DNV·GL

Certificate No:
TAM00000V5

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Turbocharger

with type designation(s)
7S1508, 7S1512, 7S1716, 7S1406, 7S1408

Issued to
GE Transportation Parts, LLC
Erie PA, USA

is found to comply with
DNV GL rules for classification – Ships
DNV GL rules for classification – High speed and light craft

Application :

The turbochargers are approved for use on internal combustion engines with application data as given in the certificate.
Products approved by this certificate are accepted for installation on all vessels classed by DNV GL.

Issued at **Hamburg** on **2018-04-03**
This Certificate is valid until **2023-04-02**.
DNV GL local station: **New York**

Approval Engineer: **Sven Neddenien**

for **DNV GL**

Burkhard Lilienthal
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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Product description
Exhaust driven turbochargers intended for GE Diesel engines.

Alternative place of production
not applicable

Application/Limitation

Model	Intended for engine type	turbocharger category (see other conditions)	Compessor wheel diameter (mm)	Max. allowable compressor ratio
7S1508	8V228MDD, -E, -F	B	375	4.25
7S1512	12V228MDD, -E, -F	B	375	4.25
7S1716	16V228MDD, -E, F	C	450	4.25
7S1406	6L250MDA, 12V250MDA, -B, 16V250MDA,-B	B	375	4.25
7S1408	8L250MDA, 12V250MDA, -B, 16V250MDA, -B	B	375	4.25

Model	Max. speed (rpm)	Alarm speed (rpm)	Max. temp. (C°)	Alarm temp. (°C)	Alarm lub. oil press. (bar)	Shut down lub. oil press. (bar)
7S1508	27,500	25,600	718	690	4.45	3.37
7S1512	27,500	25,600	718	690	4.45	3.37
7S1716	23,500	22,800	718	690	4.45	3.37
7S1406	27,500	25,600	718	690	4.45	3.37
7S1408	27,500	25,600	718	690	4.45	3.37

The maximum allowable vibration level is 45 mm/s for the range of 3 to 300 Hz.

Type Approval documentation

Tests carried out
Test report, dated August 2009 (test from 2009-08-17 to 2009-08-26)
Type test report of 7DFM12 (12V228V), dated 2006-11-21
Reports of containment calculations, dated January 1982 and May 2008

Marking of product
The product to be marked with manufacturer’s name or trademark and type number identification.

Periodical assessment

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

The objective of the Periodical Assessment is to verify that the conditions for the Type Approval are not altered since the Type Approval certificate was issued.

In cases where the type approved product is manufactured at other companies, periodical assessments shall be carried out randomly at these companies. All companies shall be assessed at least once in the period of validity of the TA certificate.

This will be according to Class Guideline DNVGL-CG-0338, Section 4.

Other conditions

Turbochargers are categorized in three categories depending on power served by each turbocharger: Category A = ≤ 1000 kW, Category B = > 1000 kW and ≤ 2500 kW, Category C = >2500 kW.

Turbochargers shall be delivered with a product certificate issued by the manufacturer (category B) or by the class society (category C). For turbochargers of category A an certificate is not mandatory.

END OF CERTIFICATE