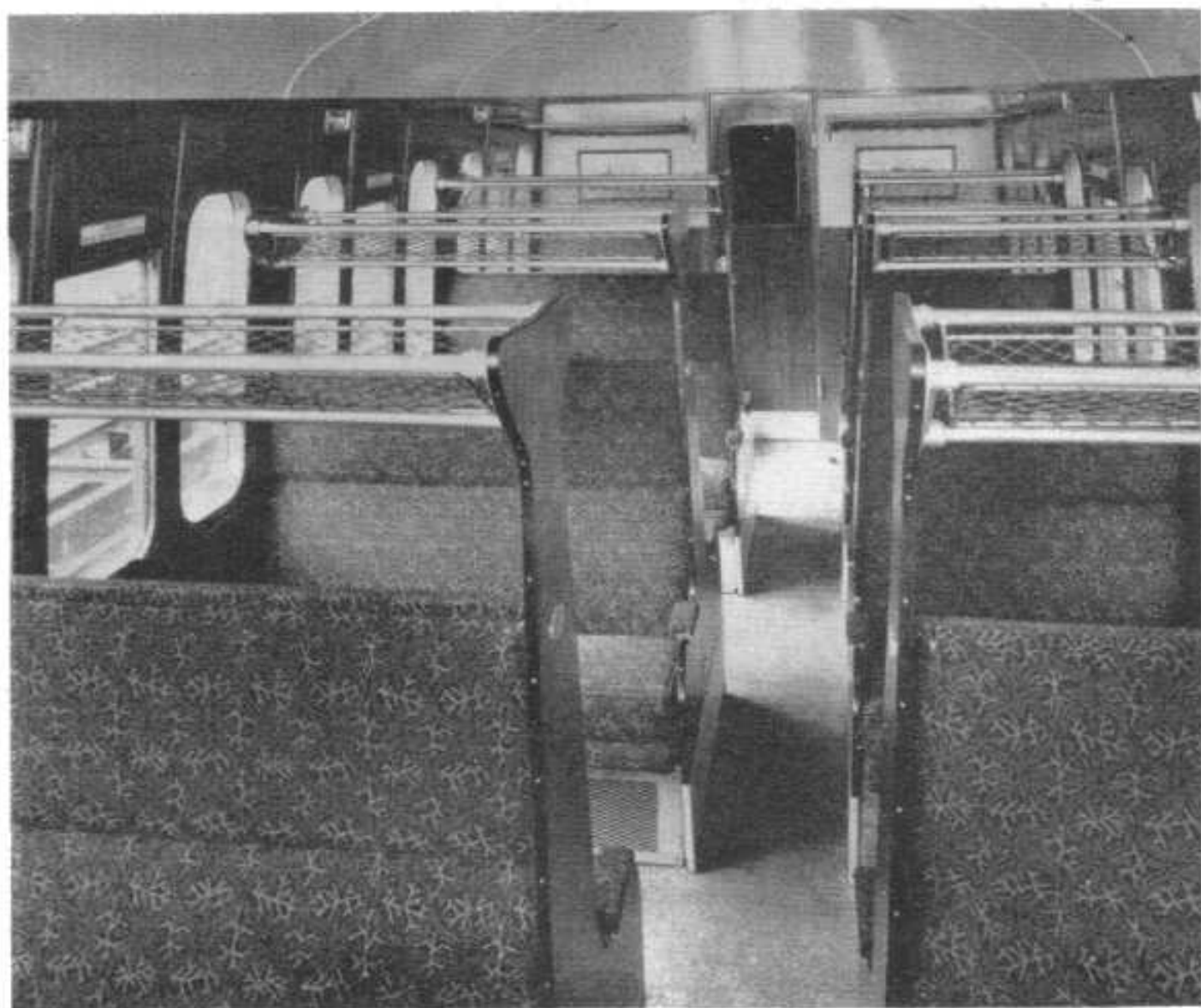


Diesel-Electric Sets for Hampshire

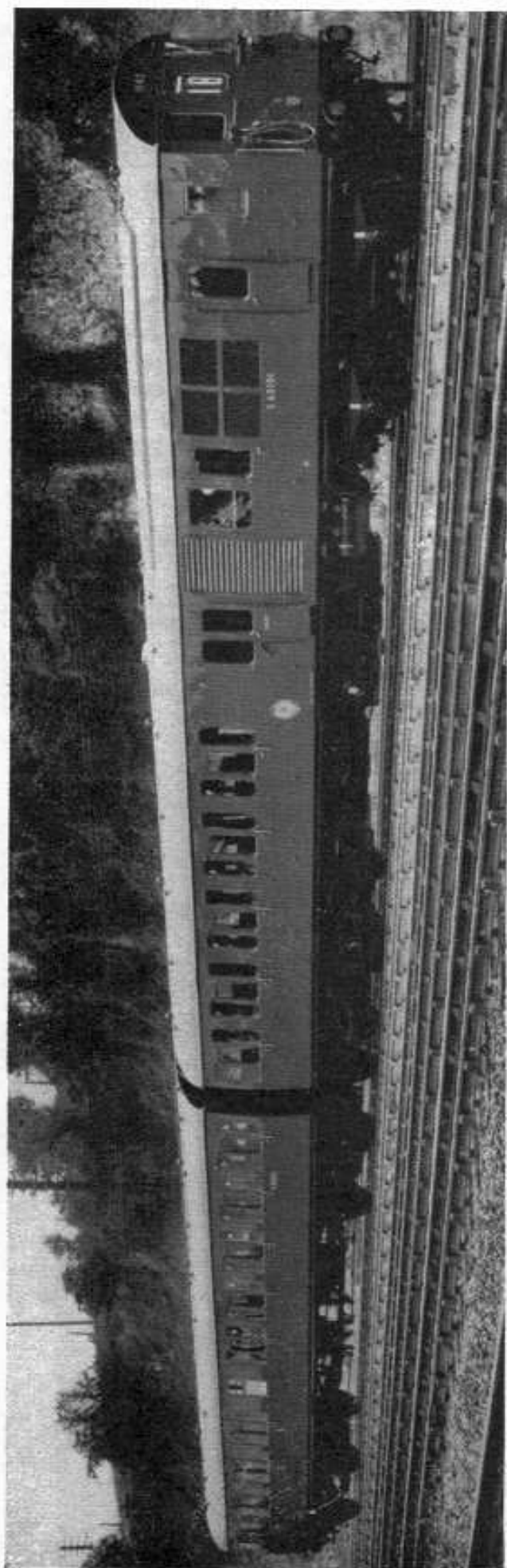
IMPROVED schedules on certain Southern Region lines in the Hampshire area, which came into operation with this year's winter timetable revisions on September 16, have been made possible by the introduction of a number of 500-h.p. diesel-electric trains of two-car formation. These sets, which were the subject of a Notes and News paragraph in our September issue, incorporate construction and equipment which is similar to, and in some cases identical

with, the 1,000-h.p. six-car diesel-electric sets for the Hastings-London main line (*via* Tunbridge Wells) described in our August issue. Each set is powered by one engine of the English Electric four-cylinder type of which two are installed in the Hastings trains; generators, auxiliary equipment and other details are also the same in the two trains.

The twin-car set comprises a power car and a control trailer. Each is 63 ft. 5 in. over headstocks, and they have similar



Second class open saloon, showing arrangement of seating and luggage racks



underframes and principles of body construction. The length over buffers of a twin set is 133 ft.

The cars are of open saloon type, except for the first class accommodation, which is arranged in compartments. The power car contains an engine room 19 ft. 3 in. in length, an 8 ft. 3 in. luggage compartment, and seats for 52 second class passengers; no lavatory is fitted, however. The control trailer contains 13 first class and 62 second class seats and two lavatories. Empty weight of a set is about 87 tons.

