

## GREASE AND OIL GUNS FILLING

### 1. GENERAL

1.01 This section describes the method of filling the Nos. 353B, 353C, KS-7461, and Lincoln Engineering Company No. 5958 grease guns; the Nos. 362A, 362B, 401A, 431A, 486A, and 552A oil guns; and the KS-5000 oil and grease gun.

1.02 This section is reissued to cover the Nos. 353C, KS-7461, and Lincoln No. 5958 grease guns; the No. 486A oil can; and the No. 552A oil gun. Detailed reasons for reissue are found at the end of the section. Since this reissue covers a general revision, the arrows ordinarily used to indicate changes have been omitted.

1.03 Information regarding the kind and the amount of lubricants to be used in lubricating apparatus is specified in the sections covering the apparatus involved.

### 2. TOOLS AND MATERIALS

| <u>Code or Spec No.</u> | <u>Description</u>            |
|-------------------------|-------------------------------|
| <u>Tools</u>            |                               |
| -                       | 3-inch Cabinet Screwdriver    |
| -                       | 6-1/2-inch P-long-nose Pliers |

### Materials

|         |  |
|---------|--|
| KS-2423 | Cloth  |
| -       | Medicine Dropper   |
| -       | Paddle (or other suitable device for scooping up grease) |

### 3. PROCEDURES

3.01 General: When it is necessary to fill a tool with a lubricant other than the one previously used, drain the lubricant from the tool. Where grease has been used, remove as much as possible with a suitable scoop or paddle and then wipe the inside of the tool with a KS-2423 cloth. Fill the tool with the new lubricant and operate the tool until this lubricant is discharged from the nozzle.

#### 3.02 Nos. 353B and 353C Grease Guns

(a) Unscrew the nozzle and remove the vent screw from the barrel with the 3-inch cabinet screwdriver. Unscrew the cap from the other end of the barrel. Grasp the

rib on the plug in the barrel with the P-long-nose pliers and remove the plug.

(b) Where practicable, fill the grease gun by forcing the barrel into the grease in order to minimize introducing air pockets in the barrel. Fill the gun from a container having grease to a depth at least equal to the length of the barrel. Grasp the barrel close to the piston and force the open end slowly into the grease until the air in the barrel has been expelled through the vent hole and grease starts to come out through this hole.

(c) Where it is impracticable to follow the procedure covered in (b), fill the barrel by scooping grease from the container with a small paddle or other suitable means.

Note: When filling the gun with KS-13713 contact protectant, follow the procedure covered in (c). Before filling the barrel, stir the contact protectant to thoroughly mix the ingredients. Stir slowly to avoid the formation of air pockets in the contact protectant.

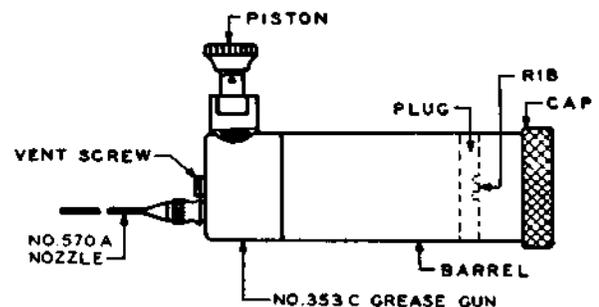


Fig. 1 - No. 353C Grease Gun Equipped With No. 570A Nozzle

(d) Remount the vent screw and nozzle. Withdraw the barrel from the grease if the procedure covered in (b) was followed. Place the plug in the barrel with the rib out, and, while applying pressure to the plug, operate the piston repeatedly. This will eject enough lubricant to allow space for the plug as well as remove any air pockets that may be trapped at the nozzle end of the barrel.

(e) Remount the cap and tighten it against the plug. Remove any grease that adheres to the outside of the barrel using a KS-2423 cloth.

(f) To remove air pockets after filling the gun, remove the cap and apply pressure to the plug. At the same time operate the piston until grease is discharged from the nozzle. Mount the cap securely in place.

### 3.03 Nos. 362A and 362B Oil Guns

(a) To fill the oil gun disengage the pawl from the piston and push the piston into the barrel as far as possible. Unscrew the nozzle from the barrel. Insert the gun to a depth of approximately 1/2 inch into a suitable container filled with the oil. Draw up the piston slowly to the full extent of the stroke and remove the gun from the oil. Turn the gun so that the hole at the end of the barrel is at the top. While holding the gun in this position, cover the hole with a wadded KS-2423 cloth and push the piston up until all the air in the barrel is expelled. The cloth will catch any oil discharged while expelling the air. Insert the gun once more into the oil and draw up the piston to the full extent of the stroke. The barrel should now be filled completely with oil. Remount the nozzle and wipe off the barrel using the KS-2423 cloth.

