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Dropped Object Management

Key Learning's from Recent Inspections

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- **Select the correct securing devices**
- **Function requirement at heights**
- **Requirements to our supply chain**
- **Housekeeping – An important barrier**
- **Pre – During & Post inspections of work sites**



SWIFT RIG 10 West Navigator Island Constructor

Recurring findings during inspections:

Bolted Connections

Flood Lights – Light fixtures

Valve Handles

Galvanic Corrosion

Two part Shackles



Secondary Retention – Component and Work Practices.

Gratings – Opening and feedthrough

Railings and physical barriers – Consoles and platforms

Rigging – lifting equipment

Incorrect use of securing devices:

13	Drilling Mast	<p>Top of the mast:</p> <p>The u-clamps for the antenna on the top of the mast are not secured. One Nord-lock washer is installed.</p> <p>The Nord-lock washer is installed against a regular washer. This is not a recommended use of the Nord-lock washers.</p>	<p>Install Nord-lock washers on all bolts.</p> <p>When installing Nord-lock washers the manufacturer guidelines must be complied with. Reference to Nordlock assembly instructions: http://nordlock.no/default.asp?url=350.16.37</p>	4	New Nordlock washers are installed by the inspector.	DOS O	
15	Drilling Mast	<p>Top of the mast:</p> <p>The safety wire on the wind gauge is fastened with a key ring.</p>	<p>Remove the key ring and install a four part shackle on the safety wire.</p> <p>Ref. SfS DOM p. 94-95, with further references.</p>	4	Installed shackles, and re-secured by the inspector.	DOS O	

Good Intentions – Various Results

Incorrect use of securing devices

		<p>Plastic light fixtures, general:</p> <p>Secondary retention point on fixtures are anchored with a key-ring. The load impact on this attachment will far exceed the capacity of the key ring – and plastic anchor point - in the primary attachment fail. The entire fixture body is also in question as it is made from plastic.</p>	<p>Recommend to install clamps around the light fixture in the drilling mast.</p>		
22	<p>Drilling Mast and Drill floor</p>	<p>This poses several potential problems, e.g.:</p> <ul style="list-style-type: none"> - Friction, due to long term vibration. - Considerably less impact resistance (crane operations and drill operations on drill floor) - Plastic body has no suitable anchor point for secondary retention (hence the key-ring). 	<p>Secure the clamps to the structure with correct dimensioned securing equipment.</p> <p>This is especially important for the light fixture in the drilling mast.</p>	3	
			<p>Ref. SfS DOM p. 60-61, with further references.</p>		

Securing aloft

Home made tool securing – better than nothing

- ♦ But can not set the standard!
 - ✓ Nylon Ropes
 - ✓ Ductape
 - ✓ Inadequate inspection and verification of condition

Securing tools aloft

AISI 316L – 90mm



- Three action twist lock system
- Drop test certificate 10kg, 2 meter x 5time
- Total traceability
- SWL and Batch numbering

Reliable Securing

Optional or mandatory?

Pro-active or Re-active

- **Integrated barriers**
- **Metal nobilities**
- **Quality of securing devices**
- **Installation according to best practices**
- **Planned maintenance**
- **Established inspection routines**
- **Follow up and Support!**

Reliable Securing

New constructions – Not in compliance

FAT + Punching + Source Inspections

“See to duty” – Ownership on the floor

Onsite training – Follow up and Support

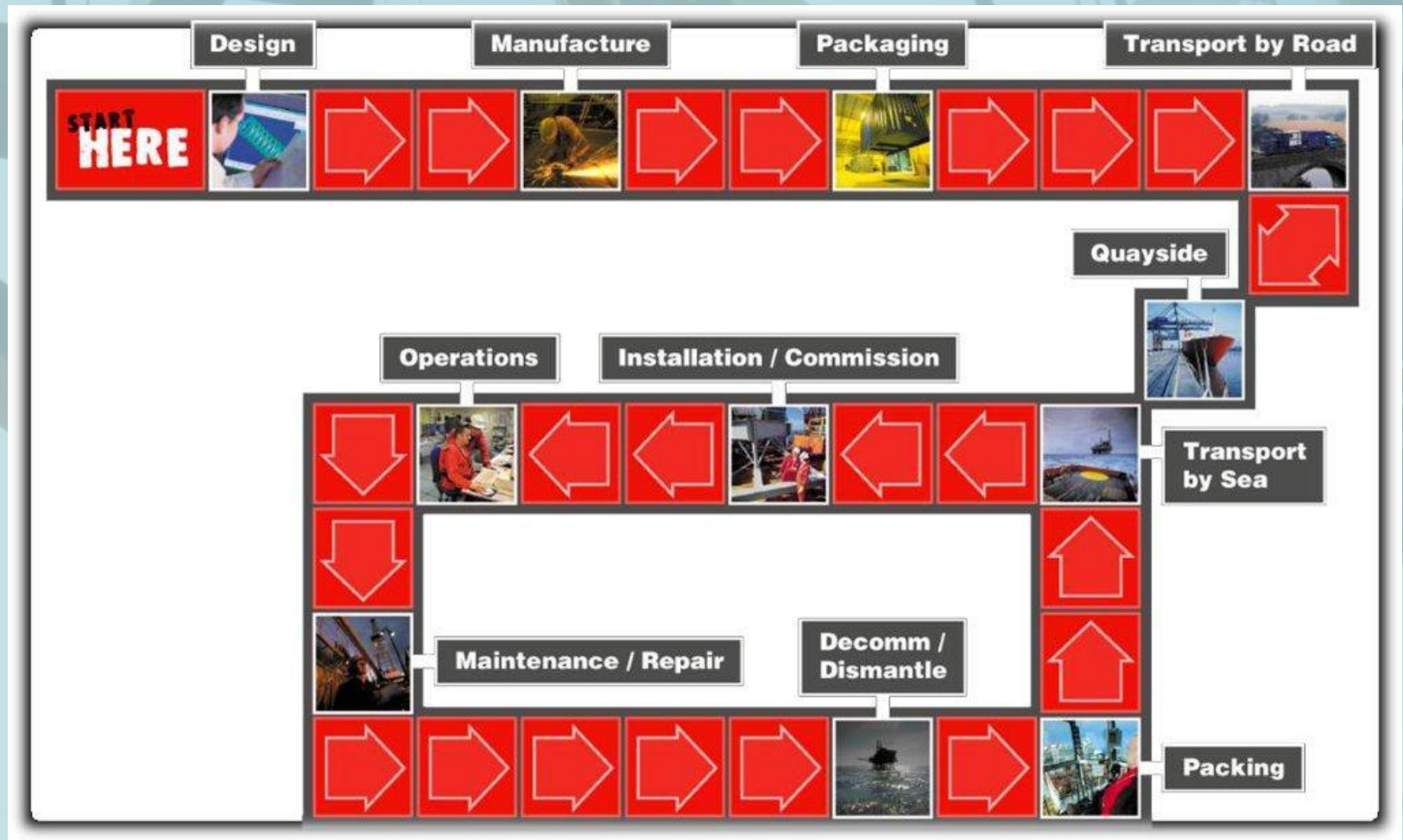
Reliable Securing

Do YOUR personnel know enough about reliable securing?

Does your engineers and designers consider DO potentials in all aspects?

Is the available information distributed and made known to the relevant personnel?

Focus throughout the Value-chain



Thank You!

Any Questions?



DOM Group

