

INCH-POUND

A-A-55617

29 September 1995

COMMERCIAL ITEM DESCRIPTION

CASTER, INDUSTRIAL, MEDIUM DUTY

This General Services Administration has authorized the use of this Commercial Item Description for all federal agencies

1 **SCOPE** This Commercial Item Description (CID) covers industrial medium duty rigid or swivel casters suitable for nonpowered material transport equipment

2 **SALIENT CHARACTERISTICS**

2.1 Casters furnished under this CID shall be flat mounted plate type rigid casters or double ball-bearing swivel casters. Rigid or swivel casters shall conform to the dimensions and load rating as specified in Table I and figures below

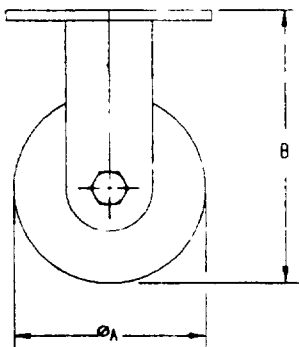


FIG 1 RIGID CASTER

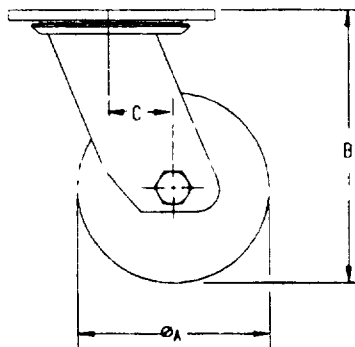


FIG 2 SWIVEL CASTER

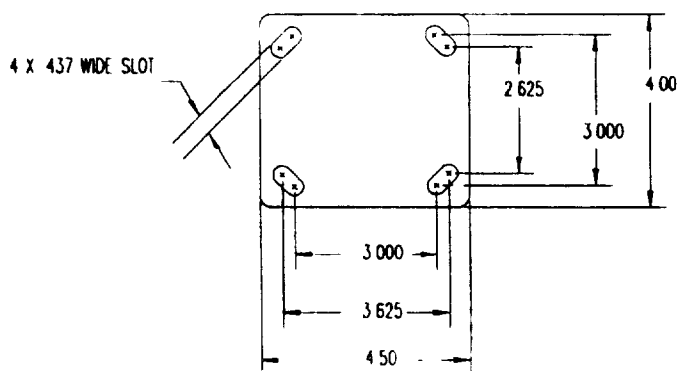


FIG 3 MOUNTING PLATE FOR RIGID OR SWIVEL CASTERS

BENEFICIAL COMMENTS, RECOMMENDATIONS, ADDITIONS, DELETIONS, CLARIFICATIONS, ETC, AND DATA WHICH MAY IMPROVE THIS DOCUMENT SHOULD BE SENT TO DEFENSE INDUSTRIAL SUPPLY CENTER, ATTN DISC-EED, 700 ROBBINS AVENUE, PHILADELPHIA, PA 19111-5096

A-A-55617

TABLE I DASH NUMBERS AND DIMENSIONS

DASH NO	ØA	WHEEL WIDTH	WHEEL MATERIAL	MIN LOAD CAPACITY (LBS)	OVERALL HEIGHT B MAX	MOUNTING BOLT DIAMETER	SWIVEL OFFSET C ± 06
4	4 00	1 50	RUBBER	200	5 63	375	1 50
			METAL	500			
			PHENOLIC	600			
			POLYURETHANE	600			
6	6 00	2 00	RUBBER	400	7 50	375	1 80
			PHENOLIC	800			
			POLYURETHANE	800			
			METAL	800			
8	8 00	2 00	RUBBER	500	9 50	375	2 00
			PHENOLIC	900			
			POLYURETHANE	900			
			METAL	900			

2 1 1 Rigid caster Rigid caster has a rigid horn and wheel assembly permitting only straight line travel

2 1 2 Swivel caster Swivel caster has a swivel horn and wheel assembly that will rotate through 360°

2 2 Mounting plate and horn assembly The mounting plate and horn assembly shall be made of steel plate, cast or forged steel, or aluminum The horn legs shall be either an integral part of the horn plate or welded thereto

2 2 1 Finish Except for aluminum, exposed metal surfaces of the caster assemblies shall be zinc plated

2 2 2 Kingpin The kingpin for swivel casters shall be constructed of steel with minimum .625 inch diameter The kingpin shall be secured with rivet, or nut and bolt designed that will maintain the proper relationship of swivel bearing components for the life of the caster under normal operating conditions

2 2 3 Swivel assembly The ball bearing assembly shall be bi-level with a smooth non-binding operation The raceways shall be smooth and full-case hardened and shall be filled to capacity with commercial quality steel ball bearings

2 2 4 Axle The axle shall be constructed of steel and shall secure the wheel by means of a locknut During operation, the axle shall not rotate loose or bind the wheel

2 2 5 Wheel bearing The wheel bearing shall be commercial type ball or roller bearings designed and manufactured in accordance with the best standard manufacturing practice for the intended purpose

2 2 6 Wheel hardness Except for metal and phenolic wheels, the hardness of treads shall be 70 ±5 points for rubber and 92 ±5 points for polyurethane, as measured on the face of the treads by a type A shore durometer

2 2 7 Metal wheel Metal wheel shall be fine grain cast iron, steel or aluminum alloy

A-A-55617

2.2.8 Swivel lock When specified, a four position plunger type swivel lock shall be furnished. When engaged, the swivel lock shall prevent the caster from swiveling while rolling or shall prevent rolling while at right angles to the normal path of the equipment. When disengaged, the swivel lock shall permit full 360° free swiveling.

