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INTERNATIONAL
400 Commonwealth Drive, Warrendale, PA 15096-0001

SURFACE VEHICLE STANDARD

an American National Standard

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(R) DIESEL FUEL INJECTION NOZZLE AND HOLDER ASSEMBLY (17 MM NOMINAL DIAMETER) TYPES 8, 10, 9 AND 11

(Reference ISO 3539)

1. PURPOSE:

This standard specifies the preferred dimensional relationship between the nozzle and holder assembly and the engine to which it is applied. The internal construction of the nozzle and holder assembly will remain optional with the manufacturer.

2. DESCRIPTION:

This standard specifically applies to the 17 mm (nominal) diameter nozzle holders as illustrated (types 8 and 10, types 9 and 11).

With the aid of detail enlargement "Z," Figures 1 and 2 illustrate the length and diameters of the nozzle, sealing washer, nozzle retaining nut, and holder body as related to the corresponding engine cylinder head hole diameter.

Note that two basic nozzle shank diameters 7 and 9 mm are illustrated.

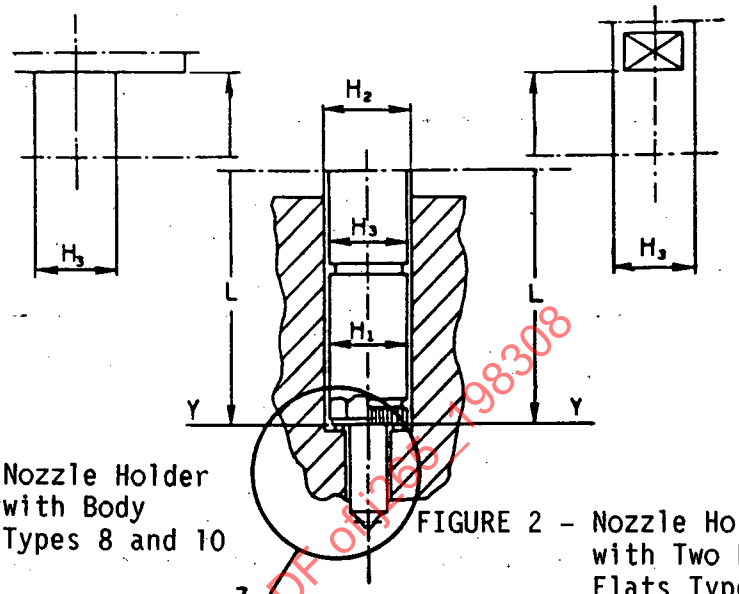
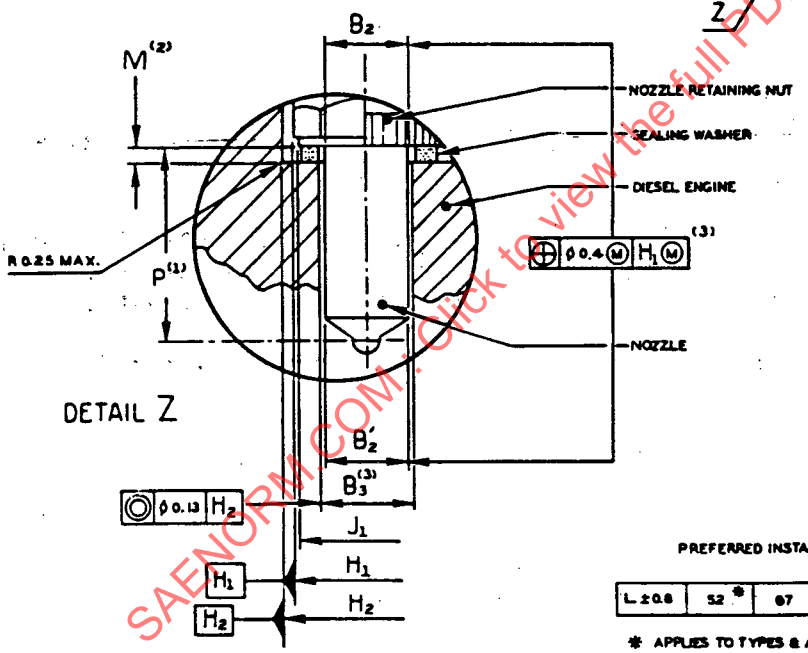


FIGURE 1 - Nozzle Holder with Body Types 8 and 10

FIGURE 2 - Nozzle Holder with Two Fixing Flats Types 9 and 11



PREFERRED INSTALLATION LENGTHS

DIMENSIONS IN MM

L ±0.8	52 *	67	82	97	112

* APPLIES TO TYPES 8 AND 10 ONLY

DIMENSIONS IN MM

NOZZLE HOLDER TYPES	H_1	H_2	H_3	B_2 ($B_2 > B'_2$)	B'_2	B_3 (3)	J_1	M (2)	P (1)
8 AND 9	17.0 MAX.	$17.1^{+0.1}_{0}$	16.9 MAX.	9.2 MAX	$8.9^{+0.3}_{0}$	—	14.5 MIN.	1.5 NOM.	$20.0^{+0.7}_{0}$
10 AND 11				7.2 MAX.	$6.9^{+0.3}_{0}$				

(1) Y-Y and the center of the nozzle tip radius on the nozzle axis which is generally the apex of orifice spray.

(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 shank 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.

RATIONALE:

Not applicable.

RELATIONSHIP OF SAE STANDARD TO ISO STANDARD:

This document references ISO 3539.

REFERENCE SECTION:

Not applicable.

APPLICATION:

This standard specified the preferred dimensional relationship between the nozzle and holder assembly and the engine to which it is applied. The internal construction of the nozzle and holder assembly will remain optional with the manufacturer.

COMMITTEE COMPOSITION:

DEVELOPED BY THE SAE ENGINE COMMITTEE: