

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	Fortieth (40 th)	1 st December 2023 at 10: 30 AM	Friday	Hybrid (BIS HQ, New Delhi)

CHAIRMAN: Sh. D.P. Saste

MEMBER SECRETARY: August Dubey

VICE CHAIRMAN: Sh. V.K. Mishra.

HEAD TED : Sh. P V Srikanth

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 process reform initiatives taken by BIS, Ministry's directive for composition review, emphasis on research-based standardization, and adherence to PNC guidelines regarding active participation in committee meetings. Further, he urged newly inducted committee members to engage in training programs organized by BIS and encouraged active contributions from committee members in international 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 underscored the need to ensure that standards protect the industry without creating trade barriers. The chairperson advocated for an approach that avoids excessive specification, promotes flexibility, and establishes benchmark requirements to ensure quality and safety. He pointed out that currently standards related with wheel has many points under discussion and it need to be deliberated in detail and we all should work actively for its betterment. Further, he appreciated the active involvement of committee members in standardization activity and expressed his satisfaction on the working of committee members.

0.4 OPENING REMARKS BY THE VICE CHAIRMAN

The Vice Chairperson warmly welcomed all participants and lauded BIS for its proactive research initiatives. He urged committee members to embrace research-based standardization and emphasized the importance of conducting a comprehensive review of standards. He stressed the need to keep standards updated to align with the ever-evolving landscape of times and technologies. The Vice Chairperson assured the full support of the Tyre Industry and its association for the standardization efforts.

ITEM 1 CONFIRMATION OF THE MINUTES OF PREVIOUS MEETING

Committee deliberated on Mr T Chakravarty's comment and decided that based on the agenda of ISO meetings, committee members may submit their nomination to BIS for participation in ISO meeting. There being no other comments, Committee approved the Minutes of the 39th meeting of Automotive

Tyres, Tubes and Rims Sectional Committee TED 7 held virtually on 28.8.2023, which was circulated vide BIS Portal dated 31.08.2023.

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 Committee noted the information given in the agenda.

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:

Committee noted the information given in the agenda. Committee welcomed new member Enkei Wheels in the 40th meeting of TED 7. Taking reference from 38th meeting, it requested BIS to follow up with GARC, CFMTTI and MG Motor.

Further committee deliberated on Mr Chakravarty nomination, Mr T Chakravarty informed that he is not associated with ALP overseas as full time employee and is engaged in advisory/consulting role that too on requirement basis. Further he mentioned that ALP overseas is not a tyre company. Committee appreciated the active contribution made by Mr T Chakravarty in standardization at National and international level. Committee deliberated and requested Mr T Chakravarty to be part of Panel 1. It also recommended for withdrawal of nomination from committee, in personal capacity, as he is engaged with a material handling organization.

Further, committee appreciated the Triton valve for their active engagement in standardization process. Committee requested ITTAC to suggest one or two more valve manufacturers who can be co-opted in the committee.

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	Remarks
Panel 1	Tyres and Tubes	ITTAC	Expert from- IRMRA, CIRT, ARAI, ICAT, SIAM, TREA	
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 Khairatkar	Expert from- ITTAC, ICAT, ACMA, SIAM, CIRT	

NOTE: Committee decided that other committee members may also be present during the panel meeting. For Panel 3, it decided to invite wired spoke wheel manufacturers as special invitee.

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)	<p>Draft Amendment in IS 15633: 2022</p> <p>TED 7 (21131)</p> <p>Automotive vehicles - pneumatic tyres for passenger car vehicles - diagonal and radial ply</p>	<p>39th meeting Decision:</p> <p>Panel 1 convenor briefed the panel recommendation to the committee. Committee deliberated at length and decided as given in Annex-B. Further committee decided to process the draft amendment document in publication after incorporating the agreed comments and authorized the member secretary to carry out editorial corrections, if any.</p> <p>Committee took the reference from 37th meeting and decided that before processing the document to publication, F-Draft may be circulated to Panel-1 for input related to editorial correction in draft amendment document, If any. In case any input is received regarding editorial change from Panel 1, it to be incorporated in F-Draft with the approval of Chairperson and processed to publication.</p> <p>Committee also deliberated on CMD-III comments on IS 15633 and IS 15636, and decided as given in Annex- D</p>	<p>Draft document TED 7 (21131) has been published as Amendment 1 to IS 15633.</p> <p>Committee may please note.</p>	<p>Committee noted the information given in the agenda.</p> <p>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.</p> <p>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 it authorized BIS to carry out editorial correction, if any.</p>
2)	<p>New proposal for Method of Test for Snap-in Tubeless Tyre Valves</p> <p>Adoption of ISO 14960-1 Doc: TED/7/19592</p>	<p>The Committee accepted the proposal of Kalyani Maxion Wheels Pvt. Ltd. for formulation of a standard on “Method of Test for Snap-in Tubeless Tyre Valves. Shri Bhatambrekar was requested to provide the draft document to BIS Sectt. for circulation as P-Draft for 30 days.</p> <p>37th Meeting:</p>	<p>IS 15945 has been reaffirmed.</p> <p>Committee may please note.</p>	<p>Committee noted the information.</p>

