

# Motive Power Dependability From Electro-Motive



**ELECTRO MOTIVE**  
A Division of General Motors Corporation





# SD50: 3500 HP MAINLINE LOCOMOTIVE

ELECTRO-MOTIVE



SD50

## SPECIFICATIONS

### Dimensions

- Length over coupler pulling faces . . . 71'2"
- Distance between bolster centers . . 45'10"
- Truck—rigid wheel base . . . . . 13'7"
- Width over grab irons . . . . . 10'3 1/8"
- Height above rails . . . . . 15'7 1/8"
- Wheel diameter . . . . . 40"
- Minimum curve radius . . . . . 195'

### Weight

- Total loaded weight  
on rails . . . . . (Approx.) 368,000 lbs.

### Supplies

- Fuel . . . . . 3,200 gal.
- Sand . . . . . 56 cu. ft.
- Cooling water . . . . . 255 gal.
- Lubricating oil . . . . . 243 gal.

## EQUIPMENT

### Engine

Sixteen cylinder 645F3, turbocharged, GM diesel.

### Main Generator

AR16-D18 alternator with rectified output for delivery to traction motors. Nominal 600 volt direct current rating, ventilated by blower.

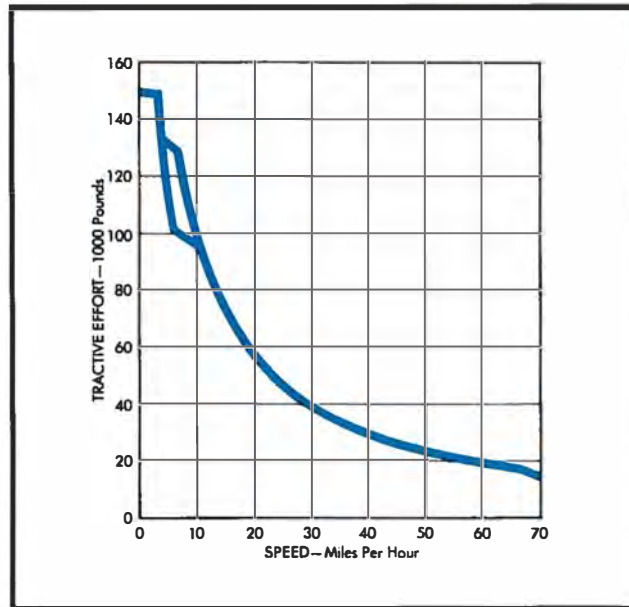
### Traction Motors

Six D87 direct current, series wound, forced ventilated, roller bearing, axle hung motors, 70:17 gear ratio.

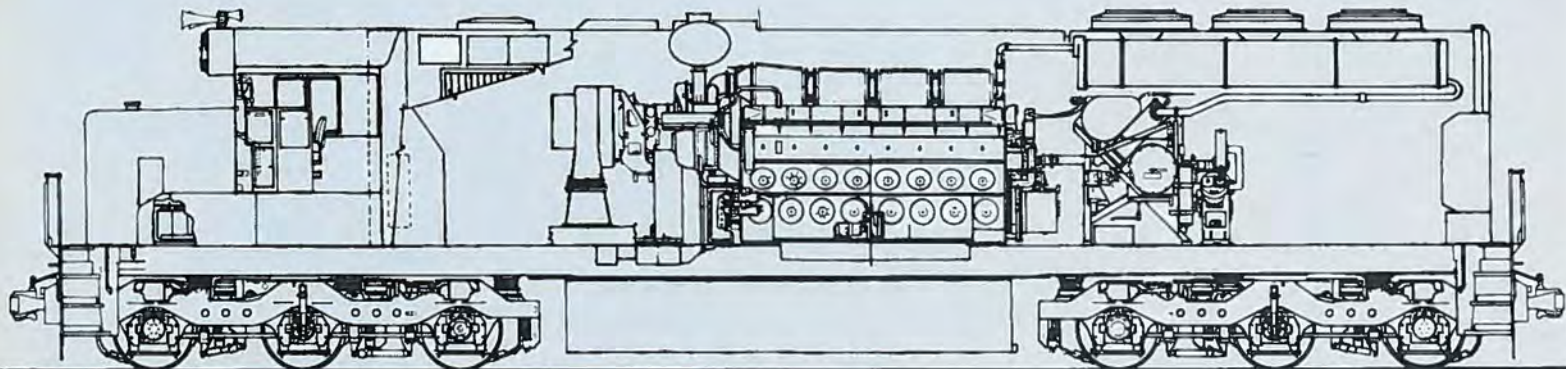
### Truck Assemblies

High adhesion, HTC, three motor — six wheel truck assemblies.

### Modular Control Cabinet



Tractive Effort Curve





# GP50: 3500 HP GENERAL PURPOSE LOCOMOTIVE

ELECTRO-MOTIVE



GP50

## SPECIFICATIONS

### Dimensions

Length over coupler pulling faces . . . 59'2"  
 Distance between bolster centers . . . 34'0"  
 Truck—rigid wheel base . . . . . 9'0"  
 Width over handrail supports . . . . 10'3<sup>1</sup>/<sub>8</sub>"  
 Height above rails . . . . . 15'6"  
 Wheel diameter . . . . . 40"  
 Minimum curve radius . . . . . 140'

### Weight

Total loaded weight  
 on rails . . . . . (Approx.) 260,000 lbs.

### Supplies

Fuel . . . . . 3,000 gal.  
 Sand . . . . . 40 cu. ft.  
 Cooling water . . . . . 235 gal.  
 Lubricating oil . . . . . 243 gal.

## EQUIPMENT

### Engine

Sixteen cylinder 645F3, turbocharged, GM diesel.

### Main Generator

AR15-D18 alternator with rectified output for delivery to traction motors. Nominal 600 volt direct current rating, ventilated by blower.

### Traction Motors

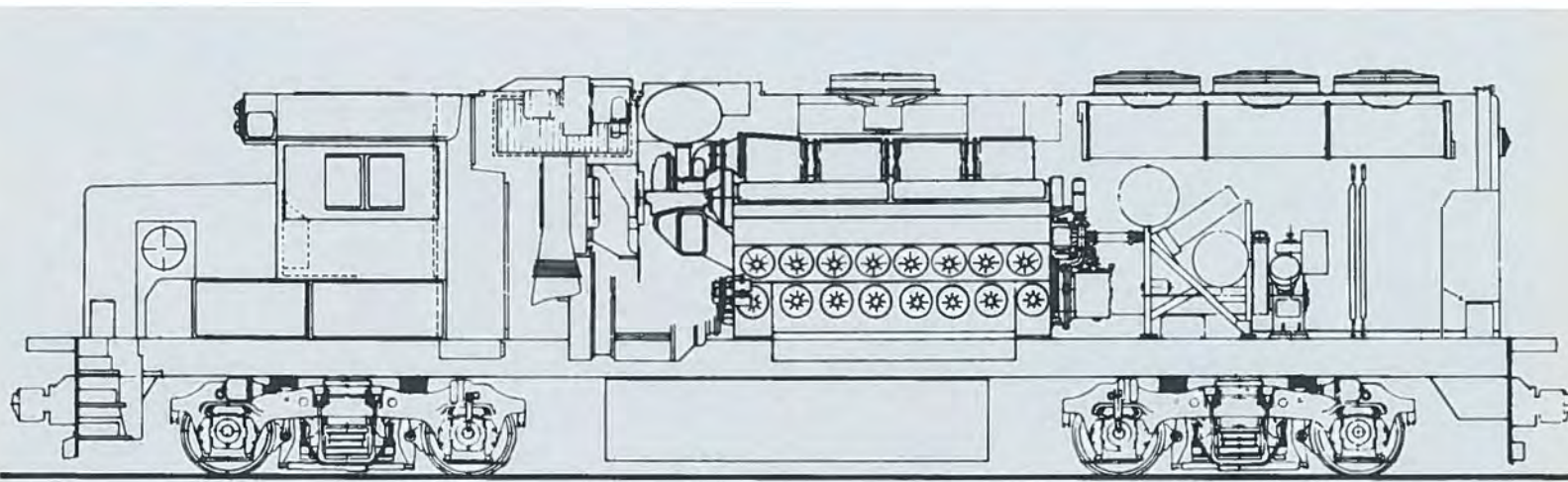
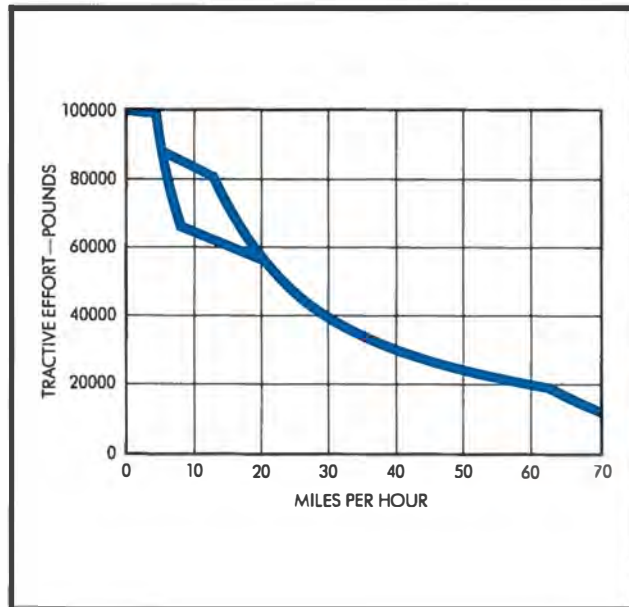
Four D87 direct current, series wound, forced ventilated, roller bearing, axle hung motors, 70:17 gear ratio.

