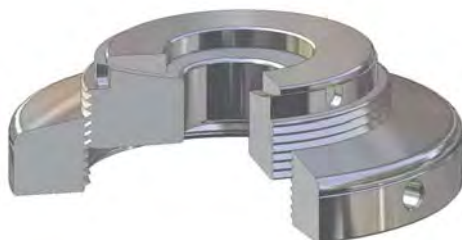
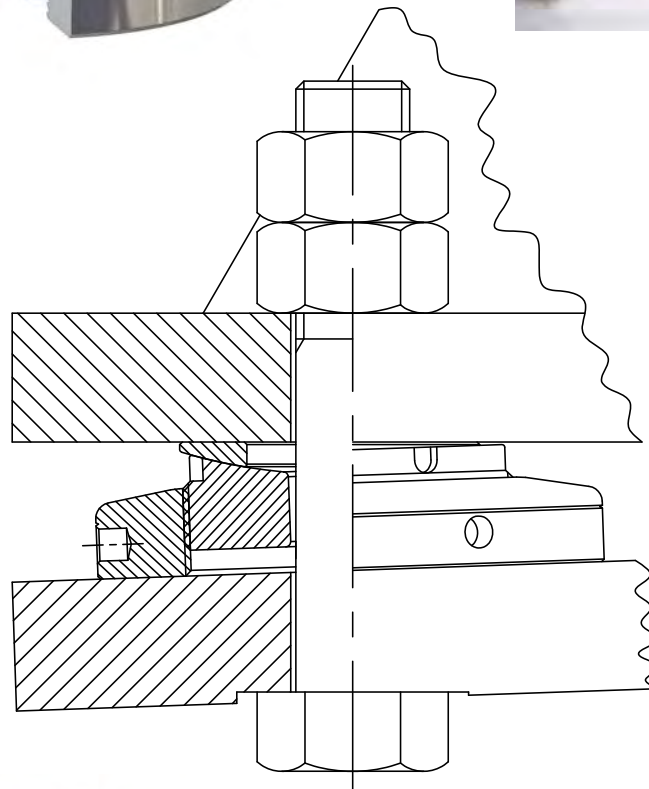
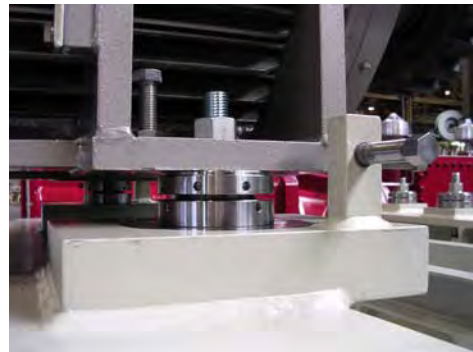
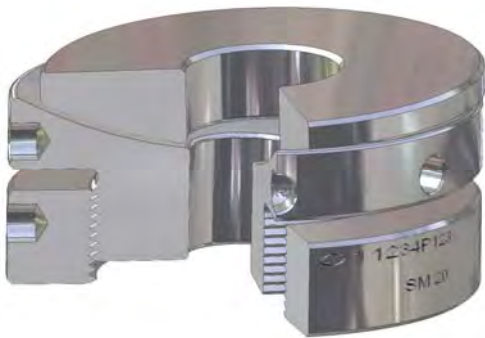


Vibracon[®]

References and Approvals



3 References and approvals

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APPENDIX 1 CURRENT REFERENCE LIST OF ENGINES MOUNTED ON VIBRACON® CHOCKS

APPENDIX 2 CURRENT REFERENCE LIST OF GEARBOXES MOUNTED ON VIBRACON® CHOCKS

3 Approvals and references of Vibracon® chocks

This list of approvals and references is just a summary of applications known to Machine Support. Since the introduction in 1988, more than 750,000 chocks have been sold around the world for various applications. If you are looking for a reference of a specific application please contact your local agent or Machine Support.

For marine diesel and gearbox applications we have a detailed reference list. For all other applications we just mention the name of the manufacturer and the country of origin.

3.1 Marine applications

Classification societies

- Lloyd's Register of Shipping
- Det Norske Veritas
- Scheepvaart inspectie
- Navsea (US Navy)
- Bureau Veritas
- CCS
- Rina
- Class NK
- Germanischer Lloyd
- American Bureau of Shipping

Diesel engines

- ABC Belgium
- Brons Industrie The Netherlands
- Caterpillar United States
- Caterpillar MAK Germany
- Cummins United States
- Detroit United States
- Deutz Germany
- Guascor Spain
- Isotta Fraschini Italy
- Lister Blackstone United Kingdom
- MAN Rollo Germany
- Mirrlees Blackstone United kingdom
- Mitsubishi Japan
- Pielstick United Kingdom
- Rolls Royce Norway
- Sulzer Italy
- Wärtsilä Finland, Italy, The Netherlands

For our current reference list of diesel engines projects see APPENDIX 1

Gear boxes

- Finnoy Norway
- Flender Germany
- Heimdal Norway
- Kvaerner Eureka Norway
- Lohmann & Stolterfoht Germany
- Masson France
- Renk Germany
- Reintjes Germany
- Rolls Royce Norway

- Ulstein Norway
- Volda Norway

Gear boxes (continue)

- Wärtsilä NSD Norway
- Twin Disc United States
- ZF France

For our current reference list of gearbox projects see APPENDIX 2

PTO shaft generators

- ABB Finland, France
- A. van Kaijk Germany
- Leroy Somer France
- Siemens Germany

Generator sets (under the generator)

- Caterpillar MaK Germany
- Deutz MWM Germany
- MAN B&W Germany
- Wärtsilä NSD The Netherlands, Finland, Italy

Shaft bearings

- SKF Sweden
- Blohm & Voss Ind. Germany
- Cooper United Kingdom
- Cedervall Spain

E-motors (for propulsion, dredging pumps, bow thrusters, winches....)

