

Care & Maintenance

The main components (frame, boiler, cab, and tender shell) of the Lionel Dreyfuss Hudson are constructed of brass. While the locomotive and tender are extremely durable, they deserve the proper care and handling to preserve your investment. Since these are painted surfaces, they are susceptible to the normal hazards of chipping, scratching, and chemical staining.

Prior to operation, using a Lionel oil tube or light household oil, lightly oil all areas of moving metal-to-metal contact such as:

- Locomotive & Tender Journal Boxes (Axle Ends)
- Side Rods & Valve Gear
- Rear Coupler

The Pittman motor requires no maintenance as it utilizes sealed ball bearings. Even though the main driver axles are equipped with sealed ball bearings, it is still advised that you apply a small amount of oil in each of these six areas to lubricate the external axle spacers. **Care must be taken to avoid oil soiling the optical sound cam located in the center of the rear-most driver axle.** Should this occur, the chuffing pattern you hear from the locomotive may be altered.

Service

This product is proudly offered by Lionel Trains, Inc. and it carries a warranty to support its continued reliable operation. You may choose to have the Lionel Service Department service your item even after its warranty expires. If so, a reasonable service fee will be charged. In either event, please follow the directions below.

If service is required within the warranty period, you must first write to Lionel Trains, Inc., Consumer Service Department, P.O. Box 748, New Baltimore, MI 48047-0748 stating what the item is, when it was purchased, and what seems to be the problem. You will be sent a return authorization and a label to assure your merchandise will be properly handled upon receipt.

CAUTION: Make sure the item is packed so as to prevent damage to the merchandise. The shipment must be prepaid and we recommend that it be insured.

Please make sure you have followed the instructions carefully before returning any merchandise for service. This warranty gives you specific legal rights and you may have others that vary from state to state.



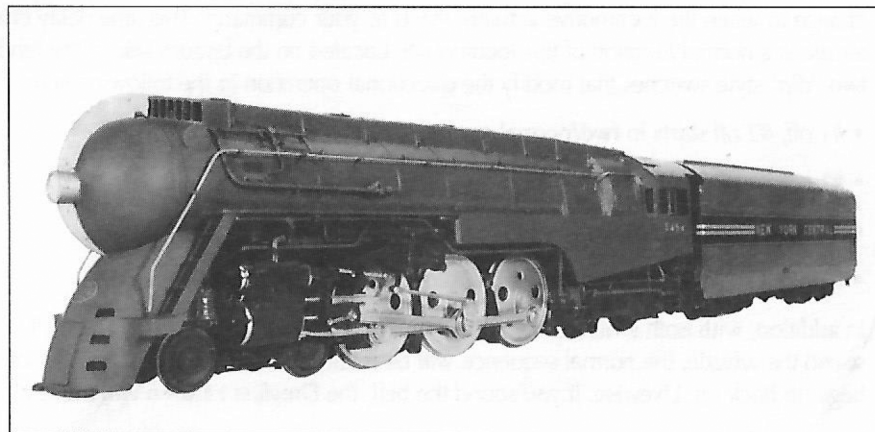
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OPERATING AND MAINTENANCE INSTRUCTIONS THE LIONEL DREYFUSS HUDSON

The Lionel® Dreyfuss Hudson is a true-scale-sized locomotive. While the locomotive is completely compatible with all traditional Lionel equipment and operating procedures, it does incorporate new and unique advanced technology, which will be outlined in this owner/user guide.



The Dreyfuss Hudson was designed to operate on "072" wide radius track due to its true scale proportions. To obtain the best operational characteristics, it is important that your Lionel sectional track is properly assembled and maintained. Track voltage of up to 18V AC is recommended, but the Dreyfuss Hudson will properly operate at lower voltage and ampere capacities since it is powered by a precision ball bearing-equipped Pittman "can" style motor. Power supplies capable of delivering approximately 1.5 amperes to the rail should be adequate for correct operation, excluding any additional drain on the supply from operating accessories or lighted rolling stock. The locomotive will only operate with the electrical connection complete to the tender.

