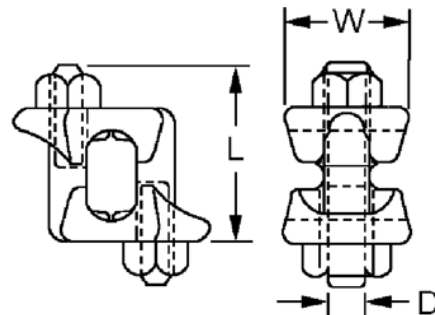


DETAIL SPECIFICATION SHEET

CLAMP, WIRE ROPE, DOUBLE SADDLED, DOUBLE-GRIP, STEEL, TYPE III

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

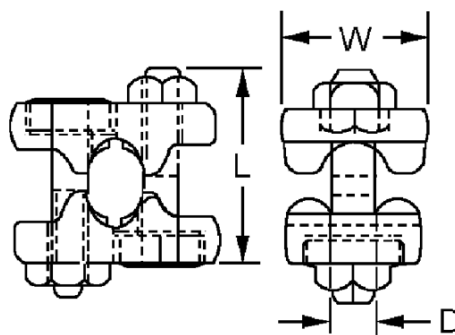
The requirements for acquiring the product described herein shall consist of this specification sheet
and FF-C-450.



Type III, Class 1

Dimensions and notes see table I.

FIGURE 1. Clamp, double grip, double saddled wire rope - type III, class 1.



Type III, Class 2

Dimensions and notes see table I.

FIGURE 2. Clamp, double grip, double saddled wire rope - type III, class 2.



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TABLE I. Clamp dimensions and number of clamps used. 1/ 2/ 3/

Dash number						Clamp size	
Hot dip galvanized ASTM A153/A153M 4/		Electrodeposited ASTM B633		Mechanically deposited ASTM B695			
Class 1	Class 2	Class 1	Class 2	Class 1	Class 2		
-1	-51	-101	-151	-201	-251	3/16	(.188)
-2	-52	-102	-152	-202	-252	1/4	(.250)
-3	-53	-103	-153	-203	-253	5/16	(.3125)
-4	-54	-104	-154	-204	-254	3/8	(.375)
-5	-55	-105	-155	-205	-255	7/16	(.4375)
-6	-56	-106	-156	-206	-256	1/2	(.500)
-7	-57	-107	-157	-207	-257	9/16	(.5625)
-8	-58	-108	-158	-208	-258	5/8	(.625)
-9	-59	-109	-159	209	-259	3/4	(.750)
-10	-60	-110	-160	-210	-260	7/8	(.875)
-11	-61	-111	-161	-211	-261	1	(1.00)
-12	-62	-112	-162	-212	-262	1-1/8	(1.125)
-13	-63	-113	-163	-213	-263	1-1/4	(1.250)
-14	-64	-114	-164	-214	-264	1-3/8	(1.375)
-15	-65	-115	-165	-215	-265	1-1/2	(1.500)

Dash number						D Thread minimum		L Length minimum
Hot dip galvanized ASTM A153/A153M 4/		Electrodeposited ASTM B633		Mechanically deposited ASTM B695				
Class 1	Class 2	Class 1	Class 2	Class 1	Class 2			
-1	-51	-101	-151	-201	-251	10-24	.1900 - 24UNC	1.281
-2	-52	-102	-152	-202	-252	1/4-20	.2500 - 20UNC	1.281
-3	-53	-103	-153	-203	-253	1/4-20	.2500 - 20UNC	1.438
-4	-54	-104	-154	-204	-254	5/16-18	.3125 -18UNC	1.688
-5	-55	-105	-155	-205	-255	7/16-14	.4375 -14UNC	2.125
-6	-56	-106	-156	-206	-256	7/16-14	.4375 -14UNC	2.125
-7	-57	-107	-157	-207	-257	1/2-13	.5000 -13UNC	2.688
-8	-58	-108	-158	-208	-258	1/2-13	.5000 -13UNC	2.688
-9	-59	-109	-159	209	-259	1/2-13	.5000 -13UNC	2.812
-10	-60	-110	-160	-210	-260	9/16-12	.5625 -12UNC	3.250
-11	-61	-111	-161	-211	-261	3/4-10	.7500 -10UNC	3.562
-12	-62	-112	-162	-212	-262	3/4-10	.7500 -10UNC	4.000
-13	-63	-113	-163	-213	-263	3/4-10	.7500 -10UNC	4.250
-14	-64	-114	-164	-214	-264	7/8-9	.8750 - 9UNC	5.438
-15	-65	-115	-165	-215	-265	1-8	1.000 - 8UNC	5.438

See notes at end of table.

