

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Cable Tray

with type designation(s)
SL and accessories

Issued to

OBO Bettermann GmbH & Co. KG
Menden, Germany

is found to comply with
DNV GL rules for classification – Ships and offshore units

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

This Certificate is valid until **2021-02-15**.

Issued at **Høvik** on **2016-02-16**

DNV GL local station: **Essen**

Approval Engineer: **Nicolay Horn**

for **DNV GL**

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Marit Laumann
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 Approval Certificate and not to the approval of equipment/systems installed.

Product description

Cable ladder with the type designation SL

Classification according to:	IEC 61537 Class
6.1 Material	Metallic
6.2 Resistant to Flame Propagation	Non Flame Propagation
6.3 Electrical Continuity Characteristics	With Electrical Continuity Characteristics
6.4 Electrical Conductivity	Electrical Conductivity
6.5 Resistance Against Corrosion	Metallic classified according to IEC 61537 Table 1
6.6.1 Minimum Temperature	- 20 °C
6.6.2 Maximum Temperature	+120 °C
6.7 Perforation in the Base Area	Yes
6.8 free base area	Yes
6.9 Impact resistance	Up to 5 J

TYPE:	SL42-FT: Light duty ladder.
Standard surface:	Hot dip galvanized,
Thickness:	Hot dip galvanised 3,0 mm

Type	Total with (mm)	Weight (kg/m)	Length (mm)	Type	Total with (mm)	Weight (kg/m)	Length (mm)
SL 42 075 FT	075	1,14	2000	SL 42 200 FT	200	1,35	2000
SL 42 100 FT	100	1,18	2000	SL 42 250 FT	250	1,38	2000
SL 42 150 FT	150	1,26	2000	SL 42 300 FT	300	1,48	2000

TYPE:	SL42-SG: Light duty ladder.
Standard surface:	Primed
Thickness:	Primed 3,0 mm

Type	Total with (mm)	Weight (kg/m)	Length (mm)	Type	Total with (mm)	Weight (kg/m)	Length (mm)
SL 42 075	075	1,12	2000	SL 42/ 200	200	1,32	2000
SL 42 100	100	1,15	2000	SL 42/ 250	250	1,36	2000
SL 42 150	150	1,25	2000	SL 42/ 300	300	1,45	2000

TYPE:	SL62 -FT: Standard duty ladder.
Standard surface:	Hot dip galvanized
Thickness:	Hot dip galvanised 5,0 mm

Type	Total with (mm)	Weight (kg/m)	Length (mm)	Type	Total with (mm)	Weight (kg/m)	Length (mm)
SL 62 110 FT	110	2,983	3000	SL 62 410 FT	410	3,937	3000
SL 62 210 FT	210	3,332	3000	SL 62 510 FT	510	4,256	3000
SL 62 310 FT	310	3,618	3000	SL 62 610 FT	610	4,484	3000

Job Id: **262.1-010790-2**
Certificate No: **TAE00000Y5**

TYPE:	SL62-SG: Standard duty ladder.
Standard surface:	Primed
Thickness:	Primed 5,0 mm

Type	Total with (mm)	Weight (kg/m)	Length (mm)	Type	Total with (mm)	Weight (kg/m)	Length (mm)
SL 62 110	110	3,287	3000	SL 62 410	410	6,667	3000
SL 62 210	210	3,853	3000	SL 62 510	510	7,243	3000
SL 62 310	310	4,417	3000	SL 62 610	610	7,807	3000

Application/Limitation

The installation is to be mechanically protected in accordance with DNV GL Rules and especially on weather decks in cargo hold areas and through cargo holds.

Cable ladders must not to be used as a walkway.

Type Approval documentation

Data sheets:

OBO catalogue "Cable Ladder Systems", PAGES 24-27 issued 2010-04-07.

Test reports:

OBO Test Report 04-600-SLx-electricalproperties dated 2014-10-08.

OBO Test Report 04-600-SL42-SWL, dated 2012-06-01 (Type Standard)

OBO Test Report 04-600-SL62-SWL, dated 2012-06-01 (Type Light)

OBO Test Report 04-600-SLx-Impactresistance, dated 2015-04-27

OBO Test Protocol no 7097115, 7097174, 7097409 & 7097476 dated 2015-12-15/16

Tests carried out

Load bending test according to IEC 61537, Test for impact resistance, Electrical continuity & salt mist test.

Marking of product

OBO Bettermann – Type designation – Width – Material (cover marking).

Periodical assessment


The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval is complied with and that no alterations are made to the product design or choice of materials.

The main elements of the assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and Type Approval Certificate.

Assessment to be performed at least every second year.

END OF CERTIFICATE



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