

MIL-STD-406

1 February 1957

MILITARY STANDARD

VISUAL INSPECTION STANDARDS

FOR

TERNE PLATE CANS AND

STEEL BOXES USED IN SMALL

ARMS AMMUNITION PACKAGING



MIL-STD-406
1 February 1957

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE
WASHINGTON 25, D. C.

Supply and Logistics

Visual Inspection Standards for
Terne plate Cans and Steel Boxes
Used in Small Arms Ammunition Packaging
MIL-STD-406

1. This standard has been approved by the Department of Defense and is mandatory for use by the Departments of the Army, the Navy, and the Air Force, effective 1 March 1957.
2. In accordance with established procedure, the Standardization Division has designated the Ordnance Corps, the Bureau of Ordnance, and the Air Force, respectively, as Army-Navy-Air Force custodians of this standard.
3. Recommended corrections, additions, or deletions should be addressed to the Standardization Division, Office of the Assistant Secretary of Defense (Supply and Logistics), Washington 25, D. C.

MIL-STD-406
1 February 1957

FOREWORD

This standard was prepared under the direction of the Office, Chief of Ordnance, to be used to supplement specifications for steel boxes and terne plate cans used in the packaging of small-arms ammunition. It replaces the following publications on the same subject: ORD-SIP-S327, 1 April 1954, and ORD-SIP-S327, Amendment 1, 1 November 1955.

This publication serves to create a military standard which evaluates and illustrates a practical majority of defects assembled as a result of extensive surveys covering box, can and small arms ammunition manufacturing facilities.

The format used retains most of the features of the formats of the publications it replaces because experience has proved that the numbering of illustrations to conform to the numbering of visual defects in the applicable detail specifications, special treatment of indexes and specialized grouping have served to facilitate inspection, training, and general use.

CONTENTS

- 1. SCOPE AND PURPOSE**
 - 1.1 Scope**
 - 1.2 Purpose**
- 2. REFERENCED DOCUMENTS**
 - 2.1 Standards**
- 3. DEFINITIONS**
 - 3.1 General**
 - 3.2 Specific**
 - 3.2.1 Permissible defect**
 - 3.2.2 Incidental defect**
- 4. GENERAL REQUIREMENTS**
 - 4.1 General**
- 5. DETAIL REQUIREMENTS**
 - 5.1 Classification**
 - 5.1.1 Defect grouping**

1. SCOPE AND PURPOSE

1.1 Scope. This standard provides procedures for determining and evaluating defects in steel boxes and terne plate cans used in the packaging of small-arms ammunition and the standard shall be used as a supplement to pertinent specifications.

1.2 Purpose. The purpose of this standard is to--

- a. Create standardization of defect nomenclature and establish the limits of defectiveness for steel box and terne plate can acceptance inspection at vendors' plants, and receiving inspection at ammunition facilities.
- b. Provide visual defect standards for use in connection with acceptance inspection of packed ammunition.
- c. Serve as a visual aid in the training of personnel engaged in the manufacture and inspection of boxes and cans.
- d. Provide visual standards to be used as a guide in the evaluation of the resistance to corrosion of surface treated, painted steel boxes.

2. REFERENCED DOCUMENTS

2.1 Standards.

MIL-STD-105—Sampling Procedures and Tables for Inspection by Attributes.

3. DEFINITIONS

3.1 General. Definitions of Standard MIL-STD-105 are applicable.

3.2 Specific. For the purpose of this standard the following definitions shall apply:

3.2.1 Permissible defect. A condition which, though not desirable from an appearance standpoint, may be permitted for reasons of economy.

3.2.2 Incidental defect. A condition least desirable from an appearance standpoint, and the frequency of occurrence of boxes and cans having such defects is limited for acceptable lots by means of an Acceptable Quality Level.

4. GENERAL REQUIREMENTS

4.1 General. The descriptions and definitions of defects established in this standard are those commonly occurring. Any other defects not listed, present in the lot, shall be reported. If, in the opinion of the Government inspector, the other defects be serious, complete information, recommendations and request for disposition shall be submitted through proper channels.

5. DETAIL REQUIREMENTS

5.1 Classification.

5.1.1 Defect grouping. For convenience in referencing, the defect lists, defect photographs, and color tolerances are grouped as follows:

	Page
Boxes, Ammunition, Cal. .30, M19A1, and Cal. .50, M2A1, List of Defects.....	2-3
Boxes, Ammunition, Cal. .30, M19A1, and Cal. .50, M2A1, Defect Photographs.....	4 thru 30
Boxes, Ammunition, Cal. .30, M19A1, and Cal. .50, M2A1:	
Rust Tolerances (After Corrosion Resistance Test).....	31 thru 34
Color Tolerances.....	35
Cans, Ammunition, Universal, M20 and M21, List of Defects.....	36
Cans, Ammunition, Universal, M20 and M21, Defect Photographs.....	37 thru 51

MIL-STD-406
1 February 1957

LIST OF DEFECTS

Boxes, Ammunition, Cal. .30, M19A1, and Cal. .50, M2A1

No.	Defect	Page(s)
1.	Incomplete Manufacture.....	4
1-A.	Incomplete Latch.....	4
1-B.	Cover Emboss and/or Embossed Stop Missing.....	4
1-C.	Hinge Pin Missing.....	4
1-D.	Gasket Retainer Improperly Flanged.....	4
1-E.	End Handle Missing.....	5
2.	Incorrect Assembly.....	5
2-A through 2-C.	Bent or Malformed Cover Handle Clip.....	5
2-D.	Body Hinge Off-Center More Than $\frac{1}{32}$ ".....	5
2-E.	Incomplete Spot Welding.....	5
2-F and 2-G.	Cover Handle Clip Misaligned.....	6
2-H.	Cover Handle Clip Deformed.....	6
2-I.	Cover Handle Clip Not Welded.....	6
2-J.	Cover Handle Inverted.....	6
2-K through 2-M.	Gasket Retainer Not Centered.....	7
2-N and 2-O.	Gasket Out of Retainer.....	7
2-P.	Gasket Retainer Loose.....	8
2-Q.	Gasket Improperly Seated.....	8
2-R.	Gasket Incorrectly Seated on Body Hem.....	8
2-S.	Gasket Retainer Bent or Not Properly Seated at Hasp End.....	8
2-T.	Hasp Misaligned.....	9
2-U.	Hasp Not Welded.....	9
2-V.	Embossed Stops Not Engaging Underside of Hem.....	9
2-W.	Front of Body Distorted at Hem.....	9
2-X.	Manufacturer's Symbol Reversed.....	9
2-Y.	End Handle Reversed.....	9
2-Z.	Latch Link Retainer Off-Center More Than $\frac{1}{32}$ ".....	10
2-AA.	Latch Link Retainer and/or Cover Hinge Not Flush With Cover With Gap Exceeding $\frac{1}{32}$ ".....	10
2-BB.	Radius Outside Bottom.....	10
2-CC.	Body Seam on Opposite End.....	10
3.	Unsatisfactory Workmanship: Burrs, Rough Spots, Sharp Projections, Cracks, Splits, Buckles.....	10
3-A.	Burred and Sintered Bottom.....	10
3-B through 3-F.	Burrs.....	10, 11
3-G through 3-I.	Rough Spots.....	12
3-J and 3-K.	Sharp Projection.....	12
3-L through 3-N.	Buckles, Bottom.....	13
3-O and 3-P.	Buckles, End.....	13
3-Q.	Buckles or Rough Spots, Seam End, Exterior.....	13
3-R.	Convex Bottom.....	14
3-S and 3-T.	Buckle, Side.....	14
3-U.	Buckles and Convex Bottom.....	14
3-V.	Pronounced Convexity, Side.....	14
3-W and 3-X.	Concave Bottom.....	15
3-Y.	Split Hem at Seam Weld.....	15
3-Z.	Offset Seam Weld.....	15
3-AA.	Rough Seam Edge.....	15
3-BB.	Rough Bottom Mash Weld.....	15
3-CC through 3-FF.	Improper Weld Pattern.....	16
3-GG.	Double Seam, Bottom.....	16

MIL-STD-406
1 February 1957

No.	Defect	Page(s)
3.	Unsatisfactory Workmanship: Burrs, Rough Spots, Sharp Projections, Cracks, Splits, Buckles—Con.	
	3-HH. Bent Cover Handle Clip.....	17
	3-II through 3-LL. Dents.....	17
	3-MM. Bulge.....	17
	3-NN through 3-PP. Gasket Defects.....	17
	3-QQ through 3-SS. Scratches.....	18
	3-TT and 3-UU. Stress Marks.....	18
	3-VV through 3-AAA. Bent Gasket Retainer.....	19
4.	Unsatisfactory Workmanship: Chips, Dirt, Grease, Other Foreign Material, Other Defects Excluding Rust.....	20
	4-A through 4-C. Foreign Material, Interior.....	20
	4-D. Insufficient Curl.....	20
	4-E. Acid Spots, Interior or Exterior.....	20
	4-F. Foreign Material, Gasket and Gasket Retainer.....	20
	4-G. Shallow Embossed Stops.....	21
5.	Paint Defects: Incomplete or Inadequate Coverage and Rust.....	21
	5-A and 5-B. Incomplete Coverage, Exterior.....	21
	5-C and 5-D. Incomplete Coverage, Interior.....	21
	5-E and 5-F. Rust, Interior.....	22
	5-G and 5-H. Rust, Exterior.....	22
	5-I and 5-J. Rust, Hardware.....	22
	5-K through 5-P. Inadequate Coverage.....	23-24
	5-Q. Bare Spots, Latch.....	24
	5-R. Inadequate Coverage, (Broken Blister).....	24
6.	Paint Defects: Surface Imperfection, Excessive Paint, Paint Not Dry.....	25
	6-A through 6-D. Surface Imperfection.....	25
	6-E. Roughness, Interior or Exterior.....	26
	6-F and 6-G. Blisters, Interior or Exterior.....	26
	6-H through 6-M. Excessive Paint.....	27-28
	6-N. Paint Appearance.....	28
	6-O through 6-W. Paint Runs.....	29-30
	6-X. Incomplete Paint Agitation.....	30

	Rust Tolerances (After Corrosion Resistance Test).....	31, 32, 33, 34
	Color Tolerances.....	35

NOTE.—In general, except for defects where severity is not pertinent, the illustrations define the following degrees of defectiveness:

“Worst” Permissible

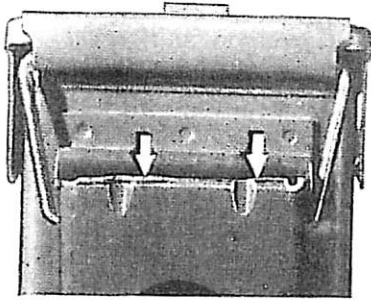
“Worst” Incidental

Example of Major (Minor when applicable).

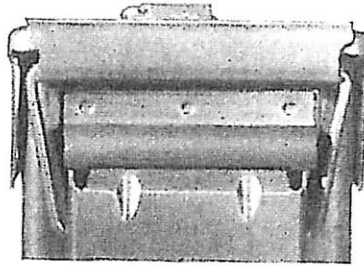
MIL-STD-406
1 February 1957

BOXES, AMMUNITION, CAL. .30, M19A1 AND CAL. .50, M2A1

No. 1. Incomplete Manufacture

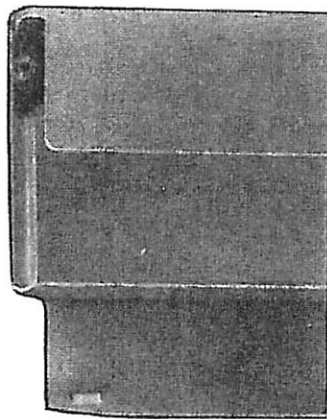


Defect

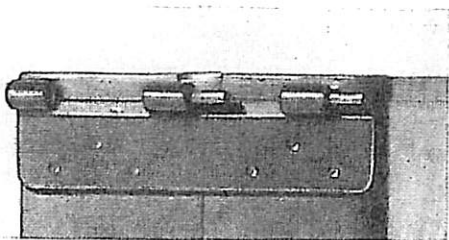


Perfect

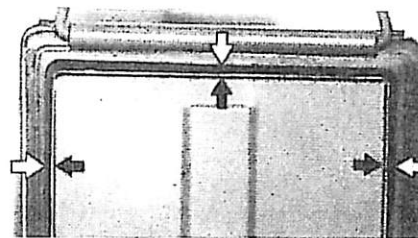
1-A. Incomplete Latch—Major



1-B. Cover Emboss and/or Embossed Stop Missing—Major

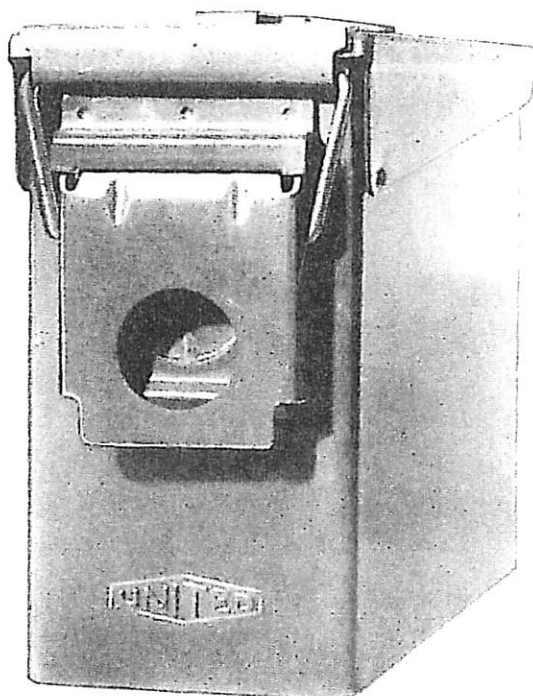


1-C. Hinge Pin Missing—Major



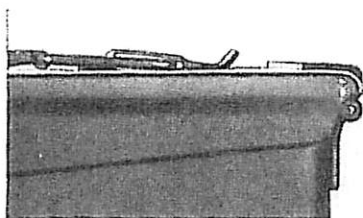
1-D. Gasket Retainer Improperly Flanged—Major

MIL-STD-406
1 February 1957

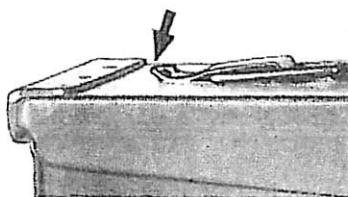


1-E. End Handle Missing—Major

—————No. 2. Incorrect Assembly—————

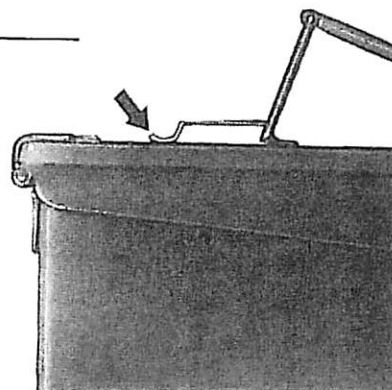


2-A. Major

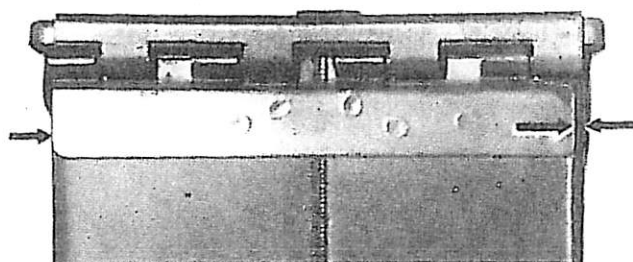


2-B. Incidental
Bent or Malformed Cover Handle Clip

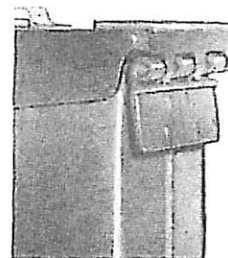
(Incidental or permissible only if clip has no sharp projections and box stacks properly; otherwise major.)



2-C. Permissible

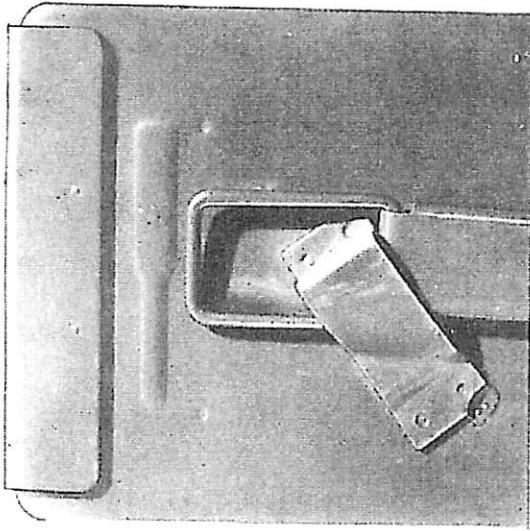


2-D. Body Hinge Off-Center More Than 1/32"—Major
(Defect is also applicable to cover hinge.)

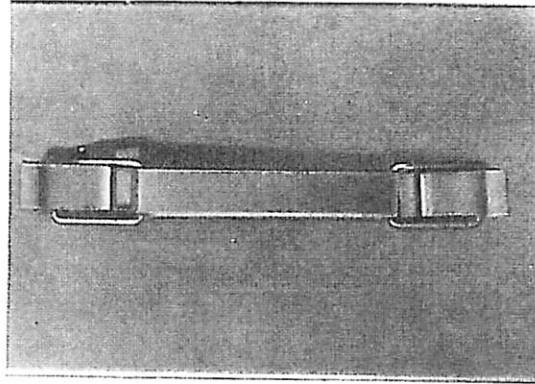


2-E. Incomplete Spot Welding, Hinge—Major
(Body hinge illustrated; defect is also applicable to cover hinge and latch link retainer.)

MIL-STD-406
1 February 1957

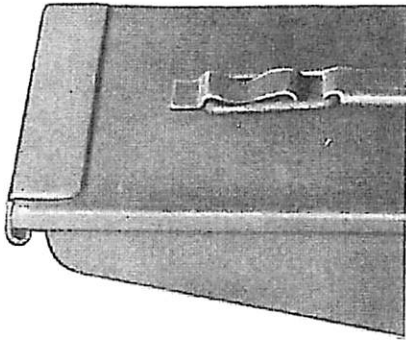


2-F. Major

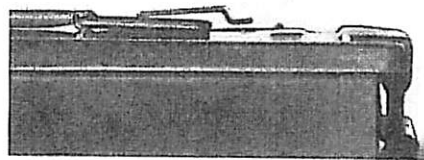


2-G. Permissible

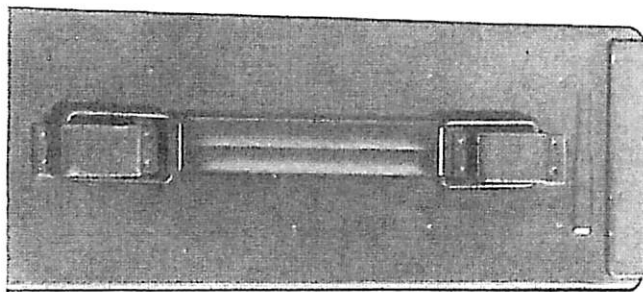
Cover Handle Clip Misaligned



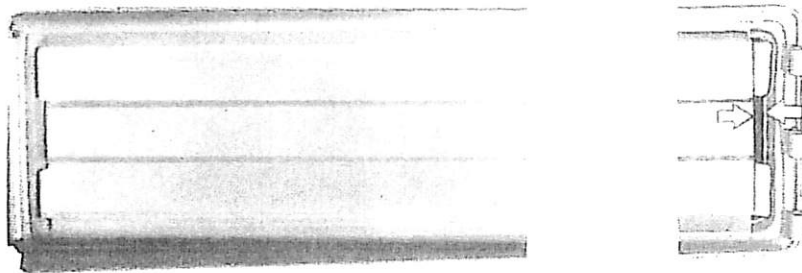
2-H. Cover Handle Clip Deformed—Major



2-I. Cover Handle Clip Not Welded—Major

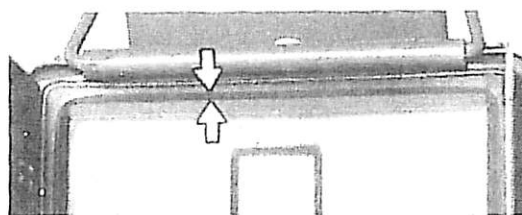


2-J. Cover Handle Inverted—Incidental



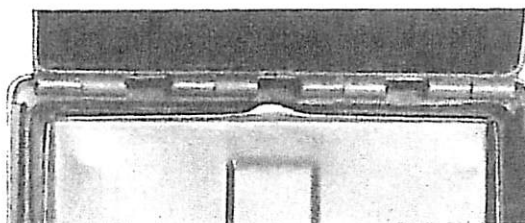
2-K. Major

(Both ends of cover assembly illustrated, showing gasket retainer too far to left.)



