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**SAE J629 AUG83**

**Diesel Fuel Injection  
Nozzle and Holder  
Assembly (21 mm  
Nominal Diameter-  
Size "S"), Flange  
Mounted Types  
5 and 6**

SAE Standard  
Revised August 1983

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**DIESEL FUEL INJECTION NOZZLE AND HOLDER ASSEMBLY  
(21 mm NOMINAL DIAMETER - SIZE "S"), FLANGE MOUNTED TYPES 5 AND 6**

(Reference ISO 2699)

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:

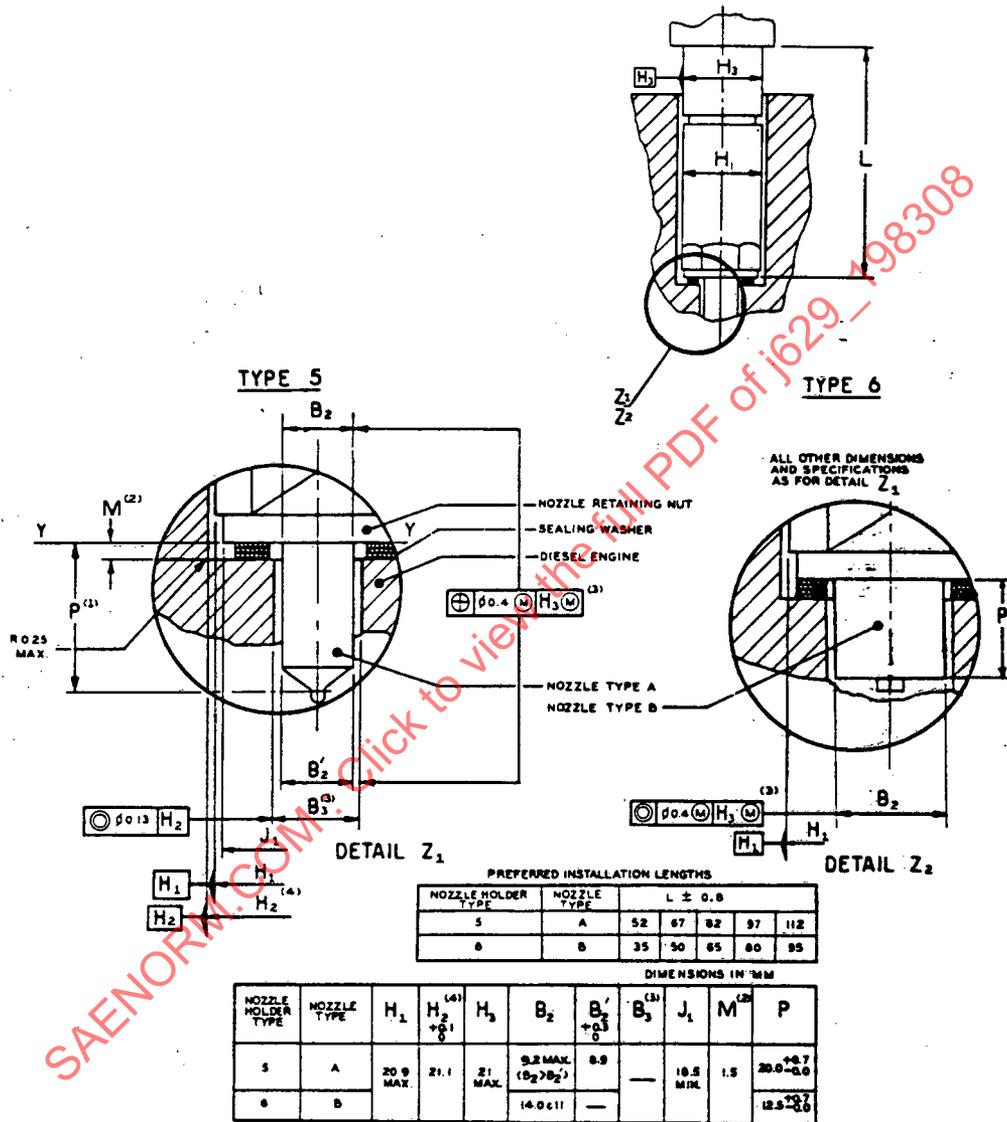
This standard specifically applies to the 21 mm (nominal) diameter nozzle holders using flange mounting (types 5 and 6).

With the aid of detail enlargements "Z<sub>1</sub>" and "Z<sub>2</sub>," Fig. 1 illustrates the length and diameters of the nozzle, sealing washer, nozzle retaining nut and holder body as related to the corresponding engine cylinder head diameter.

Note that two basic nozzle types are shown - orifice type A and pintle type B.

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- (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  $\oplus$  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 type 5 and 6 nozzle holders without shanks, dimension  $H_1$  should be reduced by 0.1mm. In this case the Maximum Material Principle  $\oplus$  in details Z1 and Z2 applies on diameter  $H_1$ , instead of diameter  $H_3$ .

FIGURE 1