

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-Second (42 nd)	14 th May 2024 at 10: 30 am	Tuesday	Virtual Meeting (CLICK HERE TO JOIN)

CHAIRMAN: Sh. D.P. Saste

VICE CHAIRMAN: Shri V.K. Misra

H(TED): Sh. Deepak Aggarwal

MEMBER SECRETARY: August Dubey

0.1 WELCOME REMARKS BY HTED

HTED welcomed the Chairperson and participants to the meeting. He noted that the Ministry has brought rims and tires under the Quality Control Order to restrict low-quality products. He emphasized the need for proactive formulation of Indian Standards to support the Indian industry and urged all stakeholders to actively contribute to national standardization efforts.

0.2 OPENING REMARKS BY THE CHAIRMAN

The chairperson warmly welcomed all participants. He praised the excellent work done by the TED 7 committee so far and emphasized that much remains to be accomplished. He stressed the importance of addressing current issues properly, highlighting that the formulation of quality standards is crucial and that active involvement from all stakeholders is essential.

List of participants attached at **Annexure D**.

ITEM 1 CONFIRMATION OF THE MINUTES OF PREVIOUS MEETING

Committee deliberated on comments received and decided as follows:

1.1 On TKM Comments:

Shri Raju from TKM briefed the comment. Committee deliberated and decided that no change is required in the minutes of 41st meeting. However committee mentioned that for panel and committee meetings, stakeholders should share the relevant data with each other required for deliberation. Committee mentioned that wherever the issue of overlapping of M1, N1 and other category of vehicles are occurring, should be addressed in appropriate manner. It requested Panel 1 to deliberate in detail and review the scope of IS 15627, IS 15633 and IS 15636, and provide its recommendation.

1.2 On ICAT Comment:

1.2.1 Comment on IS 16192 Part 1: Shri Harish Joshi from ICAT briefed the comment. Committee deliberated and decided that ICAT comment is not on the recording of the minutes. (For decision on ICAT comment, kindly refer SI No 3 of ITEM 3)

1.2.2 COMMENT ON IS 9436, it deliberated and decided that in the 41st meeting, it was decided to remove the test requirement for change in location from the standard through amendment, however based on ICAT feedback, it shall be discussed in panel 2 meeting in detail again, taking in account of QCO, product manual, COP procedure and etc. It further added that no change is required in 41st meeting minutes and committee will deliberate further, once panel 2 recommendation is received.

1.3 On CMD comment:

Committee deliberated and decided that CMD comment is on draft amendment document and not on the recording of the minutes. (For decision on CMD comment, kindly refer SI No 3 of ITEM 3)

After due deliberation, it decided to not make any change in the minutes of 41st meeting and confirmed the minutes.

ITEM 2 ACTION ARISING OUT OF THE PREVIOUS MEETING:

Sl No	Ref	Subject	Decision of the Committee in the last meeting	Present Status	Decision
1	Sl no 26 of Item 3	IS 9436 : 2018 Performance requirements and methods of test for wheels for passenger cars, quadricycles and mini goods carriers (First Revision) TED 7 (24571)	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.	F-Drafts were circulated with committee members for editorial comment vide mail dated 1.5.2024 Inputs received from Committee members are attached at Annexure 1 Committee may please deliberate.	Committee deliberated and decided to process the amendment document to publication.
2	Sl no 26 of Item 3	IS 9438 : 2018 Performance requirements and methods of tests for wheels/ rims for trucks and buses (First Revision) TED 7 (24612)			Committee deliberated and decided as given in Annexure A. It decided to process the document to publication after incorporating the agreed comments.
3	Sl no 29 of Item 3	IS 16192 Part 1, IS 16192 Part 2 and IS 16192 Part 3	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	Please refer 3.1	Committee deliberated and decided as given in Annexure B.
4	Sl no 7 of Item 3	IS 13098:2012 Automotive vehicles - Tubes for pneumatic tyres - Specification (First Revision)	Committee noted the information and requested BIS to expedite the publication.	It is under Publication. Committee may please note	Committee noted the information given in agenda

