PLASTIC JOINTS
END PLATE KITS
L4 AND L5 CARRIER

1. GENERAL

1.001 This addendum supplements Section 633-330-210.

1.002 It is issued to revise the instructions used to mix and cure plastic steel.

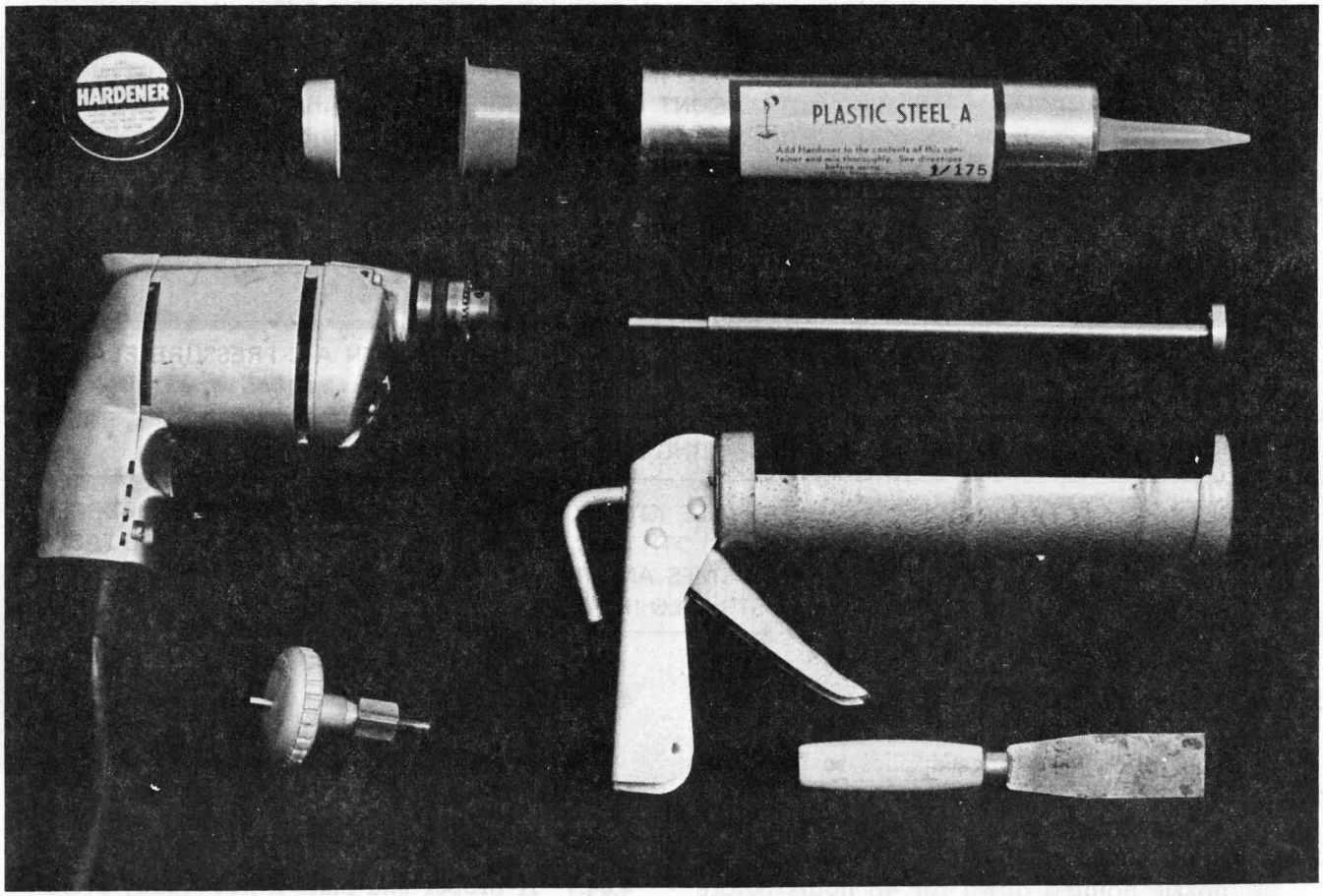
Note: Improperly mixed material will not harden.