### Truck Assemblies

Two motor—four wheel truck assemblies with outside swinghanger suspension.

### Modular Control Cabinet

Tractive  
Effort  
Curve





# GP49: 2800 HP GENERAL PURPOSE LOCOMOTIVE

ELECTRO-MOTIVE



GP49

## SPECIFICATIONS

### Dimensions

Length over coupler pulling faces . . . 59'2"  
 Distance between bolster centers . . . 34'0"  
 Truck—rigid wheel base . . . . . 9'0"  
 Width over handrail supports . . . . . 10'3 1/8"  
 Height above rails . . . . . 15'6"  
 Wheel diameter . . . . . 40"  
 Minimum curve radius . . . . . 140'

### Weight

Total loaded weight  
 on rails . . . . . (Approx.) 250,000 lbs.

### Supplies

Fuel . . . . . 2,600 gal.  
 Sand . . . . . 40 cu. ft.  
 Cooling water . . . . . 240 gal.  
 Lubricating oil . . . . . 304 gal.

## EQUIPMENT

### Engine

Twelve cylinder 645F3B, turbocharged, GM diesel.

### Main Generator

AR15-D18 alternator with rectified output for delivery to traction motors. Nominal 600 volt direct current rating, ventilated by blower.

### Traction Motors

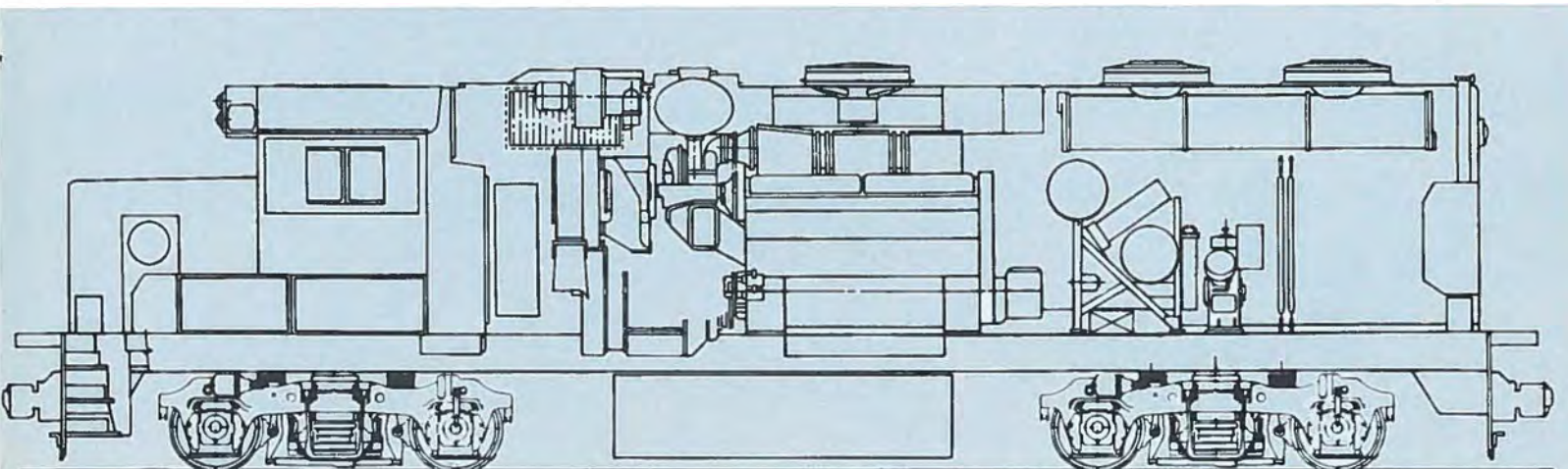
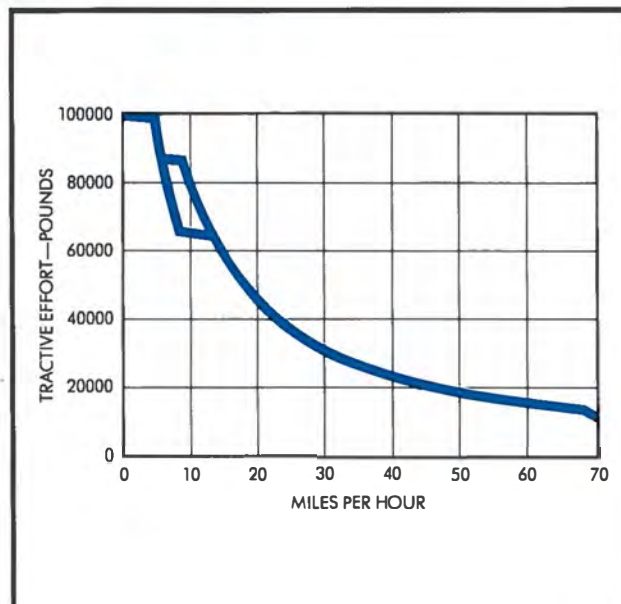
Four D87 direct current, series wound, forced ventilated, roller bearing, axle hung motors, 70:17 gear ratio.

### Truck Assemblies

Two motor—four wheel truck assemblies with outside swinghanger suspension.

