ANNEXURE 1
(Item 2.3)

AUTOMOTIVE TYRES, TUBES AND RIMS SECTIONAL COMMITTEE, TED 7

SCOPE — Standardization of automotive tyres, tubes, rims, and related.
Co-ordination of work with ISO/TC 31and its relevant subcommittees

Meeting No.	**Date**	**Venue**
38th Meeting	10th July 2023	Virtual Meeting (BIS)
39th Meeting	28th Aug 2023	Virtual Meeting (BIS)
40th Meeting	01st Dec 2023	Hybrid Meeting (BIS HQ+ Virtual)

Sl. No.	**NAME OF ORGANIZATION**	**REPRESENTED BY** Principal member (P) Alternate member (A) Young Professional (YP)	**Attendance**			
			38th	39th	40th	Total
1.	IN INDIVIDUAL CAPACITY	Shri D. P. Saste (Chairman)	Y	Y		
2.	~~All India Motor Transport Congress, New Delhi~~	~~Shri Naveen Gupta (P) Shri Pramod Bhavsar (A)~~	~~N~~	~~N~~		
3.	Ashok Leyland Limited, Chennai	Shri N Muthu Kumar (P) Shri Ved Prakash Gautam (A)	Y	Y		
4.	Automotive Component Manufactures Association of India, New Delhi	Shri Sanjay Tank (P) Ms. Seema Babal (A)	Y	N		
5.	~~Association of State Road Transport Undertakings, New Delhi~~	~~Shri R Chandrababu (P)~~ ~~Shri Ulhas Babu (A)~~ ~~Shri RRK Kishore (A)~~	~~Y~~	~~Y~~		
6.	Automotive Research Association of India, Pune	Shri A Akbar Badusha (P) Shri Vyankatesh S Khairatkar(A) Shri Pranab Devrajan (YP)	Y	Y		
7.	Automotive Tyres Manufacturers Association, New Delhi	Shri Rajiv Budhraja (P) Shri T. C. Kamath (A)	Y	Y		
8.	Bajaj Auto Limited, Pune	Shri R. Narasimhan (P) Shri Arvind V. Kumbhar (A)	Y	Y		
9.	Central Institute of Road Transport, Pune	Shri Farukh S Makhdoom (P) Shri Sanjay B Salunkhe (A) Shri Nilesh Barmukh (YP)	Y	Y		
10.	~~Directorate General of Quality Assurance, Ministry of Defence, New Delhi~~	~~CQAV (P)~~	~~Y~~	~~N~~		
11.	Enkei Wheels (I) Limited	Shri Vikramsinh Kakade (P) Shri Tomoyoshi Seki (A) Shri Sachin Utpat (YP)	N	N		

12.	Global Automotive Research Centre	Dr. A. S. Ramadhas (P) Shri V M Dhanasekkar (A) Shri S. Nagarajan (YP)	-	-		
13.	In personal Capacity	Shri T Chakaravarty	-	Y		
14.	Hero Motocorp Limited, NewDelhi	Shri Piyush Chowdhry (P) Shri Feroz Ali Khan (A) Shri Mohd. Danish Gazali (YP)	Y	Y		
15.	Honda Cars India Research And Development Limited, Noida	Shri S. Muthu Kumar (P) Shri Gagan Manral (A) Smt. Neha Gaba (YP)	-	-		
16.	India Yamaha Motor Private Limited, Noida	Shri Mohit Kansal (P) Shri Navneet Kaushik (A)	-	Y		
17.	International Centre for Automotive Technology, Manesar	Shri Keshav Kumar (P) Shri Harish Joshi(A) Shri Jayant Raj (YP)	Y	N		
18.	Indian Foundation of Transport Research and Training, New Delhi	Shri S. P. Singh (P) Shri J. S. Walia (A)	N	N		
19.	~~Indian Rubber Manufacturers Research Association, Mumbai~~	~~Dr. K. Raj Kumar (P)~~ ~~Dr. Bharat Kapgate (A)~~	~~N~~	~~N~~		
20.	Indian Tyre Technical Advisory Committee, New Delhi	Shri V. K. Misra (P) Shri Niteesh Shukla (A) Shri Vinay Vijayvargia (YP)	Y	Y		
21.	Kalyani Maxion Wheels Chakan,Pune	Shri Sunil Bhatambrekar (P)	Y	Y		
22.	Mahindra and Mahindra Limited, Mumbai	Shri Ram Singh (P) Shri Kulkarni Shailesh (A) Ms. Pathak Pushpanajali (YP)	Y	Y		
23.	Maruti Suzuki India Limited, Gurugram	Shri Gururaj Ravi (P) Shri Raj Kumar Dwivedi (A) Shri Manoj Prabagar (YP)	Y	Y		
24.	Minda Kosei Aluminum Wheels Pvt. Ltd, Bawal	Shri Hemant Parkhi (P) Shri Dushyant Chauhan (A)	Y	Y		
25.	~~Ministry of Commerce and Industry, Department for Promotion of Industry and Internal Trade, New Delhi~~	~~Shri A.P. Singh (P)~~ ~~Shri S S Gupta (P)~~	~~N~~	~~N~~		
26.	~~Ministry of Road Transport and Highways, New Delhi~~	~~Director (P)~~	~~N~~	~~N~~		

27.	National Automotive Testing and R and D Infrastructure Project, Indore	Shri S J Srihari (P) Shri J K Chakrabarty (A)	~~N~~	Y		
28.	~~*Renault Nissan Technology & Business Centre India Pvt. Ltd.,Chennai*~~	~~Shri Rajendra Khile (P)~~ ~~Shri Vivekraj Selvarathinam (A)~~ ~~Shri C V Girish Chandh (YP)~~	~~Y~~	~~Y~~		
29.	Skoda Auto Volkswagen India Pvt. Ltd, Mumbai	Shri Makarand Brahme (P) Shri Milind Jagatp (A) Smt. Aditi Deshpande (YP)	Y	Y		
30.	~~Society of Indian Automobile Manufacturers (SIAM), Delhi~~	~~Shri Prashant Kumar Banerjee (P)~~ ~~Shri Amit Kumar (A)~~	~~N~~	~~N~~		
31.	Steel Strips Wheel Limited, Chandigarh	Shri Vimal P. Anand (P)	Y	Y		
32.	Suzuki Motorcycle Indian Pvt. Ltd., Gurugram	Shri Avinash Khot (P) Shri Ramkrishna Ahire (A) Shri Gaurav Singh (YP)	Y	Y		
33.	TREA-Tyre Retreading Education Association, Mumbai	Shri Rahul Saxena (P) Shri Karun Sanghi (A)	Y	Y		
34.	Tata Motors Limited, Pune	Shri Gowrishankar P. S. (P) Shri Pataloba Nagane (A)	N	Y		
35.	Toyota Kirloskar Motor Private Limited, Bidadi	Shri Raju. M (P) Shri Vijeth Gatty (A) Shri Dinesh G. M. (YP)	Y	Y		
36.	Tractor and Mechanization Association, New Delhi	Shri Philip Koshy (P) Shri Pradeep Shinde (A)	Y	Y		
37.	Triton Valves Limited, Bengaluru	Shri Bharath Chandrashekar(P) Shri Deepak HV (A)	Y	Y		
38.	~~Vehicle Research and Development Establishment, Ahmednagar~~	~~Shri S. Pal (P)~~ ~~Shri P.P. Mahajan (A)~~	~~N~~	~~N~~		
39.	Volvo Group India Private Limited, Bengaluru	Shri Karthik Sarma (P) Shri Pramod Kumar Hugar (A)	~~N~~	~~N~~		
40.	Volvo Trucks India, VE	Shri Challapalli Nithin (P) Shri Gedela Chaitanya (A)	N	N		
41.	Wheels India Limited, Chennai	Shri Padmanabhan V (P) Shri Senthil Kumar (A) Shri Shiv Narayan Giri (YP)	Y	Y		

Attendance of 40th meeting and Total (last column), will be updated shortly.

Nomination/Confirmation awaited:

1. MG Motor India Private Limited
2. CFMTTI, Budni

NOTE 1- Due to non-participation in 3 or more consecutive meeting, in 39th meeting the committee had recommended to withdraw AIMTC and IFTRT. However IFTRT participated in 40th meeting of TED 7, committee may please deliberate.

NOTE 2- As per the PNC09/18/2023-PNC-BIS, due to non-participation in two consecutive meetings by the **nominated member(s)**, nomination of following organizations have been withdrawn from the TED 7 committee:

- All India Motor Transport Congress (AIMTC)*
- Association of State Road Transport Undertakings
- DGQA, Ministry of Defence
- Indian Rubber Manufacturers Research Association
- Department for Promotion of Industry and Internal Trade -Ministry of Commerce and Industry
- Ministry of Road Transport and Highways
- Renault Nissan Technology &Business Centre India Pvt Ltd, Chennai
- Vehicle Research & Development Establishment (VRDE)
- Society of Indian Automobile Manufacturers (SIAM)
- Volvo Group*

(* Committee recommended to withdraw these organization in 39th meeting due to non-participation)

Committee may please note.

NOTE 3-In 40th meeting, Committee recommended to withdraw nomination of Mr T Chakravarty. It will be taken up for further deliberation in TEDC meeting.

ANNEXURE 2

(Sl No. 1 Item 3)

Draft Amendment 2 to IS 15633: 2022

DRAFT AMENDMENT NO. 2 DECEMBER 2023

TO

IS 15633: 2022 AUTOMOTIVE VEHICLES — PNEUMATIC TYRES FOR PASSENGER CAR VEHICLES — DIAGONAL AND RADIAL PLY — SPECIFICATION
(*First Revision*)

[*Page* 19, *Table* 14, 55 *series*, *row* (xi), (*see* also Amendment No. 1)] **—** Substitute the following for the existing:

Sl No	**Tyre Size Designation**	**Rim Rec Alt**	**New Tyre-Inflated**								
			Section Width, mm			**Overall Diameter, mm**			**Load Index**	**Maximum Load kg**	**Cold I. P.[1)] (Corresponding to Maximum Load)** kPa
			Design Width	**Minimum Width**	**Maximum Width**	**Design Diameter**	**Minimum Diameter**	**Maximum Diameter**			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
xi)	215/55R18	7J	226	217	235	693	686	700	Std. 95	690	250
		$6\frac{1}{2}$	221	212	230				Reinf. 99	775	290

ANNEXURE 3

(Sl No. 4 Item 3)

Comments received on Document TED 7 (19611)

A-3.1 Comments from Triton Valve

Doc: TED 7

FORMAT FOR SENDING COMMENTS ON BIS DOCUMENTS

DOC. NO. : TED 07 (19611) WC

TITLE: AUTOMOTIVE VEHICLES - VALVES AND VALVE ACCESSORIES FOR PNEUMATIC TYRES – SPECIFICATION
Document Type : Sixth Revision of IS 9081

NAME OF THE COMMENTATOR / ORGANIZATION : TRITON VALVES LTD.