- ABB Finland, France
- A. van Kaijk Germany
- Leroy Somer France
- Siemens Germany

Shipyards (various applications)

The Netherlands

- | | | |
|----------------------------|----------------------|------------------------------|
| • Van der Giessen-de Noord | • YVC Ysselwerf | • Verolme Heusden |
| • YVC Bolnes | • IHC Sliedrecht | • De Merwede |
| • IHC Kinderdijk | • Wilton Feijenoord | • Ferus Smit |
| • Pattje Shipyard | • SW Visscher | • Niestern en Sander |
| • Padmos Stellendam | • Verolme Botlek | • Mf. Dolderman |
| • Oranjewerf | • SW Peters | • Niehuis & van de Berg |
| • Rijkswerf | • Shipdock Amsterdam | • Vlaardingen Oost |
| • SW Reimerswaal | • Mf. A&L Hoekman | • Mf. Luyt |
| • SW Nederlof | • Keppel Verolme | • Damen Shiprepair Rotterdam |

Germany

- | | | |
|------------------------|-------------------|---------------|
| • Volkswerft Stralsund | • Kvaerner Warnow | • Peterswerft |
| • Norderwerft | • Aker MTW | • Braun |
| • HDW | • Blohm+Voss | |

Norway

- Kvaerner Kleven Leirvik
- Kvaerner Kleven Ulsteinvik
- Aukra Shipyard
- Solstrand
- Langsten Shipyard
- Ulstein Shipyard
- Moen Shipyard
- Aas Mek.
- Aker Brattvaag
- Søvikness Shipyard
- Larsnes Shipyard
- Vågland Shipyard

Spain

- Asea Sestao
- Asea Sevilla
- Bazan Ferrol

United Kingdom

- Ferguson Shipyard
- Cammell Laird

United States

- General Dynamic
- Bollinger Shipyard
- Dakota Creek

Shipowners

- Stena Line
- H.A.M.
- Dredging International
- Smit International
- Chemgas
- Tidewater
- P&O ferries
- Jan de Nul
- Seatrade
- AP Müller
- Wagenborg Shipping
- Edison Chouest
- Ballast Nedam
- Boskalis
- Dockwise
- Maersk
- Jo Tankers

3.2 Industrial applications

Compressor sets

- Atlas Copco
- El Paso Energy
- Caledonian compressors
- GTI Koudetechnik
- Gresco
- Mannesmann Demag Delaval
- Mycom Europe
- The Hanover Company
- Thomassen International
- Toromont
- Universal Compressors
- Germany
- USA
- United Kingdom
- The Netherlands
- The Netherlands
- Germany, The Netherlands
- Belgium
- USA / Canada
- The Netherlands
- USA / Canada
- USA

Pump sets (under the E-motor)

- BW/IP
- Stork Pompen (NL)
- Lewa
- The Netherlands
- The Netherlands
- Germany

- Nijhuis Fire Protection The Netherlands

Steam and gas turbines (under the generator, gearbox and/or turbine)

- Alstom Germany, Sweden, United Kingdom
- Siemens Germany
- Centrax United Kingdom

Diesel Power Plants (under the generator)

- Wärtsilä NSD The Netherlands, Finland, Sweden
- Caterpillar MaK Germany
- MTU Germany

Paper machines

- Voith Germany

Turbine stations

- Voith transmissions Inc. USA

Production

- Hunter Douglas The Netherlands

3.3 Marine Classification Society Type Approvals

Attachment To
Certificate No.
00-RO 68591 - X



Port of
ROTTERDAM, NETH.

Date: 24 January 2000

Manufacturer : Machine Support B.V.
Kaartenmakerstraat 7
2984 CB Ridderkerk
The Netherlands

Tel.: +31 180-483828
Fax: +31 180-483829
E-mail: info@machinesupport.com
Website: www.machinesupport.com

**Equipment/
Component** : Vibracon SM Elements

Model : SM 12-16-20-24-30-36-42-48-56-64

Description : Adjustable Steel Chock

Intended service : Chocking of Propulsion Plants and Auxiliary Machinery

Ratings : Dependant on Configuration of Components

Standards : ABS Rules

Service restrictions : None

Comments : None



This Certificate evidences compliance with one or more of the Rules, guides, standards or other criteria of American Bureau of Shipping or a statutory, industrial or manufacturer's standard and is issued solely for the use of the Bureau, its committees, its clients, or other authorized entities. This certificate is governed by the terms and conditions on the reverse side hereof.

Form AB 257 (790)-2

Figure 3.3.1 American Bureau of Shipping Type Approval



CERTIFICATE NUMBER

03-LD407181/1-PDA

DATE

21 January 2009

ABS TECHNICAL OFFICE

London Engineering Department

CERTIFICATE OF Design Assessment

This is to Certify that a representative of this Bureau did, at the request of
SKF MACHINE SUPPORT - RIDDERKORK

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate. It will remain valid as noted below or until the Rules or specifications used in the assessment are revised (whichever occurs first).

PRODUCT: Vibracon SM Elements

MODEL: SM 12-16-20-24-30-36-42-48-56-64

ABS RULE: 2009 Steel Vessel Rules 1-1-4/7.7 & 4-2-1/11.3

OTHER STANDARD:

AMERICAN BUREAU OF SHIPPING


Xiaonan Niu
Engineering Type Approval Co-ordinator

AB258(07/03)

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of American Bureau of Shipping or a statutory, industrial or manufacturer's standard and is issued solely for the use of the Bureau, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without ABS approval will result in this certificate becoming null and void. This certificate is governed by the terms and conditions on the reverse side hereof.

TX 05/05 5059E
A4 1000

Figure 3.3.2 American Bureau of Shipping Design Assessment



CERTIFICATE NUMBER

03-LD407503/1-PDA

DATE

21 January 2009

ABS TECHNICAL OFFICE

London Engineering Department

CERTIFICATE OF Design Assessment

This is to Certify that a representative of this Bureau did, at the request of
SKF MACHINE SUPPORT - RIDDERKORK

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate. It will remain valid as noted below or until the Rules or specifications used in the assessment are revised (whichever occurs first).

PRODUCT: Vibracon SM Elements

MODEL: SM16LP, SM20LP, SM24LP, SM30LP, SM36LP, SM42LP

ABS RULE: 2009 Steel Vessel Rules 1-1-4/7,7 & 4-2-1/11,3

OTHER STANDARD:

AMERICAN BUREAU OF SHIPPING


Xiaonan Niu
Engineering Type Approval Co-ordinator

AB258(07/03)

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of American Bureau of Shipping or a statutory, industrial or manufacturer's standard and is issued solely for the use of the Bureau, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without ABS approval will result in this certificate becoming null and void. This certificate is governed by the terms and conditions on the reverse side hereof.

TX 05/05 50989
A4 1000

Figure 3.3.3 American Bureau of Shipping Design Assessment Low Profile



CERTIFICATE NUMBER RO1809067-X
 PLANT LOCATION Ridderkerk , The Netherlands
 ABS OFFICE Rotterdam

CERTIFICATE OF Manufacturing Assessment

This is to Certify that a representative of this Bureau did, at the request of
MACHINE SUPPORT B.V.

Attend their facilities at the location noted above, in order to carry out an audit of their facilities and associated quality assurance and quality control procedures. The facility is considered capable of consistently manufacturing;

VIBRACON ELEMENTS

in compliance with their ABS Product Design Assessment Certificates and the designated standards defined therein. The product listed on their current Product Design Assessment Certificates are eligible to be placed on this Bureau's *List of Type Approved Products*, subject to annual facility audits by a representative of this Bureau, and renewal of this Certificate after five (5) years.

ISSUE DATE	24-03-2010	EXPIRATION DATE	24-03-2015
SURVEYOR'S SIGNATURE	 P.B. Antonisen		
FIRST ANNUAL ENDORSEMENT	_____	Date:	_____
SECOND ANNUAL ENDORSEMENT	_____	Date:	_____
THIRD ANNUAL ENDORSEMENT	_____	Date:	_____
FOURTH ANNUAL ENDORSEMENT	_____	Date:	_____

AB257 (01-10) NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of American Bureau of Shipping or a statutory, industrial or manufacturer's standards and is issued solely for the use of the Bureau, its committees, its clients or other authorized entities. Any significant changes to the aforementioned manufacturing process without ABS approval will result in this certificate becoming null and void. This certificate is governed by the terms and conditions as contained in ABS Rule 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

Figure 3.3.4 American Bureau of Shipping Manufacturing Assessment

MARINE DIVISION17 bis Place des Reflets - La Défense 2
92400 Courbevoie - FranceTel. 33 1 42 91 52 91
Fax. 33 1 42 91 28 94
www.veristar.com

Certificate number: 06593/C0 BV

File number : ACM 171/0902/001

Product code : 00201

*This certificate is not valid when presented without the full attached schedule composed of 7 sections***TYPE APPROVAL CERTIFICATE***as per Bureau Veritas Classification Rules**This certificate is issued to***MACHINE SUPPORT B.V.**
RIDDERKERK - NETHERLANDS*for the type of product***CHOCKING DEVICES FOR MACHINERY**

Vibracon® SM - Readjustable Chocking Element

Regulations and standards :

BUREAU VERITAS Rules for the Classification of Steel Ships.

*This certificate is issued to attest that BUREAU VERITAS did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements of the Regulations and standards mentioned above.***This certificate is valid until : 21 Dec 2012**

At Paris la Défense, on : 21 Dec 2007

For BUREAU VERITAS,
By order of the Secretary

L.COURREGELONGUE

Approval office

Local office : BV ROTTERDAM
Surveyor : J. Huis

This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with BUREAU VERITAS. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of BUREAU VERITAS Marine Division. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against BUREAU VERITAS for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

BV mod. Ad.E 530 August 2005

This certificate consists of 3 pages

BV/ModE-101-12/07

Figure 3.3.5 Bureau Veritas Type Approval



MARINE DIVISION

Certificate number: 13481/B0 BV

File number: ACM 171/0902/001

Product code: 00201

This certificate is not valid when presented without the full attached schedule composed of 7 sections

www.veristar.com

TYPE APPROVAL CERTIFICATE

This certificate is issued to

MACHINE SUPPORT B.V.
RIDDERKERK - NETHERLANDS

for the type of product

CHOCKING DEVICES FOR MACHINERY

Vibracon® SM - LP element

Requirements:

BUREAU VERITAS Rules for the Classification of Steel Ships

This certificate is issued to attest that BUREAU VERITAS did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 16 Apr 2015

For BUREAU VERITAS,

At BV ROTTERDAM, on 16 Apr 2010,

Erwin Poortvliet



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with BUREAU VERITAS. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of BUREAU VERITAS Marine Division available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against BUREAU VERITAS for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

BV Mod. Ad.E 530 May 2009

This certificate consists of 3 page(s)

Figure 3.3.6 Bureau Veritas Low Profile Type Approval



中国船级社
CHINA CLASSIFICATION SOCIETY

证书格式号/Form: T01.01-
HQ002364

型式认可证书
CERTIFICATE OF TYPE APPROVAL

证书编号/Certificate No. LT10T00002

兹证明本证书所述制造厂生产的下列产品能够满足下面列明认可标准的要求。

This is to certify that the following products produced by the manufacturer stated in the certificate can meet the requirements of the approval standards listed below.

认可产品/ Product Approved

可调金属垫块
ADJUSTABLE STEEL CHOCK

制造厂/ Manufacturer

Machine Support B.V.

