

JB

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

JB/T 10180-2000

**Technical requirements for elastic metal-plastic pads for thrust
bearings of hydro-generators**

水轮发电机推力轴承弹性金属塑料瓦技术条件

(English Translation)

Issued on: April 24, 2000

Implemented on: October 1, 2000

**Issued by: Ministry of Industry and Information Technology of the
People's Republic of China**

Table of Contents

Foreword
1 Scope
2 Normative References
3 Terms
4 Technical Requirements
5 Requirements for Design and Manufacture
6 Inspection
7 Packing, Transport and Storage
8 Installation and Application
9 After-sales Service and Technical Support

1 Scope

This standard specifies technical performance, operating conditions, production conditions, after-sales service, package, transport and technical support.

2 Normative References

The following normative documents contain provisions which, through reference in this standard, constitute provisions of this standard. At time of publication, the editions indicated were valid. All the standards will be revised, all parties coming to an agreement according to this standard are encouraged to study whether the latest editions of the following standards are applicable.

GB 8564-1988 Specification Installation of Hydraulic Turbine Generator Units

GB 11120-1989 Turbine Oils L-TSA JB/T 8660-1997 Specification of Package, Transportation and Storage for Hydroelectric Unit

3.1 Elastic-metal-plastic composite bed ("elastic laminate layer" for short)

A composite materials formed by elastic metal wire layer (generally spring metal wire) and plastic material (generally fluoroplastics) under a certain process conditions and the elastic metal wire is embedded in a certain depth in the plastic layer.

3.2 Elastic-metal-plastic pad

Elastic-metal-plastic pad is a bearing pad which is machined with the shape and geometric dimension of the requirements after the elastic composite bed is welded together with metal blank of thrust pad through special process; it is also called plastic pad or EMP pad for short.

3.3 Pad surface flexibility lambda

Gradient of a certain point on the deformation δ (μm) curve of elastic compression pressure P (MPa) and pad surface elastic compression when the static partial compression test is carried out on test press of Grade I precision with $\Phi 50\sim\Phi 85\text{mm}$ pressure head according to dimension of plastic pad (or representative sample) at a certain temperature, expressed with lambda ($\mu\text{m}/\text{MPa}$).

3.4 Elastic modulus E

Pressure-deformation characteristics of plastic pad at certain temperature and pressure, different temperature and pressure having different elasticity modulus which may be deduced in accordance with pad surface flexibility and thickness H (mm) of elastic composite bed.