INTERNATIONAL STANDARD

ISO 19711-1

First edition
2018-08

Building construction machinery and equipment — Truck mixers —

Part 1: Terminology and commercial specifications

Machines et matériels pour la construction des bâtiments — Camions malaxeurs —

Partie 1: Terminologie et spécifications commerciales

Reference number
ISO 19711-1:2018(E)

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

Page

Foreword ..... **iv**
Introduction ..... **v**
1 Scope **1**
2 Normative references **1**
3 Terms and definitions **1**
4 Commercial specifications **5**
4.1 Specifications and dimensions of truck mixers 5
4.2 Specifications and dimensions of mixer device 6
Annex A (informative) **Examples of truck mixer structures and dimensions** **7**
Annex B (informative) **Example of swivel chute with flip-over chute** **11**
Bibliography **12**

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 on 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 the following URL: 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*.

A list of all parts in the ISO 19711 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.

Introduction

Truck mixers are used for producing concrete or mortar and for delivering concrete, mortar or the materials of the mixture to worksites.

Examples of truck mixer structures covered by this document can be found in Annex A.

Building construction machinery and equipment — Truck mixers —

Part 1: Terminology and commercial specifications

1 Scope

This document defines terms and commercial specifications for truck mixers used for producing concrete or mortar and for delivering concrete, mortar or the materials of the mixture to worksites.

This document is applicable to truck mixers that are either

a) truck mounted, or

b) semi-trailer mounted.

This document does not apply to

— fixed (stationary) mixers (see ISO 18650-1);

— turbo mixers (see ISO 18650-1);

— concrete or mortar mixing plants (see ISO 19720-1);

— small portable mixers (see ISO 18650-1);

— purpose-built underground truck mixers;

— volumetric mixers (mobile concrete or mortar mixing plants).

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 1176:1990, *Road vehicles — Masses — Vocabulary and codes*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 1176 and the following apply.

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

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

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

3.1
truck mixer
drum-shaped *mixer device* (3.2) mounted on a chassis capable of producing the *mixture* (3.20) and delivering the *mixture* (3.20) or the materials of the *mixture* (3.20) to worksites

Note 1 to entry: The materials of the *mixture* (3.20) that can be delivered by a truck mixer include cement, aggregate (sand, gravel, stone) and rock before processing.

3.1.1
rear discharge type truck mixer
truck mixer (3.1) where the *discharge device* (3.11) unloads the *mixture* (3.20) at the rear of the truck

Note 1 to entry: See Annex A, Figures A.1 and A.2.

3.1.2
front discharge type truck mixer
truck mixer (3.1) where the *discharge device* (3.11) unloads the *mixture* (3.20) at the front of the truck

Note 1 to entry: See Annex A, Figure A.3.

3.1.3
semi-trailer mounted mixer
drum-shaped *truck mixer* (3.1) where the *mixer device* (3.2) is mounted on a semi-trailer chassis

Note 1 to entry: See Annex A, Figure A.4.

3.2
mixer device
upper portion of *truck mixer* (3.1) (excluding the chassis) which is typically composed of a *drum* (3.3), *basic frame* (3.8), *drum drive* (3.12), *roller pedestal* (3.6), *drive pedestal* (3.7), *charge device* (3.10), *discharge device* (3.11) and *control device* (3.13)

3.3
drum
vessel for *mixing* (3.19), *agitating* (3.17) and discharging concrete or mortar

3.4
drum fin
spiral-shaped projection fitted inside the *drum* (3.3) that mixes, agitates and directs the *mixture* (3.20) out of the *drum* (3.3) for discharge

3.5
manhole
hatch
access opening at the surface of the *drum* (3.3) which is fitted with a cover to allow the passage of authorized personnel for inspection and maintenance purposes

3.6
roller pedestal
support structure for the *drum* (3.3) at its open side where a *charge device* (3.10) and a *discharge device* (3.11) are fitted

3.7
drive pedestal
support structure for the *drum* (3.3) at its closed side where the *drum drive* (3.12) is fitted

3.8
basic frame
structure connecting the *roller pedestal* (3.6) and the *drive pedestal* (3.7) for attachment of the *mixer device* (3.2) to the chassis

Note 1 to entry: Certain types of *truck mixers* (3.1) are without a basic frame as the *roller pedestal* (3.6) and the *drive pedestal* (3.7) of the *mixer device* (3.2) are directly fixed to the truck chassis.

