



DROPPED OBJECT PREVENTION

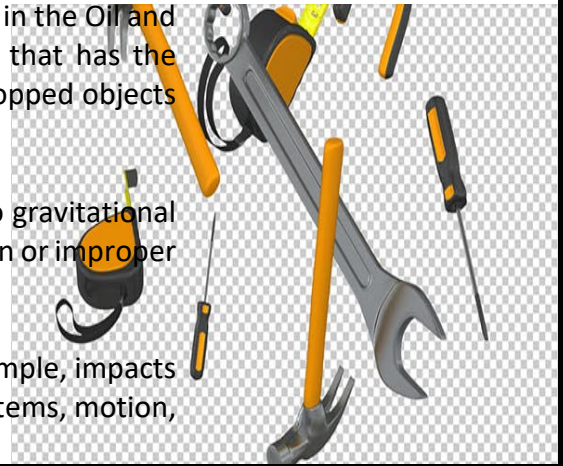
Dropped Objects are among the Top 10 causes of Fatality and Serious Injury in the Oil and Gas Industry. Any item that falls or falls over from its previous position that has the potential to cause injury, death, or equipment /environmental damage. Dropped objects may be further classified as static or dynamic.

Static Dropped Object

Any object that falls from its previous position under its own weight due to gravitational forces (ie without any applied force). For example, failure caused by corrosion or improper fixings.

Dynamic Dropped Object

Any object that falls from its previous position due to applied force. For example, impacts involving travelling equipment or loads, snagging on machinery or stacked items, motion, helicopter downdraft or severe weather.



What Are Some Underlying Causes of Dropped Objects?

- ❖ Energy sources such as gravity, wind, heave and mechanical motion
- ❖ Corrosion
- ❖ Lack of awareness
- ❖ Inadequate inspection or maintenance

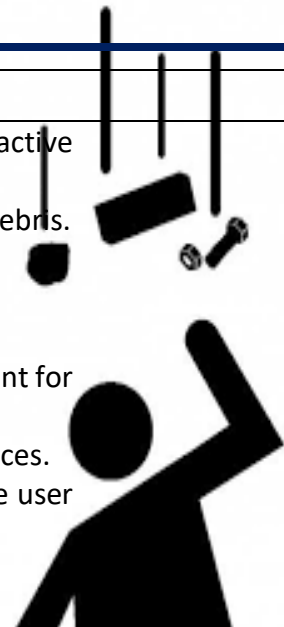
Around 30% of all dropped object incidents are related to design, technical or mechanical issues but almost half can be attributed to human factors.

What Creates Dropped Objects?

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|--------------------------------|----------------------------------------------|
| 1. Poor housekeeping | 2. Load miscalculation |
| 3. Scrap and debris left aloft | 4. No lanyards on tools used at height |
| 5. No inspection | 6. Improperly secured or inappropriate loads |
| 7. No inspection | 8. Becoming blind to changes in activity |
| 9. Poor designs | 10. Carrying equipment while at height |
| 11. Weather | 12. Lack of risk assessment |
| 13. No restraints | |
| 14. No planning | |

Strategies to prevent dropped objects:

- ✓ Provide a secure barrier or system that prevents the fall of an object, as a proactive measure install toe boards, matting, handrail, mesh and or safety nets.
- ✓ Providing a safe means of raising and lowering plant containing material and debris.
- ✓ Keep a tidy and organized work environment and ensure bolt trays available!
- ✓ Provide an exclusion zone prohibiting persons from entering dangerous areas
- ✓ Introduce working at height procedures.
- ✓ Introduce specific toolkits for working at height. Implement processes to account for tools.
- ✓ Raise overall dropped objects identification and mitigation among the workforces.
- ✓ Tooling used at height must be always restrained by a lanyard attached to the user or workplace using an appropriate system. Do not use makeshift lanyards!!
- ✓ Only tooling designed as 'at height' compliant should be used.
- ✓ Introduce regular dropped objects campaigns



DROPPED OBJECT + GRAVITY = DANGEROUS FORCE