SCHEME OF TESTING AND INSPECTION FOR CERTIFICATION OF SHORT-PITCH TRANSMISSION PRECISION ROLLER AND BUSH CHAINS, ATTACHMENTS AND ASSOCIATED CHAIN SPROCKETS ACCORDING TO IS 2403:2014

1.0 LABORATORY – A laboratory shall be maintained which shall be suitably equipped and staffed where different tests given in the specification shall be carried out in accordance with the methods given in the specification.

2.0 TEST RECORDS - All records of tests, inspection and calibration shall be kept in suitable forms approved by the Bureau.

2.1 All testing apparatus/measuring instruments shall be periodically checked and calibrated and records of such checks/calibration shall be maintained.

2.2 Copies of any records and other connected papers that may be required by the Bureau shall be made available at any time on request.

3.0 QUALITY CONTROL – It is recommended that, as far as possible, Statistical Quality Control (SQC) methods may be used for controlling the quality of the product during production as envisaged in this Scheme [See IS 397(Part I) to IS 397(Part 4)].

3.1 In addition, effort should be made to gradually introduce a Quality Management System in accordance with IS/ISO 9001

4.0 STANDARD MARK – The standard mark as given in column 1 of the first schedule of the licence shall be marked on the cardboard box or packing of the each chain/attachment/sprocket provided that the chain/attachment/sprocket so marked conform to all the requirements of the specification.

4.1 MARKING
In addition,

i) Each chain/attachment shall be marked with following information:
   a) The manufacturer’s name, or trade mark
   b) The chain number

ii) Each sprocket shall be marked with the following information:
   a) The manufacturer’s name, or trade mark
   b) Number of teeth
   c) Chain designation (ISO Chain number and/or manufacturer’s equivalent)
5.0 **LEVELS OF CONTROL** - The tests, as indicated in Table 1 attached and at the levels of control specified therein, shall be carried out on the whole production of the factory which is covered by this scheme and appropriate records maintained in accordance with paragraph 2.0 above. All the production which conforms to the Indian Standards and covered by the licence shall be marked with certification mark of the Bureau.

5.1 On the basis of the results obtained, decision regarding conformity or otherwise of the Lot (as defined in Table 1) to the requirements of the specification shall be taken.

5.2 In respect of all other clauses of the specification and at all stages of production, the factory shall maintain appropriate controls and checks to ensure that their chain/attachment/sprocket conforms to various requirements of the specification.

6.0 **REJECTIONS** – A separate record shall be maintained giving information relating to the rejection of the chain/attachment/sprocket not conforming to the requirements of the specification and the method of its disposal. Such chain/attachment/sprocket shall in no circumstances be stored together with that conforming to the specification.

7.0 **SAMPLES** – The licensee shall supply, free of charge, the samples required in accordance with the Bureau of Indian Standards (Certification) Regulations, 1988, as subsequently amended, from the factory or godowns. The Bureau shall pay for the samples taken by it from the open market.

8.0 **REPLACEMENT** – Whenever a complaint is received soon after the goods with Standard Marks have been purchased and used, and if there is adequate evidence that the goods have not been misused, defective goods or their components are replaced or repaired free of cost by the licensee in case the complaint is proved to be genuine and the warranty period (where applicable) has not expired. The final authority to judge the conformity of the product to the Indian Standard shall be with the Bureau. The firm shall have own complaint investigation system as per IS 15400.

8.1 In the event of any damages caused by the goods bearing the Standard Mark, or Claim being filed by the Consumers against BIS Standard Mark and not “Conforming to” the relevant Indian Standard, entire liability arising out of such non conforming product shall be of licensee and BIS shall not in any way be responsible in such cases.

9.0 **STOP MARKING** – The marking of the product shall be stopped under intimation to the Bureau if, at any time, there is some difficulty in maintaining the conformity of their product to the specification, or the testing equipment goes out of order. The marking may be resumed as soon as the defects are removed under intimation to Bureau.
9.1 The marking of the product shall be stopped immediately if directed to do so by Bureau for any reason. The marking may then be resumed only after permission by the Bureau. The information regarding resumption of markings shall also be sent to the Bureau.

