

INCH - POUND

MIL-S-70615A (AR)

25 January 1991

SUPERSEDING

MIL-S-70615 (AR)

1 May 1987

MILITARY SPECIFICATION

SLINGS, TOP-LIFT, FAMILY OF SLINGS

This specification is approved for use by the U.S. Army Armament, Munitions and Chemical Command, and is available for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification covers the material, requirements, quality assurance provisions and packaging of a family of slings for use in top lifting 155mm and 8-inch projectiles; metal pallets with top lift capability and other ammunition items as identified. The family consists of basic four legged and six legged slings and two sizes of lifting beams which multiply capability by allowing multiple use of the slings (see 6.1).

2. APPLICABLE DOCUMENTS

2.1 Government documents.

2.1.1 Specifications and standards. The following specifications and standards form a part of this specification to the extent specified herein. Unless otherwise specified, the issues of these documents shall be those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation.

SPECIFICATION

MILITARY

MIL-P-116	-Preservation, Method of
MIL-A-48078	-Ammunition, Standard Quality Assurance Provisions, General Specification for
MIL-A-70625	-Automated Acceptance Inspection Equipment for Non-Electronic components, Design, Testing and Approval of

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Commander, US Army ARDEC, ATTN: SMCAR-BAC-S, Picatinny Arsenal, New Jersey 07806-5000 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A

FSC 3940

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

MIL-S-70615A (AR)**STANDARDS****FEDERAL**

FED-STD-595	-Color
--------------------	---------------

MILITARY

MIL-STD-105	-Sampling Procedures and Table for Inspection by Attributes
--------------------	--

MIL-STD-109	-Quality Assurance Terms and Definitions
--------------------	---

MIL-STD-1235	-Single and Multi-level Continuous Sampling Procedures and Tables for Inspections.
---------------------	---

MIL-STD-1949	-Inspection, Magnetic Particle
---------------------	---------------------------------------

(Unless otherwise indicated, copies of Federal and Military Specifications, Standards and Hand Books are available from: Standardization Documents Order Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.)

2.1.2 Other government documents, Drawings and Publications.

The following other documents form a part of this specification to the extent specified herein. Unless otherwise specified, the issues shall be those in effect on the date of the solicitation.

DRAWINGS**U.S. ARMY MATERIEL COMMAND**

AC200000332	-Sling, Multiple Leg, Palletized Projectile, Lifting
AC200000354	-Beam, Single, Palletized Projectile
AC200000364	-Beam, Double, Palletized Projectile
AC200000365	-Dimensional Control Test Fixture, Sling, Multi-Leg, Palletized Projectile Lifting
AC200000384	-Sample Leg for Destructive Pull Test: Sling, Multi-Leg
AC200000398	-Sling, Multiple Leg, Top Lift Ammunition
AC200000570	-Dimensional Control Test Fixture, Sling, Multi-Leg, Top Lift Ammunition
AC200000579	-Combination of Adapted Items; Sling, Multi- Leg, Top Lift Ammunition

MIL-S-70615A (AR)

AC200000580	-Combination of Adapted Items; Sling, Multi-Leg, Palletized Projectile, Lifting
AC200000589	-Combination of Adapted Items; Beam, Single, Palletized Projectile
AC200000590	-Combination of Adapted Items; Beam, Double, Palletized Projectile

SPECIAL PACKAGING INSTRUCTIONS**U.S. ARMY MATERIEL COMMAND**

P200000332	-Sling, Multi-Leg, Palletized Projectile, Lifting
P200000354	-Beam, Single, Palletized Projectile
P200000364	-Beam, Double, Palletized Projectile
P200000375	-Safety Hook with Swivel
P200000376	-Link Positioning Weldment
P200000377	-Center Hook Mounting Bolt
PAC200000398	-Sling, Multi-Leg, Top Lift Ammunition
PAC200000576	-Instruction Placard, Sling, Multi-Leg, Palletized Projectile Lifting & Single / Double lifting Beams
PAC200000577	-Instruction Placard, Sling, Multi-Leg, Top Lift Ammunition
PAC200000579	-1398-01-083-9313, Sling, Multi-Leg, Top Lift Ammunition
PAC200000580	-3940-01-247-7400, Sling, Multi-Leg, Palletized Projectile Lifting
PAC200000589	-3940-01-247-3681, Beam, Single, Palletized Projectile
PAC200000590	-3940-01-247-3682, Beam, Double, Palletized Projectile

(Copies of other government documents, drawings and publications required by manufacturers in connection with specific acquisition functions should be obtained from the contracting activity or as directed by the contracting activity)

2.2 Order of precedence. In the event of a conflict between the text of this specification and the references cited herein, the text of this

MIL-S-70615A (AR)

specification shall take precedence. Nothing in this specification, however, shall supersede applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 Description. The Sling, Multiple Leg, Palletized Projectile, Lifting (hereafter referred to as the six-legged sling) shall be as shown on Assembly Drawing AC200000332 and related drawings. The Sling, Multiple Leg, Top Lift Ammunition (hereafter referred to as the four-legged sling) shall be as shown on Assembly Drawing AC200000398 and related drawings. The Beam, Single, Palletized Projectile (hereafter referred to as the single lifting beam) shall be as shown on Assembly Drawing AC200000354 and related drawings. The Beam, Double, Palletized Projectile (hereafter referred to as the double lifting beam) shall be as shown on Assembly Drawing AC200000364 and related drawings.

3.1.1 Drawings. The drawings referenced in 3.1, forming a part of this specification, are end product drawings. No deviation from the prescribed dimensions or tolerances is permissible without prior approval of the contracting officer. However, certain tolerances are the result of the art of forming such as the finished outside dimension of the swage: hook to cable (Sheet 2 of 4, Dwg AC200000332 or Sheet 2 of 4, Dwg AC200000398, as applicable). Where tolerances of this nature could cumulatively result in incorrect fits, the contractor shall provide tolerances within those prescribed on the drawings to ensure correct fit, assembly and operation of the sling or beam assemblies. Any data (e.g., shop drawings, layouts, flow sheets, processing procedures, etc.) prepared by the contractor or obtained from a vendor to support fabrication and manufacture of the production item shall be made available, upon request, for inspection by the contracting officer or his designated representative.

3.2 Material. Material shall be as specified herein and as shown on the applicable drawings. Materials not specified shall be selected by the contractor and shall be subjected to all provisions of this specification. Materials shall be new and unused.

3.2.1 Material deterioration and control. The sling and beam assemblies shall be fabricated from compatible materials, inherently corrosion resistant or treated to provide protection against the various forms of corrosion and deterioration that may be encountered in any of the applicable storage and operating environment to which the item may be exposed.

3.2.2 Identification of materials and finishes. The contractor shall identify the specific material, material finish or treatment for use with components and sub-components, and shall make information available, upon request, to the contracting officer or designated representative.

