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Minutes

COMMITTEE	DATE and DAY	TIME
34 th Meeting of Earth Moving Equipment and Material Handling Sectional Committee, MED 07	25.06.2024 (Tuesday)	10:30 AM (Hybrid Mode)

CHAIRMAN: Shri D B Naik, Dy Director Gen (Mech), Directorate General of Mines Safety, Dhanbad

MEMBER SECRETARY: Shri Shubham Yadav, Deputy Director/Scientist- C (MED), BIS, New Delhi.

ITEM 0 WELCOME AND OPENING REMARKS

The Member Secretary informed the committee that Shri Chakrapani Mandela, General Manager and Head of R&D at KGF, BEML, the chairman of the MED 07 committee, has been transferred to another location and is no longer available to chair the technical committee meetings. The member secretary also informed the committee that Shri Chakrapani Mandela has informed that he will no longer be able to serve as the Chairperson of MED 07.

The committee members suggested sending a nomination letter to the CMD of BEML to nominate a new chairman for the MED 07 committee. The Member Secretary also requested that an interim chairperson be nominated for the committee work while awaiting a response from the CMD of BEML. Finally, the committee decided that Shri D B Naik, Dy Director Gen (Mech), Directorate General of Mines Safety, Dhanbad would be the committee's chairman until the new nomination is received from the BEML.

0.1 Opening Remark by Chairman Sir

Shri D B Naik, Deputy Director General (Mechanical), Directorate General of Mines Safety, Dhanbad, warmly welcomed all the committee members to the meeting and requested expedited completion of pending works.

ITEM 1 CONFIRMATION OF THE MINUTES OF THE LAST MEETING

The minutes of the 33rd Meeting of Earth Moving Equipment and Material Handling Sectional Committee, MED 07, held on **26 September 2023** through WebEx were circulated to committee members.

The committee has formally confirmed the Minutes of the Meeting.

ITEM 2 REFORMS IN THE PROCESS OF STANDARDISATION

The committee noted the information as given in the agenda.

ITEM 3 THE ROLLING ANNUAL ACTION PLAN FOR THE YEAR 2024-25

<https://docs.google.com/spreadsheets/d/16-w-ywrG2WiN-v8L9gN2EdwrrtPYFe9S/edit?usp=sharing&ouid=102415239412149424689&rtpof=true&sd=true>

The committee noted the information as given in the agenda further Shri Reji Josh M/s Caterpillar has added NWIP “Mechanical Head to tail collision protection device” in the rolling action plane.

ITEM 4 ACTIONS ARISING OUT OF THE MINUTES OF THE 33rd MEETING

4.1 The summary of actions taken on the minutes of the 33rd Meeting of **Earth Moving Equipment and Material Handling Sectional Committee, MED 07** and present status are given below:

Sl No	Item *	Action taken on decisions of 32nd Meeting	Decisions taken during the 33rd Meeting	Action taken on decisions of 33rd Meeting	Decisions taken during the 34 th Meeting
1	2.1 (1)	<p>The amendment document is in the final printing stage. The final copy of the amendment is attached below for reference:</p> <p><u>IS ISO 17055 (Part 6) 2021.pdf</u></p> <p>Approval is awaited from the MEDC chairman.</p> <p>Also, Comment received Dated 21 sept 2023 From Komatsu Ltd</p> <p><u>IS17055-6 Comment from KIPL.docx</u></p>	<p>The committee has discussed the comments received from Komatsu India Private Limited. The committee has found that the comments received were only editorial and the committee has approved the editorial changes in the Cl. 4.2 in standards IS 17055: Part 6-2021. No other changes are required in the standard.</p>	<p>Amendment on IS 17055 (Part 6): 2021 has been published as given below:</p> <p><u>17055_6A1.pdf</u></p>	<p>The committee noted the information as given in the agenda.</p>

2	<p>2.1 (2)</p>	<p>A recommendation from the panel is still awaited.</p> <p>The committee may please discuss and decide on this matter.</p>	<p>The committee has once again requested Shri Reji Jose to provide his recommendation on the topic. Shri Reji Jose has agreed to submit his suggestions at the earliest.</p>	<p>A recommendation from the panel is still awaited.</p> <p>The committee may discuss and decide on this matter.</p>	<p>The committee has decided to update the panel as below and requested the panel to conduct a meeting and submit their recommendation in the next committee meeting;</p> <ol style="list-style-type: none"> 1. Shri K. Reji Jose, M/S Caterpillar India Private Limited, Chennai (Convenor) 2. Shri V R Sai Prasad Polipalli, M/S Volvo Construction Equipments India Private Limited, Bengaluru 3. Shri Karthik Kaliappan, M/S John Deere India Private Limited, Mumbai 4. Shri Vikrant Sharma, M/S Komatsu India Private Limited, Bengaluru 5. Shri S. Jagadeswara Rao, M/S National Mineral Development Corporation, Hyderabad 6. One member from Coal India (Shri D. B. Naik agreed to provide contact details and will help to get a nomination from Coal India.)
3	<p>5</p>	<p>The standards related to earth-moving machinery and material handling equipment have been separated and assigned different ITEM numbers in this agenda to facilitate timely review and revision.</p> <p>Also, various branch offices of BIS have been tasked with notifying</p>	<p>The committee has taken note of the information and suggested reaching out to established material handling companies such as L&T, AECOM, Elecon Engineering Company, and others to participate in the committee's efforts to formulate and revise standards in the field of</p>	<p>The input from the panel is still awaited.</p> <p>Also, during the recent Mechanical Engineering Division (MED) council meeting, a proposal was made to create a new committee that would encompass all</p>	<p>The committee has discussed the matter in detail. Based on the suggestions received from MEDC, the MED 07 committee has decided to form a panel. The panel will review the suggestions of the MEDC, examine all the material handling standards, and submit their recommendations after</p>

