INTERNATIONAL STANDARD 1721

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

Rock drilling — Extension drill-steel equipment for percussive long-hole drilling — Reverse-buttress-threaded equipments 1 1/16 and 1 1/4 in (27 and 32 mm)

Forage des roches — Matériels pour forage percutant de longs trous — Équipements à filetage à butée inverse 1 1/16 et 1 1/4 in (27 et 32 mm)

First edition — 1974-08-15

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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 1721 and found it suitable for transformation. International Standard ISO 1721 therefore replaces ISO Recommendation R 1721-1970.

ISO Recommendation R 1721 was approved by the Member Bodies of the following countries :

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

No Member Body expressed disapproval of the Recommendation.

The Member Body of the following country disapproved the transformation of ISO/R 1721 into an International Standard :

Canada

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Rock drilling — Extension drill-steel equipment for percussive long-hole drilling — Reverse-buttress-threaded equipments 1 1/16 and 1 1/4 in (27 and 32 mm)

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1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies the basic dimensions for reverse-buttress-threaded extension drill-steel equipment for percussive long-hole drilling, of the following nominal sizes :

1 1/16 in light (27 mm)

1 1/4 in light (32 mm)

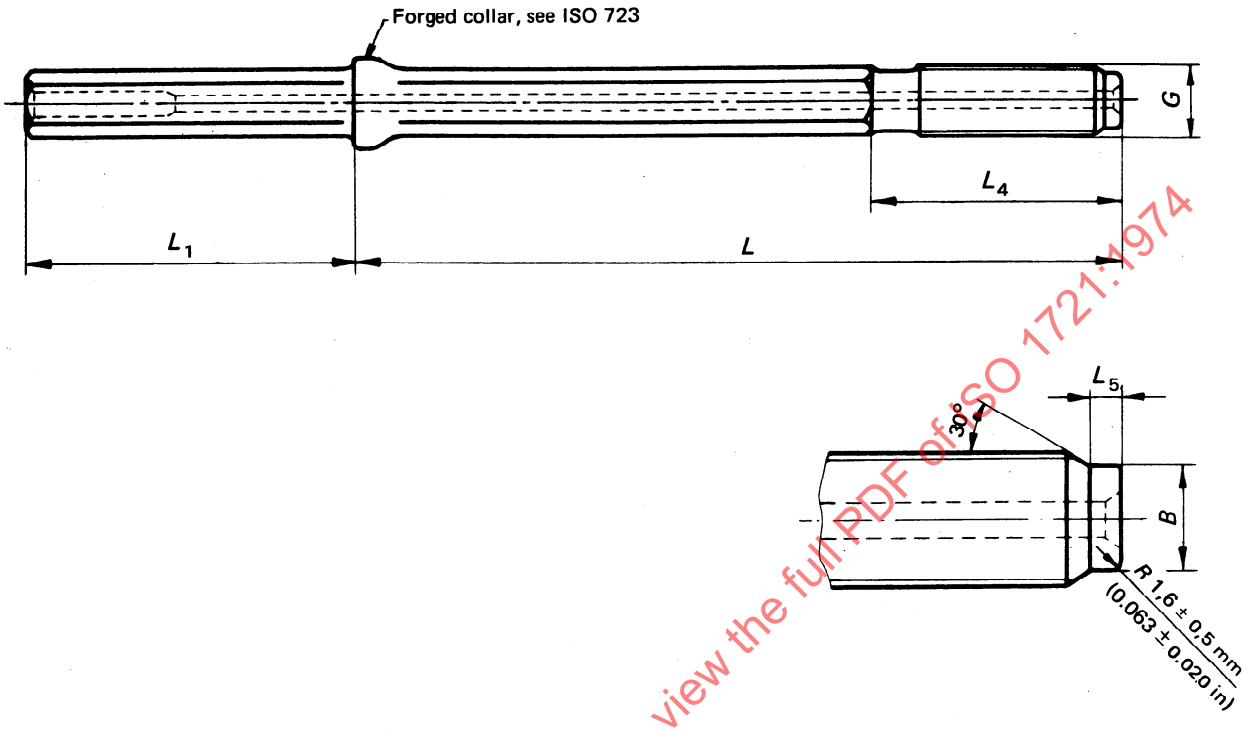
2 REFERENCE

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

3 LIST OF COMPONENTS

Equipment	1 1/16 in light (27 mm)		1 1/4 in light (32 mm)	
Thread diameter	1 1/16 in		1 1/4 in	
Size of drill rod in bar form	7/8 in hexagonal (22 mm)		1 in hexagonal (25 mm)	
Shank adapters, hexagon type	See clause 4			
Shank adapters, lug-shank type	See clause 5			
Lengths of extension rods (clause 6)	mm	ft	mm	ft
	915	3	915	3
	1 220	4	1 220	4
	—	—	1 525	5
	1 830	6	1 830	6
	2 435	8	2 435	8
	—	—	3 050	10
Coupling sleeves	See clause 7			
Bit diameters (four-wing bits) (clause 8)	mm	in	mm	in
	41	1 5/8	—	—
	45	1 3/4	—	—
	—	—	48	1 7/8
	51	2	51	2
	—	—	57	2 1/4
	—	—	64	2 1/2
Reverse-buttress threads	See clause 9			
Hollow hexagonal bars for extension rods	See clause 10			

