

BUREAU OF INDIAN STANDARDS

DRAFT FOR COMMENTS ONLY

(Not to be reproduced without the permission of BIS or used as an Indian Standard)

भारतीय मानक मसौदा

**घरेलू प्रयोजनों हेतु सिलाई मशीनों
के लिए फीड लिफ्टिंग रॉक शाफ्ट — विशिष्टि**

(आई एस 3868 का पहला पुनरीक्षण)

Draft Indian Standard

**FEED LIFTING ROCK SHAFT FOR SEWING
MACHINES FOR HOUSEHOLD PURPOSES — SPECIFICATION**

(First Revision of IS 3868)

ICS 61.080; 21.120.10

Sewing Machines Sectional
Committee, MED 29

Last date for receipt of comments
is **17 December 2024**

FOREWORD

(Formal clause will be added later)

This standard was first published in 1966. This standard has been brought out to keep pace with the latest technological developments and international practices. 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. BIS certification marking clause has been modified to align with the revised *Bureau of Indian Standards Act, 2016*.

This standard covers the requirements for feed lifting rock shafts for sewing machines and is intended to assist in regulating the quality of indigenous feed lifting rock shafts for sewing machines.

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 or analysis, shall be rounded off

Doc: MED 29 (26779)WC
October 2024

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.

Draft Indian Standard

**FEED LIFTING ROCK SHAFT FOR SEWING
MACHINES FOR HOUSEHOLD PURPOSES — SPECIFICATION**

(*First Revision*)

1 SCOPE

1.1 This standard specifies the requirements for two types of feed lifting rock shafts for sewing machines for household purposes.

1.2 This standard does not deal with feed lifting rock shafts for sewing machines for industrial and other special purposes.

2 REFERENCES

The standards given below contain provisions which, through reference in this text, constitute provision 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 possibility of applying the most recent edition of these standards:

<i>IS No.</i>	<i>Title</i>
IS 210 : 2009	Grey iron castings — Specification (<i>fifth revision</i>)
IS 2102 (Part 1) : 1993/ ISO 2768-1 : 1989	General tolerances: Part 1 Tolerances for linear and angular dimensions without individual tolerance indications (<i>third revision</i>)
IS 17894 : 2022/ ISO 22081 : 2021	Geometrical product specifications (GPS) — Geometrical tolerancing — General geometrical specifications and general size specifications

3 NOMENCLATURE

For the purpose of this standard, the nomenclature as given in Fig. 1 shall apply.

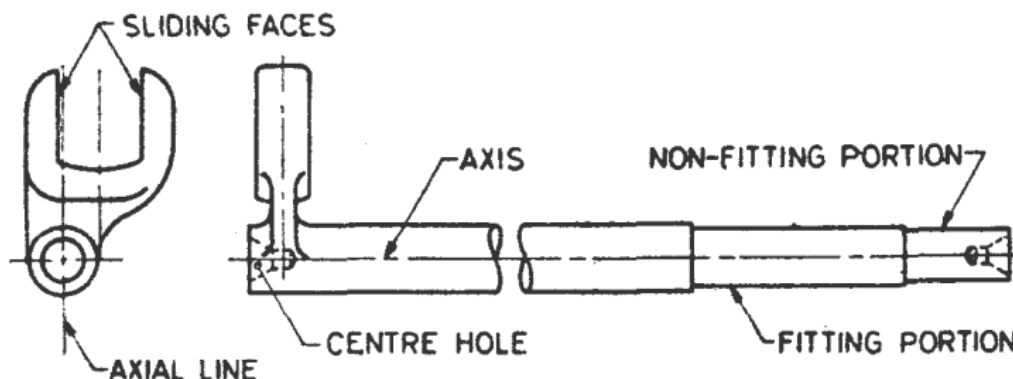


FIG. 1 NOMENCLATURE FOR FEED LIFTING ROCK SHAFT

4 MATERIAL

The feed lifting rock shafts shall be manufactured from any suitable grey cast iron conforming IS 210.

5 DIMENSIONS

5.1 The main dimensions for feed lifting rock shafts shall be as given in Table 1 and Table 2.

5.2 Feed lifting rock shafts, Type B of nominal size 2 shall be used only for sewing machines with drop feed arrangement.

6 TOLERANCES

6.1 The error in parallelism of the sliding faces with respect to the axial line of feed lifting rock shaft shall not exceed 0.15 mm per 100 mm.

6.2 The error in parallelism of sliding faces shall be within 0.005 mm over the width of the fork.

6.3 The ovality, the concentricity and the taper of the fitting portion of the feed lifting rock shaft shall not exceed 0.015 mm.