		<p>manufacturers and experts in the material handling field. Members of MED 07 are also encouraged to inform experts from various fields.</p> <p>The committee may please discuss and decide.</p>	<p>material handling.</p> <p>Also, the committee has identified some existing experts in MED 07 i.e.</p> <ul style="list-style-type: none"> ● Mr. Anjan Kr. Maiti (Mumbai Port Authority) ● Mr. Sudarshan Prasad (CMPDI) ● Mr. Aravind Das (Heavy Engineering, Ranchi) ● Mr. D Bhaskaran (Caterpillar) <p>The committee decided to recirculate the standards for material handling among the above members and make further decisions based on their recommendations.</p>	<p>material handling standards from various MED committees. The council has decided that MED 07 and other committees will discuss within its committee and determine whether its standards can be combined with those of other committees such as MED 06, MED 07, MED 18, etc.</p> <p>PoW of MED is attached for the committee's reference.</p> <p><u>MED Programme of Work.pdf</u></p> <p>The committee may please discuss and decide.</p>	<p>conducting a panel meeting.</p> <p>The details of the panel are as below;</p> <ul style="list-style-type: none"> ● Mr. Anjan Kr. Maiti (Mumbai Port Authority) (Convenor) ● Mr. Sudarshan Prasad (CMPDI) ● Mr. Aravind Das (Heavy Engineering, Ranchi) ● Mr. D Bhaskaran (Caterpillar) ● Shri L. A. Kumaraswamidhas (ISM Dhanbad) ● Shri Shubham Yadav (Member secretary BIS)
4		<p>The committee has formulated the following panel for the project:</p> <ol style="list-style-type: none"> 1) Shri K. Reji Jose from Caterpillar India Private Limited (Manufacturer) 2) One member from Komatsu India Private Limited, Bengaluru (Manufacturer) 3) Shri V. Sekar from BEML, Limited (Manufacturer) 4) Shri. D.B. Naik from DGMS (Regulatory body) 5) Shri S. Jagadeswara Rao from 	<p>The committee has requested that the panel initiate some initial work on the subject and submit their findings to the committee so that the development of the standard can begin.</p>	<p>A Term of Reference has been prepared for the subject and attached below for committee review;</p> <p><u>ToR of Mechanical Anti Collision Sysytem June.docx</u></p> <p>The committee is requested to suggest any necessary corrections so that it can be submitted to the Review Committee for R&D approval.</p>	<p>The committee has reviewed the terms of reference (ToR) prepared by the member secretary and suggested that initially, the ToR should be more focused on preventing head-on collisions involving dumpers, rather than being a generic guideline for all machinery.</p> <p>The committee has formed a new panel as below;</p> <ol style="list-style-type: none"> 1. Shri K. Reji Jose from Caterpillar India Private Limited (Convener)

		<p>NMDC (User) 6) Shri Chandra Shekhar from CCL (User)</p>			<p>2. Shri Jayakumar C. M/s Komatsu India Private Limited, Bengaluru(Manufacturer) 3. One member from BEML, Limited (Manufacturer) 4. Shri. D.B. Naik from DGMS (Regulatory body) 5. Shri S. Jagadeswara Rao from NMDC (User) 6. Shri Chandra Shekhar from CCL (User) 7. Shri Shubham Yadav (Member secretary BIS)</p> <p>The panel will review and update the Terms of Reference (ToR) based on the suggestions received from the committee and submit the recommendations at the next committee meeting.</p>
5.		New Agenda Point	New Agenda Point	<p>The email has been circulated to all the committee members for their comments on the revision of IS/ISO 12509:2004.</p> <p>Email;</p> <p><u>Adoption of the revision of IS: ISO 12509-2004.pdf</u></p> <p>National Forward;</p> <p><u>National Foreward IS 12509.pdf</u></p>	<p>The committee noted the information and agreed to wide circulate the document for 30 days. If no comments are received, then it will be further processed for printing.</p>

				<p>Revised ISO 12509:2023</p> <p><u>ISO 12509 2023 .pdf</u></p> <p>No comments have been received on the draft.</p> <p>The committee may decide to wide circulate the draft for 30 days. If no comments are received, then it can be further processed for printing.</p>	
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*The Item number refers to the proceedings of the last Meeting of **MED 07**.

ITEM 5 COMPOSITION OF THE SECTIONAL COMMITTEE

5.1 The committee suggested that the member secretary send a co-option request to Coal India Ltd. Shri D.B. Naik M/s DGMS, Dhanbad agreed to provide the contact details of the organization.

5.2 The committee has noted that, as per the directive of the Director General of BIS, 14 members have been removed from the committee due to inactive participation, and termination letters have been sent. Additionally, the committee has decided to send fresh nominations to the following organizations due to their expertise in their respective fields:

- i) Airports Authority of India, New Delhi
- ii) Department of Heavy Industry, Ministry of Heavy Industries & Public Enterprises
- iii) National Thermal Power Corpn. Ltd, New Delhi
- iv) M/s. Escorts Construction Equipment Limited, Faridabad (Shri Shri K. V Krishnamurthy and Shri Karthik Kaliappan will help to get the nomination)
- v) M/s. Mahindra Construction Equipment, Chakan (Shri Reji Jose will help to get the nomination)
- vi) L&T Limited, Bengaluru
- vii) Tata Hitachi Construction Machinery Co. Pvt Ltd, Kharagpur- (Shri Karthik Kaliappan will help to get the nominations)

5.3 The committee noted the information as given in the agenda.

5.4 The committee accepted the co-option request of Ms. CHRISTINA EBENEZER, from Caterpillar India Engineering Solution Private Limited as YP/alternate member in the MED 07 committee.

