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AMENDMENT 1
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Underground mining machines — Mobile extracting machines at the face — Safety requirements for shearer loaders and plough systems

AMENDMENT 1

Machines d'exploitation de mines et carrières souterraines — Machines mobiles d'abattage de front de taille — Exigences de sécurité imposées aux haveuses à tambour(s) et aux rabots

AMENDEMENT 1

Reference number
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This document was prepared by Technical Committee ISO/TC 82, *Mining*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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AMENDMENT 1

2, "Normative references"

Add the following references.

ISO 4871, *Acoustics — Declaration and verification of noise emission values of machinery and equipment*

ISO 11201:2010, *Acoustics — Noise emitted by machinery and equipment — Determination of emission sound pressure levels at a work station and at other specified positions in an essentially free field over a reflecting plane with negligible environmental corrections*

11202:2010, *Acoustics — Noise emitted by machinery and equipment — Determination of emission sound pressure levels at a work station and at other specified positions applying approximate environmental corrections*

11204:2010, *Acoustics — Noise emitted by machinery and equipment — Determination of emission sound pressure levels at a work station and at other specified positions applying accurate environmental corrections*

A.2, "A-weighted emission sound pressure level determination"

Add the publication dates to the listed standards, as follows.

"— ISO 11201:2010 (grade 2: engineering);

— ISO 11202:2010 (grade 2: engineering, or grade 3: survey);

— ISO 11204:2010 (grade 2: engineering, or grade 3: survey)."

Delete the third paragraph.

A.3, "A-weighted sound power level determination"

Delete the whole Clause A.3.

A.4, "Installation and mounting conditions of the machines"

Renumber Clause A.4 to read A.3.

Delete the second paragraph.

A.5, "Test conditions for shearer loaders at the surface"

Renumber Clause A.5 to read A.4

After the second paragraph, add the following text (as new third paragraph).

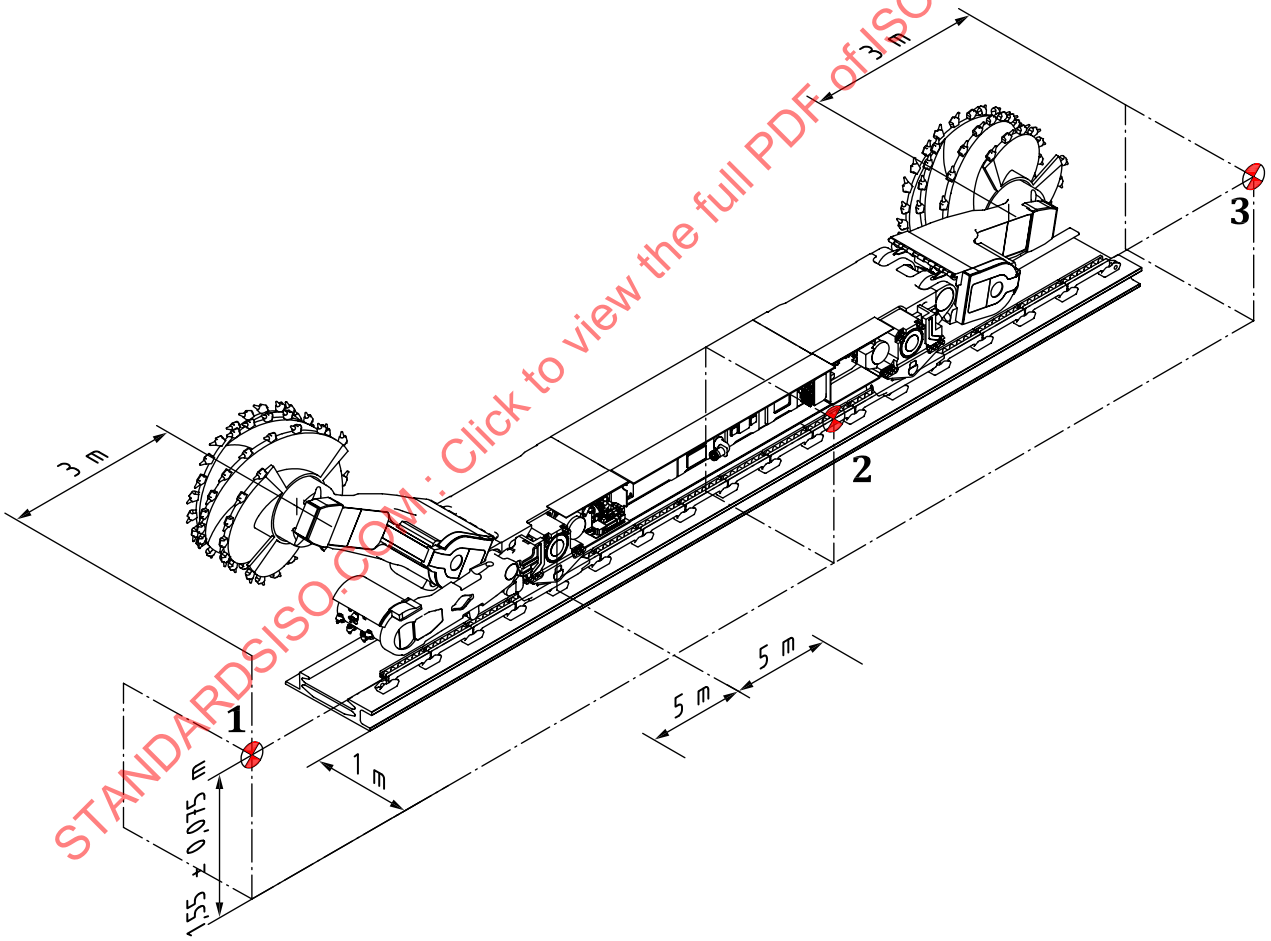
"The measurement shall start with a movement of 5 m in one direction, followed by a movement of 10 m in the opposite direction and 5 m back to the starting position. The equivalent A-weighted sound pressure L_{pAeq} level shall be measured with an integrating measurement device at each position in three consecutive measurement runs or simultaneously with three integrating measurement devices."