Sl. No.	Clause/Sub-clause/ Para/Table/Fig. No. commented	Type of Comments (General/ Editorial/ Technical)	Proposed change	Justification
1.	FOREWARD	Editorial	New Truck & Bus valves with base diameter 95 and with 10V2 threads ***added*** & optional core chamber No.3 regularized;	Correction
2.	FIG. 2	Editorial	XX: i.e., 82 or 95 may be marked either on metal insert or on the rubber ***base*** or valve	Correction
3.	FIG. 2	Technical	CORE CHAMBER No.3 *(OPTIONAL) NOTE : ACCOMMODATES SHORT CORE ONLY	Missing – To be added
4.	FIG. 3	Technical	CORE CHAMBER No.3 *(OPTIONAL) NOTE : ACCOMMODATES SHORT CORE ONLY	Missing – To be added
5.	FIG. 6	Technical	* - MISSING IN NOTE	Missing – To be added
6.	FIG.8	Technical	CORE CHAMBER No.1 Or 3 *	Missing – To be added
7.	FIG. 53	Technical	C - INTERNAL THREADS	Missing – To be added
8.	ANNEX A	Editorial	From Sl No. 90 to 135 ***ETRTO*** CODE CROSS REFERENCE	Correction (Not TR code)
9.	ANNEX A	Editorial	All *FIG. No.* to be updated	Correction
10.	All Pages	Editorial	Images & Notes formatting to be updated	Correction

For Comments only

A-3.1 Comments from MSIL

TED 7 (19611): NA

ANNEXURE 4

[Item 3 (Sl No. 5,6,11,13, 15,16,17,18,19,20,21,22), and 5.6]

Minutes of combined meeting of Panel 1 & Panel 4

Meeting Title	**Combined meeting of Panel 1 and Panel 4 for review of different IS Standards**
Convener	**Mr. Niteesh K. Shukla,** Director, ITTAC & **Mr Vyankatesh S Khairatkar**, GM, ARAI
Day & Date	Tue, 20th Feb. '24
Time	3:00 PM to 5.00 PM
Mode	MS Teams

Agenda:

Review of received comments from various stakeholders on following IS Standards:

1. **IS 11178:** Recommendations for storage and handling of pneumatic tyres for automotive vehicles.

2. **IS 11031:** Recommendations for storage and handling of inner tubes, tube valves and flaps for use with Pneumatic tyres for automotive vehicles.

3. **IS 15523, IS 15524, IS 15704, IS 15709, IS 15731, IS 15753 & IS 15725** (*Review of these Re-treading standards for edition/l version of referred standards*)

4. **IS 15633 & IS 15636:2022**. (Discussion on comments of ITTAC and Toyota)
5. **IS/ISO 28580**

Summary on review of different IS Standards and recommendation of Panel 1 are as under:

1) **Review of Mr T Chakraborty comments on IS 11178:** Recommendations for storage and handling of pneumatic tyres for automotive vehicles.

Clause No.	As per Standard	Proposed Changes	Justifications	Panel 1 recommendations
Add to 2.5	Storage	Storage temperature should ideally be below 25°C and above 0°C.	To prolong the integrity and safety of tyres	Panel agreed with the below comments of ITTAC: '*'Such specifications are not seen globally, so better to avoid its inclusion in the Standard''.*

2.8(Add)	Storage	Ensure storage area contains none of these items. The following should also be avoided: Solvents Fuels Lubricants	To avoid damage to tyres	OK/Agreed
2.9(Add)	Storage	Protect white rubber Got whitewalls: store them with white areas touching other white areas, and black touching black.	To keep white rubber bright and avoid marks.	Panel agreed with the below comments of ITTAC: *There are tyres with both sidewall white marking, hence such statement would be conflicting in nature. Recommended not to mention in standard.*
3.1.2.13(Add)	Stacking and Handling		Recommendation for storage of tyres with and without rims	Panel agreed with the below comments of ITTAC: *''Not in line with Industry Standards''.*
3.4(Add)	Handling	When handling tyres in warehouse don`t ever drop tyres higher than 1, 5 m. Tyres could be damage on drop from bead area. Typical consequence could be kinked bead. If one finds a tyre with kinked bead it is not recommend to mount such a tyre to a rim.	Proper tyre handling	OK/Agreed

Panel advised to modify the clauses as per latest version

2) **Review of Mr T Chakraborty comments on IS 11031:** Recommendations for storage and handling of inner tubes, tube valves and flaps for use with Pneumatic tyres for automotive vehicles.

Clause No.	As per Standard	Proposed Changes	Justifications	Panel 1 Recommendations
Add to 2.1.2	New inner tubes	This, of course, should only be done as a temporary measure. Before mounting a tyre and tube stored in such a manner, always remove the tube from the tyre and inspect the inside of the tyre for foreign material, which, if not cleaned out, could cause irreparable damage to both tube and tyre.	Damage prevention	Panel agreed with the below comments of ITTAC: *Tubes are pre inflated in the tyres, hence removal from Tyre for inspection* ***is not advisable****. Both Tyres & Tubes are inspected in the Manufacturing premises before assembly.*
Add to 2.2.3	Warehouse	Particular care should be taken to store tubes and flaps away from fluorescent/mercury vapour lights, electric motors, battery chargers, electric welding equipment, electric generators and similar electrical devices, since they all create ozone.	To prevent aging of rubber due to ozone.	OK/Agreed
Add to 2.2.6	New inner tubes	Storage is recommended at between 0^0C and 35^0C, with relative humidity at less than 70%.	Temperature and humidity specs not included in Standard	Panel noted and agreed with the below comments of ITTAC: *There are no global practices, so better to avoid.*
Replace 2.3.3	Stacking and storage	Under no circumstances should tubes ever be hung over nails or pegs, or over any other object which might form a crease in the tube. Such a crease will eventually produce a crack in the rubber and cause tube failure.	To avoid tube failure	OK/Agreed
2.3.4(Add)	Stacking guidelines for tubes	If tubes are loose they should be stacked on flat unslotted shelves or pallets so that the valves are not deformed and do not damage neighbouring tubes.	To avoid deformation and damage.	
2.4.2(Add)	Handling	Tubes, which are packed in cartons or bags, should be left in these to provide some	Protection	

		protection against contamination, ozone and light.		
4.1	Receipt	Delete (under preparation)	The other Standard is already published	OK/Agreed (Standard NO to be provided/mentioned)
4.3 **2.3.2**	Stacking guidelines for flaps	Flaps should be stored on flat, unslotted shelves or pallets.	To avoid permanent fold and cracks. Not explicitly specified in existing stacking guidelines	**OK/Agreed**
4.3.2(Add)	Stacking guidelines for flaps	Under no circumstances should flaps ever be hung over nails or pegs, or over any other object which might form a crease in the tube. Such a crease will eventually produce a crack in the rubber and cause tube failure.	To avoid failure	
Add new section 5	None	Transport: Inner tubes and flaps should be transported in a manner that protects them against deformation, damage or destruction. The means of transport should be dry and clean. They may not be transported with petroleum products, oils, acids, alkalis and other substances that are damaging to rubber. During transport, rubber products should be stacked so that they are secured against movement. If the tubes and flaps are transported at a temperature below -30ºC (minus thirty), at which the rubber begins to lose the characteristics of an elastic material, unloading should be carried out with extreme care so that there is no accidental mechanical damage.	New section for transportation of tubes and flaps	

Add new section 6	None	Storage time: The maximum storage time for new tubes and flaps counted from the date of production, should not be longer than 24 months.	New section for storage time.	Panel noted and agreed with the below comments of ITTAC Not Necessary to mention any shelf life.
-	Explanatory Note	This standard is one of the standards on the recommendations for storage and handling of tyres, inner tubes, flaps, rims' etc. The other standard in this series being 'Indian Standard Storage and handling of pneumatic tyres for automotive vehicles' ~~(under *preparation).*~~	The other Standard is already published	

* ***Panel advised to modify the clauses as per latest version***

3) **Review of Re-treading standards IS 15523, IS 15524, IS 15704, IS 15709, IS 15731, IS 15753 & IS 15725** *for latest edition/ version of referred standards*.

Referred Standards	**Title**	**Present IS No.**	**Panel 1 Recommendations**
IS 15725:2006			
3400 (Part 1): 1987	Methods of test for vulcanized rubber: Tensile stress-strain properties (second revision)	**IS 3400: 2021** ISO 37: 2017	Panel noted and agreed with presented latest editions of referred standards.
3400 (Part 2) : 2003	Methods of test for vulcanized rubber: Rubber, vulcanized or thermoplastic — Determination of hardness (Hardness between 10RI-ID and 100IRHD) (third revision)	**IS 3400 (Part 2): 2023** ISO 48-2:2018	
3400 (Part 4): 1987	Methods of test for vulcanized rubber: Accelerated ageing (second revision)	**IS 3400 (Part 4): 2012** ISO 188: 2011	

3400 (Part 17): 1974 **(Withdrawn)**	Methods of test for vulcanized rubbers: Part xvii tear strength - Angular test piece	**IS 3400 (Part12):2022 /ISO 34-1:2015**	**OK.**
3400 (Part 22): 1984	Methods of test for vulcanized rubber: Part 22 chemical analysis	IS 3400 (Part 22) : 1984	OK

