

इंटरनेट

मानक

Disclosure to Promote the Right To Information

Whereas the Parliament of India has set out to provide a practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority, and whereas the attached publication of the Bureau of Indian Standards is of particular interest to the public, particularly disadvantaged communities and those engaged in the pursuit of education and knowledge, the attached public safety standard is made available to promote the timely dissemination of this information in an accurate manner to the public.

“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 208 (1996): Door Handles -Specification [CED 15: Builder Hardware]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

BLANK PAGE



भारतीय मानक

दरवाजों के हथिये — विशिष्ट

(पाँचवां पुनरीक्षण)

Indian Standard

DOOR HANDLES — SPECIFICATION

(*Fifth Revision*)

(~~First~~ Reprint SEPTEMBER 1999)

ICS 91.060.50

© BIS 1996

BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

October 1996

Price Group 3

AMENDMENT NO. 1 APRIL 2001
TO
IS 208 : 1996 DOOR HANDLES — SPECIFICATION
(*Fifth Revision*)

(*Page 4, Table 2B, Note*) — Substitute the following for the existing Note:

'NOTE — In Fig. 1 to 4 the distance of outer circle of the screw hole from edge of plate shall be minimum 4 mm.'

(CED 15)

Reprography Unit, BIS, New Delhi, India

AMENDMENT NO. 2 'JANUARY 2003
TO
IS 208 : 1996 DOOR HANDLES — SPECIFICATION
(Fifth Revision)

(*Page 1, clause 7.1. lines 12 and 21*) — Delete the words 'or as required by the purchaser'.

(CED 15)

Reprography Unit, BIS, New Delhi, India

AMENDMENT NO. 3 SEPTEMBER 2006
TO
IS 208 : 1996 DOOR HANDLES — SPECIFICATION
(Fifth Revision)

{Page 4, Table 2B, Note (see also Amendment No. 1)} — Substitute the following for the existing:

‘NOTE — In Fig. 1 to 4, the distance of the screw hole from the edge of the plate shall be 4 mm, *Min.*’

(Page 4, Table 2B, col 10) — The brace over columns 11 and 12 should be extended to the left up to column 10.

(CED 15)

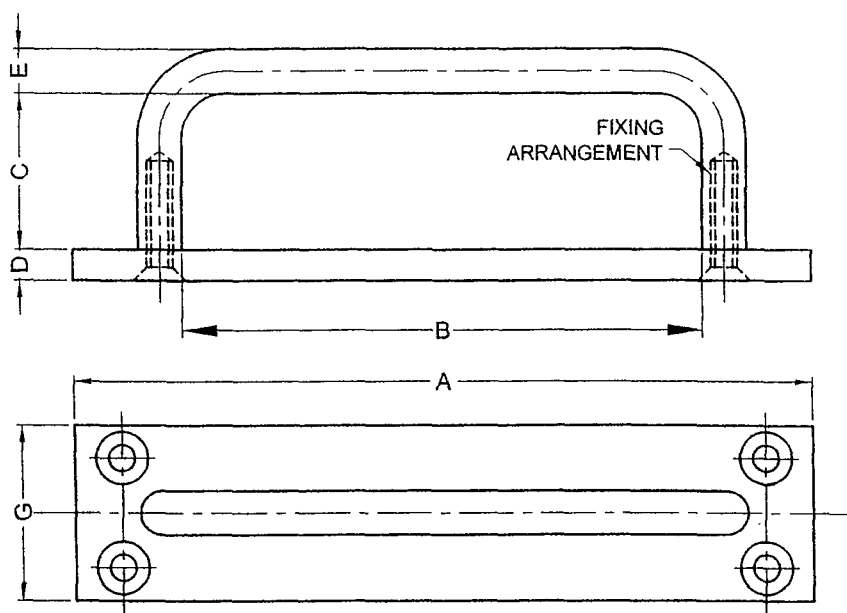
Reprography Unit, BIS, New Delhi, India

AMENDMENT NO. 4 MARCH 2008
TO
IS 208 : 1996 DOOR HANDLES — SPECIFICATION

(Fifth Revision)

(Page 4, Table 2B, col 11) — Delete 'When a Continuous Plate is Used'.

