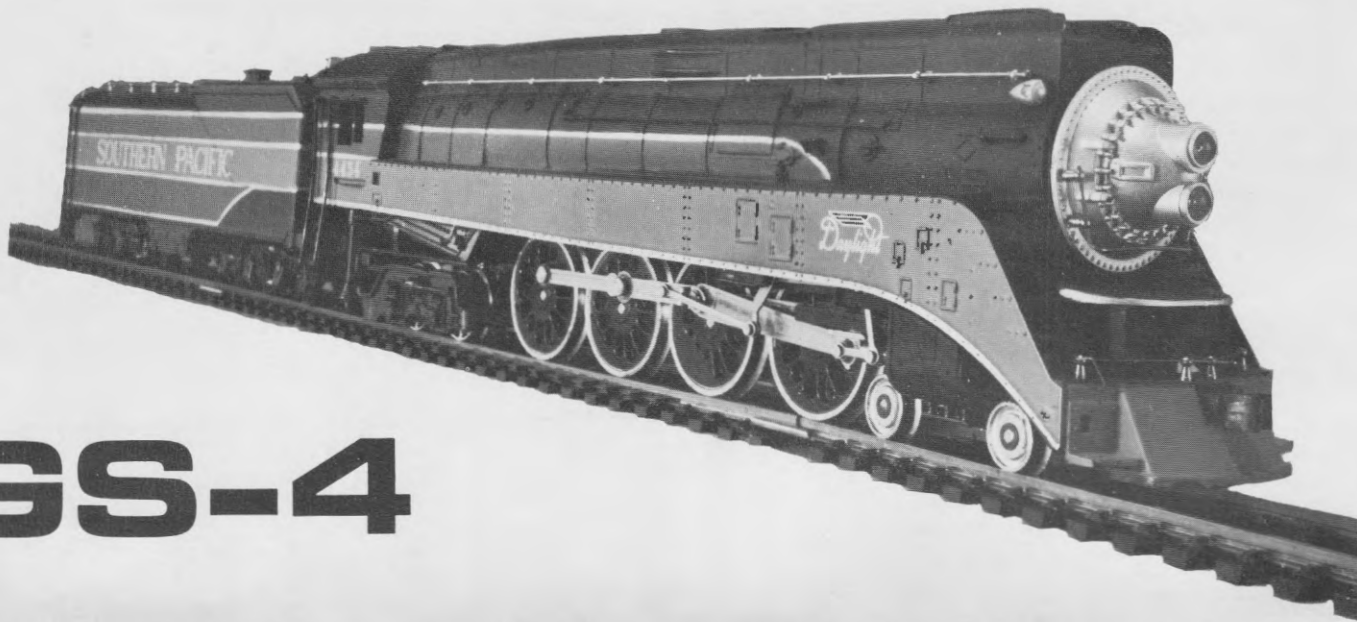


GS-4



HISTORY OF THE GS-4

In the summer of 1940, Southern Pacific placed an order with Lima Locomotive Works for one of twenty GS-4 class semi-streamlined 4-8-4's. On May 30, 1941, SP 4449 was made available to the Operating Department. She was acquired by Southern Pacific during the rail passenger boom created by the steam powered, nonarticulated streamliners known as "Daylights". This was the beginning for the engine that in 1975 would head the American Freedom Train, bearing national documents and artifacts as it toured on the country's 200th birthday celebration.

EARLY GS CLASS ENGINES

Southern Pacific started using 4-8-4's in 1930 with the acquisition of a Baldwin built GS-1, whose appearance, detailing, and size were generally unexciting. By 1936, SP had added only a handful of GS-1's to its roster. In that year, SP received the first of its "Daylight" engines, a GS-2, whose specifications were that of the GS-1's but whose looks were dramatically changed. The Boxpok drivers, enlarged tank, skyline casing, coned headlight, skirts, and paint scheme were the main differences. The GS-3's, of which 14 were ordered in 1937 in anticipation of accelerated "Daylight" service, had increased wheelbases, boiler pressure, driver size, and weight. It appeared that the development of this class of locomotives would be the ultimate in steam engine design.

BIRTH OF THE GS-4

One giant step was left, however — a facelift that many people said made the GS-4 the most beautiful locomotive in the world. Southern Pacific, a leader in the philosophy of grade-crossing protection, (see and be seen), ordered GS-4's equipped with a gyrating Mars light, mounted above the regular road headlight. Completing the facelift was an all weather cab. Internal changes in specifications included cylinder diameter reduction and an increase in boiler pressure.

