

BUREAU OF INDIAN STANDARDS

Minutes

Name of the Committee	No. of Meeting	Date and Time	Day	Meeting
Automotive Tyres, Tubes and Rims Sectional Committee, TED 7	Forty-First (41 st)	4 th March 2024 (10:30 AM to 6: 00 PM)	Monday	CLICK HERE TO JOIN

CHAIRMAN: Sh. D.P. Saste

MEMBER SECRETARY: August Dubey

VICE CHAIRMAN: Sh. V.K. Misra.

HEAD TED : Sh. R R Singh

0.1 WELCOME BY MEMBER SECRETARY

Member Secretary welcomed the Chairperson and participants to the meeting.

0.2 WELCOME REMARKS BY HTED

H(TED) extended a warm welcome to all participants and highlighted the process reform initiatives implemented by BIS. Furthermore, he urged newly appointed committee members to engage in BIS's training programs and play an active role in standardization efforts.

0.3 OPENING REMARKS BY THE CHAIRMAN

The chairperson expressed a warm welcome to all participants. He appreciated the capacity building program of BIS and encouraged members for participating in such kind of program. He mentioned that Quality control order has been a hallmark of quality. QCO for wheel rim has been implemented. We should dedicatedly improve the standard and resolve the issue if any. He added that tyres standard has been revised and Associations should be proactive to inform the committee about latest development so that they could be incorporated in standard timely. Further, he appreciated the active involvement of committee members in standardization activity and expressed his satisfaction on the working of committee members.

ITEM 1 CONFIRMATION OF THE MINUTES OF PREVIOUS MEETING

Committee deliberated on comments submitted by members and decided as follows:

1. Committee deliberated on comments and decided to not make any change in the minutes of 40th meeting for SI No 14 of item 3.
2. Committee deliberated and accepted ACMA request (to delete ACMA from Panel 4)

Committee confirmed the minutes of 40th meeting, with above corrections.

ITEM 2 COMPOSITION OF THE SECTIONAL COMMITTEE

2.1 Committee noted the information given in the agenda.

2.2 Committee noted the information given in the agenda

2.3. Member Secretary mentioned that as per DG Directive nomination of (VRDE, Ministry of Commerce and Industry-DPIIT, MoRTH, All India Motor Transport Congress, Society of Indian Automobile Manufacturers [(SIAM), Volvo Group and IRMRA] were withdrawn.

Committee deliberated and decided to co-opt (VRDE, DPIIT, MoRTH, AIMTC, SIAM, and IRMRA) as they are critical organization and their contribution can improve standardization.

2.4 Committee noted the information given in the agenda

2.5 Committee noted the information given in the agenda.

2.6 Committee noted the information given in the agenda.

2.7 PNC Guideline:

Committee noted the information given in the agenda.

2.8 Co-option request:

2.8.1 Committee welcomed GARC.

2.8.2 Committee requested BIS to do follow up with CFMTTI and MG Motor one more time.

2.8.3 Committee requested ITTAC to provide the detail of valve manufacturers to BIS within 14 days.

2.8.4 Committee deliberated on co-option request received and decided as follows:

Sl No.	Organization	Request By	Committee Decision
1)	TVS Motor	Shri Winney K Mathews Shri S Gururajan	Committee accepted the request.
2)	In personal Capacity	Shri N. D. Deshmukh	Committee did not accede the request.
3)	Michelin India Private Limited	Shri Ashish Agrawal	Committee accepted the request.
4)	Honda Motorcycle and Scooter India Private Limited, Gurgaon	Shri Vipin Sharma Shri Arpan Shukla	Committee accepted the request.

2.8.5 Committee deliberated and decided to co-opt following organization :

- INDAG RUBBER LIMITED New Delhi
- Unipatch rubber Limited (Omni Brand repair Patch & Repair accessories Manufacturer)

2.8.6 Committee deliberated and decided to co-opt UNO Minda Limited.

2.9 Committee deliberated and modified panel 1 and Panel 2 and constituted Panel 3 and Panel 4 as follows:

Panel No	Subject/Area	Convenor	Composition
Panel 1	Tyres and Tubes	ITTAC	<ul style="list-style-type: none"> • Expert from- IRMRA, CIRT, ARAI, ICAT, SIAM, TREA, and Michelin • Shri T Chakravarty,
Panel 2	Rims and valves	Convenor: ARAI Chair: Sh. Sunil Bhatambrekar (Kalyani Maxion)	Expert from- SIAM, ARAI, ACMA, ITTAC, Triton valve, Hero Moto corp, ICAT, CIRT, Klassic Wheel, BAL, Minda, Yamaha, Wheels India,

Panel 3	IS 16192 Part 1, Part 2, Part 3 and IS 10694 Part 1,4,5,and 7	Convenor: ARAI Chair: Shri D P Saste	Expert from- ARAI, ICAT, CIRT ACMA, SIAM, YAMAHA, HERO, BAL, MAXION, ITTAC
Panel 4	Rolling Resistance- IS/ISO 28580	Shri V S Khairtakar	Expert from- ITTAC, ICAT, SIAM, CIRT

NOTE- Committee decided that panel convenor may invite other experts depending on the subject under discussion.

ITEM 3 ISSUES ARISING OUT OF THE PREVIOUS MEETING

The summary of actions taken on the minutes of previous meeting and the decisions of the Committee are given below:

<i>Sl No</i>	<i>Subject</i>	<i>Decision of the Committee in the last meeting</i>	<i>Present Status</i>	<i>Decision</i>
1)	Amendment 2 in IS 15633: 2022 Automotive vehicles - pneumatic tyres for passenger car vehicles - diagonal and radial ply	Status in 40th meeting: Draft document TED 7 (21131) has been published as Amendment 1 to IS 15633. Committee may please note. Decision in 40th meeting: Committee noted the information given in the agenda. Member Secretary informed that a comment was received from ITTAC and it has been circulated vide mail dated 30.11.2023, committee deliberated and accepted the ITTAC comment on Amendment 1 to IS 15633. Committee decided to circulate draft amendment 2 into WC for 30 days. Further it decided that if no comment is received within circulation period, BIS to process the draft amendment directly to Publication. Further	Draft amendment is attached at Annexure 2 . It will be issued into WC shortly. For additional comments/clarification request received on IS 15633, please refer item 5.5 . Committee may please deliberate	Please refer item 5.5 .

		it authorized BIS to carry out editorial correction, if any.		
2)	<p>TED 07 (19706) P “Method of Test for Clamp-in Tubeless Tyre Valves</p> <p>Adoption of ISO 14960-2 Doc: TED/07/20722</p>	<p><u>Status of 40th meeting:</u> Draft document TED 7 (20722) has been processed for publication.</p> <p>Committee may please note.</p> <p><u>Decision in 40th meeting:</u> Committee noted the information.</p>	<p>Document TED 7 (20722) has been published as IS/ISO 14960-2 : 2014.</p> <p>Committee may please note.</p>	<p>Committee noted the information.</p> <p>Further it decided to revise IS/ISO 14960-2 :2014 as ISO 14960-2 has been revised in 2024.</p> <p>It requested BIS to share the National Foreword into wide circulation of 30 days.</p>
3)	<p>Comment IS 10694 (Part 1): 2009 1 AUTOMOTIVE VEHICLES — RIMS — GENERAL REQUIREMENTS</p> <p>Doc: TED 07 (21198)W</p>	<p><u>Status in 40th meeting:</u> While preparing the draft document as per agreed comments, it was observed that comments agreed during 37th meeting on marking clause (MSIL and Kalyani Maxion) are not completely in-line. Comments on Marking clause from MSIL and Kalyani Maxion are attached at Annexure-10. Partially updated draft (except marking clause) is attached at Annexure-11. Committee may please deliberate again</p> <p><u>Decision in 40th meeting:</u> Committee deliberated and felt that further updation is required in draft. Committee authorized panel 3 to deliberate and update the draft document. Committee decided that once the updated document is received from Panel 3, BIS to process it into WC of 30 days.</p>	<p>2nd meeting of Panel 3 was held on 02.01.2024. Minutes of Panel 3 meeting is attached at Annexure 7.</p> <p>Panel urged Maxion to thoroughly examine IS 10694 Part 1 and furnish recommendations, along with updated draft, within a three week timeframe.</p> <p>Updated draft is awaited from Maxion.</p> <p>Committee may please note and deliberate.</p>	<p>Shri Sunil from Maxion mentioned that he has been working on draft and it will take 2 months’ time. Committee deliberated and requested Shri Sunil to expedite the review and submit it to Panel 3 for further deliberation.</p> <p>Committee deliberated and observed that definition of spoke given in IS 10694 Part 1 is not as per the international references and Industry practice.</p> <p>As IS 10694 Part 1 is referred in various parts of IS 16192 for definition purpose, and its revision may take longer time, committee decided to address the definitions of wired spoke and spoke through amendment</p>

