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COMMONWEALTH UTILITIES CORPORATION	
IFB No.	DISTRIBUTION WOOD POLES 35, 40, 45, 55 FEET

WOOD POLE SPECIFICATION

TYPE

Wood poles shall be Douglas Fir or Red Cedar of the length and class stated in material list. Wood poles shall meet specifications and dimensions in accordance with the requirements of American National Standards Institute (ANSI) O5.1 for Wood Poles - Specifications and Dimensions.

PRESERVATIVE

Wood poles shall be treated in accordance with the requirements of American Wood-Preservative Association (AWPA) standards for pressure processes. The preservative shall be oil-borne Copper Naphihenate or Pentachlorophenol.

Water-borne ACZA (ammonical copper zinc arsenate) preservative is not acceptable.

COMMONWEALTH UTILITIES CORPORATION

IFB NO. DISTRIBUTION WOOD CROSSARMS 8' AND 10' FEET

WOOD CROSSARM SPECIFICATION

TYPE

Wood crossarms shall be Douglas Fir of the length and type stated in material list. Wood crossarms shall meet specifications and dimensions in accordance with the requirements of RUS Specification 1728H-701. All crossarms shall be free of brashy wood, cracks, decay, and insect holes larger than 3/32 of an inch, conform to paragraphs 169, 169a, 170 and 170a of Standard Grading Rules for West Coast Lumber and be of coastal origin. All crossarms shall be branded legibly to a depth of approximately 1/16 inch before treatment and include the manufacturer's identification symbol, month and year of manufacturer, species of timber, preservation and indication of preservation retention. The letter and numbers shall be not less than ½ inch in height.

PRESERVATIVE

Wood crossarms shall be treated in accordance with the requirements of American Wood-Preservative Association (AWPA) standards for pressure processes. The penetration shall be no less than 3 inches for the end surface and from any pin and bolt holes, and at least 3/16 inch from the surface of any face. The preservative shall be oil-borne Pentachlorophenol.

DRILLED HOLE PLACEMENT

The drilled boltholes shall conform to RUS specification M-19 as follows:

- 8' Crossarm -Type ~~3~~ 5
- 10' Crossarm -Type ~~5~~ 6

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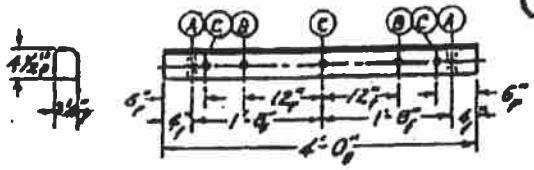


FIG. 1

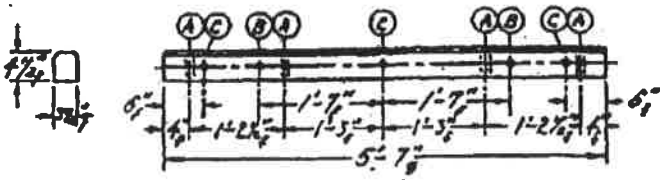


FIG. 2

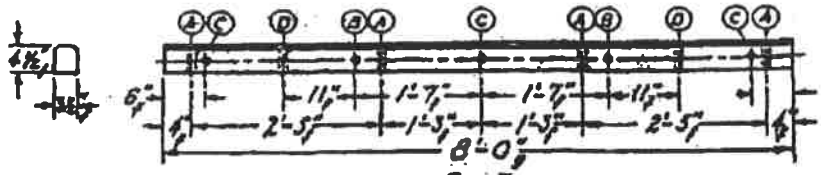
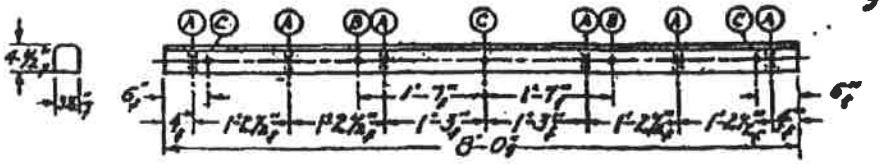


FIG. 3



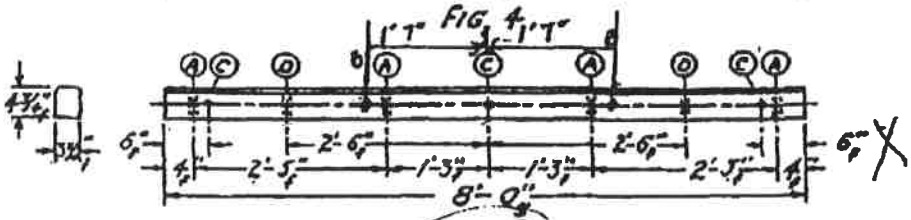
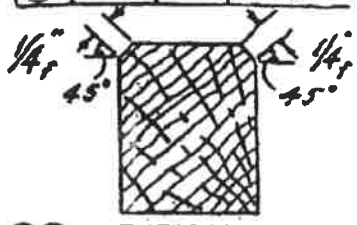


