TC 72

INTERNATIONAL STANDARD 481

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Textile machinery and accessories — Warper's beams — Terminology and main dimensions

Matériel pour l'industrie textile — Ensouples d'ourdissoir — Terminologie et dimensions principales

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FOREWORD

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Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 481 was developed by Technical Committee ISO/TC 72, *Textile machinery and accessories*, and was circulated to the member bodies in March 1976.

It has been approved by the member bodies of the following countries :

Brazil	Japan	Spain
Chile	Korea, Rep. of	Switzerland
Czechoslovakia	Mexico	Turkey
France	Netherlands	United Kingdom
Germany	Philippines	U.S.S.R.
India	Poland	
Italy	South Africa, Rep. of	

The member body of the following country expressed disapproval of the document on technical grounds :

Belgium

This International Standard cancels and replaces ISO Recommendation R 481-1966, of which it constitutes a technical revision.

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Textile machinery and accessories – Warper's beams – Terminology and main dimensions

1 SCOPE AND FIELD OF APPLICATION

This International Standard defines the basic terms and lays down the main dimensions and the variations of form and position for warper's beams. For cases where a limit for the residual unbalance must be fixed, a recommendation is made for the choice of quality grade.

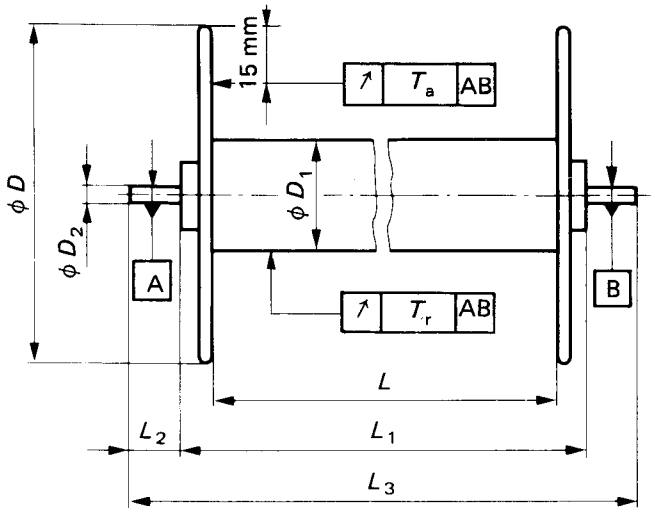
2 REFERENCES

ISO/R 286, *ISO system of limits and fits – Part 1 : General, tolerances and deviations.*

ISO 1940, *Balance quality of rotating rigid bodies.*

3 TERMINOLOGY AND MAIN DIMENSIONS

3.1 Warper's beams with shafts



D = Flange diameter
D_1 = Barrel diameter
D_2 = Diameter of shaft
L = Width between flanges
L_1 = Overall length (without shafts)
L_2 = Length of the shaft
L_3 = Total length (with shafts)

FIGURE 1 — **Warper's beams with shafts**

TABLE 1 — **Main dimensions**

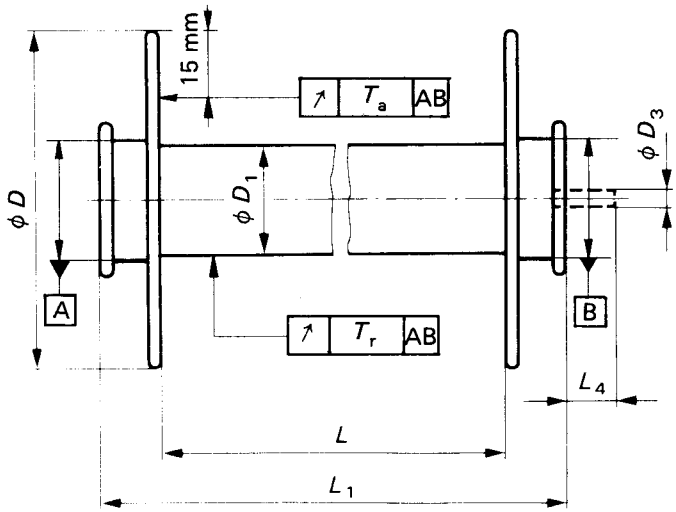
Values in millimetres

D ± 1,5	D_1 min.	D_2 h11[1]	L + 1,5 0	L_1 0 − 2	L_2	L_3 0 − 3
815	300	38	1 378	L + 150	120	$L_1 + 2L_2$
915			1 524			
1 015		50	1 829		150	
1 065	360			L + 170		

NOTE — For warper's beams with shafts, driving holes shall be provided.

1) See ISO/R 286.

3.2 Warper's beams without shafts and with axial drive



D = Flange diameter
D_1 = Barrel diameter
D_3 = Diameter of bore for shaft
L = Width between flanges
L_1 = Overall length (without shafts)
L_4 = Extension of shaft

FIGURE 2 – **Warper's beams without shafts and with axial drive**

TABLE 2 – **Main dimensions**

Values in millimetres

D ± 1,5	D_1 min.	D_3	L* + 1,5 0	L_1 0 −2	L_4
600	260				
800					
900	300	38	1 378 1 524	L + 270	120
1 000		50	1 600 1 800 2 000		150
1 100	360			L + 300	
1 200	400				

• If widths between flanges of more than 2 000 mm are necessary, intervals of 200 mm shall be selected.

4 ADMISSIBLE AXIAL RUN-OUT OF FLANGES

The admissible axial run-out of flanges, T_a, is measured following the indications on figures 1 and 2.

TABLE 3 – **Admissible axial run-out of flanges**

Values in millimetres

D	T_a
up to and including 915	0,5
over 915	0,75

5 ADMISSIBLE BARREL RUN-OUT

The admissible barrel run-out, T_r, measured at any point of the barrel, is given, in millimetres, by the formula

$$T_r = \frac{0{,}25 \times L}{1\,000}$$

where L is the width between flanges.

6 RESIDUAL UNBALANCE

Depending on the circumstances, it is sometimes necessary to fix a value for the residual unbalance of warper's beams. In general, a quality grade G 6,3[1)] will be appropriate. If special conditions call for another grade, this has to be specified.

1) See ISO 1940.