				<p>in IS 10694-1: 2009 . It requested Shri V S Khairatkar (ARAI) to provide the draft document for definition of spoke and wired spoke.</p> <p>Further committee decided to issue the received draft document from Shri V S Khairatkar into WC of 30 days with approval of Chairperson.</p>
4)	<p>IS 9081:2017 Automotive vehicles – Valves and valve Accessories for pneumatic tyres – Specification (fourth revision)</p> <p>Doc: TED 07 (19611)</p>	<p><u>Status of 40th meeting</u> Draft Document TED 7 (19611) has been issued into WC for 30 days.</p> <p>WC Date: 29.9.2023</p> <p>Comments received from Triton valve vide mail dated 19.10.2023: Quick follow-up on the IS 9081 latest draft that includes core chamber CC3 diagrams for various valves.</p> <p>We discussed same in ITTAC committee meeting earlier this week as well and in general, request for taking up the review for additional changes at the earliest, in the next available BIS committee meeting.</p> <p>Draft received from triton is attached at Annexure 2. Committee may please deliberate.</p> <p><u>Decision in 40th Meeting</u> Committee noted the information. Shri Bharat from Triton valve mentioned that updated draft document is in line with</p>	<p>Updated Draft document TED 7 (19611) was issued into wide circulation for 30 days.</p> <p>WC Date: 04.01.2024</p> <p>Comments received on draft TED 7 (19611) are attached at Annexure 3.</p> <p>Committee may deliberate.</p>	<p>Shri Bharath from Triton Valve briefed the comments submitted.</p> <p>Committee accepted the comments considering them editorial in nature.</p> <p>It further decided to process the draft document for publication, after incorporating the agreed comments.</p> <p>Committee authorised BIS to carry out editorial correction, if any.</p>

		<p>ETRTO manual and ISO standard.</p> <p>Committee decided to process the updated draft document, received from Triton Valve, into WC for 30 days.</p> <p>It further decided that if no comment is received within WC period, BIS to directly process it into Publication. Committee authorized Member Secretary to carry out editorial correction, if any.</p>		
5)	<p>IS 11031:1984 Recommendations for storage and handling of inner tubes, tube valves and flaps for use with Pneumatic tyres for automotive vehicles</p> <p>Doc: TED 07(19697)</p>	<p>Status in 40th meeting Minutes of the Panel 1 meeting, held on 21 November 2023, is attached at Annexure-12. Comment from Mr T Chakravarty vide mail dated 28.11.2023 <i>This has reference to items 9 and 10 of Annexure 12 of the 40th Meeting Annexures attached to trailing mail. These comments were made based on the earlier published Standards IS 11031 and IS 11178. Subsequently these standards have been revised in 2023 and comments based on these revised standards are attached. Please update.</i></p> <p>Updated comments have been circulated with committee members vide mail dated 28.11.2023. Committee may please note.</p> <p>Decision in 40th meeting: Committee deliberated on Mr Anoop Chandra comment and decided that tarpaulin should be replaced by opaque tarpaulin in the standard as it will prevent the passage of UV light and will not let the shelf-life reduce.</p>	<p>Panel 1 meeting was held on 20.02.2024.</p> <p>Minutes of Panel 1 meeting is attached at Annexure 4.</p> <p>Committee may please deliberate</p>	<p>Panel convenor briefed the panel recommendation.</p> <p>Committee deliberated and requested Shri T Chakravarty to provide the reference for suggested changes.</p> <p>Further, it requested Panel 1 to deliberate and finalize its recommendation, once the input is received from Shri T Chakravarty.</p>
6)	<p>IS 11178:1985 Recommendations for storage and handling of pneumatic tyres for automotive vehicles</p> <p>Doc: TED 07(19696)</p>			

		Further, committee deliberated on Mr T Chakravarty comment and requested Panel 1 to deliberate and submit its recommendation to the committee before 31 January 2024. Committee decided that a suitable amendment document will be issued after deliberation and finalization of Mr T Chakravarty comments		
7)	<p>IS 13098:2012 Automotive vehicles - Tubes for pneumatic tyres - Specification (First Revision)</p> <p>Doc: TED 07 (19699)</p>	<p><u>Decision in 40th Meeting</u></p> <p>SI No 10 of Item 3: Committee noted the information given in the agenda</p> <p>Item 5.8 of 40th meeting minutes : Committee deliberated on comment received from Mr Vijay Bopparathi (from CEAT) and clarified that as per clause 6.1 (d) provision is given for marking of either one or both. Committee also requested BIS to expedite the publication of draft (TED/07/19699). For better clarity, it decided to issue draft amendment 1 to IS 13098 (revision document- currently under publication) in WC for 30 days.</p>	<p>Document TED 07 (19699) is under publication.</p> <p>Further, amendment in clause 6.1 (d) may be taken up after publication of IS 13098 (revision)</p> <p>Committee may please note.</p>	Committee noted the information and requested BIS to expedite the publication.
8)	<p>IS 13154:2015 Automotive vehicles - Tyres for agricultural tractors, implements and power tillers – Specification (First Revision)</p> <p>Doc: TED 07 (19702)</p>	<p><u>Status in 40th meeting:</u></p> <p>All agreed comments have been incorporated in the draft document, except comments on Table 13 (partially updated). During 37th and 39th meeting, committee had decided to update Table 13 as per ITTAC manual. Table 13 could not be updated as value for G-1 and G-2 are not available in ITTAC manual. Draft document as mentioned above is attached at Annexure-3.</p>	<p>Modified draft document received from ITTAC vide mail dated 08.02.2024, has been circulated with committee members vide mail dated 23.02.2024.</p> <p>Committee may please deliberate.</p>	<p>Shri Vinay from ITTAC briefed the document and mentioned that draft has been updated as per ITTAC Manual. He further mentioned that G-1 and G-2 are requirement of OEM, its values are updated in ITTAC Manual based on request received from OEM.</p> <p>Committee decided to update G-1 and</p>

