



Certificate no.:
TAE00004TZ

TYPE APPROVAL CERTIFICATE

This is to certify:
that the Electric Motor

with type designation(s)
DC Drilling Motor - 5GE752RB2

issued to
Wabtec Transportation Systems, LLC
Erie, PA, USA

is found to comply with
DNV offshore standards

Application:

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.

Degree of protection	IP 56* (see limitation)
Insulation class	H
Temp. class (°C)	40
Voltage (V)	750
Power (kW)	842
Frequency (Hz)	-
Speed (RPM)	1040

Issued at **Houston** on **2023-11-09**

This Certificate is valid until **2028-11-08**.

for **DNV**

DNV local unit: **Certification & Inspection Services**

Approval Engineer: **Qi Ricky Li**

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



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Product description

DC Drilling Motor with 2800 SCFM Air Flow. 5GE752RB2 with Single Ended Shaft.

Ratings

1130 HP, 750 VDC, 1185 ADC, 60 ADC Field, 1040 RPM, 7735 N-m (5705 lb-ft) Torque, Insulation Class H, Space Heaters, Temperature Rise/Ambient 155°C/ 40°C.

Application/Limitation

Only to be used for drilling applications. Other applications will require special consideration by the purchaser to manage or reduce vibration as the motors' typical vibration exceeds the normal limits of IEC 60034-1 and the DNV Offshore Standard. This statement shall be referred to in DNV product certificate.

Motors for use on open deck are required to be vertically mounted and equipped with an additional steel enclosure or junction box of at least IP56 protection.

The information related to Ex-certification from a recognized test institution is given as information only. Ex installations to be approved in each case according to the DNV Offshore Standard and Ex-Certification/ Special Condition for Safe Use listed in valid Ex certificate issued by a notified/recognized Certification Body.

Type Approval documentation

Tests carried out

Winding resistance, Insulation resistance, Temperature rise, Overload, Overspeed, Dielectric strength, No load.

Place of manufacturer

Motor: Wabtec Transportation Systems, LLC
2901 E Lake Rd, Erie, PA 16531 United States

Final Motor assembly with blower and accessories: Hunt Engine Inc, Houston, Texas
14805 S Main St, Houston, TX 77035 United States

Marking of product

Wabtec Drill Motor, type designation (model number), serial number, technical data including rated voltage, RPM, rated power, ambient temperature, rated current, insulation class and Ex-marking.

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval are complied with and that no alterations are made to the product design or choice of materials.

The main elements of the assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Routine Tests (RT) checked (if not available tests according to RT to be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and Type Approval Certificate.

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.

END OF CERTIFICATE