

## SUSPENSION STRAND ATTACHMENTS

### CABLE EXTENSION ARMS

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#### 1. GENERAL

1.01 This section covers the field of use and the method of installing steel and wooden cable extension arms.

1.02 This section has been reissued to include the use of cable extension arms to support cable owned by an Authorized Licensee in situations where there is inadequate space on the pole for placement of an additional cable.

1.03 Cable extension arms are used to support cable where it is necessary to clear obstructions in the span, to improve cable alignment, or to provide space for an additional cable where that space could not be provided without replacing the pole. Cable extension arms should be used to accommodate cables owned by an Authorized Licensee only when other means, such as relocating telephone or power facilities on the pole or utilizing the 12-inch separation rule, cannot be utilized.

1.04 The types of cable extension arms are:

- (a) B Cable Extension Arm—a steel fixture for use where offsets of about 28 to 44 inches are required.
- (b) C Cable Extension Arm—a steel fixture for use where offsets of about 18 to 24 inches are required.

(c) Wooden Extension Arms—single or double guard arm fixtures for use where offsets of up to 38 inches are required.

1.05 Steel and wooden cable extension arms may be used interchangeably except where proper clearance from vertical power runs cannot be obtained because of the way the steel arms mount on the pole, the wooden arm shall be used to obtain proper clearance.

#### 2. USE

2.01 Cable extension arms may be used where the average length of the adjacent spans does not exceed the values given in Table A when a single cable is to be supported or Table B when two or more cables are to be supported.

2.02 Extension arms may be used to support cables owned by an Authorized Licensee where proper clearance between telephone, power, and licensee facilities cannot be achieved without a pole replacement. The use of an extension arm is generally applicable where the separation between existing telephone cable and a power facility is between 46 and 51 inches and neither facility can be relocated to achieve clearance for the additional facility.

2.03 Extension arms may be used on nonjoint use poles to accommodate an additional cable; however, the suspension bolt for the extension arm must be at least 6 inches from existing suspension bolt and 10 inches or more from the top of the pole (See Part 4).

#### 3. INSTALLATION

3.01 Extension arms should not be installed on poles where, because of their presence, proper climbing space cannot be maintained.

\*\*Reprinted to comply with modified final judgment.

TABLE A

## CABLE WEIGHT/SPAN LENGTH LIMITS FOR A SINGLE CABLE SUPPORTED BY A CABLE EXTENSION ARM

CABLE WEIGHT (lbs./ft.)	MAXIMUM AVERAGE LENGTH OF ADJACENT SPANS (feet)			
	TYPE OF CABLE EXTENSION ARM			
	B	C	WOODEN	DOUBLE WOODEN
0.5	300	300	300	300
1.0	300	300	300	300
1.5	300	300	300	300
2.0	275	300	275	300
2.5	250	300	250	300
3.0	230	300	230	300
3.5	215	300	215	300
4.0	200	295	200	300
4.5	185	275	185	300
5.0	175	260	175	300
5.5	165	245	165	300
6.0	155	235	155	300
6.5	150	220	150	300
7.0	145	210	145	290
7.5	135	205	135	270
8.0	130	195	130	260
8.5	125	185	125	250

**TABLE B**  
**CABLE WEIGHT/SPAN LENGTH LIMITS FOR TWO OR MORE CABLES**  
**SUPPORTED BY A CABLE EXTENSION ARM**

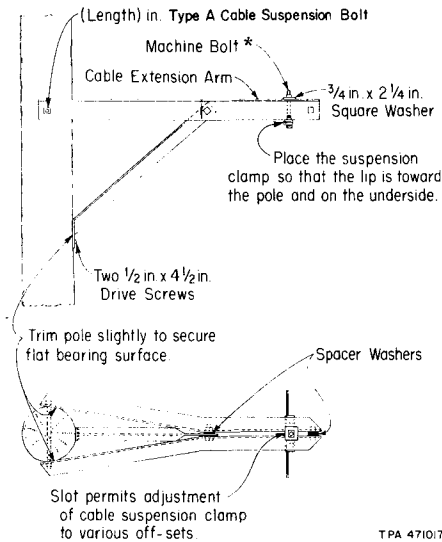
COMBINED CABLE WEIGHT (lbs./ft.)	MAXIMUM AVERAGE LENGTH OF ADJACENT SPANS (feet)			
	TYPE OF CABLE EXTENSION ARM			
	B	C	WOODEN	DOUBLE WOODEN
0.5	300	300	300	300
1.0	250	300	250	300
1.5	210	300	210	300
2.0	185	275	185	300
2.5	170	250	170	300
3.0	160	230	160	300
3.5	150	215	150	295
4.0	140	200	140	275
4.5	130	190	130	260
5.0	125	180	125	250
5.5	120	175	120	240
6.0	115	170	115	230
6.5	110	165	110	225
7.0	105	160	105	220
7.5	105	155	105	210
8.0	100	150	100	200
8.5	95	145	95	195
9.0	—	140	—	190
9.5	—	135	—	185
10.0	—	130	—	180
11.0	—	120	—	170
12.0	—	115	—	160
13.0	—	110	—	150
14.0	—	105	—	145
15.0	—	100	—	140
16.0	—	95	—	135

**3.02** Where more than one cable is installed on an extension arm, there should be 6 inches separation between the cables.

**3.03** Install the B and C Cable Extension Arms as shown in Fig. 1.

**3.04** The spread of the two horizontal arms of the B and C arms may be varied to fit poles ranging in diameter from 6 to 9 inches by placing various combinations of spacing washers on the two assembly bolts between the two arms. The minimum spread is obtained with two washers on the center bolt and eight on the end bolt; the maximum spread is obtained with six washers on the center bolt and four on the end bolt. Where the pole diameter at the point of attachment exceeds 9 inches, slight gaining of the pole may be necessary to obtain the desired fit.

