

STEPPING POLES
GENERAL

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1. GENERAL

1.01 This section covers the methods of mounting and arrangements of pole steps.

1.02 This section is reissued to:

- (a) Delete reference to items rated "MD".
- (b) Include information formerly contained in Sections 621-210-200, 621-210-205, and 621-210-211.
- (c) Correct minor deviations.

Since this is a general revision, arrows used to show changes have been omitted.

1.03 In general, the following poles should be stepped:

- (a) Poles at junction of cable and open or multiple-type wires.

- (b) Cross-connect terminal poles.
- (c) Special equipment poles such as equipment cabinets, contactors, pressure testing valves, etc.
- (d) Certain tall poles (50 feet or more in length) due to maintenance reasons or other local conditions. Such cases will be indicated by detail prints or local instructions.
- (e) Any other poles which require frequent climbing, or which expose plant to damage if climbers are used.

1.04 This section should be supplemented by locally prepared instructions to cover:

- (a) Any change required to meet the lawful requirements of state, municipal, and other regulatory bodies.
- (b) Specific local conditions not covered herein.

2. PLACING POLE STEP AND B POLE STEP MOUNTINGS

2.01 Figure 1 illustrates a pole step.

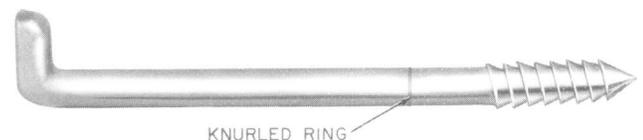


Fig. 1—Pole Step

2.02 Figure 2 illustrates a B pole step and mounting hardware.

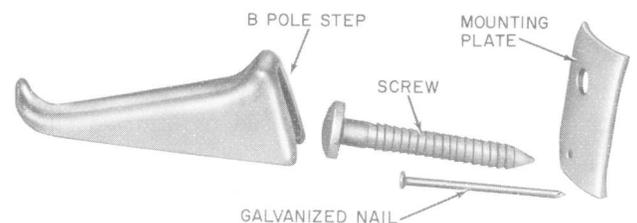


Fig. 2—B Pole Step

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2.03 When stepping cedar poles, bore 3/8-inch lead holes 2 inches to 3 inches deep. For all other poles bore 1/2-inch lead holes 4 inches to 4-1/2 inches deep. Bore all holes horizontally toward the center of the pole. When boring holes for double steps at locations where the diameter of the poles is less than 8 inches, bore one of the holes about 1 inch below the hole on the opposite side of the pole (Fig. 3).

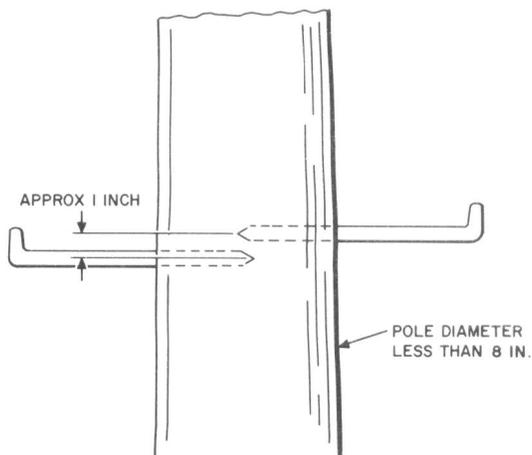


Fig. 3—Double Step in Small Diameter Pole

2.04 No pole steps are to be placed at a distance of less than 8 feet above the ground. Where the pole is set in sloping ground, this distance shall be measured from the ground on the high side of the pole.

2.05 If there should be a fence or other object close to a pole which might enable unauthorized persons to reach the permanent pole steps placed in their normal positions, omit such steps. In such cases, either place B pole step mountings up to a height that will prevent access to the permanent steps, or omit all steps from the pole.

2.06 Drive pole steps into the pole until the distance between the surface of the pole and the inside of the head of the step is 5-1/2 inches. (Pole steps have a raised or knurled ring

around the shank at a distance of 5-1/2 inches from the inside of the head. See Fig. 1.) If after driving, the step is not in line with other steps or if the step slants upward or downward, no attempt shall be made to bring it in line by bending. If it is out of line to the extent it is unsightly or dangerous, it should be removed and redriven.

