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Overhead Fed Squid

SST Installation method for hollow poles

About this document ...

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Content approval

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Table of Content

1	INTRODUCTION	5
2	WORKING PRACTICE	5
3	METHOD - SINGLE SPAN	6
4	METHOD - MULTISPAN	10
5	CLAMPS	11
5.1	CABLE SUSPENSION CLAMPS (OBSOLESCE)	11
5.2	TELENCO HYPOCLAMP	12

1 *Introduction*

This document details the working practice for installing an Overhead SST cable to feed a squid into a Hollow Pole.

This procedure is intended for use only by those who are already trained / competent in the working practices for the erection of Copper Dropwire. Where this is not the case, full formal training will be required.

2 *Working practice*

Broadly speaking, the Cable uses Dropwire installation practices. However, unlike Dropwire, two people are required for its installation, particularly over Carriageways, where a revised method is to be used.

The revised method uses much of the same equipment and techniques deployed when erecting normal Dropwire over carriageway.

Note: However, as the SST Reel is too large to fit the Dispenser 2B, that cannot be used to provide back tension and instead, tension is provided manually by a 2nd person, with the Cable reel mounted on a Dispenser A Frame Universal (see pic below).

The Dispenser is available via i-buy from Comtec.



Fig 1 – Dispenser A Frame

During the pulling operation, the role of the 2nd person at the feed end, is totally dedicated to maintaining the back tension, necessary to keep the sash line / cable safely aloft over the carriageway

Caution: The person at the feed end is only released from this dedicated task when the line has either been temporarily secured or terminated at that position.

Effective Visual / Audio contact is required between Point A and Point B. Where this is not possible, two way radios may offer an alternative.

Where communication between Point A and Point B is not possible, this method should not be used. In such cases, BAU practices used for other Wires & cables (i.e. Temp road closure) would be required.

NB: Managers should ensure that their people have been supplied and are fully conversant with this installation process before undertaking the task.

Follow [EPT/OHP/B039](#) when pulling SST overhead & across a carriageway.

3 *Method - single span*

1. Rig pole with sash line as per instructions in [EPT/OHP/B011 Erection & retension of dropwire](#)
2. Connect sash line to the squids SST cable by bending SST cable back to form a loop and tape using PVC tape 25mm. Tie sash line to loop using a double sheet-bend knot, wrap PVC tape on loose ends to avoid snagging.



Fig2

A-Frame needs to be sited next to the hollow pole. A second engineer will be required to control the drum to ensure the cable maintains the tension

3. Fit come along to pole belt attached below hollow pole door opening and position come along body so that it will hold the SST cable when erected into position.



Fig3

4. 1st engineer runs sash line to serving pole and runs through pulley No6 and down to ground level. It is essential that the pulley no.6 is located at the pulling end to maintain tension on the erected SST cable in conjunction with the engineer at the hollow pole end or the come along.

5. Pull sash line and SST until squid is almost in correct position.

<p>Caution: 2nd engineer must continually control the squid drum as SST cable is payed out.</p>
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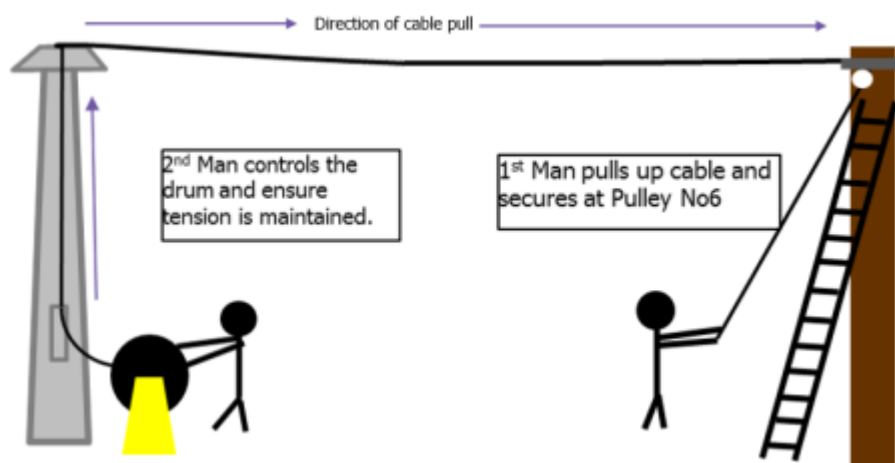


Fig4

Note: The second engineer must wear gloves when performing the task described above.

