

Rope And Marine Services Limited

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Important Instruction for the safe use of Sheave Blocks / Pulley Blocks Introduction

This document is issued in accordance with the requirements SI 1992 No:3073 Health & Safety machinery directive "The supply of machinery (Safety) Regulations 1992 and amendment SI 1993 No:2063" It should be read in conjunction with the requirements for lifting appliances for general purposes and other specific instructions issued by the supplier and the employer.

This information is of a general nature only, covering the main points for the safe use of lifting equipment.

Selecting the Correct Block

Pulley blocks are available in a variety of types and sizes. Making them suitable for both temporary and permanent applications.

A responsible person should select the block to meet your duties under the Provision and use of Work Equipment Regulations 1998 (PUWER) in addition to the general requirements overleaf should take the following information into account.

- 1. Details of block required i.e. capacity, rope type, how many falls, type of headfitting.
- 2. Environmental conditions Indoor or outdoor, if outdoor ensure block is suitable for this application.
- 3. Never tamper or modify the block unless advised by the manufacturer to do so.

Operative Training

Lifting Equipment should only be used by operatives who have received training in their use and that of the associated equipment used when lifting.

In Service Inspection and Maintenance

It is a requirement of the Health and Safety Regulations SI 1998 No:2307 (LOLER 1998), that lifting equipment is properly maintained at all times, this is an ongoing duty that falls on the user, and a planned routine maintenance programme will be necessary. Regular in-service inspections should be made by the responsible person to identify faults and damage that might result during service.

- 1. The maintenance programme must meet the requirements of the manufacturer's maintenance instructions in addition to any special requirements due to the condition of service.
- 2. The maintenance programme may be combined with that of other equipment used in association with the appliance.
- 3. As a daily routine, the user should visually inspect the block and its associated equipment for obvious signs of damage and report these to the responsible person.
- 4. It is a further requirement that lifting equipment is thoroughly examined by a competent person at periodic intervals. It should be noted that competent persons are obliged to report to the employer any defects found during the thorough examination.

Recommendations for training are given in the relevant sections of the LEEA code of practice for the safe use of lifting equipment. All LEEA members are able to provide suitable information and training courses are available.

Installation and Commissioning

The Installation of lifting equipment should be carried out in accordance with the supplier's instructions. Paying attention to the following:-





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- 1. Prior to installation, inspect the equipment to ensure no damage has occurred in transit.
- 2. Ensure that the supporting structure is adequate for the loads that will be imposed (In the case of the pulley blocks this will also include effort), including an allowance for dynamic loading, has been proof tested and marked with W.L.L. Additionally where this forms a part of, or is, attached to the building structure, ensure that the suitability of the building members for this purpose has been confirmed by a qualified person.
- 3. When suspending appliances by a hook ensure the support fits freely into the seat of the hook and does not exert any side thrust upon the point or latch.
- 4. Welding to these products is strictly forbidden.
- 5. All lifting gear should be inspected at least every six months, after any repair, and always before taken into use.
- 6. When inspecting block tackle for wear check headfitting for deformation gouges, cuts and sharp edges, and any damages which may produce additional stress conditions. Check for excessive wear in pins, side plates, grooves, bushes and bearings. Check security of bolts, nuts and any other locking method, and ensure that during continuing usage they cannot vibrate loose. If any defect is found the equipment must be withdrawn from service.

Safe Use of Lifting Appliances

The basic objectives of any lifting operation is to move the load to the desired location and land it safely, efficiently and without damage to the load, the equipment used for the surrounding building, plant etc. (In addition the following general points should be observed).

- 1. Never attempt any lifting operation unless you have been trained in the use of the equipment concerned.
- 2. Never attempt to lift/lower more than the marked SWL.
- 3. Never impose sudden or shock load
- 4. Never leave suspended loads unattended, unless in an emergency then ensure the area is cordoned off.
- 5. Never use chain or wire to sling the load.
- 6. Never lift on the point of the hook.
- 7. Never force manual equipment to operate, if an abnormally high effort is required this is an indication of a fault or too high a load, check the load and appliance.
- 8. Ensure the load is directly in line with the appliance, do not side load the equipment.
- 9. Always keep clear of the load and do not pass under or ride on the load, do not lift person unless designed to do so.
- 10. Always avoid swinging loads which can be caused by sudden movement or travel motion or undue effort in pushing the load.
- 11. Always keep fingers and toes clear to ensure they do not become trapped.

Lubrication

Lubrication depends on the type of frequency usage as well as environmental conditions, assuming normal usage conditions, as a general guide, the following schedule must be used:

- 1. Phosphor bronze bearing or brush. Every eight hours of continuous use or every fourteen days or intermittent operation.
- 2. Ball Bearings. Every twenty-four hours of continuous use or every fourteen days of intermittent use.
- 3. Taper Roller Bearings. Every forty hours of continuous use or every thirty-six days of intermittent operation.
- 4. Headfitting Grease Points. Every fourteen days.
- 5. Any other Grease Points. Every fourteen days.

