LIFTINGSAFETY
SELBY ENGINEERING AND LIFTING SAFETY LTD
3 LINCOLN WAY, SHERBURN IN ELMET, LEEDS, LS25 6PJ, UK
Tel: +44 (0) 1977 684 600 Email: sales@liftingsafety.co.uk
LIFTING EQUIPMENT AND HEIGHT SAFETY SPECIALISTS

Instructions for the safe use of: Runways

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 RUNWAYS and is based on Section 10 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 runways. It may be necessary to supplement this information for specific applications.

ALWAYS:

- Only use runways which are clearly identified, marked with the SWL and for which a current test certificate is available.
- Inspect the runway, block and accessories before use and before placing into storage.
- Only use runways that are fitted with positive end stops.
- Position the lifting appliance directly over the load then take the weight of the load gently.
- Ensure you have a clear view of the travel path and that this is free of obstructions before moving suspended loads.

NEVER:

- Attach additional steelwork or suspend pipes, cables etc from runways.
- Shock or side load runways.
- Allow the load to swing unduly or in an uncontrolled manner.
- Attempt to drag loads along the ground.
- Allow persons to pass under suspended loads.

Selecting the Correct Runway

Runways may be custom built from standard steel sections or special track sections. They may be mounted on free standing structures, attached to the building members or a combination of both.

Alternatively a building member may be selected to be used as a runway. The resulting loads imposed on the building structure or foundations are almost always additional to those for which the building has been designed.

A theoretical check should therefore be made by a suitably qualified person and written confirmation of adequacy obtained. The runway must also be tested, marked with its identification and SWL and certified by a Competent Person before use.

Storing and Handling Runways

When not in use the lifting appliance should be positioned so as not to present a hazard to persons, goods, vehicles etc that may be in the area.

If the runway is not in regular use it is advisable to remove the lifting appliance for separate storage. Where this is not possible or desirable the appliance should be parked where it will not present a hazard. Any power supply systems should be isolated.

Installing and Commissioning

Follow the specific instructions for erection issued by the supplier as these will vary with the design.

It is important that the superimposed forces are assessed by a qualified engineer and written approval obtained.

The track must be level and have an even running surface. Positive end stops must be fitted to prevent the trolley and lifting appliance running off the ends or colliding with supporting members.

With outdoor applications or those associated with humidity, heat etc it may be necessary to provide a suitably covered or protective area in which to park the lifting appliance.

Using Runways Safely

Do not use defective runways, blocks or accessories.

Position the lifting appliance carefully. The block hook must be directly over the centre of gravity of the load. Do not side load the runway or use the appliance to drag loads along.

Take the load gently and avoid shock loads.

Before moving a suspended load ensure you have a clear view of the travel path and that this is free of any obstructions etc.

Avoid swinging loads. Push rather than pull on suspended loads. Do not let trolleys crash into the travel stops as the load may whip thus increasing the resultant loads imposed on the structure.

In the case of runways fitted with more than one appliance, care must be taken to prevent collision or any one span of the runway becoming overloaded due to the proximity of the appliances.

In-service Inspection and Maintenance

The maintenance requirements may be combined with those of the lifting appliance. Bolts and fixings should be checked to ensure they are tight and if necessary re-torqued. The running surface of the track should be clean and kept free of debris etc. End stops must be in place, correctly set and secure.

Regularly inspect the runway and, in the event of the following defects, refer the runway to a Competent Person for thorough examination: structural defects, damage, distortion, corrosion or cracked welds; loose or missing bolts; damaged or missing runway end stops; track not level or running face uneven; difficulty in moving trolley or trolley moves on its own; any other visible defects.

LIFTING APPLIANCES FOR GENERAL PURPOSES

(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 and remains 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*

***HSE Guidance Note GS39 - Training of Crane Drivers and Slingers*