Lubrication and Greasing Instructions

The engine should be well oiled and greased in order to run properly.

You should regularly lubricate all side rods, linkage components and pickup rollers to prevent them from squeaking. Use light household oil and follow the lubrication points marked "L" in Fig. 6. Do not over-oil. Use only a drop or two on each pivot point.

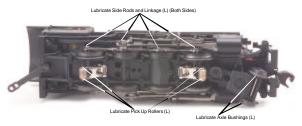


Figure 6. Lubrication Points on the Locomotive

The locomotive's internal gearing was greased at the factory and should not need additional grease until after 50 hours of operation or one year, whichever comes first. To access the gear box and axles, do the following:

- 1. Turn the engine upside down.
- 2. Remove the boiler by removing the body mounting screws shown in Fig. 7a
- 3. Remove the Phillips screw (marked "GREASE") located at each set of wheels (Fig. 7a) and the gearbox cover screws (Fig. 7b on pg. 13).
- 3. Use a grease tube dispenser to put a small amount (approx. 1-2 ml.) of lithium-based grease into the gearbox and axles.
- 4. Replace the screws and reassemble the boiler.

You should also grease the leading and trailing locomotive truck tongues to enhance their ability to slide on the chassis. Follow the grease points shown on Fig. 7a.

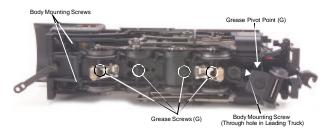


Figure 7a. Location of Body Mount Screws and Greasing Points on the Locomotive

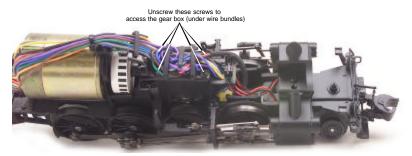


Figure 7b. Screws to remove to access the gear box.

Periodically check the locomotive wheels and pickups for dirt buildup, which can cause poor electrical contact and traction as well as prematurely wear out the neoprene traction tires.

Traction Tire Replacement Instructions

Your locomotive is equipped with two neoprene rubber traction tires on the rear set of flanged drivers. While these tires are extremely durable, you may need to replace them at some point.

- 1. Remove the side rods from the wheels in order to slip the new tire over the grooved drive wheel. Make sure to note the position of all rods before removing
- 2. Make sure the old tire has been completely removed from the groove in the drive wheel, using a razor blade or small flathead screwdriver to pry away any remains.
- 3. Slip the new tire onto the wheel. You may find it useful to use two small flathead screwdrivers to stretch the tire over the wheel.
- 4. If you twist the tire while stretching it over the wheel, you will need to remove and reinstall the tire. Otherwise your engine will wobble while operating.
- 5. Make sure the tire is fully seated inside the groove. Use a razor blade to trim away any excess tire that doesn't seat itself inside the groove properly.
- 6. Reinstall the side rods in the same positions as noted. Failure to align rods may cause binding or damage to the drive system.

One set of replacement tires is included with your model. Additional sets are available directly from the M.T.H. Parts Department.