



**INTERNATIONAL STANDARD ISO 13628-4:2010**  
**TECHNICAL CORRIGENDUM 1**

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

**Petroleum and natural gas industries — Design and operation  
of subsea production systems —**

**Part 4:  
Subsea wellhead and tree equipment**

**TECHNICAL CORRIGENDUM 1**

*Industries du pétrole et du gaz naturel — Conception et exploitation des systèmes de production immergés —  
Partie 4: Équipements immergés de tête de puits et tête de production*

*RECTIFICATIF TECHNIQUE 1*

Technical Corrigendum 1 to ISO 13628-4:2010 was prepared by Technical Committee ISO/TC 67, *Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries*, Subcommittee SC 4, *Drilling and production equipment*.

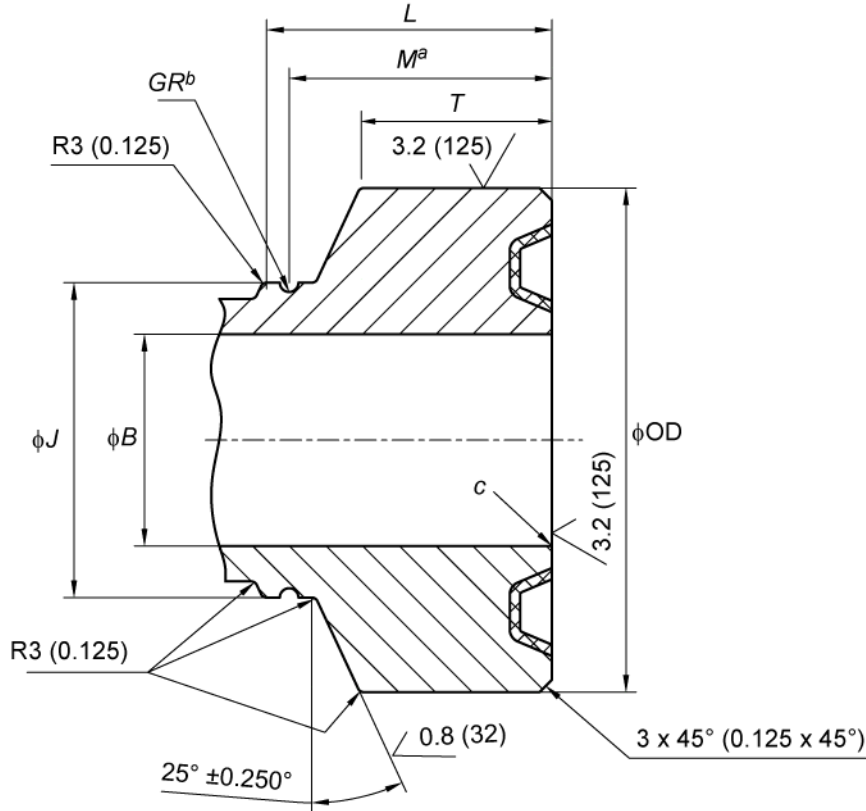
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*Page 60, Table 11*

Replace the existing table and figure with the following.

