



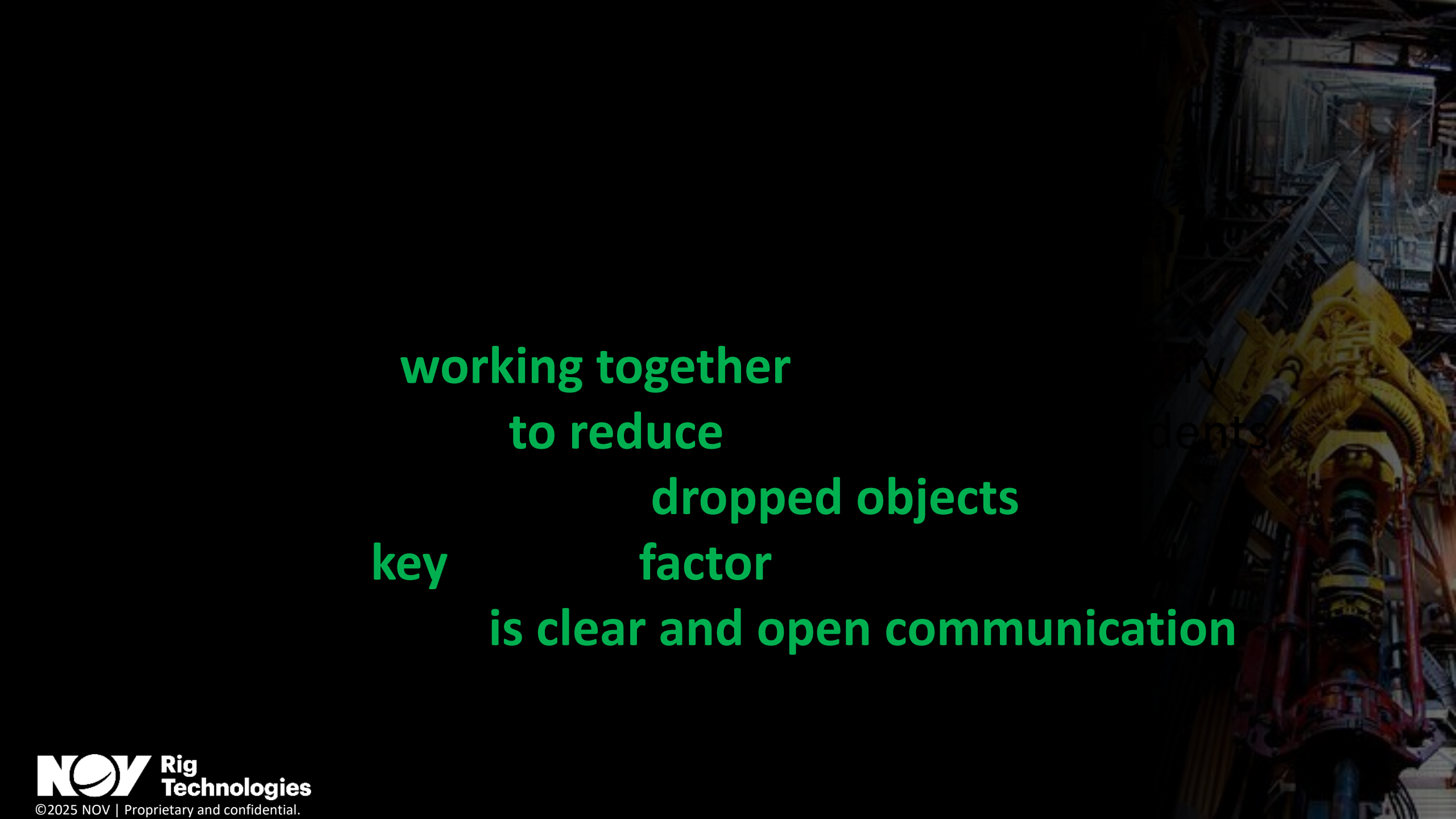
IMPORTANCE OF SHARING

LESSONS FROM INCIDENT

As a refresher NOV's DROPS mission statement

We are **working together** within our industry of Oil and Gas **to reduce** the number of incidents related to **dropped objects**.