6. Due to its flat profile, this cable requires twists to be inserted into each span during installation.

Insert a minimum of 1 twist per 10 metres – preferably 10 twists per span. As this cable is very light, the twists can be inserted by hand by simply rotating the cable using both hands.

Caution: Inserting twists is very important. Failure to do so will result in the cable galloping in windy conditions and becoming damaged!

7. 1st engineer ensures SST cable is locked in pulley No6 jaws.

8. 2nd engineer fits come along to SST, removes squid from the cable drum and attaches wedge clamp just above squid body.

Wedge clamp installation procedure can be found in sect 5 in this document.



Fig5

<p>Caution: Clear communication must be established at this stage to ensure the span remains taught and there is no loss of height across the carriageway.</p>

9. 2nd engineer releases SST cable from come along, 1st engineer slowly pulls SST cable as 2nd engineer feeds clamp into position on the pole ring. Using links cabling or pole top link component to attach the wedge clamp bail wire onto the clamp ring.

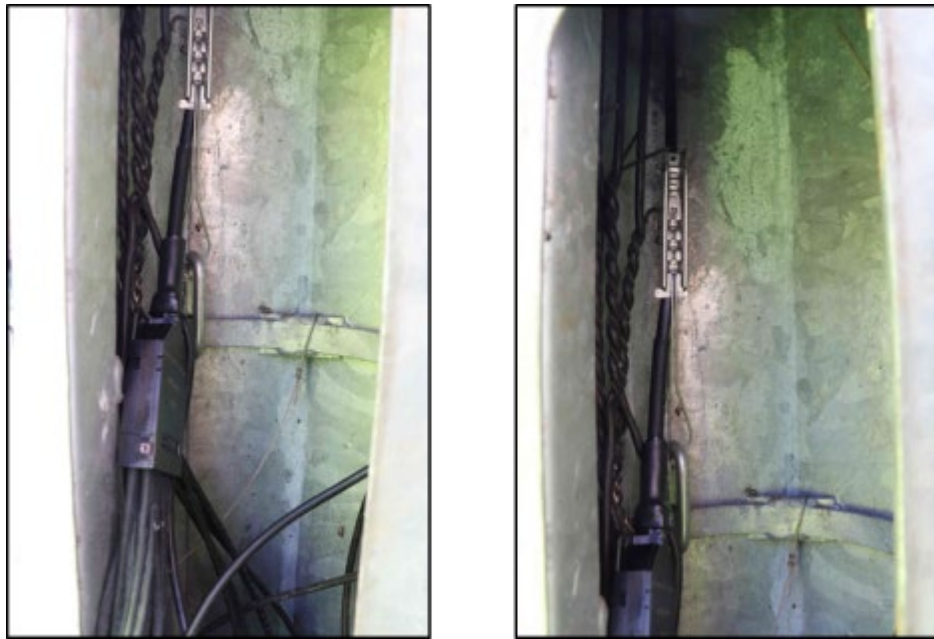


Fig6

10. 1st engineer pulls up slack and fits wedge clamp on feed pole.

4 *Method - Multispan*

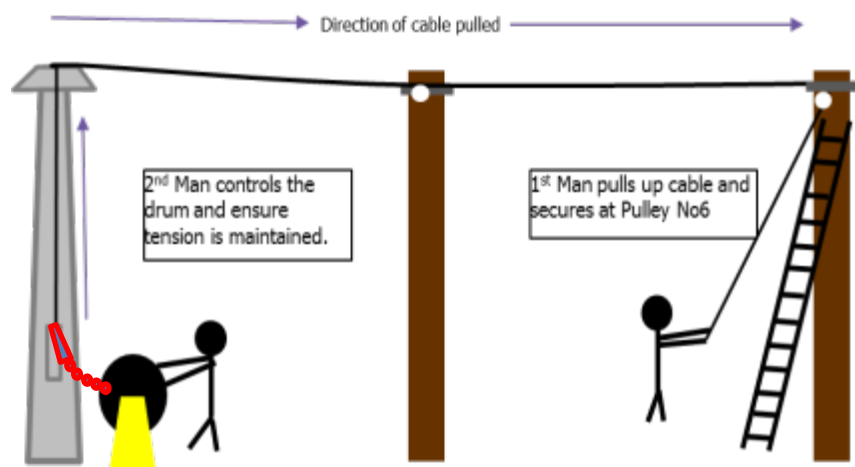


Fig7

Installation for multi-span fed squid should follow the single span method as detailed in sec 3 with the addition of pulley No4 at intermediate poles.

Once SST is aloft and wedge clamp installed at hollow pole, pull up slack and fit wedge clamps on intermediate poles working back to feed pole.

Due to its flat profile, this cable requires twists to be inserted into each span during installation. Ensure twists are added at each span as the SST cable is terminated along the route.

Insert a minimum of 1 twist per 10 metres – preferably 10 twists per span. As this cable is very light, the twists can be inserted by hand by simply rotating the cable using both hands.

Caution: Inserting twists is very important. Failure to do so will result in the cable galloping in windy conditions and becoming damaged!

5 *Clamps*

5.1 **Cable Suspension Clamps (obsolescent)**

The SST Clamp has a closed Eye, so also requires a Link to form attachment between the Clamp and the Pole Ring.

The Corning SST Cable Clamp is now obsolescent and has been replaced with the Telenco Hypoclamp.



Fig8 SST cable clamp (obsolescent)



Fig9 Link cabling 1

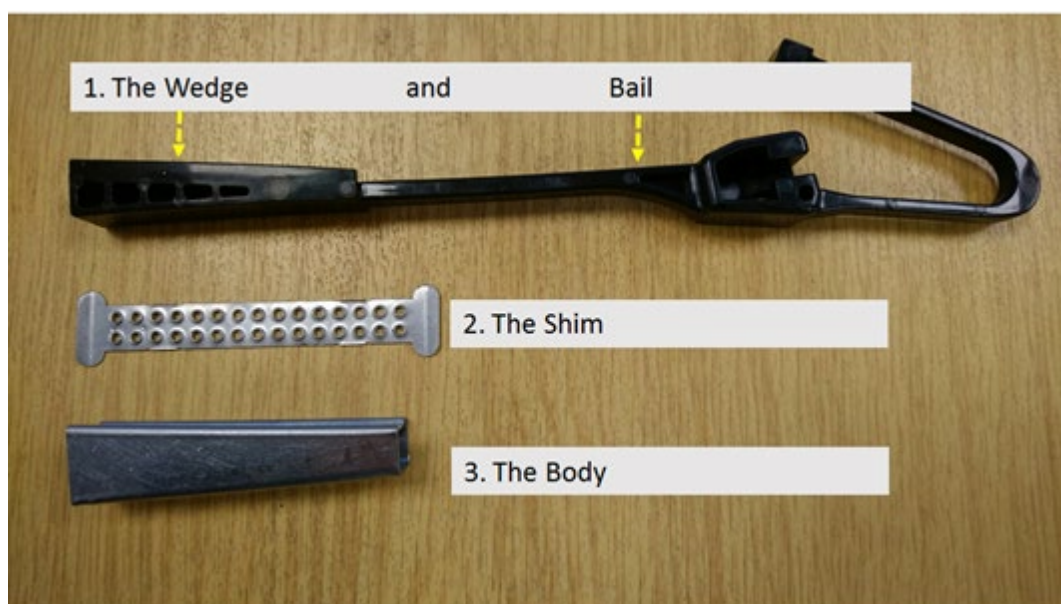


Fig10 SST pole top link

5.2 Telenco Hypoclamp

The 3 part clamp is composed of a metallic body, a metallic shim and plastic wedge with an integrant opening bail.

The key difference is that this clamp does not require a Pole Top Link to form an attachment between the clamp and the Pole Ring.



5.2.1 Fitting the 3 Part Clamp

The pictures shown below are taken from the manufacturer's installation guide and as such, the bracket shown is not something that Openreach use. The attachments will be to a Pole Ring or Universal Pole Bracket, etc.

Step 1

Fit Hybrid Cable Grip (Come Along), item code: 069586 onto the pole or ring head ensuring there is enough length for the clamp to be fitted to the cable without interference.

Step 2

Fix the cable into Come Along ensuring correct tension is on the cable.

Due to its flat profile, this cable requires twists to be inserted into each Span during installation.

Insert a minimum of 1 twist per 10 metres – preferably 10 twists per span. As this cable is very light, the twists can be inserted by hand, by simply rotating the Cable using both hands.

Caution: Inserting twists is very important. Failure to do so will result in the cable galloping in windy conditions and becoming damaged!



