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# International Standard



# 7030

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

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## Road vehicles — Screw-mounted injection nozzle holder, types 12, 13, 14, 15, 16, 17, 18 and 19

*Véhicules routiers — Porte-injecteurs vissés, types 12, 13, 14, 15, 16, 17, 18 et 19*

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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 7030 was developed by Technical Committee ISO/TC 22, *Road vehicles*, and was circulated to the member bodies in June 1980.

It has been approved by the member bodies of the following countries :

Australia	Iran	Spain
Austria	Italy	Sweden
Belgium	Korea, Dem. P. Rep. of	Switzerland
Chile	Korea, Rep. of	United Kingdom
Egypt, Arab Rep. of	Netherlands	USA
France	Romania	USSR
India	South Africa, Rep. of	

The member body of the following country expressed disapproval of the document on technical grounds :

Germany, F. R.

# Road vehicles — Screw-mounted injection nozzle holder, types 12, 13, 14, 15, 16, 17, 18 and 19

## 1 Scope and field of application

This International Standard specifies dimensional requirements necessary for the mounting of injection nozzle holders in diesel engines.

The location of the fuel inlet and leak-off connections are not defined since they vary according to the particular application.

This International Standard is applicable to screw-mounted

injection nozzle holders, types 12, 13, 14, 15, 16, 17, 18 and 19.

The nozzle holder types 12 and 13 are used with the nozzles specified in ISO 2697; nozzle holder types 14 and 15 may also be used with these nozzles.

## 2 Reference

ISO 2697, *Road vehicles — Fuel injection nozzles — Size "S"*.



Nozzle holder Type	Nozzle Type	$H_1$ max.	$H_2$ min.	$H_3$ max.	$B_2$	$B_2'$ + 0,3 0	$B_3$	$J_1$ h11	$J_2$ C11	$K_1$ min.	$K_2$ + 1 0	$M^{2)}$ nom.	$N$ across flats h11
12	A1 – A2	25	25,2	25	9,2 max. ( $B_2 > B_2'$ )	8,9	3)	21,5	21,5	3,0	3,5	2	22
13	B – C				14 c11								

1) The reach of the groove and of the thread in the cylinder head shall be chosen in such a manner that an appropriate mounting of the nozzle holder is possible.

2) With commercial tolerances (before compression).

3) The determination of the diameter  $B_3$  in the cylinder head is left to the manufacturer's choice. For that purpose the maximum value for the nozzle stem which is given as a result of the maximum material principle (M) and the maximum tolerance value of the cylinder head hole must be taken into account. The clearance shall be kept to a minimum to facilitate nozzle cooling.

4) For the nozzle holder types 12 and 13, this tolerance applies only in the case where a small clearance exists between  $H_1$  and  $H_2$  ( $H_1 > H_2$ ).

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Nozzle holder Type	$H_1$ max.	$H_2^{6)}$ + 0,1 0	$H_3$ max.	$B_2$	$B_2'$ + 0,3 0	$B_3$	$J_1$ min.	$M^{2)}$ nom.	$N$ across flats h11	$P$
14	21	21,1	21	9,2 max. ( $B_2 > B_2'$ )	8,9	3)	18,5	2	19	20 <sup>5)</sup> + 0,7 0
15				14 c11						—

1) 2) 3) See 3.1.1.

5) This dimension determines the distance between the reference plane and the point of intersection of the injection holes axes with the nozzle axis.

6) For type 14 and 15 nozzle holders without shanks, dimension  $H_2$  should be reduced by 0,1 mm. In this case, the maximum material principle (M) in figures 3 and 4 applies on diameter  $H_1$  instead of diameter  $H_3$ .

7) In cases where it is necessary for the dimension  $P$  to be closely controlled for purposes of fitment of a heat shield, this dimension shall be  $13 \pm 0,2$  mm.

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Nozzle holder Type	$K_1$ min.	$K_2$ + 1 0	$H_1$ max.	$H_2$ + 0,1 0	$H_3$ max.	$B_2$ max. ( $B_2 \geq B_2'$ )	$B_2'$ + 0,3 0	$B_3$	$J_1$ h11	$J_2$ C11	$P^{5)}$ + 0,7 0	$M^{2)}$ nom.	$N$ across flats h11
16	15,5	15	20,9	21,1	21	9,2	8,9	3)	17	17	20	1,5	15
17						7,2	6,9						

2) 3) See 3.1.1.

5) See 3.1.2.

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