2.07 Where poles are to be equipped with mounting plates for B pole steps:

- (a) Bore a 3/8-inch lead hole about 2 inches deep at the desired location.
- (b) Remove any irregularity on pole surface that would interfere with proper seating of the mounting plate.
- (c) Insert screw through the hole in the plate and drive the screw into the lead hole.

Note: The long edges of the plate and the head of the screw must be in a vertical position. Drive screw until all edges of the plate are impressed into the surface of the pole.

- (d) Drive a 1 1/2- or 2-inch 3/16-inch galvanized strap nail through the hole in the bottom of the plate to prevent the plate from turning.
- (e) When necessary align the screw with the plate using a linemans wrench (Fig. 4).



Fig. 4—Linemans Wrench

(f) Place a step on the mounting plate to ensure satisfactory installation (Fig. 5). Inspect detachable pole steps in accordance with Section 081-735-600 before using.

Caution: Remove all B pole steps before leaving pole.

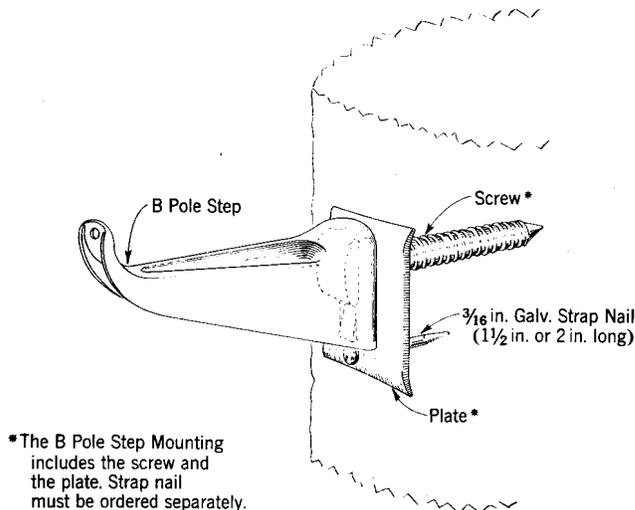


Fig. 5—Mounted B Pole Step

2.08 Figure 6 shows the arrangement of the lower steps where poles are equipped with mounting plates for detachable pole steps and the lowest permanent metal step is at a height of 8 feet above the ground.

3. PLACING POLE STEPS

3.01 Place a permanent step "A" at the 8 foot mark as shown in Fig. 6.

3.02 Place B pole steps "B", "C", and "D" equidistant between the ground surface and step "A" as shown in Fig. 6.

3.03 When the lowest permanent step is located at a height over 8 feet above the ground, follow the general arrangement shown Fig. 6. Using three or more mounting plates, space them at equal intervals ranging between 21 and 28 inches.

