

BELL SYSTEM PRACTICES
Outside Plant Construction
and Maintenance

SECTION G21.416.3
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AT&T Co Standard

POLE MOVING FRAME

TRUCKS WITH MIDDLE-TYPE DERRICKS

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1. GENERAL

- 1.01 Sections G21.416.1 to G21.416.3 describe the use of the PM Frame with winch and derrick equipped trucks for moving pole lines that carry open wire telephone plant.
- 1.02 This section covers pole line moves made with trucks equipped with middle-type derricks.
- 1.03 Moving poles will, in general, consist of a pole removal operation followed by a pole moving operation. For methods to be employed in the removal of poles see Section G21.505.

2. SETTING UP DERRICK AND FRAME

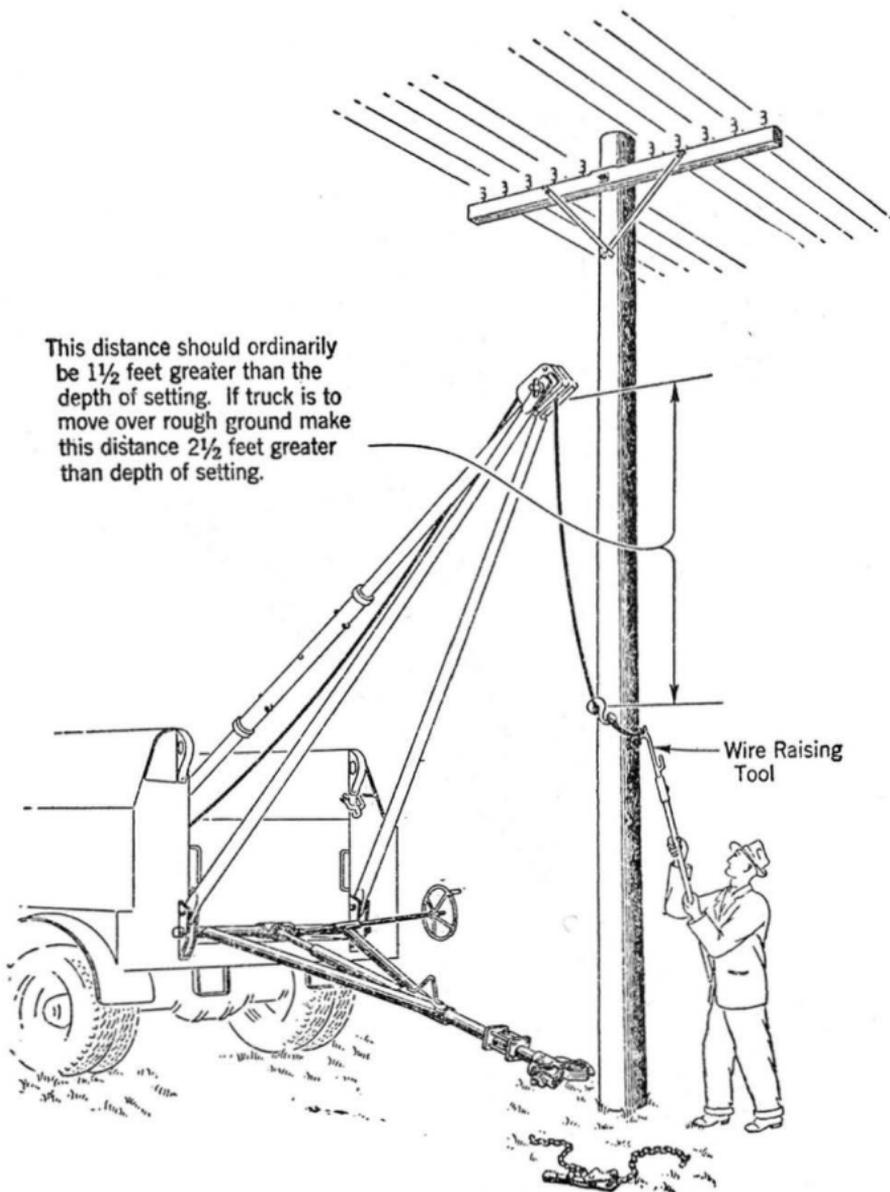
- 2.01 Erect the derrick for operation in the truck position.
Note: Ordinarily, when middle-type derricks are used to pull poles, the middle leg is operated in the ground position. However, when middle-type derricks are used in connection with pole moving operations, the middle leg cannot be operated in the ground position to pull the pole.
- 2.02 Attach the PM Frame to the truck. Insert winch line hook in the loop on the PM Frame and raise frame to a position slightly above the horizontal level.

