



**PRODUCT MANUAL FOR
BICYCLE –FRONT FORKS
ACCORDING TO IS 2061:1995**

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.

1.	Product	:	IS 2061 :1995
	Title	:	BICYCLE –FRONT FORKS
	No. of Amendments	:	2
2.	Sampling Guidelines:		
a)	Raw material	:	As per clause 3 of IS 2061:1995
b)	Grouping guidelines	:	Front fork of any one size (preferably highest) shall be tested to cover all the sizes in the scope of Licence.
c)	Sample Size	:	Two piece of Bicycle Front Fork
3.	List of Test Equipment	:	Please refer <u>ANNEX – A.</u>
4.	Scheme of Inspection and Testing	:	Please refer <u>ANNEX – B.</u>
5.	Requirements which can be tested in a day :		
	i) Dimensions (Fig. 1) ii) Manufacture and Finish (Clause 5.2) iii) Load Test (Clause 7.1.1) iv) Expansion test (Clause 7.1.2) v) Test for Finish (Clause 7.1.3.1) vi) Chemical Test (Clause 7.1.3.2) vii) Impact Test (falling mass) (Clause 7.1.4) viii) Impact Test (falling frame/ fork assembly) (Clause 7.1.5)		
6.	Scope of the Licence :		
	“Licence is granted to use Standard Mark as per IS 2061:1995 with the following scope:		
	Name of the product	Bicycle Front Fork	
	Size	---	

ANNEX AList of Test Equipments

Major test equipment required to test as per the Indian Standard

Sl. No.	Tests used in with Clause Reference	Test Equipment
1.	Dimensions as per <i>clause 4</i>	a) Digital Vernier Caliper b) Micrometer c) Scale d) Thread Ring Gauge e) Plug Gauge(GO/NO-GO)
2.	Load Test as per <i>clause 7.1.1</i>	a) Universal Load Testing Machine b) Stop watch
3.	Expansion Test as per <i>clause 7.1.2</i>	a) Expansion tester with Mandrel
4.	Test of Finish as per <i>clause 7.1.3</i>	a) Solid Steel Ball b) Scale
	Chemical Test as per <i>clause 7.1.3.2</i>	a) Mild Steel Tank with rubber lining b) Thermocouple c) Temperature Controller d) NaCl Solution e) Stop Watch
5.	Impact Test (Falling Mass) as per <i>clause 7.1.4</i>	a) Mass 22.5 kg b) Scale c) Roller 1 kg Max.
6.	Impact Test (Falling Frame/ Fork Assembly) as per <i>clause 7.1.5</i>	a) Mass 70 kg b) Scale

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

ANNEX - B

Scheme of Inspection and Testing

1. LABORATORY - A laboratory shall be maintained which shall be suitably equipped (as per the requirement given in column 2 of Table 1) and staffed, where different tests given in the specification shall be carried out in accordance with the methods given in the specification.

1.1 The manufacturer shall prepare a calibration plan for the test equipment.

2. TEST RECORDS – The manufacturer shall maintain test records for the tests carried out to establish conformity.

3. LABELLING AND MARKING – As per the requirements of IS 2061: 1995.

4. CONTROL UNIT – All front forks manufactured, enamelled and baked together in the oven under identical conditions in a day shall constitute a control unit.

5. LEVELS OF CONTROL - The tests as indicated in column 1 of [Table 1](#) and the levels of control in column 3 of [Table 1](#), shall be carried out on the whole production of the factory which is covered by this plan and appropriate records maintained in accordance with paragraph 2 above.

5.1 All the production which conforms to the Indian Standard and covered by the licence should be marked with Standard Mark.

6. REJECTIONS – 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

(1)				(2)	(3)		
Test Details				Test equipment requirement	Levels of Control		
Cl.	Requirement	Test Methods		R: required (or) S: Sub-contracting permitted	No. of Sample	Frequency	Remarks
		Clause	Reference				
3	MATERIAL	3	IS 2061	S	—	Each Consignment	No further testing is required, if accompanied with test certificate or ISI marked
4	Dimension	4, Fig 1	IS 2061 IS 2039 (Part 1 to Part 3)	R	—	Each Fork	
5	Manufacture and Finish	5	IS 2061	R	—	Each Fork	—
	Solder		IS 2927	S		Each Consignment	No further testing is required, if accompanied with test certificate or ISI marked

7	TESTS						
7.1.1	Load Test	7.1.1	IS 2061	R	One Fork	Every Control unit	In case of failure, two samples shall be tested for all requirements. In the event of further failure whole control unit shall be rejected.
7.1.2	Expansion Test	7.1.2	IS 2061	R			
7.1.3	Test of Finish	7.1.3	IS 2061	R			
7.1.3.2	Chemical Test	7.1.3.2	IS 2061	R			
7.1.4	Impact Test (Falling Mass)	7.1.4	IS 2061	R			
7.1.5	Impact Test (Falling Frame/ Fork Assembly)	7.1.5	IS 2061	R			

NOTE-1: Sub-contracting is permitted to a laboratory recognized by the Bureau or Government laboratories empanelled by the Bureau.

NOTE-2: Levels of control given in column 3 are only recommendatory in nature. The manufacturer may define the control unit/batch/lot and submit his own levels of control in column 3 with proper justification for approval by BO Head.