International Standard 6482

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

Shipbuilding — Deck machinery — Warping end profiles

Construction navale — Auxiliaires de pont — Profils de poupée

First edition — 1980-10-01

UDC 629.12.011.7 : 629.125.66 **Ref. No. ISO 6482-1980 (E)**

Descriptors : shipbuilding, decks, profiles, dimensions, hooks, holes, designations, machine elements, torque.

Price based on 3 pages

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 6482 was developed by Technical Committee ISO/TC 8, *Shipbuilding*, and was circulated to the member bodies in May 1979.

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

Belgium	India	Mexico
Bulgaria	Italy	Netherlands
Czechoslovakia	Japan	Norway
Finland	Korea, Dem. P. Rep. of	Poland
France	Korea, Rep. of	Romania
Germany, F.R.	Libyan Arab Jamahiriya	Spain

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

United Kingdom

Printed in Switzerland

Shipbuilding — Deck machinery — Warping end profiles

1 Scope and field of application

This International Standard specifies the types, nominal sizes, dimensions and designation of warping end profiles mounted on extensions of vertical or horizontal shafts and intended for windlasses, capstans, mooring winches and various shipboard winches, including winches used for fishery, used for hauling in steel wire rope, and ropes of natural and man-made fibre.

2 Reference

ISO 3828, *Shipbuilding — Deck machinery — Vocabulary*.

3 Definitions

For the purposes of this International Standard, the definitions given in ISO 3828 apply.

4 Types, nominal sizes and dimensions

4.1 Types

This International Standard specifies two types of warping end profiles, as shown in figure 1, namely

Type C — common

Type E — elongated

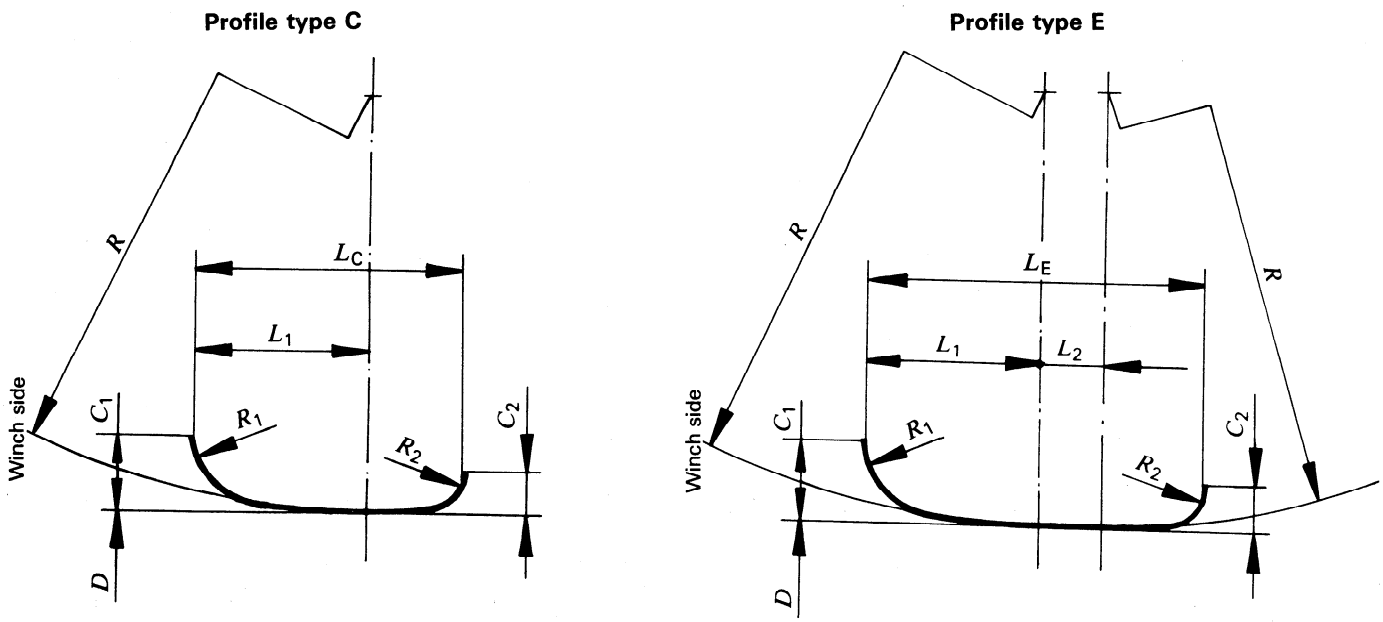

Figure 1 — Profile types

4.2 Nominal sizes and dimensions

The dimensions of the warping end profiles shall correspond to the values given in the table. As a modulus determining all the profile dimensions, a value equal to 1/3 of the diameter of natural (manilla) rope is accepted.

5 Relation between nominal dimensions and rope sizes

5.1 The nominal size L_c of the warping end profile type C shall be selected according to the rope quality and diameter d in accordance with the following relations :

steel wire rope	$L_C > 10\ d$
natural fibre rope	$L_C > 6\ d$
man-made fibre rope	$L_C > 10\ d$

These relations shall also be observed when determining the maximum allowable rope diameter for a given warping end profile.