		Doc: TED 07 (19699)			
5	Sl no 12 of Item 3	Amendment in IS 15627	<p>Shri Shivam Aggrawal from FMCD (BIS) briefed query for maximum cold inflation pressure. Committee mentioned that it is already under discussion. 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> <p>Please see 5.4 also.</p>	<p>Draft document has been processed into Publication.</p> <p>For editorial comment, F-Draft was circulated with committee members.</p> <p>Input received are attached at Annexure 4</p> <p>Comments from ICAT has been included in F-Draft and it has been processed further.</p> <p>Committee may deliberate.</p> <p>Regarding incorporation of Size 120/80R12, as decided by committee in 41st meeting, it will be taken up after publication of Amendment 1. Committee may please note.</p>	<p>Committee accepted the ICAT comment and mentioned that ARAI comments are already addressed in the F-document.</p> <p>Committee decided to process the document to publication after incorporating the ICAT comment.</p> <p>Additionally, while briefing panel 1 meeting minutes, Panel convenor mentioned that for Application category (road or off road or snow), panel has finalized its recommendation.</p> <p>Committee deliberated and accepted panel recommendation and decided to address it through Amendment 2 to IS 15627. Draft for amendment 2 may be shared into WC for 30 days (after publication of amendment 1).</p>
6	Sl no 13 of Item 3	Amendment in IS 15636 TED 7 (21145)	<p>Please refer 5.6 Committee deliberated and decided to issue the draft document into WC of 30 days, after</p>	<p>While incorporating the agreed comments in draft, it was observed that</p>	<p>Committee deliberated and requested ITTAC to provide the draft for modification required in Table 12, 15, 16 and other table (if any),</p>

			<p>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.</p>	<p>One of the agreed comment was = <u>'Underlining is missing for the recommended rim in Table 12...'</u>.</p> <p>It was not clear that what sizes are recommended sizes, so clarity was sought from ITTAC.</p> <p>Input for above, is awaited from ITTAC. However, ITTAC has submitted additional comments that underline is missing for Table 15 and Table 16 also (please refer Annexure 5)</p> <p>Committee may deliberate.</p>	<p>wherever ITTAC finds it necessary.</p> <p>It decided that once the draft is received from ITTAC, draft document incorporating the agreed comments to be shared into WC of 30 days.</p>
7	Sl no 1 of Item 3	<p>Amendment 2 in IS 15633: 2022</p> <p>Automotive vehicles - pneumatic tyres for passenger car vehicles - diagonal and radial ply</p>	<p>Please refer item 5.5.</p>	<p>Panel 1 meeting was held on 29.4.2024.</p> <p>Minutes of the panel meeting has been circulated with panel members. Minutes attached at Annexure 6.</p> <p>(Minutes along with other documents have been circulated through mail dt 9.5.24)</p> <p>However multiple comments/input have been received on Panel minutes.</p> <p>Committee may deliberate.</p>	<p>Panel 1 convenor briefed the panel recommendation and mentioned that in IS 15633, for EMT and HLC- panel has made final recommendation and for other points, further discussion is required.</p> <p>Committee deliberated and accepted panel recommendation for HLC and EMT.</p> <p>It requested ITTAC to provide suitable draft in line with panel discussion for EMT and HLC.</p> <p>Further it decided to issue the draft document into WC of 30 days, after incorporating the agreed comments, once the draft is received from ITTAC.</p>

					For other points, committee requested Panel to deliberate in detail and provide its final recommendations before the next committee meeting for deliberation.
8	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.	Arihant udyog has requested for clarification. Panel 3 have not yet discussed. Committee may deliberate	Shri Piyush briefed the query and mentioned that the wheel is for motorcycle application and it will be supplied to OEM (BMEV). Shri Vinod from BMEV mentioned that the product is intended for use in motorcycles designed for everyday activities. He also mentioned that they have received the certificate for the tire in accordance with IS 15627. Pictures of Vehicles and Wheel attached at Annexure C . Committee deliberated in detail and requested following information from Arihant Udyog and BMEV: <ul style="list-style-type: none"> • Whether such wheel Rims are referred in any standards • Whether profile, bead etc are in-line with manuals and standards. • Whether construction is similar to normal wheel or different, if different then what are the differences.

					<ul style="list-style-type: none"> • Category of vehicle as per CMVR / IS 14272 • Type approval certificate of Tyre <p>The committee requested Panel 3 to thoroughly deliberate and provide its recommendation once the details are received from Arihant Udyog/BMEV.</p>
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ITEM 3 Amendment to IS 16192 Part 1, Part 2 and Part 3

Please refer SI No 3 of Item 3.