3.3 Identification marking. The sling and beam assemblies shall be identified as shown on the applicable drawings.

3.4 Sling construction. The six-legged sling shall be constructed from the materials specified and as shown on Dwg AC200000332. The six shank hooks used on each sling shall conform to Dwg AC200000368. The four-legged

MIL-S-70615A (AR)

sling shall be constructed from the materials specified and as shown on Dwg AC200000398. The four shank hooks used on each sling shall conform to Dwg AC200000368. This control is to ensure the fit between the hook and the keeper handle design. This hook size is also the best fit for projectile pallet lifting eyes, lifting rings used on top lift pallets and Air Force bomb attaching rings.

3.5 Single lifting beam. The single lifting beam shall be constructed from the materials specified and as shown on Dwg AC200000354.

3.5.1 Safety hooks. The three safety hooks used with the single lifting beam shall conform to Dwg AC200000375. This safety hook is characterized by (a) substantial safety latch, (b) safety latch stays open between unhook of multiple leg sling rings (discharge) and hook of the rings (load) and (c) a thumb latch which can be opened by personnel wearing Arctic mittens.

3.6 Double lifting beam. The double lifting beam shall be constructed from the materials specified and as shown on Dwg AC200000364.

3.6.1 Safety hooks. The five safety hooks used with the double lifting beam shall conform to 3.5.1.

3.7 Magnetic particle inspection of critical welds. The critical welds designated on the single and double lifting beam drawings shall not exhibit any cracks.

3.8 Color. The slings and lifting beams are designated for paint protection as specified on the drawings and FED-STD-595. Specifically, all parts of the slings are painted with the exception of the wire ropes. All parts of the single and double beams are painted. Prior to painting, the metal parts shall be cleaned of all oil, grease, weld splatter and other contaminants. A suitable metal primer shall be applied prior to the finish coat. All other surfaces for which painting is not specified shall be treated for corrosion resistance per MIL-P-116.

3.9 Free operation of hook/handle. After painting, the contractor shall ensure that the hook/handle operates freely without resistance from paint or misalignment.

3.10 Pull test of sling.

3.10.1 Non-destructive. Each leg of the sling shall withstand a load of 4,000 pounds minimum.

3.10.2 Destructive. Each test sample shall withstand a load of 8,000 pounds minimum.

3.11 Test loads of single and double lifting beam assemblies.

3.11.1 Single lifting beam assemblies. The single lifting beam shall withstand the applied load for five (5) minutes.

3.11.2 Double lifting beam assemblies. The double lifting beam shall withstand the applied load for five (5) minutes.

MIL-S-70615A (AR)

3.12 Sling dimensional control test (see 6.1.3). This test is used to control uniformity of sling construction to ensure proper functioning in multiple pallet lifting. The six legged sling utilizes test fixture Dwg AC200000365. The four legged sling utilizes test fixture Dwg AC200000370.

3.13 Sling hook and handle alignment test. The natural hang of the cables shall cause each hook to be aligned in the same plane as the master ring within plus or minus 15 degrees and in the same direction for the six-legged sling and two each in opposing direction for the four-legged sling. The safety handle shall be mounted to the long swage tube in the same plane as the hook within plus or minus 1/2 degree and centered on the hook. There shall be no interference between the two parts of the safety handle or between the handle and any part of the hook except the tab stop. The handle shall operate freely and respond positively to the reaction of the spring. After painting of the handles, there may be some paint interference between the two parts of the handle; however, working the handle five times shall cause this interference to be eliminated (see 3.9).

3.14 First article inspection. This specification makes provisions for first article inspection. Requirements for submission of first article samples by the contractor shall be as specified in the contract.

3.15 Workmanship. All parts shall be fabricated in a thorough workmanship-like manner. They shall be free of scale, grease and other foreign matter. All burr projections and sharp edges shall be removed from all components. The cables shall be free of weld splatter.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract or purchase order, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the government. In addition, the government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements. Reference shall be made to MIL-STD-109 in order to define terms used herein.

4.1.1 Responsibility for compliance. All items must meet all requirements of Sections 3 and 5. The inspection set forth in this specification shall become a part of the contractor's overall inspection system or quality program. The absence of any inspection requirements in the specification shall not relieve the contractor of the responsibility of assuring that all products or supplies submitted to the government for acceptance comply with all requirements of the contract. Sampling inspection, as part of manufacturing operations, is an acceptable practice to ascertain conformance to requirements, however, this does not authorize submission of known defective material, either indicated or actual, nor does it commit the government to acceptance of defective material.

MIL-S-70615A (AR)

4.1.2 Certification of structure. All stress related components must be certified for structural integrity.

4.2 Classification of inspections. The following types of inspection shall be conducted on these items:

- a. First article inspection (see 4.3)
- b. Quality conformance inspection (see 4.4)

4.3 First article inspection.

4.3.1 Submission. The contractor shall submit a first article sample as applicable and as designated by the Contracting Officer for evaluation in accordance with provisions of 4.3.2. The first article sample shall consist of: ten (10) slings, multiple-leg, palletized projectile lifting, Dwg AC200000332 as applicable, OR ten (10) slings, multiple-leg, top lift ammunition, Dwg AC200000398 as applicable, OR ten (10) beams, single, palletized projectile, Dwg AC200000354 as applicable, OR ten (10) beams, double, palletized projectile, Dwg AC200000364 as applicable, AND ten of each and every subassembly and component, as listed in 4.3.4, which shall have been produced by the contractor using the same production processes, procedures, dimensional tolerances and equipment as will be used in fulfilling the contract. All materials shall be obtained from the same source of supply as will be used in regular production.

4.3.2 Inspections to be performed. First article assemblies, components and test specimens may be subjected by the Government to any and all of the examinations and tests specified in Table I and any or all requirements of the applicable drawings.

4.3.3 Rejection. If any assembly, component or test specimen fails to comply with any of the applicable requirements, the first article sample shall be rejected. The Government reserves the right to terminate its inspection upon any failure of an assembly, component, or test specimen in the sample to comply with any of the stated requirements.

