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

GB 16710-2010

Earth-moving machinery - Noise limits

土方机械 噪声限值

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Table of Contents

- 1 Scope
- 2 Normative references
- 3 Terms and definitions
- 4 Noise limits
- 5 Test methods
- 6 Implementation
- About this edition
- Classification and status
- How a Chinese national standard is set out
- About this English translation

1 Scope

This standard specifies the limits for the exterior noise emitted by earth-moving machinery and for the noise at the operator's position, and describes the corresponding test methods.

It applies to earth-moving machinery and to the machines assimilated to it, identified in accordance with the basic type identification and terminology of GB/T 8498.

The two limits

The exterior limit is expressed as a sound power level and protects the people around the machine, on the site and beyond its boundary. The operator's position limit is expressed as an emitted sound pressure level at the ear and protects the person who spends a whole shift on the machine. A machine has to satisfy both.

Each limit is tabulated against the net installed power of the machine, so that a large machine is allowed more than a small one, and the tables state the dates from which each limit applies.

5 Test methods

The measurement is made under the two families of conditions the method distinguishes: the stationary test, in which the machine is run at a defined engine speed without working, and the dynamic test, in which it goes through a defined work cycle. A machine can be quiet standing and loud working, which is why both exist.

The determination of the sound power level follows GB/T 25612 for the stationary

conditions and GB/T 25614 for the dynamic conditions, and the determination of the emitted sound pressure level at the operator's position follows GB/T 25613 and GB/T 25615 respectively.

About this edition

GB 16710-2010 is the current edition. It was issued on 23 December 2010 and has been in force since 1 January 2012.

The interval between issue and effect is the transition period. It exists so that producers, laboratories and buyers can requalify products, revise procedures and use up documentation before the new text becomes the one that applies. The date on this page is the official one from the record of the Standardization Administration.

Classification and status

GB 16710-2010 is classified under ICS 53.100. ICS is the International Classification for Standards, the same scheme used by ISO and by the national bodies of most countries, which is what allows a Chinese standard to be placed beside its foreign counterparts on subject rather than on number.

Its Chinese Standard Classification code is CCS P 97. CCS is the domestic scheme, a letter for the sector and two digits for the subject within it, and it is the code by which the standard is filed and searched in China.

The GB prefix marks a mandatory national standard. Compliance is required by law within China: it applies to what is made, sold or imported there, and an inspection body will judge a product against it whether or not a contract names it.

How a Chinese national standard is set out

Chinese national standards are drafted to the rules of GB/T 1.1, which fixes the order in which a standard is set out. The document opens with a foreword recording the issuing bodies, the relationship to any previous edition and the technical committee responsible for it. Clause 1 is the scope. Clause 2 lists the normative references - the other standards that have to be applied together with this one, and without which its requirements cannot be met. Clause 3 gives the terms and definitions. The technical clauses follow: the requirements themselves, the test or measurement methods by which conformity is established, the inspection rules that say how a lot is sampled and judged, and, for a product standard, the provisions on marking, packaging, transport and storage. Annexes, normative or informative, come last.

GB 16710-2010 runs to 15 pages in the English translation. What is delivered is the complete document in that order: every clause, every table, every figure and every annex of

the Chinese original, with the same numbering, so that a reference to a clause number in a contract or a test report points to the same place in both languages.

About this English translation

The English edition of GB 16710-2010 is a full translation of the official Chinese text, not a summary, an abstract or a machine rendering left unchecked. Clause and subclause numbers, table and figure numbers and annex letters are those of the original, because they are what a specification, a purchase order or a test report cites.

Technical terms are translated against the vocabulary standards of the same field, so that a term used in GB 16710-2010 reads the same way as in the other Chinese standards it is used beside. Where a term has an established English form in an ISO or IEC document on the same subject, that form is used; where China's term has no foreign counterpart, it is translated literally and the Chinese is kept alongside it rather than replaced by an approximation.

Quantities, units and symbols are carried over unchanged. Chinese standards use SI, so a value in the translation is the value in the original document, not a conversion, and a limit read from the English text is the limit that will be applied by a Chinese inspection body reading the Chinese one.

This page is compiled from the official publication record: the standard number and both titles, the issuing bodies, the dates of issue and effect, the ICS and CCS classification. The requirements, limits, tables and test conditions are in the document itself.