"DAYLIGHT" SERVICE

WW II brought about a tremendous increase in rail passenger service. Nine million passengers rode the SP in 1940, and by 1945 over 24 million passengers rode their trains. The most famous "Daylights" were trains No. 98-99, "Morning Daylights", running between San Francisco and Los Angeles via the Coast Line. The "San Joaquin Daylights", No. 51-52, carrier cars for the "Sacramento Daylights", No. 53-54 along an alternate route. The Portland to San Francisco run was the longest. Trains No. 9-10 of the "Shasta Daylight" made the trip.

DOWNFALL OF THE GS-4 — SP 4449 LAID TO REST

As diesels became the mode of passenger train power in the 1950's, the remaining streamliners lost their skirting and once beautiful orange and red colors. On October 2, 1957, SP decided that No. 4449 had reached the end of the line. In April of the following year the city of Portland, Oregon placed her in what appeared to be her final resting place, Oaks Park. SP 4449 was the only GS-4 that escaped a cutting torch.

ONE RAIL FAN CARED

It appeared that she would deteriorate from the elements and vandals as most retired steam engines did. One rail fan, however, cared. Jack Holst, a planning engineer from Portland oiled the spring pad lubricators, knowing that scored and rusted bearings would forever keep her from running again. In August, 1972, Jack Holst died, never knowing that his efforts saved the engine that two years later would be selected to pull the Freedom Train on the country's 200th birthday.

REBIRTH OF SP 4449 — THE AMERICAN BICENTENNIAL

Ross Rowland Jr., founder of the High Iron Company, which began modest steam excursions that expanded with the Golden Spike Centennial Limited of 1969, dreamed of an American Freedom Train that would tour the country during the bicentennial celebration. He presented his plan to the American Revolution Bicentennial Administration and won their approval. A joint \$4,000,000 donation by Prudential Insurance, Kraft Foods, General Motors, and Pepsi-Cola kept the ball rolling. The search for a steam engine began. SP 4449 was found, but it was rumored that because she had been rusting for 16 years at Oaks Park, she could not be refurbished. Mechanical experts reviewed her condition, and on December 14, 1974, she was moved from the park to a nearby Burlington Northern roundhouse where work immediately began. Around the clock efforts, including those of many unpaid laborers continued for four months. Parts were reconditioned or replaced. The overhaul was completed on April 21, 1975, when SP 4449 moved under her own power for the first time in 17 years.

THE AMERICAN FREEDOM TRAIN

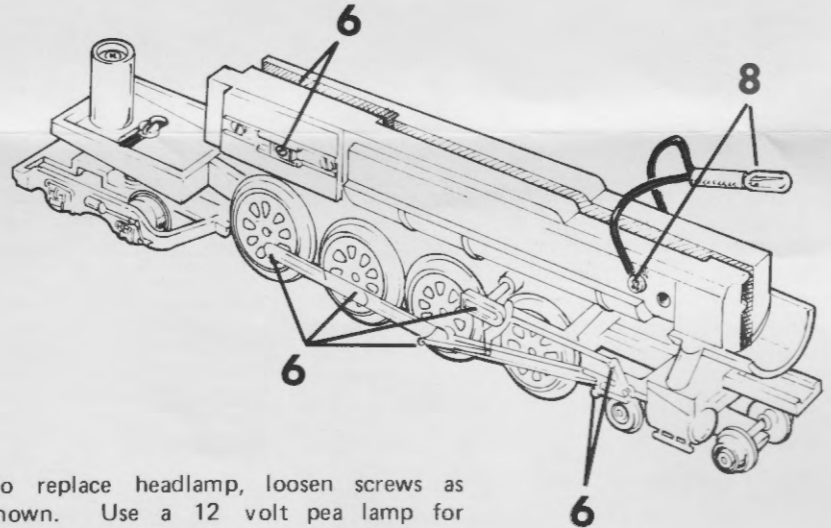
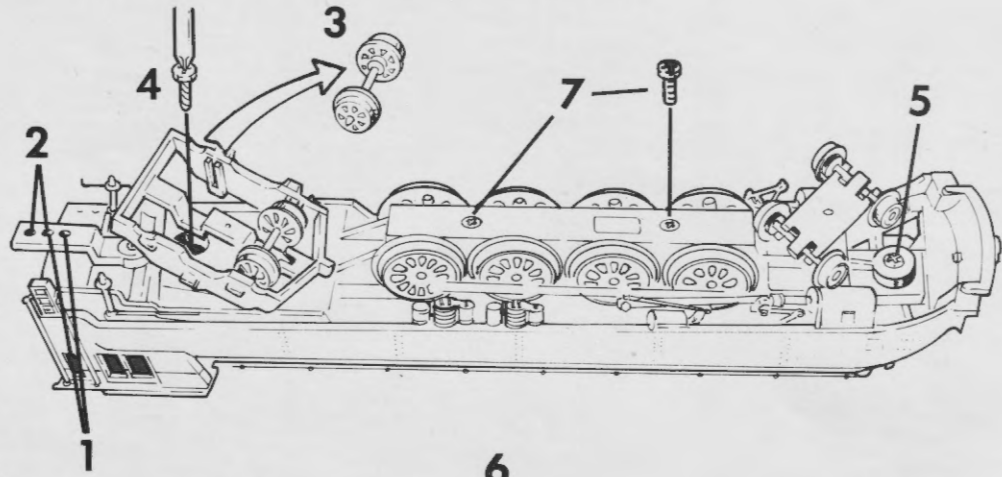
During the 21 month tour, including 76 cities in 48 states, an estimated 30,000,000 Americans will visit the Freedom Train. The Southern Pacific GS-4 and the American Freedom Train, the railroading spectacular of the century and the biggest event in America's bicentennial celebration, is now offered in HO scale exclusively by Lionel. The excitement, detail, and realism of the original is now yours.