TABLE 1 FIRST ARTICLE INSPECTION
CLASSIFICATION OF CHARACTERISTICS

MIL-S-70615A(AR)

PARAGRAPH	TITLE	SHEET 1 OF 3		DRAWING NUMBERS SEE BELOW
4.3.4	Assemblies and Components			NEXT HIGHER ASSEMBLY
CLASSIFICATION	EXAMINATION OR TEST	NUMBER OF SAMPLE UNITS	REQUIREMENT PARAGRAPH	INSPECTION METHOD REFERENCE
	Sling, Multiple Leg (Dwg AC2000000332 OR Dwg AC2000000398 as applicable) a. examination for defects	10	3.1	4.4.2.1 AND 4.4.2.2
	Sample Leg for Destructive Pull Test; Sling, Multiple Leg (Dwg AC2000000334) a. examination for defects	5	3.10.2	4.5.2.2
	5/8 Master Link Weldment (Dwg AC2000000370) a. examination for defects	10	3.1	4.4.2.14
	Spring, Handle (Dwg AC2000000373) a. examination for defects	10	3.1	4.4.2.4
	Handle Safety Latch, Assy (Dwg AC2000000369) a. examination for defects	10	3.1	4.4.2.14
	Handle Mounting Bracket (Dwg AC2000000366) a. examination for defects	10	3.1	4.4.2.16
	Spacer / Nut (Dwg AC2000000371) a. examination for defects	10	3.1	4.4.2.16
	Sleeve, Swaged, Cable to Hook (Dwg ACV000039) a. examination for defects	10	3.1	4.4.2.16
	Hook, Preparation for Swaging (Dwg ACV000040) a. examination for defects	10	3.1	4.4.2.16
	Beam, Single, Palletized Projectile (Dwg AC2000000354) a. examination for defects	10	3.1	4.4.2.16
	Beam, Single, Weldment Assy (Dwg AC2000000387) a. examination for defects	10	3.1	4.4.2.5 AND 4.4.2.7
		10	3.1	4.4.2.8

NOTES

TABLE I FIRST ARTICLE INSPECTION
CLASSIFICATION OF CHARACTERISTICS

MIL-S-70615A(AR)

PARAGRAPH	TITLE	SHEET 2 OF 3		DRAWING NUMBERS SEE BELOW	
		NUMBER OF SAMPLE UNITS	REQUIREMENT PARAGRAPH		
					NEXT HIGHER ASSEMBLY
CLASSIFICATION	EXAMINATION OR TEST			INSPECTION METHOD REFERENCE	
4.3.4	Assemblies and Components				
		Weldment Parts, Single Beam (Dwg ACV000036) a. examination for defects	10	3.1	4.4.2.16
		Structural Rectangular Tubing, Single Beam (Dwg ACV000037) a. examination for defects	10	3.1	4.4.2.16
		Ring Locating Bar, Single Beam (Dwg ACV000038) a. examination for defects	10	3.1	4.4.2.16
		End Bracket Assembly (Dwg AC2000000374) a. examination for defects	10	3.1	4.4.2.14
		Link, Positioning, Weld (Dwg AC2000000376) a. examination for defects	10	3.1	4.4.2.14
		Chain Anchor Assembly (Dwg AC2000000378) a. examination for defects	10	3.1	4.4.2.11
		Center Hook Mounting Bolt (Dwg AC2000000377) a. examination for defects	10	3.1	4.4.2.16
		Safety Hook w/Swivel, 3600 lb Rated Load (Dwg AC2000000375) a. examination for compliance	10	3.5.1	4.4.2.12
		Beam, Double, Polletized Projectile (Dwg AC2000000364) a. examination for defects	10	3.1	4.4.2.6 and 4.4.2.7
		Beam, Double, Dogleg Weld (Dwg AC2000000388) a. examination for defects	10	3.1	4.4.2.9
NOTES					

TABLE I FIRST ARTICLE INSPECTION
CLASSIFICATION OF CHARACTERISTICS

MIL-S-70615 (AR)

PARAGRAPH	TITLE	SHEET 3 OF 3		DRAWING NUMBERS SEE BELOW
4.3.4	Assemblies and Components			NEXT HIGHER ASSEMBLY
CLASSIFICATION	EXAMINATION OR TEST	NUMBER OF SAMPLE UNITS	REQUIREMENT PARAGRAPH	INSPECTION METHOD REFERENCE
	Beam, Double, Straight Half, Weldment (Dwg AC200000389) a. examination for defects	10	3.1	4.4.2.10
	Center Pivot Bearing (Dwg AC200000386) a. examination for defects	10	3.1	4.4.2.16
	Chain Anchor, Machined Part (Dwg ACV000031) a. examination for defects	10	3.1	4.4.2.16
	Ring Locator Bars, Dbl Beam (Dwg ACV000032) a. examination for defects	10	3.1	4.4.2.16
	Weldment Components, 1/4 Thick, Double Beam, (Dwg ACV000033) a. examination for defects	10	3.1	4.4.2.16
	Rectangular Tubing, Dbl Beam (Dwg ACV000034) a. examination for defects	10	3.1	4.4.2.16
	Weldment Parts, Double Beam (Dwg ACV000035) a. examination for defects	10	3.1	4.4.2.16
NOTES				

MIL-S-70615A (AR)

4.4 Quality conformance inspection.

4.4.1 Inspection lot formation. The term "inspection lot" is defined as a homogeneous collection of units of product from which a representative sample is drawn or which is inspected 100 percent to determine conformance with applicable requirements. Units of product selected for inspection shall represent only the inspection lot from which drawn and shall not be construed to represent any prior subsequent quantities presented for inspection. Homogeneity shall be considered to exist provided the inspection lot has been produced by one manufacturer in one unchanged process, using the same materials and methods, in accordance with the same drawings, same drawing revisions, same specifications and same specification revisions and complies with the provisions for submission of product as specified in MIL-STD-105. All materials submitted for inspection in accordance with this specification shall comply with the homogeneity criteria specified herein, regardless of the type of inspection procedure which is being applied to determine conformance with the requirements.

4.4.2 Examinations and tests.

a. Classification of characteristics. Quality conformance examinations and tests are specified in the following Classification of Characteristics paragraphs. The contractor's quality program or detailed inspection system shall provide assurance of compliance of all characteristics with the applicable drawing and specification requirements utilizing as a minimum the conformance criteria specified herein. When 0-1 inspection is specified herein, inspection criteria shall be in accordance with Table II below using the inspection levels cited in the Classification of Characteristics paragraphs. Samples shall be selected at random.

Table II. 0-1 Attribute plans

Lot size	Inspection level					
	I	II	III	IV	V	VI
2 to 8	*	*	*	*	5	3
9 to 15	*	*	*	13	5	3
16 to 25	*	*	*	13	5	3
26 to 50	*	*	32	13	5	3
51 to 90	*	*	32	13	12	4
91 to 150	*	125	32	13	12	5
151 to 280	*	125	32	30	14	6
281 to 500	*	125	32	30	17	7
501 to 1200	*	125	74	35	20	9
1201 to 3200	1250	125	74	43	24	10
3201 to 10000	1250	125	87	50	30	10
10001 to 35000	1250	296	109	61	36	10
35001 to 150000	1250	296	124	74	40	10
150001 to 500000	1250	346	156	91	40	10
500001 and over	1250	431	187	102	40	10

Numbers under inspection levels indicate sample size; an asterisk indicates 100 percent inspection. If sample size exceeds lot size, perform 100 percent inspection. Accept on zero and reject on 1 or more for all inspection levels.

