

BUREAU OF INDIAN STANDARDS

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भारतीय मानक मसौदा

भवन निर्माण मशीनरी और उपकरण कंक्रीट पम्प

भाग 2 तकनीकीय मानदंडों की जाँच प्रक्रिया

(ISO 21573-2 का संशोधित अधिग्रहण)

Draft Indian Standard

**BUILDING CONSTRUCTION
MACHINERY AND EQUIPMENT — CONCRETE PUMPS**

**PART 2 PROCEDURE FOR EXAMINATION OF
TECHNICAL PARAMETERS**

(Modified Adoption of ISO 21573-2)

ICS 91.220

Construction Plant and Machinery
Sectional Committee, MED 18

Last date of receipt of comment:
15 March 2025

NATIONAL FOREWORD

(Adoption clause will be added later)

The text of ISO standard has been approved for publication as Indian Standard with modifications (*see* National Annex A). Additionally, certain terminologies and conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

- a) Wherever the words ‘International Standard’ appear, referring to this standard, they should be read as ‘Indian Standard’.
- b) Comma (,) has been used as a decimal marker, while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In this adopted standard, reference appears to certain International Standard for which Indian Standard also exist. The corresponding Indian Standard, which are to be substituted in their respective places, are listed below along with their degree of equivalence for the editions indicated:

<i>International Standard</i>	<i>Corresponding Indian Standard</i>	<i>Degree of Equivalence</i>
ISO 21573-1:2014 Building construction machinery and equipment — Concrete pumps Part 1: Terminology and commercial specifications	IS 16730 (Part 1) : 2018/ ISO 21573-1 : 2014, Building construction machinery and equipment — concrete pumps: Part 1 Terminology and commercial specifications	Identical

The standard also makes a reference of technical deviation to the ISO standard. Details of which are given in National Annex A.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 2022 ‘Rules for rounding off numerical values (*second revision*)’. The number of significant places retained in the rounded-off value should be the same as that of the specified value in this standard.

NOTE: The technical content of the document has not been enclosed as these are identical with the corresponding ISO standard. For details, please refer the corresponding **ISO 21573-2 : 2020** or kindly contact:

Head
Mechanical Engineering Department
Bureau of Indian Standard
9 Bahadur Shah Zafar Marg
New Delhi 110002
Email: med@bis.gov.in
Telefax 011-23232509

NATIONAL ANNEX A
(*National Foreword*)

LISTS OF TECHNICAL DEVIATIONS AND THEIR EXPLANATIONS

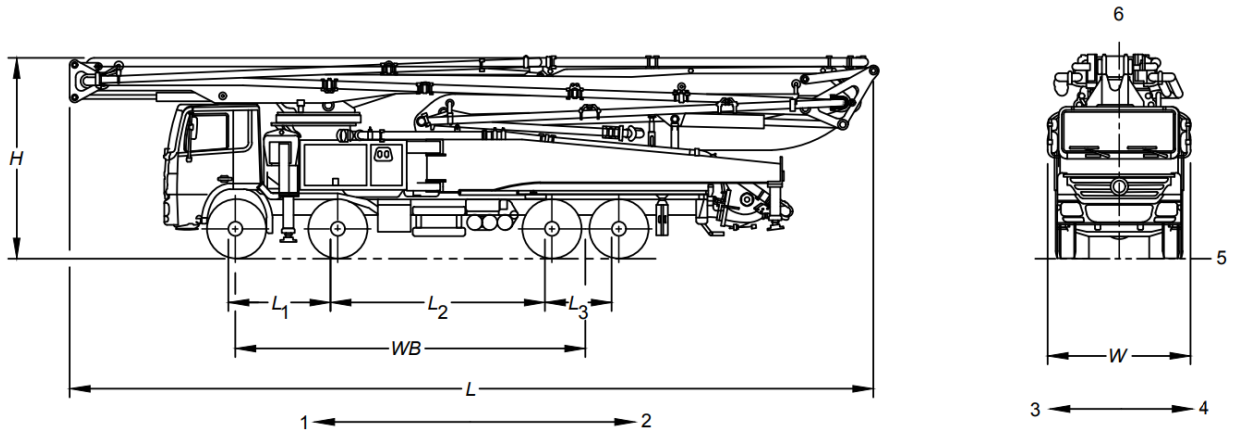
A-1 ISO 21573-2 : 2020 “Building construction machinery and equipment — Concrete pumps Part 2 Procedure for examination of technical parameters” specifies the procedure and requirements for examining the technical commercial specifications of factory new piston-type concrete pump and rotary-type concrete pump as defined in ISO 21573-1. It applies to mobile concrete pumps (with or without concrete-placing boom) and stationary concrete pumps. The text of the International Standard ISO 21573-2 : 2020 has been approved for publication as Indian Standard with agreed modifications as indicated below.