2-L. Major

(Causing poor seating of gasket on body hem.)



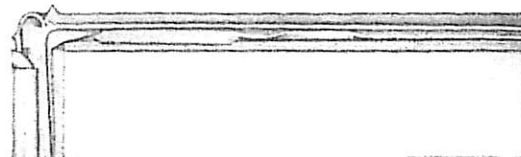
2-M. Major

(Gasket retainer located too close to cover hinge, resulting in flange interference with body hem.)

Gasket Retainer Not Centered



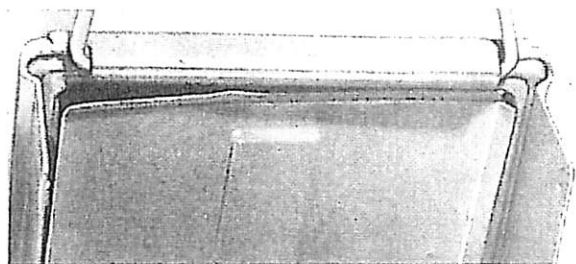
2-N. End—Major



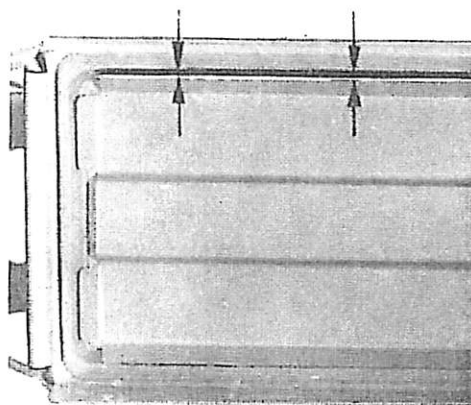
2-O. Side—Major

Gasket Out of Retainer

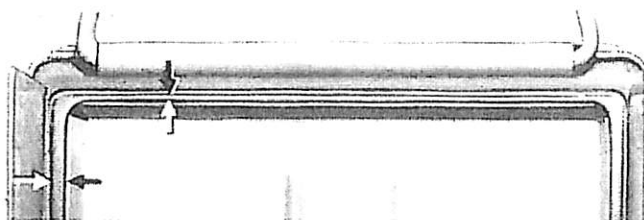
MIL-STD-406
1 February 1957



2-P. Gasket Retainer Loose—Major

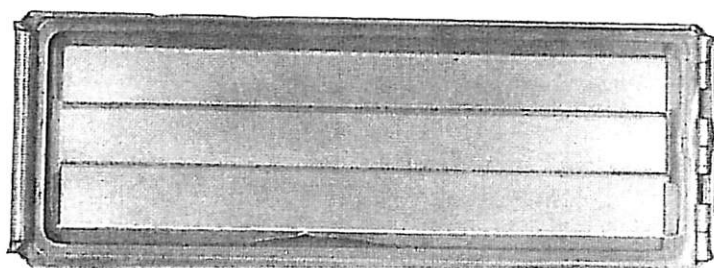


2-Q. Gasket Improperly Seated—Incidental



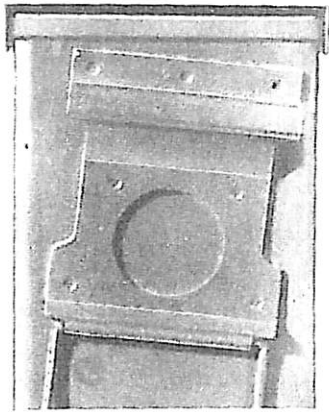
2-R. Gasket Incorrectly Seated on Body Hem—Incidental

(Gasket retainer centered. Impression of body hem too close to retainer due to unsatisfactory assembly of box.)

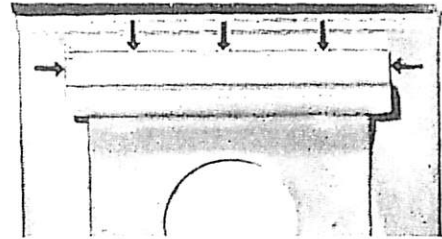


2-S. Gasket Retainer Bent or Not Properly Seated at Hasp End—Incidental

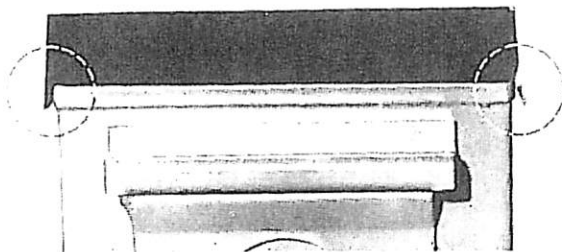
(Two defects are illustrated, either of which defines a defective box. Comparable improper seating at hinge end constitutes a major defect.)



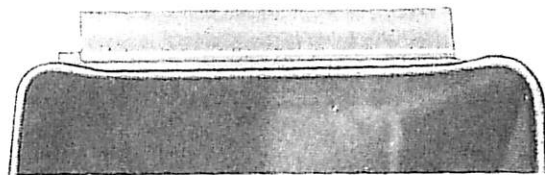
2-T. Hasp Misaligned—Major



2-U. Hasp Not Welded, Top—Major



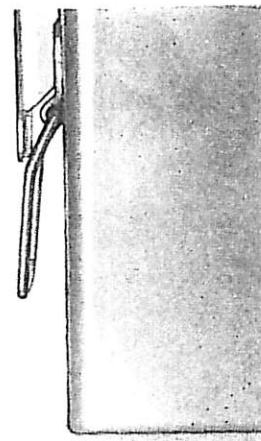
2-V. Embossed Stops Not Engaging Underside of Hem—Major



2-W. Front of Body Distorted at Hem—Major

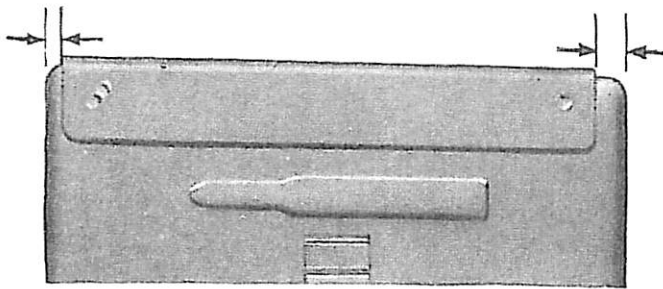


2-X. Manufacturer's Symbol Reversed—Incidental

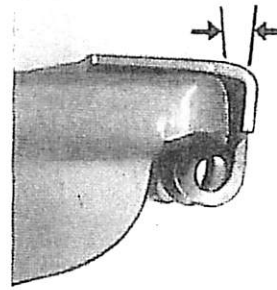


2-Y. End Handle Reversed—Incidental

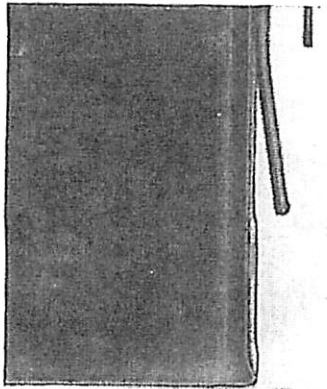
MIL-STD-406
1 February 1957



2-Z. Latch Link Retainer Off-Center More Than 1/32"—Incidental



2-AA. Latch Link Retainer and/or Cover Hinge Not Flush With Cover With Gap Exceeding 1/32"—Incidental



2-BB. Radius Outside Bottom—Permissible

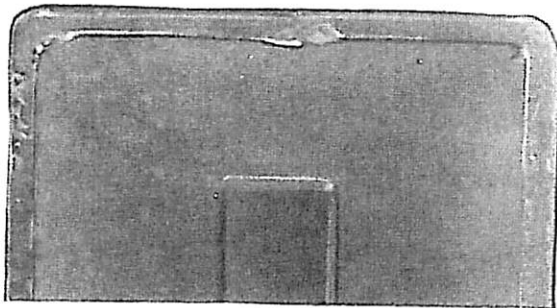
(One or more bottom corners flared, not exceeding 1/32" each corner.)

(Not Illustrated)

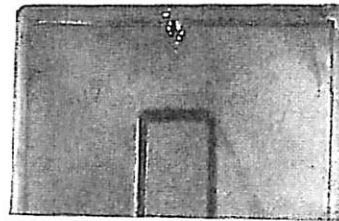
2-CC. Body Seam on Opposite End—Incidental

—————No. 3. Unsatisfactory Workmanship:—————

Burrs, Rough Spots, Sharp Projections, Cracks, Splits, Buckles

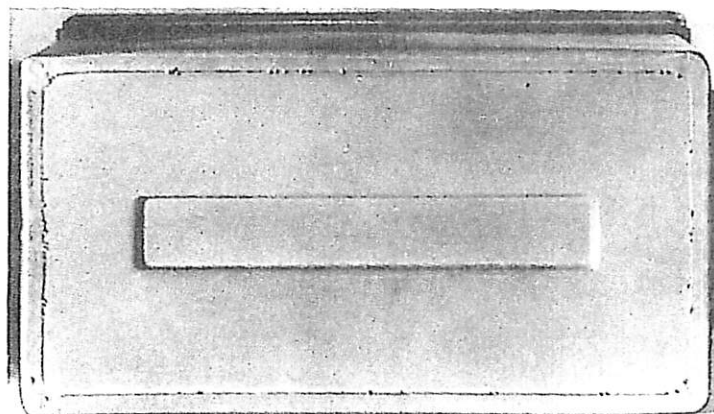


3-A. Burred and Sintered Bottom—Major



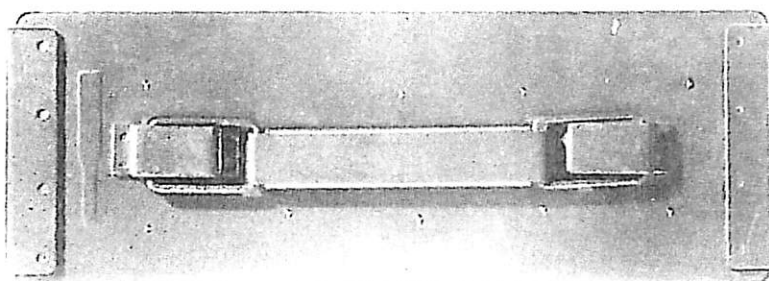
3-B. Burr, Bottom—Incidental

(Incidental only if there are no sharp projections, otherwise major.)



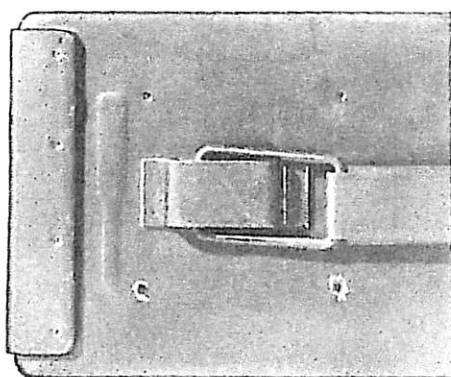
3-C. Burrs, Bottom—Permissible

(Permissible only if there are no sharp projections, otherwise major.)



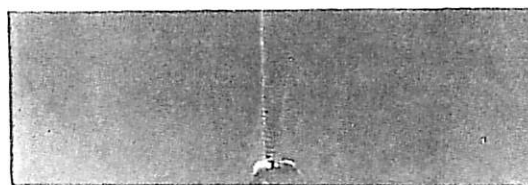
3-D. Burrs, Top—Incidental

(Incidental only if there are no sharp projections, otherwise major.)



3-E. Burrs, Top—Incidental

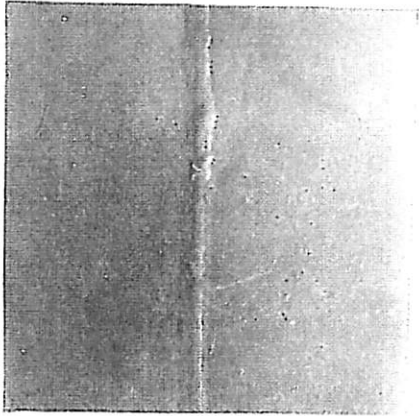
(Weld burrs. Incidental only if there are no sharp projections, otherwise major.)



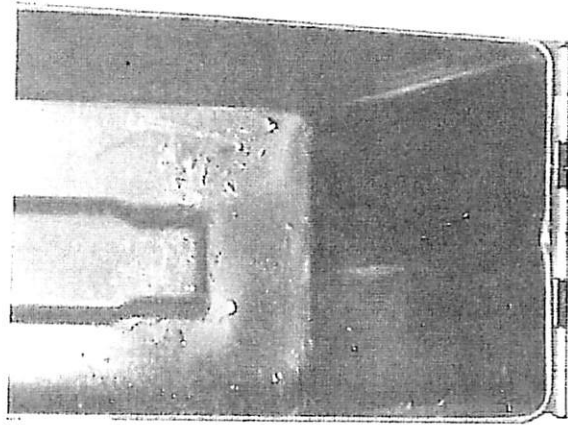
3-F. Burr, Back—Permissible

(Permissible only if there are no sharp projections, otherwise major.)

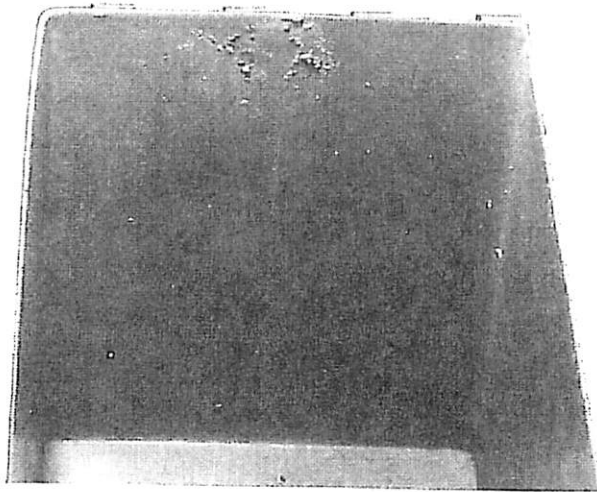
MIL-STD-406
1 February 1957



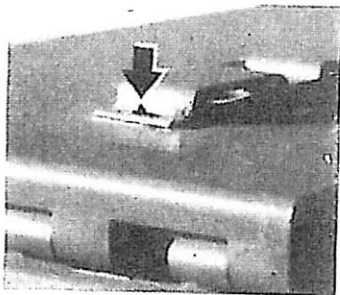
3-G. Rough Spots, Seam End, Exterior—Incidental



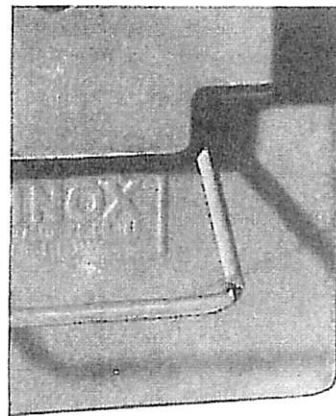
3-H. Rough Spots, Inside Bottom—Incidental



3-I. Rough Spots, Inside—Incidental



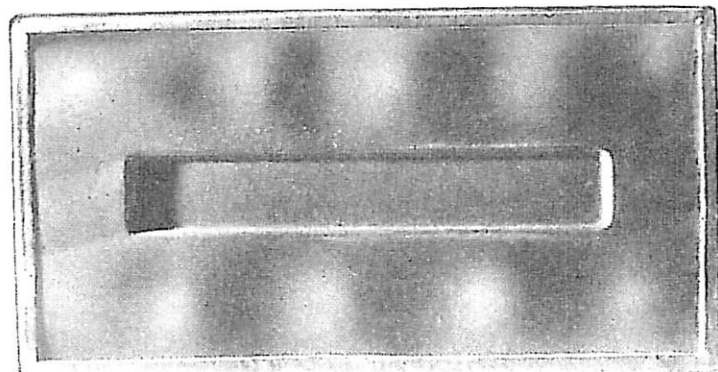
3-J. Cover Handle Clip



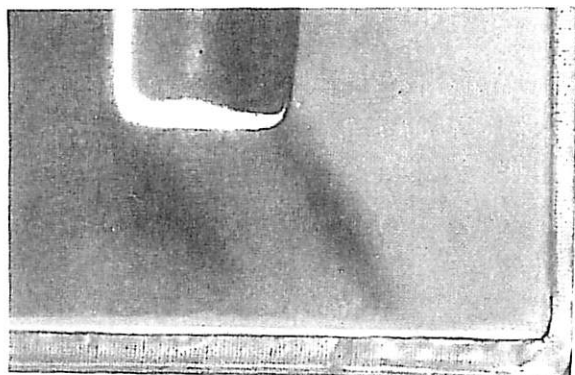
3-K. End Handle

Sharp Projection—Major

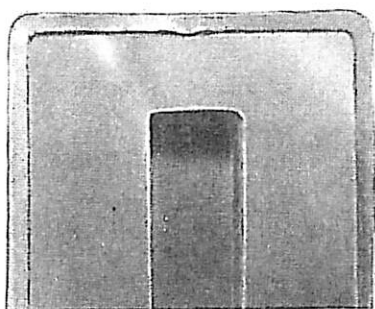
(Any sharp projection on box interior or exterior, regardless of location, is a major defect.)



3-L. Incidental

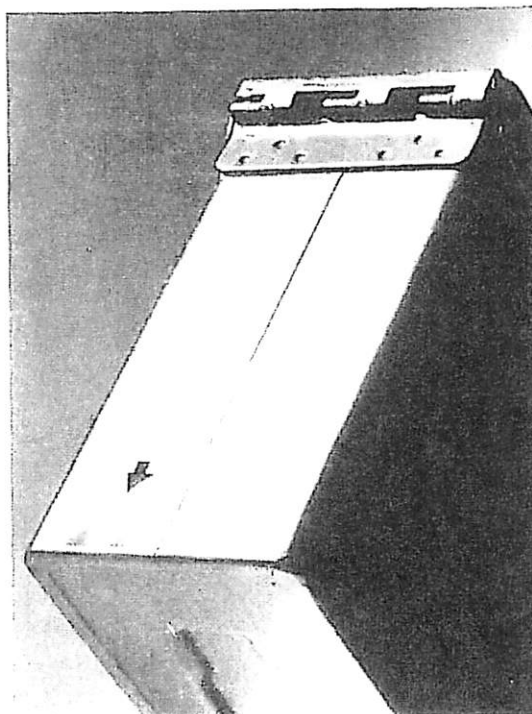


3-M. Incidental

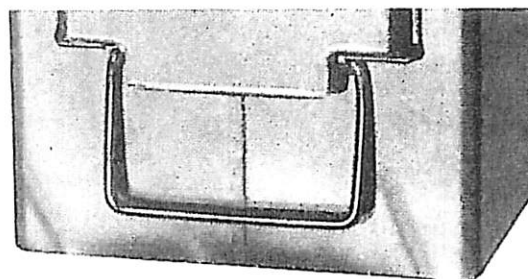


3-N. Permissible
Buckles, Bottom

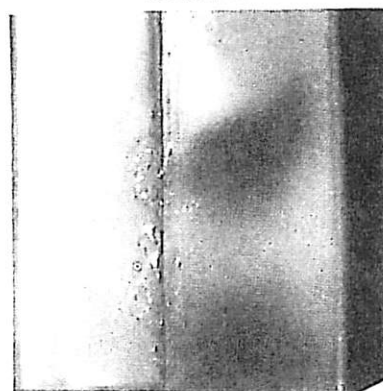
(Incidental or permissible if box stacks properly, otherwise major.)



