**BELL SYSTEM PRACTICES**
**Outside Plant Construction and Maintenance**

**SECTION G52.105.4**
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**AT&T Co Standard**

# AERIAL CABLE PLACING
## PREPARING CABLE FOR PULLING

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## 1. GENERAL

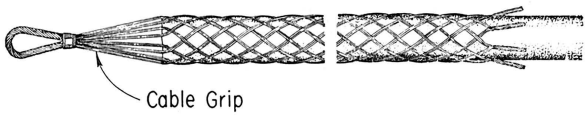
1.01 This section covers the methods to be followed and the material to be used in preparing cable for pulling.

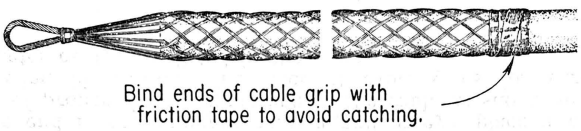
1.02 When using a manila rope pulling-in line, make the cable pull with a collapsible power reel or a removable spool power reel.

1.03 When using a wire rope pulling-in line, make the cable pull with the winch drum, removable spool power reel or collapsible power reel.

## 2. ATTACHING PULLING LINE TO CABLE

2.01 Unfasten the end of the cable from the reel. Pull about six feet of cable off the reel and straighten it. If the cable end is not equipped with a pulling eye, place a cable grip of proper size over the end of the cable as shown in the following illustration. The sizes of cable grips for various diameter cables are listed in the table.

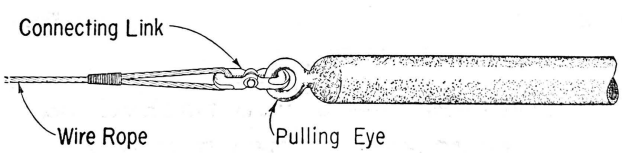


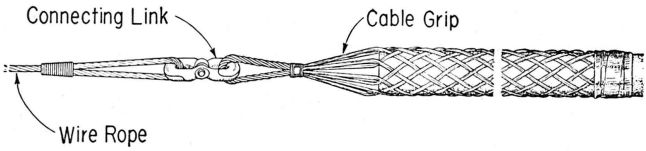




## CABLE PLACING GRIPS

| Nominal Size of Grip | Dia. of Cable (over cable sheath) |
|---|---|
| 3/8 inch | 5/16 inch up to 3/4 inch |
| 3/4 inch | 3/4 inch up to 1 inch |
| 1 inch | 1 inch up to 1-1/2 inch |
| 1-1/2 inch | 1-1/2 inch up to 2 inch |
| 2 inch | 2 inch up to 2-1/2 inch |
| 2-1/2 inch | 2-1/2 inch up to 3 inch |
| 3 inch | 3 inch or larger |

2.02 Attach the pulling line to the cable by means of connecting links as shown in the following figure.



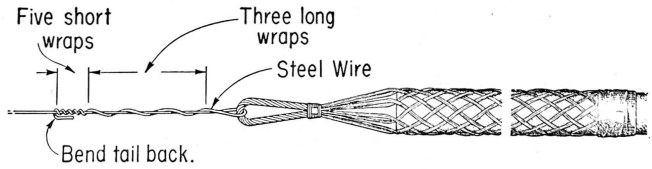



2.03 The following table gives working strength, minimum cable ring sizes and minimum size lead sleeves (inside diameter) through which the standard connecting links will pass.

**Connecting Links**

| Size | Working Strength | Cable Rings | Lead Sleeves |
|---|---|---|---|
| 1/4 in. | 2000 pounds | 1-1/2 inch | 1-1/4 in. (inside dia.) |
| 3/8 in. | 3000 " | 2-1/2 inch | 1-1/2 in. " " |
| 1/2 in. | 5000 " | Over 2-1/2 inch | 1-3/4 in. " " |

2.04 When wire or 2200-pound strand is to be used on non-joint lines attach the wire or strand directly to the cable grip or pulling eye as shown in the following figure.

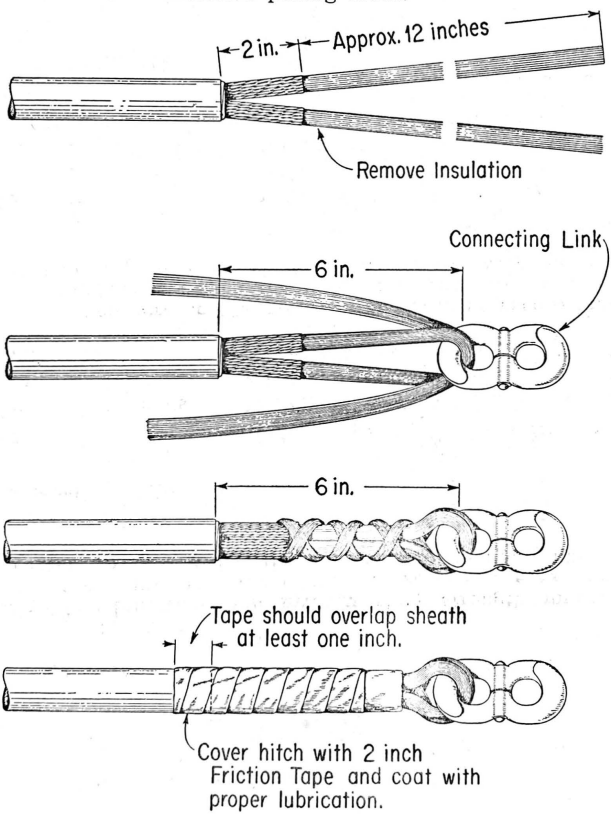


2.05 When polyethylene sheath cables not equipped with pulling eyes are to be placed, use a core hitch if any of the following conditions exist.

(a) Length of pull exceeds 2000 feet.

(b) Length of pull exceeds 1000 feet and there is either a reverse corner in the line or the pull on any pole exceeds 20 feet.

(c) Any indication of obstructions or obstacles which may result in excessive pulling loads.



## 3. LUBRICATING CABLE

3.01 In general, the larger sizes and heavier cables pulled through permanent cable rings require lubrication in order that they may be pulled in smoothly. However, the smaller sizes of cables in straight runs may be pulled in the rings without lubrication. When cable is to be lashed, do not use cable lubricants as they may cause slippage of the lasher.

3.02 The lubricants available are the B and C Cable Lubricants and Aerial Cable Lubricant. B and C Cable Lubricants are for use on polyethylene sheath cables but are also suitable for lead sheath cables. Aerial Cable Lubricant is for use on lead sheath cables **only.**

3.03 The lubricants may be applied to the cable by means of a wad of cotton waste, cheesecloth or similar material, saturated with lubricant. The cotton waste or cheesecloth should be held around the cable while it is being pulled off the reel. A very thin film of lubricant is all that is required for satisfactory pulling. An excessive amount of lubricant may drip and cause damage to property.