

TYPE EXAMINATION CERTIFICATE

This is to certify: That the Strong Points

with type designation(s)
**420053, 420057, 421103, 421104, 421105, 421401, 421402, 421403, 421404, 421405,
421406, 421407, 421408, 421447, 421501, 421502**

Manufactured by

Roca Industry AB
TYRESÖ, Sweden

is found to comply with

Application :

EN ISO 15084:2003. Small Craft – Anchoring, mooring and towing – Strong Points

6.2 Horizontal load

7.2 Corrosion resistance

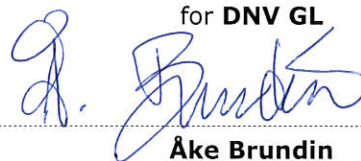
Strong Points for anchoring, mooring and towing for Recreational Craft.

This Certificate is valid until **2019-11-29**.

Issued at **Stockholm** on **2015-11-30**

DNV GL local station: **Stockholm**

Approval Engineer: **Kristoffer Uulas**

for DNV GL


Åke Brundin
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Examination Certificate and not to the approval of equipment/systems installed.

Application/Limitation

Limitation on L_C according to table below.

Where: $L_C = (L_h + L_{WL})/2$
 L_h = Length of hull according to ISO 8866.
 L_{WL} = Waterline length to ISO 8866.

Samples of Mooring Cleats have been tested to rupture.
 Breaking strength occurred at levels above those recorded in table below.
 The results have not been subject to statistical validation.

CLEAT	Size	Breaking strength <i>kN</i>	Category A, B	Category C	Category D	Rope diameter ISO 1141
			Max L_C			
421401	150	23	6,6	7,2	8,4	10
421501	150	23	6,6	7,2	8,4	10
421402	205	39	10,3	11,3	13,3	14
421502	205	39	10,3	11,3	13,3	14
421103	265	62	15,7	17,3	20,5	16
421403	265	62	15,7	17,3	20,5	16
420053	290	80	19,9	21,9	26,1	20
420057	290	80	19,9	21,9	26,1	20
421104	310	90	22,2	24,5	29,2	22
421105	310	80	19,9	21,9	26,1	20
421404	310	90	22,2	24,5	29,2	22
421405	310	90	22,2	24,5	29,2	22
421406	310	90	22,2	24,5	29,2	22
421407	360	120	29,2	32,3	38,5	24
421408	360	120	29,2	32,3	38,5	24
421447	360	120	29,2	32,3	38,5	24

Type Examination documentation

Drawings:

421401-P5, 421501-P3, 421402-P6, 421502-P3, 421103-P2, 421403-P6, 420053-P5, 420057-P1,
 421104-P2, 421105-P2, 421404-P5, 421405-P6, 421406-P6, 421407-P4, 421408-P4, 421447-P4

Tests carried out

Rapport KTH ROCA100923 2010-09-23, Rapport KTH 2002-05-14,
 Rapport KTH 99-05-17, SP 86M62226.

Marking of product

Package / Product shall be marked in accordance with *Type Designation*.

Certificate Retention Survey

The scope of the renewal survey is to verify that the concessions stipulated for the type approval is complied with and that no alterations are made to the product design or choice of materials. Survey is to be performed at renewal after four (4) years