



Germanischer Lloyd

# Approval Certificate

This is to certify, that the undernoted products have been approved in accordance with the relevant requirements of the GL Approval System.

Certificate No. 86 517 - 09 HH  
Company SPW GmbH  
Sail Propeller- u. Wellenbau  
Westkai 58  
27572 Bremerhaven

Product Feathering Propeller

Type Feathering Propellers Type Variprofile, Size VP-64, VP-76, VP-104

Technical Data / Application	Type	VP-64	VP-76	VP-104
Blades		2, 3	2, 3	3
Diameter max. (mm)		455	560	660
Power max. (kW)		35	55	105
Torque max. (Nm)		239	375	835
Shaft speed max. (rpm)		1400	1400	1200

Approval Standard GL - Rules I, Part 1, Chapter 2, Section 6.

Documents Drawings and technical data sheets, approved with Ref. No. 09-168437 dated 2009-12-28.

Remarks Valid for auxiliary drive of Sailships. See page 2/2

Valid until 2014-12-29

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File No. XI.L.06

Hamburg, 2009-12-29



GLAAE0007362661

Germanischer Lloyd

*D. Sideris*  
Dr. Dimitrios Sideris

*O. Richter*  
Olaf Richter



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# *Approval Certificate*

This approval expires after five years and/or in case of changes in our Rules or significant structural and/or material alterations. A new Approval Certificate has to be applied for after this date.

The approval is based on edition 2009 of GL Rules for Seagoing Ships. We like to point out that the Approval Certificate applies to the approved design. It does not relieve from material tests and final testings, as far as required. Each test on the basis of the Approval Certificate has to be notified in writing to Germanischer Lloyd.

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**Hamburg, 2009-12-29**