American National Standard

for zinc-coated ferrous crossarm braces for overhead line construction

Approved January 11, 1988 Secretariat: National Electrical Manufacturers Association

1 Scope and application

1.1 Scope

This standard covers ferrous crossarm braces used in overhead line construction.

1.2 Application

The braces conforming to this standard shall in all respects meet the basic dimensional and performance requirements hereinafter stated. The text, specification or standard references, and associated data sheets supplement each other and all shall be considered as parts of this standard.

2 Normative references

The following standard contains provisions that, through reference in this text, constitute provisions of this American National Standard. At the time of publication, the edition indicated was valid. All standards are subject to revision, and parties to agreements based on this American National Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below.

ANSI/ASTM-A-153-82. *Standard specification for zinc coating (hot-dip) on iron and steel hardware*[1)].

3 Material

Braces shall be made from hot-rolled or cold-rolled steel that has been produced by the open hearth, basic oxygen or electric furnace process and that is of a grade and quality suitable to meet the requirements of this standard.

4 Dimensions

Dimensions are in inches and shall conform to those on data sheets 1 and 2.

1) This standard has been administratively withdrawn. Contact the secretariat for more recent information.

An American National Standard implies a consensus of those substantially concerned with its scope and provisions. An American National Standard is intended as a guide to aid the manufacturer, the consumer, and the general public. The existence of an American National Standard does not in any respect preclude anyone, whether he has approved the standard or not, from manufacturing, marketing, purchasing, or using products, processes, or procedures not conforming to the standard. American National Standards are subject to periodic review and users are cautioned to obtain the latest editions.

The American National Standards Institute does not develop standards and will in no circumstances give an interpretation of any American National Standard. Moreover, no person shall have the right or authority to issue an interpretation of an American National Standard in the name of the American National Standards Institute.

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 approval. Purchasers of American National Standards may receive current information on all standards by calling or writing the American National Standards Institute.

Copyright © 1992 by ANSI American National Standards Institute, 11 West 42nd Street, New York, N.Y. 10036 ANSI12C992/15

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

5 Corrosion protection

Ferrous crossarm braces shall be zinc coated. The coating shall be applied by:

5.1 The hot-dip process in accordance with ANSI/ASTM A-153-82, or

5.2 Any other method producing a zinc coating that meets the requirements of ANSI/ASTM A-153-82 for adhesion, purity, and thickness applicable to the class of material being coated.

6 Strength

6.1 Flat crossarm braces (data sheet No.1) shall have a minimum tensile strength of 7,000 pounds at the bolt holes.

6.2 The load shall be applied at a rate of approximately 0.4 inches per minute free running crosshead speed of the testing machine.

6.3 Flat crossarm braces shall be capable of being bent 10° at bolt holes and 140° at any point between holes without cracking of the base metal on the outside of the bent portion. A 9/16" diameter mandrel shall be used for bending. The brace shall be clamped firmly so the radius of the bend will be the same as that of the mandrel.

7 Finish

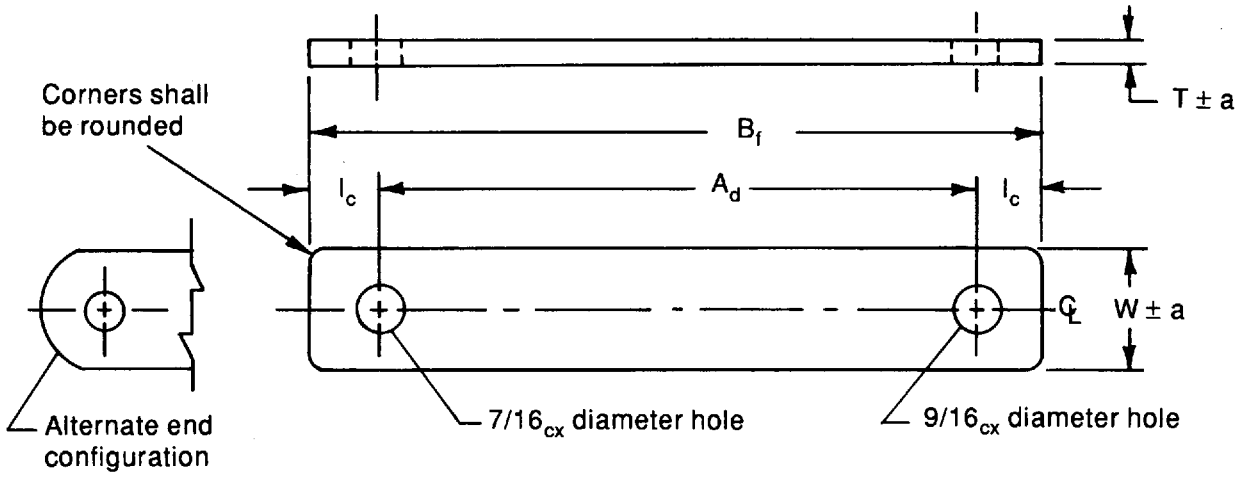
Braces shall be reasonably smooth on all surfaces and free of burns or sharp projections.

