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Rotary core diamond drilling equipment — System B —

Part 1: Metric units

Matériel de forage rotatif au diamant avec carottage — Système B —

Partie 1: Unités métriques



Reference number
ISO 3552-1 : 1992 (E)

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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 voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 3552-1 was prepared by Technical Committee ISO/TC 82, *Mining*, Sub-Committee SC 6, *Diamond core drilling equipment*.

ISO 3552 consists of the following parts, under the general title: *Rotary core diamond drilling equipment — System B*:

- *Part 1: Metric units*
- *Part 2: Inch units*

Introduction

This part of ISO 3552 is published in parallel with ISO 3551-1 : 1992, *Rotary core diamond drilling equipment — System A — Part 1: Metric units*. The two International Standards cover rotary core diamond drilling equipment.

The two systems are referred to as System A and System B but this is not of any significance since the two systems are not intended as replacements for each other. The system to be adopted by the user will depend on his drilling requirements. The two sets of equipment are not interchangeable. System A is characterized by a series of hole sizes oriented to standard pipe sizes, with relatively wide "nesting", relatively greater reduction in hole diameters as the depth of hole increases, and employing relatively heavy casings between hole sizes. System B is characterized by a series of hole sizes specifically designed to "nest" closely, permitting relatively small reductions in hole diameters as the depth of the hole increases, and employing relatively thin casings between hole sizes. It should not be assumed that, for comparable hole sizes, the physical properties of similar elements of the two systems are equal.

When sizes of casing tubes and drill rods are required larger than specified in this part of ISO 3552, it is recommended that such sizes may, for example, be selected from ISO 3551-1.

NOTE — Another system (System C) is described in ISO 8866 : 1991, *Rotary core diamond drilling equipment — System C*. It is characterized by a series of nesting holes providing small clearances between the hole wall and the equipment, making it possible to use thin-walled casing tubes. System C is considered to be a separate system to be applied in parallel with systems A and B; it is not interchangeable with these systems.

System B was originally drawn up and standardized in metric units, and the conversion was subsequently made into inches; therefore, in the event of a dispute, the values expressed in this part of ISO 3552 shall be taken as the authentic values.

Rotary core diamond drilling equipment — System B —

Part 1 : Metric units

1 Scope

This part of ISO 3552 establishes the nomenclature and lays down the leading dimensions to ensure interchangeability within the limits of System B of the following equipment :

- a) drill rods and couplings, fishing rods and couplings;
- b) casing tubes, casing drive shoes, casing shoe bits, casing bits and sediment tubes;
- c) core barrels, core bits, core lifters and reaming shells.

It specifies the characteristics of a range of equipment for drilling holes having diameters from 36 mm to 146 mm and yielding cores from 22 mm to 120 mm in diameter. The relation between

drilled hole diameter (size designation), core diameter (set inside diameter of the bit) and outside diameter and inside diameter ($D_1 \times D_2$) for core barrels, coring tubes and sediment tubes is shown in table 1.

NOTE — The title of this part of ISO 3552 specifies diamond core drilling, but it is also possible to use other cutting materials.

2 Designation

Items manufactured in accordance with this part of ISO 3552 shall be designated by its number followed by the two numbers as listed in table 2.

The relationship of the various components is given in figure 1.