### Modular Control Cabinet

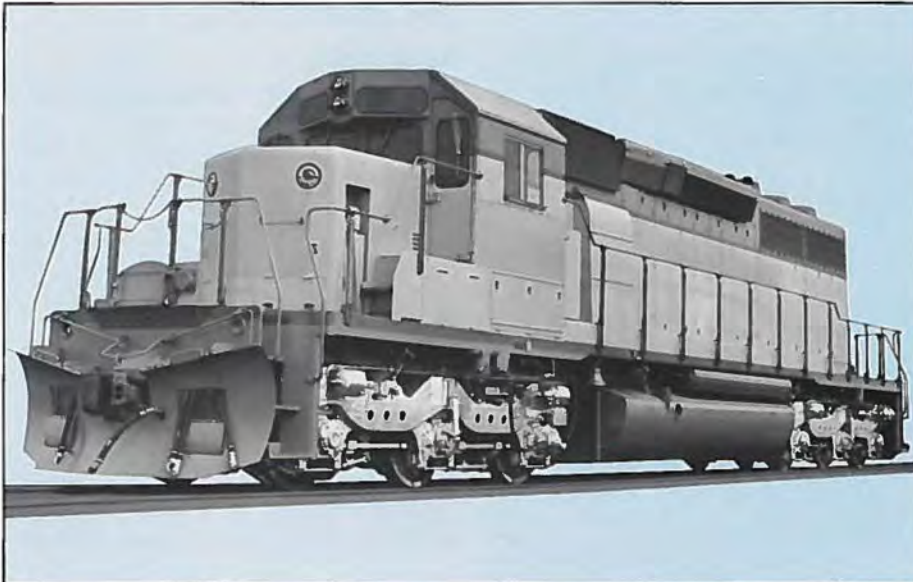
Tractive Effort Curve





# SD40-2: 3000 HP MAINLINE LOCOMOTIVE

ELECTRO-MOTIVE



SD40-2

## SPECIFICATIONS

### Dimensions (Approx.)

- Length over coupler pulling faces . . . 68'10"
- Distance between bolster centers . . . 43'6"
- Truck—rigid wheel base . . . . . 13'7<sup>3</sup>/<sub>8</sub>"
- Width over grab irons . . . . . 10'3<sup>1</sup>/<sub>8</sub>"
- Height above rails . . . . . 15'7<sup>3</sup>/<sub>16</sub>"
- Wheel diameter . . . . . 40"
- Minimum curve radius . . . . . 193'

### Weight (Approx.)

- Total loaded weight  
on rails . . . . . 368,000 lbs.

### Supplies

- Fuel . . . . . 3,200 gal.
- Sand . . . . . 56 cu. ft.
- Cooling water . . . . . 275 gal.
- Lubricating oil . . . . . 243 gal.

## EQUIPMENT

### Engine

Sixteen cylinder 645E3B, turbocharged, GM diesel.

### Main Generator

AR10 alternator with rectified output for delivery to traction motors. Nominal 600 volt direct current rating, ventilated by blower.

### Traction Motors

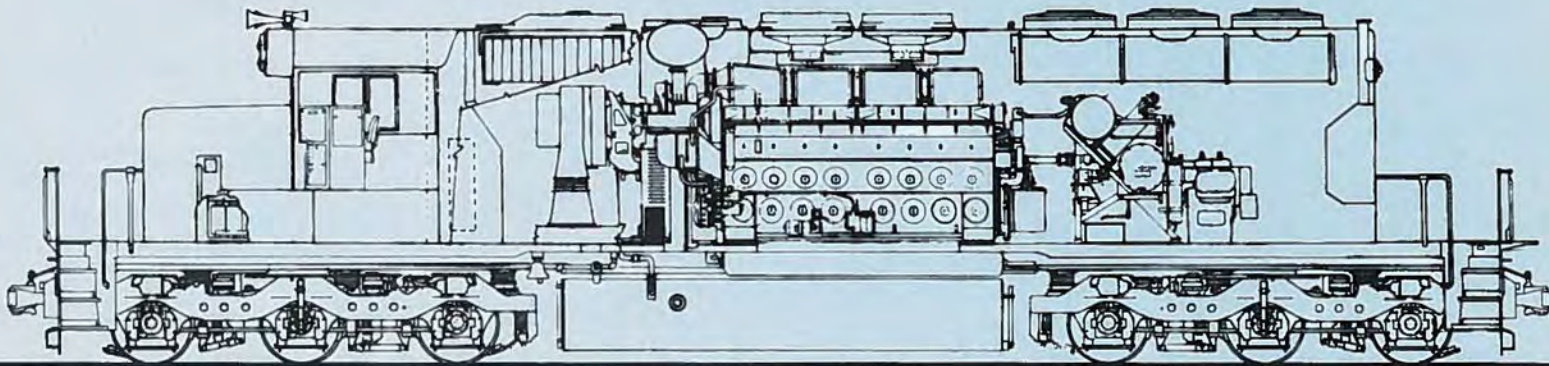
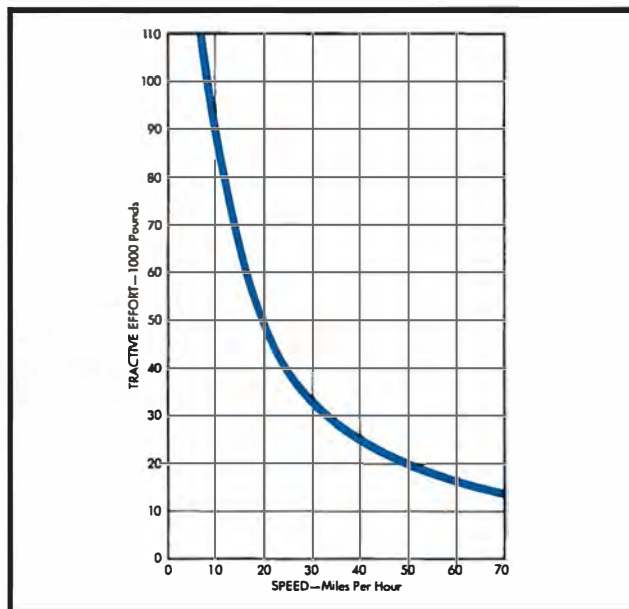
Six D77 direct current, series wound, roller bearing, forced ventilated, axle hung motors, 62:15 gear ratio.

### Truck Assemblies

High adhesion, HTC, three motor — six wheel truck assemblies.

### Modular Control Cabinet

Tractive  
Effort  
Curve





# GP40-2: 3000 HP GENERAL PURPOSE LOCOMOTIVE

ELECTRO-MOTIVE



## SPECIFICATIONS

### Dimensions

Length over coupler pulling faces . . . 59'2"  
 Distance between bolster centers . . . 34'0"  
 Truck—rigid wheel base . . . . . 9'0"  
 Width over grab irons . . . . . 10'3 1/8"  
 Height above rails . . . . . 15'47/16"  
 Wheel diameter . . . . . 40"  
 Minimum curve radius . . . . . 140'

### Weight

Total loaded weight  
 on rails . . . . . (Approx.) 257,000 lbs.

### Supplies

Fuel . . . . . 2,600 gal.  
 Sand . . . . . 56 cu. ft.  
 Cooling water . . . . . 254 gal.  
 Lubricating oil . . . . . 243 gal.

## EQUIPMENT

### Engine

Sixteen cylinder 645E3B, turbocharged, GM diesel.

### Main Generator

AR10 alternator with rectified output for delivery to traction motors. Nominal 600 volt direct current rating, ventilated by blower.

### Traction Motors

Four D77 direct current, series wound, roller bearing, forced ventilated, axle hung motors, 62:15 gear ratio.

