A-31-23

American National Standard

for galvanized ferrous crossarm gains for overhead line construction

Approved January 14, 1980

Secretariat: National Electrical Manufacturers Association

1. Scope

This standard covers crossarm gains commonly used in overhead line construction as a means of providing a transfer of crossarm loads to the pole.

2. General

Crossarm gains conforming to this standard shall, in all respects, meet the basic dimensional requirements hereinafter stated. The text, specifications or standards references, and figures supplement each other, and all shall be considered part of this standard.

3. Material

Crossarm gains shall be made (1) from hot-rolled steel which has been produced by the open-hearth; basic-oxygen, or electric-furnace process or (2) from malleable or ductile-type ferrous castings. These materials shall be of a grade and quality suitable to meet the requirements of this standard.

4. Dimensions

Dimensions shall be in accordance with figures 1, 2, and 3. The size, configuration, and number of teeth shall be of such a design as to permit the teeth to penetrate into both the pole and crossarm to the full depth of the teeth without the use of an installing jack.

5. Galvanizing

Ferrous crossarm gains shall be hot-dip galvanized in accordance with American National Standard Specifications for Zinc Coating (Hot-Dip) on Iron and Steel Hardware, ANSI/ASTM A153-78.

6. Finish

Crossarm gains shall be reasonably smooth on all surfaces and free of burrs. The projections which are intended for penetration into the wood may be sharply pointed.

7. Marking

Crossarm gains shall bear the manufacturer's symbol or identification mark.

