers take dynamic loads into account, but improper crane operation can cause design values to be exceeded.

The crane boom cylinder is equipped with a pressure switch and a counterbalance valve. When lowering the boom near the maximum capacity of the crane, these components interact in a manner that can lead to boom bounce. The operator must be aware of this characteristic and take appropriate action.

It is important that the operator stops lowering the boom when the overload system first trips. If the operator tries to lower the boom further, the interaction between the counterbalance valve and pressure switch rapidly turns the lowering function on and off. The abrupt on/off action causes severe dynamic loading (crane boom bounce) that can be detrimental to the crane structure and components. **Final load positioning should be accomplished by using the extension and winch functions.** If the desired load position is beyond what the load chart allows, the truck should be repositioned.



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