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TABLE I. Clamp dimensions and number of clamps used - Continued. 1/ 2/ 3/

Dash number						W Width Minimum	Minimum number of clamps recommended	
Hot dip galvanized ASTM A153/A153M 4/		Electrodeposited ASTM B633		Mechanically deposited ASTM B695				
Class 1	Class 2	Class 1	Class 2	Class 1	Class 2		Class 1	Class 2
-1	-51	-101	-151	-201	-251	0.938	2	2
-2	-52	-102	-152	-202	-252	0.938	2	2
-3	-53	-103	-153	-203	-253	1.062	2	2
-4	-54	-104	-154	-204	-254	1.062	2	2
-5	-55	-105	-155	-205	-255	1.188	3	2
-6	-56	-106	-156	-206	-256	1.250	3	3
-7	-57	-107	-157	-207	-257	1.375	3	3
-8	-58	-108	-158	-208	-258	1.500	3	3
-9	-59	-109	-159	209	-259	1.750	3	2
-10	-60	-110	-160	-210	-260	2.125	4	3
-11	-61	-111	-161	-211	-261	2.250	5	4
-12	-62	-112	-162	-212	-262	2.312	5	4
-13	-63	-113	-163	-213	-263	2.500	6	5
-14	-64	-114	-164	-214	-264	2.750	6	5
-15	-65	-115	-165	-215	-265	3.000	7	5

Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
.188	4.77	.625	15.87	1.188	30.17	1.750	44.45	2.812	71.42
.250	6.35	.750	19.05	1.250	31.75	2.125	53.97	3.000	76.20
.313	7.95	.875	22.22	1.281	32.53	2.250	57.15	3.250	82.55
.375	9.52	.938	23.82	1.375	34.92	2.312	58.72	3.562	90.47
.438	11.12	1.000	25.40	1.438	36.52	2.500	63.50	4.000	101.60
.500	12.70	1.062	26.97	1.500	38.10	2.688	68.27	4.250	107.95
.562	14.28	1.125	28.57	1.688	42.87	2.750	69.85	5.438	138.12

1/ Dimensions are in inches.

2/ Metric equivalents are given for information only.

3/ All dimensions are "reference" dimensions.

4/ See table III for additional types of plating and ordering information. Use class 1 and class 2 dash numbers -1 through -65 when using alternate plating finishes.

REQUIREMENTS:

Clamps shall be in accordance with figure 1, figure 2, tables I and II.

Material steel, carbon shall be in accordance with type III, class I and type III, class 2 of FF-C-450.

Bolts of class 2 clamps shall be equivalent to SAE-J429 or ASTM-A449 grade 5 steel or better.

Threads shall be in accordance with FF-C-450.

Marking shall be in accordance with FF-C-450.

Weight for type III and class 1 see table II.

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TABLE II. Clamp type III, class 1 weight minimum in lbs. 1/ 2/

Type III Class 1				
Clamp size			Weight minimum	
Inches		mm	lbs.	kg
3/16	.188	4.77	.21	0.0952
1/4	.250	6.35	.21	0.0952
5/16	.3125	7.95	.26	0.1179
3/8	.375	9.52	.37	0.1678
7/16	.4375	11.12	.48	0.2177
1/2	.500	12.70	.60	0.2721
9/16	.5625	14.28	1.08	0.4898
5/8	.625	15.87	1.08	0.4898
3/4	.750	19.05	1.34	0.6078
7/8	.875	22.22	2.20	0.9979
1	1.00	25.40	2.68	1.2156
1-1/8	1.125	28.57	2.96	1.3426
1-1/4	1.250	31.75	4.03	1.8279
1-3/8	1.375	34.92	6.58	2.9846
1-1/2	1.500	38.10	6.58	2.9846

1/ Dimensions are in inches.

