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भारतीय मानक मसौदा

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(आई एस 13825 का पहला पुनरीक्षण)

Draft Indian Standard

**HOUSEHOLD SEWING MACHINES – ARM
SHAFT FRONT BUSH — SPECIFICATION**

(First Revision of IS 13825)

ICS 61.080

Sewing Machine Sectional
Committee, MED 29

Last date for receipt of
comments is **20 January 2024**

FOREWORD

(Formal clauses to be added later)

This standard was first published in 1993. The present revision has been taken up for incorporating the modifications found necessary as a result of experience gained with the use of this standard and amendment issued from time to time has also been incorporated. Also, in this revision, the standard has been brought into the latest style and format of Indian Standards, and references wherever applicable have been updated. The BIS certification marking clause has been modified to align with the revised *Bureau of Indian Standards Act, 2016*.

This standard has been prepared to rationalize the types and sizes of sewing machine components for manufacturing in economic quantities.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test shall be rounded off in accordance with IS 2 : 2022 ‘Rules for rounding off numerical values (*second revision*)’. The number of significant places retained in the rounded-off value should be the same as that of the specified value in this standard.

1 SCOPE

This standard lays down the requirements for arm shaft front bush for sewing machines for household purposes.

2 REFERENCES

The standards listed below contain provisions which through their reference in this text constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision and parties to agreements based on this standard are encouraged to investigate the possibilities of applying the most recent editions of the standards indicated below.

<i>IS No.</i>	<i>Title</i>
IS 210 : 2009	Grey iron castings – Specification (<i>fifth revision</i>)
IS 2102 (Part 1) : 1993	General tolerances: Part 1 tolerances for linear and angular dimensions without individual tolerance indications (<i>third revision</i>)
IS 2500 (Part 1) : 2000	Sampling procedures for inspection by attributes: Part 1 sampling schemes indexed by acceptance quality limit (AQL) for lot - By - Lot inspection (<i>third revision</i>)
IS 4905 : 2015	Random sampling and randomization procedures (<i>first revision</i>)

3 NOMENCLATURE

Shall be as shown in Fig. 1.

4 TYPES

4.1 The arm shaft front bush shall be of the types indicated below

Type A – *see* Fig. 2.

Type B – *see* Fig. 2.

5 MATERIAL

The arm shaft front bush shall be made from cast iron conforming to grade FG 150 of IS 210.

6 DIMENSIONS

Shall be as shown in Fig. 2.

7 TOLERANCES

7.1 Tolerances shall be as indicated in Fig. 2.

7.2 The tolerances on untoleranced dimensions shall be in accordance to medium class as per IS 2102 (Part 1).

8 WORKMANSHIP AND FINISH

The machining and other finish of the surfaces not indicated in the drawings shall be free from burrs, cracks, flaws, holes, dents, fins, rust, scales, inferior surface treatment, unevenness and other manufacturing defects.

9 SAMPLING

Unless otherwise agreed between the purchaser and the supplier the sampling plan as given in Annex A shall be followed, For further information, reference may be made to IS 2500 (Part 1).