3-O. Permissible

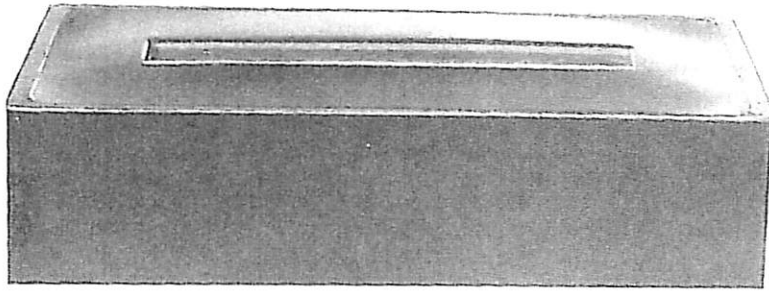


3-P. Permissible
Buckles, End

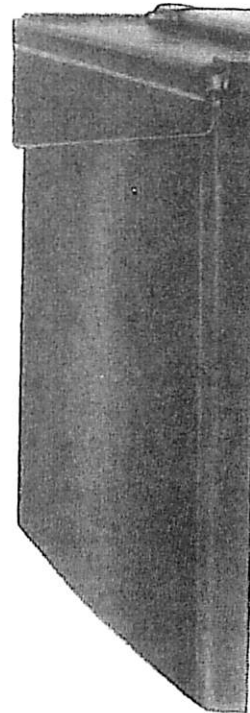


3-Q. Buckles or Rough Spots, Seam End, Exterior—
Incidental
(Two defects are illustrated, either of which defines a defective box.)

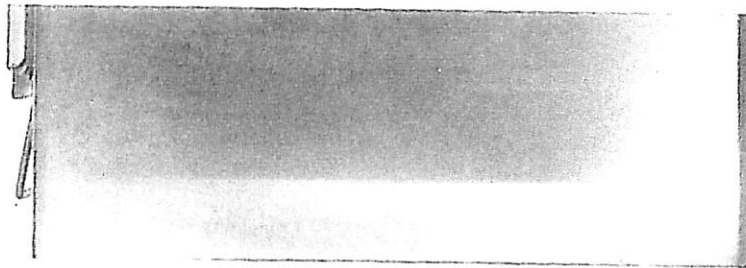
MIL-STD-406
1 February 1957



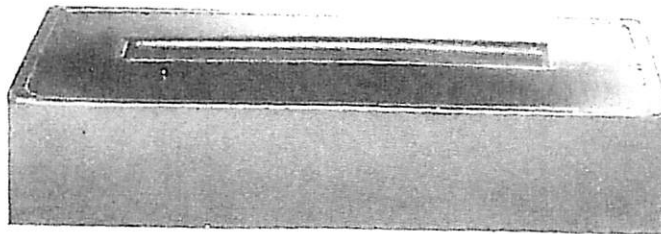
3-R. Convex Bottom—Major



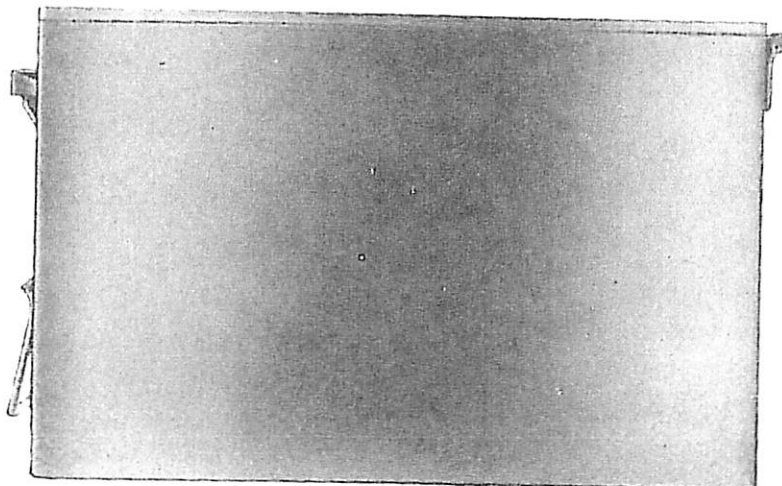
3-T. Permissible



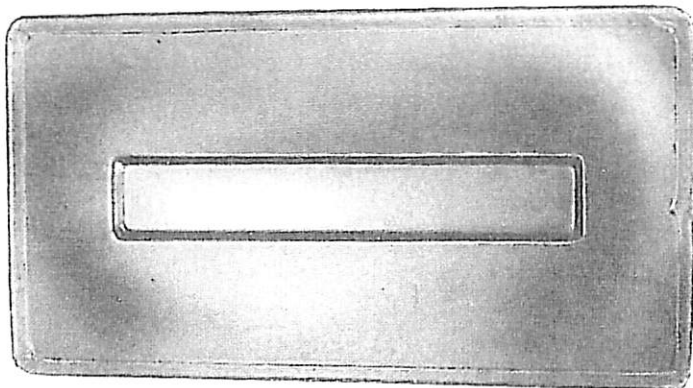
3-S. Incidental
Buckle, Side



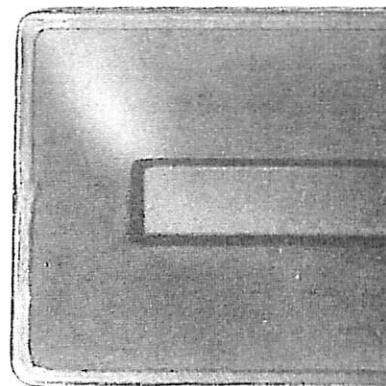
3-U. Buckles and Convex Bottom—Incidental
(Incidental if box stacks properly, otherwise major. Two defects are illustrated, either of which defines a defective box.)



3-V Pronounced Convexity, Side—Major

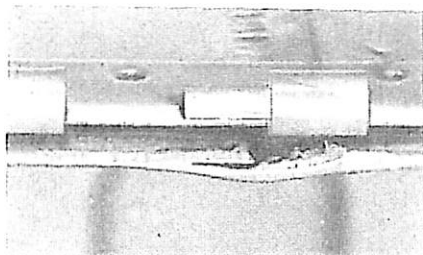


3-W. Major

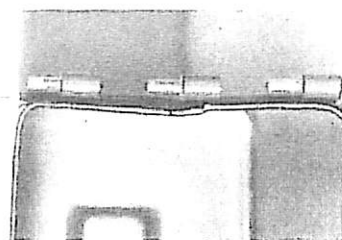


3-X. Incidental

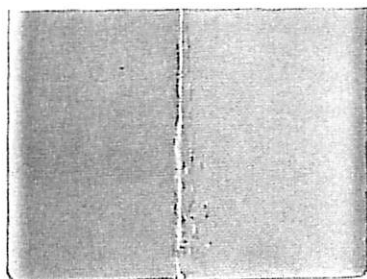
Concave Bottom



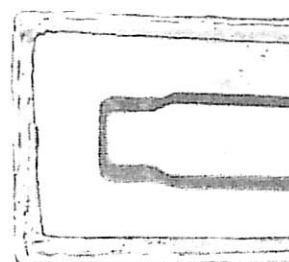
3-Y. Split Hem at Seam Weld—Major



3-Z. Offset Seam Weld—Major



3-AA. Rough Seam Edge—Major

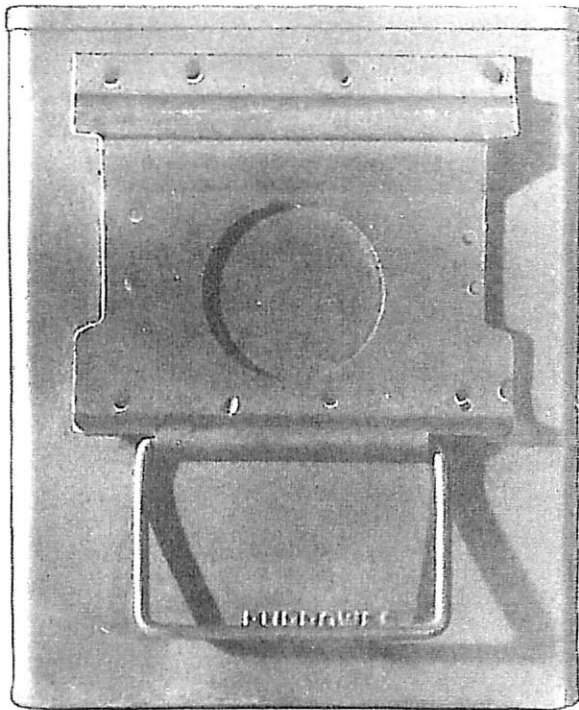


3-BB. Rough Bottom Mash Weld—Incidental

(Illustration also shows improperly turned bottom flange at seam weld, which is a major defect.)

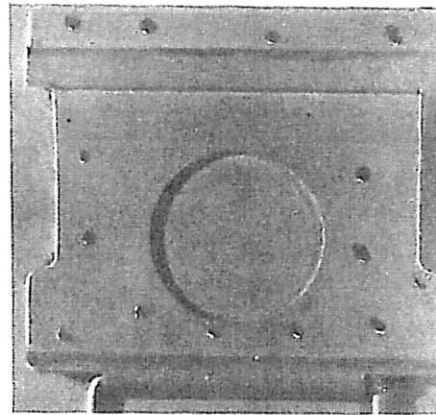
(Incidental only if there are no sharp projections, otherwise major.)

MIL-STD-406
1 February 1957

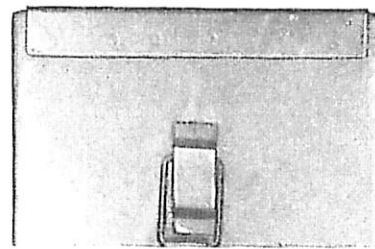


3-CC. Incidental

Improper Weld Pattern, Hasp

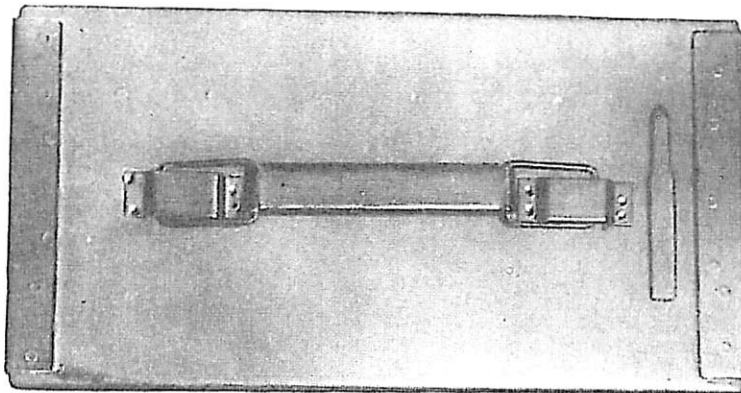


3-DD. Incidental



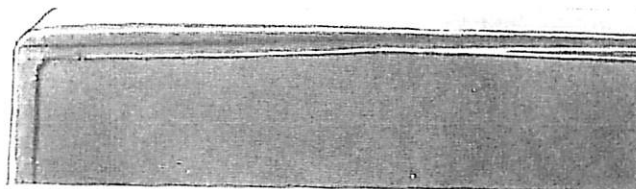
3-EE. Weld Pattern, Hinge—Permissible
(Cover hinge illustrated but comparable improper weld pattern on body hinge or latch link retainer is also permissible.)

(Box shall be included in inspection Sample B and subjected to hasp weld strength test. Defect is major if test is unsatisfactory, otherwise incidental. Box also shall be considered a defective in Sample B if it fails the strength test.)

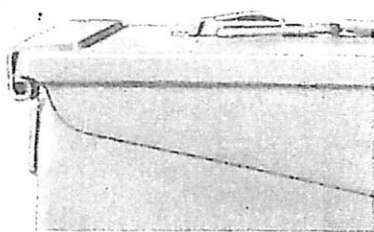


3-FF. Weld Pattern, Cover Handle Clips—Permissible

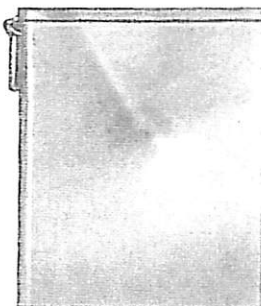
(Box shall be included in inspection Sample B and subjected to pertinent weld and assembly strength test. Defect is major if test is unsatisfactory, otherwise permissible. Box also shall be considered a defective in Sample B if it fails the pertinent weld and assembly strength test.)



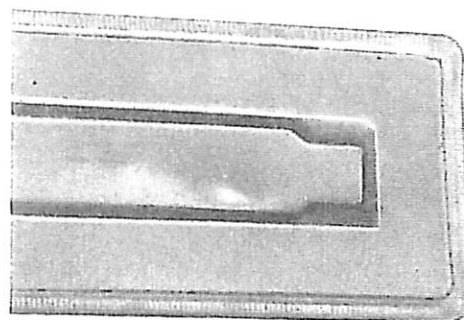
3-GG. Double Seam, Bottom—Major



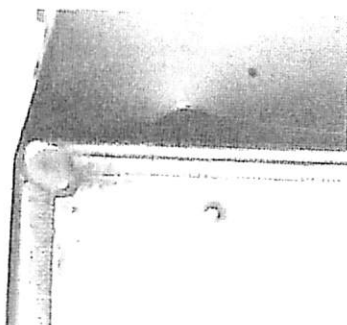
3-HH. Bent Cover Handle Clip
—Incidental
(Incidental if box stacks properly,
otherwise major.)



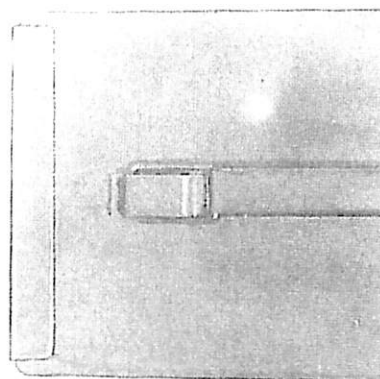
3-II. Major



3-JJ. Incidental

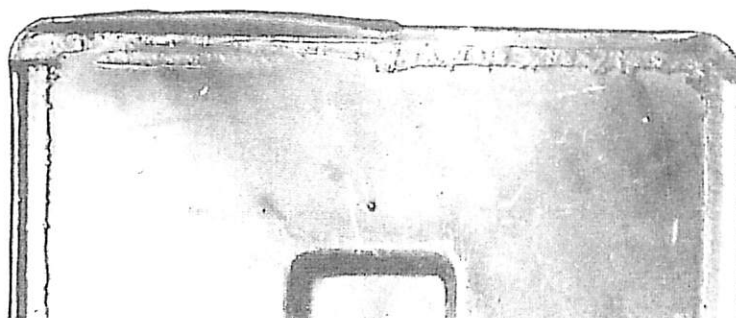


3-KK. Incidental

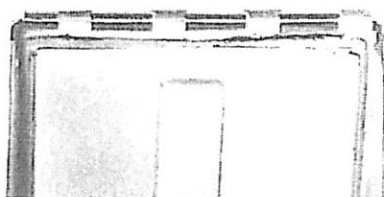


3-LL. Incidental

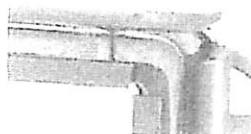
Dents
(Defect is incidental only if box stacks properly, otherwise major.)



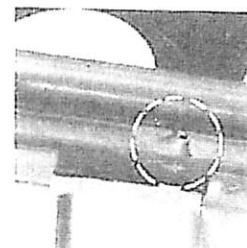
3-MM. Bulge—Major



3-NN. Split—Major

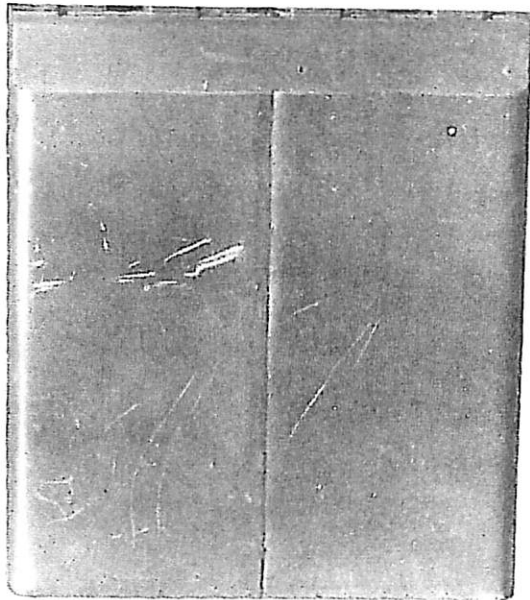


3-OO. Cut—Major
Gasket Defects

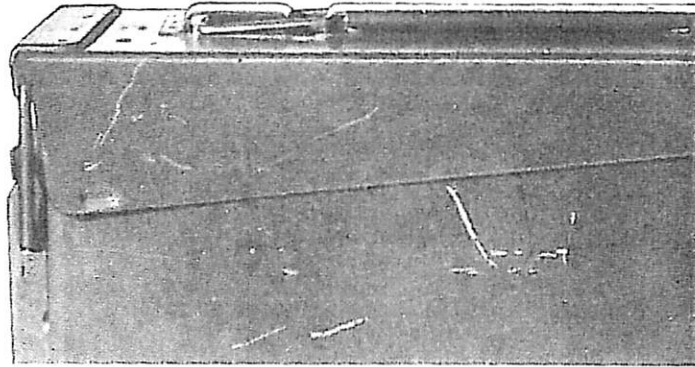


3-PP. Gas Pocket—Major

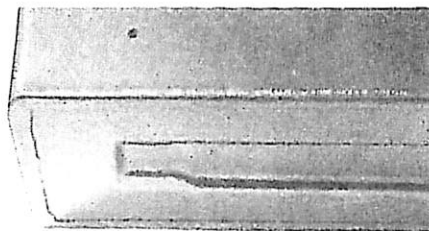
MIL-STD-406
1 February 1957



3-QQ. Incidental



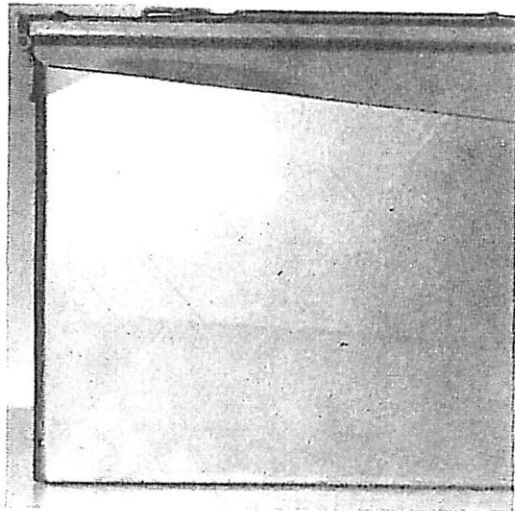
3-RR. Incidental



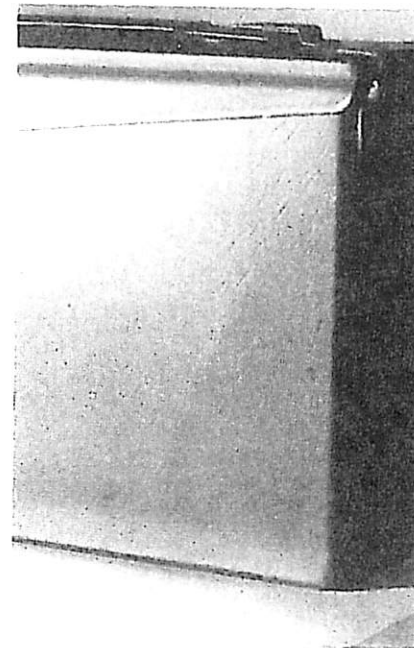
3-SS. Permissible

(Bottom Edge)