**Table 11 — Hub and bore dimensions for type 17SV flanges for 34,5 MPa (5 000 psi) rated working pressure**

Dimensions in millimetres (inches) unless otherwise indicated



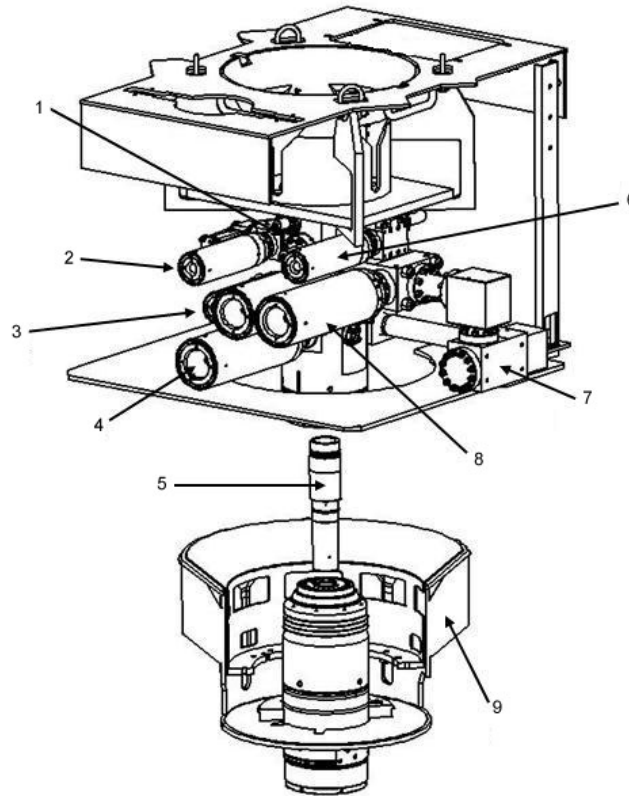
- a Groove location,  $M \begin{matrix} +0,7 \\ 0 \end{matrix} \begin{pmatrix} +0,030 \\ 0 \end{pmatrix}$ .
- b Groove radius,  $GR \begin{matrix} +0,1 \\ 0 \end{matrix} \begin{pmatrix} +0,005 \\ 0 \end{pmatrix}$ .
- c Break sharp corners.

Hub <sup>a</sup> and bore dimensions														
Nominal size and bore		Outside diameter		Total thickness		Large diameter of neck		Length of neck		Groove location		Retainer groove radius		Ring gasket no.
		OD		T		J		L		M		GR		BX
mm	(in)	mm	(in)	mm	(in)	mm	(in)	mm	(in)	mm	(in)	mm	(in)	
52	(2 1/16)	128	(5,031)	29,5	(1,166)	93	(3,656)	84	(3,282)	74	(2,907)	3	(0,125)	152
65	(2 9/16)	147	(5,781)	29,5	(1,166)	112	(4,406)	84	(3,282)	74	(2,907)	3	(0,125)	153
78	(3 1/8)	160	(6,312)	29,5	(1,166)	126	(4,938)	88	(3,432)	78	(3,067)	3	(0,125)	154
103	(4 1/16)	194	(7,625)	30,5	(1,197)	159	(6,250)	96	(3,757)	86	(3,382)	3	(0,125)	155
130	(5 1/8)	240	(9,380)	36,0	(1,410)	197	(7,755)	121	(4,732)	111	(4,357)	3	(0,125)	169
179	(7 1/16)	272	(10,700)	41,5	(1,622)	231	(9,075)	141	(5,541)	127	(4,979)	5	(0,188)	156
228	(9)	340	(13,250)	41,5	(1,622)	296	(11,625)	156	(6,113)	141	(5,551)	5	(0,188)	157
279	(11)	415	(16,250)	42,0	(1,654)	372	(14,625)	162	(6,932)	162	(6,370)	5	(0,188)	158
346	(13 5/8)	524	(20,625)	47,52	(1,871)	489	(19,000)	182	(7,150)	168	(6,614)	5	(0,188)	160

<sup>a</sup> Hub material strength shall be equal to or greater than 517,1 MPa (75 000 psi).

Page 170, Figure A.3

Replace the existing figure with the following.



**Key**

- |                        |                     |                            |
|------------------------|---------------------|----------------------------|
| 1 swab valves          | 5 tubing hanger     | 9 GRA, CGB, or tubing head |
| 2 annulus wing valve   | 6 crossover valve   |                            |
| 3 annulus master valve | 7 production outlet |                            |
| 4 master valve         | 8 wing valve        |                            |

**Figure A.3 — Guidelineless style vertical tree**

Pages 220 and 221, K.3.3.3.5, Equation (K.25)

Replace the existing equation with the following.

Bending stress,  $S_B$ , is calculated as given in Equation (K.25):

$$S_B = \frac{M \times y}{I_W} \quad (\text{K.25})$$

where

$M$  is the bending moment, equal to  $F_p \times \sin(\alpha) \times H$ ;

$y$  is the dimension from neutral axis to end of weld, equal to  $\frac{(L + 2h)}{2}$ ;

$I_W$  is the moment of inertia of weld, equal to  $0,707h \times I_U$ ;

$I_U$  is the unit moment of inertia of weld, equal to  $\frac{L^2}{6}(3t + L)$ ;

$h$  is the weld size (full penetration), equal to  $0,5 \times t$ .