



BUREAU OF INDIAN STANDARDS

MINUTES

<u>Name of the Committee</u>	<u>No of meeting</u>	<u>Date and Time</u>	<u>Day</u>	<u>Venue</u>
Automotive Braking and Steering Systems, Vehicle Testing and Performance Evaluation Sectional Committee, TED 4	42 nd	08th October 2024 11: 00 AM onwards	Tuesday	Physical meeting Mahindra SUV Proving Track (MSPT), Chennai

CHAIRMAN: Shri A Akbar Badusha

MEMBER SECRETARY: G Ajit Kumar

MEMBERS PRESENT:

Sl No.	Organization	Member
1.	Automotive Research Association of India, Pune	Shri A. Akbar Badusha (<i>Chairperson</i>)
2.	Ashok Leyland Limited, Chennai	Shri D. Balakrishnan
3.	Ashok Leyland Limited, Chennai	Shri N. Muthukumar
4.	Ashok Leyland Limited, Chennai	Shri V. Faustino
5.	Ather Energy Private Limited, Bengaluru	Shri Manel
6.	Ather Energy Private Limited, Bengaluru	Shri Abhijeet Shingare
7.	Ather Energy Private Limited, Bengaluru	Shri Sathish Kumar P
8.	Automotive Component Manufactures Association of India, New Delhi	Shri Ankit Dhiman
9.	Automotive Research Association of India, Pune	Shri Pranab Devarajan
10.	Bajaj Auto Limited, Pune	Shri. Parmeshwar Mane
11.	Bosch Chassis Systems India Private Limited, Pune	Shri Chaitray Shinde
12.	Bosch Chassis Systems India Private Limited, Pune	Shri Vinayak Patil
13.	Brakes India Limited, Chennai	Shri B. Ruban Deva Prasath
14.	Brakes India Limited, Chennai	Shri G. Devendran
15.	Brakes India Limited, Chennai	Shri Harish Balaji

16.	Continental Automotive Components (India) Pvt. Ltd	Shri Kamal Kishore Kakade
17.	Continental Automotive Components (India) Pvt. Ltd	Shri Raj Ganesh Manickam
18.	Daimler India Commercial Vehicles Private Limited, Chennai	Shri Rama Manikandan
19.	Federal Mogul Motorparts India Limited, Chennai	Shri Venkatesh Sankaran
20.	Global Automotive Research Centre, Oragaram	Shri S Perumal
21.	Honda Motorcycle and Scooter India Private Limited, Gurgaon	Smt. Neha Sinha
22.	India Yamaha Motor Private Limited, Noida	Shri Navneet Kaushik
23.	International Centre of Automotive Technology, Manesar	Shri Gurkaran Singh
24.	Knorr-Bremse Systems for Commercial Vehicles India Private Limited, Pune	Shri Srinivasan. K
25.	Mahindra and Mahindra Limited, Mumbai	Shri Nagendran
26.	Mahindra and Mahindra Limited, Mumbai	Shri Karuppasamy Thangaraj
27.	Mahindra and Mahindra Limited, Mumbai	Shri Akshay
28.	Mahindra and Mahindra Limited, Mumbai	Shri Sakthivelan S
29.	Mahindra and Mahindra Limited, Mumbai	Smt Pathak Pushpanjali
30.	Mahindra Trucks and Bus Division, Pune	Shri Amit Patil
31.	Mando Automotive India Pvt. Ltd, Chennai	Shri Ashok Kumar M
32.	Mando Automotive India Pvt. Ltd, Chennai	Shri S. Prakash
33.	Mando Automotive India Pvt. Ltd, Chennai	Shri Jayabal M
34.	Maruti Suzuki India Limited, Gurugram	Shri Arun Kumar
35.	National Automotive Test Tracks (NATRAX)	Shri Joyanta Kumar Chkrabarty
36.	Ola Electric	Shri Sathish Thiyagarajan
37.	Ola Electric	Shri Shivayogi B A
38.	Rane Brake Lining Limited, Chennai	Shri Balaji Srinevasan
39.	Rane Brake Lining Limited, Chennai	Shri M. Muthukumar
40.	Renault India Private Limited, Mumbai	Shri Rajendra Khile
41.	Renault India Private Limited, Mumbai	Shri Dinakaran Vijay
42.	Renault India Private Limited, Mumbai	Shri Jebin Jowhar
43.	Renault India Private Limited, Mumbai	Shri Sabarivasan Nedunchezhian
44.	Sundaram Brake Linings Limited, Chennai	Shri B. Ganesh
45.	Sundaram Brake Linings Limited, Chennai	Shri R. Balasubramanian
46.	Tata Motors Limited, Pune	Shri Uday Saunkhe
47.	Toyota Kirloskar Motor Private Limited, Bidadi	Shri Pranesh M Dharwad
48.	TVS Motor Company Limited, Hosur	Shri R. Nagarajan

