IMPORTANT SAFETY INFORMATION

Instructions for the safe use of: Beam Clamps

The information in this leaflet should be passed to the user of the equipment

This document is issued in accordance with the requirements of Section 6 of the Health and Safety at Work etc Act 1974, amended March 1988. It outlines the care and safe use of BEAM CLAMPS and is based on Section 8 of the LEEA Code of Practice for the Safe Use of Lifting Equipment. It should be read in conjunction with the requirements for lifting appliances for general purposes, given overleaf, which form an integral part of these instructions.

This information is of a general nature only covering the main points for the safe use of beam clamps intended for use as suspension points for lifting appliances. It may be necessary to supplement this information for specific applications.

ALWAYS:

- Store and handle beam clamps correctly.
- Inspect beam clamps and accessories before use and before placing into storage.
- Ensure the supporting structure is adequate for the full load that will be imposed and suitable for the application.
- Check the clamp is of the correct profile and size, or correctly adjusted, for the beam width and that it seats correctly on the beam flange.
- Ensure the beam clamp is strong enough for the full load that will be imposed.
- Check that the clamp is directly over the centre of gravity of the load.

NEVER:

- Use beam clamps which are unidentified or uncertified for lifting applications.
- Never replace bolts, shackles etc without consulting the supplier.
- Throw or drop beam clamps.
- Use beam clamps on damaged or distorted beams.
- Force or wedge hooks of lifting appliances into the attachment eye or fitting (eg shackle).
- Obliquely load beam clamps without the authority of the supplier.

Selecting the Correct Beam Clamp

Beam clamps are available in a range of capacities and designs. They may be adjustable or of fixed size, have scissor action, screw locking or bolt clamp fixing and be suitable for temporary or permanent applications. Select the beam clamp to be used and plan the lift taking the following into account:

Type of clamp - adjustable/non-adjustable - scissor, screw or bolt action.

Capacity and beam size or range of beam sizes.

Suitability of the beam.

Type of lifting appliance to be used.

If application is temporary or permanent.

NOTE: Beam clamps are generally intended for attachment to overhead beams to act as suspension points for lifting appliances. Some designs are suitable for attachment to the load to provide a lifting point. The supplier should be consulted for such applications which are excluded from these instructions.

Storing and Handling Beam Clamps

Never return damaged beam clamps to storage. They should be dry, clean and protected from corrosion. Where necessary fasteners should be reassembled immediately after removal from the beam.

Beam clamps should not be dropped or thrown down.

Using Beam Clamps Safely

The safe use of beam clamps will largely be governed by the requirements for the lifting appliance with which it is to be used but should take the following matters into account:

Do not use defective beam clamps, lifting appliances or accessories.

Ensure the structure from which the clamp is to be suspended is undamaged and is adequate for the full load that will be imposed. If any doubt exists consult a Competent Person to confirm suitability.

Ensure the clamp is suitable for the application, correct size and profile for the beam and seats correctly. It must not cause localised overloading.

Ensure the lifting appliance is compatible with the clamp and that hooks or other attachments fit freely into the eye, shackle etc of the clamp.

The clamp must be positioned directly over the centre of gravity of the load and the load must not be allowed to swing or impose an oblique loading.

If two clamps are to be used in tandem the use of ancillary equipment may also be necessary, eg spreader beam. Care must be taken to ensure no one clamp takes more than its SWL.

In-service Inspection and Maintenance

Beam clamps should be cleaned and any moving parts lubricated at appropriate intervals unless the suppliers specific instructions indicate otherwise.

Regularly inspect the beam clamp, in the event of the following defects refer the clamp to a Competent Person for thorough examination: wear, damage or distortion, cracks, insecure bolts etc, corrosion, illegible markings.

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Further information is given in:
The Code of Practice for the Safe Use of Lifting Equipment, published by:

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LGS

GENERAL PURPOSE LIFTING APPLIANCES

(MANUAL AND POWER OPERATED BLOCKS)

The following information is based on Section 1 - Appendix 1.6 of the Code of Practice for the Safe Use of Lifting Equipment and should be read in conjunction with the instructions for safe use, given overleaf, of which it forms an integral part and with any specific instructions issued by the supplier.

This information is of a general nature only covering the main points for the safe use of manual and power operated blocks.

