

POLE REMOVAL

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1. GENERAL

- 1.01 This section describes several methods for use in the removal of poles.
- 1.02 This section is reissued to update illustrations and to revise requirements for use of pole puller.
- 1.03 The existing conditions and the equipment which is available will determine the method to be used.
- 1.04 Work should be well planned and conducted safely in a manner that will avoid interference with existing service.
- 1.05 Old poles should be removed as soon as practical after attachments have been removed. Pole butts should not be left in the ground where this is contrary to local regulations, objectionable to property owners, or there is any likelihood that it may become necessary to remove them at a later date. Pole butts left in place must not project above the ground level.
- 1.06 Properly barricade all holes left open and unattended. Where possible, do not leave holes open overnight.

1.07 All holes must be filled and tamped to prevent settling of the earth or paving. Broken pavement and holes left in pavement must be repaired as soon as practical, and in accordance with local regulations.

2. PRECAUTIONS

- 2.01 See Sections 620-131-010, 620-132-010, and 620-133-010 for precautions to be taken before climbing poles.
- 2.02 Where electrical conductors are close to a pole to be removed, care must be exercised to maintain a safe clearance from these conductors while working at the pole. A B pole guard (Section 621-205-010) may be used for such conditions.

2.03 The attachment of a pulling line to the pole should be at a point above the balance point of the pole. If there is any doubt of the attachment being above the balance point, support the pole with temporary guys arranged so as to control the pole movement during the lowering operation. In most cases temporary guys attached to the lower section of the pole near the ground level will provide better control of the pole and can be placed more conveniently than guys above the pulling line attachment. If there is any possibility that the pole will break at the groundline, the pole shall be cut off prior to removal; the pulling line attachment must be above the balance point of the section of pole above the point of cut.

2.04 Stepped poles cut off at or near the telephone attachment level and are not immediately removed shall have all pole steps removed by the craftsman before he leaves the job.

3. POLE DERRICK METHOD

3.01 Do not attempt to pull a pole with a hydraulically operated derrick by using either the elevation cylinder or the boom tip winch. Do not attempt to shake a pole loose with the derrick by rapidly extending and retracting the boom. Use a hydraulically operated derrick only to support, raise, or lower a pole.

NOTICE

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beginning on January 1, 1984, AT&T will cease to use
"Bell" and the Bell symbol, with the exceptions as set
forth in that Order. Pursuant thereto, any reference to
"BELL" and/or the BELL symbol in this document is hereby
deleted and "expunged".

3.02 There are several types of derricks available for use. Familiarity with the type of derrick available is important.

ATTACHMENT OF WINCH LINE AND BLOCKS

3.03 The winch line should be attached to the pole being removed as shown in Fig. 1. Be sure the hook is always hooked down over the line so that it will not come loose by its own weight when the line becomes slack. The winch line should be wrapped twice around the smaller poles so that the tail of the eye will not pull into the hook.

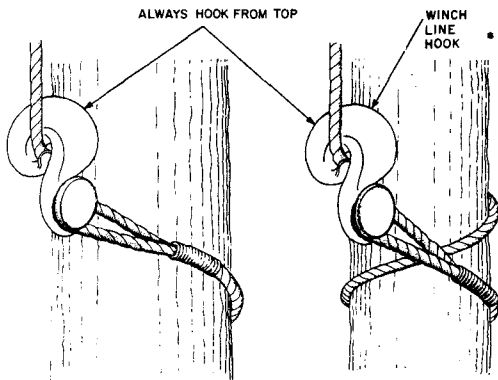


Fig. 1—Winch Line Hook

3.04 The wire rope sling should be wrapped around the pole as shown in Fig. 2. This sling can be used in place of wrapping the winch line around the pole or to permit the use of a wire rope snatch block.

3.05 A 5/8-inch pole jack chain can be used for attaching a wire rope snatch block to the pole as shown in Fig. 3. See Section 081-410-105 for connecting links.