MIL-S-70615A (AR)

b. Alternate inspection provisions. Alternate inspection procedures, methods, or equipment, such as statistical process control, tool control, other types of sampling procedures, etc., may be used by the contractor when they provide, as a minimum, the level of quality assurance required by the provisions specified herein. Prior to applying such alternative procedures, methods or equipment, the contractor shall describe them in a written proposal submitted to the government for evaluation and approval (see 6.6). When required, the contractor shall demonstrate that the effectiveness of the proposed alternative(s) is equal or better than the specified quality assurance provisions herein. In cases of dispute as to whether the contractor's proposed alternative(s) provide equal assurance, the provisions of this specification shall apply. All approved alternative inspection provisions shall be specifically incorporated into the contractor's quality program or detailed inspection systems as applicable.

QUALITY CONFORMANCE INSPECTION CLASSIFICATION OF CHARACTERISTICS

MIL-S-70615(A) (AR)

PARAGRAPH	TITLE	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMENT PARAGRAPH	DRAWING NUMBERS AC200000332 OR AC200000398 as applicable NEXT HIGHER ASSEMBLY
4.4.2.1	Sling, Multiple Leg, Palletized Projectile, Lifting, OR Top Lift Ammunition		SHEET 1 OF 1		
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMENT PARAGRAPH	INSPECTION METHOD REFERENCE	
CRITICAL					
1	Pull test, nondestructive (see Note 1.)	100%	3.10.1	4.5.2.1	
MAJOR					
101	Part missing or incorrectly assembled	0-1, Level III	3.1.1	Visual-Manual	
102	Dimensional control test (Dwg AC200000365 OR AC200000570 as applicable)	0-1, Level IV	3.12	4.5.4	
103	Cable shows signs of unravelling or opening up between cable lays due to improper swaging (see Note 2.)	0-1, Level III	3.1.1	Visual	
104	Hooks not swaged within plus or minus 15 degrees from plane of master ring OR not orientated in proper direction	0-1, Level IV	3.13	Visual	
MINOR					
201	Color not as specified (where applicable)	0-1, Level IV	3.8	Visual	
202	Identification, capacity markings missing or illegible	0-1, Level IV	3.3	Visual	
203	Corrosion resistant protection or treatment missing	0-1, Level IV	3.2.1	Visual	
204	Workmanship	0-1, Level V	3.15	Visual	
NOTES	<p>1. The nondestructive pull test shall be performed prior to assembly of keeper handle to swaged assembly.</p> <p>2. If on applying a counter clockwise twist to the hook, the spacing between cable lays closes uniformly, the sample shall not be classified as defective.</p>				

AMSMC Form 1570b, 1 Jul 89

Replaces AMSMC Form 1570b, 1 Apr 85, which may not be used.

QUALITY CONFORMANCE INSPECTION CLASSIFICATION OF CHARACTERISTICS

MIL-S-70615 (AR)

PARAGRAPH	TITLE	SHEET 1 OF 1		DRAWING NUMBERS AC200000332 OR AC200000398 as applicable NEXT HIGHER ASSEMBLY	
4.4.2.2	Handle Assembly Drawings				
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMENT PARAGRAPH	INSPECTION METHOD REFERENCE	
CRITICAL	NONE DEFINED				
MAJOR					
101	Welding of bracket missing, incomplete, or not as specified	0-1, Level III	3.1.1	Visual	
102	Bracket or handle not within plus or minus 1/2 degree of plane of hook	0-1, Level III	3.13	Visual	
103	Handle does not work freely or respond to tension of spring	0-1, Level III	3.13 / 3.9	Visual/Manual	
104	Bolts improperly adjusted	0-1, Level III	3.1.1	Visual	
105	Contact between hook and handle other than as specified	0-1, Level III	3.13	Visual	
106	Parts missing or incorrectly assembled	0-1, Level III	3.1.1	Visual	
107	Gauge incorrect at open position	0-1, Level IV	3.1.1	SMTE (see 5.3)	
108	Gauge incorrect at closed position	0-1, Level IV	3.1.1	SMTE	
MINOR					
201	Spring protrudes excessively from handle	0-1, Level IV	3.1.1	Visual	
202	Workmanship	0-1, Level V	3.15	Visual	
NOTES	1. These inspections refer to Drawing Sheet 2 of 4, Sling, Swaged Assembly, Sheet 3 of 4, Bracket Assembly Weldment and Sheet 4 of 4, Handle Assembly of the applicable drawing package.				

QUALITY CONFORMANCE INSPECTION
CLASSIFICATION OF CHARACTERISTICS

MIL-S-70615A AR

PARAGRAPH	TITLE	SHEET 1 OF 1		DRAWING NUMBERS
4.4.2.3	Shank Hook, Alloy Steel, 2,000 Pound Rated Load			AC200000368
				NEXT HIGHER ASSEMBLY ACV000040
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMENT PARAGRAPH	INSPECTION METHOD REFERENCE
CRITICAL	NONE DEFINED			
MAJOR				
101	Material and capacity not as specified	N/A	3.2 / 3.4	Visual
102	5 inch dimension	0-1, Level III	3.1.1	SMTE
103	2 9/32 inch dimension	0-1, Level III	3.1.1	SMTE
104	2 7/8 inch dimension	0-1, Level III	3.1.1	SMTE
105	15/16 inch dimension	0-1, Level III	3.1.1	SMTE
106	19/32 inch dimension	0-1, Level III	3.1.1	SMTE
MINOR				
201	13/16 inch dimension	0-1, Level IV	3.1.1	SMTE
202	9/16 inch dimension	0-1, Level IV	3.1.1	SMTE
203	2 inch dimension	0-1, Level IV	3.1.1	SMTE
204	11/16 inch dimension	0-1, Level IV	3.1.1	SMTE
205	Workmanship	0-1, Level V	3.15	Visual
NOTES				

QUALITY CONFORMANCE INSPECTION
CLASSIFICATION OF CHARACTERISTICS

MIL-S-70615 (AR)

PARAGRAPH	TITLE	SHEET 1 OF 1		DRAWING NUMBERS AC2000000373
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMENT PARAGRAPH	NEXT HIGHER ASSEMBLY AC2000000398 as applicable
				INSPECTION METHOD REFERENCE
CRITICAL	NONE DEFINED			
MAJOR				
101	Spring torsion (see Dwg AC2000000372)	0-1, Level III	3.2	Visual
102	3 inch dimension	0-1, Level III	3.1.1	SMTE
103	.848 inch dimension	0-1, Level IV	3.1.1	SMTE
104	Axial space, minimum (when spring is compressed)	0-1, Level IV	3.1.1	SMTE
105	Wire diameter	0-1, Level IV	3.1.1	SMTE
MINOR				
201	Workmanship	0-1, Level V	3.15	Visual
NOTES				

QUALITY CONFORMANCE INSPECTION
CLASSIFICATION OF CHARACTERISTICS

MIL-S-70615a (AR)