<i>Sl No</i>	<i>Subject</i>	<i>Decision of the Committee in the last meeting</i>	<i>Present Status</i>	<i>Decision</i>
		Committee decided to drop the document TED/07/19592 from BIS Portal and to reaffirm IS 15945. Further, it was decided that once the required dimension (8.8 rim hole size) is updated in ISO, ISO will be adopted.		
3)	<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 37th meeting</u></p> <p>Document TED 07 (20722) has been submitted to HTED for approval to process for publication.</p> <p>Committee may please note the status of the document.</p> <p>37th meeting Decision: Committee noted the information given in the agenda</p>	<p>Draft document TED 7 (20722) has been processed for publication.</p> <p>Committee may please note.</p>	Committee noted the information.
4)	<p>Adoption of ISO Standards</p> <p>a) ISO 16392:2017 Tyres -- Electrical resistance -- Test method for measuring electrical resistance of tyres on a test rig</p> <p>b) ISO 14960-1:2014 Tubeless tyres -- Valves and components -- Part 1: Test methods</p> <p>c) ISO 18885-1:2017 TPMS snap-in valves - - Part 1: Identification</p>	<p>Status in 37th meeting:</p> <p>Documents TED/07/19591, TED/07/19593 and TED/07/19596) has been processed for publication. Document TED/07/19594 has been submitted to HTED for approval to process for publication.</p> <p>For TED/07/19592, please refer Sr No 3 of ITEM 3, Committee may please note the status of the above documents.</p> <p>Decision in 37th meeting: Committee noted the information given in the agenda</p>	<p>Documents TED/07/19591, TED/07/19593, TED/07/19594 and TED/07/19596) have been published as</p> <p>IS/ISO 16392: 2017 IS/ISO 18885-1: 2017 IS/ISO 18885-2: 2017 IS/ISO 18885-3: 2017</p> <p>For TED/07/19592, please refer Sr No 3 of ITEM 3,</p>	Committee noted the information.

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	<p>d) ISO 18885-2:2017 TPMS snap-in valves - - Part 2: Valve environment</p> <p>e) ISO 18885-3:2017 TPMS snap-in valves - - Part 3: Performance</p>		Committee may please note.	
5)	<p>Comment IS 10694 (Part 1): 2009 Amd 1 AUTOMOTIVE VEHICLES — RIMS — GENERAL REQUIREMENTS</p> <p>Doc: TED 07 (21198)W</p>	<p><u>Status in 37th meeting:</u></p> <p>For deliberation on comments received from M/s Kalyani, M/s Maxion, M/s MSIL and BIS, panel-2 meeting was held on 6/4/2023. Minutes of the panel-2 meeting is attached at Annex-3 Panel convenor may brief the minutes. Committee may please deliberate and decide the further course of action on the document.</p> <p><u>Decision in 37th meeting:</u></p> <p>Panel convenor briefed the minutes. Committee deliberated on comments received and Panel recommendation and decided as given in Annex-B. Further committee decided to incorporate all the agreed comments in draft document and issue it in WC of 30 days again. Committee decided that if no comments are received within 30 days WC period, document TED/07/21198 would be processed for publication.</p>	<p>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.</p> <p>Comments on Marking clause from MSIL and Kalyani Maxion are attached at Annexure-10.</p> <p>Partially updated draft (except marking clause) is attached at Annexure-11.</p> <p>Committee may please deliberate again</p>	<p>Committee deliberated and felt that further updation is required in draft. Committee authorized panel 3 to deliberate and update the draft document.</p> <p>Committee decided that once the updated document is received from Panel 3, BIS to process it into WC of 30 days.</p>
6)	<p>IS 9081:2017 Automotive vehicles – Valves and valve Accessories for pneumatic tyres – Specification (fourth revision)</p>	<p><u>Status of 37th meeting</u></p> <p>Comments received from Mr Anoop Chandra were discussed in panel-2 meeting held on 6/4/2023. Minutes of the P-2 meeting is attached at Annex-3</p>	<p>Draft Document TED 7 (19611) has been issued into WC for 30 days.</p> <p>WC Date: 29.9.2023</p>	<p>Committee noted the information. Shri Bharat from Triton valve mentioned that updated draft document is in line with ETRTO manual and ISO standard.</p>

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	Doc: TED 07 (19611)	<p>Committee may please deliberate on above and decide to process the document for publication.</p> <p><u>Decision of 37th Meeting</u></p> <p>Panel convenor briefed the minutes and committee agreed on panel recommendation.</p> <p>Further committee decided to incorporate all the agreed comments in draft document and issue it in WC of 30 days again.</p> <p>Committee decided that if no comments are received within 30 days WC period, document would be processed for publication.</p>	<p>Comments received from Triton valve vide mail dated 19.10.2023:</p> <p>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.</p> <p>Committee may please deliberate.</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>
7)	IS 10939: 2000 Designation system for tyre tube valves for automotive vehicles (first revision) Doc: TED/07/19641	<p><u>Status of 37th meeting</u></p> <p>Document TED 7 (19641) has been processed for publication. Committee may note the status of the document.</p> <p><u>Decision of 37th Meeting</u></p> <p>Committee noted the information given in the agenda.</p>	<p>Document TED 7 (19641) has been published as IS 10939: 2023.</p> <p>Committee may please note.</p>	<p>Committee noted the information given in the agenda.</p>
8)	IS 11031:1984 Recommendations for	<u>Status of 37th meeting</u>		

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	storage and handling of inner tubes, tube valves and flaps for use with Pneumatic tyres for automotive vehicles Doc: TED 07(19697)	Document TED 7 (19641) and TED 7 (19696) have been processed for publication. Comments received on IS 11031 and IS 11178 from Mr Anoop Chandra and Sh. T Chakravarty are attached at Annex-4 Committee may deliberate on above, please. <u>Decision of 37th Meeting</u>	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	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.
9)	IS 11178:1985 Recommendations for storage and handling of pneumatic tyres for automotive vehicles Doc: TED 07(19696)	Committee had detailed discussion on Sh. Anoop Chandra's comment and it was felt that further discussion is required on the comments submitted. The Committee hence requested Panel 1 to deliberate on comments received from Sh. T Chakravarty and Sh. Anoop Chandra and provide its recommendation by next meeting. In addition, the committee decided to process the already finalized documents further for printing. The comments received as above, if agreed by committee, would be notified through amendment in standards.	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. Updated comments have been circulated with committee members vide mail dated 28.11.203. Committee may please note.	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
10)	IS 13098:2012 Automotive vehicles - Tubes for pneumatic tyres - Specification (First Revision)	<u>Status of 37th meeting</u> Document TED 07 (19699) has been submitted to HTED for approval to process in publication. Committee may please note the status of the document.	Draft document has been processed into publication.	Committee noted the information given in the agenda.

