



4000 H.P. DIESEL PASSENGER LOCOMOTIVE . . DESIGNED AND BUILT BY ELECTRO-MOTIVE DIVISION . . GENERAL MOTORS . . LA GRANGE, ILLINOIS, U. S. A.

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Designed and Built For

THE GREAT NORTHERN RAILWAY COMPANY

BY ELECTRO-MOTIVE DIVISION • GENERAL MOTORS • LA GRANGE, ILLINOIS

The latest in speed, comfort and safety will add to the laurels of the famous Empire Builders late this year when the trains will go into operation between Chicago and the Pacific Northwest as completely new, modern, streamlined units. Powering the all-accommodation trains will be five of these Diesel passenger locomotives, which consist of two units, each with an operator's cab for double end control. Each unit is equipped with two General Motors 12 cylinder, V-type, 2-cycle Diesel engines having a bore of 8½ inches, stroke 10 inches and a unit

fuel injection system. These engines are rated at 1000 HP each at 800 RPM, providing a total of 4000 HP for the locomotives. Each engine is directly coupled to a DC generator. Current from these generators is fed through control apparatus to four traction motors—two to each truck—and geared directly to the driving axles. Two six-wheel trucks are used in each of these units for smoother operation in the upper high speed range, middle wheels being designed to aid in weight distribution only.

S P E C I F I C A T I O N S

D I M E N S I O N S

Overall length over couplers.....	142'-2½"
Maximum width over grab irons.....	10'-6¾"
Width over body posts.....	9'-10"
Height overall above rails.....	14'-10"
Wheel diameter.....	36"
Rigid wheel base of trucks.....	14'-1"
Roller bearing journals.....	6½"x12"
Truck swing designed for 21° curve or 274-foot radius	
Distance between truck centers (each unit).....	43'-0"

S U P P L I E S

Fuel oil.....	2400 gals.
Sand.....	32 cu. ft.
Lubricating oil.....	560 gals.
Engine cooling water.....	600 gals.
Boiler water.....	2400 gals.

W E I G H T S

Total weight fully loaded.....	634,240 lbs.
Weight with one half of variable supplies.....	613,500 lbs.
Maximum tractive effort at rim of driving wheels at 25% adhesion.....	103,380 lbs.

