

SAFE USE DATA SHEET

US Type, Forged, Heavy Duty Wire Rope Clip or Grip
generally in accordance with BS EN 13411-5 (US spec FFC450 Type 1 Class 1)
(except in A4-AISI 316 stainless steel material)

ALWAYS:

- Read and understand these instructions before using clips.
- Prepare wire rope end termination only as instructed.
- Match the same size clip to the same size wire rope.
- Store and handle wire rope grips correctly.
- Do not use with plastic coated wire rope unless the coating is stripped before applying wire rope grips to ensure a strong termination.
- Apply first load to test the assembly. This load should be of equal or greater weight than loads expected in use.
- Check, tighten and periodically retighten nuts to recommended torque.
- The wire rope end termination should be inspected periodically for wear, abuse and general adequacy.



NEVER:

- Use wire rope grips at extremes of temperature without consulting the supplier.
- Use wire rope grips as the main termination for overhead lifting.
- 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.

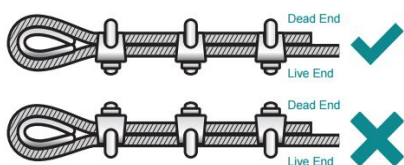
Useful recommendations may be found in published standards and in supplier's literature.

Fitting Instructions

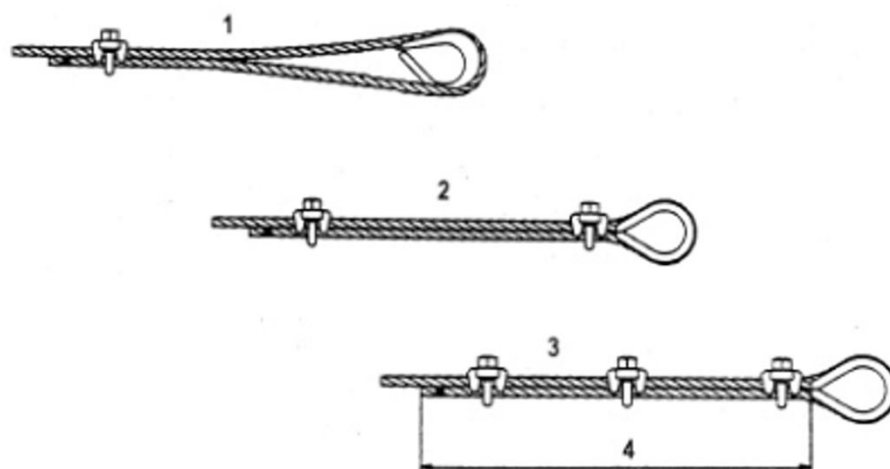
Referring to Table A below, turn back the specified amount of wire rope from the thimble or loop.

Apply the first grip one bridge width from the dead end of rope.

The U-bolt should be fitted over the non load bearing (short) tail of the loop (also known as the “dead” end hence “dead horse”); the bridge (also known as the “saddle”) over the load bearing longer part. Remembered by the mnemonic: “Never saddle a dead horse”.



Tighten the nuts evenly using a nut spinner or a torque wrench as advised, alternating from one nut to the other until reaching the recommended torque.



Key

- 1 Location of first grip
- 2 Location of second grip
- 3 Location of third /other grips
- 4 Turnback

When two grips are required, apply the second grip as near the loop or thimble as possible. Tighten the nuts evenly and alternating until reaching the recommended torque.

When more than two grips are required, apply the second grip as near the loop or thimble as possible; turn the nuts on the second grip firmly, but do not tighten. Proceed to the next step.

When three or more grips are required, space additional grips equally between the first two - take up rope slack - tighten nuts on each U-bolt evenly, alternating from one nut to the other until reaching recommended torque.

Note: Any coated wire ropes should be stripped before applying the grips.

Apply the first load to test the assembly. This load should be of equal or greater weight than loads expected in use. Next check and retighten the nuts to the recommended torque.

Periodically re-tightening of the nuts may be necessary. This may be at 10,000 cycles (heavy usage), 20,000 cycles (moderate usage) or 50,000 cycles (light usage). If cycles are unknown, a time period could be used, eg every 3 or 6 months, annually.

The wire rope end termination should be inspected prior to use and periodically in use for wear, abuse and general adequacy.

Table A - Torque and Number of Grips

Nominal Grip Size (in)	Nominal Wire Rope Diameter (mm)	Minimum Number of Grips per Termination to achieve 80% of the cables MBL	Amount of Wire Rope to Turn Back (mm)	Torque * (Nm)
1/8	3-4	2	85	6.1
3/16	5	2	95	10.2
1/4	6-7	2	120	20.3
5/16	8	3	133	40.7
3/8	9-10	3	165	61
7/16	11-12	3	178	88
1/2	13	3	292	88
9/16	14-15	3	305	129
5/8	16	3	305	129
3/4	18-20	4	460	176

Note: If a greater number of grips are used than shown in the table, the amount of turnback should be increased proportionately.

* The tightening torque values shown are based upon the threads being clean, dry and free of lubrication.