

THE EMPIRE BUILDER

The Empire Builders—the nation's first deluxe postwar built transcontinental streamliners—inaugurated daily 45-hour service between Chicago and Seattle-Portland on February 23, 1947.

The \$7,000,000 fleet of five trains, each of 12 cars and Diesel-powered, reduced previous schedules on the 2,211-mile run by 13½ hours.

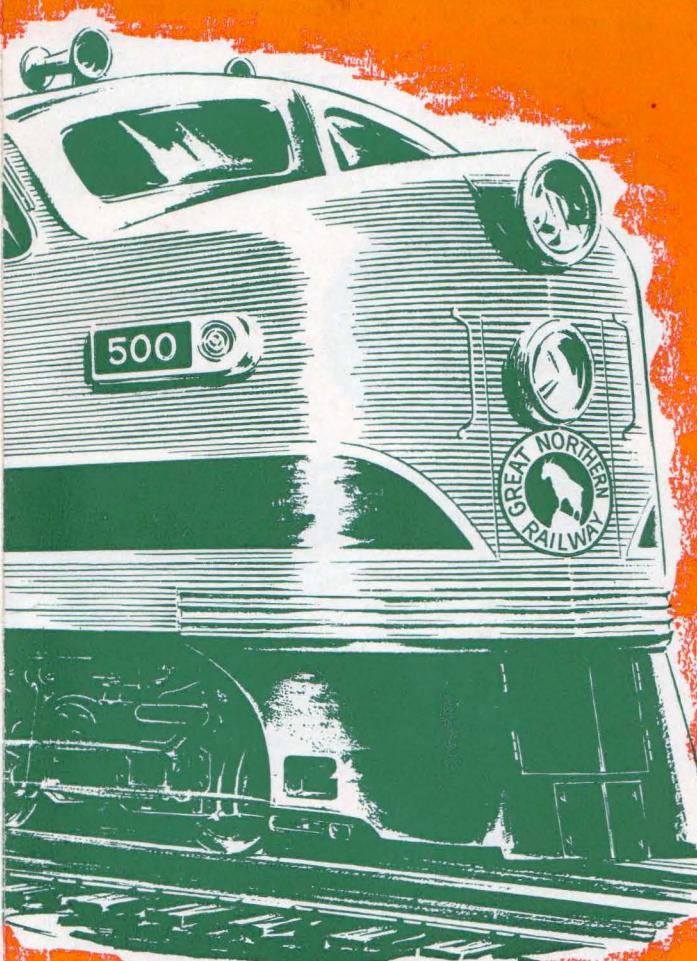
Each of the bright orange and dark green trains has a baggage-mail car, one 60-seat coach, three 48-seat coaches, a coffee shop-lounge car, a diner, four sleeping cars and an observation lounge.

These streamliners, each accommodating 307 passengers comfortably, present many unusual features of modern design and engineering.

Interior decorative schemes reflect the colors and beauty of the historic and scenic Northwest through which the trains travel. Prominent too is the motif of the Blackfeet Indians, pioneer inhabitants of the region.

The route of the Empire Builder is that of Burlington Lines between Chicago and St. Paul and of Great Northern Railway between St. Paul and Puget Sound.

THE LOCOMOTIVE ON THIS TRAIN IS A **DIESEL**



BUILT BY ELECTRO-MOTIVE DIVISION
GENERAL MOTORS—LA GRANGE, ILLINOIS



ELECTRO-MOTIVE DIVISION

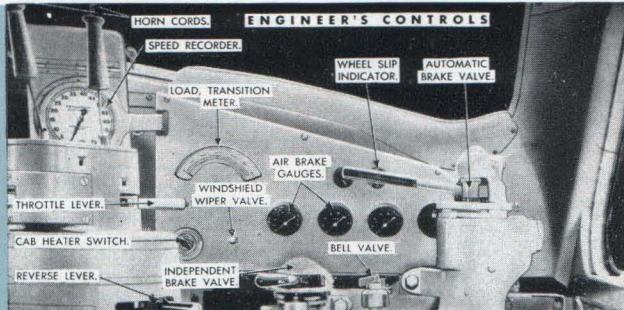
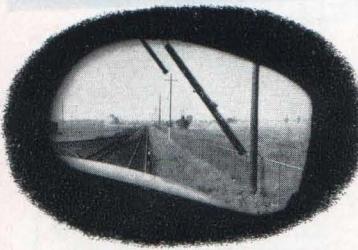
GENERAL MOTORS • LA GRANGE, ILL.



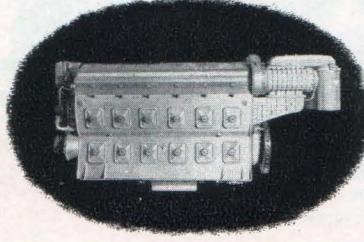
The inside story of DIESEL POWER

The GM Diesel locomotive is a development that has opened a new era of transportation progress. On America's crack trains, together with newly developed, streamlined passenger cars, it brings an entirely new concept of high-speed operation over today's modern routes of travel.

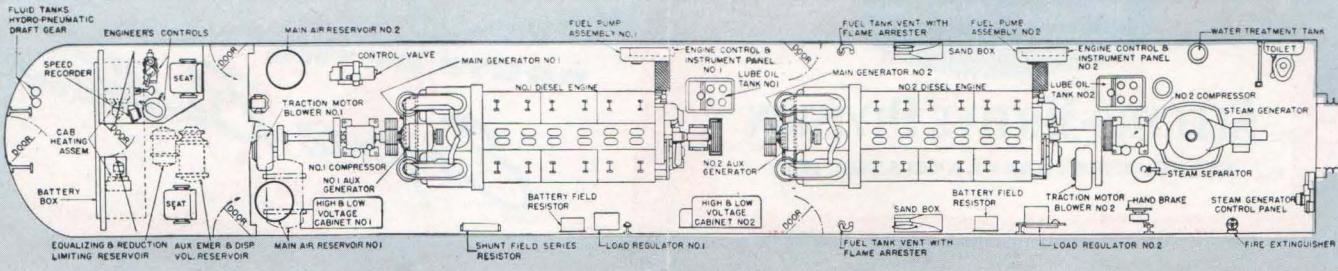
WINDSHIELD
Complete visibility of the right-of-way from the engineer's seat in the control cab.



ENGINE
One of the compact 1000 horsepower General Motors Diesels that supply the power. Two such engines are located in each GM passenger locomotive unit.



FLOOR PLAN OF THE DIESEL LOCOMOTIVE



The locomotive hauling this train consists of a car or cars to haul and house the equipment: Diesel engines, generators, traction motors and suitable control apparatus. It also includes a water tank and automatic train heating boiler to supply the steam to heat the passenger cars.

Each General Motors two-cycle Diesel engine turns a directly attached generator which makes electrical power. This power operates the traction motors which are located below the body of the locomotive, in the trucks. The traction motors are geared to the axles on which the wheels of the locomotive are mounted. Thus, the power from the engine is carried on to the wheels.

Operation of the traction motors, the generator and Diesel engine is coordinated by an ingenious set of controls, some automatic, some at the command of the engineer. With the engineer's pull at the throttle, the automatic controls make the Diesel engine run at the speed required to turn the generator fast enough to produce the electricity required by the traction motors to do the pulling at the speed the throttle "has told them to do".

The speed of the Diesel engine is not directly proportional to the speed of the train. Much of the time, the engine runs at a constant speed even though the speed of the locomotive varies.

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The Diesel locomotive has brought many advantages to travelers . . . faster scheduled train operation; smoother, quieter riding; cleaner and on-time arrival with very high regularity.