13A and 14A SPLICE CASES
DESCRIPTION AND INSTALLATION

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1. GENERAL

1.01 This section covers the description and installation of the 13A and 14A splice cases.

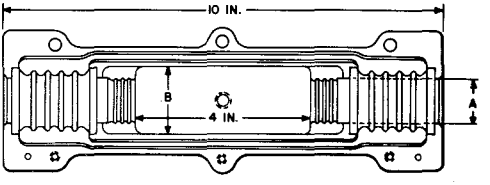
1.02 This section is reissued to include requirements and precautions on use of the D sealing cord. Revision arrows are used to emphasize the more significant changes.

1.03 These small-size splice cases are used on polyethylene sheath aerial cable for repair sleeves, pressure testing valve points, and sheath-to-strand electrical bonds. Valve points and bonds should be located in a readily accessible portion of straight cable.

1.04 Two splice case halves of the same code are shipped in a single carton along with all the hardware required.

2. DESCRIPTION

2.01 These die-cast aluminum splice cases have dimensions as shown in Fig. 1.



SPLICE CASE NO.	MAX. CABLE DIAMETER	INTERIOR DIAMETER
	A	B
13A	1 IN.	1.5 IN.
14A	1.6 IN.	2 IN.

Fig. 1—13A and 14A Splice Cases

2.02 The parts furnished in each carton are shown in Fig. 2.

2.03 Separate orders of materials are required for each installation as follows:

(a) Four plastic sealing washers

(b) One package of ◗D◖ sealing cord consisting of two 26-1/2 inch lengths

(c) Two packages of B sealing tape consisting of three 10-inch lengths.

2.04 Cables of 1-inch diameter and smaller can be enclosed in the 14A splice case with the addition of the 129A adapter described in Section 633-400-200.

PART	PART NO. (SEE NOTE)	QUANTITY OF PARTS FURNISHED WITH EACH CASE		USED FOR
		CASE NUMBER		
		13A	14A	
INNER SHEATH CLAMP 	P-18E115 CLAMP	2		SLIDES UNDER SHEATH TABS FOR CLAMPING
	P-18E117 CLAMP		2	
1/4 IN.-20 X 1 IN. WASHER HEAD CAP SCREW 	P42E709 CAP SCREW	6	6	FOR JOINING SPLICE CASES
1/8 IN. PIPE PLUG 	P-13A314 PLUG	2	2	PRESSURE TESTING FITTING

NOTE:
THIS INFORMATION SHOULD BE USED WHEN ORDERING PARTS.

Fig. 2—13A and 14A Splice Case Parts

3. SHEATH PREPARATION

3.01 ***For repair purposes:*** Minor repairs which can be made in a sheath opening not exceeding 6-1/2 inches can be closed with these splice cases. Make the sheath opening as shown in Fig. 3 through 6.

(1) To access the core, make the initial cut as shown in Fig. 3.

(2) Remove the sheath and underlying metal layers (Fig. 4).

(3) After repairs have been made, tab each end of the sheath opening, cutting through polyethylene and metal layers. Remove any slivers of metal, taking care not to damage the core (Fig. 5).

(4) Wrap the core. Wrap the pulp or paper insulation with two half-lapped layers of B paper tape. Wrap the plastic-insulated conductor (PIC) cable with a half-lapped layer of D vinyl tape. In both cases, extend the wrappings underneath the tabs a half inch (Fig. 6).

3.02 For pressure testing valve points on stalpeth sheath:

(1) Remove the outer polyethylene jacket from the top of the cable at the location of the desired valve point (Fig. 7).

(2) Remove the underlying metal layers, taking care not to damage the core wrap. Carefully turn the metal edges away from the core wrap and remove any slivers. Then open the core wrap slightly (Fig. 8).

