

PRESSURE TESTING TOOLS

B AND C PRESSURE GUNS

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1. GENERAL

1.01 This section describes the B and C pressure guns and covers their use and maintenance in connection with the construction of cold resin plugs in cables.

1.02 **Materials, Tools, and Replacement Parts:** The following items are required in maintaining these pressure guns:

Materials

Cleaner, KS-16302 Available in 1 pt. screw top cans.
For cleaning resin from pressure guns.

Oil, Lubricating Light lubricating oil for threads on piston screw.

Tools

Pliers, Combination For installing E retaining ring in C Gun.

Rod, Cleaning, B For cleaning nozzle orifice.

Screwdriver, Cabinet, 3 in. For removing E retaining ring on plunger of C Gun.

Wrench

Open end wrench 5/8-in. and 7/8-in. or equivalent. For removing nozzles from B and C Guns.

Replacement Parts

Nozzle for B Gun

For replacement of broken or damaged nozzles.

Nozzle for C Gun

Washer, Cup for B

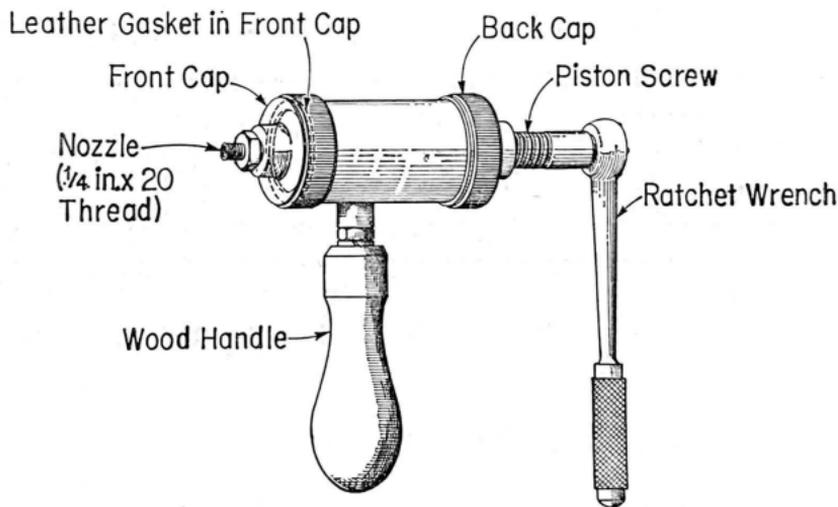
Leather cup washer for reconditioning B Gun.

Washer, Cup, Leather for C Gun

Leather washer and spare E retaining ring. For reconditioning C Gun.

2. DESCRIPTION AND METHOD OF FILLING

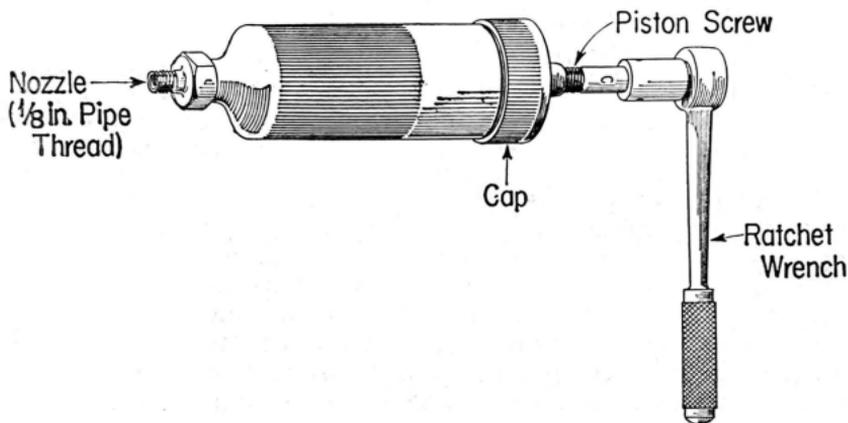
2.01 **The B Pressure Gun** illustrated below is a screw operated piston type pressure gun with removable ratchet handle. Its chief use is in plugging terminal stubs and small cables up to 1-1/4 inches outside diameter.



