

671

**IMPORTANT**  
**LUBRICATE YOUR EQUIPMENT BEFORE USING IT**  
**YOU CAN MAKE YOUR ELECTRIC TRAIN**  
**LAST A LIFETIME BY GIVING IT**  
**PROPER LUBRICATION**

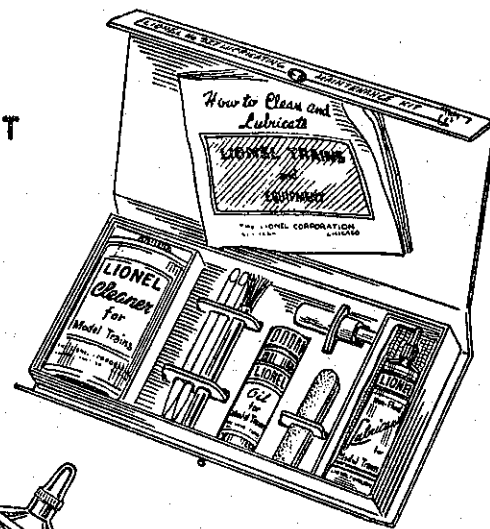
Ever notice how carefully enginemen lubricate the important parts of their locomotives before they start out on a trip? They do that because lubrication is *vital* to the efficiency of real railroad engines and cars. Lubrication is just as important to your Lionel Electric Train. Properly lubricated it will last a lifetime.

LIONEL LUBRICATING KIT No. 927 has been assembled especially for Lionel Trains and equipment. It contains all the lubricating and cleaning materials and a complete set of detailed lubricating charts to help you keep your Lionel Trains in top-notch condition.

**LIONEL LUBRICATING  
 AND MAINTENANCE KIT**  
 No. 927

**\$1.50**

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**LIONEL TRAIN LUBRICANT**  
 Two ounce nozzle-tube, No. 925

**35¢**



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**THE LIONEL CORPORATION**  
 EXECUTIVE OFFICES — 15 EAST 26th STREET, NEW YORK 10, N. Y.

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**Instructions for Operating**  
**LIONEL STEAM-TYPE LOCOMOTIVES**  
**WITH SMOKE AND WHISTLE**

Most Lionel steam-type locomotives are equipped with a smoke generator which produces odorless, realistic-appearing smoke. Simply drop an SP Smoke Pellet into the smoke stack of the locomotive and turn on the track power. The smoke is produced in a few seconds as soon as the heating element in the generator melts the pellet and is blown out of the stack in puffs timed by the motion of the locomotive.

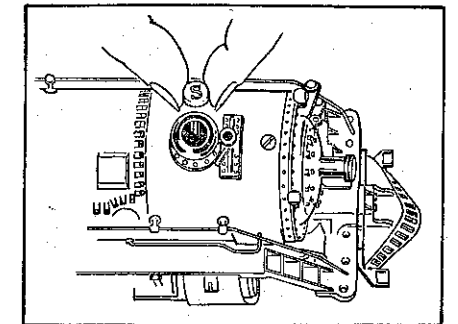


Figure 1—Using Smoke Pellets

One pellet contains enough smoke material to last from 10 to 30 minutes depending on the voltage applied to the locomotive. The volume of smoke does not depend on the amount of smoke material in the generator and in fact will increase somewhat as the pellet is consumed. Do not overload the generator with smoke pellets. Wait until one pellet is consumed before dropping in another one.

SP Smoke Pellets, which are furnished in glass bottles, have been rigorously tested by recognized testing laboratories and are free from any toxic effects even if accidentally swallowed. They are stainless, odorless, and completely harmless to life or property.

**HOW TO CLEAN SMOKE LOCOMOTIVES**

Smoke pellets are consumed without leaving any ash. After several hours of operation some white powdery material will accumulate in the smoke stack. This is all smoke material and should be pushed back into the generator with the wooden tamper provided. Do not use any sharp instrument or you may damage the delicate heater element.

