INTERNATIONAL STANDARD 2699

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

Road vehicles — Flange-mounted injection nozzle holders size "S" — Types 2, 3, 4, 5 and 6

Véhicules routiers — Porte-injecteurs à bride taille «S» — Types 2, 3, 4, 5 et 6

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Descriptors : road vehicles, diesel engines, injection nozzle holders, dimensions.

FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO Member Bodies). The work of developing International Standards is carried out through ISO Technical Committees. Every Member Body interested in a subject for which a Technical Committee has been set up 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.

International Standard ISO 2699 was drawn up by Technical Committee ISO/TC 22, *Road vehicles,* and circulated to the Member Bodies in November 1973.

It has been approved by the Member Bodies of the following countries :

Australia	Hungary	Switzerland
Belgium	Italy	Thailand
Brazil	Netherlands	Turkey
Bulgaria	Poland	United Kingdom
Czechoslovakia	Romania	U.S.A.
Egypt, Arab Rep. of	South Africa, Rep. of	U.S.S.R.
France	Spain	Yugoslavia
Germany	Sweden	

The Member Body of the following country expressed disapproval of the document on technical grounds :

Japan

Printed in Switzerland

Road vehicles — Flange-mounted injection nozzle holders size "S" — Types 2, 3, 4, 5 and 6

1 SCOPE

This International Standard specifies the dimensional requirements necessary for mounting and interchangeability 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.

2 FIELD OF APPLICATION

This International Standard applies to flange-mounted injection nozzle holders of size "S", types 2, 3, 4, 5 and 6, used with the nozzles specified in ISO 2697.

3 REFERENCE

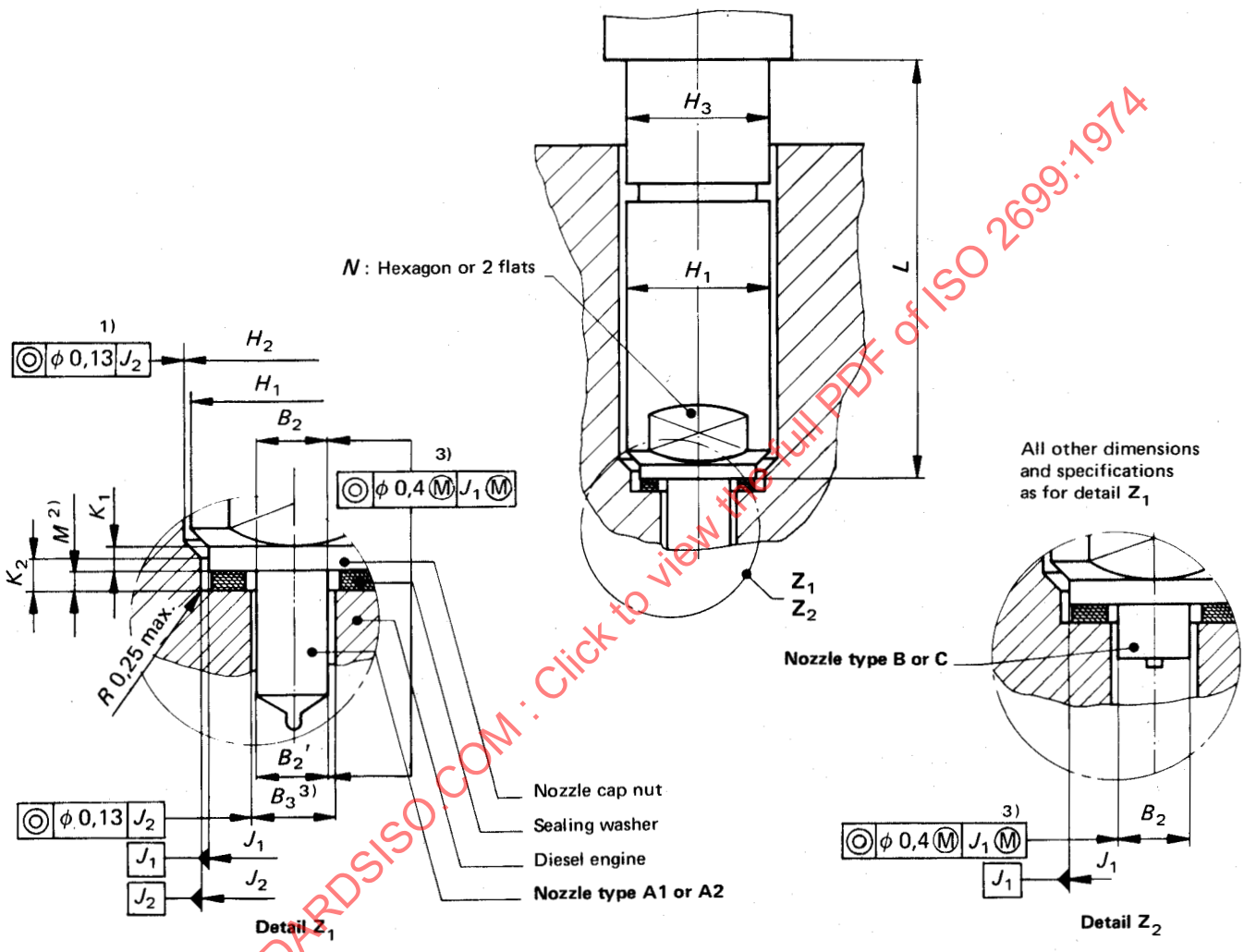
ISO 2697, *Road vehicles — Fuel injection nozzles — Size "S".*