Machine Support B.V.
Kaartenmakerstraat 7, NL-2984 CB Ridderkerk
Kaartenmakerstraat 7, NL-2984 CB Ridderkerk

认可标准/ Approval Standard

- 1.CCS《材料与焊接规范》(2009)及其修改通报第一篇,第五章
Chapter 5, Part One of CCS Rules for Materials and Welding 2009 and Amendments
- 2.CCS《钢质海船入级规范》(2009)及其修改通报第一篇,第三章
Chapter 3, Part One of CCS Rules for Classification of Sea-going Steel Ships 2009 and Amendments

证书有效期至/ This Certificate is valid until 2014年11月29日 / Nov. 29, 2014

发证机构 中国船级社鹿特丹办事处 签发日期 2010年11月30日
Issued by CCS Rotterdam Office Date Nov. 30, 2010

本证书根据中国船级社《钢质海船入级规范》及有关程序规定签发。关于证书的有关规定见本证书背面的说明。当本证书包括多页纸张时,则所有证书页为一个整体,必须同时使用。每一页证书均须由本社盖章方为有效。证书复印件无效。任何单位和个人均不应摘取或节选本证书的部分内容。本认可证书不代表本社对个体产品质量的检验。有关各方对所持证书的真实性有疑问时,可以向本社检验机构咨询。
This Certificate is issued pursuant to the Rules for Classification of Sea-going Steel Ships and related procedures of the Society. Refer to the back of the certificate for detailed requirements of the certificate. When the certificate consists of more than one page, all pages of the certificate are taken as a whole and are used simultaneously. No certificate page is valid without bearing the stamp of the Society and no copied form of the certificate is regarded as valid. Any part of the certificate is not to be extracted or abridged by any unit or individual in any form. This approval certificate does not constitute the inspection of the Society about the quality of the unit/batch product. Related parties who are doubted about the authenticity of the certificate may inquire of the Society or its offices.



LT44439751
No. 10974066

中国船级社总部/CCS headquarters: 北京市东直门南大街9号船检大厦 邮编: 100007 电话/Tel: +86 (10) 58112288 传真/Fax: +86 (10) 58112811
CCS Mansion, 9 Dongzhimen Nan Da Jie, Beijing 100007, China 网址/Web Site: http://www.ccs.org.cn
本地检验机构/CCS Local Office: 中国船级社鹿特丹办事处 CCS Rotterdam Office 电话/Tel: +31 (10) 4334066 传真/Fax: +31 (10) 4334147

第 1 页 共 4 页 / Page 1 of 4

Figure 3.3.7 China Classification Society



DET NORSKE VERITAS

TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. M-10939
This Certificate consists of 3 pages


This is to certify that the
Engine Foundation
with type designation
Vibracon SM and SM-LP elements

Manufactured by
SKF Machine Support
Ridderkerk, Netherlands

is found to comply with
Det Norske Veritas' Rules for Classification of Ships/High Speed and Light Craft

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.

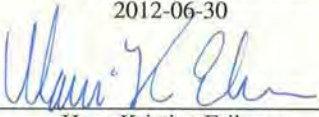
Place and date
Høvik, 2008-06-26
for DET NORSKE VERITAS AS


Egil Alling
Head of Section



Local Office
DNV Rotterdam

This Certificate is valid until
2012-06-30


Hans-Kristian Eriksen
Surveyor

Notice: 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.

If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 2 million. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.

DET NORSKE VERITAS AS · VERITASVEIEN 1, 1322 HØVIK, NORWAY · TEL: (+47) 67 57 99 00 · FAX: (+47) 67 57 99 11
Form No.: 20.90a Issue: January 98 Page 1 of 3

Figure 3.3.8 Det Norske Veritas Type Approval

Type Approval Certificate



This is to certify that the undernoted product(s) has/have been tested in accordance with the relevant requirements of the GL Type Approval System.

Certificate No. **14 718 - 99 HH**

Company **Machine Support B.V.
Kaartenmakerstraat 7
2984 CB Ridderkerk, NETHERLANDS**

Product Description **VIBRACON SM adjustable steel chock**

Type **SM12 - SM16 - SM20 - SM24 - SM30 - SM36 - SM42 - SM48 - SM56 - SM64**

Environmental Category **None**

Technical Data /
Range of Application **Technical Data:
Acc. to "General Design Table", Fig. 6.2, Version 1.0, Nov. 1999**

**Material of top, center and bottom plates:
S355J2G3 (St 52-3) or CK35
Quality control acc. to Doc.-No. 991008/RV, "Material / Product Traceability", dated
1999-10-08**

**Range of Application:
Chocking of propulsion plants and auxiliary machinery**

Test Standard **Test programme in accordance with GL Rules and Regulations**

Documents **Test report No. TMA 98-181 R (1-19) dated 1999-09-02 and GMA-98-05062 (1-8) dated
1998-05-28 of STORK FDO B.V., Amsterdam, The Netherlands.
Test report No. 990929-01/RV (1-19) dated 1999-10-04 of MACHINE SUPPORT B.V.,
Ridderkerk, The Netherlands.**

Remarks **Special conditions / restrictions acc. to pages 2 and 3 of this Certificate.
General conditions acc. to GL "Regulations for the Seating of Propulsion Plants".**

Valid until **2015-03-30**

Page **1 of 3**

File No. **II.G.12**

Hamburg, 2010-03-30

Type Approval Symbol



Germanischer Lloyd

Karl-Ernst Beese
Karl-Ernst Beese

Ulrich Sieler
Ulrich Sieler

This certificate is issued on the basis of "Guidelines for the Performance of Type Approvals Part 1, Procedure".

Figure 3.3.9 Germanischer Lloyd Type Approval

Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested in accordance with the relevant requirements of the GL Type Approval System.

