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МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ

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

Véhicules routiers — Porte-injecteurs montés par écrou libre, types 12, 13, 14, 15, 16, 17, 18 et 19

Reference number
ISO 7030 : 1987 (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.

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. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 7030 was prepared by Technical Committee ISO/TC 22, *Road vehicles*.

This second edition cancels and replaces the first edition (ISO 7030 : 1981), of which it constitutes a minor revision.

Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

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

1 Scope and field of application

This International Standard specifies dimensional requirements for the mounting of injection nozzle holders in internal combustion compression-ignition (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 applies to screw-mounted injection nozzle holders, types 12, 13, 14, 15, 16, 17, 18 and 19.

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

2 Reference

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

3 Dimensions and tolerances

Nozzle holder dimensions and tolerances are given in 3.1. Preferred shank lengths (L) are given with their tolerances in 3.2.

3.1 Dimensions and tolerances of nozzle holders

3.1.1 Nozzle holders, types 12 and 13

See figures 1 and 2, and table 1.

Dimensions in millimetres

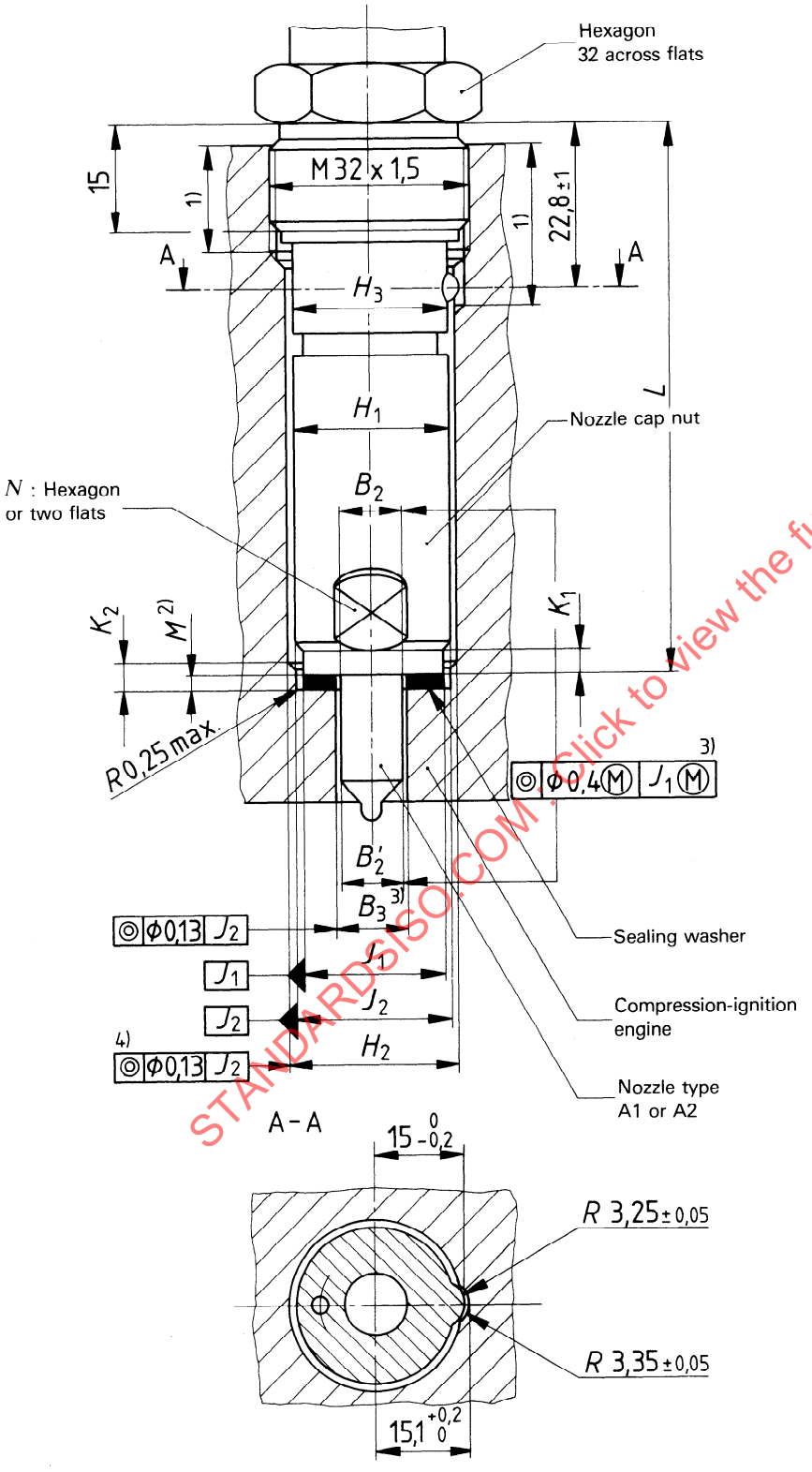
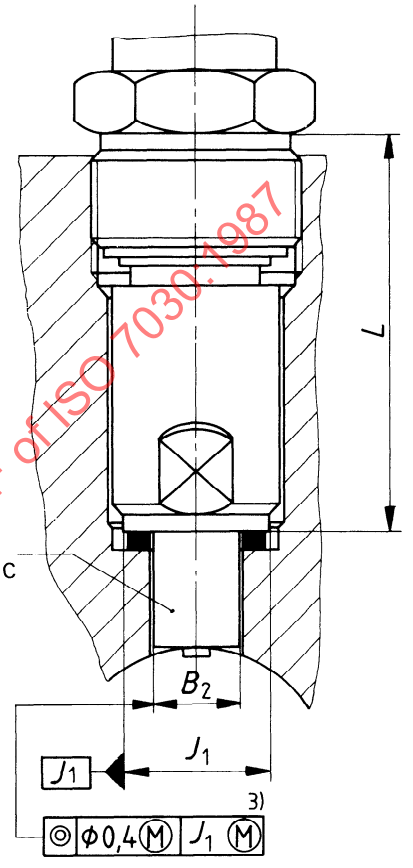