4 DIMENSIONS AND TOLERANCES

4.1 General dimensions (the preferred shank lengths are given in 4.2)

4.1.1 *Nozzle holder type 2*

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
2	A1 – A2	25	25,2	25	9,2 max. ($B_2 \geqslant B_2'$)	8,9	3)	21,5	21,5	3,5	3,5	2	22
	B – C				14,0 c11	—							

FIGURE 1 – **Flange-mounted nozzle holder size "S", type 2**

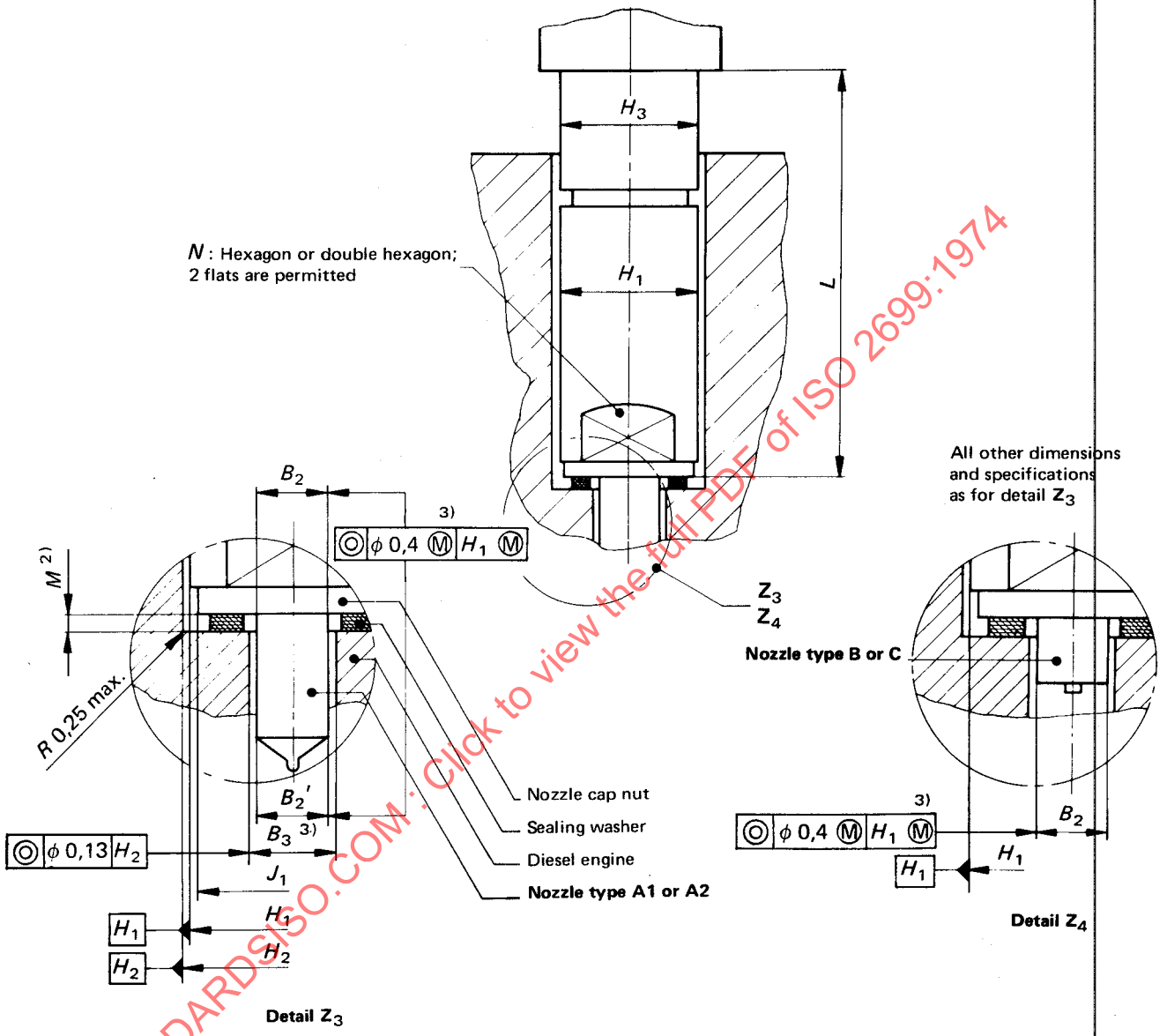
1) For the nozzle holder type 2, this tolerance applies only in the case where a small clearance exists between H_1 and H_2.

2) With commercial tolerance (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* Ⓜ 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.