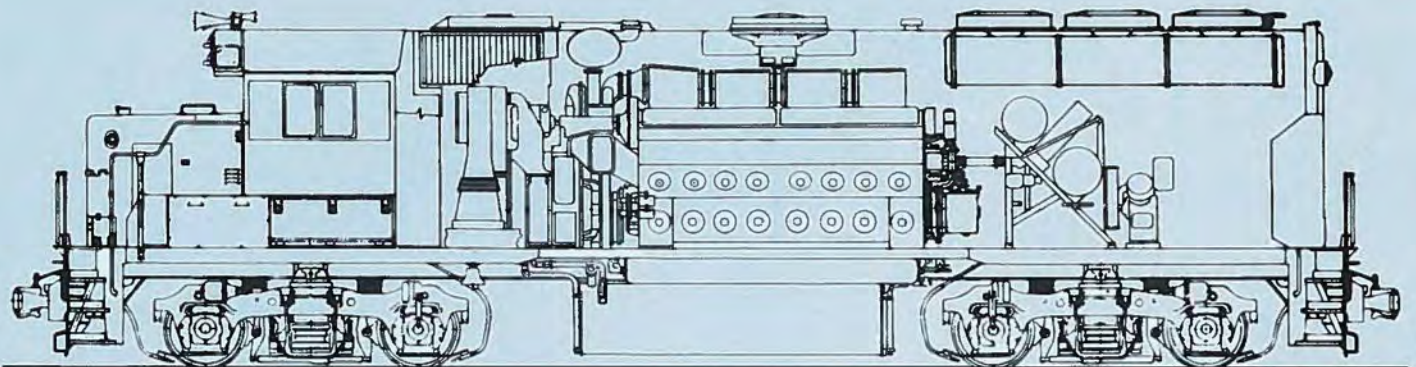
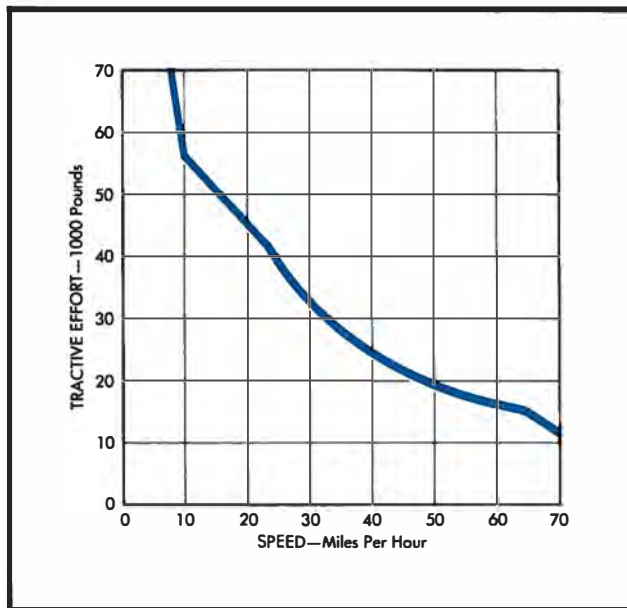
### Truck Assemblies

Two motor—four wheel truck assemblies with outside swinghanger suspension.

### Modular Control Cabinet

GP40-2

Tractive Effort Curve





# GP39-2: 2300 HP GENERAL PURPOSE LOCOMOTIVE

ELECTRO-MOTIVE



GP39-2

## SPECIFICATIONS

### Dimensions

Length over coupler pulling faces . . . 59'2"  
 Distance between bolster centers . . . 34'0"  
 Truck—rigid wheel base . . . . . 9'0"  
 Width over grab irons . . . . . 10'3 1/8"  
 Height above rails . . . . . 15'4 1/4"  
 Wheel diameter . . . . . 40"  
 Minimum curve radius . . . . . 140'

### Weight

Total loaded weight  
 on rails (Approx.) . . . . . 250,000 lbs.

### Supplies

Fuel . . . . . 1,700 gal.  
 Sand . . . . . 56 cu. ft.  
 Cooling water . . . . . 240 gal.  
 Lubricating oil . . . . . 304 gal.

## EQUIPMENT

### Engine

Twelve cylinder 645E3B, turbocharged, GM diesel.

### Main Generator

AR10 alternator with rectified output for delivery to traction motors. Nominal 600 volt direct current rating, ventilated by blower.

### Traction Motors

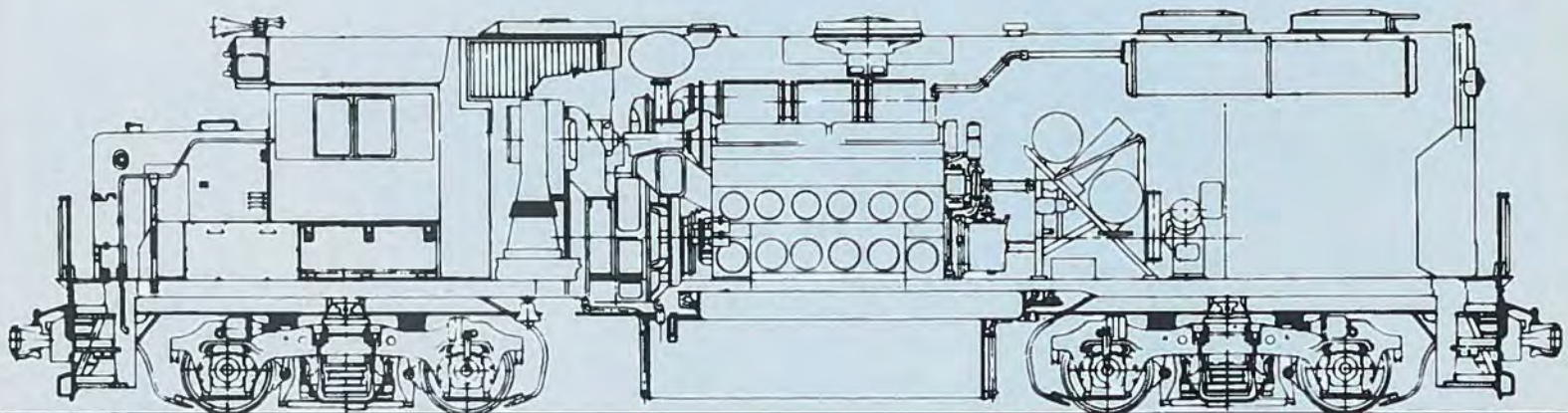
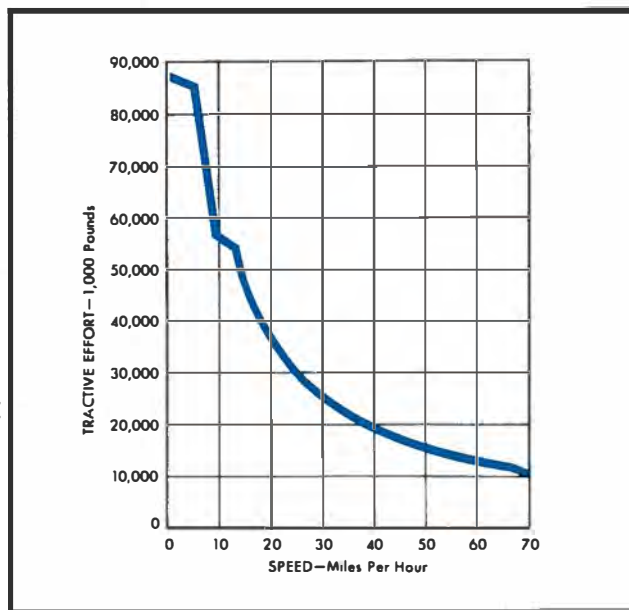
Four D77 direct current, series wound, roller bearing, forced ventilated, axle hung motors, 62:15 gear ratio.

### Truck Assemblies

Two motor—four wheel truck assemblies with outside swinghanger suspension.

### Modular Control Cabinet

Tractive  
Effort  
Curve







# GP38-2: 2000 HP GENERAL PURPOSE LOCOMOTIVE

ELECTRO-MOTIVE



GP38-2

## SPECIFICATIONS

### Dimensions

Length over coupler pulling faces . . . 59'2"  
 Distance between bolster centers . . . 34'0"  
 Truck—rigid wheel base . . . . . 9'0"  
 Width over grab irons . . . . . 10'3 $\frac{1}{8}$ "  
 Height above rails . . . . . 15'4 $\frac{3}{8}$ "  
 Wheel diameter . . . . . 40"  
 Minimum curve radius . . . . . 140'

### Weight

Total loaded weight  
 on rails . . . . . (Approx.) 250,000 lbs.

### Supplies

Fuel . . . . . 1,700 gal.  
 Sand . . . . . 56 cu. ft.  
 Cooling water . . . . . 240 gal.  
 Lubricating oil . . . . . 243 gal.