10.0 **PRODUCTION DATA** – The licensee shall send to BIS as per the enclosed Proforma to be authenticated by a Chartered Accountant, a statement of quantity produced, marked and exported by him and the trade value thereof at the end of each operative year of the licence.
## IS 2403:2014

**SHORT-PITCH TRANSMISSION PRECISION ROLLER AND BUSH CHAINS, ATTACHMENTS AND ASSOCIATED CHAIN SPROCKETS**

**TABLE 1 LEVELS OF CONTROL**

*(Clause 5.0 of the Scheme of Testing and Inspection)*

### I) SHORT-PITCH TRANSMISSION PRECISION ROLLER AND BUSH CHAINS

<table>
<thead>
<tr>
<th>Test Details</th>
<th>Levels of Control</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Clause</strong></td>
<td><strong>Requirement</strong></td>
<td><strong>Test Method</strong></td>
</tr>
<tr>
<td>3.3</td>
<td>Dimensions as</td>
<td>3.3 Using micrometers,</td>
</tr>
<tr>
<td></td>
<td>given in Table 1 &amp; 2 and Figure 3</td>
<td>vernier calipers and other measuring instruments or suitable gauges</td>
</tr>
<tr>
<td>3.4.2</td>
<td>Tensile Testing</td>
<td>3.4.2.2, Table 1&amp;2 IS 2403 One Heat Treatment batch Every Heat Treatment batch</td>
</tr>
<tr>
<td>3.4.3</td>
<td>Preloading</td>
<td>3.4.3, Table 1&amp;2 IS 2403 All Chain</td>
</tr>
<tr>
<td>3.4.4</td>
<td>Length validation</td>
<td>3.4.4 IS 2403 Two Number of chains produced by one chain assembly machine One shift (8 hours)</td>
</tr>
<tr>
<td>3.4.5</td>
<td>Dynamic testing</td>
<td>3.4.5 IS 2403, IS 15790 One chain -do- Once in a year</td>
</tr>
</tbody>
</table>

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*DOC: STI/2403/3
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## II) ATTACHMENTS

<table>
<thead>
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<th>Test Details</th>
<th>Levels of Control</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
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<td><strong>Remarks</strong></td>
</tr>
<tr>
<td>Clause</td>
<td>Requirement</td>
<td>Test Method</td>
</tr>
<tr>
<td>Clause</td>
<td>Reference</td>
<td></td>
</tr>
<tr>
<td>4.4</td>
<td>Dimensions as given in Table 3, 4 &amp; 5</td>
<td>4.4</td>
</tr>
</tbody>
</table>

## III) CHAIN SPROCKETS

<table>
<thead>
<tr>
<th>Test Details</th>
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<th>Remarks</th>
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</tr>
<tr>
<td>Clause</td>
<td>Requirement</td>
<td>Test Method</td>
</tr>
<tr>
<td>Clause</td>
<td>Reference</td>
<td></td>
</tr>
<tr>
<td>5.3.2</td>
<td>Dimensions</td>
<td>5.3.2</td>
</tr>
</tbody>
</table>
PROFORMA

PROFORMA FOR OBTAINING PRODUCTION DETAILS

Period covered

Name of Licensee

CM/L No.

Name of Articles (s) IS No.
Grade/Type/Size/Variety/Class/Rating

1.1 Brand/Trade/Name(s) of BIS Certification Marked Products

2.0 Total production of the articles(s) licensed for certification marking

2.1 Total production of the article(s) conforming to Indian Standard

3.0 Production covered with BIS Certification Mark and its Value

a) Quantity

b) Value (Rs.)

3.1 Brand Name used on production covered under BIS Certification Mark

3.2 Calculation of marking fee on unit-rate basis; Marking Fee per unit

a) Unit

b) Quantity covered with BIS Certification Mark

c) Marking fee rounded off in whole rupees as obtained by applying unit rates given in (a) on quantity given in (b)

Note: Incase a clause is not applicable, suitable remarks may be given against it.

4.0 Quantity not covered with BIS Certification Mark. If any, and the reasons for such non-coverage

4.1 Brand Name under with non certified goods were sold

5.0 Quantity Exported with BIS Standard Mark and its value
5.1 Brand Name under which BIS Certified goods are exported

6.0 Authentication by Chartered Accountant