



# भारतीय मानक ब्यूरो

## BUREAU OF INDIAN STANDARDS

Meeting	Date and Time	Venue
21 <sup>st</sup> Meeting Cranes Lifting Chains And related Equipment Sectional Committee, MED 14	31 Jan 2023 (Tue) 1100h-1600h	Green Room, Manak Bhavan, 9, Bahadur Shah Zafar Marg, BIS HQ, Delhi and through BIS Webex Virtual Platform

**Chairperson:** Shri Hemant Kumar T, Dy. General Manager, BEML Ltd.

**Member Secretary:** Shri Naveen K. Arora, Scientist-C (MED), BIS, New Delhi.

### ITEM 0 WELCOME AND OPENING REMARKS

**0.1** Welcome & Opening remarks by Head, Mechanical Engineering Department.

**0.2** Welcome & Opening remarks by Shri Hemant Kumar T. (Chairperson), Dy. General Manager, BEML Ltd..

### ITEM 1 CONFIRMATION OF THE MINUTES OF THE LAST MEETING

**1.1** Minutes of the 20<sup>th</sup> meeting of Cranes Lifting Chains And Related Equipment Sectional Committee, MED 14 held on **16 Dec 2021** through WebEx platform were circulated vide BIS letter No. MED 14/A-2.20 dated **21 Dec 2021**. No Comments have been received.

*The Committee may confirm the minutes.*

### ITEM 2 SCOPE, COMPOSITION AND PROGRAMME OF WORK OF THE COMMITTEE

#### 2.1 Scope

Standardisation of cranes, winches, lifting chains, sheaves, suspension gears, hooks, swivel and shackles.

**Liaison :** Coordination of work with following ISO Committees:

ISO #	Title	M-ship
<a href="#">ISO/TC 96</a>	Cranes	Permanent
<a href="#">ISO/TC 96/SC 2</a>	Terminology	Permanent
<a href="#">ISO/TC 96/SC 3</a>	Selection of wire ropes	Permanent
<a href="#">ISO/TC 96/SC 4</a>	Test methods	Permanent
<a href="#">ISO/TC 96/SC 5</a>	Use, operation and maintenance	Permanent
<a href="#">ISO/TC 96/SC 6</a>	Mobile cranes	Permanent
<a href="#">ISO/TC 96/SC 7</a>	Tower cranes	Permanent
<a href="#">ISO/TC 96/SC 8</a>	Jib cranes	Permanent
<a href="#">ISO/TC 96/SC 9</a>	Bridge and gantry cranes	Permanent
<a href="#">ISO/TC 96/SC 10</a>	Design principles and requirements	Permanent
<a href="#">ISO/TC 111</a>	Round steel link chains, chain slings, components and accessories	Permanent

<a href="#">ISO/TC 111/SC 1</a>	Chains and chain slings	Permanent
<a href="#">ISO/TC 111/SC 3</a>	Components and accessories	Permanent

*The Committee may propose any addition/deletion/modification required in the scope.*

**2.1.1** The Committee deliberated on the issue to draft a standard on the safety aspect of cranes. The Committee decided to form a panel to discuss the need and the way forward in the standard formulation on the subject ‘Safety aspect of cranes’. The Committee decided that the panel shall provide his recommendation in 2 months and shall be discussed in the next sectional committee meeting.

The committee constituted the panel as follows:

- a) Shri Dipak Patel of M/s Schneider Electric India Pvt. Ltd., Ahmedabad
- b) Shri Preet Heri of M/s Kito India Pvt. Ltd., Bengaluru
- c) Shri Deepak Desai and Shri Sandeep D. Bhattad of M/s Konecranes and Demag Pvt Ltd, Pune
- d) Shri R S Prasad of M/s IPSS Secretariat CET, New delhi
- e) Shri Prashant P of M/s Seimens Ltd., Thane
- f) Shri Anand Mitkari of M/s Mukand Ltd, Thane

Reminder sent to following Members on 24 Jan 2023. Response awaited.

