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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 15135-2018

Replacing GB/T 15135-2002

Gas turbines -- Vocabulary

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Table of Contents

Foreword

1 Scope

2 gas turbines - types and types

Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard replaces GB/T 15135-2002 "Gas Turbine Vocabulary". Major technical changes compared to GB/T 15135-2002

as follows.

--- Modified the description of some words;

--- Added some terms;

--- Integrate the contents of Appendix C of GB/T 15135-2002 into the text.

This standard uses the redrafting method to modify the ISO 11086.1996 "Gas Turbine Vocabulary".

This standard has more structural adjustments than ISO 11086.1996. This standard and ISO 11086.1996 are listed in Appendix A.

The chapter number is compared to the list.

There are technical differences between this standard and ISO 11086.1996, and the terms involved in these differences have been passed on the outer margins of the margins.

The vertical single line (|) is marked. The main technical differences are.

--- Removed the definition 20.11, added some terms.

This standard has made the following editorial changes.

--- Added Chinese index.

This standard was proposed by the China Machinery Industry Federation.

This standard is under the jurisdiction of the National Gas Turbine Standardization Technical Committee (SAC/TC259).

This standard was drafted. Dongfang Electric Group Dongfang Steam Turbine Co., Ltd., China Aerospace Shenyang Dawn Aviation Engine Co., Ltd.

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The previous versions of the standards replaced by this standard are.

---GB/T 15135-1994, GB/T 15135-2002;

---GB 2900.47-1983.

Gas turbine vocabulary

1 Scope

This standard defines the terms and definitions used in the gas turbine field.

This standard applies to open cycle (using conventional combustion systems), closed cycle,
semi-closed cycle and combined cycle gas turbines.

2 gas turbines - types and types

2.1

Gas turbine gasturbine

A freewheeling rotary machine (single machine) that converts thermal energy into
mechanical work, including compressors, equipment for heating working fluids (such as
combustion chambers), turbines,

Control system and auxiliary equipment.

Note. See Appendix B for an example of a gas turbine system.

2.2

Gas turbine complete equipment gasturbineequipmentinsets

Gas turbine powerplants, loads and equipment to ensure their proper operation, and others
to improve their performance and control of the environment

A complete set of equipment that affects the various equipment required.

2.3

Gas turbine power unit gasturbinepowerplant

Gas turbine plant

Gas turbines and the basic equipment necessary to generate useful power (eg, electrical, mechanical, or thermal).

2.4

Internal combustion gas turbine internalcombustiongasturbine

Combustion occurs in the internal area and transfers heat to the working gas turbine.

2.5

External combustion gas turbine externalcombustiongasturbine

Combustion occurs in the outer zone and transfers heat to the working gas turbine.

2.6

Single shaft gas turbine singleshaftgasturbine

The compressor is mechanically connected to the turbine and the load through a shaft so that they rotate in unison and the transmission is generated by the turbo expansion process.

Force gas turbine.

2.7

Multi-shaft gas turbine multi-shaftgasturbine

A gas turbine having two or more turbine shafts that are mechanically independent of each other.

Note. Multi-axis gas turbines can be split shaft gas turbines with one free-power turbine and single compressor-turbine shaft or with multiple compressors - turbine shaft

Gas turbine.

2.8

Multi-rotor gas turbine multi-spoolgasturbine

A multi-shaft combustion with several concentric rotors (usually concentric bushings, no intermediate cooling or reheating) with direct connection of the compressor and turbine