Type Certificate



GL Renewables Certificate No.

TC-GL-015A-2013, Rev. 1

This Type Certificate of the Ice and Damage Detection System

SHM.Blade / IDD.Blade

is issued to

Wölfel Beratende Ingenieure GmbH + Co. KG Max-Planck-Straße 15 97204 Höchberg

Germany

We hereby certify that the Ice and Damage Detection System SHM.Blade / IDD.Blade has been assessed by GL Renewables Certification (GL RC) concerning the system design, the prototype testing and the designer's / manufacturer's quality system.

The Type Certificate is based on the indicated documents as follows:

Report No. 74981-16, Rev. 1

Ice and Damage Detection System SHM.Blade / IDD.Blade

dated 2014-09-05

Zertifikat-Registrier-Nr.

04 100 020955

Zertifikat für das Managementsystem nach DIN EN ISO 9001:2008

issued by TÜV Nord,

dated 2014-05-05, valid until 2017-05-04

Normative references:

GL Rules and Guidelines – IV Industrial Services – Part 4 –

Guideline for the Certification of Condition Monitoring Systems for Wind

Turbines, Edition 2013

Changes of the system design, the production and erection or the designer's / manufacturer's quality system are to be approved by GL RC; otherwise this Type Certificate loses its validity.

This Type Certificate is valid until **2016-09-04**, provided that a valid "Certificate for the Quality Management System" is available for this period and the annual update is successfully performed on the basis of Section 3.1.5.4 of above mentioned normative reference.

Hamburg, 2014-09-05

Star

GL Renewables Certification

ppa Mike Woebbeking Head of Certification Body i. V. Axel Dombrowski

Head of Department

Renewables Certification Germanischer Lloyd Industrial Services GmbH Brooktorkai 18 20457 Hamburg, Germany