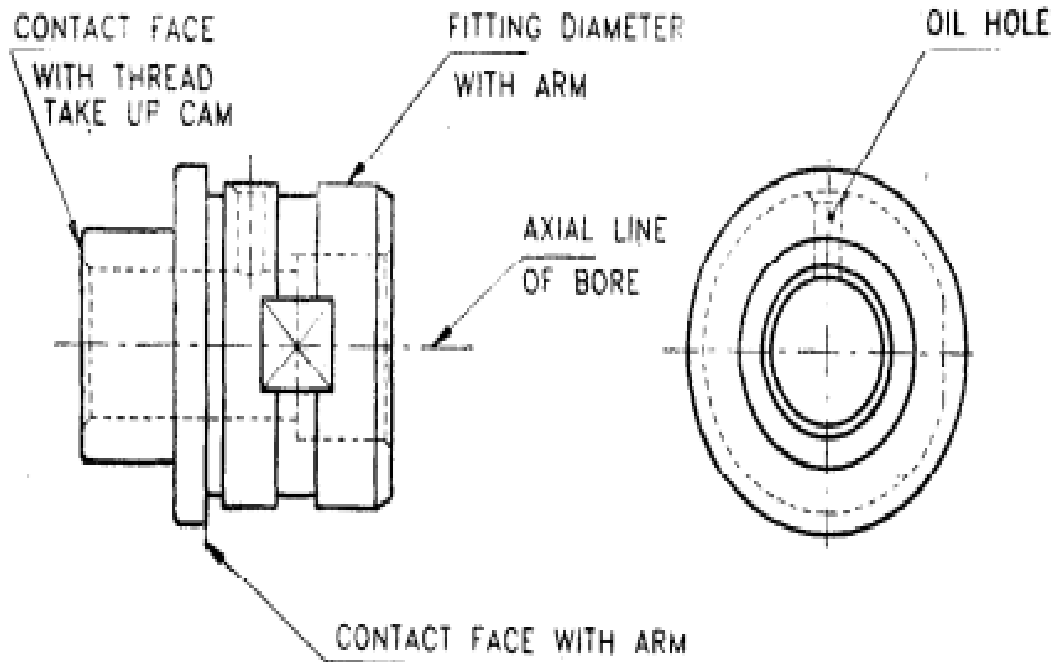
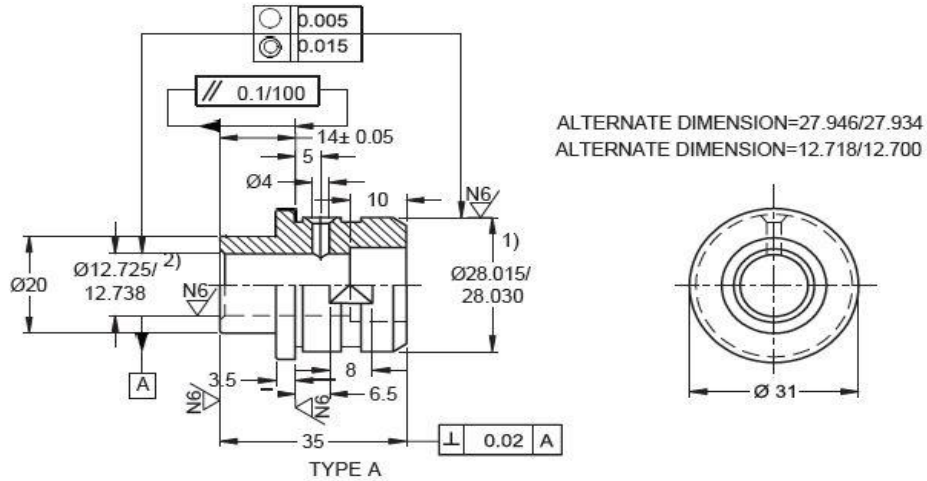
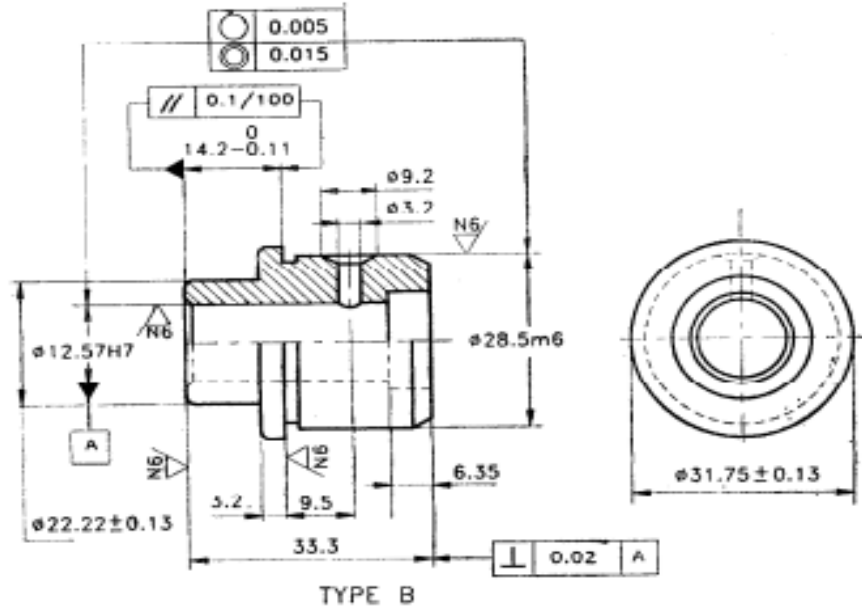