Figure 1 — Screw-mounted nozzle holder, type 12

Dimensions in millimetres



All other dimensions and specifications are according to figure 1.

Figure 2 — Screw-mounted nozzle holder, type 13

1) 2) 4) See corresponding notes under table 1.

Table 1

Dimensions in millimetres

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 and A2	25	25,2	25	9,2 max. ($B_2 \geqslant B_2'$)	8,9	[3]	21,5	21,5	3,0	3,5	2	22
13	B and 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 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 this purpose the maximum value for the nozzle stem which is given as a result of the maximum material principle Ⓜ and the maximum tolerance value of the cylinder head hole shall be taken into account. The clearance shall be kept to a minimum to facilitate nozzle cooling.

4) For nozzle holders types 12 and 13, this tolerance applies only in the case where a small clearance exists between H_1 and H_2 ($H_1 > H_3$).

3.1.2 Nozzle holders, types 14 and 15

See figures 3 and 4, and table 2.

Dimensions in millimetres

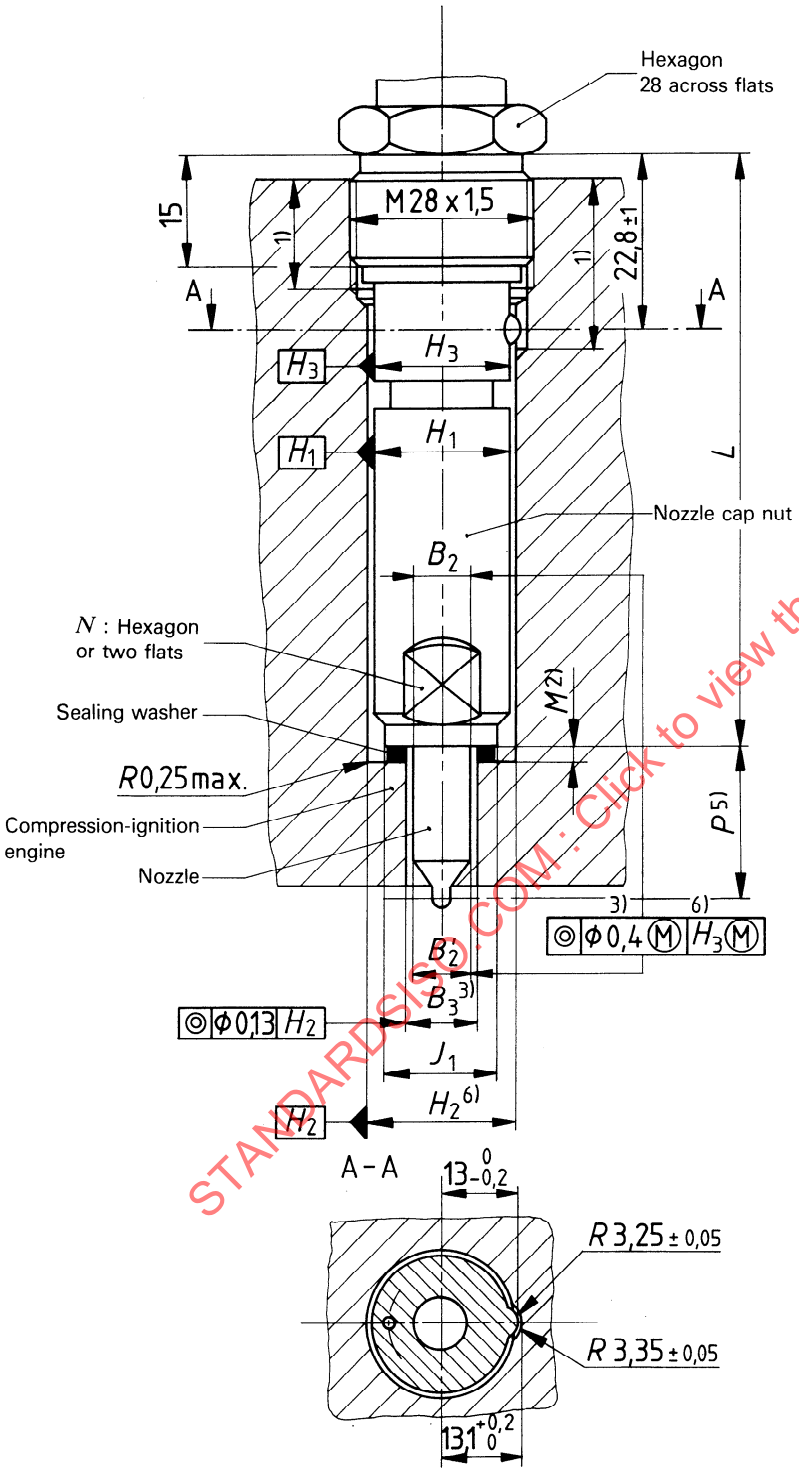
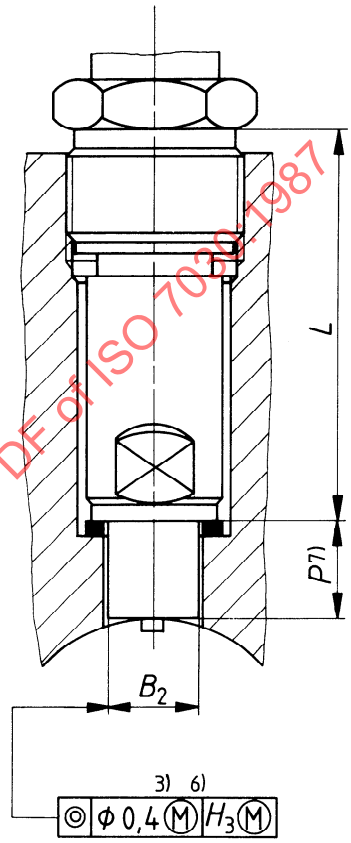


Figure 3 — Screw-mounted nozzle holder, type 14

Dimensions in millimetres



All other dimensions and specifications are according to figure 3.

Figure 4 — Screw-mounted nozzle holder, type 15

1) 2) 3) See 3.1.1.

5) 6) 7) See corresponding notes under table 2.

Table 2

Dimensions in millimetres

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. ($B_2 \geqslant B_2'$)	8,9	[3]	18,5	2	19	20 [5] + 0,7 0
15				14 c11	...					13 ± 0,3 [7]

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

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

3.1.3 Nozzle holders, types 16 and 17

See figure 5 and table 3.