6.4 The non-fitting part of shaft edge may have any working recess.

7 WORKMANSHIP AND FINISH

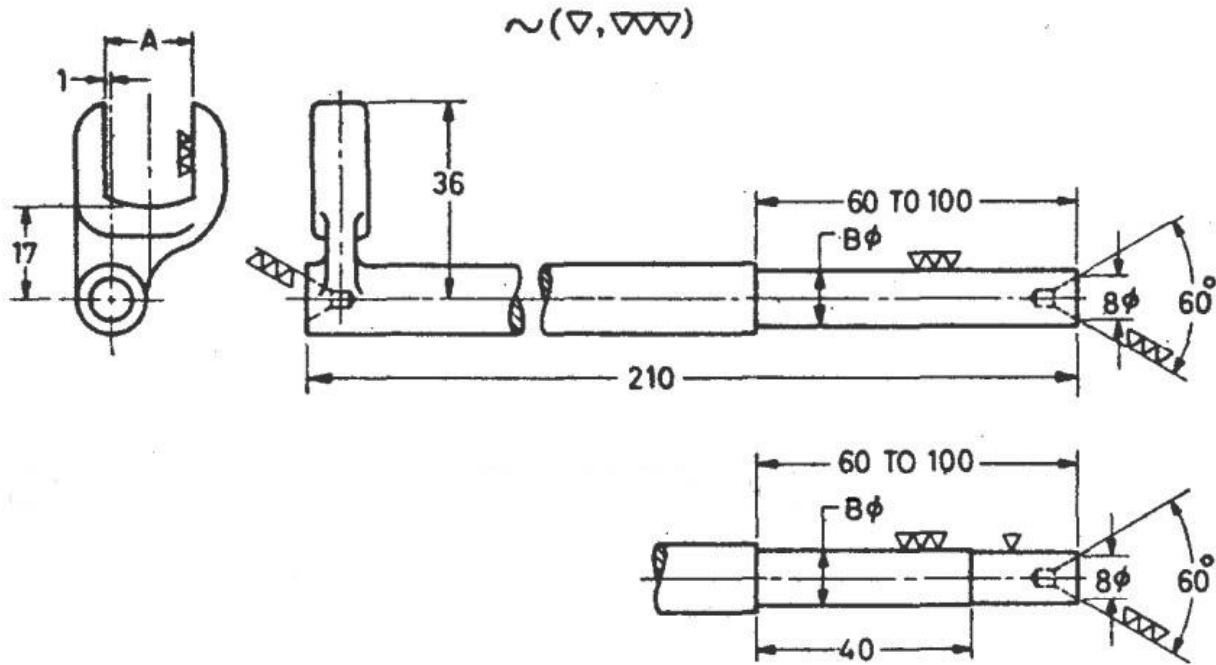
7.1 The fitting portion of the feed lifting rock shaft shall be precision ground.

7.2 The sliding faces of feed lifting rock shaft shall be ground to a fine finish (around a surface finish value of 0.4 μm , *Ra*).

Table 1 Dimensions for Feed Lifting Rock Shaft, Type A

(Clause 5.1)

All dimensions in millimetres.



Sl No.	A		B	
	Max	Min	Max	Min
(1)	(2)	(3)	(4)	(5)
i)	16.008	15.989	10.100	10.073

NOTE — Tolerance for untoleranced dimensions shall conform to fine grade deviation of IS 2102 (Part 1)/ ISO 2768-1 and IS 17894/ISO 22081.

7.3 The centre holes of feed lifting rock shaft shall be ground to a fine finish (around a surface finish value of 0.6 μm , *Ra*).

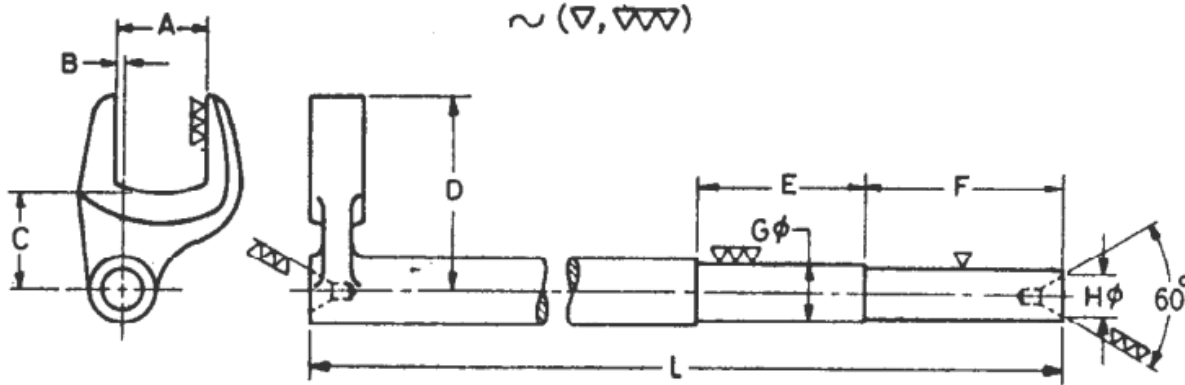
7.4 The casting shall be dull nickel plated or chemically coloured or given any other adequate surface treatment.

7.5 The feed lifting rock shafts shall be well finished and shall be free from defects such as crack, flaw, blow-hole, rust or inferior surface treatments.

Table 2 Dimensions for Feed Lifting Rock Shaft, Type B

(Clause 5.1)

All dimensions in millimetres.



Sl No.	Dimension	Limit	Nominal Size	
			1	2
(1)	(2)	(3)	(4)	(5)
i)	A	Max	17.016	17.016
ii)		Min	16.998	16.998
iii)	B	Max	1.475	1.475
iv)		Min	1.425	1.425
v)	C	Max	18.03	18.03
vi)		Min	17.53	17.53
vii)	D	Max	37.08	37.08
viii)		Min	36.58	36.58
ix)	E	Max	32.25	51.3
x)		Min	31.25	50.3
xi)	F	Max	38.6	35.43
xii)		Min	37.6	34.43
xiii)	G	Max	10.147	10.122
xiv)		Min	10.122	10.097
xv)	H	Max	8	8
xvi)		Min	7.75	7.75
xvii)	L	Max	214.25	214.25
xviii)		Min	213.75	213.75

8 MARKING

8.1 The feed lifting rock shafts shall be marked with the manufacturer's name or trademark.

8.2 BIS Certification Marking

The product may also be marked with Standard Mark.

8.2.1 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 product(s) may be marked with the Standard Mark.

9 PACKING

Each feed lifting rock shaft shall be given a suitable anti-rust coating or wrapped in vapour phase inhibitor paper (commonly known as VPI paper). The wrapped feed lifting rock shafts shall be securely packed in cardboard cartons in accordance with the best prevalent trade practice. Each carton shall bear the manufacturer's name or trademark, the type and description of contents.