

**Procedure for Testing and Examining Lifting Appliances and Loose Gear**

**1. Winches**

1.1 Every winch, together with its accessories (including any derrick, gooseneck, eye-plate, eyebolt, or other attachments) should be tested with a proof load which should exceed the safe working load as follows-

- (a) if the safe working load is less than 20 tonnes, the proof load should exceed the safe working load by at least 25 per cent;
- (b) if the safe working load is 20 tonnes or more but not more than 50 tonnes, the proof load should exceed the safe working load by at least 5 tonnes;
- (c) if the safe working load is more than 50 tonnes, the proof load should exceed the safe working load by at least 10 per cent.

1.2 The proof load should be applied either-

- (a) by hoisting movable weights; or
- (b) by means of a spring or hydraulic balance or a similar appliance,

with the derrick at an angle to the horizontal which should be specified in the certificate/record of the test.

1.3 In the case of sub-paragraph 1.2(a), after the movable weights have been hoisted, the derrick should be swung as far as practicable first in one direction and then in the other and in the case of sub-paragraph 1.2(b) the proof load should be applied with the derrick swung as far as practicable first in one direction and then in the other.

**2. Cranes**

2.1 Every crane and every other lifting appliance, together with its accessories, other than a lifting appliance referred to in paragraph 1, should be tested with a proof load which should exceed the safe working load as follows-

- (a) if the safe working load is less than 20 tonnes, the proof load should exceed the safe working load by at least 25 per cent;
- (b) if the safe working load is 20 tonnes or more but not more than 50 tonnes, the proof load should exceed the safe working load by at least 5 tonnes;
- (c) if the safe working load is more than 50 tonnes, the proof load should exceed the safe working load by at least 10 per cent.

- 2.2 The proof load should be hoisted and then swung as far as practicable first in one direction and then in the other.
- 2.3 Where a crane with a jib which has a variable vertical operating radius is to be tested, the test should be carried out by applying a proof load in accordance with sub-paragraph 2.1 at both the maximum radius and the minimum radius of the jib.
- 2.4 Where in testing a hydraulic crane or hoist it is, because of the limitation of pressure, impossible to hoist a load which exceeds the safe working load by 25 per cent, it is sufficient compliance with this paragraph if the crane has the greatest possible load applied to it.

### **3. Loose gears**

- 3.1 Every item of loose gear should be tested with a proof load in accordance with the following provisions-
  - (a) if the item is a chain, ring, hook, shackle, or swivel, the proof load should be at least twice the safe working load;
  - (b) if the item is a single sheave pulley block or if a shackle is attached thereto, the proof load should be at least 4 times the safe working load;
  - (c) if the item is a multiple sheave pulley block with a safe working load of not more than 20 tonnes, the proof load should be at least twice the safe working load;
  - (d) if the item is a multiple sheave pulley block with a safe working load of more than 20 tonnes but not more than 40 tonnes, the proof load should exceed the safe working load by at least 20 tonnes;
  - (e) if the item is a multiple sheave pulley block with a safe working load of more than 40 tonnes, the proof load should be at least 1 1/2 times the safe working load.

### **4. Examination**

- 4.1 After being tested in accordance with paragraph 1, 2 or 3, each lifting appliance (including its accessories) and all loose gear should be examined so as to ensure that no part of the lifting appliance or loose gear has been damaged during the test. For the purpose of carrying out the examinations of a pulley block the sheaves and pins of the block should be removed.

### **5. Wire Ropes**

- 5.1 Where any wire rope is tested, a sample of the rope should be tested to destruction, and the safe working load should not exceed 20 per cent of the breaking load of the sample tested.