

INCH-POUND

A-A-57174A

July 20, 2010

SUPERSEDING

A-A-57174

September 17, 1992

COMMERCIAL ITEM DESCRIPTION

NUT, CAP, DUAL WHEEL MOUNTING

The General Services Administration has authorized the use of this commercial item description as a replacement for MS53068C for all federal agencies.

1. SCOPE. This commercial item description covers dual wheel mounting cap, nut, which is used to mount and secure dual wheels on the vehicle's axle.

2. SALIENT CHARACTERISTICS.

2.1 Material. The nut, cap shall be made of low carbon steel (carbon content 18 to 35%) and case hardened to a surface hardness of Rockwell 15N-85.5 minimum and to a depth of 0.005 to 0.012 inches or made from alloy steel that are through hardened to produce a core hardness reading of Brinell 227-277 and a surface hardness reading of 15N-78-84.

2.2 Protective finish. The surface shall be zinc plated per ASTM B633, Type II, class SC3 (Fe/Zn12), except for the inner threads which are not fully plated. Hydrogen embrittlement relief shall be done within one hour after plating.

2.3 Design and construction. The nut, cap shall be designed and constructed in accordance with figure 1 and shall be capable of sustaining a proof load of 44,000 pounds (lb) without failure or permanent set. The proof load shall be verified in accordance with the following test procedure or other equivalent test:

- a. Engage a 3/4-16 threaded hardened mandrel into nut, cap using 10 to 12 threads.
- b. Thread cap, nut into a hardened fixture engaging 6 to 8 of the 1 1/8-16 outer threads.
- c. A 44,000 lbs tensile force shall be loaded axially through the threads and maintained for 15 seconds.

Beneficial comments, recommendations, additions, deletions, clarifications, etc. and any data that may improve this document should be sent to DAMI_STANDARDIZATION@conus.army.mil or U.S. Army RDECOM, Tank Automotive Research, Development and Engineering Center, ATTN: RDTA-EN/STND/TRANS MS #268, 6501 E. 11 Mile Road, Warren, MI 48397-5000. Since contact information can change, you may want to verify the currency of this address information using the ASSIST Online database at <https://assist.daps.dla.mil/online/>.

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- d. The nut, cap shall resist the load without failure such as stripping or rupture, and shall be removable by hand after load is released.

NOTE: It may be necessary to use a manual wrench or other means to start nut, cap in motion after load has been released to remove nut, cap. Such wrenching is permissible providing that it is restricted to one half turn.

2.4 Markings. Markings shall be in accordance with MIL-STD-130. The location of the part marking shall be as shown in figure 1.

2.5 Workmanship. The nut, cap shall be free from burrs, cracks, sharp edges, irregularities, and any other defects affecting serviceability or appearance.

3. REGULATORY REQUIREMENTS.

3.1 Recovered materiel. Recycled, recovered, or environmentally preferable materials should be used to the maximum extent possible provided that the material meets or exceeds the operational and maintenance requirements, and promotes economically advantageous life cycle costs. 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).

4. PRODUCT CONFORMANCE PROVISIONS.

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

4.2 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 producers own drawings, specifications, 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.

5. PACKAGING. Preservation, packaging, packing, labeling, and marking shall be as specified in the contract or purchase order (see 6.2).

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

6.1 Source of documents.

6.1.1 Government specifications and standards. Copies of federal and military specifications and standards are available from the Navy Publications and Printing Service Office, Standardization Documents Order Desk, Bldg. 4D, 700 Robbins Avenue, Philadelphia,

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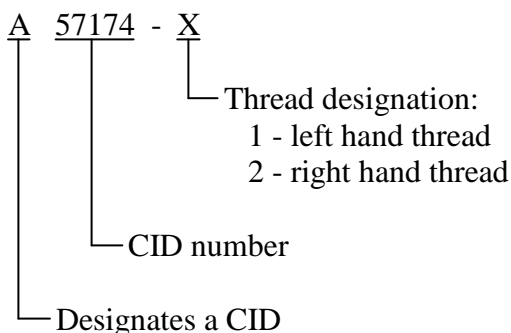
PA 9111-5094 or <https://assist.daps.dla.mil/quicksearch/>. The FAR may be obtained from www.acquisition.gov/far/.

6.1.2 Non-Government publications. ASTM B633, "Standard Specification for Electrodeposited Coatings of Zinc on Iron and Steel"; ASTM D3951 "Standard Practice for Commercial Packaging", can be obtained from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103-1187 or www.astm.org. Copies of Institute of Electrical and Electronic Engineers (IEEE) standards may be obtained at www.ieee.org or are available from IEEE Operations Center Sales Office, 445 Hoes Lane, PO Box 1331, Piscataway, NJ, 08855-1331 or www.ieee.org.