PARAGRAPH	TITLE	SHEET 1 OF 1		DRAWING NUMBERS AC200000354 and AC200000387
				NEXT HIGHER ASSEMBLY
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMENT PARAGRAPH	INSPECTION METHOD REFERENCE
CRITICAL				
1	First load test	100%	3.11.1	4.5.3.1
2	Second load test	100%	3.11.1	4.5.3.2
3	Nondestructive (magnetic particle) inspection of critical welds as designated on the reference drawings. This inspection is done: a. after first and second load tests (above) b. prior to painting	100%	3.7	4.5.1
MAJOR				
101	Parts missing or incorrectly assembled	0-1, Level III	3.1.1	Visual/Manual
102	Center hook does not swing freely through 180 degrees; interference with mounting plates	0-1, Level III	3.1.1	Visual/Manual
103	Positioning links do not lift and move freely on load positioning bars (permissible to move 3/8 chain connecting links to side of ring for this procedure)	0-1, Level III	3.1.1	Visual/Manual
MINOR				
201	Workmanship	0-1, Level V	3.15	Visual
NOTES				

QUALITY CONFORMANCE INSPECTION CLASSIFICATION OF CHARACTERISTICS

MIL-S-70615 (AR)

PARAGRAPH	TITLE	SHEET 1 OF 2		DRAWING NUMBERS AC200000364, AC200000388 and AC200000389 NEXT HIGHER ASSEMBLY	
4.4.2.6	Beam, Double, Palletized Projectile, Prior to Painting				
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMENT PARAGRAPH	INSPECTION METHOD REFERENCE	
CRITICAL	1 First load test	100%	3.11.2	4.5.3.3	
	2 Second load test	100%	3.11.2	4.5.3.4	
	3 Nondestructive (magnetic particle) inspection of critical welds as designated on the reference drawings. This inspection is done: a. after first and second load tests (above) b. prior to painting	100%	3.7	4.5.1	
MAJOR	Parts missing or incorrectly assembled	0-1, Level III	3.1.1	Visual/Manual	
	Center hook does not swing freely through 180 degrees; interference with mounting plates (see Note 1.)	0-1, Level III	3.1.1	Visual/Manual	
	Distance between beam end centers not as specified (see Note 2.)	0-1, Level III	3.1.1	SMTE/Manual	
	Positioning links do not lift and move freely on load positioning bars (permissible to move 3/8 chain connecting links to side of ring for this procedure)	0-1, Level III	3.1.1	Visual/Manual	
	Beam halves at maximum spread position not independently supported by chain (see Note 3.)	0-1, Level III	3.1.1	SMTE/Manual	
	Beam halves at minimum check position not independently supported by chain (see Note 3.)	0-1, Level III	3.1.1	SMTE/Manual	
NOTES 1. These inspections refer to Drawing AC200000364, sheet 1 of 3 2. This inspection refers to Drawing AC200000364, sheet 2 of 3. 3. These inspections refer to Drawing AC200000364, sheet 3 of 3					

QUALITY CONFORMANCE INSPECTION CLASSIFICATION OF CHARACTERISTICS

MIL-S-70615J(AR)

PARAGRAPH	TITLE	SHEET 2 OF 2	DRAWING NUMBERS AC200000364, AC200000388 and AC200000389 NEXT HIGHER ASSEMBLY	
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMENT PARAGRAPH	INSPECTION METHOD REFERENCE
MINOR				
201	Attachment of chain to quick release pin not as specified (see Note 5, Dwg AC200000364, sheet 1 of 3)	0-1, Level V	3.1.1	Visual
202	Workmanship	0-1, Level V	3.15	Visual
NOTES				

AMSQC Form 1570b, 1 Jul 89

Replaces AMSQC Form 1570b, 1 Apr 85, which may not be used.

QUALITY CONFORMANCE INSPECTION
CLASSIFICATION OF CHARACTERISTICS

MIL-S-70615 (AR)

PARAGRAPH	TITLE	SHEET 1 OF 1	DRAWING NUMBERS AC200000354 AC200000364 NEXT HIGHER ASSEMBLY
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMENT PARAGRAPH
			INSPECTION METHOD REFERENCE
4.4.2.7	Bean, Single OR Double, Palletized Projectile, Lifting, after Painting		
CRITICAL	NONE DEFINED		
MAJOR	NONE DEFINED		
MINOR	Color not as specified	0-1, Level V	3.8 Visual
201	Corrosion resistant protection or treatment missing	0-1, Level V	3.2.1 Visual
202	Identification, capacity marking missing or illegible; mounting not as specified	0-1, Level V	3.3 Visual
203	Workmanship	0-1, Level V	3.15 Visual
204			

NOTES

QUALITY CONFORMANCE INSPECTION
CLASSIFICATION OF CHARACTERISTICS

MIL-S-70615A(AR)

PARAGRAPH	TITLE	SHEET 1 OF 1	DRAWING NUMBERS AC2000000387
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMENT PARAGRAPH
			INSPECTION METHOD REFERENCE
4.4.2.8	Beam, Single, Weldment Assembly		NEXT HIGHER ASSEMBLY AC2000000354
CRITICAL			
1	Nondestructive inspection of welds is done under 4.4.2.5		
MAJOR			
101	Welds not as specified	0-1, Level III	3.1.1 Visual
102	Dimensions not as specified	0-1, Level III	3.1.1 SMTE
MINOR			
201	Workmanship	0-1, Level V	3.15 Visual
NOTES			

QUALITY CONFORMANCE INSPECTION
CLASSIFICATION OF CHARACTERISTICS

MIL-S-70615 (AR)

PARAGRAPH	TITLE	SHEET 1 OF 1	DRAWING NUMBERS AC200000388 NEXT HIGHER ASSEMBLY AC200000364	INSPECTION METHOD REFERENCE
4.4.2.9	Beam, Double, Dogleg Weldment Assembly			
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMENT PARAGRAPH	
CRITICAL				
1	Nondestructive inspection of welds is done under 4.4.2.6			
MAJOR				
101	Welds not as specified	0-1, Level III	3.1.1.1	Visual
102	Dimensions not as specified	0-1, Level III	3.1.1.1	SMTE
MINOR				
201	Workmanship	0-1, Level V	3.15	Visual
NOTES				

QUALITY CONFORMANCE INSPECTION
CLASSIFICATION OF CHARACTERISTICS

MIL-S-70615/4 AR

PARAGRAPH	TITLE	SHEET 1 OF 1	DRAWING NUMBERS AC200000389
4.4.2.10	Beam, Double, Straight Half Weldment Assembly		NEXT HIGHER ASSEMBLY AC200000364
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMENT PARAGRAPH
CRITICAL			
1	Nondestructive inspection of welds is done under 4.4.2.6		
MAJOR			
101	Welds not as specified	0-1, Level III	3.1.1.1 Visual
102	Dimensions not as specified	0-1, Level III	3.1.1.1 SMTE
MINOR			
201	Workmanship	0-1, Level V	3.15 Visual
NOTES			

AMSMC Form 1570b, 1 Jul 89

Replaces AMSMC Form 1570b, 1 Apr 85, which may not be used.