*The Committee noted the information.*

## **2.2 Composition of Committee**

**2.2.1** The following directions have been received from the Competent Authority of the Bureau for reviewing the composition of the Sectional Committee:

- a) New members are to be co-opted who are expected to contribute to emerging new technology.
- b) Efforts should be made to include representatives of different product segments as per the scope of the committee.
- c) Major Government purchasing organisations like DGS&D, RDSO, CPWD, Defence etc. are to be given representation in the committees wherever applicable.
- d) In case representatives of the concerned organisation are not attending the meeting regularly or not continuing even by correspondence, the organisation may be informed for substituting their member.
- e) Members who are represented in individual capacity, the continuation of their membership is to be considered on the basis of their past attendance and contribution.

**2.2.2** The present composition of Cranes, Lifting chains and related equipment Sectional Committee, MED 14 is given at **Annex-A** .The list shows the attendance of the members in the last three consecutive meetings.

*The committee may note and suggest any addition/deletion/modification in the composition.*

## **2.3 Programme of Work**

	lli.	alignment' hosted by ISO/TC 96/SC 4	measurement of cranes.	
2.	Deepak Desai	[SR] Cranes -- Inspections -- Part 5: Bridge and gantry cranes [N 416 / ISO 9927-5 : 2017]	Can we not adopt this standard for India as this is giving maintenance guidelines for crane.?	10 Oct 2022 <a href="#">ISO TC 96 SC 9 N416 - ISO NP 9927-5.pdf</a>
3.	Deepak Desai	[MED14, SR, O 14518:2005 (vers 3), 38496] National Opinion of MED14 on ISO Ballot 'Cranes — Requirements for test loads' hosted by ISO/TC 96/SC 4	In general we can use this standard as guidance for test load calibrations. At least as reference standards.	31 Oct 2022 <a href="#">ISO 14518 2005 ed 1 - id.38496 Publication PDF (en).pdf</a>
4.	Deepak Desai	MED14 on ISO Ballot 'To Collect feedback of SC 9 on ISO/TC 96/SC 7 – ISO CD 11660-1' hosted by ISO/TC 96/SC 9	Can we not use this standard to improves access to crane and safety consideration? We have very short information in IS : 3177 for crane access. Can we adopt this standard as 100% identical and give reference in IS: 3177?	19 Dec 2022 <a href="#">ISO-TC 96-SC 9 N 612 To Follow-up on TC96 SC 7 Resolution 413-2022 IS OCD 11660-1 Access guards and restraints Part1.pdf</a>

*The Committee may please note.*

**4.2** India has membership on following ISO committees related to MED 14 being P-member, it is obligatory for India to vote on all the documents. The documents received from time to time are being sent to committee members for comments and voting done accordingly. List of International Standards formulated by ISO/TC 96 & SC's and ISO/TC 111 & SC's are given in ISO website. (Links are provided below)

Standards by ISO TC 96 — <https://www.iso.org/committee/50642/x/catalogue/p/0/u/1/w/0/d/0>

Standards by ISO TC 111 — <https://www.iso.org/committee/51622/x/catalogue/p/0/u/1/w/0/d/0>

*The Committee may please note.*

## **ITEM 5 REVIEW OF PUBLISHED INDIAN STANDARD**

**5.1** As on-going activity, the Sectional Committee reviews the Indian Standards formulated by it at an interval of five years from the date of publication. During review the committee may decide either to reaffirm or to revise/withdraw the standards based on the latest technology available on the subject at the time of review.