75-6501-250

TENDER CONNECTION, LUBRICATION, AND HEADLAMP REPLACEMENT

Lubricate your GS-4 only if the operation becomes sluggish, or if the engine has not been operated for a long period of time. Lubricate sparingly with a light oil. Do not allow lubricant to get on motor brushes or wheel surfaces.

- 1 The two holes nearest the engine are for connecting tender to locomotive for use on a large radius track.
- 2 The two holes farthest from the engine are for connecting tender to locomotive for use on a short radius track.
- 3 Remove wheels by spreading rear truck apart and lifting one wheel of each set out at a time.
- 4 Tilt rear truck to one side and remove screw in hole with Phillips screwdriver.
- 5 Remove front screw and lift chassis off of body.
- 6 Lubricate gears thru slot on top, side rod and linkage assemblies, and motor armature shaft.
- 7 Lubrication of internal gears and bearings should only be done by experienced model railroaders. To gain access to these gears and bearings from the bottom of the locomotive, remove the two screws near the center of the locomotive. Do not remove the screws that hold the die-cast housings together because their alignment must be properly maintained.



- 8 To replace headlamp, loosen screws as shown. Use a 12 volt pea lamp for replacement.

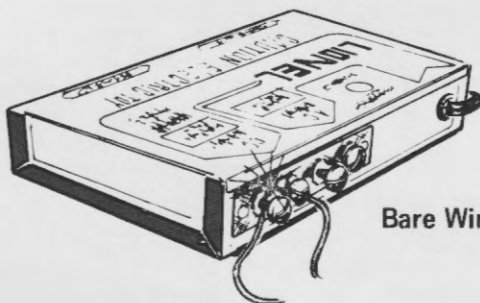
TROUBLE SHOOTING

LOCOMOTIVE STOPS OR FAILS TO START:

1. Unplug the power pack.
2. Check to see that all locomotive and car wheels are properly on the track.
3. Remove any sort of metal that is across the two rails.
4. Check to see that all rail joints are tight.
5. Check to see that all wiring connections are correct.
6. After locating and correcting the short circuit or loose connection, normal operation can resume.

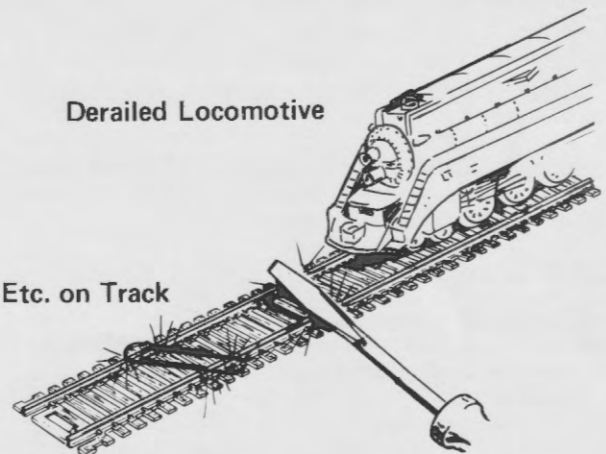
LOCOMOTIVE RUNS ERRATICALLY:

Clean track rails and metal wheels of the locomotive with track cleaner available from your local hobby dealer. Never use sandpaper or steel wool to clean the track or locomotive wheels.



Bare Wires Touching

Derailed Locomotive



Metal Object Etc. on Track

LIONEL

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