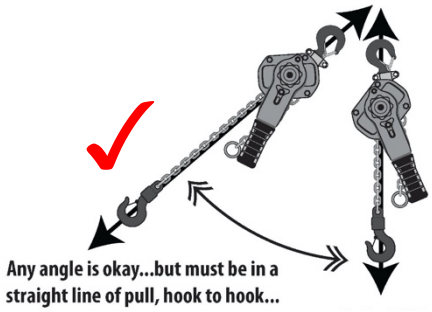
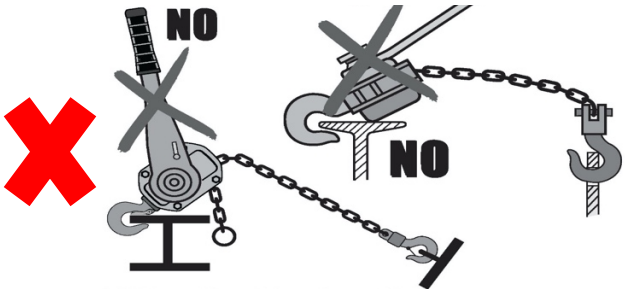
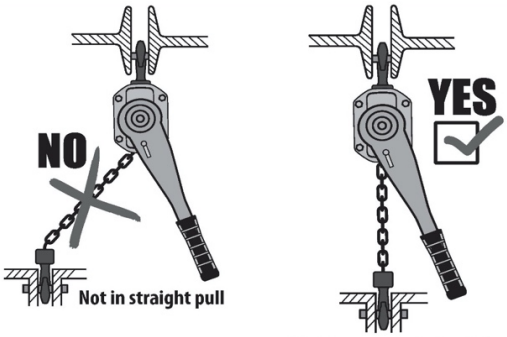
RIGGING RESOURCE CENTRE

LEVER HOIST
Tool Box Talk

The objective of this Tool Box Talk is that it can be used as part of a safety meeting that focuses on the use of Lever Hoists in the workplace. The ASME B30.21 standard has been referenced when compiling this document as this is the most recognized standard used in North America for selection, inspection, cautions to personnel, effects of environment, and rigging practices of lever hoists.

Ask members of the meeting to give answers to the following, encouraging participation whether their answers are right or wrong.

LEGISLATION	ANSWER
1) WHAT STANDARDS SHOULD THE HOIST COMPLY WITH?	**ASME B30.21 standard.**
2) WHAT OTHER INFORMATION MUST BE REFERENCED?	**Manufacturers Specifications**
3) HOW OFTEN DO PERIODIC INSPECTIONS NEED TO BE CARRIED OUT?	**At least annually(ASME), *but state what your company rules are.***
MARKINGS	**ANSWER**
4) WHAT 3 ITEMS ARE REQUIRED TO BE MARKED ON THE LEVER HOIST?	**1. Manufacturer, 2. Model or Serial Number, 3. Rated Load.**
5) WHAT INFORMATION ALSO NEEDS TO BE ATTACHED TO THE LEVER HOIST?	**A product safety label concerning the operating procedures, cautionary language identifying hazards, and methods for accident prevention**.
APPLICATION	**ANSWER**
6) WHAT ARE THE TEMPERATURE RANGES FOR THE LEVER HOIST?	**Extreme temperatures can affect the lever hoist. ASME states not below -18 C or above 54 C. *The worker must confirm with the manufacturer as they may differ.***
7) NAME SOME REASONS WHY THE LEVER HOIST MAY HAVE TO BE REMOVED FROM SERVICE?	**1. Operating mechanisms for proper operation, proper adjustment, and unusual sounds, 2. Hooks, including latches, 3. Load chain for gross damage, 4. Load chain reeving, 5. Overtravel restraint for proper attachment, 6. Hoist body and lever for deformation, cracks, and other damage, 7. Supporting structure or trolley, if used, for evidence of damage, 8. Label or labels, for legibility and replacement, 9. Fasteners such as rivets and bolts for evidence of loosening**
8) WHAT PRE-LIFT CHECKS NEED TO BE COMPLETED?	**When first operating the hoist take up slack load chain or rope carefully, lift the load a few inches to check the hoist operation, and verify that the load is secured, balanced, and positioned on the hook and in the sling or lifting device.**
9) HOW MUCH FORCE CAN BE APPLIED TO THE LEVER?	**The hoist can only be operated with the hand power of one operator and cannot be operated with an extension on the lever. *Under no circumstances should more than one person operate the hoist.***

10) HOW MUST THE LEVER HOIST BE ATTACHED TO THE LOAD?	**The hoist must be attached to the load by suitable means such as slings, shackles or eyebolts that must be seated in the base of the hook to avoid tip loading. *The load chain must not be wrapped around the load.*** 
11) WHERE MUST THE OPERATOR BE POSITIONED WHEN USING THE LEVERHOIST?	**They must be free of the load, have firm footing, and adequate access to the hoists lever. *The operator should not be below the load, should be able to operate the hoist comfortably, and have clear access to the lever and controls.***
12) HOW MUST THE LEVER HOIST BE ALIGNED WITH RESPECT TO ITS LOAD BLOCK AND CHAIN? 	**The hoist body, load block, and load chain must be directly in line with the direction of loading to avoid side pulling. *The hoist body must not bear against any object.*** 
13) CAN THE LEVER HOIST BE SIDE LOADED?	**Lever hoists shall be used to lift loads vertically without side pull except when specifically authorized by the manufacturer. *The side pull must not cause damage to the hoist.*** 
14) WHERE IS THE BEST PLACE TO STORE THE LEVER HOISTS?	**Storage is important to stop or reduce possible damage to the hoist, whether it be mechanical, corrosive or temperature related.**