

## Type Approval Certificate Extension

This is to certify that Certificate No. 06/00039 for the undernoted products is extended and renumbered as shown.

This certificate is issued to:

<b>PRODUCER</b>	AB Volvo Penta
<b>PLACE OF PRODUCTION</b>	Gropegardsgatan Gothenburg, S-405 08 Sweden
<b>DESCRIPTION</b>	Volvo Penta D16, four stroke, in line, turbo charged marine diesel engine.
<b>TYPE</b>	D16
<b>APPLICATION</b>	Main, auxiliary and emergency marine propulsion
<b>SPECIFIED STANDARDS</b>	Lloyd's Register's Rules and Regulations for the Classification of Ships, Part 5, Chapter-2; Lloyd's Register's Rules and Regulations for the Classification of Special Service Craft, Part 10, Chapter 1.

<b>RATING</b>	D16			
No Cylinders and Type:	6, In Line			
Type of Duty:	Main Propulsion		Auxiliary & Emergency	
Power (kW):	478	551	450	500
Speed (rpm):	1800	1900	1500	1800
Max. Firing Pressure (bar):	165	177	169	176
Mean Indicated Pressure (bar):	23.2	25.4	26.2	24.4

<b>Certificate No.</b>	06/00039(E1)
<b>Issue Date</b>	25 July 2011
<b>Expiry Date</b>	24 July 2016
<b>Sheet</b>	1 of 2



R.J. Parry  
London Design Support Office  
Lloyd's Register EMEA

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71 Fenchurch Street, London EC3M 4BS

*"This Certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid certificate."*

*The Machinery General Design Appraisal Document No. LDS/ENG/5961610 forms part of this Certificate.*

*All other details remain as the previous Certificate No. 06/00039 and its associated Design Appraisal Document ENG 101214, to which this extension should be attached.*

### Supplementary Type Approval Terms and Conditions

*Type Approval certifies that a representative sample of the product(s) referred to herein has/have been found to meet the applicable design criteria for the use specified herein. It does not mean or imply approval for any other use, nor approval of any product(s) designed or manufactured otherwise than in strict conformity with the said representative sample.*

*Type Approval is based on the understanding that the manufacturer's recommendations and instructions and any relevant requirements of the Rules and Regulations are complied with.*

*Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations.*

*Lloyd's Register EMEA reserves the right to cancel or withdraw this Type Approval Certificate in accordance with the Lloyd's Register Type Approval System Procedure.*

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**Part 1A**  
**Subject: Main and Auxiliary Propulsion**  
**Product: Diesel Engines (Part 1A)**

Producer/Licence No.		Type	Description of Product		Application	Remarks	Cert. No.
AB Volvo Penta, Gropegårdsgatan, Gothenburg S-405 08, Sweden.		D16	Four Stroke, In Line Type, Turbo Charged Marine Diesel Engine. Duty Power(kW): 478 551 Speed(rpm): 1800 1900 Max.Firing.Pressure(bar): 165 177 M.I.P(bar): 23.2 25.4	Main 450 500 1500 1800 169 176 26.2 24.4	Main, Auxiliary & Emergency Marine Propulsion	Expires: 24 July 2016	06/00039(EI)