Certificate No. 47 918 - 03 HH

Company Machine Support B.V.
Kaartenmakerstraat 7
2984 CB Ridderkerk, NETHERLANDS

Product Description VIBRACON SM-LP adjustable steel chock (Low Profile)

Type SM16LP - SM20LP - SM24LP - SM30LP - SM36LP - SM42LP

Environmental Category None

Technical Data / Range of Application Technical Data:
Acc. to "General Design Table", Fig. 6.2, Version 1.0, Sept. 2003

Material of top, center and bottom plates:
S355J2G3 (St 52-3) or CK45 : for SM16LP - SM20LP - SM24LP
42CrMo4 or 34CrNiMo6 : for SM30LP - SM36LP - SM42LP

Quality control acc. to Doc.-No. 20030901-0-RV, "Material / Product Traceability", dated 2003-09-01

Range of Application:
Chocking of propulsion plants and auxiliary machinery

Test Standard Test program in accordance with GL Rules and Regulations

Documents Test report No. 20030702-0-RV (1-19) dated 2003-08-08 and 20030718-0-RV (1-14) dated 2003-09-01 of MACHINE SUPPORT B.V., Ridderkerk, The Netherlands

Remarks Special cond./restric. acc. to pages 2 and 3 of Certificate. General conditions acc. to GL "Guidelines for the Seating of Propulsion Plants & Aux. Machinery".

Valid until 2013-11-19

Page 1 of 3

File No. II.G.12

Hamburg, 2008-10-15

Type Approval Symbol



Germanischer Lloyd

Karl-Ernst Beese
Karl-Ernst Beese

Ulrich Sieler
Ulrich Sieler

This certificate is issued on the basis of "Guidelines for the Performance of Type Approvals Part 1, Procedure".

Figure 3.3.10 Germanischer Lloyd Low Profile Type Approval



LR Type Approval Certificate Extension

This is to certify that Certificate No. 00/30008(E2) for the under noted products is extended and renumbered as shown.

This certificate is issued to:

PRODUCER	SKF Machine Support B.V. Kaartenmakerstraat 7 2984 CB RIDDERKERK The Netherlands
DESCRIPTION	Vibracon® SM Adjustable Steel Chock
TYPE	SM 12 SM 30 SM 56 SM 16 SM 36 SM 64 SM 20 SM 42 SM 24 SM 48
APPLICATION	Adjustable Steel Chock for main and auxiliary engines and equipment of ships
SPECIFIED STANDARDS	Manufacturer's Specification Lloyd's Register's Rules and Regulations for the Classification of Ships
MATERIALS	St. 52.3 or Ck 45
RATINGS	Depends on configuration of components

Certificate No.	00/30008 (E3)
Issue Date	05 June 2009
Expiry Date	13 June 2014
Sheet	1 of 2

A.M. Kemp
Rotterdam Plan Approval
Lloyd's Register EMEA

Lloyd's Register EMEA
71 Fenchurch Street, London EC3M 4BS

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Figure 3.3.11 Lloyd's Register of Shipping Type Approval

LR Type Approval Certificate Extension

This is to certify that Certificate No. 03/30030 for the under noted products is extended and renumbered as shown.

This certificate is issued to:

PRODUCER	SKF Machine Support B.V. Kaartenmakerstraat 7 2984 CB RIDDERKERK The Netherlands
DESCRIPTION	Vibracon [®] SM-LP Adjustable Steel Chock for Main and Auxiliary Engines and Equipment of Ships
TYPE	SM 16LP SM 20LP SM 24LP SM 30LP SM 36LP SM 42LP
APPLICATION	Adjustable Steel Chock for main and auxiliary engines and equipment of ships
SPECIFIED STANDARDS	Manufacturer's Specification Lloyd's Register's Rules and Regulations for the Classification of Ships
MATERIALS	42CrMo4
RATINGS	Depends on configuration of components

Certificate No.	03/30030 (E1)
Issue Date	15 December 2008
Expiry Date	14 December 2013
Sheet	1 of 2



A.M. Kemp
Rotterdam Plan Approval
Lloyd's Register EMEA

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Figure 3.3.12 Lloyd's Register of Shipping Low Profile Type Approval

TYPE APPROVAL CERTIFICATE
No. MAC374108CS/001



This is to certify that the product identified below is in compliance with the regulations herewith specified.

<i>Description</i>	Adjustable steel chocks
<i>Type</i>	VIBRACON SM
<i>Applicant</i>	SKF MACHINE SUPPORT KAARTENMAKERSTRAAT 7, NL 2984 CB RIDDERKERK THE NETHERLANDS
<i>Manufacturer</i>	SKF MACHINE SUPPORT
<i>Place of manufacture</i>	KAARTENMAKERSTRAAT 7 NL 2984 CB RIDDERKERK THE NETHERLANDS
<i>Reference standards</i>	RINA General Rules for Type Approval products, equipment and machinery
<i>Reference documents</i>	RINA Rules for testing and certification of materials and marine products

Issued in **Genoa** on **August 25, 2008**. This Certificate is valid until **August 24, 2013**

This certificate consists of this page and 1 enclosure



RINA
Marco Benzi

This certificate replaces the one no. MAC400403CS/2 dated 2 February 2004

 RINA Società per azioni
Via Corsica, 12 - 16128 Genova
Tel +39 010 53851
Fax +39 010 5351000

Figure 3.3.13 Rina Type Approval

TYPE APPROVAL CERTIFICATE
No. MAC367506CS

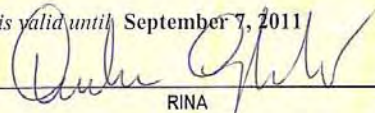


This is to certify that the product identified below is in compliance with the regulations herewith specified.