(Page 3, Fig. 4) — Substitute the following figure for the existing:



NOTE — M5 × 20 mm GI countersunk machine screw or any other suitable fixing arrangement may be used.

Fig. 4 TYPICAL DOOR HANDLE (TYPE 4)

(CED 15)

**AMENDMENT NO. 5 NOVEMBER 2009
TO
IS 208 : 1996 DOOR HANDLES — SPECIFICATION**

(Fifth Revision)

(Page 1, clause 4.1, last line) — Substitute ‘Type 4 Mild steel, brass or aluminium alloy’ for ‘Type 4 Brass or aluminium alloy’.

(Page 1, Table 1) — Add the following in the end:

Sl No. (1)	Material (2)	Conforming to Indian Standard (3)
‘ix)	Mild steel bar	Grade E 165 (Fe 290) of IS 2062 : 2006’

(Page 5, Annex A) — Insert the following, as appropriate:

‘2062 : 2006 Hot rolled low, medium and high tensile structural steel (*sixth revision*)’

(CED15)

Reprography Unit, BIS, New Delhi, India

FOREWORD

This Indian Standard (Fifth Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Builders Hardware Sectional Committee had been approved by the Civil Engineering Division Council.

This standard was first published in 1950 and revised subsequently in 1965, 1972, 1979 and 1987. The present revision has been undertaken to incorporate the necessary modification as a result of experience gained during the use of this standard. In this revision apart from general updation of the cross referred standards, some dimensions have been changed and sampling clause has been modified.

The composition of the technical committee responsible for the formulation of this standard is given at Annex C.

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 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

DOOR HANDLES — SPECIFICATION

(Fifth Revision)

1 SCOPE

This standard (Fifth Revision) lays down the requirements for materials, manufacture, dimensions and finish of door handles of the type that are commonly fixed to doors.

2 REFERENCES

The Indian Standards listed in Annex A are necessary adjuncts to this standard.

3 TYPES

Doors handle shall be of the following types according to the materials used:

Type 1	Cast
Type 2	Pressed oval
Type 3	Pressed half oval
Type 4	Fabricated

4 MATERIALS

4.1 Materials for different types of door handles shall be as follows:

- Type 1 Cast iron, malleable cast iron, cast brass, cast aluminium or zinc alloy diecasting,
- Type 2 and 3 Mild steel, and
- Type 4 Brass or aluminium alloy.

4.2 The materials used for different types of door handles shall comply with the requirements given in Table 1.

5 MANUFACTURE

5.1 General

The door handles shall be well made and free from defects. They shall be finished correct to shape and dimensions. All sharp edges and corners shall be removed and finished smooth so as to facilitate easy handling. Cast handles shall be free from casting defects. Where the grip portion of the handle is joined with the base piece by mechanical means, the arrangement shall have adequate strength comparable to that of integrally cast type handles.

6 DIMENSIONS AND TOLERANCES

6.1 The sizes, dimensions and tolerances of the door handles shall conform to Tables 2A and 2B read with Fig. 1 to 4. The shape of the door handle shown in the figures is only illustrative.

6.2 The tolerances where not specified on dimensions of door handles shall be as under:

Dimension mm	Tolerance mm
Up to 100	±1
101 to 200	±1.5
201 and above	±2

7 FINISH

7.1 Unless otherwise ordered for, the finish shall be as follows:

Type 1 — Bright satin finish, nickel chromium plated as per Grade I of IS 1068 : 1993 or copper oxidised as per IS 1378 : 1987 or bronze finish for cast brass and zinc die cast