ITEM 0 WELCOME AND INTRODUCTORY REMARKS

Member Secretary welcomed all the members who has attended physically for the 42nd Sectional Committee Meeting and also appreciated the contribution by members in the standardization activities of TED 04.

Shri A Akbar Badusha, Chairman, welcomed all the committee members. He appraised the members that standards dealt with by this Committee are of immense importance as they have a direct impact on the notified regulations under CMVR by MoRTH. He requested all the members to take active part in the deliberations on various issues which were discussed as per the agenda. He also requested all the members to complete the work allotted to them within stipulated time frame so that the work of TED 04 is complete as per the time line set for those activities. He further requested to decide on the ADAS related vehicle dynamics standards, which are being developed by the International experts, need to be taken by TED 04 as the best expertise on the subject lies in this group. He therefore emphasized that there should be a decision on this to start the activities as early as possible.

ITEM 1 CONFIRMATION OF THE MINUTES OF PREVIOUS MEETING

The committee approved the minutes of 41st Meeting held on 06th June 2024.

ITEM 2 COMPOSITION OF THE SECTIONAL COMMITTEE

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

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

2.3 The Committee noted the composition and decided to co-opt the following member and also decided to withdraw the nominations of the members who has not attended 40th and 41st SC meeting of TED 04 as per PNC09/18/2023-PNC-BIS dated 05/09/2023.

Sl No	Organization
1	Ola Electric
2	NATRAX

2.4 The Committee noted the information as given in the agenda

2.5 The Committee noted the information as given in the agenda

ITEM 3 PENDING ISSUES /ACTIONS ARISING OUT OF THE PREVIOUS MEETING(S)

Sl No	Subject	Status/ Decision of committee during previous meeting	Decision in previous meeting	Decision in 42 nd Meeting
1	New proposal for Amendment for standards pertains to friction materials	Decision in 39th Meeting: The responsibility for preparation of Amendments to all the standards pertaining to friction Materials is allocated to SBL and BIL.		Amendments to IS 2742 (part 1), IS 2742 (part 2), IS 2742 (part 4), IS 2742 (part 7) were published. Amendments to IS 2742 (part 3)

Sl No	Subject	Status/ Decision of committee during previous meeting	Decision in previous meeting	Decision in 42 nd Meeting
		<p>Decision in 40th Meeting: Committee decided to process the drafts for WC</p> <p>Decision in 41st Meeting: All the drafts are under WC, the committee also authorized member secretary to process the draft for publication if no further comments were received during WC.</p>		<p>and IS 2742 (part 5) were under publication.</p> <p>The committee noted the information.</p>
2	<p>Comments received from M/s. Rane Brake linings on IS 17132 Guideline Specifications for Replacement Brake Lining Assemblies and Drum Brake Linings for Power-Driven Vehicles and Their Trailers</p>			<p>The comments were enclosed in Annex 15 of agenda</p> <p>The committee deliberated and decided to form a panel under convenorship of Shri Ruban, BIL with stakeholders from brake manufacturers, relevant OEMs and trailer manufacturers.</p> <p>The committee advised ARAI to share the details of trailer manufactures with panel convenor.</p>
3	<p>Comments received on IS 11877: 2019 Automotive Vehicles — Maximum Speed of Automotive Vehicles — Method of Evaluation (First Revision)</p>			<p>The comments were enclosed in Annex 17 of agenda.</p> <p>The committee deliberated and decided to prepare the amendment and sent for WC for 30 days.</p>
4	<p>NWIP Proposals received.</p>	<ul style="list-style-type: none"> • ABS for 2 wheeled Motor cycle (ISO 12364) • Requirements of Storage Tanks of Air Braking System (ISO 11943) • Requirements of Automatic Brake Adjusters (ABA) (ISO 12409) <p>Decision in 41st Meeting:</p> <p>The committee deliberated and decided to assign ISO 12364 to M/s. Honda Motorcycles to review the standard and submit their recommendation for adoption within 30 days.</p> <p>As well as ISO 11943 and ISO 12409 were assigned to M/s. Ashok Leyland and M/s BIL to review the standard</p>		<p>For ISO 12364, HMSI had briefed the committee about review, the committee deliberated and decided not to adopt the ISO standard.</p> <p>ISO standard on automatic brake adjusters was reassigned to M/s. Knorr Bremse advised them to share their recommendation.</p> <p>Committee advised MS to share the ISO standard on storage tank of air braking system to Ashok Leyland and advised them to</p>