FIG. 5

FIG. 6

TOLERANCES
SIZES OF HOLES

	Nominal	Go	No Go
(A)	13/16"	3/4"	7/8"
(B)	15/16"	7/8"	1"
(C)	1 1/16"	1"	1 1/16"
(D)	1 1/16"	1"	1 1/16"



TYPICAL
ENLARGED
SECTION

f ---- 1/8" ±
g ---- 1/16" ±

Note:
Eight foot crossarms may be drilled for 42" span angle braces, if so specified.

CROSSARM DRILLING GUIDE

Jan. 1, 1962

M 19

ORIGINAL

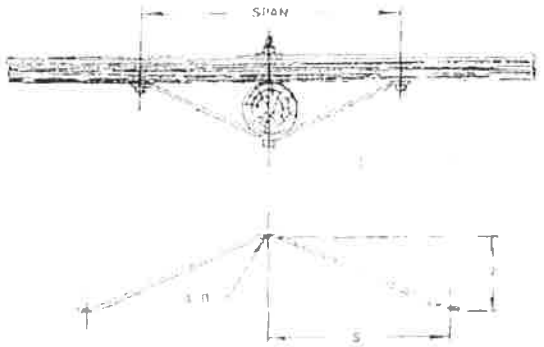
Pole-Line Hardware

JOSLYN Manufacturing Co

Braces, Crossarm, Anti-Sway

Hot Dip Galvanized

Anti-Sway Braces provide increased stability to crossarms where wind and ice can cause unbalanced longitudinal loads. The braces are manufactured from 1/8" x 2-1/2" carbon structural steel. They can be mounted with a 3/4-inch machine bolt at the pole and with either 5/8-inch machine bolts or 5/8-inch lag screws at the crossarm.

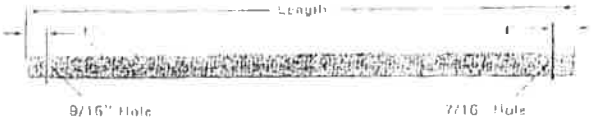


Catalog No.	Span (Inches)	Approximate Shipping Weight (Lbs. per 100 pcs.)
J24865 1	42	424
J24865 2	48	479
J24865 3	60	584

Braces, Crossarm, Flat Steel

Hot Dip Galvanized

Flat Crossarm Braces, used in pairs, are an inexpensive means of aligning and supporting crossarms.
Mounting hole diameters are 7/16-inch for 3/8-inch crossarm mounting bolts and 9/16-inch for pole mounting with a 1/2-inch lag screw or through bolt. Hole centers are 1-inch from the brace ends, which are rounded for extra safety.



1-1/4" x 1/4" SIZE

Catalog No.	Length (Inches)	M.H.C.* Distance (Inches)	Approximate Shipping Weight (Lbs. per 100 pcs.)
J7126	26	24	215
J7128 (E)	28	26	235
J7130	30	28	255
J7132	32	30	200

(E) REA Accepted * M.H.C. Mounting Hole Center

1-7/32" x 7/32" SIZE

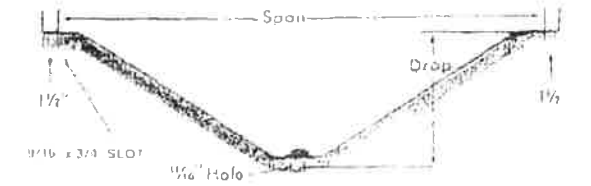
Catalog No.	Length (Inches)	M.H.C.* Distance (Inches)	Approximate Shipping Weight (Lbs. per 100 pcs.)
J7026	26	24	180
J7028	28	26	190
J7030	30	28	200

* Bolt Standard * M.H.C. Mounting Hole Center

Braces, Double Span, Steel

Hot Dip Galvanized

One piece, angle steel double span braces are used to support heavy crossarm construction. Braces are attached to the under side of the crossarm with 1/2-inch bolts or lag screws and fastened to the pole with a 5/8-inch bolt. The pole mounting section is designed to allow more than ample clearance for wrenching.