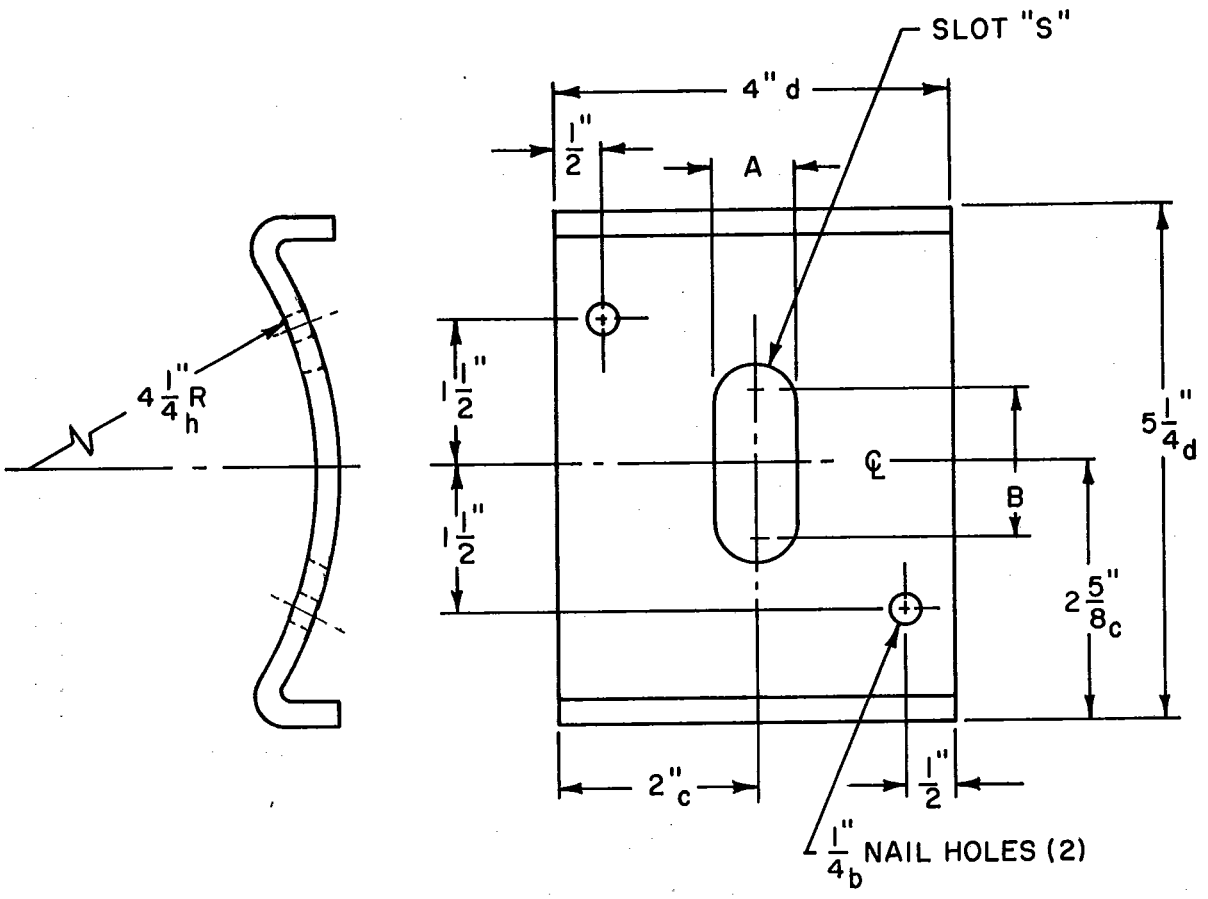
8. Marking of Shipping Packages

Each package of crossarm gains shall be marked with the manufacturer's name and catalog number.

ANSI C135.33-1980

CAUTION NOTICE: This American National Standard may be revised or withdrawn at any time. The procedures of the American National Standards Institute require that action be taken to reaffirm, revise, or withdraw this standard no later than five years from the date of publication. Purchasers of American National Standards may receive current information on all standards by calling or writing the American National Standards Institute. Printed in USA

Copyright The Institute of Electrical and Electronics Engineers, Inc.
Provided by IHS under license with IEEE
No reproduction or networking permitted without license from IHS
Not for Resale



a—1/64" d—1/8" g—3/8"
b—1/32" e—3/16" h—1/2"
c—1/16" f—1/4" x—0"

