

# NATF Redacted Operating Experience Report

## Dropped Ram during Structure Jacking

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## Topic

Dropped Ram during Structure Jacking

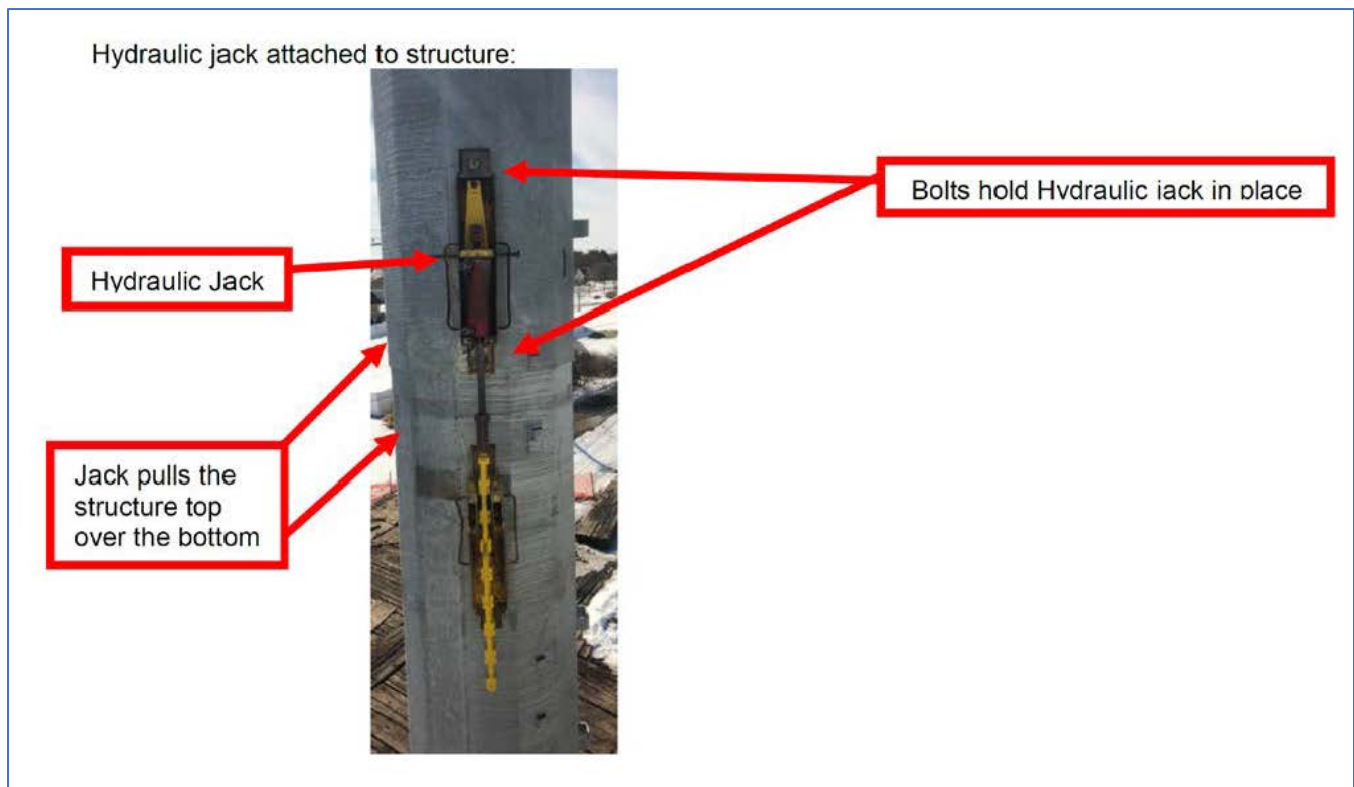
## Description

While in the process of using a hydraulic ram to force two transmission tower sections together (jacking), the ram broke loose from the structure and fell 35 feet to the ground. The contractor found the threads stripped out on the 1" X 1" bolts that hold the jacking plate in place and on the nuts that were welded to the structure by the manufacturer.

Before starting work, the crew recognized the line of fire and drop zone hazards, preventing any injuries.

Potential contributing factors are:

- Possible wear of bolts from multiple previous uses.
- Possible defect of nut welded to structure by manufacturer.
- Improper mounting of jacking plate.





stripped threads

Stripped bolt used to hold hydraulic jack in place



4 stripped threads

## Lessons Learned

- Reinforced the importance of always reviewing line of fire and drop zone hazards.
- Ensure proper mounting of jacking plate to ensure forces are transferred across the jacking nuts welded to the pole section as expected. Proper mounting includes ensuring welded jacking nuts are properly spaced within the required tolerance. The treads should see minimal forces if the jacking plates are mounted properly.

## Actions Taken

1. Reminding and encouraging crews to always stay out of fall zone.
2. Replacing jacking bolts in all five jacking kits used by the contractor.
3. Developing lessons learned from this near miss.
4. Procuring thread gauges for jacking bolts.
5. Stocking each jacking kit with a threading gauge to allow better inspection of bolts.
6. Developing bolt-changeout requirement.
7. Communicated proper mounting of the jacking plates to the pole section.

## Extent of Condition

Unknown at this time.