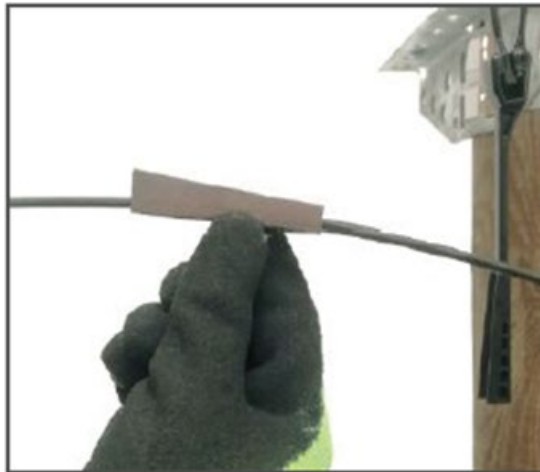
Fit cable in come along

Step 3



Attach the Wedge and bail onto the fixing locking off the bale.

Step 4



Place the cable into the body of the clamp.

Note: The thick end of the body needs to be facing out to span.

Step 5



Position the shim onto the cable into the clamp body, with the gripping bumps facing the cable.

Warning: The Shim part of the clamp has a rough and smooth side. For the clamp to work, it is critical that the rough side of the Shim faces down onto the cable. Installing the Shim with the smooth side onto the cable will result in slippage.

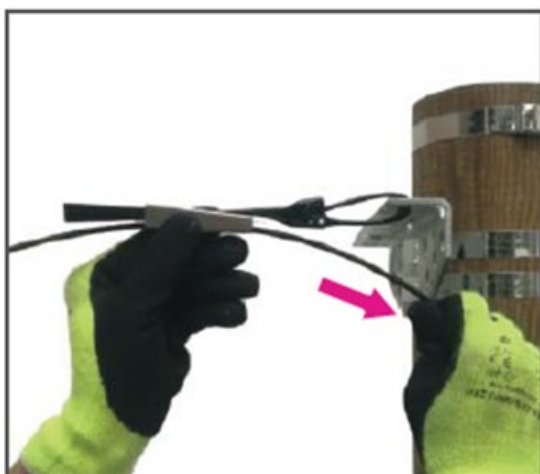


Figure shows the rough side



Figure shows smooth side

Step 6

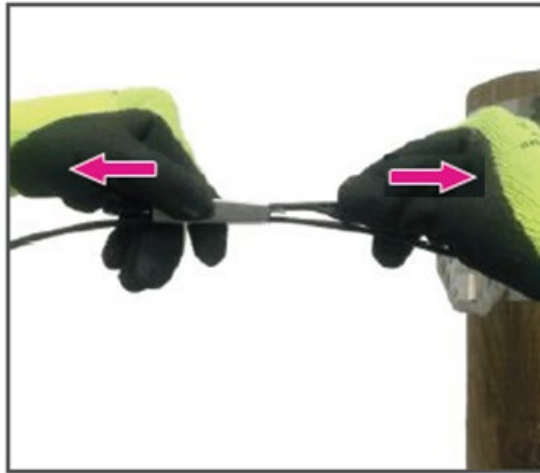




Slide the wedge into the body of the clamp, such that it sits on top of the Shim and the raised sides of the wedge run in the grooves of the body. Adjust the span by pulling on the cable while holding the body.

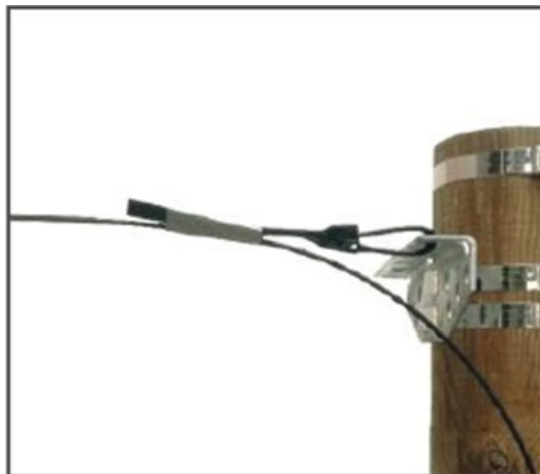
Note: The Hypoclamp must be tensioned when adjusting the cable tension.

Step 7



Lock the clamp by pulling the body of the clamp and the Bail end in opposite directions.

Step 8



The clamp installation is now complete.

END OF DOCUMENT