



# LEARNING FROM INCIDENTS BULLETIN

PTW-LB-201803

| Projects & Technology – Wells

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## DROPPED OBJECT PREVENTION – FORK LIFT OPERATIONS

Globally in Shell Wells year to date in 2018 there have been 4 DROPS events involving Fork Lift trucks, 3 of which have been classified as RAM4+ / High Potential.

This bulletin aims to raise awareness around Dropped Objects from Fork Lift truck operations by detailing the 4 wells incidents ending with some reflective questions that you can discuss at your location to ensure you have the correct controls in place and that a similar incident doesn't happen to you.

### [PTW-I-AW-201804](#) - Dropped Basket During Offloading Basket from Trailer

A forklift offloading cargo from a flat-bed truck tipped a basket over the far edge of the truck, causing it to fall approx. 1.45m to the ground. The forklift had approached the load from the far side of the truck, reaching over the flat-bed to slide its arms under the basket. Upon lifting the forklift arms the basket tipped, the forklift operator could not stabilize the load and it fell to the ground releasing the contents. Load binders doubling as securing straps for the internal contents of the basket failed on impact.

#### Why it Happened

- The load was dispatched from the main operations base without an assurance check
- No plan was in place for this task, no toolbox talk was held, the operation was conducted under an ineffective generic PTW.
- No pre-inspection of the load, its condition or configuration was carried out onsite prior to the lift being attempted. A heavy casing fill-up tool was above and overhanging the walls of the basket offsetting the centre of gravity.
- No consideration was given to the weight distribution of the load or how lifting it from the wrong side of the flatbed would affect its discharge.
- The truck and forklift were oriented in a way that obstructed access to the load such that the forklift reached across the flat-bed from the far side.
- No banksman was assigned to this task, the fork lift operator was operating alone.
- There was no zone management in place during the operation.



### [PTW-I-AW-201802](#) – Tubing Bundle Dislodged From Trailer

A bundle of 16 tubulars fell from the rear of a pipe trailer whilst being loaded with a mobile lifting device. This resulted in one end of the tubing bundle falling in an uncontrolled manner to ground level. At the time of the incident there was an established Loading-Unloading Exclusion Zone (LUEZ) and Spotters in place with no personnel within the vicinity of the designated LUEZ (this incident not classed as RAM4+ / High Potential due to exclusion zone being in place).



### Why it Happened

- The vertical bollards that are used as a barrier to prevent the tubing from falling off the trailer were not in place prior to tubing bundles being unloaded.
- There was a plan available for the task but it wasn't being used. This procedure includes a control measure stipulating: "Ensure uprights / bollards are in place prior to loading".
- Communication between the activity team members was ineffective. Discussion only took place between the Motorman and the Leasehand. The truck drivers involved with the activity did not participate in a Tool Box Talk.
- An equipment check before the task commenced did not take place, consequently the bollards, which were stored beneath the trailer bed, were not identified as missing

- The leasehand was in-experienced and a 'green-hat', no additional controls were put in place to counter this.
- There was no supervision during the activity.

### PTW-I-AW-201807 – Dropped Pipework Tubular from Trailer while Offloading

While offloading tubulars for the well test flare lines, rows of 8" flanged tubulars (10m) were being offloaded from a transport trailer utilizing a forklift (with regular forklift tines).

Nine loose pipes were lifted at one time (at the maximum capacity of the forks). When the forklift operator raised the tines it resulted in a single joint rolling off the forks over the stanchion posts on the blind side and falling to the 2.5m to the ground.



### Why it Happened

- The forklift used for the task was a general forklift without pipe clamps. Forklift and crew were mobilized temporarily, and a specific L&H induction was not carried out.
- Supervisor and crews wanted to finish the job quickly, which resulted in lifting full row of pipes (9 pipes) rather than splitting them in half.
- Packing list suggested pipes would arrive in boxes and not as loose pipe, no intervention made to stop the job.
- There was a JSA in place, however, the JSA was only for generic forklift operations and not pipe handling operations
- No interventions and lack of supervision had not recognized the use of non-compliant lifting practices.



### PTW-U-AW-201809 – Drill Pipe Drops from Fork Lift Grapple



The position and number of the pipe does not allow grapple clamp to compress on all the joints resulting in an opening at the end of the fork tines greater than pipe circumference.



While moving 9 joints of 33' 4" drill pipe weighing approximately 462lbs per joint between pipe racks with the pipe grapple system engaged, the pipe became free from the grapple, causing 8 of them to descend approximately 6ft to the ground.

### Why it Happened

- Because of the excessive amount of pipe being transported, the grapple was not able to fully close, leaving a gap at the tip of the forks.
- Manufacturer guidelines indicate this grapple is designed to operate with five joints of this size pipe, not 9 joints that was attempted to be moved. The operator was unaware of maximum load capacity of grapple attachment for this particular pipe.
- The position of the drill pipe was at the end of the forks, not allowing the grapple arms to fully secure the pipe.
- The forks were at a level position while travelling and not tilted back.
- No safe work plan was conducted for this operation, and there was no supervision as the Rig Manager was unaware the activity was taking place.

## **STEP 7 Reflective Questions:**

### **1. Plan**

- Review the Risk Assessment / Lift Plan that you have on site for forklift operations in relation to the incidents above. Is there a separate risk assessment handling tubulars covering the risks and associated with that?
- How rigorously is the risk assessment used – is there risk normalization around fork lift operations at your work site?
- What are the training / competence requirements for personnel involved in fork lift operations at your work site?

### **2. Communicate**

- Do you use a banksman / spotter for fork lift operations?
- Is the truck driver included in the pre-job meeting? What role does he play?
- Who is the authorised person for the lifting operation?

### **3. Check Equipment**

- Are forklifts used for tubular handling equipped with a pipe clamp approved by the forklift OEM, and how do you ensure that it is used according to the OEMs instructions?
- How do you inspect loads prior to dispatch to the work site?
- How are the details of the load communicated to the work site to assist in planning the unload operation (including ensuring the correct lifting equipment is available)?
- Who is the authorized person at your work site who prior to performing a lift, ensures that the fork lift is suitable for its intended purpose?

### **4. Prepare Area**

- What zone management do you use in regard to fork lift operations? How is it enforced?
- How do you control the work at your worksite to coordinate with simultaneous operations and to ensure jobs are planned around your resources and are supervised adequately?

### **5. Control Energy**

- Prior to unloading taking place, are the loads inspected... including assessing the centre of gravity, how the forks will access the load, requirement for stanchions to be in place.

### **6. Final Check**

- Who is supervising the job, are they present during the activity or will they make a final check prior to starting work?

### **7. Start Work**

- Why would you stop the job?

Access the DROPS Campaign on **Lifting and Hoisting** [here](#)

Find more guidance on fork lift operations [on Materials Management and Yard Operations Sharepoint site](#) as well as externally on the [Fork Lift Truck Association](#) UK website

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