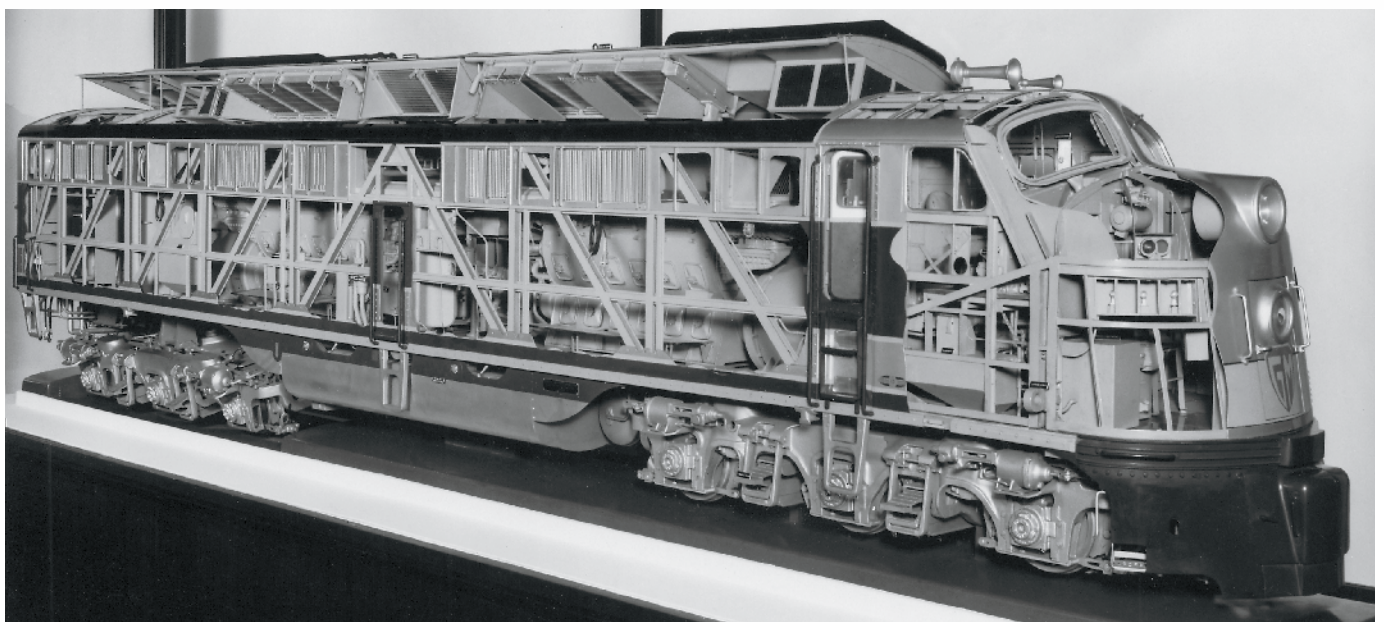
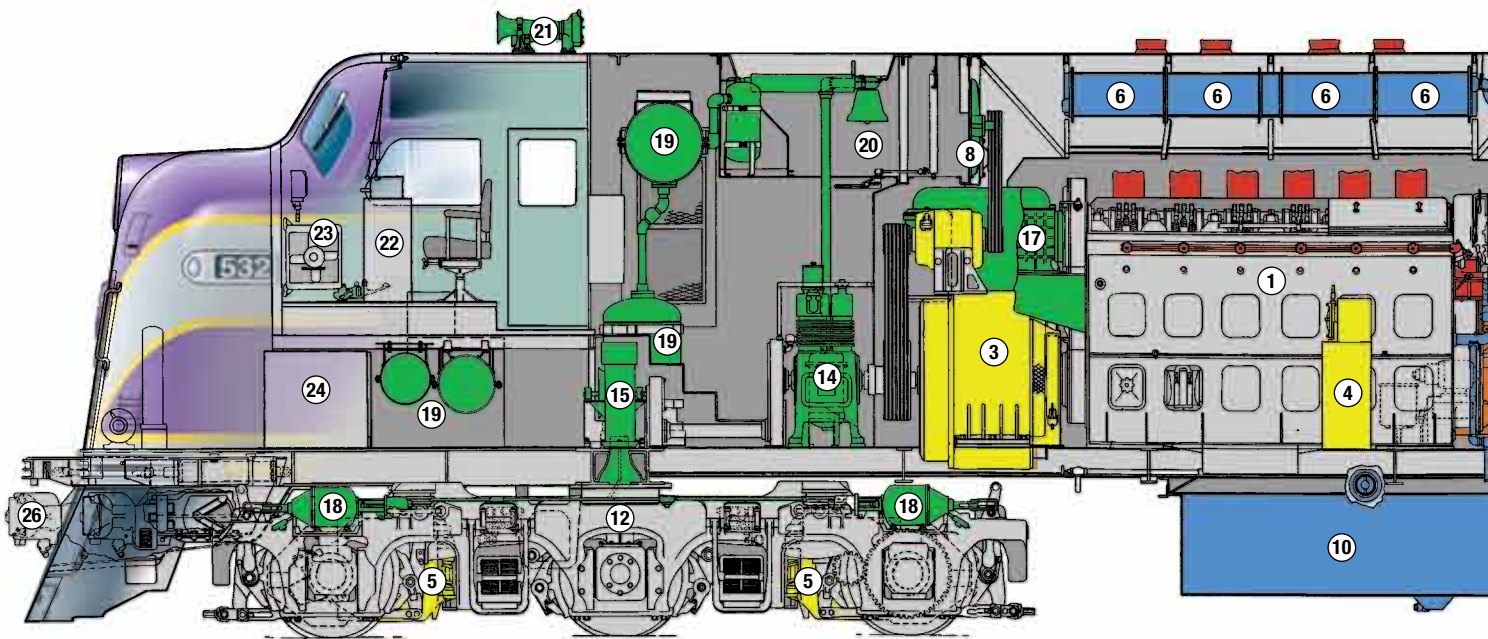