Table 1 Requirements for Materials

Sl No.	Material	Conforming to Indian Standard
(1)	(2)	(3)
i)	Mild steel	Grade 0 of IS 1079 : 1994
ii)	Malleable cast iron	Grade A of IS 2108 : 1977
iii)	Cast brass	LCB 2 of IS 292 : 1983
iv)	Aluminum alloy pressure die casting	Designation 5230 or 4600 of IS 617 : 1975
v)	Aluminum alloy sheet/strip	Designation 19000 H2 of IS 737 : 1986
vi)	Extruded aluminium alloy rod and flat	Grade 63400 WP or 65032 WP of IS 733 : 1983
vii)	Cast iron	FG 200 of IS 210 : 1993
viii)	Zinc base alloy die castings	IS 742 : 1981

handles. Stove enamelled black or copper oxidized for cast iron and malleable cast iron handles. Aluminium anodized to a bright natural, mat or satin finish or dyed, the anodic coating shall not be less than Grade AC 10 of IS 1868 : 1982 or as required by the purchaser for aluminium alloy handles.

Type 2 — Stove enamelled black.

Type 3 — Stove enamelled black.

Type 4 — Bright satin finish, nickel plated or copper oxidized, bronze finish for brass handles. Aluminium anodized to a bright, natural, mat or satin finish or dyed, the anodic coating shall not be less than Grade AC 10 of IS 1868 : 1982 or as required by the purchaser for aluminium alloy handles.

8 SAMPLING AND CRITERION FOR CONFORMITY

The method of selecting door handles and the criterion for conformity shall be as given in Annex B.

9 MARKING

Each door handle shall bear the manufacturer's name or trade- mark.

9.1 BIS Certification Marking

The product may also be marked with the Standard Mark.

9.1.1 The use of the Standard Mark is governed by the provisions of *Bureau of Indian Standards Act*, 1986 and the Rules and Regulations made thereunder. The details of conditions under which the licence for the use of Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

10 PACKING

Door handles shall be suitably packed in cartons. Each carton shall bear a label showing following:

- Manufacturer's name or trade-mark,
- Type,
- Size, and
- Quantity.

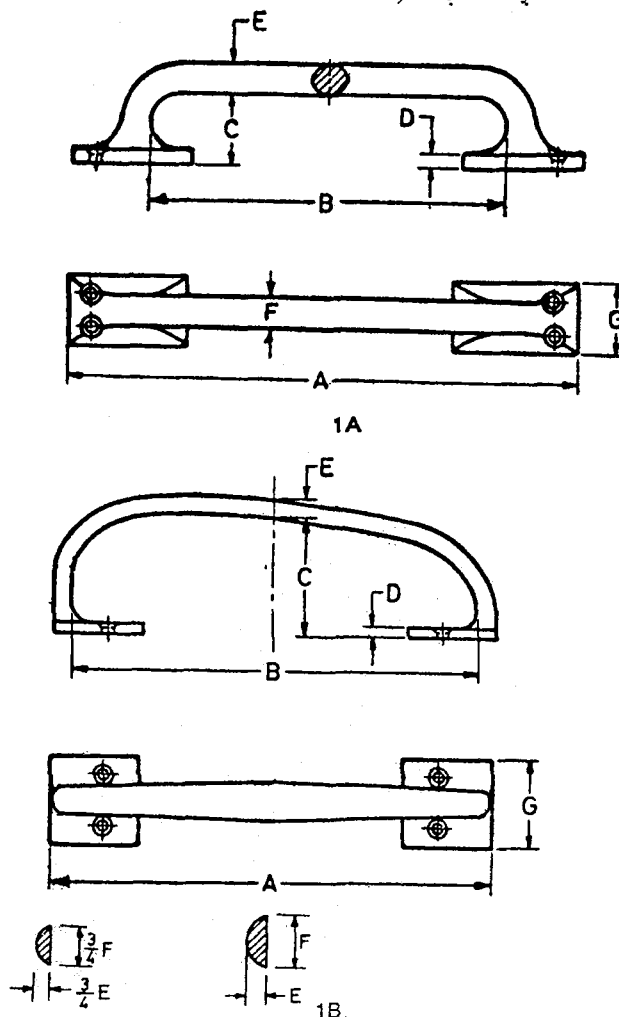


FIG. 1 TYPICAL DOOR HANDLE (TYPE 1)

