



## User Manual for aseke U-bolt wire rope clips

### Mounting and the use of U-bolt wire rope clips

The steel wire rope clips will have to be inspected before use to ensure that:

- the marking is correct
- the dimension is right in relation to the diameter of the wire rope
- the nuts cannot loosen due to vibrations
- no deformations or cracks in the clips
- the clips have not been modified by machining, welding, bending with heat treatment as this can impair the function and quality of the clips
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The steel wire rope clips should be mounted as shown in the below figures.

The bridge of the wire rope clip must always be mounted on the side which takes up the load.

The U-bolt must always be mounted with the bow on that side where the end of the steel wire rope is placed, called the "dead end".

When making the loop, drag the "dead end" so far back as it will allow the required number of steel wire rope clips acc to table no 1.

The first wire rope clip is to be mounted as shown in below figure 1. Close the nuts with the force as listed in the below table for the steel wire rope diameters.

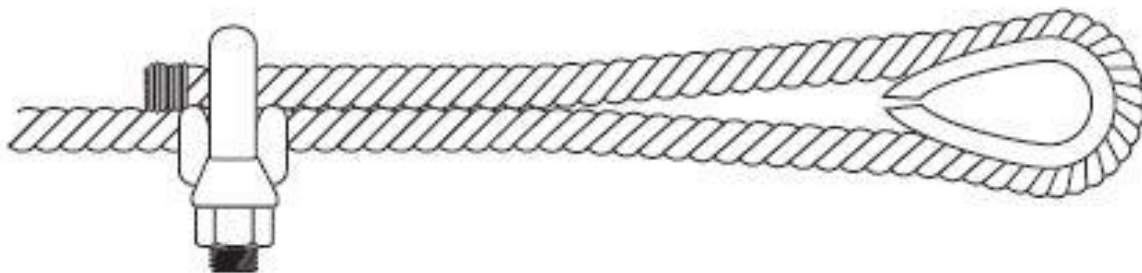


Figure 1



The second steel wire rope clip must be mounted close to the thimble. Make sure the clips are not tightened so that the strands of the steel wire rope are damaged (figure 2). Tighten the nuts of the steel wire rope clip, but not yet fully as according to the below list.

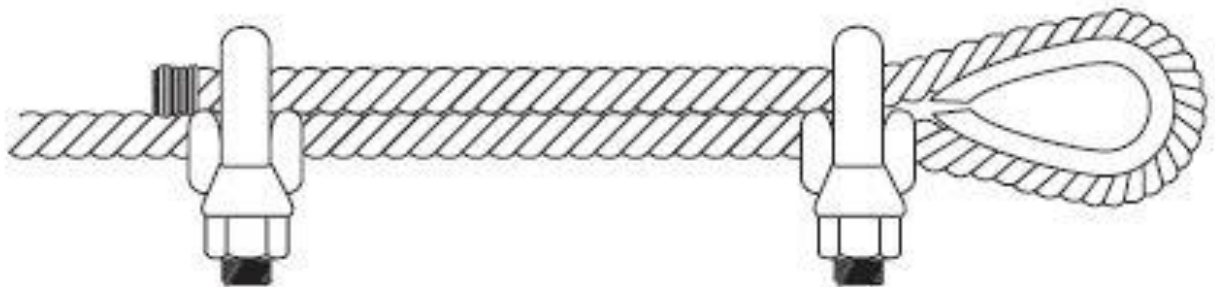


Figure 2

The next clip is to be mounted between the the first and second clip in a manner that the distance between the clips of minimum  $1 \frac{1}{2}$  time the width of the steel wire rope clip, alternatively maximum 3 times the width of the clip according to Figure 3.

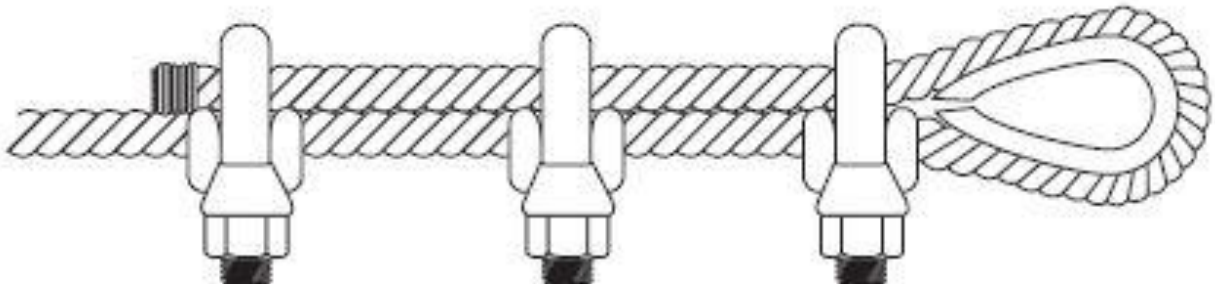


Figure 3

Load the steel wire with a low force and tighten all nuts evenly and alternately to the advised load in the below table.