ITEM 4 Clarifications/Comment/Input received on Indian STANDARDS

4.1 Input sought from CMD-III on IS 13098: 2012

Committee deliberated and mentioned that critical parameters have been addressed suitably in document shared by CMD.

4.2 Comment received from CIRT on IS 13098:

Shri Dahiya from CIRT briefed the comments. Committee deliberated and decided that the agreed comments would be taken as amendment to revised standard (once revision document is published). It authorized BIS to issue the draft document into WC after incorporating the agreed comments (please refer 41st meeting minutes for agreed comment on IS 13098).

Shri Arvind from BAL mentioned that in the scope of IS 13098, quadricycle is not included, it should also be included. Committee deliberated and requested Panel 1 to deliberate in detail and provide its recommendation for further deliberation.

4.3 Clarification received from FMCD (BIS) on IS 15636:

Member Secretary briefed the query received from FMCD. Shri Ashish from Michelin briefed his input. ITTAC mentioned that MPT category was not included in the standard and ITTAC manual, as previously it was not required for Indian market/user. The Committee deliberated at length and asked ITTAC and SIAM to review the international standards and necessity of Indian Industries. It requested these organizations to provide detailed information to Panel 1 on additional tyre categories that should be included in Indian Standards to ensure the timely fulfilment of the requirements of Indian industries.

Panel 1 to deliberate and provide its recommendation for inclusion of MPT category and other categories (if any).

4.4 Comment/Clarification/input received on IS 9436 and review report:

Committee decided to reaffirm IS 9436 and to take-up the received comments into Panel 2 meeting for further deliberation. For Marking clause (date of manufacturing...) some of the committee members mentioned that marking in form of codification system can cause confusion among user. Committee deliberated and requested Panel 2 to review the marking on tyres and vehicles also and deliberate in detail.

It requested Panel 2 to deliberate on each comments in detail and provide its recommendation for further deliberation.

4.5 Comment/Clarification/input received on IS 9438 and review report:

Committee decided to reaffirm IS 9438 and to take-up the received comments into Panel 2 meeting. It requested Panel 2 to deliberate and provide its recommendation for further deliberation. Please refer *item* 4.4 also.

4.6 Comment/Clarification/input received on IS 9168

Committee deliberated and requested Panel 1 to deliberate in detail and provide its recommendation.

4.7 Comments received on IS 16192 Part 3

Committee deliberated and decided to take-up ICAT proposal in Panel 3 meeting for deliberation.

ITEM 5 Proposal for Participation in ISO TC 31/ SC 5 & ISO TC 31/ SC 7

Shri T Chakravarty briefed the proposal and mentioned about his expertise on subject and leadership skills. He also mentioned that revision of code designated ISO standards ISO 4251-1:2019,ISO 4251-2: 2019 and ISO 8664: 2018, should be taken . Member Secretary mentioned that ballot document for ISO 8664:2018 was circulated vide mail dated 28.7.2023 with committee members and no input was received from committee members thus it was abstained.

Committee requested members to be proactive and provide their comments/inputs during ballot time. Committee mentioned that proposal and justification for participation in ISO meeting and comments/inputs on ISO documents should be clear and self-explanatory. It further requested Mr T Chakravarty to provide the draft, keeping the requirements of Indian Industry in mind, (that what changes in aforementioned ISO standards are required) so that it can be deliberated by TED 7 committee/panel 5 and submitted to ISO with a request for revision.

Committee deliberated and constituted a Panel 5 as follows:

Composition of the Panel	Scope of Panel
Shri V S Khairatkar- ARAI(Convenor) Experts from: <ul style="list-style-type: none"> • ICAT • CIRT • SIAM • ACMA • TMA • ITTAC 	<ul style="list-style-type: none"> • To review the comments that would be received on Ballot/ISO standards after 13.5.2024 and to provide its recommendation thereon. • To review the proposal submitted by members who wants to participate in ISO meeting and to provide its recommendation for framing India’s view.

On Mr T Chakravarty’s proposal, committee decided that once the draft is received, based on panel 5 recommendation, approval can be taken via mail.

ITEM 6 DATE AND PLACE FOR THE NEXT MEETING

Committee prepared the tentative schedule for the next meetings of TED 7 as follows:

43 rd Meeting	20 September 2024 (PHYSICAL)
44 th Meeting	10 January 2024

Committee decided to hold the 43rd meeting in physical mode on 20 September, and further added that ITTAC may propose a suitable location where next meeting may be organized.