The **key** success **factor** identified to fulfill our mission **is clear and open communication** between all involved.



working together
to reduce
dropped objects
key factor
is clear and open communication

HOW to optimize?

Incident handling process steps

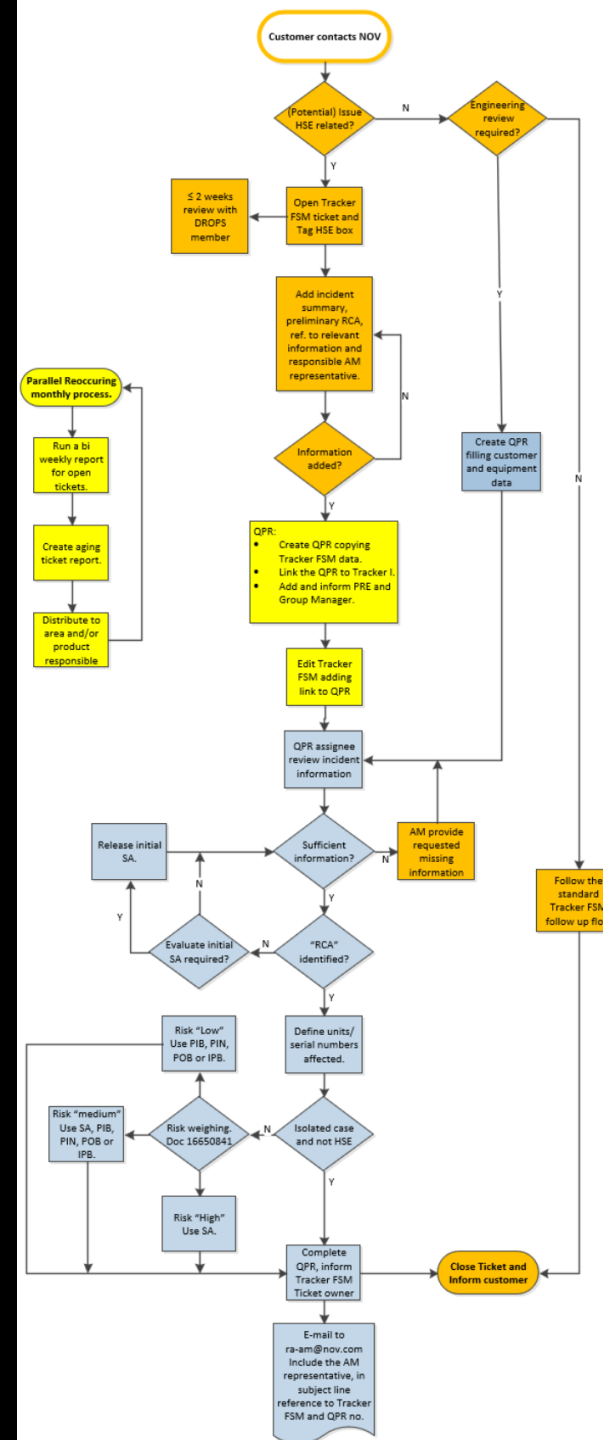
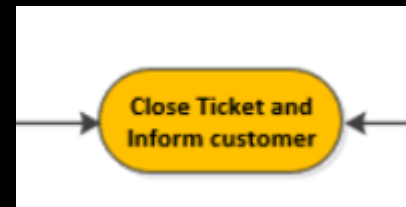
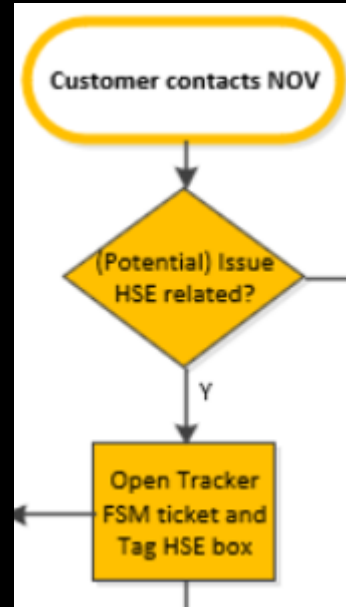
- Incident (@ Customer),
 - NOV notification (Customer report),
 - Incident registration (NOV Tracker),
 - Investigation (Product Engineering),
 - Root Cause (Product Engineering)
 - Resolution (Product Engineering),
 - Customer notification (bulletin, letter),
 - Customer implementation (NOV Field Service Assistance).

