

INCH-POUND

A-A-52461

August 12, 1993

SUPERSEDING

MS51086H

10 December 1991

## COMMERCIAL ITEM DESCRIPTION

STRAINER, SEDIMENT: AUTOMOTIVE FUEL (10 GPH)

The General Services Administration has authorized the use of this commercial item description (CID) as a replacement for MS51086H, which is canceled. This CID also replaces the portions of canceled MIL-F-45356B which apply to MS51086H.

ABSTRACT. This CID covers requirements for fuel filter strainers for use in the fuel system of internal combustion gasoline engines and accessories.

a. Classification. Strainers shall be furnished in the following types (see note b).

- Type I - Strainer with shutoff valve.
- Type II - Strainer without shutoff valve.

SALIENT CHARACTERISTICS.

a. Materials. Unless otherwise specified herein, the materials used shall be in accordance with the manufacturer's material specifications for strainers. The use of recovered materials made in conformance with regulatory requirements is acceptable providing that all requirements of this CID are met (see note e).

1. Cover (head). The cover shall be made of a material which shall allow the strainer to perform to the requirements of this CID. If made of steel, cover material shall be zinc coated and the finished cover shall be treated with a corrosion inhibitor as per ASTM D2092, method B.

2. Bowl. The bowl material shall be brass, annealed, per ASTM B36 Unified Numbering System C24000, C26000, or C26800; zinc coated steel strip, carbon, cold rolled, per ASTM A109; or glass, annealed, transparent. Steel bowls shall be treated with a corrosion inhibitor as per ASTM D2092, method B.

**Beneficial comments, recommendations, additions, deletions clarifications, etc. and any other data which may improve this document should be sent by letter to: U.S. Army Tank-Automotive Command, ATTN: AMSTA-GDS, Warren, MI 48397-5000.**

AMSC N/A

FSC 2910

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3. Strainer element. The strainer element material shall be wire fabric, industrial per ASTM E437, table II, 100 mesh, wire diameter (dia) .0045 inch (in.) or 120 mesh, wire dia .0037 in. Material: Steel, stainless, type 304 or 316; brass, high zinc content, copper-zinc alloy; or commercial bronze-copper, commercially pure.

4. Gasket. The filter bowl gasket material shall be in accordance with CID A-A-52468-4.

b. Design and construction.

1. Envelope. The strainer shall be constructed to the form and dimensions as specified herein (see figure 1). The filter bowl shall be compatible with the bowl gasket. Design and construction that is not specified herein shall be in accordance with the best commercial practices.

2. Bowl gasket. The filter bowl gasket shall be in accordance with CID A-A-52468-4.

3. Servicing. Servicing, including cleaning and reassembly, shall be easily accomplished without disturbing the strainer's connection to the engine and shall be designed to prevent improper assembly.

c. Performance.

1. Pressure-temperature resistance. The strainer shall show no signs of leakage or permanent deformation after being pressure tested at  $-65 \pm 3$  degrees Fahrenheit ( $^{\circ}\text{F}$ ),  $80 \pm 3^{\circ}\text{F}$ , and  $160 \pm 3^{\circ}\text{F}$ . The pressure used in this test shall be 15 pounds per square inch (psi). Test fluids shall be used for the  $-65^{\circ}\text{F}$  and  $80^{\circ}\text{F}$  tests. Air shall be used for the  $160^{\circ}\text{F}$  test. For all tests the pressure shall be applied for 5 minutes and reduced to zero.

2. Flow rate. The nominal flow rate through the strainer shall be 10 gallons per hour (gph). The maximum differential pressure across the strainer shall not exceed 4 psi.

3. Vibration resistance. The strainer shall show no evidence of cracking, deformation, loosening or leakage in the body at gaskets or at the fittings after exposure to a sinusoidal vibration for 3 hours along each axis. A frequency range of 5 to 500 cycles per second shall be used. The sweep time for the frequency range of 5 Hertz (Hz) to 500 Hz and return to 5 Hz shall be 15 minutes.