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	Doc: TED 07 (19699)	<p><u>Decision of 37th Meeting</u></p> <p>Committee noted the information given in the agenda.</p>	Committee may please note the status.	
11)	<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 of 37th meeting</u></p> <p>Document TED 07 (19702) was shared in WC dt. 09.01.2023.</p> <p>Comments received from Mahindra and Mahindra on document TED 7 (19702) was discussed in Panel-1 meeting held on 13/4/2023. Minutes of the panel-1 meeting is attached at <u>Annex-2</u></p> <p>Additional comments received from ITTAC are attached at <u>Annex- 10</u></p> <p>Committee may deliberate on above and decide to process the document for publication.</p> <p><u>Decision of 37th Meeting</u> Sh. Nitesh Shukla, panel 1 convenor briefed the panel recommendation and ITTAC comments on TED 7 (19702). Committee agreed on panel recommendation and accepted the ITTAC comments. Committee decided to process the documents for publication.</p> <p><u>39th meeting:</u> Committee deliberated and decided as given in Annex-C Committee further authorized member Secretary to carry out editorial correction and process the draft document in Publication after incorporating the agreed comments.</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.</p> <p>Draft document as mentioned above is attached at Annexure- 3.</p> <p>Committee may please deliberate</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</p>

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				<p>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 process the draft document to Publication with approval of Chairperson. It authorized BIS to carry out editorial correction, if any.</p>
12)	<p>IS 15724: 2006 Automotive tyres - Retreading procedure – Hot Process</p> <p>Doc: TED 07 (21201)</p>	<p><u>Status of 37th meeting</u></p> <p>Draft amendment document was reverted back by HTED to edit as per IS 12. Corrected draft document has been submitted to HTED for approval to circulate in WC. Committee may please note the status of the document. Doc No. TED 07 (21201)</p> <p><u>Decision of 37th Meeting</u> Committee noted the information given in the agenda.</p>	<p>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>Committee deliberated and decided to process the document into publication.</p>
13)	<p>IS/ISO 20562: 2014 — Tyre valves – ISO core chambers No. 1, No. 2 and No. 3</p>	<p><u>Status of 37th meeting</u></p> <p>Review report is awaited from Steel Strip</p> <p>.</p> <p><u>Decision of 37th Meeting</u></p> <p>Committee reallocated the review to Triton valve.</p>	<p>Review report is awaited from Triton valve.</p>	<p>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</p>

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				<p>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>
14)	<p>IS/ISO 28580:2009 Passenger Car, Truck and Bus Tyres- Methods of Measuring Rolling Resistance – Single Point Test and Correlation of Measurement Results</p> <p>Doc: TED 07 (19704)</p>	<p><u>Status of 37th meeting</u></p> <p>Draft document has completed WC period. Comments received from ARAI on ISO 28580:2018 is attached at Annex-5 Committee may deliberate on above and decide to process the document for publication.</p> <p><u>Decision of 37th Meeting</u></p> <p>Committee deliberated on ARAI comments and requested ARAI to review the definition given in AIS 142, TED 7 (13028) and other Indian Standards on tyres and provide its recommendation to the committee before the next meeting.</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>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>
15)	<p>Amendment in IS 15627</p> <p>TED 7 (21146)</p>	<p>39th meeting Decision: Panel 1 convenor briefed the panel recommendation to the committee. Committee deliberated at length and decided as given in Annex-A. Committee decided to issue the draft amendment document in WC for 60 days after incorporating the agreed comments.</p>	<p>Draft document have been issued into wide circulation for 60 days.</p> <p>Document no: TED 7 (21146)</p> <p>WC circulation date: 11.09.2023</p> <p>Comments received from Yamaha are</p>	<p>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>

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			<p>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>	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.
16)	Amendment in IS 15636 TED 7 (21145)	37th meeting Decision: Please refer Annex-A Committee decided to include all the agreed comments on IS 15627, IS 15633 and IS 15633 in draft documents and issue the documents in WC of 60 days.	<p>Draft document TED 7 (21145) was issued into WC for 60 days.</p> <p>No comments are received on WC draft.</p> <p>Committee may please deliberate and finalize the draft document for publication.</p>	Committee deliberated and decided to process the document into Publication. It authorized BIS to carry out editorial correction, if any.

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17)	Revision of IS 10694(Part 7):1983 General requirements for rims for automotive vehicles Part 7 Industrial truck rims	Shri Bharathi Rajendran, Steel strips wheel limited <u>Status of 37th meeting</u> Review report is awaited from Committee Member. IS 10694 Part 7 was allotted to BIS officer for review as action research project. Review report was circulated through BIS Portal dt 14.02.2023. Review report and draft document submitted by BIS officer may be accessed by clicking here Committee may deliberate on above. <u>Decision of 37th Meeting</u> Committee decided to reaffirm and revise IS 10694 Part 7. Further it requested panel 2 to deliberate on Review report submitted by BIS officer.	Panel 2 meetings were held on 28.8.2023 and 19.10.2023. Minutes of the panel 2 meeting is attached at Annexure-5. Committee may please deliberate on panel recommendation.	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.
18)	IS 13196: 1991 Automotive vehicles - Light alloys wheel motorcycles - Specification	Shri Bharathi Rajendran, Steel strips wheel limited <u>Status of 37th meeting</u> Review report is awaited from committee member. <u>Decision of 37th Meeting</u> Committee reallocated the review to Bajaj Auto Ltd.	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.	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.
19)	IS 15725:2006 Automotive tyres - Tyre curing envelop – Cold process	<u>Status of 37th meeting</u> Comments received from ITTAC is attached at Annex-8 Committee may please deliberate. <u>Decision of 37th Meeting</u> Committee requested Panel 1 to discuss on comments received from ITTAC and provide its recommendation by next meeting.	Minutes of the Panel 1 meeting, held on 21 November 2023, is attached at Annexure-12. Committee may please note.	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.
20)	IS 15523 : 2018 Automotive tyres - Precured patches for repairing cross ply/	Review allocated to – ITTAC Status in 37th meeting: ITTAC:		

