

ICS 19.100
N 78



National Standard of the People's Republic of China

GB/T 26837-2011

**Non-destructive testing instruments—
Stationary type and movable type industrial X-ray
radiographic equipment**

无损检测仪器

固定式和移动式工业 X 射线探伤机

Issued on Jul 29, 2011

Implemented on Dec 01 2011

**Issued by the General Administration of Quality Supervision, Inspection and Quarantine,
The People's Republic of China (AQSIQ) and the Standardisation Administration of the
People's Republic of China (SAC)**

Contents

Foreword	1
1 Scope	4
2 Normative References	4
3 Product classifications	4
4 Requirements	6
4.1 Service conditions	6
4.2 Service performance	6
4.3 Stability	8
4.4 Radiation Protection and Safety	8
5 Testing methods	10
5.1 Testing condition	10
5.2 Main instruments and appliances for test	10
5.3 Determination of penetrating force	11
5.4 Relative sensitivity determination	13
5.5 Determination of ray radiation angle and radiation field uniformity	13
5.6 Determination of X-ray machine timer error	15
5.7 Tube voltage error determination	15
5.8 Determination of tube voltage regulating device of X-ray machine	17
5.9 Overcurrent protection determination	17
5.10 Overvoltage protection determination	17
5.11 Determination of temperature protective device	18
5.12 Determination of tube current milliampere leakage protection device	18
5.13 Determination of stability for continuous work	18
5.14 Determination of output voltage for voltage stabilizing circuit	18
5.15 Determination of radiation leakage air kerma rate	19
5.16 Determination of high-voltage circuit insulation resistance	19
5.17 Determination of ground resistance for ground protection device	19
5.18 Determination of low voltage circuit insulating strength	19
5.19 Determination of high voltage circuit insulating strength	19
5.20 Determination of filament transformer primary insulation resistance against the ground	20
5.21 Determination of controller secondary insulating strength against ground	20
5.22 Cleanliness testing	20
5.23 Appearance quality inspection	20
5.24 Leakage determination	20
5.25 Transportation and storage environmental testing	21
5.26 Packaging test	21
5.27 Normal work test when the power supply voltage fluctuates	21
6 Inspection rules	22
6.1 EX factory inspection	22
6.2 Type inspection	22
7 Mark, packing, transportation and storage	23
7.1 Mark	23
7.2 Package	23
7.3 Transportation and Storage	24
Annex A (Normative) X-ray machine calibration block	25

Foreword

This standard is drafted according to rules given by GB/T 1.1-2009.

This Standard is proposed by Chinese Mechanical Engineering Society.

This Standard is under jurisdiction of National Technical Committee 122 on Testing Machines of Standardization Administration of China.

Chief draft unit of this Standard is Liaoning Instrument Research Institute.

Participating draft units of this Standard are Liaoning Institute of Metrology, Dandong Aolong Radiative Instrument Co., Ltd, Dandong Wanquan Nondestructive Examination Instrument Factory, Dandong NDT Equipment Co., Ltd, Shanghai Advanced NDT Equipment Co., Ltd and Dandong Flaw Detector Making Factory.

Chief drafters of this Standard are Wu Taifeng, Liu Jian, Li Yibin, Zhang Hong, Dong Diangang, Fu Yan, Lin Baohua.

Non-destructive testing instruments— Stationary type and movable type industrial X-ray radiographic equipment

1 Scope

This standard specifies the technical requirements, test methods, inspection rules, signs, packaging, transportation and storage of fixed and mobile industrial X-ray detection machine (hereinafter referred to as the X-ray machine).

This standard is applied to the fixed and mobile X-ray machine with more than 500 kV for tube voltage.

2 Normative References

The provisions of the following documents become provisions of this Standard after being referenced. For dated reference documents, all later amendments (including all corrigenda) and revised versions apply to this Standard.

GB/T 191 Packaging - Pictorial marking for handling of goods

GB/T 9582-1998 Photography-Industrial radiographic film-Determination of ISO speed and average gradient when exposed to X-and γ -radiation

GB/T 13384 General specifications for packing of mechanical and electrical product

GB 18871 Basic standards for protection against ionizing radiation and for the safety of radiation sources

GB 22448-2008 Protection rules for industrial X-ray radiographic equipment up to 500kV

JB/T 6220-2004 The densimeter for radiography

JB/T 7808-2010 Non-destructive testing instruments Main parameter series for the industrial X-ray equipment

JB/T 9329 Basic environmental conditions and testing methods for instruments transportation and storage in the transportation

3 Product classifications

3.1 Product model

X-ray machine product model should be prepared by the following methods in Figure 1.

完整版本请在线下单

或咨询：

TEL: 400-678-1309

QQ: 19315219

Email: info@lancarver.com

<http://www.lancarver.com>

线下付款方式：

1. 对公账户：

单位名称：北京文心雕语翻译有限公司

开户行：中国工商银行北京清河镇支行

账 号：0200 1486 0900 0006 131

2. 支付宝账户：info@lancarver.com

注：付款成功后，请预留电邮，完整版本将在一个工作日内通过电子 PDF 或 Word 形式发送至您的预留邮箱，如需索取发票，下单成功后的三个工作日内安排开具并寄出，预祝合作愉快！