SI No	Subject	Status/ Decision of committee during previous meeting	Decision in previous meeting	Decision in 42 nd Meeting
		and submit their recommendation for adoption within 30 days.		share their recommendation.
5	Amendment proposal to IS 14664: 2010 automotive vehicles – performance requirements and testing procedure for braking systems of two and three wheeled motor vehicles	<p>Amendment proposal has been received from M/s. Ather Energy on IS 14664 (Please see Annex 3 of agenda).</p> <p>Comments were received from M/s. Mahindra (see Annex 4 of agenda); M/s. BIL (see Annex 5 of agenda) and Yamaha Motors (see Annex 11 of agenda)</p> <p>Decision in 41st Meeting:</p> <p>The committee deliberated and decided to form a panel under the convenorship of Shri Manel to deliberate whether to incorporate the activation of brake lamp/stop lamp by an amendment or through a revision of standard.</p>		<p>1st Panel Meeting was held on 26th July 2024, where it was decided to schedule an additional meeting in the near future for further discussion and deliberation.</p> <p>2nd Panel meeting was held on 03 October 2024 and draft amendment was prepared.</p> <p>The committee deliberated and decided to process the amendment for WC for 30 days and also advised the panel to continue their work on revision of standard.</p>
6	Revision of IS 17132 Guideline Specifications for Replacement Brake Lining Assemblies and Drum Brake Linings for Power-Driven Vehicles and Their Trailers	<p>Decision in 39th Meeting</p> <p>The committee deliberated and decided to revise the standard,</p> <p>The responsibility for preparation of draft was allocated to M/s.. BIL and M/s.. SBL and submit the draft within 4 weeks to BIS Secretariat.</p> <p>Decision in 40th Meeting</p> <p>The detailed study in included in Annex 2 of agenda. The committee advised the panel to have a meeting for preparation of draft and also authorized member secretary to process the draft for WC for 60 days.</p>	<p>Decision in 41st Meeting:</p> <p>The Panel meeting was held on 6 May 2024 and draft was send for WC for 30 days.</p> <p>Comments were received from BIL (see Annex 6 of agenda) which are editorial in nature.</p> <p>The committee decided to once again send this draft for WC for 30 days and advised all the members to thoroughly go through it and share their inputs also advised TED to deliberate with CMD to verify whether all the certification related clauses were incorporated in IS 17132.</p>	<p>The document under publication stage.</p> <p>The committee noted the information.</p>

