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ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION

R 1717

ROCK DRILLING

ROTARY DRILL RODS AND ROTARY DRILL BITS FOR DRY DRILLING

CONNECTING DIMENSIONS

1st EDITION

November 1970

For each individual country the only valid standard is the national standard of that country.

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BRIEF HISTORY

The ISO Recommendation R 1717, *Rock drilling – Rotary drill rods and rotary drill bits for dry drilling – Connecting dimensions,* was drawn up by Technical Committee ISO/TC 82, *Mining,* the Secretariat of which is held by the Deutscher Normenausschuss (DNA).

Work on this question led to the adoption of Draft ISO Recommendation No. 1717, which was circulated to all the ISO Member Bodies for enquiry in October 1968. It was approved, subject to a few modifications of an editorial nature, by the following Member Bodies :

Australia	India	South Africa, Rep. of
Austria	Iran	Spain
Belgium	Israel	Sweden
Chile	Italy	Thailand
Czechoslovakia	Korea, Rep. of	U.A.R.
France	Netherlands	United Kingdom
Germany	New Zealand	Yugoslavia
Greece	Peru	
Hungary	Poland	

The following Member Body opposed the approval of the Draft :

Turkey

This Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided to accept it as an ISO RECOMMENDATION.

ISO Recommendation | R 1717 | November 1970

ROCK DRILLING

ROTARY DRILL RODS AND ROTARY DRILL BITS FOR DRY DRILLING

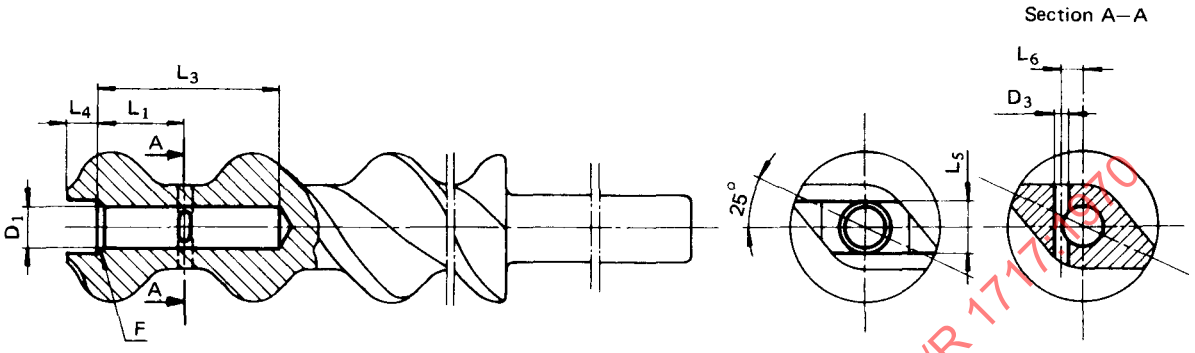
CONNECTING DIMENSIONS

1. SCOPE

This ISO Recommendation specifies the connecting dimensions for rotary drill rods and the shanks of drill bits for dry drilling. In addition, an example is given of drill rods and drill bits for one method of wet drilling.

The dimensions of the drill rods and drill bits are not specified in this ISO Recommendation.

2. DRILL ROD FOR DRY DRILLING, DIAMOND SECTION



Eccentricity. The distance between the centre of diameter D_1 and the centre of the rod should not exceed 0.8 mm (0.031 in).

The centre of diameter D_1 may deviate by a maximum of 0.13 mm (0.005 in) from the centre line between the driving flats (L_5).

Dimensions in millimetres

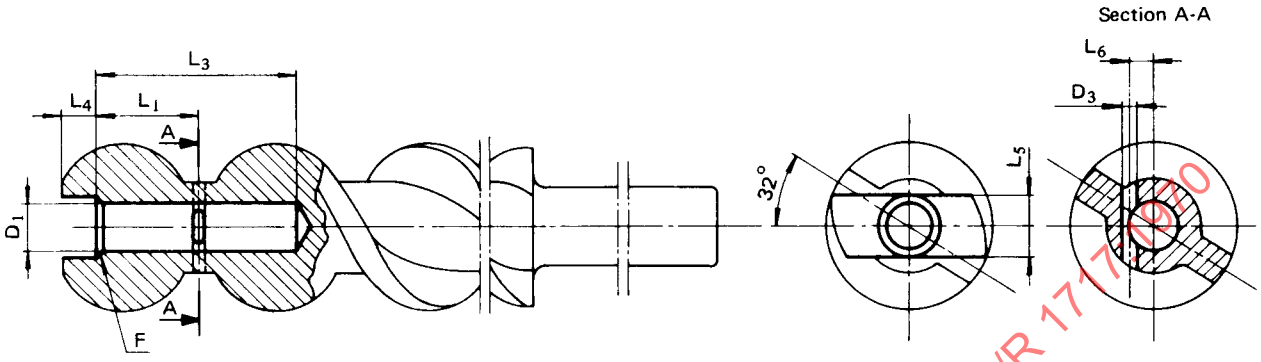
D_1	D_3	L_1	L_3	L_4	L_5	L_6	F (in hole)
$^{+0.2}_{0}$	$^{+0.3}_{0}$	± 0.15	± 1.6	± 0.2	$^{+0.8}_{0}$	± 0.2	min.
12.8	4.5	23	49.2	8.5	13.5	6.5	0.25 × 45°