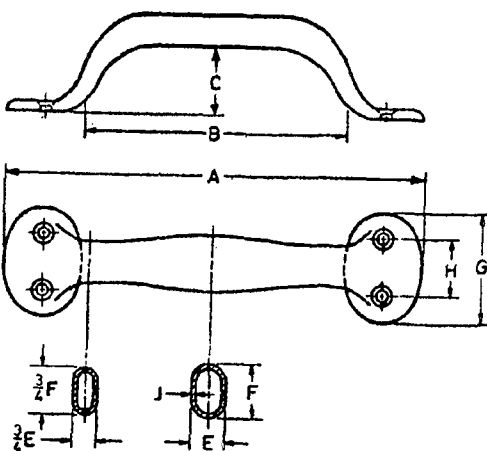


FIG. 2 TYPICAL DOOR HANDLE (TYPE 2)

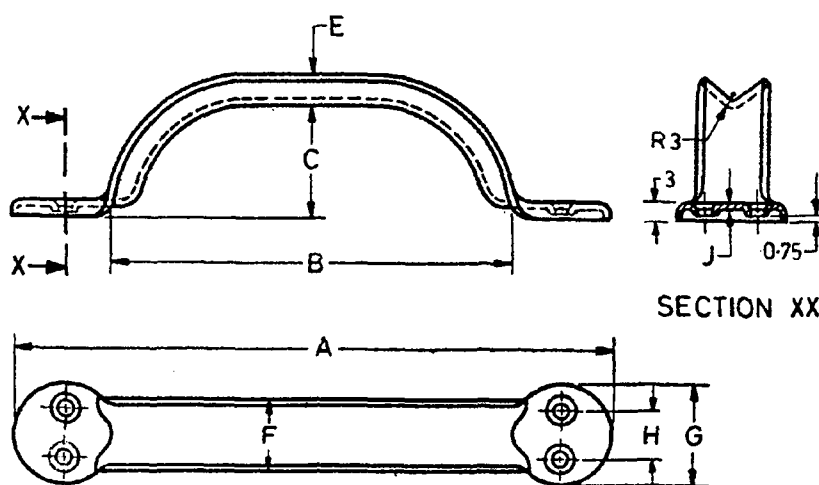
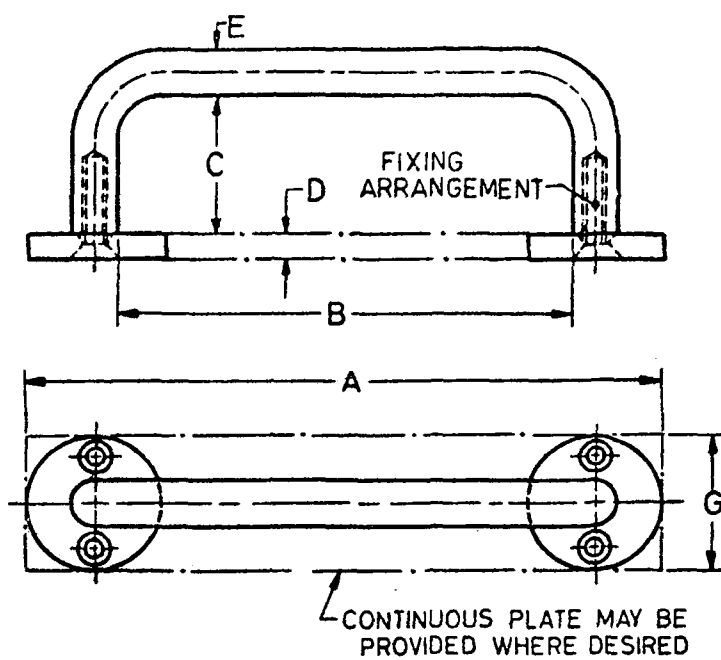


FIG. 3 TYPICAL DOOR HANDLE (TYPE 3)



NOTE — M5 × 20 mm GI Counter sunk machine screw or any other suitable fixing arrangement may be used.