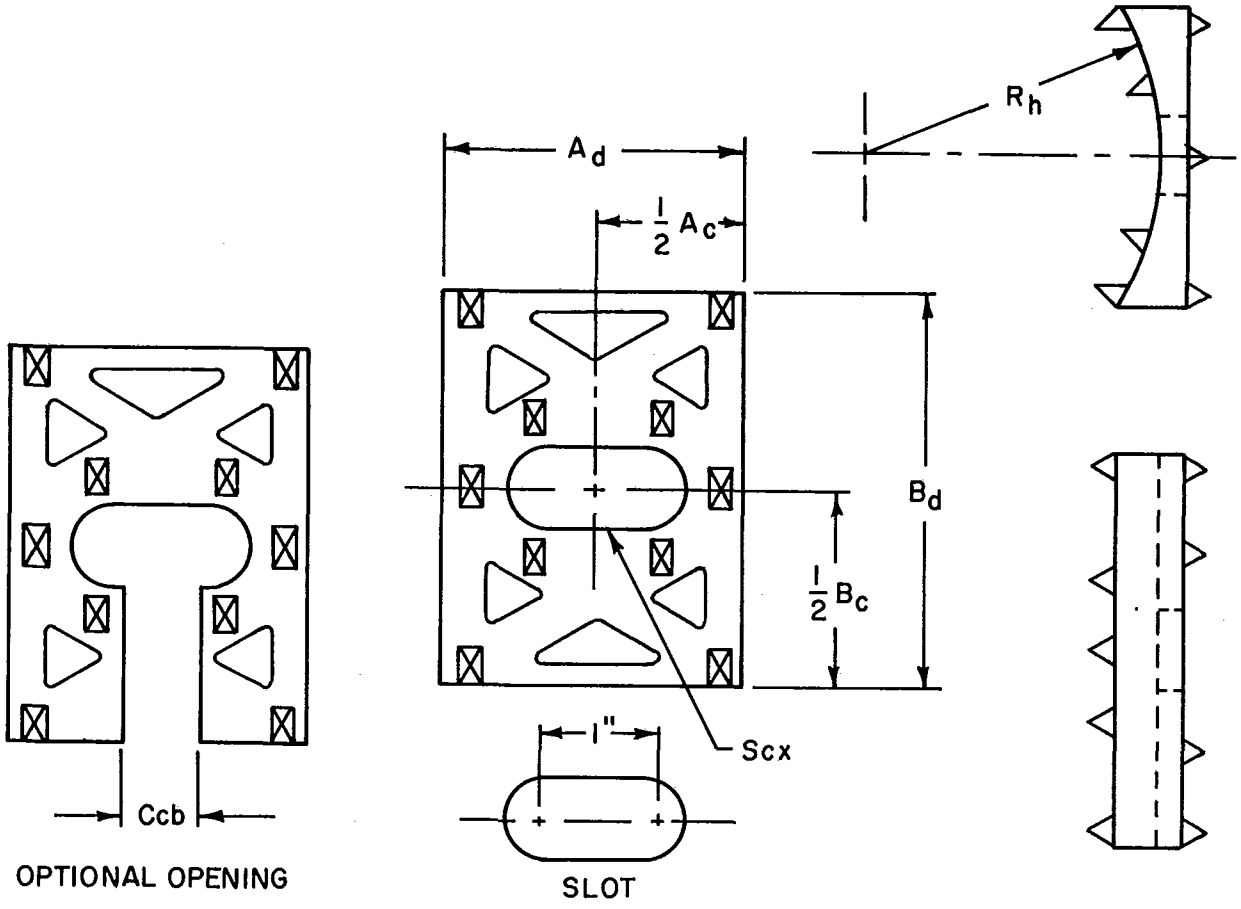
ALLOWABLE VARIATIONS

SINGLE LETTER INDICATES SAME: ± (a= ±1/64")
TWO LETTERS INDICATE: 1ST +, 2ND − (ax= +1/64" −0")

ITEM NO.	SLOT "S"	
	Acx	Bmin
1	11/16"	1-1/2"
2	13/16"	1-1/2"

Fig. 1

Copyright The Institute of Electrical and Electronics Engineers, Inc.
Provided by IHS under license with IEEE
No reproduction or networking permitted without license from IHS
Not for Resale



NOTE 1. SIZE, POSITIONS AND NUMBER OF TEETH MAY VARY.

NOTE 2. SIZE, POSITIONS AND NUMBER OF OPENINGS MAY VARY.

NOTE 3. ALL DIMENSIONS ARE NOMINAL UNLESS OTHERWISE SPECIFIED.

a—1/64" d—1/8" g—3/8"
b—1/32" e—3/16" h—1/2"
c—1/16" f—1/4" x—0"

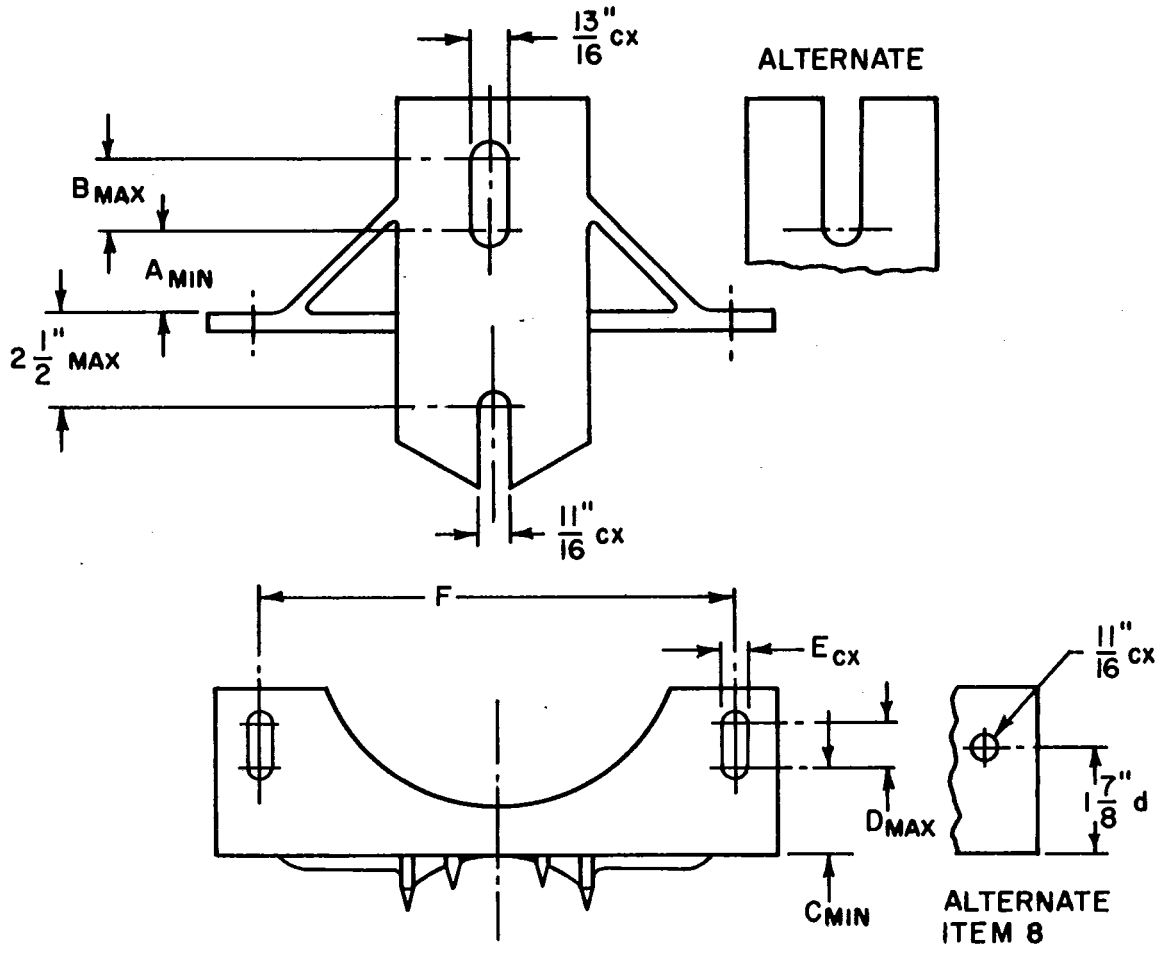
ALLOWABLE VARIATIONS

SINGLE LETTER INDICATES SAME: ±(a= ±1/64")
TWO LETTERS INDICATE: 1ST +, 2ND − (ax= +1/64"−0")

ITEM NO.	DIMENSIONS				
	A	B	S	R	C
3	4	4	13/16" hole or 13/16"xl" Slot	3-1/4"	13/16"
4	3	4	13/16" hole or 13/16xl" Slot	3-1/4"	13/16"
5	4	5-1/4	13/16" hole or 13/16"xl" Slot	3-1/4"	13/16"
6	4	5-1/4	15/16" hole or 15/16"xl" Slot	3-1/4"	15/16"
7	4	6-3/4	15/16" hole	4-1/2"	15/16"

Fig. 2

Copyright The Institute of Electrical and Electronics Engineers, Inc.
Provided by IHS under license with IEEE
No reproduction or networking permitted without license from IHS
Not for Resale



NOTE 1. SIZE, POSITION AND NUMBER OF TEETH MAY VARY.

NOTE 2. SIZE, POSITION AND NUMBER OF OPENINGS MAY VARY.

a—1/64" d—1/8" g—3/8"
b—1/32" e—3/16" h—1/2"
c—1/16" f—1/4" x—0"

ALLOWABLE VARIATIONS

SINGLE LETTER INDICATES SAME: ± (a= ±1/64")
TWO LETTERS INDICATE: 1ST +, 2ND −(ax= +1/64"−0")

	DIMENSIONS					
ITEM	A	B	C	D	E	F
8	1-11/16"	3-1/4"	1-7/16"	1"	9/16"	10"
9	3-7/8"	6-5/8"	2-1/8"	1"	11/16th	10-1/2"

Fig. 3

Copyright The Institute of Electrical and Electronics Engineers, Inc.
Provided by IHS under license with IEEE
No reproduction or networking permitted without license from IHS
Not for Resale