

SUSPENSION STRAND TENSIONING—USE OF STRAND PULLERS

1. GENERAL

1.01 This section covers the use of the L and H strand pullers when pulling or tensioning suspension strand.

1.02 This section is reissued to include information on 6.6M strand and to update text and illustrations.

1.03 Refer to Section 627-240-211 for the procedure to be followed when pulling up or tensioning suspension strand.

2. PRECAUTIONS

2.01 The gripping power of the strand puller is materially reduced if the grooves of the jaw are coated with oil, grease, paraffin, galvanizing, or flooding compound (self-supporting cable). Oily strand also reduces the gripping power of the strand puller. It has been found that even clean strand, handled with perspiring hands, has sufficient oil deposited on it to permit slippage during the pulling operation. In view of this, and the conditions under which these tools are used, both the strand at the

point of attachment of the puller and the grooves of the puller jaws should be cleaned thoroughly with B cleaning fluid before the tool is attached to the strand. Galvanizing may be removed by rubbing the groove of each jaw with abrasive cloth. The cleaning and maintenance procedures are outlined in Section 081-500-111.

2.02 Always secure the safety chain when the strand puller is engaged on the strand.

2.03 Suspension strand held *only* by strand pullers *shall not be used to support a worker on a ladder or splicer's platform.*

2.04 When suspension strand supporting working cable or a worker is to be cut in a section, observe the following.

(a) Use a length of strand the same size as the main suspension strand to bridge across the pullers.

(b) Use B guy clamps to attach each end of the bridging strand to the main strand, as illustrated in Fig. 1.

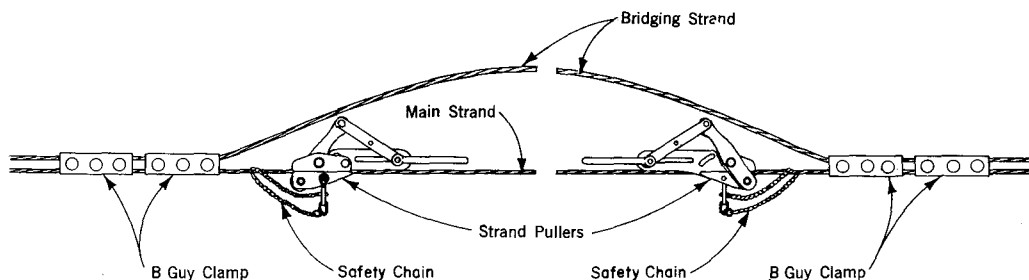


Fig. 1—Bridging Main Strand

2.05 The number of B guy clamps required on each end of the bridging strand is shown in Table A.

TABLE A
3-BOLT GUY CLAMPS

SUSPENSION STRAND	3-BOLT GUY CLAMPS
6M	2
6.6M	2*
10M	3
16M	4
25M	5

* Only clamps marked with a "B" shall be used on 6.6M strand.

3. USE

3.01 The L strand puller is designed for tensioning all the standard sizes of strand, when the pulling load does not exceed 5000 pounds. It is mounted on the suspension strand as illustrated in Fig. 2, and shall be used only under the following conditions.

- Pulling 2.2M, 6M, or $\diamond 6.6M$ strand under all conditions.
- Pulling 10M or 16M strand preliminary to placing the cable.
- Pulling 10M or 16M guys provided that no wire or strand attachments have been made to the pole.

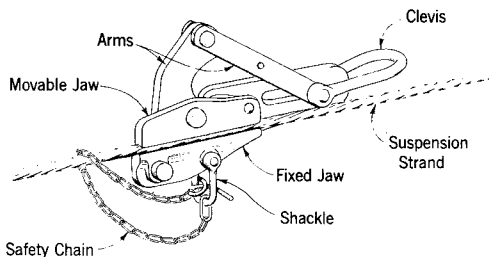


Fig. 2—L Strand Puller

3.02 The H strand puller, illustrated in Fig. 3, is designed for tensioning 10M and larger suspension strand when the load exceeds 5000 pounds. It may be used for lighter loads such as those covered in 3.01 but **must** be used under the following conditions.

- Pulling 10M or 16M strand for all conditions except those covered in 3.01 (b) and (c).
- Pulling 25M strand under all conditions.

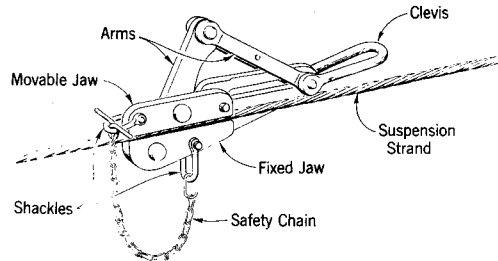


Fig. 3—H Strand Puller

3.03 To engage the strand puller on the strand, hold the fixed jaw with one hand and with the other apply pressure to the clevis attached to the movable jaw. This operation opens the jaws so that the strand may be inserted between them. When the pressure against the clevis is released, the spring action closes the jaws. A sustained pull on the clevis will lock the jaws on the strand.

3.04 After the strand puller has been attached to the strand, secure the hook of the pulling apparatus to the clevis of the strand puller. Apply tension slowly. When tension is first applied, a slight amount of slippage may occur. If this slippage exceeds 1/2 inch, stop the pulling operation, remove the strand puller and clean the jaws again. If excess slippage is observed when the strand puller is again attached to the strand, the tool shall be removed from service, marked as defective, and exchanged for one in good condition.

3.05 To facilitate the removal of the strand puller, attach a hand line to the shackle on the fixed jaw. When a pull is applied to the hand line, in the same direction as the pull of the winch

line or the chain hoist, the grip of the jaws will be released and the puller can be moved along the strand. Where it is necessary to move the strand puller in the opposite direction on the strand, the hand line should be attached to the shackle on the movable jaw. Where there is no shackle on the movable jaw, the hand line may be attached to the arm of the puller.

3.06 The strand puller may slip when used on CR strand. To prevent slippage, place a piece of rough grain emery cloth over the strand with the rough surface of the emery cloth contacting the strand. Proceed as outlined in 3.03, 3.04, and 3.05 with the strand puller installed over the emery cloth.