Scratches

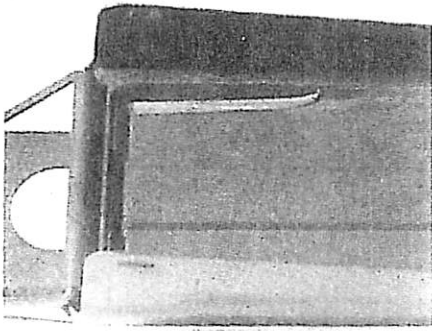


3-TT. Incidental

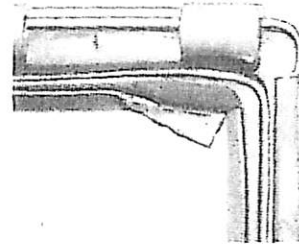


3-UU. Permissible

Stress Marks



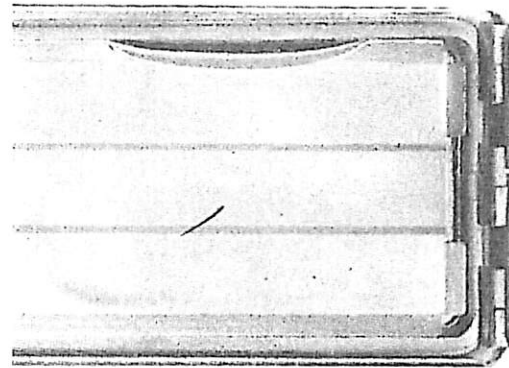
3-VV. Major



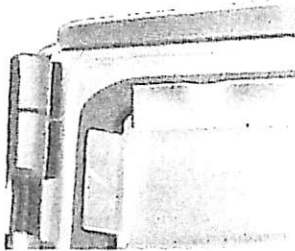
3-WW. Incidental



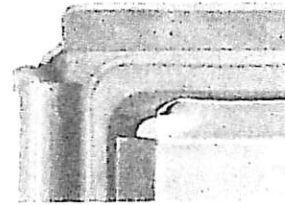
3-XX. Incidental



3-YY. Incidental



3-ZZ. Permissible



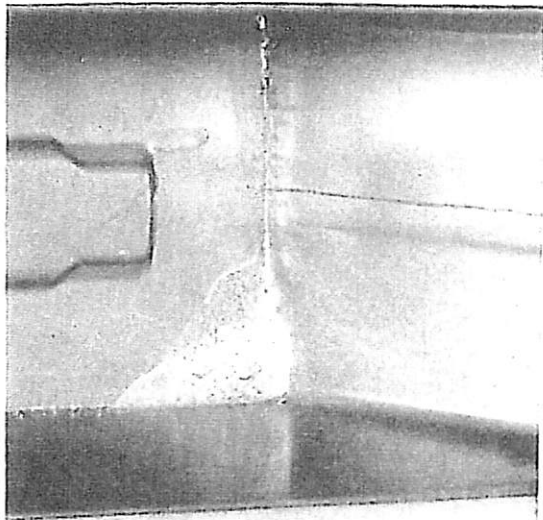
3-AAA. Permissible

Bent Gasket Retainer

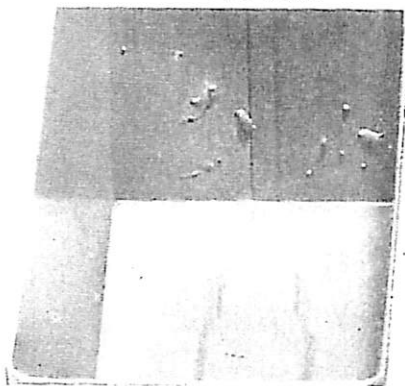
(Defect is permissible or incidental only if there are no sharp projections. See 3-J and 3-K.)

MIL-STD-406
1 February 1957

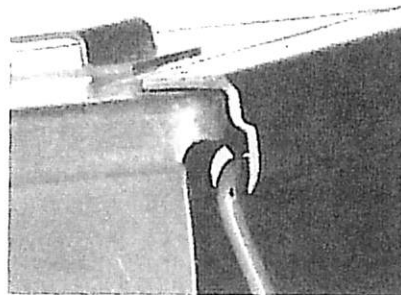
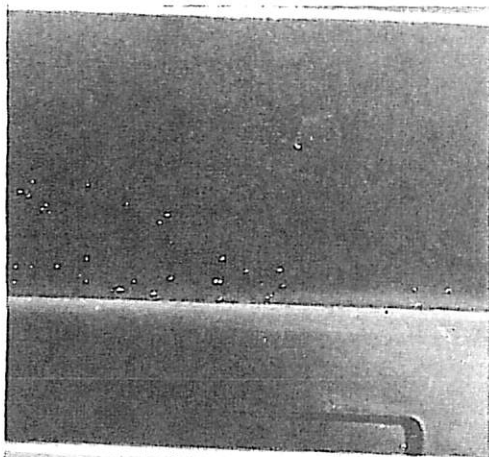
No. 4. Unsatisfactory Workmanship:
Chips, Dirt, Grease, Other Foreign Material, Other Defects Excluding Rust



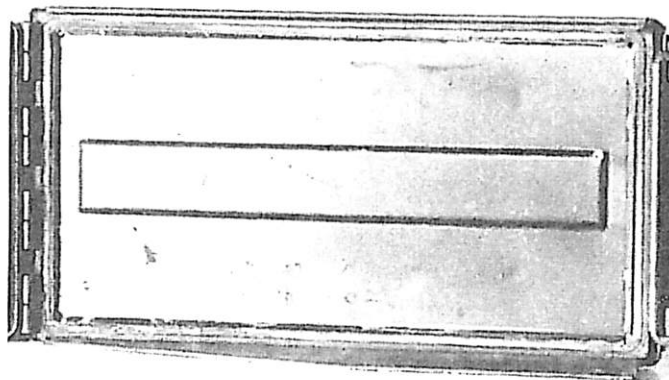
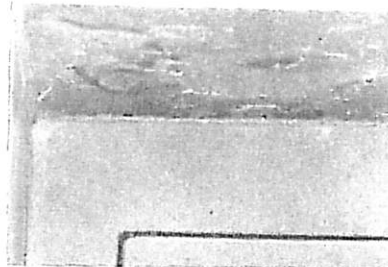
4-A. Minor



4-B. Incidental

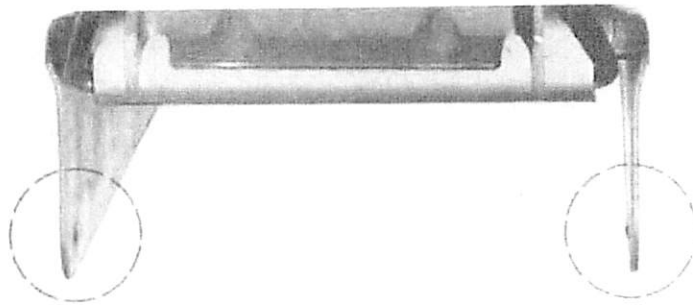


4-D. Insufficient Curl—Incidental
(Applicable also to body and cover hinge. Permissible up to 1/32" gap for Cal. .50 and 1/32" for Cal. .30. If gap exceeds allowance, box shall be subjected to latch, cover and hinge assembly strength test. Defect is minor if test is unsatisfactory, otherwise incidental. Box also shall be considered a defective in Sample B if it fails the strength test.)



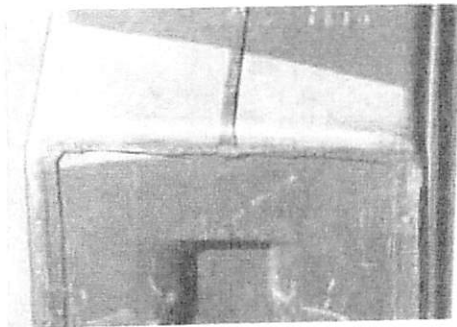
4-F. Foreign Material, Gasket and Gasket Retainer—Minor

4-C. Permissible
Foreign Material, Interior
(Defect includes imbedded as well as surface adhering foreign material.)

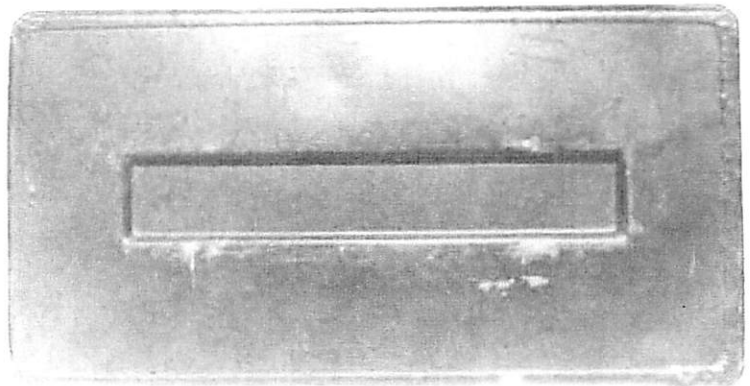


4-G. Shallow Embossed Stops—Permissible
(Permissible only if both stops engage body hem, otherwise minor.)

————— No. 5. Paint Defects: Incomplete or Inadequate Coverage and Rust —————



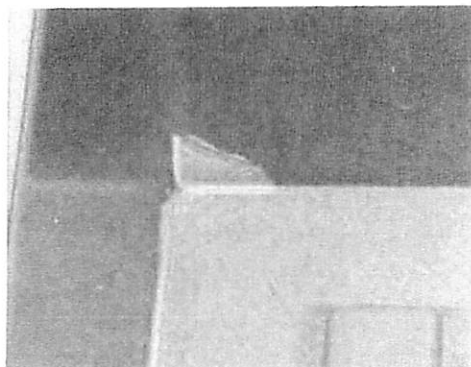
5-A. Major



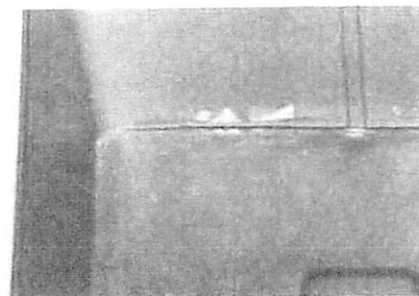
5-B. Incidental

Incomplete Coverage, Exterior

(No permissible incomplete coverage on exterior of body or cover except slight scratches such as illustrated in 3-SS. Any degree of incomplete coverage, exceeding permissible, up to 1/4 square inch is incidental. The 1/4 square inch allowance is applicable to either a single spot or the sum of several spots.)



5-C. Incidental

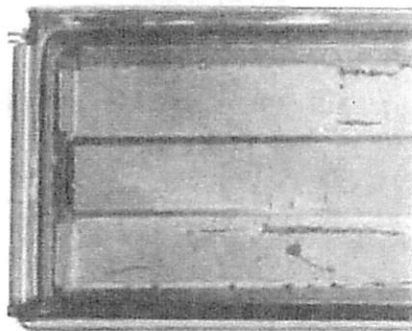


5-D. Permissible

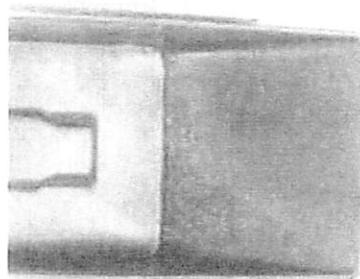
Incomplete Coverage, Interior

(Incomplete coverage exceeding 1/4 square inch, either a single spot or the sum of several spots, is a major defect.)

MIL-STD-406
1 February 1957



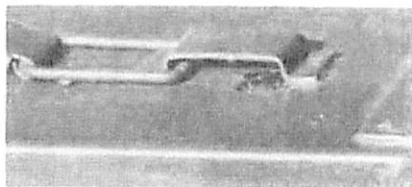
5-E. Gasket Retainer—Major



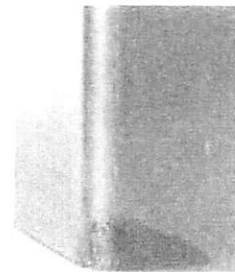
5-F. Body—Major

Rust, Interior

(Any amount of rust on interior shall be considered a major defect.)



5-G. Under Cover Handle Clip—Incidental

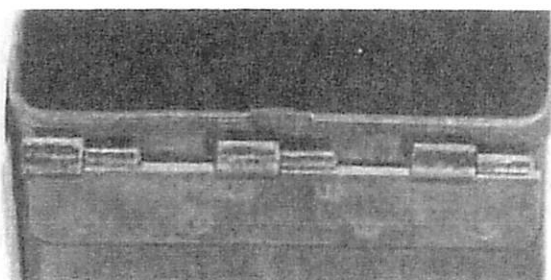


5-H. Body—Incidental

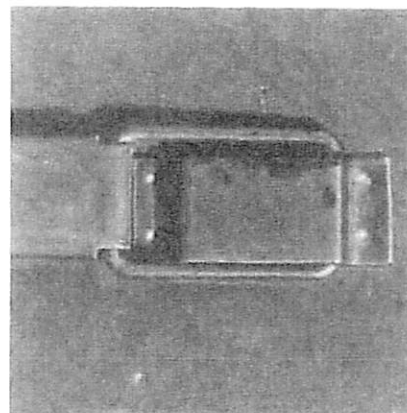
Rust, Exterior

(Hardware excluded. See 5-I and 5-J.)

(Rust up to $\frac{1}{4}$ square inch incidental, either a single spot or the sum of several spots—cover or body. Rust exceeding $\frac{1}{4}$ square inch—major.)



5-I. Hinge—Incidental

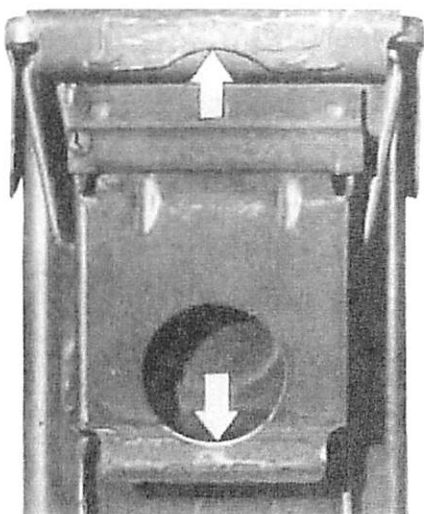


5-J. Cover Handle Clip—Incidental

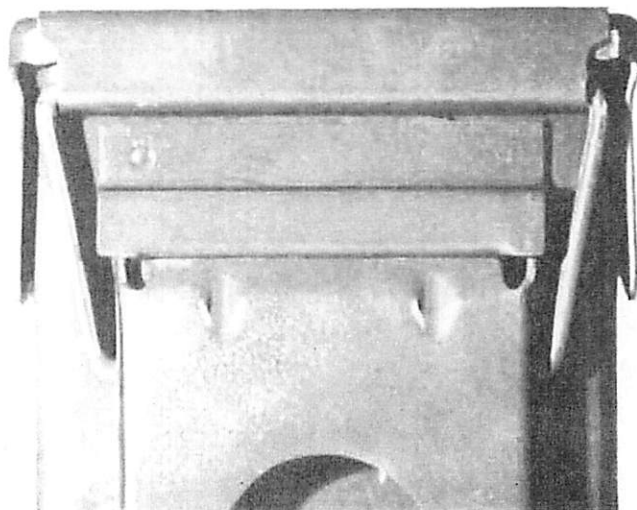
Rust, Hardware

(Rust on any hardware greater than amount shown is a major defect.)

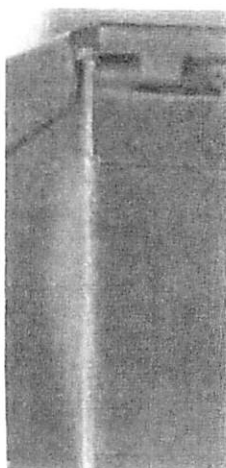
MIL-STD-406
1 February 1957



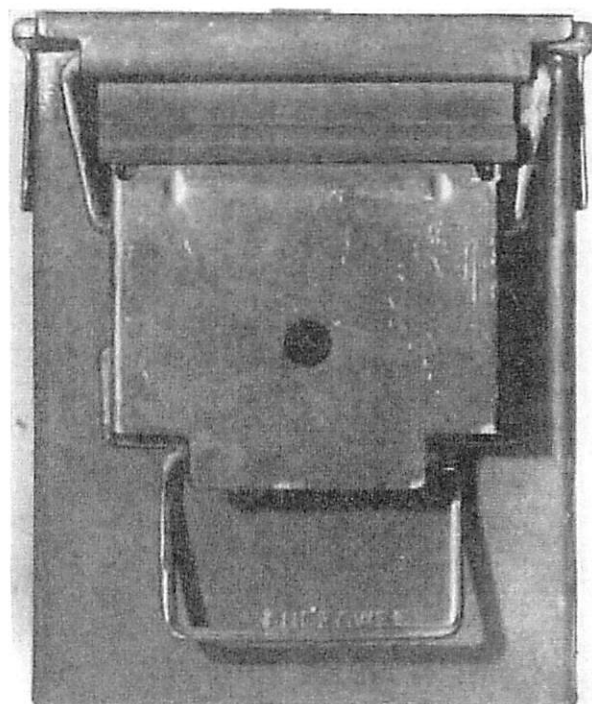
5-K. Latch—Major



5-L. Hasp and Latch—Incidental



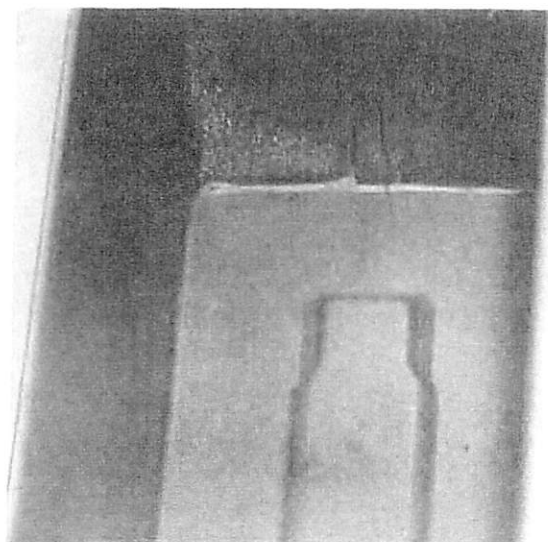
5-M. Outside Corner—Incidental



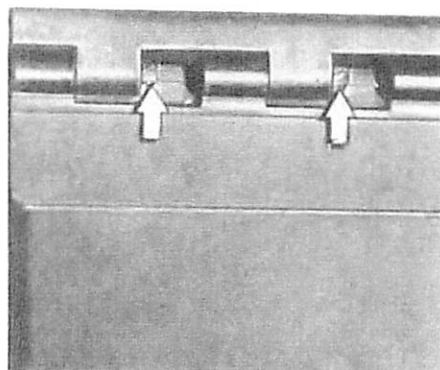
5-N. Front, Exterior—Incidental

(Incomplete and inadequate coverage both illustrated, either of which defines a defective box.)