IS 15523: 2018: Automotive tyres - Precured patches for repairing cross ply/radial tyres and inner tubes - Specification (First Revision)			
3400 (Part 1) : 2012	Methods of Test for vulcanized rubber: Tensile stress strain properties (second revision)	**IS 3400: 2021** ISO 37: 2017	Panel noted and agreed with presented latest editions of referred standards.
3400 (Part 2) : 2014	Methods of test for vulcanized rubber: Rubber, vulcanized or thermoplastic — determination of hardness (Hardness between 10 IRHD and 100 IRHD)	**IS 3400 (Part 2): 2023** ISO 48-2:2018	
3400 (Part 9) : 2014	Methods of Test for Vulcanized Rubber Rubber, vulcanized or thermoplastic — Determination of density	**IS 3400 (Part 9) : 2020** ISO 2781: 2018	
3400 (Part 17): 1974 **(Withdrawn)**	Methods of test for vulcanized rubbers: Part xvii tear strength - Angular test piece	**IS 3400 (Part12):2022** /ISO 34-1:2015	
4910 (Part 2) : 1989	TYRE YARNS CORDS AND TYRE CORD FABRICS MADE FROM MAN-MADE FIBRES METHODS OF TEST PART 2 LINEAR DENSITY	**IS 4910 (Part 2): 2023**	
IS 15524: 2018: Automotive vehicles - Retreading of tyres by the pre - Cured process - Specification (First Revision)			
3400 (Part 1): 2012 ISO 37: 2011	Methods of Test for vulcanized rubber: Tensile stress strain properties (second revision)	**IS 3400: 2021** ISO 37: 2017	Panel noted and agreed with presented latest editions of referred standards.
3400 (Part 2): 2014/ ISO 48: 2010	Methods of test for vulcanized rubber: Rubber, vulcanized or thermoplastic — determination of hardness (Hardness between 10 IRHD and 100 IRHD)	**IS 3400 (Part 2): 2023** ISO 48-2:2018	
3400 (Part 4): 2012 ISO 188: 2011	Methods of test for vulcanized rubber: Part 4 accelerated ageing and heat resistance (Third Revision)	**IS 3400 (Part 4): 2012** ISO 188: 2011	
3400 (Part 9): 2014/ISO 2781: 2008	Methods of Test for Vulcanized Rubber Part 9 Rubber, Vulcanized or Thermoplastic — Determination of Density (Fourth Revision)	**IS 3400 (Part 9): 2020** ISO 2781: 2018	Panel noted and agreed with presented latest editions of referred standards.
IS 3400 (Part 17): 1974 **(Withdrawn)**	Methods of test for vulcanized rubbers: Part 12 Tear strength-crescent test piece First Revision	**IS 3400 (Part12):2022** / ISO 34-1:2015	
IS 13531: 2005	Automotive tyres - Tyre - Retreading materials for mould cure process (First Revision)	IS 13531: 2005	
ISO 289-2-1994	Rubber, Unvulcanised — Determinations using a shearingdisc viscometer — Part 2: Determination of pre-vulcanization characteristics	**ISO 289-2:2020**	

ISO 6502-1999	Rubber - Guide to the use of curemeters	**IS 16848 : 2018** ISO 6502 : 2016 (**at ISO 6502: 2016 has been revised in 3 Part, ISO 6502 Part 1,2, and 3)**	Panel advised member secretary TED-7 and ITTAC to check and revert.
IS 15731: 2006	Automotive tyres — Selection and inspection of Retreadable Tyre casing	**IS 15731: 2018**	Panel noted and agreed with presented latest editions of referred standards.
15780: 2007	Automotive tyres — Repair of tyres and tubes used on motor vehicles	15780: 2007	
IS 15704 : 2018			
IS 10694 (Part 30) : 2009	Automotive vehicles - Rims - General requirements: Part 3 commercial vehicle rims (Second Revision)	IS 10694 (**Part 3**): 2009	Panel noted and agreed with presented latest editions of referred standards.
IS 15636 : 2012	Automotive vehicles - Pneumatic tyres for commercial vehicles - Diagonal and radial ply	**IS 15636: 2022**	
IS 15709: 2018: Automotive vehicles – Re-treaded pneumatic tyres for passenger car - Specification (First Revision)			
IS 10694(Part 2) : 1991	Automotive vehicles - Rims - General requirements: Part 2 passenger car	**IS 10694 (Part 2): 2009**	Panel noted and agreed with presented latest editions of referred standards.
IS 15633 : 2005	Automotive vehicles - pneumatic tyres for passenger car vehicles - diagonal and radial ply	**IS 15633: 2022**	
IS 15731: 2018 Automotive tyres - Selection and inspection of re-treadable tyre casing (First Revision)			
NIL			
IS 15753: 2007			
IS 3400 (Part 1): 1987	Methods of Test for Vulcanized Rubber Part 1 Tensile Stress-Strain Properties	**IS 3400: 2021** ISO 37: 2017	Panel noted and agreed with presented latest editions of referred standards.
3400 (Part 2): 2003	Methods of test for vulcanized rubber: rubber, vulcanized or thermoplastic - Determination of hardness (Hardness Between 10 Irhd And 100 Irhd)	**IS 3400 (Part 2) : 2023** ISO 48-2:2018	
IS 3400 (Part 4): 1987	Methods of test for vulcanized rubber: accelerated ageing	**IS 3400 (Part 4): 2012** ISO 188: 2011	
IS 3400 (Part 17): 1974 **(Withdrawn)**	Methods of test for vulcanized rubbers: Tear strength — Angular test piece	**IS 3400 (Part12):2022** / ISO 34-1:2015	
3400 (Part 22) : 1984	Methods of test for vulcanized rubber: chemical analysis	IS 3400 (Part 22): 1984	
IS 9081: 2001	Automotive vehicles - Valves and valve accessories for pneumatic tyres - Specification	**IS 9081: 2017**	
IS 10939 : 2000	Designation System For Tyre Tube Valves For Automotive Vehicles	**IS 10939: 2023**	

IS 15780: 2007				
IS 9081: 2001		Automotive vehicles - Valves and valve accessories for pneumatic tyres - Specification	**IS 9081: 2017**	Panel noted and agreed with presented latest editions of referred standards.
IS 15627: 2005		Automotive Vehicles - Pneumatic Tyres for Two and Three - Wheeled Motor Vehicles - Specification	**IS 15627: 2022**	
IS 15633: 2005		Automotive vehicles - pneumatic tyres for passenger car vehicles - diagonal and radial ply	**IS 15633: 2022**	
IS 15636: 2005		Automotive vehicles - Pneumatic tyres for commercial vehicles - Diagonal and radial ply	**IS 15636: 2022**	
Review of ITTAC Comments on F draft amendment no 01 to IS 15636:2022				
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
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.
Review of Toyota comments on scope of IS 15633:2022				
Scope		Toyota representative **to include N1 category of vehicle along with M1, T1 and T2 category** in the **scope of IS 15633:2022**	To align with UN ECE R30	Panel advised member secretary, TED-7 to share the proposal of Toyota to the members of TED-7 for their inputs/comments for its discussion in next meeting of TED-7

Review of IS/ISO 28580

Based on recommendation of TED-7 committee in last meeting, Panel 4 discussed & deliberated at length on review of standard IS/ISO 28580 for its revision/withdrawal.

Summary of the key discussed points and recommendation of the Panel is as under:

ARAI Comments		TED-7 comments	ITTAC Comments	Panel 4 recommendations
3.0 - Definitions	New definitions are added. New definitions like 3.9.1, 3.9.2, 3.10, 3.14, 3.16, 3.16.1, 3.16.2 are added. 3.13 definitions nomenclature is changed and formula of calculation is elaborated.	What is the need of ISO 28580, as one another Indian Standard IS 18258 has already been published for rolling resistance.?	▪ **ISO 28580** is one of the **test methods** used for the measurement of rolling resistance of tyres, however, newly published **IS 18258** (***corresponding to AIS 142***) is a regulatory requirement for meeting the **threshold limits** of rolling resistance Coefficient **(RRc),** wet grip index **(WGI)** and pass by noise **(PBN)** for **C1, C2** and **C3** category of tyres. ▪ There is no linkage between **IS 18258** *(corresponding to AIS 142)* and **ISO 28580**, Therefore, there is no need to adopt the definitions prescribed in **IS 18258.** ▪ Both the standards ISO 28580 and IS 18258 needs to **co-exist** to take care of the testing and certification requirements of tyres.	Panel 4 noted and agreed with the comments of ITTAC and **advised to adopt ISO 28580:2018** and recommended for co-existence of both standards ISO 28580 and IS 18258,
Table 1 -test speeds Table – 2 – test loads and inflation pressure Table – 3 – warm up durations	In light of change in definitions, meaning of terminologies C1, C2 and C3 (as mentioned in R 117 and AIS 142) will be affected. Differences in definition in ISO need not be adopted. Tables to be suitably modified and aligned to R 117 and AIS 142.			
Annex A: Control accuracy	Control accuracies for time factor is changed for better clarity.			

ANNEX-A

Details of attendees:

Sr. No.	Full Name	Member	Organization
1	Mr August Dubey	BIS	TED-7
2	Ms. Pushpanjali Pathak	SIAM	Mahindra
3	Mr Pradeep Shinde	SIAM	Mahindra
4	Mr. Raj Kumar Dwivedi, MGR(EN7R)	SIAM	Maruti
5	Mr. Uday Salunkhe (ERC, Engineering, Pune)	SIAM	Tata Motors
6	Mr. Rahul A	SIAM	Toyota-Kirloskar

7	Mr Rajat S Hegde	SIAM	Toyota-Kirloskar
8	Mr. Vyanktesh S. Khairatkar	Test Agency	ARAI
9	Mr Jayant Rai	Test Agency	ICAT
10	Mr. Sachin A. Barve	Test Agency	IRMRA
11	Mr. Bharat Kapgate	Test Agency	IRMRA
12	Mr. S. S. Gusain	ITTAC	Bridgestone
13	Mr Deepak Arora	ITTAC	
14	Mr. Mohit Agarwal	ITTAC	Continental
15	Mr. Sidney Joes	ITTAC	JK
16	Mr Eric Reuben	ITTAC	MRF
17	Mr. Niteesh K Shukla	ITTAC	ITTAC
18	Mr. Vinay Vijayvargia	ITTAC	ITTAC

Annexure 5

(Sl No. 18 of Item 3)

