

# Engine Coolant Pump Seals — SAE J780a

SAE Standard  
Completely Revised November 1978

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Report of Engine Committee approved June 1962 and completely revised by Transmission and Drivetrain Committee November 1978.

This standard outlines physical dimensions and nomenclature for the sizes of seals commonly used in engine coolant pumps of automotive type engines. Its purpose is to define a standard envelope to accommodate installation of various seal designs and to promote uniformity in seal nomenclature.

For additional information on material combinations, drawing format, qualification and inspection information, and quality control data please refer to SAE J1245 (November, 1978), Guide to the Application and Use of Engine Coolant Pump Face Seals.

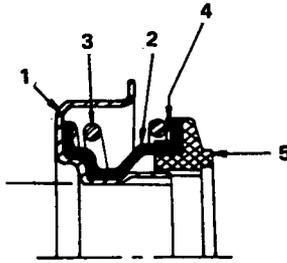


FIG. 1—SPRING-LOADED

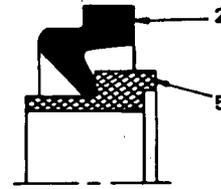


FIG. 2—ELASTOMER-LOADED

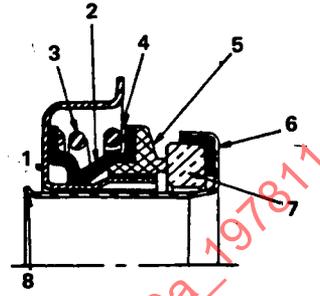
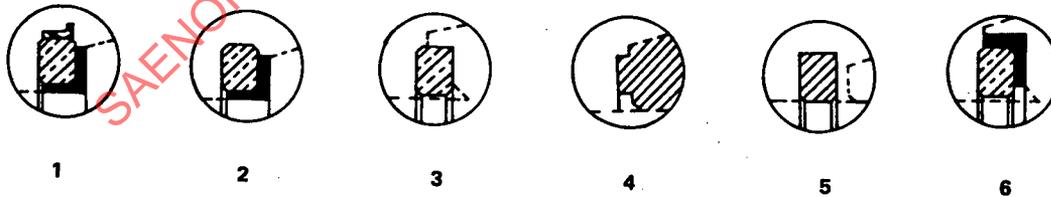


FIG. 3—UNITIZED

Nomenclature

- |             |                        |
|-------------|------------------------|
| 1 Cartridge | 5 Primary Seal Ring    |
| 2 Bellows   | 6 Secondary Drive Seal |
| 3 Spring    | 7 Mating Ring          |
| 4 Ferrule   | 8 Unitizer             |



- |                         |                          |
|-------------------------|--------------------------|
| 1. Banded, I.D. Mounted | 4. Lapped Pump Component |
| 2. Plain, I.D. Mounted  | 5. Press Fit             |
| 3. Bonded               | 6. O.D. Mounted          |

FIG. 4—MATING RING TYPES