MIL-STD-406
1 February 1957

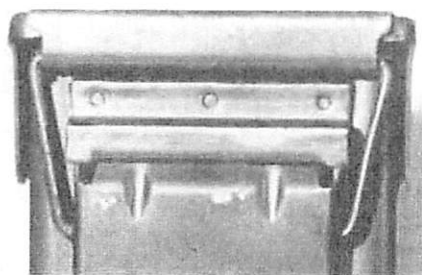


5-O. Inside—Incidental

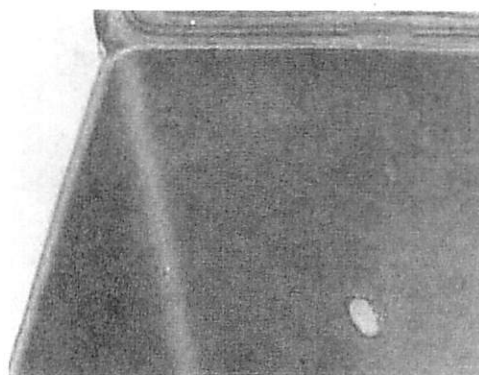


5-P. Body Hem—Permissible

Inadequate Coverage

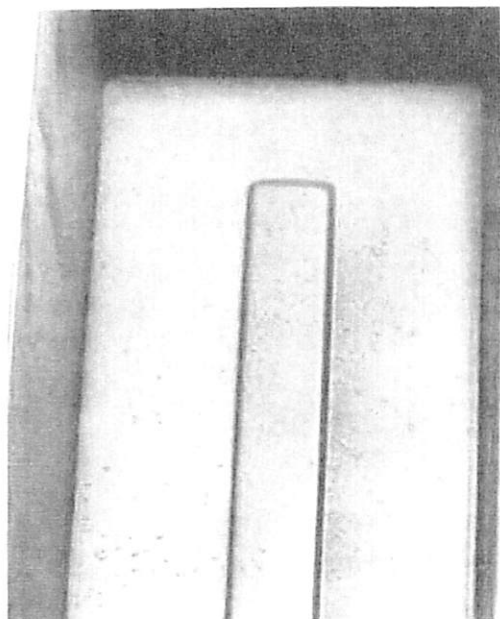


5-Q. Bare Spots, Latch—Permissible

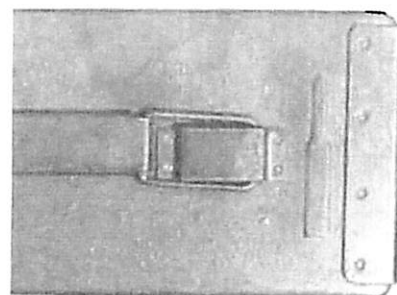


5-R. Inadequate Coverage—Permissible
(Broken Blister)

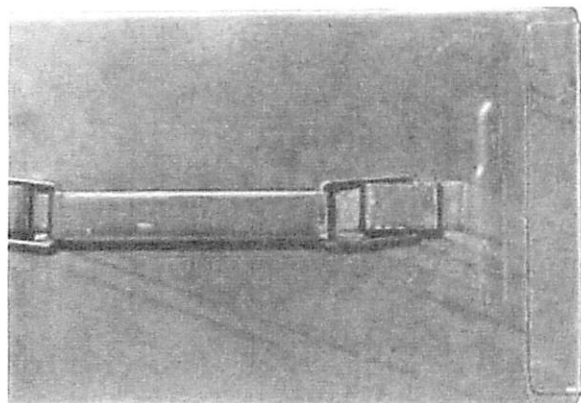
—————No. 6. Paint Defects:—————
Surface Imperfection, Excessive Paint, Paint Not Dry



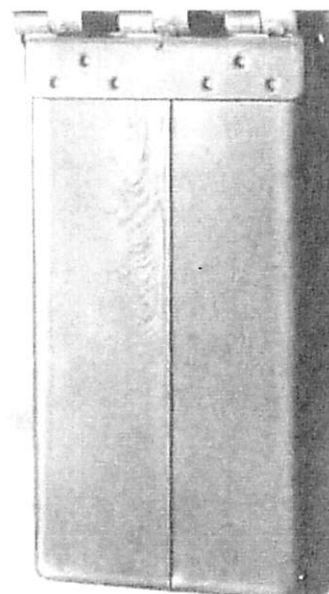
6-A. Inside Bottom—Incidental



6-B. Cover—Incidental



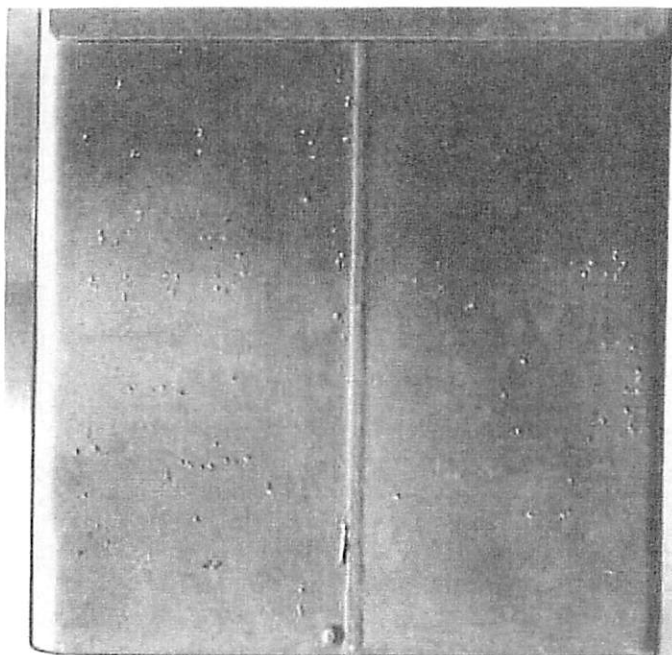
6-C. Cover—Permissible



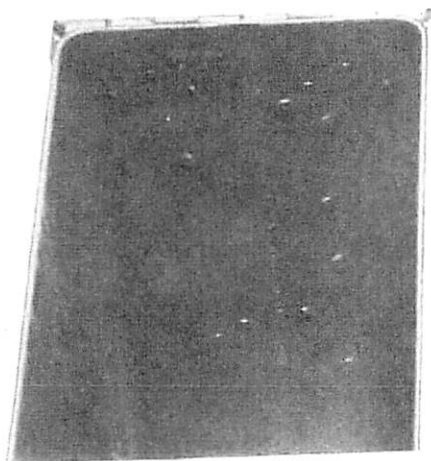
6-D. Seam End of Body—Permissible

Surface Imperfection

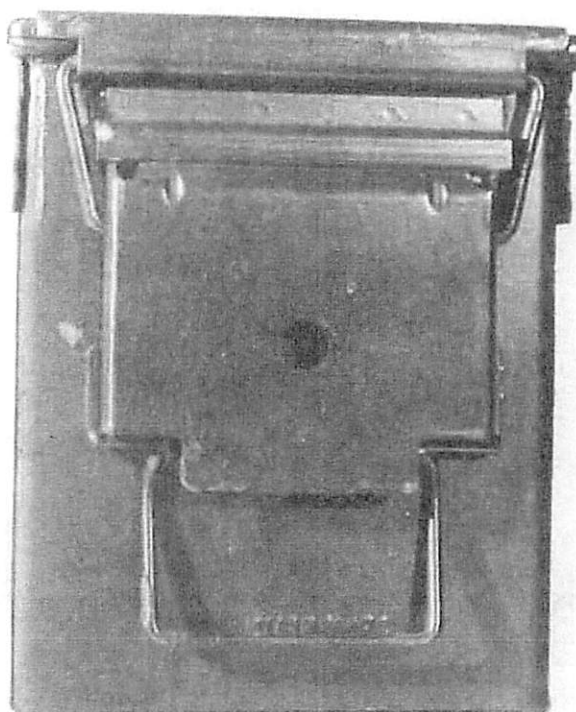
MIL-STD-406
1 February 1957



6-E. Roughness, Interior or Exterior Body—Permissible

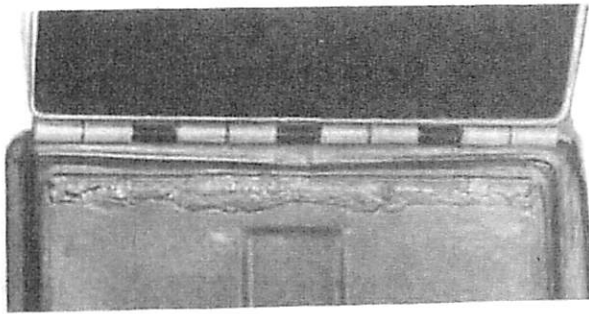


6-F. Minor

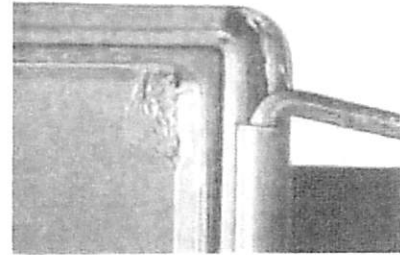


6-G. Minor

Blisters, Interior or Exterior

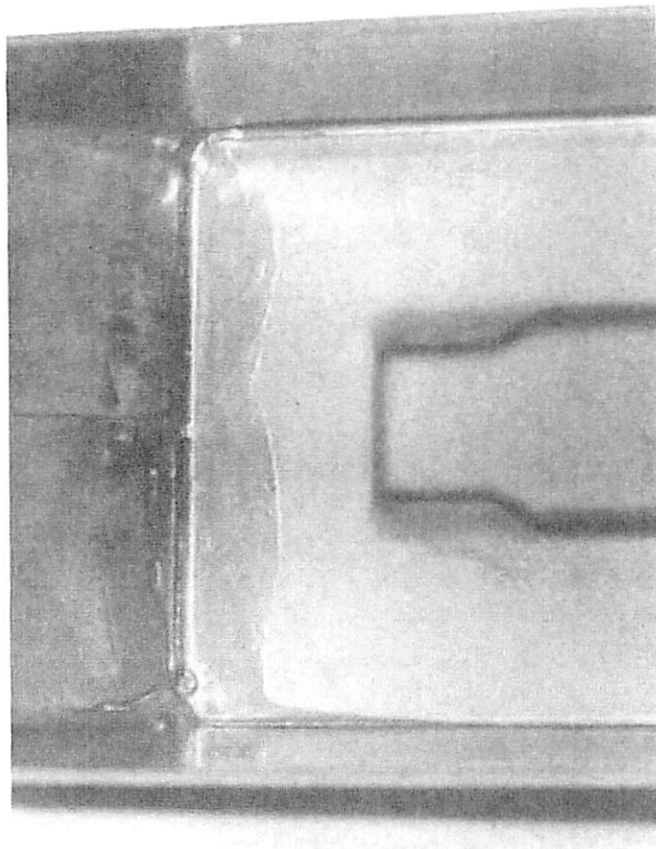


6-H. Minor



6-I. Permissible

Excessive Paint, Gasket Retainer

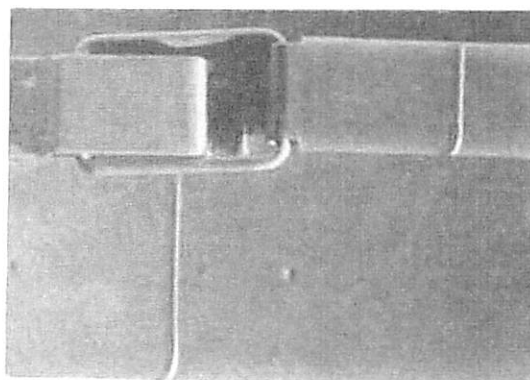


6-J. Permissible

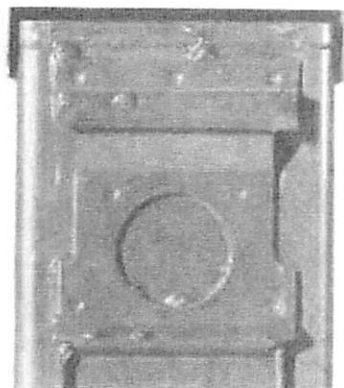
MIL-STD-406
1 February 1957



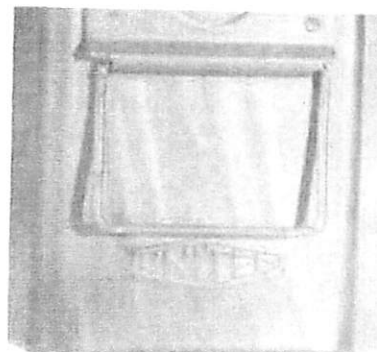
6-K. Permissible
Excessive Paint, Interior



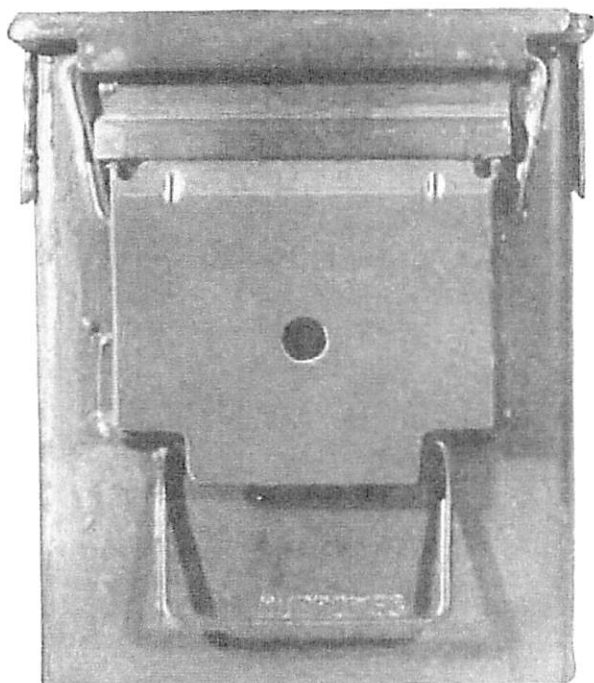
6-L. Cover and/or Handle—Permissible



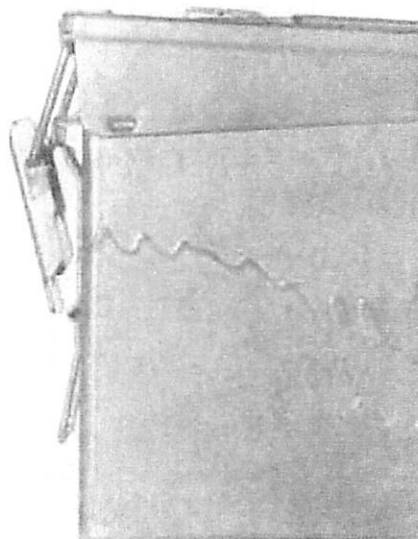
6-M. Hardware and Adjacent Box Areas—Permissible
Excessive Paint



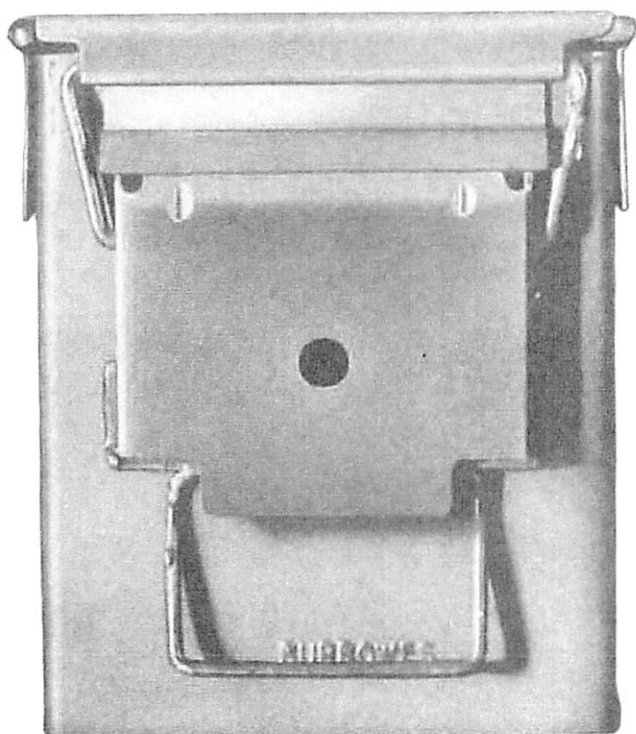
6-N. Paint Appearance—Permissible



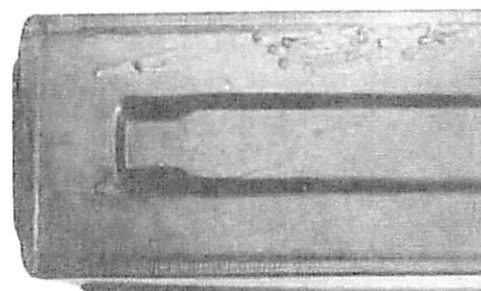
6-O. Minor



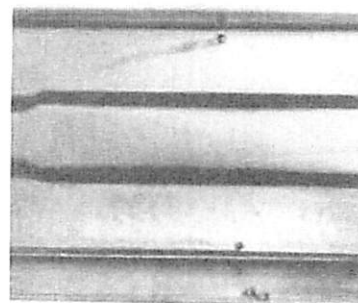
6-P. Minor



6-Q. Incidental



6-R. Incidental
(Incidental if box stacks properly, otherwise minor.)



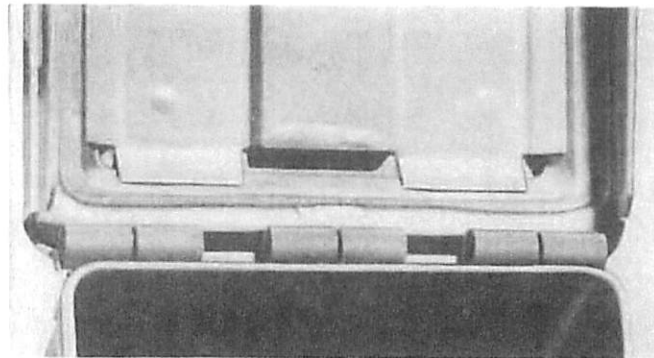
6-S. Incidental

Paint Runs

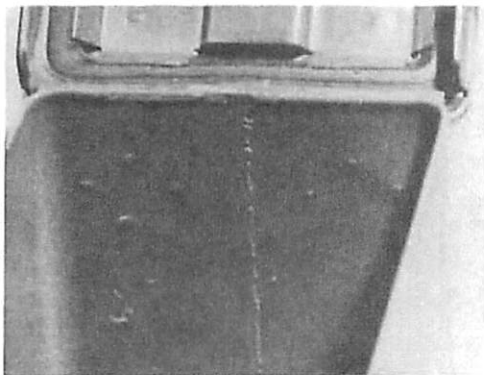
MIL-STD-406
1 February 1957



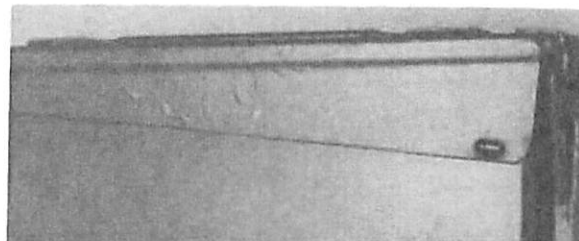
6-T. Incidental



6-U. Permissible



6-V. Permissible

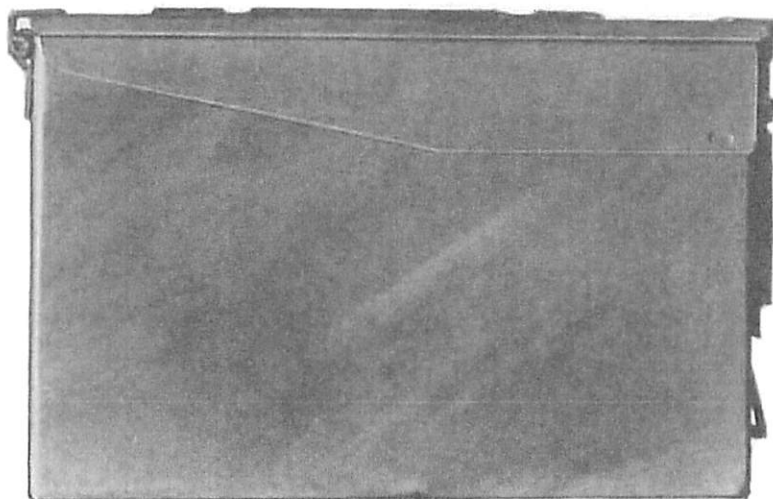


6-W. Permissible

(Note impressions of body hinge weld pattern which are not to be considered as paint runs.)