5.2 The warping end minimum profile diameter D (see figure 1) shall correspond to the following requirements :

steel wire rope	$D > 16\ d$
natural fibre rope	$D > 6\ d$
man-made fibre rope	$D > 8\ d$

6 Calculation of warping end shaft torque

Dimensions C_r and L_r (see figure 2) shall be taken into account when calculating the shaft torque, in accordance with the following formula :

$$C_r = 0{,}9\ m + 0{,}45\ d$$

$$L_r = 2{,}9\ m + 0{,}2\ d$$

where

m is the modulus of the profile;

d is the maximum allowable rope diameter (steel wire, natural fibre or man-made fibre).

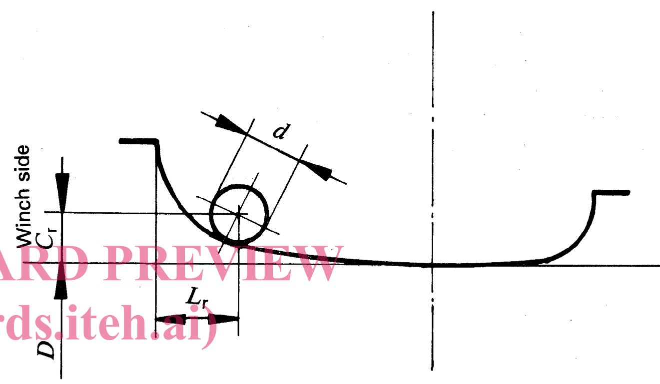

Figure 2 — Dimensions for calculation of shaft torque

Table — Nominal sizes and dimensions

Dimensions in millimetres

Modulus m	Nominal size L		L_1	L_2	R	R_1	R_2	C_1	C_2
	Type C (L_C)	Type E (L_E)							
10,0	180	—	112	—	500	50	25	50	28
11,2	200	—	125	—	560	56	28	56	32
12,5	225	—	140	—	630	63	32	63	36
14,0	250	—	160	—	710	71	36	71	40
16,0	280	360	180	71	800	80	40	80	45
18,0	315	400	200	80	900	90	45	90	50
20,0	360	450	225	90	1 000	100	50	100	56
22,5	400	500	250	100	1 120	112	56	112	63
25,0	450	560	280	112	1 250	125	63	125	71
28,0	500	—	315	—	1 400	140	71	140	80
31,5	560	—	360	—	1 600	160	80	160	90
36,0	630	—	400	—	1 800	180	90	180	100
40,0	710	—	450	—	2 000	200	100	200	112
45,0	800	—	500	—	2 250	225	112	225	125

7 Hole and rope hook

7.1 When operating with guy and span ropes, warping ends of nominal sizes 280 to 450 inclusive (type C) and 360 to 560 inclusive (type E) may be supplied with a hole as shown in figure 3 for hook attachment.

Dimensions in millimetres

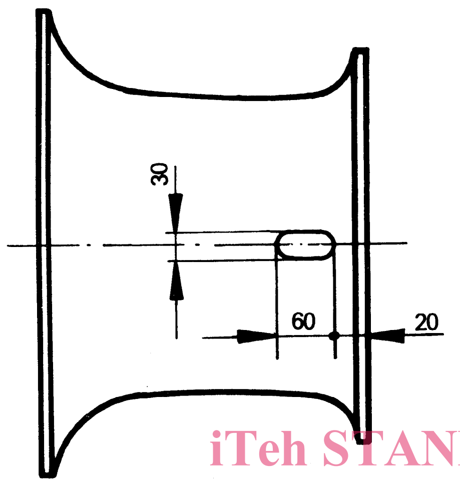

Figure 3 — Details of hole

7.2 The standing part of the rope may be provided with a hook corresponding to that shown in figure 4, by which the rope may be fixed in the warping end hole. (Rope hook mass ≈ 1,1 kg.)

Dimensions in millimetres

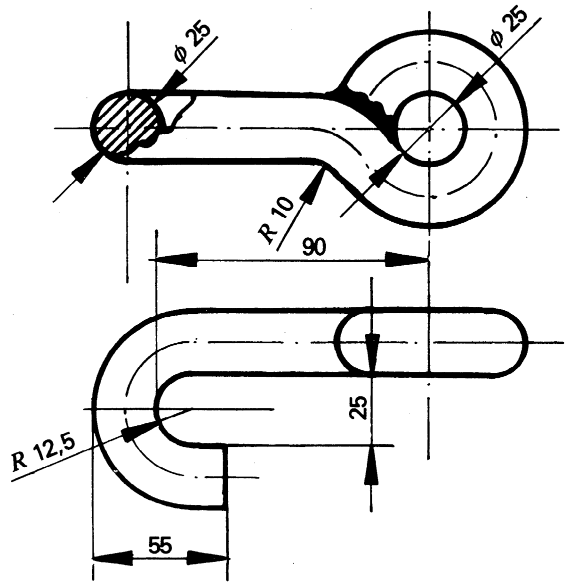

Figure 4 — Details of hook

8 Designation

Warping end profile conforming to this International Standard shall be designated in the following order :

— warping end profile;

— number of this International Standard;

— type symbol (C or E);

— nominal size (see the table).

Example for the designation of a warping end profile according to ISO 6482, common type (C), nominal size 400 mm :

Warping end profile ISO 6482 — C — 400

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