6.2 Ordering data. Acquisition documents must specify the following:

- a. Title and date of this commercial item description.
- b. If required, the specific issue of individual documents referenced (see 6.1).
- c. Part or identification number [PIN (see figure 1)].
- d. Selection of applicable level and packaging requirements (see 5).

6.3 Part-or Identifying Number (PIN). The PIN to be used for nut, cap acquired to this commercial item description is created as follows:



6.4 Cross-reference data. Nut, caps conforming to this CID are interchangeable/substitutable with nut, caps conforming to MS53068C (see figure 1).

6.5 Metric product. Nut, caps manufactured to metric dimensions will be considered on the following basis:

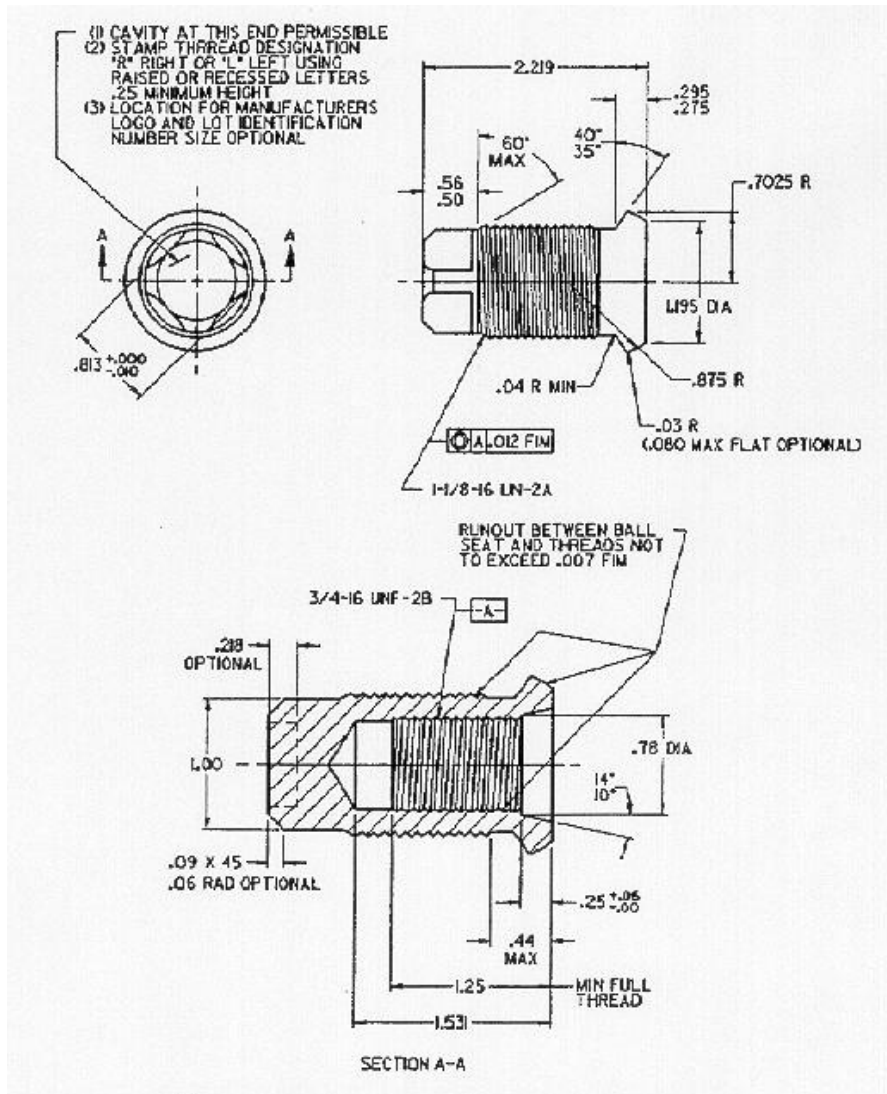
- a. Products manufactured to metric dimensions will be considered on an equal basis with those manufactured using inch-pound units, provided they fall within specified tolerances using conversion tables contained in the latest revision of IEEE/ASTM SI10, and all other requirements of this CID are met.
- b. If a product is manufactured to metric dimensions and those dimensions exceed the tolerances specified in the inch/pound units, a request should be made to the contracting officer to determine if the product is acceptable.
- c. The contracting officer has the option of accepting or rejecting the product.

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6.6 Key words.

Tactical vehicle

Axle



NOTE: Unless otherwise specified, tolerances are ± 0.010 on decimal and $\pm 1^\circ$ on angular dimensions. Do not scale.

Part Identifying Number (Pin)	Former MS part no.	Former part no.	Thread
A57174-1	M553068-1	10896739-1	Left hand
A57174-2	MS53068-2	10896739-2	Right hand

FIGURE 1. Dual wheel mounting nut, cap design, configuration and part number.

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Custodians:

Army - AT
Air Force - 99

Preparing activity:

Army - AT

(Project 2530-2010-005)

Review activity:

DLA – CC
Army – CR4

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