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Cylindrical gears for general engineering and for heavy engineering — Modules and diametral pitches

Engrenages cylindriques de mécanique générale et de grosse mécanique — Modules et diametral pitches

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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.

International Standard ISO 54 was developed by Technical Committee ISO/TC 60, *Gears*.

It was submitted directly to the ISO Council, in accordance with clause 6.12.1 of the Directives for the technical work of ISO. It cancels and replaces ISO Recommendation R 54-1966, which had been approved by the member bodies of the following countries :

Austria	Hungary	Portugal
Belgium	India	Spain
Brazil	Italy	Sweden
Chile	Japan	Switzerland
Colombia	Korea, Rep. of	United Kingdom
Czechoslovakia	Netherlands	U.S.A.
France	Norway	U.S.S.R.
Germany	Poland	Yugoslavia

No member body had expressed disapproval of the document.

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Cylindrical gears for general engineering and for heavy engineering — Modules and diametral pitches

1 SCOPE AND FIELD OF APPLICATION

This International Standard lays down the values of modules and diametral pitches for straight and helical gears for general engineering and for heavy engineering, the automotive field being excluded.

2 DEFINITIONS[1)]

2.1 module : The ratio of the pitch, expressed in millimetres, to the number π (or the quotient of the reference diameter, expressed in millimetres, by the number of teeth).

2.2 diametral pitch : The ratio of the number π to the pitch expressed in inches (or the quotient of the number of teeth by the reference diameter expressed in inches).

NOTE — The module and the diametral pitch are defined with respect to the reference surface.

3 VALUES

Preference should be given to the use of the modules and diametral pitches given in column I of the table. The module 6,5 should be avoided.

The diametral pitches are given in this International Standard only on a provisional basis; they will be deleted after the period necessary to allow conversion to the metric system.

Modules *m*		Diametral pitches *P*	
I	II	I	II
1		20	
	1,125		18
1,25		16	
	1,375		14
1,5		12	
	1,75		11
2		10	
	2,25		9
2,5		8	
	2,75		7
3		6	
	3,5		5.50
4		5	
	4,5		4.50
5		4	
	5,5		3.50
6		3	
	(6,5)		2.75
8	7	2.50	
	9		2.25
10		2	
	11		1.75
12		1.50	
	14		
16		1.25	
	18		
20		1	
	22		0.875
25		0.75	
	28		
32		0.625	
	36		
40		0.50	
	45		
50			

NOTE — For the definition of "basic rack" see ISO 53, *Cylindrical gears for general and heavy engineering — Basic rack*.

1) Extracted from ISO/R 1122, *Glossary of gears — Geometrical definitions.*