

# DROPS Management Through Operational Excellence

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The logo consists of a square divided into four quadrants by a white cross. The top-left and bottom-right quadrants are red, while the top-right and bottom-left quadrants are blue.

SWIRE OILFIELD SERVICES

RELIABLY DYNAMIC

# Swire Operational Excellence Programme Drives Our DROPS Management Processes, Procedures and Systems



# Potential Dropped Objects

Swire Oilfield Services Equipment Has Over 60,000 internal opportunities every month to create a potential dropped object based on equipment movements alone

We capture all internally and externally reported Potential Dropped objects

Our trend analyses was a key driver in defining our Operational Excellence processes and standards

This resulted in the risks from potential dropped objects being engrained in all aspects of our operations

## Potential Dropped Objects

Will hurt Swire Oilfield Services employees

Will hurt Transport / Customer employees

Will damage to plant / equipment from falling material.

***While no-one has been injured we recognise the potential.***

**We are not perfect - We are all human**

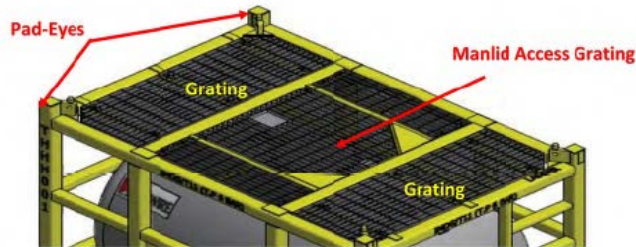
**But we work together to look after those in our care**

# What Do We Do?

Through our Operational Excellence programme we ensure:

- Technical standards are defined
- Working practices are specific
- Personnel are trained, validated and complete annual verification of competence
- Internally and Externally all potential dropped objects are recorded, root cause analysed, discussed with customers / individuals / teams and addressed through continuous improvement

# Technical Standards



## 5.2.1: Gratings:

- Ensure that "Gratings" are secure and free from damage.
- Ensure that the "Gratings" fit flatly when laying horizontal and have no dangerous protrusions.
- Check and ensure that Grating Swing bolts are in place and are fitted with either "Nyloc or Castellated nut & split pin".

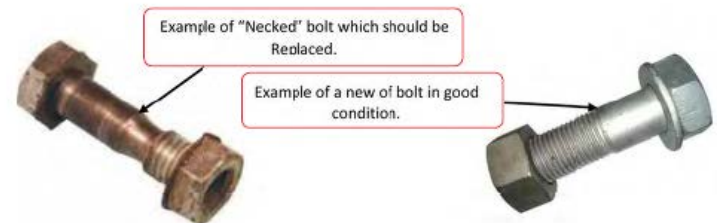


Nyloc Nut

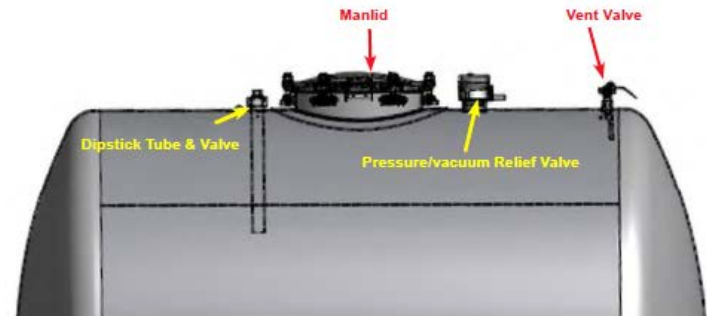


Castellated Nut & Split Pin

- Check that the Grating opens freely and has no potential to cause a strain injury.
- Check the "Swing Bolts to ensure that they are not worn or "necked"



## Visual Inspection of Tank (Top Area)





# Working Practices

## 5.4: Visual Inspection: Bottom Tank Area

The Bottom Tank Inspection covers the following items:

- Fork Pockets
- Tank Retention
- Document Tube
- Bonding Point
- Outlet and Sample Valve
- Kick Valve



### 5.4.1: Fork Lift Tunnels:

- For inspection criteria for Forklift Pockets please refer to section 2.1.6.1 on page 14 of this document.
- Check to ensure that there are no foreign object on or inside the fork pockets that have the potential to be dislodged and cause injury to yourself or others.

### 5.4.2: Tank Retention:

- Check that all tank retaining bolts are fitted and are secure.
- Tightness of bolts to be checked, the required Torque value is 80Nm (60lbf)



Boils & Nuts to be torqued to 80 Nm (60lbf)

Cradle Retaining Arrangement



## Single Point Lesson Final Inspection of Tanks

This Single Point Lesson outlines the process to be followed during the Final Inspection of Portable Tanks.

It has been developed to support Operational Excellence.



### Inspection of Grating

Ensure each section of grating is secure by trying to move / dislodge each section.

Check all grating clips are in place over the grating AND that they are free from defect.

Ensure grating is free from dents and cuts.

**FAILURE:** Where gratings are loose, or clips are damaged, loose, missing or the grating itself is damaged the unit fails the inspection.



### Inspection of Slings

Inspect slings for broken wires, kinks, corrosion or signs of squashing. Check lifting eyes for deformation, damaged threads / terminals (deformed or cracked links).