If the generator has been clogged up by too much smoke material and fails to produce enough smoke, clean out the smoke stack, raise the track power slightly higher than normal and let the locomotive stand in neutral for a few minutes until the smoke material melts. Then lift up the locomotive slightly and let the wheels turn rapidly for a few moments to blow out the excess smoke material. The whitish deposit which may be formed on the locomotive body after a long period of operation may be cleaned off with a little Lionel lubricant applied with a soft cloth.

**REVERSING THE LOCOMOTIVE**

All Lionel locomotives reverse by remote control. The reversing 'E-Unit' in the locomotive works in sequence: Forward, Stop, Reverse, Stop, etc. To stop the locomotive push the 'Direction' control on the transformer *once*; to change the direction of the locomotive push the 'Direction' control *twice*.

The reversing unit can be disconnected by moving the small lever projecting from the top of the locomotive boiler. If the reversing unit is disconnected,

the locomotive cannot change its direction, but will continue to run in the same direction. This is useful when operating a layout with automatic stop station, an operating bridge or insulated track blocks. If the reversing unit is disconnected while the locomotive is standing in neutral it will remain in that position and will not run at all. The proper way to disconnect the 'E-Unit' is this: Get the locomotive to run in the desired direction, stop it *without operating the reversing unit*. (Either hold the locomotive with your hand or turn off the track voltage), then move the reversing unit lever. Because the reversing unit works partly by gravity it operates properly only if the locomotive is held right side up.

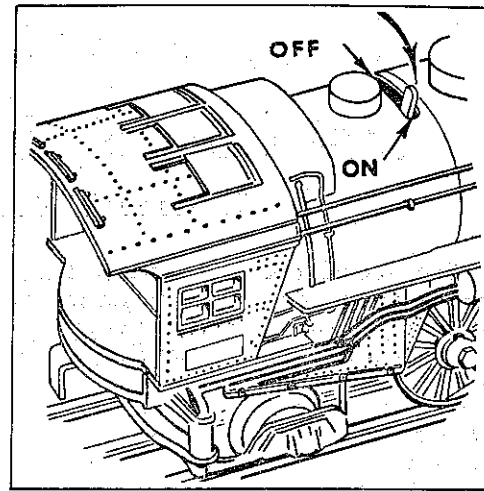


Figure 2—Location of 'E-Unit' Lever

### HOW TO BLOW WHISTLE

The mechanism of the Lionel remote control train whistle is located in the locomotive tender. To blow the whistle operate the 'Whistle' control on your Multi-Control transformer, or if you have one of the older transformers, on the 167 Whistle Controller.

### HOW TO REPLACE THE HEADLIGHT

To illuminate its headlight this locomotive uses an 18-volt miniature screw-type lamp clipped to the inside of the boiler front. To reach the lamp simply pull out the boiler front. Before assuming that the lamp is burned out check to see that it is screwed tightly into its socket. The replacement lamp, available from your dealer is Lionel No. 752-9.

### HOW TO LUBRICATE LOCOMOTIVE

The life and performance of your locomotive depend to a considerable degree upon the care you give it. The locomotive should be cleaned and lubricated regularly when in continuous use, and also after it has been stored away

