



LOCOMOTIVES



SD70ACe/LW - 1520 Gauge Freight Locomotive

For more than 90 years, we have produced the most durable, reliable and sustainable locomotive products and services in the rail industry. We design, manufacture and sell diesel-electric locomotives for all commercial railroad applications, with 65,000 EMD-powered locomotives delivered to more than 75 countries. Our technology leadership and superior performance drive our reputation for exceptional quality, service and innovation.

The SD70ACe Locomotive was introduced in 2005 for heavy-haul freight applications worldwide. This powerful and efficient locomotive integrates the highly reliable 16-cylinder 710 engine, EM2000 microprocessor control system and AC traction.

The advanced technologies of the SD70ACe provide key product solutions for safety, reliability, efficiency and sustainability, while delivering life-cycle cost optimization. This service-proven workhorse demonstrates leading performance for operating in harsh conditions and in the world's most demanding applications.

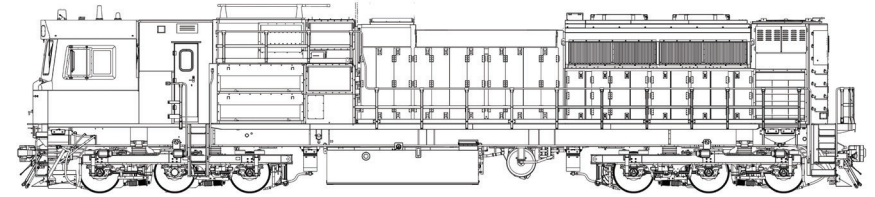
Thousands of SD70ACe locomotives operate in heavy-haul service across the globe, including North America, South America, the Middle East, Africa and Australia. Built on this expertise and utilizing the extensive engineering resources of the Progress Rail and Caterpillar teams in the U.S. and Russia, the SD70ACe/LW Locomotive is designed specifically to meet the latest Russian Custom Union Technical Regulations and operating environment.

SD70ACe/LW - 1520 Gauge Freight Locomotive Features and Benefits

- ▶ Designed to meet TR/CU and GOST regulations, including 9238-1T clearance profile
- ▶ Highly reliable two-stroke, 16-cylinder 710 engine
 - > EU IIIA emissions compliant
 - > Tuned for maximum fuel efficiency
 - > Dynamic Gas Blending™ option for up to 70% substitution of diesel with liquefied natural gas
- ▶ Isolated cab for reduced driver exposure to noise and vibration
- ▶ High adhesion, radial bogie design
- ▶ Traction system provides individual axle control
- ▶ Inverter driven accessories for improved fuel economy
- ▶ EMD Functionally Integrated Railroad Electronics (FIRE™) man-machine interface
- ▶ Optional IntelliTrain® remote monitoring and diagnostic services
- ▶ Locomotive design provides extended maintenance intervals of 184-days
- ▶ Operates in extreme weather conditions and climates down to -50°C

EM2000™ Microprocessor Control System

- ▶ Excitation and load control
- ▶ Adhesion control
- ▶ Engine control
- ▶ Diagnostic system
- ▶ Archived unit history data



SD70ACe/LW - Locomotive Technical Details

Locomotive Traction System	AC Traction
Diesel Engine	16-710G3C-T2
Number of Axles	6
Locomotive Height	5,066 mm
Length over Couplers	22,708 mm
Engine Power	3,355 kW
Maximum Speed	120 kph
Starting Tractive Effort	660 kN
Dynamic Braking Effort	365 kN
Fuel Capacity	6,300 Liters
Maintenance Interval	184 days
Maximum Weight	150 +0/-3% mT
Maximum Axle Load	25 mT
Track Gauge	1,520 mm

