



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

4000 H. P. DIESEL PASSENGER LOCOMOTIVE

Designed and Built For

THE GREAT NORTHERN RAILWAY COMPANY

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

This Diesel passenger locomotive consists of two lead units. Each unit is equipped with two General Motors 12 cylinder, V-type, 2-cycle Diesel engines having a bore of $8\frac{1}{2}$ 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'-2 $\frac{1}{2}$ "
Maximum width over grab irons.....	10'-6 $\frac{7}{8}$ "
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.....	6 $\frac{1}{2}$ "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.