Incident handling flow chart

NOV Process:

111944381 DROPS-HSE Tracker

Ticket flow and questionnaire



Lessons from incident shared with NOV by others

- incident description received
 - Incident reviewed by NOV DROPS Team,
 - When applicable:
 - Add lessons learned to NOV DROPS wiki
 - Share message with NOV Engineering using Engineering Newsletter



Sharing message



Biweekly Newsletter for Rig Equipment Engineering

DROPS Learning from dropped object incident

Primary Engineering Group: **All Engineering**

Primary audience: **All Engineering**

Effective date: **N/A**

DROPS (Prevention of Dropped Objects) Community

Autor: Swallow, Natalie R, ostatnia aktualizacja: Szadkowski, Lukasz K, wrz 17, 2025 • 4 min czytania



**DROPS Prevention
of Dropped Objects**



Community OverviewCommunity Overview

DROPS is an industry-wide initiative focused on preventing dropped objects. NOV is dedicated to reducing the number of incidents due to dropped objects. Our goal is to provide clear communication and follow up to our customers and employees in instances when incidents occur, and to increase awareness among all NOV staff about dropped objects and how to prevent this from happening.

Information on events, news or other pertinent matters will be posted here.



Community Leaders

For questions regarding this community, please contact:



Krijnen, Anton
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Stanowisko: Technical Director
Departament: Handling Tools
Lokalizacja: Etten-Leur, The Netherlands



Szadkowski, Lukasz K
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Stanowisko: HSE Drops Engineer
Lokalizacja: Kristiansand, Norway

Nie znaleziono użytkownika „sfwilliams”

Dropped Object Incident – Learning from Others

Dropsonline (a Global Industry Workgroup with a common goal of dropped object prevention) shared with **NOV** the details of a dropped object incident from a wireline mast column.



Incident Summary:

The dropped object was caused by the **incorrect orientation of the plate**. The incorrect installation occurred because:

- The installation/maintenance procedure was not clear.
- The plate's bolt pattern design allowed for opposite or erroneous installation.
- The incorrect installation exposed the plate to excessive load and force impact, leading to failure.

Key Learnings for Engineering:

- When designing components, prioritize minimizing the possibility of installation errors followed by **ease of installation**,
- Provide **clear, complete, and unambiguous installation and maintenance instructions**.

