



# Marine Design Appraisal Document

Lloyd's Register EMEA  
Hamburg Technical Support Office  
Am Sandtorkai 41  
20457 Hamburg  
Telephone +49 (0)40 328107 - 0 Fax +49 (0)40 328107 - 480  
E-mail: hamburg-technical-support@lr.org

Date  
**04 December 2015**

Please quote this reference number on all future communications  
**HPC1562170/32787-15/MK/JB/LK**

**GENERAL DESIGN APPRAISAL  
ISSUED TO: ROXTEC GMBH, HAMBURG  
FOR: CABLE RACK SYSTEM  
OF TYPES NKB, BKB, LKB, LZB, ZKB, SKB**

**EXPIRY DATE: 03 DECEMBER 2020**

**1** The document(s) listed in paragraph 1 of the appendix has/have been examined for compliance with **Part 6, Chapter 2, Section 11.10 of the Rules and Regulations for the Classification of Ships, July 2015** and are an appraisal status as indicated, in accordance with the following conditions:

**1.1** Product details:

Cable rack system made of steel, stainless steel or aluminium for cable installations according to IEC 60092-352: 2005.

**1.1.1** NKB Standard Cable Rack (trapeze-profile, ladder type)

- a. Steel, primer protected; Steel, hot-dip galvanized; Stainless steel material 1.4301 and 1.4571; Aluminium
- b. Length 3 m, width 100 mm - 600 mm
- c. Long-side beams 40 x 5 mm
- d. Crosspieces 56 x 2 mm
- e. Crosspiece distance 300 mm

**1.1.2** BKB cable tray (through-type)

- a. Steel, hot-dip galvanized; Stainless steel material 1.4301 and 1.4571; Aluminium
- b. Length 2 m, width 50 mm - 300 mm
- c. Long-side beams height 15 mm

FINAL ACCEPTANCE OF ACTUAL ITEM(S) DEPEND(S) ON SATISFACTORY SURVEY AND TESTING

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- 1.1.3 LKB light-duty rack (trapeze-profile, ladder type)
  - a. Steel, primer protected; Steel, hot-dip galvanized; Stainless steel material 1.4301 and 1.4571; Aluminium
  - b. Length 2 m, width 50 mm - 300 mm
  - c. Long-side beams 25 x 3 mm
  - d. Crosspieces 42 x 1 mm, 42 x 2 mm for aluminium
  - e. Crosspiece distance 250 mm
- 1.1.4 LZB light-duty rack (Z-profile, ladder type)
  - a. Steel, primer protected; Steel, hot-dip galvanized; Stainless steel material 1.4301 and 1.4571
  - b. Length 3 m, width 100 mm - 600 mm
  - c. Long-side beams 35 x 3 mm
  - d. Crosspieces 70 x 1 mm
  - e. Crosspiece distance 300 mm
- 1.1.5 ZKB heavy-duty cable rack (Z-profile, ladder type)
  - a. Steel, primer protected; Steel, hot-dip galvanized; Stainless steel material 1.4301 and 1.4571; Aluminium
  - b. Length 3 m, width 100 mm - 1200 mm
  - c. Long-side beams 40 x 5 mm
  - d. Crosspieces 90 x 2 mm
  - e. Crosspiece distance 300 mm
- 1.1.6 SKB heavy-duty cable rack (trapeze-profile, ladder type)
  - a. Steel, primer protected; Steel, hot-dip galvanized; Stainless steel material 1.4301 and 1.4571; Aluminium
  - b. Length 3 m, width 300 mm - 1200 mm
  - c. Long-side beams 40 x 5 mm
  - d. Crosspieces 70 x 2 mm
  - e. Crosspiece distance 300 mm

## 1.2 Cable installations on cable racks are subject to below conditions:

- 1.2.1 The distances between the points at which the cable is supported (e.g. distances between ladder rungs, support brackets, hangers, etc.) are to be chosen according to the construction of cable (i.e. size and rigidity) and the probability of vibration and are to be generally in accordance with those given in below Table 1.2.1.

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External diameter of cable		Non-armoured cables	Armoured cables
exceeding	not exceeding		
mm	mm	mm	mm
-	8	200	250
8	13	250	300
13	20	300	350
20	30	350	400
30	-	400	450

Table 1.2.1: Maximum spacing for supports or fixings for securing cables

1.2.2 Cable rack installations are to be to the local Surveyor's satisfaction.

### 1.3 Confirmation:

It is herewith confirmed that we see no objection to install above equipment on Lloyd's Register classed vessels.

### 1.4 Validity:

Expiry date: 03 December 2020

The validity of this Marine Design Appraisal expires on above mentioned date respectively by changes of appropriate Rules & Regulations, whichever comes first.



Jörn Brüggemann  
Senior Specialist  
Electrotechnical Systems  
Hamburg Technical Support Office  
Lloyd's Register EMEA  
T +49 (0)40 328107-441  
E joern.brueggemann@lr.org

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## Appendix

1. The document(s) listed below has/have been examined

Document No.	Rev.	Title	Status	Date
107-13	1	Test Report "Damp Heat, cyclic"	SI	04/12/2015
108-13	1	Test Report "Salt Fog"	SI	04/12/2015
013-13	1	Test Report "Safe Work Load Evaluation"	SI	04/12/2015
KLN 0208235	-	Certificate ISO 9001: 2008	SI	04/12/2015
CAT2013000700	1.1	Catalogue Roxtec Cable Rack System	SI	04/12/2015

2. Documents not mentioned above are not required for appraisal or as supporting documentation and have not been retained.

## Appraisal Status Code

SI Retained as supporting documentation for information only.

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