Prevention of Dropped Objects Crane Theme October 2016

By Lenny West
Overview of All Sites Dropped Objects Historical Incident Stats 2009 to 15th Sept 2016

Actual

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<td>2015</td>
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YTD

Potential

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YTD
HPI Dropped Object Incident

Animation

Dropped Object Incident
Incident Location:
Montrose Alpha
130 miles East of Aberdeen
57°27'02.34" N, 01°23'17.75" E
Focus on PDO on Site Cranes
Industry Crane Dropped Object Safety Alerts
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Industry Crane Dropped Object Safety Alerts
Dropped Object from Repsol Sinopec Resources Cranes 2013 -2016 (Socket Box)

Socket set dimensions
45cm long
19cm deep
5cm high

Weight 6kg (box & contents)

The box opened on first impact, spilling the contents.

The box itself was the heaviest item at 1.6kg.

Handle missing from socket set box.
Dropped Object from Repsol Sinopec Resources Cranes 2013 -2016 (Socket Box)

Final impact and resting place of socket set on the cellar deck walkway 7.5mtrs below where the toolbox impacted on its descent.

View from the crane with the direction of fall highlighted by the dotted yellow line.
Dropped Object from Repsol Sinopec Resources Cranes 2013 -2016 (Socket Box)

Several half socket shaped impact marks and pieces of the blue plastic inner tray on the walkway of the cellar deck.
Position of floodlights fitted to AFT crane Boom tip
Example of missing bolt, which was the same as from the adjacent floodlight which threads stripped on tightening.
Dropped Object from Repsol Sinopec Resources Cranes 2013 -2016 (Light Fitting)

The light fitting became detached from one end and the weight caused the other bolt and earth strap to fail in a pendulum effect with the fitting coming to rest against the gantry below the fitting and suspended from the supply cable.
Dropped Object from Repsol Sinopec Resources Cranes 2013 - 2016 (Air Intake Louvre)

Dropped Object

Engine air intake Louvre landed on the helideck

Missing Louvre
Dropped Object from Repsol Sinopec Resources Cranes 2013 -2016 (Air Intake Louvre)

Dropped Object

View on end

Weight 2Kg

1300

130
Dropped Object from Repsol Sinopec Resources Cranes 2013 -2016

As found condition of the 4th Plank

Inspection team removed loose area of plank as a short term measure. The plank is still supported in the centre and the opposite end and is secure in this condition.
Dropped Object from Repsol Sinopec Resources Cranes 2013 -2016 (Whip Line Sheave)

**Crane boom from below**

- Main block
- Whip line

**Crane boom from above**

- Keeper bar
- Whip line sheave

Whip line slipped out of whip line sheave and riding on top of main block sheave.

Missing / damaged section of main block cluster sheave
Dropped Object from Repsol Sinopec Resources Cranes 2013 - 2016 (Whip Line Sheave)

Initial impact point on top of Optima workshop container (starboard aft main deck)

Dropped Object – Weight 1.9Kg, Size 38cm x 6cm x 5cm

Final resting place (starboard aft pipe deck walkway)
Crane Boom Safety Wire and Bracket Assembly

Broken Bracket
Weight 44.16 grams
Dropped Object from Repsol Sinopec Resources Cranes 2013 -2016 (Inclinometer)

Final position of inclinometer on pipe deck

Sheared screwed rod as found on Pipe Deck
Dropped Object from Repsol Sinopec Resources Cranes 2013 -2016 (Inclinometer)

Inclinometer in position on West Crane, for reference

Inclinometer pointer and bracket East Crane, post incident
Action required by all Sites

- Time for a health check on your Cranes.
- Winter is on its way, let's check before the bad weather arrives.
- Get someone that is independent to the Crane Ops/Tech to go up and check (Site HSEA to Delegate).
- Recorded findings in the Site DROPS register.
- Findings to be Risk Assessed.
- Relevant Work Orders to be Raised.
- Synergi Case to be Raised.
  As per requirements of the Drops Procedure HSE-PRO-TLM-080.

The next slide provides a good starting block for what to look for!
Potential hazards taken from Site cranes reports

- Corroded gratings
- Corroded handrails and attachments
- Unsecured tools and equipment on walkways
- Old scaffolding shelving
- Walkway kick plates missing
- Hatches left open
- Unnecessary signage subject to corrosion and wind loadings
- Corroded end fittings and fixtures on boom
- Unsecure floodlights & fittings
- Lifting beams without adequate end stops
- Equipment/tools left on boom walkways
- Safety lines with damaged/corroded parts
- Personnel working beneath the crane boom
- Redundant crane parts
- Stored spares, oil drums
What are the top 5 causes of dropped objects at our Sites during 2016 YTD

1. Inadequate Securing
2. Poor Hazard ID and Risk Assessment
3. Inadequate Maintenance
4. Corrosion
5. Failed Fixtures & Fittings
**Summary**

Find it and secure it before it falls!

**DROPPED OBJECTS**

**POTENTIAL KILLERS**

**FACT:** Dropped objects are a common problem for everyone in the Oil & Gas and Marine Industries.

**FACT:** The number of dropped objects within our industry is intolerably high.

**FACT:** Serious injuries and fatalities occur all too regularly as a result of dropped objects.

**FACT:** The DROPS scheme is a common solution to eliminating injury and damage to people, structures and equipment.

**FACT:** The one ingredient critical to the success of DROPS is your support and commitment.

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**Golden Rule #8**

**PREVENT DROPPED OBJECTS**

We prevent dropped objects by:

1. ensuring all tools, equipment and materials are secured;
2. taking measures to prevent dropped objects when working at height or over grating;
3. erecting barriers over drop zones below worksites;
4. removing all tools, equipment and materials from the worksite on completion of work; and
5. inspecting structures and equipment at risk from falling.

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Thank you

Any Questions