SAE International	SURFACE VEHICLE RECOMMENDED PRACTICE	SAE J363 MAY2012
		Issued 1968-10 Stabilized 2012-05 Superseding J363 SEP1994

Filter-Base Mounting

RATIONALE

This document has been determined to contain basic and stable technology which will not be changing in the foreseeable future.

STABILIZED NOTICE

This document has been declared "Stabilized" by the SAE Filter Test Methods Standards Committee and will no longer be subjected to periodic reviews for currency. Users are responsible for verifying references and continued suitability of technical requirements. Newer technology may exist.

TO PLACE A DOCUMENT ORDER: **Tel: 877-606-7323 (inside USA and Canada)**
Tel: +1 724-776-4970 (outside USA)
Fax: 724-776-0790
Email: CustomerService@sae.org
SAE WEB ADDRESS: http://www.sae.org

Foreword—This reaffirmed document has been changed only to reflect the new SAE Technical Standards Board Format.

1. Scope—This SAE Recommended Practice identifies the necessary dimensional characteristics of filter-base mounting configurations to accept the more commonly used lubricating oil and diesel fuel spin-on filters. This SAE document is basically equivalent to the ISO 6415-1981 and ISO 7654-1983 except for differences detailed in the Rationale.

2. References

2.1 Applicable Publications—The following publications form a part of this specification to the extent specified herein.

2.1.1 ISO PUBLICATIONS—Available from ANSI, 11 West 42nd Street, New York, NY 10036-8002.

ISO 6415-1981—Internal combustion engines—Spin-on filters for lubricating oil—Dimensions
ISO 7654-1983—Compression ignition engines—Spin-on fuel filters—Mounting and connecting dimensions

3. General Information

3.1 Lubricating Oil Spin-On Filter-Base Mounting—Figure 1 is a composite drawing which outlines the base mounting and clearance requirements for spin-on oil filters.

Table 1 lists the insert thread size and gasket seal diameters of the base mounts for the more commonly used spin-on oil filters.