3.06 Manila rope or B plastic rope can also be used for attaching the pulling line to the pole as shown in Fig. 4.

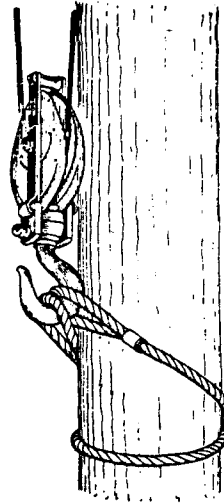


Fig. 2—Wire Rope Sling

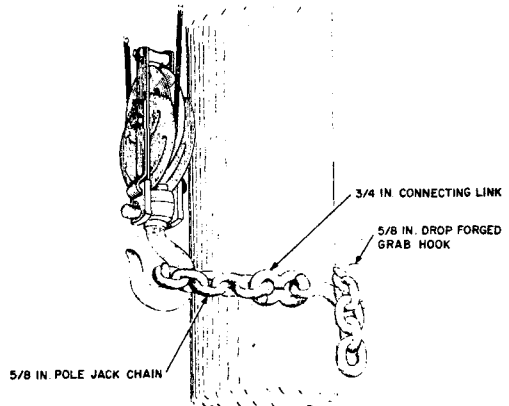


Fig. 3—Pole Jack Chain

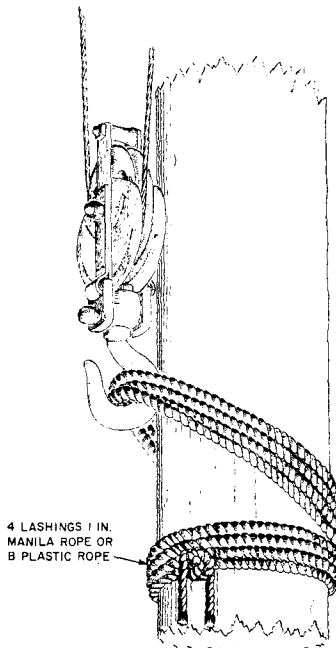


Fig. 4—Rope Lashing

POLE PULLERS

3.07 Use a hydraulic pole puller, pole butt puller (Fig. 5), or a pole jack as required for starting the pulling of the pole.

3.08 Pulling can be facilitated by removing some of the dirt or rocks around the groundline at the pole.

USE OF THE POLE DERRICK

3.09 The type of pole derrick being used will have little bearing upon the method for removing a pole because it is used to hold *not to pull* the pole.

3.10 The truck should be located so that the head of the derrick is about one foot short of the pole location. Loads should be within the *load limitations* of the type of derrick.

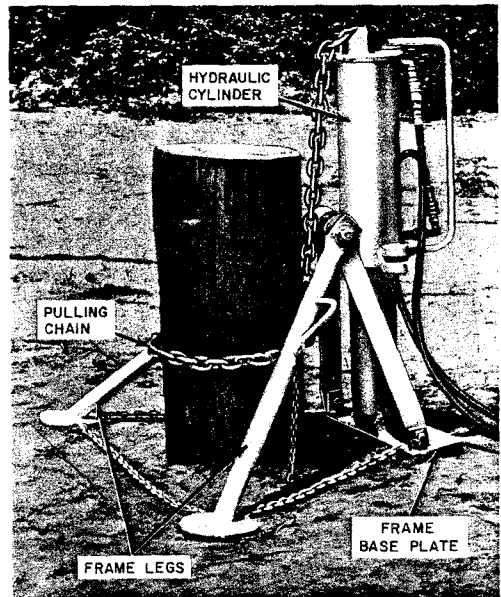


Fig. 5—Pole Butt Puller

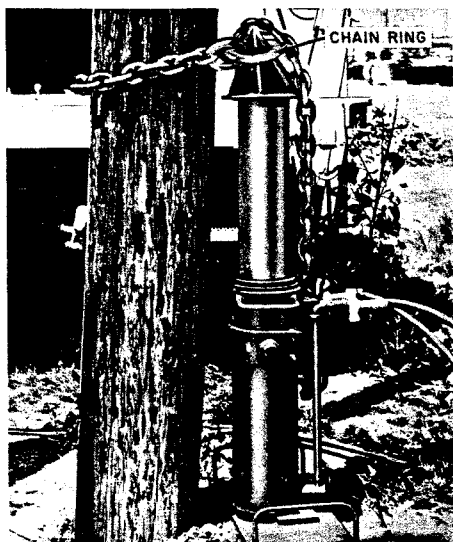
3.11 The angle at which the truck approaches the pole will depend upon the terrain. Wherever possible, the truck should be level. Where this cannot be done, the rear axle should be as nearly level as practical.

3.12 Attach the winch line to the pole, above its balance point and pull tension on the line.

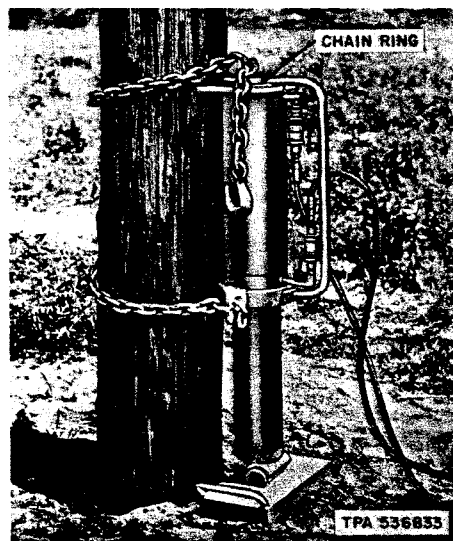
3.13 Use a hydraulic pole puller (Fig. 6) or a pole jack to lift the pole while keeping tension on the winch line as the pole is raised.

