

# TECHNICAL REPORT

**ISO**  
**TR 12603**

First edition  
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## **Building construction machinery and equipment — Classification**

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

*Machines et matériels pour la construction des bâtiments — Classification*

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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 main task of technical committees is to prepare International Standards, but in exceptional circumstances a technical committee may propose the publication of a Technical Report of one of the following types:

- type 1, when the required support cannot be obtained for the publication of an International Standard, despite repeated efforts;
- type 2, when the subject is still under technical development or where for any other reason there is the future but not immediate possibility of an agreement on an International Standard;
- type 3, when a technical committee has collected data of a different kind from that which is normally published as an International Standard ("state of the art", for example).

Technical Reports of types 1 and 2 are subject to review within three years of publication, to decide whether they can be transformed into International Standards. Technical Reports of type 3 do not necessarily have to be reviewed until the data they provide are considered to be no longer valid or useful.

ISO/TR 12603, which is a Technical Report of type 2, was prepared by Technical Committee ISO/TC 195, *Building construction machinery and equipment*.

This document is being issued in the Technical Report (type 2) series of publications (according to subclause G.3.2.2 of part 1 of the ISO/IEC Directives, 1995) as a "prospective standard for provisional application" in the field of building construction machinery and equipment because there is an urgent need for guidance on how standards in this field should be used to meet an identified need.

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This document is not to be regarded as an "International Standard". It is proposed for provisional application so that information and experience of its use in practice may be gathered. Comments on the content of this document should be sent to the ISO Central Secretariat.

A review of this Technical Report (type 2) will be carried out not later than three years after its publication with the options of: extension for another three years; conversion into an International Standard; or withdrawal.

Annex A of this Technical Report is for information only.

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# Building construction machinery and equipment — Classification

## 1 Scope

This Technical Report specifies a classification of machines and equipment used in the building and construction field. This field is divided into seven classes of traditional and specified use and the different machines are classified accordingly. As far as possible, the sub-classes of the machines and equipment comply with both published and draft European and International Standards.

Additionally, the classification tables show the ISO and CEN Technical Committees and Working Groups responsible for the International and European Standards related to each class.

## 2 Classification

1	Earth-moving machinery and equipment	ISO Technical Committee	International Standard	CEN Technical Committee	European Standard
1.1	Dozers (tractors)	TC 127	ISO 6747	TC 151/WG 1	EN 474-2
	1.1.1 Wheel dozers				
	1.1.2 Crawler dozers				
1.2	Loaders	TC 127	ISO 7131	TC 151/WG 1	EN 474-3
	1.2.1 Wheel loaders				
	1.2.2 Crawler loaders				
	1.2.3 Digging arm loaders				
1.3	Backhoe loaders	TC 127	ISO/CD 8812	TC 151/WG 1	EN 474-4
	1.3.1 Wheel backhoe loaders				
	1.3.2 Crawler backhoe loaders				
1.4	Excavators	TC 127		TC 151/WG 1	
	1.4.1 Hydraulic excavators		ISO/DIS 7135		prEN 474-5
	1.4.2 Cable excavators				
	1.4.3 Wheel excavators				
	1.4.4 Bucket chain excavators				
	1.4.5 Others				
1.5	Dumpers	TC 127	ISO 7132	TC 151/WG 1	prEN 474-6
	1.5.1 Articulated steer dumpers				
	1.5.2 Rigid frame dumpers				
	1.5.3 Site (dumpers) carriers				
	1.5.4 Crawler dumpers				
1.6	Tractors scrapers	TC 127	ISO 7133	TC 151/WG 1	prEN 474-7
	1.6.1 Articulated steer				
	1.6.2 Wheel steer				
1.7	Graders	TC 127	ISO 7134	TC 151/WG 1	prEN 474-8
	1.7.1 Articulated steer				
	1.7.2 Wheel steer				
1.8	Trenchers	TC 127		TC 151/WG 1	prEN 474-10
1.9	Pipelayers	TC 127		TC 151/WG 1	prEN 474-9
1.10	Others				

<b>2</b>	<b>Foundation engineering and soil compaction machinery and equipment</b>	<b>ISO Technical Committee</b>	<b>International Standard</b>	<b>CEN Technical Committee</b>	<b>European Standard</b>
2.1	Piling and extracting equipment	TC 195		TC 151/WG 2	prEN 996
	2.1.1 Pile drivers (rammers)				
	2.1.2 Extracting equipment				
	2.1.3 Sounding equipment				
2.2	Drilling and boring equipment	TC 195 TC 127 1)		TC 151/WG 2 TC 151/WG 3	
	2.2.1 Drill rigs			TC 151/WG 3	EN 791
	2.2.2 Soil drill rigs			TC 151/WG 3	
	2.2.3 Diaphragm wall cutters			TC 151/WG 2	
2.3	Rollers	TC 127		TC 151/WG 5	prEN 500
	2.3.1 Smooth drum rollers				
	2.3.2 Pneumatic tyred rollers				
	2.3.3 Combination rollers				
2.4	Compactors	TC 127		TC 151/WG 1	prEN 474-11
	2.4.1 Rammers, compactors and vibrating tampers			TC 151/WG 5	EN 500-4
	2.4.2 Vibrating plate compactors			TC 151/WG 5	
2.5	Others			TC 151/WG 5	
1) Horizontal drilling and boring equipment.					