SI No	Subject	Status/ Decision of committee during previous meeting	Decision in previous meeting	Decision in 42 nd Meeting
			The committee also authorized member secretary to process the draft for publication, if no further comments were received during WC.	
7	New subject for standardization (Ride and Handling)	<p>Decision in 38th Meeting The panel convenor informed that a panel meeting will be held in the month of February to finalize these parts. Shri Rakesh from M&M Ltd on behalf of the Panel had briefed the committee about key parameters considered while formulating the standard and also deliberated the current status of Part 4 and Part 5 of Ride and Handling standards.</p> <p>The committee requested the Ride and Handling Panel under the convenorship of Shri Kailash Jat to organize a panel meeting in the month of February by also including the stake holders who has expressed their willingness for participation and finalize the draft and sent it to BIS Secretariat for processing it for P draft circulation</p>	<p>Decision in 39th Meeting One behalf of Panel Shri Vivek from M/S. Tata Motors had given brief presentation to the committee about the status of Part 4 and Part 5 of ride and Handling.</p> <p>The committee appreciated the panel work and requested to expedite the standard formulation. The committee also requested Panel to arrange practical demonstration of standards developed on ride and handling.</p> <p>Decision in 41st Meeting: The panel briefed the committee about part 4 and part 5 of ride and handling, the committee deliberated and decided to process the drafts for WC for 60 days.</p>	<p>The documents have completed WC duration.</p> <p>During the meeting M/s. Ashok Leyland requested for 15 days' time to share their comments.</p> <p>The committee deliberated and advised them to share their comments at the earliest.</p>
8	Amendment 2 to IS 15986: 2015 Automotive Vehicles — Uniform Provisions Concerning the Approval of Vehicles of Categories M1 and N1 with Regard to Braking	<p>Decision in 39th Meeting The committee deliberated on comments from MSIL as they are editorial in nature, committee decided to accept the comments.</p> <p>The committee deliberated on comments from M/S. BIL & ARAI and requested M/S.</p>	<p>Decision in 41st Meeting: A Panel Meeting was held on 6 May 2024 and draft amendment has been finalized in panel meeting and the draft was processed for publication (see Annex 7 of agenda)</p> <p>The committee noted the</p>	<p>Amendment 2 to IS 15986 has been published.</p> <p>The committee noted the information.</p> <p>Amendment 3 to IS 15986 is under WC stage. No comments were received.</p>

Sl No	Subject	Status/ Decision of committee during previous meeting	Decision in previous meeting	Decision in 42 nd Meeting
		<p>BIL & ARAI to have deliberations among themselves and send the updated draft within 4 weeks to BIS Secretariat which can be processed for publication.</p> <p>Decision in 40th Meeting:</p> <p>ARAI and M/s. BIL informed that they have deliberated on comments received on Amendment 2 to IS 15986 and the document has been modified, very soon it will be shared with BIS Secretariat.</p> <p>The committee noted the information.</p>	<p>information.</p> <p>New Amendment proposal was received from MSIL (see Annex 10 of agenda). The proposal was circulated among the committee members.</p> <p>The committee deliberated and decided to process the draft to WC for 60 days and also authorized member secretary to process the draft for publication, if no further comments were received during WC.</p>	<p>The committee deliberated and decided to process the document for publication.</p>

ITEM 4 REVIEW OF STANDARDS

The following standards/Amendments published.

- IS 11825:2023 Automotive Vehicles - Method of Weighment (First Revision)
- IS 12851:2023 Automotive Vehicles - Hydraulic Brake Systems Tubings - Performance Requirements
- IS 14269:2024 Automotive Vehicles Integral Power Steering Gear Method of Test (First Revision)
- Amendment 1 to IS 12832: 2010 Automotive vehicles - Interior noise - Method of measurement and requirements (First Revision)
- IS 11739 : 2024 Method of Recording Dust Ingress in Automotive Vehicles (First Revision)
- IS 11839 : 2024 Procedure for Splash Proof Testing of Automotive Vehicles (First Revision)
- IS 11849 : 2024 Method of Determination of Centre of Gravity of Automotive Vehicles (First Revision)
- IS 11850 : 2024 Automotive Vehicles — Odometer Systems — Method of Evaluation (Second Revision)
- IS 11851 : 2024 Method of Evaluation of Acceleration of Automotive Vehicle (First Revision)
- IS 13207 : 2024 Automotive Vehicles — Hydraulic Braking Systems — Wheel Cylinder Performance Requirements (First Revision)
- IS 13225 : 2024 Automotive Vehicles — Hydraulic Braking Systems — Rubber Cups — Specification (First Revision)
- IS 14283 : 2024 Automotive Vehicles — Accelerator Control Systems — Safety Requirements (First Revision)
- IS 14557 : 2024 Automotive Vehicles — Cooling Performance — Method of Measurement (First Revision)
- IS 12831 : 2024 Automotive vehicles - Braking systems – Banjo bolt connections – Dimensions

The committee noted the information.

