



Dropped Objects Prevention

21st March 2016

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KCA Deutag is a leading international drilling and engineering company working onshore and offshore with a focus on safety, quality and operational performance

Dropped Objects

For many years Dropped Objects have been the cause of Near Miss, High Potential and Injurious Incidents.

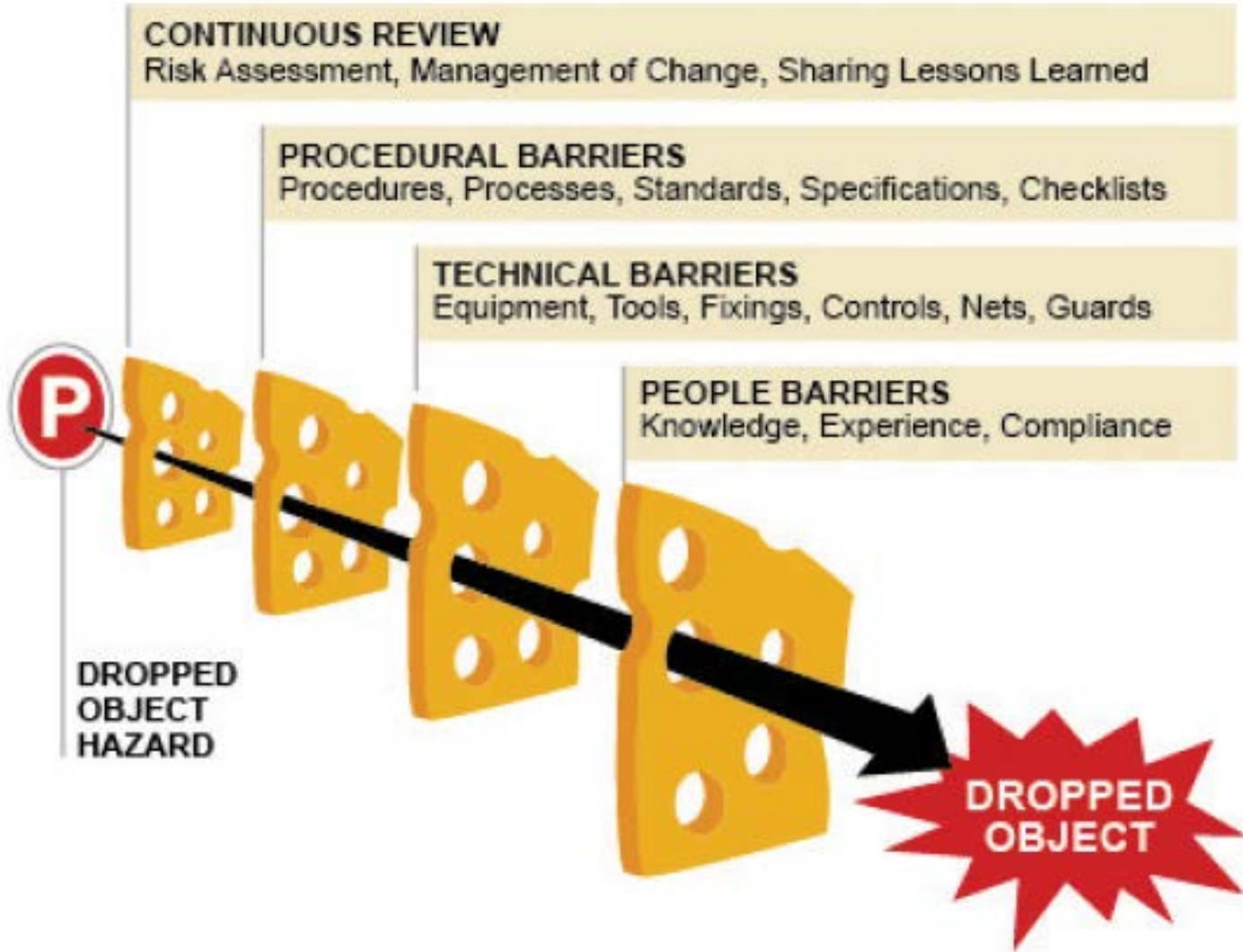
Within KCADEUTAG we have 16 HSE Worldwide Standards.

The DROPS World-wide standard identifies measures to firstly prevent dropped objects and control potential DROPS effectively.