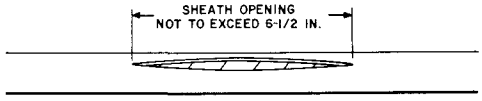


Fig. 3—Cable Sheath Opening

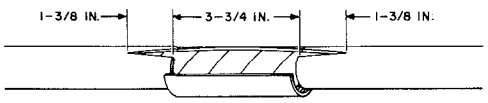


Fig. 4—Cable Sheath Removal

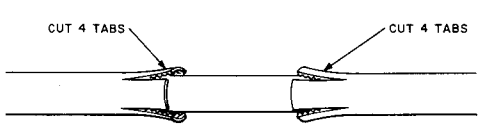


Fig. 5—Tab Cuts

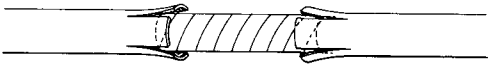


Fig. 6—Wrap Core

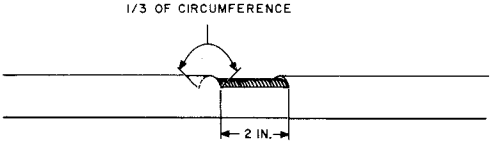


Fig. 7—Sheath Removal at Value Point

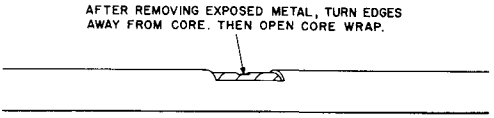


Fig. 8—Metal Removal at Value Point

3.03 For pressure testing valve points on PAP and PASP sheath:

(1) Remove the outer polyethylene jacket and underlying metallic shields. Then, with a cable drill, make a hole in the center of the exposed inner polyethylene layer to expose the core wrap. Open the core wrap slightly.

(2) Prepare an insulating pad of three layers of 2-inch DR tape. Cut each piece slightly longer than the rectangular opening in the outer polyethylene and press the three pieces into a pad. In the center of the pad, cut a hole approximately 1/4 inch with the splicer scissors (Fig. 9).

(3) Carefully trim the pad to fit in the rectangular opening in the outer polyethylene jacket. The pad should butt against the cut edges of the polyethylene along all four sides.

(4) Remove the pad from the opening. Coat the exposed polyethylene opening and the cut edges of the polyethylene with C cement and allow it to dry.

(5) Place the pad back into the opening and press firmly in position. Then coat the area of cable sheath around the opening with C cement and allow it to dry (Fig. 10).

(6) Cut a piece of 2-inch DR tape to fit over this area and press firmly in place; then, wrap with a half-lapped layer of vinyl tape (Fig. 11).

(7) Cut a small opening through the vinyl tape and the DR tape over the hole in the pad. Check that the core wrap is open slightly to permit the free flow of air.

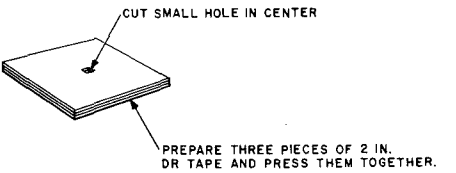


Fig. 9—Insulating Pad

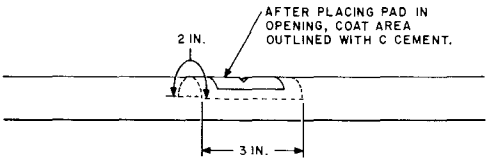
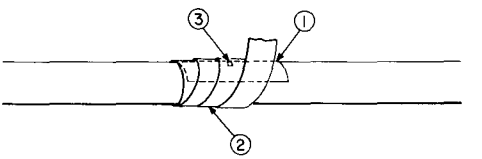


Fig. 10—Pad Fitting and Cementing



STEPS:

① PRESS PIECE OF 2 IN. DR TAPE FIRMLY IN PLACE.

② THEN WRAP WITH A HALF LAPPED LAYER OF VINYL TAPE.