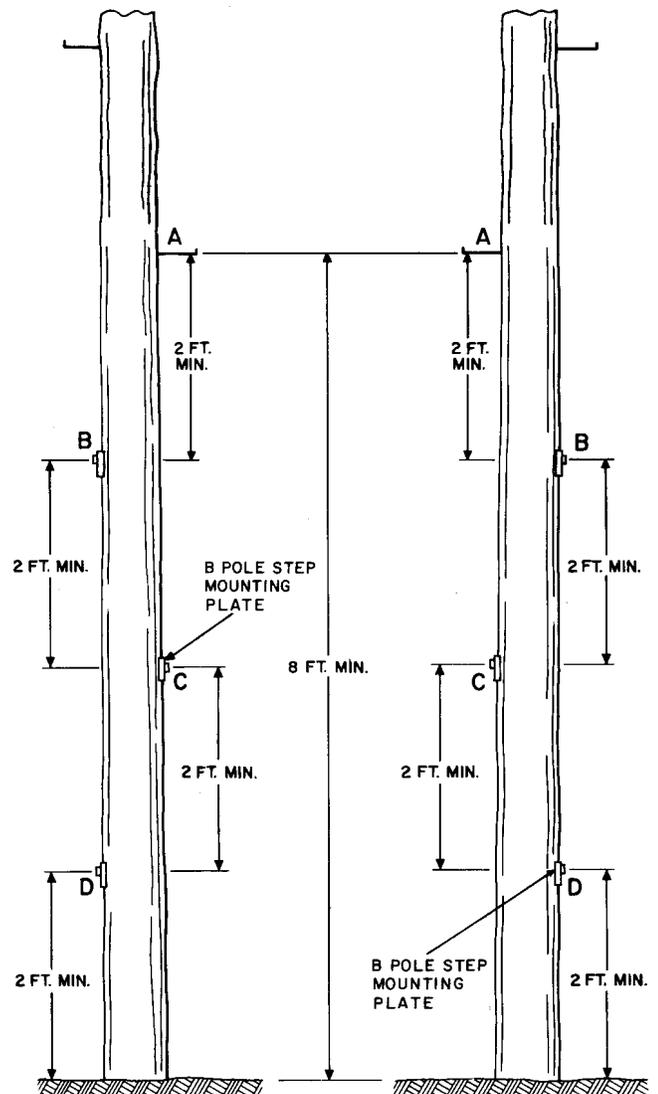


Fig. 6—B Pole Step Spacing

4. LOCATING STEPS

4.01 Steps should be located in line with the lead, but steps can be shifted from the "in-line" position, when necessary to:

- (a) Permit climbing past vertical runs, stub cables, terminals or other pole mounted boxes, braces, guys, etc.

Note: Pole steps shall clear vertical runs by at least 3 inches. Vertical runs shall not interfere with the safe use of pole steps.

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- (b) Provide convenient means for reaching and working in terminals, protectors, etc.
- (c) Avoid obstructing driveways or entrances to garages and other buildings, and interfering with vehicular traffic and pedestrians.
- (d) Avoid knots, cracks, and holes in poles.

5. STEPPING JUNCTION AND STRAND MOUNTED TERMINAL POLES

5.01 The bolt hole for the suspension bolt, suspension screw, guy bolt, or extension fixture bolt is used as a reference point in the stepping arrangement shown in Fig. 7, involving distribution terminals. On tall poles not carrying a cable, use the bottom crossarm bolt or multiple-type wire attachment as a reference point.