3.14 If the derrick is equipped with a middle (stiff) leg a pole jack may not be required.

3.15 Short stubs or butts of poles that have been broken or cut off near the groundline can be pulled with the winch line. Run the line over a sheave on a spindle bar in the lower position and place a sheave support. See Fig. 7. The supports or outriggers on the truck should be used for this operation.



HOLAN CORP POLE PULLER
(PITMAN CO. POLE PULLER IS SIMILAR)



GENERAL MACHINE CO. POLE PULLER

Fig. 6—Lifting Pole with Hydraulic Pole Puller

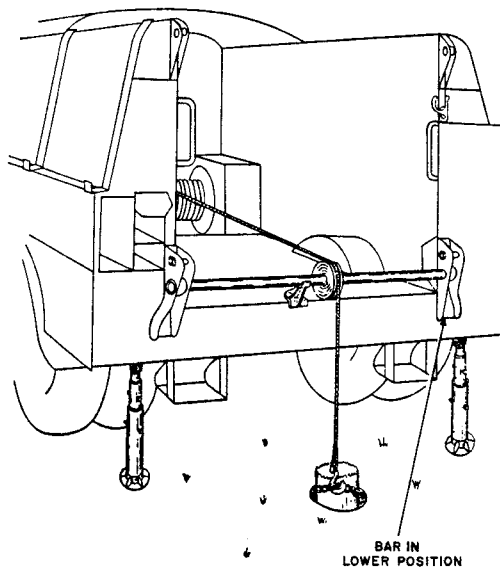


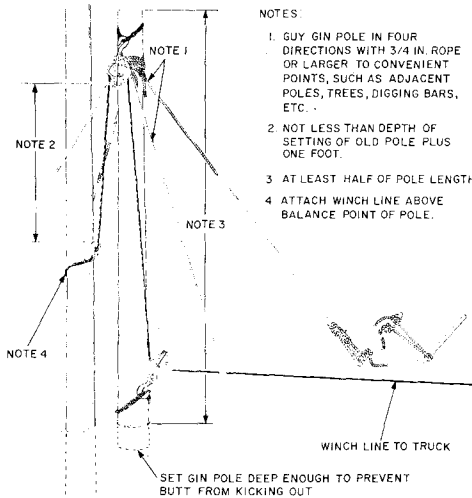
Fig. 7—Pull Over Spindle Bar

4. GIN POLE METHOD

4.01 The gin pole method of removing poles should be used where poles are of such length that they cannot be removed by means of the pole derrick, or where power equipment is not available.

4.02 The length of the gin pole must be such that the portion above the ground is at least one half the length of the pole to be removed. The winch line must be attached to the old pole above the balance point. At the start of the pull, this attachment must be separated from the upper block on the gin pole enough to allow the pole to be lifted completely above the groundline. See Fig. 8.

4.03 Place the gin pole as shown in Fig. 8 and feed the winch line through the snatch blocks, and attach to the pole. The necessity for guying a gin pole can be eliminated by lashing it to the derrick, provided the upper block is no more than 15 feet above the head of the derrick. Place a hydraulic pole puller or pole jack.



NOTES:

1. GUY GIN POLE IN FOUR DIRECTIONS WITH 3/4 IN. ROPE OR LARGER TO CONVENIENT POINTS, SUCH AS ADJACENT POLES, TREES, DIGGING BARS, ETC.
2. NOT LESS THAN DEPTH OF SETTING OF OLD POLE PLUS ONE FOOT.
3. AT LEAST HALF OF POLE LENGTH
4. ATTACH WINCH LINE ABOVE BALANCE POINT OF POLE.