	<p>Committee may please deliberate</p> <p><u>Decision in 40th meeting:</u></p> <p>Shri Vinay from ITTAC mentioned that values for column 10 and column 11 of Table 13 are not present in the ITTAC and ETRTO Manuals. ITTAC had submitted draft to BIS for these values based on calculation.</p> <p>Committee requested ITTAC and TMA to discuss on the necessity of keeping premium G1 and G2 values in the draft TED 7 (19702). Committee requested ITTAC to modify the draft as per ITTAC and TMA discussion and submit it to BIS for WC.</p> <p>The justification of retention/deletion of G1 and G2 values, as proposed by ITTAC, shall be submitted by ITTAC along with modified draft.</p> <p>Further, Member Secretary informed that comments were received from ITTAC and it has been circulated vide mail dated 30.11.2023, committee deliberated and accepted the ITTAC comments.</p> <p>Committee requested ITTAC to provide the draft incorporating the agreed comments, as above, to BIS.</p> <p>Committee decided that updated draft will be issued into WC of 30 days by BIS, after approval from Chairperson.</p> <p>Further it decided that if no comment is received within circulation period, BIS to</p>		<p>G-2 values for remaining row once it is updated in ITTAC Manual or request/input received from concerned stakeholders.</p> <p>Further Committee observed that figure given in clause 3.24 of draft, is incorrect. It decided to update the figure as per IS 13154:2015.</p> <p>Committee decided to drop the document TED 07 (19702) from Portal and issue the updated draft document received from ITTAC, after correcting figure (clause 3.24) into wide circulation of 30 days.</p>
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		process the draft document to Publication with approval of Chairperson. It authorized BIS to carry out editorial correction, if any.		
9)	<p>IS 15724: 2006 Automotive tyres – Re-treading procedure – Hot Process</p> <p>Doc: TED 07 (21201)</p>	<p>Status in 40th meeting: Draft document TED 7 (21201) was issued into WC for 60 days.</p> <p>WC Date: 19.6.2023</p> <p>No comments are received on draft document.</p> <p>Committee may please deliberate and finalize the draft.</p> <p>Decision in 40th meeting: Committee deliberated and decided to process the document into publication.</p>	<p>F-Draft is under preparation.</p> <p>Committee may please note it.</p>	Committee noted the information.
10)	<p>IS/ISO 20562: 2014 — Tyre valves – ISO core chambers No. 1, No. 2 and No. 3</p>	<p>Status in 40th meeting: Review report is awaited from Triton valve.</p> <p>Decision in 40th meeting: Shri Bharath from Triton mentioned that changes is required with respect to tightening torque in ISO 20562, for which he has submitted the comment.</p> <p>He further mentioned that tightening torque has been updated in other ISO standard and ETRTO manuals.</p> <p>Committee noted and decided to revise the standard whenever ISO 20562 is updated.</p> <p>It also requested Triton to suggest, if any further additional change is required and look for possibility of modified adoption of ISO 20562.</p>	<p>Input received from Triton Valve vide mail dated 01.12.2023, is as follows:</p> <p><i>We should be able to close item with ISO after they accept and publish same.</i></p> <p>Committee may please deliberate.</p>	Committee decided to re-affirm IS/ISO 20562: 2014.
11)	<p>IS/ISO 28580:2009 Passenger Car, Truck and Bus</p>	<p>Status in 40th meeting:</p>	<p>Please refer item 1 for comments received on</p>	Panel convenor briefed on panel recommendation.

	<p>Tyres-Methods of Measuring Rolling Resistance – Single Point Test and Correlation of Measurement Results</p> <p>Doc: TED 07 (19704)</p>	<p>ARAI vide mail dated 6.9.2023, informed that they have already shared their view (please refer Annex 5 of 37th meeting agenda)</p> <p>Committee may please deliberate.</p> <p><u>Decision in 40th meeting:</u></p> <p>Committee deliberated and requested ITTAC to review IS/ISO 28580 again and submit its input with respect to the need of this standard, as one another Indian Standard IS 18258 has already been published for rolling resistance.</p> <p>Input received from ITTAC to be discussed in panel 4 and panel 4 to provide its recommendation for revision/withdrawal of IS/ISO 28580 before 15 February 2024.</p>	<p>recording of the proceedings of 40th meeting.</p> <p>Further, panel 4 meeting was held on 20.02.2024. Minutes of the panel meeting is attached at Annexure 4.</p> <p>Committee may please deliberate.</p>	<p>Committee deliberated and accepted the panel recommendation to revise IS/ISO 28580:2009 by adopting ISO 28580:2018 identically.</p> <p>On the necessity of IS/ISO 28580, ITTAC mentioned that both standards are very much required, as IS 18258 is in-line with AIS 142 (notified standard under CMVR) and ISO 28580 are used for lab testing, alignment exercise and other purpose. Further, Panel convenor and ITTAC mentioned that in Europe also ISO 28580 and ECE R 117 both co-exist.</p> <p>Committee deliberated and decided to add following clause in National foreword of IS/ISO 28580.</p> <p>This standard (IS/ISO 28580) is a guideline standard and should not be used for regulatory compliance until notified by the authorised agency.</p>
12)	<p>Amendment in IS 15627</p> <p>TED 7 (21146)</p>	<p><u>Status in 40th meeting</u></p> <p>Draft document have been issued into wide circulation for 60 days.</p> <p>Document no: TED 7 (21146)</p>	<p>Updated Draft Document TED 7 (21146) was issued into Wide circulation of 30 days.</p>	<p>Shri Shivam Aggrawal from FMCD (BIS) briefed query for maximum cold inflation pressure.</p>

		<p>WC circulation date: 11.09.2023</p> <p>Comments received from Yamaha are attached at Annexure- 4</p> <p>Panel 1 meeting was held on 21.11.2023, where panel 1 deliberated on comments received from ITTAC, JATMA (from JATMA to ITTAC) and Yamaha. Minutes of Panel 1 meeting is attached at Annexure- 12.</p> <p>Further, in reference item 11 of Panel 1 minutes, draft provided by ITTAC vide mail dated 28.11.2023 is attached at Annexure-15.</p> <p>Committee may please deliberate.</p> <p>Decision in 40th meeting: Panel 1 convenor Sh. Niteesh Shukla briefed the panel recommendation. Committee deliberated and accepted the panel recommendation. Committee decided to issue the draft amendment document again into 30 days WC after incorporating the agreed comments.</p> <p>It further decided that if no comment is received, draft amendment to be processed into publication directly. It authorized BIS to carry out editorial correction, if any.</p>	<p>WC date: 27.12.2023</p> <p><u>Comments received from MSIL:</u> Not relevant</p> <p>No other comments is received.</p> <p>Committee may please deliberate.</p>	<p>Committee mentioned that it is already under discussion.</p> <p>Further, ITTAC mentioned that clause 5.1 (q), requires marking of Maximum Cold Inflation pressure to mark on the product. In draft amendment document, for other clauses, maximum cold inflation pressure has been substituted by cold inflation pressure. However for clause 5.1 (q) it has not been addressed in the amendment draft. Considering it as editorial comment it should be addressed in finalized draft.</p> <p>Committee deliberated and accepted ITTAC comment. It further decided to process the draft document for publication, after incorporating the agreed comments. Committee authorized BIS to carry out editorial correction, if any.</p>
13)	<p>Amendment in IS 15636</p> <p>TED 7 (21145)</p>	<p>Status in 40th meeting: Draft document TED 7 (21145) was .</p> <p>Decision in 40th meeting: Committee deliberated and decided to process the document into Publication. It</p>	<p>Draft document has been processed for publication. Committee may please note.</p> <p>Committee may please deliberate on</p>	<p>Please refer 5.6</p> <p>Committee deliberated and decided to issue the draft document into WC of 30 days, after</p>

