

[ INCH-POUND ]  
A-A-55811  
10 May 1996  
SUPERSEDING  
MIL-S-14823A  
24 March 1988

## COMMERCIAL ITEM DESCRIPTION

### STOPWATCH, GENERAL PURPOSE

The General Services Administration has authorized the use of this Commercial Item Description as a replacement for MIL-S-14823A, which is canceled.

1. SCOPE. This description covers a mechanically operated, general purpose stopwatch.

#### 2. SALIENT CHARACTERISTICS.

2.1 Design and construction. The stopwatch shall have a metal or plastic case and a side push button. The stopwatch shall have a minimum of seven jewels and shall be adjusted for one position. A stem wound, jeweled, non-continuous running movement with a jeweled lever escapement shall drive concentrically mounted second and minute hands around a dial having 1/5-second marking a 60-minute register. The non-continuous running movement shall be controlled by the crown.

#### 2.2 Controls.

2.2.1 Crown. Successively depressing and releasing the crown, in one operation, shall start or stop the movement and both hands. The hands shall not return to zero as a result of any operation.

2.2.2 Side push button. Depressing the side push button shall result in both hands returning to zero. The releasing of the push button, when the depression was made with the movement running, shall result in both hands starting to record the next interval of time.

#### 2.3 Functions.

2.3.1 Single interval of time. A single interval of time shall be measured by two successive operations of the crown.

Beneficial comments, recommendations, additions, deletions, clarifications, etc. and any other data which may improve this document should be sent by letter to: Commander, Defense Supply Center Richmond, ATTN: DSCR-VCA, 8000 Jefferson Davis Highway, Richmond, VA 23297-5610.
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AMSC N/A

FSC 6645

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2.3.2 Cumulative intervals of time. Cumulative intervals of time shall be measured by repeating the functions for a single interval of time. The hands shall restart at the point where stopped.

2.3.3 Successive intervals of time separately. Depressing the side push-button, while recording an interval of time, shall result in the hands returning to zero. Releasing the side push button shall result in both hands starting to record the next interval of time.

2.4 Movement. The movement shall have a minimum of seven jewels with a non-continuous running movement. The movement shall be stem wound with the crown located at the 60-second position on the dial.

2.5 Mainspring. When fully wound, the mainspring shall be capable of driving the movement for 8 hours without rewinding. The material for the mainspring shall be corrosion-resistant, high strength, "non-breakable" alloy.

2.6 Dial. The minute dial shall be approximately 1.25" in diameter at its outer edge and shall be graduated at 1-minute intervals with numerals to indicate each 5-minute interval. The second dial shall be graduated at 1/5-second intervals with full-second intervals identified, and numerals to indicate each 5-second interval. All gradation marking and numerals shall be readily legible, sized, and located to permit easy and accurate readings. All markings and the dial shall have a durable protective coating.

2.7 Hands. There shall be two hands; one each to indicate the second and minute. The tips of the hands shall be curved downward to reduce parallax. The indicator ends of the second and minute hands, at all positions of recording time, shall terminate on the gradations of their respective dials.

2.8 Color. The second hand shall be black; the minute hand shall be white. The second dial shall be white; the minute dial shall be black. Markings on the second dial shall be black; markings on the minute dial shall be white. Other equally legible color schemes are acceptable, provided that they are the providers of the standard commercial product.

2.9 Case. The case shall be a maximum size of 2.50 inch diameter by 5/8 inches thick. The case, crown, and push button shall be configured to maximize ease of use. The crown shall be located at the 60-second position of the dial. The push button shall be located between the 5 and 10 second or the 50 and 55 second positions of the dial.

2.10 Finish. Visible parts of the case, including the crown and push button, shall have a dull, non-reflecting finish.

2.11 Crystal. The crystal shall be clear, uncolored, and free of bubbles, scratches, or other imperfections which may interfere with the reading of the watch.

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## 2.12 Performance.

2.12.1 Operating force. The force required to operate the crown shall be three pounds  $\pm$  1/2 pound. The force required to operate the push button shall be five pounds  $\pm$  1/2 pound.

2.12.2 Torque. When fully wound, the stopwatch shall not be damaged when a torque of 32 inch-ounces is applied to the crown.

2.12.3 Shock. Stopwatches shall retain accuracy and show no evidence of damage affecting serviceability after an uncontrolled drop, while running, from a height of 3 feet onto a block of hard wood.

