

	AI TAKAMUL COMPANY FOR ENGINEERING TESTS AND PROFESSIONAL SAFETY LIMITED Lifting Inspection	Doc No: QC-LIF-P-019
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Title: Inspection Procedure of Plate Clamps		Rev: 2
Established By: Ashraf Elsaid	Position: Lifting Supervisor	Date: JULY-2022
Approved By: Ahmed Mohamed	Position: Operation Manager	

Inspection Procedure of Plate Clamps

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1. YOUR SAFETY IS FIRST:

Your safety wear is mandatory at job sites including in general: suit, shoes, helmet, gloves, ear plugs, glasses, and mask.

2. SCOPE:

This Procedure covers the inspection and testing of plate clamps.

3. PRODUCT/ MANUFACTURE STANDARDS:

BS EN 13155:2020	<i>Cranes — Safety — Non-fixed load lifting attachments</i>
ASME B30.20 - 2021	Below-the-Hook Lifting Devices

4. DEFINITION OF PLATE CLAMPS:

Plate clamps are lifting accessories used to handle (clamp) plates. Plate clamps can either be: vertical (left) or horizontal (right).



5. THOROUGH EXAMINATION:

The thorough examination intervals of plate clamps (lifting accessories) shall not exceed **six months**. The following shall be checked during thorough examinations:

- Marking, as per 7. MARKING
- Attached lifting accessories shall be inspected as per related inspection procedure (chain, webbing sling, masterlinks, etc.)
- The functionality of the clamp shall be checked to ensure that there is no unintentional release the load, and all parts are working freely and correctly.
- For plate clamps equipped with locking mechanism, the functionality of this mechanism shall be checked for correct operation, the locking mechanism parts shall be free of any signs of mechanical damage, cracks, and corrosion

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- The plate clamp shall be free from the following defects:
 - Corroded, damaged, cracked, gouged body
 - Damaged, worn, deformed clamp teeth
 - Worn, damaged, deformed fixing pins and bolts
 - Cracked, corroded welds
 - Bent, damaged, opened-out side plates

Note: Welds and critical load bearing areas may require inspection using NDT techniques such as MPI, which shall be performed as pre related ATS procedures (e.g. for MPI: ATS-NDT-P-001)

6. PROOF LOAD TEST:

Proof load is performed to verify the strength of the clamp before being put to use for the first time, after any major repair / alternation, after heavy use, after exceptional circumstances, or as per client requirements. Plate clamps are designed as per BS EN 13155 to withstand a static load of $2 \times WLL$ without any permanent deformation.

Plate clamps are proof load tested using a static load of $2 \times WLL \pm 2\%$ (a test beam or plate with an appropriate thickness to prevent any damage or distortion to the clamp jaws), this load shall be applied so that the lines of force through the load attachment points are the same as they will be in service, application of load shall be without shock (applied gradually) with alignment being checked at the period of the test, the test is applied for a period of time of not less than 1 minute (to be loaded for five minutes max.), after the release of the static load, the clamp is thoroughly examined as per 5.THOROUGH EXAMINATION, the clamp is considered to be accepted if no signs of deformation, cracks, or any defects are present.

7. MARKING:

Marking shall be clearly visible and legible, the information to be included in the marking:

- Manufacturer's name, address, and year of manufacture
- Model
- ID number
- WLL, and in the case of using several configurations; the resulting WLL shall be marked
- Weight of unloaded attachment when it exceeds 5% of the WLL of the clamp or 50 kg, whichever is less
- If applicable, the permissible gripping range

If the item is not already marked, it shall be clearly marked with an identification number and if the test is satisfactory, the WLL and date of the test.

8. REPORTING AND CERTIFICATION:

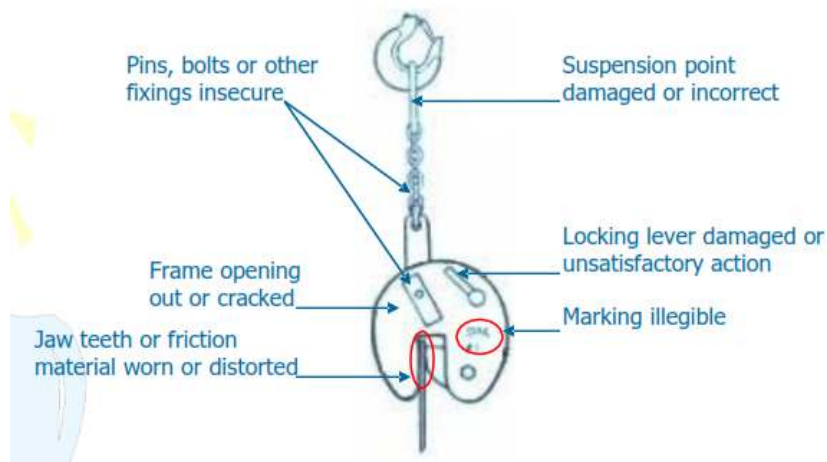
A certificate of test and thorough examination will be issued upon the satisfactory completion of the examination, i.e. the lifting equipment is safe to operate

A defect report will be issued if the lifting equipment fails to meet the requirements.

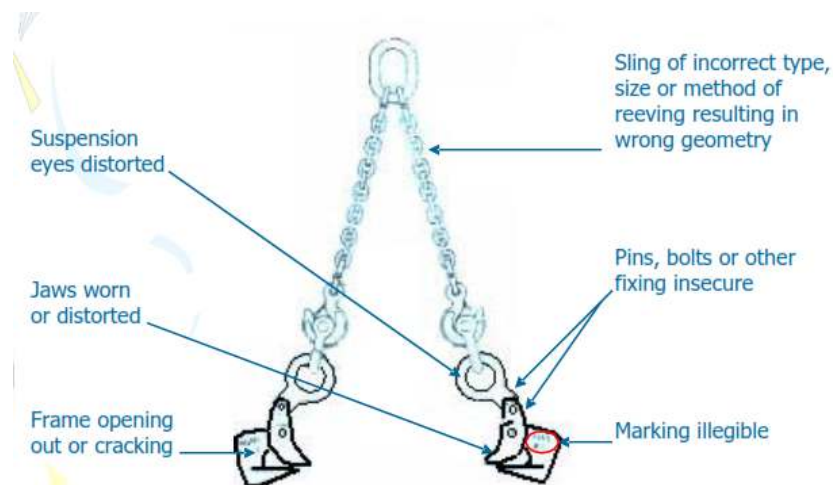
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9. Inspector Competency and Qualification:

Inspector shall have minimum qualification of LEEA Foundation – LEEA Lifting Equipment General - LEEA Lifting Machines Manual



Vertical and Universal Plate Clamp Inspection Points



Horizontal Plate Clamp Inspection Points