ITEM 7 ANY OTHER MEMBERS

Committee deliberated on co-option of valve manufacturers. It decided to co-opt Accura Valves, and Sonil Ventilfabrik.

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

Annexure A

(Sl no 1 of Item 3)

A-1 COMMENTS RECEIVED ON F-DRAFT TED 7 (24612) FOR AMENDMENT IN IS 9438

A-1.1 Comments from MSIL on F-Draft (IS 9438)

Shri Rajkumar Dwivedi from MSIL briefed the comments. Committee deliberated and decided that 17'' was deleted after due deliberation on recommendation of panel 2, as per international reference and Industry practice. Committee deliberated at length and decided to not make change in F-Draft.

Committee further mentioned that **SIAM, MSIL and ACMA** may check once again and confirm if 17 inch size is required. If any input is received, it may be taken up in future panel/committee meetings for deliberation.

A-1.2 Comments from ARAI on F-Draft (IS 9438)

Sr. no	Existing text in IS 9438 Draft	ARAI comment	Committee Decision
1.	Page no 7, Table 1	Grid lines required for clarity in table 1	Agreed to incorporate in F-Draft
2.	Page no 7, Table 1 Sl No. iv) Rim Diameter Designation (4) - 16	15 & 16 (15 to be added as per request received from one manufacturer M/s Neo wheels in past.)	Committee decided to include 15 inch in Amendment 3, after publication of amendment 2.
3.	Page no 7, Table 1 Sl No. iv) Rim Diameter Designation (4) – 17.5 and larger	16.5 17.5 and larger (16.5 size added from ETRTO manual need to confirm with ITTAC manual)	Not agreed to incorporate in F-draft. Committee deliberated and decided to deliberate it in Panel 2 meeting, provided confirmation for size 16.5 inch is received from ITTAC.
4.	Page no 8, Table 2	Grid lines required for clarity in table 2	Agreed to incorporate in F-Draft
5.	Page no 8, Table 2 Sl No. ii) Rim Diameter Designation (4) – 15, 16 , 17, 18, 20, 22, 24, 17.5, 19.5, 22.5, 24.5	· 15, 16 17, 18, 20, 22, 24 (16 to be removed, as it is not available in Amdt. 01) · 16.5 , 17.5, 19.5, 22.5, 24.5 (16.5 added from ETRTO manual need to confirm with ITTAC manual)	16 inch: Committee deliberated and not agreed on ARAI comment. It mentioned that enough clarity is there in the table for 16 inch. 16.5 Inch: Not agreed to incorporate in F-draft. Committee deliberated and decided to deliberate it in Panel 2 meeting, provided confirmation for 16.5 inch is received from ITTAC.
6.	Page no 8, Table 2 Sl No. iii) Rim Diameter Designation (4) – 16	15 & 16 (15 to be added as per request received from one manufacturer M/s Neo wheels in past.)	Committee decided to include 15 inch in Amendment 3, after publication of amendment 2.
7.	Page no 8, Table 2 Sl No. iii) Rim Diameter Designation (4) – 17.5 and larger	16.5 17.5 and larger (16.5 added from ETRTO manual need to confirm with ITTAC manual)	Not agreed to incorporate in F-draft. Committee deliberated and decided to deliberate it in Panel 2 meeting, provided confirmation for 16.5 inch is received from ITTAC.

A-1.3 Comments from ITTAC on F-Draft (IS 9438)

<p>Page 7, Table 1</p>	<p>a. The lines differentiating various rows and columns are missing. So, the values are confusing.</p>	<p>Committee deliberated and agreed with ITTAC comments and decided to incorporate the grid line in F-Draft</p>
	<p>b. Against (iii) what is the meaning of ‘Any Diameter’? This will override (i) and (ii). But this is mentioned in the earlier document also.</p>	<p>Committee deliberated and mentioned that there is no ambiguity in table thus no change is required for this.</p>
<p>2. Page 8, Table 2</p>	<p>a. The lines differentiating various Rows and Columns are missing. So the values are confusing.</p>	<p>Committee deliberated and agreed with ITTAC comments and decided to incorporate the grid line in F-Draft</p>
	<p>b. Against (ii) ‘HC’ missing against 17.5 Rim Diameter Designation.</p>	<p>Committee deliberated and mentioned that HC has been removed through amendment 1. It decided to not make change in F-Draft. Additionally, committee mentioned that ITTAC, ACMA and SIAM may check again and confirm if ‘HC’ is required against 17.5 . If any input is received, it may be taken up in future meetings for deliberation.</p>