Inside an E Unit

Beneath their smooth contours, E units housed a complex array of systems



GM built this model of an E8A in 1949 and later presented it to the Smithsonian Institution for exhibit with other rail artifacts. At a scale of 2 inches to the foot, it measures more than 12 feet in length. It's now on display at Baltimore's B&O Railroad Museum, a Smithsonian partner.

- ① 12-567A main engine No. 1
- ② 12-567A main engine No. 2
- ③ Main generators
- ④ Load regulators
- ⑤ Traction motors
- ⑥ Radiators
- ⑦ Coolant tanks
- ⑧ Engine cooling fan
- ⑨ Lube oil filter tank
- ⑩ Boiler water tank
- ⑪ Fuel oil tank
- ⑫ Truck assembly
- ⑬ Steam generator

- ⑭ Air compressor
- ⑮ Traction motor blower
- ⑯ Lube oil cooler
- ⑰ Engine roots blower
- ⑱ Brake cylinders
- ⑲ Air reservoirs
- ⑳ Bell
- ㉑ Horns
- ㉒ Operator's controls
- ㉓ Cab heater
- ㉔ Battery box
- ㉕ Exhaust manifold
- ㉖ Couplers

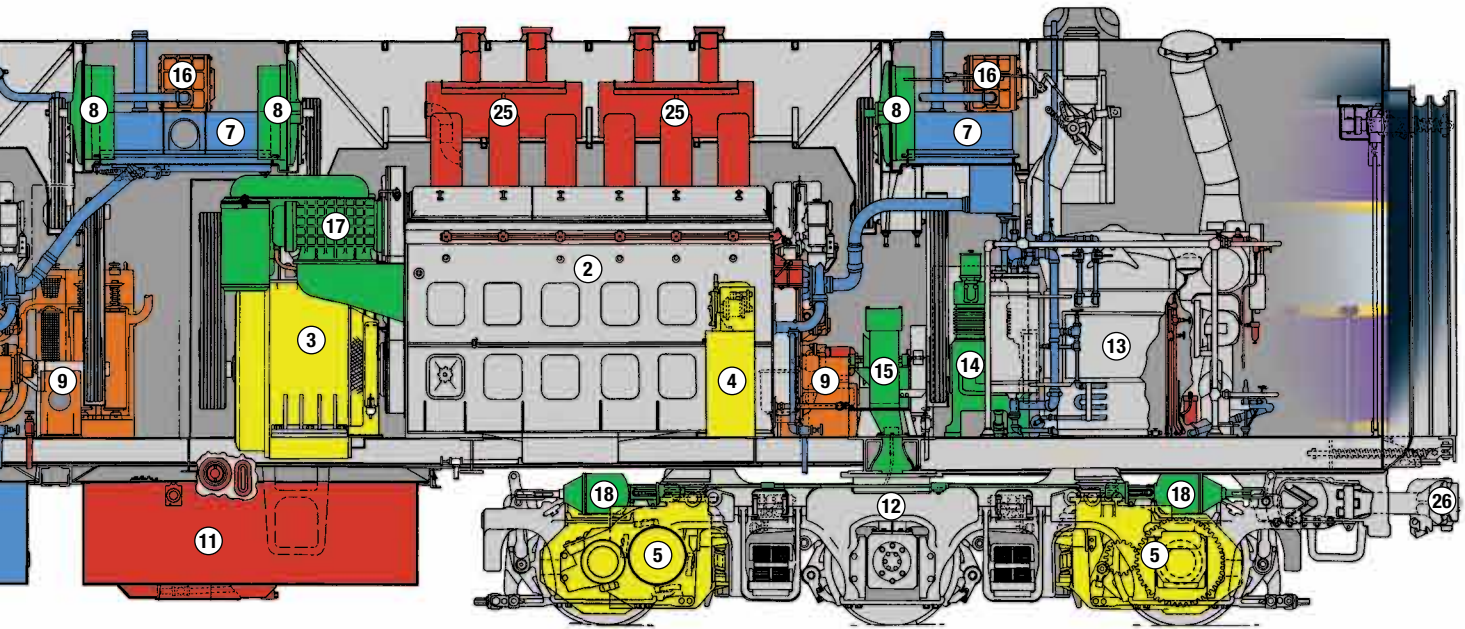
- Yellow = Electrical
- Blue = Water and cooling
- Orange = Lube oil system
- Red = Fuel and exhaust
- Green = Air brake and fans