After the steel wire rope has been loaded with high force the first time, the moment figure must be rechecked and eventually adjusted.

The nuts must again be tightened again at 10.000 cycles by heavy loads, 20.000 cycles by moderate loads and 50.000 cycles by easy/light loads. Should the cycles of use be unknown, a competent and certified person determine the required intervals of 3 months, 6 months or once annually.



TYPE U-BOLT AS DIN 741-STANDARD AND CORRESPONDING WITH EN 13411-5, TYPE A.

(Product Group G40 Components)

U-BOLT AND NUTS ARE ELECTROLYTICALLY GALVANIZED, THE CASTED PART IS HOT DIP GALVANIZED

\* 10+12 MM: ALL PARTS HOT DIP GALVANIZED

ITEM NO	MAX WIRE DIA	WIRE DIA	h1	l	b1	DIA THREADS	TORQUE/ NUMBER OF CLIPS
912003	3 MM	1/8"	20 MM	21 MM	4 MM	4 MM	1,5kN/3
912005	5 MM	3/16"	25 MM	23 MM	5,5 MM	5 MM	2kN/3
912006	6 MM	1/4"	29 MM	26 MM	6 MM	5 MM	3,5kN/3
912008	8 MM	5/16"	35 MM	30 MM	8 MM	6 MM	6kN/4
912010*	10 MM	3/8"	43 MM	34 MM	10 MM	8 MM	9kN/4
912011	11 MM	7/16"	44 MM	36 MM	11 MM	8 MM	14kN/4
912012*	12 MM	1/2"	45 MM	37 MM	13 MM	10 MM	20kN/4
912014	14 MM	9/16"	58 MM	44 MM	14 MM	10 MM	33kN/4
912016	16 MM	5/8"	64 MM	50 MM	16,5 MM	12 MM	49kN/4
912020	20 MM	3/4"	77 MM	54 MM	20 MM	12 MM	68kN/4
912022	22 MM	7/8"	85 MM	61 MM	23 MM	14 MM	107kN/5
912024	26 MM	1"	97 MM	65 MM	26 MM	14 MM	147kN/5
912028	30 MM	1 1/8"	110 MM	74 MM	32 MM	16 MM	212kN/6
912032	34 MM	1 1/4"	120 MM	80 MM	35 MM	16 MM	296kN/6
912040	40 MM	1 1/2"	122 MM	88 MM	42 MM	16 MM	363kN/6

EXTRA STONG TYPE U-BOLT WIRE ROPE CLIPS (Product group G40 components)

US FED SPEC FF-C-450 AND EN 13411-5, TYPE B.

HOT DIP GALVANIZED BOW, CASTED BODY AND NUTS.

THE BOW IS ADDITINALLY ORANGE PAINTED

ITEM NO	FOR WIRE ROPE DIA	WIRE ROPE DIA	h1	LENGTH OF THREADS	l	TORQUE	NUMBER OF CLIPS
912045	40-45 MM	1 3/4"	175 MM	74 MM	134 MM	800kN	8
912052	46-52 MM	2"	195 MM	78 MM	152 MM	1017kN	8
912058	54-58 MM	2 1/4"	208 MM	81 MM	162 MM	1017kN	8
912065	60-65 MM	2 1/2"	227 MM	87 MM	168 MM	1017kN	8
912072	66-72 MM	2 3/4"	243 MM	91 MM	174 MM	1017kN	10
912078	74-78 MM	3"	271 MM	104 MM	194 MM	1627kN	10
912090	80-90 MM	3 1/2"	311 MM	115 MM	212 MM	1627kN	12

**Table 1** The figures and the number of clips origin from NS EN 13411-5.

The efficiency of a steel wire rope connection with steel wire rope clips is dependent on the correct placing of the clips on the rope as well as correct mounting and tightening of the clips. With



insufficiently number of clips or their insufficient tightening it lead to the wire rope sliding through the clips during loading and use.

The mounting of steel wire rope clips on a steel wire rope can be inflicted by examplewise:

- The threads on the U-bow can make the nut seem closed, but are not close to the bridge part.
- The threads on the U-bow can be inflicted by dirt, oil or rust which can prevent the correct tightening of the nuts.

Steel wire rope clips should not be used in the following situations:

- Lifting ropes in mines
- Steel wire rope connections in cranes in steel plants and on rolls.
- For firm connections in other steel wire ropes.
- Steel wire rope connections for spring loaded arrangements of lifting equipment, except lifting operations where these are produced for a special application and only used once.

Steel wire rope clips must be inspected evenly and in accordance with the safety standards of the national authorities. This demand relates to the infliction of wear and tear, overloading etc that again can lead to deformation and changes in the material structure. Inspection must be due minimum every 6 months when the products are used in important fields of use.

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