FIG. 4 TYPICAL DOOR HANDLE (TYPE 4)

Table 2A Dimensions of Door Handles
(Clause 6.1 and Fig. 1 to 3)

All dimensions in millimetres.

Type	Ref to Fig.	Size	A Min	B	C Min	D Min	E Min	F Min	G Min	H Min	J Min	Screw Holes ¹⁾	
												No. in Each Lug	Size Designation of Counter-sunk Head Wood Screws (see IS 6760 : 1972)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1	1A	75	125	75	20	2.5	5	8	25	—	—	2	6
		100	150	100	25	3.0	8	10	25	—	—	2	6
		125	190	125	25	4.0	10	12	30	—	—	2	6
		150	215	150	30	4.5	12	15	30	—	—	2	8
	1B	75	85	75	20	2.5	5	8	25	—	—	2	6
		100	110	100	25	3.0	5	10	25	—	—	2	6
		125	140	125	25	3.0	7.5	12	30	—	—	2	6
		150	165	150	30	4.0	7.5	15	30	—	—	2	8
2	2	75	125	75	20	—	10	16	32	20	1.0	2	6
		100	150	100	25	—	11	19	38	20	1.0	2	6
		115	175	115	28	—	13	22	45	25	1.0	3	8
		135	200	135	30	—	14	25	50	32	1.25	3	8
3	3	75	100	75	20	—	5	14	25	8	1.25	1	6
		90	125	90	25	—	6	16	25	10	1.25	2	6
		100	150	100	28	—	7	18	25	12	1.60	2	6

¹⁾More evenly spaced screw holes may be provided, if so required by the purchaser.

Table 2B Dimensions of Door Handles
(Clause 6.1 and Fig. 4)

All dimensions in millimetres.

Type	Ref to Fig.	Size	A	B	C Min	D ¹⁾	E ²⁾	G (Width)	No. in Each Lug	Screw Holes ³⁾	
										No. in a Plate When a Continuous Plate is Used	Size Designation of Counter-sunk Head Wood Screws (see IS 6760 : 1972)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
4	4	75	115	75	25	3 ± 0.2	10 ± 0.3	30 ± 0.5	2	4	6
		100	150	100	30	3 ± 0.2	10 ± 0.3	30 ± 0.5	2	4	6
		125	175	125	35	3 ± 0.2	12 ± 0.3	35 ± 0.5	3	6	6
		150	200	150	35	3 ± 0.2	12 ± 0.3	35 ± 0.5	3	6	6

¹⁾In case a round base is used instead of continuous base plate, the thickness 'D' of round base be increased to 5 mm ± 0.3 mm.²⁾Round or Hexagonal.³⁾More evenly spaced screw holes may be provided, if so required by the purchaser.

NOTE — In Fig. 1 to 4 the distance of outer circle of the screw hole from edge of the plate shall be 6 mm.

ANNEX A

(Clause 2)