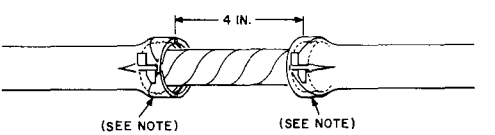
③ CUT A SMALL OPENING THROUGH THE VINYL TAPE AND THE DR TAPE OVER THE HOLE IN THE PAD.

Fig. 11—Tape Over Pad

3.04 ***For sheath-to-strand electrical bonds:*** When additional sheath-to-strand bonds are required on polyethylene-covered cables in lightning areas, the sheath shall be prepared as indicated in paragraph 3.01.

4. INSTALLATION OF THE SPLICE CASE

4.01 Place the inner sheath clamps under the polyethylene and metal tabs, working them under until they are 4 inches apart (Fig. 12). The ears should ***not*** be placed at the joint between the two splice cases. At pressure testing valve points, no sheath clamps are needed.



NOTE:
HOLD THE CLAMPS IN PLACE WITH TWO TURNS OF VINYL TAPE, TAKING CARE TO LEAVE CLAMP EARS UNCOVERED.

Fig. 12—Place Inner Sheath Clamp

4.02 Using B cleaning fluid, clean the cable sheath on each side of the sheath opening as shown in Fig. 13.

4.03 With a carding brush, scuff the areas cleaned with B cleaning fluid (Fig. 13).

4.04 Select four sealing washers (using Table A as a guide) and place them over the cable. Position the inner washers so they fit properly in the splice case groove. Mark the cable sheath (Fig. 14).

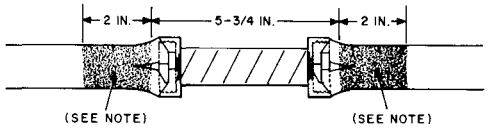


Fig. 13—Cleaning of Sheath

TABLE A

SEALING WASHERS – AT-8583 FOR USE IN 13- AND 14-TYPE SPLICE CASES

CABLE SHEATH DIA (INCHES)	TYPE OF CASE 13A WASHER NO.	TYPE OF CASE 14A WASHER NO.
0	F-0	G-0
0.3	F-3	G-3
0.4	F-4	G-4
0.5	F-5	G-5
0.6	F-6	G-6
0.7	F-7	G-7
0.8	F-8	G-8
0.9	F-9	G-9
1.0	F-10	G-10
1.1		G-11*
1.2		G-12*
1.3		G-13*
1.4		G-14*
1.5		G-15*
1.6		G-16*

*These washers may be cut from KO sealing washer using 849A sealing washer as outlined in Section 081-020-136.

4.05 ***Caution:*** ***The B sealing tape and D sealing cords should be kept clean and should not be stretched. Do not handle tape with damp or oily hands. Do not heat B sealing tape or D sealing cord directly in the airflow of the heater or blower. This reduces the adhesion to the cable sheath. If heating is required, place in a warm location prior to use.*** Build up collars of B sealing tape on the outer jackets adjacent to the sealing washers equal to or slightly larger than the washers. Butt all joints of sealing tape (Fig. 15).

4.06 Move the outer sealing washers until they butt against the B sealing tape collars.

4.07 Place the back splice case so the B sealing tape collars are firmly seated and the inner sheath clamps are centered in the grooved seat of the splice case (Fig. 16).