KCA DEUTAG WORLDWIDE STANDARD					
Function	Health, Safety, Environment Management				
Standard No.	GW-ALLO-SHPS-ST-0003	Revision	1.02	Date	10 May 2012
Title	Dropped Object Prevention Scheme (DROPS)				
Purpose	This document sets out the mandatory requirements to prevent harm to people or damage to equipment from dropped objects when undertaking our day to day activities. This will be achieved through the prevention of dropped objects from any elevated areas and, should they occur, reducing their consequences.				
Requirements	<p>Equipment Integrity</p> <p>1.1 Equipment or fixtures on any elevated area of the worksite that are not a part of the structure shall have a suitable method of secondary retention.</p> <p>1.2 Fixing or retaining mechanisms shall be secured in an approved manner to prevent them inadvertently releasing.</p> <p>1.3 Any modification to the equipment shall be approved by appropriate engineering or technical personnel to prevent weakening manufactured design.</p> <p>Inventory Management</p> <p>2.1 Documented inventories shall be in place for all permanent equipment and fixtures in any elevated area of the worksite.</p> <p>2.2 Inventories shall show the correct installation and secondary retention of equipment and fixtures in a pictorial manner and be available on site.</p> <p>2.3 Inventories shall be updated with details of any new or modified equipment and fixtures.</p> <p>2.4 All unnecessary or redundant equipment or fixtures identified in any elevated area shall be removed where possible or at first available opportunity thereafter.</p> <p>Maintenance</p> <p>3.1 Inspection and maintenance requirements for all permanent equipment and fixtures at height shall be included in the rig maintenance management system and also included in DROPS Inspections.</p> <p>3.2 Visual DROPS inspections shall be carried before and after any maintenance activity conducted on elevated equipment. This requirement shall be recorded as mandatory step within any the work order.</p> <p>DROPS Inspections</p> <p>4.1 Fixed derricks and substructures shall have independent DROPS surveys performed prior to commencing operations and then integrated into formal derrick inspection regimes.</p> <p>4.2 DROPS surveys shall be adapted to specific rig necessities and schedules varied in accordance with the manufacturer specifications.</p> <p>4.3 Mobile masts or derricks shall have documented DROPS inspections completed: <ul style="list-style-type: none"> • Before raising • Prior to commencing operations • Before lowering </p> <p>4.4 Documented DROPS Inspections shall be performed weekly and also following jacking activities causing excessive vibrations or severe storms.</p> <p>4.5 The DROPS Inspections shall be a visual check of the equipment, fixtures and any secondary retention condition according to the requirements of the inventory.</p>				

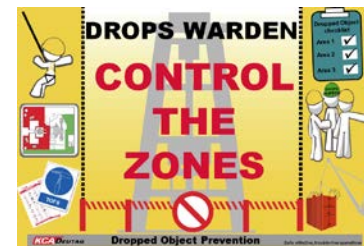
KCA DEUTAG WORLDWIDE STANDARD	
Safety Lines	<p>5.1 Safety Lines shall be in place for all load bearing sheaves. The Safety Line shall not interfere with the effective operation of the sheave mechanism.</p> <p>5.2 The Safety Line shall be capable of catching and supporting the wire and load should any part of the sheave fail.</p> <p>5.3 Safety Lines shall be independently secured, not to the same load bearing point of the sheave itself.</p> <p>5.4 Safety Lines shall be subject to 6 monthly inspections.</p> <p>5.5 All load bearing secondary retentions attached to equipment at height should be considered as safety lines and be subject to a 6 monthly inspection regime.</p> <p>Protection Zones</p> <p>6.1 Rigs shall identify Drop Zones where the potential exists for dropped objects. Drop Zones may be categorised as permanent or temporary.</p> <p>6.2 Drop Zones shall be physically identified with rigid or chained barriers. In addition permanent Drop Zones shall be clearly identified.</p> <p>6.3 Access to Drop Zones shall be formally controlled.</p> <p>6.4 TQPS and PA announcements must take place on a frequent basis to reinforce the awareness of temporary DROPS Zones.</p> <p>Portable Equipment</p> <p>7.1 Each rig shall have a dedicated and approved DROPS Toolkit. Access to the DROPS Toolkit shall be controlled and allow ready access to the tools at the worksite.</p> <p>7.2 All mobile tools or equipment used at height shall have sufficient protection to prevent them from being dropped at all times.</p> <p>7.3 A formal DROPS register shall be in place to track and record all tools and equipment temporarily installed or used in any elevated area of the worksite.</p> <p>7.4 A formal management of change process shall be followed prior to installing new equipment or fixtures on any elevated area of the worksite.</p> <p>7.5 No persons shall be allowed access to the derrick or other exposed and elevated areas of the worksite without the express approval of the person in charge of that area.</p> <p>Lifting Operations</p> <p>8.1 All loads and equipment shall be inspected before being moved to confirm they are adequately secured or retained and any unintentional loose objects are removed.</p> <p>Personnel Requirements</p> <p>9.1 All personnel shall be trained on the requirements of the DROPS systems and tools used at the work site.</p> <p>9.2 Each rig shall identify a DROPS Focal Point for every crew.</p> <p>9.3 DROPS Focal Points shall advise on compliance against this standard and promote best practice.</p> <p>9.4 Regular competence assessments shall be performed on personnel to ensure DROPS system knowledge.</p>

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Incident Reporting	<p>10.1 All dropped objects or potential dropped objects shall be reported immediately and investigated.</p> <p>10.2 The potential outcome of all incidents involving dropped objects shall be determined using the DROPS potential calculator.</p> <p>10.3 All DROPS Incidents shall be entered in EDRS (Lessons Learned) to be accessible with the rest of the organization.</p> <p>References</p> <p>DROPS suite of procedures, guidance and forms</p> <p>Approval</p> <p><i>N. Wickay</i> Norris Wickay Chief Executive Officer, KCA Deutag Drilling Group</p>








How do we manage DROPS?