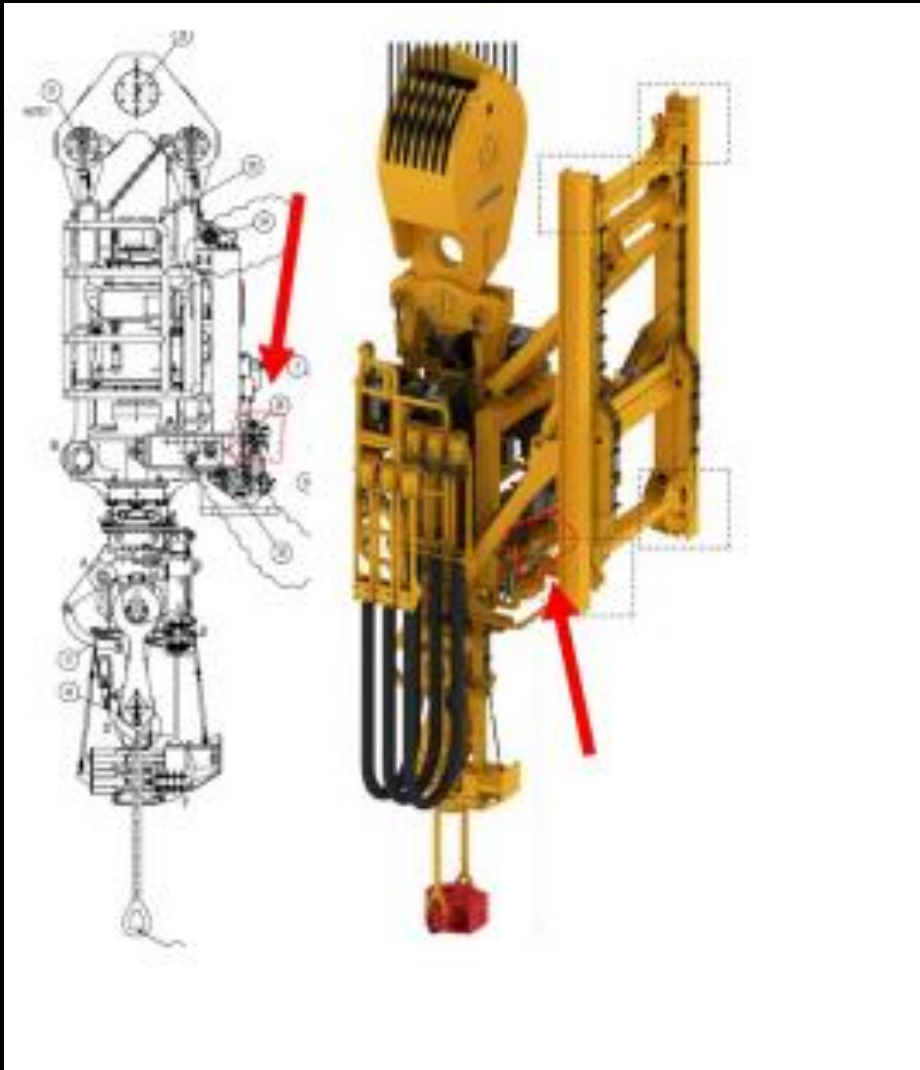
Lessons from incidents shared with NOV by others (DROPS Community):

- Can be directly adopted in our DROPS secondary retention guidelines.
- Design and manufacturing documentation will be updated.

Global Benefits of sharing learning from incidents:

- **Mitigate recurrence.**
- **Improve our own drops process.**
- **Foster and enhance safety culture.**
- **Share insight from others.**

What if lesson is not learned



What if less



NATIONAL OILWELL VARCO

SAFETY ALERT

Product Bulletin No.: 87172288

Rev. 0

Top Drive Drilling System

Date: 23-Feb-2015

Subject: Hydraulic valve handle on HPS Top Drive loosened and dropped to drill floor.

Product Model: HPS/HPT series Top Drive

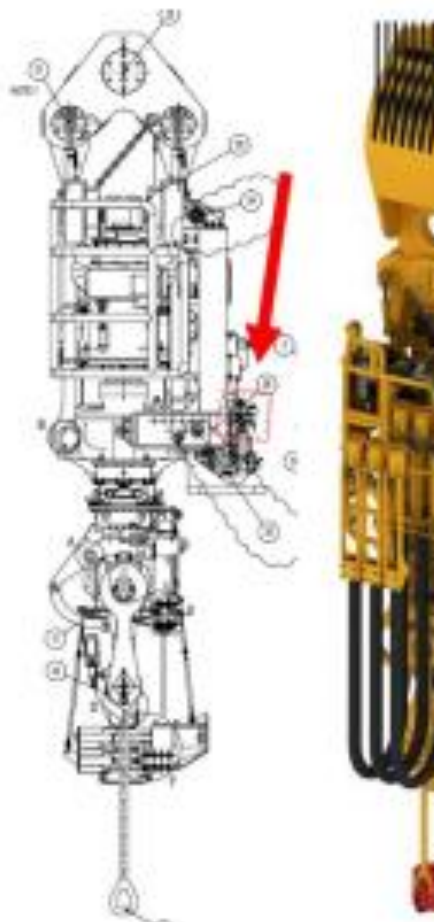
Affected Assemblies: All hydraulic valve block assemblies.

Objective: Inform customers of a potential dropped object. Perform check of the valve assemblies on the HPS/HPT series Top Drives and remove hydraulic valve handles.

