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ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION
R 21

SHIPBUILDING DETAILS FOR INLAND NAVIGATION
SPROCKET WHEELS

1st EDITION
October 1956

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 21, *Sprocket Wheels*, was drawn up by the Technical Committee ISO/TC 9, *Shipbuilding Details for Inland Navigation*, the Secretariat of which is held by the Hoofdcommissie voor de Normalisatie in Nederland (H.C.N.N.).

At its initial meeting (held in Paris, June 1949) the Technical Committee unanimously decided to adopt as a Draft ISO Recommendation a proposal submitted by the Netherlands Member Body. It was agreed to add to the Draft a note stating that the illustration representing the sprocket wheel does not define the construction.

In March 1954, the Draft ISO Recommendation proposed by the Technical Committee ISO/TC 9 was submitted to all the ISO Member Bodies. It was approved, subject to certain editorial amendments, by the following 19 (out of a total of 33) Member Bodies:

Belgium	Italy	Sweden
Canada	Mexico	Switzerland
Denmark	Netherlands	Union of South Africa
France	* New Zealand	* U.S.A.
Hungary	* Pakistan	Yugoslavia
India	Portugal	
Ireland	Spain	

Japan opposed approval of the Draft, stating, i.a. that the sprocket wheels used in Japan had five teeth.

The Draft ISO Recommendation was then submitted by correspondence to the ISO Council which decided, at its July 1956 meeting, to accept it as an ISO RECOMMENDATION.

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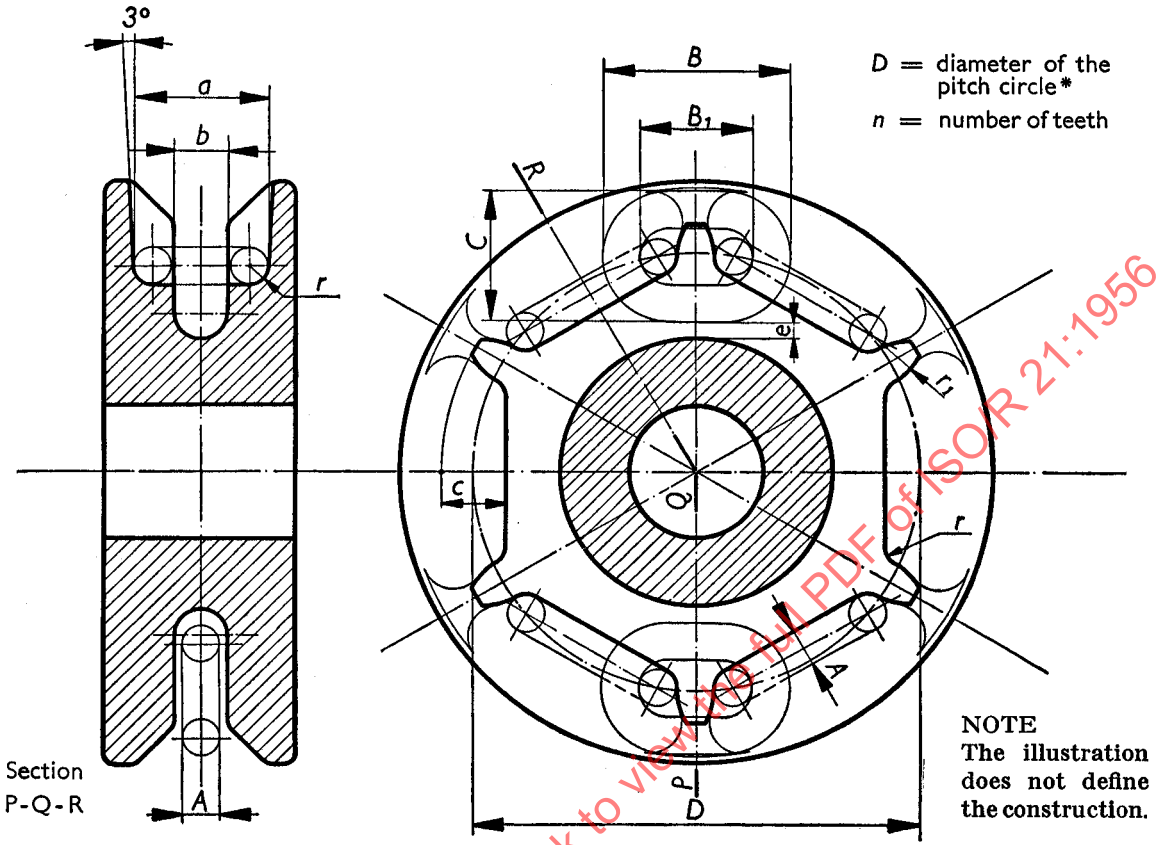
* These Member Bodies stated that they had no objection to the Draft being approved.

ISO Recommendation R 21 July 1956

SHIPBUILDING DETAILS FOR INLAND NAVIGATION
SPROCKET WHEELS



D = diameter of the pitch circle*
n = number of teeth

NOTE
The illustration does not define the construction.

Dimensions in millimetres

A	B	B_1	C	D*	a	b	c approx.	e	r	r_1	n
6	31	19	21	182	25	8	10	2	3.5	12	15
8	40	24	27	230	32	10	13	2	4.5	16	15
10	49	29	33	278	39	13	16	3	5.5	20	15
11	55	33	38	253	42	14	18	3	6	22	12
12.5	63	38	43	243	48	16	20	4	7	25	10
14.5	72	43	49	275	54	19	23	4	8	29	10
16	80	48	54	276	60	21	26	5	9	32	9
17.5	88	53	60	272	65	23	28	5	10	35	8
19	95	57	65	293	70	25	30	6	10.5	38	8
20.5	103	62	70	280	76	27	33	6	11	41	7
22	110	66	75	298	81	29	35	7	12	44	7
24	120	72	81	324	88	31	38	7	13	48	7
25.5	127	76	87	342	93	33	41	8	14	49	7
27	135	81	92	314	98	35	43	8	15	54	6
28.5	143	86	97	334	104	37	46	9	16	57	6
30	150	90	102	349	109	39	48	9	16.5	60	6
32	160	96	108	372	116	42	51	10	17.5	64	6
33	166	100	113	388	120	43	53	10	18	66	6
35	175	105	119	408	126	46	56	10	19	70	6
37	184	110	125	427	134	48	59	11	20.5	74	6
38	190	114	129	442	137	49	61	11	21	76	6
40	199	119	135	461	144	52	64	12	22	80	6

$$*D = \sqrt{\left(\frac{B_1}{\sin\frac{90}{n}}\right)^2 + \left(\frac{A}{\cos\frac{90}{n}}\right)^2}$$; for $n \geqq 6$ and $A \leqq 16$, the formula may be: $D = \frac{B_1}{\sin\frac{90}{n}}$.