Altec Digger Derrick Pedestal Failure: Immediate Action Required!

Incident Description:

FYI a Chapter Member recently had a catastrophic boom failure incident that could have resulted in a life-threatening outcome. Fortunately, there were no injuries, and the incident is under further investigation.

Due to this incident, a second Altec Digger Derrick has been found that shows similar metal fatigue indicators (a cracked gusset support).

Crew Actions Recommended:

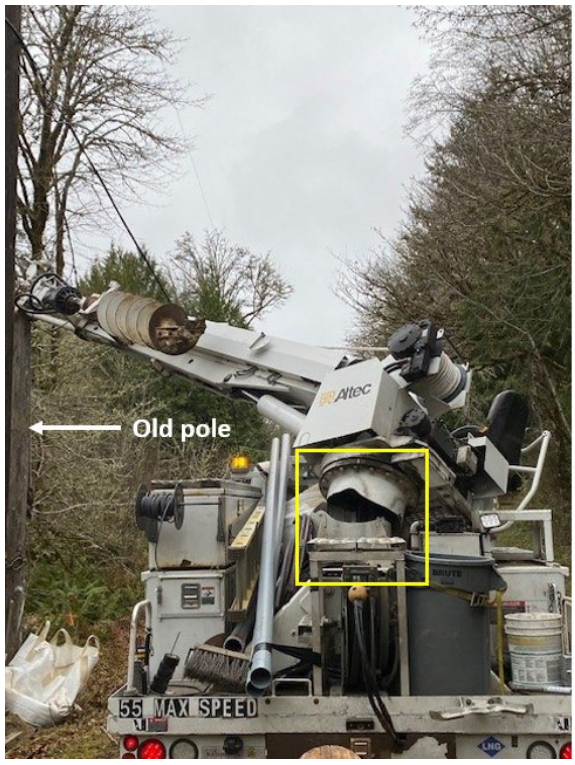
To create capacity to fail safely, ***the following actions*** should be completed prior to using any Altec Digger Derrick truck in the field.

- When inspecting to comply with this Safety Alert, and when performing daily pre-use inspections, the Operator shall ***visually inspect*** the turret pedestal for any signs of metal fatigue (cracks/distortion/significant rust). Should the inspection reveal a possible defect, be sure to take pictures and report findings to your local Mechanic.
- Always use the load chart when performing any lift task. Manufacturer best practices ***do not*** apply unknown loads to the boom and turret.
- Booms are meant for vertical, in line lifts only ***without*** side strain. ***Do not*** use the claws to rock the pole back and forth to assist in pulling operation.
- ***If using the boom to lift the pole,*** the winch line should not be engaged (do not wind up). This ensures the hydraulic overpressure lockout is providing protection.
- ***Always use the Pole Jacks*** as intended when performing pole removal tasks.

Date of Incident: 2/20/2023
Task: Old pole removal
Crew Makeup: Line
Incident: Turret failure

INCIDENT SUMMARY:

The crew had successfully replaced a 3-phase pole and was in the process of pulling the old cedar pole butt section that had been topped about 15' above ground. At the time of the pick at-tempt, the 2nd stage of the boom was extended about 3/4 way out and at a 35 degree angle. When applying pressure to the winchline, the old pole butt rose about 6 inches when suddenly the turret pedestal of the digger derrick broke, detaching the boom from the truck. The tip of the boom came to rest on the top of the old pole and the operators platform came to rest against a sand bag directly in front of the turret. The Foreman notified the Base Manager of the incident and a second line truck and a Mechanic was called to the scene. The second line truck removed the detached boom and loaded it on the pole trailer. There were no injuries and the incident is under investigation.



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Where is our capacity for failure?

With the boom at a 35 degree angle and second stage approximately 3/4's of the way extended and a winch line rated at 13,000 LB.'s, the lift was well within its safe load parameters. In addition in 2019, the manufacturer added struts to fortify the turret pedestal for added safety capacity. In this incident, the failure was a catastrophic metal fatigue failure as indicated in the pictures. In addition, the crew practiced good situational awareness by having all other employees out of the bight and in the clear.

What can we do to add capacity in the future?

- Utilize best practices by using the pole butt jack to insure that the boom does not see overloading when breaking loose and removing a pole.
- Make discussing "mechanical" and gravity" energies a priority during our tailboard hazard analysis discussions.
- Booms are meant for vertical, in line lifts only without side strain. Do not use the claws to rock the pole back and forth to assist in pulling operation.
- If using the boom to lift the pole, the winch line should not be engaged (do not wind up). This ensures the hydraulic overpressure lockout is providing protection.

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