

TYPE APPROVAL CERTIFICATE

Certificate No:
TAM00000D2
Revision No:
1

This is to certify:

That the **Adjustable steel chocks for propulsion and auxiliary machinery**

with type designation(s)
Vibracon SM and SM-LP elements, Vibracon SM E and SM ELP elements

Issued to

SKF B.V.
Houten, Utrecht, Netherlands

is found to comply with
DNV rules for classification – Ships

Application :

The elements are approved for use as adjustable steel chocks for marine use i.e. for installation of propulsion engines, auxiliary engines and other machinery components.

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

Issued at **Høvik** on **2022-03-16**

This Certificate is valid until **2027-03-15**.

DNV local station: **Netherlands FIS**

Approval Engineer: **Terje Ingvar Arvidsen**



for **DNV**

Digitally Signed By: **Hannevik, Svein-Olav**

Location: **DNV Høvik, Norway**

on behalf of

Oddvar Deinboll
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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Product description

Universal adjustable steel chocks.

Application/Limitation

The chocks are approved for use for installation of propulsion engines, auxiliary engines and other machinery components.

Maximum load according to fig. 6.2 Vibracon SM General design table Version 1.0 dated November 1999 and fig.6.2 Vibracon SM-LP General design table Version 1, September 2003.

Maximum load according to SKF Vibracon SM XX E design table version December 17, 2021.

Maximum load according to SKF Vibracon SM XX ELP design table version April 9, 2021.

Type Approval documentation

Tests carried out

Marking of product

The product to be marked with manufacturer's name or trademark and type number identification.

Periodical assessment

Periodical assessment is to be performed after 2 years and after 3.5 years. 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.

In case 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.

Other conditions

Installation of the Vibracon elements to be done according to the makers instruction:

- Procedure for installing Vibracon SM/SM-LP elements.
- Procedure for installing Vibracon SM (E) / SM LP (ELP) elements.

The mounting arrangement for propulsion engines has to be submitted for approval either by the engine maker or by SKF MPT including necessary calculations done for the actual installation.

The calculations to be carried out according to:

- Design criteria for Vibracon SM Elements and Application design instructions for Vibracon SM element, Version 1.0 November 1999.
- Design criteria for Vibracon SM-LP elements and Application design instructions for Vibracon SM-LP elements, Version 1, September 2003.

Additional to above mentioned design criteria design criteria for Vibracon SM E elements according to maximum load according to SKF Vibracon SM XX E design table version December 17, 2021 and SKF Vibracon SM XX ELP design table version April 9, 2021.