



उत्पाद मैनुअल
मोटरसाइकिल चेन — विशेषताओं और परीक्षण पद्धतियाँ
आईएस 11740:2026 के अनुसार

PRODUCT MANUAL
MOTORCYCLE CHAINS – CHARACTERISTICS AND TEST METHODS
According to IS 11740:2026

यह उत्पाद नियमावली सभी क्षेत्रीय/शाखा कार्यालयों और लाइसेंसधारियों द्वारा विभिन्न उत्पादों के लिए भारतीय मानक ब्यूरो (अनुरूपता मूल्यांकन) विनियम, 2018 की योजना-1 के अंतर्गत प्रमाणन के संचालन में एकरूपता और पारदर्शिता सुनिश्चित करने के लिए संदर्भ सामग्री के रूप में उपयोग की जाएगी। बीआईएस प्रमाणन प्राप्त करने के इच्छुक भावी आवेदक भी इस दस्तावेज़ का उपयोग कर सकते हैं।

This Product Manual shall be used as reference material by all Regional/Branch Offices & licensees to ensure uniformity 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.

1.	मानक संख्या / IS No.	:	IS 11740:2026
	शीर्षक / Title	:	Motorcycle Chains – Characteristics and Test Methods
	संशोधनों की संख्या No. of amendments	:	0
2.	नमूनाकरण दिशानिर्देश / Sampling Guidelines		
a)	कच्चा माल Raw material	:	No requirement <i>Note: This section indicates the requirements for raw material (if specified in the IS) for which compliance is to be established during Grant of Licence/Change in Scope of Licence/Factory Surveillance.</i>
b)	समूहीकरण दिशानिर्देश Grouping Guidelines	:	Please refer ANNEX – A
c)	नमूने का परिमाण Sample Quantity	:	05 lubricated chains and 01 unlubricated chain along with associated chain sprockets
d)	परीक्षण अनुरोध में घोषित किए जाने वाले पैरामीटर Parameters to be Declared in Test Request	:	Same as the parameters given in scope of the licence under S. No. 6. For non-standard chains, Principal chain dimensions, measuring forces, tensile strengths and dynamic strength values as per Table 1 shall also be declared <i>Note: Apart from the above, any other requirements/ parameters may also be declared as per the standard, as applicable.</i>
3.	परीक्षण उपकरण की सूची List of Test Equipment	:	Please refer ANNEX – B
4.	निरीक्षण एवं परीक्षण योजना Scheme of Inspection and Testing	:	Please refer ANNEX – C

5.	एक दिन में संभावित परीक्षण Possible tests in a day	:	All tests except dynamic testing as per Cl. 3.4.5 <i>Note: This section is for the guidance of BIS Certification Officers/ Technical Auditors of BIS Authorized Outside Surveillance Agencies (OSAs) during factory inspection to provide ready reference regarding the tests which can be witnessed during the inspection in the factory by the officer/ auditor.</i>
6.	लाइसेंस का दायरा / Scope of the Licence:		
“License is granted to use Standard Mark as per IS 11740:2026 with the following scope:			
Name of the product		Motorcycle Chains – Characteristics and Test Methods	
Type		Bush chains / Roller chains	
Designation* (ISO Chain Number)		25H / 219 / 05T / 219H / 270H / 415M / 415 / 415MH / 420 / 428 / 420MH / 428MH / 520 / 525 / 530 / 520MH / 525MH / 530MH / 630	
Chain Sprockets		With / without associated Chain Sprockets	

*Designation of Non-standard chain with minor deviations from standard chains may be suffixed with a unique code as declared by the manufacturer.

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ANNEX -A **Grouping Guidelines**

1. “Motorcycle Chains” covered in IS 11740:2026 are classified as follows:

Type	Bush chains / Roller chains
Designation* (ISO Chain Number)	25H / 219 / 05T / 219H / 270H / 415M / 415 / 415MH / 420 / 428 / 420MH / 428MH / 520 / 525 / 530 / 520MH / 525MH / 530MH / 630
Chain Sprockets	With / without associated Chain Sprockets

*Designation of Non-standard chain with minor deviations from standard chains may be suffixed with a unique code as declared by the manufacturer.

2. Further, Motorcycle Chains may be grouped based on their designations as follows:

Group	Designation (ISO Chain Number) <i>(in ascending order of Dynamic strength)</i>
Group 1	25H / 219 / 05T / 219H / 270H (Bush Chains)
Group 2	415M / 415 / 415MH / 420 / 428 / 420MH / 428MH (Roller Chains: 400 Series)
Group 3	520 / 525 / 530 / 520MH / 525MH / 530MH (Roller Chains: 500 Series)
Group 4	630 (Roller Chains: 600 Series)

3. Considering the above, the grouping guidelines given below shall be followed for GoL/CSoL:

- (a) For Motorcycle chains covered under Table 1 of IS 11740:2026, one sample of motorcycle chain having the highest dynamic strength from each group specified under S. No. 2 above shall be tested separately to cover all motorcycle chains from that particular group having dynamic strength up to and including the dynamic strength of the tested motorcycle chain.
- (b) For non-standard Motorcycle chains with minor deviations from the Standard chains covered under Table 1 of IS 11740:2026, the manufacturer shall declare the Principal chain dimensions, measuring forces, tensile strengths and dynamic strength values as per Table 1 of IS 11740:2026, clearly indicating the details of deviations from the standard chains. Such non-standard chain with minor deviations shall be designated with the ISO Chain number of the corresponding standard chain suffixed with a unique code declared by the manufacturer. For example, non-standard chain with minor deviation from 25H may be designated as, say 25H-1 or any other unique code declared by the manufacturer.
- (c) For GoL/CSoL of non-standard Motorcycle chains, grouping as defined at S. No. 3 (a) above shall apply.
- (d) If chains with associated sprockets are tested, chains without associated sprockets may also be covered.