3. POSITIONING THE TRUCK

3.01 A pole may be moved after it is suspended by the derrick and the frame by moving the truck forward or by backing the truck to the new hole depending on conditions encountered on the job. Position the truck so that the derrick head, the frame, and the truck are in line with the pole and the new hole. Place a range rod or other marker at the far side of the new hole to assist the truck driver to locate the new hole.

3.02 After positioning the truck, lower the frame to the ground and remove the winch line hook from the loop of the frame.

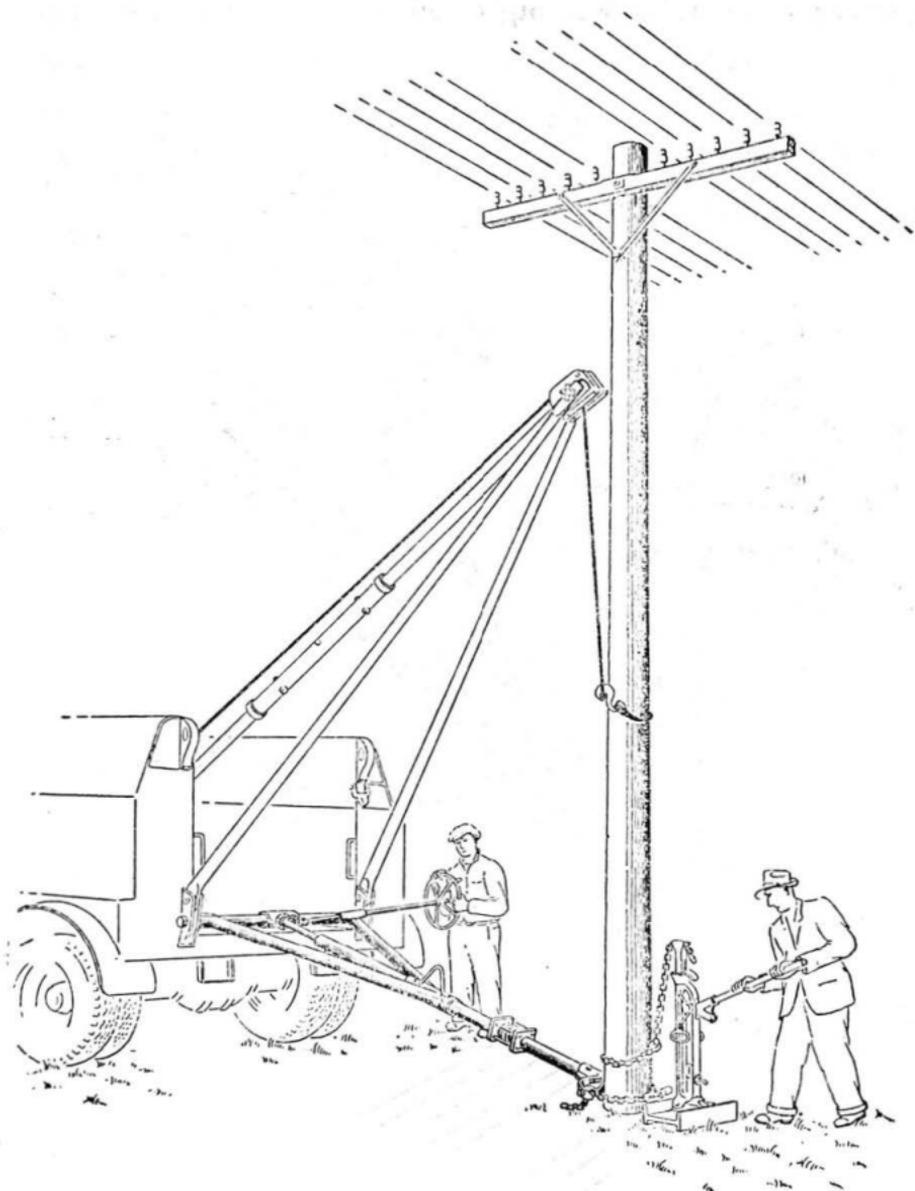
3.03 Attach the winch line to the pole. The length of the winch line between the attachment point on the pole and the derrick head should be **1-1/2 feet greater than the depth of setting**. If the truck is to move over rough ground, this length of line should be **2-1/2 feet greater than the depth of setting** to reduce strain on the line and tie wires. Use a wire raising tool to position the winch line and the hook at the proper location. If the hook cannot be positioned at the proper location, a lower point of attachment should be used, and after the pulling operation has been started and the grip of the ground broken, the hook should be shifted to the proper location before completing the pulling operation.