2.12.4 Water resistance. Stopwatches shall be capable of rejecting the entry of water at a depth of 6-1/4 feet for 15 seconds at  $+24^{\circ}\text{C} \pm 2^{\circ}\text{C}$ .

2.12.5 Magnetism. Watches shall conform to the 180 second accuracy requirement of paragraph 2.12.7, at room temperature, after having been subjected to a magnetic field of 60 Gauss (+5 Gauss, -0 Gauss), for a minimum of 10 seconds with the dial in the horizontal position (face up or down).

2.12.6 Storage. The stopwatch shall show no evidence of damage affecting serviceability after being subjected to storage temperatures of  $-54^{\circ}\text{C}$  and  $+65^{\circ}\text{C}$  for 24 hours at each temperature.

2.12.7 Accuracy. Stopwatches at  $+22^{\circ}\text{C} \pm 2^{\circ}\text{C}$  in the position of crown-up with the back of case  $45^{\circ}$  from horizontal shall not exceed the following accuracy tolerances:

<u>Time</u>	<u>Tolerance</u>
60 seconds	+0.2 second, -0.0 second
180 seconds	+0.2 second, -0.0 second
60 minutes	+0.6 second, -0.0 second

2.12.8 Crown. The start-stop mechanism controlled by the crown shall be capable of 2500 cycles of starting and stopping.

2.12.9 Side push button. The start-stop mechanism controlled by the side push button shall be capable of 2500 operations.

2.13 Identification marking. The case shall be permanently and legibly marked (stamped, engraved, etched, etc.) in a readily visible location with the manufacturer's name or trademark, model or part number, serial number, contract or purchase number, and national stock number.

2.14 Workmanship. All surfaces shall be free from burrs, cracks, and sharp edges.

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### 3. REGULATORY REQUIREMENTS.

3.1 Recovered materials. 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).

3.2 Metric products. 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 version of Federal Standard No. 376, and all other requirements of this Commercial Item Description are met. 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. The contracting officer has the option of accepting or rejecting the product.

### 4. QUALITY ASSURANCE PROVISIONS.

4.1 Contractor certification. The contractor shall certify and maintain substantiating evidence that the product offered meets the salient characteristics of this Commercial Item Description, and that the product conforms to the producer's own drawings, specifications, standards, and quality assurance practices and is the same product offered for sale in the commercial marketplace. The government reserves the right to require proof of such conformance prior to first delivery, and thereafter, as may be otherwise provided under the provisions of the contract.

4.2 Market acceptability. The item offered must have been sold to the Government or commercial market and reflect demonstrated reliability and serviceability.

5. PACKAGING. Preservation, packaging, packing and marking for shipment shall be in accordance with American Society for Testing and Materials (ASTM) D 3951 or as specified in the contract or order.

### 6. NOTES.

#### 6.1 Source of documents.

6.1.1 ASTM Standards are available from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA, 19103.

#### 6.2 Ordering Data.

- a) Title, number, and date of this description.
- b) Specify any special packaging requirements.
- c) Contracting officer may request proof of certification of commercial item prior to first contract delivery.

6.3 National stock number (NSN). The NSN assigned to the item described by this CID is 6645-00-126-0286.

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6.4 Known sources of supply. Products and sources of supply known to be acceptable under the requirements of this description are as follows:

<u>Manufacturer's Product Designation</u>	<u>Manufacturer's Name &amp; Address</u>
Hanhart 1086	American Athletic, Inc.
Hanhart 1085	200 American Avenue
	Jefferson, Iowa 50129
418	Marathon Watch Company, LTD
	Marathon Management Company
	30 Mural Street #10
	Richmond Hill, Ontario
	Canada L4B 1B5

6.5 Market acceptability. Questions regarding market acceptability criteria should be directed to:

Commander  
 Defense Supply Center Richmond  
 ATTN: DSCR-VCA  
 8000 Jefferson Davis Highway  
 Richmond, VA 23297-5610  
 Phone: (804) 279-5019  
 FAX: (804) 279-6011

MILITARY INTERESTS:

Custodians:

Army - AR  
 Navy - SH  
 Air Force - 99

Reviewers:

Army - CR  
 Navy - AS, MC, OS  
 Air Force - 82

CIVIL AGENCY COORDINTING ACTIVITY:

GSA - 7FXE

PREPARING ACTIVITY:

DLA - GS

Project No.: 6645-0431