		authorized BIS to carry out editorial correction, if any.	Panel 1 recommendation (Please refer Annexure 4).	incorporating the agreed comments. Committee further decided that if no technical comment is received on draft document within circulation period, BIS to process the document for publication with approval of Chairperson. It authorized BIS to carry out editorial corrections any.
14)	Revision of IS 10694(Part 7):1983 General requirements for rims for automotive vehicles Part 7 Industrial truck rims	<p><u>Status in 40th meeting</u> Panel 2 meetings were held on 28.8.2023 and 19.10.2023.</p> <p>Minutes of the panel 2 meeting is attached at Annexure-5.</p> <p>Committee may please deliberate on panel recommendation.</p> <p><u>Decision in 40th Meeting</u> Committee deliberated on Panel 2 recommendation and decided that further updation is required in draft document. Committee requested panel 3 to deliberate and update the draft document at earliest. Committee decided that once the updated document is received, BIS to process it into WC of 30 days.</p>	<p>2nd meeting of Panel 3 was held on 02.01.2024. Minutes attached at Annexure 7.</p> <p>Panel urged Wheels India to thoroughly examine IS 10694 Part 7 and furnish recommendations, along with updated draft, within a three week timeframe:</p> <p>Input received from Wheels India, vide mail dated 17.2.2024, is attached at Annexure 6.</p> <p>Committee may please deliberate.</p>	<p>Shri Felix Prasad from Wheels India briefed the submitted comments. Committee deliberated and requested Wheels India to provide the updated draft after detailed review for further deliberation in panel 3.</p> <p>Committee requested Panel 3 to deliberate on draft document, once received from Wheels India and provide its recommendation to the committee.</p>
15)	IS 15725:2006 Automotive tyres - Tyre curing envelop – Cold process	<p><u>Status in 40th meeting</u></p>	Draft amendment document is under preparation.	Panel 1 convener briefed the panel recommendation.

		<p>Minutes of the Panel 1 meeting, held on 21 November 2023, is attached at Annexure-12.</p> <p>Committee may please note.</p> <p><u>Decision in 40th Meeting</u></p> <p>Panel 1 convenor briefed the panel recommendation. Committee deliberated and accepted the recommendation. Further it decided to reaffirm and amend IS 15725. It decided to issue the amendment draft document into WC of 30 days.</p>	<p>Committee may please note.</p> <p>Further review report of IS 15523, IS 15524 and IS 15709 has been circulated vide BIS portal.</p> <p>Committee may please deliberate.</p> <p>Additionally, in panel 1 meeting, held on 20.02.2024, standards (IS 15523, IS 15524, IS 15704, IS 15709, IS 15731, IS 15753 & IS 15725) were discussed for updating the referred standards.</p> <p>Minutes of panel 1 meeting attached at Annexure 4.</p> <p>Committee may please deliberate</p> <p>Further, comments from Mr T Chakravarty on IS 15704, yet to be discussed.</p> <p>Committee may please deliberate. (Annexure 6 of 40th meeting annexure), Comments attached at Annexure 5.</p>	<p>Committee accepted the recommendation.</p> <p>For ISO 6502 committee requested ITTAC to review and provide the correct reference to update in draft amendment document.</p> <p>For IS 15704, committee requested Panel 1 to deliberate on Mr T Chakravarty comment and provide its recommendation for further deliberation.</p> <p>For agreed comments/recommendations, Committee decided to issue the updated draft document into Wide circulation of 30 Days.</p>
16)	<u>IS 15523 : 2018</u> Automotive tyres - Precured patches for repairing cross ply/ radial tyres and inner tubes - Specification (First Revision)	<p>Status in 40th meeting:</p> <p>Minutes of the Panel 1 meeting, held on 21 November 2023, is attached at Annexure-12.</p> <p>Committee may please note.</p>		
17)	<u>IS 15524 : 2018</u> Automotive vehicles - Retreading of tyres by the pre - Cured process - Specification (First Revision)	<p>Comments received on IS 15704: 2018, from Mr T Chakravarty is attached at Annexure-6.</p> <p>Committee may please deliberate</p>		
18)	<u>IS 15704 : 2018</u> Automotive vehicles - Retreaded pneumatic tyres for commercial vehicles - Specification (First Revision)	<p>Decision in 40th meeting:</p> <p>Panel 1 convenor briefed the panel recommendation. Committee deliberated and accepted the recommendation. It decided to reaffirm and amend these standards. It decided to issue the amendment draft documents into WC of 30 days.</p>		
19)	<u>IS 15709 : 2018</u> Automotive vehicles - Retreaded pneumatic tyres for passenger car - Specification (First Revision)			
20)	<u>IS 15731 : 2018</u> Automotive tyres - Selection and inspection of retreadable tyre			

	casing (First Revision)			
21)	<u>IS 15753 : 2007</u> Automotive tyres - Tyre curing bladder - Cold process			
22)	<u>IS 15780 : 2007</u> Automotive tyres - Repair of tyres and tubes used on motor vehicles			
23)	<u>IS 15794 : 2007</u> Road hazard impact test for wheel and tyre assemblies (Passenger Cars, Light Trucks And Multipurpose Vehicles)	<p>Status in 40th meeting: Review report awaited.</p> <p>Status in 40th meeting: Committee noted Mahindra and Mahindra does perform road hazard impact test. It requested Mahindra and Mahindra to review the standard and submit the review report by 15 January 2024.</p>	<p>Review report is awaited from Mahindra and Mahindra</p> <p>Committee may please deliberate.</p>	<p>Shri Ram Singh from Mahindra briefed the comments and mentioned that the submitted comments are as per Industry practice and editorial in nature.</p> <p>Committee deliberated and decided as given in Annexure-1.</p>
24)	<u>IS 13444 : 1992</u> Animal drawn vehicles - Pneumatic tyres - Specification	<p>Status in 40th meeting: Draft document has been processed into Publication. Committee may please note.</p> <p>Decision in 40th meeting: Committee noted the information given in the agenda.</p>	<p>Draft document TED 7 (21265) is under publication. Committee may please note.</p>	<p>Committee noted the information given in the agenda.</p>
25)	<u>IS 10694 : Part 4 : 1983</u> General requirements for rims for automotive vehicles: Part 4 scooter and scooter derivative rims	<p>Status in 40th meeting: Minutes of the Panel 2 meeting is attached on Annexure-5.</p> <p>Committee may please deliberate.</p> <p>Decision in 40th meeting:</p>	<p>2nd meeting of Panel 3 was held on 02.01.2024. Minutes attached at Annexure 7.</p> <p>Panel urged UNO Minda & Rockman for IS 10694 Part 4, and UNO Minda & Klassic Wheel for IS 10694 Part 5, to thoroughly examine and furnish recommendations, along with updated drafts, within a three week timeframe:</p>	<p>Committee deliberated and requested UNO Munda, Rockman and Klassic Wheel to provide the updated drafts after detailed review for further deliberation in panel 3.</p> <p>Committee requested panel 3 to deliberate on draft document, once received from Wheels India and provide its</p>

		<p>Panel 2 convenor briefed the panel recommendation. Committee deliberated and decided that further updation is required in draft document.</p> <p>Committee requested panel 3 to deliberate and update the draft document.</p> <p>Committee decided that once the updated document is received, BIS to process it into WC of 30 days.</p>	<p>Inputs are awaited. Committee may please deliberate.</p>	<p>recommendation to the committee.</p>
26)	<p><u>IS 9436 : 2018</u> Performance requirements and methods of test for wheels for passenger cars, quadricycles and mini goods carriers (First Revision) TED 7 (24571)</p>	<p>Status in 40th meeting: Minutes of the Panel 2 meeting is attached on Annexure-5. Committee may please deliberate. Decision in 40th meeting: Panel 2 convenor briefed the panel recommendation. Committee deliberated at length. For decision, please refer item 5.3 and Annexure-1. It decided to issue the draft amendment document into WC of 30 days after incorporating the agreed comments in draft.</p>	<p>Draft documents TED 7 (24571) and TED 7 (24612) were issued into Wide circulation for 30 days, for amendment in IS 9436 and IS 9438 respectively. TED 7 (24571) WC Date :05.01.2024 Comments on TED 7 (24571):</p> <ul style="list-style-type: none"> • MKA has no comment on draft document TED/7/24571 • MSIL: No comment <p>TED 7 (24612) WC Date : 09.01.2024 Comments on TED 7 (24612):</p> <ul style="list-style-type: none"> • MSIL: No comment <p>Regarding possibility of inclusion of note (based on manufacturer declaration) for additional size, recommendation</p>	<p>Committee deliberated and finalized the draft document for publication. It authorized BIS to carry our editorial correction, if any. Further, it requested panel 2 to deliberate regarding possibility of inclusion of note (based on manufacturer declaration) for additional size.</p>
27)	<p><u>IS 9438 : 2018</u> Performance requirements and methods of tests for wheels/ rims for trucks and buses (First Revision) TED 7 (24612)</p>	<p>Status in 40th meeting: Minutes of the Panel 2 meeting is attached on Annexure-5. Committee may please deliberate. Decision in 40th meeting: Panel 2 convenor briefed the panel recommendation. Committee deliberated at length. For decision, please refer item 5.2, and Annexure-1. It decided to issue the draft amendment document into WC of 30 days after incorporating the agreed comments in draft.</p>	<p>Regarding possibility of inclusion of note (based on manufacturer declaration) for additional size, recommendation</p>	