QUALITY CONFORMANCE INSPECTION
CLASSIFICATION OF CHARACTERISTICS

MIL-S-70615 (AR)

PARAGRAPH 4.4.2.11	TITLE Chain Anchor Assembly	SHEET 1 OF 1		DRAWING NUMBERS AC200000378
				NEXT HIGHER ASSEMBLY AC200000387
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMENT PARAGRAPH	INSPECTION METHOD REFERENCE
CRITICAL 1	Nondestructive inspection of critical welds as designated on drawing Welds not as specified Dimensions not as specified Workmanship	100%	3.7	4.5.1
MAJOR 101		0-1, Level III	3.1.1	Visual
102		0-1, Level III	3.1.1	SMTE
MINOR 201		0-1, Level V	3.15	Visual
NOTES				

AMSMC Form 1570b, 1 Jul 89

Replaces AMSMC Form 1570b, 1 Apr 85, which may not be used.

QUALITY CONFORMANCE INSPECTION
CLASSIFICATION OF CHARACTERISTICS

MIL-S-70615 (AR)

PARAGRAPH	TITLE	SHEET 1 OF 1		DRAWING NUMBERS
4.4.2.12	Safety Hook with Swivel, 3,600 Pound Rated Load			AC2000000375
				NEXT HIGHER ASSEMBLY AC2000000354, AC2000000364
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMENT PARAGRAPH	INSPECTION METHOD REFERENCE
CRITICAL	NONE DEFINED			
MAJOR				
101	Source not as specified	N/A	3.1.1	Visual
102	Material and capacity not as specified	N/A	3.2	Visual
103	Dimensions not as specified	0-1, Level III	3.1.1	SMTE
104	Release trigger does not work freely	0-1, Level III	3.5.1	Visual/Manual
105	Hook does not stay open under no load	0-1, Level III	3.5.1	Visual/Manual
106	Hook does not close or have a positive lock under 10 pound load	0-1, Level III	3.5.1	Visual/Manual
MINOR				
201	Workmanship	0-1, Level V	3.15	Visual
NOTES				

AMSMC Form 1570b, 1 Jul 89

Replaces AMSMC Form 1570b, 1 Apr 85, which may not be used.

QUALITY CONFORMANCE INSPECTION CLASSIFICATION OF CHARACTERISTICS

MIL-S-70615 (AR)

PARAMETER	TITLE	SHEET 1 OF 1		DRAWING NUMBERS AC200000382
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMENT PARAGRAPH	NEXT HIGHER ASSEMBLY AC200000354, AC200000364
				INSPECTION METHOD REFERENCE
CRITICAL	NONE DEFINED			
MAJOR				
101	Material and capacity not as specified	N/A	3.2	Visual
102	1 inch dimension	0-1, Level III	3.1.1	SMTE
103	3 1/2 inch dimension	0-1, Level III	3.1.1	SMTE
104	7 inch dimension	0-1, Level III	3.1.1	SMTE
MINOR				
201	1 1/4 inch dimension	0-1, Level IV	3.1.1	SMTE
201	2 5/16 inch dimension	0-1, Level IV	3.1.1	SMTE
203	21/32 inch dimension	0-1, Level IV	3.1.1	SMTE
201	Workmanship	0-1, Level V	3.15	Visual
NOTES				

QUALITY CONFORMANCE INSPECTION
CLASSIFICATION OF CHARACTERISTICS

MIL-S-70615A(AR)

PARAGRAPH	TITLE	SHEET 1 OF 1	DRAWING NUMBERS SEE LIST BELOW	
			NEXT HIGHER ASSEMBLY AS APPLICABLE	
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMENT PARAGRAPH	INSPECTION METHOD REFERENCE
CRITICAL MAJOR 101 102 103 104	DRAWING NUMBERS AFFECTED: AC200000369 AC200000370 AC200000374 AC200000376			
	NONE DEFINED			
	Welds not as specified	0-1, Level III	3.1.1	Visual
	Material not as specified	0-1, Level III	3.1.1	Visual
	Dimensions not as specified	0-1, Level III	3.1.1	SMTE
MINOR 201	Stress relieve / heat treat not as specified (if applicable)	0-1, Level III	3.1.1	Visual
	Workmanship	0-1, Level V	3.15	Visual
NOTES				

QUALITY CONFORMANCE INSPECTION CLASSIFICATION OF CHARACTERISTICS

MIL-S-70615 (A.R.)

PARAGRAPH	TITLE	SHEET 1 OF 1	DRAWING NUMBERS AC2000000367
4.4.2.15	Master Link, 5/8 Stock Diameter		NEXT HIGHER ASSEMBLY AC2000000364, AC2000000370 AC2000000376
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMENT PARAGRAPH
CRITICAL	NONE DEFINED		
MAJOR			
101	Material and capacity not as specified	N/A	3.2 Visual
102	Internal length	0-1, Level III	3.1.1 SMTE
103	Internal width	0-1, Level III	3.1.1 SMTE
MINOR			
201	Workmanship	0-1, Level V	3.15 Visual
NOTES			

QUALITY CONFORMANCE INSPECTION
CLASSIFICATION OF CHARACTERISTICS

MIL-S-70615 (AR)

PARAGRAPH	TITLE	SHEET 1 OF 1	DRAWING NUMBERS SEE LIST BELOW
4.4.2.16	Sub Parts Drawings Not Otherwise Covered, as applicable		NEXT HIGHER ASSEMBLY AS APPLICABLE
CLASSIFICATION	EXAMINATION OR TEST	CONFORMANCE CRITERIA	REQUIREMENT PARAGRAPH
CRITICAL	DRAWING NUMBERS AFFECTED: AC200000366 ACV00034 AC200000371 ACV00035 AC200000377 ACV00036 AC200000386 ACV00037 ACV00031 ACV00038 ACV00032 ACV00039 ACV00033 ACV00040		
MAJOR	NONE DEFINED		
101	Material not as specified	N/A	3.2 Visual
102	Dimensions not as specified	0-1, Level III	3.1.1 SMTE
MINOR			
201	Workmanship	0-1, Level V	3.15 Visual
NOTES			

MIL-S-70615A (AR)

4.4.3 Testing. Testing is described in the First Article and Quality Conformance Inspection Tables.

4.4.4 Inspection equipment. The government reserves the right to inspect the contractor's equipment and determine that he has available and utilizes correctly, measuring and test equipment of the required accuracy and precision and that the instruments are of the proper type and range to make measurements of the required accuracy. Standard Measuring and Test Equipment (SMTE) shall be employed where applicable for all tests and examinations specified in 4.4.2 and 4.5 (see 6.3). The contractor is responsible for assuring that proper calibration procedures are followed. When Automated Acceptance Inspection Equipment (AAIE) is to be used, the provisions of MIL-A-70625 shall apply. Government approval of all inspection equipment other than SMTE is required prior to its use for acceptance purposes (see 6.4).

