DNV·GL

Certificate No:
TAM00000GX

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Refrigerant Compressor

with type designation(s)
OS53

Issued to
Bitzer Kühlmaschinenbau GmbH
Rottenburg, Germany

is found to comply with
DNV GL rules for classification – Ships
DNV GL rules for classification – Ships Pt.4 Ch.6 Piping systems

Application :

Products approved by this certificate are accepted for installation on all vessels classed by DNV GL.
Max. working press.: 28 bar
Operating media R134a, R407C, R404A, R507A, R22, R717/NH3

Issued at **Hamburg** on **2017-05-04**
This Certificate is valid until **2022-05-03**.
DNV GL local station: **Augsburg**

Approval Engineer: **Christian Kaemmer**

for **DNV GL**

Olaf Drews
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.

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Job Id: **262.1-025030-1**
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Product description

Open Drive Screw Comressor OS53

Casing Material:	EN-GJL-250 Spheroidal Graphite
Screw Rotor Material:	EN-GJS-600-3, EN-GJS-500-7 EN-GJS-400-3 (only female rotor)

Application

Air Conditioning, Provision Cooling, Cargo Refrigeration.

Tests to be carried out

- Hydraulic pressure test to 1.5 times the design pressure.
- Function testing and setting of the safety valves, shall be carried out in the presence of a Surveyor.
- Capacity test with compressor running at design condition shall be attended and witnessed by a Surveyor, but may be waived for compressors produced in series and when previous test have been carried out.

Type Approval documentation

Marking of product

The product shall be marked with manufacturer´s name, year of construction, effective suction rate [m3/h], discharge pressure [bar], speed [rpm], shaft power [kW], serial number.

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, components and/or materials.
The main elements of the assessment are:
• Ensure that type approved documentation is available
• Inspection of factory samples, selected at random from the production line (where practicable)
• Review of production and inspection routines, including test records from product sample tests and control routines
• Ensuring that systems, components and/or materials used comply with type approved documents and/or referenced system, component and material specifications
• Review of possible changes in design of systems, components, materials and/or performance, and make sure that such changes do not affect the type approval given
• Ensuring traceability between manufacturer’s product type marking and the type approval certificate
Periodical assessment is to be performed at least every second year and at renewal of this certificate.
END OF CERTIFICATE