2. TOOLS AND MATERIALS

The following changes apply to Part 2 of the section:

(a) Table A — revised

(b) Fig. 12 — added



Tools and Materials for Making Plastic Steel Joints
Fig. 12

TABLE A

TOOLS AND MATERIALS FOR MAKING PLASTIC STEEL* JOINTS
(SEE FIG. 12)

TOOL OR MATERIAL	DESCRIPTION
CAULKING GUN	OPEN FRAME TYPE OF CAULKING GUN SUITABLE FOR USING WITH A DISPOSABLE CARTRIDGE. MAY BE OBTAINED LOCALLY.
PUTTY KNIFE	STEEL PUTTY KNIFE OR STEEL BAR APPROXIMATELY 1-INCH WIDE BY 1/16-INCH THICK BY 12 INCHES LONG. OBTAIN LOCALLY.
D CABLE DRILL	FOR DRILLING HOLE THROUGH LEAD SLEEVE FOR D PRESSURE FLANGE AND PLASTIC INSERT.
3/8 INCH VARIABLE SPEED ELECTRIC DRILL	FOR MIXING DEVCON PLASTIC STEEL IN CARTRIDGE. MAY BE PURCHASED OR RENTED.
DEVCON CARTRIDGE MIXER M-10	MANUFACTURED BY DEVCON CORP. FOR USE WITH VARIABLE SPEED 3/8 INCH DRILL TO MIX PLASTIC STEEL IN CARTRIDGE.
PLASTIC STEEL, DEVCON, TYPE A CARTRIDGE	AVAILABLE IN 1-POUND CARTRIDGE PLASTIC STEEL WITH EXACT AMOUNT OF HARDENER IN A SEPARATE CONTAINER. REQUIRES THOROUGH MIXING JUST PRIOR TO USE. MANUFACTURED BY DEVCON CORP.
PLASTIC STEEL, DEVCON, TYPE SF	FAST SETTING FOR LEAK REPAIRS IN PLASTIC STEEL JOINTS. EACH PACK CONTAINS 1-POUND OF PLASTIC STEEL SF AND PROPER AMOUNT OF HARDENING AGENT.
D PRESSURE FLANGE	TINNED BRASS FLANGE SEALED WITH A C PRESSURE FLANGE PLUG.
C PRESSURE FLANGE PLUG	FOR SEALING D PRESSURE FLANGE.
END PLATE KIT, B THROUGH P (EXCEPT I AND O)	END PLATE KITS CONSIST OF A LEAD END PLATE, A RUBBER DISC, A CLOTH DISC, AND A C SPLIT SLEEVE CLAMP. SEE TABLE B FOR SIZES AND APPLICATION. A TYPICAL END PLATE KIT IS ILLUSTRATED IN FIG. 2.

3. PRECAUTIONS

The following change applies to Part 3 of the section:

3.03 Store plastic steel cartridges with injection nozzle pointed down for 48 hours before using. Storage area should be heated to above 60°F.

4. PREPARATION OF CABLES AND LEAD SLEEVES

The following change applies to Part 4 of the section:

(a) 4.04.1 — added paragraph

4.04.1 If proper end plate is not readily available per Table B, an end plate must be fabricated locally.

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5. MAKING THE SEAL

The following changes apply to Part 5 of the section:

(a) 5.01, 5.02, 5.03 — revised

(b) Fig. 13, 14, 15, 16, and 17 — added

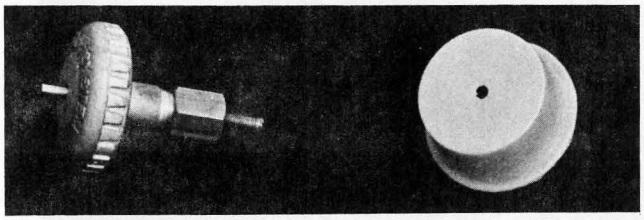
5.01 Ensure that sufficient plastic steel material is available to fill the joint. Eight one-pound cartridges are required to seal joints with A, B, C, D, F, H, L, M, or P End Plate Kit. Four one-pound cartridges are required to seal joints with E, G, J, K, or N End Plate Kits. At least 12 cartridges should be on hand ready for filling.

