

ICS 17.160
CCS J 04



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

GB/T 6075.3-2011

Replacing GB/T 6075.3-2001

**Mechanical vibration -- Evaluation of machine vibration by measurements on
non-rotating parts -- Part 3: Industrial machines with nominal power above 15 kW
and nominal speeds between 120r/min and 15000r/min when measured in situ**

机械振动 在非旋转部件上测量评价机器的振动 第3部分：额定功率大于15kW额
定转速在120 r/min至15000r/min之间的在现场测量的工业机器

(English Translation)

Issued on: December 30, 2011

Implemented on: October 1, 2012

Issued by: Standardization Administration of China

Table of Contents

Foreword
Introduction
1 Scope

Foreword

GB/T 6075 "Mechanical vibration Evaluation of machine vibration measurements on non-rotating member" is divided into seven parts.

- Part 1. General;
- Part 2. 50MW or more, rated speed 1500r/min, 1800r/min, 3000r/min, 3600r/min land security Installed turbine and generator;
- Part 3. rated power above 15kW rated speed in 120r/min to 15000r/min between field measurements Industrial machinery;
- Part 4. Gas turbine sets with a sliding bearing;
- Part 5. hydroelectric and pumping plants;
- Part 6. 100kW or more reciprocating machines;
- Part 7. rotodynamic pumps for industrial use (including shaft measurement).

This section GB/T 36075 Part of.

This section drafted in accordance with GB/T 1.1-2009 given rules.

This Part replaces GB/T 6075.3-2001. This portion of the GB/T 6075.3-2001 main difference is.

--- Standard name from the "Measurement and evaluation of the machine on a non-rotating member of the mechanical vibrations - Part 3. rated power greater than 15kW Nominal speeds between 120r/min to 15000r/min in the field of industrial measuring machine "to" non-mechanical vibration Measurement Evaluation of machine vibration on rotating parts - Part 3. rated power above 15kW rated speed in 120r/min to 15000r/min measured in the field of industrial machine "min between;

--- "Scope" by deleting the contents about the pump, attach it to GB/T 6075.7 in.

2009 "Mechanical vibration measurement and evaluation of the machine vibration on non-rotating parts. This section uses the translation method using equivalent ISO 10816-3 Part 3. rated power above 15kW and nominal speeds between 120r/min to 15000r/min in

the field of industrial measuring machine Device "(in English).

Consistency correspondence between this part of international documents and normative references of our files are as follows.

--- GB/T 6075.1-1999 Measurement and Evaluation of the machine on the non-rotating member of the mechanical vibration - Part 1. General (Idt ISO 10816-1:1995) for ease of use, this section made the following editorial changes.

--- The reference IEC 60034-14:2003 to IEC 60034-14:2007 Edition, and equivalents employed GB 10068-2008 instead.

This part of the National mechanical vibration, shock and condition monitoring Standardization Technical Committee (SAC/TC53) and focal points.

This section is drafted. Zhengzhou Machinery Research Institute, Hangzhou Steam Turbine Co., Ltd., Henan Electric Power Research Institute.

Introduction

GB/T 6075.1 is the basic document, which describes generally measured vibration on non-rotating parts of various types of machine vibrations Evaluation begging. GB/T 6075 this part of the assessment in the industrial machinery bearings, housings or measuring vibration intensity on a support site provides special Guidelines.

Vibration assessment of the machine there are two criteria, the first criterion is to consider the magnitude of vibration, the second criterion is to consider changes in the vibration magnitude.

However, these two criteria must be taken not as the sole basis for determining vibration intensity. For some types of machines, measuring shaft Vibration determination is relatively common, shaft vibration measurements and criteria, see ISO 7919-1 [1] and ISO 7919-3 [2].

Mechanical vibration measurement evaluation machine on a non-rotating member Vibration - Part 3. rated power greater than 15kW Rated speed in 120r/min to 15000r/min Between field measurements of industrial machines

1 Scope

GB/T 6075 This section gives guidelines for site assessment to measure vibration levels, the Code applies to power greater than 15kW, transport Line speed in 120r/min to 15000r/min units.

This section covers the machine.

--- Power less than 50MW turbine;

- Steam turbine power greater than 50MW, but the speed is less than 1500r/min or greater than 3600r/min (ie, not including ISO 10816-2 Covered unit);
- Rotary compressor;
- Power less than 3MW of industrial gas turbines;
- generator;
- Various types of motor;
- Blower or fan.

NOTE: Vibration criteria in this section generally apply only to the rated power of more than 300kW wind turbine or flexible support of the fans. When conditions permit, prepared to recommend Other types of fans, including those using lightweight sheet metal structure of the fan. Prior to this, the manufacturer and the user can be based on previous experience running knot If both parties agree to accept the vibration classification, see ISO 14694 [4].

The following machines do not fall within the scope of this part.

- Power greater than 50MW turbine generator installed on land, its speed is 1500r/min, 1800r/min, 3000r/min, 3600r/min (see ISO 10816-2);
- Power greater than 3MW gas turbine (see ISO 10816-4);
- Hydroelectric and pumping plants (see ISO 10816-5);
- Reciprocating machine coupled machines (see ISO 10816-6);
- Motor rotor includes an integrated power pumps, for example, an impeller mounted directly on the motor shaft or rigidly connected thereto (see ISO 10816-7);
- Rotary compressor (such as screw compressors);
- Reciprocating compressor;
- Reciprocating pump;
- Electric submersible pumps;
- Wind turbine.

Vibration criteria in this section apply to work within the rated speed, stable operating conditions, the machine bearings, housings or machine base site Wide band vibration measurements. They relate to the acceptance tests and operation monitoring. This part of the evaluation criteria used for continuous and non-continuous monitoring Happening.

This section contains the machine with gears or rolling bearings, but does not involve the diagnostic evaluation of these gears or rolling bearing state.

This section applies only to the vibration generated by the machine itself, and not to pass

by external vibration source to the vibrating machine.