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	radial tyres and inner tubes - Specification (First Revision)	ITTAC has completed the review. Comments submitted by ITTAC is attached at <u>Annex-11</u>	Minutes of the Panel 1 meeting, held on 21 November 2023, is attached at Annexure-12.	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.
21)	<u>IS 15524 : 2018</u> Automotive vehicles - Retreading of tyres by the pre - Cured process - Specification (First Revision)	Decision in 37th meeting: Committee requested Panel-1 to deliberate on received comments in Panel 1 meetings.	Committee may please note.	
22)	<u>IS 15704 : 2018</u> Automotive vehicles - Retreaded pneumatic tyres for commercial vehicles - Specification (First Revision)		Comments received on IS 15704: 2018, from Mr T Chakravarty is attached at Annexure-6.	
23)	<u>IS 15709 : 2018</u> Automotive vehicles - Retreaded pneumatic tyres for passenger car - Specification (First Revision)		Committee may please deliberate	
24)	<u>IS 15731 : 2018</u> Automotive tyres - Selection and inspection of retreadable tyre casing (First Revision)			
25)	<u>IS 15753 : 2007</u> Automotive tyres - Tyre curing bladder - Cold process	Review allocated to – ITTAC Status in 37th meeting:	Minutes of the Panel 1 meeting, held on 21 November 2023, is attached at Annexure-12.	
26)	<u>IS 15780 : 2007</u> Automotive tyres - Repair of tyres and tubes used on motor vehicles	ITTAC has completed the review. Comments submitted by ITTAC is attached at <u>Annex-11</u> Decision in 37th meeting: Committee requested Panel-1 to deliberate on received comments in Panel 1 meetings	Committee may please note.	
27)	<u>IS 15794 : 2007</u> Road hazard impact test for wheel and tyre assemblies (Passenger Cars, Light Trucks And Multipurpose Vehicles)	Review allocated to – WHEELS INDIA (Steel strips) 36th meeting: Committee decided to reallocate IS 15794: 2007 to	Review report awaited.	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.

<i>Sl No</i>	<i>Subject</i>	<i>Decision of the Committee in the last meeting</i>	<i>Present Status</i>	<i>Decision</i>
		Sh. Bharathi Rajendran (Steel strip) for review.		
28)	<u>IS 13444 : 1992</u> Animal drawn vehicles - Pneumatic tyres - Specification	<p>Review allocated to – ITTAC</p> <p>Status in 37th meeting: Draft documents was issued in WC dated 16.12.2022 and it has completed WC period. No comment is received on WC document. Committee may deliberate and decide to process the document</p> <p>Decision in 37th meeting: Committee decided to process the document in publication and authorized member secretary to carry out editorial corrections.</p>	Draft document has been processed into Publication. Committee may please note.	Committee noted the information given in the agenda.
29)	IS 10694 : Part 4 : 1983 General requirements for rims for automotive vehicles: Part 4 scooter and scooter derivative rims	<p>Status in 37th meeting: Review report submitted by BIS officers was circulated through BIS Portal dated 01.12.2022. Review document may be accessed by clicking here .</p> <p>Committee may deliberate on above document.</p> <p>Decision in 37th meeting: Committee decided to reaffirm and revise IS 10694 Part 4. Further it requested panel 2 to deliberate on Review report submitted by BIS officer.</p>	<p>Minutes of the Panel 2 meeting is attached on Annexure-5.</p> <p>Committee may please deliberate.</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>
30)	<u>IS 9436 : 2018</u> Performance requirements and methods of test for wheels for passenger cars, quadricycles and mini goods carriers (First Revision)	<p>Review allocated to – ARAI</p> <p>Status in 37th meeting: Panel 2 meeting was held on 06/04/2023. Minutes of the P-2 meeting is attached at Annex-3 Committee may deliberate on above</p> <p>Decision in 37th meeting: Please refer Annex-B Further, committee decided to issue an amendment draft document in WC of 60 days for agreed comments.</p>	<p>Minutes of the Panel 2 meeting is attached on Annexure-5.</p> <p>Committee may please deliberate.</p>	<p>Panel 2 convenor briefed the panel recommendation. Committee deliberated at length. For decision, please refer item 5.3 and Annexure-1.</p> <p>It decided to issue the draft amendment document into WC of 30 days after incorporating</p>

<i>Sl No</i>	<i>Subject</i>	<i>Decision of the Committee in the last meeting</i>	<i>Present Status</i>	<i>Decision</i>
		Committee decided to reaffirm and amend IS 9436.		the agreed comments in draft.
31)	<u>IS 9438 : 2018</u> Performance requirements and methods of tests for wheels/ rims for trucks and buses (First Revision)	<p>Review allocated to – ARAI</p> <p>Status in 37th meeting: Panel 2 meeting was held on 06/04/2023. Minutes of the P-2 meeting is attached at Annex-3</p> <p>Committee may deliberate on above.</p> <p>Decision in 37th meeting:</p> <p>Please refer Annex-B Further, committee decided to issue an amendment draft document in WC of 60 days for agreed comments. Committee decided to reaffirm and amend IS 9438.</p>	Minutes of the Panel 2 meeting is attached on Annexure-5. Committee may please deliberate.	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.
32)	Amendment 2 to <u>IS 16192 Part 1</u> TED/07/22490	<p>38th meeting Decision:</p> <p>Shri Dinesh from M/s Uno Minda briefed his comment to the committee members. Committee deliberated on M/s Uno Minda’s comment and requested Panel 2 to deliberate it in detail and provide its recommendation to TED 7 committee for further discussion. Further, committee endorsed the direction given by Chairperson TED 7 for processing the document TED/7/22490 to publication and requested Member secretary to expedite the publication of amendment document.</p>	<p>Draft document was processed into publication. Comments received from CMD-3 is attached at Annexure-7 .</p> <p>Comments received from CMD-3 was also discussed in panel 2 meeting on 19.10.2023. Minutes of the panel 2 meeting is attached at Annexure-5.</p> <p>Committee may please deliberate.</p>	<p>Panel 2 convenor briefed the panel recommendation.</p> <p>Committee deliberated at length. For decision, please refer A-1.1 of Annexure 1.</p> <p>Committee requested BIS to expedite the publication of amendment 2 of IS 16192 Part 1.</p>
33)	<u>IS 16192 Part 1, IS 16192 Part 2 and IS 16192 Part 3</u>	<p>IS 16192-3 Review allocated to – ARAI</p> <p>Status in 37th meeting: Panel 2 meeting was held on 06/04/2023. Minutes of the P-2 meeting is attached at Annex-3</p>	Minutes of the Panel 2 meeting is attached on Annexure-5.	Panel 2 convenor briefed the panel recommendation. Committee deliberated at length. For decision,