Dimensions in millimetres

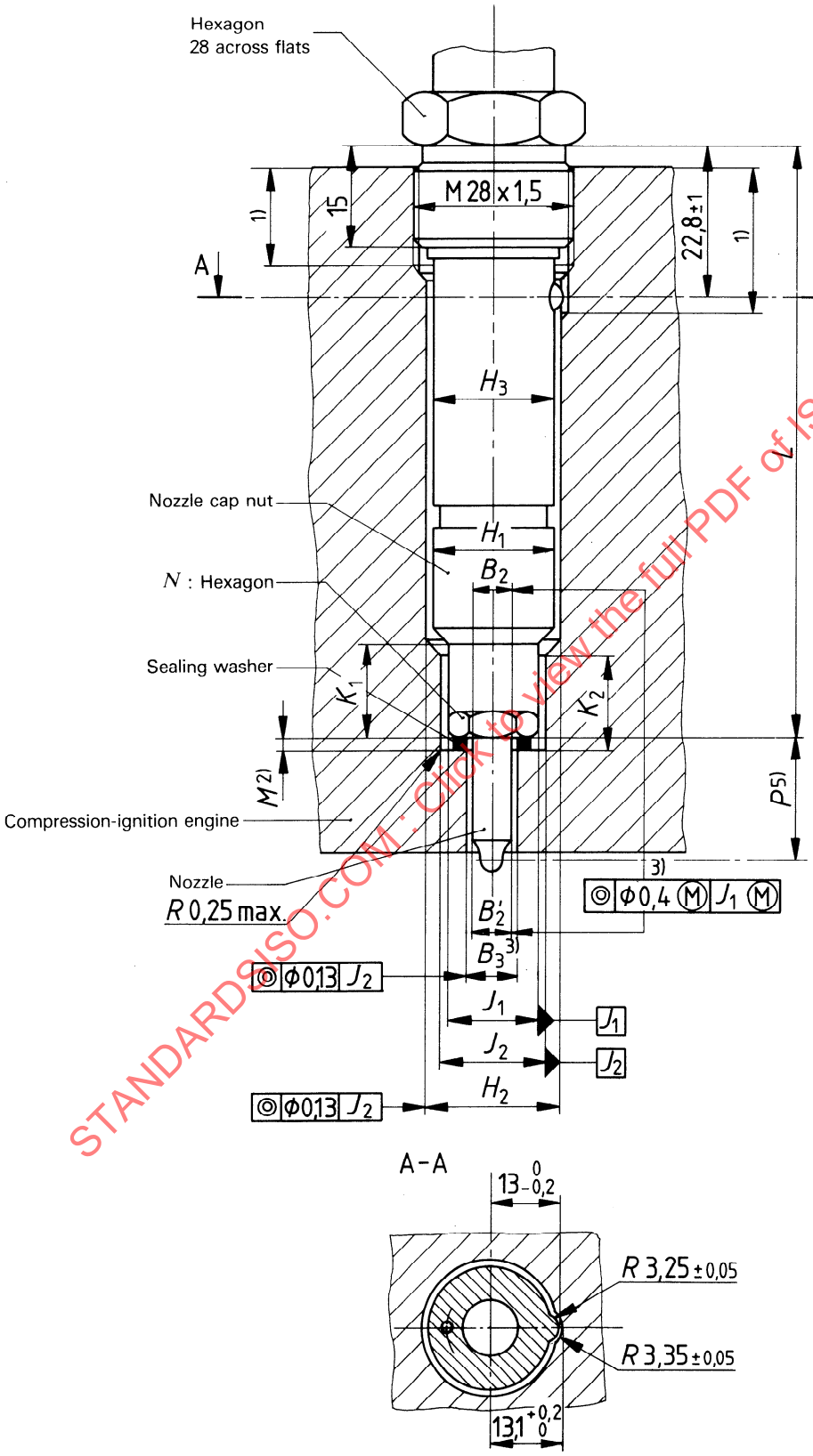


Figure 5 — Screw-mounted nozzle holders, types 16 and 17

1) 2) 3) See 3.1.1.

5) See 3.1.2.

Table 3

Dimensions in millimetres

Nozzle holder type	K_1 min.	K_2 $^{+1}_{0}$	H_1 max.	H_2 $^{+0,1}_{0}$	H_3 max.	B_2 max. ($B_2 \geqslant B_2'$)	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.