## EQUIPMENT

### Engine

Sixteen cylinder 645E, Roots-blown, GM diesel.

### Main Generator

AR10 alternator with rectified output for delivery to traction motors. Nominal 600 volt direct current rating, ventilated by blower.

### Traction Motors

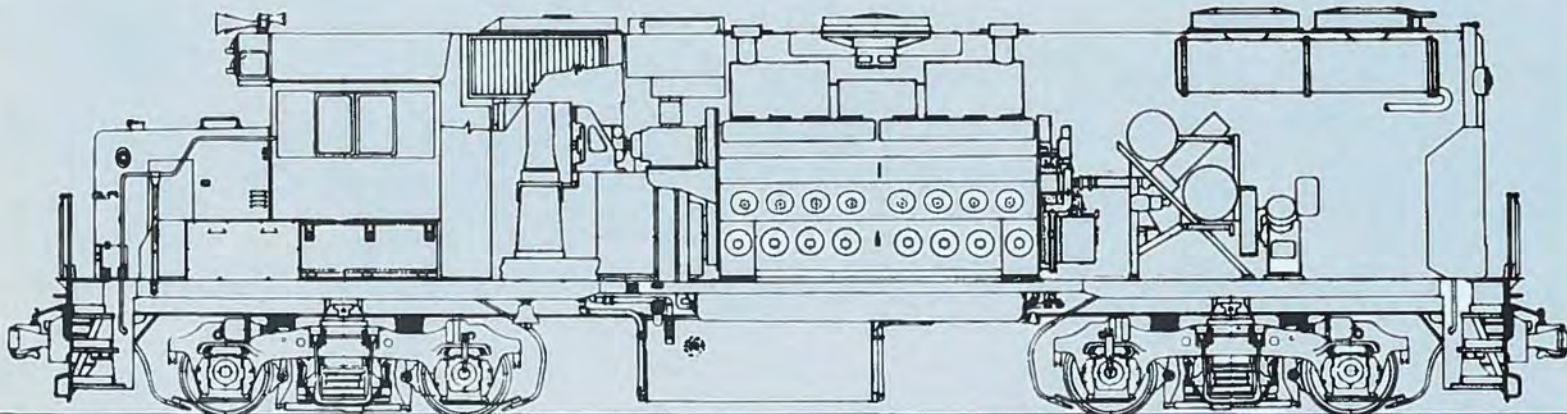
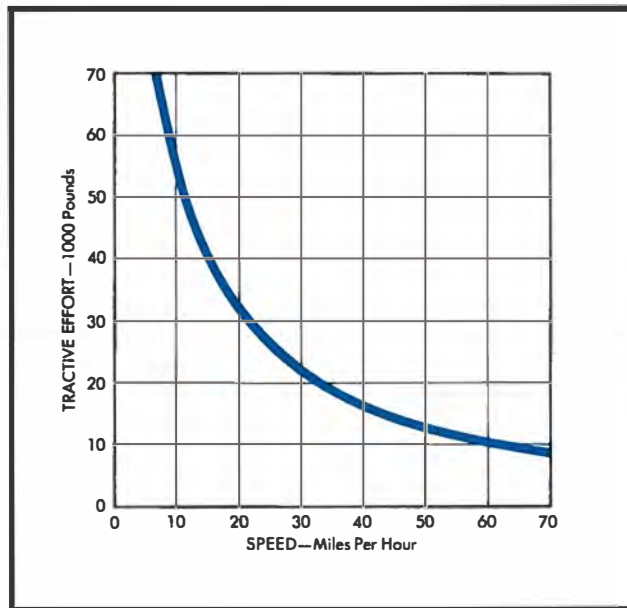
Four D77 direct current, series wound, roller bearing, forced ventilated, axle hung motors, 62:15 gear ratio.

### Truck Assemblies

Two motor—four wheel truck assemblies with outside swinghanger suspension.

### Modular Control Cabinet

Tractive  
Effort  
Curve





# GP15T: 1500 HP GENERAL PURPOSE LOCOMOTIVE

ELECTRO-MOTIVE



## SPECIFICATIONS

### Dimensions

Length over coupler pulling faces . . . 54'11"  
 Distance between bolster centers . . . 29'9"  
 Truck—rigid wheel base . . . . . 9'0"  
 Width over grab irons . . . . . 10'3 1/8"  
 Height above rails . . . . . 15'2 5/8"  
 Wheel diameter . . . . . 40"  
 Minimum curve radius . . . . . 120'

### Weight

Total loaded weight  
 on rails (Approx.) . . . . . 240,000 lbs.

### Supplies

Fuel . . . . . 2,400 gal.  
 Sand . . . . . 56 cu. ft.  
 Cooling water . . . . . 150 gal.  
 Lubricating oil . . . . . 135 gal.

## EQUIPMENT

### Engine

Eight cylinder 645E3C, turbocharged, GM diesel. Main Generator AR10-D14, nominal 600 volt direct current rating, ventilated by blower.

### Traction Motors

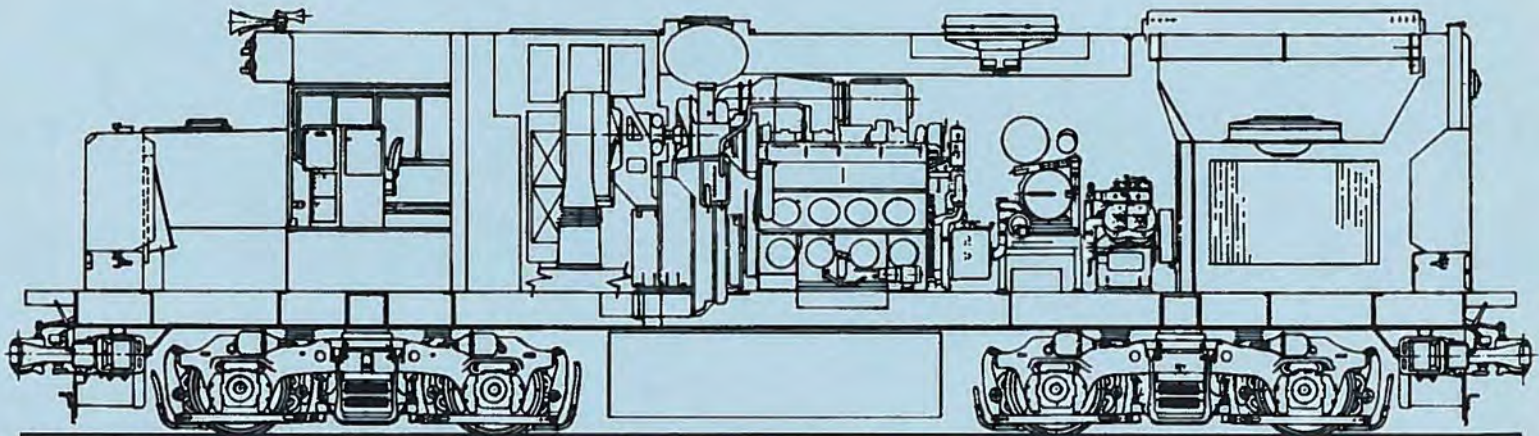
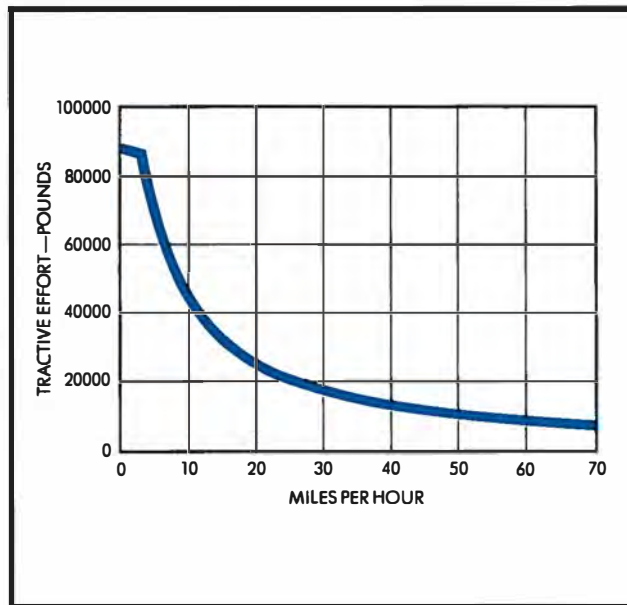
Four D77 direct current, series wound, roller bearing, forced ventilated, axle hung motors, 62:15 gear ratio.