Comments on IS 15704

Clause No / Annex No	Sub-Clause No / Table No	Title	As per Standard	Changes requested	Justification
3	3.2 b)	Definitions	b)Radial — Pneumatic-tyre structure in which the ply cords extend to the beads and are laid substantially at 90° to the centreline of the tread, the carcass being stabilized by an essentially in-extensible circumferential belt.	Amend to read b) "Radial" or "radial-ply" describes a tyre structure in which the ply cords extend to the beads and are laid substantially at 90° to the centreline of the tread, the carcass being stabilized by an essentially inextensible circumferential belt;"	s per Revision 1 mendment 5 to ECE gulation 109
	3.3.2	Category of use	Special Use Tyre — Tyre intended for mixed use, both on and off road and/or at restricted speed.	Amend to read "Special use tyre" is a tyre intended for mixed use, both on and off road and/or at restricted speed. These tyres are primarily designed to initiate and maintain the vehicle in motion in off-road conditions.	
	3.3.4		None	Insert a new sub clause 3.3.4 to read: "Traction tyre" means a tyre in class C2 or C3 bearing the inscription TRACTION and intended to be fitted primarily to the drive axle(s) of a vehicle to maximize force transmission in various circumstances."	
	3.14	Tread Groove	None	Insert new : a)Tread depth" means the depth of the principal grooves." b)Principal grooves" means the wide circumferential grooves positioned in the central zone of the tyre tread, which, in the	

				case of truck (commercial) tyres, have the treadwear indicators located in the base." **c)** Void to fill ratio" means the ratio between the area of voids in a reference surface and the area of this reference surface calculated from the mould drawing."	
	3.20 a) & b)	Tyre Size Designation	A designation showing, a) Nominal section width — This shall be expressed in millimetres, except in cases of tyres for which the size designation is shown in the col 2 of the Tables 6 to 25 of IS 15636 b)Nominal aspect ratio — Except in cases of tyres for which the size designation is shown in the col 2 of the Tables 6 to 25 of IS 15636.	Amend to read "Tyre-size designation" means, except in the case of types of tyre for which the tyre-size designation is shown in the col 2 of the Tables 6 to 28 of IS 15636, a designation showing: a)The nominal section width expressed in millimetres b)The nominal aspect ratio or, depending on the tyre design type, the nominal outer diameter expressed in mm;"	
	3.20 c) & d		None	Insert new paragraphs to read: 3.20 c)An indication of the structure placed in front of the rim diameter marking as follows: 3.20 d)on diagonal (bias-ply) tyres, a dash “-“ or the letter "D"; d)n radial-ply tyres, the letter "R";"	
8	8.6	Marking	None	Add 8.6: In the case that the date of manufacture is not moulded, it shall be applied not later than 24 hours after the tyre is removed from the mould."	

Annexure 6

(Sl No. 14 of Item 3)

Input received from Wheels India- Revision of IS 10694 Part 7

1.Addition of size 15.00/3.0

Source	Clause Of IS	Comment	Action Proposal
Table A.5	IS10694 Part7	15.00/3.0 Size to be added	Profile from Table1 of ISO4250-3 to be adopted

Table A.5 – Rims for industrial tyres for nominal diameter 25"and above

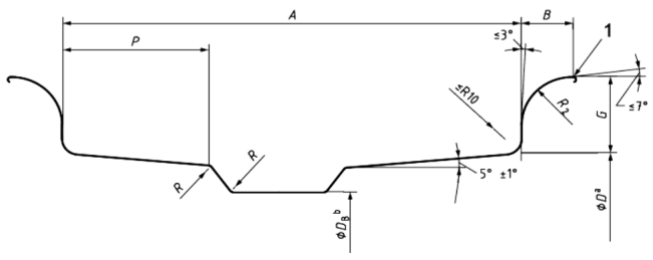
Rim Width Code	Nominal rim diameter code	A	G	B	P	R2	D5 +0.5/-13.0
15.00/3.0	25	381	76±2,0	≥55	≥117,5	44,5±1,5	609,5

2. Change of flange end radius to R1 min

Source	Clause Of IS	Comment	Action Proposal
Figure A.6	IS10694 Part7	Flange end radius ≥R3 to be changed to R1 Min	Radius value to be adopted from Figure 1 (page3) of ISO4250-3 Key Note 1

ISO 4250-3:2011(E)

Dimensions in millimetres



Key

1 break corner equivalent to R1 min.

Flange and bead seat shall be removable on one side.

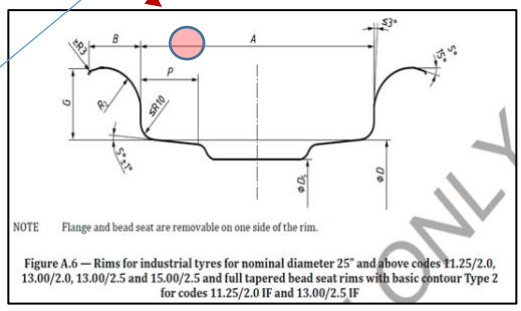
All flange and bead seat dimensions apply to both sides of the rim contour.

NOTE This figure applies to rim diameter codes 24, 25, 29, 33, 35, 39, 45, 49, 51, 57 and 63. (See Table 7 for specific rim diameters.)

[a] For rim diameter codes < 49, D tolerance: $^{+0,4}_{-0,8}$.
For rim diameter codes ≥ 49, D tolerance: ±0,8.
The tolerance given for the specified rim diameter, D, is for tyre design purposes only. The actual rim measurement by circumference is established by using a mandrel and a tape.

[b] For rim diameter codes ≤ 49, $D_B = (D - 25{,}5)\ ^{+0,5}_{-13,0}$.
For rim diameter codes 51 and 57, $D_B = (D - 51{,}0)\ ^{+0,5}_{-13,0}$.
For rim diameter code 63, $D_B = (D - 63{,}5) \pm 13{,}0$.

Figure 1 — Contours of 5° full tapered bead seat rims



NOTE Flange and bead seat are removable on one side of the rim.

Figure A.6 — Rims for industrial tyres for nominal diameter 25" and above codes 11.25/2.0, 13.00/2.0, 13.00/2.5 and 15.00/2.5 and full tapered bead seat rims with basic contour Type 2 for codes 11.25/2.0 IF and 13.00/2.5 IF

ANNEXURE 7

[Item 3 (Sl No. 3, 14, 25), 5.1.2, 5.1.3, and 5.1.8]

Minutes of 2nd Meeting of Panel 3 (Dated: 02.01.2024)

Minutes
(For BIS internal use only)

Name of the Panel	Date and Time	Day	Venue
Panel 3	**2 January 2024** **3:30 PM to 6:00 PM**	**Tuesday**	**Virtual**

Chairperson: Shri D P Saste
Member Secretary: August Dubey Sc. B, TED

Following the 1st meeting of Panel 3 on December 11, 2023, and the receipt of clarification requests concerning IS 16192 Part 1 to 3, a second meeting of Panel 3 was convened to thoroughly discuss and conclude recommendations and decisions on the following matters:

1. Review of IS 10694 Part 1,4,5 and 7
2. Discussion on Wheel rim for EV
3. Comments received from Mr. Hemant Mule
4. Discussion on clarification request received on IS 16192 P1,P2,P3
5. Unification of terminology
6. Discussion for inclusion of Material test/spoke test/ dynamic test in IS 16192 Pt 3
7. Other task assigned by TED 7 committee to P3

Shri Rakesh Kumar Sc. D- CMD-III requested participants to inform the sizes or types of wheel rims, which are not covered in Indian standards, to BIS, to address suitably.

Detail of participants, attached at Annex-1.

1. Review of IS 10694 Part 1,4,5 and 7

Panel 3 discussed and underscored the importance of these standards. It urged the designated members to thoroughly examine these standards and furnish recommendations, along with updated drafts, within a three week timeframe:

IS No	Title	Allocated to	Remarks
IS 10694 Part 1	Automotive vehicles - Rims - General requirements: Part 1 nomenclature, designation, marking and measurement (First Revision)	Maxion	For present draft document, kindly refer agenda of 40th meeting.

IS 10694 Part 4	General requirements for rims for automotive vehicles: Part 4 scooter and scooter derivative rims	UNO Minda, Rockman	For present draft and decision of the committee/ panel recommendation , kindly refer 40th meeting.
IS 10694 Part 5	General requirements for rims for automotive vehicles: Part 5 moped, motorcycle and motorcycle derivative rims (First Revision)	UNO Minda, Klassic Wheel	
IS 10694 Part 7	General requirements for rims for automotive vehicles: Part 7 industrial truck rims	Wheels India	

2. Discussion on Wheel rim for EV

Participants were asked to provide the detail of manufacturers who are engaged in manufacturing the said kind of wheels. As per detail provided by participants, following manufacturers are involved in manufacturing of Wheel Rims for EV.

1. Klassic Wheels
2. Steel Strip
3. Mandapam Wheel
4. Bhagwati Wheels

Representative from these organizations briefed the construction of the wheel and transfer of load from rim to axle. Above manufacturers mentioned that in their wheels, the rim and ring are made of steel metals and casing are made of light alloy (alumunium).

2.1 On Construction:

On Construction of these wheels, panel opined that, a permanent mechanism viz. welding, should be used to set rim with ring, to avoid problem in long run period. Panel decided to add various figures providing clarity on construction, through amendment and requested sub-panel to prepare the draft accordingly.

2.2 On Requirements:

Participants deliberated and mentioned that the kind of loads will be same on every type of wheels, irrespective of its material and construction, when it is employed on vehicle. Therefore it concluded that the test and load condition will remain same for EV wheel rim also. Thus it can be addressed through amendment in existing standard.

2.2.1 IS 16192 Part 1 or Part 2

To maintain the sanctity of the standard (title- *light alloy wheel rim* and *steel wheel rims*), panel decided to address above wheel through amendment in IS 16192 Part 2 (AUTOMOTIVE VEHICLES — WHEEL RIMS FOR TWO AND THREE WHEELED VEHICLES PART 2 SHEET METAL WHEEL RIMS —METHOD OF TESTS AND REQUIREMENTS).

Since the alumunium casing is used to cover the stator from both side and it also assist in transferring the load from rim/ring to axle, panel decided to add additional tests given in IS 16192 Part 1 also*, in draft amendment document of* IS 16192 Part 2, for such kind of wheels.

After assembly motor becomes an integral part of the wheel, panel deliberated on the need of including test/failure condition for motor. However, drawing analogy from bearing, it decided not to include any test/failure condition for motor and decided that separate standard may deal with safety requirement of motors.

Participants expressed their views that given the developmental stage of technology for these EV wheel rims, there is a possibility of witnessing various other hybrid configurations, such as rims made of aluminum with casings of aluminum/steel, and etc. As the load on all types of wheels remains constant regardless of the materials used, addressing these wheels could be achieved through amendments to existing standards. Panel requested ACMA and SIAM to verify whether development of any such possible combination is happening/planned by manufacturers and inform the detail to BIS, within a three-week timeframe, to address suitably in standard.

3 Comments received from Mr. Hemant Mule (item 5.7 of 40th meeting of TED 7)

Panel deliberated on Mr Hemant Mule proposal and referring discussions held under item 2 above, it decided to add the provision of composite wheels in Part 2 of IS 16192. Since in these wheels, the alloy is used, therefore panel decided to add additional tests given in IS 16192 Part 1 also, in drafts amendment document, for such kind of composite wheel rims.