The following drafts are under publication stage:

- IS 17132 Replacement Brake Lining Assemblies and Drum Brake Linings for Power-Driven Vehicles and Their Trailers — Specification

The committee noted the information.

The following drafts are under progress:

IS Number	Title	Previous Meetings	Decision in 42 nd Meeting
IS 12105:2014	Methods of test for valves of automotive air brake Systems (First revision)	<p>Decision in 38th Meeting The committee requested Shri Sachin Deshmukh to expedite the review process and sent the draft to BIS Secretariat within 30 days.</p> <p>Decision in 39th Meeting The committee requested Member Secretary to follow-up with M/S. ZF India Pvt Ltd.</p> <p>Decision in 40th Meeting The committee deliberated and decided to have a panel meeting with SIAM members and ACMA members under the convenorship of Shri Sachin Deshmukh for preparation of draft based on review analysis.</p> <p>Decision in 41st Meeting The committee advised panel convenor to complete the review within 30 days.</p>	<p>The committee requested MS to follow up with M/S. ZF India Pvt Ltd. If no response is received then reassign the subjects to M/s. Knorr Bremse.</p>
IS 13603 : 2014	Automotive vehicles - Air brake systems - Performance requirements for brake chamber (First Revision)		
IS 13604 : 2014	Automotive vehicles - Air brake systems - Performance requirements for dual brake valve (First Revision)		
IS 13363: 2017	Automotive vehicles - Air brake systems - Performance requirements for drain valves Review Allotted to Shri Sachin Deshmukh		
IS 14785:2000	Automotive vehicles - Determination of road- load constants by coast down test method. Review Allotted to ARAI	<p>Decision in 39th Meeting The committee authorized member secretary to process the draft for P draft circulation which was received from ARAI.</p> <p>Decision in 40th Meeting Committee deliberated and decided to process the draft for WC</p> <p>Decision in 41st Meeting The document is under WC. The committee members may share their inputs on the draft.</p>	<p>The document has completed WC duration.</p> <p>Comments were received from MSIL, Yamaha Motors and RNTBCI (see Annex 13, Annex 14 and Annex 16 of agenda)</p> <p>The committee deliberated and</p>

IS Number	Title	Previous Meetings	Decision in 42 nd Meeting
			decided to incorporate all the comments and process the draft for publication.
IS 14610 : 1999	Automotive vehicles - Fuel consumption on chassis dynamometer – Method of measurement Review Allotted to ICAT	Decision in 39th Meeting: ICAT informed the committee that they will complete the review within 4 weeks and send it to BIS Secretariat, committee noted the information. Decision in 41st Meeting The committee advised ICAT to complete the review within 30 days.	During the meeting ICAT briefed the committee about the review. The committee deliberated and decided to reaffirm the standard.
IS 2742 (Part 6) : 2018	Automotive vehicles - Brake linings: Part 6 compressive strain test methods Responsibility of Review was assigned to M/s.. Sundaram Brake Linings Limited, Chennai.	Decision in 39th Meeting: SBL informed the committee that they will complete the review within 4 weeks and send it to BIS Secretariat. Committee noted the information. Decision in 40th Meeting The committee advised SBL to expedite the review analysis. Decision in 41st Meeting The committee advised Mr Janarthanan to complete the review within 30 days.	Shri Janarthanan has carried out the review and shared the draft vide email, The committee deliberated and decided to process the draft for WC for 60 days.
IS 2742 (Part 7) : 2018	Automotive vehicles - Brake linings: Part 7 shear test procedure for disc brake pad and drum brake shoe assemblies. Responsibility of Review was assigned to M/s.. Sundaram Brake Linings Limited, Chennai	Decision in 39th Meeting: SBL informed the committee about current status of review. The committee also requested to prepare the draft standard and send it to BIS Secretariat which may be circulated among the committee members for further receipt of inputs. Decision in 40th Meeting The committee advised SBL to expedite the review analysis. Decision in 41st Meeting	The document has completed WC duration and no comments were received. The committee deliberated and decided to process the draft for publication.