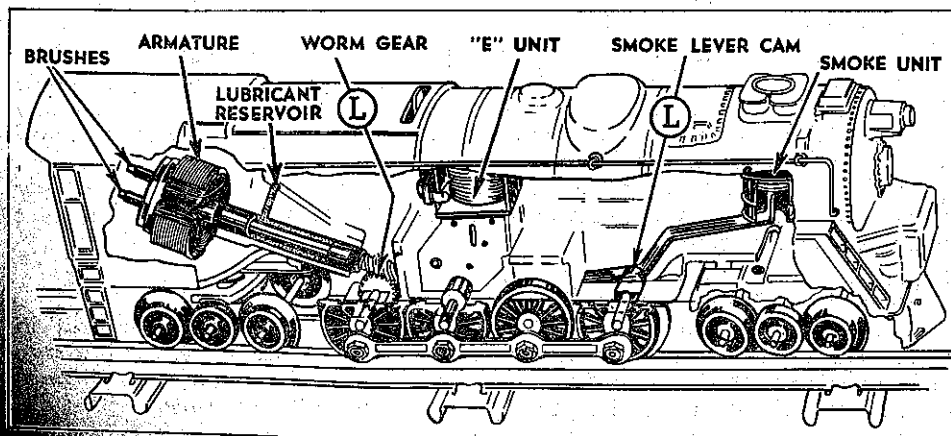


Figure 3—Cutaway View of No. 671 Locomotive Showing the Working Parts

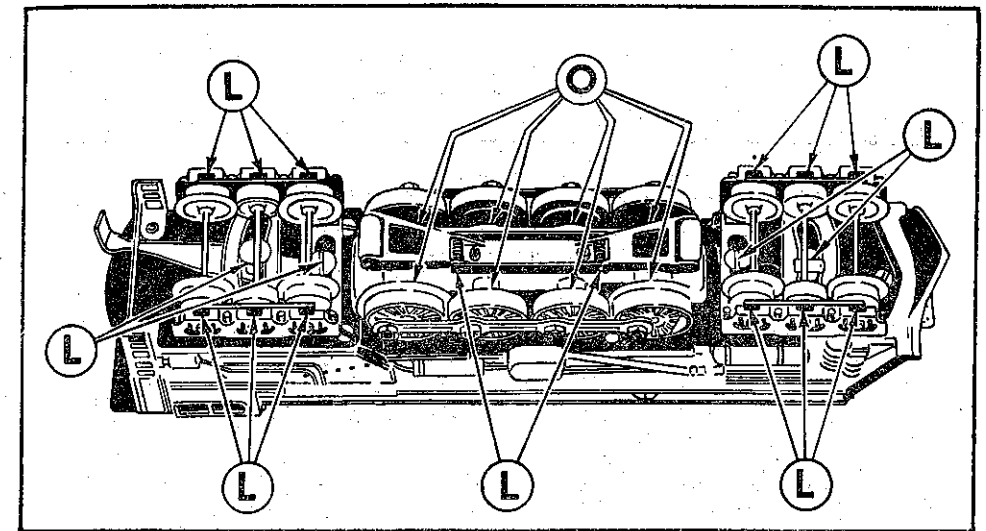


Figure 4—Principal Lubricating Points of the Locomotive

for a long time. Follow the lubricating chart in Figure 4 using light machine oil in places marked 'O' and Lionel lubricant in places marked 'L'. The lubricant reservoir shown in Figure 3 can be reached by taking off the locomotive body, but does not need frequent attention. **DO NOT OVER-LUBRICATE.** A drop or two of oil or a dab of lubricant is quite sufficient. Do not get any oil or lubricant on the motor brushes or the running surfaces of the wheels, and do not lubricate the locomotive contact rollers.

A complete Lubricating and Maintenance Kit No. 927 which contains all the material and equipment necessary to keep your outfit in top notch condition may be obtained for \$1.50 from your dealer, or, by mail, from the Lionel Service Department.

### SERVICE INFORMATION

This locomotive and tender were inspected at the Factory and found to be in perfect operating condition. Like all Lionel products they are guaranteed against faulty material and workmanship to the extent that if any such defective article is returned to the Lionel Service Department, or to any Lionel Approved Service Station, within one year of the date of purchase it will be repaired or replaced. If in the future your locomotive or tender should ever require servicing, you may either send it to the Factory Service Department, or take it to the nearest Lionel Approved Service Station listed in the general Instruction Booklet.

If you decide to mail the articles to us, be sure to pack them carefully to avoid damage in transit. Use the original box and packing, if possible, and enclose in another corrugated box or strong container. A letter in a stamped envelope stating fully the service desired must be pasted to the outside wrapper. Post Office regulations do not permit a letter or any written instructions to be placed inside the package.

## THE LIONEL CORPORATION

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