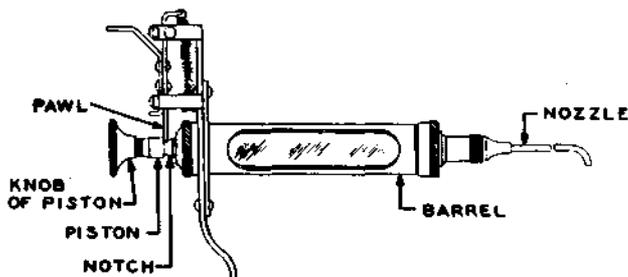


Fig. 2 - No. 362A Oil Gun

(b) After filling the gun as covered in (a), set it for discharge of oil as follows. Hold the gun in a vertical position with the nozzle down over the oil container. With the thumb press down on the knob of the piston until the pawl engages the first notch of the piston, preventing further downward movement. If oil flows from the end of the nozzle, the gun is ready for use. If oil does not flow, disengage the pawl from the notch in the piston and press down on the knob until the pawl engages the next notch. Repeat this procedure until oil is discharged from the nozzle.

### 3.04 No. 401A Oil Gun

(a) To fill the gun with oil turn the plunger in a counterclockwise direction as far as possible. Unscrew the nozzle mounting support from the barrel and fill the barrel with oil using the medicine dropper. Remount the nozzle mounting support. Remove any oil from the outside of the gun using a KS-2423 cloth.

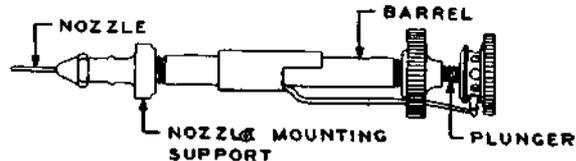


Fig. 3 - No. 401A Oil Gun

(b) To set the gun for discharge of oil, turn the plunger in a clockwise direction until oil appears at the end of the nozzle. Wipe off this oil with a KS-2423 cloth.

### 3.05 Nos. 431A and 552A Oil Guns

(a) To fill these guns, unscrew the barrel from the head. Hold the barrel in a vertical position with the open end at the top. Fill the barrel with oil. Remount the barrel securely to the head taking care that the washer is positioned between the head and barrel. Wipe off any oil from the barrel or other parts of the gun using a KS-2423 cloth. Depress the piston several times until oil is discharged from the nozzle to make certain that all air is expelled from the nozzle.

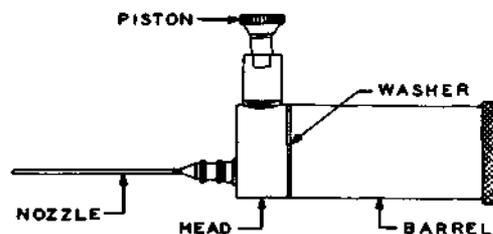


Fig. 4 - Nos. 431A and 552A Oil Guns

### 3.06 No. 486A Oil Can

(a) Remove the nozzle and fill the can with oil. Remount the nozzle.

(b) Hold the oil can with the nozzle upward. Depress the sides of can until oil comes out of the nozzle. Remove any oil from the outside of the nozzle and can using a KS-2423 cloth.

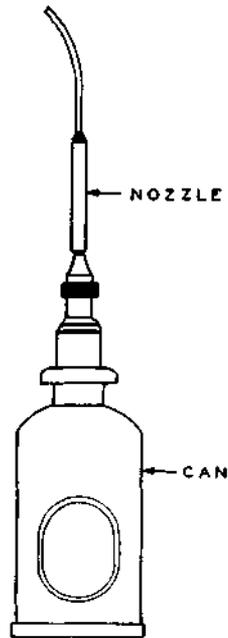


Fig. 5 - No. 486A Oil Can

3.07 KS-5000 Grease and Oil Gun

(a) This gun may be filled with grease or heavy oil. When used as a grease gun, the top cap locknut is tightened against the top cap and the plunger is turned by the screw to discharge grease. When used as an oil gun, the top cap locknut may be disengaged from the top cap to eliminate the screw action, and the plunger pushed toward the nozzle to discharge the heavy oil.

(b) To fill the gun with grease proceed as follows.

(1) Back off the top cap locknut and draw the piston out to the limit of its stroke. Unscrew the top cap and remove the piston from the barrel. Unscrew the nozzle.

(2) Fill the barrel from a container having a depth of grease at least

equal to the length of the barrel. Force the end of the barrel from which the top cap has been removed into the grease until all the air in the barrel has been expelled through the opening in the bottom cap and the grease starts to come out through this opening. If the barrel is not completely filled after it is removed from the grease in the container, tap the bottom cap against a solid surface to work air pockets out and cause the grease to settle. Then repeat the operation described above until the barrel is filled with grease. Make every effort to fill the barrel the first time it is forced into the grease in order to minimize the formation of air pockets.

(3) If the procedure described in (b) is impracticable due to the consistency of the grease, fill the barrel by scooping grease from the container with a small paddle or other suitable means. While filling the barrel in this way, tap the bottom cap against a solid surface to eliminate air pockets.

(4) Remove any grease from the outside of the barrel using a KS-2423 cloth.

