

GENERAL MOTORS  
LOCO. MOTIVES



4500 H.P. DIESEL LOCOMOTIVE . . DESIGNED AND BUILT BY ELECTRO-MOTIVE DIVISION . . GENERAL MOTORS . . LA GRANGE, ILLINOIS, U. S. A.

# 4500 H. P. DIESEL LOCOMOTIVE

*Designed and Built for*

## CANADIAN NATIONAL RAILWAYS

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

This General Motors model F3 Diesel locomotive consists of three units, each equipped with one 16-cylinder, V-type, 2-cycle GM Diesel engine having a bore of 8½", stroke 10" and a unit fuel injection system. The engines are rated a full 1500 horse-power for propulsion at 800 RPM, providing a total of 4500

horsepower for the locomotive. Each engine is directly coupled to a DC-AC generator. Alternating current powers auxiliary equipment. Direct current is fed through control apparatus to the twelve traction motors—two per truck—geared directly to the axle and wheel assembly.

### 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"    |

#### ***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.  |

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

|   |              |
|---|--------------|
| Total weight, fully loaded, approximately. . . . .                            | 230,000 lbs. |
| Car body and equipment. . . . .   | 154,400 lbs. |
| Trucks (2). . . . .   | 75,600 lbs.  |
| Maximum tractive effort at rim of wheel at<br>25% adhesion, per unit. . . . . | 57,500 lbs.  |