4 SHANK ADAPTERS FOR CENTRAL FLUSHING – HEXAGON TYPE



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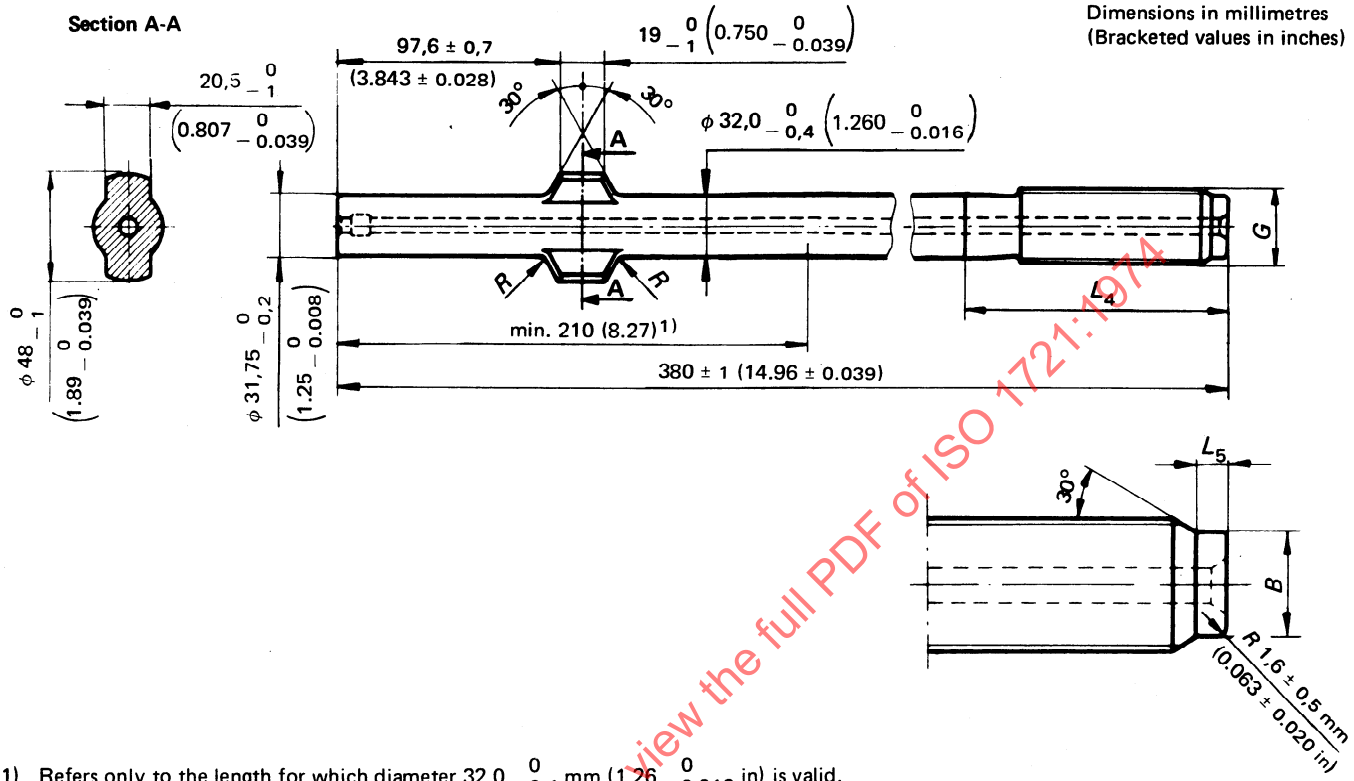
Dimensions in millimetres

Equipment	Hexagonal drill-steel (see clause 10) Nominal size	Thread diameter G nominal	B		L		L_1	L_4	L_5	
			Basic size	Tolerance	Basic size	Tolerance		±1	Basic size	Tolerance
1 1/16 in light	22	1 1/16 in	22,10	$^{0}_{-0,2}$	255	± 25	108	85,7	7,14	± 0,5
1 1/4 in light	25	1 1/4 in	25,27	$^{0}_{-0,2}$	255	± 25	108 159	92,1	6,35	± 0,5

Dimensions in inches

Equipment	Hexagonal drill-steel (see clause 10) Nominal size	Thread diameter G nominal	B		L		L_1	L_4	L_5	
			Basic size	Tolerance	Basic size	Tolerance		± 0.39	Basic size	Tolerance
1 1/16 in light	7/8	1 1/16 in	0.870	$^{0}_{-0.008}$	10	± 1	4 1/4	3.375	0.281	± 0.020
1 1/4 in light	1	1 1/4 in	0.955	$^{0}_{-0.008}$	10	± 1	4 1/4 6 1/4	3.625	0.250	± 0.020

5 SHANK ADAPTERS FOR CENTRAL FLUSHING – LUG-SHANK TYPE



1) Refers only to the length for which diameter $32{,}0\ ^{0}_{-0{,}4}$ mm ($1.26\ ^{0}_{-0.016}$ in) is valid.