Add the following text as new fourth paragragraph (after the new third paragraph).

"At least three separate measurements shall be carried out at all three positions (see Figure A.1). The resulting value at each position shall be calculated as the arithmetic average of all three measurements."

Add the following Figure A.1 after the new fourth paragraph.

Dimensions in metres



Key

1, 2, 3 position of sound pressure measuring devices

Figure A.1 — Noise measuring — Shearer loader

In the list, delete from the first indent "the machine needs to move 10 m along the conveyor;"

Delete the two paragraphs after the list.

A.6, "Test conditions for plough systems in an underground installation"

Renumber Clause A.6 to read A.5 and replace the whole text with the following text and figure.

"All plough systems are remote controlled either from one of the entries or from the surface. Operators are not exposed to noise of the working plough. Therefore, the noise emission of the plough drives shall be measured.

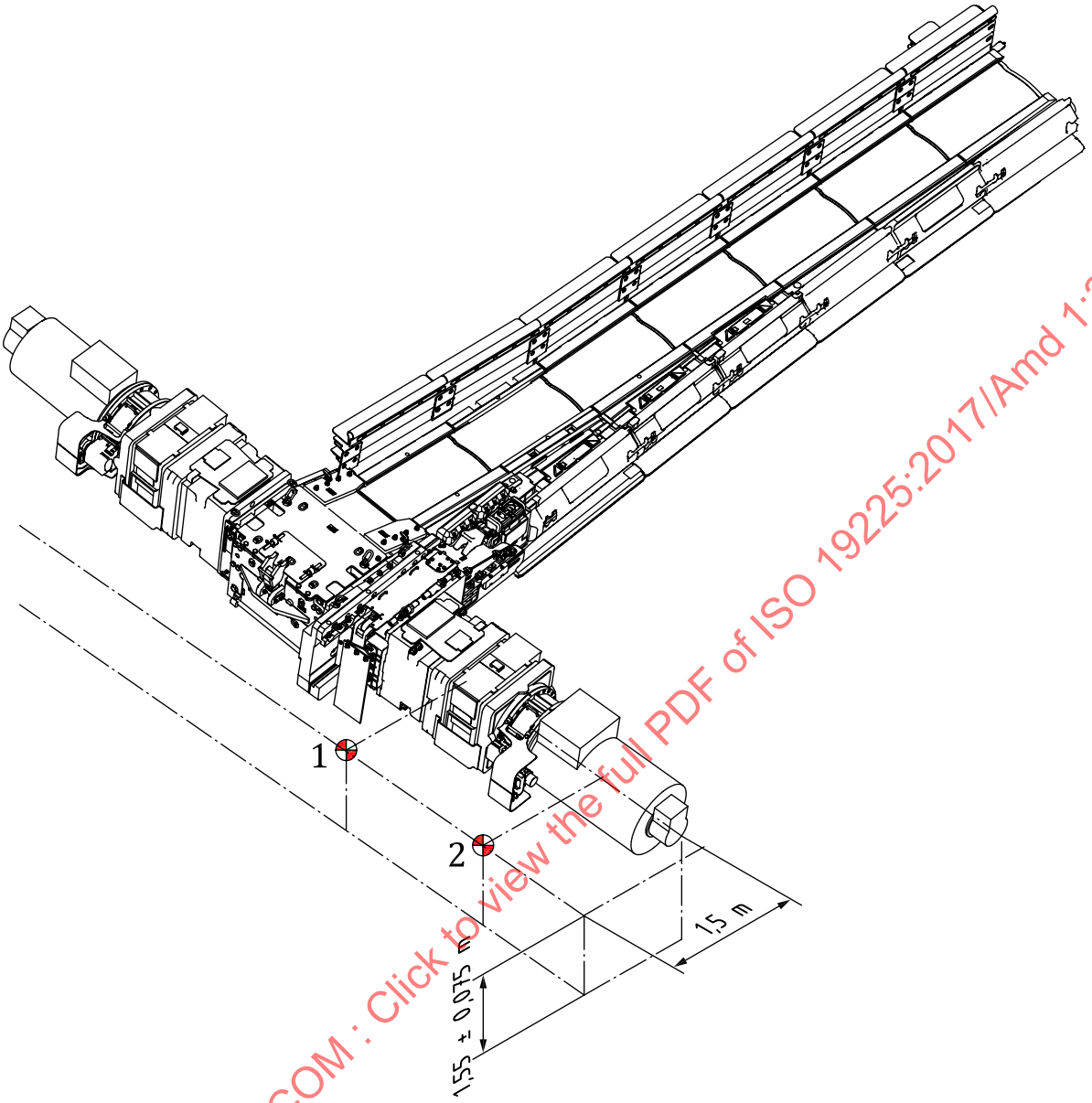
Measurement of the sound pressure emission level shall be carried out at the surface, without moving parts of the plough itself, the armoured face conveyor and other noise emitting equipment.

During the surface measurement, the necessary water cooling for the gearbox and for the electric engine shall be implemented and activated. The measurement shall be carried out at the nominal rotational speed of the drive. The plough drive should be brought to its working temperature before starting the measurement.

The measurement shall be done under the condition of highest speed of the drives. The equivalent A-weighted sound pressure L_{pAeq} level shall be measured with an integrating measurement device at each position in two consecutive measurement runs or simultaneously with two integrating measurement devices. The measurement positions are shown in Figure A.2.

At least three separate measurements shall be carried out. The measurement time shall not be less than 15 s. The resulting value at each position shall be calculated as the arithmetic average of all three measurements.

Dimensions in metres



Key

1 position of sound pressure measuring device - gearbox

2 position of sound pressure measuring device - motor

Figure A.2 — Noise measuring — Plough system

NOTE The test conditions set out in this clause do not represent operating conditions underground because there is no process noise from cutting coal and other minerals. The noise from the cutting is not part of the test because it varies in an unpredictable manner with the properties of coal and other minerals. However, the test conditions defined ensure reproducibility and comparability of the measured values."

A.7, "Information to be recorded and reported"

Renumber Clause A.7 to read A.6.