



## **FORKLIFT INCIDENT**

**Date Of Incident: JULY 2006**

**Location : ARKTOS**

### **Description of the incident:**

A worker was using a forklift fitted with a fork extension to install a jet pump into an amphibious craft. He lifted the jet pump with a sling, and with another worker's help the jet pump was lowered to an inch above the base. The worker left the forklift controls and entered the hull of the craft to help the second worker. When they were ready to lower the pump the final inch into position, the worker attempted to activate the forklift controls from inside the hull. He stood under the elevated fork extension, bent over the hull wall, and reached through the forklift carriage. When he moved the control, the forklift carriage and fork extension suddenly dropped onto him, causing fatal injuries.

### **No. of persons injured:**

One person was injured, and another man was dead.

### **How incident occurred:**

On the morning of the incident, Worker 1 and Worker 2 worked in the engine compartment of the Arktos craft. Worker 1 worked on installing the base for the jet pump, while Worker 2 installed hydraulic components.

By early afternoon, Worker 1 had finished the base in the engine compartment and began preparation for fitting the jet pump onto the base. Worker 1 planned to use a small forklift to install the jet pump. He attached a fork extension to the forks and secured it to the carriage with the safety chain. He drove the forklift over to the jet pump and lifted the pump with a sling. Worker 2 used a rope to guide the movement of the pump. Worker 1 lifted the pump to clear the hull of the Arktos craft and drove the forklift forward close to the hull. He lowered the pump into the engine compartment, positioning it an inch above the base.

Worker 1 applied the forklift hand brake and exited the forklift. He walked to the side of the craft and handed a gasket and two aligning bars to Worker 2. Worker 1 then entered the craft through the rear wheel well and helped Worker 2 slide the gasket between the jet pump and its base. Worker 1 stepped over the jet pump and walked to the front of the engine compartment.

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**Photo graph:**



Worker 2 aligned the jet pump with the base and asked Worker 1 to lower the pump the remaining inch onto the base. Worker 1 looked around to see if there was another worker in the area who could operate the forklift and lower the pump, but he was unable to get anybody's attention. Worker 1 walked under the fork extension, bent over the hull, and reached for the forklift controls through the forklift carriage. The carriage and fork extension suddenly dropped onto Worker 1, trapping him under the fork extension. Worker 2 and other workers used a second forklift to free Worker 1. Worker 1 was transferred to the hospital, where he died of his injuries.

**Primary Factor of the incident:**

Before the incident there was no information available to the workers on the lifting capacity of the forklift when used with the fork extension. A WorkSafeBC professional engineer examined the forklift and certified that its working load limit (WLL) when used with this fork extension was 776 pounds at 91 inches load centre. At the time of the incident, the load on the forklift at 91 inches centre was approximately 510 pounds (the weight of the jet pump plus the weight of the web sling). This is within the certified WLL of 776 pounds and was not found to be a factor in the incident. **Lack of maintenance of the forklift.**

**Other possible news of the incident:**

To be a qualified forklift operator, a person must be trained and qualified by a qualified supervisor or instructor to the requirements of ***CSA Standard B335-94 Industrial Lift Truck Operator Training***. As part of the training, trainees are taught the

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provincial regulatory requirements related to forklift operations. Part 16 of the Occupational Health and Safety Regulation includes requirements for mobile equipment. The following are relevant to the incident:

Any grapples or forks on mobile equipment must be landed in a safe position before the equipment controls are left unattended.

If a worker is required to work beneath an elevated part of mobile equipment, the elevated part must be securely blocked.

Worker 1 had not been trained by a qualified instructor or supervisor to be a qualified forklift operator and he may not have been aware of these requirements. A trained and qualified forklift operator would have received this information as part of the operator training.

#### Photo graph:



#### After the investigation order to the employer:

This section summarizes an order to the employer. The investigation found that this employer was in contravention of the *Workers Compensation Act*, section 115(1), which states that an employer must ensure the health and safety of all workers working for that employer and any other workers present at the workplace.

The employer was ordered to ensure the health and safety of its workers, including but not limited to the following, without delay:

Ensure that forklift operators are adequately trained and qualified by a qualified supervisor or instructor.

Ensure that all the tools, machines, and equipment are capable of safely performing the functions for which they are used.

Provide its workers with adequate instruction, training, and supervision as necessary to ensure health and safety of those workers in carrying out their work duties.

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