Sl No.	IS No	Title	Due on	Status
1.	IS 2429 (Part 1) : 1987	Specification for round steel short link chains (Electric Butt Welded), grade L(3): Part 1 Non - Calibrated load chain for lifting purposes (Third Revision)	March 2023	No technical comments received. Draft is being prepared with editorial changes.
2.	IS 3109 (Part 1)	Specification for short link	March	No technical comments received. Draft

	: 1982	chain, grade M (4): Part 1 non - Calibrated load chain for lifting purposes (Second Revision)	2023	is being prepared with editorial changes.
3.	IS 3822 : 2002	Eye hooks for use with chains - Specification (Second Revision)	March 2023	No technical comments received. Draft is being prepared with editorial changes
4.	IS 3938 : 1983	Specification for electric wire rope hoists (Second Revision)	March 2023	Draft received from Mr Preet Heri dated 23 Feb 2022 circulated to members dated 23 Jan 2023.
5.	IS 5749 : 1970	Specification for forged ramshorn hooks	March 2023	No technical comments received. Draft is being prepared with editorial changes
6.	IS 10131 : 1992	Link chain ends and chain bows for bucket elevators - Specification (First Revision)	March 2023	Comment received from Shri Rohit Chitlangia dated 1 Nov 2022 reiterating that no changes required in the standard. Also see item <b>5.4, SI No. 12</b>
7.	IS 13308 : 1992	Lifting appliances - Sheaves - Technical supply condition	March 2023	No technical comments received. Draft is being prepared with editorial changes.
8.	IS 13367 (Part 1) : 1992	Safe use of cranes - Code of practice : Part 1 general	March 2023	No technical comments received. Draft is being prepared with editorial changes
9.	IS 15191 : 2002	Forged steel components for use with grade T (8) chain and chain slings - Specification	March 2023	No technical comments received. Draft is being prepared with editorial changes
10.	IS 6217 : 1982	Specification for short link chain, grade S (6), non - Calibrated for lifting purposes (First Revision)	March 2023	Comment received from Shri Rohit Chitlangia dated 1 Nov 2022 reiterating that the standard is obsolete and may be considered for withdrawal <a href="#">Comment Shri Rohan Chitlangia.pdf</a> <a href="#">Comment Received From Shri Anuj Gupta.pdf</a>
11.	IS 6296 : 1983	Specification for short link chain grade S(6) calibrated for pulley blocks and other lifting appliances (First Revision)	March 2023	Comment received from Shri Rohit Chitlangia dated 1 Nov 2022 reiterating that the standard is obsolete and may be considered for withdrawal. <a href="#">Comment Shri Rohan Chitlangia.pdf</a> <a href="#">Comment Received From Shri Anuj Gupta.pdf</a>
12.	IS 6511 : 1997 ISO 2374:1983	Lifting appliances - Range of maximum capacities for basic models (First Revision)	March 2023	Base ISO standard same, informed to committee members dated 07 Mar 2022 for one month. No comments received.
13.	IS 13558 (Part 1) : 2018 / ISO 7752-1 : 2010	Cranes - Control layout and characteristics: Part 1 general principles (First Revision)	March 2023	Base ISO standard same, informed to committee members dated 24 Jan 2023 for one month. No comments received.
14.	IS 13558 (Part 2) : 2018 / ISO 7752-2:2011	Cranes - Control layout and characteristics: Part 2 basic arrangement and requirements for mobile	March 2023	Base ISO standard same, informed to committee members dated 24 Jan 2023 for one month. No comments received.