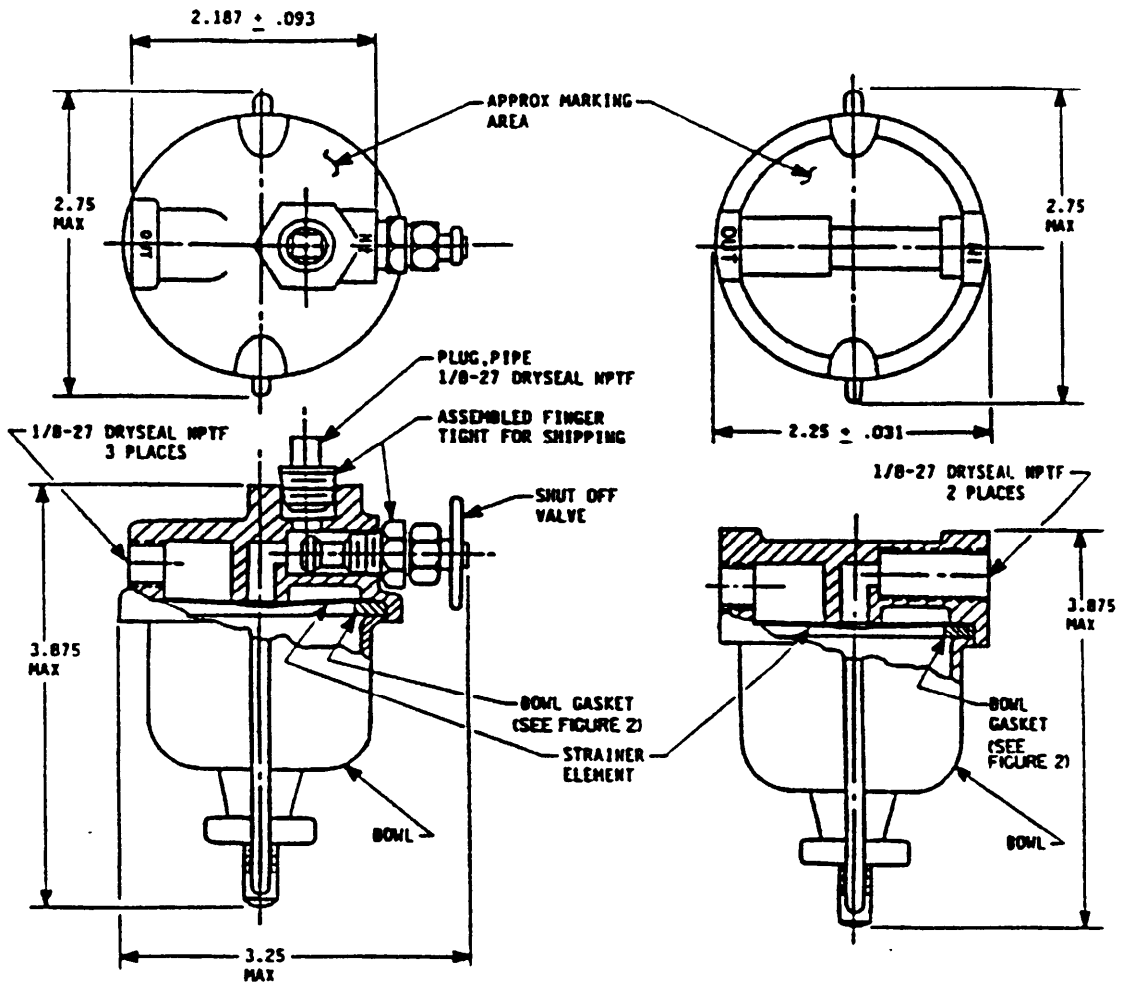
4. Identification and markings. Identification and marking of strainers shall be permanent and legible and shall include as a minimum the manufacturer's identification code (CAGE), and the part identification number (PIN) (see notes b and C).

QUALITY ASSURANCE PROVISIONS

a. Responsibility for inspection. The contractor is responsible for the performance of all inspections (examinations and tests).

b. Contractor certification. The contractor shall certify and maintain substantiating evidence that the product offered meets the salient characteristics of this commercial item description and the the product conforms to the producer's own drawings, specifications, workmanship standards, and quality assurance practices. Items with known defects shall not be submitted for

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(VALVE OPEN)  
Type I

Type II

CROSS REFERENCE			
Type	CID Part number	Former MS part number	Former Army part number
I	A52461-1	MS51086-1	7089773
II	A52461-2	MS51086-2	NONE

NOTES:

1. Dimensions are in inches.
2. MAX = Maximum.
3. APPROX = Approximate.

FIGURE 1. Strainer, sediment: automotive fuel (10 GPH).

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Government acceptance. The Government reserves the right to require proof of such conformance prior to the first delivery and thereafter as may be otherwise provided for under the provisions of the contract.

PRESERVATION, PACKAGING, PACKING, LABELING, AND MARKING.

Preservation, packaging, packing, labeling, and marking for the desired level shall be as specified in the contract (see note b).

NOTES.

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

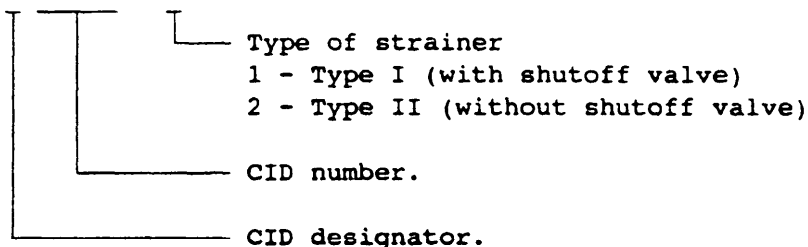
a. Addresses for obtaining copies of non-Government publications. ASTM A109 "Standard Specifications for Steel Strip, Carbon, Cold Rolled"; ASTM B36 "Standard Specifications for Brass Plate, Sheet, Strip and Rolled Bar"; ASTM E437 "Standard Specifications for Industrial Wire Cloth and Screens", ASTM D2092 "Standard Practice for Preparation of Zinc-Coated Steel Surfaces for Paint", are available from the American Society for Testing and Materials (ASTM), 1916 Race Street, Philadelphia, PA 19103.

b. Ordering data. Acquisition documents must specify the following:

1. Title, number, and date of this CID.
2. Issue of the DODISS to be cited in the solicitation, and if required, the specific issue of individual documents referenced.
3. Type of strainer.
4. Part identification number (PIN).
5. Selection of applicable level and packaging requirements.

c. Part or identification number (PIN). The PIN's to be used for the strainers acquired to this CID are created as follows:

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d. Cross-reference data. Strainers conforming to this CID are interchangeable/substitutable with strainers conforming to MS51086H and MIL-F-45356B, dated 10 December 1991 and 25 July 1984 respectively.

e. Regulatory requirements. The offeror/contractor is encouraged to use recovered materials in accordance with Public Law 94-580 to the maximum extent practicable.