

## COMMERCIAL ITEM DESCRIPTION

## CASTER, SWIVEL (CHAIR)

The General Services Administration has authorized the use of  
This commercial item description in preference to Federal  
Specification FF-C-82.

This description covers commercial quality swivel casters suitable for use on metal and wood office chairs.

Salient characteristics:

Types - The ball bearing swivel chair casters shall be of the following styles and sizes, as specified:

Style A - plain stem

Style C - flat plate

Size A - 1-5/8 or 1-3/4 inch diameter wheel

Size B - 2 inch diameter wheel

Dimensions - See table I for the size and mounting dimensions of style A and C casters

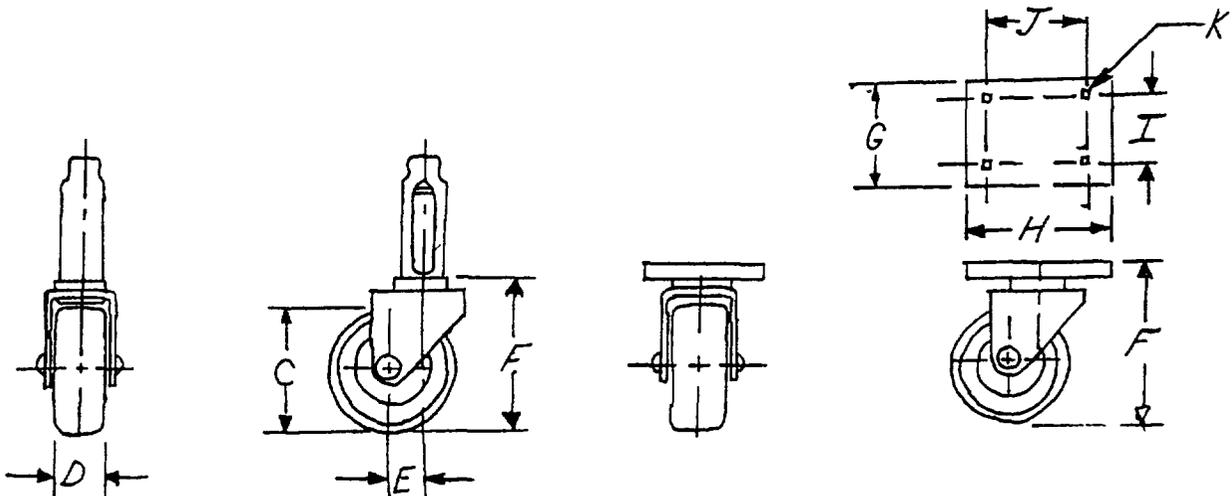


FIGURE 1

TABLE I

Size (inches)	C ( $\pm 1/16$ )	D (min)	E (min)	F (max)	G (max)	H (max)	I ( $\pm 1/32$ )	J ( $\pm 1/32$ )	K ( $\pm 1/32$ )
A	1-5/8 or 1-3/4	23/32	3/4	2-5/8	1-3/16	1-9/16	13/16	1-9/16	13/64
B	2	23/32	1-3/16	3	1-3/16	2-3/8	13/16	1-9/16	13/64

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**Note:** If dimensions are required for Style C casters that are other than those specified in table I, the contract or purchase document should state that as an exception to this CID the dimensions shall be as specified and the required dimensions should be clearly defined.

**Wheel.** The core shall be high quality, impact resistant hard rubber. The cushion tread shall be high quality, nonstaining and suitable for use on smooth hard floors.

**Hardness.** The Durometer Hardness in accordance with ASTM D 2240 shall be as follows: Hard rubber 75 - 85 Shore D; Soft rubber 70 - 85 Shore A.

**Adhesion.** The core and the tread shall be permanently molded together.

**Bearing.** The core shall have a securely attached, self-lubricating, oil impregnated cylindrical bushing. The bushing shall be of powdered metal and shall have a high bronze content.

**Axle.** The axle shall be the nut and bolt or solid rivet type. The axle shall be keyed or otherwise fixed to the horn to prevent turning the wheel, loosening or binding.

**Swivel.** Swivels shall be of shielded construction and shall be single, split or double level, double ball bearing, or other as specified. Operation shall be smooth and nonbinding.

**Raceways.** Raceways shall be formed or machined and shall be smooth, hardened, and plated to prevent corrosion.

**Ball bearings.** Ball bearings shall be hardened, but not work hardened, and shall be polished and plated to resist corrosion.

**Lubrication.** The swivel assembly shall be prelubricated at the assembly point with a water repellent grease.

**Yoke.** The yoke shall be formed and hardened to assure strength and durability at the specified design load.

**Stem.** Style A casters shall have cold drawn stems which shall be a minimum of 3/8 inch or a minimum of 7/16 inch in diameter as specified. To permit independent swiveling of the yoke, the stem shall be permanently fastened in the swivel.

**Wood chair socket.** The socket shall be designed to grip the Style A caster stem and anchor in the mounting surface.

**Metal chair socket.** When required with the plain stem Style A caster, the socket shall have a separate spring type gripping device.

**Friction ring.** When required, the stem shall be equipped with a separate spring material holding device.

**Finish.** The caster shall be nickel, chrome or zinc plated or otherwise protected against corrosion as specified. Axles and nuts shall be zinc or cadmium plated.

**Identification.** Each yoke or horn shall be permanently and legibly identified with the manufacturer's name and trademark.

**Floor marking test.** A chair with identical casters shall be loaded to four times the manufacturer's rating of the individual caster. The chair shall be cycled through six wheel revolutions in each direction. Visible marks left on a hardwood or concrete floor shall be considered evidence of a failure.

**Caster durability test.** Four identical casters shall be tested for serviceability in accordance with ANSI X5.1, Section 17.

**Workmanship.** The caster shall be free from imperfections which may impair durability or serviceability.

The issues of ASTM D 2240 and ANSI X5.1 in effect on the date of the solution shall be used to determine compliance with these requirements.

**Notes:** The purchaser should specify the style and size of casters required. Purchaser should state if dimensions other than specified for Style C casters are required. Purchasers should specify required minimum diameter of stem for style A casters.

**Preservation, packaging, packing, labeling, and marking.** The preservation, packaging, packing, labeling, and marking shall be as specified in the contract or order.

ASTM Standard D 2240 is available from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.

ANSI Standard X5.1 is available from the American National Standards Institute, 1430 Broadway, New York, NY 10018.

**MILITARY INTERESTS:**

Coordinating Activity

Army - AR

Custodians

Army - AR

Navy - YD

Air Force - 99

Review Activities

DSC - IS

Army - ME

Navy - MC

User Activities

Navy - YD, MC

**CIVIL AGENCY COORDINATING ACTIVITIES:**

NASA - JFK

VA - VOC

**PREPARING ACTIVITY:**

GSA - FSS