



THE F3 — 6000 H.P. DIESEL LOCOMOTIVE . . DESIGNED AND BUILT BY ELECTRO-MOTIVE DIVISION . . GENERAL MOTORS . . LA GRANGE, ILLINOIS, U. S. A.

# THE F3—6000 H.P. DIESEL LOCOMOTIVE

*Designed and Built by*

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

This locomotive consists of two lead and two booster units, arranged for double end operation which eliminates turn-arounds at terminals. Each unit is capable of independent operation and is equipped with one 16 cylinder, V-type, 2-cycle General Motors Diesel engine with 8½" bore, 10" stroke and a unit fuel injection system. Each engine is directly coupled to a DC-AC generator. Alternating current powers auxiliary equipment. Direct current is fed through control apparatus to traction motors which are geared directly to drive axles. There are two traction motors per truck, two 4-wheel trucks per unit.

Rating per unit is a full 1500 horsepower for propulsion at the

Diesel engine speed of 800 RPM. The versatile F3 can operate in 1500, 3000, 4500 and 6000 horsepower sizes.

A number of modifications are available, including a train heating boiler and the infinitely variable electric brake which utilizes traction motors for braking action.

With a simple change of gears, the F3 can be equipped to give full rated performance over a range from that of the heaviest dragging freight locomotive for mountain terrain to that of a heavy duty passenger locomotive capable of pulling long, standard weight Pullman trains at top speed, negotiating most mountain grades without a helper.

## SPECIFICATIONS

### ***DIMENSIONS (per unit)***

Overall length over couplers, lead unit.....	50'8"
Overall length over couplers, booster unit.....	50'0"
Maximum width over grab irons.....	10'7"
Maximum height above rail.....	15'0"
Distance between truck centers.....	30'0"
Truck rigid wheel base.....	9'0"
Wheel diameter.....	40"

### ***BASE WEIGHTS (per unit)***

Total weight, fully loaded (approximately) ..	230,000 lbs.
Car body and equipment.....	154,400 lbs.
Trucks (2).....	75,600 lbs.

### ***TRACTION EFFORT***

*(calculated from base weight)*

Maximum tractive effort at rim of wheel at 25% adhesion per locomotive unit.....	57,500 lbs.
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### ***SUPPLIES (per unit)***

Fuel oil.....	1200 gals.
Sand.....	16 cu. ft.
Lubricating oil.....	200 gals.
Cooling water, lead unit.....	230 gals.
Cooling water, booster unit.....	215 gals.