5.5 The committee noted the information as given in the agenda.

ITEM 6

6.1 Documents in WC-Stage

6.1.1 Earth Moving Machinery

Sl No	Document No./IS No.	IS Title	Document Type	Document Stage	Remarks
1.	IS 10856: 1993/ ISO 6484 1986	Earth Moving Machinery Elevating Scrapers Volumetric Ratings	MED/07/19 317	Revision	Project-Approval
2.	IS/ISO 6165: 2012	Earth Moving Machinery Basic Types Identification and Vocabulary	MED/07/21 833	Revision	WC-Draft
3.	New	Earth-Moving Machinery Coupling of Attachments to Skid Steer Loaders (Identical To ISO 24410:2020)	MED/07/23 240	New	WC-Draft
4.	New	Earth-Moving Machinery Operator Enclosure Environment Part 6: Determination of Effect of Solar Heating (Identical To: ISO 10263-6:2009)	MED/07/23 270	New	WC-Draft
5.	New	Earth-Moving Machinery Functional Safety Part 2: Design and Evaluation of Hardware and Architecture Requirements for Safety-Related Parts of The Control System (Identical To ISO 19014-2:2022)	MED/07/23 270	New	WC-Draft
6.	New	Earth-Moving Machinery Collision Warning and Avoidance Part 1: General Requirements (Identical To ISO 21815-1: 2022)	MED/07/23 268	New	WC-Draft
7.	New	Earth-Moving Machinery Functional Safety Part 5: Tables of Performance Levels (Identical To: ISO 19014-5:2021)	MED/07/23 239	New	WC-Draft
8.	New	Earth-Moving Machinery Functional Safety Part 4: Design and Evaluation of Software and Data Transmission for Safety-Related Parts of the Control System	MED/07/23 269	New	WC-Draft

The committee has decided that the documents listed from Sr. No. 2 to 8 in the table above should be sent for printing, as these documents have already completed their wide circulation period.

For item number 1, the committee has decided that since it is an ISO-adopted standard with dual numbering and there are no changes to the ISO base standard, the standard should only be reaffirmed and the document should be dropped from wide circulation.

6.1.2 Material Handling

Sl No.	Document No./IS No.	Is Title	Document Type	Document Stage	Remarks
9.	MED/07/19316 IS 10678: 1983	DATASHEET FOR DESIGN SELECTION OF VACUUM PRODUCER	Revision	WC-Draft	
10	MED/07/19314 IS 10463: Part 6: 1983	GLOSSARY OF TERMS FOR BULK HANDLING EQUIPMENT PART 6 CYCLIC LOOSE BULK HANDLING EQUIPMENT NON-STATIONARY	Revision	WC-Draft	
11	MED/07/21449 IS 11738: Part 2: 1993	BULK HANDLING EQUIPMENT CRAWLER TRACTORS DATA SHEET PART 2 INFORMATION TO BE SUPPLIED BY MANUFACTURERSUPPLIER (<i>Second Revision</i>)	Revision	WC-Draft	
12	MED/07/21122 IS 14418: 1996	BULK HANDLING EQUIPMENT SHIP LOADER RAIL MOUNTED DESIGN MANUFACTURE AND ERECTION CODE OF PRACTICE	Revision	WC-Draft	
13	MED/07/19315 IS 10463: Part 2: 1985	GLOSSARY OF TERMS FOR BULK HANDLING EQUIPMENT PART 2 STACKING LOADING AND RECLAIMING EQUIPMENT	Revision	WC-Draft	
14	MED/07/23240 (Identical To ISO 24410:2020)	EARTH-MOVING MACHINERY COUPLING OF ATTACHMENTS TO SKID STEER LOADERS	New	WC-Draft	
15	MED/07/21445 IS 12137: 1987	GENERAL REQUIREMENTS OF WAGON PULLER/PUSHER First Revision	Revision	WC-Draft	
16	MED/07/21447 IS 11738: Part 1: 1993	BULK HANDLING EQUIPMENT CRAWLER TRACTORS DATA SHEET PART 1 INFORMATION TO BE SUPPLIED BY PURCHASER (<i>Second Revision</i>)	Revision	WC-Draft	
17	MED/07/21121	BULK HANDLING	Revision	WC-Draft	

	IS 13113: 1991	EQUIPMENT WAGON MARSHALLING EQUIPMENT ENDLESS ROPE TYPE DATASHEET			
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The committee has decided to reconstitute the following panel;

1. Mr. Anjan Kr. Maiti (Mumbai Port Authority), (**Conveyor**)
2. Mr. Sudarshan Prasad (CMPDI)
3. Mr. Aravind Das (Heavy Engineering, Ranchi)
4. Mr. D. Bhaskaran (Caterpillar)
5. Mr. L. A. Kumaraswamidhas (IIT Dhanbad)
6. Mr. Shubham Yadav (Member secretary, BIS)

The committee has decided that the panel will conduct a final review and provide any necessary comments. Following their review, the committee will proceed with the printing of these standards in the upcoming committee meeting.