4.5 Methods of inspection. (See 6.3 and 6.5)

4.5.1 Magnetic particle inspection of critical welds. The critical welds shall be inspected using magnetic particle inspection in accordance with MIL-STD-1949. The critical welds to be checked are identified on the following drawings: AC200000378, AC200000387, AC200000388 and AC200000389. Any component which is found defective shall be removed from the lot.

4.5.2 Pull tests of sling.

4.5.2.1 Non-destructive. The sling shall be placed in a pull test machine designed for the pull testing of slings. The load shall be applied by hydraulic pressure and the load read directly by means of a calibrated gage. Each leg of the sling shall be mounted and tested separately for a total of four tests or six tests per sling, as applicable. The load applied to each leg shall be 4,000 pounds. The results of the test shall not show any signs of deformation or change in length / opening of the hook, connecting swage, cable, thimble or master link.

4.5.2.2 Destructive (sample leg). This test shall be performed for first article only. The test samples shall be fabricated and pull test conducted as specified per Dwg AC200000384. The failing load reading and the component that failed shall be recorded.

4.5.3 Test loads, single and double lifting beams. A total of four 5,500 pound test loads are required. The test loads are to be calibrated and have a ring for the attachment of the safety swivel hook, Drawing No. AC200000375. The test loads may be four 5,500 pound weights or calibrated test gages attached to embedded anchors in the floor. However, the size of the weights or the spacing of the floor anchors must be such that when the test loads are applied (see 4.5.3.1, 4.5.3.2, 4.5.3.3 and 4.5.3.4), the safety hooks are to hang vertically.

4.5.3.1 First load test single lifting beam. The beam shall be tested using two 5,500 pound test loads. The two positioning links, Part No. AC200000376, shall be placed in the maximum distance from center slots on Part No. ACV00038. The load shall be applied and held for five minutes. The results of the test shall not show any signs of deformation of the beam or change in length of the chain, rings, hooks or other components.

MIL-S-70615A (AR)

4.5.3.2 Second load test single lifting beam. The beam shall be tested using a single 5,500 pound test load attached to the center hook. All other provisions of 4.5.3.1 shall apply.

4.5.3.3 First load test double lifting beam. The beam shall be tested using four 5,500 pound test loads. The four positioning links, Part No. AC200000367, shall be placed in the maximum distance from center slots on Parts No. ACV00032-1 and ACV00032-2. The load shall be applied and held for five minutes. The results of the test shall not show any signs of deformation of the beam or change in length of the chain, rings, hooks or other components.

4.5.3.4 Second load test double lifting beam. The beam shall be tested using a single 5,500 pound test load attached to the center hook. All other provisions of 4.5.3.3 shall apply.

4.5.4. Dimensional control test.

4.5.4.1 Six-legged sling. The six hooks of the sling are attached to the six lifting eyes of the government-furnished dimensional control fixture, per Dwg AC200000365. The sling is then suspended. Measurements are then taken between the bowl of the hooks and the underside of the lifting eyes. A measurement exceeding 3/8 inch is cause for rejection. A vertical measurement is also taken between the control fixture plate and the crane hook support surface of the master ring of the sling. This dimension shall be 27 inches plus or minus 5/8 inch.

4.5.4.2 Four-legged sling. The four hooks of the sling are attached to the four lifting eyes of the government-furnished dimensional control fixture, per Dwg AC200000570. The sling is then suspended. Measurements are then taken between the bowl of the hook and the underside of the lifting eye for the slack hook if any. A measurement exceeding 1/4 inch is cause for rejection. A vertical measurement is also taken between the control fixture plate and the crane hook support surface of the master ring of the sling. This dimension shall be 42 plus or minus 1/2 inch.

4.5.5 Hook and handle alignment test. The sling shall be freely suspended from its master ring and conform to the requirements specified in 3.13. Any sling which does not conform shall be declared defective.

5. PACKAGING

5.1 Packaging requirements.

5.1.1 Level A. Package the following items in accordance with the appropriate special packaging instruction (SPI).

<u>Nomenclature</u>	<u>Part number</u>	<u>Special packaging instructions</u>
Sling, Multiple (6) Leg	AC200000332	P200000332
Sling, Multiple (4) Leg	AC200000398	PAC200000398
Beam, Single	AC200000354	P200000354

MIL-S-70615A (AR)

Beam, Double	AC200000364	P200000364
Safety Hook with Swivel	AC200000375	P200000375
Link Positioning Weldment	AC200000376	P200000376
Center Hook Mounting Bolt	AC200000377	P200000377
Instruction Placard, 6-Legged Sling and Beams	AC200000576	PAC200000576
Instruction Placard, 4-Legged Sling	AC200000577	PAC200000577
Combination of Adopted Items, 4-Legged Sling	1398-01-083-9313	PAC200000579
Combination of Adopted Items, 6-Legged Sling	3940-01-247-7400	PAC200000580
Combination of Adopted Items, Single Beam	3940-01-247-3681	PAC200000589
Combination of Adopted Items, Double Beam	3940-01-247-3682	PAC200000590

5.1.2 Levels B & C. Levels B & C Packaging shall be in accordance with special packaging instruction listed in 5.1.1.

5.2 Marking. Mark in accordance with appropriate special packaging instruction (SPI).

6. NOTES

6.1 Intended use.

6.1.1 Six-legged sling and lifting beams. The basic sling is used for lifting one, two or three pallets of 155mm projectiles, or one or two pallets of 8-inch projectiles. Two basic slings can be attached to the single lifting beam, which increases the capacity to six pallets of 155mm projectiles or four pallets of 8-inch projectiles. Four basic slings can be attached to the double lifting beam, which increases the capacity to twelve pallets of 155mm projectiles or eight pallets of 8-inch projectiles.

6.1.2 Four-legged sling and lifting beams. The basic sling is used for picking up a single ammunition pallet having top lift capability, i.e., Army metal pallets with top frame and four lifting rings. Some specialized light weight pallets (less than 2,000 pounds) may be developed with only two lifting rings on center which would enable the sling to pick up two special pallets at a time. Small ammunition containers within the load capacity, spread and hook size may be identified for lifting by this sling. The sling is a substitute sling for lifting projectile pallets but is not as efficient as the six-legged sling. The Air Force may utilize this sling for lifting up to two 2,000 pound bombs at a time. The basic sling is used 2 each with the single lifting beam

MIL-S-70615A (AR)

to lift 2 Army top lift (metal) pallets at a time. The sling is used 4 each with the double beam to lift 4 Army top lift (metal) pallets at a time.