Preparation of Draft:

To prepare a draft for inclusion of above kind of wheels (Item 2 and Item 3) in IS 16192 Part 1 and Part 2, panel constituted sub-panel. Sub-panel will prepare the drafts as decided by panel and submit the draft within 3 week time, for further deliberation in panel/committee meeting. Panel requested sub-panel to add suitable figures in draft amendment.
Detail of sub-panel:

- **Convenor**: Shri V S Khairatkar (ARAI)
- **Members:** BAL (will represent SIAM), Shri Sanjay Tank (ACMA), ICAT, CIRT

4 Discussion on clarification request received on IS 16192 P1,P2,P3

4.1 Shri Shyam Kumar, Sc. D- DHBO, briefed the clarification request to panel. Shri Saini from Rockman Industries present in the meeting mentioned that max load marked on the wheel is maximum impact load and it is different than design load. He further added that marking of max load as 1650 N is requirement of OEM. Panel deliberated and opined that such markings will mislead the consumer, therefore it suggested to not put such marking on products. Panel further deliberated and decided to introduce a clause in IS 10694 Part 1, mentioning that marking of characters misleading to consumer on wheel/rim, shall not be allowed.

It requested the BIS to take up this matter with the Transport Engineering Division Council (TEDC) and the Central Marks Department (CMD) to formulate clear guidelines that would prohibit the marking of misleading characters on certified products.

Due to paucity of time, the panel was unable to thoroughly discuss other agenda items. Regarding the clarification request from Daido, the panel recommended the member secretary to re-circulate the request

to committee members for input. Panel members were also encouraged to provide their input on the clarification request via email.

The panel decided to address these pending topics in the next meeting and meeting concluded with a warm vote of thanks to the Chair and all participants, by member secretary.

Annexure- 1

Participants

S. No.	Organization Name	Display Name
1.	CMD-III, BIS	Shri Rakesh Kumar
2.	DHBO- BIS	Shri Shyam Kumar
3.	Ashok Leyland	Shri Ved Gautam
4.	Automotive Component Manufactures Association of India	Shri Sanjay Tank
5.	Automotive Research Association of India	Shri V. S. Khairatkar
6.	Bajaj Auto Ltd.	Shri Abhay Kumar
7.	Bajaj Auto Ltd.	Shri Arvind Kumbhar
8.	Bajaj Auto Ltd.	Shri Parmeshwar Mane
9.	Bhagwati Wheels	Shri Amit Bhatia
10.	Bhagwati Wheels	Shri Laxman
11.	Central Institute of Road Transport	Shri Farukh S. Makhdoom
12.	Carbon Wheelz	Representative
13.	Enkei Wheels (India) Limited	Shri T. Seki
14.	Enkei Wheels (India) Limited	Shri S. Vikram
15.	Endurance Technologies Limited	Shri Vivek Parvatikar
16.	Hero Motocorp Limited	Shri Eshan Gupta
17.	Hero Motocorp Limited	Ms. Garima
18.	Hero Motocorp Limited	Shri Piyush Chowdhry
19.	International Centre for Automotive Technology	Shri Jatin Wadhwa
20.	International Centre for Automotive Technology	Shri Manish Chauhan
21.	India Yamaha Motor Private Limited	Shri Navneet Kaushik
22.	Mandap International Pvt. Ltd.	Shri Ashvani Mandap
23.	Maruti Suzuki India Limited	Shri Manoj Prabagar
24.	Mahindra and Mahindra Limited	Ms. P. Pushpanjali

S. No.	Organization Name	Display Name
25.	Metalman Auto Private Limited	Shri Sachin Rapatwar
26.	Munjal Auto Industries Limited	Shri Vishnu Gupta
27.	National Automotive Testing and R and D Infrastructure Project	Shri Srihari S J
28.	Rockman Industries	Shri Prabhakar Mishra
29.	Rockman Industries	Shri Y. K. Saini
30.	Sandhar	Shri Velmurugan
31.	Steel Strips Wheels Limited	Shri Vimal P. Anand
32.	Society of Indian Automobile Manufacturers	Shri Lokesh Mittal
33.	Society of Indian Automobile Manufacturers	Shri Prashant K. Bnaerjee
34.	TREA-Tyre Retreading Education Association	Shri Rahul Saxena
35.	Toyota Kirloskar Motor Private Limited	Shri Rahul TKM
36.	Uno Minda	Shri Dinesh
37.	Uno Minda	Shri Dushyant Chauhan
38.	Wheels India Limited	Shri Shiv Giri
39.	Klassic Wheel	Shri Suryakant Deshmukh
40.	Klassic Wheel	Shri Hemant M

ANNEXURE 8

(item 5.1.4)

Minutes of 1st Meeting of Panel 3 (Dated: 11.12.2024)

Minutes
(For BIS internal use only)

Name of the Panel	Date and Time	Day	Venue
Panel 3	**11 December 2023** **3:30 PM to 6:30 PM**	**Monday**	**Virtual**

Chairperson: Shri D P Saste
Member Secretary: August Dubey Sc. B, TED

In reference to 40th meeting of TED7, Panel 3 meeting was convened to deliberate and finalize the decision for IS 16192 Part 3 and related Standards.

Member Secretary welcomed the Chairperson and panel members, and briefed the discussion held in the 40th meeting on the subject. Chairperson welcomed all the participants and requested them to deliberate on each points in detail. List of the participants is attached at Annexure 1.

Panel 3 deliberated on title, scope, strength requirement test, rim dimensions, profiles, and etc. Decision of the Panel 3 is as follows:

1. In line with the decision taken by TED 7 committee during the 40th meeting (please refer A-1.1 and A-1.3 of the minutes of 40th meeting-TED7), Panel decided to substitute 'wired spoke' for 'spoke', in title and scope of IS 16192 Part 3.

2. Panel 3 took note of M/s Mandapam comment, to include size 3.0 and 3.5 in WM profile, it further referred ISO 4249-3, ETRTO Manual and ITTAC Manual and concluded that sizes given in clause 4.2 of IS 16192 Part 3 is limited therefore, amendment of clause 4.2 is needed. It deliberated and decided to add Size MT 6.0 in Table 1 and Table 2 as per AIS 073.

   Some of the Panel members suggested to discourage non standards sizes (rims-Width and Dia- not mentioned in IS/ISO standards, Manuals of ETRTO, ITTAC, JATMA, T and RA) of wheel rims, as it may cause fitting issues with the tyres. However, to promote the innovation, Panel 3 decided to provide a suitable provision for non-standard sizes also. Further, for additional sizes of the wheel rims, as deflection and load value is not available , panel decided to address it in line with IS 15633.

   Panel decided that for sizes not available in Table 1 and Table 2, tests shall be as per IS 16192 Part 3 and load and deflection value shall be taken as per declaration made by manufacturers.

   To promote the innovation and to avoid any fitting issues, panel decided to add a suitable note/clause, that for sizes not mentioned in IS/ISO standards, Manuals of ETRTO, ITTAC,

JATMA, T and RA, wheel manufacturer shall submit a declaration from vehicle manufacturer (OEM) certifying application of Wheel rims in their vehicle. However, such declaration shall not be required, if for any such sizes, type approval has been issued to any manufacturer based on OEM declaration.

Further, panel decided to add following points in Annexure A of IS 16192-3.

- Declaration by OEM, if applicable
- Vehicle Models, in which wheel rims shall be used.

3. CMD Clarification on Sizes and profiles:

3.1 Panel reviewed ISO 4249-3, JIS D 4215, ITTAC & ETRTO manual, IS 16192 Part 3, IS 10694 (Part 1 and 5). After due deliberation, it clarified that only two profiles are applicable for IS 16192 Part 3. These profiles are Cylindrical bead seat and Tapered bead Seat (MT). It clarified that column 2 of Table 2 of IS 16192-3, is for cylindrical bead seat and column 3 is for Tapered bead seat.

Further, it decided to add profiles figures [Cylindrical bead seat and Tapered bead Seat (MT)] in IS 16192-3, and suitable note in line with ISO 4249-3, for better clarity.

3.2 Panel noted the observation made by TED 7 committee during the 40th meeting (please refer 5.6.1 of minutes). Further Panel 3 reviewed IS 16192 Part 3 and mentioned that scope of the standard does not put any restriction on size, and general requirement (clause 4.1) test is applicable for all sizes , however the purpose of IS 16192 Part 3 is to ensure safety of the wheel rims, therefore, if the strength test is not possible for some sizes, those sizes should not be considered under the scope of the IS 16192 Part 3. To provide provision of strength requirement test for such kind of wheel rims, a suitable amendment as decided in item 2, above will be processed into WC.

4. Panel 3 created a subpanel consisting of Chairperson, ARAI and BIS to prepare the draft as per agreed comments, to issue it in wide circulation for 30 days.

5. Panel decided to discuss on other assigned subjects in next meeting. There being no other business, meeting ended with vote of thanks by the Member Secretary

Annexure-1

S. No.	Organization	Member Name
1.	In Individual Capacity	Shri D.P. Saste
2.	Automotive Component Manufactures Association of India, New Delhi	Shri Sanjay Tank
3.	Automotive Research Association of India, Pune	Shri V. S. Khairatkar
4.	Bajaj Auto Limited, Pune	Shri Abhay Kumar
5.	Bajaj Auto Limited, Pune	Shri Arvind Kumbhar
6.	Bridgestone	Shri Sudershan Gusain

7.	Central Institute of Road Transport, Pune	Shri S. B. Salunkhe
8.	Central Institute of Road Transport, Pune	Shri Farukh S. Makhdoom
9.	Hero Motocorp Limited, New Delhi	Shri Eshan Gupta
10.	Hero Motocorp Limited, New Delhi	Ms. Garima Singh
11.	Hero Motocorp Limited, New Delhi	Shri Piyush Chowdhry
12.	International Centre for Automotive Technology	Shri Jayant
13.	International Centre for Automotive Technology	Shri Jatin Wadhwa
14.	India Yamaha Motor Private Limited, Noida	Shri Navneet Kaushik
15.	Indian Tyre Technical Advisory Committee, New Delhi	Shri Vinay
16.	Klassic Wheels	Shri Sagar
17.	Klassic Wheels	Ms. Suvarna Kamble
18.	Klassic Wheels	Suryakant Deshmukh
19.	Mandap International Pvt. Ltd.	Shri Ashvani Madan
20.	Minda Kosei Aluminum Wheels Pvt. Ltd., Bawal	Shri Dushyant Chauhan
21.	Maruti Suzuki India Limited, Gurugram	Shri Manoj Prabagar
22.	Maruti Suzuki India Limited, Gurugram	Shri Raj Kumar Dwivedi
23.	Munjal Auto Industries Limited	Shri Surendra Sharma
24.	Munjal Auto Industries Limited	Shri Vishnu Gupta
25.	Suzuki Motorcycle India Private Limited, Gurugram	Shri Ram krishna
26.	Steel Strips Wheel Limited, Chandigarh	Shri Vimal P Anand
27.	Uno Minda	Shri T Rahane
28.	Wheels India Limited	Shri Vijaya Kumar

ANNEXURE 9

(Item 5.1.2)

Draft amendment document prepared by Sub-Panel (under panel 3) for Amendment in IS 16192 Part 2.

