

INTERNATIONAL STANDARD

ISO
8123

First edition
1991-04-15

Road vehicles — Diametral pitch starter motor pinions

Véhicules routiers — Pignons de démarreurs à diametral pitch



Reference number
ISO 8123:1991(E)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established 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. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 8123 was prepared by Technical Committee ISO/TC 22, *Road vehicles*.

STANDARDSISO.COM : Click to view the full PDF of ISO 8123:1991

© ISO 1991

All rights reserved. No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

International Organization for Standardization

Case Postale 56 • CH-1211 Genève 20 • Switzerland

Printed in Switzerland

Road vehicles — Diametral pitch starter motor pinions

1 Scope

This International Standard specifies the diametral pitches, pressure angles, number of teeth and other tooth characteristics which are necessary to ensure interchangeability of starter motor pinions used for starter motors mounted on reciprocating internal combustion engines for road vehicles.

2 Dimensions

Detailed tooth limit dimensions and the base tangent length as the inspection value, W_2 , are given in table 1 for diametral pitch starter motor pinions.

NOTE 1 The symbols, which are in accordance with ISO 701:1976, *International gear notation — Symbols for geometrical data*, are illustrated in figure 1.

STANDARDSISO.COM : Click to view the full PDF of ISO 8123:1991

Table 1

Dimensions in millimetres

Module, m ¹⁾	2,1167				2,54				3,175				4,233
Diametral pitch, P ²⁾	12				10				8				6
Pressure angle, α	12				20				20				20
Number of teeth, z	9	10	11	12	8	9	10	11	9	10	11	12	12
Addendum modification, coefficient, x	0,75				0,42				0,5				0,5
Tip diameter, d_a	max. 25,80	27,93	30,00	32,30	27,2	29,7	32,3	34,8	37,25	40,40	43,50	46,75	53,30
	min. 25,59	27,72	29,79	32,05	27,0	29,5	32,0	34,6	37,00	40,15	43,25	46,50	53,05
													57,35
Root diameter, d_f	max. 17,70	19,50	21,60	23,75	17,4	19,9	22,5	25,0	25,1	28,3	31,4	34,6	38,1
	min. 17,27	18,98	21,08	23,23	17,1	19,6	22,1	24,6	24,7	27,9	31,0	34,2	37,7
													42,3
													41,9
													46,2
Start of active profile, d_{aIE}	max. 18,7	20,76	22,84	24,9	19,2	21,6	24,09	26,56	27,07	30,19	33,27	36,41	40,41
	min. 25,49	27,62	29,69	31,95	26,9	29,4	32	34,5	36,85	40	43,1	46,35	52,9
													57,2
													61,4
Base tangent length, W_2	max. 10,48	10,48	10,49	10,49	12,26	12,30	12,33	12,37	15,55	15,59	15,63	15,68	20,79
	min. 10,43	10,43	10,44	10,44	12,18	12,22	12,25	12,29	15,46	15,50	15,54	15,59	20,69
													20,85
													20,91
													20,75
													20,81

$$1) \quad m = \frac{25,4}{P} \left[\frac{\text{mm} \cdot \text{in}^{-1}}{\text{in}^{-1}} \right]$$

2) P is the number of teeth per inch reference diameter, in reciprocal inches.

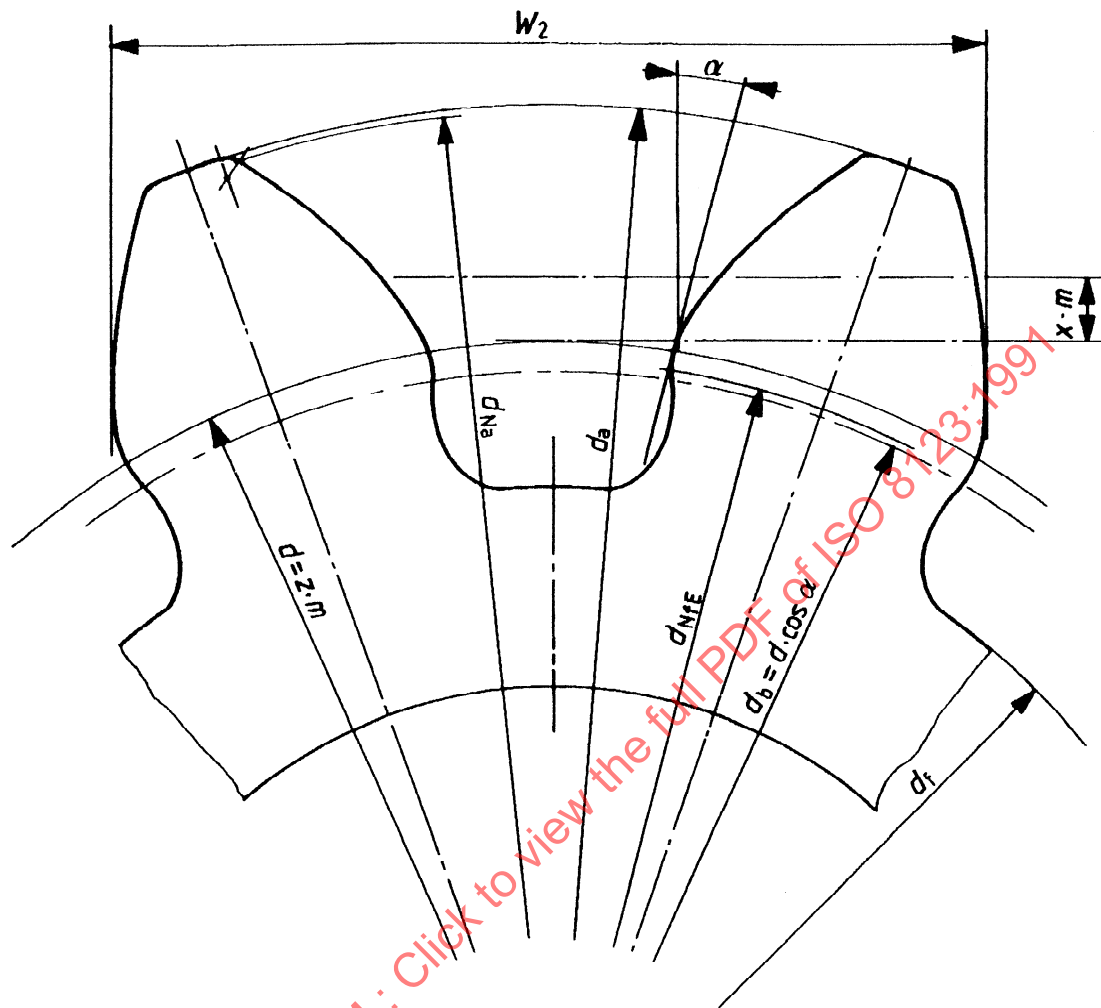


Figure 1

This page intentionally left blank

STANDARDSISO.COM : Click to view the full PDF of ISO 8123:1991