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Locked coil wire ropes for mine hoisting — Technical delivery requirements

Câbles d'extraction clos utilisés dans les mines — Conditions techniques de réception

Reference number
ISO 5614 : 1988 (E)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 5614 was prepared by Technical Committee ISO/TC 82, *Mining*.

Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

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Contents

Locked coil wire ropes for mine hoisting — Technical delivery requirements

1 Scope and field of application

This International Standard specifies those properties of locked coil wire ropes for mine hoisting and of their component parts which form a basis for acceptance.

The characteristics of the wire to be used for the manufacture of these ropes are not covered by this International Standard.

2 References

ISO 2232, *Drawn wire for general purpose non-alloy steel wire ropes — Specifications.* [1)]

ISO 2532, *Steel wire ropes — Vocabulary.*

ISO 3156, *Stranded wire ropes for mine hoisting — Impregnating compounds, lubricants and service dressings — Characteristics and tests.*

ISO 6892, *Metallic materials — Tensile testing.*

ISO 7800, *Metallic materials — Wire — Simple torsion test.*

ISO 7801, *Metallic materials — Wire — Reverse bend test.*

3 Components of the rope

3.1 Wires

Locked coil wire ropes for hoisting purposes may be made from a combination of round and shaped wires. These shall be either bright or galvanized.

The requirements for wires after manufacture are given in clause 4.

3.2 Lubricants

The impregnating compounds and lubricants used during the manufacture of these ropes shall comply with the requirements laid down in ISO 3156.

3.3 Construction

The rope shall consist of an outer layer of shaped wire. The inner layers shall have shaped, or a combination of shaped and round, or round wires.

3.4 Wire tensile grades

The ropemaker may employ any combination of round and shaped wire tensile grades given in 4.2.2.1 and 4.3.2.1 to produce the required rope-breaking load, provided that all the round wires and all the shaped wires in any one layer of the rope are each of one tensile grade.

4 Requirements

4.1 Requirements for the completed rope

4.1.1 Rope diameter

4.1.1.1 Nominal rope diameter

The nominal diameter shall be agreed between the manufacturer or supplier and the purchaser when the rope is ordered.

4.1.1.2 Actual rope diameter

The actual rope diameter measured on newly completed rope in the unloaded state shall not vary from the agreed nominal rope diameter by more than ± 2 %, subject to a maximum of ± 0,75 mm for ropes above 38 mm diameter. Closer tolerances on rope diameter for particular purposes may be agreed between the manufacturer or supplier and the purchaser.

The actual rope diameter shall be measured by the method laid down in 5.1.1.

1) Cross-reference to annex A in ISO 2232 applies to the first edition published in 1973.