<i>Sl No</i>	<i>Subject</i>	<i>Decision of the Committee in the last meeting</i>	<i>Present Status</i>	<i>Decision</i>
		<p>Committee may deliberate on above</p> <p>Decision in 37th meeting: Please refer Annex-B Further, committee decided to issue an amendment draft document in WC of 60 days for agreed comments. Committee decided to reaffirm and amend IS 9438.</p>	<p>Comment received on minutes of Panel 2 meeting is attached at Annexure-8</p> <p>Comments received from Mr Hemant Mule is given at Item 5.7.</p> <p>In reference to item 1 of Panel 2 meeting minutes, a Sub-panel meeting was held on 27.11.2023. Sub-panel also deliberated few other items related to IS 16192-1,2,3. Minutes of the sub-panel meeting is attached at Annexure-16.</p> <p>Committee may please deliberate.</p>	<p>please refer item 5.6.1 and Annexure-1.</p> <p>It decided to issue the draft amendment document into WC of 30 days after incorporating the agreed comments in draft.</p>
34)	IS 12750:1989 ISO 8644 & 8645: 88 Method of test for light alloy wheels for motorcycles and mopeds	<p><u>Status of 37th meeting</u></p> <p>Comments received from Minda Kosei on IS 12750:1989 was discussed in Panel-2 meeting held on 06/04/2023. Panel-2 observation is recorded in minutes attached at Annex-3 Committee may please deliberate on the document.</p> <p>Decision of 37th meeting: Committee discussed on panel observation and found that on same subject IS 16192 Part 1 already exist and is under certification. Therefore, Committee recommended to withdraw IS 12750:1989.</p>	As recommended by TED 7 committee for withdrawal- it will be taken up in TEDC meeting for further deliberation.	Committee noted the information.
35)	IS 10694 Part 8 AUTOMOTIVE VEHICLES — RIMS — GENERAL REQUIREMENTS PART 8 EARTHMOVING MACHINE RIMS	<p>Decision in 37th Meeting: Committee reviewed IS 10694 Part 8 and recommended to withdraw it as on the same subject, IS/ISO 4250-3: 2020 already exist.</p>	As recommended by TED 7 committee for withdrawal- it will be taken up in	Committee noted the information.

<i>Sl No</i>	<i>Subject</i>	<i>Decision of the Committee in the last meeting</i>	<i>Present Status</i>	<i>Decision</i>
			TEDC meeting for further deliberation	

ITEM 4 RESEARCH PROJECTS TO BE TAKEN UP

Member Secretary briefed the R&D guideline and draft ToR. Committee requested ITTAC and other committee members to review the Terms of reference and submit their comments by 20.12.2023. It further decided that a special committee meeting may be hold to finalize this ToR and other, if any.

ITEM 5 COMMENTS ON PUBLISHED STANDARDS

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

Committee requested input from committee members and decided to discuss it in next committee meeting.

5.2 Comments/clarification request received from Wheels India and CMD on IS 9438 (inclusion of 12inch)

Panel 2 convenor briefed the panel recommendation. Committee deliberated and accepted Panel recommendation. It further decided to issue the draft amendment document into WC of 30 days.

Committee further requested Panel 2 to deliberate, whether a note (based on manufacturer declaration) for additional size can be included in the standards or not, in line with IS 15633, and submit its recommendation by 15 January 2024.

5.3 Comments/clarification request received from Wheels India and CMD on IS 9438: 2018

Chairperson mentioned that once a car is declared as vintage car, it goes off road, as such not supposed to ply on the road. Once declared vintage, further compliance of the CMVR automatically becomes null and void. Committee deliberated in detail and took reference from IS 15633 and decided to add following clause in the scope of IS 9438 and IS 9436.

‘This standard is not applicable to the Wheels made for vintage cars.’

It also requested BIS to share the draft WC amendment document with regulator (who issued QCO) for their comment/input, if any.

5.4 Regarding Indian Standard on tyre for construction, mining or industrial handling vehicles and machines


Please refer item 5.1.

5.5 Clarification requested by FRBO

a) IS 16192 Part 1 and IS 16192 Part 2

Shri Laxman from Bhagwati wheels explained the construction of the wheel, manufactured by M/s Bhagwati, he mentioned that the rim is made of steel and wheel (assembly of rim and Stator/casting covers/wires) is composite. He briefed the construction of the wheel through a presentation, attached, and emphasized that the construction of the their wheel is different than the normal steel wheel and light alloy wheels.

Committee deliberated and clarified that IS 16192 Part 1 is not applicable for such kind of wheel, as IS 16192 part 1 is applicable for light alloy wheels. It further clarified that Part 2 is not applicable to such kind of wheels, as part 2 is applicable for wheels, which is completely made of steels.

<p>Wheel: Steel rim + stator + casting covers + wires</p> <p>Remark: As of now, not covered under the scope of IS 16192 Part 1 and Part 2</p>	
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Taking reference from Sub-panel meeting held on 27.11.2023 (steel rim and spoke/hub made of alloy- not covered in JASO T 203) and above discussion, committee mentioned that due to difference in construction, it would be better to address such kind of wheels through Part 4 of IS 16192. However it requested Panel 3 to deliberate in detail and provide its recommendation to formulate a part 4 or to include it under part 1/part 2 through amendment, along with the draft for the same. Further, it requested BIS to refer the subject to CMVR-TSC for their perusal and advise.

