

Certificate of test and thorough examination of wire ropes



Certificate No.: LA4/
Subcertificate of original No.: LA4/

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This certificate is to be issued by Germanischer Lloyd or by firms authorised by GL. The issuance by these firms will be acknowledged by GL provided conditions stated on reverse side are complied with.

This certificate is based on the standard international form as recommended by the International Labour Office in accordance with ILO Convention No. 152.

General Data

Name of ship	Code Letters
Date of test	GL-Register No.
mm	m
Nominal diameter	Length
Construction	Standard
Type of core	Surface finish of wires
	N/mm ²
Type of lay/direction of lay	Nominal tensile grade of wires

A) Load and location at which rope sample broke: _____ kN in the range of endtermination / Splice
 free length

B) By testing of the wires from one strand the following mean values were ascertained:

Number of wires	_____		
Diameter of wires	_____ mm		
Sectional areas of wires	_____ mm ²		
Breaking load of wires	_____ N		
Tensile strength of wires	_____ N/mm ²		
Measured aggregate breaking load of rope	_____ kN	Spinning factor	_____
Measured aggregate breaking load x spinning factor	_____ kN		
The safe working load subject to the coefficient of utilisation "K" (see reverse side) is:	_____ kN		

C) Further tests: _____

Name and address of manufacturer or supplier of rope

Manufacturers identification strip (print)

Name and address of firm or competent person who witnessed testing and performed the thorough examination

I certify that the above statements are correct, that the rope was tested and thoroughly examined by a competent person and no defects were found.

Place / Date	Stamp	Name / Signature of GL Representative (For instructions see reverse side)
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Instructions

1. Wire ropes shall be tested by sample, a piece being tested to destruction. If this is not feasible, the minimum breaking load may be proved by means of destruction test of the wires.
2. The test procedure should be in accordance with an international or recognised national standard.
3. The SWL of the rope is to be determined by dividing the load at which the sample broke, by a coefficient of utilisation, determined as follows:

Safe working load (SWL) of cargo handling appliance, lifting appliance, loose gear (tonne)	Coefficient of utilisation "K"		
	Running rigging	Standing rigging	Wire rope sling *) (Single leg sling)
up to 10	5	4	6
10 up to 107	--	$\frac{8000}{(8.85 \times \text{SWL}) + 191}$	--
10 up to 160	$\frac{10000}{(8.85 \times \text{SWL}) + 191}$	--	$\frac{12000}{(8.85 \times \text{SWL}) + 191}$
exceeding 107	--	2.8	--
exceeding 160	3	--	3.6

These coefficients should be adopted unless other requirements are specified by a national authority.

4. The expression "tonne" shall mean a tonne of 1,000 kg.
5. The terms "competent person", "thorough examination" and "lifting appliance" are defined in Form no. LA1.

*) If wire rope slings are integral part of a loose gear, these slings may be dimensioned as "Standing rigging" provided that all single slings are fitted with thimbles or rope sockets on both ends.

Excerpt from the Rules of Germanischer Lloyd with respect to recognition of certificate of test and thorough examination of wire ropes.

- A. Manufacturers of wire ropes may test their products independently and issue certificates which are recognized by Germanischer Lloyd if the following conditions are fulfilled:
 1. The manufacturer workshop's must be approved by Germanischer Lloyd.
 2. The ropes must be examined in accordance with the Rules of Germanischer Lloyd.
 3. All types of rope construction must be approved by Germanischer Lloyd.
 4. An identification strip with the name of the manufacturer must be worked into the rope. Additionally this strip must bear the identification number assigned by Germanischer Lloyd. Furthermore a coloured distinguishing thread denoting the tensile grade of yarns must be worked into the rope. This coloured distinguishing thread can be dispensed with, if the identification strip is of the colour of the respective tensile grade.
 5. All tensile testing machines for testing of wires and ropes must be subject to Germanischer Lloyd control.
 6. Only forms issued by Germanischer Lloyd may be used for certificates.
- B. Suppliers of wire ropes may be authorized by Germanischer Lloyd on application to transcribe original certificates issued by manufacturers on GL-certificate forms. This is only possible for ropes from manufacturers authorized by Germanischer Lloyd for independent testing of ropes.