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SCHEME OF TESTING AND INSPECTION FOR CERTIFICATION OF OPEN JAW WRENCHES (SPANNERS) ACCORDING TO IS 2028:2004 (Fifth Revision)

1. **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. **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. **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):1972, IS 397(Part 2):1985 and IS 397(Part 3):1980].

3.1 In addition, effort should be made to gradually introduce a Quality Management System in accordance with IS/ISO 9000 as appropriate to the activities of the organization.

4. **STANDARD MARK** – The Standard Mark, as given in Column (1) of the First Schedule of the licence, shall be marked on each OPEN JAW WRENCH, provided always that the open jaw wrench to which this mark is thus applied conforms to every requirement of the specification.

4.1 **OTHER MARKING** - Each open jaw wrench shall be legibly & permanently marked the following details:

a) Manufacturer's Name, initial/trade mark;
b) Nominal width(s) across flats in milimetre on their respective end(s); and
c) Licence number (CM/L……..)

4.2 In addition, the packing shall be marked with the designation as given in clause 9 of IS 2028:2004 and also the control unit number.

5. **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 and charts 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 **CONTROL UNIT** - For the purpose of this scheme, Open jaw wrenches of one size and one torque series heat treated under identical conditions during the same day shall form once control unit.

6.0 In respect of all other clauses of the specification the factory will maintain appropriate control and checks to ensure that their product conforms to the various requirements of this specification.

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

8.0 **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.

9.0 **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.

9.1 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.

10.0 **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.

10.1 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.

11.0 **PRODUCTION DATA** – The licensee shall send to BIS as per the enclosed proforma-1 to be authenticated by a Chartered Accountant or by the manufacturer by giving an affidavit/undertaking, 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.

Table 1……

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IS 2028:2004
OPEN JAW WRENCHES (SPANNERS)
TABLE 1 LEVELS OF CONTROL
(Para 5 of the Scheme of Testing and Inspection)

TEST DETAILS				LEVELS OF CONTROL			
Cl.	**Requirement**	**Test Methods**		**No. of samples**	**Lot Size**	**Fre-quency**	**Remarks**
		Clause	**Reference**				
4	Material	4	IS 2028:2004	One	Each consignment		In case material is accompanied with a test certificate indicating values, no further testing is required
5	Hardness	2	IS 6131	Ten of each size	One batch	Every Heat treatment batch	In case of continuous heat treatment process five samples of each size shall be tested every hour. If failure is observed in the hardness, the whole lot may be taken up for reheat treatment and ten samples of each size tested. If any samples fails in hardness, lot shall be rejected.
6.	a) Workmanship and finish	3.1	-do-	Every piece			
	b) Plating thickness	3.2	-do-	One sample	One batch	Each batch	All the Open jaw spanners plated together shall form one batch.
10	Preservation and packing	5,5.1,5.2	-do-	Every piece	-	-	
3	Dimensions	3.1 to 3.7 and Table 1 to 5	IS 2028:2004 IS 2027	One	Each size	Hourly production	
8	Torque testing	6	IS 6131	Five	One control unit	Each control unit	