International Standard 4228

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

Spanners and wrenches — Spline drive ends for power socket wrenches

Outils de manœuvre pour vis et écrous — Entraînement à cannelures pour douilles machines

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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. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

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Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

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Spanners and wrenches — Spline drive ends for power socket wrenches

1 Scope and field of application

This International Standard defines certain dimensions for the involute splines used for driving power socket wrenches, and for the ends of these sockets.

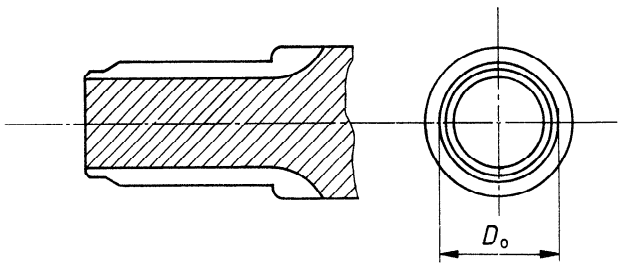
It covers both the male end dimensions, and the female end dimensions.

The pitch p/p_s as given in the tables defines the spline dimensions. The first number, p, is the diametral pitch; the second number, p_s, is the stub pitch and denotes, as the fractional part of an inch, the basic radial length of engagement, both above and below the pitch circle. The module, m, denotes the number of units of pitch diameter per tooth, in millimetres.

2 Dimensions

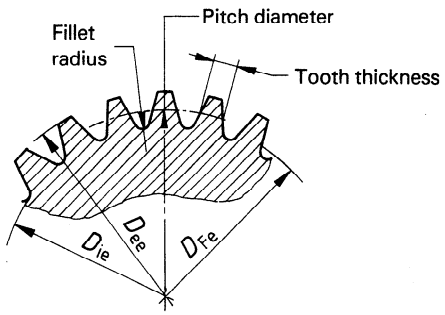
2.1 Male driving

2.1.1 Socket end



Size number	Nominal dimension D_o		Number of teeth	Module m	Pitch p/p_s	Pressure angle α^o	Pitch diameter	
	mm	in		mm			mm	in
4	31,75	1.250	14	2,116 7	12/24	30	29,634	1.166 7
5	41,28	1.625	14	2,540 0	10/12	20	35,560	1.400 0
5A	48,26	1.900	18	2,540 0	10/20	30	45,720	1.800 0
6	60,33	2.375	18	3,175 0	8/16	30	57,150	2.250 0

2.1.2 Male end spline proportion



Dimensions in millimetres

Size number	Major diameter D_{ee}		Form diameter D_{Fe}	Minor diameter D_{ie}		Fillet radius	Tooth effective thickness	
	max.	min.		max.	min.		max.	min.
4	31,750	31,623	27,414	25,824	25,494	0,97	3,286	3,213
5	41,021	40,919	33,416	31,750	31,369	1,27	4,953	4,826
5A	48,260	48,133	43,078	41,148	41,020	1,12	3,952	3,876
6	60,325	60,198	53,861	51,435	50,978	1,40	4,947	4,864

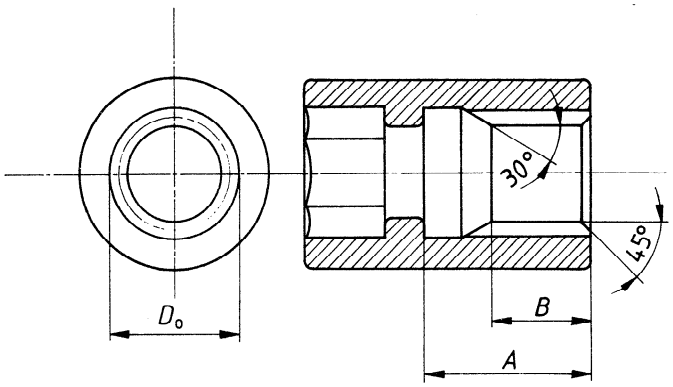
Dimensions in inches

4	1.250 0	1.245 0	1.079 3	1.016 7	1.003 7	0.038	0.129 4	0.126 5
5	1.615 0	1.611 0	1.315 6	1.250 0	1.235 0	0.050	0.195 4	0.190 0
5A	1.900 0	1.895 0	1.695 0	1.620 0	1.615 0	0.044	0.155 6	0.152 6
6	2.375 0	2.370 0	2.120 5	2.025 0	2.007 0	0.055	0.194 8	0.191 5

NOTE — Concerning length of engagement, the male ends shall be made to fit the female ends exactly. Special care shall be taken that the locking device is not subjected to any torsional or axial load during use.

2.2 Female driving

2.2.1 Socket end



Size number	Nominal dimension D_o		Number of teeth	Module m	Pitch p/p_s	Pressure angle α^o	A min.		B max.		Pitch diameter	
	mm	in		mm			mm	in	mm	in	mm	in
4	31,75	1.250 0	14	2,116 7	12/24	30	38,1	1.500	19,1	0.750	29,634	1.166 7
5	41,28	1.625 0	14	2,540 0	10/12	20	47,6	1.875	23,0	0.906	35,560	1.400 0
5A	48,26	1.900 0	18	2,540 0	10/20	30	50,8	2.000	24,8	0.980	45,720	1.800 0
6	60,33	2.375 0	18	3,175 0	8/16	30	53,8	2.125	27,8	1.093	57,150	2.250 0