RAIL CAR BODY CONSTRUCTION

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3 Claims

ABSTRACT OF THE DISCLOSURE

A rail car body having an outer shell formed to provide peripheral rims projecting laterally outwardly from the perimeters of the sides thereof so that the side walls of the car body are, in effect, recessed laterally inwardly relative to the peripheral rims. One of the side walls is provided with a central doorway therein, and two sliding doors, movable horizontally in the fore-and-aft direction between open and closed positions, are disposed within the lateral confines of the recess formed by the corresponding side wall and the peripheral rim encompassing it.

BACKGROUND OF INVENTION

The present invention relates in general to cars movable along rails and, more particularly, to a body construction for such a car.

Since the invention has been embodied in a body construction for a rail car which is adapted to be suspended from and to travel along a single overhead rail, it will be considered in such connection herein as a matter of convenience.

SUMMARY AND OBJECTS OF INVENTION

A primary object of the invention is to provide a rail car body which includes an outer shell formed to provide peripheral rims projecting laterally outwardly from the perimeters of the sides thereof, each side of the outer shell including a side wall encompassed by and recessed laterally inwardly relative to the corresponding peripheral rim.

Another object is to form such peripheral rims around the side walls of the car body by enlarging the outer shell along the corresponding corners of the car body. With this construction, the strength and rigidity of the car body are increased substantially with a minimum of additional structure, which is an important feature.

A further object of the invention is to provide one of the side walls with a central doorway, and sliding doors movable horizontally in the fore-and-aft direction between open and closed positions, and disposed entirely within the lateral confines of the laterally-inwardly-extending recess formed by the corresponding side wall and the peripheral rim surrounding it. Thus, the doors do not project laterally beyond the corresponding side of the car body, which is important from both safety and aesthetic points of view.

The foregoing objects, advantages, features and results of the present invention, together with various other objects, advantages, features and results thereof which will be evident to those skilled in the rail car body art in the light of this disclosure, may be achieved with the exemplary embodiment of the invention illustrated in the accompanying drawings and described in detail hereinafter.

DESCRIPTION OF DRAWINGS

In the drawings:

FIG. 1 is a perspective view of a rail car which incorporates the rail car body construction of the invention; FIG. 2 is an enlarged, fragmentary, horizontal sec-

tional view taken as indicated by the arrowed line 2—2 of FIG. 1; FIG. 3 is an enlarged vertical sectional view taken as indicated by the arrowed line 3—3 of FIG. 1; and FIG. 4 is an enlarged, fragmentary sectional view taken as indicated by the arrowed line 4—4 of FIG. 1 of the drawings.

DESCRIPTION OF EXEMPLARY EMBODIMENT OF INVENTION

Referring initially to FIG. 1 of the drawings, illustrated therein is a rail car 10 suspended by wheeled hangers 12 from a single overhead rail 14. In the particular construction illustrated, the rail 14 is an I-beam having two track flanges 16 which project laterally in opposite directions and which support wheels 18 on the hangers 12.

The body of the rail car 10 includes a frame composed of various vertical frame members 22, FIG. 2, and horizontal frame members 24 and 26, FIG. 3, suitably connected together, as by welding, not shown.

The body of the rail car 10 includes an outer shell 30 suitably connected to the frame in a manner not specifically shown. Within the outer shell 30 is an inner shell 32, FIG. 2, forming the interior walls of the car 10. A floor 34 and a ceiling 36, FIG. 3, complete the interior of the car. The various spaces between the outer and inner shells 30 and 32, the outer shell and the floor 34, and the outer shell and the ceiling 36, may be filled with insulation, as indicated at 38.

The interior of the car 10 may be equipped in any suitable manner. In the construction illustrated, as shown in FIG. 2, the car is provided therein with two seats 40 located at the respective ends of the car and facing each other. An air conditioner 42 may be located between the seats 40 on one side 44 of the car 10 below a window 46 therein. A luggage rack, not shown, may be located above the air conditioner 42.

The outer shell 30, which may be made of molded plastic, or any other suitable material, is enlarged in cross section around the edges of the sides 44 and 48 thereof, i.e., along the corners formed by the sides 44 and 48 with the top, ends and bottom of the body of the car 10. Such enlargements are designated by the numeral 50 and may also be filled with the same insulation 38.

The cross-sectional configurations of the enlargements 50 so that the peripheral rims 52 and 54 extending laterally outwardly from the perimeters of the sides 44 and 48. The two sides 44 and 48 of the body of the rail car 10 also include outer side walls 56 and 58, forming parts of the outer shell 30, which are surrounded by the peripheral rims 52 and 54, respectively. As will be apparent, the side walls 56 and 58 are recessed laterally inwardly relative to the peripheral rims 52 and 54, respectively, because of the corner enlargements 50 around the edges of the car sides 44 and 48.

Centrally located in the side 48 of the car 10 is a doorway 60 which is adapted to be closed by sliding doors 62 respectively movable rearwardly and forwardly from open positions into closed positions. As shown in FIG. 3, the sliding doors 62 may be provided with hangers carrying wheels 64 movable along a horizontal, fore-and-aft track 66 within the enlargement 50 extending along the corner formed by the car side 48 and the car top. The lower ends of the sliding doors 62 are guided by a lower track 68.

The thickness of the sliding doors 62 is less than the depth of the lateral recess formed by the peripheral rim 54 so that the sliding doors are disposed entirely within the lateral confines of such recess, as will be apparent from FIGS. 2 and 3 of the drawings in particular. Thus,
a flush construction results which is aesthetically pleasing and which avoids the damage and/or injury potential which would result from laterally projecting doors.

Although an exemplary embodiment of the invention has been disclosed herein for purposes of illustration, it will be understood that various changes, modifications and substitutions may be incorporated in such embodiment.

We claim:

1. In a rail car body having means mounted thereon for guiding said car body along a trackway, the combination of:
   (a) a frame;
   (b) an outer shell carried by said frame and having sides and ends;
   (c) said outer shell being formed to provide peripheral rims projecting laterally outwardly from the perimeters of said sides thereof;
   (d) said sides of said outer shell including stationary side walls recessed laterally inwardly relative to said peripheral rims;
   (e) one of said side walls being provided with a doorway therein;
   (f) a sliding door movable horizontally in the fore-and-aft direction between closed and open positions relative to said doorway; and
   (g) said sliding door being of a thickness so as to be entirely within the lateral confines of the recess formed by said one side wall and the peripheral rim encompassing it.

2. A rail car body as set forth in claim 1 wherein said doorway is located centrally of said one side wall in the fore-and-aft direction, and wherein there are two of said sliding doors respectively movable forwardly and rearwardly from their closed positions to their open positions.

3. A rail car body according to claim 2 wherein said peripheral rims are formed by enlargements of said outer shell along corresponding corners of said car body.

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