FIG. 1 NOMENCLATURE FOR ARM SHAFT FRONT BUSH



- 1) Fitting diameter with arm casting / body.
- 2) Bore diameter for arm shaft assembly.



All dimensions in millimetres.

FIG. 2 DIMENSIONS FOR ARM SHAFT FRONT BUSH

10 MARKING

The arm shaft front bush shall be permanently marked with the following:

- a) Name or trade of the manufacturer; and
- b) Type.

10.1 BIS Certification Marking

The product may also be marked with Standard Mark.

10.1.1 The product(s) conforming to the requirements of this standard may be certified as per the conformity assessment schemes under the provisions of the *Bureau of Indian Standards Act, 2016* and the Rules and Regulations framed thereunder, and the products may be marked with the Standard Mark.

11 PACKING

Each arm shaft front bush shall be given a suitable antirust coating and wrapped in polyethylene bags. The wrapped arm shaft front bush shall be securely packed in accordance with the best prevalent trade practices.

ANNEX A
(Clause 9)

SCALE OF SAMPLING AND CRITERIA FOR CONFORMITY

A-1 SCALE OF SAMPLING

A-1.1 Lot

In any consignment, all the arm shaft front bushes of same type and manufactured from the same material under essentially similar conditions of manufacture shall be grouped together to constitute a lot.

A-1.2 For ascertaining the conformity of the lot to the requirements of the specification, tests shall be carried out for each lot separately. The number of arm shaft front bushes to be selected at random for this purpose shall be in accordance with col 1 and 2 of Table 1.

A-1.3 If the arm shaft front bushes are packed individually, in order to ensure the randomness of selection, IS 4905 shall be used.

A-1.4 If arm shaft front bushes are packed in different cartons, a suitable number cartons (not less than 20 percent of the total in the lot) subject to a minimum of 2 shall be chosen at random. From each of the cartons so chosen, an approximately equal number of arm shaft front bushes shall be picked up from its different locations so as to obtain the required number of arm shaft front bushes specified in col 2 of Table 1,

A.2 NUMBER OF TEST AND CRITERIA FOR CONFORMITY

A-2.1 The arm shaft front bushes selected according to **A-1.2** and **A-1.3** or **A-1.4** shall be examined for dimensions (*see* 6), tolerances (*see* 7), and workmanship and finish (*see* 8), If the number of arm shaft front bushes failing to meet one or more of the requirements mentioned above is less than or equal to the permissible number of defectives given in col 3 of Table 1, the lot shall be declared as conforming to the requirements of these characteristics.

Table 1 Scale of Sampling and Permissible Number of Defective
(Clauses A-1.2, A-1.4 and A-2.1)

No. of Arm Shaft	For Dimensions, Workmanship and Finish	
	Sample Size	Permissible No. of Defectives*
(1)	(2)	(3)
Up to 15	5	0
16 to 40	8	0
41 to 110	13	0
111 to 300	20	1
301 to 500	32	1

501 to 800	50	2
801 to 1 300	80	3
130 1 and above	125	5
* This ensures that lots containing only 1.5% or less defectives shall be accepted most of the time.		