<i>Description</i>	Adjustable steel chocks
<i>Type</i>	VIBRACON SM LP (Low Profile)
<i>Applicant</i>	MACHINE SUPPORT BV KAARTENMAKERSTRAAT 7 NL 2984 CB RIDDERKERK NETHERLANDS
<i>Manufacturer</i>	MACHINE SUPPORT BV
<i>Place of manufacture</i>	KAARTENMAKERSTRAAT 7 NL 2984 CB RIDDERKERK NETHERLANDS
<i>Reference standards</i>	RINA General Rules for Type Approval products, equipment and machinery
<i>Reference documents</i>	RINA Rules for testing and certification of materials and marine products

Issued in **Genoa** on **September 7, 2006**. This Certificate is valid until **September 7, 2011**





RINA
Andrea Cogliolo

This certificate consists of this page and 1 enclosure

RINA Società per azioni
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Figure 3.3.14 Rina Low Profile Type Approval

APPENDIX 1

CURRENT REFERENCE LIST OF ENGINES MOUNTED ON
VIBRACON® CHOCKS



REFERENCE LIST: ENGINES ON VIBRACON

<i>MS proj. no.</i>	<i>Engine type</i>	<i>Weight (Tons)</i>	<i>Vibracon®</i>	<i>Shipyard</i>	<i>Country</i>	<i>Owner</i>	<i>Ship name</i>	<i>Class</i>
2004-0473	ABC 3MDX 640.00A	6,9	SM24LP	Gemeentelijk Havenbedrijf	Belgium	Havenbedrijf Antwerpen	m.v." M3 "	-
	ABC 6 DZC	10,6	SM24	Bazan Ferrol	Spain	Jan de Nul	Captain Nunez	ABS
2004-0035	ABC 8 DXC 750	11,5	SM20LPex	Gemeentelijk Havenbedrijf	Belgium	Havenbedrijf Antwerpen	crane Titan	-
	ABC 8 DZC	13,9	SM24	Bazan Ferrol	Spain	Jan de Nul	Captain Nunez	ABS
	Brons Industrie ARUB 215x12	11	SM16LP	Zeemacht	Belgium	Zeemacht / Belgium Navy	Tripartite Class (6 ships)	-
	Caterpillar 3406	2	SM16	Pacific Marine Equipment	United States	Valdez Oil	-	-
2004-0752	Caterpillar 3412	3,6	SM16	Casco Hemiksem N.V.	Belgium	-	m.v. " Rainbow "	SI
	Caterpillar 3412	2,6	SM20	Padmos	The Netherlands	-	ARM25	SI
	Caterpillar 3412	2,6	SM20	Padmos	The Netherlands	-	VD77	SI
	Caterpillar 3508	5,3	SM24	Pacific Marine Equipment	United States	Bristol Leader Inc	Bristo Leader	ABS
	Caterpillar 3508	5,3	SM24	Pacific Marine Equipment	United States	Transmar Shipping	Sterling Carrier	ABS
2004-1597	Caterpillar 3508	5,5	SM24ex	Technisch Bureau H&U	The Netherlands	-	m.v. " Jana "	LRS
	Caterpillar 3508	5,3	SM20	Niestern Sanders	The Netherlands	-	Heron	BV
	Caterpillar 3512	7,6	SM24	Pacific Marine Equipment	United States	Alaska Marine Lines	Arctic Bear	ABS
	Caterpillar 3512	7,6	MS24	Pacific Marine Equipment	United States	Deep Pacific Fisheries	Lilli Ann	ABS
	Caterpillar 3512	7,6	SM24	Pacific Marine Equipment	United States	IFA	Prince of Wales	ABS
2004-0613	Caterpillar 3512	7,6	SM24LP	Visserij Cooperatie Urk	The Netherlands	-	m.v. " 174 "	SI
	Caterpillar 3516	8	SM24	Dolderman	The Netherlands	-	-	SI
	Caterpillar 3516	8	SM24	Solstrand	Norway	-	Loran	DNV
	Caterpillar 3516	8,5	SM24	Pacific Marine Equipment	United States	Harley Marine Services	YTBN	ABS
	Caterpillar 3516	8,5	SM24	Pacific Marine Equipment	United States	Harley Marine Services	Millenium Star	ABS
	Caterpillar 3516	8,5	SM24	-	The Netherlands	Baggermij. Van der Kamp	M.V. "Hein"	-
	Caterpillar 3606	16		Vågland Båtbyggeri	Norway	-	Hull number 204	DNV
	Caterpillar 3606	16		Vaagland Verft	Norway	-	Ole Kr Nergård	DNV
	Caterpillar D398	6	SM24	Schram & Van Beek	The Netherlands	-	Trave	SI
	Caterpillar D399	7,8	SM20	-	The Netherlands	HAM	Zeeland	BV
	Cummins KTA-19M3	1,8	SM20	Werkhuizen Fl. Ketels	Belgium	-	MDB "Sagar"	BSI
	Cummins KTA-38M1	4,2	SM24	Werkhuizen Fl. Ketels	Belgium	-	Z19	BSI
	Cummins KTA-38M2	4,5	SM24	Werkhuizen Fl. Ketels	Belgium	-	Atlantis	LRS
	Cummins NTA14M	1	SM16	Werkhuizen Fl. Ketels	Belgium	-	-	-
	Detroit 12V2000	-		Pacific Marine Equipment	United States	BC Ferries	Quinsam	ABS
	Deutz SBV6M	17,5		Aas Mekaniske	Norway	-	Rohav	DNV
	Guascor	9		Asea Sestao	Spain	Statoil	-	LRS



