



JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS A 8330-2 : 2004
(JCMA/JSA)

**Earth-moving machinery—
Operator enclosure environment—
Part 2 : Air filter test**

ICS 13.040.30; 53.100

Reference number : JIS A 8330-2 : 2004 (E)

PROTECTED BY COPYRIGHT



Documents

Document Sharing Hub

Foreword

This translation has been made based on the original Japanese Industrial Standard established by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee according to the proposal of establishing a Japanese Industrial Standard from Japan Construction Mechanization Association (JCMA)/Japanese Standards Association (JSA), with a draft of Industrial Standard based on the provision of Article 12 Clause 1 of the Industrial Standardization Law.

This Standard has been made based on **ISO 10263-2 : 1994 *Earth-moving machinery—Operator enclosure environment—Part 2 : Air filter test*** for the purposes of making it easier to compare this Standard with International Standard; to prepare Japanese Industrial Standard conforming with International Standard; and to propose a draft of an International Standard which is based on Japanese Industrial Standard.

Attention is drawn to the possibility that some parts of this Standard may conflict with a patent right, application for a patent after opening to the public, utility model right or application for registration of utility model after opening to the public which have technical properties. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying the patent right, application for a patent after opening to the public, utility model right or application for registration of utility model after opening to the public which have the said technical properties.

JIS A 8330 consists of the following 4 parts under the general title *Earth-moving machinery—Operator enclosure environment*:

Part 1 : General and definitions

Part 2 : Air filter test

Part 3 : Operator enclosure pressurization test method

Part 4 : Operator enclosure ventilation, heating and/or air conditioning test method.

Date of Establishment: 2004-01-20

Date of Public Notice in Official Gazette: 2004-01-20

Investigated by: Japanese Industrial Standards Committee
Standards Board

Technical Committee on Industrial Machinery

JIS A 8330-2:2004, First English edition published in 2004-04

Translated and published by: Japanese Standards Association
4-1-24, Akasaka, Minato-ku, Tokyo, 107-8440 JAPAN

In the event of any doubts arising as to the contents,
the original JIS is to be the final authority.

© JSA 2004

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

Printed in Japan

Contents

	Page
Introduction	1
1 Scope	1
2 Normative references	1
3 Definitions	1
4 Test equipment and instruments	2
5 Test conditions	5
6 Performance requirements	7
Annex A (informative) Example of qualification test form for panel-type air filter in accordance with JIS A 8330-2	8
Annex 1 (informative) Comparison table between JIS and corresponding International Standard	9

Earth-moving machinery— Operator enclosure environment— Part 2 : Air filter test

Introduction This part of **JIS A 8330** has been prepared based on the first edition of **ISO 10263-2** *Earth-moving machinery—Operator enclosure environment—Part 2 : Air filter test* published in 1994 with some modifications of the technical contents.

In addition, the portions underlined with dots are the matters in which the contents of the original International Standard have been modified. The list of modifications with the explanation is given in Annex 1 (informative).

1 Scope This part of **JIS A 8330** specifies a uniform test method to determine performance levels of operator enclosure panel-type air filters used to filter the air entering an earth-moving machine operator enclosure with a powered fresh air system.

NOTE : The International Standard corresponding to this Standard is as follows.

In addition, symbols which denote the degree of correspondence in the contents between the relevant International Standard and **JIS** are **IDT** (identical), **MOD** (modified), and **NEQ** (not equivalent) according to **ISO/IEC Guide 21**.

ISO 10263-2 : 1994 *Earth-moving machinery—Operator enclosure environment—Part 2 : Air filter test* (**MOD**)

2 Normative references The following standards contain provisions which, through reference in this Standard, constitute provisions of this Standard. If the indication of the year of publication is given to these referred standards, only the edition of indicated year constitutes the provision of this Standard but the revision and amendment made thereafter do not apply. The normative references without the indication of the year of coming into effect apply limiting only to the most recent edition (including amendments).

JIS A 8330-1 *Earth-moving machinery—Operator enclosure environment—Part 1 : General and definitions*

NOTE : **ISO 10263-1 : 1994** *Earth-moving machinery—Operator enclosure environment—Part 1 : General and definitions* is identical with the said standard.

JIS D 1612 *Test methods of air cleaners for automobiles*

NOTE : **ISO 5011 : 1988** *Inlet air cleaning equipment for internal combustion engines and compressors—Performance testing* is equivalent to the said standard.

3 Definitions For the purposes of this part of **JIS A 8330**, the definitions given in **JIS A 8330-1** apply.

4 Test equipment and instruments

4.1 Test equipment in accordance with figure 1, used to determine the resistance to airflow, particle holding capacity, particulate removal efficiency and sealing characteristics. For the dust capacity and efficiency tests, the restrictor plates specified in figure 1 shall be used to promote adequate mixing of dust upstream of the filter being tested (see 5.7). For components other than panel filters, see **JIS D 1612**.

4.2 Dust metering device in accordance with figure 2 which, when used with the dust injector specified in figure 3, is capable of ensuring the necessary flow. The average delivery rate shall be within 5 % of the desired rate, and the deviation in the instantaneous delivery rate from the average shall be no more than 5 %. This feed system shall not change the primary particle size distribution of the particulate.

4.3 Absolute filter consisting of a fibreglass medium with a minimum thickness of 12.7 mm and a minimum density of 9.5 kg/m³. The fibre diameters shall be 0.76 µm to 1.27 µm and the moisture absorption shall be less than 1 % by mass, after exposure to a temperature of 50 °C and 95 % relative humidity for 96 h. The filter shall be installed with the nap side facing upstream in an air-tight holder that adequately supports the medium.