		For modification in scope (for vintage application), please refer item 5.3	from Panel 2 is awaited. Draft amendment documents and letter (attached at Annexure 19) were sent to DHI. No input/reply is received from DHI. Committee may please note and deliberate.	
28)	Amendment 2 to IS 16192 Part 1 TED/07/22490	Decision in 40th meeting: Panel 2 convenor briefed the panel recommendation. Committee deliberated at length. For decision, please refer A-1.1 of Annexure 1. Committee requested BIS to expedite the publication of amendment 2 of IS 16192 Part 1.	Amendment 2 to IS 16192 Part 1 has been published Committee may please note.	Committee noted the information.
29)	IS 16192 Part 1, IS 16192 Part 2 and IS 16192 Part 3	Decision in 40th meeting: <ul style="list-style-type: none"> Panel 2 convenor briefed the panel recommendation. Committee deliberated at length. For decision, please refer item 5.6.1 and Annexure-1. It decided to issue the draft amendment document into WC of 30 days after incorporating the agreed comments in draft. For decision on clarification request, please refer item 5.5, 5.6 and 5.7 of minutes 	<ul style="list-style-type: none"> IS 16192 Part 1: Draft amendment document, as per agreed comment is under preparation and it will be shared shortly. Committee may please note. Please refer item 5.1. 	It decided to issue the draft amendment documents, for agreed comments, to IS 16192 Part 1 and Part 2, into WC of 30 days. Please refer 5.1 also .
30)	IS 12750:1989 ISO 8644 & 8645: 88 Method of test for light alloy wheels for motorcycles and mopeds	Status in 40th meeting As recommended by TED 7 committee for withdrawal- it will be taken up in TEDC meeting for further deliberation.	As recommended by TED 7 committee for withdrawal- it will be taken up in TEDC meeting for further deliberation.	Committee noted the information.

		Decision in 40th meeting: Committee noted the information.		
31)	IS 10694 Part 8 AUTOMOTIVE VEHICLES — RIMS — GENERAL REQUIREMENTS PART 8 EARTHMOVING MACHINE RIMS	Status in 40th meeting: As recommended by TED 7 committee for withdrawal- it will be taken up in TEDC meeting for further deliberation Decision in 40th meeting: Committee noted the information.	As recommended by TED 7 committee for withdrawal- it will be taken up in TEDC meeting for further deliberation.	Committee noted the information.
32)	IS 13196: 1991 Automotive vehicles - Light alloys wheel motorcycles - Specification	Status in 40th meeting Review report was received from BAL vide mail dated 11.10.2023. Review report was circulated with committee members BIS Portal dated 7.11.2023. Committee may please deliberate. Decision in 40th Meeting Shri Arvind from BAL presented the review report to the committee member. Committee reviewed IS 13196 and observed that IS 16192 Part 1 already exist on the same subject and it is under certification process. Committee deliberated and recommended to withdraw IS 13196: 1991.	As recommended by TED 7 committee for withdrawal- it will be taken up in TEDC meeting for further deliberation.	Committee noted the information.
33)	IS 9643: 1980 Non-skid type chain assembly for tyres – Single type	Status in 40th meeting: Review was allocated to SIAM. No input was received from SIAM. During the 37 th meeting of TED 7, committee reviewed IS 9643: 1980 and decided to reaffirm. Decision in 40th meeting:	Review report was circulated through BIS Portal dated 07.02.2024 Committee may deliberate.	It decided to reaffirm the standard and archive it.

		It decided to reaffirm the standard and archive it.		
34)	Amendment in IS 18258: 2023	40th meeting: Shri Niteesh from ITTAC briefed the comment on IS 18258. Committee accepted the submitted comments and decided to issue the draft amendment document into WC of 30 days.	Draft document [TED 7 (24717)] was issued into Wide circulation for 30 days. WC Date: 25.01.2024 Comment received from MSIL(vide BIS Portal), and Mahindra Research Valley (vide mail dated 26.2.24) are attached at Annexure 13. Committee may please deliberate.	Committee deliberated and accepted the comments submitted by MSIL. Ms. Pushpanjali briefed the comments submitted by Mahindra Research valley. Shri V S Khairatkar from ARAI mentioned that formula given in clause B-5.2 in the standard, is incorrect. Committee deliberated on comments. It requested panel 4 to deliberate and provide the draft along with its recommendation for further discussion into committee.

ITEM 4 RESEARCH PROJECTS TO BE TAKEN UP

4.1 R&D for Formulation of Indian Standard for Construction, Mining or Industrial handling vehicles and machines

The committee deliberated and approved the subject for R&D. It tasked panel 1 to deliberate and update the draft Terms of Reference (ToR). Committee mentioned that approval of ToR may be taken through circulation, once it is updated by Panel 1.

ITEM 5 COMMENTS/CLARIFICATION REQUEST ON PUBLISHED STANDARDS

5.1 Comments/clarifications on IS 16192 Part 1, Part 2 and Part 3

5.1.1 Comment received from CMD on IS 16192 Part 1, Part 2 and Part 3 (regarding change in thickness):

Shri Rakesh Kumar from CMD-III briefed the comment. Committee deliberated and mentioned that variation in thickness as design parameter can affect the performance. It further decided to continue the subject under discussion in Panel 3 and committee.

5.1.2 Hybrid Wheel Rim (IS 16192 Part 1 and IS 16192 Part 2)

- a) Committee deliberated and accepted the Panel recommendation. Further, committee deliberated on draft document prepared by sub-panel and modified it. Modified draft document, prepared by committee is attached at **Annexure- 2**.

Committee observed that Figure of Composite wheel is incorrect in draft document. It requested Klassic Wheels to provide the correct figure for Composite wheel. It further requested Steel Strip to provide a figure for Hybrid Wheel rim, where casing, ring etc can be marked in a single figure for better clarity and understanding of stakeholders.

Committee decided to issue the draft amendment document into Wide Circulation of 30 days, for amendment in IS 16192 Part 2, once the figures are received from Steel Strip and Klassic Wheels.

Shri Sachin from Carbon Wheelz mentioned that his organization does manufacture aluminium rim for hybrid wheel (Aluminium rim+ Aluminium ring + Aluminium Casing+Motor) and supply it to Motor manufacturer (EMF, Toll Mobility, Anand Mando and others) who does assembly and supply it to OEM. He further mentioned that Hybrid wired spoke wheel, is available in Indian Market, which is manufactured by various wheel manufacturer and used by various OEMs. Provision of these hybrid wheels should also be included in suitable standards. Committee deliberated on comments from Carbon Wheelz and ARAI. Committee mentioned that present standard IS 16192 Part 3 deals with rim only. After due deliberation it decided to introduce Hybrid wheel in IS 16192 Part 1 and Part 3, through amendment/revision. It requested Panel 3 to deliberate in detail and provide the draft before next committee meeting, for further deliberation.