Annexure B

(Sl no 3 of Item 3)

B-1 IS 16192 Part 1

Committee noted the information given in agenda. It further deliberated on comment received from ICAT (reference-Annexure 14 of agenda) and considered it as editorial in nature. Committee decided to modify the definition of composite construction wheel as follows:

‘*Composite Construction Light Alloy Wheel* — Wheels of which the rim is made of light alloy and the spokes or disc of light alloy or steel, which are then assembled (see Fig.1).’

Committee decided to prepare the draft document after incorporating the agreed comments and issue it into WC of 30 days.

B-2 IS 16192 Part 2

Committee deliberated and endorsed the draft document modified by panel 3. It also endorsed the panel recommendation and Chair approval for issuance of draft into WC of 30 days.

On CMD comments, committee decided as follows:

<p>Cl. 4.2.2- It is being specified that Hybrid wheel rim and composite wheel rim of type 2 shall be tested and evaluated as per IS 16192 (Part 1). The test requirements /acceptance criteria for these wheel rims have not been clearly specified in the draft Amendment document. Also, test methods for applicable tests for these wheel rims specially on the aspect that whether the Hybrid wheel rims shall be tested "with hub motor" or "without hub motor" is not specified in the draft Amendment to IS 16192 (Part 2).</p> <p>In this regard it is observed that following tests are specified to be done on wheel rims as per IS 16192 (Part 1): 2014: <i>Rotation Bending Fatigue Test (Dynamic Cornering Fatigue Test), Radial Load Durability Test, Radial Impact Resistance Test, Torsion Moment Test, Air Leak Test (Tubeless Tyres Wheel Rim)</i>. Whereas, IS 16192 (Part 2) specifies only following 2 tests on wheel rims: <i>Dynamic Cornering Fatigue Test (CFT) , Dynamic Radial Fatigue Test (RFT)</i></p> <p>It can also be seen from IS 16192 (Part 1) and IS 16192 (Part 2) that the test requirements for CFT and RFT are different in IS 16192 (Part 1) and IS 16192 (Part 2).</p> <p>Also, the test method and test requirements/acceptance criteria specified in IS 16192 (Part 1) are for Light alloy wheel rims.</p> <p>In view of the above, it is recommended that the test methods and requirements/acceptance criteria for these wheel rims should be explicitly specified in IS 16192 (Part 2) itself for all applicable tests.</p> <p>Figure 1 and Figure 2 needs more clarity and should illustrate all components (Rim, Ring, casing, Hub motor) clearly.</p>	<p>Committee deliberated and appreciated the panel work and mentioned that updated draft documents have addressed clarity issue suitably.</p> <p>Committee mentioned that these points were well deliberated in panel and committee meetings. Regarding reference of IS 16192 Part 1 for testing and conformance in IS 16192 Part 2, committee mentioned that it is done as requirements of IS 16192 Part 1 are stringent compared to other parts and international reference are also not available for hybrid</p>
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	and such composite wheel.
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B-2.1 ICAT Comment:

Committee accepted ICAT comment on clause 3.2.1. For other comments, committee deliberated and decided that these comments are comment on standard. Committee decided to address other comments of ICAT through 3rd amendment (if accepted by committee after due deliberation). It requested panel 3 to deliberate on ICAT comments in its subsequent meetings and provide its recommendations.

B-2.2 Comments from ACMA

Shri Ashvani from Mandap briefed the comments. Committee deliberated and mentioned that as discussed in panel 3 meeting, dt. 9.4.2024, decision regarding responsibility of certification will be taken by CMD dept suitably.

Regarding reference of IS 16192 Part 3, Shri Ashvani mentioned that reference of part 3 is required to regulate the dimensions and not allowing the manufacturing of unauthorized dimensions, which may cause tyre fitting issues. Committee deliberated and mentioned that incorporation of dimensional requirement in various wheels standards, was discussed in 37th meeting, and committee had requested ITTAC and BIS to update ITTAC manual and BIS standards. As Dimensions are not part of international standards on performance requirement of wheel, committee had decided to not include dimension for time being. However it had decided that once the data is updated, committee will discuss further the possibility of including dimensions requirement in relevant Indian Standard.

