

# Safety Notice

## 2023.02 - Use of Hydraulic Jacks

### PURPOSE

This Safety Notice highlights a potential safety issue with respect to the use of hydraulic jacks given the possibility for hydraulic jacks to deliver forces greater than what is indicated on the name plate at maximum pressure applied, as well as the possibility to exceed the load rating or yield strength of the tools/equipment connected to the hydraulic jacks.

### BACKGROUND

In May 2023, the Operator of an installation in the Canada-Newfoundland and Labrador Offshore Area reported a high potential near miss whereby a steel rod was projected across a deck and fell to the deck below. The maintenance crew were using a hydraulic jack and puller (threaded steel rod) to pull a pin securing a luffing cylinder on a knuckle boom crane. Four attempts were made to pull the pin without success. On the fifth attempt, the threaded rod failed, causing a 3 meter/6.8kg piece of the rod to travel approximately 19 meters across the deck before deflecting off structural elements and coming to rest in a walkway approximately 26 meters below the crane. Fortunately, no one within the area was injured. This incident has been also detailed in a Safety Alert issued by the Canadian Association of Petroleum Producers (CAPP): [https://atlanticcanadaoffshore.ca/wp-content/uploads/2023/08/Safety\\_Alert\\_Pin\\_Pull\\_Incident.pdf](https://atlanticcanadaoffshore.ca/wp-content/uploads/2023/08/Safety_Alert_Pin_Pull_Incident.pdf)

Every Operator and Employer must ensure that all equipment, machines, devices and materials provided for use at a workplace, including any part of or accessory, are safe for their intended use and used as intended. In addition, information regarding foreseeable hazards as well as instruction necessary to perform work safely must be communicated to employees to protect their health and safety.

### LEGISLATION

- *Canada–Newfoundland and Labrador Atlantic Accord Implementation Act (section 205.013(c); (e); (k))* <https://laws.justice.gc.ca/PDF/C-7.5.pdf>
- *Newfoundland Offshore Petroleum Drilling and Production Regulations, Section 17(2); 72 (a)* <https://laws.justice.gc.ca/PDF/SOR-2009-316.pdf>

### OTHER REFERENCES

- *Guidelines for the Occupational Health and Safety Regulations* <https://www.cnlopb.ca/wp-content/uploads/guidelines/OHSguideline2022.pdf>

### RECOMMENDED ACTION

To ensure compliance with the legislation, Operators, Employers, Suppliers and Providers of Service should review their practices regarding the use of hydraulic jacks. Operators, Employers, Suppliers and Providers of Service (as applicable) should:



# Safety Notice

## 2023.02 - Use of Hydraulic Jacks

- *Ensure that employees and individuals using hydraulic jacks and similar tools are trained and competent in their safe usage;*
- *Ensure that the Job Safety Analysis includes equipment part failure/ejection/projectile as potential hazard when using hydraulic jacks to apply force to equipment;*
- *Ensure that hydraulic jack arrangements for applying forces are independently verified as fit for use prior to mobilizing and that the maximum safe operating pressure for using the hydraulic jack arrangements are fully understood by all employees involved with the job;*
- *Ensure that maintenance procedures contain adequate details for employees to perform work safely.*
  - *Review the use of all hydraulic jacks and similar tools to ensure that the force output and associated equipment limitations are included in all relevant procedures;*
  - *Ensure that procedures for the use of hydraulic jacks in similar applications include load rating and safe operating pressures specific to work being performed;*
  - *Ensure that procedures for the use of hydraulic jacks in similar applications include a confirmation that the maximum force imposed by the hydraulic jack does not exceed the load rating of the equipment/parts under pressure;*
- *Consider alternative equipment designs to reduce risk of equipment part failure.*

This Safety Notice and the CAPP Safety Alert shall be posted onboard installations which are operating under an authorization issued by the C-NLOPB in a prominent place accessible to every employee at the workplace.

Questions regarding this Safety Notice may be directed to a C-NLOPB Safety Officer at the address shown below.

Canada-Newfoundland & Labrador Offshore Petroleum Board  
240 Waterford Bridge Road  
The Tower Corporate Campus-West Campus Hall, Suite 7100  
St. John's, NL A1E 1E2

Tel: (709) 778-1400  
Fax: (709) 778-1473