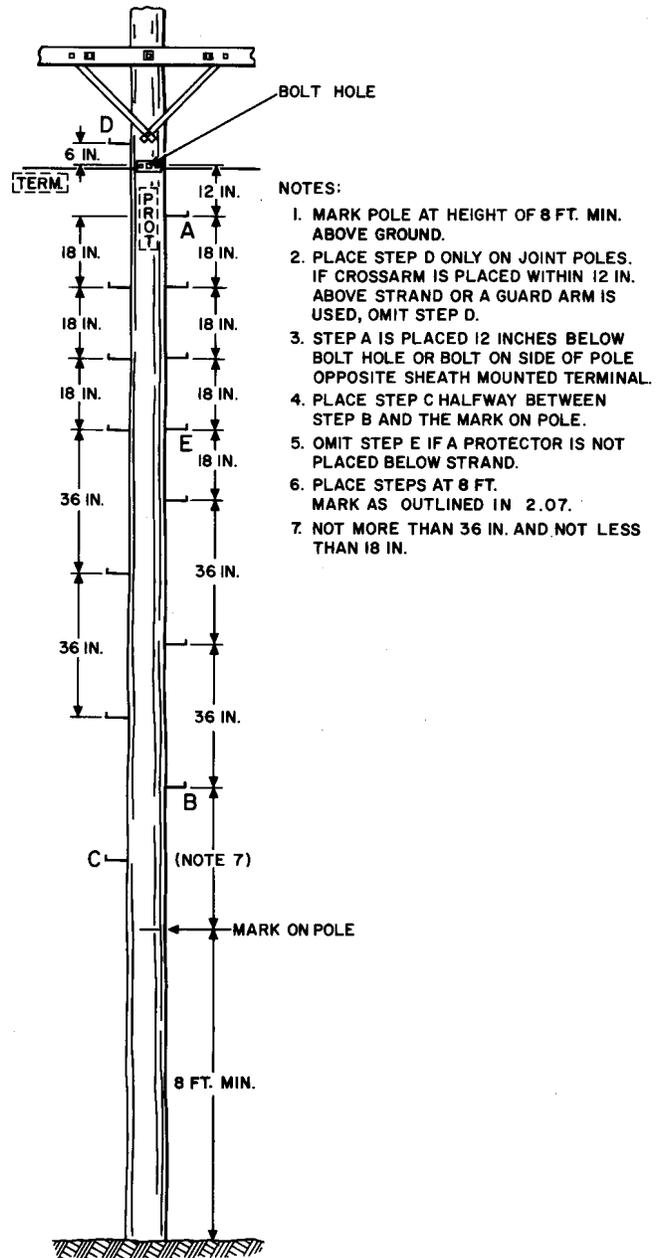


Fig. 7—Strand Mounted Terminal

5.02 For strand mounted terminals to left of pole, place steps as shown in Fig. 8. For strand mounted terminals to right of pole, reverse position of steps "A" and "D" (Fig. 9).