Committee mentioned that as presently revision of various part of IS 10694 are under discussion, thus it decided that for dimensional requirement reference of IS 16192-3 is not required and it can be sufficed through reference of relevant part of IS 10694. Committee decided to discuss the reference of dimensional requirement once various parts of IS 10694 are updated. Additionally, it requested Mandap to provide the details of sizes, profile and other details available with him, which can be helpful in revising the standard, for updating the IS 10694 series standards.

B-2.3 Comments from YAMAHA:

Comments received from Yamha, was circulated with members vide mail dated 13.5.2024, are reproduced below:

‘Kindly substitute the Note as below:

- NOTE - Hybrid Wheel rim (refer 3.2.2) shall be tested with the motor for which it is designed. However, wheel rim may be tested with motor casing (without motor) in agreement between technical agency and manufacturer.
- Justification: There is no direct contact between the motor (stator) and motor casing (rotor) and inside motor parts do not bear any load, so there is no influence on the performance requirement of wheel rim.’

Shri Navneet from Yamha briefed the comments, Committee deliberated and mentioned that, as these wheels have been tested with motor and no issues have been noticed so far, it is not recommended to test without motor. It decided to not accept the YAMAHA comment.

B-3 IS 16192 Part 3

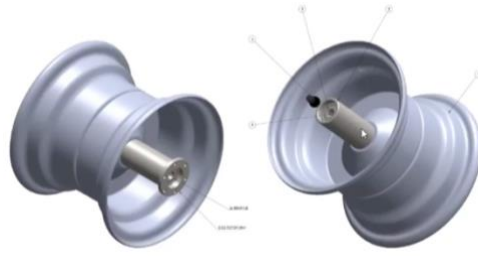
Committee also deliberated on ARAI comment on F-Draft (amendment 2 to IS 16192 P3). It decided as follows:

Sr. no	Existing clause in Amd proposal	Revised proposal	Justification	Decision
1.	'5 RIM CONTOUR	'5 RIM CONTOUR (for rim manufacturer's reference purpose only)	To provide clarity wrt intent of clause. This clause may not be considered as part of certification / verification requirement.	Committee decided to modify as: 5 RIM CONTOUR (for reference only)
2.	5.2.1 Rim contour for tapered bead seat rim with hump is given in Fig. 3,	5.2.1 Rim contour for 5° tapered bead seat rim with hump is given in Fig. 3,	Editorial correction.	Agreed

It decided to process the F-Draft further, after incorporating the agreed comments

Annexure C

(Sl No 8 of Item 3)



Annexure D
(item 0.2)