Fig. 8—Gin Pole

4.04 Begin pulling tension on the winch line.

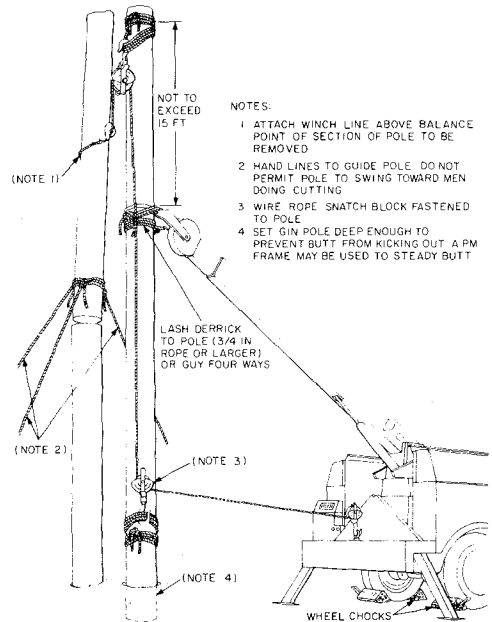
Hold light tension on winch line and start lifting pole with hydraulic pole puller or pole jack. Take up slack on winch line as pole puller lifts pole until the pole comes free. Lift pole from hole with winch line.

4.05 The gin pole method can also be used for removing tall poles in sections. The upper part of the pole must be prevented from swinging toward the craftsmen during the cutting operation. See Fig. 9. Where the distance from the derrick head to the top gin pole attachment must be more than 15 feet, the top of the gin pole must also be guyed, as shown in Fig. 8.

5. LOWERING POLES

5.01 Gradually lower the pole. Guide with pike poles and haul lines to keep under control at all times.

5.02 A pole which is 35 feet or less in length, adjacent to a pole set for replacement purposes, can be lowered as shown in Fig. 10. Care must be taken to prevent the butt from kicking out of control while pole is being lowered.



NOTES:

1. ATTACH WINCH LINE ABOVE BALANCE POINT OF SECTION OF POLE TO BE REMOVED
2. HAND LINES TO GUIDE POLE. DO NOT PERMIT POLE TO SWING TOWARD MEN DURING CUTTING
3. WIRE ROPE SNATCH BLOCK FASTENED TO POLE
4. SET GIN POLE DEEP ENOUGH TO PREVENT BUTT FROM KICKING OUT. A PM FRAME MAY BE USED TO STEADY BUTT

Fig. 9—Derrick and Gin Pole

5.03 Remove all lashings after the pole is resting safely on the ground.

6. CUTTING AND FELLING METHOD

6.01 This method should be used only where the pole can be dropped without risk of accident or damage to any person or property.

6.02 All salvageable attachments must be removed prior to pulling the pole to the ground.

6.03 Do not allow anyone to stand near the pole or between it and the truck while the pole is being pulled over.

6.04 Attach a pulling line near the top of the pole. The length of the line shall be at least 25 feet longer than the height of the poles.

6.05 Cut the pole to permit it to fall in the desired direction.

- With a power saw cut a notch in the front (direction of fall)
- With a power saw cut a deeper notch on the back side of the pole slightly above the front cut and slanting down toward it.

6.06 Saw the butt off at the groundline or pull it out of the ground as described in 3.16.

7. DISPOSAL OF POLES AND ATTACHMENTS

7.01 If the poles are in satisfactory condition for reuse and can be used in the same locality, ie, within a sufficiently short distance to justify the cost of hauling the poles to the new location or to a store-yard, they should be salvaged. If the poles are not suitable for reuse as poles or cannot be otherwise used, they can sometimes be disposed of to near-by property owners.

7.02 Materials, such as crossarms, guard arms, strain insulators, guy clamp, bolts, etc, if in satisfactory condition for reuse, should be returned to stock. If they are not satisfactory for reuse, they should be disposed of as directed by the supervisor.

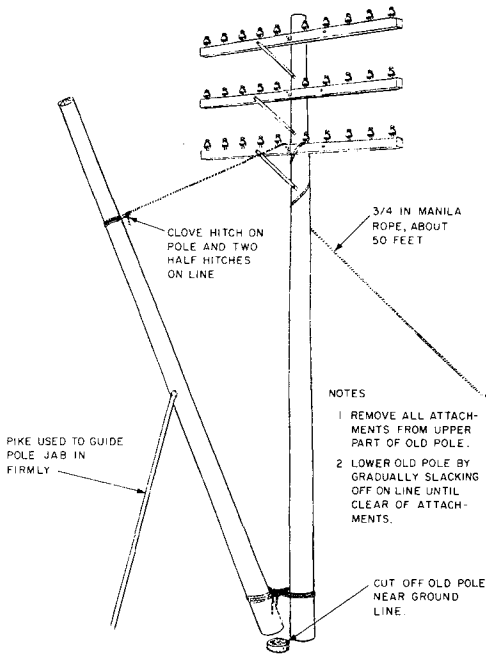


Fig. 10—Lowering Pole Butt