- Audits
- Hazard Hunts (Dropped object prevention theme)
- Rig Visits
- Picture book inspections
- Supervisors- Supervising
- Introduction of DROPS Wardens
- Approved Rig Training
- Media Lessons Learned
- Client partnerships
- The use of hands free camera technology during the inspection (GoPro or similar device) this is used as visual verification and can be cross mapped to the Drops Inspection Sheets
- Use of rig CCTV footage. This may have limited success but can be used as a verification of areas within the range/ lenses of fixed cameras



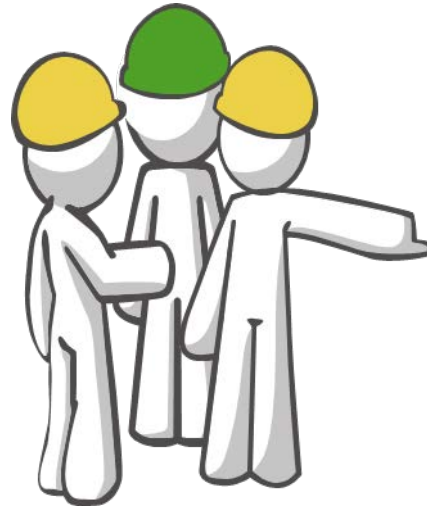
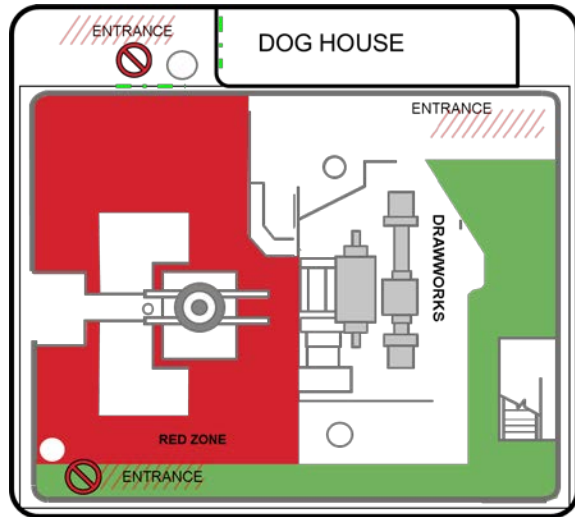
Dropped Objects Inspection Book - T48

Section-01 - Derrick/Mast and Travelling Equipment ===== Area 3 - Underside Monkey Board to Rig Floor - Weekly						
Photo	Ref	Equipment / Location	Fastening Method	How to Inspect	Condition	
	1-3.039	Crown saver Level 2	Primary Securing : Bolted Secondary Retention : Double Nuts		Condition : <input type="checkbox"/> Pass <input type="checkbox"/> Fail	Signature :
	1-3.042	Mud Line Attachment Level 2	Primary Securing : Bolted Secondary Retention : Anco Lock Nuts	Check hammer unions are tight. Check condition of safety sling and shackle; ensure shackle fitted with split pin.	Condition : <input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail	Signature :
	1-3.043	Air hose brackets Level 2	Primary Securing : Bolted Secondary Retention : None	Check hammer unions are tight. Check condition of safety sling and shackle; ensure shackle fitted with split pin.	Condition : <input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail	Signature :
	1-3.048	Mud Line Attachment Level 1	Primary Securing : Bolted Secondary Retention : Anco Lock Nuts	Check hammer unions are tight. Check condition of safety sling and shackle; ensure shackle fitted with split pin.	Condition : <input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail	Signature :
	1-3.049	Mud line support line Level 1	Primary Securing : 4 Part Shackle Secondary Retention : Cotter Pin	Check hammer unions are tight. Check condition of safety sling and shackle; ensure shackle fitted with split pin.	Condition : <input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail	Signature :

How is it possible to ensure that DROPs prevention and awareness remains in each of our employees minds throughout their daily tasks?



Drill Floor Red Zones



Introduction of DROPS Wardens:

- Selected daily to rotate the position.
- Monitor personnel who are working near a DROP zone.
- Participate in the TBT to discuss the DROPS hazards.
- Hold a whistle to alarm personnel whom allow their safety to be compromised.
- Rewards available for the most effective wardens as voted for by the crews.



The Future?



Thank you for your attention

Questions or Comments ?