		cranes (First Revision)		
15.	IS 13558 (Part 3) : 2018 / ISO 7752-3:2013	Cranes - Control layout and characteristics: Part 3 tower cranes (First Revision)	March 2023	Base ISO standard same, informed to committee members dated 24 Jan 2023 for one month. No comments received.
16.	IS 13558 (Part 4) : 1993 / ISO 7752-4 : 1989	Cranes - Controls - Layout and characteristics: Part 4 jib cranes	March 2023	Base ISO standard same, informed to committee members dated 03 Mar 2022 for one month. No comments received.
17.	IS 13559 (Part 1) : 1993 / ISO 9374-1:1989	Cranes - Information to be provided: Part 1 general	March 2023	Base ISO standard same, informed to committee members dated 03 Mar 2022 for one month. No comments received.
18.	IS 13559 (Part 4) : 1992 / ISO 9374-4:1989	Cranes - Information to be provided: Part 4 jib cranes	March 2023	Base ISO standard same, informed to committee members dated 04 Mar 2022 for one month. No comments received.
19.	IS 13583 (Part 1) : 1993 / ISO 9926-1:1990	Cranes - Training of drivers: Part 1 general	March 2023	Base ISO standard same, informed to committee members dated 04 Mar 2022 for one month. No comments received.
20.	IS 13834 (Part 4) : 1993 / ISO 4301-4:1989	Cranes - Classification: Part 4 jib cranes	March 2023	Base ISO standard same, informed to committee members dated 04 Mar 2022 for one month. No comments received.
21.	IS 13834 (Part 5) : 1993 / ISO 4301-5:1991	Cranes - Classification: Part 5 overhead travelling and portal bridge cranes	March 2023	Base ISO standard same, informed to committee members dated 04 Mar 2022 for one month. No comments received.
22.	IS 14468 : 1997 ISO 4304:1987	Cranes other than mobile and floating cranes - General requirements for stability	March 2023	Base ISO standard same, informed to committee members dated 04 Mar 2022 for one month. No comments received.
23.	IS 14471 : 1997 ISO 7363:1986	Cranes and lifting appliances - Technical characteristics and acceptance documents	March 2023	Base ISO standard same, informed to committee members dated 04 Mar 2022 for one month. No comments received.
24.	IS 14474 (Part 1) : 1997 / ISO 11662-1:1995	Mobile cranes - Experimental determination of crane performance: Part 1 tipping loads and radii	March 2023	Base ISO standard same, informed to committee members dated 04 Mar 2022 for one month. No comments received.
25.	IS 16772 : 2018 ISO 16872:2015	Round steel short link chains for lifting purposes - Fine tolerance hoist chains for hand operated chain hoists - Grade vh	March 2023	Base ISO standard same, informed to committee members dated 24 Jan 2023 for one month. No comments received.
26.	IS 16773 : 2018 ISO 16877:2015	Round steel short link chains for lifting purposes - Fine tolerance hoist chains for hand operated chain hoists - Grade th	March 2023	Base ISO standard same, informed to committee members dated 24 Jan 2023 for one month. No comments received.
27.	IS 13558 (Part 5) : 1993 / ISO 7752-5:1985	Cranes - Controls - Layout and characteristics: Part 5 overhead travelling cranes and portal bridge cranes	March 2023	Base ISO standard revised, circulated to committee members dated 07 Mar 2022 for one month. No comments received.
28.	IS 13834 (Part 2) : 1993 / ISO	Cranes - Classification: Part 2 mobile cranes	March 2023	Base ISO standard revised, circulated to committee members dated 04 Mar 2022



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Meeting	Date and Time	Venue
21 <sup>st</sup> Meeting Cranes Lifting Chains And related Equipment Sectional Committee, MED 14	31 Jan 2023 (Tue) 1100h-1700h	Green Room, Manak Bhavan, 9, Bahadur Shah Zafar Marg, BIS HQ, Delhi and through BIS Webex Virtual Platform

**In the Chair:** Mr Ankit Jalan, MECON Limited, Ranchi

**Member Secretary:** Mr Naveen K., Scientist-C (MED), BIS, New Delhi.

### ITEM 0 WELCOME AND OPENING REMARKS

**0.1** Head (MED) welcomed all the committee members present in the 21st meeting of MED 14. He requested all the members present to actively deliberate during the discussion of the meeting.

**0.2** Mr Hemant Kumar T. (Chairperson), Dy. General Manager, BEML Ltd.. expressed regret for not being able to participate in the meeting through an advance email. The Committee in his absence appointed Mr Ankit Jalan, MECON Limited, Ranchi by consensus, as the Chair for the meeting. The acting Chairperson welcomed all the members to the meeting and requested for active participation in the meeting from all.

### ITEM 1 CONFIRMATION OF THE MINUTES OF THE LAST MEETING

**1.1** The Committee confirmed the minutes of the 20<sup>th</sup> meeting of Cranes Lifting Chains And Related Equipment Sectional Committee, MED 14 held on **16 Dec 2021**.