8 Marking

Braces shall bear the manufacturer's symbol or identification mark.

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

Data sheet 1



Flat crossarm braces

Item No.	T × W	A	B
1	7/32" × 1-7/32"	26"	28"
2	7/32" × 1-7/32"	28"	30"
3	1/4" × 1-1/4"	26"	28"
4	1/4" × 1-1/4"	28"	30"
5	1/4" × 1-1/4"	30"	32"

Allowable variations

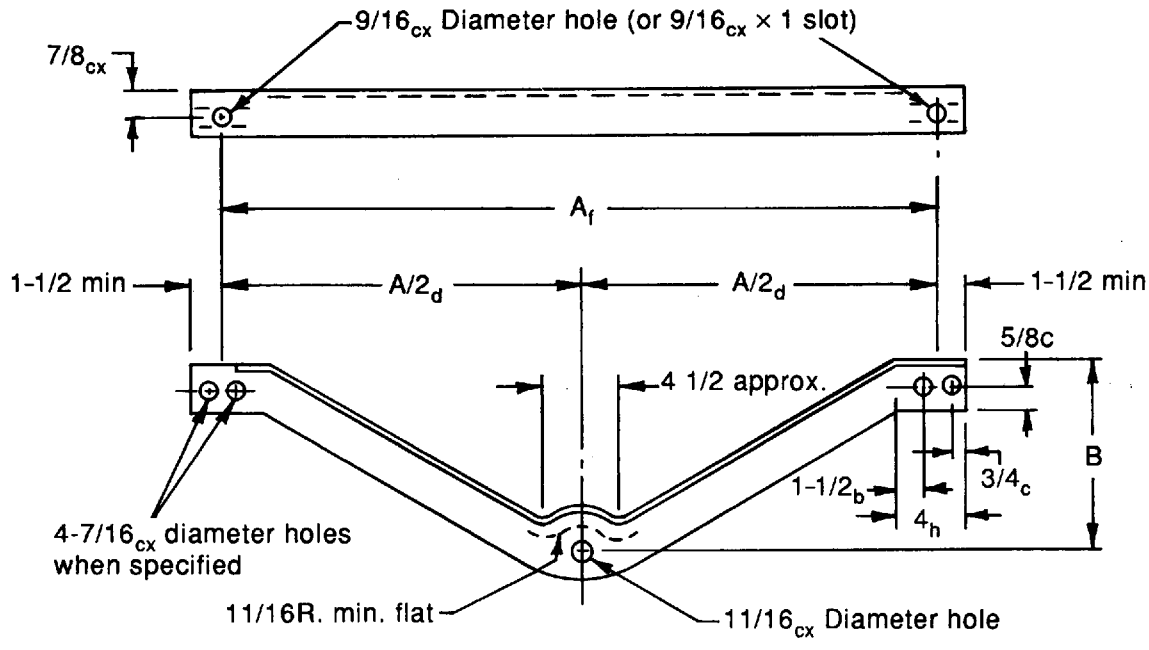
A single-letter subscript indicates that the plus and minus value are the same. For example, a = ±1/64.

A double-letter subscript indicates that the plus value is that of the first letter and the minus value is that of the second letter. For example, ax = +1/64, −0.

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

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

Data sheet 2



Angle crossarm braces

Item No.	Angle size	A	B
1	1-1/2" × 1-1/2" × 3/16"	42"	12"
2	" " "	48"	14"
3	" " "	48"	18"
4	" " "	60"	18"
5	1-3/4" × 1-3/4 " × 3/16"	60"	18"

Allowable variations

A single-letter subscript indicates that the plus and minus value are the same. For example, a = ±1/64.

A double-letter subscript indicates that the plus value is that of the first letter and the minus value is that of the second letter. For example, ax = +1/64, -0.

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

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