

# **North Dakota State University**

## **Jacks – Lever, Ratchet, Screw & Hydraulic**

### **I. Introduction**

NDSU employees are continually exposed to construction projects in various stages. Each project brings unique challenges and duties to staff. By outlining and following the recommended safe operating procedures, we learn to prevent injury and safeguard ourselves and coworkers against a job related injury or death.

### **II. Purpose**

To reduce the risk of work related injury or death by maximizing personal safety during construction and mechanical operations.

### **III. Goals**

To ensure all employees know and understand the safe operating procedures involved with construction and mechanical operations.

### **IV. Procedures**

#### **A. General requirements**

1. The manufacturer's rated capacity shall be legibly marked on all jacks and shall not be exceeded.
2. All jacks shall have a positive stop to prevent over travel.
3. When it is necessary to provide a firm foundation, the base of the jack shall be blocked or cribbed. Where there is a possibility of slippage of the metal cap of the jack, a wood block shall be placed between the cap and the load.
4. After the load has been raised, it shall be cribbed, blocked, or otherwise secured at once.
5. Hydraulic jacks exposed to freezing temperatures shall be supplied with adequate antifreeze liquid.
6. All jacks shall be properly lubricated at regular intervals.
7. Each jack shall be thoroughly inspected at times which depend upon the service conditions. Inspections shall be not less frequent than the following:
  - a. For constant or intermittent use at one locality, once every 6 months.
  - b. For jacks sent out of shop for special work, when sent out and when returned.
  - c. For a jack subjected to abnormal load or shock, immediately before and immediately thereafter.
8. Repair or replacement parts shall be examined for possible defects.
9. Jacks which are out of order shall be tagged accordingly, and shall not be used until repairs are made.

## **V. Training**

The department supervisor is responsible for providing training to their employees on a regular basis to enable them to recognize and prevent hazards associated with jacks.