REFERENCE LIST: ENGINES ON VIBRACON

<i>MS proj. no.</i>	<i>Engine type</i>	<i>Weight (Tons)</i>	<i>Vibracon®</i>	<i>Shipyard</i>	<i>Country</i>	<i>Owner</i>	<i>Ship name</i>	<i>Class</i>
	Issota Fraschini V6	6	SM16	US Navy	United States	US Navy	Pioneer	Navsea
2004-1531	Lister Blackstone EWSL 8 MA	11	SM30LP	Nico International	The Netherlands	Royal Boskalis Westminster	m.v. " Cetus "	BV
	MaK 6M20	10,7	SM20	-	Russia	Murmansk Trawling Fleet	N.Repnikov	RMI
2004-0034	MAK 6M25	21,5	SM24LP	Shipyards K-Damen	The Netherlands	Den Herder - Yerseke	m.v."Scelveringhe"	LRS
	MaK 6M32	37,5	SM30	-	Russia	Murmansk Trawling Fleet	Leonid Galchenko	RMI
	MaK 6M32	37,5	SM30	Slippstöðin ehf	Iceland	Samherji hf	Baldvin NC-100	DNV
	MaK 8M282				Iceland		Gulliver	
	MaK 6M453	23	SM24	-	Turkey	Derpina Shipping & Trading Co	Lewis	LR
	MaK 8M453				Iceland		Otto N Thorlaksson	
2002-1926	MaK 8M20	13,9	SM20	De Alblas	The Netherlands	-	Hull number 330	BV
2004-0737	MaK 8M25	27	SM20LP	-	Norway	Herning Shipping AS	m.v. " Laila Theresa "	LRS
	MaK 8M32	44	SM30	Ferus Smit	The Netherlands	-	Hull number 344	BV
	MaK 9M20	14	SM20	Braun	Germany	Grieshaber	-	SI
2004-0034	MAK 9M32	50	SM20LP	Shipyards K-Damen	The Netherlands	Den Herder - Yerseke	m.v."Scelveringhe"	LRS
	MAN D2156	0,7	SM16	-	The Netherlands	B. Dijkstra	Noordvaarder	SI
	MAN Rollo	1,4	SM16LP	De Haas	The Netherlands	KNRM	Christien	ABS
	MAN Rollo	1,4	SM16LP	De Haas	The Netherlands	KNRM	Jan van Engelenburg	ABS
	Mirrlees Blackstone KV12 MAJ M	82	SM42LP	-	United States	Maritrans	Constitution	ABS
	Mirrlees Blackstone MB 275-6	20,5		Shipdock	The Netherlands	-	Britannia Beaver	BV
	Mitsubishi S12N MPTK	4,8	SM16LP	ASS Duisburg	Germany	-	Diamond	BV
	Mitsubishi S6A3	2,1	SM16	Padmos Stellendam	The Netherlands	-	GO18	SI
	Mitsubishi S6B-MPTK	1,2	SM16	-	Dubai	-	Opstad Frakt AS	GL
	Pielstick 2.5V400	54	SM36	Nicol & Andrew	United Kingdom	P&O Ship Management	European Diplomat	LR
	Rolls-Royce Bergen	18	SM24	Aker Bratvaag	Norway	-	UT755	
	Sulzer 12ZAV40	109	SM42	Wärtsilä Benelux	The Netherlands	ITC	Kigoria	LRS
2004-0031	Wärtsilä 12SW280	26	SM30LPex	Rotterdam United Shipyard	The Netherlands	Van Oord ACZ	Volvox Iberia	BV
	Wärtsilä 12SW280	26	SM30LPex	Rotterdam United Shipyard	The Netherlands	Van Oord ACZ	Volvox Iberia	BV
	Wärtsilä 12V32 LN (16x)	46,5	SM30	Wärtsilä Finland	Finland	Wärtsilä	Turkey project	-
	Wärtsilä 12V32 LN (22x)	46,5	SM30	Wärtsilä Finland	Finland	Wärtsilä	OCP project	-
	Wärtsilä 18TM410	145	SM42LP	Wärtsilä Zwolle	The Netherlands	-	Baldomero Lopez	ABS
	Wärtsilä 6F240	12,3	SM24	-	-	Costa Mare	Monreal Senator	GL
	Wärtsilä 6L20	10		Asea Sevilla	Spain	Cenargo	Dawn Merch	LRS
	Wärtsilä 6L240	10		Padmos Stellendam	The Netherlands	City of Antwerp	Work boat 84	BV



REFERENCE LIST: ENGINES ON VIBRACON

<i>MS proj. no.</i>	<i>Engine type</i>	<i>Weight (Tons)</i>	<i>Vibracon®</i>	<i>Shipyard</i>	<i>Country</i>	<i>Owner</i>	<i>Ship name</i>	<i>Class</i>
	Wärtsilä 6L26	19		Visser Den Helder	The Netherlands	-	Hull number 160	DNV
	Wärtsilä 6L38 B	52	SM30	Ferus Smit	The Netherlands	Flinter	Hull number 330	BV
	Wärtsilä 6L38 B	52	SM30	Ferus Smit	The Netherlands	Flinter	Hull number 331	BV
	Wärtsilä 6L38 B	52	SM30	Ferus Smit	The Netherlands	Flinter	Hull number 332	BV
2004-0031	Wärtsilä 6SW280	17,5	SM30LPex	Rotterdam United Shipyard	The Netherlands	Van Oord ACZ	Volvox Iberia	BV
	Wärtsilä 6SW280	17,5		Padmos Stellendam	The Netherlands	-	SL 27	SI
	Wärtsilä 8L32F	43	SM42	Aas Mekaniske	Norway	-	Rossvik	DNV
	Wärtsilä 9L240	16		Schram	The Netherlands	Chemgas	Blizzard	BV
	Wärtsilä 9L240	38,5		-	The Netherlands	Smit Internationale	Smit Sakhalin	LRS
	Wärtsilä 9L26	26		Ferus Smit	The Netherlands	Drent	Hull number 309	BV
	Wärtsilä 9L26	26		Marine Service Noord	The Netherlands	Drent	FS 309	BV
2004-0031	Wärtsilä 9SW280	22,9	SM30LPex	Rotterdam United Shipyard	The Netherlands	Van Oord ACZ	Volvox Iberia	BV
	Wärtsilä W12 V28SG A	39		Gubser Service	Zwitserland	Power (Nevskaya)	-	-
	Wärtsilä W28SG	40		Wärtsilä Zwolle	The Netherlands	Power	-	-
	Waukesha 9390	13,5	SM20	-	Australia	Agility	-	-
	Yanmar M220	8		Larsnes	Norway	-	Skarhaug	DNV