The committee has also requested the member secretary to review all the documents in wide circulation. If any standards are being circulated widely, other than the ones listed above, they should be reviewed by the two panels formulated in Item 6.1.1 or 6.1.2 whichever is suitable.

6.2 Documents in Printing-Stage

Sl No.	IS No.	IS Title	Document No.	Document Type	Document Stage	Remarks
1.	Nil					

The committee noted the information as given in the agenda.

ITEM 7 REVIEW AND REAFFIRMATION OF INDIAN STANDARDS

7.1 Review of Pre-2000 Standards

As per the directions of the competent authority of BIS, it has been decided to take up the review and revision of Pre-2000 standards, The Pre-2000 standards of MED 07 are as follows, for committee consideration.

7.1.1 Review of Earth-Moving Machinery

Sl No.	IS Number	IS Title	Status	Remarks
1.	IS 10689: 1993/ ISO 2860: 1992	Earth-moving machinery — Minimum access dimensions (<i>first revision</i>)	Review document circulated to members	
2.	IS 10859: 1993/ ISO 6483:1980	Earth-moving machinery — Dumper bodies — volumetric ratings (<i>first revision</i>)	Decision taken to Reaffirm	
3.	IS 11249: 1985	Datasheet for selection of front-end loaders	Decision taken to Reaffirm and Revise	
4.	IS 12140: 1987	Datasheet for selection of dumpers	Decision taken to Reaffirm and Revise	
5.	IS 12209: 1993/ ISO 7130:1981	Earth-moving machinery — Guide to the procedure for operator training (<i>first revision</i>)	Review document circulated to members	
6.	IS 12645: 1993	Earth-moving machinery — Crawler and wheel tractor dozer blades — volumetric ratings (<i>first revision</i>)	Review document circulated to members	
7.	IS 13081: 1991	Earth-moving machinery — Symbols — Guidelines for development and evaluation	Under Process [Phase-1 Review Document (Draft)]	
8.	IS 13253: 1992/ ISO 8925:1989	Earth-moving machinery — Diagnostic ports	Decision taken to Reaffirm	

The committee decided to reconstitute the panel with the following members to review the pre-2000 standards mentioned above from Sr. No. 1 to 8 and submit their recommendations in the next technical committee meeting:

1. Shri V. Bhaskaran, Caterpillar India Private Limited, Chennai
2. Shri K. Reji Jose, Caterpillar India Private Limited, Chennai
3. Shri Vikrant Sharma, Komatsu India Private Limited, Bengaluru
4. Shri Vivek Rawat, JCB India Limited, New Delhi
5. Shri Karthik Kaliappan, John Deere India Private Limited, Mumbai
6. Representation from Tata Steel and Coal India
7. Shri Shubham Yadav (Member Secretary, BIS)

7.1.2 Review of Material Handling

Sl No.	IS Number	IS Title	Status	Remarks
9.	IS 10506: 1996	Trolley for carrying jute bales — Specification (<i>first revision</i>)	Review document circulated to members	
10.	IS 11496: 1985	General and performance test requirements of a pallet truck and stillage truck	Review document circulated to members	
11.	IS 12359: 1988	Guide for selection of wheels and castors	Review document	

			circulated to members	
12.	IS 12402 (Part 1): 1988	Mobile containers for solid waste: Part 1 General characteristics	Under Process [Phase-1 Review Document (Draft)]	
13.	IS 12402 (Part 2): 1988	Mobile containers for solid waste: Part 2 Methods of test	Under Process [Phase-1 Review Document (Draft)]	
14.	IS 13065: 1991	Bulk handling equipment — Wagon marshalling equipment — Endless rope type — General requirements	Under Process [Phase-1 Review Document (Draft)]	
15.	IS 13076: 1991	Hand trolley for carrying mail bags — Specification	Decision taken to Reaffirm and Revise	
16.	IS 13082 (Part 1): 1991	Bulk handling equipment — Ship unloader — Gantry mounted grab type — Code of practice for design, manufacture and erection: Part 1 Mechanical and structural requirements	Review document circulated to members	
17.	IS 13082 (Part 2): 1991	Bulk handling equipment — Ship unloader — Gantry mounted grab type — Code of practice for design, manufacture and erection: Part 2 Electromechanical requirements	Review document circulated to members	
18.	IS 13082 (Part 3): 1991	Bulk handling equipment — Ship unloader — Gantry mounted grab type — Code of practice for design, manufacture and erection: Part 3 Information to be supplied by the purchaser and the manufacturer	Review document circulated to members	
19.	IS 13148 (Part 1): 1999	Mobile equipment for continuous handling of bulk materials: Part 1 Rules for the design of steel structure (<i>first revision</i>)	Decision taken to Reaffirm	
20.	IS 13652: 1993	Bulk handling equipment — Dumper supplier's datasheet	Decision taken to Reaffirm and Revise	
21.	IS 13685 (Part 1): 1993	Bulk handling equipment — Ship loader — Rail mounted — Datasheet for selection: Part 1 Information to be supplied by purchaser	Decision taken to Reaffirm and Revise	
22.	IS 13685 (Part 2): 1993	Bulk handling equipment — Ship loader — Rail mounted data sheet for selection: Part 2 Information to be supplied by manufacturer/supplier	Decision taken to Reaffirm and Revise	
23.	IS 13936: 1994	Bulk handling equipment — Wheeled loaders — General requirements	Decision taken to Reaffirm and Revise	
24.	IS 13951: 1994	Heavy item lift platform for aircraft/airport operations — General requirements	Review document circulated to members	