LIST OF REFERRED INDIAN STANDARDS

IS No.	Title	IS No.	Title
210 : 1993	Grey iron castings (<i>fourth revision</i>)	1079 : 1994	Hot rolled carbon steel sheets and strips (<i>fifth revision</i>)
292 : 1983	Leaded brass ingots and castings (<i>second revision</i>)	1378 : 1987	Oxidized-copper finishes (<i>third revision</i>)
617 : 1975	Aluminium and aluminium alloy ingots and castings for general engineering purposes (<i>second revision</i>)	1868 : 1982	Anodic coatings on aluminium and its alloys (<i>second revision</i>)
733 : 1983	Wrought aluminium and aluminium alloy bars, rods and sections for general engineering purposes (<i>third revision</i>)	2108 : 1977	Blackheart malleable iron castings (<i>first revision</i>)
737 : 1986	Wrought aluminium and aluminium alloy sheet and strips for general engineering purposes (<i>third revision</i>)	4905 : 1968	Methods for random sampling
742 : 1981	Zinc base alloy die castings (<i>second revision</i>)	5230 : 1969	Code of practice for the construction of continuous to-and-fro movement bicable ropeways intended for the transportation of passengers
1068 : 1993	Electroplated coating of nickel plus chromium and copper plus nickel plus chromium on iron and steel (<i>third revision</i>)	6760 : 1972	Slotted countersunk head wood screws

ANNEX B

(Clause 8)

SAMPLING AND CRITERION FOR CONFORMITY

B-1 LOT

B-1.1 In any consignment, all the door handles of the same type and size and manufactured at the same time, shall be grouped together to constitute a lot.

B-1.2 Number of Samples

The number of door handles, to be selected from a lot, shall depend upon the size of the lot and shall be in accordance with col 1 and 2 of Table 3.

B-1.3 These door handles shall be selected at random for at least 10 percent of the packages subject to a minimum of 3, equal number of door handles being selected from each such package. In order to ensure the randomness of selection procedure given in IS 4905 : 1968 may be followed.

Table 3 Scale of Sampling and Criterion for Conformity
(Clause B-1.2)

Lot Size	Sample Size	Acceptance No.	Rejection No.
(1)	(2)	(3)	(4)
Up to 50	8	0	1
51 to 90	13	1	2
91 to 150	20	1	2
151 to 280	32	2	3
281 to 500	50	3	4
501 to 1 200	80	5	6
1 201 and above	125	7	8

B-2 NUMBER OF TESTS

B-2.1 All the door handles selected as in B-1.2 shall be checked for dimensional requirements (*see 6*)

and the finish (*see* 7). Any door handle which fails to satisfy the requirements of dimensions or finish or both shall be considered as a defective.

B-3 CRITERION FOR CONFORMITY

B-3.1 A lot shall be considered as conforming to

the requirement of this standard if the number of defective handles among those tested does not exceed the corresponding number given in col 3 of Table 3. If the number of defectives is greater than or equal to rejection number given in col 4 of Table 3, the lot shall be deemed as not meeting the requirements of this standard.

ANNEX C

(Foreword)

COMMITTEE COMPOSITION

Builders Hardware Sectional Committee, CED 15

Chairman

SHRI P. KRISHNAN

103 Charak Sadan, Vikaspuri, New Delhi 110018

Representing

Hindalco Industries Ltd, Mumbai

Balaji Enterprises, New Delhi

Mech (India) Industries, Delhi

Delhi Development Authority, New Delhi

Central Building Research Institute (CSIR), Roorkee

National Test House, Calcutta

Railway Board (Ministry of Railways)

D. P. Garg and Company Noida (Distt Ghaziabad), U.P.

J. H. Aluminium Pvt Ltd, Madras

Directorate of Design, Engineer-in-Chief's Branch, New Delhi

Directorate General of Supplies and Disposals, New Delhi

Indian Institute of Architects, Mumbai

Argent Industries, New Delhi

Indian Aluminium Co Ltd, Calcutta

Ministry of Defence (DGQA) Army Headquarters, New Delhi

Building Materials and Technology Promotion Council, New Delhi

Development Commissioner S. S. I, Ministry of Industry, New Delhi

Garnish Traders Pvt Ltd, New Delhi

Tamil Nadu Housing Board, Madras

Central Public Works Department, New Delhi

Allied Anodisers, Calcutta

M. C. Mowjee and Co Pvt Ltd, Calcutta

Director General, BIS (*Ex-officio Member*)