IS Number	Title	Previous Meetings	Decision in 42 nd Meeting
		<p>The draft is under WC. The committee noted the information and also authorized member secretary to process the draft for publication if no further comments were received during WC.</p>	
<p>IS 16137 (Part 1) : 2014</p>	<p>Automotive vehicles - Methods of measurement of braking coefficient of road surfaces: Part 1 SRTT method</p> <p>Responsibility of Review was assigned to M/S. ICAT</p>	<p>Decision in 39th Meeting: ICAT has briefed the committee about the review status but committee requested to prepare the draft standard and send it to BIS Secretariat which may be circulated among the committee members for further receipt of inputs</p> <p>Decision in 40th Meeting The committee advised ICAT to expedite the review analysis.</p> <p>Decision in 41st Meeting ICAT and has been processed for WC (see Annex 8 of agenda).</p> <p>The committee may also authorize member secretary to process the draft for publication if no further comments were received during WC.</p>	<p>Document has completed WC and NO comments were received.</p> <p>The committee deliberated and decided to process the draft for publication.</p>
<p>IS 16137 (Part 2) : 2014</p>	<p>Automotive vehicles - Methods of measurement of braking coefficient of road surfaces</p> <p>Responsibility of Review was assigned to M/S. ICAT</p>	<p>Decision in 39th Meeting: ICAT has briefed the committee about the review status but committee requested to prepare the draft standard and send it to BIS Secretariat which may be circulated among the committee members for further receipt of inputs.</p> <p>Decision in 40th Meeting The committee advised ICAT to expedite the review analysis.</p> <p>Decision in 41st Meeting The draft has been received from ICAT and has been processed for WC (see Annex 9 of agenda).</p>	<p>Document has completed WC and NO comments were received.</p> <p>The committee deliberated and decided to process the draft for publication.</p>

IS Number	Title	Previous Meetings	Decision in 42 nd Meeting
		The committee may also authorize member secretary to process the draft for publication if no further comments were received during WC.	

The following standards are due for review in 2024-25:

Sl No	IS No.	Title	Decision in 41 st Meeting	Current Status
1	IS 13453:1994	Automotive vehicles - Braking systems - Method of test on brake dynamometer for two and three wheelers (First Revision)	The committee deliberated and decided to assign the standard to M/s. Rane Brake Lining for review.	The committee advised Rane brake lining to expedite the review.
2	IS 13988:2014	Automotive vehicles - Starting gradeability - Method of measurement and requirement (Second Revision)	The committee deliberated and decided to assign the standard to M/s. Ashok Leyland for review.	M/s. Ashok Leyland briefed the committee about the review, Committee deliberated and decided to reaffirm the standard and advised Ashok Leyland to share the review proforma.
3	IS 14382: 2014	Automotive vehicles - Speed limitation devices - Specification (First Revision)	The committee deliberated and decided to assign the standard to M/s. Tata Motors for review.	Committee advised Tata Motors to check with AIS standard on speed limitation device and submit their recommendation.
4	IS 9435: 2004	Terms and Definitions Relating to Dimensions of Road Vehicles Other than 2 and 3 Wheelers	The committee deliberated and decided to assign the standard to M/s. RNTBCI for review.	The committee deliberated and decided to form a panel under the convenorship of RNTBCI with stakeholders from test agencies and OEMs

ITEM 5 INTERNATIONAL ACTIVITIES

The committee noted the information as given in agenda

Shri Nagarajan from TVS Motors have carried out gap analysis of Indian Standards and ISO Standards, the committee have appreciated his work. Shri Nagarajan also informed that he will further segregate the

list committee wise and share it TED 04 secretariat, committee requested MS to circulate the list among the committee members

ITEM 6 MEETING CALENDAR FOR THE YEAR 2024-25

Meetings	Tentative Date
43nd Sectional Committee Meeting	07/02/2025

The committee approved the tentative plan of meetings for the year 2024-25.

ITEM 7 LIST OF STANDARDS PERTAINING TO TED 04

The committee noted the information as given in agenda

ITEM 8 DATE AND PLACE FOR THE NEXT MEETING

The next meeting will be held tentatively on 07/02/2025.

ITEM 9 ANY OTHER BUSINESS

There being no other comments/proposals, the meeting ended with a vote of thanks by the Chair.