ALWAYS:

- Ensure suspension points and anchorages are adequate for the full imposed load.
- Check the load chain/wire rope is hanging freely and is not twisted or knotted.
- Position the hook over the centre of gravity of the load.
- Check the operation of the brake before making the lift.
- Ensure the slings are secure and load is free to be lifted.
- Check the travel path is clear.
- Ensure the landing area is properly prepared.

NEVER:

- Exceed the marked SWL.
- Use the load chain/wire rope as a sling.
- Shock load the block or other equipment.
- Lift on the point of the hook.
- Overcrowd the hook with fittings.
- Permit the load to swing out of control.
- Leave suspended loads unattended.

Types of blocks

A wide range of manual and power operated blocks is available. This section of the leaflet is concerned with matters which are common to the safe use of the following listed equipment when used to lift in a vertical plane only.

Pulley blocks for fibre or wire rope used with winches, hand chain blocks, chain lever hoists, power operated wire rope blocks and power operated chain blocks. The use of trolleys is often associated with blocks and these may be built in with the trolley as an integral part of the appliance, or independent with the block hung on.

Operative Training

Lifting appliances should only be used by trained operatives who understand their use and that of the associated equipment used in the lift.

Installation and Commissioning

The erection procedure will vary with the equipment and should be carried out in accordance with the suppliers instructions paying attention to the following matters:

Prior to installation inspect the equipment to ensure no damage has occurred in store or transit.

Ensure the support structure is adequate for the full loads that will imposed, is tested and marked with the SWL.

When erecting trolleys ensure they are correctly set for the beam width and that the track is fitted with end stops which engage with the trolley frame or wheel tread. The track should remain level at all loads up to the maximum.

When suspending appliances by a top hook ensure the support fits freely into the seat of the hook.

After erection ensure that the chain/wire rope hangs freely and is not twisted or knotted.

With power operated blocks the supply should be connected by a suitably Qualified Person taking account of any statutory or technical requirements (eg Electricity at Work Regulations, Pressure Systems and Transportable Gas Containers Regulations).

Test run to ensure the free and correct movement of the chain/rope. Check the operation of the brake. Check direction of control command, position and operation of travel limits and safety devices.

Safe Use of Blocks

The basic objectives of any lifting operation are to move the load to the desired location and land it safely, efficiently and without damage to the load, the equipment used or the surrounding buildings, plant etc. In addition to any specific instructions relating to the block the following general points must be observed:

- o Never attempt lifting operations unless you have been trained in the use of the equipment and slinging procedures.
- o Position the hook directly over the centre of gravity so that the line of pull is vertical.
- o Do not use the chain/wire rope to sling the load, ie do not wrap it round the load, back hook or choke hitch.
- o Do not lift on the point of the hook or overcrowd the hook with fittings.
- o Never lift/lower more than the marked SWL. In the case of manual equipment if abnormally high effort is required, and with power operated appliances they fail to lift the load, or if the load slips this is an indication of too high a load or a fault - check the load and the appliance.
- o Avoid unnecessary inching of power operated appliances and do not impose sudden or shock loads.
- o Push rather than pull loads suspended from appliances with push/pull trolleys and if un-laden pull on the bottom hook. Never pull an appliance by the pendant control, supply cable or hose.
- o Avoid sudden movement of travel motion or undue effort in pushing the load which can cause the load to swing.
- o Avoid excessive or intentional use of motion limits unless they are additional limits intended for that purpose. Avoid running appliances against end stops.
- o Do not allow anyone to pass under or ride upon the load. Never leave suspended loads unattended unless in an emergency then ensure the area is cordoned off and kept clear.
- o Do not remove guards, protective covers, weather proof covers, heat shields etc without the authority of a Competent Person

In-Service Inspection and Maintenance

The Provision and Use of Work Equipment Regulations 1998 and the Lifting Operations and Lifting Equipment Regulations 1998 both require that lifting equipment properly maintained. This is an ongoing duty that falls on the user and a planned routine maintenance programme will be necessary.

In addition to the statutory thorough examinations by a Competent Person, regular in-service inspections should be made to find any faults and damage that might arise. If any are found they should be referred to the Competent Person.

The maintenance programme must meet the requirements of the manufacturers instructions and any special requirements due to the conditions of service. This may be combined with maintenance of other equipment used in association with the appliance, eg power feed system. Check the block and its associated equipment daily for obvious faults and signs of damage.

Further information is given in:

LEEA Code of Practice for the Safe Use of Lifting Equipment