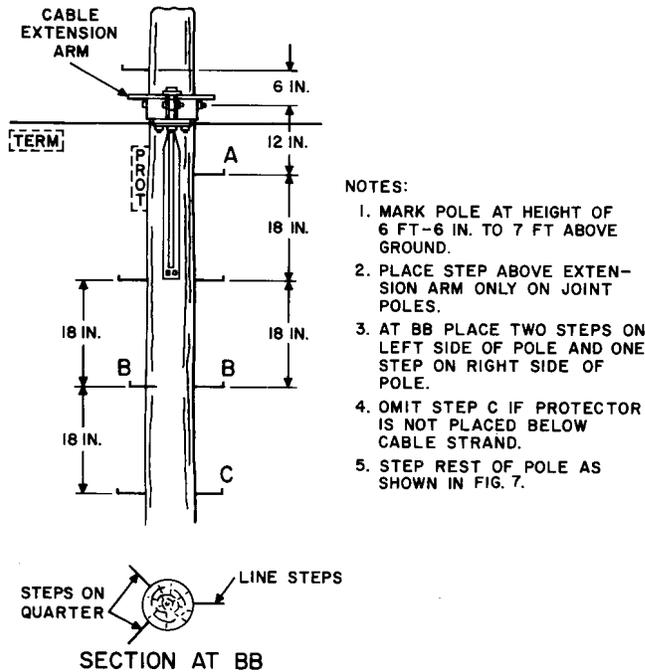


Fig. 8—Extension Arm With Terminal on Left

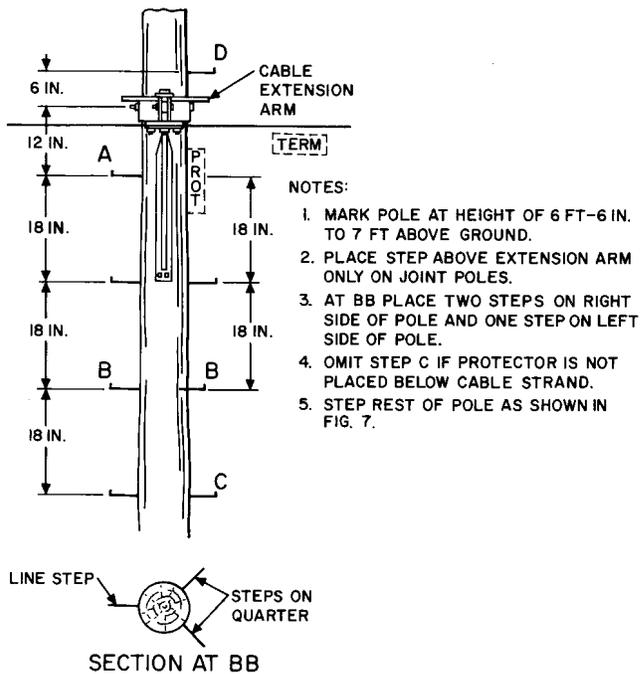


Fig. 9—Extension Arm With Terminal on Right

5.03 For pole mounted terminals on cable side of pole see Fig. 10.

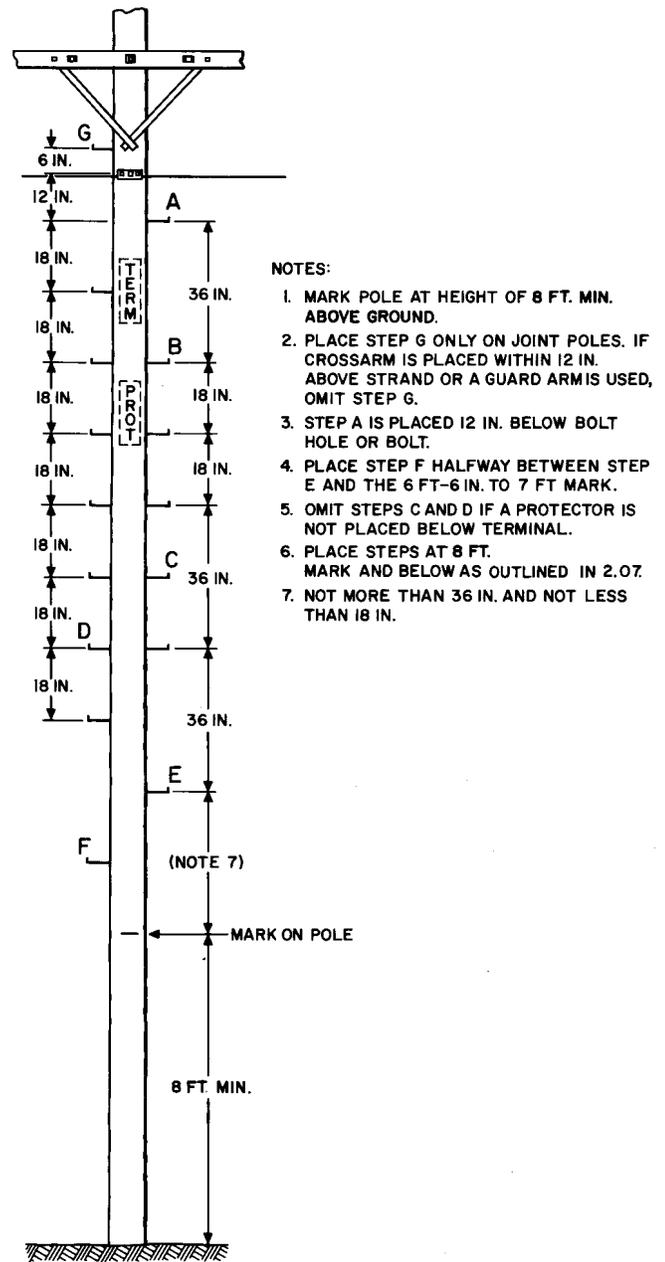


Fig. 10—Terminal on Cable Side

6. STEPPING TALL POLES

6.01 When indicated by detail prints or local instructions, step tall poles (50 feet or longer) as follows:

(a) For open wire poles without distribution terminals, step as shown in Fig. 13.