### Truck Assemblies

Two motor—four wheel truck assemblies with outside swinghanger suspension.

GP15T

Tractive  
Effort  
Curve





# GP15-1: 1500 HP GENERAL PURPOSE LOCOMOTIVE

ELECTRO-MOTIVE



GP15-1

## SPECIFICATIONS

### Dimensions

Length over coupler pulling faces . . . 54'11"  
 Distance between bolster centers . . . 29'9"  
 Truck—rigid wheel base . . . . . 9'0"  
 Width over grab irons . . . . . 10'3½"  
 Height above rails . . . . . 15'4½"  
 Wheel diameter . . . . . 40"  
 Minimum curve radius . . . . . 120'

### Weight

Total loaded weight  
 on rails (Approx.) . . . . . 240,000 lbs.

### Supplies

Fuel . . . . . 2,400 gal.  
 Sand . . . . . 56 cu. ft.  
 Cooling water . . . . . 230 gal.  
 Lubricating oil . . . . . 165 gal.

## EQUIPMENT

### Engine

Twelve cylinder 645E, Roots Blown, GM diesel.

### Main Generator

D32-D14, nominal 600 volt direct current rating, ventilated by blower.

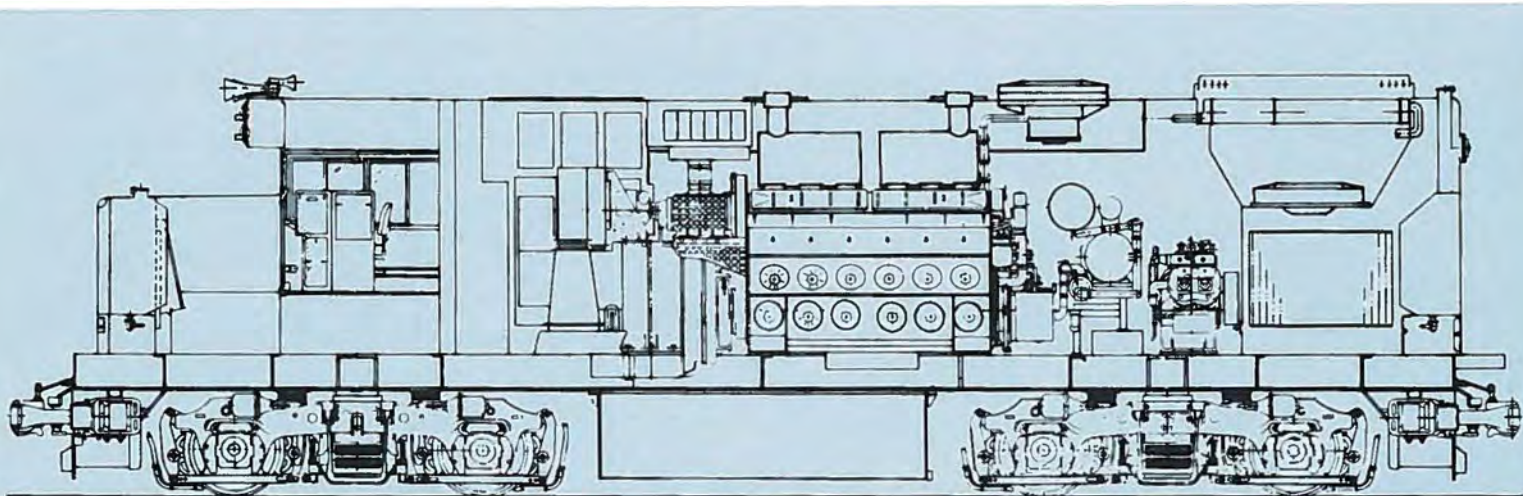
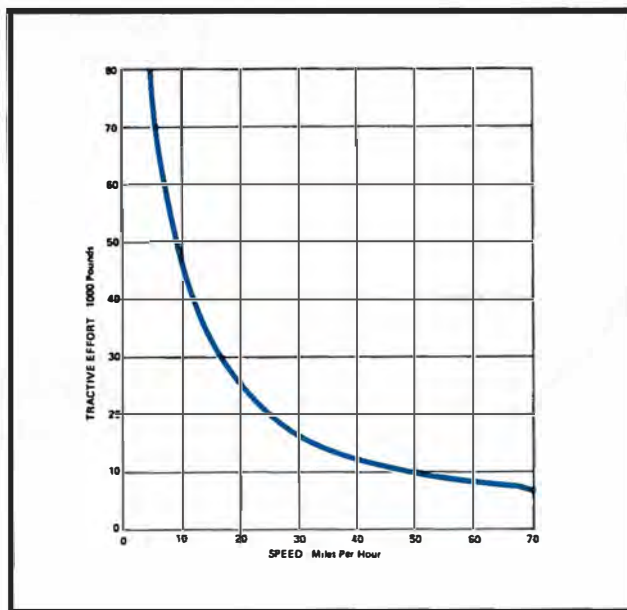
### Traction Motors

Four D77 direct current, series wound, roller bearing, forced ventilated, axle hung motors, 62:15 gear ratio.

### Truck Assemblies

Two motor—four wheel truck assemblies with outside swinghanger suspension.

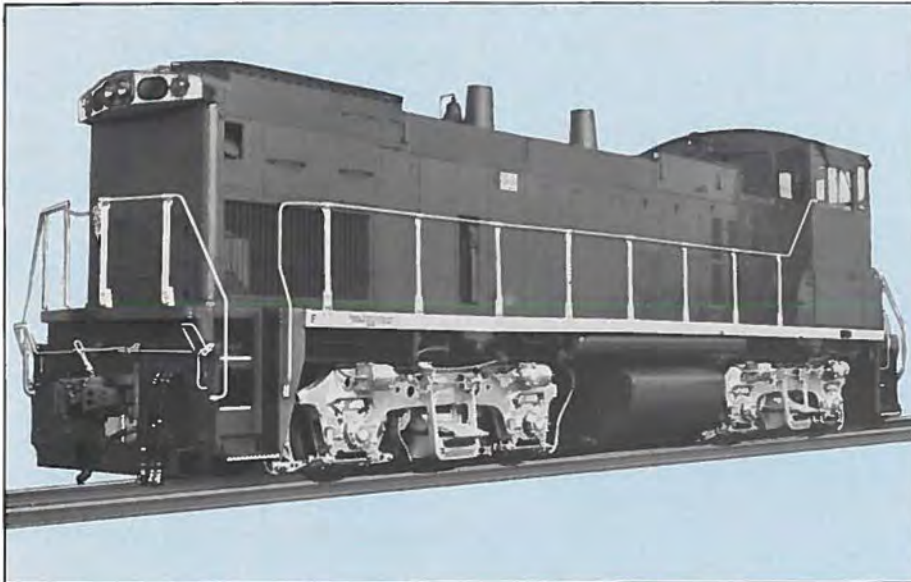
Tractive  
Effort  
Curve





# MP15AC: 1500 HP MULTI-PURPOSE LOCOMOTIVE

ELECTRO-MOTIVE



MP15AC

## SPECIFICATIONS

### Dimensions

- Length over coupler pulling faces . . . 50'2"
- Width over side sills . . . . . 10'0"
- Maximum height above rail . . . . . 15'0"
- Width of operator's cab . . . . . 10'1/8"
- Wheel base—truck . . . . . 9'0"
- Truck centers . . . . . 24'8"
- Number of drivers . . . . . 4 Pair
- Wheel diameter . . . . . 40"

### Weight

- Total loaded weight
- on rails (Approx.) . . . . . 248,000 lbs.