Installation of Coal Load

In order to protect the painted exterior of the Dreyfuss tender, the coal load insert has been packed separately. Since the possibility exists for coal granules to separate from the insert and scratch the painted surfaces, it has been wrapped in tissue and packed between the foam insert and the side of the box. The two retaining screws are packed in a small plastic bag and can be found in the foam cut-out beside the tender.

NOTE: If the tender must be packed for shipment, please remove the coal load and pack it separately.

Motor & Directional Control

As previously mentioned, the Dreyfuss Hudson utilizes a very efficient Pittman motor for power. It also utilizes a highly advanced electronic unit for directional control. Although the electronic control unit provides for traditional sequential operation just as a typical mechanical reversing unit would, it also provides for silent and unique operational options.

When power is applied to the rail and the command is given for train movement, the Dreyfuss Hudson will not begin its movement until the brake release has sounded. This feature will produce a noticeable time delay between the time you activate the directional change to when the locomotive actually reacts to your command. This time delay characteristic is a normal function of this locomotive. Located on the bottom side of the tender are two "dip" style switches that modify the directional operation in the following way:

- #1 off, #2 off **starts in fwd**/normal sequence
- #1 on, #2 on **locked in neutral**
- #1 on, #2 off **starts in fwd**/no sequence
- #1 off, #2 on **starts in neutral**/normal sequence

In addition, with both switches off, when you give the directional command and if you sound the whistle, the normal sequence will be interrupted and the Dreyfuss Hudson will begin to back up. Likewise, if you sound the bell, the Dreyfuss Hudson will move forward.

Sound System

The Dreyfuss Hudson's on-board sound system, while being very advanced in design and performance, is totally compatible with the traditional Lionel sound control devices. Please refer to the operation and installation information supplied with the particular units you are using. The on-board sound system is totally track powered.

The Dreyfuss sound unit will reproduce the following locomotive sounds:

- Brake Release — when track power is initially applied
- Blowers — when track power is on and locomotive is motionless
- Compressors — Random times whenever track is powered
- Chuffing — whenever locomotive is moving
- Bell — on command
- Whistle — on command
- Safety Release Valve — random times when locomotive is stationary with track power on

You will notice that the chuffing you hear when the locomotive is in motion is "sync'd" to the rotational position of the drive wheels. You should hear four chuffs per driver revolution, once at each quarter position of the side rod crank pin.

Should you choose to adjust the volume level or disable the sound unit, the control can be easily accessed under the simulated coal load. Remove the two phillips screws, one front and one rear, which retain the coal load; you can now lift out the load. The control knob on the circuit board is black in color, approximately 3/8" in diameter with a knurled edge, and a screwdriver slot across its top surface. **It is highly recommended that a non-metallic utensil be used to make the adjustment with all power off, as inadvertent "shorting" could cause permanent damage to the sound unit.** Clockwise adjustment to the stop will provide full volume, and counterclockwise to the stop will deactivate the sound unit.

"Chuffing" sound modification — As outlined above, your Dreyfuss Hudson is equipped with a multi-featured sound system. The chuffing sound is designed to provide scale accuracy chuffing at scale speeds. However, the Dreyfuss will operate at faster than scale speeds. At faster than scale speeds, the chuffing sound will automatically shut off. If you decide that you would like to continue to hear the chuffing sound, when the locomotive is running at faster than true scale speed, you may do so by first locating the sound sensor cam on the #3 drive axle directly behind the rear center rail roller assembly. Now, you will notice four (4) shiny lobe surfaces. Next, using flat-black paint, evenly paint approximately 1/3 of the surface area on each of the lobes. The more area painted, the faster the locomotive can be run while still maintaining the chuffing sound. Again, as currently configured, the chuffing sound will automatically shut off if the Dreyfuss is run at faster than scale speed. To continue to hear the chuffing sound, you must paint portions of the lobes.

Smoke Unit

The Dreyfuss Hudson's smoke unit was designed to use liquid smoke only. The best results will be achieved by not over-filling the unit. 3 to 5 drops is sufficient. Maximum smoke volume will be achieved at higher track voltage settings with the locomotive pulling a load.