25.	IS 13989: 1994	Bulk handling equipment — Bagging machines (mechanical type) — Design and construction — General requirements	Decision taken to Reaffirm and Revise	
26.	IS 13992: 1994	Bulk handling equipment — Bagging machines (electronic type) — Design and construction — General requirements	Decision taken to Reaffirm and Revise	
27.	IS 14416: 1996	Bulk handling equipment — Boom type bucket wheel reclaimer — Rail mounted — Design, manufacture and erection — Code of practice	Review document circulated to members	
28.	IS 14417: 1996	Bulk handling equipment — Single boom slewable stacker — Rail mounted — Design, manufacture and erection — Code of practice	Review document circulated to members	

The committee has decided to reconstitute the panel as below and the panel will review the pre-2000 standards of material handling, specifically from Sr. No. 9 to 28,

1. Mr. Anjan Kr. Maiti (Mumbai Port Authority)
2. Mr. Sudarshan Prasad (CMPDI)
3. Mr. Aravind Das (Heavy Engineering, Ranchi)
4. Mr. D. Bhaskaran (Caterpillar)
5. Mr. L. A. Kumaraswamidhas (IIT Dhanbad)
6. Mr. Shubham Yadav (Member secretary, BIS)

These experts will review these pre-2000 standards and provide any necessary comments to revise these standards. Following their review, the committee will proceed with the wide circulation of these standards in the upcoming committee meeting.

7.2 Withdrawal of IS Standards

The committee noted the information as given in the agenda.

7.3 Decision on the IS standards pending review in the previous years (Title updated)

7.3.1 Earth Moving Machinery Standards

Sl No	IS Number	IS Title	Status	Remarks	Status
1.	IS 11249: 1985	Datasheet for selection of front-end loaders	Review document circulated to members	Reaffirmed in March 2023	Reaffirmati on and Revision
2.	IS 12140: 1987	Datasheet for selection of dumpers	Review document circulated to members	Reaffirmed in March 2023	Reaffirmati on and Revision

The committee approve to wide circulation of the above revision standards.

7.3.2 Material Handling Equipment Standards

SI No.	IS Number	IS Title	Status	Remarks
3	IS 13076: 1991	Hand trolley for carrying mail bags - Specification	Review document circulated to members	PRE-2000 LIST(Item 7.1.2)
4	IS 13652: 1993	Bulk Handling Equipment - Dumper - Supplier's Data Sheet	Review document circulated to members	PRE-2000 LIST(Item 7.1.2)
5	IS 13685 (Part 1): 1993	Bulk handling equipment - Ship loader - Rail mounted - Datasheet for selection: Part 1 information to be supplied by purchaser	Review document circulated to members	PRE-2000 LIST(Item 7.1.2)
6	IS 13685 (Part 2): 1993	Bulk handling equipment - Ship loader - Rail mounted data sheet for selection: Part 2 information to be supplied by manufacturer/supplier	Review document circulated to members	PRE-2000 LIST(Item 7.1.2)
7	IS 13936: 1994	Bulk handling equipment - Wheeled loaders - General requirements	Review document circulated to members	PRE-2000 LIST(Item 7.1.2)
8	IS 13989: 1994	Bulk handling equipment - Bagging machines (Mechanical Type) - Design and construction - General requirements	Review document circulated to members	PRE-2000 LIST(Item 7.1.2)
9	IS 13992: 1994	Bulk handling equipment - Bagging machines (Electronic Type) - Design and construction - General requirements	Review document circulated to members	PRE-2000 LIST(Item 7.1.2)
10	IS 10463 (Part 2): 1985	Glossary of terms for bulk handling equipment: Part 2 stacking, loading and reclaiming equipment	Review document circulated to members again last date 22.03	Under WC - Doc. No. 19315 (Item 6.1.2)
11	IS 10463 (Part 6): 1983	Glossary of terms for bulk handling equipment: Part 6 cyclic loose bulk handling equipment (Non - Stationary)	Review document circulated to members again last date 22.03	Under WC - Doc. No. 19314 (Item 6.1.2)

12	IS 10678: 1983	Datasheet for design and selection of vacuum producer	Review document circulated to members again last date 22.03	Under WC)- Doc. No. 19316 (Item 6.1.2)
13	IS 11738 (Part 1): 1993	Bulk handling equipment - Crawler tractors - Datasheet: Part 1 information to be supplied by purchaser (First Revision)	Review document circulated to members again last date 22.03	Under WC- Doc. No. 21447 (Item 6.1.2)
14	IS 11738 (Part 2): 1993	Bulk handling equipment - Crawler tractors - Datasheet: Part 2 information to be supplied by manufacturer/supplier (First Revision)	Review document circulated to members again last date 29.03	Under WC- Doc. No. 21449 (Item 6.1.2)
15	IS 12137: 1987	General requirements of wagon puller/pusher	Review document circulated to members again last date 29.03	Under WC- Doc. No. 21445 (Item 6.1.2)
16	IS 14704: 1999	Bulk handling equipment - Bag stacker - Cum - Loader/unloader - Portable - Design and Construction - General requirements	Decision taken to Revise	Under WC-Doc. No. 20952 (Item 6.1.2)

The committee noted the information that the above-mentioned standards in the table are already being discussed in the earlier agenda points.