### Supplies

- Fuel . . . . . 1,100 gal.
- Sand . . . . . 30 cu. ft.
- Cooling water . . . . . 230 gal.
- Lubricating oil . . . . . 165 gal.

## EQUIPMENT

### Engine

Twelve cylinder 645E, Roots-blown, GM diesel.

### Main Generator

AR10 alternator with rectified output for delivery to traction motors. Nominal 600 volt direct current rating, ventilated by blower.

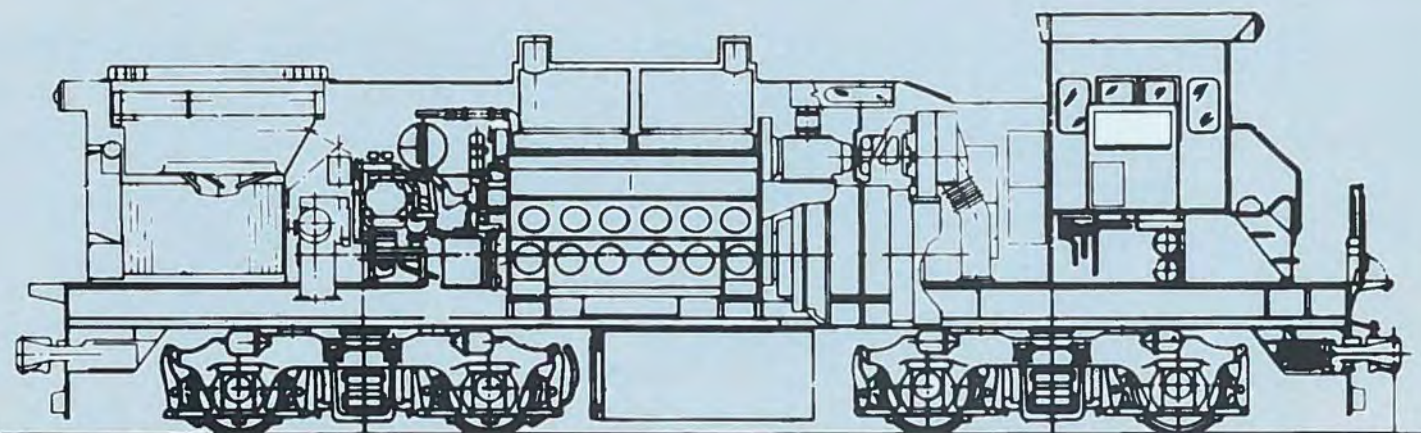
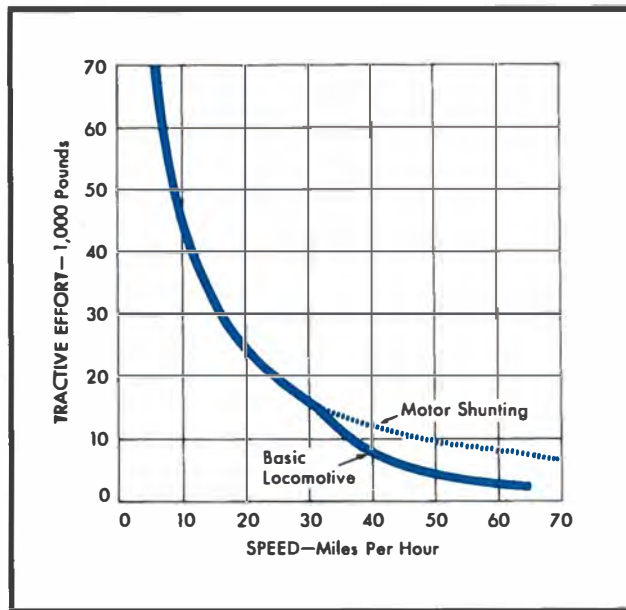
### Traction Motors

Four D77 direct current, series wound, roller bearing, forced ventilated, axle hung motors, 62:15 gear ratio.

### Truck Assemblies

Two motor—four wheel truck assemblies with outside swinghanger suspension.

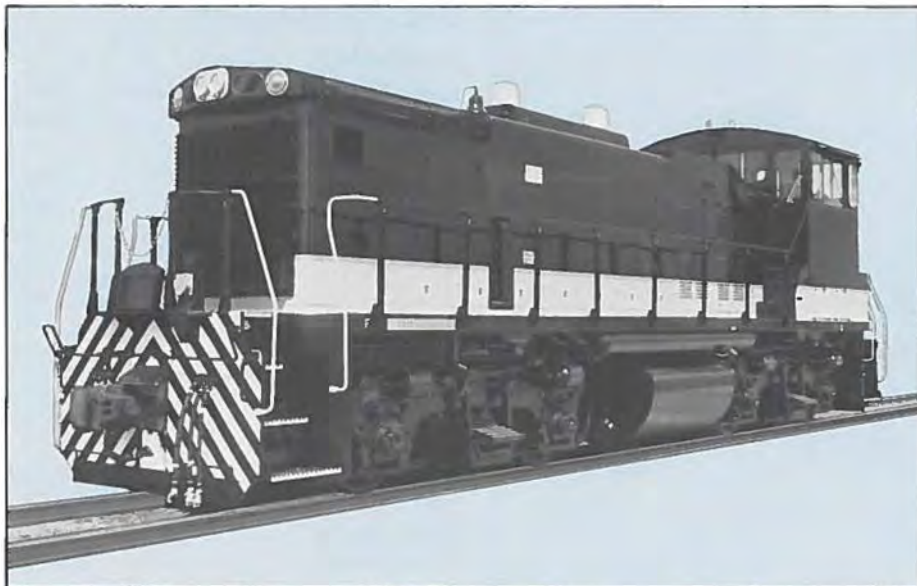
Tractive Effort Curve





# MP15DC: 1500 HP MULTI-PURPOSE LOCOMOTIVE

ELECTRO-MOTIVE



MP15DC

## SPECIFICATIONS

### Dimensions

Length over coupler pulling faces . . . 48'8"  
 Width over side sills . . . . . 10'0"  
 Maximum height above rail . . . . . 15'0"  
 Width of operator's cab . . . . . 10'1/8"  
 Wheelbase—truck . . . . . 9'0"  
 Truck centers . . . . . 24'2"  
 Number of drivers . . . . . 4 pair  
 Wheel diameter . . . . . 40"

### Weight

Total loaded weight  
 on rails (Approx.) . . . . . 248,000 lbs.

### Supplies

Fuel . . . . . 1,100 gal.  
 Sand . . . . . 30 cu. ft.  
 Cooling water . . . . . 280 gal.  
 Lubricating oil . . . . . 165 gal.

## EQUIPMENT

### Engine

Twelve cylinder 645E, Roots Blown, GM diesel.

### Main Generator

D32, nominal 600 volt direct current rating, ventilated.

