

FEDERAL SPECIFICATION

REELS AND HUBS FOR MAGNETIC RECORDING TAPE,  
GENERAL SPECIFICATION FOR

This amendment, which forms a part of W-R-175D, dated 22 December 1986, is approved by the Commissioner, Federal Supply Service, General Services Administration, for the use of all Federal agencies.

PAGE 2

1.2.3(c),(2): Delete and substitute:

"(2) N or no letter - Non-precision reel or hub requiring tolerances which are not considered precise."

PAGE 8

4.4.2.4, paragraph title: Delete and substitute:

"4.4.2.4 Keyslot pitch diameter (3-inch center hole) and angle between successive keyslots."

PAGE 10

4.4.2.13, paragraph title: Delete and substitute:

"4.4.2.13 Keyslot dimensions."

PAGE 13

4.4.10: Delete and substitute:

"4.4.10 Moment of inertia. The test apparatus shall consist of a rigid, level knife-edge; a stopwatch accurate to 1/10 second; and a scale accurate to within 1/16 pound. A fully assembled reel shall be weighed and placed on a rigidly supported, absolutely level knife-edge arranged to make a line contact with the inner cylindrical hub surface. The reel shall be started into motion to swing as a pendulum, and 20 complete oscillations (forward and back) shall be timed to within 1/10 second with a stopwatch. The moment of inertia shall be calculated by the following formula to determine conformance to 3.4.8:

AMSC N/A

FSC 5835

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W-R-175D  
AMENDMENT-1

$$Wh \left[ \frac{T^2 g}{4\pi^2} - h \right]$$

or:  $I = wh (0.815 T^2 - h)$

or (in SI units):

$$I = wh (1.249 T^2 - h)$$

Where:

- I - moment of inertia - pound-feet<sup>2</sup> (grams-meter<sup>2</sup>)
- w - weight of reel - pounds (grams)
- h - hub hole radius - feet (meters)
- T - period of one complete oscillation - second
- g - 32.17 feet per second per second (9.81 meters per second per second)
- $\pi$  - 3.14 - dimensionless number

4.4.11 Delete and substitute:

"4.4.11 Roughness of inside flange surface. The test apparatus shall consist of a profilometer with a stylus tip radius of 394 micro-inch (10 microns) or less, or a similar surface analyzer. The reel shall be disassembled into the flanges and hub. Reels which can not be disassembled shall be tested prior to assembly, completely assembled or destructively disassembled. Using a profilometer or similar surface analyzer, the inside surface of each flange shall be measured over a distance of 31.5 milli-inch (800 microns) to determine conformance to the specified value."

PAGE 14

4.4.16: Delete and substitute:

"4.4.16 Drop resistance. When the reel or hub is packaged in its individual paperboard container (see 5.1), the packaged reel or hub shall be dropped from a vertical distance of at least 5 feet (1.524 meters) above a concrete floor such that one of the eight longest edges of the packaged reel or hub strike the concrete floor first. The reel or hub shall then be examined for conformance to 3.4.12."

PAGE 21

Figure 8, note 1: Delete and substitute:

- "1. Diameter "a" shall be the "GO" portion of the gauge and shall be 0.0005 inch (0.0127 mm) less than the minimum "N" dimension specified (see 3.1)."

Figure 8, note 2: Delete and substitute:

"2. Diameter "b" shall be the "NO-GO" portion of the gauge and shall be equal to the maximum "N" dimension specified (see 3.1) accurate to 0.0001 inch."

**MILITARY INTERESTS:**

Custodians

Army - CR  
Navy - SH  
Air Force - 99

Review activities

Navy - NV, OM  
Air Force - 80  
DLA - ES

User activity

Navy - AS

**CIVIL COORDINATING ACTIVITY:**

NASA - NPPO

**Preparing activity:**

Navy - SH  
(Project 5835-0090)