

Instructions for the use of: Wire Rope Grips to EN 13411-5

The information in this leaflet must be passed to the user of the equipment, who must be suitably trained in the use of this 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 and the Supply of Machinery (Safety) Regulations 2008 (Machinery Directive). It provides instruction to the user with regards to the care and safe use of Wire Rope Grips to EN 13411-5 formerly DIN 1142.

This information is of a general nature only covering the main points for the safe use of Wire Rope Grips. It may be necessary to supplement this information for specific applications.

Additional advice on storage, handling installation, inspection and discard is available on request.

ALWAYS:

- Ensure the operator is properly trained to use wire rope grips
- Store and handle wire rope grips correctly.
- Check that you have the correct wire rope grip for the application.
- Check the wire rope grip against its test certificate.
- Inspect the wire rope for damage, wear, corrosion or abuse at the start of each work period.

NEVER:

- Use wire rope grips at extremes of temperature without consulting the supplier.
- Use wire rope grips with obvious signs of mechanical, corrosive or heat damage without the advice of a competent person.
- Use wire ropes that are excessively worn, damaged or corroded.

Storage and Handling of Wire Rope Grips

Wire rope grips should be stored in a clean, well-ventilated, dry, undercover location. If the site conditions preclude inside storage the wire rope grips should be covered with a waterproof material.

Wire rope grips should not be stored in areas subject to elevated temperatures as this may affect their future performance.

Using Wire Rope Grips Safely

Wire rope grips are used for a vast range of different purposes with different attendant risks.

Other risks will be dependant on the application and should be quantified by a risk assessment carried out by a competent person.

In-service Inspection and Maintenance

The purpose of Inspection is to determine whether or not a wire rope grip may continue to be safely used in a particular application and coupled with appropriate maintenance can also extend the wire rope grip's working life.

Regular periodic inspection of wire rope grips and the keeping of records, authenticated by a competent person is a requirement for almost every application using wire rope grips for lifting purposes. The frequency of this activity is dependant on the severity of the application and governing regulations.

Useful recommendations may be found in published standards** and in suppliers' literature.

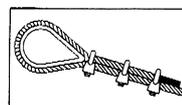
Size Nominal Diameter mm	Required number of Wire Rope Grips to attain 85% of rope minimum breaking load	Required tightening torque to attain required efficiency N.m
5	3	2.0
6.5	3	3.5
8	4	6.0
10	4	9.0
13	4	33.0
16	4	49.0
19	4	68.0
22	5	107
26	5	147
30	6	212
34	6	296
40	6	363

Required number of Wire Rope Grips and Torque

For intermediate nominal diameters of rope the next largest grip size should be used. The nominal size 5 grip should only be used on a 5mm nominal diameter rope. For 11mm diameter rope use four 10mm nominal size grips with a tightening torque of 14 N/m. The tightening torques quoted in the table above applies to the threads and bearing surfaces of the nuts having been greased.

Fitting

The first wire rope grip must be placed immediately against the thimble. The wire rope grips must be placed so that they are separated by at least one clear grip (albeit a distance of six times rope diameter is suggested) between each other.



The 'U' bolt must always be placed on the tail end of the rope (non "load" bearing end).

In the case of re-selling and/or hire of equipment, this information must be passed onto the end user

** Further information can be obtained from:

- BS ISO4309:2010
- BS EN 12385 Steel Wire Ropes – Safety
- BS EN 13411 Terminations for Steel Wire Rope – Safety

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