2.2.9 Brake When specified, a manually operated with side or front mounted control lever parking brake shall be provided. The control lever shall be readily accessible for operation, permitting quick and easy brake application and release. The control lever shall not require a physical force in excess of 30 pounds to set the brake.

2.2.10 Lubrication fitting The swivel assembly and wheel assembly shall have pressure lubrication fittings and shall be prelubricated with water repellent grease having a -32°C to +71°C (-10°F to +160°F) operating temperature range.

2.3 Casters furnished shall be able to withstand the following tests:

2.3.1 Static load test The caster shall be able to withstand four (4) times its rated capacity for one (1) minute minimum without damage.

2.3.2 Endurance test The casters shall be loaded to rated capacity and shall be run continuously (see 4.3) at three (3) mph minimum on an endless belt or drum type testing machine with a smooth, uninterrupted running surface for a period of forty (40) hours. At the completion of the test, there shall be no indication of excess wear on the bearing races, looseness of bearings, scuffing of tires, or looseness of tire tread.

2.3.3 Brake Test When specified, the brake must prevent wheel rotation from a horizontal pulling force equal to 3 percent (%) minimum of the caster capacity. Test results shall be based on a spring loaded scale applying a horizontal force on a load evenly distributed over four casters, with two side mounted brakes engaged. Tests should be repeated 4 times and conducted on level concrete floor.

3 QUALITY CONFORMANCE PROVISIONS

3.1 The suppliers shall be responsible for those in process controls and inspections necessary to supply a product consistently conforming to the requirements of this document.

3.2 Upon request, the supplier will certify with documented test/inspection evidence, that the part supplied meets the requirements of this document.

4 NOTES

4.1 Unless otherwise specified, all dimensions are in inches.

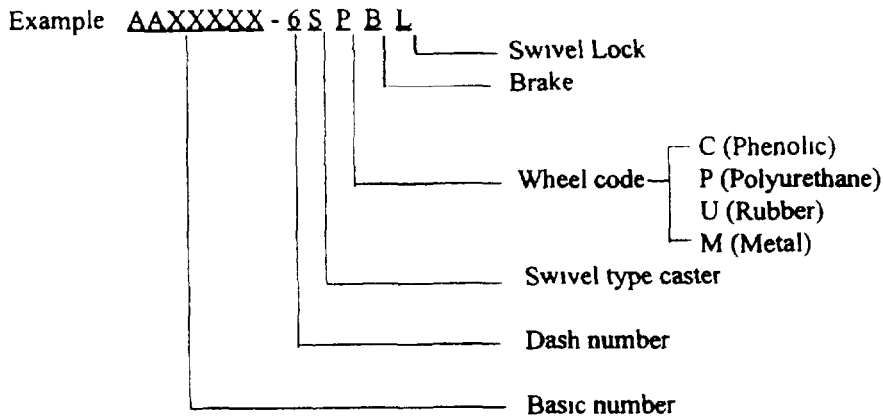
4.2 Unless otherwise specified in the contract or purchase order, packaging shall be in accordance with ASTM D3951.

4.3 "Continuously" shall mean 45 minutes of rolling operation for each hour of work. The cycling of the stop and go periods shall be at the option of the manufacturer.

4.4 Unless otherwise specified, tolerance xx ± .09, xxx ± .030

A-A-55617

4.5 The part identification number (PIN) shall consist of the basic commercial item description number followed by a dash number from Table I, "R" for rigid caster or "S" for swivel caster and a code letter for wheel material. Add "B" for brake (optional) and/or "L" for swivel lock (optional) after PIN number.



Military Interests

Custodians

- Army - AR
- Navy - AS
- Air Force - 99

Review Activity

- Air Force - 82

Civil Agency Coordination Activity

GSA-FSS

Preparing Activity

DLA-IS

(Project 5340-2237)

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

INSTRUCTIONS

- 1 The preparing activity must complete blocks 1, 2, 3 and 8. In block 1 both the document number and revision letter should be given.
 - 2 The submitter of this form must complete blocks 4, 5, 6 and 7.
 - 3 The preparing activity must provide a reply within 30 days from receipt of the form.
- Note:** This form may not be used to request copies of documents, or to request waivers, or clarification of requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual

RECOMMENDATION

1 DOCUMENT NUMBER **A-A-55617**

2 DOCUMENT DATE (YYMMDD) **950929**

3 DOCUMENT TITLE **CASTER, INDUSTRIAL, MEDIUM DUTY**

4 NATURE OF CHANGE (Identify paragraph number and include proposed rewrite, if possible. Attach sheets if needed.)

5 REASON FOR RECOMMENDATION

8 PREPARING ACTIVITY **DLA-IS**

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