### ITEM 2 SCOPE, COMPOSITION AND PROGRAMME OF WORK OF THE COMMITTEE

#### 2.1 Scope

The committee noted the information.

**2.1.1** The Committee decided to add Mr Ravindra Sharma, M/s Jindal Steel, New Delhi and Mr R. S. Bisht, M/s CSIR Roorkee and Member Secretary as a member to the panel. Mr Preet H. Heri, M/s Kito India Pvt Ltd, Bengaluru to be the convener on the panel. The Committee directed the panel to meet on **22 Feb 2023** next to decide the scope of this panel work.

#### 2.2 Composition of Committee

**2.2.1** In pursuance to Item 2.2.1.(c), the Committee decided to invite M/s BHEL, M/s NTPC, M/s ISRO, M/s BEL, M/s SAIL, M/s COFMO (Railways). The Committee directed the Member Secretary to send an email to all members seeking contact details of government purchasing organisations within two weeks.

**2.2.2** The Committee decided to seek update on nominations from the following members:

- a) M/s ABB India Limited, Bengaluru;
- b) M/s CSIR, Central Building Research Institute, Rookee;
- c) M/s Heavy Engineering Corporation Ltd., Ranchi;
- d) M/s Jindal Steel and Power Limited, Raipur;
- e) M/s Konecranes And Demag Pvt Ltd., Pune;
- f) M/s Mukand Ltd, Distt Thane; and
- g) M/s Ministry of Surface Transport, New Delhi (seek revised nominations from Ministry of Road Transport and Highways)

The committee decided to send a reminder to the following organisations who have not participated in the last three as well as this meeting:

- a) M/s Bharat Heavy Electricals Ltd., New Delhi; and
- b) M/s Anupam Industries Limited, Anand, Gujarat.

### **2.3 Programme of Work**

The committee noted the information.

## **ITEM 3 SELECTION OF SUBJECTS/NEW SUBJECTS**

**3.1** The Committee proposed a subject on Fire Equipment related Hydraulic Lift or Scissor Lift. The Committee directed the Member Secretary to check up any committee or any standard already done on this subject item.

## **ITEM 4 INTERNATIONAL ACTIVITIES**

**4.1** The Committee decided the following:

<b>Sl No.</b>	<b>Proposer</b>	<b>New subject item</b>	<b>Proposal received</b>	<b>Committee Decision</b>
1.	M. Arthanari Eswaran, BHEL, Tiruchirappalli.	[MED14, SR, ISO 11630:1997 (vers 4), 19561] National Opinion of MED14 on ISO Ballot 'Cranes — Measurement of wheel alignment' hosted by ISO/TC 96/SC 4	This standard may please be put up before the committee for adopting it nationally since it gives good guidelines for wheel alignment measurement of cranes.	Mr Ravindra Sharma, M/s Jindal Steel, Mr Preet H Heri, M/s KITO Bengaluru, Mr Shyam M. Gurnani, M/s Furnace and Foundry Mumbai informed the standard is not complete as only applicable for 4 wheel cranes.  The Committee directed the MS to circulate and seek opinion of other members through mail within two weeks. In case no response received the standard is not to be adopted in its present share as decided by the committee.
2.	Deepak Desai	[SR] Cranes -- Inspections -- Part	Can we not adopt this standard for India as this is giving	The Committee decided to refer this item to the Safety

		5: Bridge and gantry cranes [N 416 / ISO 9927-5 : 2017]	maintenance guidelines for crane?	Panel (Panel 09).
3.	Deepak Desai	[MED14, SR, O 14518:2005 (vers 3), 38496] National Opinion of MED14 on ISO Ballot 'Cranes — Requirements for test loads' hosted by ISO/TC 96/SC 4	In general we can use this standard as guidance for test load calibrations. At least as reference standards.	Prima facie the committee decided to adopt the standard. The Committee directed MS to circulate the standard to members for two weeks for any additional comments.
4.	Deepak Desai	MED14 on ISO Ballot 'To Collect feedback of SC 9 on ISO/TC 96/SC 7 – ISO CD 11660-1' hosted by ISO/TC 96/SC 9	Can we not use this standard to improves access to crane and safety consideration? We have concise information in IS : 3177 for crane access. Can we adopt this standard as 100% identical and give reference in IS: 3177 : 2020	The Committee decided to refer this item to the Safety Panel (Panel 09).

