Toolbox Lifting Incidents Davit Crane Foundation Failure.

What Happened?

During a routine visit, a davit crane foundation on a turbine working platform was found to have failed and tilted toward the tower. Technicians secured it temporarily, and all lifting operations were halted while the incident was reported under local legislation, triggering an internal investigation and a notice to mariners. Inspections of other turbines revealed cracks in seven more davit crane foundations. No injuries occurred, and safety measures ensured no personnel were put at risk.

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How It Happened?

The davit crane foundation failed due to poor design that lacked proper load assumptions as well as a limited understanding of how the crane and foundation interact under the cyclic movement of a floating turbine. The design was further compromised by unapproved fabrication changes that accelerated failure, while inadequate inspection, limited to low-level third-party verification instead of a thorough review of the crane, foundation, and platform, failed to identify the issue.

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Why It Happened?

Crane limit calculations must be carried out in line with standards, and any design or fabrication changes should follow proper management of change procedures. Clear interfaces between lifting and structural disciplines are essential, and crane foundations, external platform structures, and cranes themselves should undergo high-level third-party verification. Additionally, maintenance plans and inspection frequencies need careful assessment for floating turbines.

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What Can We Ask?

How can something similar happen here? What would the consequences be?
What steps should we follow if a davit crane foundation is spotted with cracks and how do we communicate this risk?
How do we verify that all load and fatigue calculations are performed correctly, and that mitigation measures are in place?