3.04 Adjust the PM Frame to the proper length and attach the frame to the pole.

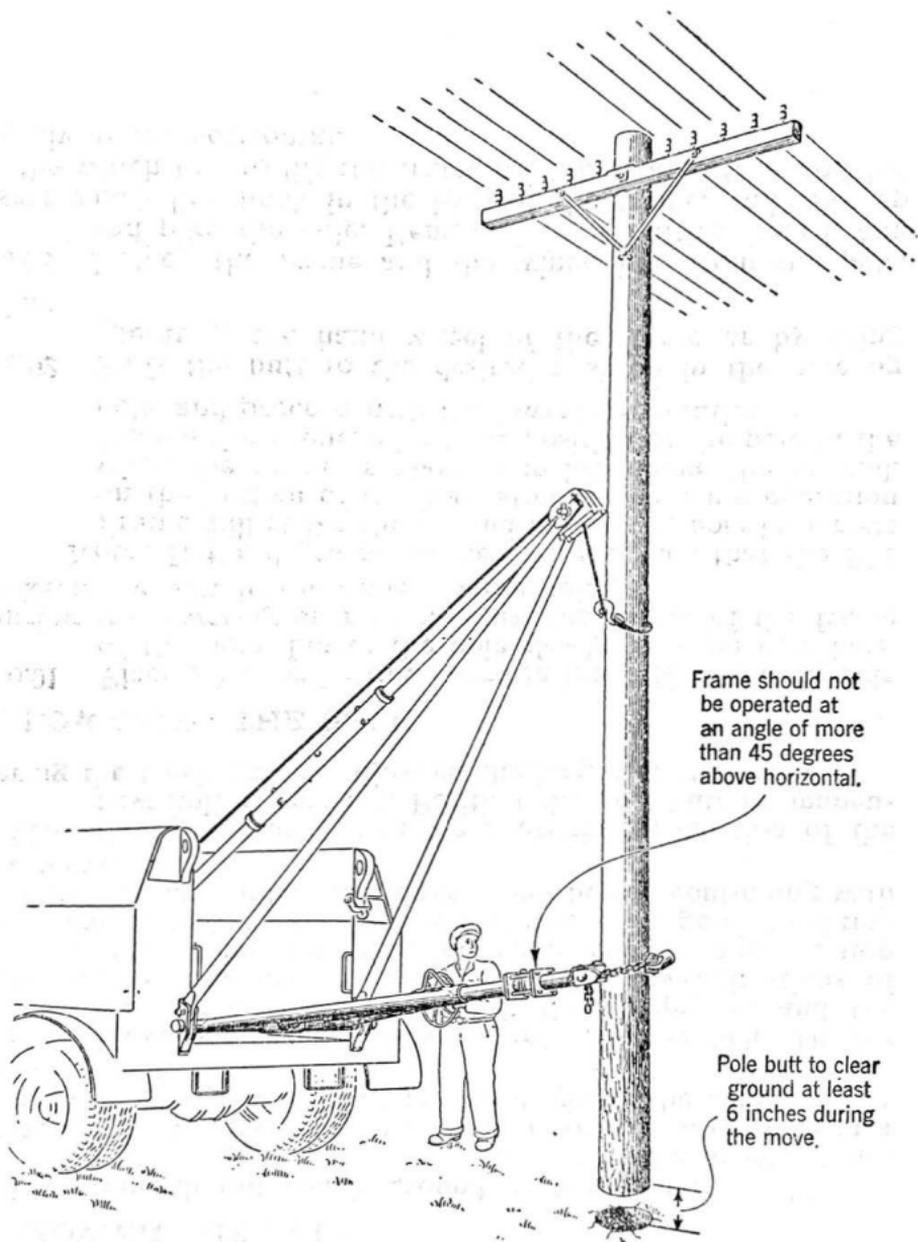
4. PULLING THE POLE

4.01 As the derrick is being used in the truck position, a pole jack should be used to assist in pulling the pole as outlined in Section G21.505.