**FAILURE:** Where any damage is identified the unit fails the inspection.



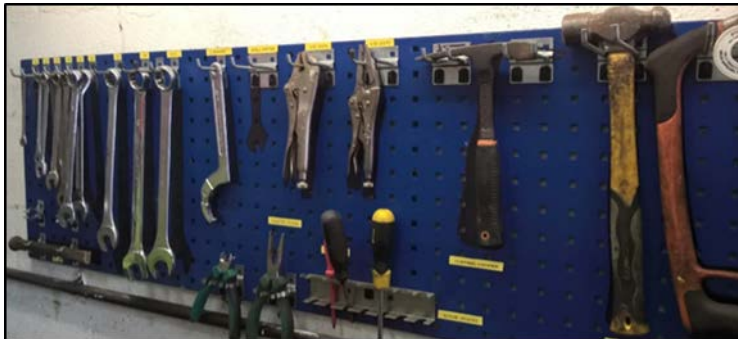
### Inspection of Split Pins

Inspect to ensure all are fitted (none missing) that these are undamaged with ends open (sprayed) to prevent unintentional disengagement.

**FAILURE:** Where any split pin is missing, damaged or ends are not sprayed the unit fails the inspection.



# Personnel are Trained



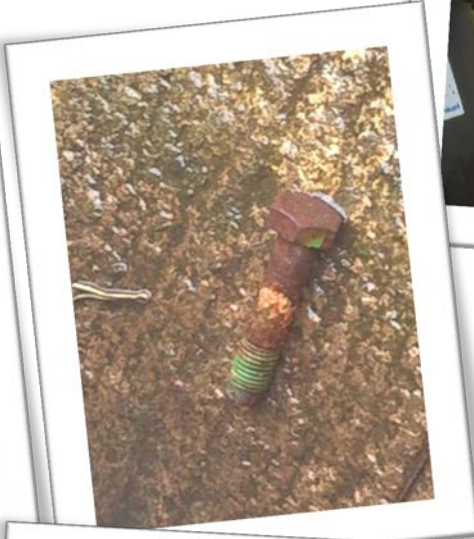
## CCU Pre Despatch Checklist

CCU CARGO CHECKLIST	Yes	No	N/A
1. Does the inspection plate show at least 30 days full remaining before statutory examination is due?			
2. Are the units free from excessive corrosion or holes?			
3. Are all drainage holes clear on open CCUs?			
4. Are all lifting sets properly fitted and configured, e.g. not twisted?			
5. Have slings been visually inspected for damage & split pins on shackles checked to see they are correctly fitted?			
6. Have you removed all potential dropped objects, e.g. Tools, debris on the lift, items strapped to lift and items inside the forklift tunnels?			
7. Has the destination label been added?			
8. Are items packed and secured to prevent movement/damage in "Worst Weather" conditions?			
9. Where Dangerous Goods are being shipped, have they been pre-notified and the container correctly labelled on all four sides (Refer IMDG code)? – Chemical Tanks must have a product label attached to the tank.			
10. Is the cargo retaining net secure and positioned to prevent goods falling out?			
11. Have adequate precautions been taken to prevent Snag Hazards? (e.g. Removal or covering of hazards)			
12. Have you checked that the doors and locking mechanisms are secure, with Secondary Securing Device attached e.g. tie-wraps?			
13. Have you checked that the load lifts horizontally? (See Oil & Gas Guidelines for parameters)			
14. Have you confirmed that the Actual Gross Weight is less than or equal to Maximum Gross Weight?			
15. If Actual Weight is seven (7) tonnes or above, has a Heavy Lift pennant been attached?			
16. Have you fulfilled the Operator's requirements if the cargo is classified as 'Hired and Portable Equipment'?			
Comments			
SIGNATURE	POSITION IN COMPANY	PRINT NAME	





# We Are All Human





## OPERATIONAL EXCELLENCE

### 7 Operational Processes in Our Rental Business

- 1 Receiving, Storage & Despatching Equipment
- 2 Washing Equipment
- 3 Inspecting Equipment
- 4 Stencilling Equipment
- 5 Testing & Compliance Equipment
- 6 Repairing Equipment
- 7 Refurbishing Equipment



Operational Processes have all Supporting Pillars and all the Building Blocks in place. There is clear evidence that they are applied across all of the processes at all times



Operational Processes have all Supporting Pillars and ¾ of the Building Blocks in place. There is clear evidence that they are being applied



Operational Processes have all Supporting Pillars and ½ of the building blocks in place and evidence of application



Personnel briefed on Operational Excellence Journey. Technical Standards issued and applied. Self-Assessment of rental processes in OPCO completed and improvement plan published

Each of the 7 operational processes have their standards set through 7 supporting pillars and performance against these will be self-assessed to achieve Accredited / Silver / Gold / Platinum award.

Process Flow  
Pillar 1

Human Resources  
Pillar 2

Base Design & Infrastructure  
Pillar 3

Safety & Standard Operating Procedures  
Pillar 4

Stocks & Consumables  
Pillar 5

Key Metrics  
Pillar 6

Facilities Management  
Pillar 7