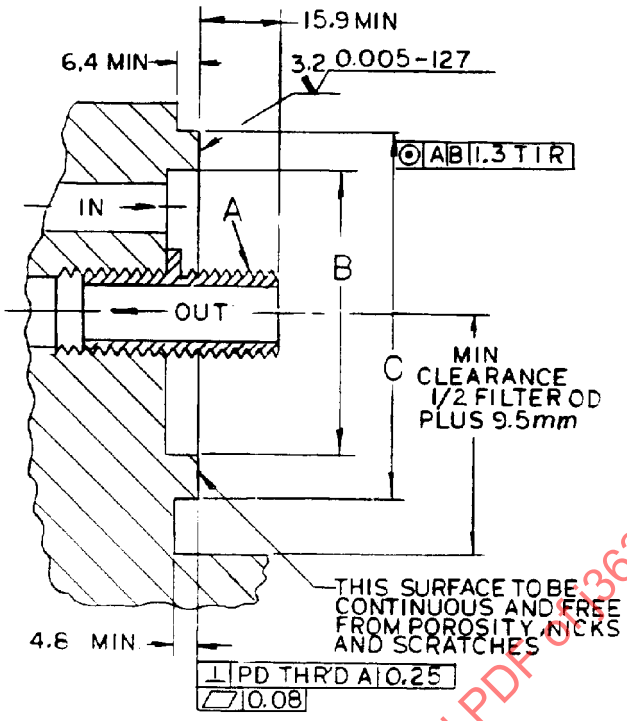

FIGURE 1—LUBRICATING OIL SPIN-ON FILTER-BASE MOUNTING

TABLE 1—LUBRICATING OIL FILTER-BASE MOUNTING DIMENSIONS

A Insert Thread Sizes	B ID mm	C OD mm
* 5/8-18 UNF2A	59.0 ± 1.0	79.0 ± 1.0
* 3/4-16 UNF2A	59.0 ± 1.0	79.0 ± 1.0
* 13/16-16 UN2A	59.0 ± 1.0	79.0 ± 1.0
13/16-16 UN2A	75.0 ± 1.0	93.0 ± 1.0
* 7/8-16 UNF2A	59.0 ± 1.0	79.0 ± 1.0
1-12 UNF2A	59.0 ± 1.0	79.0 ± 1.0
* 1/16 UN2A	59.0 ± 1.0	79.0 ± 1.0
* 1 1/8-16 UN2A	87.0 ± 1.0	113.0 ± 1.0
1 1/2-12 UNF2A	87.0 ± 1.0	113.0 ± 1.0
* 1 1/2-16 UN2A	87.0 ± 1.0	113.0 ± 1.0
M-18 X 1.5-6H	59.0 ± 1.0	79.0 ± 1.0
* M-20 X 1.5-6H	59.0 ± 1.0	79.0 ± 1.0
M-20 X 1.5-6H	75.0 ± 1.0	93.0 ± 1.0

For equipment protection, a bypass valve or equivalent device must be incorporated into the full flow lubricating oil system. If a bypass valve is to be located into the filter-mounting base, it should operate at one of the following recommended pressures.

60 kPa ± 10 kPa
90 kPa ± 10 kPa
140 kPa ± 15 kPa
200 kPa ± 20 kPa
250 kPa ± 20 kPa

3.2 Diesel Fuel Spin-On Filter-Base Mounting—Figure 2 is a composite drawing which outlines the base mounting and clearance requirements for spin-on fuel filters. Optional methods of preventing fuel leakage by the insert threads may be provided by means of a radial seal boss Type E or a compression seal member type D as shown, respectively, in the upper and lower halves of the drawing. The insert is to be threaded full distance F plus at least one full thread.

Table 2 lists the insert thread size and gasket seal diameters of the base mounts for the more commonly used spin-on fuel filters.

NOTE— The insert thread sizes listed in Tables 1 and 2 which are recommended for use are those designated by an asterisk. Others listed are available but not recommended as standard.

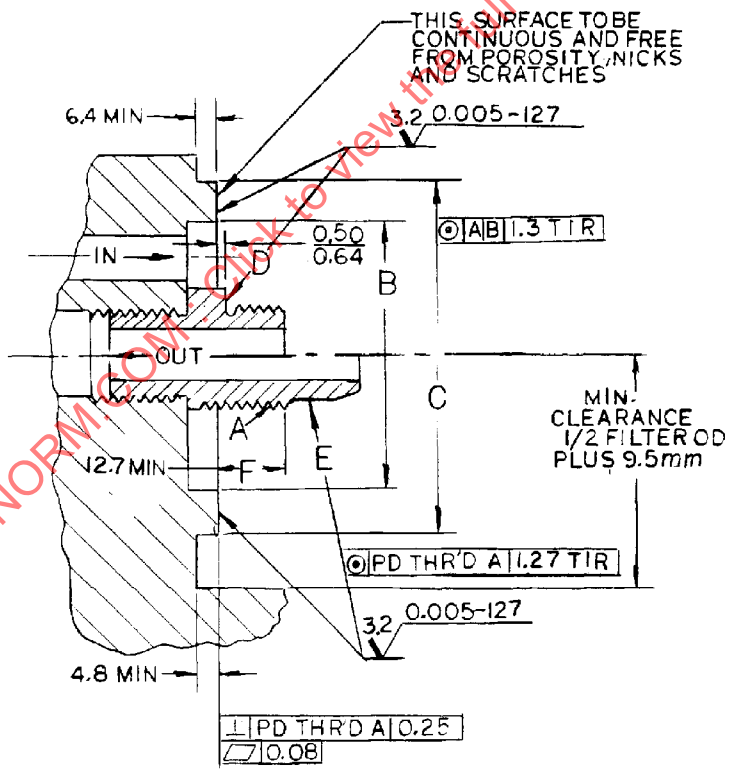

FIGURE 2—DIESEL FUEL SPIN-ON FILTER-BASE MOUNTING