

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Winch - Lifesaving Winch**

with type designation(s)

**ZR 4.13, ZR 4.15, ZR 4.20, ZR 4.24 (without constant tension) and
ZR 4.15 CT, ZR 4.20 CT, ZR 4.24 CT (constant tension)**

Issued to

**Zollern GmbH & Co. KG
Herbertingen Baden-Württemberg, Germany**

is found to comply with

IMO Resolution MSC.48(66) as amended**Application :****This Type Approval Certificate (TA) covers the construction of the winches and the design approval/plan approval required for the certification of lifeboat and recovery winches.**Issued at **Hamburg** on **2018-04-20**This Certificate is valid until **2023-04-19**.for **DNV GL**DNV GL local station: **Augsburg**Approval Engineer: **Frank Poetsch**

**Burkhard Lilienthal
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

ZR 4.13, ZR 4.15, ZR 4.20 and ZR 4.24 (standard) and
ZR 4.15 CT, ZR 4.20 CT, ZR 4.24 CT (with constant tension)
Winches with type affix "CT" are equipped with "wave compensation". Further technical data are unchanged.
Remote control for the gravity lowering system by "let-go" or "stop & go" function.

All winches ZR-type fulfill the following approval standards:

- GL – Regulations for Life-Saving Launching Appliances, edition 1994;
- LSA – Code (amended up to MSC.320 (89)) Chapter VI, Paragraphs 6.1.1, 6.1.2 and 6.1.4
- IMO Res. MSC.81(70), amended up to MSC.321(89) and MSC.323(89) Part 2

Application/Limitation

	ZR 4.13	ZR 4.15	ZR 4.15 CT	ZR 4.20	ZR 4.20 CT	ZR 4.24	ZR 4.24 Ct
Line pull (hydr./el.)	12kN	25/28kN	25/28kN	40kN	40kN	65kN	65kN
Holding load	12kN	25/28kN	25/28kN	40kN	40kN	65kN	65kN
Rope-ø	10mm	13mm	13mm	18mm	18mm	20mm	20mm
Wave compensation	no	no	yes	no	yes	no	yes

Winch testing shall be performed in the presence of a DNV GL - surveyor, unless otherwise agreed.

Type Approval documentation

Tests carried out

Acceptance tests, ZOLLERN Final Test Certificate EP-1336487 for ZR 4.15 (Serial No. 103, dwg. No. 1336487) witnessed by DNVGL Augsburg dd 2018-02-20.

Acceptance tests, ZOLLERN Final Test Certificate EP-1515632 for ZR 4.20 (Serial No. 102, dwg. No. 1515632) witnessed by DNVGL Augsburg dd 2018-02-20.

Marking of product

Manufacturer's name or trade mark and type designation.

Periodical assessment

For retention of the Type Approval, a DNV GL surveyor shall perform an assessment after 2 years and after 3.5 years to verify that the conditions of the type approval are complied with. A renewal assessment will be performed at renewal of the certificate.

The objective of the Periodical Assessment is to verify that the conditions for the Type Approval are not altered since the Type Approval Certificate was issued. The main scope of the Periodical Assessment will normally include:

- Verification of the Type Approval applicant's production and quality system w.r.t. ensuring continued consistent production of the Type Approved products at the Type Approval applicant's



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Certificate No: **TAS00001CT**

own premises and at other companies that are given the responsibility for manufacturing of the products

- Review of the Type Approval documentation and that this is still used as basis for the production
- Review of possible changes to the design, the material and the performance of the product
- Verification of the product marking

In cases where the Type Approved product is manufactured at other companies, the Periodical Assessment shall verify that the Type Approval applicant has a quality control system for consistent production at their licensees/subcontractors. Furthermore Periodical Assessment shall be carried out randomly at these companies.

When a Type Approved product is manufactured at other companies, the Type Approval applicant takes the sole responsibility for the conformity of the product to the applicable requirements.

END OF CERTIFICATE