5.6 Clarification request on IS 16192 Part 3

5.6.1 Clarification request on IS 16192 Part 3 from FRBO

Shri Rakesh Kumar from CMD-III briefed the clarification request submitted to TED. Member Secretary informed that manufacturers (Yoshika, Sandar, Metalmanauto, Hero Cycles, Munjal auto, and Neel metal products limited) were requested, by CMD 3, to submit input for the sizes they manufacture, however input were received from Yoshika and Metalmanauto only. Committee noted the received inputs for the size (attached at Annexure 2)

Committee also sought input from Munjal auto for the J mentioned in rim designation. However no input was received during the meeting. Committee requested BIS to get it clarified through mail from Munjal auto for panel 3 meeting.

Committee reviewed IS 16192 Part 3 and observed that only clause 4.2 address the safety aspect and there are some sizes which are not covered in Table 1 and Table 2. So if the license for these sizes are issued without strength test, they may not be safe. Committee mentioned that additional sizes were not in knowledge of the committee, so they have not been included in the Table 1 and Table 2.

Shri Niteesh Shukla from ITTAC mentioned that ITTAC manual has additional sizes of wire spoke rims which are is used. Since the load value for these sizes is not available in ITTAC manual, committee recommended that these sizes may be added in the standards for reference and a provision may be provided for testing strength requirement against the load declared by Wheel manufacturers.

Wheel manufacturers, OEMs and testing agencies, present in the meeting, had difference of opinions and understandings about design of rim profiles. Shri Vinay from ITTAC mentioned that in 2018 version of T&RA book, WM profile was used for cylindrical bead seat profile, however WM profile is not available in 2021 version of T&RA book. Committee requested members to go through the literatures available, industry practices and international standards before the Panel 3 meeting and deliberate it in detail in panel 3 meeting.

Considering all above points, committee decided following:

- To add the sizes appropriately,
- To add clarification note/clause under the table 2, to identify other profiles (cylindrical etc) with respect to MT profile
- Update the profiles in standard suitably,
- Update the scope as decided by committee

It authorized Panel 3 to provide clarification and prepare draft document suitably for amendment in IS 16192-3. Further, it authorized BIS to issue the draft document, which would be prepared based on panel 3 discussion, into WC of 30 days, directly.

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

Committee deliberated and authorized Panel 3 to provide clarification. Please refer 5.6.1 of minutes also.

5.7 Comments received from Mr. Hemant Mule

Shri Mule from Klassic present in the meeting, briefed the committee and mentioned that their Wheel design is almost similar to Vespa wheel and Vespa has taken licence from BIS as per IS 16192 Part 2.



Fig. 1 Wheels photo submitted by Klassic Wheels

He mentioned that in case of Klassic wheels, disc is made of aluminium and is welded with steel rim. Further, he requested committee to consider such kind of composite wheels (rim of steel and disc of alloy) in part 2 of IS 16192.

Committee deliberated and requested Panel 3 to deliberate in detail and provide its recommendation before next meeting.

5.8 Clarification request received from Mr. Vijay Bopparathi on IS 13098

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.

5.9 Comments received from ITTAC on IS 18258: 2023

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.

5.10 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)

Member secretary briefed the discussions held in the previous meetings on the subject. Committee deliberated and mentioned that IS 15633 and IS 5636 deals with the safety aspect of tyres, whereas requirements of ‘Rolling Sound Emissions and/or to Adhesion on Wet Surfaces and/or to Rolling Resistance’ does not appears having any relevance, with respect to safety. Therefore it should not be included in the standard. However it is recommended that matter is to be referred to CMVR-TSC, MoRTH for their advice.

ITEM 6 REVIEW OF STANDARDS

6.1 Committee noted the information given in the agenda. It allocated the review as follows:

Sl. No.	IS No	Title	Allocated to

1	<u>IS 9453 : 2014</u>	Valve caps for tyre tube valves for automotive vehicles - Specification Second Revision	Triton Valve
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6.2 Committee noted the information given in the agenda. It allocated the review as follows:

Sl. No.	IS No	Title	Remarks	Decision
1	IS 12098:1987	Rim wheels for pneumatic tyres for animal drawn vehicles – Specification		ACMA
2	IS 9643:1980	Non-skid type chain assembly for tyres – Single type	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.	It decided to reaffirm the standard and archive it.

ITEM 7 NEW WORK ITEM PROPOSAL/IDENTIFIED

7.1 Committee noted the information.

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

Committee deliberated and requested ARAI to submit its input to BIS before the next committee meeting. It decided to deliberate this subject again in next meeting.

ITEM 8 ROAD MAP OF STANDARDIZATION WORK OF TED 7

Committee noted the information and decided to work on the subjects mentioned in agenda, in future.

ITEM 9 INTERNATIONAL ACTIVITIES

9.1 Committee noted the information given in the agenda.

9.2 Committee noted the information given in the agenda.

9.3 Committee noted the information given in the agenda.

9.4 Committee noted the information given in the agenda.

ITEM 10 REFORMS MEASURE TAKEN IN BIS STANDARDIZATION PROCESS

Committee noted the information given in the agenda.

ITEM 11 PROGRAM OF WORK OF TED 07

Committee noted the information given in the agenda.

ITEM 12 DATE AND PLACE FOR THE NEXT MEETING

Committee decided to hold the next committee meeting on 19.2.2024.

ITEM 13 ANY OTHER BUSINESS

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

Annexure-1

A-1.1 Wire spoke wheel rim –

Panel 2 convenor briefed the panel recommendation.

Shri Arvind Kumbhar from BAL presented a presentation to the committee member (attached). Member Secretary informed that following input were sought from wired spoke rim manufacturers (Yoshika, Sandar, Metalmanauto, Hero Cycles, Munjal auto, and Neel metal products limited), vide mail dated 28.11.2023:

- **What are the tests that you perform on the wired spoke wheels to ensure that it is safe (including internal tests which are not mentioned in standards)**

He further added that inputs were received from manufacturers:

SI No	Manufacturers	Tests	Remarks
1	Munjal Auto	<ul style="list-style-type: none">• Tests as per IS 16192 Part 3;• Radial run out; and• Facial run out	Input received vide mail dated 30.11.2023
2	Sandar Auto	We are conducting Performance Test as per IS 16192 Part 3 and no other additional test conducted in the Spoke Wheel Rim.	
3	Yoshika Engineering	We conduct Load – Deflection test on the wired spoke wheel to check conformance with IS 16192 (Part 3): 2018 (Page 1 : Table 1).	

