

Transformed

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION

R 1719

ROCK DRILLING

EXTENSION DRILL-STEEL EQUIPMENT
FOR PERCUSSIVE LONG-HOLE DRILLING

ROPE-THREADED EQUIPMENTS

$\frac{7}{8}$ to $1\frac{1}{4}$ in (22 to 32 mm)

1st EDITION

November 1970

COPYRIGHT RESERVED

The copyright of ISO Recommendations and ISO Standards belongs to ISO Member Bodies. Reproduction of these documents, in any country, may be authorized therefore only by the national standards organization of that country, being a member of ISO.

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

Printed in Switzerland

Also issued in French and Russian. Copies to be obtained through the national standards organizations.

BRIEF HISTORY

The ISO Recommendation R 1719, *Rock drilling – Extension drill-steel equipment for percussive long-hole drilling – Rope-threaded equipments $\frac{7}{8}$ to $1\frac{1}{4}$ in (22 to 32 mm)*, 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. 1719, which was circulated to all the ISO Member Bodies for enquiry in March 1969. It was approved, subject to a few modifications of an editorial nature, by the following Member Bodies :

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

The following Member Body opposed the approval of the Draft :

Austria

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

ROCK DRILLING
EXTENSION DRILL-STEEL EQUIPMENT
FOR PERCUSSIVE LONG-HOLE DRILLING

ROPE-THREADED EQUIPMENTS

$\frac{7}{8}$ to $1\frac{1}{4}$ in (22 to 32 mm)

1. SCOPE

This ISO Recommendation specifies the basic dimensions for rope-threaded extension drill-steel equipment for percussive long-hole drilling, of the following nominal sizes :

$\frac{7}{8}$ in (22 mm)

1 in light (25 mm)

1 in (25 mm)

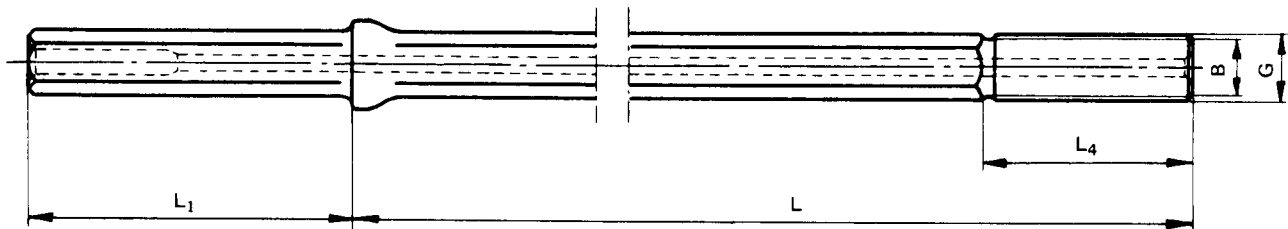
$1\frac{1}{4}$ in light (32 mm)

$1\frac{1}{4}$ in (32 mm)

2. LIST OF COMPONENTS

Equipment	$\frac{7}{8}$ in (22 mm)		1 in light (25 mm)		1 in (25 mm)		$1\frac{1}{4}$ in light (32 mm)		$1\frac{1}{4}$ in (32 mm)			
Thread diameter	$\frac{7}{8}$ in		1 in		1 in		$1\frac{1}{4}$ in		$1\frac{1}{4}$ in			
Size of drill steel in bar form	$\frac{7}{8}$ in hexagonal (22 mm)		$\frac{7}{8}$ in hexagonal (22 mm)		1 in hexagonal (25 mm)		1 in hexagonal (25 mm)		$1\frac{1}{4}$ in round (32 mm)			
Lengths of shank rods (See page 5)	mm	ft	in	—	—	—	—	—	—	—		
	1000	3	3									
	1800	5	11									
	2600	8	6									
	3400	11	2									
Lengths of shank adapters hexagon type (See page 6)	—			mm	in	mm	in	—		—		
	—			255	10	255	10	—		—		
Shank adapter lug-shank type (See page 8)	—			Shank-end diameter $1\frac{1}{4}$ in		Shank-end diameter $1\frac{1}{4}$ in		Shank-end diameter $1\frac{1}{4}$ in		Shank-end diameter $1\frac{1}{4}$ in ($1\frac{1}{2}$ in)		
Lengths of extension rods (See page 7)	mm	ft	in	mm	ft	mm	ft	mm	ft	mm	ft	
	800	2	7	915	3	915	3	915	3	915	3	
	—	—	—	1220	4	1220	4	1220	4	1220	4	
	1600	5	3	—	—	—	—	1525	5	—	—	
	—	—	—	1830	6	1830	6	1830	6	1830	6	
	2400	7	10	2435	8	2435	8	2435	8	2435	8	
	3200	10	6	—	—	—	—	—	—	3050	10	
Wrench flats for extension rods	See page 9											
Coupling sleeve	See page 10											
Bit diameter (chisel bits) (See page 11)	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
	36	$1\frac{7}{16}$	—	—	—	—	—	—	—	—	—	—
	38	$1\frac{1}{2}$	—	—	—	—	—	—	—	—	—	—
	41	$1\frac{5}{8}$	—	—	—	—	—	—	—	—	—	—
Bit diameter (four-wing bits) (See page 12)	35	$1\frac{3}{8}$	—	—	—	—	—	—	—	—	—	—
	38	$1\frac{1}{2}$	—	—	—	—	—	—	—	—	—	—
	41	$1\frac{5}{8}$	41	$1\frac{5}{8}$	41	$1\frac{5}{8}$	—	—	—	—	—	—
	—	—	45	$1\frac{3}{4}$	45	$1\frac{3}{4}$	—	—	—	—	—	—
	—	—	—	—	—	—	48	$1\frac{7}{8}$	48	$1\frac{7}{8}$	—	—
	—	—	51	2	51	2	51	2	51	2	—	—
	—	—	—	—	—	—	57	$2\frac{1}{4}$	57	$2\frac{1}{4}$	—	—
	—	—	—	—	—	—	64	$2\frac{1}{2}$	64	$2\frac{1}{2}$	—	—
Rope threads	See pages 13 and 14											
Hollow hexagonal bars for extension rods	See page 15											
Hollow round bars for extension rods	See page 16											

3. SHANK RODS FOR CENTRAL FLUSHING



Equipment	Hexagonal drill steel Nominal dimensions		Thread diameter <i>G</i> nominal	<i>B</i> ± 0.7 mm (± 0.0275 in)		<i>L</i> ± 25 mm (± 1 in)			<i>L</i> ₁		<i>L</i> ₄ * ± 1 (± 0.039 in)	
	mm	in		mm	in	mm	ft	in	mm	in	mm	in
$\frac{7}{8}$ in (22 mm)	22	$\frac{7}{8}$	$\frac{7}{8}$	16.5	0.650	1000	3	$3\frac{3}{8}$	108	$4\frac{1}{4}$	71.5	2.815
						1800	5	$10\frac{7}{8}$				
						2600	8	$6\frac{3}{8}$				
						3400	11	$1\frac{7}{8}$				

* For an eccentric undercut of the thread, where the length of *L*₄ varies along the circumference of the bar, a tolerance of ± 2.5 mm (0.1 in) is acceptable.

For the sizes and tolerances of forged collared shanks, see ISO Recommendation R 723, *Rock drilling – Forged collared shanks and chuck bushings for hollow hexagonal drill steels*.