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3	Machinery and equipment for manufacturing, transporting and processing concrete and mortar and for reinforcement and formwork	ISO Technical Committee	International Standard	CEN Technical Committee	European Standard
3.1	Equipment for storage of materials	TC 195		TC 148/WG 4	
3.2	Batching and mixing equipment	TC 195		TC 151/WG 8	
	3.2.1 Concrete mixers				
	3.2.2 Mortar mixers				
3.3	Transporting equipment (including pumps)	TC 195			
	3.3.1 Concrete pumps	TC 195		TC 151/WG 8 <sup>1)</sup>	
	3.3.2 Mortar pumps	TC 195			
	3.3.3 Conveyors Belts	TC 101		TC 148 TC 188	
	3.3.4 Elevators	TC 101			
3.4	Spreading and grouting equipment	TC 195			
	3.4.1 Concrete spraying machines				
	3.4.2 Injection equipment				
3.5	Compaction and finishing equipment	TC 195			
	3.5.1 Concrete compactors				
	3.5.2 Finishing coat machines			TC 151/WG 8	
3.6	Formworks and moulds	TC 195			
3.7	Machinery and equipment for re-reinforcement work	TC 195		TC 151/WG 8	
	3.7.1 Steel bar bending/cutting machines				
	3.7.2 Steel mesh bending/cutting machines				
3.8	Prestressing equipment	TC 195		TC 151/WG 10	
3.9	Demolition equipment	TC 195		TC 151/WG 14	
3.10	Equipment for removing and recycling concrete	TC 195		TC 151/WG 9 TC 151/WG 14	
3.11	Machines and equipment for aggregate processing	TC 195			
	3.11.1 Crushing equipment				
	3.11.2 Screening equipment				
	3.11.3 Washing equipment				
	3.11.4 Conveying equipment				
	3.11.5 Others				
3.12	Others	TC 195			
1) Pumps					



<b>4</b>	<b>Lifting and access machinery and equipment</b>	<b>ISO Technical Committee</b>	<b>International Standard</b>	<b>CEN Technical Committee</b>	<b>European Standard</b>
4.1	Tower cranes	TC 96		TC 147	
4.2	Mobile cranes	TC 96	ISO 4301-2	TC 147	
4.3	Other cranes	TC 96	ISO 4301-1	TC 147	
4.4	Variable reach trucks	TC 110		TC 150/WG 2	
	4.4.1 Industrial trucks			TC 150/WG 2	
	4.4.2 Rough terrain trucks			TC 150/WG 2	
4.5	Site lifts	TC 178		TC 10	
	4.5.1 Material and equipment lifts				
	4.5.2 Material and equipment lifts with access to personnel				
4.6	Winches, lift jacks, pulley blocks, etc.				
	4.6.1 Winches	TC 96			
	4.6.2 Lift jacks	TC 195			
	4.6.3 Pulley blocks	TC 96			
4.7	Lifting accessories	TC 111		TC 168	
	4.7.1 Lifting straps and slings	TC 111			
	4.7.2 Chains	TC 111			
	4.7.3 Steel wire ropes	TC 105			
	4.7.4 Hooks	TC 111			
4.8	Static scaffolds	TC 195		TC 53	
4.9	Mobile and hanging scaffolds, cradles	TC 195		TC 53	
4.10	Mobile elevating work platforms	TC 195		TC 98	
4.11	Lifting access platforms	TC 178		TC 98	
4.12	Others				

<b>5</b>	<b>Specialized machinery and equipment used in building construction</b>	<b>ISO Technical Committee</b>	<b>International Standard</b>	<b>CEN Technical Committee</b>	<b>European Standard</b>
5.1	Machinery and equipment for pavement construction and restoration			TC 151/WG 5	
	5.1.1 Pavers				
	5.1.2 Slipform pavers				
	5.1.3 Planers				
	5.1.4 Pavement recyclers				
5.2	Pipe-laying and pipe-jacking (pushing) machinery	TC 195			
5.3	Others				