Note: Manufacturer shall declare the associated chain sprockets applicable for each type of motorcycle chains (see Cl. 4 of IS 11740), if the chain is supplied with the sprockets.

4. The Firm shall declare the varieties of Motorcycle Chains intended to be covered in the Licence.
5. The Scope of Licence may be restricted based on the Manufacturing and testing capabilities of the manufacturer.
6. During the operation of Licence, it shall be ensured that all the varieties covered in the Licence are tested in rotation, to the extent possible.

ANNEX- B
List of Test Equipments
(Indicative List, For Guidance Only)

Major test equipment required to test as per the Indian Standard

Sl. No.	Cl. Ref.	Tests used in with Clause Reference	Test Equipment
1.	3.3, Table 1	Dimensions	Micrometer Vernier Caliper OTO Gauge & Plug Gauge Any suitable mechanism to measure pitch
2.	3.4.2, Table 1	Tensile Testing	Universal Testing Machine
3.	3.4.3, 3.4.4, Table 1	Preloading & Length validation	Chain Preloading Machine OLM Scale
4.	3.4.5, Table 1	Dynamic Testing	High Frequency Fatigue Testing Machine

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

ANNEX C

Scheme of Inspection and Testing

1. QUALITY ASSURANCE PLAN

- 1.1 It is expected that during operation of BIS licence manufacturers will implement a Quality Assurance Plan (QAP) 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 (QAP) defining the control unit (i.e. lot/batch etc.), the levels of control (i.e. the frequency and number of samples for conducting the different tests as per the Indian Standard) and declare the arrangement for testing i.e. whether in-house or sub-contracting/ sharing for each applicable test and submit the same to BIS Branch Office for information. The manufacturer shall comply with the QAP and maintain test records in accordance with para 2.1.
- 1.3 Recommended Levels of Control/ Control Unit:**
- 1.3.1 For the guidance of manufacturers, the recommended definition of control unit is: *entire quantity of Motorcycle Chains of same Chain designation manufactured in a day under similar manufacturing conditions* constitute a control unit.
- 1.3.2 For the guidance of manufacturers in preparing the Quality Assurance Plan, recommended levels of control are given in [Table 1](#). Manufacturer has the discretion of declaring their own levels of control or accept the levels of control given in this document.
- 1.3.3 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.
- 1.4 However, all manufacturers shall ensure compliance of their products to all the requirements of the Indian Standard.

2. ENSURING COMPLIANCE THROUGH TESTING

The manufacturers shall ensure compliance of their products to all the requirements of the Indian Standard for which they may have in-house test facilities. However, there is no obligation to maintain in-house laboratory. Licensee may use alternative arrangements for tests of the production as per the declared QAP. Various alternatives are available for operation of BIS certification as given below and the relevant guidelines for availing such relaxations by the manufacturers, as amended from time to time, are to be referred:

- i) Shared testing resources like common facility,
- ii) Cluster based testing facility,
- iii) Sub-contracting to outside laboratories which may either be:
 - a) BIS recognised/ empanelled laboratories, or
 - b) Any accredited laboratory as per ISO/IEC 17025

- 2.1 Test Records-** The manufacturers shall maintain test records for the tests carried out (either in-house or at a sub-contracted or at shared test facility) to establish conformity of the product to the Standard for operation of licence. For the tests being subcontracted or conducted at a shared test facility, test results issued by the laboratories or test facilities, shall be made available for inspection by BIS.

3. PACKING AND MARKING

The Standard Mark as given in the Schedule of the licence shall be incorporated legibly and indelibly on the packaging of the Motorcycle Chains provided always that the Motorcycle Chains so marked conforms to each requirement of the specification.

3.1 Marking of Motorcycle Chains shall be done as per Cl. 3.5 of IS 11740:2026. Non-standard motorcycle chains shall be marked with the designation defined in ANNEX – A of Product Manual.

3.2 **Additional Marking requirements:** The Motorcycle Chains shall also be marked with the following additional requirement on its packaging:

- a) “For BIS certification details please visit www.bis.gov.in”
- b) Batch Number and Date of Manufacture

4. REJECTION

The production which conforms to the Indian Standard and covered under the scope of this licence shall be marked with the 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 by BIS- for Guidance Only)

(1)				(2)		
Test Details				Levels of Control		
Cl.	Requirement	Test Methods		No. of Sample	Frequency	Remarks
		Clause	Reference			
3.3	Dimensions	3.3, Table 1	IS 11740	Firm to have adequate in process controls to check compliance to this parameter as per the requirements in the Indian Standard. However, appropriate records shall be maintained by the manufacturer for evidence of conformity.		
3.4.4	Length Validation	3.4.4	IS 11740			
4	Chain Sprockets	Annex A	IS 11740			
		5	ISO 606			
3.4	Performance requirements and tests					
3.4.2	Tensile Testing	3.4.2.2, Table 1	IS 11740	01	Each Control Unit	
3.4.3	Preloading	3.4.3, Table 1	IS 11740	Each chain		
3.4.5	Dynamic Testing	3.4.5, Table 1	IS 11740	01	Once in a year	Shall be tested for each type of designation manufactured during the period