APPENDIX 2

CURRENT REFERENCE LIST OF GEARBOXES MOUNTED ON VIBRACON® CHOCKS



REFERENCE LIST: GEARBOXES ON VIBRACON

<i>MS proj. no.</i>	<i>Gearbox type</i>	<i>Weight (Tons)</i>	<i>Vibracon®</i>	<i>Shipyard</i>	<i>Country</i>	<i>Shipowner</i>	<i>Ship name</i>	<i>Class</i>
2004-0031	Flender GJZ 2700	20	SM42LP/SM36LP	Damen Shiprepair Rotterdam B.V.	The Netherlands	Van Oord ACZ	m.v. "Volvox Iberia "	BV
2004-0031	Flender GJZ 785 / 1289	6,4	SM24LPex	Damen Shiprepair Rotterdam B.V.	The Netherlands	Van Oord ACZ	m.v. "Volvox Iberia "	BV
2004-0034	Flender GRA750A	11,7	SM30	Shipyards K-Damen	The Netherlands	Den Herder - Yerseke	m.v."Scelveringhe"	LRS
2004-0034	Flender GRCA 530	3,5	SM24	Shipyards K-Damen	The Netherlands	Den Herder - Yerseke	m.v."Scelveringhe"	LRS
	Kumera AS NKHU-15000	1		Ulstein Verft AS	Norway		Hull 264	DNV
	Kvearner Eureka 2FGEC-280	1,9		Union Naval de Valencia	Spain		C338	RINA
	Kvearner Eureka 2FGEC-280	1,9		Union Naval de Valencia	Spain		C332	RINA
	Kvearner Eureka 2FGEC-280	1,9		Aker Bratvaag	Norway		Yardnumber 105	DNV
	Kvearner Eureka 2FGEC-280	1,9		Aker Bratvaag	Norway		Yardnumber 104	DNV
	Lohmann + Stolterfoht GCS 800	9,6		Scheepswerf Ferus Smit B.V.	The Netherlands		NB330	BV
	Lohmann + Stolterfoht GCS 800	9,6		Scheepswerf Ferus Smit B.V.	The Netherlands		NB331	BV
	Lohmann + Stolterfoht GCS 800	9,6		Scheepswerf Ferus Smit B.V.	The Netherlands		NB332	BV
2004-1046	Masson ZF W5200	1,5	SM20LPex	Dieselbedrijf Dordrecht	The Netherlands		m.v. " Velocity "	LRS
2004-1121	Masson ZF W5200	1,5	SM20	Dieselbedrijf Dordrecht	The Netherlands		m.v. " Amazone "	LRS
	Reintjes	9		Larsnes	Norway		Hull 42	DNV
2004-0473	Reintjes FÖU	1,2	SM20LP	Gemeentelijk Havenbedrijf	Belgium	Havenbedrijf Antwerpen	m.v. " M3 "	-
	Reintjes VA 2740 2K	7,8		Grands			M.V. "Otto N Porlaksson"	ABS
	Reintjes VA 2741			Wolfard's Werkuigbouw B.V.	The Netherlands		Yardnumber FSW 512	BV
	Reintjes WAF 2365	9,8		Wärtsilä Nederland	The Netherlands		M.V. "Java Sea"	ABS
	Reintjes WAF 2365	9,8		Wärtsilä Nederland	The Netherlands		M.V. "Adriatic Sea"	ABS
	Reintjes WAF 262	0,7		Verbeke bunkering N.V.	Belgium		M.V. "Jantar"	GL
	Reintjes WAF 340			Machinefabriek Padmos B.V.	The Netherlands		M.V. "Sara Maatje XII"	GL
	Reintjes WAF 340			Machinefabriek Padmos B.V.	The Netherlands		-	SI
2004-0752	Reintjes WAF 460	3,5	SM16LPex	Casco Hemiksem N.V.	Belgium		m.v. " Rainbow "	SI
	Reintjes WAF 560	1,5	SM16			Scheepsv. Bouter	m.v. " Leni "	SI
	Reintjes WAF 562 K21			Neue Ruhrorter Schiffswerft GmbH	Germany		M.V. "Melanie Z"	GL
	Reintjes WAF 661			Machinefabriek A & L Hoekman	The Netherlands		M.V. "NG 5"	GL
	Reintjes WAF 741/742	1,9		Causeway Machinery Ltd	UK		M.V. "Balmoral"	MCA
	Reintjes WAF 761			Florimond Ketels N.V.	Belgium		-	SI
	Reintjes WAF 771			Florimond Ketels N.V.	Belgium		-	SI
	Reintjes WAF 790			Machinefabriek A & L Hoekman	The Netherlands		M.V. "TX 34"	SI
	RENK HSU 800	11,5		Scheepswerf Ferus Smit B.V.	The Netherlands		NB344	BV
	RENK NDSQL-3200	60		Fincantieri	Italy			RINA
	RENK NDSQL-3200	60		Fincantieri	Italy			RINA



REFERENCE LIST: GEARBOXES ON VIBRACON

<i>MS proj. no.</i>	<i>Gearbox type</i>	<i>Weight (Tons)</i>	<i>Vibracon®</i>	<i>Shipyard</i>	<i>Country</i>	<i>Shipowner</i>	<i>Ship name</i>	<i>Class</i>
2004-0035	Rhenania 2ANps	8		Gemeentelijk Havenbedrijf	Belgium	Havenbedrijf Antwerpen	crane Titan	-
	Rolls Royce 600 AGSC-KP / 500 N	6		Aker Bratvaag	Norway		Yardnumber 104	DNV
	Rolls Royce 600 AGSC-KP / 500 N	6		Aker Bratvaag	Norway		Yardnumber 105	DNV
	Rolls Royce 600 AGSC-KP / 500 N	6		Aker Bratvaag	Norway		Yardnumber 84	DNV
	Ulstein 220 AGSC	2,1		Vestergaard Marine Service			M.V. "Vitus"	
	Wärtsilä SCV85-P53	9,5		Aas Mek Verksted	Norway		Yardnumber 157	DNV
2004-1267	ZF 7250	2,6	SM20	De Gerlien van Tiem	The Netherlands	-	m.v."Venezia"	SI
2004-1499	ZF W4400	1,5	SM20	Q-Shipping	The Netherlands	Q-Shipping	m.v."Oralake"	BV