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

中华人民共和国能源行业标准

NB/T 47013.6-2015

Replacing JB/T 4730.6-2005

Nondestructive testing of pressure equipments-

Part 6: Eddy current testing

承压设备无损检测

第 6 部分：涡流检测

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Foreword

This Standard NB/T 47013 Nondestructive testing of pressure equipments is divided into the following 13 parts:

- Part 1 General requirements
- Part 2 Radiographic testing
- Part 3 Ultrasonic testing
- Part 4 Magnetic particle testing
- Part 5 Penetrant testing
- Part 6 Eddy current testing
- Part 7 Visual testing
- Part 8 Leak testing
- Part 9 Acoustic emission testing
- Part 10 Ultrasonic time of flight diffraction technique testing
- Part 11 X-ray digital radiosopic examination
- Part 12 Magnetic flux leakage testing
- Part 13 Pulsed eddy current testing

This Part is part 6 of NB/T 47013: Eddy current testing

This Part is drafted according to the rules provided in GB/T 1.1-2009 *Directives for standardization—Part 1: Structure and drafting of standards*

This Part replaced JB/T 4730.6-2005 Nondestructive testing of pressure equipments Part 6: Magnetic particle testing and the main technical changes are as follows compared with JB/T 4730.6-2005:

- The content of eddy current testing of components and parts by probe coil is added;
- The content of eddy current testing of welds by probe coil is added;
- The content of thickness measurement of cover layer is added;
- The content of eddy current thickness measuring is added;
- The scope of eddy current testing is expanded.

This Part is proposed by and under the jurisdiction of China Standardization Committee on Boilers and Pressure Vessels (SAC/TC 262).

Drafting organizations of this Part: Hefei General Machinery Research Institute, China Special Equipment Inspection and Research Institute, Beijing Institute of Aeronautical Materials, North China Electric Power Research Institute, Eddysun (Xiamen) Electronic Co., Ltd., Zhejiang Provincial Special Equipment Inspection and Research Institute.

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The historical version replaced by this Part is as follows:

- JB 4730 – 1994, JB/T 4730.6 – 2005.

Nondestructive Testing of Pressure Equipments – Part 6: Eddy Current Testing

1 Scope

1.1 This Part of NB/T 47013 specifies the requirements for testing method and quality classification of eddy current testing used for pressure equipment.

1.2 This Part is applicable to the eddy current testing of the defects on the surface and near-surface of conductive metallic materials, components and parts, welded joints used for pressure equipment in-fabrication and in-service, and also is applicable to the thickness measurement of surface cover layer of metal substrate by using magnetic method and eddy current method.

1.3 The eddy current testing of supporting members and structure parts related to pressure equipment can also refer to this Part.

2 Normative references

The following documents are necessary to the application of this document. For all dated references, only the dated edition applies to this document. For all undated references, the latest edition (including all amendments) applies.

GB/T 5126	Eddy current inspection method for cold drawn thin wall tubes of aluminum and aluminum alloy
GB/T 5248	Copper and copper alloy-seamless tubes-eddy current testing method
GB/T 7735	Steel tubes—The inspection method on eddy current test
GB/T 12604.6	Non-destructive testing - Terminology - Terms used in eddy current testing
GB/T 12969.2	Method of eddy current inspection for titanium and titanium alloy tubes
GB/T 14480.3	Non-destructive testing - Equipment for eddy current examination - Part 3: System characteristics and verification
NB/T 47013.1	Nondestructive testing of pressure equipments-Part 1: General requirements
NB/T 47013.3	Nondestructive testing of pressure equipments-Part 3: Ultrasonic testing
NB/T 47013.4	Nondestructive testing of pressure equipments-Part 4: Magnetic particle testing
NB/T 47013.5	Nondestructive testing of pressure equipments-Part 5: Penetrant testing
NB/T 47013.10	Nondestructive testing of pressure equipments-Part 10: Ultrasonic time of flight diffraction technique testing
YB/T 145	Steel tubes-Measurement method of sizes of standard artificial defect

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