2.02 By fully retracting the piston, removing the front cap and mounting the gun in the B Pressure Gun holder, the barrel of the gun is used as a mixing chamber for the resin and activator. The chamber will hold one small charge (50 grams of resin and 19 grams of activator).

2.03 The method of filling the B Gun and its operation are described in the G73 series covering the plugging of terminal stubs and similar cables.

2.04 **The C Pressure Gun** illustrated below is a screw operated plunger type pressure gun with leather cup washer. It has a removable ratchet handle. This gun is used for plugging cables larger than 1-1/4 inches outside diameter.



2.05 In using the C Gun, the resin and activator must be mixed in a separate container. This gun will hold one large charge (168 gram can of resin and 69 gram tube of activator) or 3 small charges (three 50-gram tubes of resin and three 19-gram tubes of activator).

2.06 The method of filling the C Gun and its operation are described in the G73 series covering the plugging of the larger diameter cables.

3. PRECAUTIONS

3.01 **Protective Hand Cream:** Gun cleaning operations should not be done unless the hands have been protected with Kerodex 71 and Kerodex 51 in the approved manner as covered in the G73 series of the practices.

3.02 **Ventilation:** KS-16302 Cleaner is not flammable, but cleaning operations should be done out doors or in a well ventilated room to avoid excessive breathing of the fumes.

4. REGULAR CLEANING AND LUBRICATION

4.01 The pressure guns and other tools on which the cold resin may accumulate should be cleaned promptly after each plug is completed; otherwise, the resin will set up and make cleaning very difficult.

4.02 KS-16302 Cleaner is used for this purpose. This solution is not a solvent for the cold resin materials, but it is used to facilitate cleaning.

4.03 **The B Gun** should be cleaned on completion of each plug, as follows: Turn the ratchet wrench counter-clockwise one or two turns and remove the front cap. Remove any remaining resin and wipe the inside of the cap, including the threads, using a cloth moistened with KS-16302 Cleaner. Run the round end of the B Cleaning Rod through the orifice in the nozzle and wipe the rod with a cloth.

4.04 Run the piston forward to its full length of travel, then wipe the piston, leather washer, and the external threads on the gun with a cloth moistened with KS-16302 Cleaner. Finish with a dry cloth. Retract the piston and clean the wall of the gun barrel in a similar manner.

4.05 A small part of each gun charge may seep through the clearance between the piston and the inner wall of the gun and accumulate behind the piston. The accumulation should be removed after the gun has been used about two weeks. To remove the material, turn the piston screw counter-clockwise as far as practicable, unscrew the back cap and withdraw the piston. Pull off the bulk of the material with a cloth, remove small particles with the cleaning rod, and then wipe the area with a cloth moistened with KS-16302 Cleaner.

4.06 After cleaning insert the piston in the barrel. Then screw the back cap in place and replace the front cap.

4.07 Lubricate the piston screw with one or two drops of light mineral oil twice a day when the gun is used repeatedly.

4.08 **The C Gun** should be cleaned on completion of each plug as follows: Unscrew the cap and remove the piston. Moisten a cloth with KS-16302 Cleaner, wipe the piston and leather washer thoroughly, then finish with a dry cloth. Run the round end of the cleaning rod through the nozzle orifice and wipe the rod clean. Also wipe the interior of the gun barrel with a cloth moistened with KS-16302 Cleaner and finish with a dry cloth.

- 4.09 Lubricate the piston screw with one or two drops of mineral oil each day it is used.
- 4.10 Pliers or other tools which have been in contact with the resin should be cleaned in a similar manner.

5. SPECIAL CLEANING

- 5.01 If either gun becomes badly caked with resin, a more thorough cleaning is necessary using KS-16302 Cleaner.
- 5.02 The part to be cleaned should be allowed to soak in the cleaner long enough to loosen the caked resin and permit its removal.
- 5.03 After removing the caked material, wipe the part thoroughly with a cloth moistened with the cleaner and dry with a clean cloth. Then lubricate the piston screw.

6. FIELD REPAIRS

- 6.01 The following paragraph describes the repairs which can be conveniently made in the field. If more extensive repairs are necessary, the guns should be returned in accordance with established routine.