4.2 The Committee noted the information.

## ITEM 5 REVIEW OF PUBLISHED INDIAN STANDARD

### 5.1 Standards Due for Review (refer Agenda table)

**SI No. (1-3,6-8)** The Committee decided to revise these documents with editorial changes. The draft to be circulated to committee members for 15 days, to be wide-circulated for 2 months, and to be sent for printing, if no comments are received during any stage.

**SI No. 4** The Committee directed the Panel 06 to meet next on 22 Feb 2023 to finalise the draft. The draft to be circulated to committee members for 15 days, to be wide-circulated for 2 months, and to be sent for printing, if no comments received during any stage.

**SI No. 5** The Committee decided to revise the document based on the draft from Mr Sandeep D Bhattad, M/s Kone Cranes, New Delhi to be provided by Feb 2023. The draft to be circulated to committee members for 15 days, to be wide-circulated for 2 months, and to be sent for printing, if no comments are received during any stage.

**SI No. 9** The Committee decided to revise the document based on the draft received from Mr Rohit Chitlangia, M/s Indian Chains The Committee invited comments from members till 14 Feb 2023, if any, to be forwarded to Mr Rohit Chitlangia, M/s Indian Chains for providing the finalised draft. The draft to be circulated to the committee for 15 days, to be wide-circulated for 2 months, and to be sent for printing, if no comments received during any stage.

**SI No. (10,11)** The Committee decided to propose these standards for withdrawal to MEDC.



**SI No. (12-26)** The Committee decided to reaffirm these standards.

**SI No. (27-30)** The Committee decided to adopt the revised version by revising the existing Indian Standard, and to wide-circulate this standard for one month and to send for printing, in case, no comments received during wide-circulation.

**5.2** The committee noted the information.

### **5.3 Documents under ARP**

The committee noted the information.

### **5.4 Pre-2000 documents under review by Technical Department (refer Agenda table)**

**SI No. 1-3, 6-10 and 12-15** The Committee decided to revise these documents with editorial changes. The draft to be circulated to committee members for 15 days, to be wide-circulated for 2 months, and to be sent for printing, if no comments are received during any stage.

**SI No. 4** See Item No. **6.1**, SI No. **1**

**SI No. 5** Shri Sandeep D Bhattad, M/s Konecranes and Demag Pvt Ltd agreed to provide the revised draft by Feb 2023. The draft to be circulated to committee members for 15 days, to be wide-circulated for 2 months, and to be sent for printing, if no comments are received during any stage.

**SI No. 11** The Committee decided to revise these documents with editorial changes. The draft to be circulated to committee members for 15 days, to be wide-circulated for 2 months, and to be sent for printing, if no comments are received during any stage. The Committee also delegated the technical revision of this standard to Panel 06.

## **ITEM 6 ACTION ARISING OUT OF THE PREVIOUS MEETING**

**6.1** The summary of decisions on action taken of the minutes of last meeting is given below:

<b>Decision taken during 20th meeting</b>	<b>Actions taken since 20th meeting</b>	<b>Decision taken in this meeting</b>
<b>1. IS 4594 ‘Code of practice for design of portal and semi portal wharf cranes (electrical)’</b>		
Revision draft shall be put under wide circulation for 2 months under Doc: [MED 14 (18600)]. The committee noted the information. If no comments is received, document shall be sent for printing.	Document is being prepared based on a draft received from Shri Anand Mitkari, M/s Mukund Limited, Thane. <a href="#">IS 4594 draft From Shri Anand Mitkari.docx</a>	The Committee decided to revise the standard based on draft received along with editorial changes. The draft to be circulated to committee members for 15 days, to be wide-circulated for 2 months, and to be sent for printing, if no comments received during any stage.