

	AI TAKAMUL COMPANY FOR ENGINEERING TESTS AND PROFESSIONAL SAFETY LIMITED Lifting Inspection	Doc No: QC-LIF-P-013
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Title: Inspection Procedure of Jaw Winches		Rev: 2
Established By: Ashraf Elsaid	Position: Lifting Supervisor	Date: JULY-2022
Approved By: Ahmed Mohamed	Position: Operation Manager	

Inspection Procedure of Jaw Winches

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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:

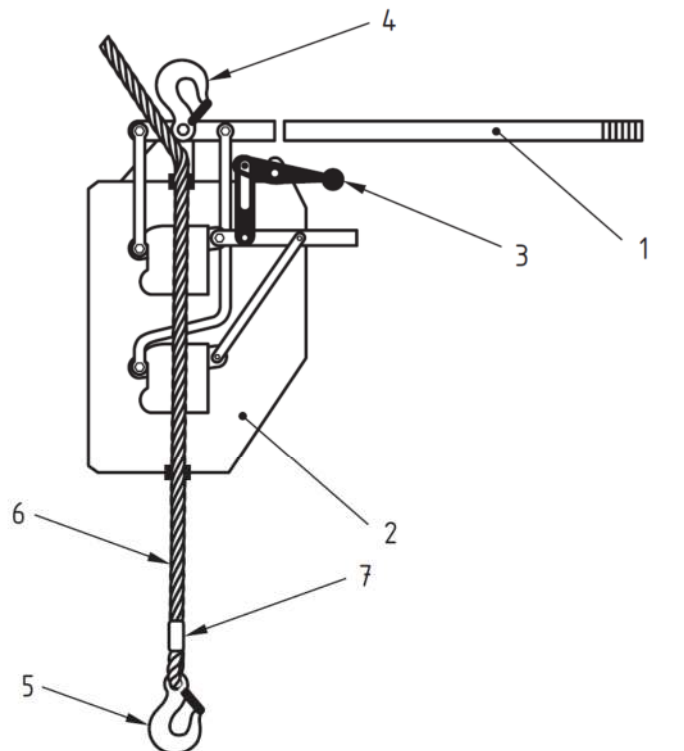
This procedure covers the inspection and testing of jaw winches.

3. PRODUCT/ MANUFACTURE STANDARDS:

BS EN 13157: 2004 + A1: 2009	<i>Cranes - Safety - Hand powered lifting equipment</i>
LEEA COPSULE Edition 9 - 2019	<i>Code of Practice for the Safe Use of Lifting Equipment</i>

4. JAW WINCHES:

Jaw winches are devices for lifting, lowering and holding a load by means of a rope, where the rope is gripped or moved by jaws using human effort on a lever or levers, the following figure shows a typical jaw winch.



- | | |
|---|---------------------|
| 1. Removable lever | 5. Hook |
| 2. Guard case of the jaw and actuating mechanisms | 6. Rope |
| 3. Declutching lever | 7. Rope termination |
| 4. Anchorage | |

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5. PERIODIC VERIFICATION AND TESTING:

Jaw winches fall under the heading of 'lifting equipment', and should be examined by a competent person at periods not exceeding twelve months

6. THOROUGH EXAMINATION:

During the examination the following should be checked:

- The jaw winch shall be cleaned, free from any grease, dirt, etc.
- Cover (casing) shall be checked for any signs of damage
- Lever, shear pins shall be checked for damage, distortion
- Operating with no load to check the rope release: it shall only operate under the condition of (no-load OR low load) and shall open both sets of jaws, thus allowing an easy removal of the rope from the machine.
- Rope guide shall be checked for wear, nicks in the bore, burring
- The jaws shall be checked to ensure that these jaws are positively gripping the rope
- The rope shall be checked, it shall not be damaged, no broken wires are allowed, the tapered end shall be checked to ensure that they are in good condition, all terminals shall be free from damage, cracks, wear, gouges, nicks
- Hooks shall be checked: Hooks and anchorage shall be fitted with safety latches or locking devices, the hook opening shall be checked, the operation of safety latches shall be checked.
Note: If the jaw winch is equipped with load hooks, used as lifting medium, which are not manufactured in accordance with a recognized standard, they shall not show permanent deformation at a static load of 2-times the WLL.
- The braking function shall be checked, Jaw winches shall have an automatic braking function during the lifting and lowering operation. The braking device shall allow a regular descent automatically controlled whatever the position of the load. As soon as action on one of the levers has stopped, both jaw blocks shall close

7. PROOF LOAD TEST:

After repair or as per client requirement, jaw winches shall be subjected to a static and a dynamic test, a static test consisting of suspending a load of: 1,5 times the WLL for WLL less than 20 t and 1,25 the WLL equal to or greater than 20 t for at least 10 minutes.

Proof load test is also conducted if a repair is performed using non-certified load bearing components. Following the proof load test, the jaw winch shall be thoroughly examined. The test shall be considered satisfactory if no cracks, permanent deformation or damage that would adversely affect the function or safety of the lifting equipment is visible, and the connections have not become loose or damaged and if the braking device can hold the load without slipping and if it is possible to perform the dynamic test (as per BS EN 13157) with the same lifting equipment after the static test.

A dynamic test consisting of subjecting the jaw winch to a dynamic load of 1,1 times the WLL. This test shall be carried out for each lifting equipment movement under the most unfavorable conditions. The tests shall comprise repeated stopping and starting for each machine movement.

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The test shall be considered satisfactory if the lifting equipment has carried out all its functions, and that when examined after the test, there is no damage to the mechanisms or structural elements, and that the connections have not become loose or damaged.

8. MARKING:

All jaw winches shall have a permanent identification plate located in a clearly visible position, which gives the information listed below.

- a) the name and address of the manufacturer
- b) the series or type designation;
- c) the serial number, if it exists;
- d) WLL;
- e) year of manufacture;
- f) the dimensions and quality of the ropes;
- g) the marking of the direction of movement.

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

9. 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.

10. Inspector Competency and Qualification:

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