Catalog No.	Angle Size (Inches)	Span (Inches)	Drop (Inches)	Approximate Shipping Weight (Lbs. per 100 pcs.)
J1506	1-1/2 x 1-1/2 x 3/16	42	12	900
J1507	1-1/2 x 1-1/2 x 3/16	48	14	900
J1514	1-1/2 x 1-1/2 x 3/16	48	18	1,000
J1508 (E)	1-1/2 x 1-1/2 x 3/16	60	18	1,100
J1510	1-3/4 x 1-3/4 x 3/16	60	18	1,240
J1512	1-3/4 x 1-3/4 x 3/16	72	22	1,500

(E) REA Accepted

BOLT, SPOOL, SINGLE-UPSET, 5/8in x 18in

by CHANCE Utility
Catalog ID: PS7746

* Representative image

Single-upset spool bolt, 5/8" diameter x 18" shank length, with 6" thread length and cone pointed end. Overall length is 22 3/4". Includes one square nut with cotter key. Rated cantilever load is 1,900 lbs. Hot dip galvanized per ASTM A-153. Manufactured in compliance with ANSI C135.31. RUS listed, q - Bolt, double upset.

Product Details

General

Coating	Galvanized, ASTM A-153
Material	Steel
Tensile Strength	12400 lb

Type	Spool Bolts
UPC	096359565123

Dimensions

Diameter	0.63 in
Diameter (Fraction)	5/8 in
Distance From Pole	N/A
Length	18.00 in
Weight	2.02 lb

Logistics

Carton Quantity	20

CHANCE®

Models to mount one, two, or three transformers

• Double-band mounts for 3kVA - 100kVA transformers

For 3 through 100kVA transformers, use double band cluster mounts. Use any combination of 12" or 24" EEI-NEMA type A and B lugs as required. If adapters (page 5B-4) are used with the mounts, 167 through 250kVA transformers with EEI-NEMA type C lugs can be mounted.

Mounts Three Transformers		
Model	From pole	Wt. (lb./kg.)
C15M36*	6"	40/18.14
C15M39	9"	54.2/24.58
C15M3969	9"-6"-9"	50/22.67

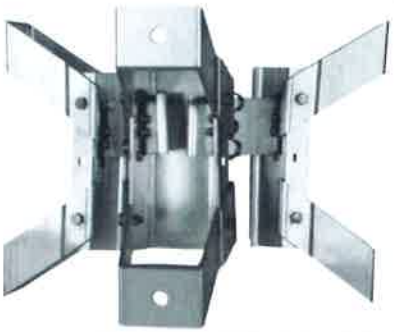
Mounts Two Transformers		
Model	From pole	Wt. (lb./kg.)
C10M26	6"	38/17.24
C10M29	9"	52/23.59

Mounts One Transformer		
Model	From pole	Wt. (lb./kg.)
C5M16	6"	35.7/16.19
C5M19	9"	50/22.68

* RUS Listed

• Single-band mounts for 3kVA - 50kVA transformers

For 3KVA through 50kVA, single-band cluster mounts may be used with 12" EEI-NEMA type A lugs.



Mounts Three Transformers		
Model	From pole	Wt. (lb./kg.)
C6M36*	6"	24.6/11.15
C6M39	9"	29.4/13.33
C6M3969	9"-6"-9"	28/12.7

Mounts Two Transformers		
Model	From pole	Wt. (lb./kg.)
C4M26	6"	22/9.97
C4M29	9"	27/12.24

Mounts One Transformer		
Model	From pole	Wt. (lb./kg.)
C2M16M	6"	20/9.07
C2M19M	9"	25/11.33

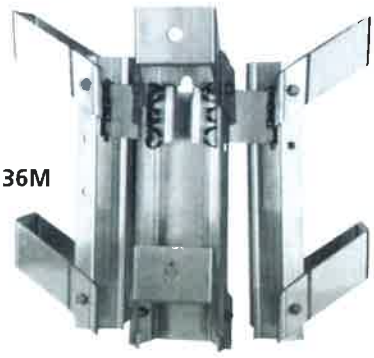
* RUS Listed

For extra pole bearing surface

Use Model C6M36M when extra pole bearing surface is required.

Includes $\frac{5}{8}$" transformer mounting hardware and ground clamp for mounting three 3kVA through 50kVA transformers with 12" EEI-NEMA type A lugs. Gives extra pole bearing surface for increased support on extremely soft or older poles. Ideal where appearance requires transformers to remain in a vertical position. Shipping weight: 31.3 lb. / 14.2 kg.

C6M36M



COMMONWEALTH UTILITIES CORPORATION

IFB-05-013	DISTRIBUTION CONDUCTORS PRIMARY

PRIMARY CONDUCTOR SPECIFICATION

TYPE – COPPER HARD DRAWN

The cooper conductors shall be solid bare cooper of Class AA and A for overhead distribution line applications of length and size stated in material list. The conductor shall meet ASTM B-1 for hard drawn copper wire.

TYPE – COPPER SOFT DRAWN

The copper conductors shall be solid bare copper of Class B for overhead distribution line applications of length and size stated in material list. The conductor shall meet ASTM B-3 for drawn or annealed copper wire.