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

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.

Existing text -

1 SCOPE

This standard (Part 2) prescribes the general and performance requirements of sheet metal wheel rims intended for use on two and three wheeled motor vehicles with or without side car.

Clause -3: Substitute following for existing:

Existing text -

3 DEFINITIONS AND NOMENCLATURE

Definitions and nomenclature shall be as per IS 10694 (Part 1).

3 DEFINITIONS AND NOMENCLATURE -

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

3.2 Typical Types of Light Alloy Wheel Rim

3.2.1 *Composite Construction Sheet Metal Wheel Rims* — In such wheels, rim is made of sheet metals and the spokes or disc are made of light alloy or steel. Rim, spoke or disc and hub are then assembled together. (*see* fig. 1)

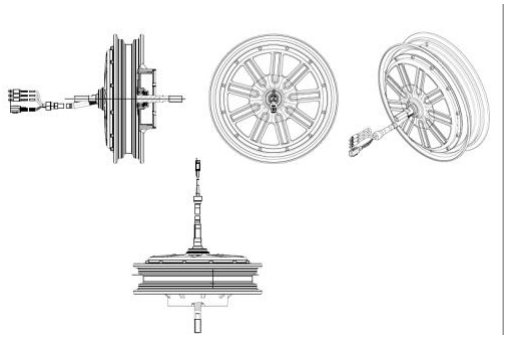


Figure – 1 – Typical composite construction steel wheel rim.

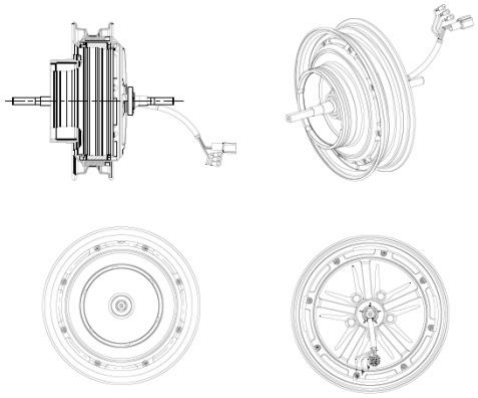


Figure – 2 - Typical Hybrid wheel rims

NOTE—Wired spoke wheels are not included under this standard.

3.2.2 *Hybrid Construction Sheet Metal Wheel Rims —*
In such wheels, 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)

Footnote - In construction of these wheels, a permanent mechanism, should be used to set rim with ring, to avoid problem in long run period.

Clause -4.2.2: Substitute following for existing:

Existing text **–**

4.2.2 *Tests*

Following two tests shall be carried out on wheel rims:

a) Dynamic cornering fatigue test; and
b) Dynamic radial fatigue test.

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 and composite (wheels wherein, Rim is made up for steel and hub and or spokes and or disc are made of light alloy) wheels to undergo all five tests as stated above. Test requirements shall be as per IS 16192 P-1 for described tests.

4.2.2.2 - For wheels wherein, wheel assembly typically including, rim along with hub, spokes, disc are made of steel, all tests shall be done as per Cl 4.2.3 and 4.2.4 of this standard.

Existing text -

ANNEX B

(*Clause* 5.1.1)

TECHNICAL INFORMATION TO BE SUBMITTED BY SUPPLIER

1) Name of supplier
2) Address of supplier
3) Telephone No.
4) Fax No.
5) E-mail address
6) Contact person
7) Wheel rim manufacturer name (in case, different for supplier)
8) Address of wheel rim manufacturer (in case, different for supplier)
9) The trade/brand name or mark
10) Wheel rim size designation
11) Type of wheel rim (to be specified)
12) Location rear/front/both
13) Maximum design load of wheel rim
14) Maximum static loaded radius (*R*) for which wheel rim is designed for, in m
15) Engineering drawing of wheel rims giving details of profile, relevant dimensions, tightening torque for wheel bolts, Inset/outset, markings, etc, in triplicate

Annex B: Insert the following after Sl No. 15 and add Sr. no. 17

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

ANNEXURE 10

(Item 5.1.2)

Input submitted by Carbon Wheelz

Dear Sir,

Have a good day!

My name is Sachin Shekade, from Carbon Wheelz, Pune and I am writing to provide some valuable suggestions regarding the testing and BIS certification process for hub motor wheel rims under IS 16192.

Please check the attached presentation, which describes types, processes & BIS certification queries.

After careful consideration and analysis, we believe that incorporating the suggestion into the testing and certification procedures will accommodate all types of hub motors and respected standards for testing.

If you have any questions or would like to further discuss these suggestions, please feel free to reach out.
We are open to collaboration and are committed to contributing to the enhancement of the hub motor wheel rim testing and certification process.

Thank you for considering our suggestions.
We look forward to the opportunity to improve and streamline the certification process under IS 16192.

Best regards,
Sachin Shekade

CARBON WHEELZ

Rule the roads

Regulatory Inputs for testing procedure of Hub motor rims use for 2W applications

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Types of Hub motor rims used in electric 2W application

Sr. No	Type of Hub Motors	Photo	Application
1	Steel Rim		10'' & 12'' Scooter
2	Alloy Rim		14'' - 18'' Bike & scooter
3	Spoke Rim		16'' - 18'' Bike & Moped

STEEL RIM HUB MOTOR

Construction of Wheel:

Suggestion : If the wheel rim assembly is tested as per IS 16192:part1.The sheet metal rim undergoes significant deformation in Impact test. This results in repetative failure of rim in the test.

ALUMINIUM ALLOY RIM HUB MOTOR

Construction

Suggestion: This wheel testing may be done as per IS 16192 Part1 , because wheel + cover made up of Aluminium alloy material.

SPOKE RIM HUB MOTOR

Construction

Suggestion : Only the steel rim is to be tested as per IS 16192:part 3. This creates a problem regarding the clarity of testing for this type of rims.

HUB COVER CHANGE ISSUES

For every change in hub cover design, the rims have to be tested again. This causes repeat testing and additional cost burden for us.

The HUB motor side cover manufacturer and its design are decided by motor manufacturer and rim manufacturer has no control over the said part.

Suggestion: Predefine the extension criteria for multiple rim covers.

THANK YOU

ANNEXURE 11

(Item 5.1.2)

Input from ARAI for development of (Alloy +Alloy) Hybrid wheel,

Dear sh August,
Greetings.
Kindly refer to our telecom today.

With regards to discussion point in subject meeting wrt hybrid / composite type of wheels, this is to inform you that ARAI has received application for BIS approval of wheel rim assembly. This wheel rim assembly is constituted of light aluminium alloy rim, aluminium alloy spoke and hub motor with light alloy cover.

Considering the discussions in recent past TED7 meetings, this construction may be taken up suitably in forthcoming meeting.

With regards,

Vyankatesh S Khairatkar
GM, SHL ARAI

ANNEXURE 12

(item 5.1.4)

Comments on document [TED 7 (24491)]

A-12.1 Comments received from M/s Mandap

Respected Chairman Sir and All Members:

We are also pleased to share a scanned copy of our Comments on the WC Draft on the BIS portal with regard to the IS 16192 Part3.

As mentioned in the comment, we feel that the Rim manufacturer/Vehicle OEM are not in a position to give a declaration for the Load Test which a particular rim size should achieve. It should be the prerogative of BIS to specify quality/safety requirements based on feedback from all stakeholders.

We humbly suggest that it should be specified by BIS based on the data/logic of existing rim since the standard and also the feedback received from rim manufacturers/ARAI of the load test results actually achieved during their testing of these sizes (WM 3.00 & 3.50 and so on) inhouse and also by ARAI since they have already issued OK Test Reports for the WM 3.00 & 3.50 profiles.

It is also suggested, that Width of 6.00 is proposed to be added as item no. (xvi) in the Column 3 of Table 4.2 having the same load requirement of 650 kgs by BIS. Is there any documented evidence of it having a requirement of 650 kgs? Or in other words on what basis is an addition in the table being made and why can't the same logic be done on wider WM rims?

Is it possible to use the same logic/assessment in the sace of Wider Wm rims by adding the sizes 3.00 & 3.50 in the Column 2 of the Table 4.2 with a load test requirement of 650 kgs, instead of the rim manufacturer/OEM giving a declaration?

Looking forward to your views/suggestions. Idea of this email is to collectively form standards which can be easily implemented by all manufacturers without any complications.

Regards
Ashvcani Mada
Mandap International

A-12.2 Comments from MSIL

TED 07 (24491) WC: Not relevant

ANNEXURE 13

(Sl No. 34 of Item 3)

Comment received from MSIL on draft document [TED 7 (24717)]

SNo.	Clause / Subclause No.	Paragraph No./Figure No./Table No.	Type of Comment	Attachment
1	D1.2.3	Last paragraph	Editorial	N/A
Comments/Suggestions along with Justification for the Proposed Change			Proposed Draft Amd. 1 to IS-18258-2023 is in line with Amd. 1 to AIS-142 / ECE R117, for temp. reference better to add "**the wetted surface**" word for better clarity which is in line to referred stds.	
Proposed Change/Modified Wordings			The ambient temperature shall remain close to **"the wetted surface"** temperature, the difference between the ambient and wetted surface temperature shall be less than 10 °C.'	

