

**EC-TYPE EXAMINATION  
CERTIFICATE**

Certificate No:  
**MED-B-9578**  
Item No:  
**A.1/1.36**  
Job Id:  
**344.1-000774-11**

Application of: Council Directive 96/98/EC of 20 December 1996 on Marine Equipment as amended by directive 2013/52/EU, issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Directorate. This Certificate is issued by DNV GL under the authority of the Government of the Kingdom of Norway.

**This is to certify:**

**That the Lifeboat/rescue boat propulsion engine**

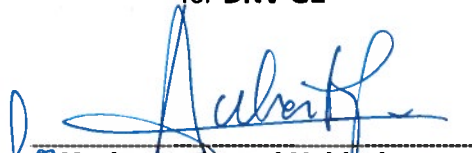
with type designation(s)  
**STEYR and BUKH + STEYR 4 and 6 cylinder diesel engines**

Issued to  
**STEYR MOTORS GmbH**  
**Steyr-Gleink, Austria**

is found to comply with the requirements in the following Regulations/Standards:  
**Annex A.1, item No. A.1/1.36 and Annex B, Module B in the Directive. SOLAS 74, Regulation III/4, III/34 & X/3 and LSA Code**

Further details of the equipment and conditions for certification are given overleaf.

**Høvik, 2014-12-17**  
for DNV GL

  
for **Marianne Strand Valderhaug**  
**Head of Department**



Notified Body No.: **0575**

DNV GL local office:  
**Essen**

This Certificate is valid until  
**2019-12-17**

  
**Tin Nguyen**  
**Surveyor**



The Certificate is subject to terms and conditions overleaf. Any significant changes in design or construction of the product, or amendments to the Directive or Standards referenced above may render this Certificate invalid. The product liability rests with the manufacturer or his representative in accordance with Council Directive 96/98/EC, as amended. The Mark of Conformity may only be affixed to the product and a Declaration of Conformity may only be issued when the production/product assessment module referred to in the council directive, is fully complied with.

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## Product description

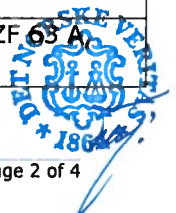
Four stroke diesel engine

Cylinder bore : 85 mm

Piston stroke : 94 mm

No. of cylinders : 4 and 6 in line

| Engine Model                     | Rating (kW) | Engine speed (RPM) | Gearbox   |
|----------------------------------|-------------|--------------------|---|
| <b>4 Cylinder Marine Engines</b> |             |                    |   |
| 54NA33                           | 40          | 3300               | ZF 25 - 25A, ZF 45C   |
| 84K32                            | 55          | 3200               | ZF 45-1/45 A/45 C, ZF 25-1/25/A   |
| 94K33                            | 66          | 3300               | ZF 45-1/45 A/45 C, ZF 25-1/25/A   |
| 114K33                           | 81          | 3300               | ZF 45-1/45 A/45 C   |
| 144M38                           | 106         | 3800               | ZF 45-1/45 A/45 C   |
| 144V38                           | 106         | 3800               | ZF 45-1/45 A/45 C   |
| 164M40                           | 120         | 4000               | ZF 45-1/45 A/45 C   |
| 174V40                           | 125         | 4000               | MerCruiser Bravo I - II - III, ZF 45 - 45A - 45C<br>ZF 63 - 63A - 63IV, ZF63 C    |
| SE114E33                         | 81          | 3300               | ZF25 - 45, ZF 63IV, VP SX, VP DP  |
| SE144E38                         | 106         | 3800               | MerCruiser Bravo I - II - III<br>ZF25 - 45, ZF 63IV, VP SX, VP DP                 |
| SE164E40                         | 120         | 4000               | MerCruiser Bravo I - II - III, ZF 45, ZF 63IV, VP SX, VP DP                       |
| SE174S40                         | 125         | 4000               | MerCruiser Bravo I - II - III, ZF45, ZF 63IV<br>VP SX, VP DP                      |
| <b>6 Cylinder Marine Engines</b> |             |                    |   |
| 126M28                           | 90          | 2800               | ZF 45-1/45 A/45 C   |
| 166M28                           | 120         | 2800               | ZF 45-1/45 A/45 C   |
| 196K35                           | 140         | 3500               | ZF 45-1/45 A/45 C   |
| 236K43                           | 156         | 4300               | ZF 45-1/45 A/45 C   |
| 236K42                           | 170         | 4200               | ZF 45-1/45 A/45 C   |
| 256K43                           | 184         | 4300               | ZF 63-1/63 A/63 C   |
| 256H45                           | 184         | 4500               | ZF 63-1/63 A/63 C   |
| 286H43                           | 205         | 4300               | ZF 63-1/63 A/63 C   |
| 306H43                           | 215         | 4300               | ZF 63-1/63 A/63 C   |
| SE126E25                         | 90          | 2500               | ZF45 1, ZF45 IV, ZF 45A, ZF 45 C, ZF 63, ZF63 IV, ZF 63 A, ZF63 C, ZF220, ZF220 A |
| SE156E26                         | 110         | 2600               | ZF45 1, ZF45 IV, ZF 45A, ZF 45 C, ZF 63, ZF63 IV, ZF 63 A, ZF63 C, ZF220, ZF220 A |
| SE196E35                         | 140         | 3500               | ZF45 1, ZF45 IV, ZF 45A, ZF 45 C, ZF 63, ZF63 IV, ZF 63 A, ZF63 C, ZF220, ZF220 A |
| SE236E40                         | 170         | 4000               | ZF45 IV, ZF 45 C, ZF 63, ZF63 IV, ZF 63 A, ZF63 C, ZF220, ZF220 A                 |
| SE236S36                         | 170         | 3600               | ZF45 IV, ZF 45 C, ZF 63, ZF63 IV, ZF 63 A, ZF63 C, ZF220, ZF220 A                 |
| SE266E40                         | 195         | 4000               | ZF45 IV, ZF 45 C, ZF 63, ZF63 IV, ZF 63 A, ZF63 C, ZF220, ZF220 A                 |



