

INCH-POUND

MS27072F  
14 march 2013  
SUPERSEDING  
MS27072E  
24 September 2003

DETAIL SPECIFICATION SHEET

WIRE, RETAINER

This specification sheet is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification sheet and MIL-DTL -27272.

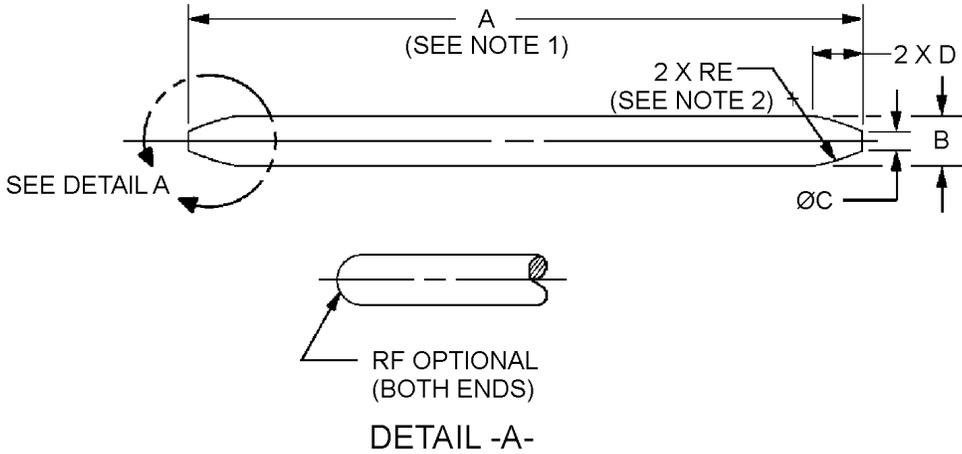


FIGURE 1. Wire, retainer illustration.

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Size and material code	A (see note 1) ± .015	B		C +.013 -.010	D +.005 -.025	E rad. (see note 2) +.010 -.005	F rad.	
-4C	1.203	.072	+0.000 -.005	.017	.065	.139	.026	± .005
-5C	1.325	.080	+0.000 -.004	.020	.073	.156	.030	
-6C	1.545							
-8C	1.969	.095		.023	.087	.186	.037	± .010
-10C	2.250	.125	.031	.115	.246	.050		
-12C	2.625							
-16C	3.703							
-20C	4.500							
-24C	5.375							

## NOTES:

1. Wire shall be straight within .020 full indicator movement.
2. Radius shall be concentric to wire OD within .005 full indicator movement.
3. Unless otherwise specified, break or radius all corners .005, +.005, -.000.
4. Unless otherwise specified, maximum surface roughness shall not exceed 125  $\mu$ in.  $R_a$  in accordance with ASME B46.1.
5. Remove all burrs and slivers.

FIGURE 1. Wire, retainer illustration - Continued.

## REQUIREMENTS

Intended use. This part is a component of MS27062 through MS27068 and MS27387 through MS27390. This is a design standard for manufacturing purposes. The item is only procured as an integral part of adapter assemblies.

Wire, retainer dimensions and configuration, see figure 1.

Material. Corrosion-resistant steel, class 305 or 304, condition A in accordance with ASTM A580/A580M or ASTM A313/A313M, or 305 in accordance with SAE-AS5685.

Finish. Passivate in accordance with SAE-AMS2700, method 1, type 6 or 7.

Dry-film lubricant, see table I.

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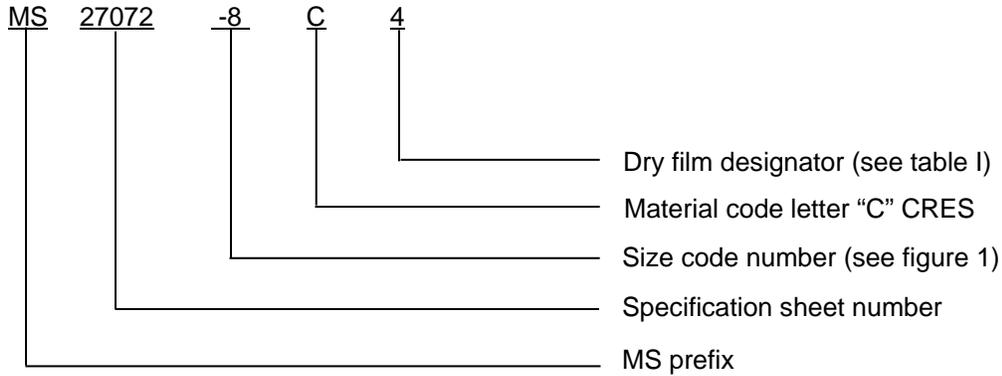
TABLE I. Solid film designator.

Dry film designator	SAE class or type designator	Dry film characteristics
Blank	Any SAE class or type below	N/A
SAE-AS1701	SAE-AS1701 class	SAE-AS1701 temperature ranges °F (°C)
4	4	-65° to +1400°F (-54° to 760°C)
5	5	-65° to +850°F (-54° to 454°C)
6	6	-375° to +850°F (-226° to 454°C)
SAE-AS5272	SAE-AS5272 type	SAE-AS5272 temperature ranges. °F (°C)
7	Type I	-90° to 400°F (-68 to 204°C) endurance life of 250 min minimum
8	Type II	-90° to 400°F (-68° to 204°C) endurance life of 450 min minimum
9	Type III	Color 1 - Natural product color -90° to 400°F (-68 to 204°C) low Volatile organic compound with an endurance life of 450 min minimum
10	Type III	Color 2 - Black color -90° to 400°F (-68 to 204°C) low Volatile organic compound with an endurance life of 450 min minimum
Dry film designator	MIL classification	Dry film characteristics
MIL-PRF-46010 <u>1/</u>	---	MIL-PRF-46010 temperature ranges. °F (°C)
11	1	Color 1 natural product color, -90° to 400°F (-68 to 204°C) solvent resisting
12	2	Color 2 - Black color -90° to 400°F (-68 to 204°C) solvent resisting

1/ Not for aerospace usage.

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Part or Identifying Number (PIN): The PIN consists of prefix "MS", the specification sheet number, dash number for wire size, letter for material, and a blank or number for dry film lubricant. Unassigned PIN's shall not be used.



PIN examples:

MS27072-8C indicates a wire size 8, CRES with dry film class designator "blank".  
MS27072-8C4 indicates a wire size 8, CRES with dry film class designator 4.

Order of precedence. Unless otherwise noted herein or in the contract, in the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

Referenced documents shall be of the issue in effect on date of invitations for bid.

Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue, due to the extent of the changes.

Referenced documents. In addition to MIL-DTL-27272, this document references the following:

MIL-PRF-46010	MS27388
MS27062	MS27389
MS27063	MS27390
MS27064	ASME B46.1
MS27065	ASTM A313/A313M
MS27066	ASTM A580/A580M
MS27067	SAE-AMS2700
MS27068	SAE-AS1701
MS27387	SAE-AS5272
	SAE-AS5685

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CONCLUDING MATERIAL

Custodians:

Army - AV  
Navy - AS  
Air Force - 99  
DLA - CC

Preparing activity:

DLA - CC

(Project 4730-2013-025)

Review activities:

Army – AT, MI  
Navy - MC, SA, SH  
Air Force - 71

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <https://assist.dla.mil>.