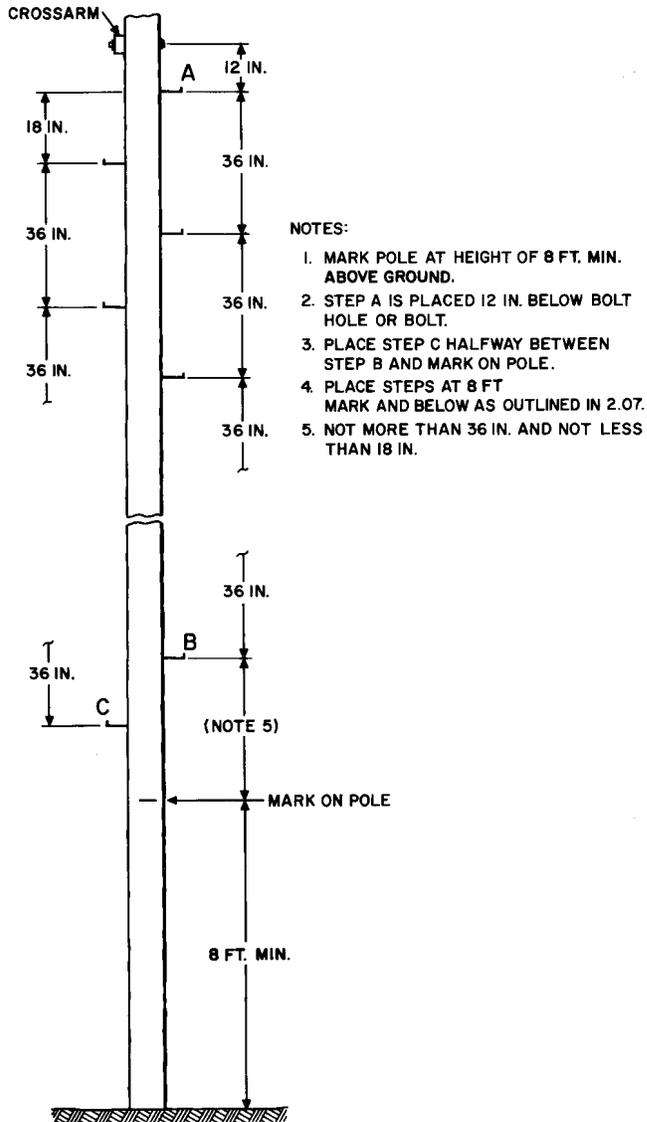


Fig. 13—Open Wire Only

(b) For cable poles without distribution terminals, step as shown in Fig. 14.

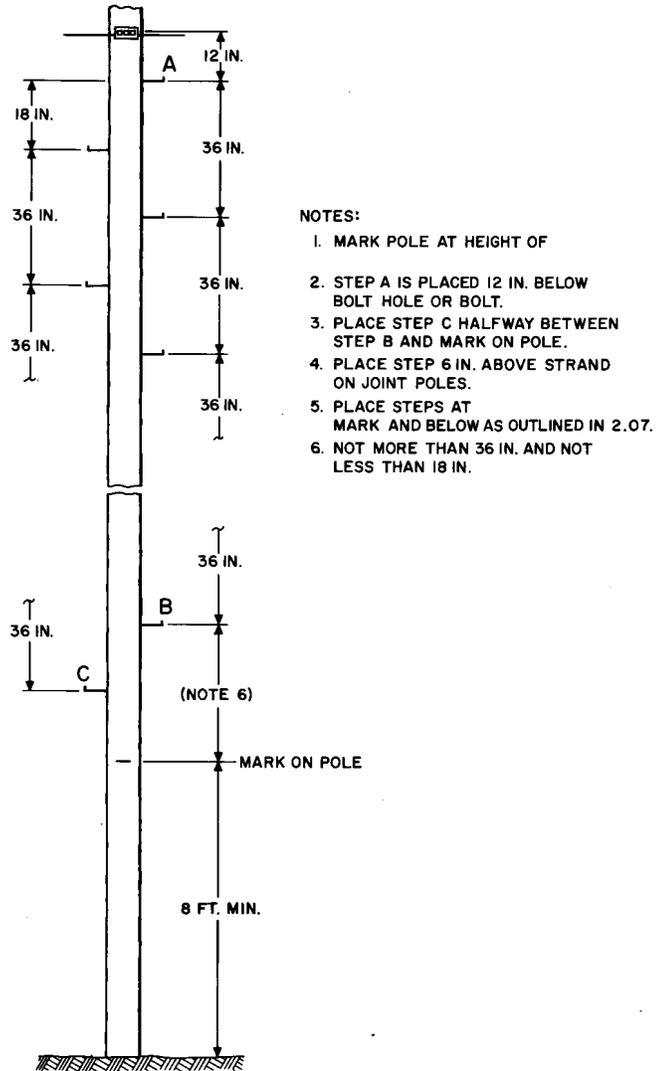


Fig. 14—Cable Only

7. STEPPING FOR CROSS-CONNECT TERMINALS

7.01 The placing arrangements shown are for cross-connect terminals and pole seats located as shown in Fig. 15. The drive screws which secure the diagonal members of the pole seat to the pole are used as the reference point. These drive screws are about 24 inches below the bottom of the terminal. (See Section 631-300-213 for further instructions.)