During the meeting, committee requested manufacturers present to provide their comment/input regarding the test that they perform on wired spoke rims and wheels to ensure that they are safe. Input were provided by manufacturers as follows:

SI No	Manufacturer	Input
1	Yoshika	We perform load test as mentioned in IS 16192 Part 3 and Dimensions test. We do not perform any additional test to ensure strength.
2	Mandapam	We perform load test as mentioned in IS 16192 Part 3 and Dimensions test. We do not perform any additional test to ensure strength.
3	Metalman Auto	We perform load test as mentioned in IS 16192 Part 3, Material test (tensile and elongation). We do not perform any additional test to ensure strength.

All the concerned wheel manufacturers and vehicle manufacturers present in the meeting mentioned that current requirement given in IS 16192 Part 3 is sufficient for wired spoke wheel, from strength and safety perspective, and no additional test is required.

Shri Arvind from BAL mentioned that SIAM members (2 and 3 wheeled vehicle manufacturers) do not ask for any additional test on wired spoke wheels from wheel manufacturers. Sri Sanjay Tank from ACMA mentioned that ACMA has no additional input.

Committee deliberated and mentioned that based on input given by manufacturers, testing agencies, and vehicle manufacturers and other members, it is evident that dynamic test is not required for wired spoke wheels.

However, since ISO standard (ISO 4210-2) for wired spoke wheel rims for cycle specifies dynamic test committee decided to continue this subject under discussion for betterment of standard.

Committee deliberated on CMD comments attached at Annexure 7 of the agenda and clarified that amendment 2 is excluding wired spoke wheel from IS 16192 Part 1, and fig 1 of IS 16192 Part 1 is not representing wired spoke wheel, so modification of figure 1 is not required. A typical example of wired spoke wheel is as follows:



Further committee deliberated and based on above discussion, it decided that Part 3 is for wired spoke rims only and it will be addressed through suitable amendment in IS 16192 Part 3.

Committee requested BIS to expedite the publication of amendment 2 of IS 16192 Part 3.

A-1.2 Helium leak test proposal –

Panel 2 convenor briefed the panel recommendation. Committee deliberated and agreed the Panel recommendation.

A-1.3 Inputs from TED 22 regarding vehicle applicability in scope of IS 16192 P1, P2, P3 –

Panel 2 convenor briefed the recommendation of panel and subpanel meetings. Committee agreed on sub-panel recommendation.

A-1.4 Unification of terminologies used in IS 16192, 9436 and 38 for wheel rims.

Panel 2 convenor briefed that during the panel meeting held on 19.10.2023, panel-2 had constituted two sub panels for reviewing these standards and provide its recommendation. Shri Arvind from BAL mentioned that subgroup (Hero and BAL) has completed the review and submitted the input to BIS vide mail dated 1.12.2023. Committee requested Panel 3 to take up the review and deliberate in its meeting. It authorized panel 3 to take decision regarding issuance of necessary amendment.

A-1.5 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.

Panel 2 convenor briefed the panel recommendation. Shri Vimal from Steel strip mentioned that though standards mandate only CFT test, certification department had asked both the tests for his application. Committee requested Panel 3 to deliberate this subject in its meeting. It authorized panel 3 to take decision regarding issuance of amendment document, if any.

A-1.6 ITTAC comments on 2/3-Wheeler Rim

Panel 2 convenor briefed the panel recommendation. Committee deliberated and decided to take up the subject suitably once related IS standard and ITTAC manual gets updated/revised.

A-1.7 Marking 1,2,3 etc given in Figure 1 in IS 16192-1

Panel 2 convenor, briefed the sub-panel recommendation. Committee agreed to add the key note through amendment in IS 16192 Part 1.

A-1.8 Proposal by Panel 2 convenor

Changes proposed in IS:9436:2018 by Sub-Panel 2								
Sr. No.	Page no.	Clause	Line	Current	Proposed change	Remark	Panel Recommendation	Committee Decision
1	Table 2	Sr. 1	Column 1	ii)	* ii)		Panel decided to modify the NOTE as follows: NOTE: For cold formed alumunium 5000 series, magnesium content shall be less than or equal to 3%.	Agreed
2	Annex B	8.3	2nd from bottom	Maximum Vertical (Front / Rear) axle load capacity (kN)	Maximum (Front/Rear) Wheel load capacity (kN)	Axle load - not applicable	Agreed	Agreed

Changes proposed in IS:9438:2018 by Sub-Panel 2								
Sr. No.	Page no.	Clause	Line	Current	Proposed change	Remark	Panel recommendation	Committee Decision
1	Table 1	Sr. iv)	Column 4	16 and above	16		Agreed (as per Industry practice and international reference)	Agreed
2	Table 1	Sr. iv)	Column 5	Inset below 100 and all outset	All			
3	Table 2	Sr. ii)	Column 4	15, 17, 18, 20, 22, 24, 17.5, 19.5, 22.5, 24.5	15, 16, 17, 18, 20, 22, 24, 17.5, 19.5, 22.5, 24.5			
4	Table 2	Sr. iv)	Column 5	127 or more	All			

Changes proposed in IS:16192 Part 1 by Sub-Panel 2								
Sr. No.	Page no.	Clause	Line	Current	Proposed change	Remark	Panel recommendation	Committee Decision
1	1	3.2	--	There are some types of Alloy Wheel Rim under 3.2.2	Separate the current matter under 3.2.2 under title 3.2.2 (a). Add 3.2.2 (b) <i>Composite Construction of Steel & Light Alloy Wheel</i> - Wheel rim made of Steel and spoke / disc / hub motor housing are made of Light alloy		Agreed (in line with TED7 Decsion-37 th meeting and current practice for homologation)	Panel 2 convenor briefed the panel recommendation and discussion held in sub-panel meeting. Committee requested Panel 3 to deliberate and address this issue suitably.
2		Annex F		(No mention of material grade)	Add 11.1 Material for Rim 11.2 Material for Spoke / Disc / Hub motor		Agreed	Committee agreed to add 11.1. For 11.2, committee requested Panel 3 to deliberate and address suitably.