List of Participants

SL NO.	ORGANIZATION	Member Present
1)	Automotive Component Manufactures Association of India, New Delhi	Shri Sanjay Tank
2)	Automotive Research Association of India, Pune	Shri V S Khairatkar
3)	Ashok Leyland Limited, Chennai	Shri Ved Gautam
4)	Automotive Tyre Manufactures Association-Goodyear	Shri Rahul Sangle
5)	Accura Valves Pvt. Ltd -(invitee)	Shri Kurwatti
6)	Arihant Udyog -(Invitee)	Shri Piyush Jain
7)	Arihant Udyog -(Invitee)	ANISH CHAUHAN
8)	Bajaj Auto Limited, Pune	Shri Parmeshwar Mane
9)	Bajaj Auto Limited, Pune	Shri Abhay Kumar
10)	Bajaj Auto Limited, Pune	Shri Arvind Kumbhar
11)	Indian Tyre Technical Advisory Committee, New Delhi- Bridgestone	Shri Sudershan Gusain
12)	Indian Tyre Technical Advisory Committee, New Delhi- Bridgestone	Shri Deepak
13)	BUYMYEV TECHNOLOGY PVT LTD-(invitee)	Shri Vinod
14)	BHAGWATI WHEELS (invitee)	Shri Amit Bhatia
15)	Central Institute of Road Transport (CIRT)	Shri F.S,Makhdoom
16)	Indian Tyre Technical Advisory Committee, New Delhi- CEAT	Shri Thomas Cherian
17)	CMD-III, BIS	Shri Rakesh
18)	Indian Tyre Technical Advisory Committee, New Delhi- Goodyear	Shri Pramod (ITTAC)
19)	Global Automotive Research Centre, Oragaram	Shri S Nagarajan
20)	Hero Motocorp Limited, New Delhi	Shri Piyush Chowdhry
21)	Hero Motocorp Limited, New Delhi	Shri Eshan Gupta
22)	Hero Motocorp Limited, New Delhi	Smt. Garima
23)	Honda Motorcycle and Scooter India	Shri Arpan Shukla
24)	Honda Motorcycle and Scooter India	Ms. Neha Sinha
25)	Honda Cars India Research and Development Limited, Noida	Ms. Neha Gaba
26)	Honda Cars India Research and Development Limited, Noida	Shri Muthu Kumar
27)	(Panel 1 member)Invitee	Shri T Chakravarty
28)	Indian Tyre Technical Advisory Committee	Shri Niteesh Shukla
29)	Indian Tyre Technical Advisory Committee	Shri Vinay Vijayvargia
30)	International Centre for Automotive Technology, Manesar	Shri Raj Kumar
31)	International Centre for Automotive Technology, Manesar	Shri Jatin Wadhwa
32)	International Centre for Automotive Technology, Manesar	Shri Manish Chauhan
33)	International Centre for Automotive Technology, Manesar	Shri Mukund Mishra
34)	International Centre for Automotive Technology, Manesar	Shri Harish Joshi
35)	Indag Rubber Ltd.(TREA)	Shri Ravi Bhalla

SL NO.	ORGANIZATION	Member Present
36)	India Yamaha Motor Private Limited, Noida	Shri Navneet Kaushik
37)	Indian Rubber Manufacturers Research Association, Thane	Shri Sachin Barve
38)	Kalyani Maxion Wheels Chakan, Pune	Shri Sunil Bhatambrekar
39)	Maruti Suzuki India Limited, Gurugram	Shri Manoj Prabagar
40)	Maruti Suzuki India Limited, Gurugram	Shri Mayank Sharma
41)	Maruti Suzuki India Limited, Gurugram	Shri Raj Kr Dwivedi.
42)	Mahindra and Mahindra Limited, Mumbai	Ms. Pushpanjali Pathak
43)	Mahindra and Mahindra Limited, Mumbai	Shri Devendra Gandhi
44)	Michelin India Private Limited, Pune	Shri Ashish Agrawal
45)	Mandap International (invitee)	Shri Ashvani Mandap
46)	Minda Kosei Aluminum Wheels Pvt. Ltd, Bawal	Shri Hemant Parkhi
47)	Minda Kosei Aluminum Wheels Pvt. Ltd, Bawal	Dushyant Chauhan
48)	Indian Tyre Technical Advisory Committee -J K Tyre	Shri Sidney Jose
49)	National Automotive Testing and R and D Infrastructure Project, Indore	Shri S J Srihari
50)	Renault India Private Limited, Mumbai	Shri Sabarivasan K N
51)	Renault Nissan Technology & Business Centre India Pvt. Ltd.	Shri Vivekraj S
52)	Renault Nissan Technology & Business Centre India	Shri Girish
53)	Sonil Ventilfabrik (invitee)	Shri Himesh Shah
54)	Steel Strips Wheel Limited, Chandigarh	Shri Vimal P Anand
55)	Skoda Auto Volkswagen India Pvt.Ltd, Mumbai	Shri Milind Jagtap
56)	Toyota Kirloskar Motor Private Limited, Bidadi	Shri Rahul
57)	Toyota Kirloskar Motor Private Limited, Bidadi	Shri Dinesh G M
58)	TVS Motor Company Limited, Hosur	Shri Winney
59)	Tyre Re-treading Education Association (TREA)	Shri Rahul Saxena
60)	Tata Motors Limited, Pune	Shri Pataloba Nagane
61)	TVS Motor Company Limited, Hosur	Shri GURU RAJAN
62)	Tractor and Mechanization Association, New Delhi	Shri Pradeep Shinde
63)	Triton Valves Limited, Bengaluru	Shri Deepak Hv
64)	Volvo Trucks, VE Commercial Vehicles Limited, Bengaluru	Shri Nithin Roy
65)	Wheels India Limited	Shri Shiv Giri