5400 H.P. DIESEL FREIGHT LOCOMOTIVE . . DESIGNED AND BUILT BY ELECTRO-MOTIVE DIVISION . . GENERAL MOTORS CORPORATION . . LA GRANGE, ILLINOIS, U. S. A.

5400 H.P. DIESEL FREIGHT LOCOMOTIVE

Designed and Built For

ST. LOUIS SOUTHWESTERN RAILWAY LINES

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

This Diesel Freight Locomotive consists of two cab sections and two booster sections arranged for double end control from either cab, each being equipped with one General Motors, sixteen cylinder, V-type, 2 cycle Diesel engine having a bore of 8½", stroke 10" with unit injection system, rated at 1350 H.P. at 800 R.P.M., and developing a total of 5400 H.P. Each engine is direct connected to a D.C. generator, the current of which is distributed to the traction motors mounted on the trucks which in turn are geared to the axles. There are a total of eight 4-wheel trucks under the four sections comprising this locomotive, each being equipped with two traction motors or a total of sixteen motors geared for a maximum speed of 70 M.P.H. All four engines are arranged for multiple control from either of the operator's cabs.

This locomotive is equipped with an infinitely variable speed *Electric Brake* which utilizes the traction motors for braking action, dissipating the electric current so generated through resistance grids located in the roof of the locomotive. This *Electric Brake* will develop a maximum braking effort of 91,000 lbs. at 18 M.P.H. and is capable of holding a large tonnage train on long mountainous grades without application of the ordinary air brakes.

SPECIFICATIONS

DIMENSIONS

Overall length over couplers	193'-0"
Maximum width over grab irons	10'-6⅞"
Width over body posts	9'-10"
Height over all, above rails	15'-0"
Wheel diameter	40"
Rigid wheel base of trucks	9'-0"
Roller bearing journals	6½"x12"
Truck swing designed for 21° curve or 274-foot radius	
Distance between truck centers on cab section	27'-3"
Distance between truck centers on booster section	26'-6"

SUPPLIES

Fuel oil	4800 gals.
Sand	76 cu. ft.
Lubricating oil (145 gals. per engine) (Average)	580 gals.
Engine cooling water (225 gals. per engine)	900 gals.

WEIGHTS

Total weight fully loaded	917,000 lbs.
Weight of locomotive with one-half of variable supplies	895,700 lbs.
Maximum tractive effort at rim of driving wheels at 25% adhesion	223,900 lbs.

GENERAL MOTORS LOCOMOTIVES