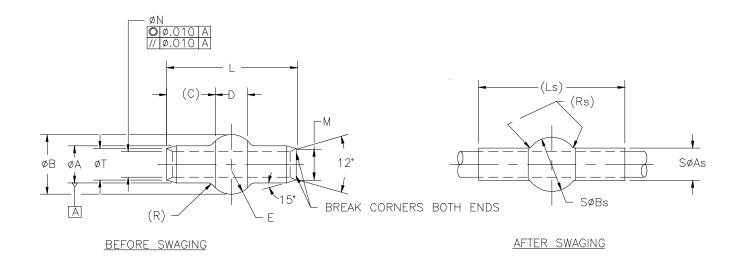
INCH-POUND
MS20663C
22 FEBRUARY 1999
Superseding
MS20663B
15 August 1997

#### MILITARY SPECIFICATION SHEET

# BALL END, WIRE ROPE, SWAGING, DOUBLE SHANK

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 the issue of the following specification listed in that issue of the Department of Defense Index of Specifications and Standards (DoDISS) specified in the solicitation: MIL-DTL-781.



#### MS20663C

TABLE I. Part numbers and dimensions.

MS PART NUMBER CORROSION RESISTANT STEEL	NOM CABLE DIA	MINIMUM BREAKING STRENGTH	ÆA		ÆAs		ÆB		SÆSs SPHERICAL		C REF	D REF		E RAD REF
MS20663C2	.062	480	.127		.112		.207		.190		.125	.114	000 003	.0825
MS20663C3	.093	920	.163	+.000 004	.143	+.000	.277	+.000 004	.253	+.000 003	.188	.152	000 004	.110
MS20663C4	.125	2000	.218		.190		.345		.315		.250	.1895		.137
MS20663C5	.156	2800	.254		.222	+.000	.419		.379	+.000 004	.313	.2270		.165
MS20663C6	.187	4200	.293		.255	+.000	.487		.442		.375	.2640	+.000 0	.192
MS20663C7	.218	5600	.347	+.000	.302	005	.555	+.000	.505	+.000	.438	.3025	0050	.220
MS20663C8	.250	7000	.401	005	.348		.624	005	.567	005	.500	.3395		.247
MS20663C9	.281	8000	.439		.382	+.000	.694		.632	+.000	.562	.3775		.275
MS20663C10	.312	9800	.475		.413	007	.763		.694	007	.625	.4145		.302

MS PART NUMBER								
CORROSION	L	Ls	M	ÆN		R	Rs	ÆT
RESISTANT	±.0075	REF	+.010			RAD	RAD	+.000
STEEL			000			REF	REF	010
MS20663C2	.3620	.390	.079	.073		.028	.014	.109
MS20663C3	.5250	.578	.114	.104		.037	.019	.141
MS20663C4	.6880	.765	.152	.139	+.004	.046	.023	.188
MS20663C5	.8500	.953	.185	.169	000	.056	.028	.219
MS20663C6	1.0120	1.140	.221	.201		.065	.033	.250
MS20663C7	1.1750	1.328	(a)	.233		.075	.038	.297
MS20663C8	1.3370	1.515	(a)	.264	+.005	.084	.042	.344
MS20663C9	1.4970	1.719	(a)	.297	000	.094	.046	.375
MS20663C10	1.6640	1.875	(a)	.328		.103	.046	.406

(a) No tapered bellmuoth on -7, -8, -9, -10.

# REQUIREMENTS:

1. Material: In accordance with MIL-DTL-781.

2. Finish: In accordance with MIL-DTL-781.

3. Swage: Swage in accordance with specification MIL-T-6117.

4. <u>Tolerances</u>: Unless otherwise specified: decimals  $\pm$  .010, angles  $\pm$  3°.

# NOTES:

- 1. Dimensions in inches,
- 2. Interpret drawing in accordance with ASME Y14.5M.
- 3. Remove all burrs and sharp edges.
- 4. Interchangeability relationship: MS20663 and AN663 parts identified by the same dash number are universally functionally, and dimensionally interchangeable.
- 5. In the event of a conflict between the text of this document and the references cited herein the text of this document takes precedence..
- 6. Unless otherwise specified, issues of reference documents are those in effect at the time of solicitation..
- 7. MS20663 supersedes AN663.

#### MS20663C

- 8. Corrosion resistant steel parts can be universally substituted for carbon and alloy steel parts in accordance with the substitution table. Carbon and alloy steel parts cannot be substituted for corrosion resistant steel parts.
- (c)9. Carbon and alloy steel parts are inactive for new design.

# SUBSTITUTION TABLE

MS PART NUMBER					
CORROSION	CARBON				
RESISTANT	STEEL,				
STEEL	CAD PLATED				
MS20663C2	MS20663-2				
MS20663C3	MS20663-3				
MS20663C4	MS20663-4				
MS20663C5	MS20663-5				
MS20663C6	MS20663-6				
MS20663C7	MS20663-7				
MS20663C8	MS20663-8				
MS20663C9	MS20663-9				
MS20663C10	MS20663-10				

MILITARY INTEREST

Preparing Activity: DLA- GS

Custodians:

Navy - AS Army - CR4

Air Force - 99

(PROJECT: 1560-0237)

Review activities:

Army - AR, MD (C)

Navy - MC

Air Force – 82

DLA - IS