5.02 Mix plastic steel as follows:

1. Remove the plastic end seal from the end of the cartridge (Fig. 13).

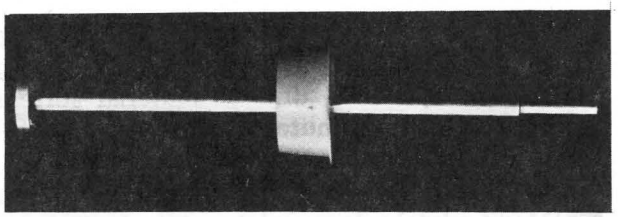
Removing Plastic End Seal From Cartridge
Fig. 13

2. Drill a hole in the center of the plastic end seal with a D cable drill (Fig. 14).



D Cable Drill and Hole in Plastic Insert
Fig. 14

3. Place the shaft of the M-10 mixer through the hole in the plastic end seal (Fig. 15). Secure the mixer into the chuck of a 3/8-inch variable speed drill.

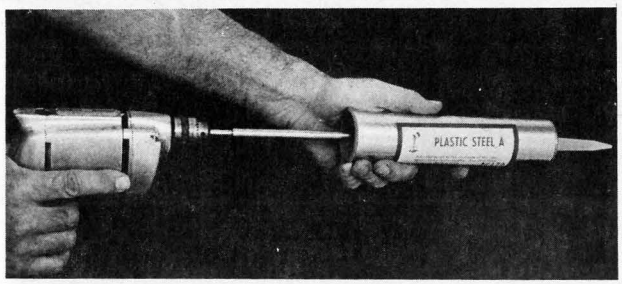


Shaft of M-10 Mixer Through Plastic Insert
Fig. 15

4. Transfer all of the plastic steel hardener from the small container to the plastic steel material already in the cartridge. A small paddle or putty knife can be used for this purpose. (See Fig. 16.)

Placing Hardener in Cartridge
Fig. 16

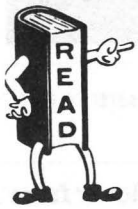
5. Place the M-10 mixer into the cartridge and insert the plastic end seal securely into the cartridge (Fig. 17).



Placing M-10 Mixer into Cartridge
Fig. 17

6. Using slow speed on drill, start mixer into material and slowly with steady pressure push fully into the material. Move mixer up and down so as to completely mix the material at top and bottom together. Mixer should be moved up and down along the side wall of the

cartridge while slowly rotating the cartridge to ensure that all of the material is mixed. Increase speed of drill as material softens. **Mix for 3 to 5 minutes.**



IMPORTANT — Mix material completely. Incomplete mixing will always result in a weak joint and soft spots in the material. Mixing must be done in an ambient temperature between 60 and 85°F. Plastic steel should not be exposed to below freezing temperatures for the 48 hours prior to its use. Use a heat lamp, if necessary, to obtain this temperature. The heat lamp should also be used to preheat the lead sleeve when the manhole air temperature is, or has been recently, below 60°F. Heat from a heat lamp or similar source should be applied during the 12 hour curing period when the ambient temperature is below 60°F. Mixing plastic steel at temperatures below 60°F will result in a joint failure.

7. Reinsert plug or piston in cartridge. Place cartridge in caulking gun. Do not cut plastic nozzle. Holding cartridge with nozzle end down so that air pockets are at open end of cartridge, pull trigger **slowly** so as to push piston down to material and to eliminate air pockets. Pull **slowly** so as to let entrapped air escape by the piston.
8. Cut end of plastic nozzle to desired size and shape. Puncture plastic diaphragm or seal inside nozzle with pencil or rod, and prepare to inject plastic steel.

5.03 The remainder of Part 5 in the main section provides instructions and precautions for injecting plastic steel.