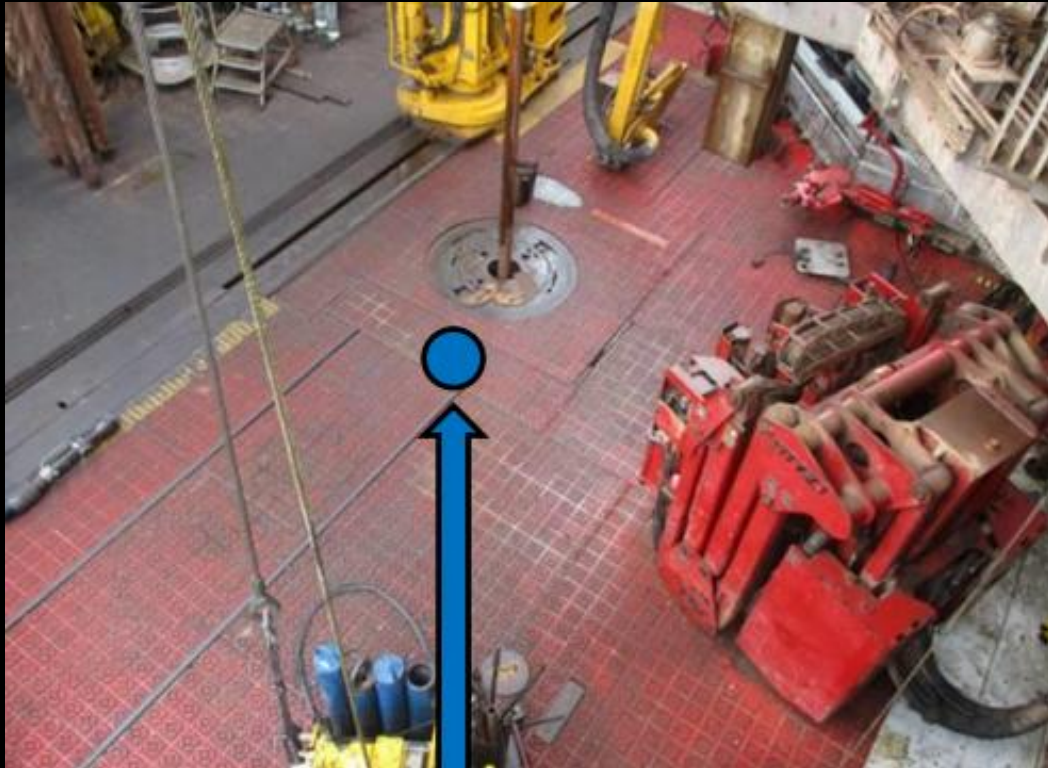
Issue: NOV received a report of an event where a hydraulic valve handle loosened from the hydraulic valve and dropped to the drill floor. No equipment was damaged or no personnel injury occurred.

Recommendation: Check and make sure that all hydraulic valve handles are removed from the hydraulic valve blocks. These are easily removed by unscrewing the handle. Keep the handles for later use.

These handles are not used during normal operation as the valves are electric remote operated. The handles are mostly there for service/maintenance and emergency use as described in the Operation Manual; Section: Local Control Valves and Indicators.



What if lesson is not learned



What if les



SAFETY ALERT

Product Bulletin No.: 10753708-PIB

Rev 02

Release

Top Drive Drilling System

Date: October 11, 2013

Subject: Dropped Object Incident Involving a PH-150 Pipe Handler

Product: TDX-1000 and TDX-1250 Top Drive Drilling Systems

Affected

Assemblies: PH-150 Pipe Handler Assembly (P/N 30183146, P/N M614001968-100) and PH-203 Pipe Handler Assembly (P/N M614004161)

Objective: Advise users of previously reported PH-150 Pipe Handler Assembly dropped object, of inspection requirements and of new upgrade kit.

Issue: In the initial release of this alert (May 8, 2013), NOV reported that a removable **Retaining Pin (P/N 30183615)**, that secures the **Stabbing Guides (P/N 30183613-105)** to the PH-150 Pipe Handler Assembly, sheared and fell to the rig floor. No injuries were reported as a result of the incident.

It was reported that while making a pipe connection, the TDX-1250 Top Drive was positioned at the top of a stand of 6 5/8" drill pipe. When the driller lowered the Top Drive to the connection point, the edge of the Stabbing Guide of the Pipe Handler came into contact with the box end of the drill pipe causing the handle end of the Stabbing Guide Retaining Pin to shear and fall to the rig floor (see Figure 1).