7.4 Revision of standards for 2024-2025

Sl No.	IS No	Title	Due Date	Status
1	IS 11113: 1999 ISO 5353:1995	Earth-moving machinery, and tractors and machinery for agriculture and forestry - Seat index point (second revision)	March 2025	No changes in ISO standard.
2	IS 12645: 1993 ISO 9246:1988	Earth - Moving machinery - Crawler and wheel tractor dozer blades - Volumetric ratings (First Revision)	March 2025	No changes in ISO standard.
3	IS/ISO 10968: 2020	Earth-Moving Machinery - Operator's Controls (First Revision)	March 2025	No changes in ISO standard.

4	IS/ISO 7135: 2009	Earth - Moving machinery - Hydraulic excavators - Terminology and commercial specifications	March 2025	No changes in ISO standard.
5	IS 16479: 2020	Performance Requirements and Test Procedures of Braking Systems for Wheeled or High-Speed Rubber Tracked Earth Moving Machines and Construction Equipment Vehicles (First Revision)	March 2025	
6	IS/ISO 7096: 2020	Earth-Moving Machinery — Laboratory Evaluation of Operator Seat Vibration (First Revision)	March, 2025	No changes in ISO standard.
7	IS 17055 (Part 11): 2020	Earth-Moving Machinery — Safety Part 11 Requirements for Earth and Landfill Compactors (Second Revision)	March, 2025	
8	IS 17055 (Part 8) : 2020	Earth-Moving Machinery — Safety Part 8 Requirements For Graders (Second Revision)	March, 2025	
9	IS 17055 (Part 9): 2020	Earth-Moving Machinery — Safety Part 9 Requirements for Pipelayers (Second Revision)	March, 2025	
10	IS 17055 (Part 10): 2020	Earth-Moving Machinery — Safety Part 10 Requirements for Trenchers (Second Revision)	March, 2025	
11	IS 17055 (Part 12): 2020	Earth-Moving Machinery — Safety Part 12 Requirements for Cable Excavators (Second Revision)	March, 2025	
12	IS 17055 (Part 13): 2020	Earth-Moving Machinery — Safety Part 13 Requirements for Rollers (Second Revision)	March, 2025	
13	IS 17055 (Part 4): 2020	Earth-Moving Machinery — Safety Part 4 Requirements for Backhoe Loaders (Second Revision)	March, 2025	
14	IS 17055 (Part 7): 2020	Earth-Moving Machinery — Safety Part 7 Requirements for Scrapers (Second Revision)	March, 2025	
15	IS 17055 (Part 2): 2020	Earth-Moving Machinery - Safety Part 2 Requirements for Tractor Dozers (second revision)	March, 2025	
16	IS/ISO 13766-1: 2018	Earth-Moving and Building Construction Machinery - Electromagnetic Compatibility	October, 2024	No changes in

		(EMC) of Machines with Internal Electrical Power Supply Part 1 General EMC Requirements Under Typical Electromagnetic Environmental Conditions		ISO standard.
17	IS/ISO 13766-2: 2018	Earth-Moving and Building Construction Machinery - Electromagnetic Compatibility (EMC) of Machines with Internal Electrical Power Supply Part 2 Additional EMC Requirements for Functional Safety	October, 2024	No changes in ISO standard.
18	IS/ISO 19014-1: 2018	Earth-Moving Machinery - Functional Safety Part 1 Methodology to Determine Safety-related Parts of the Control System and Performance Requirements	October, 2024	No changes in ISO standard.
19	IS/ISO 19014-3: 2018	Earth-Moving Machinery - Functional Safety Part 3 Environmental Performance and Test Requirements of Electronic and Electrical Components Used in Safety-Related Parts of the Control System	October, 2024	No changes in ISO standard.
20	IS 17055 (Part 15): 2020	Earth-Moving Machinery " Safety Part 15 Requirements for Compact Tool Carriers	March, 2025	
21	IS/ISO 4250-3: 2020	Earth mover tyres and rims- Part 3: Rims Adoption of ISO 4250 Part 3:2020 First Revision	March, 2025	No changes in ISO standard.



The committee decided to create a panel with the following members to revise of standards for 2023-2024 mentioned above from Sr. No. 1 to 21 and submit their recommendations in the next technical meeting:





1. Shri V. Bhaskaran, Caterpillar India Private Limited, Chennai,
2. Shri K. Reji Jose, Caterpillar India Private Limited, Chennai,
3. Shri Vikrant Sharma, Komatsu India Private Limited, Bengaluru,
4. Shri Vivek Rawat, JCB India Limited, New Delhi
5. Shri Karthik Kaliappan, John Deere India Private Limited, Mumbai
6. Representation from Tata Steel and Coal India
7. Shri Shubham Yadav (Member Secretary, BIS)

ITEM 8 COMMENTS ON INDIAN STANDARDS

8.1 WC Draft Comments

Sl No.	Comment ID	Document No.	Title of document	Commenter	Comment Date	No. of comments			View Comments
						Total	Open	Closed	
1.	MED_20	MED 07	Bulk Handling	Shri K.	09-01-	1	1	0	Comment-

