



**उत्पाद मैनुअल
भा. मा. IS 629: 2013 के अनुसार
साइकिल- हब असेम्बली के लिए**

दस्तावेज संख्या-पी एम/IS 629/1/सितम्बर 2024

भारतीय मानक ब्यूरो की स्कीम-I (अनुरूपता मूल्यांकन) विनियम, 2018 के तहत यह उत्पाद मैनुअल प्रमाणीकरण के प्रचालन में रीति और पारिश्रिता की सुसंगतता सुनिश्चित करने के लिए सभी क्षेत्रीय/शाखा कार्यालयों और लाइसेंसी द्वारा संदर्भ सामग्री के रूप में उपयोग किया जाएगा। बीआईएस प्रमाणीकरण लाइसेंस/ प्रमाणपत्र प्राप्त करने के इच्छुक भावी आवेदकों द्वारा भी इस दस्तावेज का उपयोग किया जा सकता है।

**PRODUCT MANUAL FOR
BICYCLES- HUB ASSEMBLY
ACCORDING to IS 629:2013**

Document No.-PM/IS 629/1/ September 2024

This Product Manual shall be used as reference material by all Regional/Branch Offices & licensees to ensure coherence of practice and transparency in operation of certification under Scheme-I of Bureau of Indian Standards (Conformity Assessment) Regulations, 2018 for various products. The document may also be used by prospective applicants desirous of obtaining BIS certification licence/certificate.

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PRODUCT MANUAL FOR BICYCLE-HUB ASSEMBLY ACCORDING TO IS 629:2013

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1.	Product	:	IS 624:2013
	Title	:	BICYCLE-HUB ASSEMBLY – SPECIFICATION
	No. of Amendments	:	Nil
2.	Sampling Guidelines:		
a)	Raw material	:	As per Cl. 5 of IS 629
b)	Grouping guidelines	:	Sample of each type and usage (Front and rear) shall be tested.
c)	Sample Size	:	2 pair of hub (front and rear)
3.	List of Test Equipment	:	Please refer ANNEX – <u>A</u>
4.	Scheme of Inspection and Testing	:	Please refer ANNEX – <u>B</u>
5.	Possible tests in a day:		a) Dimensions (Cl. 4) b) Manufacture (Cl. 6) c) Finish (Cl. 7), except Corrosion resistance d) Performance (Cl. 8)
6.	Scope of the Licence:		
	“Licence is granted to use Standard Mark as per IS 629:2013 with the following scope:		
	Name of the product	Bicycle-Hub Assembly	
	Type	Thin Barrel Hub/ Thick Barrel Hub/ Oval Barrel Hub/ Parallax Barrel Hub	
	Use	Front Wheel/ Rear Wheel	

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Annex-A

List of Test Equipment*Indicative list of major test equipment required to test as per the Indian Standard*

Sl. No.	Tests used in with Clause Reference	Test Equipment
1.	Dimensions (Cl.4)	1. Micro meter/ Ball Micrometer 2. Spoke hole Go/No Go gauges 3. Snap Gauge 4. Thread ring gauge 5. Vernier caliper 6. Thread Plug Gauge 7. Dial gauge 8. Torque wrench 9. Rockwell hardness tester
2.	Finish (Cl. 7)	1. Coating Thickness gauge 2. Salt spray test setup 3. Air Pressure gauge 4. Bench Vice & File
3.	Manufacture (Cl. 6)	Torque wrench
4.	Performance (Cl.8)	Endurance testing machine

The above list is indicative only and may not be treated as exhaustive.

ANNEX B

Scheme of Inspection and Testing

1. QUALITY ASSURANCE PLAN

1.1 It is expected that manufacturers (licensees/applicants) will implement a Quality Assurance Plan i.e. a plan of regular testing and in-process controls, designed to ensure that the product bearing the Standard Mark conforms to all requirements of the Indian Standard.

1.2 The manufacturers shall define a Quality Assurance Plan defining the control unit i.e. Batch and the levels of control (i.e. the frequency and number of samples for conducting the different tests as per the Indian Standard) and submit the same to BIS Branch Office for information. The manufacturer shall comply with the same and maintain test records in accordance with **para 2.4 below**.

1.3 RECOMMENDED LEVELS OF CONTROL/CONTROL UNIT:

1.3.1 For the guidance of manufacturers in preparing the Quality Assurance Plan, recommended levels of control are given in **Table 1**.

