RIGGING RESOURCE CENTRE

# PLATE CLAMP
# 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 Plate Clamps in the workplace. The ASME B30.20 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 plate clamps.

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

| LEGISLATION | ANSWER |
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| **1)** WHAT STANDARDS SHOULD THE PLATE CLAMP COMPLY WITH? | **ASME B30.20 standard.** |
| **2)** WHAT OTHER INFORMATION MUST BE REFERENCED? | **Manufacturers Specifications** |
| **3)** HOW OFTEN DO PERIODIC INSPECTIONS NEED TO BE CARRIED OUT? | **At least annually, *but state what your company rules are.*** |
| **MARKINGS** | **ANSWER** |
| **4)** WHAT 7 ITEMS ARE REQUIRED TO BE MARKED ON THE PLATE CLAMP? | **1. Manufacturer, 2. Serial Number, 3. Plate Clamps Weight (if over 100lbs.), 4. Rated Maximum Load 5. Rated Minimum load, 6. Design Category, 7. Service Class.** |
| **5)** WHAT ALSO NEEDS TO BE ATTACHED TO THE PLATE CLAMP? | **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 PLATE CLAMP? | **Temperatures exceeding normal ambient temperatures can affect the plate clamp. *The worker must confirm with the manufacturer as they may differ*.** |
| **7)** NAME SOME REASONS WHY THE PLATE CLAMP MAY HAVE TO BE REMOVED FROM SERVICE?  | **1. Deformity, cracks or wear,**<br>**2. Loose or missing, guards, fasteners, covers, stops or nameplates,**<br>**3. Excessive pitting or corrosion,**<br>**4. Excessive nicks or gouges,**<br>**5. Indications of heat damage, including weld spatter or arc strikes,**<br>**6. Evidence of unauthorized welding or modifications,**<br>**7. Unauthorized replacement components,**<br>**8. Improper assembly,**<br>**9. Damaged gripping teeth,**<br>**10. Damaged or distorted pins,**<br>**11. Damaged bail,**<br>**12. Damaged body,**<br>**13. Impaired, seized, or bound cam, linkage, bail movement, or locking lever,**<br>**14. Deformed, broken, or missing springs,**<br>**15. Broken, worn, or loose cam.** |

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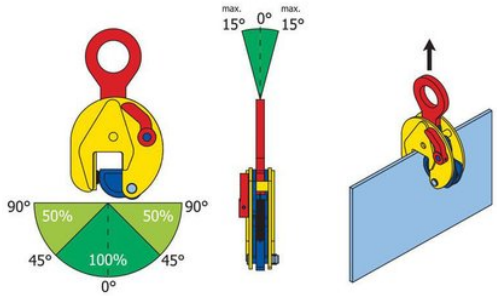
| **8)** HOW MUST THE LOAD BE DISTRIBUTED WHEN USING A PLATE CLAMP? | **The plate clamp must be positioned above the loads center of gravity to achieve balance.** |
| **9)** WHAT NEEDS TO BE CONSIDERED WHEN THE CLAMP IS SECURED TO THE LOAD? | **Material hardness, type, thickness and surface conditions can affect the clamps gripping capabilities. Multiple plates must not be lifted simultaneously.** |
| **10)** WHY IS KNOWING THE CLAMPS MINIMUM LOAD RATING IMPORTANT?<br>  | **Some plate clamps have a minimum load rating, if the load being lifted is below this weight, the plate clamp is not guaranteed to hold the load.**<br>  |
| **11)** WHAT MUST BE CHECKED WHEN LIFTING A PLATE FROM HORIZONTAL TO VERTICAL?<br>  | **Not all plate clamps can be used in both orientations, and those that can may have a rated load reduction when flipping a load. Manufacturer may give specific criteria and must be referenced.**<br>  |
| **12)** CAN A PLATE CLAMP BE SIDE LOADED?<br>  | **Not all plate clamps can be side loaded, and those that can have a rated load reduction when side loading. An example would be two clamps lifting a plate but slung back to one hook.**<br>  |
| **13)** WHERE IS THE BEST PLACE TO STORE PLATE CLAMPS? | **Where they will not be affected by mechanical damage, corrosion, moisture, or adverse temperatures.** |