	23-01-097912	(21449)	Equipment Crawler Tractors Data Sheet Part 2 Information To Be Supplied By Manufacturer Supplier (<i>Second Revision</i>)	Reji Jose	2023				MED_2023-01-097912.pdf
2.	MED_2023-01-094221	MED 07 (21449)	Bulk Handling Equipment Crawler Tractors Data Sheet Part 2 Information To Be Supplied By Manufacturer Supplier (<i>Second Revision</i>)	Shri K. Reji Jose	09-01-2023	1	1	0	Comment-MED_2023-01-094221.pdf
3.	MED_2023-01-097021	MED 07 (21447)	Bulk Handling Equipment Crawler Tractors Data Sheet Part 1 Information To Be Supplied By Purchaser (<i>Second Revision</i>)	Shri K. Reji Jose	09-01-2023	1	1	0	Comment-MED_2023-01-097021.pdf
4.	MED_2021-03-031122	MED 07 (17045)	Earth - Moving Machinery - Safety Part 6 Requirements for Dumpers (<i>Second Revision</i>) Amendment - 1	Shri K. Reji Jose	03-03-2021	1	1	0	Comment-MED_2021-03-031122.pdf
5.	MED_2024-03-207898	MED 7(24667)	EARTH-MOVING MACHINERY OPERATOR ENCLOSURE ENVIRONMENT PART 5 WINDSCREEN DEFROSTING SYSTEM TEST METHOD Adoption of ISO 10263-5	Shri Karthik Kaliappan	20-03-2024	1	0	1	 24667.pdf
6.	MED_2024-03-209496	MED 7(24667)	EARTH-MOVING MACHINERY OPERATOR ENCLOSURE ENVIRONMENT PART 5 WINDSCREEN DEFROSTING SYSTEM TEST	Shri Karthik Kaliappan	20-03-2024	1	0	1	 24667.pdf

			METHOD Adoption of ISO 10263-5						
7.	MED_20 24-03- 207177	MED 7(24665)	EARTH-MOVING MACHINERY OPERATOR ENCLOSURE ENVIRONMENT PART 1 TERMS AND DEFINITIONS (Adoption of ISO 10263-1)	Shri Karthik Kaliappa n	20-03- 2024	1	0	1	 24665.pdf
8.	MED_20 24-03- 201791	MED 7(23270)	EARTH-MOVING MACHINERY OPERATOR ENCLOSURE ENVIRONMENT PART 6: DETERMINATION OF THE EFFECT OF SOLAR HEATING	Shri Karthik Kaliappa n	20-03- 2024	1	0	1	 23270.pdf
9.	MED_20 24-03- 205576	MED 7(23269)	EARTH-MOVING MACHINERY FUNCTIONAL SAFETY PART 4: DESIGN AND EVALUATION OF SOFTWARE AND DATA TRANSMISSION FOR SAFETY- RELATED PARTS OF THE CONTROL SYSTEM	Shri Karthik Kaliappa n	20-03- 2024	1	0	1	 23269.pdf
10.	MED_20 24-03- 204511	MED 7(23268)	EARTH-MOVING MACHINERY COLLISION WARNING AND AVOIDANCE PART 1: GENERAL REQUIREMENTS	Shri Karthik Kaliappa n	20-03- 2024	1	0	1	 23268.pdf

The committee decide that the above comments should be discussed in separate panel meeting and the recommendations should be submitted in the next committee meeting. The composition of the panel is as follows;

1. Shri V. Bhaskaran, Caterpillar India Private Limited, Chennai,

2. Shri K. Reji Jose, Caterpillar India Private Limited, Chennai,
3. Shri Vikrant Sharma, Komatsu India Private Limited, Bengaluru,
4. Shri Vivek Rawat, JCB India Limited, New Delhi
5. Shri Karthik Kaliappan, John Deere India Private Limited, Mumbai
6. Representation from Tata Steel and Coal India
7. Shri Shubham Yadav (Member Secretary, BIS)

ITEM 8.2 Archiving of the Standards

The following standards have been identified for archiving. The committee may please discuss and decide;

Sr. No.	IS Number	IS Title	Last Reaffirmation/Revision Year	Due for Review (Put last date of the month i.e 31 December 2025)	Reason of Archiving	Remarks
1	IS 4616 : 1968	Specification for sheepsfoot roller	2022	31-Mar-2027		License : 0
2	IS 10689 : 1993 ISO 2860:1992	Earth moving machinery - Minimum access dimensions (first revision)	2021	28-Feb-2026		License : 0
3	IS 11249 : 1985	Data sheet for selection of front end loaders	2023	31-Mar-2028		License : 0
4	IS 11496 : 1985	General and performance test requirements of pallet truck and stillage truck	2022	31-Mar-2027		License : 0
5	IS 12140 : 1987	Data sheet for selection of dumpers	2023	31-Mar-2028		License : 0
6	IS 12645 : 1993 ISO 9246:1988	Earth - Moving machinery - Crawler and wheel tractor dozer blades - Volumetric ratings (first revision)	2020	31-Mar-2025		License : 0
7	IS 13076 : 1991	Hand trolley for carrying mail bags - Specification	2023	31-Mar-2028		License : 0
8	IS 13081 : 1991	Earth moving machinery - Symbols - Guidelines for	2022	31-Mar-2027		License : 0

		development and evaluation				
9	IS 13652 : 1993	Bulk Handling Equipment - Dumper - Supplier's Data Sheet	2023	31-Mar-2028		License : 0
10	IS 13685 (Part 1) : 1993	Bulk handling equipment - Ship loader - Rail mounted - Data sheet for selection: Part 1 information to be supplied by purchaser	2023	31-Mar-2028		License : 0
11	IS 13685 (Part 2) : 1993	Bulk handling equipment - Ship loader - Rail mounted data sheet for selection: Part 2 information to be supplied by manufacturer/supplier	2023	31-Mar-2028		License : 0
12	IS 14417 : 1996	Bulk handling equipment - Single boom slewable stacker - Rail mounted - Design, manufacture and erection - Code of practice	2022	31-Mar-2027		License : 0
13	IS 10506 : 1996	Trolley for carrying jute bales - Specification (First Revision)	2022	31-Mar-2027		License : 0
14	IS 12359 : 1988	Guide for selection of wheels and castors	2022	31-Mar-2027		License : 0
15	IS 13951 : 1994	Heavy item lift platform for aircraft/airport operations - General requirements	2022	31-Mar-2027		License : 0
16	IS 13989 : 1994	Bulk handling equipment - Bagging machines (Mechanical Type) - Design and construction - General requirements	2023	31-Mar-2028		License : 0
17	IS 13992: 1994	Bulk handling equipment - Bagging machines (Electronic Type) - Design and construction - General requirements	2023	31-Mar-2028		License : 0

