~~Longitudinal girder for the transition area of a car body side wall to the car body roof of a rail vehicle car body~~

LONGITUDINAL SUPPORT FOR THE TRANSITION REGION FROM A COACH BODY SIDE WALL TO THE COACH BODY ROOF OF A RAIL VEHICLE COACH BODY

The invention relates to a longitudinal girder for the transition area of a car body side wall to the car body roof of a rail vehicle car body to which different car body roof sections can be attached in a simple fashion, a side wall for a rail vehicle car body, a car body and a rail vehicle comprising such a side wall or such a longitudinal girder, and also to a method for the production of a rail vehicle car body with different roof sections.

Rail vehicle car bodies can have both arched roof areas, which are also called contoured roof areas, and flat roof areas or less steep roof areas. Compared to the roof level in the arched roof areas, the roof level in the flat roof areas is lower. For example, air-conditioning units, pantographs, energy stores or drive equipment are installed on the flat roof sections. Arranging such installations on flat roof areas prevents them from projecting beyond the height level of the arched roof sections or, at least, makes them project less far.

Hitherto, the flat roof areas of car bodies have been implemented for example in the form of a roof trough. Such a roof trough has a horizontal, or basically horizontal, floor that forms the roof area and rising side walls. A roof trough may be connected to a contoured roof. For example, a rectangular opening is made in a contoured roof into which a roof trough is welded.

EP 1839989 A2 describes a car body for rail vehicles with a lowered flat roof area. To insert such a flat roof area, a side construction body arranged at the upper end of the side wall is cut short to create a connection point for a trough-shaped lowered flat roof area. The disadvantage of a solution is that a part of the side construction body has to be severed to make a connection point accessible at which a flat roof area can be attached.

One objective of the present invention is to facilitate the fastening of different roof areas with different heights, and in particular to facilitate the fastening of flat roof areas.

The solution proposed by the invention is a longitudinal girder and a side wall as specified in the enclosed patent claims. Especially advantageous embodiments of a longitudinal girder and a side wall are specified in the dependent claims. Likewise specified is a rail