ANNEXURE 14

(item 5.1.8)

Clarification request received from DHBO

A-14.1 Clarification request received from DHBO

Mail | Contacts | Calendar | Tasks | Briefcase | Preferences | My Dashboard | Login History | Search | Fwd: Clarificat

Close | Reply | Reply to All | Forward | Archive | Delete | Spam | Actions

Dear Sir/Madam,

DHBO has received an application for inclusion of following variety as per IS 16192 (Part 1) under the existing scope of license:

UNIT CONSTRUCTION LIGHT ALLOY WHEEL MAX DESIGN LOAD 1100 N SIZE DESTINATION MT 1.85 X 17 INCH MATERIAL ALUMINIUM ALLOY RIM THICKNESS 4.8 MM INSET/OUTSET - NA INTENDED USED WITH TUBELESS TYRE

As per ISS (including amendment no. 1), it is informed that marking of **max. design load** on the product is not required. However, the licensee has marked **max. load** as 1650 N on the sample sent for testing. Test report attached for ready reference.

Upon query, the licensee has submitted that the max. load marked on the sample is impact load at which the sample is tested. Copy of reply attached for reference.

In this regard, DHBO is of the opinion that the max. load of 1650 N marked on the product (which is impact load as per clarification submitted by the licensee) may mislead the consumer as the product is designed for max. design load of 1100 N.

TED is requested to kindly examine the attached test report and clarification submitted by the licensee and may please suggest whether such marking is acceptable or not.

An expeditious reply may please be provided as the case is to be processed within time norms for inclusion of additional variety.

सादर / Regards,

Shyam Kumar
Scientist D

A-14.2 Extract from Test Reports

1.2 Rotation Bending Fatigue Test (Dynamic Cornering Fatigue Test) [Clause No. 4.2]:

Identification No.	Test Parameters	No. of Cycles (min)	Observations
[redacted]	Bending Moment : 154 N-m	1×10^5	The Wheel rim withstood 1×10^5 cycles at the specified test parameter. When inspected after Dye penetration test no crack was found. There was no deformation or any abnormal looseness at joints.

1.3 Radial Load Durability Test [Clause No. 4.3]:

Identification No.	Test Parameters	No. of Cycles (min)	Observations
[redacted]	Static Radial Load : 2475 N Test Pressure : 240 kPa	5×10^5	The Wheel rim withstood 5×10^5 cycles at the specified test parameters. When inspected after Dye penetration test no crack was found. There was no deformation or any abnormal looseness at joints.

1.4 Radial Impact Resistance Test [Clause No. 4.4]:

Identification No.	Test Parameters	Observations
[redacted]	Impact Load (m1+m2) : 1650 N Falling Height (H) : 150mm Test Pressure : 276 kPa	The Wheel rim withstood the radial impact at the specified test parameters. When inspected after Dye penetration test no crack was found. There was no deformation or any abnormal looseness at joints.

Marking as per Cl. No. 6.2 of IS 16192 (Part 1): 2014 Amend. No. 1, February 2021 & Cl. No. 4 as per IS 10694 (Part 1) Amend. No. 1, August 2021 :

Cl. No.	Requirement	Observation
Cl. No. 4	Wheels with integral or permanently affixed rims and rims separate or demountable shall be legibly marked with their size designation.	Marking was permanent & legibly marked with size designation.
Cl. No. 4.2 d	Half dual spacing or inset.	**Not Applicable**
Cl. No. 4.2.1	In impressed or embossed the marking shall be recessed and without sharp edges and letters shall not be smaller than 2 mm and impressed to a depth or embossed to a height not less than 0.13 mm.	Marking was embossed. It was recessed and without sharp edges. Size of letters (h) : 5.31 mm - 5.65 mm Depth of letters (d) : 0.57 mm - 1.13 mm
Cl. No. 4.2.2	In printing and stickers are used, such marking should be legible, indelible, non-removable and durable.	**Not Applicable**
Cl. No. 4.2.3	The rims may be marked on the outer-side.	Rim was marked on the outer-side.
Other Marking		MAX LOAD 1650N GRAVTON

A-14.3 Clarification from Gravton

To,
Dealing officer
BIS office Dehradun

Subject – Query regarding Front Wheel

Respected Dealing officer,

I would like to clarify that the mentioned load of 1650N corresponds to the maximum load from the impact load test conducted at ICAT, distinct from the designed load of 1100N.

ANNEXURE 15

(item 5.1.9)

Clarification request received from DAIDO India Pvt Ltd

A-15.1 Clarification request received from DAIDO India Pvt Ltd

To,
@BIS TED TED Department ,

With reference to the trailing email, We are manufacturing Aluminum Tubeless rim in Japan for 2wheeler and supplying to the buyer in India to be used in 2 wheeler (bike). Since we are only supplying the Tubeless Rim without spoke and our buyer is assembling the spoke wheel in India with the spokes purchased from other vendor.

Since we are not sure about the applicability of "Automobile Wheel Rim Component (Quality Control) Order, 2020" on our product.

We request you to please advice and guide us on the same. We are enclosing final product picture which we are supplying to Indian vendors, for your ready reference.

Spoke Wheel QCO – standard IS 16192 part 1, Pat 2 and Part 3.

Further to this please also advise in which standard our product will fall.

Looking forward for your kind response.

Thanks & Regards
Mohd. Arif

A-15.2 Product Pictures Submitted by DAIDO India Pvt Ltd

Marking samples

	Size designation	Photo
Variety 1	17x3.00E6	
Variety 2	17x4.00EYT2	
Variety 3	18x4.00E6	

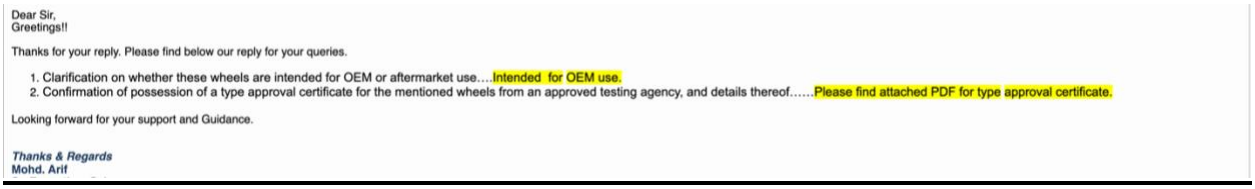
1 / 4

	Size designation	Photo
Variety 4	18x4.00FTL2	
Variety 5	19x2.50FTL2	
Variety 6	19x2.50WT	

	Size designation	Photo
Variety 7	21x2.15FTL2	
Variety 8	19x2.15E6J	
Variety 9	21x1.85EN22J	

	Size designation	Photo
Variety 10	21x2.15E6	

A-15.3 Additional Input received from DAIDO India Pvt Ltd



Dear Sir,
Greetings!!

Thanks for your reply. Please find below our reply for your queries.

1. Clarification on whether these wheels are intended for OEM or aftermarket use....Intended for OEM use.
2. Confirmation of possession of a type approval certificate for the mentioned wheels from an approved testing agency, and details thereof.....Please find attached PDF for type approval certificate.

Looking forward for your support and Guidance.

Thanks & Regards
Mohd. Arif

A-15.4 Input received from Committee members

A-15.4.1 *From Wheels India (vide mail dated 22.12.2024)*

In our understanding,
If Wheels of which the **rim is made of light alloy** and the spokes or disc of light alloy are steel - which are then assembled - Comes under **IS16192 part 1**

If Wheels of which the **rim is made of Steel** and the spokes are steel - Comes under **IS16192 part 3**

A-15.4.2 *From ACMA(vide mail dated 16.1.2024)*

Further to the submission of my comment on 21st December'23 (attached mail copy), please note the comment as below:
Complete wheel rim (outer ring Aluminium + Spokes) only to be considered.
Since this is wired (?) spoke wheel rim (end product), it has to be included in IS16192, Part3 but with some tests applicable from part2 as it has Aluminium outer wheel (ring).

I request the ACMA members, in the Cc to please provide comments, if any on the same.

Comment from ACMA vide mail dated 21.12.2024

Please get information regarding under which IS the complete wheel rim is assembled/manufactured by Indian manufacturer. Ideally the complete wheel rim assembly (as per IS in QCO) should undergo BIS certification as per QCO, in my opinion.

ANNEXURE 16

(item 5.1.10)

Clarification request received from Arihant Udyog

A-16.1 Clarification request

Fw: Confirmation of product in IS 16192 part 2.

From: piyushjain10@yahoo.com

To: gagan@regoservices.com BIS TED

WhatsApp Image ... at 1.43.40 PM.jpeg (134.3 KB) Download | Briefcase
WhatsApp Image ... at 1.43.42 PM.jpeg (196.6 KB) Download | Briefcase
WhatsApp Image ... at 1.43.45 PM.jpeg (200 KB) Download | Briefcase
WhatsApp Image ...1.43.42 PM (1).jpeg (180.4 KB) Download | Briefcase
WhatsApp Image ... at 1.43.44 PM.jpeg (85.9 KB) Download | Briefcase
Arihant Udyog (2).xlsx (8.6 KB) Download | Briefcase
View all images
Download all attachments

Dear Sir,
I trust this message finds you well. We are currently in the process of seeking BIS registration for our Sheet Metal Rims per IS 16192 Part 2.

To facilitate the verification process, we have attached images of our product along with its technical specifications. Kindly review the provided information and confirm whether our product aligns with the specified standard.

Additionally, we have approached ICAT Manesar department with the sample , to which they need the written verification mail from BIS department concerned that it falls in IS 16192 part 2.

Kindly confirm us on priority basis.
Thanks

A-16.2 Images/input provided by Arihant Udyog

Additional Data Submitted by Arihant Udyog:

Details to be needed	
Maximum Design Load (N)	500 kg
Size designation	5.373 * 8 inch
Type of wheel Rim	Sheet metal rim
Type of Vehicle with which Rim is to be used	Two wheeler EV Scooter
Material	Ferrous
Rim thickness	2.5 mm
Inset/Outset (mm)	ET 0

ANNEXURE 17

(item 5.3)

Clarification request received from Normet India Private Limited

normet

To,

Director General **Date: 31-Jan-2024**

Bureau of Indian Standards (BIS)

Subject: Clarification Request Regarding BIS Applicability for Rims Used in Mining Motor-able Machines

Dear Sir

I hope this communication finds you well!

About Normet:

Normet is a leader in providing mining and tunnels solutions to the customers. Normet operates globally with over 50 locations in 28 countries worldwide from over 60 years now. Globally, Normet provides a wide range of machinery/ machines to its mining and tunnelling partners to continuously improve their processes, increase the safety and productivity of their underground activities & supporting the sustainability of their operations. In India, Normet India Private Limited, has been there from 2010 with their Corporate Office at Noida and 6 other locations including Production Plants, Warehouses and Offices. It serves across the country to more than 100 customers in Mining and Tunnelling sectors.