Member-Secretary

SHRIMATI RACHNA SEHGAL

Asstt Director (Civ Engg), BIS

Members

SHRI V. K. AGARWAL

SHRI ADITYA KIRAN AGGARWAL

SHRI SUDHIR BATRA

SHRI R. K. BHANDARI

SHRI R. L. SHARMA (*Alternate*)

SHRI SURESH CHAND

SHRI D. K. CHATTOPADHYAY

SHRI D. S. MAJUMDAR (*Alternate*)

CONTROLLER OF STORES

SHRI S. M. GARG

SHRI B. M. GARG (*Alternate*)

SHRI J. JAYAPRAKASH

SHRI J. RAGHURAM (*Alternate*)

SHRI J. L. KAPOOR

SHRI SURAJ PRAKASH (*Alternate*)

SHRI S. C. KAPOOR

SHRI I. C. KHANNA (*Alternate*)

SHRI RAM F. KEWALRAMANI

COL P. C. KHANNA

SHRI ANIL CHADHA (*Alternate*)

SHRI ANIL KUMAR

SHRI P. A. KOHLI (*Alternate*)

SHRI K. M. MANDAL, SSO-I

SHRI S. MULLICK (*Alternate*)

SHRI O. P. RATRA

SHRI T. R. SEHGAL

SHRI M. K. BHATT (*Alternate*)

SHRI H. S. SETHI

SUPERINTENDING ENGINEER

EXECUTIVE ENGINEER (*Alternate*)

SUPERINTENDING ENGINEER

SHRI SUSHIL TAWAR

SHRI SAHIB SINGH VIRDI

SHRI S. MOWJEE (*Alternate*)

SHRI VINOD KUMAR,

Director (Civ Engg)

Bureau of Indian Standards

BIS is a statutory institution established under the *Bureau of Indian Standards Act, 1986* to promote harmonious development of the activities of standardization, marking and quality certification of goods and attending to connected matters in the country.

Copyright

BIS has the copyright of all its publications. No part of these publications may be reproduced in any form without the prior permission in writing of BIS. This does not preclude the free use, in the course of implementing the standard, of necessary details, such as symbols and sizes, type or grade designations. Enquiries relating to copyright be addressed to the Director (Publications), BIS.

Review of Indian Standards

Amendments are issued to standards as the need arises on the basis of comments. Standards are also reviewed periodically; a standard along with amendments is reaffirmed when such review indicates that no changes are needed; if the review indicates that changes are needed, it is taken up for revision. Users of Indian Standards should ascertain that they are in possession of the latest amendments or edition by referring to the latest issue of 'BIS Handbook' and 'Standards Monthly Additions'.

This Indian Standard has been developed from Doc : No. CED 15 (5486).

Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

BUREAU OF INDIAN STANDARDS

Headquarters:

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110002
Telephones : 323 01 31, 323 83 75, 323 94 02

Telegrams : Manaksanstha
(Common to all offices)

Regional Offices :

Telephone

Central : Manak Bhavan, 9 Bahadur Shah Zafar Marg NEW DELHI 110002	{ 323 76 17 323 38 41
Eastern : 1/14 C. I.T. Scheme VII M, V. I. P. Road, Maniktola CALCUTTA 700054	{ 337 84 99, 337 85 61 337 86 26, 337 91 20
Northern : SCO 335-336, Sector 34-A, CHANDIGARH 160022	{ 60 38 43 60 20 25
Southern : C. I. T. Campus, IV Cross Road, MADRAS 600113	{ 235 02 16, 235 04 42 235 15 19, 235 23 15
Western : Manakalaya, E9 MIDC, Marol, Andheri (East) MUMBAI 400093	{ 832 92 95, 832 78 58 832 78 91, 832 78 92

Branches : AHMADABAD. BANGALORE. BHOPAL. BHUBANESHWAR.
COIMBATORE. FARIDABAD. GHAZIABAD. GUWAHATI. HYDERABAD.
JAIPUR. KANPUR. LUCKNOW. PATNA. THIRUVANANTHAPURAM.