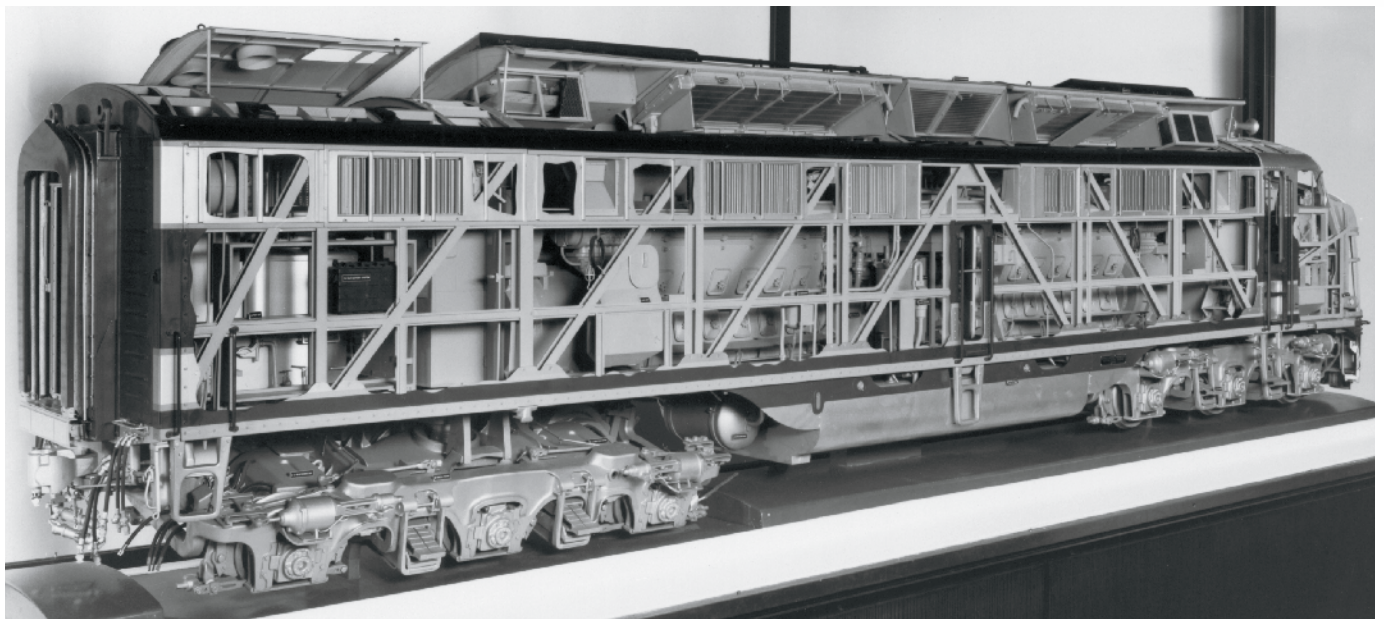
E7A specifications

- Length over couplers** 71 feet 11¼ inches
- Width over grab irons** 10 feet 6⅞ inches
- Height above rail** 14 feet 11 inches
- Wheel diameter** 36 inches
- Fuel oil capacity** 1,200 gallons
- Total loaded weight** 315,000 lbs.
- Weight on drivers** 210,000 lbs.

E7A illustration by Preston Cook



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The model shows the carbody's modified Howe truss structure, a feature of all E (and F) units. Among the many differences from the E7: The E8 has dynamic brakes (above center side door), its No. 2 engine faces the front of the carbody, and the fuel and water tanks are combined.

Two photos, Smithsonian Institution