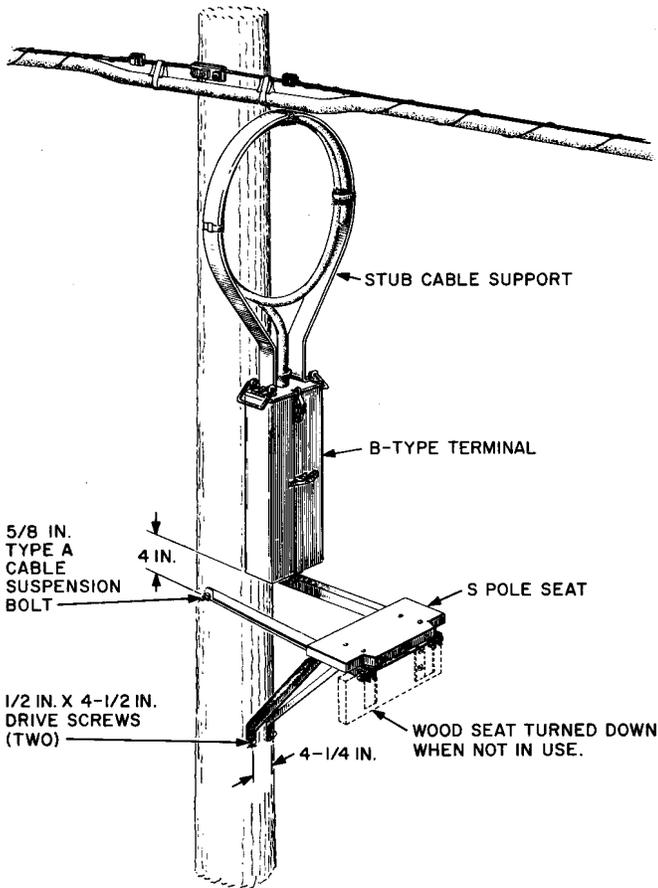


Fig. 15—S Pole Seat

7.02 For cross-connect terminals step pole as shown in Fig. 16.

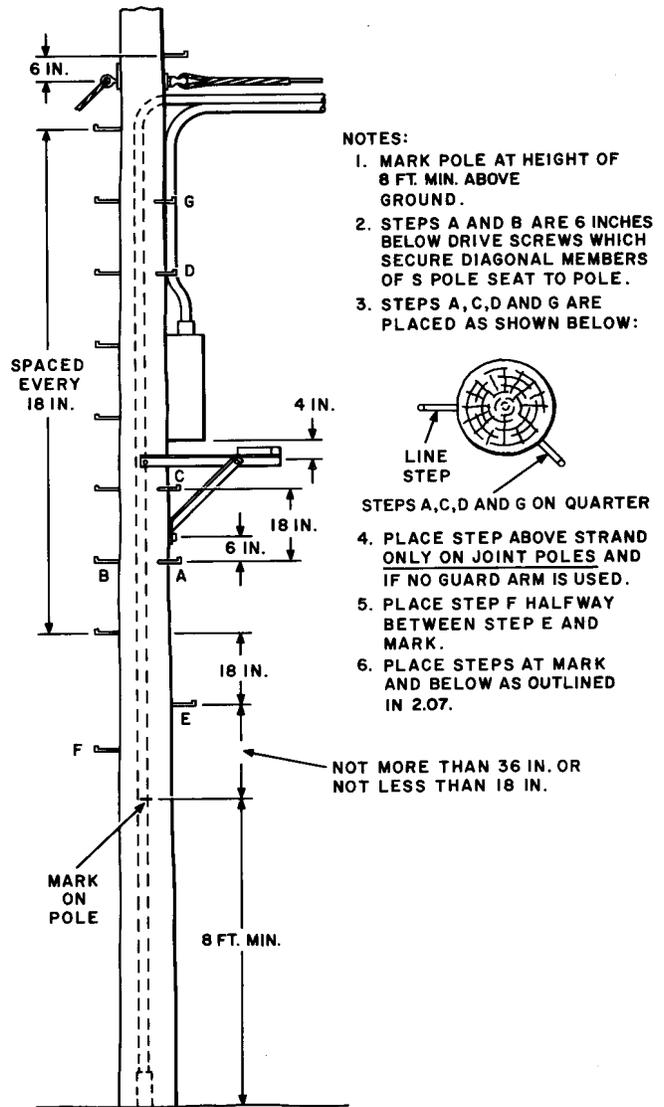


Fig. 16—Steps for Cross-Connect Terminals

- NOTES:**
1. MARK POLE AT HEIGHT OF 8 FT. MIN. ABOVE GROUND.
 2. STEPS A AND B ARE 6 INCHES BELOW DRIVE SCREWS WHICH SECURE DIAGONAL MEMBERS OF S POLE SEAT TO POLE.
 3. STEPS A, C, D AND G ARE PLACED AS SHOWN BELOW:



STEPS A, C, D AND G ON QUARTER

4. PLACE STEP ABOVE STRAND ONLY ON JOINT POLES AND IF NO GUARD ARM IS USED.
5. PLACE STEP F HALFWAY BETWEEN STEP E AND MARK.
6. PLACE STEPS AT MARK AND BELOW AS OUTLINED IN 2.07.

NOT MORE THAN 36 IN. OR NOT LESS THAN 18 IN.

8. AT GAS PRESSURE EQUIPMENT LOCATIONS

