

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Roller Skates**

with type designation(s)
Roller skate

Issued to

Börkey GmbH
Hagen, Nordrhein-Westfalen, Germany

is found to comply with

DNV GL standard DNVGL-ST-0378 – Standard for offshore and platform lifting appliances

Application :

Installations on all vessels classed by DNV GL, BOP Carriers for mobile offshore units or equivalent applications

Issued at **Høvik** on **2020-05-18**

This Certificate is valid until **2024-05-17**.

for **DNV GL**

DNV GL local station: **Essen**

Approval Engineer: **Harald Jensen**

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Aldo Matteucci
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 GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") 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.



Job Id: **262.1-022054-2**
Certificate No: **TAS00002J2**

Product description

Roller wagons for BOP-carriers or for other equivalent transportation of heavy goods.

Application/Limitation

- Platform cranes:
 - lifting appliances onboard offshore units/installations intended for load handling within and outside the unit/installation while in harbor and sheltered waters and within the unit/installation while at sea. (See definitions in DNVGL ST-0378 Offshore and platform lifting appliances – July 2019, 1.1.2.1).
- Transporting velocity max. 5 m/min.
- When located onboard floating vessels and mobile offshore installations, it is assumed that the BOP carrier, or other structure being supported by the roller skates, is parked in an arrangement designed itself to withstand dynamic loads caused under transit and survival conditions.

Based on this witnessing the Surveyor should personally stamp the units, sign the reports and issue the necessary product certificates

Type Approval documentation

The documentation listed below was stamped 2009-07-13 and given the following status:

Drawing No.	Model	Vertical max. Load	Horizontal max. Load	No. of guide rollers	Status
51-4-2310	IV AM-H-50CrV4	430 kN	0 kN	0	Type Approved
51-6-2312	VI v AM-H-50CrV4	2500 kN	0 kN	0	Type Approved
Report	IV AM-H-50CrV4				For Information
Report	VI v AM-H-50CrV4				For Information

The documentation listed below was stamped 2008-06-02 and given the following status:

Drawing No.	Model	Vertical max. Load	Horizontal max. Load	No. of guide rollers	Status
51-5-753/D	V v AS-H-50CrV4-FR-E	2200 kN	570 kN	2 x 2	Type Approved
51-5-846/A	V v AS-H-50CrV4-FR-I	2200 kN	850 kN	1 x 3	Type Approved
51-5-860/A	V v AS-H-50CrV4-FR-E	1000 kN	570 kN	2 x 2	Type Approved
51-5-867/A	V AS-H-50CrV4	700 kN	---	---	Type Approved
51-6-869/A	VI v AS-H-50CrV4-FR-I	3000 kN	850 kN	1 x 3	Type Approved
51-6-1573/A	VI v AS-H-50CrV4-FR-K	4200 kN	850 kN	2 x 3	Type Approved
51-5-1597/A	V v AS-H-50CrV4-FR-I	2200 kN	850 kN	1 x 3	Type Approved
51-6-213 3/C	VI v AS-H-50CrV4-FR-E	3000 kN	570 kN	2 x 2	Type Approved
Report	VI v AS-H-50CrV4-FR-E				For Information

The documentation listed below was stamped and given the following status, 2012-06-14.

Drawing No.	Model	Vertical max. Load	Horizontal max. Load	No. of guide rollers	Status
51-3-829/C	III v AS-H-50CrV4-FR-C	500 kN	150 kN	1 x 2	Type Approved

Materials

Top plate : S355J2G3

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Side parts : S355J2G3
Centre plate : C45 flame hardened, HRC 55+, Eht 3 (depth)
Rollers : 50CrV4 hardened and tempered on HRC 38 (1200 N/qmm)

The documentation listed below was stamped 2013-06-11 and given the following status:

Drawing No.	Model	Vertical max. Load	Horisontal max. Load	No. of guide rollers	Status
51-5-2562/B	Vv AS-H-50CrV4- FR-E	2200 kN	570 kN	4	Type Approved
51-5-2563/B	V v AS-H-50CrV4- FR-E	1600 kN	570 kN	4	Type Approved
Static calculation (51-5-2562/B)	V v AS-H-50CrV4- FR-E				For Information
Static calculation (51-5-2563/B)	V v AS-H-50CrV4- FR-E				For Information

Tests carried out

Prototype test is not found required

Marking of product

The Roller Skates are to be marked with the manufacturer's name or trademark and type number identification

Periodical assessment

For retention of the Type Approval, DNV GL surveyor shall perform a survey every second year and before expire date of this certificate to verify that conditions of the type approval are complied with.

This Type Approval Certificate is a renewal of TAC S-7078, S-7585 and TAS 00000DU.

END OF CERTIFICATE