Instructions for the safe use of: Travelling Girder Trolleys

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 TRAVELLING GIRDER TROLLEYS and is based on Section 7 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 travelling girder trolleys. It may be necessary to supplement this information for specific applications.

ALWAYS:

- Store and handle trolleys correctly.
- Inspect trolleys, blocks and accessories before use and before placing into storage.
- Ensure the wheel profile is suitable for the track.
- Check the trolley width is correctly set for the track.
- Ensure the track is fitted with positive end stops.
- Push rather than pull loads suspended on push/pull trolleys.

NEVER:

- Expose trolleys to chemicals, particularly acids, without consulting the supplier.
- Force or wedge the suspension hook of blocks onto the load bar.
- Throw or drop a trolley.
- Expose a trolley directly to the elements, water spray, steam etc without consulting the supplier.
- Use a trolley with chipped or otherwise damaged wheel flanges.
- Obliquely side load a trolley.

Selecting the Trolley

Travelling girder trolleys are available in a range of capacities with load bars/suspension eyes to accept hook on blocks or built into the block as an integral part. They are available with push/pull, hand chain geared and power operated travel. Select the trolley to be used and plan the lift taking the following into account:

Capacity and type of trolley - load bar/suspension eye or built in block suspension arrangement - push/pull, hand geared or power operated travel. Type of block.

Track size and profile.

Consult the supplier if the trolley is to be used in areas of high risk, exposed to the elements, water, steam etc, with hazardous substances or subjected to extremes of temperature.

Storing and Handling Trolleys

Users will often remove blocks for storage leaving the trolley in place. They must be suitably protected from damage and corrosion. When removing trolleys for separate storage the following steps should be taken:

Never return damaged trolleys to storage. They should be dry, clean and protected from corrosion.

Store trolleys in a dry, clean area protected from damage. Operating chains, pendant power controls etc may be removed, clearly labelled and stored separately to avoid damage.

Trolleys should not be dropped or thrown down.

Installing and Commissioning

Follow any specific installation instructions issued by the supplier. These should be read in conjunction with the instructions applicable to the block and should at least pay attention to the following:

Check the runway track is level, has an even running surface and is fitted with positive end stops which engage with the trolley frame or wheel treads.

Ensure the trolley is set to correct width with spacers equally disposed about the centre line, t hat the wheel profile is suitable for the track section and anti-tilt devices are correctly set.

If the trolley was dismantled for erection ensure the parts are correctly re-assembled. Ensure that all bolts, nuts etc are in place and fully tightened. If end stops were removed ensure they are replaced.

Using Trolleys Safely

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

Do not use defective trolleys, blocks or accessories.

The trolley must be placed directly over the centre of gravity of the load. Under no circumstances must they be obliquely side loaded as this will cause them to tip, resulting in damage to the track or the trolley becoming detached from the track and falling.

In the case of push/pull trolleys push rather than pull suspended loads taking care to avoid swinging loads.

In-service Inspection and Maintenance

Maintenance may be combined with that of the block but should ensure that the trolley is clean and that moving parts are regularly lubricated. Keep the running surface of wheels and contact surface of track free of any contamination including lubricants.

Regularly inspect the trolley and, in the event of the following defects, refer the trolley to a Competent Person for thorough examination: wear; damage to wheel treads and flanges; insecure wheels and axle pins; loose nuts; distorted side plates, load bar or suspension eyes; damaged or worn hand chain; damaged controls; worn, chipped drive gears; illegible markings.

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

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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 us e 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:

- Never attempt lifting operations unless you have been trained in the use of the equipment and slinging procedures.
- Position the hook directly over the centre of gravity so that the line of pull is vertical.
- Do not use the chain/wire rope to sling the load, ie do not wrap it round the load, back hook or choke hitch.
- Do not lift on the point of the hook or overcrowd the hook with fittings.
- 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.
- Avoid unnecessary inching of power operated appliances and do not impose sudden or shock loads.
- 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.
- Avoid sudden movement of travel motion or undue effort in pushing the load which can cause the load to swing.
- Avoid excessive or intentional use of motion limits unless they are additional limits intended for that purpose. Avoid running appliances against end stops.
- 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.
- 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