Underframes and bodies are of all-steel construction and follow British Railways standard design for passenger coaches of this type. The inside surfaces of the side panels have heat and sound insulation of sprayed asbestos and fibreglass. Inner panel plates, ceiling, and partitions are of plastic material.

Bogies are of standard S.R. electric stock design with inside swing links and roller bearing axleboxes. The wheelbase of the power car bogies is 8 ft. 9 in., and of the trailer bogies, 8 ft. 6 in.; the bogie pivot pitch is 46 ft. 6 in. for both cars.

As with the Hastings trains, the engine-generator group has a three-point rubber mounting, and all pipes in the engine room are arranged so that the complete unit can be changed in the minimum of time. The engine-generator group, which weighs some 11 tons with support points and mounted auxiliaries, can be lifted out through a removable hatch in the roof of the engine room and a serviced unit replaced in the same way. Three external doors provide access to the engine room; one is positioned alongside the power unit for maintenance purposes only.

Ventilation of the engine room is provided by the radiator fan, which draws air past the engine and into a fan compartment as well as drawing in cold air through the radiator.

The 330-kW main generator supplies two nose-suspended traction motors carried on the rear bogie of the railcar. These motors are identical and interchangeable with the motors used on the Southern Region multiple-unit electric stock. Brakes are of the standard Westinghouse electro-pneumatic type.