- a) Replace with the following in clause **5.1.2**:

“Truck scale should be used as the measuring apparatus with an accuracy of 1 %.”

As majority of weighing bridges in world are having accuracy of 1 percent.

- b) Replace with the following figure in left side of Fig. a) of Figure 3:



(a) 4-axis chassis

As wheelbase - *WB* is required as per developing countries homologation requirement.

- b) Replace with the following key in Figure 3:

Key

<i>L</i>	overall length of machine	1	front
<i>W</i>	overall width of machine	2	rear
<i>H</i>	overall height of machine	3	right

L_1	wheelbase between 1st and 2nd axles	4	left
L_2	wheelbase between 2nd and 3rd axle	5	plane XZ
L_3	wheelbase between 3rd and 4th axles	6	plane YZ
L_4	wheelbase between 4th and 5th axles		
L_5	wheelbase between 5th and 6th axles		
WB	wheelbase between 1st axle and mid of rear axles		

As wheelbase - WB is required as per developing countries homologation requirement.

c) Add the following row in col (2) of Table 2 in the last:

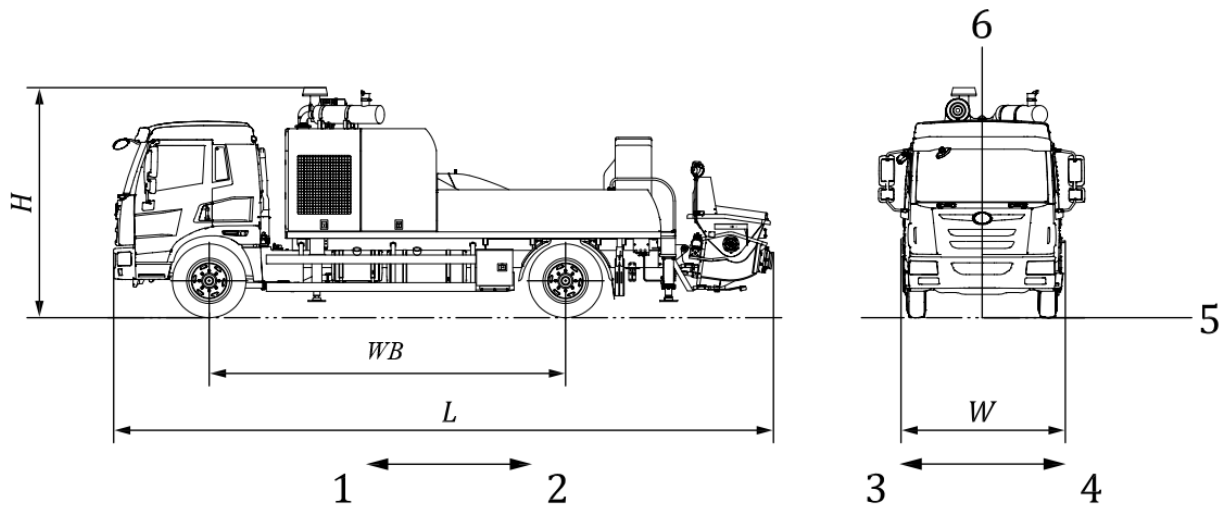
	WB - Wheelbase between 1st axle and mid of rear axles		mm	
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As wheelbase - WB is required as per developing countries homologation requirement.

d) Substitute ‘Wheelbase, WB ’ for ‘Wheelbase, L_1 ’ in the last row of Table 3.

As wheelbase, WB is required as per developing countries homologation requirement.

e) Replace the existing figure 4 with the following:



Key

<i>L</i>	overall length of machine
<i>W</i>	overall width of machine
<i>H</i>	overall height of machine
<i>WB</i>	wheelbase between 1st and 2nd axles
1	front
2	rear
3	right
4	left
5	plane XZ
6	plane YZ

e) Replace the existing third point of clause **6.1.1.2** with the following:

‘– with a temperature at 0 °C to 50 °C’

As tropical country maximum working ambient temperature goes upto 50 °C.

f) Replace the existing point (c) of clause **6.1.1.3** with the following:

‘c) weighing sensor with an accuracy of 2 % with the range of ≥ 1 500 kg’

As weighing sensor in most of the developing countries are available with accuracy of 1.5% to 2% with the range of ≥ 1 500 kg.

g) Replace the existing second point of clause **6.1.2.1** with the following:

‘– with a temperature at 0 °C to 50 °C’

As tropical country maximum working ambient temperature goes upto 50 °C.

h) Replace the existing third point of clause **10.2.1** with the following:

‘– the environmental temperature is 0 °C to 50 °C;

As tropical country maximum working ambient temperature goes upto 50 °C.

j) Replace the existing clause **10.2.2** with the following:

‘Use a force sensor with an accuracy of 2 %.’

As weighing sensor in most of the developing countries are available with accuracy of 1.5% to 2% with the range of $\geq 1\ 500$ kg.