18	IS 14416: 1996	Bulk handling equipment - Boom type bucket wheel reclaimer - Rail mounted - Design, manufacture and erection - Code of practice	2022	31-Mar-2027		License : 0
19	IS 10303: 1993	Earthmoving machinery - Preservation and storage (First Revision)	2022	31-Dec-2027		License : 0

The committee has advised the member secretary to review the list above and determine if any revisions have been made to these standards or if draft revisions are available. The committee will make further decisions in the next meeting after the recommendations of the member secretary.

ITEM 9 SELECTIONS OF SUBJECTS

The Committee noted the information as given in the agenda.

ITEM 10 PROGRAMME OF WORK

10.1 The Committee noted the information as given in the agenda.

10.2 The Committee noted the information as given in the agenda.

ITEM 11 INTERNATIONAL ACTIVITIES

11.1 The Committee noted the information as given in the agenda.

11.2 The Committee noted the information as given in the agenda.

11.3 The Committee noted the information as given in the agenda.

ITEM 12 BIS COMMITTEES OF THE YEAR AWARDS

The Committee noted the information as given in the agenda.

ITEM 13 LETTER OF APPRECIATION TO COMMITTEE MEMBERS

The Committee noted the information as given in the agenda.

ITEM 14 NATIONAL AND INTERNATIONAL LEVEL EVENTS TO BE PARTICIPATED IN

The Committee noted the information as given in the agenda.

ITEM 15 SCIENTIFIC JOURNALS AND PERIODICALS TO BE SUBSCRIBED

The Committee noted the information as given in the agenda.

ITEM 16 CREATION OF POOL OF EXPERTS

The Committee noted the information as given in the agenda.

ITEM 17 RESEARCH PROJECT TO BE TAKEN UP FOR INCLUSION OF EMPIRICAL DATA AND INSIGHTS

The Committee noted the information as given in the agenda.

ITEM 18 NEW INITIATIVES IN STANDARDIZATION

DOWNLOADING OF INDIAN STANDARDS (FREE OF COST)

The Committee noted the information as given in the agenda.

NATIONAL INSTITUTE FOR TRAINING IN STANDARDIZATION (NITS)

The Committee noted the information as given in the agenda.

BIS ACTIVITIES ON SOCIAL MEDIA

The Committee noted the information as given in the agenda.

ONE NATION ONE STANDARD

The Committee noted the information as given in the agenda.

MEMORANDUM OF UNDERSTANDING WITH EMINENT INSTITUTES

The Committee noted the information as given in the agenda.

ITEM 19 DATE AND PLACE FOR THE NEXT MEETING

The Committee has decided to plan the next meeting in physical mode with consultation of the chairperson and all committee members as per the meeting calendar approved by the committee.

ITEM 20 ANY OTHER BUSINESS

After conducting all the business, the chairman closed the meeting and expressed his heartfelt gratitude to all the members in attendance.

34th Meeting of Earth Moving Equipment and Material Handling Sectional Committee**(25-06-2024)****Present Members**

SL. NO.	ORGANIZATION REPRESENTED	NAME OF MEMBER	E-MAIL ID
1.	Directorate General of Mines Safety, Dhanbad	Shri D B Naik	dbnaik74@gmail.com
2.	Bharat Coking Coal Limited, Dhanbad	Mr. Shri Chandra Shekhar S. I. TRANSFER	srmanager.excvn@gmail.com
3.	Caterpillar India Private Limited, Chennai	Shri K. Reji Jose	josekr@gmail.com
4.		Shri V. Bhaskaran	venkataramani_bhaskaran@cat.com
5.	Directorate General of Quality Assurance, Ministry of Defence, New Delhi	Shri Raghubir Singh	cqaeandh-dgqa@nic.in
6.	Heavy Engineering Corporation Limited, Ranchi	Shri Amit Pal	amitransajeevan@gmail.com
7.	Indian Construction Equipment Manufacturers	Shri Naveen Upreti	naveen.upreti@i-cema.in

8.	Association, New Delhi	Shri K. V Krishnamurthy	techadvisor@i-cema.in
9.	Indian Institute of Technology (ISM), Dhanbad	Shri L. A. Kumaraswamidhas	lakdhas1978n@gmail.com
10.	JCB India Limited, New Delhi	Shri Alok Gandhi	alok.gandhi@jcb.com
11.	John Deere India Private Limited, Mumbai	Shri Raj Anand	rajanand@johndeere.com
12.		Shri Karthik Kaliappan	kaliappankarthik@johndeere.com
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14.		Mr. Naresh. T	naresh.t@global.komatsu
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18.		Shri Saurabh Bhatnagar	sbhatnagarncb@gmail.com

19.	MSME Delhi	Suvankar Santra	suvankar.s@dcmsme.gov.in
20.	IN PERSONAL CAPACITY	Shri G. Nagaraj Venkatesh	gnagarajvenkatesh@gmail.com