Paint Runs

(If runs are soft, defect is minor.)



6-X. Incomplete Paint Agitation—Incidental



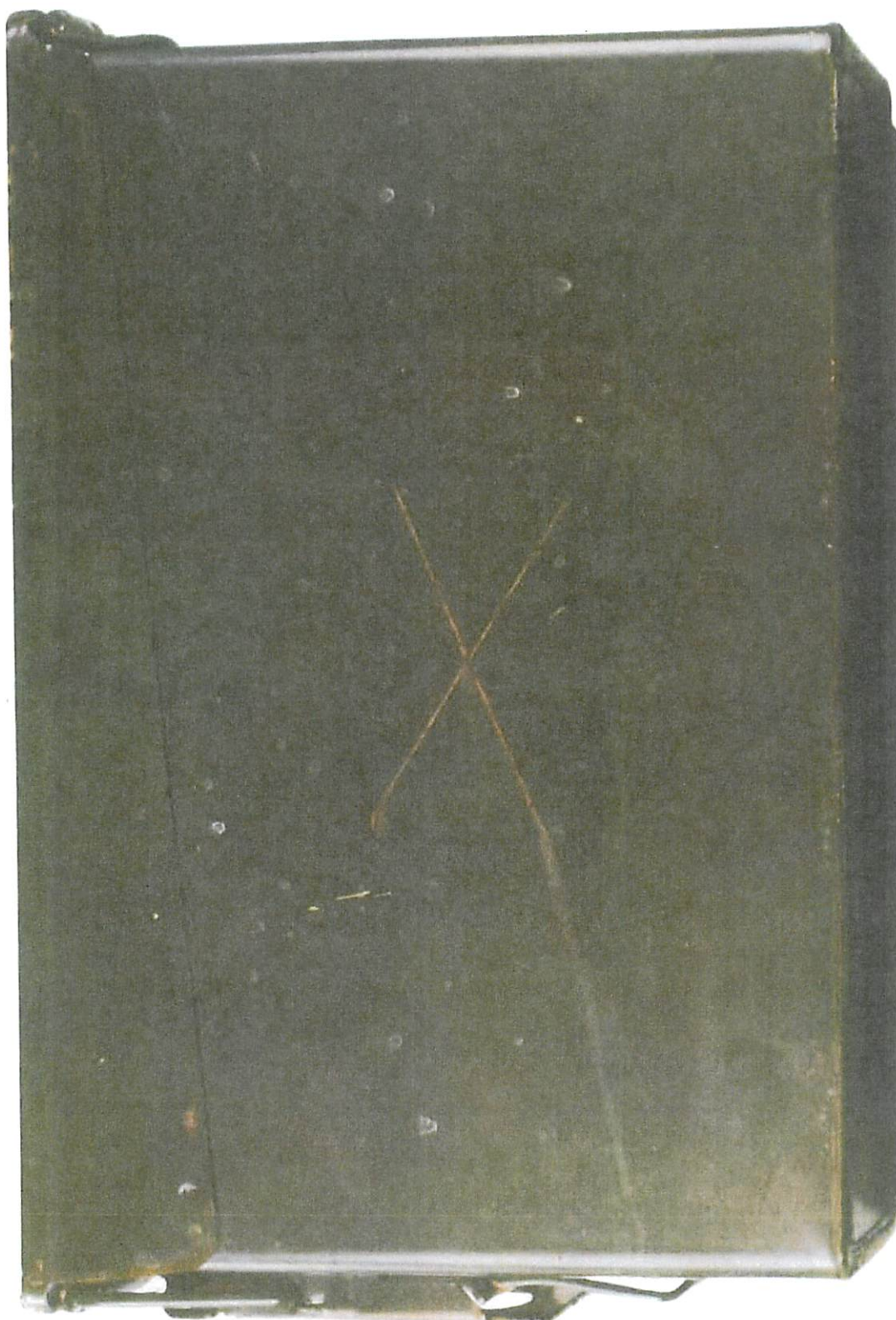
"WORST" PERMISSIBLE DEGREE OF RUST AFTER CORROSION RESISTANCE TEST

MIL-STD-406
1 February 1957



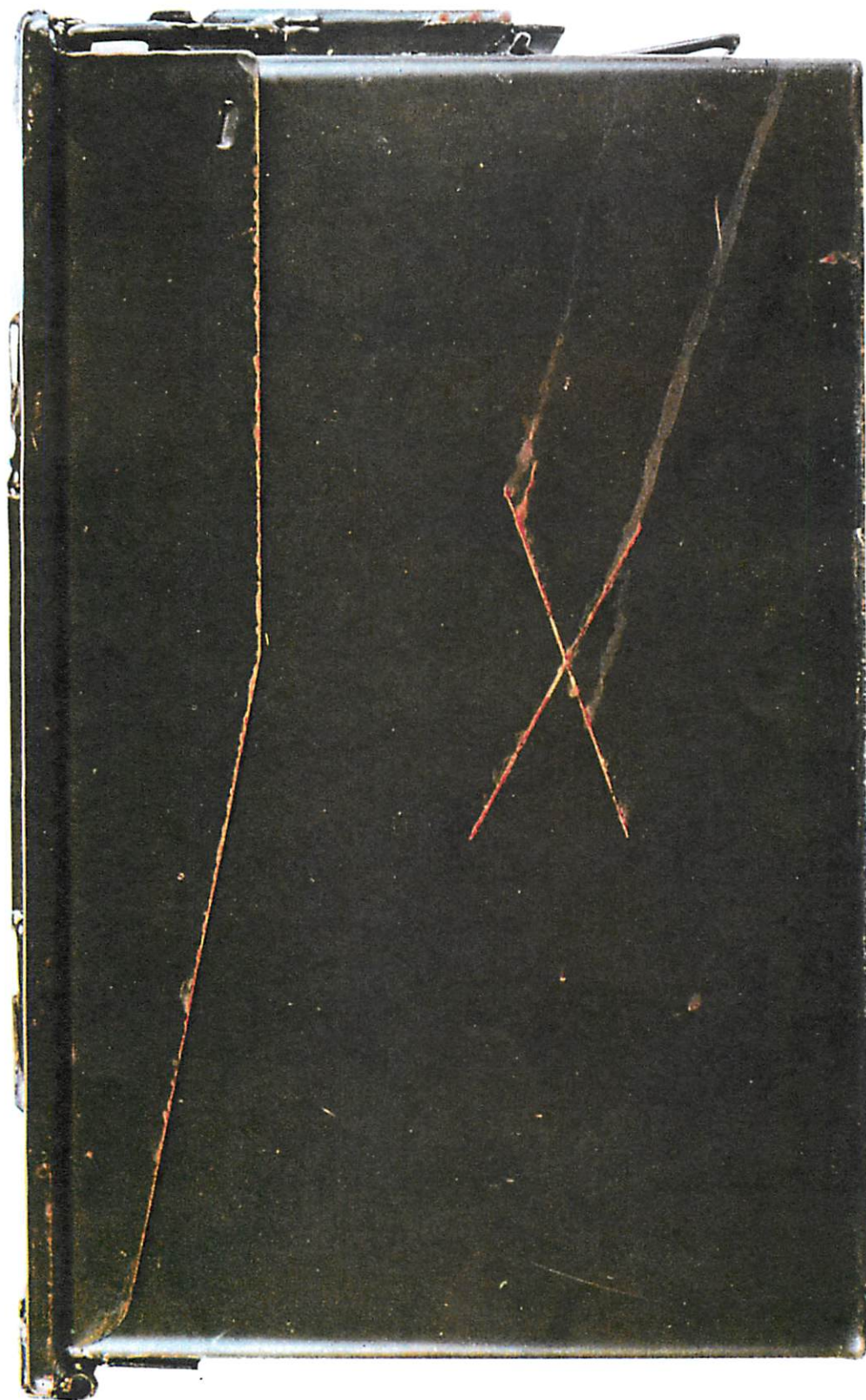
"WORST" PERMISSIBLE DEGREE OF RUST AFTER CORROSION RESISTANCE TEST

MIL-STD-406
1 February 1957



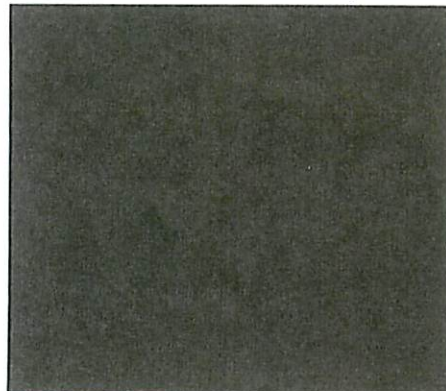
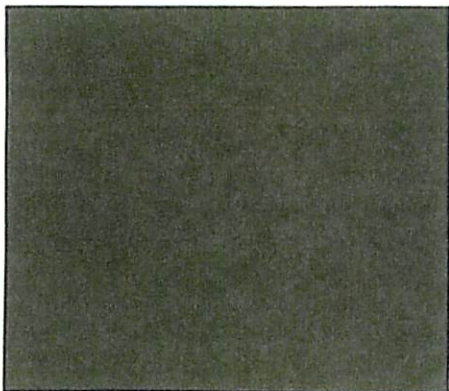
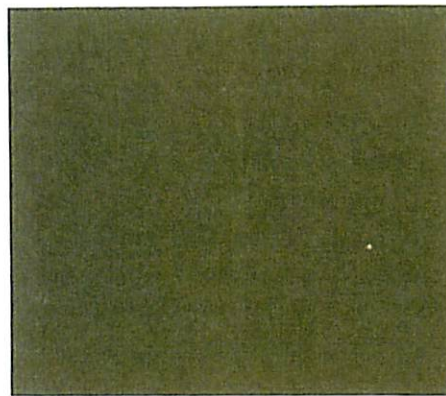
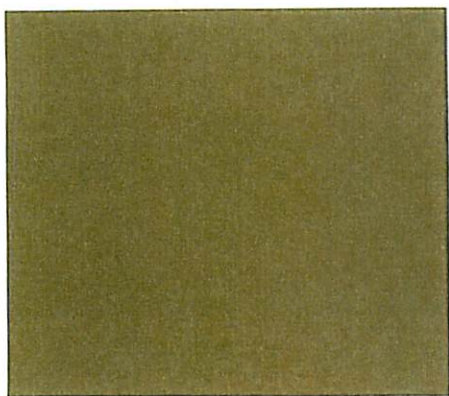
"WORST" PERMISSIBLE DEGREE OF RUST AFTER CORROSION RESISTANCE TEST

MIL-STD-406
1 February 1957



"WORST" PERMISSIBLE DEGREE OF RUST AFTER CORROSION RESISTANCE TEST

MIL-STD-406
1 February 1957



Color Tolerances

(Paint chips show permissible variation in color from that specified-Semi-Gloss Green No. 2430, Federal Specification TT-C-595.)

MIL-STD-406
1 February 1957

LIST OF DEFECTS

Cans, Ammunition, Universal, M20 and M21

No.	Defect	Page(s)
BOTTOM COVER		
1.	Absence of Lining Compound or Presence of Skip One Inch or More in Length	37
	1-A. Skip One Inch or More in Length	37
2.	Absence of Curl or Grossly Incorrect Curl	37
	2-A. Absence of Curl	37
	2-B through 2-E. Grossly Incorrect Curl	37-38
	2-F. Partially Formed Curl	38
3.	Chips, Dirt, Grease or Other Foreign Material	39
	3-A. Dirt, Either Side	39
	3-B. Spattered Lining Compound, Interior or Exterior	39
	3-C. Rust	39
	3-D and 3-E. Unbedded Chip	39
4.	Burrs, Dents or Buckles	40
	4-A and 4-B. Buckle	40
	4-C and 4-D. Dented Curl	40
	4-E and 4-F. Dents	40-41
	4-G. Small Buckles on Radius	41
5.	Lining Compound Containing Skips Less Than One Inch in Length; Excessive Overlap, Incomplete or Inadequate Coverage	41
	5-A and 5-B. Inadequate Lining Compound	41
	5-C through 5-E. Incomplete Lining Compound	41
	5-F. Lining Compound Containing Skips Less Than One Inch in Length	41
	5-G and 5-H. Excessive Overlap	42
ASSEMBLY, ONE END OPEN		
10.	Missing or Incorrectly Positioned Component	42
	10-A. Top on Wrong End	42
	10-B. Incorrectly Positioned Tear Strip Tongue	42
	10-C. Bent Tear Strip Tongue	42
	10-D. Missing Key	43
	10-E through 10-G. Incorrectly Positioned Components	43-44
11.	Absence of Flange or Grossly Incorrect Flange	45
	11-A. Absence of Flange	45
	11-B. Grossly Incorrect Flange	45
12.	Chips, Dirt, Grease and Other Foreign Material	45
	12-A. Excessive Solder, Tear Strip Tongue	45
	12-B. Metal Chip in Rolled Seam	45
	12-C. Grease (Interior or Exterior)	45
	12-D. Foreign Material, Interior	45
	12-E and 12-F. Foreign Material, Exterior	46
13.	Burrs, Dents, Buckles or Deformed Flanges	47
	13-A and 13-B. Excessive Solder, Side Seam	47
	13-C through 13-I. Dent	47-48-49
	13-J through 13-Q. Buckle	49-50
	13-R. Fluting	50
	13-S. Weld Burns	50
	13-T through 13-W. Deformed Flange	51
	NOTE.—In general, except for defects where severity is not pertinent, the illustrations define the following degrees of defectiveness:	
	"Worst" Permissible	
	"Worst" Incidental	
	Example of Major (Minor when applicable).	

CANS, AMMUNITION, UNIVERSAL, M20 AND M21

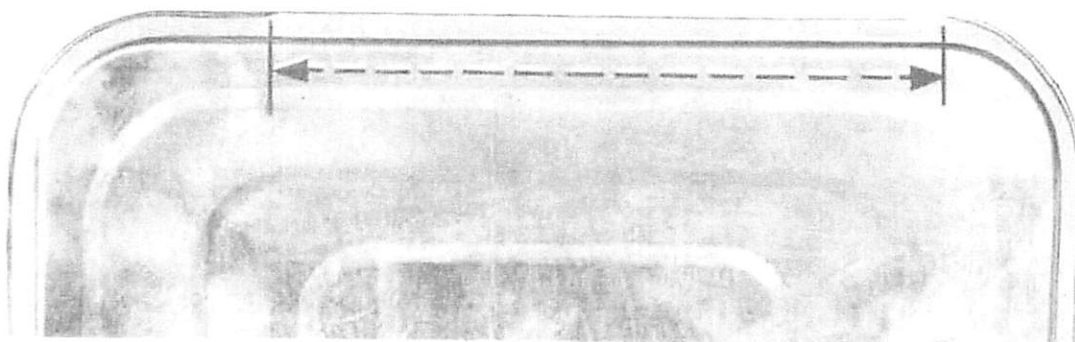
BOTTOM COVER

—————No. 1. Absence of Lining Compound or Presence
of Skip One Inch or More in Length—————



1-A. Skip One Inch or More in Length—Major

—————No. 2. Absence of Curl or Grossly Incorrect Curl—————



2-A. Absence of Curl—Major

(Insufficient metal in blank to form curl. Defect is major regardless of length.)



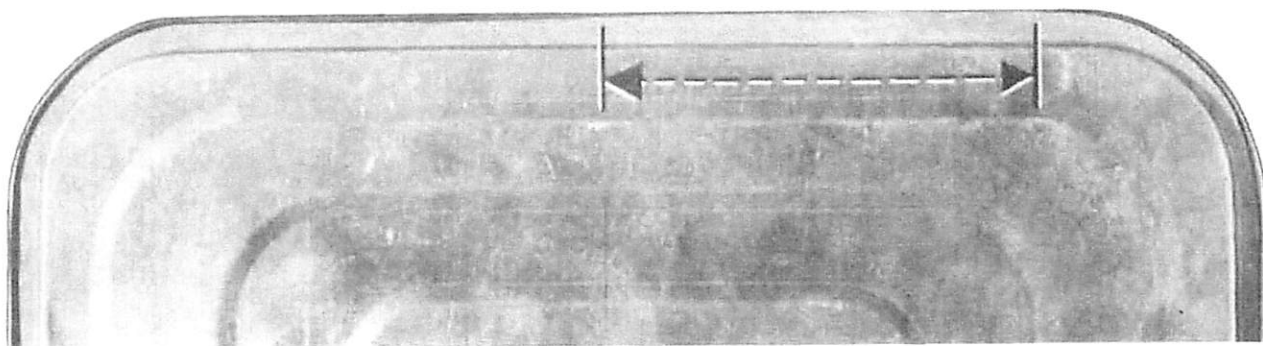
2-B. Major



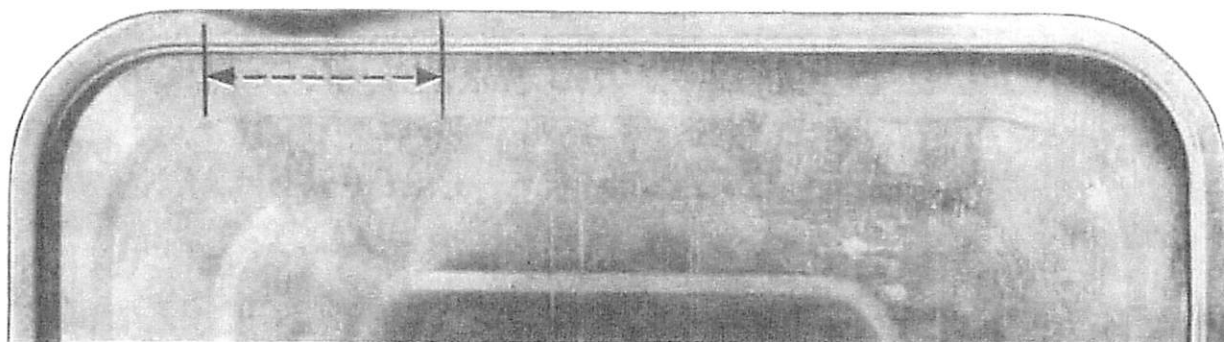
2-C. Major

Grossly Incorrect Curl

MIL-STD-406
1 February 1957



2-D. (Bottom View)—Major

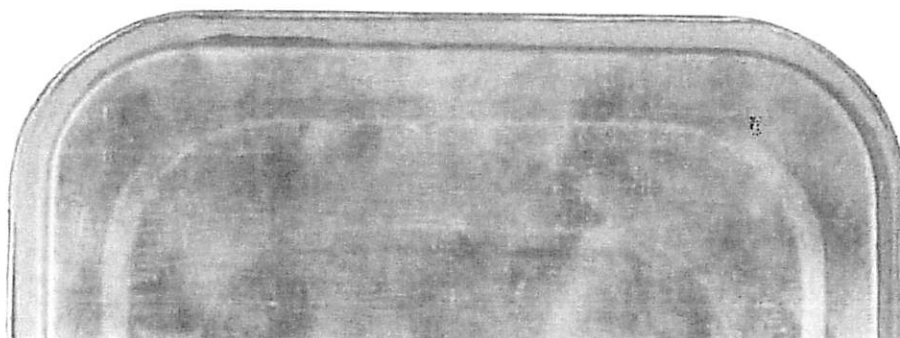


2-E. (Top View)

(Area marked indicates only presence of defect. Judgment as to length of defective curl is to be made from reverse side of cover as indicated in 2-D.)

