

A hopper car, the design of which consists of a passenger compartment module containing two two-axle bogies, an automatic coupling module with coupling devices, a braking equipment module, a frame module consisting of a spine beam, end beams, pin beams, and intermediate beams, as well as side walls, an unloading equipment module, and a body module. The body module consists of two vertical side walls, which include upper and lower stringers, vertical and inclined posts, two inclined end walls, which include upper and lower stringers, and two hoppers with two unloading hatches. To improve the operational efficiency of the hopper car by enabling the simultaneous transport of different types of cargo, reducing empty runs during operation, and enhancing the strength of the load-bearing structure under operational loading conditions, the hopper car body consists of two sections. The sections are connected to one another with a vertical wall and horizontal connecting beams. To increase the frame rigidity in the areas where the sections rest on its central part, a center beam is installed. The center beam consists of a C-shaped profile covered on top with a horizontal sheet and filled with energy-absorbing material to absorb the energy of dynamic loads. The ridge beam is also made of a C-shaped profile, covered on top with a horizontal plate and filled with energy-absorbing material to absorb the energy of dynamic loads. The end beams are made of rectangular tubes filled with energy-absorbing material to absorb the energy of dynamic loads.