The products manufactured by Normet inter-alia include Underground Transport & Logistic machines, Explosives Charging machines, Concrete Spraying machines, Concrete Mixers & Agitators, Lifting, Scaling machines, etc. Given the complexity of operations in mines/ tunnels and to support its customers, Normet manufactures these machines in the form of Multi-utility & Special Purpose Machines.

Over the past few years, the industry around innovation and technology in the field of mining and tunnelling has drastically improved. A significant amount of operations have turned from manual to automatic over the period of time. Companies like Normet spearhead the technology around the supporting processes in mining & tunnelling as well as underground logistics in these tough terrain conditions. The industry for such Multi Utility & Special Purpose Machines has expanded drastically over the last few years. With the increased focus on infrastructural development, construction activities have increased multifold. This signifies the increased need of such Multi Utility Machines to be deployed at the mining/ tunnelling sites.

Normet India Pvt. Ltd. Jaipur

Normet India Private Limited

normet

Case for exemption from BIS registration requirement

The special purpose Machines manufactured by Normet are specifically designed to support various activities in mines and tunnels like explosive charging, shotcreting, scaling and logistics within mines and tunnels.

We are writing to address a recent challenge encountered during the importation of rims, a critical component used in the manufacturing of our mining motor-able machines.

Our manufacturing site, located **at Plot Nos. DTA-01-01A & DTA-01-01G, DTA Phase II, Mahindra World City, Village Newta, Jaipur, Rajasthan 302037**, operates under the name **M/s Normet India Private Limited**.

Since we have migrated many of Normet's Global products offerings at our state of art manufacturing facility at Jaipur (India)I COE plant, under Govt of india initiative "**Make in India**" regime. To support the plant production, we have to Import specialized tech components and during the customs clearance process, we were requested to produce a Bureau of Indian Standards (BIS) certificate in accordance with **IS 9438:2018**.

Upon a thorough examination of the mentioned standard, it has come to our attention that IS 9438:2018 pertains specifically to commercial and personal road transport vehicles and which may not be directly applicable to the rims used in our mining/tunneling motor-able machines.

In light of this, we kindly seek your valuable insights and guidance to clarify the applicability of BIS standards, particularly IS 9438:2018, to rims intended for use in mining motor-able machines. As the standard seems to be geared towards vehicles of a different nature, we are seeking clarification to ensure compliance with the appropriate standards for our specific industry.

We are more than willing to provide any additional documentation or clarification that may assist in this matter. Your prompt attention and guidance on this issue would be highly appreciated, as it is crucial for our ongoing manufacturing operations and import processes.

Thank you for your understanding and cooperation. We look forward to your guidance on the applicability of BIS standards to the rims used in our mining motor-able machines.

Best regards,

Sudhir Gupta

Normet India Pvt. Ltd. Jaipur

[Factory Manager]

Equipment reference images Manufactured in India:

ANNEXURE 18

(item 5.5.2)

Amendment Proposal Submitted by TKM- IS 15633

DRAFT AMENDMENT NO. 2
TO
IS 15633:2022 AUTOMOTIVE VEHICLES – PNEUMATIC TYRES FOR PASSENGER CAR VEHICLES - DIAGONAL AND RADIAL PLY SPECIFICATION

(First Revision)

*(Page 1, clause **1**) — Substitute following for the existing clause:*

‘**1 SCOPE**

1.1 This standard specifies the general, dimensional and performance requirements of new diagonal and radial ply pneumatic tyres designed primarily, but not only for vehicles in categories M1, T1 & T2.

1.2 It is also applicable for run flat and extended mobility tyres. However, it does not apply to tyres designed for:

a) the equipment of vintage cars, and

b) competitions (racings).’

ANNEXURE 19

[Item 3 (Sl No 27), and 5.1.2]

Letter Sent to Ministries

A-19.1 Letter sent to DHI (Amendment in IS 9436 and IS 9438)

भारतीय मानक ब्यूरो
उपभोक्ता मामले, खाद्य एवं सार्वजनिक वितरण मंत्रालय
भारत सरकार
BUREAU OF INDIAN STANDARDS
Ministry of Consumer Affairs, Food & Public Distribution
Government of India

Our Ref: TED 7/A-3

Date: 02.02.2024

To,

The Director
Department of Heavy Industries
Room No. 123-B, Udyog Bhawan,
Rafi Marg, New Delhi - 110011

Subject: Regarding exclusion of Wheels intended for Vintage car application from IS 9436 and IS 9438

Dear Sir,

As you are aware, BIS as the National Standards Body is engaged in the formulation of Indian Standards in various areas of science and technology. These standards are developed by relevant technical committees comprising of representatives of various stakeholder interests such as industry, consumer, technologists, scientists, professionals, academicians, government policymakers, regulators, etc. Standardization is a collaborative effort and its success largely depends on the participation and contribution of the members of the concerned technical committees.

Standard formulation activity is carried out through various sectional committees. One such sectional committee is TED 7 (Automotive Tyres Tubes and Rims Sectional Committee) which is responsible for the Standardization of Automotive Tyres, Tubes, Rims and Valves.

TED 7 committee has formulated 57 Indian Standards for tyres, tubes, wheel and valves. Two such Indian Standards are IS 9436 and IS 9438.

Sl. No.	*IS No*	*Title of India Standards*
1	IS 9436 : 2018	Performance Requirements and Methods of Tests For Wheels For Passenger Cars, Quadricycles and Mini Goods Carriers
2	IS 9438 : 2018	Performance Requirements and Methods of Tests For Wheels/ Rims For Trucks and Buses

These standards have been notified by DHI under QCO.

During its 38th, 39th and 40th meeting of TED 7 committee, it discussed about spoke wheels for vintage car application. During the 40th meeting, Chairperson TED 7 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 exclude these wheels from the scope of IS 9438 and IS 9436. It was also decided to issue the draft amendment document incorporating the above exclusion into wide circulation for 30 days.

Committee also requested BIS to share the draft WC amendment document with regulator DHI for their comments, if any.

In view of above, please find enclosed the draft amendment document and extracts of Minutes of 38th, 39th and 40th meeting of TED 7, for your kind perusal.

You are requested to give your comments at the earliest.

Regards
02/2/2024
P V Srikanth
Sc. D & Head
Transport Engineering Department

मानक भवन, 9, बहादुरशाह ज़फर मार्ग, नई दिल्ली 110002
दूरभाष : 23230131, 23233375, 23239402
ई-मेल : info@bis.gov.in वेबसाईट : www.bis.gov.in

Manak Bhavan, 9, Bahadur Shah Zafar Marg, New Delhi-110002
Tel : 23230131, 23233375, 23239402
e-mail : info@bis.gov.in Website : www.bis.gov.in

A-19.2 Letter sent to CMVR-TSC (Hybrid Wheel for EV)

भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS
Ministry of Consumer Affairs, Food & Public Distribution
Government of India

Our Ref: TED 7/A-3 **Date:** 02.02.2024

To,
Automotive Research Association of India
(Secretariat CMVR-TSC)
Survey No. 102, Vetal Hill, Off Paud Road,
Kothrud, Pune – 411 038, INDIA.

Subject: Regarding inclusion of Hybrid Wheel Rims in Indian Standards

Dear Sir,

As you are aware, BIS as the National Standards Body is engaged in the formulation of Indian Standards in various areas of science and technology. These standards are developed by relevant technical committees comprising of representatives of various stakeholder interests such as industry, consumer, technologists, scientists, professionals, academicians, government policymakers, regulators, etc. Standardization is a collaborative effort and its success largely depends on the participation and contribution of the members of the concerned technical committees.

Standard formulation activity is carried out through various sectional committees. One such sectional committee is TED 7 (Automotive Tyres Tubes and Rims Sectional Committee) which is responsible for the Standardization of Automotive Tyres, Tubes, Rims and Valves.

TED 7 committee has formulated 57 Indian Standards for tyres, tubes, wheel and valves. Three such standards are IS 16192 Part 1, Part 2 and Part 3 for Wheel Rims for Two and three wheeled motor vehicles. In formulation of these standards, significant assistant were taken from AIS 73 series, which were notified under CMVR (valid upto 21st March 2022). From 21st March 2022, IS 16192 Part 1 to Part 3 have been implemented in CMVR. Detail of these Indian standards are as follows:

Sl. No.	IS No	Title of India Standards	Corresponding AIS
1	IS 16192 (Part 1) : 2014	Automotive vehicles - Wheel rims for two and three wheeled vehicles: Part 1 light alloy wheel rims - Method of tests and requirements	*AIS-073 (Part 1)*
2	IS 16192 (Part 2) : 2014	Automotive vehicles - Wheel rims for two and three wheeled vehicles: Part 2 sheet metal wheel rims - Method of tests and requirements	*AIS-073 (Part 2)*
3	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	*AIS-073 (Part 3)*

मानक भवन, 9, बहादुरशाह ज़फर मार्ग, नई दिल्ली 110002
दूरभाष : 23230131, 23233375, 23239402
ई–मेल : info@bis.gov.in वेबसाईट : www.bis.gov.in

Manak Bhavan, 9, Bahadur Shah Zafar Marg, New Delhi-110002
Tel. : 23230131, 23233375, 23239402
e-mail : info@bis.gov.in Website : www.bis.gov.in

Recently, a novel type of wheel has emerged in the Indian market, referred to as Hybrid Wheel Rims (comprising a Steel rim with Hub Motor assembly, along with an aluminium casing). Recognizing the unique construction of these wheels, the TED 7 committee clarified that they are not covered in existing Indian Standard (IS 16192 Part 1 and Part 2). Consequently, a Panel 3 was established under the guidance of TED 7 Chair, Shri D P Saste, to deliberate on and to provide recommendations for incorporating these wheels into Indian Standards, either through an amendment or by formulating a new standard.

In the Panel meeting held on 02.01.2024, Panel 3 reached a decision to include the aforementioned wheel rims through an amendment in IS 16192 Part 2. The draft amendment is currently under development. Attached herewith are the extracts of minutes of Panel 3's meeting and the extract of the minutes of 40th meeting of TED 7 for your kind perusal.

Given that wheels are classified as safety product under CMVR, and CMVR-TSC being the apex committee for regulating such wheels for on-road vehicles, in the 40th meeting of the TED 7, committee requested BIS to refer this matter to CMVR-TSC for their perusal and advice.

This letter is being shared with you for your kind perusal and any advice you may have on the matter would be highly appreciated.

Regards
02/02/2024
P V Srikanth
Sc. D & Head
Transport Engineering Department, BIS