4.1.2 *Nozzle holders types 3 and 4*

Dimensions in millimetres



Nozzle holder type	Nozzle type	H_1 max.	H_2 +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
3	A1 – A2	21,5	21,6	21,3	9,2 max. ($B_2 \geqslant B_2'$)	8,9	3)	18,5	2	19
4	B – C				14,0 c11	—				

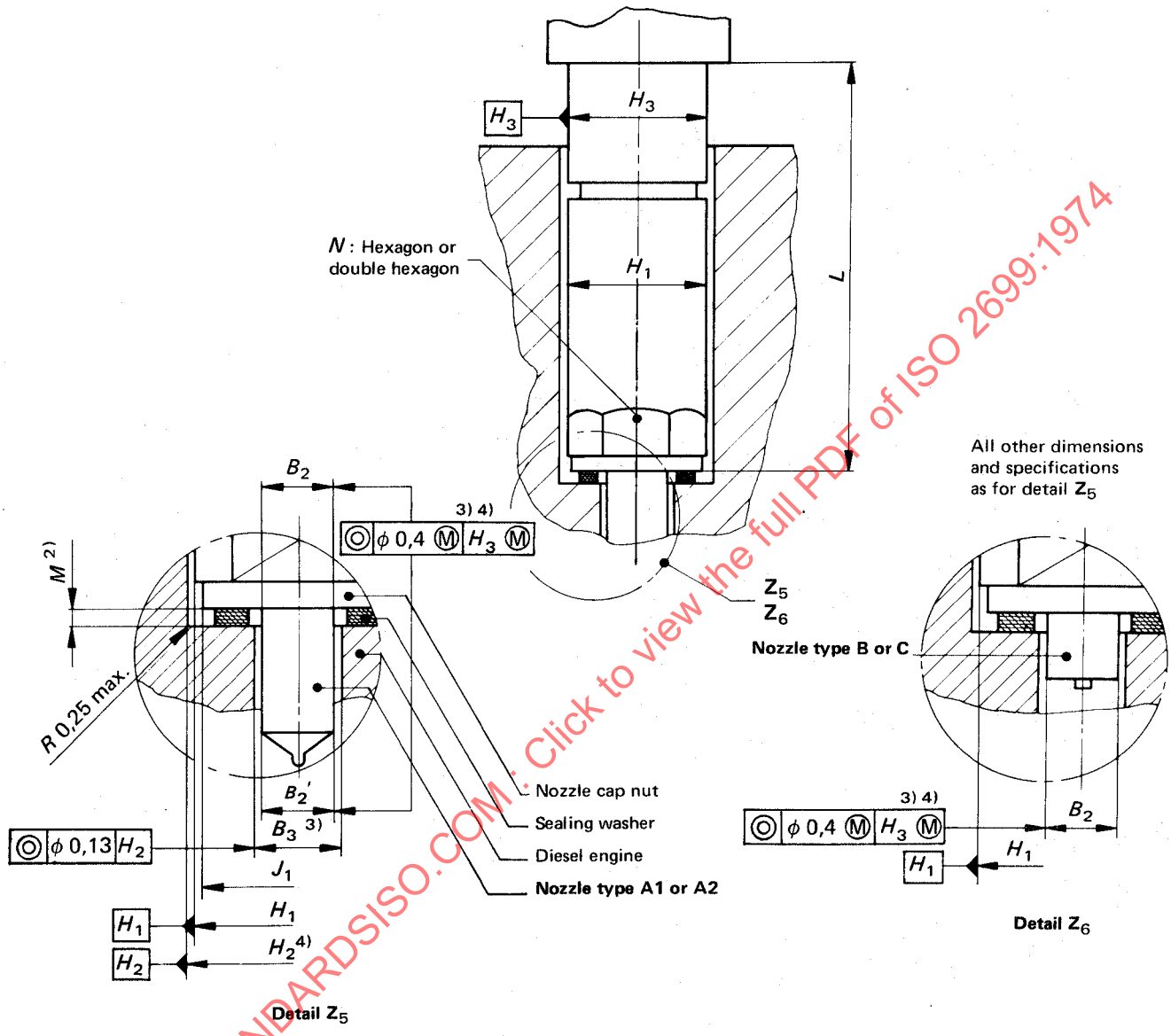
NOTE – Nozzle holders types 3 and 4 are not recommended for future designs.

FIGURE 2 – **Flange-mounted nozzle holder size "S", types 3 and 4**

2) 3) See 4.1.1.

4.1.3 *Nozzle holders types 5 and 6*

Dimensions in millimetres



Nozzle holder type	Nozzle type	H_1 max.	H_2 4) +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
5	A1 – A2	20,9	21,1	21	9,2 max. ($B_2 \geqslant B_2'$)	8,9	3)	18,5	2	19
6	B – C				14,0 c11	—				

FIGURE 3 – **Flange-mounted nozzle holder size "S", types 5 and 6**

2) 3) See 4.1.1.

4) For type 5 and 6 nozzle holders without shanks dimension H_2 should be reduced by 0,1 mm. In this case the *Maximum Material Principle* Ⓜ in details Z_5 and Z_6 applies on diameter H_1 instead of diameter H_3.