6.1.3 Dimensional control.

6.1.3.1 Six-legged sling. The basic sling is used for lifting one, two or three pallets and, when used with the double beam, up to twelve pallets are lifted. Projectile pallets are characterized by plank tops and plank bottoms mounted on 4 x 4 skids. If the six-legged sling does not lift the pallets uniformly, the plank tops and bottoms may override adjacent pallets and interfere with the proper deposition of the load. Therefore, sling reach uniformity (characterized by the center pair being shorter than the two outer pairs) is controlled by use of a dimensional control fixture, Dwg AC200000365.

6.1.3.2 Four-legged sling The slings are utilized to pick up ammunition pallets or containers which are semi-rigid. When four hook points are utilized, the item being lifted must conform to the reach of the four hooks or else the load is only on three legs of the sling. Dimensional control insures that the four sling legs are within the flexibility of the pallet or container. Sling height control (the distance from top of the pallet/ container to the crane hook) insures that truck mounted cranes of limited lift height will be able to clear the truck bed when lifting a known load height.

6.2 Acquisition requirements. Acquisition documents should specify the following:

- a. Title, number and date of this and the item detail specifications.
- b. Quantity required and delivery schedules.
- c. Quality Conformance Inspection, if other than specified in Section 4 of item detail specification.
- d. First article sample requirements, if other than specified in Section 4 of item detail specification.
- e. Packaging requirements, if other than specified in Section 5 of item detail specification.
- f. Certificates of conformance for each lot or shipment of product (see 4.1.2).

6.3 Standard measuring and test equipment (SMTE). Where standard measuring and test equipment is specified as the method of inspection, the contractor may use any type of industry-developed, commercially-available, multi-usage equipment or special inspection and test equipment approved for the government. The contractor shall be responsible for utilizing SMTE, which shall assure full form for the entire surface of the specified characteristic. See 6.4 if non-standard measuring and test equipment is to be utilized.

6.4 Inspection equipment designs. Inspection equipment designs are of two types: Government Special Inspection Equipment (SIE) designs and contractor designs. If contractor designs are to be utilized which differ

MIL-S-70615A (AR)

from Standard Measuring and Test Equipment as defined in 6.3, or if contractor designed test equipment is utilized to adapt SMTE to a special application, or if alternate or modified SIE is proposed, refer to paragraph 6.4, "Inspection equipment designs" MIL-A-48708 for applicable provisions.

6.4.1 SIE designs. SIE designs may consist of any of the following:

a. Detailed drawings which completely depict all information necessary for the fabrication and use of the item of inspection equipment.

b. A source control drawing or a specification control drawing as defined in MIL-STD-100.

c. An envelope drawing, as defined in MIL-STD-100, which establishes the criteria which a detailed design shall meet. When envelope drawings are specified, the contractor shall prepare designs which comply with the criteria within.

6.4.2 Contractor designs. Contractor designs are required for all inspection equipment for which SIE designs are not specified and may include SMTE (see 6.3). Refer to paragraph 6.4.2, "Contractor designs", MIL-A-48708 for applicable provisions.

6.4.3 Submission of designs for approval. Contractor designs shall be approved by the government prior to fabrication or procurement of the equipment. Refer to paragraph 6.4.3, "Submission of designs for approval", MIL-A-48708 for applicable provisions. Submit designs as required to: Commander, U.S. Army Armament, Research, Development and Engineering Center, Picatinny Arsenal, NJ 07806-5000, ATTN: AMSMC-QAR-Q-I (D). This address will be specified on the Contract Data Requirements List, DD Form 1423 in the contract.

6.4.4 Automatic acceptance inspection equipment (AAIE). Equipment for which no, or minimal, human involvement is required in the acceptance determination is classified as automatic acceptance inspection equipment. This would include equipment employing probes/sensors/transducers that are automatically manipulated to perform measuring and detection functions. If a readout is provided, the equipment will be categorized as automatic even if operator interpretation is needed in the acceptance/rejection decision. If AAIE is utilized, the requirements of MIL-A-70625 shall apply in addition to the requirements as specified in MIL-A-48078 and in the applicable contract.

6.5 Equivalent test methods. Prior approval of the Contracting Officer is required for use of equivalent test methods. A description of the proposed method should be submitted through the Contracting Officer to: Commander, U.S. Army Armament Research Development and Engineering Center, ATTN: AMSMC-QAR-Q (D), Picatinny Arsenal, NJ 07806-5000. This description should include but not limited to, the accuracy and precision of the method, test data demonstrating the accuracy and precision, and drawings of any special equipment required.

6.6 Submission of alternative inspection provisions. Proposed alternative inspection provisions should be submitted by the contractor to the procuring contracting officer for evaluation and approval by the technical

MIL-S-70615A (AR)

activity responsible for preparation of the specification.

6.7 Change from previous issue. Asterisks (or vertical lines) are not used in this revision to identify changes with respect to the previous issue due to the extensiveness of the changes.

6.8 Subject term (key word) listing.

Lifting beams
Pallets
Projectiles, 8-inch
Projectiles, 155mm
Slings, top lift

Custodian
Army-AR

Preparing Activity
Army-AR

(Project 3940-A046)

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

INSTRUCTIONS

1. The preparing activity must complete blocks 1, 2, 3, and 8. In block 1, both the document number and revision letter should be given.
2. The submitter of this form must complete blocks 4, 5, 6, and 7.
3. The preparing activity must provide a reply within 30 days from receipt of the form.

NOTE: This form may not be used to request copies of documents, nor to request waivers, or clarification of requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements.

I RECOMMEND A CHANGE:

1. DOCUMENT NUMBER
MIL-S-70615A(AR)

2. DOCUMENT DATE (YYMMDD)
25 January 1991

3. DOCUMENT TITLE

SLINGS, TOP-LIFT, FAMILY OF SLINGS

4. NATURE OF CHANGE (Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets if needed.)

5. REASON FOR RECOMMENDATION

6. SUBMITTER

a. NAME (Last, First, Middle Initial)

b. ORGANIZATION

c. ADDRESS (Include Zip Code)

d. TELEPHONE (Include Area Code)

7. DATE SUBMITTED (YYMMDD)

(1) Commercial
(2) AUTOVON
(If applicable)

8. PREPARING ACTIVITY

a. NAME

US ARMY ARDEC
STANDARDIZATION OFFICE

b. TELEPHONE (Include Area Code)

(1) Commercial (201) 724-6662 (2) AUTOVON 880-6662

c. ADDRESS (Include Zip Code)

ATTN: SMCAR-BAC-S
PICATINNY ARSENAL, NJ 07806-5000

IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT:
Defense Quality and Standardization Office
5203 Leesburg Pike, Suite 1403, Falls Church, VA 22041-3466
Telephone (703) 756-2340 AUTOVON 289-2340