- b) Committee noted the information given in the agenda.

5.1.3 Comments received from Mr. Hemant Mule on IS 16192 Part 1 and Part 2 (Rim of Steel and disc of alloy)

For modified draft, kindly refer **Annexure 2** .

5.1.4 Clarification request on IS 16192 Part 3 from CMD-III

Committee agreed with the interpretation of the panel for clarification. Further it endorsed the draft document and Panel recommendation to issue the draft into WC of 30 days.

Shri Ashvani from Mandap International briefed his comment. Committee deliberated and mentioned that it should be the responsibility of manufacturer to ensure that whatever product he/she is manufacturing, are safe for user and does comply the requirement of standard and other regulatory requirement, and for this purpose he/she may have some internal mechanism. Shri Ashvani expressed his agreement with the committee remarks. Committee decided to finalize the F-Draft for publication. It authorized BIS to carry out editorial correction, if any.

5.1.5 Wire spoke wheel rim

Committee deliberated and requested Panel 3 to deliberate in detail while taking reference of direction given in item **5.1.2** and provide its recommendation before the next committee meeting.

5.1.6 Unification of terminologies used in IS 16192, 9436 and 9438 for wheel rims

Committee requested Sub-panel 2 (Maxion, WIL, TML) to provide the input for IS 9436 and IS 9438. It requested Panel 3 to deliberate on inputs of Subpanel 1 and subpanel 2, and provide the recommendation for further deliberation .

5.1.7 Input from CMD wrt WCC in test standards – Wcc in IS 9436 includes only CFT test for plant change. CMD requested to remove this requirement from standard.

Shri Rakesh Kumar from CMD-III briefed the comment. Committee deliberated and decided to remove the requirement given in standard for plant change through amendment. It requested BIS to circulate the draft amendment document into WC for 30 days.

5.1.8 Clarification request received from DHBO

Committee deliberated and accepted the panel recommendation.

5.1.9 Clarification request Received from DAIDO India Pvt Ltd

Shri Arif from DIADO briefed the query. Committee requested Shri Arif to provide further details (viz. assembly pictures, materials of rim and spoke, spoke pictures and etc.) for further deliberation in Panel 3.

5.1.10 Clarification request received from Arihant Udyog

Member Secretary briefed the clarification request. Shri Jatin from ICAT mentioned that wheel received for testing was different than normal wheel in construction. As representative from Arihant Udyog had not joined the meeting, committee requested BIS to invite representative of Arihant Udyog in Panel 3 meeting for further deliberation.

5.1.11 Clarification request received from Ultrapower Ev tech Private Limited

Committee deliberated and mentioned that inclusion of Hybrid Wheel Rim in various standard is already under process.

5.2 Clarification request received from Minda Kosei on IS 10694 Part 1

Committee deliberated and requested Panel 3 to deliberate it along with the draft document (for revision, once received from Maxion) and provide its recommendation.

5.3 Clarification request received from Normet India Private Limited on IS 9438

Shri Anurag Sharma from Normet briefed his query and stated that their vehicles are designed specifically for enclosed areas such as mining sites. He also mentioned that the Central Motor Vehicle Rules (CMVR) do not apply to these vehicles. During further decision, he underscored that as of then they had not decided that from which country wheels for these vehicle would be imported. Following deliberation, the committee requested Normet to provide comprehensive details regarding the vehicle's wheels (size, profile, and etc.), CMVR category of vehicle, and other details. Once these details are received, a group comprising BIS, ITTAC, ARAI, ICAT, and CIRT will review it and provide its recommendation.

5.4 Comment/Clarification on IS 15627

Committee deliberated and decided to incorporate the size 120/80R12 through amendment in IS 15627. It requested BIS to share the draft amendment document into WC of 30 days (after publication of amendment 1).

5.5 Comment/Clarification on IS 15633

5.5.1 Comment received from CMD on IS 15633 and IS 15636 (regarding adding a new clause in IS 15633 and IS 15636 specifying the evaluation as per IS 18258 and limits as per MoRTH Notification)

Committee noted the information given in the agenda.

5.5.2 Comment received from TKM

Shri Raju from Toyota briefed the comments. Committee deliberated at length and requested Panel 1 to review old and present versions of ECE R 30, IS 15633 and IS 15636 and provide its recommendation for further deliberation in the committee. It requested TKM to provide the details required by panel for deliberation.

5.5.3 Clarification received from FMCD (BIS)

- a) Shri Shivam Aggarwal from FMCD briefed the clarification request. ITTAC mentioned that HL is new category of tyre and is recently introduced in ETRTO and ECE. Currently this subject is under discussion in ITTAC. Shri Ashish from Michelin mentioned that for HL category tyres, additional tests are not required, except the marking requirement. Committee deliberated at length and requested Panel 1 to deliberate on HL category tyre and requirements. Further it requested Panel 1 to deliberate in detail and provide suitable draft for amendment in IS 15633 **within 30 days**. It requested BIS to incorporate the input received from Panel 1 in the draft amendment and circulate it to Wide circulation for 30 days with approval of Chairperson.
- b) Shri Shivam Aggarwal from FMCD briefed the clarification request. Committee requested ITTAC to review the literatures available, internal test reports for recommended and alternate rims and provide the input for rationalizing the use of recommended and alternate rims in IS 15627, IS 15633 and IS 15636 for various tests. Further it decided Panel 1 to deliberate and provide its recommendation.

5.5.4 Clarification request received from ERA Global Standards Certification

Shri Vikas Rajput from ERA Global briefed his clarification request. Committee deliberated and mentioned that the issue has already been addressed in amendment 1 to IS 15633.

5.5.5 Comment from Michelin

Please refer item (5.5.3).

5.6 Comment on IS 15636 from ITTAC

Panel 1 convenor briefed the observation of ITTAC and panel recommendation and decided as follows:

5	Annexure G	New clause in Annexure G which were appearing as 20.2 & 20.3 in amendment No. 2 to IS 15636:2012, are not included in 2022 version.	To harmonize the transition and facilitate the testing & certification	Panel 1 advised ITTAC to revisit the mentioned clauses and provide the correct statement for its discussion in next meeting of TED-7	Shri Vinay from ITTAC briefed the comments (Comment on Annex G, briefed by ITTAC is reproduced below). Committee deliberated and accepted the comments.
New Clause	Marking	Minimum height requirement to be 6 mm in place of 9 mm in E-1 TYRE MARKINGS.	To align with Revision 3 Amendment No. 5 to ECE R54.	Panel agreed to consider the same and advised member secretary TED-7 to get it addressed in the F document, which is under Publication.	
		Underlining is missing for the recommended rim in Table 12 of F document of amend no 01 to IS 15636:2022.	To align with the original document/standard	Panel agreed to consider the same and advised member secretary, TED-7 to do the needful.	

22. "If reference to Standards Manuals of Organizations (illustrated in Sr. No. 21) is not available,

- a. Applicant to submit a declaration from **vehicle manufacturer (OEM)** with Vehicle make, maximum speed, axle loads and size of rim used.

- b. Applicant to submit a self-declaration with Vehicle make, maximum speed, axle loads and size of rim used, if OEM declaration is not available

ITEM 6 REVIEW OF STANDARDS

6.1 Committee noted the information given in the agenda.

6.1.1 Committee deliberated and decided to reaffirm the given standards.

6.1.2 Committee deliberated and decided to reaffirm the given standards and take up the suitable amendment/revision parallelly.