TYPE – ALUMINUM

The aluminum conductors shall be stranded 1350 aluminum alloy of Class AA or A for overhead distribution line applications of length an size stated in material list. The conductor shall meet ASTM B-230 for aluminum wire, 1350-H19 for electrical purposes and ASTM B-231 for aluminum conductors, concentric-lay-stranded.

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COMMONWEALTH UTILITIES CORPORATION

IFB No. DISTRIBUTION CONDUCTORS
Secondary

SECONDARY CONDUCTOR SPECIFICATION

TYPE - DUPLEX, INSULATED

The duplex conductors shall be:

- one bare stranded copper Class AA, and shall meet ASTM B-1 for hard drawn copper wire and ASTM B-8 for concentric-lay-stranded copper conductor, hard, medium-hard, or soft, and
- one stranded copper Class B, and shall meet ASTM B-3 for soft or annealed copper wire and ASTM B-8 for concentric-lay-stranded copper conductor, hard, medium-hard, or soft and shall be insulated with 600 volt, 90°C crosslinked polyethylene insulation and meets or exceeds ICEA S-66-524. The insulated conductor shall be identified by indent marking or non-erasable print at intervals to not exceed 24 inches (610 mm) on the surface of the covering or insulation and include maximum rated voltage, letter or letters for the type of insulation, manufacturer's name, trademark, or other distinctive marking by which the organization responsible for the product can be readily identified and the AWG size or circular mil area of the wire.

The insulated conductor shall be twisted around the neutral conductor in a right hand direction with a lay of 25 to 60 times the diameter of the insulated conductor. The conductors shall be used for overhead distribution line applications of length and size stated in material list.

TYPE - TRIPLEX, INSULATED

The triplex conductors shall be:

- one bare stranded copper Class AA, and shall meet ASTM B-1 for hard drawn copper wire and ASTM B-8 for concentric-lay-stranded copper conductor, hard, medium-hard, or soft, and
- two stranded copper Class B, and shall meet ASTM B-3 for soft or annealed copper wire and ASTM B-8 for concentric-lay-stranded copper conductor, hard, medium-hard, or soft and shall be insulated with 600 volt, 90°C crosslinked polyethylene insulation and meets or exceeds ICEA S-66-524. The insulated conductor shall be identified by indent marking or non-erasable print at intervals to not exceed 24 inches (610 mm) on the surface of the covering or insulation and include maximum rated voltage, letter or letters for the type of insulation, manufacturer's name, trademark, or other

distinctive marking by which the organization responsible for the product can be readily identified and the AWG size or circular mil area of the wire.

The insulated conductors shall be twisted around the bare neutral conductor in a right hand direction with a lay of 25 to 60 times the diameter of one of the insulated conductors. The conductors shall be used for overhead distribution line applications of length and size stated in material list.

TYPE - QUADROPLEX, INSULATED

The quadruplex conductors shall be:

- one bare stranded copper Class AA, and shall meet ASTM B-1 for hard drawn copper wire and ASTM B-8 for concentric-lay-stranded copper conductor, hard, medium-hard, or soft, and
- three stranded copper Class B, and shall meet ASTM B-3 for soft or annealed copper wire and ASTM B-8 for concentric-lay-stranded copper conductor, hard, medium-hard, or soft and shall be insulated with 600 volt, 90°C crosslinked polyethylene insulation and meets or exceeds ICEA S-66-524. The insulated conductor shall be identified by indent marking or non-erasable print at intervals to not exceed 24 inches (610 mm) on the surface of the covering or insulation and include maximum rated voltage, letter or letters for the type of insulation, manufacturer's name, trademark, or other distinctive marking by which the organization responsible for the product can be readily identified and the AWG size or circular mil area of the wire.

The insulated conductors shall be twisted around the bare neutral conductor in a right hand direction with a lay of 25 to 60 times the diameter of one of the insulated conductors. The conductors shall be used for overhead distribution line applications of length and size stated in material list.

TYPE - SINGLE, INSULATED

The single conductor shall be one stranded copper Class B, and shall meet ASTM B-3 for soft or annealed copper wire and ASTM B-8 for concentric-lay-stranded copper conductor, hard, medium-hard, or soft and shall be insulated with 600 volt, 90°C crosslinked polyethylene insulation and meets or exceeds ICEA S-66-524. The insulated conductor shall be identified by indent marking or non-erasable print at intervals to not exceed 24 inches (610 mm) on the surface of the covering or insulation and include maximum rated voltage, letter or letters for the type of insulation,

manufacturer's name, trademark, or other distinctive marking by which the organization responsible for the product can be readily identified and the AWG size or circular mil area of the wire.

The conductor shall be used for overhead distribution line applications of length and size stated in material list.