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Dimensions in millimetres

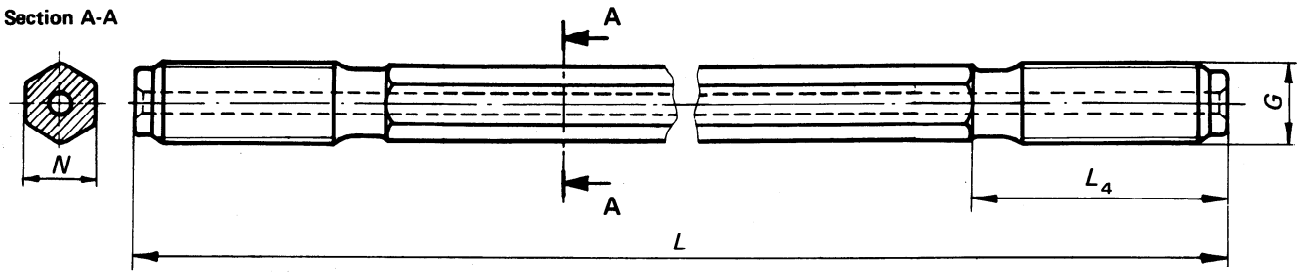
Equipment	Thread diameter G nominal	B		L_4	L_5		R	Flushing tube	
		Basic size	Tolerance	± 1	Basic size	Tolerance	max.	Outside diameter ± 0.1	Entry length max.
1 1/16 in light	1 1/16 in	22,10	$^{0}_{-0{,}2}$	85,7	7,14	± 0,5	4	10	82,5
1 1/4 in light	1 1/4 in	25,27	$^{0}_{-0{,}2}$	92,1	6,35	± 0,5	4	10	82,5

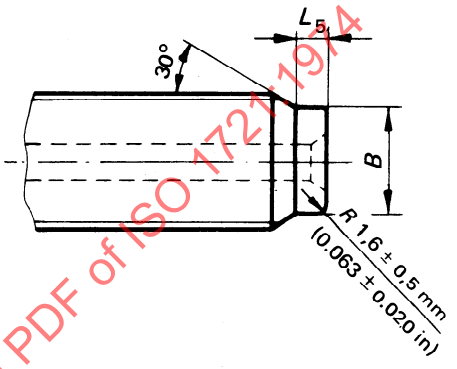
Dimensions in inches

Equipment	Thread diameter G nominal	B		L_4	L_5		R	Flushing tube	
		Basic size	Tolerance	± 0.039	Basic size	Tolerance	max.	Outside diameter ± 0.004	Entry length max.
1 1/16 in light	1 1/16 in	0.870	$^{0}_{-0.008}$	3.375	0.281	± 0.020	0.157	25/64	3 1/4
1 1/4 in light	1 1/4 in	0.995	$^{0}_{-0.008}$	3.625	0.250	± 0.020	0.157	25/64	3 1/4

6 EXTENSION RODS

Section A-A





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Dimensions in millimetres

Equipment	Hexagonal drill rod (see clause 10) N nominal	Thread diameter G nominal	B		L		L_4*	L_5	
			Basic size	Tolerance	Basic size	Tolerance	± 1	Basic size	Tolerance
1 1/16 in light	22	1 1/16 in	22,10	$^{0}_{-0,2}$	915 1 220 1 830 2 435	± 25	85,7	7,14	± 0,5
1 1/4 in light	25	1 1/4 in	25,27	$^{0}_{-0,2}$	915 1 220 1 525 1 830 2 435 3 050	± 25	92,1	6,35	± 0,5

Dimensions in inches

Equipment	Hexagonal drill rod (see clause 10) N nominal	Thread diameter G nominal	B		L		L_4*	L_5	
			Basic size	Tolerance	Basic size ft	Tolerance in	± 0.039	Basic size	Tolerance
1 1/16 in light	7/8	1 1/16 in	0.870	$^{0}_{-0.008}$	3 4 6 8	± 1	3.375	0.281	± 0.020
1 1/4 in light	1	1 1/4 in	0.995	$^{0}_{-0.008}$	3 4 5 6 8 10	± 1	3.625	0.250	± 0.020

* No thread undercut is required in this instance.