4.02 Start pulling the pole. During the pulling operation, adjust the length of the frame by operating the hand wheel.

4.03 Raise the pole so that the pole butt will clear the ground during the move by at least six inches.



5. MOVING THE POLE

5.01 Smooth out rough ground or lay planks or skids to provide a fairly smooth path for the truck. Poles adjacent to the pole to be moved, and corners introduced in a line during the pole moving operation should be supported or guyed temporarily.

5.02 Move the truck **slowly** toward the new hole. During the moving operation watch the equipment, and the pole and its attachments carefully, and if any indications of trouble or improper action of the equipment are noticed, stop the move. Check to see that everything is in good condition and correct any faulty conditions found before continuing with the move.

5.03 Stop the truck when the approximate location of the new hole is reached. Position the pole butt by maneuvering the truck and by adjusting the length of the frame.

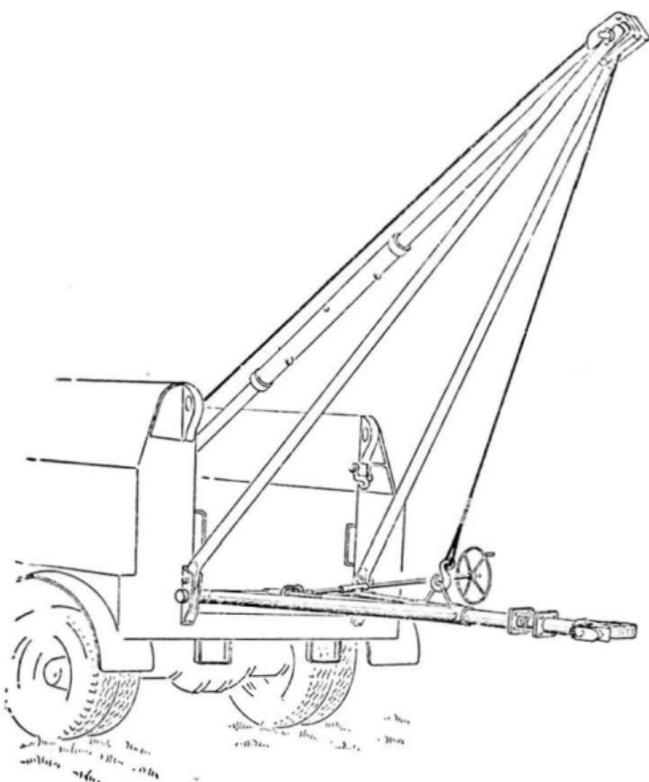
6. LOWERING THE POLE

6.01 Place a bar or butting board in the hole at the far side of the hole. Lower the pole **slowly** into the new hole. During the lowering operation, adjust the length of the frame to keep the butt in the center of the hole.

Note: If the depth of the new hole is such that the PM Frame will strike the ground before the pole butt rests on the bottom of the hole, stop the lowering operation when the frame is about 6 inches above the ground. Detach the frame, adjust the position of the pole in the hole, and proceed with the lowering operation.

6.02 Shift the butt to the desired position in the hole by operating the hand wheel of the frame or by using a bar.

6.03 Detach the frame and the winch line from the pole, and pike the pole. Remove bar or butting board, and insert winch line hook in the loop of the frame, and take up on the winch line to lift the frame off the ground to a position slightly above horizontal.



6.04 Proceed to the next location, and repeat the above operations beginning with Part 3.

6.05 Poles moved to new locations may be backfilled and tamped at any time after the moving operations have advanced two or three poles beyond the pole at which backfilling and tamping are to be done.

7. CORRECTING FAULTY CONDITIONS

7.01 Upon completion of the pole moving operations, make an inspection of this section of the line and correct any faulty conditions which may have been introduced. Among the items to look for are the following:

- (a) Insufficient Sag or Excessive Sag. Resag the wire if it is found that the sag in this section varies appreciably from the sag that exists in section of the line that was not moved.
- (b) Broken, missing, or loose tie wires, insulators, and insulator pins.
- (c) Slack guys.
- (d) Any other defects that might interfere with service.