Note 2 to entry: See Annex A, Figure A.2.

3.9
working platform
level surface on the *truck mixer* (3.1) for drum cleaning, maintenance and inspection

3.10
charge device
receptacle (e.g., hopper) that takes in the charged *mixture* (3.20) transitorily and charges it to the *drum* (3.3)

3.11
discharge device
components [specifically the *discharge hopper* (3.11.1) and *chute system* (3.11.2)] which receives and distributes the discharged *mixture* (3.20)

3.11.1
discharge hopper
receptacle that receives the discharged *mixture* (3.20) from the *drum* (3.3)

3.11.2
chute system
device(s) used to distribute the discharged *mixture* (3.20) to a desired location

Note 1 to entry: Components in a chute system typically can include a *swivel chute* (3.11.2.1) with *chute lock* (3.11.2.4), *flip-over chute* (3.11.2.2) and *extension chute(s)* (3.11.2.3).

3.11.2.1
swivel chute
conduit that can rotate and adjust vertically and swivel horizontally to deliver the discharged material to a desired location

Note 1 to entry: See Annex B, Figure B.1.

3.11.2.2
flip-over chute
folded *extension chute* (3.11.2.3) which is attached to the end of the *swivel chute* (3.11.2.1)

3.11.2.3
extension chute
conduit which is attached to the end of the *swivel chute* (3.11.2.1) to deliver the *mixture* (3.20) to a desired distance

Note 1 to entry: Chute system can include storage location for extension chute(s).

3.11.2.4
chute lock
locking device capable of keeping the *swivel chute* (3.11.2.1) from unintended rotation

3.12
drum drive
energy transmission device for the rotation of the *drum* (3.3)

Note 1 to entry: This energy can be supplied by for example the truck engine PTO, a separate auxiliary engine, or an electrical drive.

3.13
control device
elements for the control of the *drum drive* (3.12)

Note 1 to entry: The control device is typically situated either in the cabin on the *front discharge type truck mixer* (3.1.2) or at the rear side of the *drum* (3.3) on the *rear discharge type truck mixer* (3.1.1).

3.14
water system
water delivery system used for cleaning the *truck mixer* (3.1)

Note 1 to entry: Components in the water system typically include water tank, pipes, hoses, valves and water pump.

Note 2 to entry: The water system can also be used to add water to the *mixture* (3.20) on the construction site.

3.15
rated drum capacity
maximum volume of *mixture* (3.20) the *truck mixer* (3.1) is designed for

Note 1 to entry: See Figure 1.

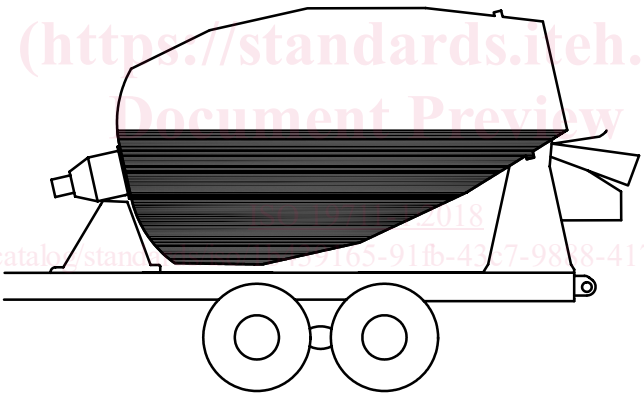

Figure 1 — Example for rated drum capacity

3.16
rated agitating capacity
maximum volume of *mixture* (3.20) that the *mixer device* (3.2) can slowly rotate without spillage

Note 1 to entry: See Figure 2.