Solutions: It is strongly recommended that owners/users immediately and periodically inspect Pipe Handler Assemblies for damage and to ensure that the **Stabbing Guide Retaining Pins (P/N 30183615)** are secured in place and free of cracks, distortion, or wear. Damaged retaining pins should be replaced immediately and secured in place with **Jam Nuts (P/N 50312-C)** and **Lynch Pins (P/N 117496-1)** (see Figure 2). Although this incident occurred with a PH-150 Pipe Handler Assembly, the TDX-1000 uses a PH-203 Pipe Handler Assembly which has a similar design and should be inspected as well.



PRODUCT INFORMATION

Product Bulletin No.: 80642795

Rev. 0

Top Drive Drilling System

Date: 17-Mar-2015

Subject: New Improved Dolly Bogie and Dolly Side Roller

Product Model: HPS-series Top Drives.

Effectivity: Retractable and Fixed Dollies for HPS series Top Drives.

Objective: To advise customers that a new Dolly Bogie and Side Roller design is available for the Dollies to the HPS-series Top Drives.

Issue: NOV have received some reports from customers that the dolly roller bearing in some occasions has failed; resulting in small bearing parts to becoming dropped objects.

Solution: NOV has evaluated the entire bearing arrangement on the Dolly bogies and has developed a new improved design that will both prevent the possibility for dropped parts, and also eliminate the need for lubrications. This same bearing design solution has also been implemented on the side rollers. Details are further described in the sections below;





Old design:



Subject:

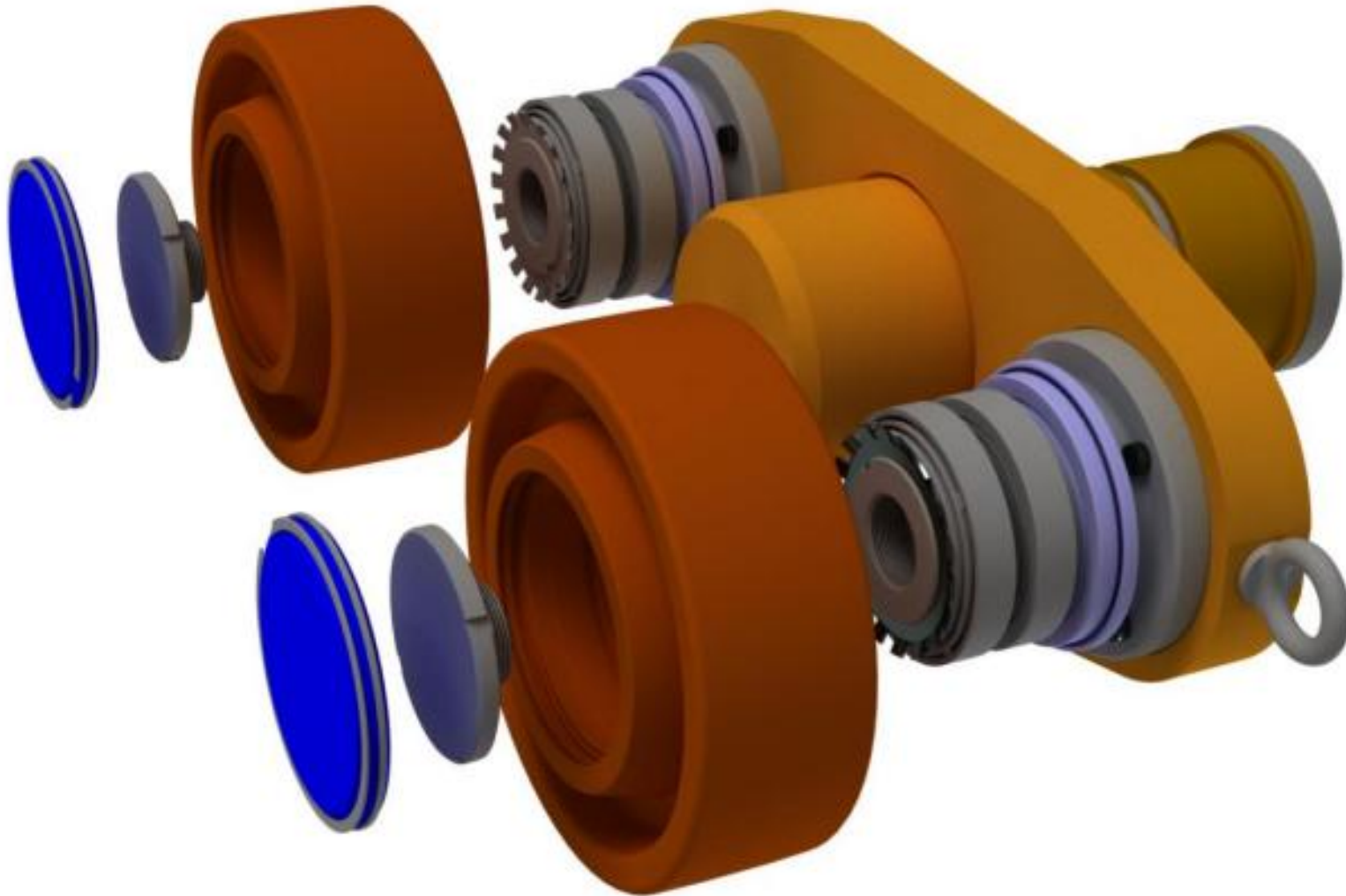
Product Model:

Effectivity:

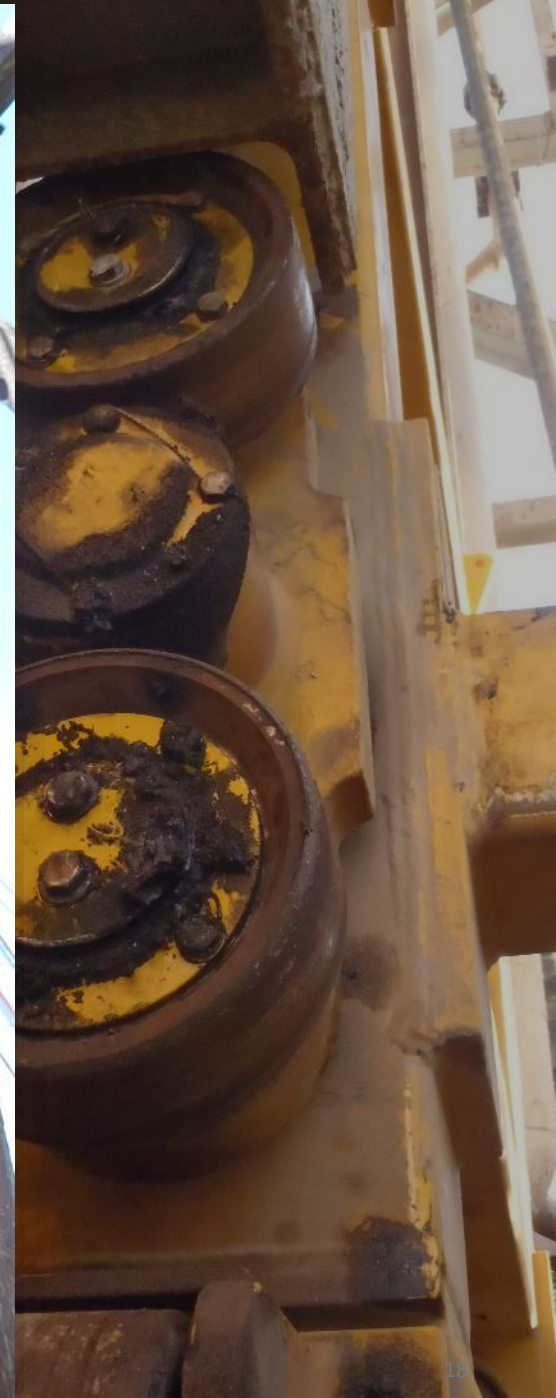
Objective:

Issue:

Solution:



WH

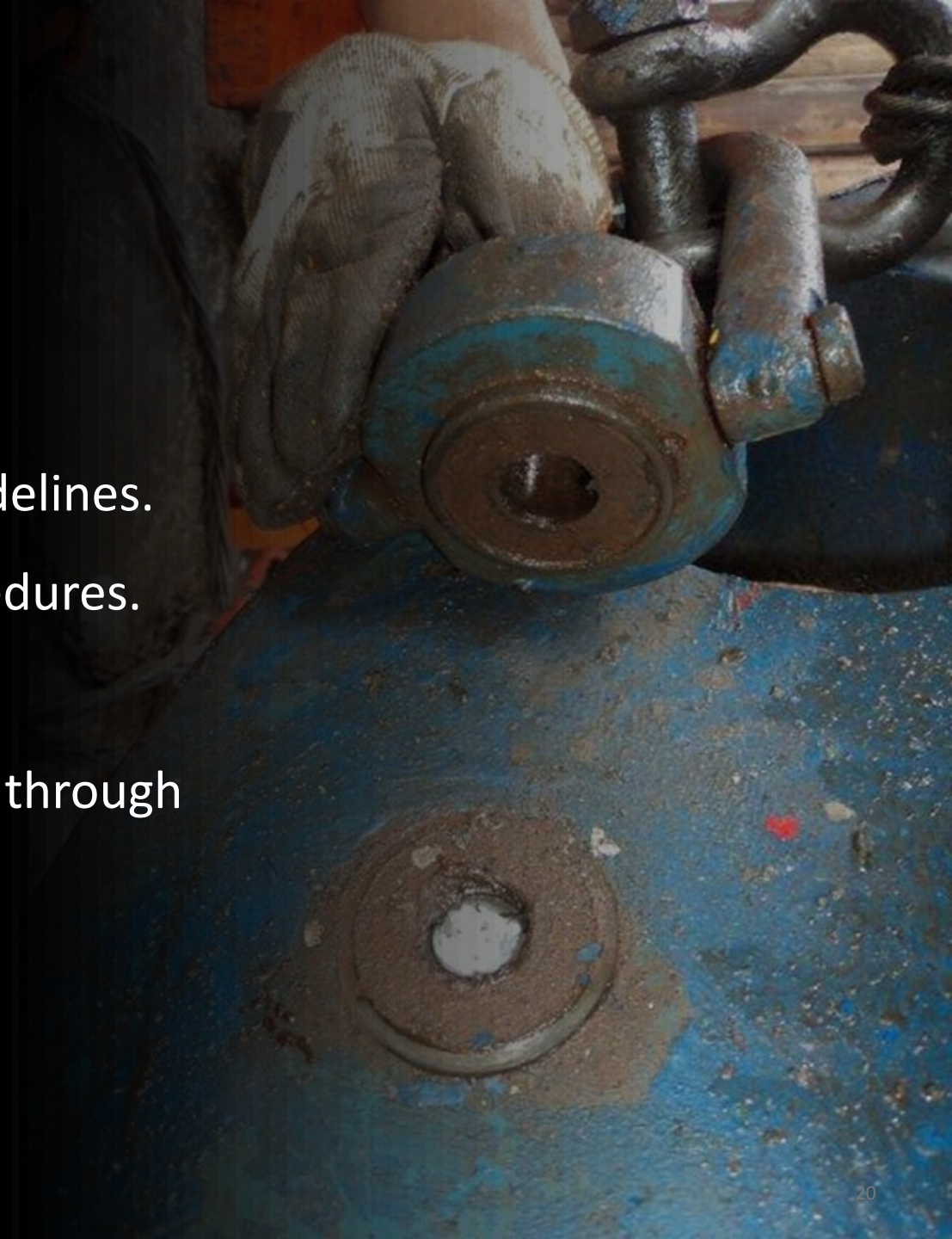


Our action:

- Analyze lesson from others.
- Implement learning from incident before it reoccurs.
at your area of responsibility.
- Share incident description, in format that is useful for
audience to understand (anonymized).

Lesson learnt benefits

- Design improvements.
- Updated Engineering secondary retention guidelines.
- Updated Manufacturing documents and procedures.
- Bulletin creation and release.
- Sharing with the NOV Engineering community through the NOV Engineering newsletter





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