
International Standard



484/1

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Shipbuilding — Ship screw propellers — Manufacturing tolerances — Part 1 : Propellers of diameter greater than 2,50 m

Construction navale — Hélices de navires — Tolérances de fabrication — Partie 1 : Hélice de diamètre supérieur à 2,50 m

First edition — 1981-08-15

UDC 629.12.037.1 : 621.753.1

Ref. No. ISO 484/1-1981 (E)

Descriptors : shipbuilding, ship screw propellers, manufacturing, measurement, dimensions, tolerances, dimensional tolerances, form tolerances, classifications.

Price based on 7 pages

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

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 484/1 was developed by Technical Committee ISO/TC 8, *Shipbuilding*, and was circulated to the member bodies in November 1979.

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

Australia	France	Korea, Rep. of
Austria	Germany, F.R.	Netherlands
Belgium	India	Norway
Brazil	Ireland	Romania
Chile	Italy	Spain
China	Japan	USSR
Czechoslovakia	Korea, Dem. Rep. of	

The member bodies of the following countries expressed disapproval of the document on technical grounds :

Poland
Sweden
United Kingdom

This International Standard cancels and replaces ISO Recommendation R 484-1966, of which it constitutes a technical revision.

Shipbuilding — Ship screw propellers — Manufacturing tolerances —

Part 1 : Propellers of diameter greater than 2,50 m

0 Introduction

The propeller manufacturer is at liberty to use any equipment and method that enables the tolerances to be verified to the required accuracy.

1 Scope

This International Standard defines manufacturing tolerances for ship screw propellers of a diameter greater than 2,50 m.

NOTE — Some deviations for the tolerance should be permitted in certain cases subject to the discretion of the customer or of the designer and the customer.

2 Field of application

This International Standard applies to monobloc, built-up and controllable pitch propellers.

3 References

ISO/R 468, *Surface roughness*.

ISO 484/2, *Shipbuilding — Ship screw propellers — Manufacturing tolerances — Part 2 : Propellers of diameters between 0,80 m and 2,50 m inclusive*.

ISO 3715, *Shipbuilding — Ship screw propellers — List of equivalent terms*.

4 Methods for measuring pitch

4.1 The principle of one method of measurement consists in setting out along a helicoidal line of radius r a certain length PQ, corresponding to the desired angle α , and in measuring the difference h in the heights of the points P and Q with respect to a reference plane. (See figure 1).

The length PQ shall be set out by one of the methods described in 4.1.1 or 4.1.2¹⁾.

4.1.1 Use of marking gauges

The length PQ shall be set out by means of marking gauges.

4.1.2 Method with a graduated ring

The length PQ shall be set out by means of angle α on a part of a graduated ring of suitable radius (see figure 1).

5 Methods for measuring the thickness of the section

5.1 The thickness of a cylindrical section at a point S shall be measured along direction SV (see figure 2) on the plane tangent to the coaxial cylinder and perpendicular to the pitch line of the pressure side of the section (and only along direction SU perpendicular to the pressure side surface or direction ST parallel to the propeller axis when defined in this way on the drawings).

1) Other methods giving the required accuracy may be used if necessary.