IS No	Title	Decision
IS 13243 : 2014	Automotive vehicles - Commercial vehicles - Attachments on hubs for wheels - Dimensions (First Revision)	Committee deliberated and decided to reaffirm and revise the standard, as it is based on ISO 4107: 2010 and ISO 4107 has been revised and published as ISO 4107: 2023. It requested Panel 3 to deliberate and provide the draft for revision for further deliberation in committee meeting.
IS 9168 : 2018	Automotive vehicle - All rubber flaps for pneumatic tyres - Specification (Second Revision)	It decided to reaffirm the standard.
IS 9436 : 2018	Performance requirements and methods of test for wheels for passenger cars, quadricycles and mini goods carriers (First Revision)	Committee deliberated and decided to reaffirm these standards. It decided to continue the amendment parallelly.
IS 9438 : 2018	Performance requirements and methods of tests for wheels/ rims for trucks and buses (First Revision)	
IS 16192 (Part 3) : 2018	Automotive vehicles - Wheel rims for two and three wheeled vehicles: Part 3 Spoke Wheel Rims ---Method of tests and requirements	

6.1.3 Committee noted the input given in agenda. It requested BIS to allot the various standards due for review to committee members in consultation with Chairperson.

ITEM 7 NEW WORK ITEM PROPOSAL/IDENTIFIED

7.1 Formulation of Indian Standard on requirements of Wheel Rims other than OE rims

Shri V S Khairtakar from ARAI mentioned that base ECE standard is a voluntary standard in Europe. Committee deliberated and mentioned that development of separate standard for aftermarket purpose is not advisable. It decided to drop the subject and to not formulate any separate standard for aftermarket purpose, as aftermarket wheels are addressed through existing standards and QCO.

7.2 Brigadier Rajiv Chawla from (DGQA- CQAV) requested to specify the requirement of storage life of tyre and Service life of tyre, in existing standard or formulate a new Indian Standard for reference/guide. Committee deliberated and mentioned that rubber has self-deteriorating tendency, and life of tyre depends not only on operating conditions, so generating the limit value or guideline could be difficult. However it requested Panel 1 to deliberate in detail review international reference and practices and provide its input for further discussion.

ITEM 8 ROAD MAP OF STANDARDIZATION WORK OF TED 7

Committee noted the input given in the agenda. It requested members to suggest the subjects which can be taken in 2024-25 for standard formulation.

ITEM 9 ANNUAL PLAN OF STANDARDIZATION (2024-25)

Member secretary mentioned that Draft Annual plan of standardization (APS) was shared with committee members vide mail dated 3.3.24. Committee noted the input and requested members to suggest changes required , if any. It authorized BIS to update the APS based on comments/input received from stakeholders.

ITEM 10 INTERNATIONAL ACTIVITIES

10.1 Committee noted the information given in the agenda

10.2 Committee noted the information given in the agenda

10.3 Committee noted the information given in the agenda

10.4 Participation in WG

Committee deferred this subject for discussion in next committee meeting.

10.5 ISO Meetings:

Committee noted the information given in the agenda. It encouraged the members to contribute in standardization at ISO level to preserve the interest of Indian Industry. It requested members to provide the detailed proposal, for participation in ISO meetings.

Committee deliberated on Mr T Chakravarty's proposal. Committee requested BIS to take up the proposal for deliberation and guidance in TEDC meeting, (along with the recommendation of withdrawal of nomination).

10.6 Committee noted the information given in the agenda.

ITEM 11 ANALYTICAL REPORTS/ADVANCED DASHBOARD

Committee deferred this subject for discussion in next committee meeting.

ITEM 12 PROGRAM OF WORK OF TED 07

Committee noted the information given in the agenda

ITEM 13 DATE AND PLACE FOR THE NEXT MEETING

Meeting schedule (tentative) prepared by the committee is as follows:

42 nd Meeting	10 June 2024
43 rd Meeting	1 October 2024
44 th Meeting	10 January 2024

ITEM 14 ANY OTHER BUSINESS

There being no other business, meeting ended with hearty vote of thanks to the Participants and Chair.

Annexure-1

((SI No 23 of ITEM 3)

Clause-	Proposal	Committee decision
1	Substitute as follows: This standard specifies the test wheel (light alloy and steel) and tyre assemblies used with passenger cars, light trucks, and multipurpose vehicles. The test is limited to a frontal (radial) impact with both wheel rim flanges being impacted simultaneously.	Committee deliberated and accepted the comments. It decided to reaffirm and amend the standard. It requested BIS to circulate the draft amendment document into WC of 30 days.
3	Substitute 'impact test' for 'test procedure' heading	
3.2	Substitute 'An 1 828.8 mm long ' for 'A 1 828.8 mm long'	
4	Revise as follows: 4 PERFORMANCE CRITERIA — The wheel is considered to have failed the test if any of the following: a) visible fractures penetrate through a section of the centre member of the wheel assembly, b) centre member separates from the rim, c) tyre loses all air pressure within 1 min. d) No permanent deformation for light alloy wheel rim, and e) Max 10 mm permanent deformation for steel wheel rim. The wheel is not considered to have failed the test by fractures in the area of the rim section struck by the face plate of the striker.	

Annexure- 2
(Item 5.1.2 and 5.1.3)

DRAFT AMENDMENT NO. 2

TO

IS 16192 (PART 2): 2018 Automotive Vehicles — Wheel Rims for Two and Three Wheeled Vehicles
Part 2 Sheet Metal Wheel Rims — Method of Tests and Requirements

Clause -1: Substitute following for existing:

1 SCOPE

- 1.1** This standard (Part 2) prescribes the general and performance requirements of sheet metal wheel rims intended for use on Two wheelers (L1 and L2 category of vehicles as defined in IS 14272), three wheelers (L5 category of vehicles as defined in IS 14272), E-rickshaws and E-carts.
- 1.2** Wired spoke wheel rims are not covered under this standard.

3 DEFINITIONS AND NOMENCLATURE -

3.1 The definitions and nomenclature shall be as per IS 10694 (Part 1).

3.2 Typical Types of Sheet Metal Wheel Rim

3.2.1 Composite Construction Sheet Metal Wheel Rims — It can be of following two type:

- a) Type 1- Wheels of which the rim is made of sheet metal and the spokes or disc are made of Steel.
- b) Type 2- Wheels of which the rim is made of sheet metal and the spokes or disc are made of light alloy.

Rim, spoke or disc, and hub are then assembled together. (*see* fig. 1)

3.2.2 Hybrid Construction Sheet Metal Wheel Rims —

Wheels of which, rim and ring are made of sheet metals and casing is made of compatible material. Rim, ring, casing, hub and motor are then assembled together. (*see* fig. 2)

NOTE-These wheels are constructed by using, rim, rings, hub motor etc. in such a manner that it will sustain enduring operating conditions in the field.

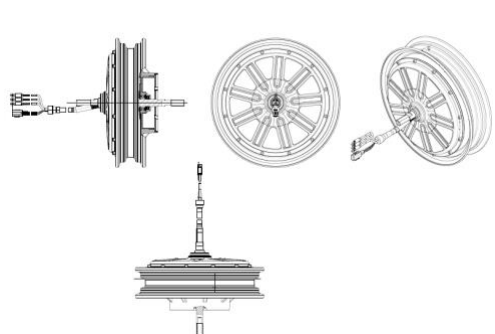


Figure – 1 – Typical composite construction steel wheel rim. (To be updated, once received from KLASSIC Wheels)

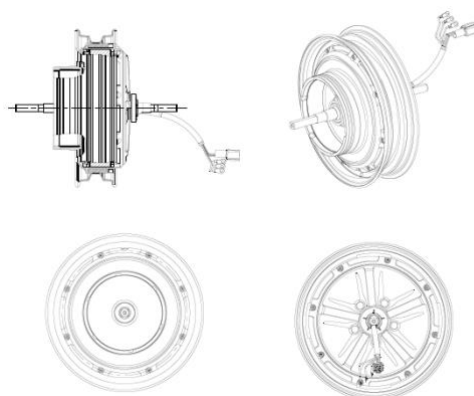


Figure – 2 - Typical Hybrid wheel rims (To be updated, once received from STEEL STRIP)

Clause -4.2.2: Substitute following for existing:

4.2.2 Test

Following tests shall be carried out on wheel rims:

- a) Dynamic cornering fatigue test;
- b) Dynamic radial fatigue test.
- c) Radial Impact Resistance Test
- d) Torsion Moment Test
- e) Air Leak Test (Tubeless Tyres Wheel Rim)

4.2.2.1 – Hybrid wheel rim and Composite wheel rim of Type 2 shall be tested and evaluated as per IS 16192 Part 1.