Grossly Incorrect Curl

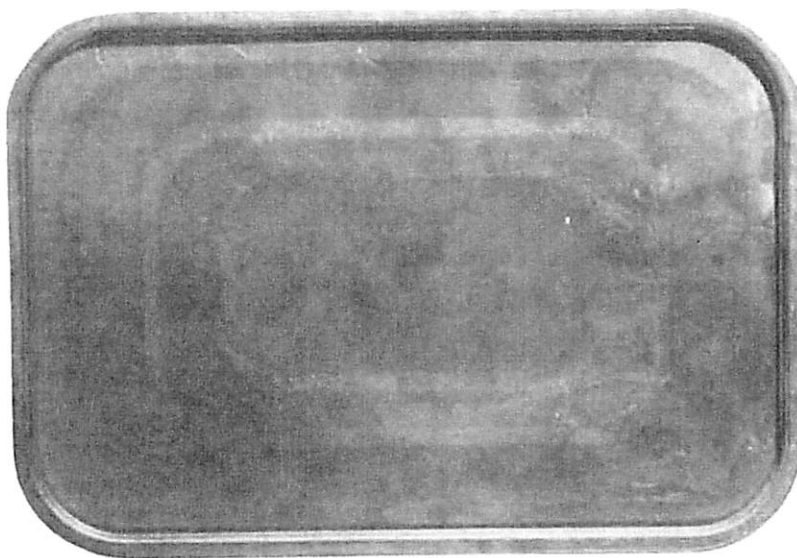
(Up to one and one-half inches per bottom cover is an incidental defect. Defect, regardless of length, is major on corners.)



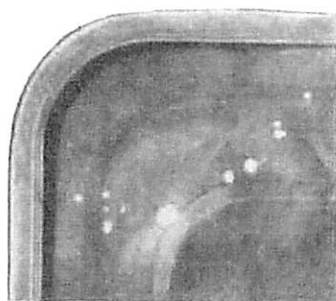
2-F. Partially Formed Curl—Permissible

(Defect is shown on right corner. Permissible on all four corners.)

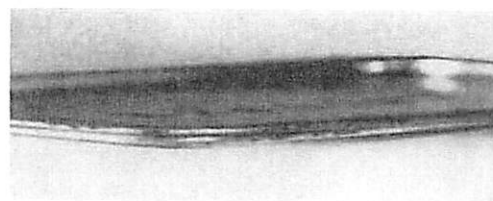
—————No. 3. Chips, Dirt, Grease or Other Foreign Material—————



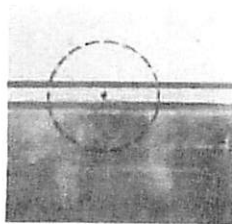
3-A. Dirt, Either Side—Minor



3-B. Spattered Lining Compound, Interior or Exterior—
Permissible



3-C. Rust—Incidental



3-D. Incidental

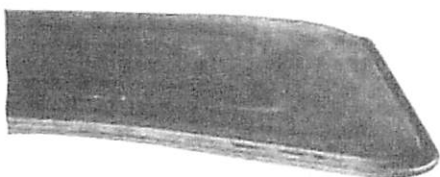
Imbedded Chip



3-E. Incidental

MIL-STD-406
1 February 1957

————— No. 4. Burrs, Dents or Buckles —————



4-A. Minor



4-B. Incidental

Buckle



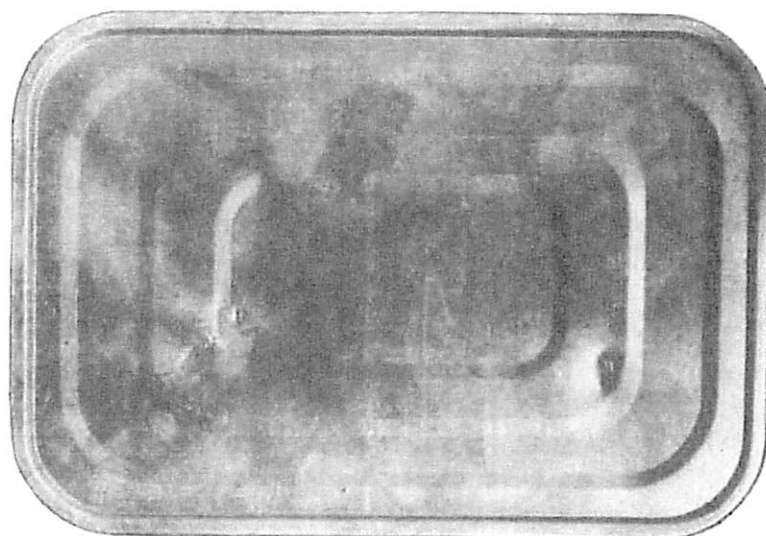
4-C. Minor



4-D. Incidental

Dented Curl

(Incidental only if opening is greater than maximum body flange width shown on drawings.)



4-E. Dents—Minor

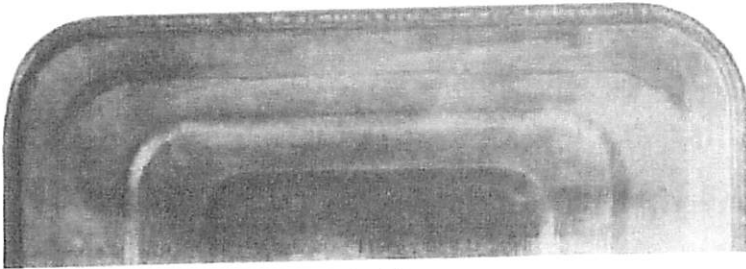


4-F. Dent—Permissible

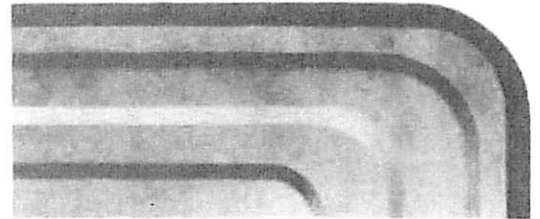


4-G. Small Buckles on Radius—Permissible
(All four corners)

—————No. 5. Lining Compound Containing Skips—————
Less Than One Inch in Length; Excessive Overlap, Incomplete or Inadequate Coverage



5-A. Minor

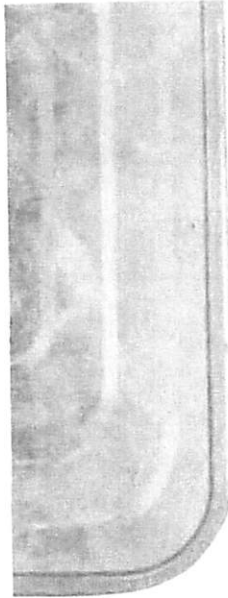


5-B. Permissible

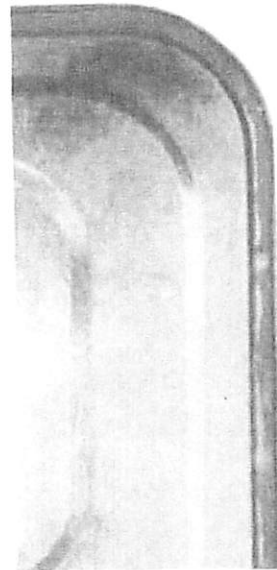
Inadequate Lining Compound



5-C. Minor

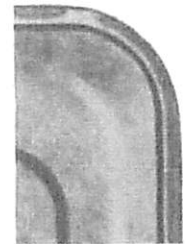


5-D. Minor



5-E. Permissible

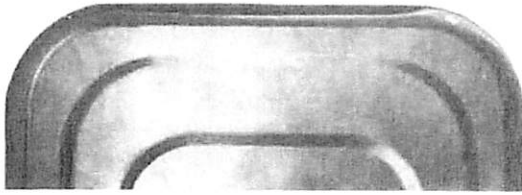
Incomplete Lining Compound



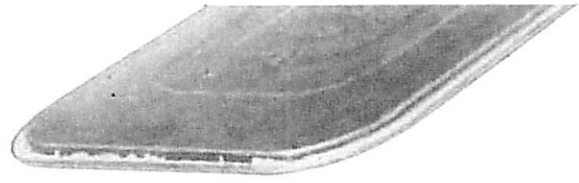
5-F. Lining Compound Containing
Skips
Less Than One Inch in Length—
Minor

(5-E illustrates "worst" permissible condition and may be present on one or more areas of a bottom cover. A condition more pronounced than that shown in 5-E, but where the incompleteness of coverage is confined to inside edge of flange and not more than half the width of the finished flange, shall be considered an incidental defect provided that the cover be included as an assembled can component in the airtightness test sample and the assembly be satisfactory. Assembly shall also be considered as defective in the airtightness test if it fails the test.)

MIL-STD-406
1 February 1957



5-G. Minor

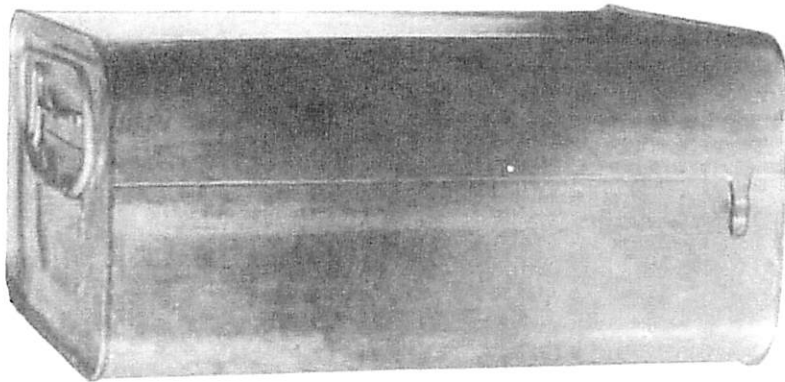


5-H. Permissible

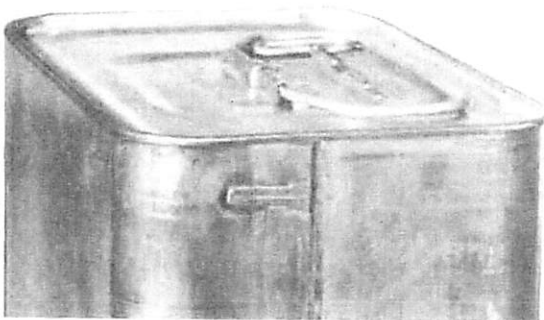
Excessive Overlap

ASSEMBLY, ONE END OPEN

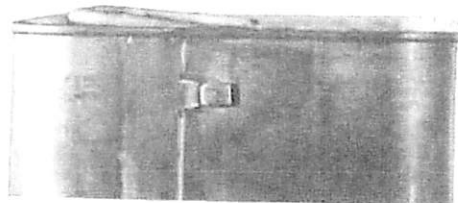
—————No. 10. Missing or Incorrectly Positioned Component—————



10-A. Top on Wrong End—Major

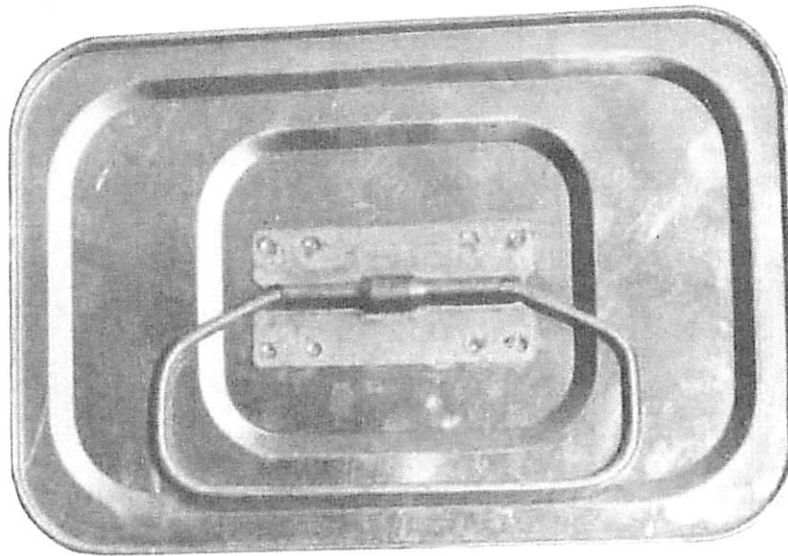


10-B. Incorrectly Positioned Tear Strip Tongue—Major

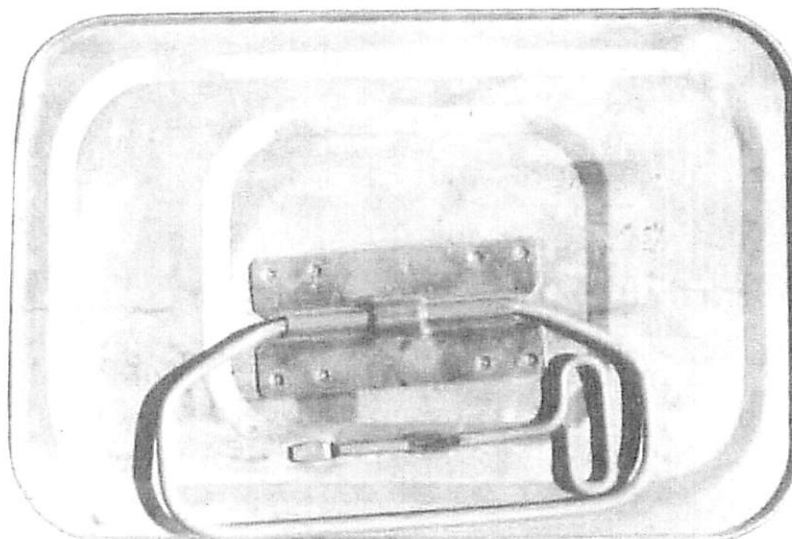


10-C. Bent Tear Strip Tongue—Major

MIL-STD-406
1 February 1957

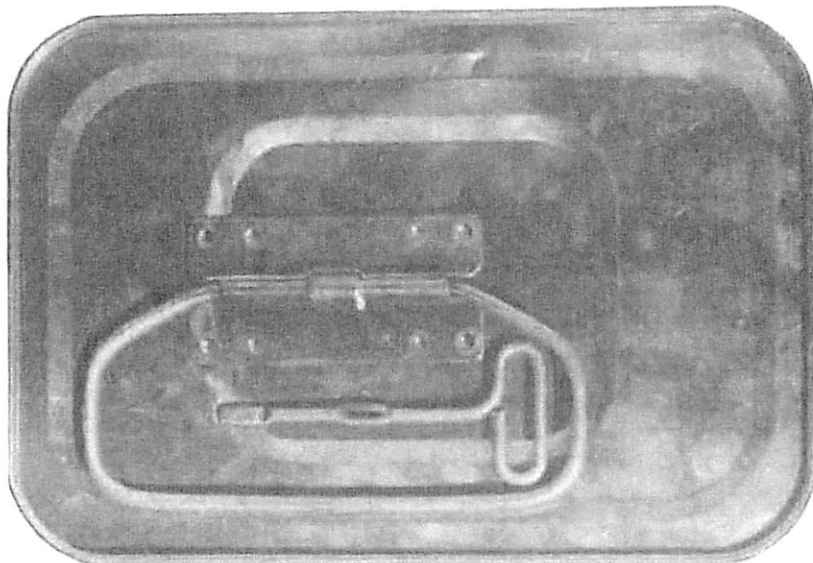


10-D. Missing Key—Major

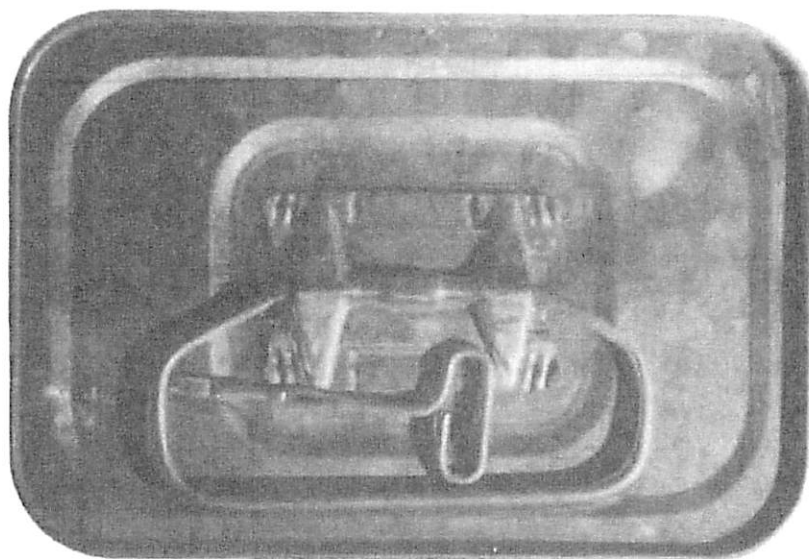


10-E. Incorrectly Positioned Handle and Cleat Assembly, and Key—Major

MIL-STD-406
1 February 1957

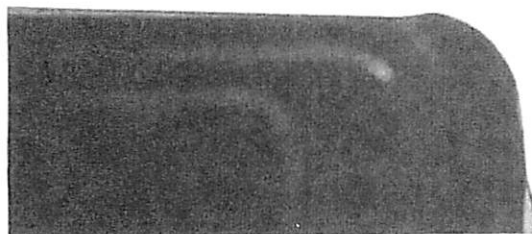


10-F. Incorrectly Positioned Handle and Cleat Assembly, and Key—Major

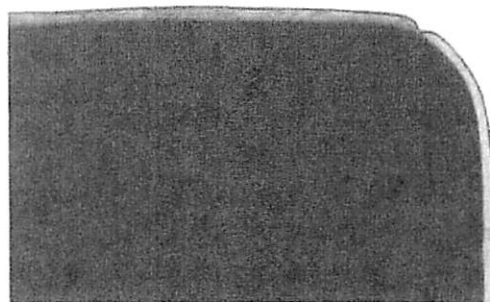


10-G. Incorrectly Positioned Key—Major

———No. 11. Absence of Flange or Grossly Incorrect Flange———

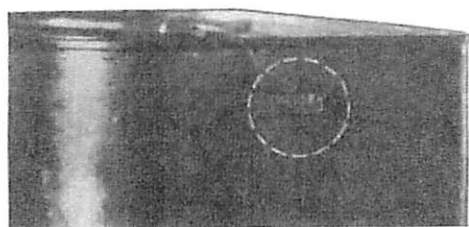


11-A. Absence of Flange—Major



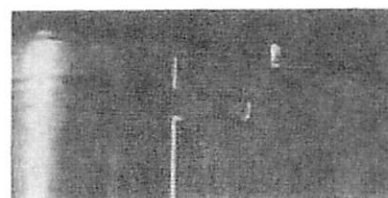
11-B. Grossly Incorrect Flange—Major

———No. 12. Chips, Dirt, Grease and Other Foreign Material———



12-A. Excessive Solder, Tear Strip Tongue—Minor

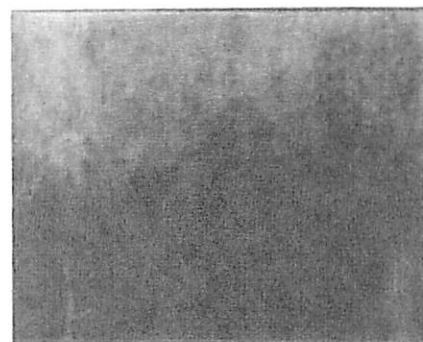
(Defect is permissible only if thickness of tongue with solder is less than minimum key slot.)