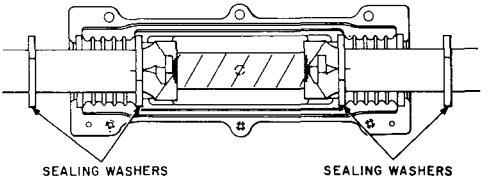


Fig. 14—Placing Sealing Washers

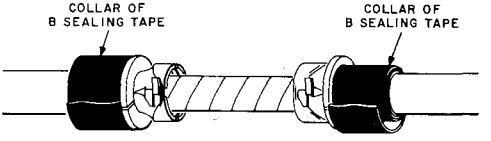


Fig. 15—Forming B Sealing Tape Collar

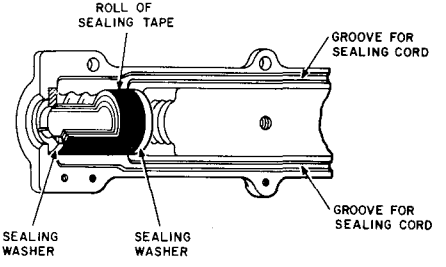


Fig. 16—Collar Placed in Splice Case

4.08 ▶Thoroughly clean the sealing surface of each splice case with a clean, dry, lint-free KS-14666 cloth moistened with a small quantity of B cleaning fluid. This will ensure the removal of any oil, grease, dirt, filings, moisture, desiccant, etc. Place the sealing cord in the side grooves, being careful to avoid making flat spots or dents in the cord. ***Do not stretch.*** It may be necessary to push the B sealing tape away from the grooves at the ends in order to permit placing the sealing cord (Fig. 17).◀

4.09 Place the front splice case, taking care that the washers, sealing tape, and cords are in position, and place the bolts fingertight. It is not necessary to keep the joint between the splice cases vertical (Fig. 18).

4.10 Use the ratchet drive socket wrench of the D wrench kit with moderate force on the bolts to tighten them in nonconsecutive order until the front and back splice cases are in metal-to-metal contact. Complete the tightening, using the B torque wrench, as described in Section 081-420-103. See Table B for torque limits.

4.11 Check the end seals. The outer sealing washers should bulge a little, and some of the tape should be forced past the washers, indicating a good seal.

5. SUPPORTING

5.01 The cable supports the 13A and 14A splice cases. There are no lugs fastening the case to the strand.

5.02 Support the cable as shown in Fig. 19.

6. BONDING TO STRAND

6.01 Bond the splice closure to the strand as shown in Fig. 20.

7. PRESSURE TESTING

7.01 Each splice case has a pressure testing plug for use in flash testing.

7.02 Flash testing is done in the usual manner, using the flash testing material approved for use with the type of cable sheath involved.

7.03 ▶The bolts may loosen due to the relaxation of the sealing compound during the pressure testing operation. Therefore, after the pressure testing is completed, recheck and tighten all bolts to a torque of 200 to 250 inch-pounds (C or D size) or 75 to 125 inch-pounds (B size) maximum torque level. Further relaxation of sealing compound is normal and no further retightening of bolts should be required during normal service of closure.◀

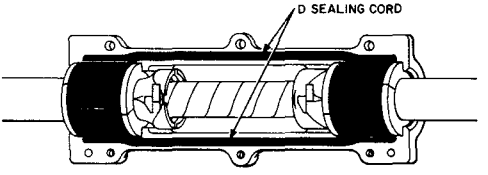


Fig. 17—D Sealing Cord Placed in Groove

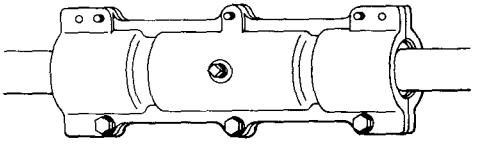


Fig. 18—Installed Splice Case

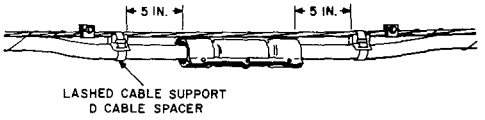


Fig. 19—Supported Splice Case

TABLE B

TORQUE – MINIMUM AND MAXIMUM IN INCH-POUNDS

APPARATUS	1/4 IN. -20X1 IN. CAP SCREW	1/8 IN. PLUG
13A, 14A Splice Cases	75-100	50-75

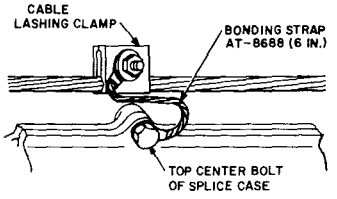


Fig. 20—Bonded Splice Case