INTERNATIONAL STANDARD

ISO 21573-2

Second edition
2020-12

Building construction machinery and equipment — Concrete pumps —

Part 2: Procedure for examination of technical parameters

Machines et matériels pour la construction des bâtiments — Pompes à béton —

Partie 2: Procédure pour la détermination des paramètres techniques

Reference number
ISO 21573-2:2020(E)

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Published in Switzerland

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 195, *Building construction machinery and equipment*, Subcommittee SC 1, *Machinery and equipment for concrete work*.

This second edition cancels and replaces the first edition (ISO 21573-2:2008), which has been technically revised.

The main changes compared to the previous edition are as follows:

— added the actual pumping output and efficiency measurement under defined working conditions (e.g. concrete grade and pumping speed) in order to describe the actual pumping performance;

— added the following characteristic parameters measuring methods:

  — operating mass;

  — overall dimensions including length (L), width (W) and height (H);

  — delivery pressure of pump for driving the distributing and outriggers;

  — maximum load on each outrigger;

  — outrigger speed;

— complemented performance measuring methods and indicated conditions in the following clauses/subclauses:

  — concrete delivery pressure;

  — feeding height of hopper;

  — length, height and angle of the boom;

  — speed of the concrete-placing boom;

— slewing speed;

— slewing angle;

— span of outrigger.

A list of all parts in the ISO 21573 series can be found on the ISO website.

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.

Building construction machinery and equipment — Concrete pumps —

Part 2: Procedure for examination of technical parameters

1 Scope

This document specifies the procedure and requirements for examining the technical commercial specifications of factory new piston-type concrete pump and rotary-type concrete pump as defined in ISO 21573-1.

It applies to mobile concrete pumps (with or without concrete-placing boom) and stationary concrete pumps.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 21573-1, *Building construction machinery and equipment — Concrete pumps — Part 1: Terminology and commercial specifications*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 21573-1 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

3.1
single-roller rotary pump
rotary-type concrete pump that discharges fresh concrete by squeezing an elastic tube by one rotating roller

3.2
double-roller rotary pump
rotary-type concrete pump that discharges fresh concrete by squeezing an elastic tube between double rotating rollers

3.3
concrete storage, mixing and feeding device
device for agitating and discharging concrete or mortar

3.4
outrigger span
actual distance between adjacent centrelines of vertical cylinders with outriggers fully extended or projection distance of the actual distance on the reference plane