Changes proposed in IS:16192 Part 2 by Sub-Panel 2								
Sr. No.	Page no.	Clause	Line	Current	Proposed change	Remark	Panel recommendation	Committee decision
1	1	Fig. 1	--	(Current figure shows Truck wheel)	(To be replaced with Steel wheel figure)	Editorial change	Agreed, Panel requested Mr Sachin Pawar from Endurance to provide the updated figure	Agreed
2	2	4.2.3.4 b)		<i>For two wheeled vehicles:</i> After being subjected to 105 cycles according to the dynamic cornering fatigue test specified	<i>For two wheeled vehicles:</i> After being subjected to 100,000 cycles according	Editorial change	Already covered	Noted

					to the dynamic cornering fatigue test specified			
3	2	Fig 2	--	(Sketch shows Light alloy wheel figure and text)	(To be replaced with Steel wheel figure & text)	Editorial change	Agreed, Panel requested Mr Sachin Pawar from Endurance to provide the updated figure	Agreed
4	3	4.2.4.3	7	(No mention of whether the RFT is for two / three wheeled vehicle. It is separately mentioned for CFT, but not for RFT)	Add <i>For both two and three wheeled vehicles</i>	Editorial change	Panel recommended to modify clause 4.2.4.3 as follows: <i>The radial load F_r, for both two and three wheeled vehicles in newton, is determined as follows:</i>	Agreed
5	3	4.2.4.4	c)	c) The wheel rim shall withstand a minimum of 400 000 test cycles without failure.	c) <i>For Two wheeled vehicles:</i> The wheel rim shall withstand a minimum of 500 000 test cycles without failure. d) <i>For Three wheeled vehicles:</i> The wheel rim shall withstand a minimum of 400 000 test cycles without failure.	Technical correction	Panel requested justification for the proposed change.	Committee requested rationale behind the proposed change.
6	4	Annex F		(No mention of material grade)	Add 11.1 Material	Technical correction	Agreed	Agreed

Changes proposed in IS:16192 Part 3 by Sub-Panel 2

Sr. No.	Page no.	Clause	Line	Current	Proposed change	Remark	Panel recommendation	Committee Decision
1	1	1	SCOPE	This Standard prescribes the general and performance requirements of spoke wheel rims intended for use on two and three wheeled motor vehicles with or without sidecar.	This Standard prescribes the general and performance requirements of spoke wheel rims with or without hub or hub-motor assembly (see fig 2) intended for use on two and three wheeled motor vehicles with or without sidecar.	Technical change to cover all types of Spoke wheel rims	<p>Panel meeting- 28.8.2023: There was discussion regarding inclusion of wire spoke wheel rims used for 2/3 wheelers / EV in scope of IS 16192 P3. Panel 2 did not conclude on the subject and needs further discussions and agreement of members. If possible, physical samples of wheels should be made available – as many of the wheels are not manufactured / used by Indian companies. Majority of these vehicles (2 wheelers) with their special wheels are directly imported and sold in India.</p> <p>Panel meeting 19.10.2023: No physical sample was brought, further please refer Item 1 above.</p>	Committee requested Panel 3 to takeup the subject and deliberate in its meeting.
2	2	Fig.1	--	(Current figure shows generic sketch)	(To be made clear with spoke type of wheels, hub / hub-motor type of wheels)	Technical change to cover all types of Spoke wheel rims		

Annexure-2

A-2.1 Input from M/s Yoshika: Vide mail dated 29.11.2023

We would like to inform you that we manufacture 1.6 “ x 21 “ spoke wheel rim.

Twenty one inch (21”) diameter is not included in the Nominal Rim Diameter

Code in the Indian Standard IS 16192 (Part 3): 2018 (Page 1 : Table 1).

Request you to take up the above size for inclusion in the code .

A-2.2 Input from M/s Yoshika Munjal auto: Vide mail dated 29.11.2023

Sr. No	Description	Model	Marking on Rim for Size- (Hero- Customer Name) 076- Vendor Code, 17,18 Or 21- Nomin 1.60 Or 1.85- Nomin Width 1.4 Or 1.6 -Thicknes	Min. Required Load (KN)	Batch Code for Identification
1	RIM WHEEL (1.6X18)	AAC	076 Hero → J18X1.6-1.4 1123 DOT	3.43 KN	Month (11 for November)& Year Year (23 for 2023) -MM YY
2	RIM FRONT WHEEL (1.6X18)	AACA	076 Hero → AAC J18X1.6-1.4 11 23 DOT	3.43 KN	Month (11 for November)& Year Year (23 for 2023) -MM YY
3	RIM FRONT WHEEL	AAJH	076 Hero → AAJ J18X1.6-1.4 11 23 DOT	3.43 KN	Month (11 for November)& Year Year (23 for 2023) -MM YY
4	RIM WHEEL	AAJH	076 Hero → J18X1.6-1.4 1123 DOT	3.43 KN	Month (11 for November)& Year Year (23 for 2023) -MM YY
5	RIM FRONT WHEEL	ABWB	076-Hero → ABW J21x1.85-1.6 11 23 DOT	4.41 KN	Month (11 for November)& Year Year (23 for 2023) -MM YY
6	RIM REAR WHEEL	ABWB	076-Hero → ABW J18x2.15-1.6 11 23 DOT	4.90 KN	Month (11 for November)& Year Year (23 for 2023) -MM YY
7	RIM FRONT WHEEL	ACYB	076-Hero → ACYB J21x1.60-1.6 11 23 DOT	3.43 KN	Month (11 for November)& Year Year (23 for 2023) -MM YY
8	RIM REAR WHEEL	AAJN	076 Hero → AAJN J17X1.6-1.4 11 23 DOT	3.43 KN	Month (11 for November)& Year Year (23 for 2023) -MM YY
9	RIM FRONT WHEEL	KRC	One Side- Hero J18X1.60 D21 Other Side-	3.43 KN	Month Code & Year of manufacturing D21)