12-B. Metal Chip in Rolled Seam—Minor

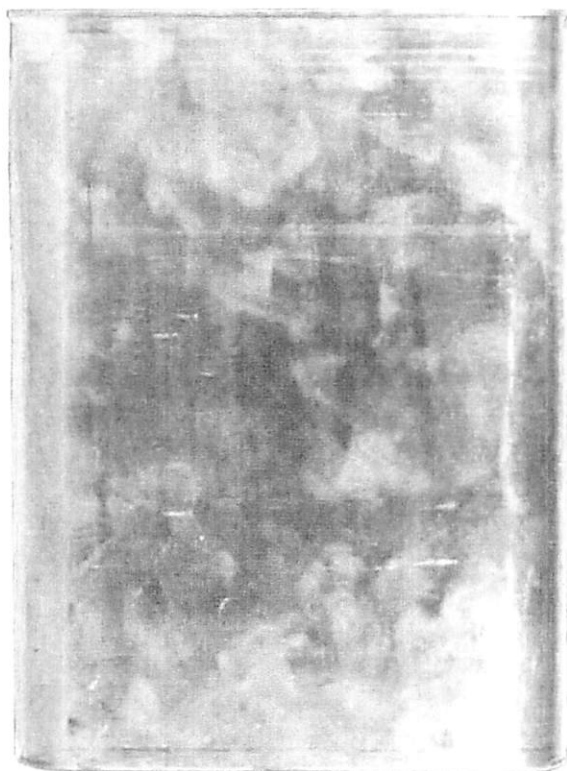


12-C. Grease—Minor
(Interior or Exterior)

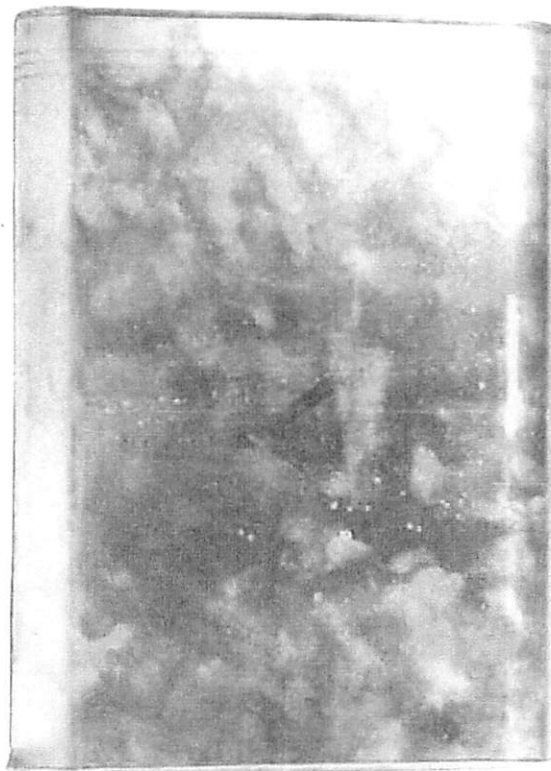


12-D. Foreign Material, Interior—Minor

MIL-STD-406
1 February 1957



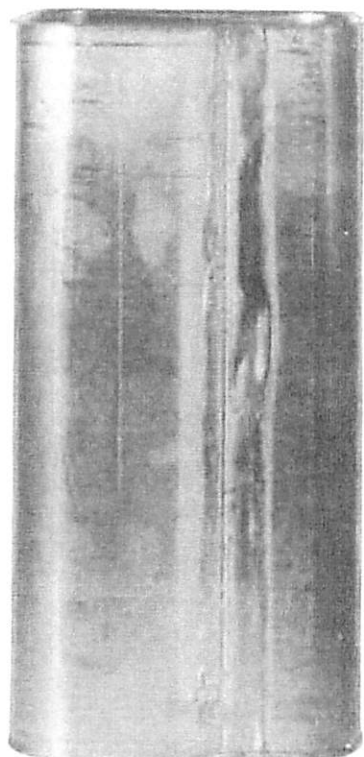
12-E. Incidental



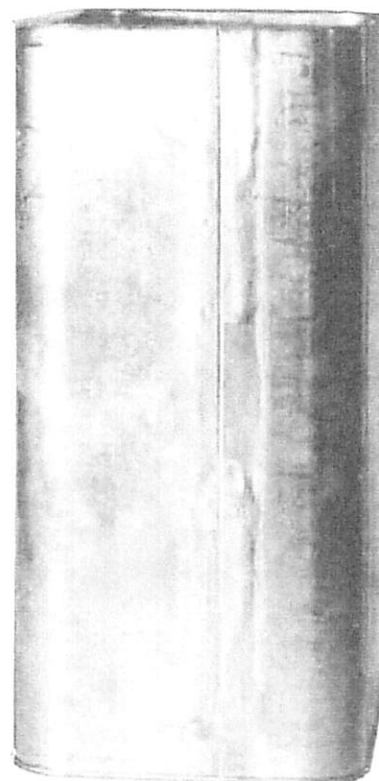
12-F. Incidental

Foreign Material, Exterior

—————No. 13. Burrs, Dents, Buckles or Deformed Flanges—————

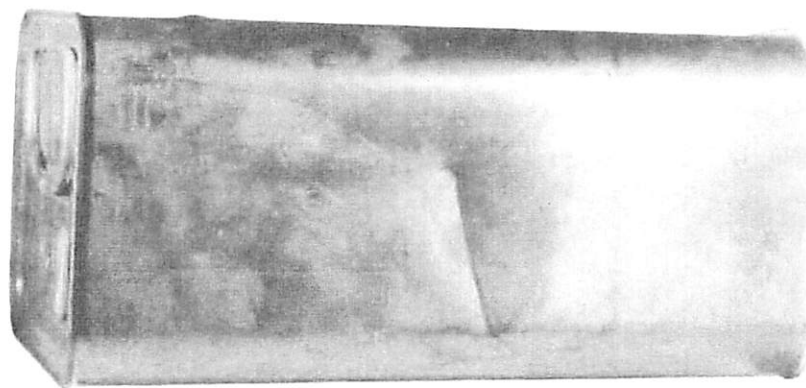


13-A. Incidental



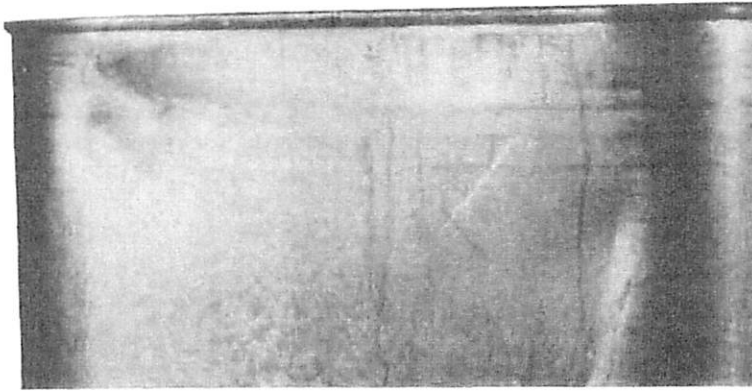
13-B. Permissible

Excessive Solder, Side Seam



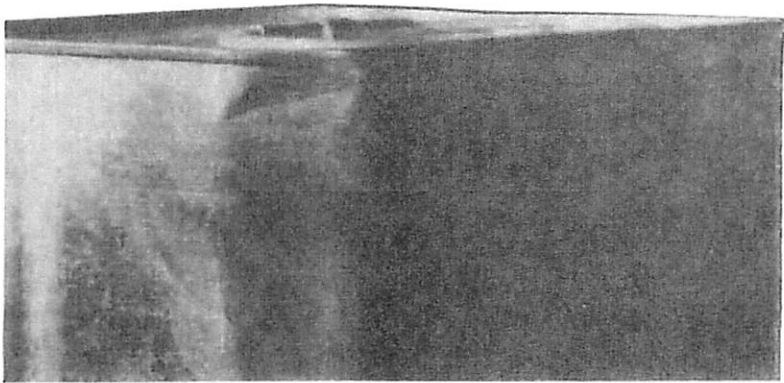
13-C. Minor

MIL-STD-406
1 February 1957



13-D. Minor

(Minor only if on tear strip as shown; if not on tear strip, defect is permissible.)

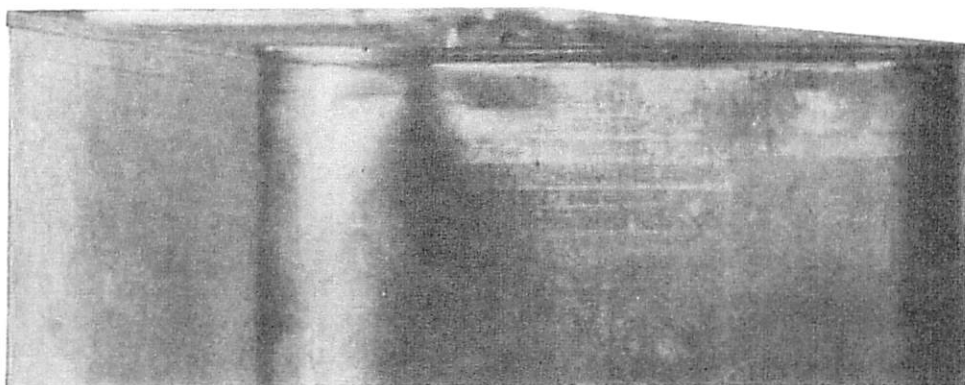


13-E. Incidental

(Incidental only if not on tear strip as shown; if on tear strip, defect is minor.)



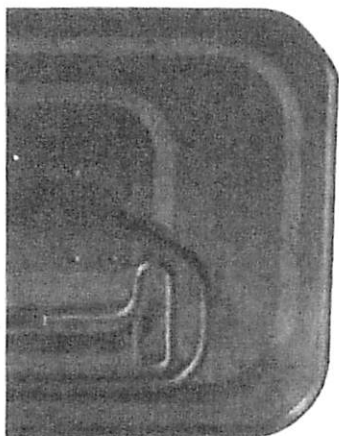
13-F. Permissible



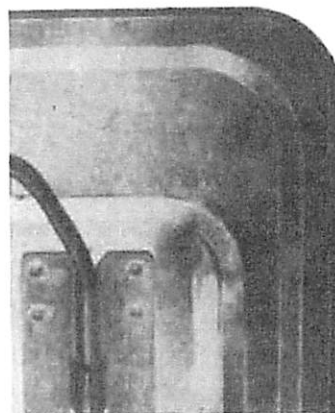
13-G. Permissible

(Permissible only if not on tear strip as shown; if on tear strip, defect is minor.)

Dent



13-H. Corner—Minor

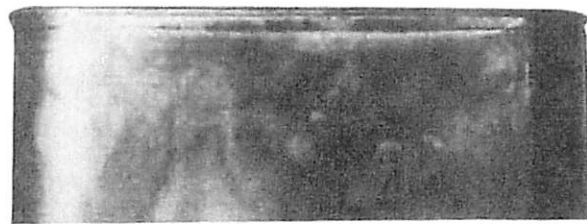


13-I. Top—Permissible

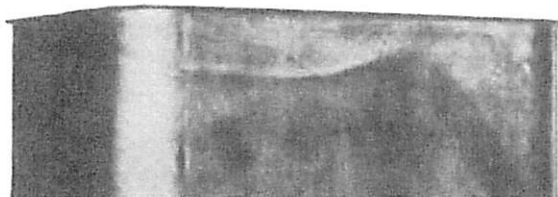
Dent



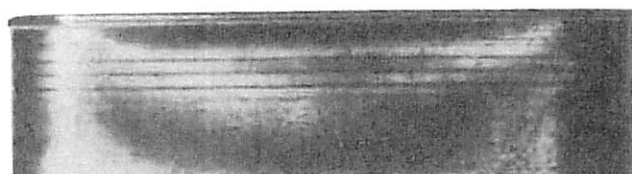
13-J. Minor



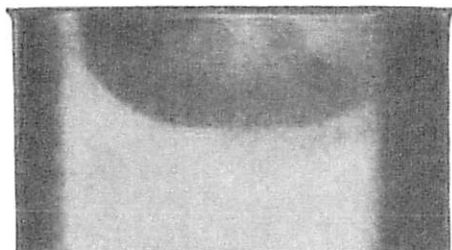
13-M. Minor



13-K. Incidental



13-N. Incidental

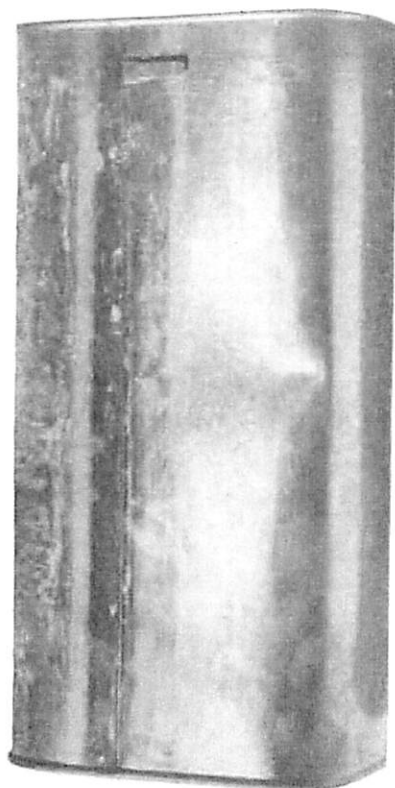


13-L. Incidental
Buckle

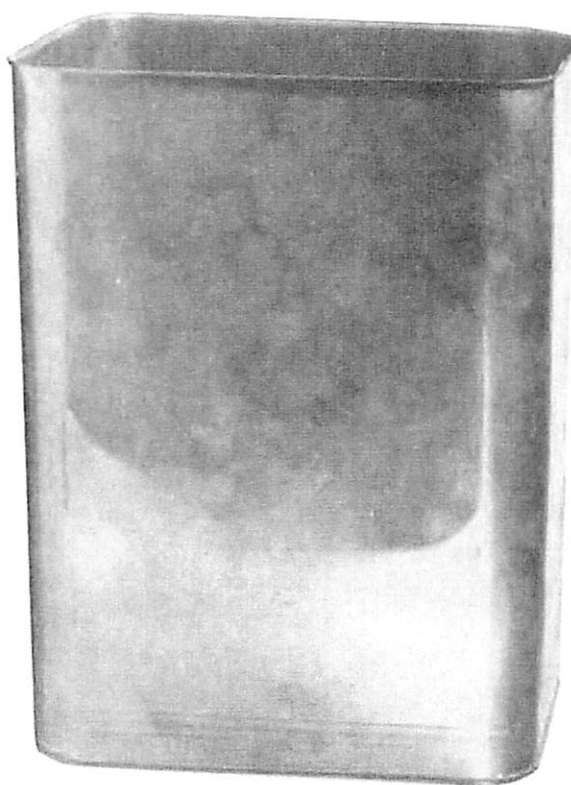


13-O. Permissible
Buckle

MIL-STD-406
1 February 1957

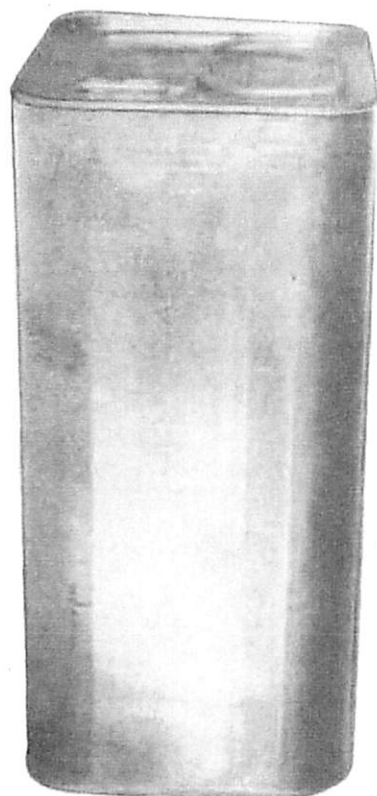


13-P. Minor

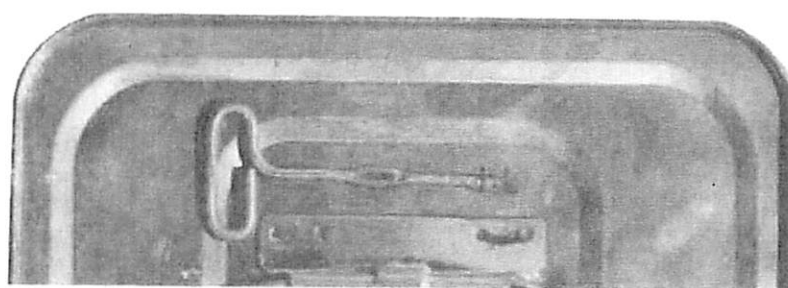


13-Q. Permissible

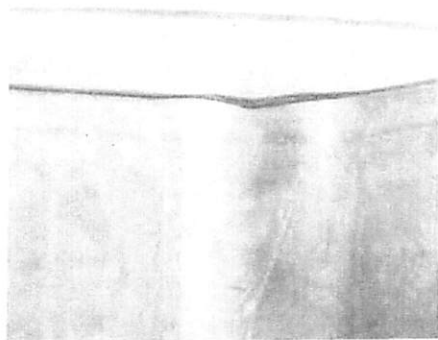
Buckle



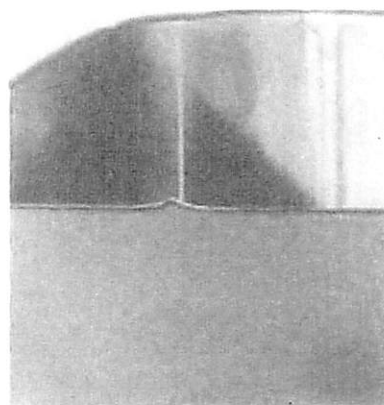
13-R. Fluting—Permissible



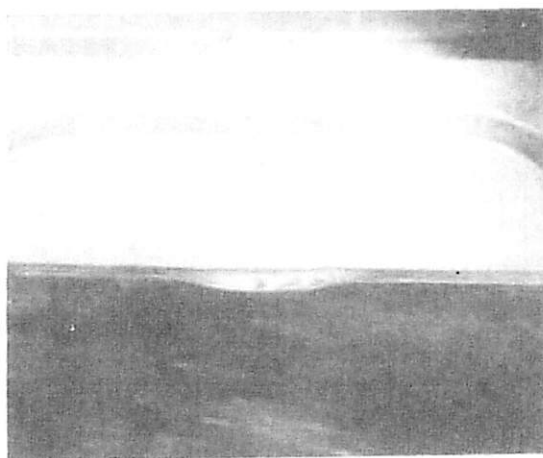
13-S. Weld Burns—Minor



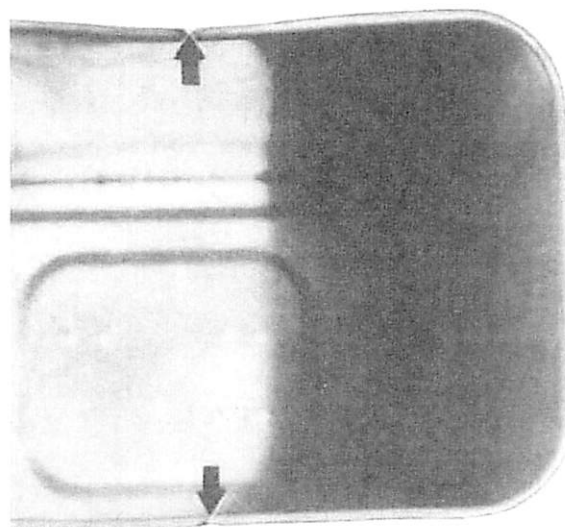
13-T. Minor



13-U. Minor



3-V. Incidental



13-W. Permissible

Deformed Flange

(Note 13-T which illustrates a deformed flange on a corner radius. The defect in that location, although less pronounced than 13-V, is classified minor because it is more likely to result in airtightness failure.)

MIL-STD-406
1 February 1957

Patent Notice. When Government drawings, specifications, or other data are used for any purpose other than in connection with a definitely related Government procurement operation, the United States Government thereby incurs no responsibility nor any obligation whatsoever; and the fact that the Government may have formulated, furnished, or in any way supplied the said drawings, specifications, or other data, is not to be regarded by implication or otherwise as in any manner licensing the holder or any other person or corporation, or conveying any rights or permission to manufacture, use, or sell any patented invention that may in any way be related thereto.

Copy Availability Notice.

Copies of specifications, standards, drawings, and publications required by contractors in connection with specific procurement functions should be obtained from the procuring agency or as directed by the contracting officer.

Copies of this standard for Military use may be obtained as indicated in the foreword to the Index of Military Specifications and Standards.

Copies of this standard may be obtained for other than official use by individuals, firms, and contractors from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.

Both the title and the identifying symbol number should be stipulated when requesting copies of Military Standards.

Custodians:

Army—Ordnance Corps
Navy—Bureau of Ordnance
Air Force

Preparing activity:

Army—Ordnance Corps