(5) After the barrel is filled, remount the nozzle and insert the piston in the barrel. Remount the top cap, turning it in a clockwise direction and securely tighten the locknut against the cap. Then turn the piston in a clockwise direction until the grease is ejected from the nozzle.

(c) To fill the gun with oil proceed as follows.

(1) Back off the top cap locknut and draw the piston out to the limit of its stroke. Unscrew the top cap and remove the piston from the barrel.

(2) Hold the barrel vertically with the open end at the top. Hold a KS-2423 cloth over the nozzle and fill the barrel with oil by pouring it into the open end. Carefully insert the piston in the barrel. Remount the top cap.

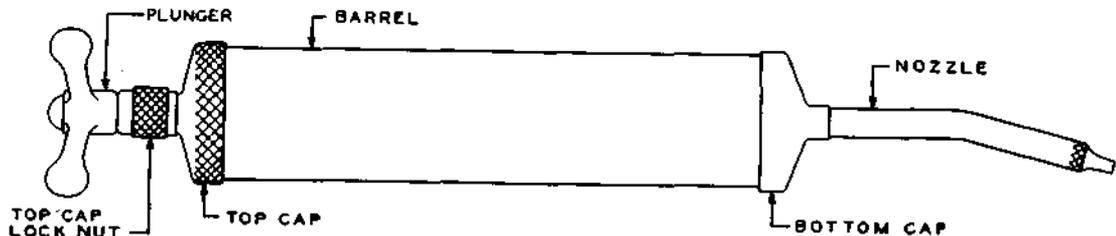


Fig. 6 - KS-5000 Oil and Grease Gun

(3) Wipe any oil from the outside of the barrel with a KS-2423 cloth. Push the piston in the barrel until all air is expelled from the nozzle and oil is discharged.

3.08 KS-7461 Grease Gun

(a) To fill the gun turn the cap on the barrel counterclockwise and remove the plunger.

Caution: Do not remove the nozzle as the ball of the valve will fall out.

Fill the barrel by scooping grease from the container with a small paddle or other suitable means. Tap the barrel against a solid surface while filling to eliminate air pockets.

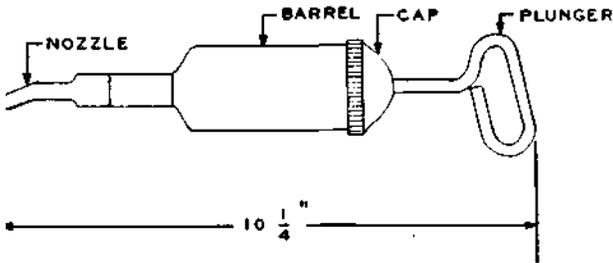


Fig. 7 - KS-7461 Grease Gun

(b) After the barrel has been filled, insert the plunger and secure the cap to the barrel by turning the cap clockwise.

(c) Eliminate air pockets by making several short strokes with the plunger until grease is discharged from the nozzle.

3.09 Lincoln Engineering Company No. 5958 Grease Gun

(a) To fill the gun unscrew the head from the barrel. Pull the barrel plunger to its outermost position and rotate the paddle until the locking lugs on the

plunger rod engage the cap of the barrel. Fill the barrel by scooping grease from the container with a paddle or other suitable means. While filling the barrel in this manner, tap the cap against a solid surface to eliminate air pockets. Remount the head making sure that the gasket is in place between the barrel and head.

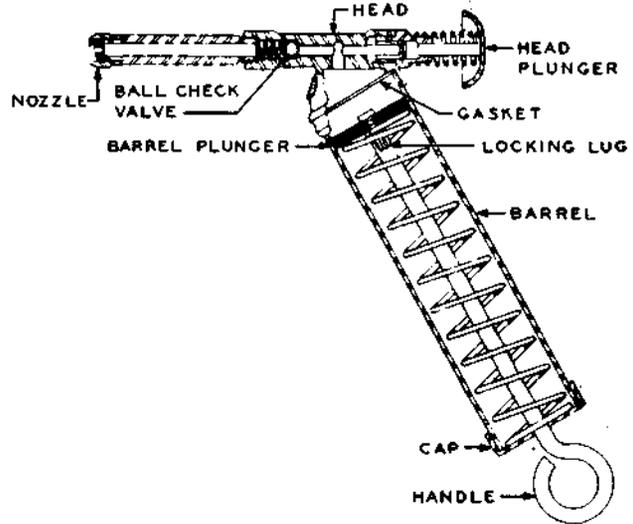


Fig. 8 - Lincoln No. 5958 Grease Gun

(b) To remove air pockets release the barrel plunger by rotating the handle to disengage the locking lugs. Rapidly press the head plunger several times until all air is expelled and grease begins to come out of the nozzle.

REASONS FOR REISSUE

1. To add the Nos. 353C, KS-7461, and Lincoln No. 5958 grease guns; the No. 486A oil can; and the No. 552A oil gun.
2. To add a paragraph covering cleaning of tools (3.01).
3. To add information on filling the KS-5000 Gun with oil (3.07).