2/ Metric equivalents are given for information only.

Plating and plating designators see table III.

TABLE III. Plating and plating designator.

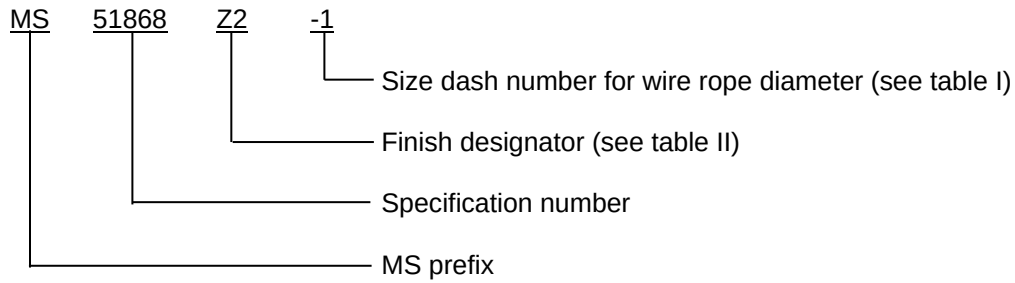
Finish Designator	Finish
Blank <u>1/</u>	Mechanically deposited zinc coating in accordance with ASTM-B695, class 50, type II (hexavalent chromium).
	Zinc coated (hot dip galvanized) in accordance with ASTM-A153/A153M.
	Zinc coated (electrodeposited) in accordance with ASTM-B633, Fe/Zn 5, type VI (protects to 120 hours in salt spray when tested in accordance with ASTM-B117).
A <u>2/</u>	Protective coating shall be any of the following; mechanically deposited zinc coating in accordance with ASTM-B695, class 50, type II (chromate), or zinc coated (hot dip galvanized) in accordance with ASTM-A153/A153M or zinc coated (electrodeposited) in accordance with ASTM-B633, Fe/Zn 5, type VI.
C <u>2/</u>	Cadmium plated, in accordance with SAE-AMS-QQ-P-416, type II, class 3 (protects to 96 hours in salt spray when tested in accordance with ASTM-B117).
Z4 <u>2/</u>	Zinc coating, mechanically deposited, in accordance with ASTM-B695, class 50, type I (protects to 300 hours (red rust) in salt spray when tested in accordance with ASTM-B117).
Z5 <u>2/</u>	Zinc flake coating flZn/nc/TL/960h/x in accordance with ISO 10683 (protects to 960 hours in salt spray when tested in accordance with ASTM-B117).

1/ Use dash number from table I.

2/ Use with dash numbers -1 through -15 for class 1 clamps and dash numbers -51 through -65 for class 2 clamps, example: Z4-56.

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Part or Identifying Number (PIN), example:



MS51868-101 specifies a 3/16 clamp type III class 1, electrodeposited in accordance with ASTM B633. MS51868Z5-55 specifies a 7/16 clamp type III class 2, with flZn/nc/TL/960h/x in accordance with ISO 10683.

Cadmium and chromate type II, which uses a hexavalent chromium, is not recommended. To the users of this document, it is recommended that the use of carbon steel material with cadmium or chromate type II plating be used only when other materials and finishes specified in this document cannot meet performance requirements.

Class I and II ozone depleting substances (ODS) shall not be used in MS51868 or any referenced procedures.

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 FF-C-450, this document references the following:

ASTM-A153/A153M	ASTM-B695
ASTM-A449	ISO 10683
ASTM-B117	SAE-AMS-QQ-P-416
ASTM-B633	SAE-J429

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CONCLUDING MATERIAL

Custodians:

Army - AR
Navy - SH
Air Force - 99
DLA - CC

Preparing activity:

DLA - CC

(Project 4030-2017-006)

Review activities:

Army - AT, AV, CR4, GL
Navy - MC, SA, YD
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>.