

AS ISO 6393:2019  
AS ISO 6393:2008

AS ISO 6393:2019



# **Earth-moving machinery— Determination of sound power level— Stationary test conditions**



## AS ISO 6393:2019

This Australian Standard ® was prepared by EV-010, Acoustics Community Noise. It was approved on behalf of the Council of Standards Australia on 27 February 2019.

This Standard was published on 19 March 2019.

The following are represented on Committee EV-010:

- Association of Australasian Acoustical Consultants
- Australian Acoustical Society
- Austroads
- Bureau of Steel Manufacturers of Australia
- Department of Defence (Australian Government)
- Engineers Australia
- University of Sydney

This Standard was issued in draft form for comment as DR AS ISO 6393:2018.

### **Keeping Standards up-to-date**

Ensure you have the latest versions of our publications and keep up-to-date about Amendments, Rulings, Withdrawals, and new projects by visiting:

[www.standards.org.au](http://www.standards.org.au)

AS ISO 6393:2019  
AS ISO 6393:2008



# **Earth-moving machinery— Determination of sound power level— Stationary test conditions**

First published as part of AS 2012—1977.  
Revised and redesignated in part as AS 2012.1—1990.  
Revised and redesignated as AS ISO 6393:2019.

## **COPYRIGHT**

© ISO 2019 — All rights reserved  
© Standards Australia Limited 2019

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher, unless otherwise permitted under the Copyright Act 1968 (Cth).

## Preface

This Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee EV-010, Acoustics Community Noise to supersede AS 2012.1—1990, *Acoustics—Measurement of airborne noise emitted by earth-moving machinery and agricultural tractors—Stationary test condition, Part 1: Determination of compliance with limits for exterior noise*.

The objective of this Standard is to specify a method for determining the noise emitted to the environment by earthmoving machinery, measured in terms of the A-weighted sound power level while the machine is stationary with the engine operating at the rated speed under no-load conditions.

This Standard is identical with, and has been reproduced from, ISO 6393:2008, *Earth-moving machinery — Determination of sound power level — Stationary test conditions*.

As this document has been reproduced from an International Standard, the following applies:

- (a) In the source text “this International Standard” should read “this Australian Standard”.
- (b) A full point substitutes for a comma when referring to a decimal marker.

Australian or Australian/New Zealand Standards that are identical adoptions of international normative references may be used interchangeably. Refer to the online catalogue for information on specific Standards.

The term “normative” is used in Standards to define the application of the annexes to which it applies. A “normative” annex is an integral part of a Standard.

# Contents

<b>Preface</b> .....	<b>ii</b>
<b>Foreword</b> .....	<b>iv</b>
<b>Introduction</b> .....	<b>v</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>1</b>
3.4 Machine centre point .....	1
3.5 Fan speed .....	2
<b>4 Instrumentation</b> .....	<b>2</b>
<b>5 Test environment</b> .....	<b>2</b>
5.1 General .....	2
5.2 Test site and environmental correction, $K_{2A}$ .....	2
5.3 Test site .....	2
5.3.1 General .....	2
5.3.2 Hard reflecting plane .....	3
5.3.3 Combination of hard reflecting plane and sand .....	3
5.3.4 All-sand plane .....	3
5.4 Background noise correction, $K_{1A}$ .....	3
5.5 Climatic conditions .....	3
<b>6 Measurement of time-averaged A-weighted sound pressure levels</b> .....	<b>4</b>
6.1 Size of measurement surface .....	4
6.2 Microphone positions on the hemispherical measurement surface .....	4
6.3 Positioning the machine .....	5
6.3.1 All machines, except those with slewing upper structure .....	5
6.3.2 Machines with slewing upper structure .....	6
6.4 Measurement time .....	6
<b>7 Setting-up and operation of machinery</b> .....	<b>6</b>
7.1 General .....	6
7.1.1 Safety and operation .....	6
7.1.2 Machine set-up .....	6
7.1.3 Machine operation conditions .....	6
7.2 Engine speed .....	6
7.3 Fan speed .....	6
<b>8 Determination of A-weighted sound power level</b> .....	<b>7</b>
8.1 Measurement procedure .....	7
8.2 Calculation of A-weighted sound power level .....	7
8.3 Determination of measurement result .....	8
<b>9 Information to be recorded</b> .....	<b>8</b>
<b>10 Information to be reported</b> .....	<b>9</b>
10.1 Information .....	9
10.2 Declaration of sound emission data and uncertainty .....	9
<b>Annex A</b> (normative) <b>Basic length, <math>l</math>, and additional machine specifications</b> .....	<b>10</b>
<b>Annex B</b> (normative) <b>Declaration of sound emission data and uncertainty</b> .....	<b>23</b>
<b>Bibliography</b> .....	<b>24</b>

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

- 
- Looking for additional Standards? Visit Intertek Inform Infostore
  - Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation
-