4.2.2.2 – Composite wheel rim of Type 1 shall be tested and evaluated as per **4.2.3** and **4.2.4**.

Annex B: Insert the following after Sl No. 15

- 16) Material grade of
 - 16.1 Rim
 - 16.2 Ring
 - 16.3 Spoke/Disc
 - 16.4 Hub motor casing
- 17) Part number of wheel rim assembly.

Annexure 3

(Detail of Participants)

Organization	Member
All India Motor Transport Congress	Shri Naveen
Apollo Tyres Ltd	Dr Rinkel Jindal
Ashok Leyland Limited, Chennai	Shri Ved Gautam
Association of State Road Transport Undertakings, New Delhi	Shri R.R.K. Kishore
Automotive Component Manufactures Association of India, New Delhi	Shri Sanjay Tank
Automotive Research Association of India, Pune	Shri Pranab
Automotive Research Association of India, Pune	Shri V S Khairatkar
Automotive Tyres Manufacturers Association, New Delhi	Shri Rajiv Budhiraj
Bajaj Auto Limited, Pune	Shri Abhay Kumar
Bajaj Auto Limited, Pune	Shri Arvind Kumbhar
Bajaj Auto Limited, Pune	Shri Parmeshwar Mane
Bridgestone (ITTAC)	Shri Sudershan
Bridgestone (ITTAC)	Shri Deepak
Carbon Wheelz India Private Limited (Invitee)	Carbon Wheelz
Central Marks Department-III (BIS)	
Continental (ITTAC)	Shri Mohit Agarwal
Controllerate of Quality Assurance (Vehicles)	Shri Rajiv Chawla (Brigadier)
Controllerate of Quality Assurance (Vehicles)	Shri Subir Roy Chaudhary
Daido India Private Ltd. (Invitee)	Shri Mohd Arif- Daido India
ERA Global (Invitee)	Shri Vikash Rajput
Global Automotive Research Centre, Oragaram	Shri V M Dhanasekhar
Global Automotive Research Centre, Oragaram	Shri S Nagarajan
Hero Motocorp Limited, New Delhi	Shri Eshan Gupta
Hero Motocorp Limited, New Delhi	Ms Garima
Hero Motocorp Limited, New Delhi	Shri Piyush Chowdhry
Honda Cars India Research and Development Limited, Noida	Shri Muthu Kumar
Honda Cars India Research and Development Limited, Noida	Ms Neha Gaba
Honda Cars India Research and Development Limited, Noida	Shri Sahil
Honda Cars India Research and Development Limited, Noida	Ms Sonali Chaprana
Honda Motorcycle and Scooter India	Shri Arpan Shukla
Honda Motorcycle and Scooter India	Shri Vipin Sharma
In Personal Capacity	Shri T Chakravarty
Indag Rubber Ltd.(TREA)	Shri Ravi Bhalla
India Yamaha Motor Private Limited, Noida	Shri Mohit Kansal
India Yamaha Motor Private Limited, Noida	Shri Navneet Kaushik
Indian Rubber Manufacturers Research Association	Shri Sachin Barve
International Centre for Automotive Technology, Manesar	Shri Harish Joshi
International Centre for Automotive Technology, Manesar	Shri Jayant
International Centre for Automotive Technology, Manesar	Shri Rajkumar
International Centre for Automotive Technology, Manesar	Shri Mukund
International Centre for Automotive Technology, Manesar	Shri Jatin Wadhwa
International Centre for Automotive Technology, Manesar	Shri Manish Chauhan
Indian Tyre Technical Advisory Committee	Shri Niteesh Shukla
Indian Tyre Technical Advisory Committee	Shri Vinay Vijayvargia
J K Tyre (ITTAC)	Shri Sidney Jose
J K Tyre (ITTAC)	Shri Kartik Shah
Kalyani Maxion Wheels Chakan, Pune	Shri Sunil Bhatambrekar
Klassic Wheels Limited	Shri Hemant M
Klassic Wheels Limited	Shri Suryakant Deshmukh
Klassic Wheels Limited	Shri Suvarna Kamble
Mahindra and Mahindra Limited, Mumbai	Shri Akshay AP
Mahindra and Mahindra Limited, Mumbai	Shri Pushpanajali
Mahindra and Mahindra Limited, Mumbai	Shri Ram Singh

Mahindra and Mahindra Limited, Mumbai	Shri Shailesh_Kulkarni
Mahindra and Mahindra Limited, Mumbai	Shri Yogendra Girase
Mandap International (Invitee)	Shri Ashvani
Maruti Suzuki India Limited, Gurugram	Shri Gururaj Ravi
Maruti Suzuki India Limited, Gurugram	Shri Manoj Prabagar
Maruti Suzuki India Limited, Gurugram	Shri Raj Kr Dwivedi.
Michelin Tyre (Invitee)	Shri Ashish Agrawal
Minda Kosei Aluminum Wheels Pvt. Ltd, Bawal	Shri Dushyant Chauhan
Minda Kosei Aluminum Wheels Pvt. Ltd, Bawal	Shri Hemant
MRF Ltd. (ATMA)	Shri Eric De Reuben
MRF Ltd. (ATMA)	Shri Manoj philip
National Automotive Testing and R and D Infrastructure Project, Indore	Shri J K Chakrabarty
Normet India Private Limited (Invitee)	Shri Anurag Sharma
Normet India Private Limited (Invitee)	Shri Manish Nangia
Normet India Private Limited (Invitee)	Shri Rakesh Kapoor
Renault Nissan Technology & Business Centre India	Shri Girish
Renault Nissan Technology & Business Centre India Pvt. Ltd.	Shri Rajendra Khile
Renault Nissan Technology & Business Centre India Pvt. Ltd.	Shri Vivekraj S
Skoda Auto Volkswagen India Pvt.Ltd, Mumbai	Shri Makarand Brahme
Skoda Auto Volkswagen India Pvt.Ltd, Mumbai	Shri Milind Jagtap
Steel Strips Wheel Limited, Chandigarh	Shri Vimal P Anand
Suzuki Motorcycle India Private Limited, Gurugram	Shri Avinash Khot
Tata Motors Limited, Pune	Shri Pataloba Nagane
Tata Motors Limited, Pune	Shri Uday Salunkhe
Toyota Kirloskar Motor Private Limited, Bidadi	Shri Rahul
TREA-Tyre Retreading Education Association, Mumbai	Shri Rahul Saxena
Triton Valves Limited, Bengaluru	Shri Bharath
Triton Valves Limited, Bengaluru	Shri Deepak Hv
Volvo Trucks, VE Commercial Vehicles Limited, Bengaluru	Shri Nithin Roy
Wheels India Limited	Shri Felix Prasad C
Wheels India Limited	Ms Poonam
Wheels India Limited	Shri Senthil
Wheels India Limited	Shri Shiv Giri