1.3.2 The manufacturer shall ensure inspection and testing as per the Quality Assurance Plan submitted by them on the whole production of the factory which is covered by this plan. Alternatively, the manufacturer has the option of adherence to the quality plan as per levels of control recommended in column 3 of Table 1.

1.4 However, all manufacturers shall ensure compliance of their products to all the requirements of the Indian Standard.

2. ENSURING COMPLIANCE THROUGH TESTING- It is expected that manufacturers (licensees/applicants) will establish a suitably equipped and staffed in-house laboratory (In house testing facility) for testing at least those parameters of the Indian Standard which require routine testing for ensuring quality of the product. This includes in-process controls as may be defined and put in place by the manufacturer, and testing parameters/requirements which can only be performed in the factory.

2.1 For the guidance of manufacturers, Table 1 giving the recommended levels of control is given below. Column 2 of Table 1 indicates routine tests where test equipment is required in-house as “R” or other tests which can be sub-contracted as “S”. Subcontracting is permitted to BIS recognized/empanelled laboratory or any other laboratory having valid NABL accreditation as per IS/ISO/IEC 17025.

2.2 For MSME manufacturers, the requirement of maintaining a laboratory/in-house testing facility for routine tests (indicated as “R” in Column 2 of Table 1) also is optional.

2.2.1 MSME manufacturers may utilize common cluster based facilities as per guidelines for the utilization of cluster based test facilities by MSMEs or the provisions of Sharing of testing facilities or get testing done from BIS recognized/empaneled laboratory or any other laboratory having valid NABL accreditation as per IS/ISO/IEC 17025.

2.3 Large Scale manufacturers shall maintain an in-house laboratory equipped at least with test facilities for routine tests (indicated as “R” in Column 2 of Table 1), where different tests given in the specification shall be carried out in accordance with the method given in the specification. They shall also implement a calibration plan for the in-house test equipment.

2.3.1 Alternatively, in lieu of an in-house laboratory, large scale manufacturers can also utilize the provisions of Sharing of testing facilities as per the Guidelines for Grant of Licence available on BIS website www.bis.gov.in. (Under Conformity Assessment>Product Certification Process). Even for subcontracted tests, provisions for sharing of testing facilities can be utilized.

2.4 TEST RECORDS- The manufacturers maintaining an in-house laboratory or utilizing common cluster based facilities or shared test facilities shall maintain test records for the tests carried out to establish conformity. For the tests being subcontracted to BIS recognized/empanelled laboratory or any other laboratory having valid NABL accreditation as per IS/ISO/IEC 17025, test reports issued by the laboratories shall be available for inspection by BIS.

3. LABELLING AND MARKING – As per the requirement of IS 629:2013. The Standard mark as given in the schedule of the Licence shall be incorporated legibly and indelibly on each Hub assembly provided always that the Hub assembly thus marked conforms to all the requirement of the specification. In addition, the licence no. CM/L-_____ and details of BIS website shall be marked at an appropriate place on product or package as follows: “For details of BIS certification please visit www.bis.gov.in”.

4. REJECTION - All the production which conforms to the Indian Standard and covered under scope of the licence shall be marked with Standard Mark. Disposal of non-conforming product shall be done in such a way so as to ensure that there is no violation of provisions of BIS Act,2016

Table 1
(Recommended Levels of Control, See Para 1.3.1)

(1)				(2)	(3)		
Test Details				Test Equipment Requirement R: required (or) S: Sub-contracting permitted	Levels of Control		
Cl.	Requirement	Test Method			No. of Sample	Frequency	Remarks
		Clause	Reference				
4.	Dimensions	4.1,4.2,4.3, 4.4, 4.5, 4.6	IS 629	R	Firm should exercise adequate control so that whole production should meet the requirements. Records shall be maintained		
5	Material	5.1 and 5.2	IS 629	S	One	Each consignment of material received	No further testing is required if ISI Marked or received along with test certificate
6	Manufacture	6.1 to 6.4	IS 629	R	One	One day productionfor each type	
8.	Performance	8	IS 629	R	One	One day production for each type	

7	Finish						
	Finish and Appearance	7	IS 629 IS 1573	R	Firm should exercise adequate control so that whole production should meet the requirements. Records shall be maintained		
	Coating Thickness	7 9.2	IS 629 IS 1573 IS 1572 IS 1068	S	One	Once in a month	
	Corrosion resistance	7 9.4	IS 629 IS 1573 IS 1572 IS 1068	S	One	Once in 3 month	
	Adhesion	7 9.4	IS 629 IS 1573 IS 1572 IS 1068	S	One	Once in 3 month	