\* Use  $\frac{5}{8}$  in. x 6 in. Machine Bolt with Type B Cable Extension Arm and  $\frac{5}{8}$  in. x 5 1/2 in. Machine Bolt with Type C Cable Extension Arm.

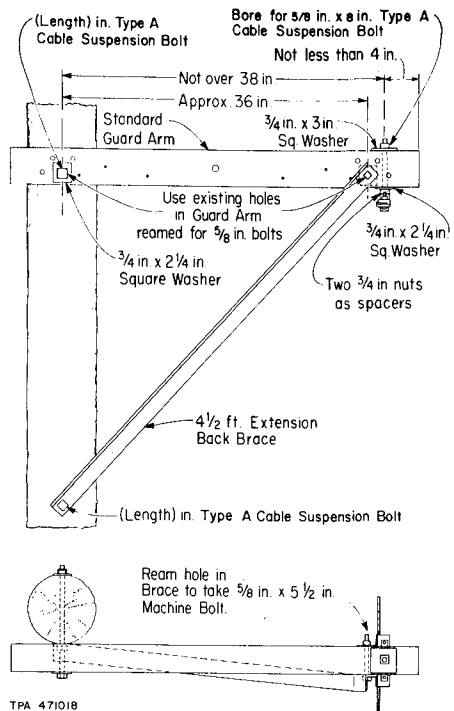


**Fig. 1—Installation of B and C Cable Extension Arms**

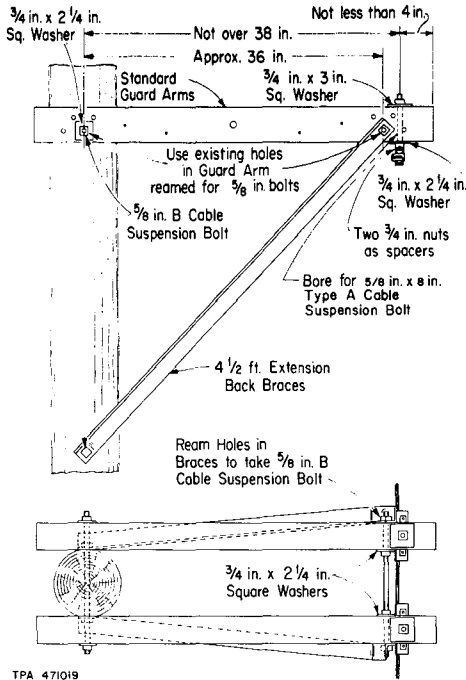
**3.05** Use new guard arms or lengths of new 3 1/4- by 4 1/4-inch crossarms to make the wooden extension arms. Install the single extension arm as shown in Fig. 2 and the double extension arm as shown in Fig. 3.

**4. CLEARANCES FOR PLACING EXTENSION ARMS FOR AUTHORIZED LICENSEE CABLE**

**4.01** Figures 4 and 5 illustrate minimum clearance requirements for placing extension arms to support cables owned by an Authorized Licensee.

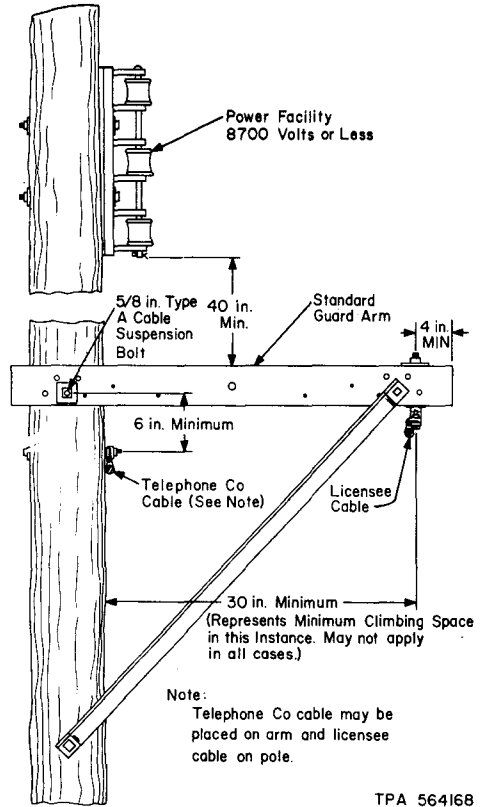


**Fig. 2—Installation of Wooden Extension Arm—Single Guard Arm Fixture**



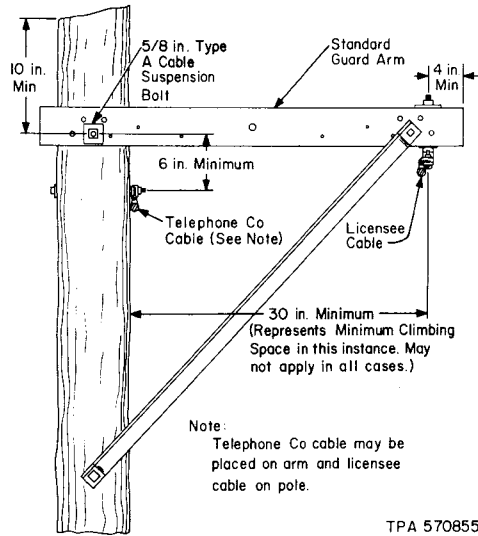
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**Fig. 3—Installation of Wooden Extension Arm—Double Guard Arm Fixture**



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**Fig. 4—Clearance Requirements For Authorized Licensee Cable Installation—Joint Use Pole**



**Fig. 5—Clearance Requirements For Authorized Licensee Cable Installation—Non-Joint Use Pole**