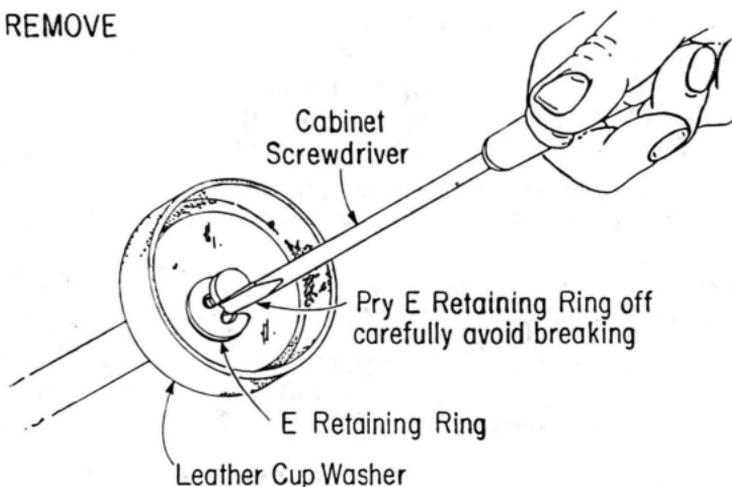
B Pressure Gun

- 6.02 **Nozzle Replacement:** Remove the nozzle using a 5/8-in. open end wrench and replace with a new nozzle.
- 6.03 **Leather Cup Washer:** If excessive resin leaks past the washer, or if the washer is badly caked or otherwise defective, it can be replaced as follows:
 - (1) Turn the piston screw counterclockwise as far as practicable, unscrew the back cap and withdraw the piston.
 - (2) Remove the leather cup washer which is held in place by a steel washer and three machine screws.
 - (3) Clean away any caked resin remaining on the piston.
 - (4) Place the new washer, being careful to center it on the piston; then tighten the machine screws securely.
 - (5) Apply a light coat of lubricating oil to the leather cup and all parts of the piston and screw. This will minimize adhesion of the resin and simplify cleaning.
 - (6) Carefully insert the piston in the barrel and screw the back cap in place.

C Pressure Gun

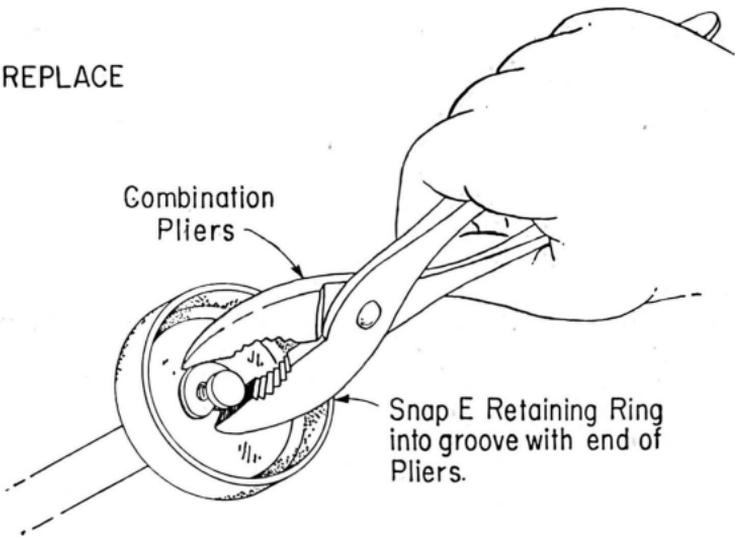
- 6.04 **Nozzle Replacement:** Remove the nozzle using a 7/8-in. open end wrench and replace with a new nozzle.
- 6.05 **Leather Cup Washer:** If excessive resin leaks past the washer, or if the washer becomes caked with resin or is otherwise unsuitable, it can be replaced as follows:
- (1) Carefully remove the steel E retaining ring by prying it off using a small screwdriver as illustrated below. The E retaining ring is brittle and should not be distorted excessively.

REMOVE



- (2) Place the new leather washer and engage the ends of the E retaining ring in the groove. Then spring the retaining ring into place, using a pair of combination pliers as illustrated below.

REPLACE



(3) Apply a light coat of lubricating oil to the leather cup and the metal parts of the plunger. This will minimize adhesion of resin and simplify cleaning.