8.01 Poles at which pressure testing or bypass valves and contactors or contactor-terminals are located, and poles from which such pressure equipment is reached shall be stepped as in Fig. 17.

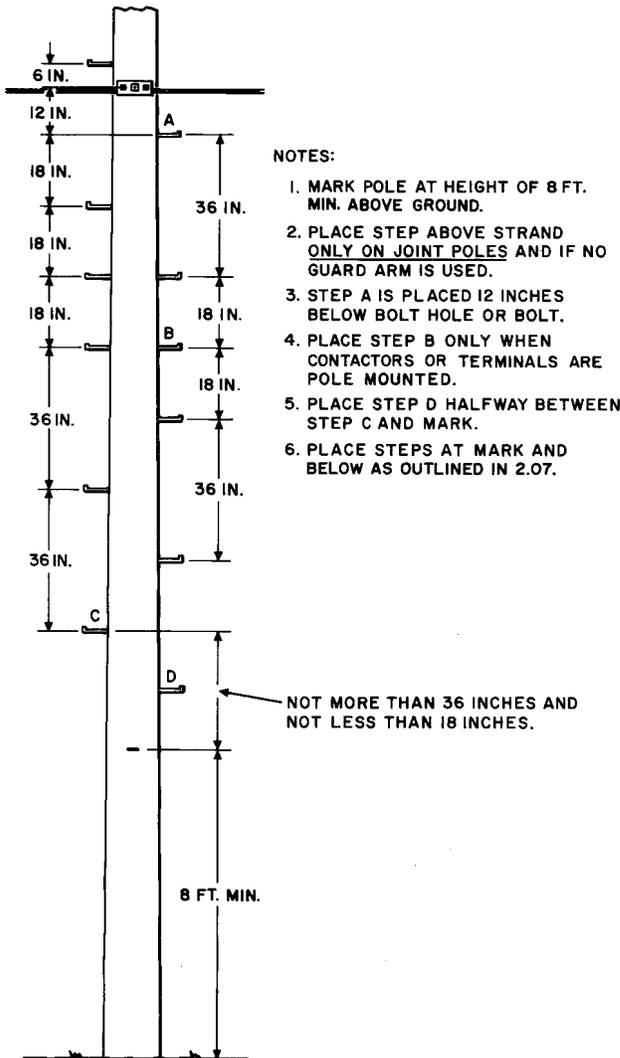


Fig. 17—Steps on Poles Supporting Equipment

9. AT ELECTRONIC EQUIPMENT LOCATIONS

9.01 Poles on which electronic equipment (switches, etc) is installed and which ordinarily would not be stepped should be stepped when specified on the detail plans.

9.02 For poles equipped with pole seats or balconies, arrange steps as for a cross-connect terminal, except that no steps are required above the pole seat or balcony.

9.03 For poles not equipped with pole seats or balconies, arrange steps as for a distributing terminal.