

# DALE

## Instructions for the Safe Use of Wire Rope Grip/Pull Lifting Machines The information in this document 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 LIFTING MACHINES WHICH GRIP/PULL WIRE ROPE 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 machines which grip and pull a wire rope for lifting purposes, referred to as grip/pull machines in this document. It may be necessary to supplement this information for specific applications.

### ALWAYS

- Store and handle grip/pull machines correctly.
- Inspect the machine, rope and accessories before use and before placing into storage.
- Ensure mounting and suspension points are secure and suitable for the full loads that will be imposed.
- Ensure the machine is free to align correctly with the rope and the rope is free of any obstructions.
- Use only the correct rope supplied for the machine.

### NEVER

- Use kinked, damaged ropes or ropes with broken wires.
- Extend or force operating levers.
- Operate raising and lowering levers at the same time.
- Use grip/pull machines if the rope is twisted or trapped.
- Use grip/pull machines for man-riding applications unless they are specifically designed/adapted for that purpose.

### SELECTING THE CORRECT GRIP/PULL MACHINES

Grip/pull machines are available in a range of capacities, with manual operation (hydraulic operation is available for certain applications) for both lifting and pulling duties. Various rope lengths are available.

Select the machine to be used taking the following into account:

Type of machine - manual, hydraulic - lifting or pulling capacity - length of rope and need for rope collecting/coiling.

Rigging arrangement - diverters, pulley blocks - anchorage and suspension points - imposed loads.

Consult the supplier if the machine is to be used for man-riding applications.

### STORING AND HANDLING GRIP/PULL MACHINES

- Never return damaged grip/pull machines, ropes etc to storage. They should be dry, clean and protected from corrosion.
- Rope should be carefully coiled onto a suitable drum or frame for storage, taking care to avoid any twists.
- Store machines and ropes on a suitable rack, not on the floor where they may be damaged.

### INSTALLING AND COMMISSIONING

Follow any specific instructions for installation and commissioning issued by the supplier and the general requirements given overleaf.

### USING GRIP/PULL MACHINES SAFELY

- Do not use defective grip/pull machines, ropes, pulleys etc.
- Check the rigging arrangement, that anchorage and suspension points are secure and adequate for the imposed loads.
- Ensure the correct rope is fitted and that it is not twisted or kinked. The machine must be free to align with the rope.
- For lifting operations do not exceed the marked SWL. The line pull must not exceed that stated for pulling applications.
- Only use the operating lever provided with the machine and do not extend this with tubes etc. Undue force will damage the machine or cause safety pins to shear.
- Do not attempt to operate the raising and lowering levers at the same time.
- For man-riding applications only use a machine which has been designed or specially adapted for that purpose, following the suppliers specific instructions. Additional safety equipment will be necessary.

### IN-SERVICE INSPECTION AND MAINTENANCE

- Follow the specific instructions for maintenance issued by the supplier. These should be incorporated into the site maintenance programme observing any particular needs due to the site or working conditions. Lack of lubrication will result in a jerky movement or failure to operate. Keep the machine well lubricated. It is impossible to over lubricate grip/pull machines.
- Regularly inspect the grip/pull machine and rope and, in the event of the following defects, refer the machine to a Competent Person for thorough examination: casing damaged or distorted; shear pins distorted or broken; operating lever bent or distorted; incorrect diameter sheaves used in association with rope; incorrect rope fitted; rope is kinked, worn, corroded or has broken wires; wire rope termination is damaged, cracked or pulled; terminal fittings damaged, distorted, cracked or gouged; marking illegible; jerky operation; any other visual defects or operational faults.

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Further information is given in:

The Code of Practice for the Safe Use of Lifting Equipment,  
published by: LIFTING EQUIPMENT ENGINEERS ASSOCIATION

## DALE

### Lifting and Handling

2 Kelbrook Road, Openshaw, Manchester M11 2QA

Telephone 0845 2701 2919

Email: [info@dale-lifting.co.uk](mailto:info@dale-lifting.co.uk)

website: [www.dale-lifting.co.uk](http://www.dale-lifting.co.uk)