INTERNATIONAL STANDARD 1718

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

Rock drilling — Drill-rods and detachable bits for percussive drilling

Forage des roches — Fleurets et taillants amovibles pour forage percutant

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Descriptors : mining, drilling equipment, drilling stem, drill bits.

Price based on 5 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.

Prior to 1972, the results of the work of the Technical Committees were published as ISO Recommendations; these documents are now in the process of being transformed into International Standards. As part of this process, Technical Committee ISO/TC 82 has reviewed ISO Recommendation R 1718 and found it suitable for transformation. International Standard ISO 1718 therefore replaces ISO Recommendation R 1718-1970.

ISO Recommendation R 1718 was approved by the Member Bodies of the following countries :

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

No Member Body expressed disapproval of the Recommendation.

The Member Body of the following country disapproved the transformation of ISO/R 1718 into an International Standard :

Canada

Printed in Switzerland

Rock drilling — Drill-rods and detachable bits for percussive drilling

1 SCOPE AND FIELD OF APPLICATION

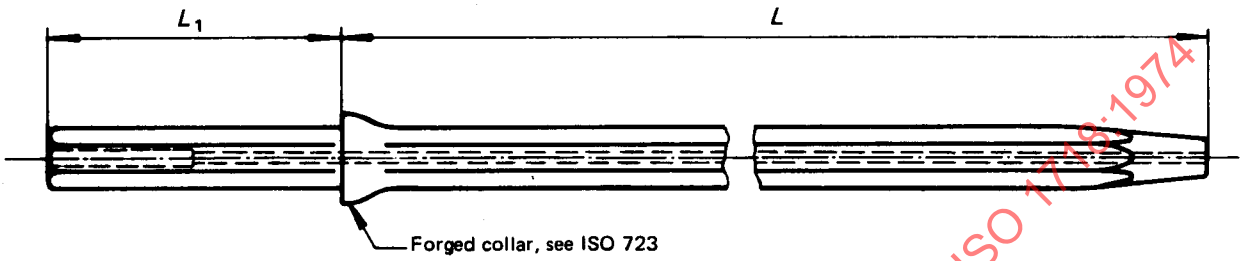
This International Standard specifies the basic dimensions for drill-rods and detachable bits for percussive drilling and the necessary dimensions for the tapered connections.

2 REFERENCES

ISO 722, *Rock drilling — Hollow hexagonal drill-steels in bar form.*

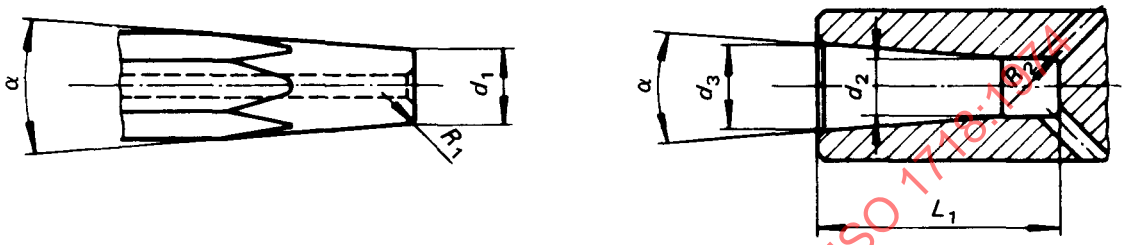
ISO 723, *Rock drilling — Forged collared shanks and chuck bushings for hollow hexagonal drill-steels.*

3 TAPERED DRILL-RODS



Hexagonal drill-rod (see ISO 722)		Length of shank, L_1		L			Taper
mm	in	mm	in	m	ft	in	
22	7/8	108	4.25	0,8	2	7	4,8° × 22
				1,6	5	3	
				2,4	7	10	
				3,2	10	6	
				4,0	13	1	
				4,8	15	9	
				5,6	18	4	
22	7/8	108	4.25	0,6	2		7° × 22
				1,2	4		
				1,8	6		
				2,4	8		
				3,0	10		
				3,7	12		
				4,3	14		
22	7/8	108	4.25	0,6	2		12° × 22
				1,2	4		
				1,8	6		
				2,4	8		
				3,0	10		
				3,7	12		
				4,3	14		

4 TAPERS



Dimensions in millimetres

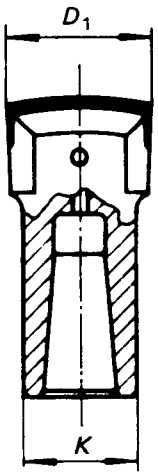
Designation	Taper angle α	d_1		d_2		d_3		L_1	R_1	R_2
		Basic size	Tolerance	Basic size	Tolerance	Basic size	Tolerance	min.		
4,8° X 22	4°46′	19,1	$^{0}_{-0,2}$	19,0	$^{+0,2}_{0}$	22,0	$^{+0,2}_{0}$	51	1,5	6,3
7° X 22	7°	16,0	$^{0}_{-0,1}$	16,2	$^{+0,1}_{0}$	21,8	$^{+0,1}_{0}$	54	6	6,3
12° X 22	12°	14,9	$^{0}_{-0,2}$	15,4	$^{+0,2}_{0}$	22,0	$^{+0,2}_{0}$	48	6	6,3

Dimensions in inches

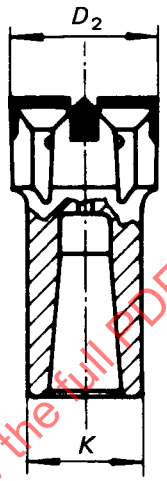
Designation	Taper angle α	d_1		d_2		d_3		L_1	R_1	R_2
		Basic size	Tolerance	Basic size	Tolerance	Basic size	Tolerance	min.		
4.8° X 22	4°46′	0.752	$^{0}_{-0.008}$	0.748	$^{+0.008}_{0}$	0.866	$^{+0.008}_{0}$	2.000	0.059	0.250
7° X 22	7°	0.628	$^{0}_{-0.004}$	0.639	$^{+0.004}_{0}$	0.857	$^{+0.004}_{0}$	2.125	0.234	0.250
12° X 22	12°	0.587	$^{0}_{-0.008}$	0.606	$^{+0.008}_{0}$	0.866	$^{+0.008}_{0}$	1.890	0.234	0.250

5 TAPERED BITS

Chisel bit



Four-wing bit



$K_{max} = D_1$ (or D_2) − 3 mm (0.118 in)

Taper	D_1 $^{+0,3}_{-0,1}$ mm ($^{0.012}_{0.004}$ in)				D_2 $^{+0,3}_{0}$ mm ($^{0.012}_{0}$ in)			
	Nominal size		Basic size		Nominal size		Basic size	
	mm	in	mm	in	mm	in	mm	in
4,8° X 22	36	1.437 5	36	1.417	36	1.437 5	36	1.417
	40	1.562 5	40	1.575	40	1.562 5	40	1.575
	45	1.75	45	1.772	45	1.75	45	1.772
7° X 22	–	–	–	–	32	1.25	31,75	1.250
	–	–	–	–	35	1.375	34,92	1.375
	–	–	–	–	38	1.5	38,10	1.500
	–	–	–	–	41	1.625	41,28	1.625
	–	–	–	–	45	1.75	44,45	1.750
12° X 22	–	–	–	–	32	1.25	31,75	1.250
	–	–	–	–	35	1.375	34,92	1.375
	–	–	–	–	38	1.5	38,10	1.500
	–	–	–	–	41	1.625	41,28	1.625
	–	–	–	–	45	1.75	44,45	1.750