Dimensions in inches

D_1	D_3	L_1	L_3	L_4	L_5	L_6	F (in hole)
$^{+0.008}_{0}$	$^{+0.012}_{0}$	± 0.006	± 0.063	± 0.008	$^{+0.032}_{0}$	± 0.008	min.
0.504	0.177	0.907	1.938	0.335	0.531	0.256	0.010 × 45°

NOTE. – The setting of a radius in the bottom of the slot in the rod should be dealt with at national level.

3. DRILL ROD FOR DRY DRILLING, TURBINE SECTION



Eccentricity. The distance between the centre of diameter D_1 and the centre of the rod should not exceed 0.8 mm (0.031 in).

The centre of diameter D_1 may deviate by a maximum of 0.13 mm (0.005 in) from the centre line between the driving flats (L_5).

Dimensions in millimetres

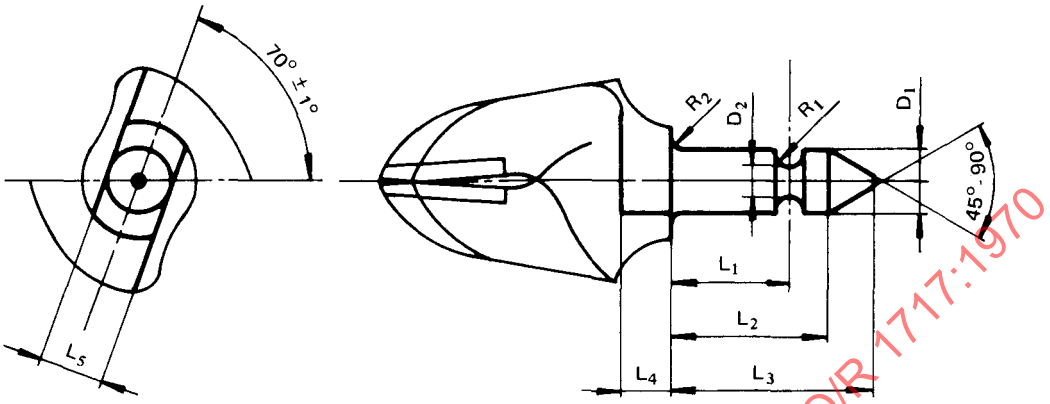
D_1	D_3	L_1	L_3	L_4	L_5	L_6	F (in hole)
$^{+0.2}_{0}$	$^{+0.3}_{0}$	±0.15	±1.6	±0.2	$^{+0.8}_{0}$	±0.2	min.
12.8	4.5	23	49.2	8.5	13.5	6.5	0.25 × 45°

Dimensions in inches

D_1	D_3	L_1	L_3	L_4	L_5	L_6	F (in hole)
$^{+0.008}_{0}$	$^{+0.012}_{0}$	±0.006	±0.063	±0.008	$^{+0.032}_{0}$	±0.008	min.
0.504	0.177	0.907	1.938	0.335	0.531	0.256	0.010 × 45°

NOTE. – The setting of a radius in the bottom of the slot in the rod should be dealt with at national level.

4. DRILL BITS FOR DRY DRILLING



The centre of diameter D_1 may deviate by a maximum of 0.13 mm (0.005 in) from the centre line between the driving flats (L_5).

Dimensions in millimetres

D_1	D_2	L_1	L_2	L_3	L_4	L_5	R_1	R_2
$^{0}_{-0.10}$	$^{0}_{-0.25}$	± 0.15	± 0.4	max.	± 0.2	$^{0}_{-0.3}$	± 0.13	max.
12.7	8.6	23	29.9	39.3	9.7	13.1	3.2	0.3

Dimensions in inches

D_1	D_2	L_1	L_2	L_3	L_4	L_5	R_1	R_2
$^{0}_{-0.004}$	$^{0}_{-0.01}$	± 0.006	± 0.016	max.	± 0.008	$^{0}_{-0.012}$	± 0.005	max.
0.500	0.340	0.907	1.177	1.547	0.382	0.516	0.125	0.012

NOTE. – The setting of a radius on the edge of the flats on the tools should be dealt with at national level.