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|          |     |      |   |
|----------|-----|------|---|
| SE266S36 | 195 | 3600 | ZF 63, ZF63 IV, ZF 63 A, ZF63 C, ZF220, ZF220 A |
| SE286E40 | 205 | 4100 | ZF 63, ZF63 IV, ZF 63 A, ZF63 C, ZF220, ZF220 A |
| SE306J38 | 215 | 3800 | ZF 63, ZF63 IV, ZF 63 A, ZF63 C, ZF220, ZF220 A |

## Application/Limitation

The engine models are approved for use in life/rescue boats.

## Type Examination documentation

### 4 cylinder marine engines

2203815/0 Engine longitudinal section  
2203816/0 Engine cross section  
2203728/1 Inboard down angle  
Z001022/0 Operators manual  
Z001025/0 Spare parts catalogue 84  
Z001023/0 Spare parts catalogue 94  
Z001005/0 Spare parts catalogue 144  
Z001015/0 Spare parts catalogue 164

### 6 cylinder marine engines

2178578/0 Engine longitudinal section  
2178578/1 Engine cross section  
E100105/4 Inboard down angle  
E100041/3 View exhaust side  
Z001022/0 Operators manual  
Z011798/0 Spare parts catalogue TACM 126  
Z011797/0 Spare parts catalogue TACM 166  
Z011799/0 Spare parts catalogue TACM 196  
Z011796/1 Spare parts catalogue TACM 236K43  
Z011796/2 Spare parts catalogue TACM 236K42  
Z011810/0 Spare parts catalogue TACM 256

### All models :

LOS 1 Lube oil scheme, CS 1 Cooling system, FS 1 Fuel system

### 6 cylinder marine engines SE Series

2181156-0 SE306J38+ZF63  
2181157-0 SE306J38 Bobtail  
2181166-0 Engine longitudinal section  
2181167-0 Engine cross section  
2181160-0 Lubrication system scheme  
2181161-0 Cooling system scheme  
2181158-0 Fuel system scheme  
P/N Z001140-0 Operation-, maintenance & warranty manual  
P/N Z001138-0 Service manual  
P/N Z011840-0 Spare Parts catalogue SE 306J38  
P/N Z001015-0 Spare Parts catalogue MO / SE 164M40



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## Tests carried out

Test report M14TCAM Type 144/164, Date : 21<sup>st</sup> through 23<sup>rd</sup> April 1999  
Test report M16TCAM Type 236/246, Date : 21<sup>st</sup> through 23<sup>rd</sup> April 1999  
Test report 1511 SOLAS Test of the Steyr Marine 2012 SE Series, Dated : December 22<sup>nd</sup> 2011  
Test report 1751 DNV-OS-E406 Certification Test 4 cylinder Marine engine, Dated : December 7<sup>nd</sup> 2012

## Marking of product

The product to be marked with the manufacturer's name or trademark and type number identification.

## Mark of Conformity

The manufacturer is allowed to affix the Mark of Conformity according to Article 11 in the Council Directive 96/98/EC on Marine Equipment and shall issue a Declaration of Conformity, only when the module D or E or F of Annex B in the same directive is fully complied with.

- Module D: The quality system for production and testing shall be approved by the Notified Body.
- Module E: The quality system for inspection and testing shall be approved by the Notified Body.
- Module F: Compliance of the products to type as described in this EC Type-Examination Certificate must be verified by the Notified Body who also shall issue a Certificate of Conformity.