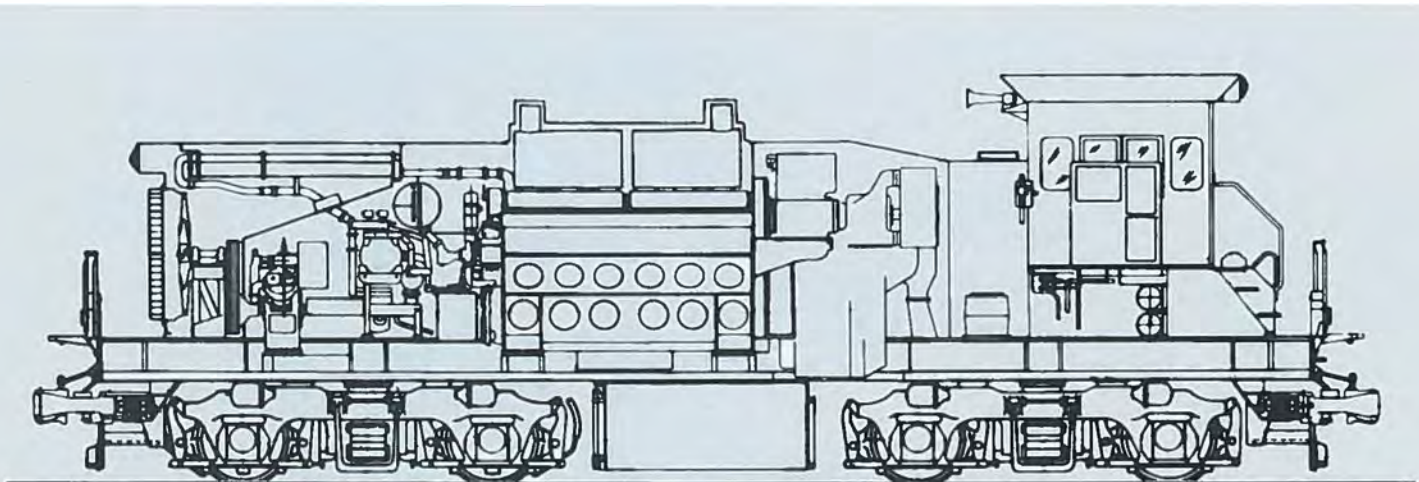
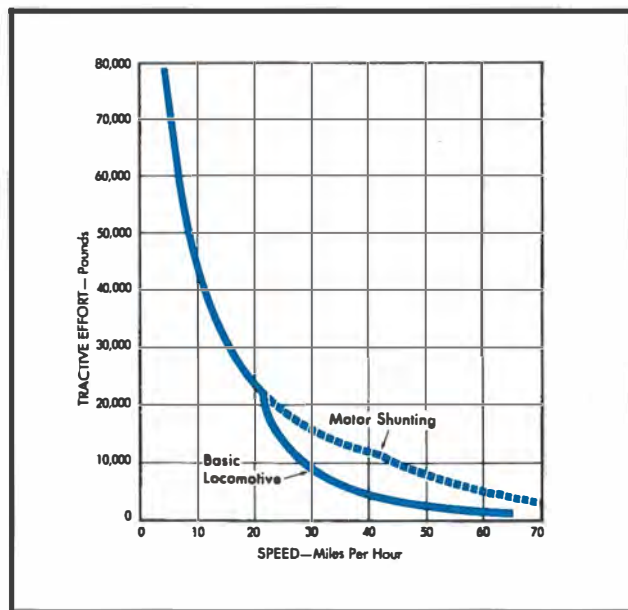
### Traction Motors

Four D77 direct current, series wound, roller bearing, forced ventilated, axle hung motors, 62:15 gear ratio.

### Truck Assemblies

Two motor — four wheel truck assemblies with outside swinghanger suspension.

Tractive  
Effort  
Curve





# SW1001: 1000 HP SWITCHING LOCOMOTIVE

ELECTRO-MOTIVE



SW1001

## SPECIFICATIONS

### Dimensions

- Length over coupler pulling faces . . . 44'8"
- Width over side sills . . . . . 10'0"
- Maximum height above rail . . . . . 14'3"
- Width of operator's cab . . . . . 10'0"
- Wheel base—truck . . . . . 8'0"
- Truck centers . . . . . 22'0"
- Number of drivers . . . . . 4 pair
- Wheel diameter . . . . . 40"

### Weight

- Total loaded weight  
on rails (Approx.) . . . . . 230,000 lbs.

### Supplies

- Fuel . . . . . 600 gal.
- Sand . . . . . 30 cu. ft.
- Cooling water . . . . . 190 gal.
- Lubricating oil . . . . . 135 gal.

## EQUIPMENT

### Engine

Eight cylinder 645E, Roots-blown, GM diesel.

### Main Generator

D25, nominal 600 volt direct current rating, self ventilated.

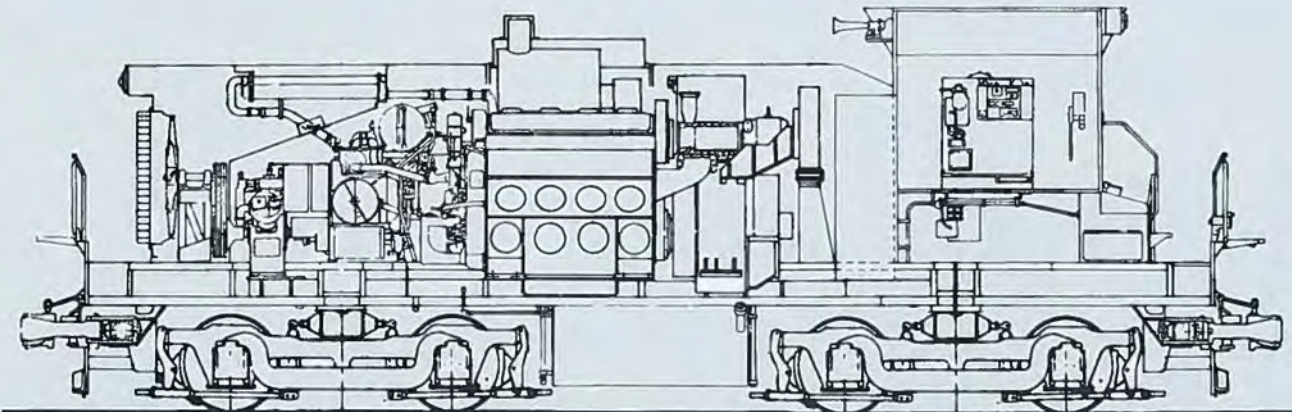
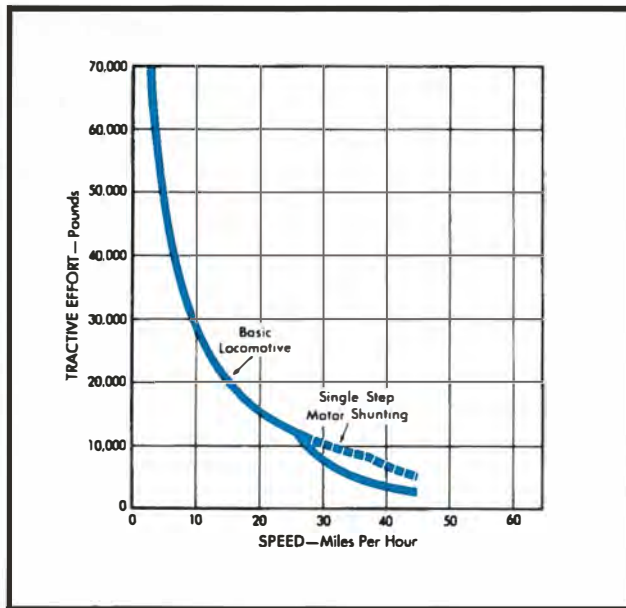
### Traction Motors

Four D77 direct current, series wound, roller bearing, forced ventilated, axle hung motors, 62:15 gear ratio.

### Truck Assemblies

Two motor—four wheel truck assemblies.

Tractive Effort Curve







**ELECTRO-MOTIVE**

**ELECTRO-MOTIVE DIVISION  
GENERAL MOTORS CORPORATION**

La Grange, Illinois 60525 USA  
Telex: 270041 McCook, IL USA  
Cable: ELMO DIV La Grange, IL USA  
Telephone: 312.387.6000