

[METRIC]  
A-A-52519  
September 13, 1995  
SUPERSEDING  
MIL-C-14076B(ME)  
25 October 1983

## COMMERCIAL ITEM DESCRIPTION

### SCRAPERS (PIGS), PIPELINE: CLEANING AND BATCHING (METRIC)

The General Services Administration has authorized the use of this Commercial Item Description (CID) for all federal agencies.

1. SCOPE. This CID covers requirements for fluid-propelled cleaning and batching scrapers, hereinafter called "pigs", for all hydrocarbon pipelines. Cleaning pigs shall be capable of cleaning internal pipe deposits such as wax, paraffin, sludge, mud, and calcium. Batching pigs shall be capable of separating dissimilar fluids such as gasoline, kerosene or diesel and emptying pipelines. Pigs shall be available for 101.6 millimeter (mm) (4-inch), 152.4 mm (6-inch), 203.2 mm (8-inch), and 304.8 mm (12-inch) nominal size pipelines.

2. CLASSIFICATION. Pigs shall be of the following types and sizes (see 7.2):

Type I - Cleaning pigs.

Size 1 -101.6 mm (4-inch).

Size 2- 152.4 mm (6-inch).

Size 3 -203.2 mm (8-inch).

Size 4-304.8 mm (12-inch).

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 and Armaments Command, ATTN: AMSTA-TR-E, Warren, MI 48397-5000

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Type II - Batching pigs.

Size 1 -101.6 mm (4-inch).

Size 2 -152.4 mm (6-inch).

Size 3 -203.2 mm (8-inch).

Size 4 -304.8 mm (12-inch).

### 3. SALIENT CHARACTERISTICS.

3.1 **Materials.** Materials shall be in accordance with the manufacturer's material specifications for pigs. The use of recovered material made in compliance with regulatory requirements is acceptable providing that all requirements of this CID are met (see 4.1).

3.1.1 Dissimilar metals. Dissimilar metals shall not be used in extremely close contact or having direct contact with each other unless protected against galvanic corrosion.

3.2 Design and construction. Cleaning pigs shall consist of a flexible shaft-body, brushes, and tapered lip cups. Whenever necessary, tempered steel springs and brush arms shall be part of the shaft-body. Stiff wire brushes, consisting of tempered steel bristles conforming to ASTM A229 and coated to prevent corrosion, shall be positioned to give full pipe coverage. Wheel type brushes can be used for small pigs. Batching pigs shall consist of a flexible shaft-body and tapered lip cups. Pigs shall be flexible enough to go through a 10 percent reduction in internal pipe diameter or a long radius (3 x radius) bend. The cups shall be made of medium density polyurethane material. The cups shall be designed for long life, good sealing capability, and flexibility without damage to the pig or pipeline. All hardware shall be either stainless steel or zinc plated to a minimum coating thickness of 12 micrometers. Stainless steel shall have a maximum 0.03% carbon content, a minimum 16.0% chromium content and a minimum 8.0% nickel content.

3.3 Performance. The pigs shall require no more than 175 kilopascals (kPa) (25 pounds per square inch differential [psid]) pressure for successful traverse through straight runs of clean pipe and 517 kPa (75 psid) through full-opening valves. The pigs shall be capable of traveling through all long radius bends.

#### 3.4 Environmental conditions.

3.4.1 Operational temperature. The element shall perform as specified herein in any ambient temperature from plus 43 degrees Celsius ( $^{\circ}\text{C}$ ) [110 degrees Fahrenheit ( $^{\circ}\text{F}$ )] to minus 32 $^{\circ}\text{C}$  (minus 25 $^{\circ}\text{F}$ ).

3.4.2 Storage temperature. The element shall not be damaged by storage in any ambient temperature from plus 63 $^{\circ}\text{C}$  (plus 145 $^{\circ}\text{F}$ ) to minus 33 $^{\circ}\text{C}$  (minus 28 $^{\circ}\text{F}$ ).

3.5 Protective finish. The portions of the pigs normally painted shall be cleaned, treated, and painted to provide protection against corrosion and deterioration. The protective finish must be fully compatible with immersion in the hydrocarbon fluids used in the pipelines.

3.6 Identification and markings. Identification and markings of the pigs shall be permanent and legible and shall include, as a minimum, the manufacturer's identification code (CAGE), the contract number, the part or identification number (PIN) (see 7.2), and the national stock number (NSN).

#### 4. REGULATORY REQUIREMENTS.

4.1 Regulatory requirements. The offeror/contractor is encouraged to use recovered materials to the maximum extent practicable, in accordance with paragraph 23.403 of the Federal Acquisition Regulation (FAR).

#### 5. QUALITY ASSURANCE PROVISIONS.

5.1 Contractor certification. The contractor shall certify and maintain substantiating evidence that the product offered meets the salient characteristics of this CID and that 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 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.

6. PACKAGING. Preservation, packaging, packing, labeling, and marking for the desired level shall be as specified in the contract or order (see 7.2).

#### 7. NOTES.

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

##### 7.1 Addresses for obtaining copies of referenced documents.

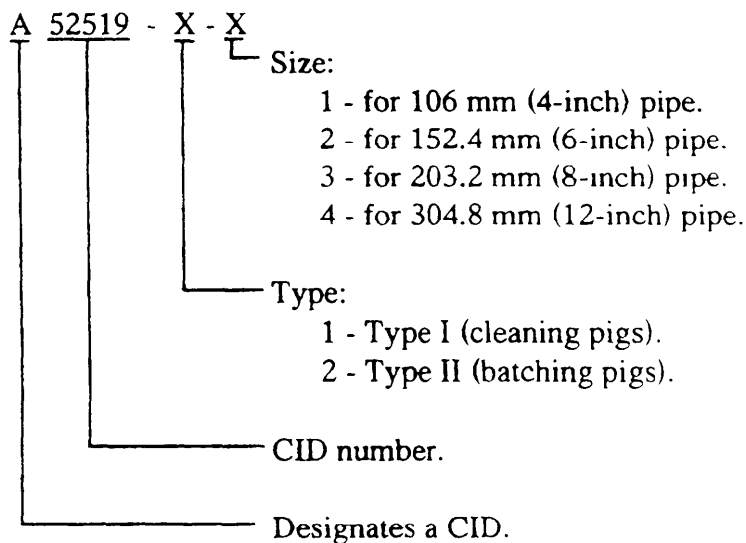
7.1.1 Non-Government publications. Copies of ASTM A229 "Standard Specification for Steel Wire, Oil-Tempered for Mechanical Springs" are available from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.

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7.2 Ordering data. Acquisition documents must specify the following:

- a. Title, number, and date of this CID.
- b. Issue of the DODISS to be cited in the solicitation,
- c. Type, size, PIN, and quantity of pigs required,
- d. Packaging requirements.

7.3 Part or identification number (PIN). The PINs to be used for pigs acquired to this CID are created as follows:



7.4 Cross-reference data. Type I pigs conforming to this CID are interchangeable/substitutable with cleaning elements conforming to MIL-C-14076B(ME).

MILITARY INTERESTS:

CIVIL AGENCY COORDINATING ACTIVITY:

GSA - FSS

Custodian

Army - AT

PREPARING ACTIVITY:

Army - AT

ReviewActivity

DLA - CS

(Project 4940-0668)